



# AIMCO



ACHIEVING ASSEMBLY EXCELLENCE  
2017

[www.AIMCO-GLOBAL.com](http://www.AIMCO-GLOBAL.com)



**AIMCO**

For over 40 years AIMCO has been working with manufacturers around the world, we are the complete global source for all assembly, fastening, and critical bolting needs. AIMCO can effectively and swiftly meet your needs whether you're in Thailand fastening a 3 mm nut at 3 Nm, or in Tennessee, USA torquing the last lug nut. AIMCO provides the tools and solutions, on a global scale, that guarantee the success of your project. It is with great pride that AIMCO can say the products that we manufacture are **MADE IN THE USA.**

**ISO 9001: 2015 Certified**

# TABLE OF CONTENTS

## CONTROLLED TOOLS

### **ACRADYNE®**

GEN IV ACE CONTROLLER . . . . .	10
CONTROLLER SOFTWARE . . . . .	17
1000 SERIES NUTRUNNERS . . . . .	18
1000, 2000, & 5000 SERIES PISTOL GRIP NUTRUNNERS. . . . .	20
2000, 3000, & 5000 SERIES ANGLE NUTRUNNERS . . . . .	21
2000, 3000, & 5000 SERIES INLINE NUTRUNNERS . . . . .	22
5000 SERIES FIXTURED NUTRUNNERS . . . . .	23
TUBENUT NUTRUNNERS AND SPECIALTY GEARHEADS . . . . .	24
HOLD & DRIVE NUTRUNNERS . . . . .	25
MID-EXIT CABLE NUTRUNNERS. . . . .	26
RIV NUTRUNNERS. . . . .	27
HT SERIES DC TOOLS . . . . .	28
HT SERIES DC ANGLE TOOLS . . . . .	29
HT SERIES DC DUAL LEVER AND GEARHEAD TOOLS . . . . .	30
HT SERIES NOSE EXTENSIONS . . . . .	31
HT SERIES DC TOOL ACCESSORIES. . . . .	31
DC TOOL / SPINDLE SELECTION GUIDE . . . . .	32
CABLES AND ACCESSORIES . . . . .	34
CORDLESS TOOLS. . . . .	37
MULTIPLE NUTRUNNING SYSTEMS . . . . .	39

## URYU

UA-MC SERIES . . . . .	40
UA-AMC SERIES . . . . .	41
UEC-4800 CONTROLLERS . . . . .	42
UDBP-AF SERIES . . . . .	45
UEP-MC SERIES . . . . .	47
UECD-4800 CONTROLLERS . . . . .	48
UDP-MC / ACRA-PULSE MC SERIES . . . . .	50
UECP-4800 CONTROLLERS. . . . .	51
CONTROLLED PULSE TOOL ACCESSORIES. . . . .	52
FIXTURED F-SERIES NUTRUNNERS . . . . .	53

## TORQUE MEASUREMENT

TORQUE MEASUREMENT OVERVIEW . . . . .	57
TORQUE MEASUREMENT SYSTEMS. . . . .	60
TORQUE MEASUREMENT TESTERS . . . . .	61
TORQUE MEASUREMENT ANALYZERS . . . . .	64
TOOL MANAGER / AUDIT MANAGER SOFTWARE . . . . .	67
HIGH-CAPACITY TEST STANDS . . . . .	68
TORQUE WRENCHES . . . . .	73
TORQUE CARTS. . . . .	80
DATA COLLECTION SOFTWARE . . . . .	81
TRANSDUCERS . . . . .	82
TORQUE MEASUREMENT CABLES. . . . .	86

## POWER TOOLS

ACRADYNE HT SERIES PNEUMATIC TOOLS . . . . .	87
ACRADYNE HIGH-SPEED SERIES HT PNEUMATIC TOOLS . . . . .	88
ACRADYNE HT SERIES PNEUMATIC TOOL ACCESSORIES . . . . .	89
AIMCO PULSE TOOLS: OVERVIEW. . . . .	90
OMEGA PULSE: UAT SERIES . . . . .	92
OMEGA PULSE: UL / ULT SERIES. . . . .	94
ACRA-PULSE® SERIES. . . . .	95
UDBP PULSE SERIES CORDLESS TOOLS . . . . .	98
UDP-TA DIRECT PLUG-IN PULSE TOOLS . . . . .	100
UAN & URW SERIES NUTRUNNERS. . . . .	101
TUBENUT & GEARED NUTRUNNERS. . . . .	102
DYNATORQUE MANUAL TORQUE MULTIPLIERS . . . . .	103
US-LT PNEUMATIC SCREWDRIVERS. . . . .	104
US & US-LD PNEUMATIC SCREWDRIVERS. . . . .	106
SIGNATURE SERIES SHUT-OFF IMPACT CORDLESS TOOLS . . . . .	107
SIGNATURE SERIES PRECISION CLUTCH CORDLESS TOOLS. . . . .	108
ELECTRA® SERIES ELECTRIC SCREWDRIVERS . . . . .	111
IMPACT TOOLS . . . . .	114
GRINDERS . . . . .	116
SANDERS & DRILLS. . . . .	117
PERCUSSION TOOLS. . . . .	118

## ASSEMBLY SYSTEMS

SCREW PRESENTERS: OVERVIEW . . . . .	119
A-50 SCREW PRESENTERS . . . . .	120
ACRA-FEED AUTOMATIC SCREW FEED SYSTEMS. . . . .	121

## TOOL SUPPORT SYSTEMS

GRAVITY DEFYING BALANCERS. . . . .	122
LINE REEL BALANCERS / RETRACTORS . . . . .	123
ERGO-ARM® TOOL SUPPORT SYSTEMS . . . . .	124
CUSTOM REACTION DEVICES. . . . .	125
ERGO-ARM® ACCESSORIES / LINEAR ARM . . . . .	125
GCI TORQUE REACTION ARMS . . . . .	126
CARBON TORQUE ARMS / TUBES . . . . .	128
WORKSTATION COMPONENTS AND ASSEMBLIES. . . . .	130
AIR PREPARATION UNITS . . . . .	132
AIR LINE . . . . .	133
AIR LINE ACCESSORIES . . . . .	134

## FASTENER TOOLS

STANDARD FASTENER TOOLS. . . . .	135
ERGO-DRIVE® SERIES  . . . . .	138
CUSTOM / SPECIAL PARTS. . . . .	140
CONVERSION CHARTS. . . . .	144

INDEX . . . . .	145
-----------------	-----

\*  logo indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

ERGO-DRIVE sockets are uniquely designed for repeatable, accurate rundowns. They also ensure excellent product quality, longer tool life, and better ergonomics for the tool user. Look for the ERGO-DRIVE  logo in this catalog to see where ERGO-DRIVE sockets/extensions benefit tool operation, operator, and rundown.

See page 138 for ERGO-DRIVE details.



## PRODUCTIVITY

*The speed and efficiency of the assembly process*

Every manufacturer wants to produce finished goods in the most cost-effective manner possible. Whether the customer is a large automotive manufacturer, building several hundred vehicles daily, or an electronics company producing individual, custom made components, AIMCO provides products and services that allow each company to work at their ideal pace in order to keep its processes running efficiently.



## ERGONOMICS

*The relationship between assembler and the assembly process*

Employees are the most important assets of any company. Protecting these individuals from job related health issues is critical. To help its customers face the challenges surrounding ergonomics, AIMCO focuses on providing products that combine a lack of torque reaction, low vibration, light weight, as well as quiet and simple operation. These features allow assemblers to do their job in the safest possible manner and help manufacturers avoid the often hidden costs of workplace injuries.



## RELIABILITY

*The total cost of tool maintenance and repair*

To keep production lines running, tools must perform reliably. AIMCO helps manufacturers face the challenges of maintenance, repair and lost labor time by offering products with superior workmanship and durability. By combining high quality products with a detailed and flexible service-training program, AIMCO ensures its tools will meet the customer's expectations of reliability.



## QUALITY

*The ability of the tool to adhere to process requirements*

The most important challenge faced by many companies is meeting the customer's demands for quality. AIMCO provides assembly tools that have been tested and proven to meet the most stringent engineering specifications. AIMCO backs those tools up with its innovative Auditor torque measurement products. This allows manufacturers to focus on their most important goal — creating a quality product.



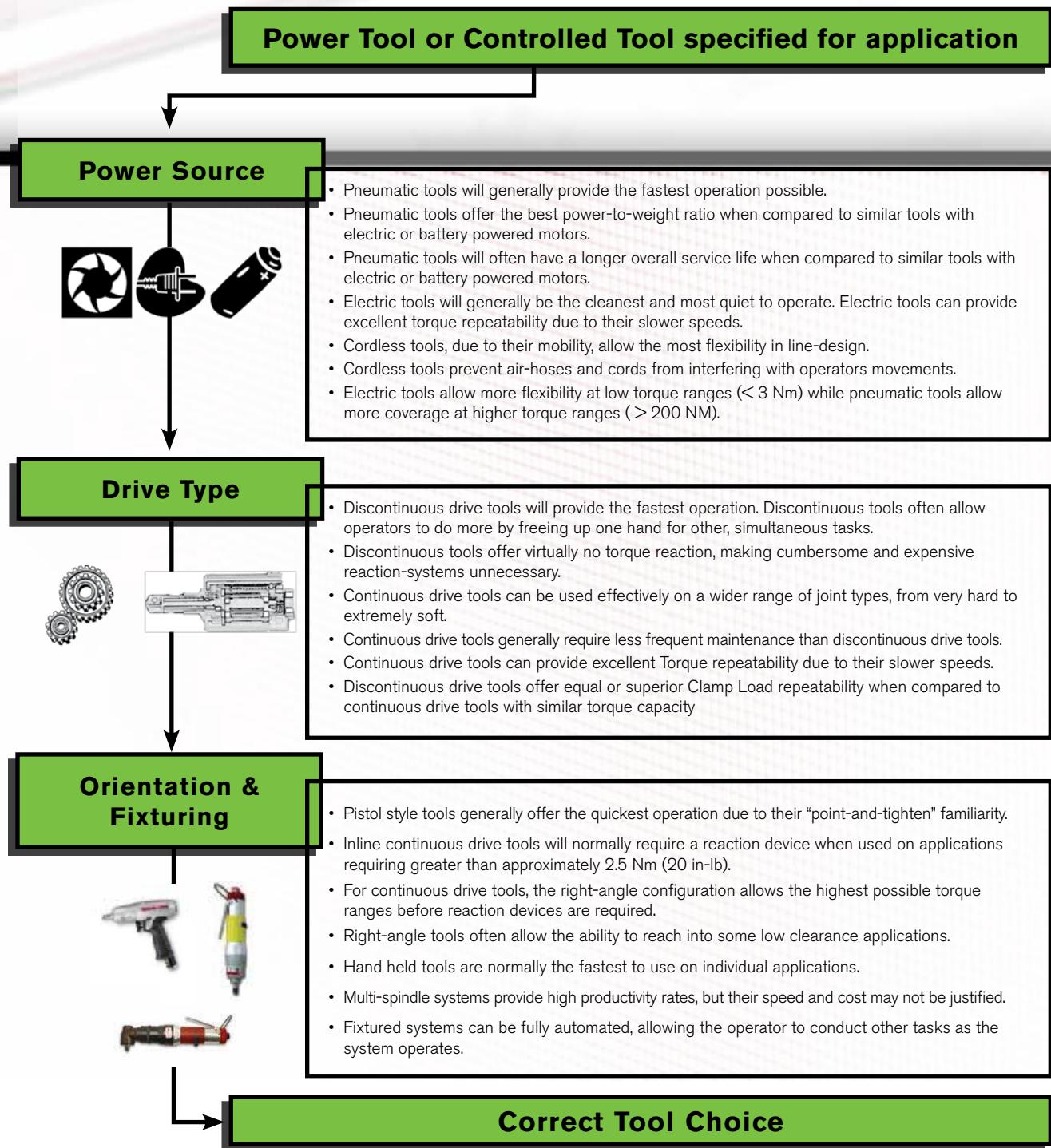


**PERQ®** is the industry-standard formula that matches the needs of manufacturers with the assembly tools they use in their processes.

AIMCO and its distributors evaluate each manufacturer based on the **PERQ** formula to determine that company's unique blend of the **PERQ** elements – productivity, ergonomics, reliability and quality – we then provide tooling options that will enhance that mix. The end result is a manufacturing process that runs efficiently, produces high quality products and does so at the lowest possible cost.

Combining **PERQ** with AIMCO's vast experience and unequalled service will enable any manufacturer to succeed in the global marketplace.

Each of the **PERQ** elements acts as a gear – each interacts with the others to affect the overall profitability of the manufacturing process. AIMCO looks at each step in the manufacturing process to determine the best type of tool, or equipment, for that application. Only AIMCO, with its extensive product lineup, can offer the manufacturer the ideal tool for the job, whether it be continuous drive or pulse tool, electric, pneumatic or battery powered.





## OVERVIEW

### *The speed and efficiency of the assembly process*

AIMCO's commitment to you doesn't end with the purchase of our tools. Our goal is to educate you and your team on the most effective and efficient ways to utilize our tools; therefore, consistently producing a quality product.

One of the many benefits of purchasing AIMCO tools is the opportunity to attend our Tool-U training. AIMCO believes this is one of the greatest assets we can offer you. AIMCO has spent valuable time and dollars in setting up a

training program at our corporate headquarters in Portland, Oregon, that will enable your team to receive effective technical and practical training. Our training program is not performed in just one corner of our facility; virtually our entire facility is accessed for training individuals tailored to their specific needs and applications. This is essential for the continued success of our training.



The objective of the Tool-U program is to train your team from a technical aspect, learning how to effectively trouble shoot in order to reduce down time, as well as testing and proper use of the tool for maximum performance.

We do not depend on just one individual to train our customers; AIMCO utilizes a team of experts to share their knowledge with you. Our training programs have been designed to cover all elements influencing the fastening process. The first key to

success is understanding the mechanics of the fastened joint; AIMCO then explores the synergy between the joint, power tool, torque measurement and operator handling. The knowledge you gain from participating in the Tool University program can be applied to almost any assembly process regardless of the tool brand.

AIMCO is so committed to ensuring you receive proper training that this program is offered to our customers at no charge.





## OVERVIEW

### *The speed and efficiency of the assembly process*

AIMCO's Technical and Repair Service departments are one of the biggest value adds in the industry. We don't just work for you, we work with you. AIMCO's Repair and Technical Field Services provide support unmatched by our competitors. Our skilled technicians work closely with our Technical Services group, as well as our expert team of engineers, to share knowledge, keep up with new technologies, and improve processes.



## GUARANTEED

### *The relationship between assembler and the assembly process*

When AIMCO receives tools and equipment for servicing, they are pre-tested and inspected to identify issues and provide pertinent feedback to the user on getting the most out of their tool investment. We provide precise repair estimates giving the best value for your money. Repairs are completed using factory standards, parts, and processes. Once a repair is complete, it is tested, and/or calibrated, using N.I.S.T. certified measuring equipment, and guaranteed to perform to factory specifications.



## CUSTOMER SERVICE

*The total cost of tool maintenance and repair*

To keep production lines running, tools must perform reliably. AIMCO helps manufacturers face the challenges of maintenance, repair, and lost labor time by offering products with superior workmanship and durability. By combining high quality products with a detailed and flexible service-training program, AIMCO ensures its tools will meet the expectations of reliability.



## FOLLOW THROUGH

*The ability of the tool to adhere to process requirements*

The most important challenge faced by most companies is to meet its customer's demands for quality. AIMCO provides assembly tools that have been tested and proven to meet the most stringent engineering specifications. AIMCO backs those tools with its innovative Auditor torque measurement products. This allows manufacturers to focus on their most important goal — satisfied customers.



# ACRADYNE GEN IV ACE CONTROLLER



**AcraDyne's Gen IV ACE Controller provides  
a single platform that commands all  
transducerized tools in the AIMCO portfolio**

**AIR | CORDLESS | ELECTRIC**



The same, simple programming for all tool types,  
including:

AcraDyne

- DC Tools
- Cordless Battery Tools

Uryu

- Air Powered Tools
- Cordless Battery Tools
- Electric Tools

- No additional controller training needed for different platforms (tool type specific knowledge is required)
- One common communication for your global data collection, line controls, and fieldbus platforms



# ACRADYNE GEN IV ACE CONTROLLER

**ACE controller provides ultimate FLEXIBILITY and FREEDOM  
to command tools for every application**

One common communication for your global data collection, line controls, and fieldbus platforms.



# ACRADYNE GEN IV ACE CONTROLLER

The AcraDyne Gen IV ACE controller is the culmination of more than 40 years of serving our industrial fastening customers with 15 years of designing and manufacturing DC tools that are Made in the USA. It is filled with countless advanced capabilities and features. The Gen IV ACE Controller is the core of the modular AcraDyne DC system. One controller will command any tool in the AcraDyne line from 0.5 Nm to 12,000 Nm, all with one cable.



Four Digit LED Torque Display:  
Large numbers can be seen  
from a distance.

Parameter Set Display:  
Displays current  
parameter set and  
enables user to  
quickly change by  
scrolling up or down.

Secondary display allows  
user to easily set and toggle  
through information:

- Angle
- Engineering Units
- Bolt Count
- Job/Job Sequence

Optional 7" Touch-  
Screen Display:  

- Runs the same  
software on PC  
for ease of use.
- Real-Time  
Graphing.
- Selectable Run  
Screens

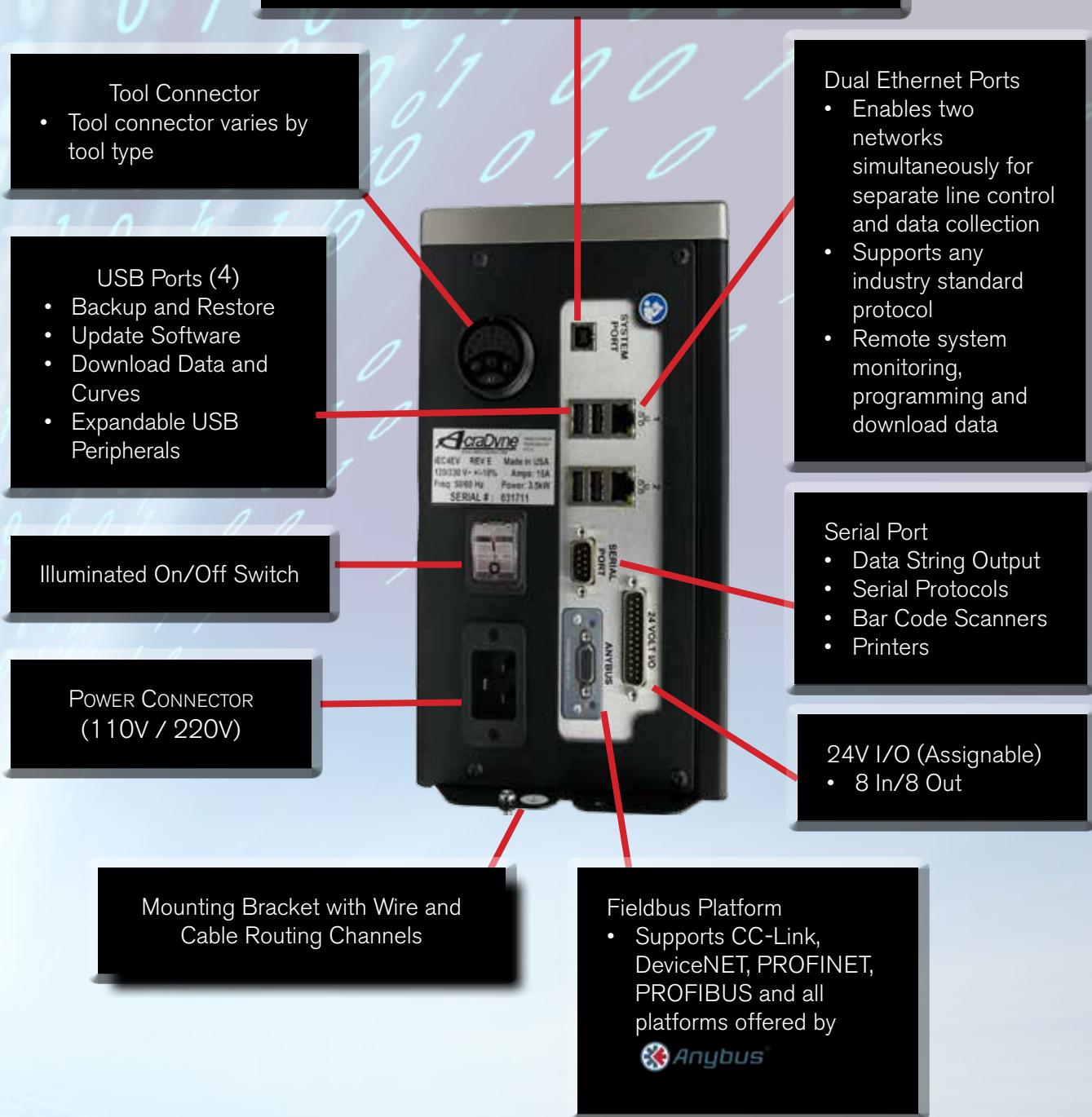
## FEATURES AND BENEFITS

- Web browser based programming – Receive data on your PC, tablet, smartphone, or any other web-capable device. You can use more than one device at a time: Be in program mode on one device while reviewing real-time curves on another, while watching tool diagnostics on a third
- Multiple fastening strategies – Program up to 256 parameters with as many as 20 steps
- Jobs capability – 99. Event log – 5,000
- Backup & restore through USB or Ethernet
- Removable flash memory
- Assignable I/O (8 X 8)
- Rundown storage – 1,000,000
- Real-time curve viewing. Curve storage – 20,000

## NETWORKING CAPABILITIES

- Ethernet Protocols including Open Protocol, Ethernet/IP & PFCS
- Modular field bus connectivity: PROFIBUS, DeviceNET, Modbus TCP, or any fieldbus offered by 
- Data collection
- Serial protocols and string output
- Bar code scanning & printing
- Multi-spindle synchronization

# ACRADYNE GEN IV ACE CONTROLLER



# ACRADYNE GEN IV ACE CONTROLLER



**Acradyne iEC**

## GEN IV ACE iEC Controller for all Acradyne DC Tools

MODEL	SYSTEM PORT & REMOVABLE MEMORY	LIGHTS (L) LED DISPLAY (D) GRAPH (G)	24V I/O Assignable 8 X 8"	SERIAL PORT WITH PROTOCOLS	BACKUP & RESTORE (USB)	ETHERNET* TWO PORTS
iEC4E	X	L/D		X	X	X
iEC4EV	X	L/D	X	X	X	X
iEC4EG	X	L/D/G		X	X	X
iEC4EGV	X	L/D/G	X	X	X	X

\* Ethernet channel supports the Open Protocol, Toolsnet, EtherNet/IP, Modbus/TCP, and other protocols.

Add (-T) to model number for top exit tool cable option. For fieldbus options add: P = Profibus, C = CC Link, D = DeviceNet, N = ProfiNet. Other fieldbus options available upon request.



**Acradyne iAC**

## GEN IV ACE iAC Controller for Transducerized Uryu Air Tools

MODEL	SYSTEM PORT & REMOVABLE MEMORY	LIGHTS (L) LED DISPLAY (D) GRAPH (G)	24V I/O Assignable 8 X 8"	SERIAL PORT WITH PROTOCOLS	BACKUP & RESTORE (USB)	SOLENOID SHUT OFF ON BOARD	PROGRAMMABLE REGULAR ON BOARD	ETHERNET* TWO PORTS
iAC4E	X	L/D		X	X			X
iAC4EV	X	L/D	X	X	X			X
iAC4EG	X	L/D/G		X	X			X
iAC4EGV	X	L/D/G	X	X	X			X
iAC4ES	X	L/D		X	X	X		X
iAC4ESV	X	L/D	X	X	X	X		X
iAC4ESG	X	L/D/G		X	X	X		X
iAC4ESGV	X	L/D/G	X	X	X	X		X
iAC4ESR	X	L/D		X	X	X	X	X
iAC4ESRV	X	L/D	X	X	X	X	X	X
iAC4ESRG	X	L/D/G		X	X	X	X	X
iAC4ESRGV	X	L/D/G	X	X	X	X	X	X

\* Ethernet channel supports the Open Protocol, Toolsnet, EtherNet/IP, Modbus/TCP, and other protocols.

Add (-T) to model number for top exit tool cable option. For fieldbus options add: P = Profibus, C = CC Link, D = DeviceNet, N = ProfiNet. Other fieldbus options available upon request.

# ACRADYNE GEN IV ACE CONTROLLER



**GEN IV ACE iBC Controller for all AcraDyne and Uryu Transducerized Battery Tools**

MODEL	SYSTEM PORT & REMOVABLE MEMORY	LIGHTS (L) GRAPH (G)	24V I/O ASSIGNABLE 8 X 8"	SERIAL PORT WITH PROTOCOLS	BACKUP & RESTORE (USB)	ETHERNET* TWO PORTS
iBC4E	X	L/D		X	X	X
iBC4EV	X	L/D	X	X	X	X
iBC4EG	X	L/D/G		X	X	X
iBC4EGV	X	L/D/G	X	X	X	X

\* Ethernet channel supports The Open Protocol, Toolsnet, EtherNet/IP, Modbus/TCP, and other protocols.

For fieldbus options, add: P = Profibus, C = CC Link, D = DeviceNet, N = Profinet. Other fieldbus options available upon request.

Add (-Z) to model numbers for Zigbee Coordinator option.

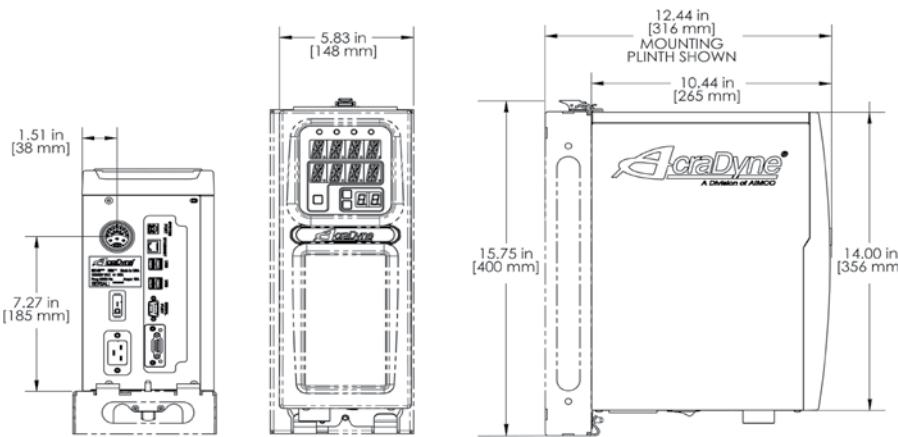


# ACRADYNE GEN IV ACE CONTROLLER

## NETWORK CONNECTIVITY



## DIMENSIONS



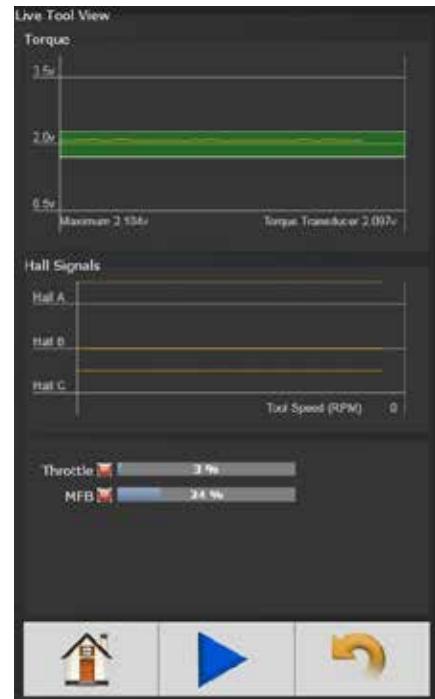
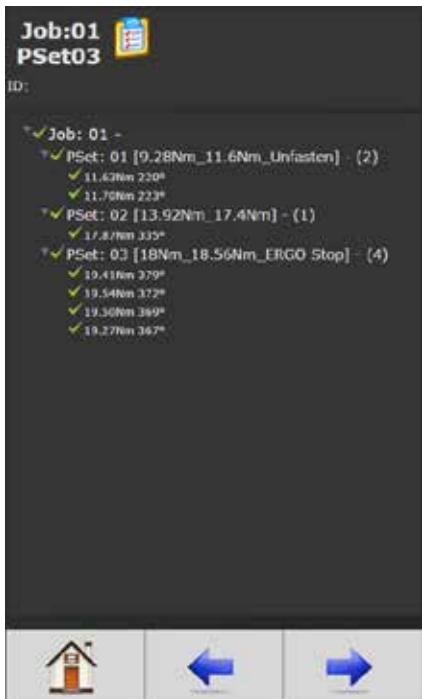
WIDTH	HEIGHT	DEPTH	WEIGHT
5.83 in / 148 mm	15.75 in / 400 mm	12.44 in / 316 mm	15.65 lbs / 7.1 kg

# ACRADYNE CONTROLLER SOFTWARE

## SOFTWARE

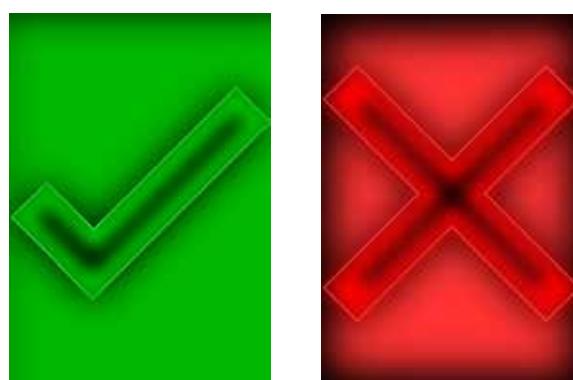
AcraDyne's software package is on-board every AcraDyne controller and is provided FREE of charge. This comprehensive, user-friendly program allows programming, analysis, and diagnostics.

The software is based on a standard web browser, allowing you to connect the AcraDyne controller with any computer, tablet, or smart device. Connect through Ethernet, USB, or wirelessly via a network connected to both devices.



Adding and editing Parameter Sets (256) and Jobs (99) is easy and intuitive in the parameter set up function.

View curve results in real time or view stored results. As many as 10,000 curve results can be stored in memory.



Choose from several run screens that display easy to view, large screen indicators.

# ACRADYNE 1000 SERIES NUTRUNNERS

## FEATURES AND BENEFITS

Superior size, speed, and duty cycle



Angle



In-line



Push-to-Start



Fixture  
Rear Exit  
Cable



Fixture  
Bottom Exit  
Cable



## APPLICATION DATA

1000 SERIES	MAX TORQUE NM	MAX TORQUE FT-LB	TORQUE RANGE NM	TORQUE RANGE FT-LB	FREE SPEED RPM	WEIGHT (-) LB	WEIGHT (-) KG	OUTPUT DRIVE
<b>ANGLE*</b>								
AEN4C12004B	4	3	1 - 4	0.7 - 3	3,111	2.0	0.91	1/4 Q.C.
AEN4C12009B	9	6.6	2.3 - 9	1.7 - 6.6	1,750	2.2	1.00	3/8 sq. dr.
AEN4C12014B	14	10	3.5 - 14	2.6 - 10	875	2.2	1.00	3/8 sq. dr.
AEN4C12018B	18	13	4.5 - 18	3.3 - 13	691	2.2	1.00	3/8 sq. dr.
AEN4C12022B	22	16	5.5 - 22	4.1 - 16	560	2.2	1.00	3/8 sq. dr.
<b>IN-LINE**</b>								
AES4A12003B(V)(Q)	3	2.2	0.8 - 3	0.6 - 2.2	2,625	2.0	0.91	3/8 sq. dr.
AES4A12006B(V)(Q)	6	4.4	1.5 - 6	1.1 - 4.4	2,625	2.0	0.91	3/8 sq. dr.
AES4A12011B(V)(Q)	11	8.1	2.8 - 11	2 - 8.1	1,313	2.2	1.00	3/8 sq. dr.
AES4A12014B(V)(Q)	14	10	3.5 - 14	2.6 - 10	1,037	2.2	1.00	3/8 sq. dr.
AES4A12018BV	18	13	4.5 - 18	3.3 - 13	840	2.2	1.00	3/8 sq. dr.
AES4A12022BV	22	16	5.5 - 22	4.1 - 16	656	2.2	1.00	3/8 sq. dr.
<b>PUSH-TO-START</b>								
AEL4A12003B(Q)	3	2.2	0.8 - 3	0.6 - 2.2	2,625	2.0	0.91	3/8 sq. dr.
AEL4A12006B(Q)	6	4.4	1.5 - 6	1.1 - 4.4	2,625	2.0	0.91	3/8 sq. dr.
AEL4A12011B(Q)	11	8.1	2.8 - 11	2 - 8.1	1,313	2.2	1.00	3/8 sq. dr.
AEL4A12014B(Q)	14	10	3.5 - 14	2.6 - 10	1,037	2.2	1.00	3/8 sq. dr.
AEL4A12018B	18	13	4.5 - 18	3.3 - 13	840	2.2	1.00	3/8 sq. dr.
AEL4A12022B	22	16	5.5 - 22	4.1 - 16	656	2.2	1.00	3/8 sq. dr.
<b>FIXTURED***</b>								
AEF4(A)(C)(X)12003B(B)(Q)	3	2.2	0.8 - 3	0.6 - 2.2	2,625	2.0	0.91	3/8 sq. dr.
AEF4(A)(C)(X)12006B(B)(Q)	6	4.4	1.5 - 6	1.1 - 4.4	2,625	2.0	0.91	3/8 sq. dr.
AEF4(A)(C)(X)12011B(B)(Q)	11	8.1	2.8 - 11	2 - 8.1	1,313	2.2	1.00	3/8 sq. dr.
AEF4(A)(C)(X)12014B(B)(Q)	14	10	3.5 - 14	2.6 - 10	1,037	2.2	1.00	3/8 sq. dr.
AEF4(A)(C)(X)12018B(B)	18	13	4.5 - 18	3.3 - 13	840	2.2	1.00	3/8 sq. dr.
AEF4(A)(C)(X)12022B(B)	22	16	5.5 - 22	4.1 - 16	656	2.2	1.00	3/8 sq. dr.

\* Add "F" to part numbers for flush socket.

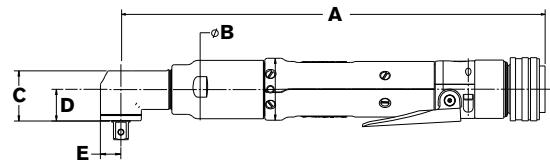
\*\* "V" indicates extended Ergo-Drive output Replace "V" with "Q" for 1/4" quick change output.

\*\*\* Add "A" to part numbers for 1/2" sliding spindle models. Add "C" to part numbers for 1-3/4" sliding spindle models. Add "X" to part numbers for fixed 3/8" square drive output models.

\*\*\* Add "B" to part numbers for bottom exit cable.

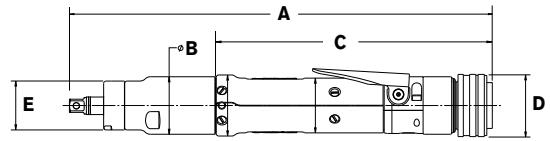
\* logo indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

# ACRADYNE 1000 SERIES NUTRUNNERS



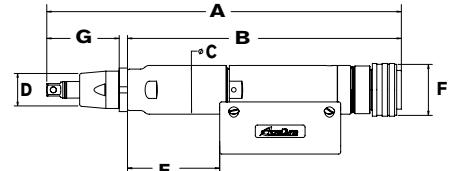
## DIMENSIONS

ANGLE	IN	(A)	MM	IN	(B)	MM	IN	(C)	MM	IN	(D)	MM	IN	(E)	MM
AEN4C12004B	11.65	295.9	1.47	37.3	.98	24.8	.62	15.8	.40	10.2					
AEN4C12009B	11.00	279.5	1.47	37.3	1.29	32.8	.82	20.9	.52	13.1					
AEN4C12014B	11.66	296.4	1.47	37.3	1.29	32.8	.82	20.9	.52	13.1					
AEN4C12018B	11.66	296.4	1.47	37.3	1.29	32.8	.82	20.9	.52	13.1					
AEN4C12022B	11.66	296.4	1.47	37.3	1.29	32.8	.82	20.9	.52	13.1					



## DIMENSIONS

INLINE	IN	(A)	MM	IN	(B)	MM	IN	(C)	MM	IN	(D)	MM	IN	(E)	MM
AES4A12003B	11.12	282.7	1.47	37.3	7.38	187.5	1.59	40.4	1.25	31.8					
AES4A12006B	11.12	282.7	1.47	37.3	7.38	187.5	1.59	40.4	1.25	31.8					
AES4A12011B	11.44	290.5	1.47	37.3	7.38	187.5	1.59	40.4	1.25	31.8					
AES4A12014B	11.44	290.5	1.56	39.6	7.38	187.5	1.59	40.4	1.25	31.8					
AES4A12018B	11.44	290.5	1.47	37.3	7.38	187.5	1.59	40.4	1.25	31.8					
AES4A12022B	11.44	290.5	1.47	37.3	7.38	187.5	1.59	40.4	1.25	31.8					
PUSH-TO-START	IN	(A)	MM	IN	(B)	MM	IN	(C)	MM	IN	(D)	MM	IN	(E)	MM
AEL4A12003B	11.31	287.3	1.56	39.6	7.38	187.5	1.59	40.4	1.25	31.8					
AEL4A12006B	11.32	287.4	1.56	39.6	7.38	187.5	1.59	40.4	1.25	31.8					
AEL4A12011B	11.62	295.4	1.56	39.6	7.38	187.5	1.59	40.4	1.25	31.8					
AEL4A12014B	11.62	295.4	1.56	39.6	7.38	187.5	1.59	40.4	1.25	31.8					
AEL4A12018B	11.62	295.4	1.56	39.6	7.38	187.5	1.59	40.4	1.25	31.8					
AEL4A12022B	11.62	295.4	1.56	39.6	7.38	187.5	1.59	40.4	1.25	31.8					



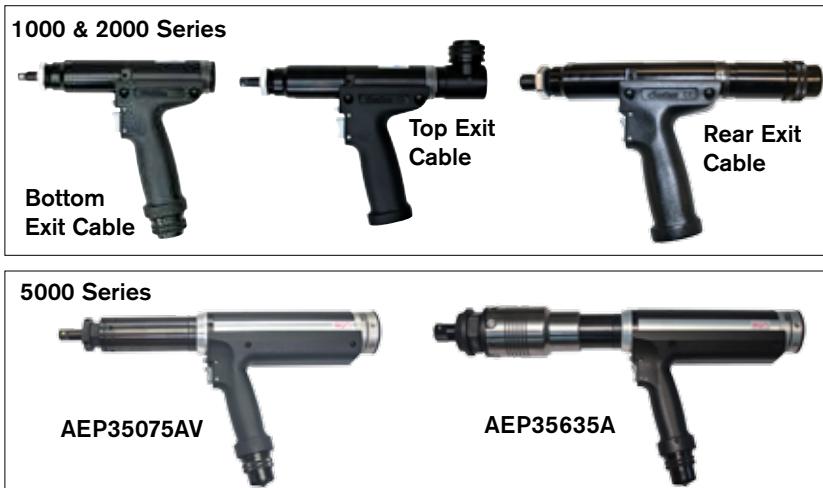
## DIMENSIONS

FIXTURED	IN	(A)	MM	IN	(B)	MM	IN	(C)	MM	IN	(D)	MM	IN	(E)	MM	IN	(F)	MM	IN	(G)	MM
AEF4A12003B	11.53	292.9	9.10	231.04	1.47	37.3	1.13	28.57	2.06	52.2	1.59	40.4	2.18	55.5							
AEF4A12006B	11.53	292.9	9.10	231.04	1.47	37.3	1.13	28.57	2.06	52.2	1.59	40.4	2.18	55.5							
AEF4A12011B	12.20	309.8	9.10	231.04	1.47	37.3	1.13	28.57	2.72	69.1	1.59	40.4	2.18	55.5							
AEF4A12014B	12.20	309.8	9.10	231.04	1.47	37.3	1.13	28.57	2.72	69.1	1.59	40.4	2.18	55.5							
AEF4A12018B	12.20	309.8	9.10	231.04	1.47	37.3	1.13	28.57	2.72	69.1	1.59	40.4	2.18	55.5							
AEF4A12022B	12.20	309.8	9.10	231.04	1.47	37.3	1.13	28.57	2.72	69.1	1.59	40.4	2.18	55.5							
AEF4C12003B	15.32	389.2	9.10	231.04	1.47	37.3	1.13	28.57	2.06	52.2	1.59	40.4	5.98	151.8							
AEF4C12006B	15.32	389.2	9.10	231.04	1.47	37.3	1.13	28.57	2.06	52.2	1.59	40.4	5.98	151.8							
AEF4C12011B	15.99	406.1	9.10	231.04	1.47	37.3	1.13	28.57	2.72	69.1	1.59	40.4	5.98	151.8							
AEF4C12014B	15.99	406.1	9.10	231.04	1.47	37.3	1.13	28.57	2.72	69.1	1.59	40.4	5.98	151.8							
AEF4C12018B	15.99	406.1	9.10	231.04	1.47	37.3	1.13	28.57	2.72	69.1	1.59	40.4	5.98	151.8							
AEF4C12022B	15.99	406.1	9.10	231.04	1.47	37.3	1.13	28.57	2.72	69.1	1.59	40.4	5.98	151.8							
AEF4X12003B	9.35	237.5	9.10	231.04	1.47	37.3	1.13	28.57	2.06	52.2	1.59	40.4	.80	20.4							
AEF4X12006B	9.35	237.5	9.10	231.04	1.47	37.3	1.13	28.57	2.06	52.2	1.59	40.4	.80	20.4							
AEF4X12011B	10.00	254.4	9.10	231.04	1.47	37.3	1.13	28.57	2.72	69.1	1.59	40.4	.80	20.4							
AEF4X12014B	10.00	254.4	9.10	231.04	1.47	37.3	1.13	28.57	2.72	69.1	1.59	40.4	.80	20.4							
AEF4X12018B	10.00	254.4	9.10	231.04	1.47	37.3	1.13	28.57	2.72	69.1	1.59	40.4	.80	20.4							
AEF4X12022B	10.00	254.4	9.10	231.04	1.47	37.3	1.13	28.57	2.72	69.1	1.59	40.4	.80	20.4							

# ACRADYNE PISTOL GRIP NUTRUNNERS

## FEATURES AND BENEFITS

- 1000 & 2000 series tools available with bottom exit, rear exit, or top exit cable configurations. 5000 series tools available in bottom exit or top exit models
- AcraDyne's multi-function button (MFB) provides increased flexibility
- On-board lights and audible signal for operator feedback
- Push-To-Start models also available



## APPLICATION DATA

	MAX TORQUE		TORQUE RANGE		FREE SPEED RPM	WEIGHT (-) SOCKET LB KG	OUTPUT SQ DR	(A)		(B)		(C)		(D)	
	NM	FT-LB	NM	FT-LB				IN	MM	IN	MM	IN	MM	IN	MM
<b>1000 SERIES*</b>															
AEP4(A)(R)(T)12003B(V)(Q)	3	2.2	0.8 - 3	0.6 - 2.2	2,625	2.2	1.00	3/8*	7.34	178.8	0.54	13.7	6.01	152.6	1.96 49.7
AEP4(A)(R)(T)12006B(V)(Q)	6	4.4	1.5 - 6	1.1 - 4.4	2,625	2.2	1.00	3/8*	7.34	178.8	0.54	13.7	6.01	152.6	1.96 49.7
AEP4(A)(R)(T)12011B(V)(Q)	11	8.1	2.8 - 11	2 - 8.1	1,313	2.3	1.04	3/8	8.00	203.3	0.54	13.7	6.01	152.6	1.96 49.7
AEP4(A)(R)(T)12014B(V)(Q)	14	10	3.5 - 14	2.6 - 10	1,037	2.3	1.04	3/8	8.00	203.3	0.54	13.7	6.01	152.6	1.96 49.7
AEP4(A)(R)(T)12018BV	18	13	4.5 - 18	3.3 - 13	840	2.3	1.04	3/8	8.00	203.3	0.54	13.7	6.01	152.6	1.96 49.7
AEP4(A)(R)(T)12022BV	22	16	5.5 - 22	4.1 - 16	656	2.3	1.04	3/8	8.00	203.3	0.54	13.7	6.01	152.6	1.96 49.7
<b>2000 SERIES*</b>															
AEP4(A)(R)(T)22020BV	20	14	5 - 20	3.7 - 14	1,313	2.4	1.09	3/8	8.66	219.9	0.56	14.2	6.87	174.4	1.96 49.7
AEP4(A)(R)(T)22025BV	25	18	6.3 - 25	4.6 - 18	1,037	2.4	1.09	3/8	8.66	219.9	0.56	14.2	6.87	174.4	1.96 49.7
AEP4(A)(R)(T)22030BV	30	22	7.5 - 30	5.5 - 22	840	2.4	1.09	3/8	8.66	219.9	0.56	14.2	6.87	174.4	1.96 49.7
AEP4(A)(R)(T)22035BV	35	25	8.8 - 35	6.5 - 25	747	2.4	1.09	3/8	8.66	219.9	0.56	14.2	6.87	174.4	1.96 49.7
AEP4(A)(R)(T)22040BV	40	29	10 - 40	7.4 - 29	656	2.4	1.09	3/8	8.66	219.9	0.56	14.2	6.87	174.4	1.96 49.7

\* "V" indicates extended Ergo-Drive output Replace "V" with "Q" for 1/4" quick change output only as noted in the table.

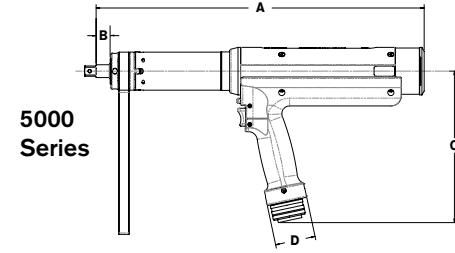
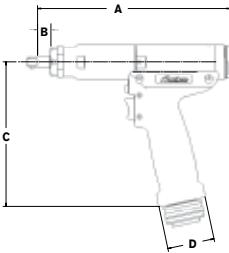
Add "A" to part numbers for bottom exit cable models. Add "R" to part numbers for rear exit cable models. Add "T" to part numbers for top exit cable models

	MAX TORQUE		TORQUE RANGE		FREE SPEED RPM	WEIGHT (-) SOCKET LB KG	OUTPUT SQ DR	(A)		(B)		(C)		(D)	
	NM	FT-LB	NM	FT-LB				IN	MM	IN	MM	IN	MM	IN	MM
<b>5000 SERIES</b>															
AEP35075AV(T)	75	55	19 - 75	14 - 55	944	9.2	4.17	1/2	15.95	405.2	.68	17.4	7.37	187.1	1.96 49.7
AEP35090AV(T)	90	66	23 - 90	17 - 66	767	9.2	4.17	1/2	15.95	405.2	.68	17.4	7.37	187.1	1.96 49.7
AEP35110AV(T)	110	81	28 - 110	21 - 81	634	9.2	4.17	1/2	15.95	405.2	.68	17.4	7.37	187.1	1.96 49.7
AEP35135AV(T)	135	99	34 - 135	25 - 99	515	9.2	4.17	1/2	15.95	405.2	.68	17.4	7.37	187.1	1.96 49.7
AEP35170AV(T)	170	125	43 - 170	32 - 125	418	9.2	4.17	1/2	15.95	405.2	.68	17.4	7.37	187.1	1.96 49.7
AEP35280AV(T)	280	206	70 - 280	52 - 207	236	13.6	6.17	3/4	18.43	468.2	1.11	28.1	7.37	187.1	1.96 49.7
AEP35350AV(T)	350	258	88 - 350	65 - 258	192	13.6	6.17	3/4	18.43	468.2	1.11	28.1	7.37	187.1	1.96 49.7
AEP35420AV(T)	420	310	105 - 420	78 - 310	159	13.6	6.17	3/4	18.43	468.2	1.11	28.1	7.37	187.1	1.96 49.7
AEP35515AV(T)	515	380	128 - 515	95 - 380	129	13.6	6.17	3/4	18.43	468.2	1.11	28.1	7.37	187.1	1.96 49.7
AEP35635AV(T)	635	468	159 - 635	117 - 469	104	13.6	6.17	3/4	18.43	468.2	1.11	28.1	7.37	187.1	1.96 49.7

"V" indicates extended Ergo-Drive output

Add "T" to part numbers for top exit cable models

1000 Series  
2000 Series



\* logo indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

# ACRADYNE ANGLE NUTRUNNERS

## FEATURES AND BENEFITS

AcraDyne angle nutrunners provide the perfect solution to space-limited fastening applications. A compact, durable head houses a precision right-angle gear set which fits into the tightest spaces and delivers a highly accurate fastening cycle. Lightweight materials and a uniform body diameter provide a comfortable grip. The ergonomically placed start lever ensures simple control.



AEN32015C



AEN32025CDL



AEN33060C



AEN33200CF



AEN35140B



AEN35285B

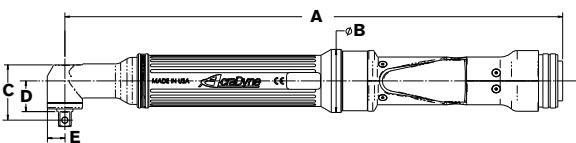
## APPLICATION DATA

	MAX TORQUE		TORQUE RANGE		FREE SPEED RPM	WEIGHT (-) SOCKET LB KG	OUTPUT SQ. DR	(A)		(B)		(C)		(D)		(E)	
	NM	FT-LB	NM	FT-LB				IN MM	IN MM	IN MM	IN MM	IN MM	IN MM	IN MM	IN MM	IN MM	
<b>2000 SERIES</b>																	
AEN32015C(DL)	15	11	3 - 15	2.2 - 11	1,481	2.7 1.22	3/8	14.61	371	1.85	47	1.37	34.8	.90	22.9	.52	13.1
AEN32025C(DL)	25	18	5 - 20	3.7 - 15	833	2.7 1.22	3/8	14.61	371	1.85	47	1.37	34.8	.90	22.9	.52	13.1
AEN32030C(F)(DL)	30	22	6 - 30	4.4 - 22	803	2.8 1.27	3/8	14.42	366.2	1.85	47	1.65	41.8	1.16	29.4	.70	17.8
AEN32040C(F)(DL)	40	30	8 - 40	5.9 - 29	574	2.8 1.27	3/8	14.42	366.2	1.85	47	1.65	41.8	1.16	29.4	.70	17.8
<b>3000 SERIES</b>																	
AEN33040C(F)	42	31	9.5 - 42	7 - 31	1,095	4.4 2.00	3/8	16.63	422.33	1.85	47	1.66	42.11	1.17	29.67	.7	17.78
AEN33053C(F)	53	39	12 - 53	8 - 39	865	4.4 2.00	3/8	16.63	422.33	1.85	47	1.66	42.11	1.17	29.67	.7	17.78
AEN33060C(F)(DL)	60	44	12 - 60	9 - 44	845	6.6 2.99	1/2	18.92	480.53	1.85	47	1.90	48.36	1.37	34.90	.83	20.96
AEN33090C(F)(DL)	90	66	18 - 90	13 - 66	568	6.6 2.99	1/2	18.92	480.53	1.85	47	1.90	48.36	1.37	34.90	.83	20.96
AEN33120C(F)(DL)	120	89	24 - 120	18 - 88	442	9.3 4.22	1/2	21.00	533.46	1.85	47	2.78	70.59	2.08	52.81	1.05	26.67
AEN33200C(F)(DL)	200	148	40 - 200	29 - 147	245	9.4 4.26	3/4	23.21	589.64	1.85	47	2.59	85.75	1.89	47.98	1.05	26.67
AEN33210C(F)(DL)	210	95	50 - 210	37 - 155	234	10.0 4.54	3/4	23.58	598.88	1.85	47	2.90	73.53	1.97	50.04	1.25	31.75
AEN33300C(F)(DL)	300	221	60 - 300	42 - 221	151	10.0 4.54	3/4	23.58	598.88	1.85	47	2.90	73.53	1.97	50.04	1.25	31.75
AEN33375C(F)(DL)	375	277	75 - 375	55 - 276	151	10.0 4.54	3/4	23.58	598.88	1.85	47	2.90	73.53	1.97	50.04	1.25	31.75
<b>5000 SERIES</b>																	
AEN35090B(F)	90	66	23 - 90	17 - 66	607	6.9 3.13	1/2	22.59	573.7	2.31	58.7	1.90	48.4	1.37	34.9	.81	20.6
AEN35140B(F)	140	103	35 - 140	26 - 103	472	10.4 4.72	3/4	22.52	571.9	2.31	58.7	2.59	65.8	1.89	48	1.05	26.7
AEN35175B(F)	175	129	44 - 175	33 - 129	384	10.5 4.76	3/4	22.52	571.9	2.31	58.7	2.59	65.8	1.89	48	1.05	26.7
AEN35225B(F)	225	166	56 - 225	41 - 166	291	12.3 5.58	3/4	22.88	581.1	2.31	58.7	2.90	73.5	1.97	50	1.25	31.8
AEN35285B(F)	285	210	71 - 285	52 - 210	236	12.3 5.58	3/4	22.88	581.1	2.31	58.7	2.90	73.5	1.97	50	1.25	31.8
AEN35350B(F)	350	258	88 - 350	65 - 258	191	12.3 5.58	3/4	22.88	581.1	2.31	58.7	2.90	73.5	1.97	50	1.25	31.8

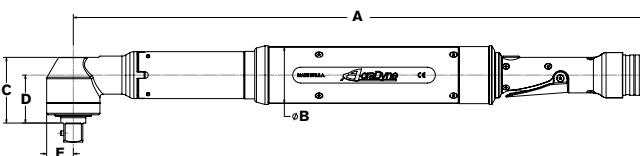
\* Add "F" to part numbers for flush socket only as noted in the table.

Add "DL" to part numbers for dual levers only as noted in the table.

## 2000 & 3000 Series



## 5000 Series



# ACRADYNE INLINE NUTRUNNERS

## FEATURES AND BENEFITS

Due to their compact size and durability, AcraDyne inline nutrunners are the ideal choice for fixtured fastening applications. A uniform body diameter and a hex shaped mounting point allow for simple installation into fixtured plates. A reaction bar for use in handheld applications is also included with all AcraDyne inline nutrunners.



**AES32010CV**



**AES32038CV**

**AES33040CV**

**AES35170-AV**

**AES35280A**

## APPLICATION DATA

	MAX TORQUE		TORQUE RANGE		FREE SPEED RPM	WEIGHT (-) SOCKET LB KG	OUTPUT SO. DR IN	(A)		(B)		(C)		(D)		(E)		
	NM	FT-LB	NM	FT-LB				IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	
<b>2000 SERIES*</b>																		
AES32010C(V)(Q)	10	7.4	2 - 10	1.5 - 7.4	2,222	2.5	1.13	3/8*	13.85	351.7	1.59	40.4	1.85	47	.56	14.3	1.50	38.1
AES32020C(V)(Q)	20	15	4 - 20	3.0 - 15	1,250	2.5	1.13	3/8*	13.85	351.7	1.59	40.4	1.85	47	.56	14.3	1.50	38.1
AES32025C(V)(Q)	25	18	5 - 25	3.7 - 18	893	3.2	1.45	3/8*	13.85	351.7	1.59	40.4	1.85	47	.56	14.3	1.50	38.1
AES32038CV	38	28	7.5 - 38	5.5 - 28	595	4.2	1.91	3/8	16.69	424	1.50	38.1	1.85	47	.51	12.9	1.50	38.1
<b>3000 SERIES*</b>																		
AES33040C(V)(-2)	40	30	8 - 40	5.9 - 30	1,314	6.4	2.90	1/2	18.24	463.38	1.94	49.28	1.85	47	.68	17.17	1.85	47
AES33060C(V)(-2)	60	44	12 - 60	8.9 - 44	883	6.4	2.90	1/2	18.24	463.38	1.94	49.28	1.85	47	.68	17.17	1.85	47
AES33100C(V)(-2)	100	74	20 - 100	15 - 74	489	8.1	3.67	1/2	22.56	572.99	1.94	49.28	1.85	47	.68	17.17	1.85	47
AES33150CV	150	111	30 - 150	22 - 111	329	8.1	3.67	1/2	22.56	572.99	1.94	49.28	1.85	47	.68	17.17	1.85	47
AES33150C-2	150	111	30 - 150	22 - 111	329	8.1	3.67	3/4	22.56	572.99	1.94	49.28	1.85	47	.68	17.17	1.85	47
AES33230CV	185	137	46 - 185	34 - 137	221	8.1	3.67	1/2	22.56	572.99	1.94	49.28	1.85	47	.68	17.17	1.85	47
AES33230C-2	230	170	46 - 230	34 - 170	221	8.1	3.67	3/4	22.56	572.99	1.94	49.28	1.85	47	.68	17.17	1.85	47
AES33400C	400	295	80 - 400	59 - 295	122	13.0**	5.90**	3/4	24.90	632.46	1.94	49.28	1.85	47	1.11	28.08	2.64	67.1
AES33600C	600	443	120 - 600	89 - 443	82	13.0**	5.90**	3/4	24.90	632.46	1.94	49.28	1.85	47	1.11	28.08	2.64	67.1
<b>5000 SERIES</b>																		
AES35075AV	75	55	19 - 75	14 - 55	944	9.2	4.17	1/2	21.86	555.2	1.85	47	2.31	58.7	.68	17.4	1.78	45.2
AES35090AV	90	66	23 - 90	17 - 66	767	9.2	4.17	1/2	21.86	555.2	1.85	47	2.31	58.7	.68	17.4	1.78	45.2
AES35110AV	110	81	28 - 110	21 - 81	634	9.2	4.17	1/2	21.86	555.2	1.85	47	2.31	58.7	.68	17.4	1.78	45.2
AES35135AV	135	100	34 - 135	25 - 100	515	9.2	4.17	1/2	21.86	555.2	1.85	47	2.31	58.7	.68	17.4	1.78	45.2
AES35170AV	170	126	43 - 170	32 - 126	418	9.2	4.17	1/2	21.86	555.2	1.85	47	2.31	58.7	.68	17.4	1.78	45.2
AES35280A	280	207	70 - 280	52 - 207	236	12.8	5.81	3/4	24.22	615.1	2.64	67.1	2.31	58.7	1.11	28.1	1.78	45.2
AES35350A	350	258	88 - 350	65 - 258	192	12.8	5.81	3/4	24.22	615.1	2.64	67.1	2.31	58.7	1.11	28.1	1.78	45.2
AES35420A	420	310	105 - 420	78 - 310	159	12.8	5.81	3/4	24.22	615.1	2.64	67.1	2.31	58.7	1.11	28.1	1.78	45.2
AES35515A	515	380	128 - 515	95 - 380	129	12.8	5.81	3/4	24.22	615.1	2.64	67.1	2.31	58.7	1.11	28.1	1.78	45.2
AES35635A	635	469	159 - 635	117 - 469	104	12.8	5.81	3/4	24.22	615.1	2.64	67.1	2.31	58.7	1.11	28.1	1.78	45.2

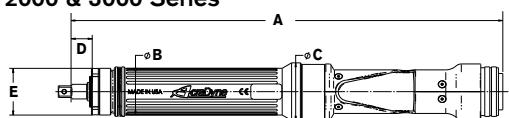
\* 2000 series tools are available in "V" for Ergo-Drive and Q for 1/4" quick-change models only as noted in the table.

3000 series tools are available in "V" for Ergo-Drive and "-2" models for 2" sliding spindle only as noted in the table.

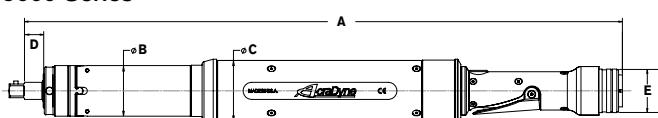
5000 series tools: "V" indicates extended Ergo-Drive output.

\*\* Includes reaction bar and fixture nut

## 2000 & 3000 Series



## 5000 Series



\* logo indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

# ACRADYNE FIXTURED NUTRUNNERS



**AEF35135AV**  
Standard Spindle, Rear Exit Cable



**AEF35135AVB**  
Standard Spindle, Bottom Exit Cable



**AEF35350A**  
Standard Spindle, Rear Exit Cable



**AEF35135A-2**  
2" Sliding Spindle, Rear Exit Cable



**AEF35135AB-2**  
2" Sliding Spindle, Bottom Exit Cable

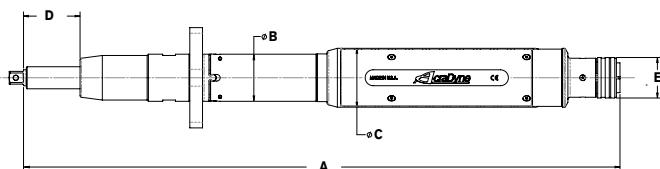
## APPLICATION DATA

5000 SERIES*	NM	MAX TORQUE	FT-LB	NM	TORQUE RANGE	FT-LB	FREE SPEED RPM	WEIGHT (-) SOCKET	KG	OUTPUT DRIVE
AEF35075A(V)(VB)(-2)(B-2)	75	55	19 - 75		14 - 55	944	9.6		4.35	1/2 SQ. DR.
AEF35090A(V)(VB)(-2)(B-2)	90	66	23 - 90		17 - 66	767	9.6		4.35	1/2 SQ. DR.
AEF35110A(V)(VB)(-2)(B-2)	110	81	28 - 110		21 - 81	634	9.6		4.35	1/2 SQ. DR.
AEF35135A(V)(VB)(-2)(B-2)	135	100	34 - 135		25 - 100	515	9.6		4.35	1/2 SQ. DR.
AEF35170A(V)(VB)	170	125	43 - 170		32 - 125	418	9.6		4.35	1/2 SQ. DR.
AEF35170A(-2)(B-2)	170	125	43 - 170		32 - 125	418	9.6		4.35	3/4 SQ. DR.
AEF35280A(B)**	280	207	70 - 280		52 - 207	236	13.6		6.17	3/4 SQ. DR.
AEF35350A(B)**	350	258	88 - 350		65 - 258	192	13.6		6.17	3/4 SQ. DR.
AEF35420A(B)**	420	310	105 - 420		77 - 310	159	13.6		6.17	3/4 SQ. DR.
AEF35515A(B)**	515	380	128 - 515		95 - 380	129	13.6		6.17	3/4 SQ. DR.
AEF35635A(B)**	635	469	159 - 635		117 - 469	104	13.6		6.17	3/4 SQ. DR.

\* "V" = standard spindle with rear exit cable. "VB" = standard spindle with bottom exit cable. "B" = bottom exit cable

"-2" = 2" sliding spindle with rear exit cable. "B-2" = 2" sliding spindle with bottom exit cable.

\*\* Item 28843 is a panel mount 2" sliding spindle for 280 - 635 Nm models.



## DIMENSIONS

5000 SERIES	IN	(A)	MM	IN	(B)	MM	IN	(C)	MM	IN	(D)	MM	IN	(E)	MM
AEF35075AV	17.67		448.8	1.85		47	2.31		58.7	.72		18.4	1.59		40.4
AEF35090AV	17.67		448.8	1.85		47	2.31		58.7	.72		18.4	1.59		40.4
AEF35110AV	17.67		448.8	1.85		47	2.31		58.7	.72		18.4	1.59		40.4
AEF35135AV	17.67		448.8	1.85		47	2.31		58.7	.72		18.4	1.59		40.4
AEF35170AV	17.67		448.8	1.85		47	2.31		58.7	.72		18.4	1.59		40.4
AEF35075A-2	23.43		595.1	1.85		47	2.31		58.7	2.22		56.4	1.59		40.4
AEF35090A-2	23.43		595.1	1.85		47	2.31		58.7	2.22		56.4	1.59		40.4
AEF35110A-2	23.43		595.1	1.85		47	2.31		58.7	2.22		56.4	1.59		40.4
AEF35135A-2	23.43		595.1	1.85		47	2.31		58.7	2.22		56.4	1.59		40.4
AEF35170A-2	23.43		595.1	1.85		47	2.31		58.7	2.22		56.4	1.59		40.4
AEF35280A	18.43		468.2	1.11		28.1	7.37		187.1	1.96		49.7	20.4		518
AEF35350A	18.43		468.2	1.11		28.1	7.37		187.1	1.96		49.7	20.4		518
AEF35420A	18.43		468.2	1.11		28.1	7.37		187.1	1.96		49.7	20.4		518
AEF35515A	18.43		468.2	1.11		28.1	7.37		187.1	1.96		49.7	20.4		518
AEF35635A	18.43		468.2	1.11		28.1	7.37		187.1	1.96		49.7	20.4		518

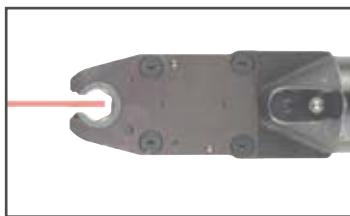
\* indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

# ACRADYNE TUBENUT NUTRUNNERS AND SPECIALTY GEARHEADS

## FEATURES AND BENEFITS

- Patented safety algorithm
- Transducer senses resistance in the initial 90 degrees of rotation and returns to open upon any resistance encountered
- Durable tubenut head design
- Simple, one-touch back to open operation for maximum productivity

WITH INNOVATIVE SAFETY SENSOR TECHNOLOGY!



AET 2000 Series Model



AET 1000 Series Model



AET 2000 Series Model with Double Levers

## APPLICATION DATA

1000 SERIES*	NM	MAX TORQUE	FT-LB	NM	TORQUE RANGE	FT-LB	FREE SPEED		WEIGHT (-) SOCKET	KG	IN	OUTPUT DRIVE	NM
							RPM	LB					
AET4AA1201BB	14		13	3.6 - 14		2.7 - 11	516	3.1		1.41	1/4 - 7/16	7 - 12	
AET4AB12025B	20		18	5 - 20		3.7 - 15	387	3.1		1.41	3/8 - 5/8	10 - 17	
AET4A12025B-KD	25		18	5 - 25		3.7 - 18	387	3.1		1.41	3/8 - 5/8	10 - 17	
2000 SERIES*	NM	MAX TORQUE	FT-LB	NM	TORQUE RANGE	FT-LB	FREE SPEED		WEIGHT (-) SOCKET	KG	IN	OUTPUT DRIVE	NM
							RPM	LB					
AET32020C(DL)	20		15	4 - 16		3.0 - 12	622	3.1		1.41	1/4 - 7/16	7 - 12	
AET32025C(DL)	25		18	5 - 20		3.7 - 15	466	4.0		1.81	3/8 - 5/8	10 - 17	
AET32035C(DL)	35		26	7 - 28		5.2 - 21	347	4.5		2.04	1/2 - 7/8	13 - 24	
AET32050C(DL)	50		37	10 - 40		7.4 - 30	257	5.6		2.54	5/8 - 1-3/16	17 - 32	

\* Add "DL" to part numbers for double levers. Request specific socket size when placing your order. AIMCO offers a wide variety of socket sizes to fit your needs. Contact AIMCO at 1-800-852-1368.

## SPECIALTY GEARHEADS

AIMCO can provide specialized heads for most any application. Tubenut, Hold and Drive, Crow Foot, Offsets, and Sliding Spindles are just a few of the head styles available. Whatever the requirements, AIMCO will recommend the head configuration that will get the job done successfully.



# ACRADYNE HOLD & DRIVE NUTRUNNERS

## FEATURES AND BENEFITS

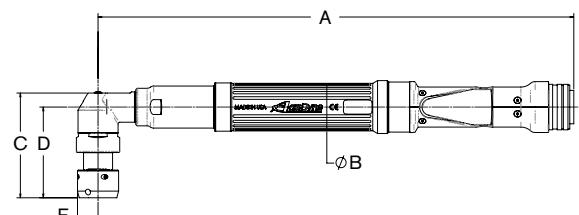
- Torques ranging from 20 Nm – 200 Nm
- Very robust design
- 1" and 2" travels are standard
- Sockets and holders are custom



## APPLICATION DATA

MODEL*	NM	MAX TORQUE	FT-LB	NM	TORQUE RANGE	FT-LB	FREE SPEED RPM	WEIGHT LB		MIN/MAX SOCKET
AEH4F12020B-(1.2)	20			15	4 - 20	3 - 15	533	-1 = 2.8	-2 = 3.0	9/16 (14 MM) / 13/16, (21 MM)
AEH4F12026B-(1.2)	26			19	5 - 26	4 - 19	432	-1 = 2.8	-2 = 3.1	9/16 (14 MM) / 13/16, (21 MM)
AEH32025C-(1.2)	25			18	5 - 25	4 - 18	833	-1 = 3.5	-2 = 3.5	9/16 (14 MM) / 13/16, (21 MM)
AEH32030C-(1.2)	30			22	6 - 30	4 - 22	803	-1 = 3.5	-2 = 3.6	9/16 (14 MM) / 13/16, (21 MM)
AEH32040C-(1.2)	40			30	8 - 40	6 - 30	574	-1 = 3.5	-2 = 3.7	9/16 (14 MM) / 13/16, (21 MM)
AEH33042C-(1.2)	42			31	10 - 42	7 - 31	1,095	-1 = 5.6	-2 = 5.8	9/16 (14 MM) / 13/16, (21 MM)
AEH33053C-(1.2)	53			39	12 - 53	8 - 39	865	-1 = 5.6	-2 = 5.8	9/16 (14 MM) / 13/16, (21 MM)
AEH33060C-(1.2)	60			44	12 - 60	9 - 44	845	-1 = 7.3	-2 = 7.5	9/16 (14 MM) / 1-1/4, (32 MM)
AEH33090C-(1.2)	90			66	18 - 90	13 - 66	568	-1 = 7.3	-2 = 7.6	9/16 (14 MM) / 1-1/4, (32 MM)
AEH33120C-(1.2)	120			89	24 - 120	18 - 89	442	-1 = 10.0	-2 = 10.3	5/8 (15 MM) / 1-1/4, (32 MM)
AEH33200C-(1.2)	200			148	40 - 200	29 - 148	245	-1 = 10.0	-2 = 10.4	5/8 (16 MM) / 1-1/4, (32 MM)
AEH35090B-(1.2)	90			66	23 - 90	17 - 66	607	-1 = 7.6	-2 = 7.9	9/16 (14 MM) / 1-1/4, (32 MM)
AEH35140B-(1.2)	140			103	35 - 140	26 - 103	472	-1 = 10.6	-2 = 11.0	5/8 (15 MM) / 1-1/4, (32 MM)
AEH35175B-(1.2)	175			129	44 - 175	33 - 129	384	-1 = 10.6	-2 = 11.1	5/8 (15 MM) / 1-1/4, (32 MM)
AEH35225B-(1.2)	225			166	56 - 225	41 - 166	291	-1 = 12.9	-2 = 13.3	3/4 (19MM) / 1-1/4, (32 MM)
AEH35285B-(1.2)	285			210	71 - 285	52 - 210	236	-1 = 12.9	-2 = 13.3	3/4 (19MM) / 1-1/4, (32 MM)
AEH35350B-(1.2)	350			258	88 - 350	65 - 258	191	-1 = 12.9	-2 = 13.3	3/4 (19MM) / 1-1/4, (32 MM)

\* Add "1" to part numbers for 1" travel. Add "2" to part numbers for 2" travel.



## DIMENSIONS

MODEL	IN	(A)	MM	IN	(B)	MM	IN	(C)	MM	IN	(D)*	MM	IN	(E)	MM
AEH4F12020B-1	14.59	370.7	1.59	40.4	3.72	94.4	3.17	80.6	.76		19.3				
AEH4F12026B-1	14.59	370.7	1.59	40.4	3.72	94.4	3.17	80.6	.76		9.3				
AEH32025C-1	14.59	370.7	1.85	47	3.72	94.4	3.17	80.6	.76		19.3				
AEH32030C-1	14.59	370.7	1.85	47	3.72	94.4	3.17	80.6	.76		19.3				
AEH32040C-1	14.59	370.7	1.85	47	3.72	94.4	3.17	80.6	.76		19.3				
AEH33042C-1	16.79	426.5	1.85	47	3.72	94.4	3.17	80.6	.76		19.3				
AEH33053C-1	16.79	426.5	1.85	47	3.72	94.4	3.17	80.6	.76		19.3				
AEH33060C-1	18.92	480.5	1.96	49.8	4.04	102.5	3.37	85.66	.94		23.9				
AEH33090C-1	18.92	480.5	1.96	49.8	4.04	102.5	3.37	85.66	.94		23.9				
AEH33120C-1	21.00	533.5	1.96	49.8	4.87	123.7	4.09	103.82	1.13		28.6				
AEH33200C-1	23.21	589.5	1.96	49.8	4.87	123.7	4.09	103.82	1.13		28.6				
AEH35090B-1	22.63	574.8	2.31	58.7	4.02	102.1	3.36	85.26	1.32		33.4				
AEH35140B-1	22.52	571.9	2.31	58.7	4.87	123.7	4.09	103.82	1.13		28.6				
AEH35175B-1	22.52	571.9	2.31	58.7	4.87	123.7	4.09	103.82	1.13		28.6				
AEH35225B-1	22.92	582.2	2.31	58.7	5.52	140.1	5.52	112.2	1.32		33.4				
AEH35285B-1	22.92	582.2	2.31	58.7	5.52	140.1	5.52	112.2	1.32		33.4				
AEH35350B-1	22.92	582.2	2.31	58.7	5.52	140.1	5.52	112.2	1.32		33.4				

# ACRADYNE MID-EXIT CABLE NUTRUNNERS

## FEATURES AND BENEFITS

- Length
  - Reduced tool length due to cable exiting in front of grip surface
- Ergonomics
  - Reduced torque reaction compared to pistol-style tools
  - The inline handle, coupled with the ergonomic hand positioning, allows for increased leverage and decreased strain on the wrist
- Cable management
  - If used with a spring balancer, the tool hangs naturally near its center of gravity, the cable is controlled by the balancer
  - Front positioning of cable provides for easy cable management

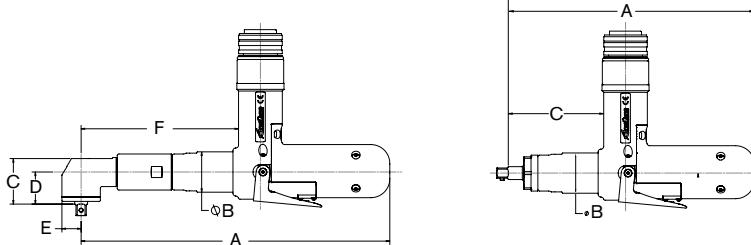


Specialized heads and blades available by request. Contact AIMCO at 1-800-852-1368.

## APPLICATION DATA

MODEL*	NM	MAX TORQUE	FT-LB	NM	TORQUE RANGE	FT-LB	FREE SPEED RPM	WEIGHT (-) SOCKET	KG	OUTPUT DRIVE
AEN4C22015BM(F)	15	11	3.75 - 15		2.77 - 11	700	2.6		1.18	3/8 sq. dr.
AEN4F22030BM(F)	30	22	7.5 - 30		5.53 - 22	675	3.3		1.50	3/8 sq. dr.
AEN4F22037BM(F)	37	29	9.25 - 37		6.82 - 29	533	3.3		1.50	3/8 sq. dr.
AEN4F22044BM(F)	44	32	11 - 40		8.11 - 29	432	3.3		1.50	3/8 sq. dr.
AES4A22020BVM	20	15	5 - 20		3.7 - 15	1050	2.4		1.09	3/8 sq. dr.
AES4A22025BVM	25	18	6.3 - 25		4.6 - 18	830	2.4		1.09	3/8 sq. dr.
AES4A22030BVM	30	22	7.5 - 30		5.5 - 22	672	2.4		1.09	3/8 sq. dr.
AES4A22040BVM	40	30	10 - 40		7.4 - 30	525	2.4		1.09	3/8 sq. dr.

\* Add "F" to part numbers for flush socket.



## DIMENSIONS

MODEL	IN	(A)	MM	IN	(B)	MM	IN	(C)	MM	IN	(D)	MM	IN	(E)	MM	IN	(F)	MM
AEN4C22015BM	9.02	229.1	1.47		37.3	1.29		32.8	.82		20.9	.52		13.1	5.53		140.4	
AEN4F22030BM	11.24	285.6	1.47		37.3	1.66		42.1	1.17		29.7	.70		17.8	5.73		145.6	
AEN4F22037BM	11.24	285.6	1.47		37.3	1.66		42.1	1.17		29.7	.70		17.8	5.73		145.6	
AEN4F22044BM	11.24	285.6	1.47		37.3	1.66		42.1	1.17		29.7	.70		17.8	5.73		145.6	
AES4A22020BVM	9.0	228.1	1.47		37.3	3.49		88.6			-			-		-		
AES4A22025BVM	9.0	228.1	1.47		37.3	3.49		88.6			-			-		-		
AES4A22030BVM	9.0	228.1	1.47		37.3	3.49		88.6			-			-		-		
AES4A22040BVM	9.0	228.1	1.47		37.3	3.49		88.6			-			-		-		

# ACRADYNE RIV-NUT NUTRUNNERS

## FEATURES AND BENEFITS

- Top and rear exit cable are standard
- Straight, Fixtured, and Push-to-Start models are available by request. Contact AIMCO at 1-800-852-1368.



Top Exit Cable



Rear Exit Cable

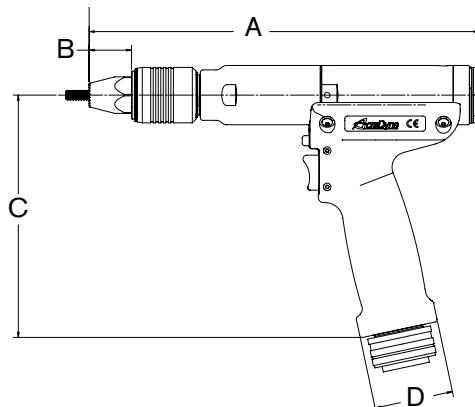


Bottom Exit Cable

## APPLICATION DATA

MODEL*	MAX TORQUE		TORQUE RANGE		FREE SPEED RPM	WEIGHT (-) SOCKET LB	OUTPUT SQ DR	(A)		(B)		(C)		(D)*		
	NM	FT-LB	NM	FT-LB				IN	MM	IN	MM	IN	MM	IN	MM	
AEP4(A)(R)(T)12006BR	6	4.4	1.5 - 6	1.1 - 4.4	2,625	2.2	1.00	3/8	9.68	245.9	1.05	26.7	6.01	152.6	1.96	49.8
AEP4(A)(R)(T)12011BR	11	8.1	2.8 - 11	2 - 8.1	1,313	2.3	1.04	3/8	9.68	245.9	1.05	26.7	6.87	174.5	1.96	49.8
AEP4(A)(R)(T)12014BR	14	10	3.5 - 14	2.6 - 10	1,037	2.3	1.04	3/8	9.68	245.9	1.05	26.7	6.87	174.5	1.96	49.8
AEP4(A)(R)(T)12018BR	18	13	4.5 - 18	3.3 - 13	840	2.3	1.04	3/8	9.68	245.9	1.05	26.7	6.87	174.5	1.96	49.8
AEP4(A)(R)(T)12022BR	22	16	5.5 - 22	4.1 - 16	656	2.3	1.04	3/8	9.68	245.9	1.05	26.7	6.87	174.5	1.96	49.8
AEP4(A)(R)(T)22020BR	20	15	5 - 20	3.7 - 15	1,313	2.4	1.09	3/8	10.18	258.6	1.05	26.7	6.87	174.5	1.96	49.8
AEP4(A)(R)(T)22025BR	25	18	6.3 - 25	4.6 - 18	1,037	2.4	1.09	3/8	10.18	258.6	1.05	26.7	6.87	174.5	1.96	49.8
AEP4(A)(R)(T)22030BR	30	22	7.5 - 30	5.5 - 22	840	2.4	1.09	3/8	10.18	258.6	1.05	26.7	6.87	174.5	1.96	49.8
AEP4(A)(R)(T)22040BR	40	30	10 - 40	7.4 - 30	656	2.4	1.09	3/8	10.18	258.6	1.05	26.7	6.87	174.5	1.96	49.8

\* Add "A" to part numbers for bottom exit cable models, Add "R" to part numbers for rear exit cable models, Add "T" to part numbers for top exit cable models.



# ACRADYNE HIGH TORQUE DC TOOLS

Critical bolting demands tools that deliver high torque with superior performance. Couple with AcraDyne's Controller, the HT Series tools combine these features in an electric, high-torque bolting system that beats the competition in accuracy, speed, and safety.

## FEATURES AND BENEFITS

- One of the most accurate high-torque tools in the world today
- Up to 100 times faster than hydraulic tools
- 250 Nm – 12,000 Nm
- Ergonomic, robust design with five handle configurations
- Over 300 models to choose from
- Built-in integral transducer for optimal monitoring and control
- The world's ONLY traceable system at the square drive
- Data retrieval
- Designed and

**MADE IN THE USA**



Pistol Type  
(AEP)



Rear Mounted Pistol  
(AED)



Axial Type  
(AEJ)



Straight Lever Type (AES)



Fixture Type  
(AEF)

FIXED GEARCASE MODEL*	SERIES	APPROX. TORQUE Nm	APPROX. TORQUE ft-lb	APPROX. SPEED rpm	WEIGHT kg	WEIGHT lb	LENGTH mm	LENGTH in	DIA. mm	DIA. in	DRIVE in	SOUND LEVEL dBA
(AEP) (AED) (AES) (AEJ) (AEF) 4A66250B	6000	250	185	315	4.6	10.5	254	10	66	2.6	0.75	66
(AEP) (AED) (AES) (AEJ) (AEF) 4A66425B	6000	425	315	165	4.6	10.5	254	10	66	2.6	0.75	66
(AEP) (AED) (AES) (AEJ) (AEF) 4A66625B	6000	625	460	106	4.8	10.5	254	10	66	2.6	0.75	66
(AEP) (AED) (AES) (AEJ) (AEF) 4A66925B	6000	925	682	72	4.8	10.5	254	10	66	2.6	0.75	66
(AEP) (AED) (AES) (AEJ) (AEF) 4A771200B	7000	1,200	885	65	6.6	14.5	259	10.2	76	3.0	1	66
(AEP) (AED) (AES) (AEJ) (AEF) 4A773000B	7000	3,000	2,213	25	7.5	16.5	294	11.6	76	3.0	1	66
(AEP) (AED) (AES) (AEJ) (AEF) 4A884200B1	8000	4,200	3,100	12	11.1	24.5	340	13.4	86	3.6	1	66
(AEP) (AED) (AES) (AEJ) (AEF) 4A884200B	8000	4,200	3,100	12	11.1	24.5	340	13.4	86	3.6	1.5	66
(AEP) (AED) (AES) (AEJ) (AEF) 4A885000B	8000	5,000	3,700	9	11.1	24.5	340	13.4	86	3.6	1.5	66
(AEP) (AED) (AES) (AEJ) (AEF) 4A886500B**	8000/9000	6,500	4,800	7	15.7	34.5	378	14.9	101	4.0	1.5	66
(AEP) (AED) (AES) (AEJ) (AEF) 4A889100B**	8000/9000	8,100	6,000	5	15.7	34.5	378	14.9	101	4.0	1.5	66
(AEP) (AEJ) 4A8X1200B**	8000/9000	12,000	8,850	3.5	23.0	51.0	526	21	131	5.2	1.5	66

\* Add "B" to the end of the model number for bottom exit cable (AEF fixtured models only).

\*\* Requires 220V power supply

CLUTCHED MODEL	SERIES	APPROX. TORQUE Nm	APPROX. TORQUE ft-lb	APPROX. SPEED rpm	WEIGHT kg	WEIGHT lb	LENGTH mm	LENGTH in	DIA. mm	DIA. in	DRIVE in	SOUND LEVEL dB(A)
(AEP) (AEJ) 4B66250B	6000	250	185	315	5.3	12	305	12	66	2.6	0.75	66
(AEP) (AEJ) 4B66425B	6000	425	315	165	5.3	12	305	12	66	2.6	0.75	66
(AEP) (AEJ) 4B66625B	6000	625	460	106	5.5	12	305	12	66	2.6	0.75	66
(AEP) (AEJ) 4B66925B	6000	925	682	72	5.5	12	305	12	66	2.6	0.75	66
(AEP) (AEJ) 4B771200B	7000	1,200	885	65	7.3	16	310	12.2	76	3.0	1	66
(AEP) (AEJ) 4B773000B	7000	3,000	2,213	25	8.2	18	345	13.6	76	3.0	1	66
(AEP) (AEJ) 4B884200B1	8000	4,200	3,100	12	11.8	26	391	15.4	86	3.6	1	66
(AEP) (AEJ) 4B884200B	8000	4,200	3,100	12	11.8	26	391	15.4	86	3.6	1.5	66
(AEP) (AEJ) 4B885000B	8000	5,000	3,700	9	11.8	26	391	15.4	86	3.6	1.5	66
(AEP) (AEJ) 4B896500B**	8000/9000	6,500	4,800	7	16.4	36	429	16.9	101	4.0	1.5	66
(AEP) (AEJ) 4B898100B**	8000/9000	8,100	6,000	5	16.4	36	429	16.9	101	4.0	1.5	66
(AEP) (AEJ) 4B8X1200B**	8000/9000	12,000	8,850	3.5	24.0	52.5	564	22	131	5.2	1.5	66

\*\* Requires 220V power supply

# ACRADYNE HIGH TORQUE DC ANGLE TOOLS

## FEATURES AND BENEFITS

- Transducerized closed loop control at the output like all AcraDyne HT-Series tools
- These low-profile head, small-diameter, lever-operated tools, with the torque measured at the output, offer a unique solution
- The torque reported is the torque delivered
- One of the most accurate high-torque right-angle tools in the world
- Smallest tools of their kind on the market
- Same durable, high-cycle gearing as our other HT-series tools
- Models up to 12,000 Nm available upon request



AEN3571000A



AEN356540A



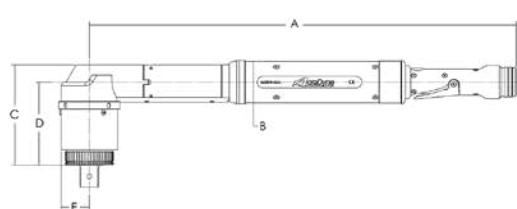
AEN3571600A



AEN3572600A

## SPECIFICATIONS

MODEL	MAX. TORQUE*	TORQUE RANGE	FREE SPEED	WEIGHT	OUTPUT DRIVE			
	nm	ft-lbs.	nm	ft-lbs.				
AEN356540A	540	398	135-540	100-398	109	13.1	5.95	3/4" Square Drive
AEN3571000A	1000	737	250-1000	184-737	61	16.3	7.39	1" Square Drive
AEN3571600A	1600	1180	400-1600	295-1180	33	16.7	7.57	1" Square Drive
AEN3572600A	2600	1917	650-2600	479-1917	21	18.5	8.40	1" Square Drive



DIMENSIONS	A in mm	B in mm	C in mm	D in mm	E in mm	
AEN356540A	22.58	573.6	2.31	58.7	4.75	120.6
AEN3571000A	22.92	582.2	2.31	58.7	5.36	136.1
AEN3571600A	22.92	582.2	2.31	58.7	5.36	136.1
AEN3572600A	22.92	582.2	2.31	58.7	6.77	171.9

# ACRADYNE HIGH TORQUE DUAL LEVER AND GEARHEAD TOOLS

## DUAL LEVER TOOLS

### FEATURES AND BENEFITS

- Additional safety when using a tool with a reaction bar or nose extension
- Requires both hands to start the tool, keeping hands clear of application
- Helps avoid accidental starting of the tool
- Available in three handle types: "Handle Bar" (F) style, Straight (S) style with side handle, and Pistol (P) style



MODEL* (HANDLE TYPE)	SERIES	APPROX. TORQUE Nm	APPROX. SPEED rpm	WEIGHT kg	LENGTH mm	DIA. in	DRIVE in	SOUND LEVEL dB(A)				
		ft-lb		lb	in							
AE(S)(F)(P)4(A)(B)66250	6000	250	185	315	4.6	10.5	254	10	66	2.6	0.75	66
AE(S)(F)(P)4(A)(B)66425BDL	6000	425	315	165	4.6	10.5	254	10	66	2.6	0.75	66
AE(S)(F)(P)4(A)(B)66625BDL	6000	625	460	106	4.8	10.5	254	10	66	2.6	0.75	66
AE(S)(F)(P)4(A)(B)66925BDL	6000	925	682	72	4.8	10.5	254	10	66	2.6	0.75	66
AE(S)(F)(P)4(A)(B)771200BDL	7000	1,200	885	65	6.6	14.5	259	10.2	76	3.0	1	66
AE(S)(F)(P)4(A)(B)773000BDL	7000	3,000	2,213	25	7.5	16.5	294	11.6	76	3.0	1	66
AE(S)(F)(P)4(A)(B)884200B1DL	8000	4,200	3,100	12	11.1	24.5	340	13.4	86	3.6	1	66
AE(S)(F)(P)4(A)(B)884200BDL	8000	4,200	3,100	12	11.1	24.5	340	13.4	86	3.6	1.5	66
AE(S)(F)(P)4(A)(B)885000BDL	8000	5,000	3,700	9	11.1	24.5	340	13.4	86	3.6	1.5	66
AE(S)(F)(P)4(A)(B)896500BDL**	8000/9000	6,500	4,800	7	15.7	34.5	378	14.9	101	4.0	1.5	66
AE(S)(F)(P)4(A)(B)898100BDL**	8000/9000	8,100	6,000	5	15.7	34.5	378	14.9	101	4.0	1.5	66
AEF4(A)(B)891200BDL**	8000/9000	12,000	8,850	3.5	23.0	51.0	526	21	131	5.2	1.5	66

\* The fifth digit of the model number is "A" for fixed gearcase models and "B" for clutched gearcase models.

- Above data is for clutched gearcase models. For non-clutched models, reduce weight by 1.5 lb (0.7 kg) and length by 2 in (51 mm).

- For Straight Type tools Choose the position of the handle by adding (L) for left side and (R) for right side

\*\*Requires 220V power supply

## HT GEARHEAD TOOLS

### FEATURES AND BENEFITS

- Custom made to fit virtually any application
- Same durable gearing as found on AcraDyne's standard HT series tools
- Model types available:
  - HT Offset Gearhead tools
  - HT Right Angle with Offset Gearhead tools
  - HT Right Angle Air tools with Offset Gearhead



# ACRADYNE HIGH TORQUE ACCESSORIES



## NOSE EXTENSIONS

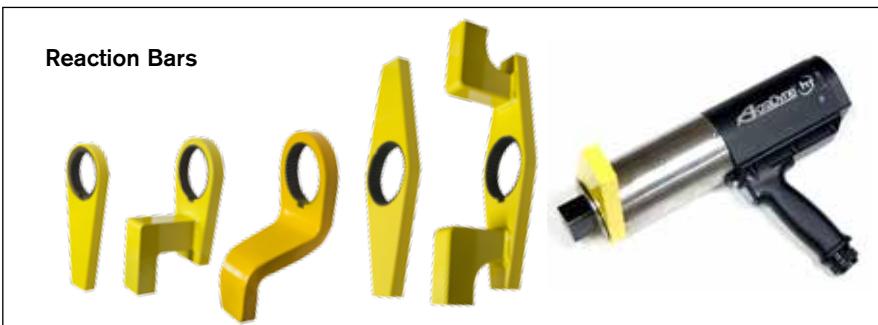
### FEATURES AND BENEFITS

- Ideal for hard-to-reach applications when a torque tube, or arm, is not desirable
- A cost-effective, more flexible option compared to a multiple spindle system
- Common applications:
  - Wheel install and repair stations
  - Large flange assembly



## REACTION BARS

Tool includes a standard, spline attachment reaction device. Custom reaction devices are available; contact an AIMCO Customer Service Associate for more details, 1-800-852-1368.



MODEL	DESCRIPTION
26810	Single Ended, Flat, 6000 Series
26815	Single Ended, 2.375" Offset, 6000 Series
26830	Double Ended, Flat, 6000 Series
26885	Single Ended, 4.00" Offset, 6000 Series
26800	Single Ended, Flat, 7000 Series
27200	Single Ended, 3.10" Offset, 7000 Series
26820	Double Ended, Flat, 7000 Series
26890	Single Ended, 4.00" Offset, 7000 Series
25277	Single Ended, Flat, 8000 Series
25274	Single Ended, 3.35" Offset, 8000 Series
25275	Single Ended, 4.00" Offset, 8000 Series
25278	Double Ended, Flat, 8000 Series
25276	Double Ended, 3.35" Offset, 8000 Series
27255	Single Ended, Flat, 9000 Series
26840	Single Ended, 3.35" Offset, 9000 Series

## ACCESSORIES

Custom accessories are available for your application; contact an AIMCO Customer Service Associate for details, 1-800-852-1368.



MODEL	DESCRIPTION
28477	Swivel Bail, 6000 Series
26327	Swivel Bail, 7000 Series
26630	Swivel Bail, 8000 Series
26478	Swivel D-Handle, 6000 Series
26328	Swivel D-Handle, 7000 Series
25291	Swivel D-Handle, 8000 Series
26479	Stationary Bail, 6000 series (26336 handle not included)
26332	Stationary Bail, 7000 series (26336 handle not included)
25289	Stationary Bail, 8000 series (26336 handle not included)
26336	Fixed Handle (for use with 26479, 26332, 25289)
26337	Rear Fixed Hoist Ring, 6000/7000/8000 Series Pistols
28514	Rear Folding Hoist Ring Kit for 8000 Series Pistols
28549	Sliding Spindle, 6000 Series
27045	Sliding Spindle, 7000 Series
30300	Sliding Spindle, 8000 Series

## PROTECTIVE COVERS



Durable protective covers prevent marring and damage.

MODEL	DESCRIPTION
BJ10078	Protective Cover, 6000 Series
BJ10077	Protective Cover, 7000 Series
BJ10076	Protective Cover, 8000 Series

# DC TOOLS: TOOL/SPINDLE SELECTION GUIDE

\* Includes reaction bar and fixture nut.

**\*\* Torque Range:** 120-480 Nm   **Max Torque:** 600 Nm

**\*\*\* Torque Range: 128-515 Nm**

\*\*\*\* Torque Range: 159-635 Nm

## Recommended Torque Range

## Max Torque

# DC TOOLS: TOOL/SPINDLE SELECTION GUIDE

MODEL	RPM**	LENGTH		WEIGHT		TORQUE, Nm																						
		in	mm	lb	kg	5	10	15	20	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	
<b>PISTOL</b>																												
AEP4_12003B_	2,625	7.3	186.3	2.2	1.00	[green]																						
AEP4_12006B_	2,625	7.3	186.3	2.2	1.00	[green]	[green]																					
AEP4_12011BV	1,313	8.0	203.3	2.3	1.04	[green]	[green]	[green]																				
AEP4_12014BV	1,037	8.0	203.3	2.3	1.04	[green]	[green]	[green]	[green]																			
AEP4_12018BV	840	8.0	203.3	2.3	1.04	[green]	[green]	[green]	[green]	[green]																		
AEP4_12022BV	656	8.0	203.3	2.3	1.04	[green]	[green]	[green]	[green]	[green]	[green]																	
AEP4_22020BV	1,313	8.7	219.9	2.4	1.09	[green]	[green]	[green]	[green]	[green]	[green]																	
AEP4_22025BV	1,037	8.7	219.9	2.4	1.09	[green]	[green]	[green]	[green]	[green]	[green]	[green]																
AEP4_22030BV	840	8.7	219.9	2.4	1.09	[green]	[green]	[green]	[green]	[green]	[green]	[green]																
AEP4_22035BV	747	8.7	219.9	2.4	1.09	[green]	[green]	[green]	[green]	[green]	[green]	[green]																
AEP4_22040BV	656	8.7	219.9	2.4	1.09	[green]	[green]	[green]	[green]	[green]	[green]	[green]																
AEP35075AV	944	16.0	405.2	9.2	4.17	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]															
AEP35090AV	767	16.0	405.2	9.2	4.17	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]															
AEP35110AV	634	16.0	405.2	9.2	4.17	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]															
AEP35135AV	515	16.0	405.2	9.2	4.17	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]															
AEP35170AV	418	16.0	405.2	9.2	4.17	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]															
AEP35280A	236	18.4	468.2	13.6	6.17	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	
AEP35350A	192	18.4	468.2	13.6	6.17	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	
AEP35420A	159	18.4	468.2	13.6	6.17	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	
AEP35515A*	129	18.4	468.2	13.6	6.17	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	
AEP35635A**	104	18.4	468.2	13.6	6.17	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	
<b>TUBENUT</b>																												
AET4A12018B	516	15.41	288.1	3.1	1.41	[green]	[green]	[green]																				
AET4A12025B	387	15.41	288.1	3.1	1.41	[green]	[green]	[green]	[green]																			
AET4A12025B-KD	387	15.9	404.9	3.1	1.41	[green]	[green]	[green]	[green]	[green]																		
AET32020C	622	17.2	436.4	3.1	1.41	[green]	[green]	[green]	[red]																			
AET32025C	466	17.8	450.9	4.0	1.81	[green]	[green]	[green]	[red]																			
AET32035C	347	18.1	460.5	4.5	2.04	[green]	[green]	[green]	[red]																			
AET32050C	257	18.8	478.0	5.6	2.54	[green]	[green]	[green]	[red]																			

\* Torque Range: 128 - 515 Nm

\*\* Torque Range: 159 - 635 Nm



## HIGH TORQUE SERIES

MODEL	RPM**	LENGTH		WEIGHT		TORQUE, Nm																				
		in	mm	lb	kg	50	100	200	300	400	500	600	850	1100	1200	1300	1500	2000	2500	3000	4000	5000	6500	8100	12000	
( )4(A)(B)66200B	315	12	305	12	5.3	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]
( )4(A)(B)66425B	165	12	305	12	5.3	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]
( )4(A)(B)66625B	106	12	305	12	5.5	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]
( )4(A)(B)66925B	72	12	305	12	5.5	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]
( )4(A)(B)771200B	65	12.2	310	16	7.3	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]
( )4(A)(B)773000B	25	13.6	345	18	8.2	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]
( )4(A)(B)884200B1	12	15.4	391	26	11.8	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]
( )4(A)(B)884200B	12	15.4	391	26	11.8	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]
( )4(A)(B)885000B	9	15.4	391	26	11.8	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]
( )4(A)(B)896500B	7	16.9	429	36	16.4	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]
( )4(A)(B)898100B	5	16.9	429	36	16.4	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]
( )4(A)(B)8X12000B	3.5	22	564	52.5	24.0	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]	[green]

Recommended Torque Range

Max Torque

# ACRADYNE ACCESSORIES

## CABLE ASSEMBLIES

The AcraDyne DC electric nutrunner tool system uses a single cable to carry all necessary conductors for superior ergonomics and durability.

- Flexible polyurethane cover for maximum durability, abrasion and transmission fluid resistant
- Quick disconnects at both ends facilitate tool changeover and troubleshooting
- The CAN data/signal is via RJ45 for products such as the KDM, socket tray or computer



MODEL	DESCRIPTION	LENGTH
		m ft
<b>TOOL CABLES</b>		
24330	Cable G3 Tool Cable 3M	3 9.8
25350	Cable G3 Tool Cable 5M	5 16.4
24320	Cable G3 Tool Cable 10M	10 32.8
27110	Cable G3 Tool Cable 3M Lightweight*	3 9.8
27115	Cable G3 Tool Cable 5M Lightweight*	5 16.4
27122	Cable G3 Tool Cable 10M Lightweight*	10 32.8

## EXTENSIONS

24320	Extension cable 10M	10	32.8
25518	Extension cable 20M	20	65.6

\*Lightweight cables are for use only with 1000 & 2000 Series tools.

## CABLE ADAPTERS AND CONNECTORS

MODEL	DESCRIPTION
<b>ADAPTERS AND CONNECTORS</b>	
25646	G1 iEC to G3 Cable Adapter
26934	G3 iEC to G1 Cable Adapter
27210	G3 Tool to G1 Cable Adapter
26364	Right Angle Cable Adapter
26594	Conversion Kit G1 iEC to G3 iEC
27370	Conversion Kit G3 iEC to G1 iEC
25491	Breakaway Cable Connector - Ensures disconnect of cable should stress in excess of 40 lbs occur

## DATA INTERFACE OPTION

MODEL	DESCRIPTION
<b>DATA INTERFACE OPTIONS</b>	
27348	I/O Wiring Connector - Simple module to facilitate connections to I/O on iEC Controllers
28292	System Port Cable, USB 2.0 Cable, A Male to B Male, 3M

## CABLE TESTER UNIT

AcraDyne's Cable Tester Unit helps diagnose and verify functionality of AcraDyne Tool Cables.

- Eliminate guesswork as to whether cable is damaged or is functioning within specifications
- Verifies each specific conductor within the cable for continuity

MODEL	DESCRIPTION
26700	Cable Tester Unit, G3
26709	Adapter, G3 Tool to G1 Cable (Cable Tester only)

# ACRADYNE ACCESSORIES

## SOCKET TRAY

Socket trays, for use with iEC and UEC Controllers, are supplied with blank socket pucks machined to fit specific sockets for the application. AIMCO provides this machining as an additional service. When ordering, please specify the outer dimensions of the sockets you plan to use, and whether you would like a quote for the machining service.

- Simply remove the assigned socket to select the application to be run
- Quick and easy set up. Parameters assigned to socket position automatically
- Optional self-illuminating socket receptacles
- Delrin® blanks may be easily machined by the customer to accommodate custom socket profiling
- Nothing to break, wear out, or maintain
- Proximity sensors detect presence of socket



MODEL	DESCRIPTION
AMPST-2-I	2-Position Socket Tray for iEC Controllers, 2 x 1, 1.25" Socket
AMPST-2-U	2-Position Socket Tray for UEC Controllers, 2 x 1, 1.25" Socket
AMPST-4-I	4-Position Socket Tray for iEC Controllers, 2 x 2, 1.25" Socket
AMPST-4-U	4-Position Socket Tray for UEC Controllers, 2 x 2, 1.25" Socket
AMPST-6S-I	6-Position Socket Tray for iEC Controllers, 6 x 1, 1.25" Socket
AMPST-6S-U	6-Position Socket Tray for UEC Controllers, 6 x 1, 1.25" Socket
AMPST-6-I	6-Position Socket Tray for iEC Controllers, 3 x 2, 1.25" Socket
AMPST-6-U	6-Position Socket Tray for UEC Controllers, 3 x 2, 1.25" Socket
AMPST-8-I	8-Position Socket Tray for iEC Controllers, 4 x 2, 1.25" Socket
AMPST-8-IL	8-Position Socket Tray for iEC Controllers, 4 x 2, 2.0" Socket
AMPST-8-U	8-Position Socket Tray for UEC Controllers, 4 x 2, 1.25" Socket

Socket trays with 6 – 8 positions are available in varied configurations to suit workspace requirements (straight or double rows). Please let your AIMCO representative know of your specific requirements when inquiring.

## TOOL BAILS

- AcraDyne's spring bails are designed for use with any of the AcraDyne 1000, 2000, or 3000 Series tools
- Spring bails snap on quickly and firmly at any place on the body of the tool for perfect balance and secure suspension

MODEL	DESCRIPTION
25501	Wire Bail for 1000 Series Tools
27594	Stationary Bail for 1000 Series Tools
27791	Rotating Bail Assembly for 1000 Series Tools
26568	Cable Bail to Hang Tool Vertically for Gen III Cables
21208	Spring Bail for 2000 Series Tools
23662	Rotating Bail for 2000 Series Tools
28475	Rotating Bail for AEN33042C and AEN33053C
23575	Rotating Bail for 3000 Series Tools

## SLIDING SPINDLES



20712

20848

MODEL	DESCRIPTION
20712	Sliding Spindle 2" Stroke 2000 Series Tools, 3/8" Drive
20848	Sliding Spindle 2" Stroke 3000 Series Tools, 1/2" Drive
28843	Spindle Assembly, 2" Stroke, 5000 Series, 3/4" Drive

## VERTICAL TOOL HANGER

Designed for AcraDyne Gen 1 tools, tool hangers are a great way to keep a tool in place when not being used.



# ACRADYNE ACCESSORIES

## CONTROLLER BRACKETS



**20322**



**20853**



**27816**

## ANGLE TOOL BODY JACKETS

Keep tools protected with AIMCO's tool Body Jackets.



MODEL	DESCRIPTION
20322	Basic wall-mounting plate
20853	Table stand free standing platform
27816	Mounting bracket with internal wireways

MODEL	DESCRIPTION
BJ10051	For 1000 series angle tools
BJ10052	For 2015, 2025 series angle tools
BJ10053	For 2030, 2040, 2055 series angle tools
BJ10054	For 3060, 3090 series angle tools
BJ10055	For 3120, 3200 series angle tools

## MOUNTING BRACKETS

MODEL	DESCRIPTION	MODEL	DESCRIPTION
25717	Mounting Bracket for 1000 Series Angle Tools	25718	Mounting Bracket for 3000/5000 Series Angle Tools
25843	Mounting Bracket for 1000 Series Push-To-Start Tools	26570	Mounting Bracket for 3000/5000 Series Straight Tools
26443	Mounting Bracket for Straight and Pistol 1000/2000 Series	25265	Angle head Mounting Bracket (Cradle type) for 3000/5000 Angle Tools over 225 Nm
24924	Mounting Flange for Straight and Pistol 1000/2000 Series	30351	Mounting Bracket, Drive End for 2000 Series Inline Tools

## LIGHT TOWER



**23730**

Cost- and energy-efficient LED light tower is visible from any direction, angle, and distance

- Two built-in alarms (FB Type) with selectable sound patterns
- Adjustable Volume (Max. 85 dB at 1 m)
- Tower includes red, yellow, green, blue, and clear lenses



**28489 Light Tower Bracket for Gen IV Controller**

## BAR CODE SCANNER



**28859**  
Bluetooth®-Enabled Scanner Kit

Sturdy bar code scanners allow you to easily scan small, stacked, or poorly printed, one-dimensional bar codes. Kit includes a cradle, power supply, and USB/Ethernet cable.

- Scratch proof, tempered glass exit window
- Single-circuit board construction eliminates common interconnection failures
- Industrial long-life charging contacts can withstand 250,000+ insertions into cradle
- Wireless scanner enables users to hold scanner at any angle

MODEL	DESCRIPTION
20400	RS232 Barcode Reader Kit
28859	RS232 Wireless Barcode Reader Kit

# ACRADYNE CORDLESS TOOLS

## UNMATCHED ACCURACY

### FEATURES AND BENEFITS

- Pistol Tool Torque Range: 1.5–14 Nm  
Angle Tool Torque Range: 1.5–120 Nm  
Straight Tool Torque Range: 1.5–14 Nm
- Transducerized for precise delivery of torque and angle to the fastener
- Self-contained with on-board control
- Load tool programming software through USB cable interface
- Vibration alarm handle provides tactile feedback
- Programmable
  - Torque
  - Angle
  - RPM
  - Time
  - Fastening direction
- 100 PSET
- Six step, multi-stage job functionality
- Multicolor LED status screen
- 150,000 results stored on-board



**ABP-CTA11Q**



**ABS-CTA11WQ**



**ABN-CTA90**

MODEL	TORQUE RANGE NM	TORQUE RANGE FT-LB	MAX SPEED RPM	DRIVE TYPE	WEIGHT W/O BATTERY KG	WEIGHT W/O BATTERY LBS
<b>PISTOL</b>						
ABP-CTA11Q(WQ)(BQ)(WBQ)	1.5 - 11.0	1.1 - 8.1	570	1/4" QC	1.15	2.5
ABP-CTA14Q(WQ)(BQ)(WBQ)	3.0 - 14.0	2.2 - 10.3	460	1/4" QC	1.15	2.5
<b>ANGLE</b>						
ABN-CTA10(W)(B)(WB)	1.5 - 10.0	1.1 - 7.4	570	3/8" Sq.	1.35	3.0
ABN-CTA12(W)(B)(WB)	2.5 - 12.0	1.8 - 8.9	380	3/8" Sq.	1.4	3.1
ABN-CTA20(W)(B)(WB)	5.0 - 20.0	3.7 - 14.8	300	3/8" Sq.	1.2	2.6
ABN-CTA30(W)(B)(WB)	8.0 - 30.0	5.9 - 22.1	170	3/8" Sq.	1.2	2.6
ABN-CTA55(W)(B)(WB)	15.0 - 55.0	11.1 - 40.6	90	3/8" Sq.	1.4	3.1
ABN-CTA90(W)(B)(WB)	25.0 - 90.0	18.4 - 66.4	60	1/2" Sq.	2.9	6.4
ABN-CTA120(W)(B)(WB)	35.0 - 120	25.8 - 88.5	50	1/2" Sq.	3.1	6.8
<b>STRAIGHT</b>						
ABS-CTA11Q(WQ)(BQ)(WBQ)	1.5 - 11.0	1.1 - 8.1	570	1/4" QC	0.95	2.1
ABS-CTA14Q(WQ)(BQ)(WBQ)	3.0 - 14.0	2.2 - 10.3	460	1/4" QC	0.95	2.1

W = WiFi option      B = Barcode option      Q = Quick Change

# ACRADYNE CORDLESS TOOLS

## BATTERIES

- Up to 40% lighter than Ni-MH batteries
- Deep-discharge protection prevents battery failure



AB-B1825LI



AB-B1850LI

BATTERY MODEL #	VOLTAGE	TYPE	CAPACITY	WEIGHT
AB-B1825LI	18V	Li-Ion	2.5 Ah	.8 Lb/.35 kg
AB-B1850LI	18V	Li-Ion	5.0 Ah	1.3 Lb/.6 kg



AB-C18110

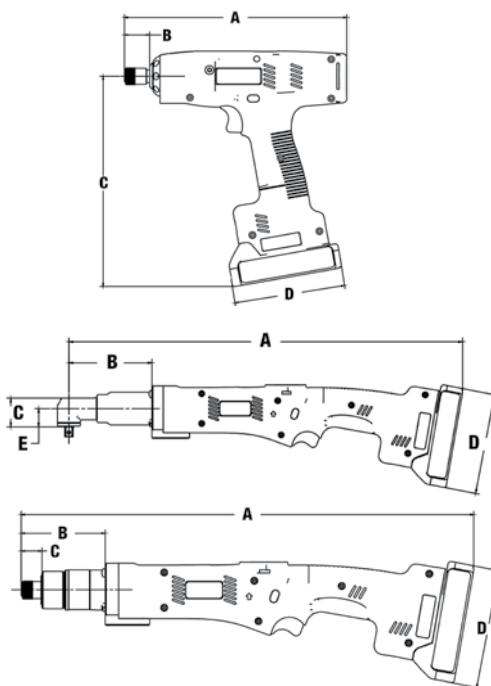
## BATTERY CHARGERS

- Battery defect detection
- Microprocessor-controlled charging: Charging time is dependent on the capacity of the battery
- Reverse polarity protection
- Automatic battery voltage detection

MODEL	DESCRIPTION	OUTPUT	INPUT	CHARGING TIME	DIMENSIONS (W/O BATTERY)	WEIGHT
AB-C18110	Quick-charge unit for 110V	14.4V - 18V, 3.0A	110VAC, 50-60Hz	Max 55 min for 2.5 Ah battery	3.39" wide x 4.21" tall x 6.02" deep 86 mm wide x 107 mm tall x 153 mm deep	1.2 Lb/.55 kg
AB-C18220	Quick-charge unit for 220V	14.4V - 18V, 3.0A	220-240VAC, 50-60Hz	Max 55 min for 2.5 Ah battery	3.39" wide x 4.21" tall x 6.02" deep 86 mm wide x 107 mm tall x 153 mm deep	1.2 Lb/.55 kg

## TOOL DIMENSIONS

MODEL	A IN	A MM	B IN	B MM	C IN	C MM	D IN	D MM	E IN	E MM
<b>PISTOL</b>										
ABP-CTA11Q(WQ)(BQ)(WBQ)	9.1	230	1	26	8.6	218	4.5	115	-	-
ABP-CTA14Q(WQ)(BQ)(WBQ)	9.1	230	1	26	8.6	218	4.5	115	-	-
<b>ANGLE</b>										
ABN-CTA10(W)(B)(WB)	17.8	451	3.7	95	1.3	33	4.5	115	0.8	21
ABN-CTA12(W)(B)(WB)	17.8	451	3.7	95	1.3	33	4.5	115	0.8	21
ABN-CTA20(W)(B)(WB)	17.8	451	3.7	95	1.3	33	4.5	115	0.8	21
ABN-CTA30(W)(B)(WB)	20.6	523	6.8	173	1.7	42	4.5	115	1.1	29
ABN-CTA55(W)(B)(WB)	22	559	8.2	209	1.7	42	4.5	115	1.1	29
ABN-CTA90(W)(B)(WB)	25.7	653	11.9	303	1.9	49	4.5	115	1.4	35
ABN-CTA120(W)(B)(WB)	28.1	715	14.4	365	2.8	71	4.5	115	2.1	54
<b>STRAIGHT</b>										
ABS-CTA11Q(WQ)(BQ)(WBQ)	17.2	437	3.2	81	0.8	20	4.5	115	-	-
ABS-CTA14Q(WQ)(BQ)(WBQ)	17.2	437	3.2	81	0.8	20	4.5	115	-	-



# ACRADYNE SYSTEMS



## MULTIPLE NUTRUNNING SYSTEMS

AIMCO can integrate the Acradyne tool spindle into a customized Multiple Nutrunning system. From simple systems vertically suspended above the part, to assembly stations that integrate with your line, AIMCO can effectively accommodate your project.

LET US KNOW YOUR REQUIREMENTS AND WE WILL PROPOSE A SOLUTION TAILORED TO YOUR NEEDS.



## FEATURES AND BENEFITS

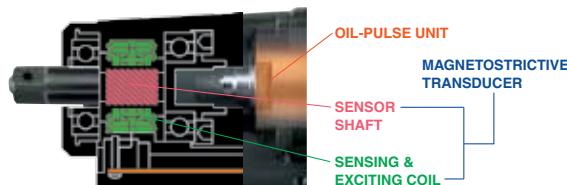
- Nutrunner sequencing - Allows nutrunners to be sequenced at each phase of the tightening process, providing even distribution of torque and load to each fastener. This prevents part damage and distortion
- Snug threshold, final torque in one pass - No need for multiple torque stage sequencing. Fixtured nutrunners save time and effort
- No missed fasteners - Multiple nutrunners have a spindle dedicated to each location, ensuring quality on every rundown on every bolt
- Better residual torques - Synchronized controlled fastening allows residual torque levels to be consistent with the dynamic torque specification
- Saving in cycle time - Compared to using a single nutrunner tool with many rundowns, running all fasteners simultaneously reduces in-station cycle time
- Cost saving benefits - Saving installation cycle time frees operators to handle additional tasks and potentially reduce labor costs
- Collect data – Most common methods of collecting data for quality control and statistical analysis can be implemented from a serial data string using RS232 to formatted data from a network database

## INDUSTRY APPLICATIONS

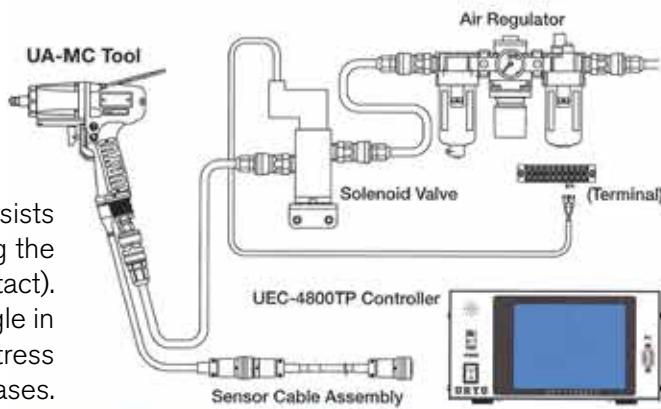
- Harvester chain-pull assembly, 2-spindle
- Engine flywheel assembly, 3-spindle
- Wheel lug nut assembly, 4-spindle
- Axle u-bolt assembly, 4-spindle
- Gasoline generator assembly, 6-spindle
- Lawn mower motor assembly, 7-spindle
- Air-cooled small vehicle engine assembly, 10-spindle

# UA-MC SERIES

## MAGNETOSTRICTIVE TRANSDUCER



## SYSTEM LAYOUT



Uryu's brushless Magnetostriuctive Torque Transducer consists of an anvil and a pair of sensor coils. Without contacting the anvil, the sensor coil detects load to the Anvil (non-contact). The grooves in the anvil are provided at a 45 degree angle in one region. When torque is applied to the anvil, tensile stress appears on the region and magnet permeability increases. These permeability changes are detected, respectively transformed to the voltage change (proportional to applied torque), and converted to torque signals to control the tool.

## UA-MC SERIES

### FEATURES AND BENEFITS

- Patented Auto Relief Technology provides additional torque control during pulsing events
- External solenoid valve increases power-to-weight ratios by 20%
- Magnetostriective Transducer provides durability with low size and weight
- All models work with any UEC Series controller and can connect to a wide range of network protocols
- With torque reaction virtually non-existent, allowing for one-handed operation, the UA-MC provides significantly increased productivity



RECOMMENDED AIR PRESSURE: 85 PSI

MODEL	TORQUE RANGE NM	FREE SPEED FT-LB	FREE SPEED RPM	LENGTH MM	LENGTH IN	WEIGHT LB	WEIGHT KG	DRIVE SIZE IN	AIR USAGE CFM
<b>PISTOL TYPE</b>									
UA-40MC	6.8 - 12.0	5.0 - 8.8	3,600	170	6.7	2.4	1.1	3/8	7.0
UA-40DMC	6.9 - 12.0	5.0 - 8.8	3,600	170	6.7	2.4	1.1	1/4 QC	7.0
UA-50MC	16.6 - 29.0	12.2 - 21.4	4,250	170	6.7	2.4	1.1	3/8	8.8
UA-50DMC	16.6 - 29.0	12.2 - 21.4	4,250	170	6.7	2.4	1.1	1/4	8.8
UA-60MC	25.1 - 44.0	18.5 - 32.5	5,000	175	6.9	2.5	1.1	3/8	14.0
UA-70MC	28.5 - 50.0	21.0 - 37.0	5,700	187	7.4	2.7	1.2	3/8	15.8
UA-80MC	40.0 - 60.0	29.6 - 44.4	6,000	195	7.7	3.4	1.6	3/8	16.8
UA-90MC	45.7 - 80.0	33.8 - 59.2	5,500	203	8.0	3.7	1.7	1/2	18.6
UA-100MC	51.4 - 90.0	38.0 - 66.6	5,200	215	8.5	4.5	2.1	1/2	19.3
UA-130MC	74.2 - 130.0	54.9 - 96.2	4,500	233	9.2	6.2	2.8	1/2	25.6
UA-150MC	150 - 220	111 - 163	4,350	251	9.9	8.8	4.0	3/4	24.7
<b>STRAIGHT TYPE</b>									
UA-40SMC	7.0 - 13.0	5.2 - 9.6	3,600	246	9.7	2.7	1.2	3/8	7.0
UA-40SDMC	5.0 - 12.0	3.7 - 8.9	3,600	246	9.7	2.7	1.2	1/4	7.0
UA-50SMC	11.0 - 25.0	8.1 - 18.5	4,250	246	9.7	2.7	1.2	3/8	8.8
UA-50SDMC	9.0 - 23.0	6.7 - 17.0	4,250	246	9.7	2.7	1.2	1/4	8.8
UA-60SMC	18.0 - 38.0	13.3 - 28.1	5,000	252	10.0	2.9	1.3	3/8	14.0
UA-60SDMC	16.0 - 34.0	11.8 - 25.2	5,000	252	10.0	2.9	1.3	1/8	14.0
UA-70SMC	30.0 - 50.0	22.2 - 37.0	5,700	265	10.4	3.1	1.4	3/8	15.8

Air Inlet: 1/4" N.P.T.

Recommended Air Hose Size: 1/4" I.D. for UA-40MC - UA-50MC

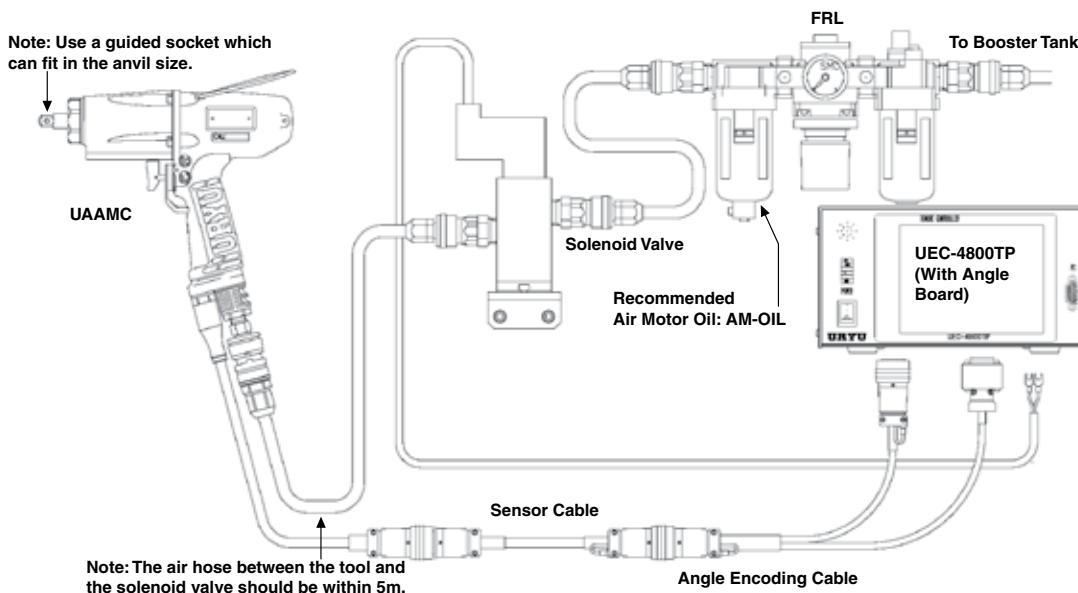
3/8" I.D. for UA-60MC - UA-100MC

1/2" I.D. for UA-130MC - UA-150MC

\* logo indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

# UA-AMC SERIES

## SYSTEM LAYOUT



## UA-AMC SERIES E

### FEATURES AND BENEFITS

- The UA-AMC features angle measurement for improved process control
- No torque reaction
- Detects cross threading, double hits on the same fastener, stripped and damaged fastener threads, and incorrect fasteners in an application
- Transducer integrated resolver
- Patented Auto Relief Technology provides smooth torque delivery during pulsing events
- Triple chamber air motors for high power output in UA-400AMC, UA-500AMC, and UA-600AMC models
- UEC-4800 controllers can easily be upgraded to angle-capable models. Contact your AIMCO representative for details, 1-800-852-1368



MODEL	TORQUE RANGE		FREE SPEED		LENGTH		WEIGHT		RECOMMENDED AIR PRESSURE: 85 PSI	
	NM	FT-LB	RPM	MM	IN	LB	KG	IN	CFM	
UA-400AMC	7 - 13	5.2 - 9.6	3,600	193.0	7.6	3.0	1.4	3/8	7.0	
UA-500AMC	11 - 25	8.1 - 18.4	4,250	193.0	7.6	3.0	1.4	3/8	8.8	
UA-600AMC	18 - 38	13.3 - 28.0	5,000	198.5	7.8	3.1	1.4	3/8	14.0	
UA-700AMC	30 - 50	22.1 - 36.9	5,700	207.5	8.2	3.3	1.5	3/8	15.8	
UA-800AMC	40 - 60	29.5 - 44.3	6,000	215.5	8.5	3.7	1.7	3/8	16.8	
UA-900AMC	40 - 80	29.5 - 59.0	5,500	227.5	9.0	4.7	2.2	1/2	18.6	
UA-1000AMC	50 - 90	36.9 - 66.4	5,200	235.0	9.3	5.4	2.5	1/2	19.3	
UA-1300AMC	85 - 130	62.7 - 95.9	4,500	256.5	10.1	7.2	3.3	1/2	25.6	

Air Inlet: 1/4" N.P.T.

Recommended Air Hose Size: 1/4" I.D. for UA-400AMC - UA-500AMC

3/8" I.D. for UA-600AMC - UA-1000AMC

1/2" I.D. for UA-1300AMC

\* indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

# UEC-4800 CONTROLLER

## STATE-OF-THE-ART CONTROLLER FOR PULSE TOOLS

### FEATURES AND BENEFITS: UEC-4800

- Programmable from front panel or PC – no separate touchpad module or cable required
- 12,000 data point memory
- On-screen statistical readout
- Eight parameter sets available
- Increased programmable I/O options
- Built-in Ethernet connectivity
- PC Windows-based software included
- For use with pneumatic or electric transducerized tools
- Compatible with: UA-MC, UEP-MC (with driver box), UA-SMC, UA-AMC (with optional Angle Encoder Board), ALPHA-MC, and UXR-MC series tools



UEC-4800



UEC-4800-EX Controller  
with network connectivity

UEC-4800TP Controller  
with Touch-Screen option.

### FEATURES AND BENEFITS: UEC-4800TP

- Provides all features of the UEC-4800
- Enhanced user interface via Touch-Screen programming and information access

MODEL	24V I/O	URYU DATA, BARCODE, & PRINTER	LIGHT TOWER & BYPASS SWITCH CAPABLE	ETHERNET PROTOCOLS	SERIAL PROTOCOLS & BAR CODE	ANYBUS DEVICENET	ANYBUS PROFIBUS	TOUCH PANEL DISPLAY	ANGLE MONITORING
UEC-4800	X	X							
UEC-4800A-ANGLE	X	X							X
UEC-4800TP	X	X						X	
UEC-4800TPA	X	X						X	X
UEC-4800-EX	X	X		X	X				
UEC-4800-EXL	X	X	X	X	X				
UEC-4800-EDA	X			X		X			
UEC-4800-EPA	X			X			X		
UEC-4800-EPAL	X		X	X			X		
UEC-4800A-EXL	X	X	X	X	X				X
UEC-4800A-EDA	X			X		X			X
UEC-4800A-EDAL	X		X	X		X			X
UEC-4800A-EPA	X			X			X		X
UEC-4800A-EPAL	X		X	X			X		X
UEC-4800A-EPL	X		X	X			X*		X
UEC-4800TP-EX	X	X		X	X			X	
UEC-4800TP-EXL	X	X	X	X	X			X	
UEC-4800TP-EDA	X			X		X		X	
UEC-4800TP-EDAL	X		X	X		X		X	
UEC-4800TP-EPA	X			X			X	X	
UEC-4800TP-EPAL	X		X	X			X	X	
UEC-4800TPA-EX	X	X		X	X			X	X
UEC-4800TPA-EXL	X	X	X	X	X			X	X
UEC-4800TPA-EDA	X			X		X		X	X
UEC-4800TPA-EDAL	X		X	X		X		X	X
UEC-4800TPA-EPA	X			X			X	X	X
UEC-4800TPA-EPAL	X		X	X			X	X	X
UEC-5500	X	X							

\*UEC-4800A-EPL includes MKS module with Profibus only.

# UEC-4800A CONTROLLER

## FEATURES AND BENEFITS: UEC-4800A

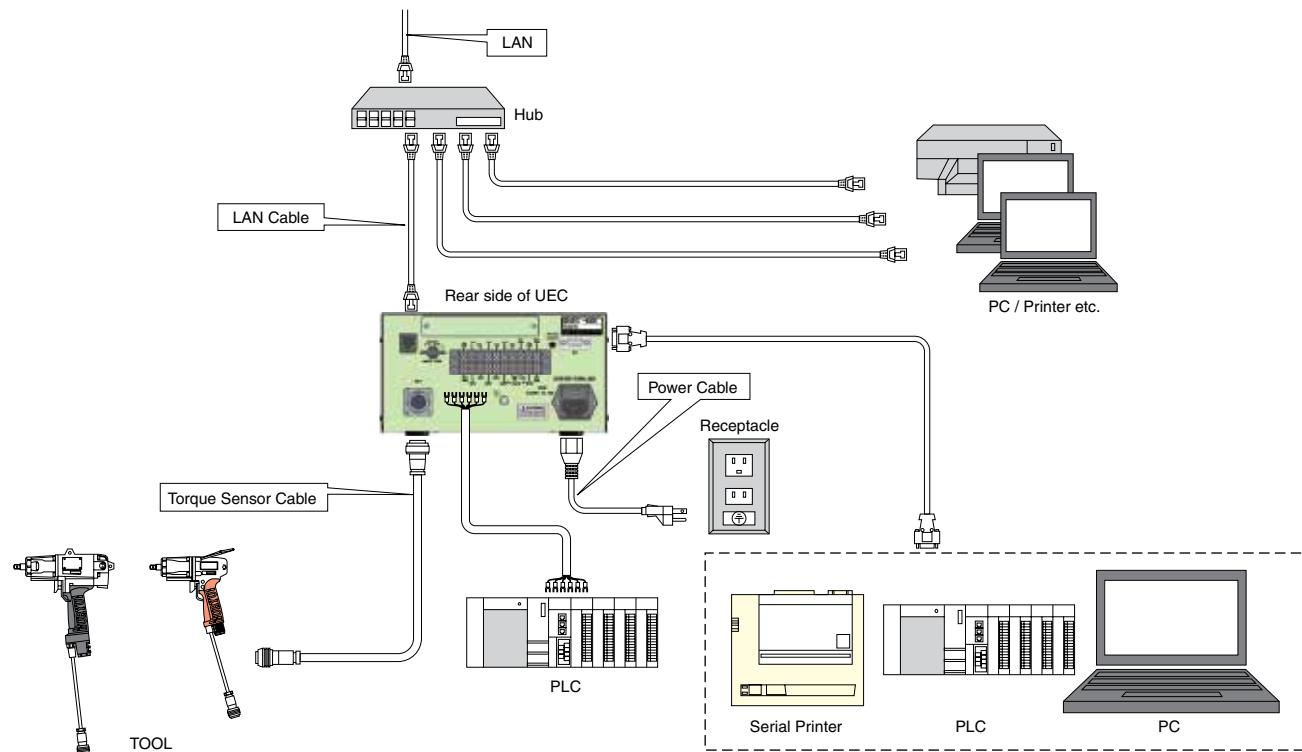
- Economical LCD front panel
- Easily program or upload your program from a PC
- Torque Wave data visible on your PC
- Memorizes max. 12,000 fastening data. When connected to a PC, standard deviations, Cp value, and Cpk values can be analyzed instantly from the stored data within the controller
- Graph statistical data



## UEC-4800A SPECIFICATIONS

Power Supply	AC100~240V ±10%	Display	Torque Resolution ±2048 (12-Bit A/D) LCD: 20 characters x 4 lines Contents: Work No., Fastening Count, Down No., Fastening Time, Pulse No. 1-digit digital display (DPM): WORK NO. 4-digit digital display (DPM): TORQUE
Power Frequency	50/60 Hz		
Noise Protection	1000V 1μS (according to noise simulator)		
Insulation Protection	DC500V over 10MΩ		
Ambient Temperature	0~50°C (non-freezing)		
Ambient Humidity	Under 90%RH (no dew)	LED	COUNT Lamp: OK (Green), NOK (Red) TORQUE Lamp: LOW (Yellow), OK (Green), HIGH (Red)
Power Consumption	Approx. 30VA		
Weight	Approx. 3.6 kg	Input Terminal Signal	Operation Voltage/Current: DC24V/approx. 10mA 6 terminals (free format), VALVE
Dimensions	265(d) x 222(w) x 120(h)		
Main Functions	Torque Monitoring/Control + Fastening Counter		
Parameter Setup	Manual Input on Front LCD Panel Personal Computer (with setup software)	Output Terminal Signal	Contact Capacity: AC:125V, 0.3A, DC:30V, 1A 6 terminals (free format), VALVE

## UEC-4800(A)(TP)(TPA) BLOCK DIAGRAM



# UEC-4800TP / TPA CONTROLLER

## FEATURES AND BENEFITS: UEC-4800TP/TPA

- Programmable from front panel or PC
- Can be used with various transducerized tools:
  - Oil-Pulse Tools fitted with a Magnetostrictive Transducer: UA-MC series, ALPHA-MC Series, UEP-MC Series (UEPD driver is required separately)
  - Pneumatic Tools fitted with a Strain-Gauged Transducer UAN-M Series, UOW-M Series, UNR-NT Series
- Highly reliable torque control and monitor
- Ethernet (TCP/IP) capable
- Choose between Torque Control and Monitor. Detect various errors and control the job with the fastening counter
- Torque Wave data visible on both front touch panel and PC
- Can be used for eight different fastening applications
- Front panel, PC display, or buzzer indicates Input/Output (terminal blocks and tool wiring), checks, and errors
- Memorizes cumulative fastening numbers and pulse numbers from the start of operation
- Memorizes maximum 12,000 fastening data. Analyze standard deviations, Cp value, and Cpk value instantly from stored data within the controller. When connected to a PC, statistical data can be graphed
- Interlocks with production line using Input/Output terminals



Torque Monitor Display



## UEC-4800TP/TPA SPECIFICATIONS

Power Supply	AC100~240V ±10%
Power Frequency	50/60 Hz
Noise Protection	1000V 1μS (according to noise simulator)
Insulation Protection	DC500V over 10MΩ
Ambient Temperature	0~50°C (non-freezing)
Ambient Humidity	Under 90%RH (no dew)
Power Consumption	Approx. 30VA
Weight	Approx 3.6 kg
Dimensions	265(d) x 222(w) x 120(h)
Main Functions	Torque Monitoring/Control + Fastening Counter
Parameter Setup	Manual Input on Front Touch Panel Personal Computer (with setup software)
Display	Torque Resolution ±2048 (12-Bit A/D) 320 x 240 dot 25 characters X 15 lines
LED	COUNT Lamp: OK (Green), NOK (Red) TORQUE Lamp: LOW (Yellow), OK (Green), HIGH (Red)
Input Terminal Signal	Operation Voltage/Current: DC24V/approx. 10mA 6 terminals (free format), VALVE
Output Terminal Signal	Contact Capacity: AC:125V, 0.3A, DC:30V, 1A 6 terminals (free format), VALVE

The conventional UEC-4800 Series has been superceded by UEC-4800(SD), which has the following new functions:

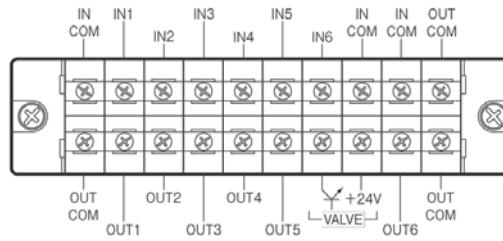
- 1) miniSD card slot on back panel
  - Fastening data and wave can be saved to miniSD card
  - Option to save and read setting values in miniSD card
- 2) Terminal on the rear side. The following terminals are added:
 

1 x Input terminal	2 x Input COM terminals
1 x Output terminal	2 x Output COM terminals
- 3) Valve Check
 

Valve wiring check function checks the valve connection to the terminal. If using ALPHA-MC fitted with the valve inside the tool, it checks the tool valve connection
- 4) Other Features
  - Increased PC communication speed to 115,200 bps
  - Faster data input and memory deletion

### (Input Terminal Block)

Signal Allocations	
COM: Common Terminal for the input terminals. (-)	
IN 1~6: Input Terminals	
IN COM: Common Terminal for the input terminals. (-)	
OUT COM: Common Terminal for the output terminals.	



### (Output Terminal Block)

Signal Allocations	
COM: Common Terminal for the output terminals.	
OUT 1~5: Output Terminals	
VALVE: Valve Output (OV)	
VALVE COM: +24V	
Out 6: Output Terminal	
OUT COM: Common Terminal for the output terminals	

# UDBP-AF SERIES

## THE ULTIMATE BATTERY PULSE TOOL



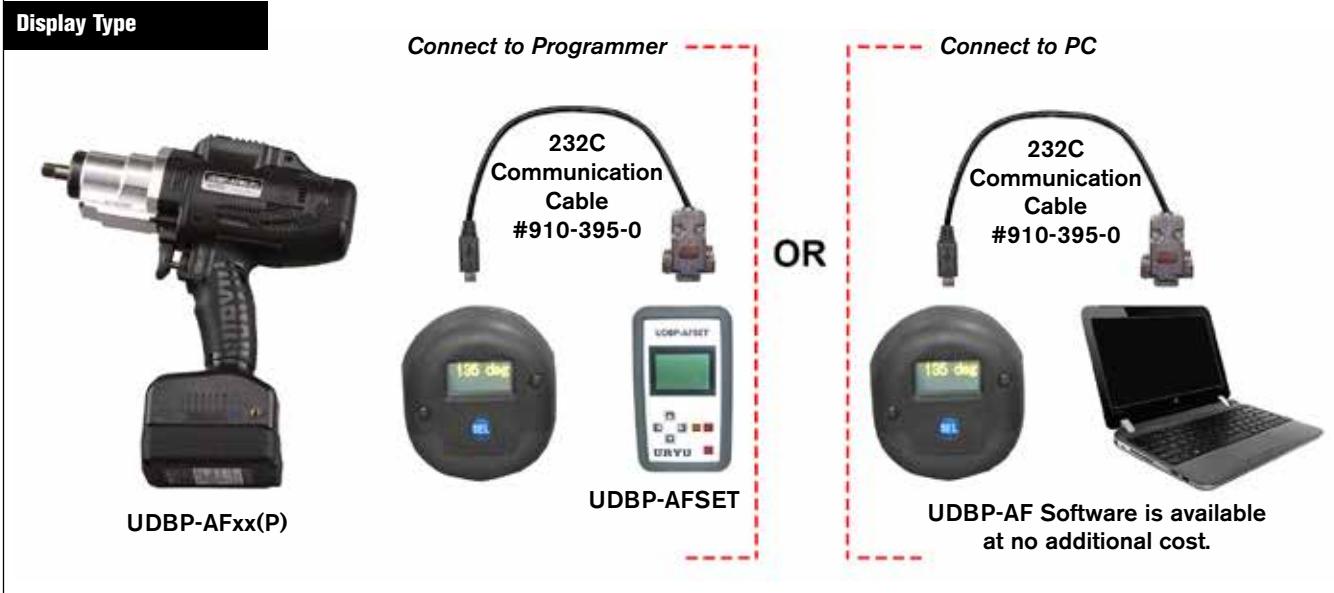
### FEATURES AND BENEFITS

- New Auto Relief Function
- Torque sensor incorporated into the UDBP-AF series measures torque *and* angle
- Minimal noise and vibration
- Lithium-ion battery
- Extremely accurate
- Stores up to 10,000 pieces of data

MODEL	TORQUE RANGE		FREE SPEED	LENGTH		HEIGHT W/O BATTERY		WEIGHT W/O BATTERY		DRIVE SIZE	BATTERY
	NM	FT-LBS	RPM	MM	IN	MM	IN	KG	LBS	IN	VDC AH
<b>ZIGBEE MODELS</b>											
UDBP-AF50Z(P)-STA	5 - 15	3.7 - 11	4,800	229	9	265	10.4	1.88	5	3/8	10.8 2.0
UDBP-AF60Z(P)-STA	8 - 25	5.9 - 18.4	4,800	243	9.6	265	10.4	2.04	5.5	3/8	14.4 2.0
UDBP-AF70Z(P)-STA	15 - 45	11 - 33	4,800	254	10	270	10.6	2.41	6.5	3/8	18 3.0
<b>DISPLAY MODELS</b>											
UDBP-AF50(P)-STA	5 - 15	3.7 - 11	4,800	229	9	265	10.4	1.88	5	3/8	10.8 2.0
UDBP-AF60(P)-STA	8 - 25	5.9 - 18.4	4,800	243	9.6	265	10.4	2.04	5.5	3/8	14.4 2.0
UDBP-AF70(P)-STA	15 - 45	11 - 33	4,800	254	10	270	10.6	2.41	6.5	3/8	18 3.0

Each model supplied as a kit including: 1-tool, 2-batteries, 1-charger, 1-body jacket

# UDBP-AF SERIES



## BATTERIES AND BATTERY CHARGER

BATTERY MODEL #	DESCRIPTION	VOLTAGE	TYPE	CAPACITY
EYFB32	Battery for UDBP-AF50 Series	10.8V	Li-Ion	2.0Ah
EYFB41	Battery for UDBP-AF60 Series	14.4V	Li-Ion	2.0Ah
EYFB50	Battery for UDBP-AF70 Series	18V	Li-Ion	5.0Ah
<b>CHARGER MODEL #</b>				
EYOL82B				

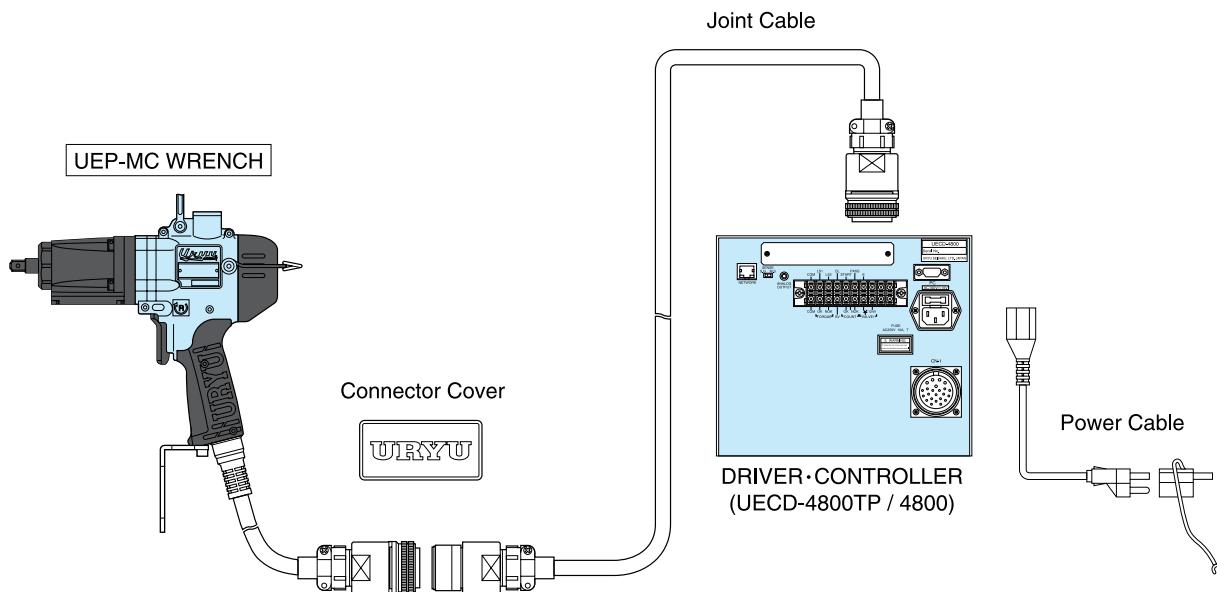
## BODY JACKET



MODEL	DESCRIPTION
863-991-1	Body jacket for all UDBP-AF tools

# UEP-MC SERIES

## SYSTEM LAYOUT



Uryu's UEP-MC series includes a unique Magnetostrictive Transducer designed to precisely measure dynamic torque. Highly accurate torque value and fastening count data is displayed by the UECD controller, making it easy to monitor the application.

## UEP-MC SERIES

### FEATURES AND BENEFITS

- Operates on standard 110V or 220V power
- Extremely durable, brushless motor
- Programmable tool RPM for increased accuracy and adjustability to joint conditions
- Two stage trigger for separate, slower RPM for soft start applications
- Quiet operation
- I/O capability for programmable line control
- Pulse tool advantages on applications that require controlled electric tools



**UEP-60MC**

MODEL	TYPE	TORQUE RANGE NM	FREE SPEED FT-LB	WEIGHT RPM	LENGTH LB	DRIVE IN	SOUND LEVEL IN	REQUIRED DRIVER BOX
UEP-50MC(-STDA)*	Transducerized	5 - 10	3.7 - 7.4	2,000	4.0	7.9	3/8 sq.	70
UEP-50DMC-STDA*	Transducerized	5 - 10	3.7 - 7.4	2,000	4.0	7.9	1/4 hex	70
UEP-60MC(-STDA)*	Transducerized	10 - 25	7.4 - 18.5	2,000	4.7	8.7	3/8 sq.	70
UEP-60DMC(-STDA)*	Transducerized	10 - 25	7.4 - 18.5	2,000	4.7	8.7	1/4 hex	70
UEP-70MC(-STDA)*	Transducerized	25 - 40	18.5 - 29.6	2,000	5.2	9.3	3/8 sq.	72
UEP-80MC(-STDA)*	Transducerized	30 - 60	22.2 - 44.4	2,000	6.6	9.3	1/2 sq.	75
UEP-100MC(-STDA)*	Transducerized	60 - 120	44.4 - 88.8	2,000	9.2	10.9	1/2 sq.	75

\* Add "-STDA" to part numbers to include tool, driver box, and driver cable (components can be purchased individually).

\*  logo indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

# UECD-4800 CONTROLLER

## UECD-4800 FOR UEP TOOLS

### FEATURES AND BENEFITS

- Integrates Tool Driver and UEC-4800 Controller – No separate box
- Windows-based PC Software included
- Programmable tool speeds
- 4 Models to suit UEP Series tools



### UECD-4800 FUNCTIONS AND SPECIFICATIONS

- Motor Setting
  - Motor current can be set in four steps
  - Motor rotational speed can be set in 100 rpm increments
- Fastening error detection and fastener number countdown functions ensure seamless operation
- Allows setup or changeover of fastening torque and fastening number count
- Tool's maintenance is possible by counting both total cycle numbers (how many fasteners) and/or total pulse numbers
- Input/Output check and error messages can be checked from your PC or the front panel of UECD-4800, which will notify you with a buzzer
- Can set up and monitor various control values. Values can be set either on the front panel or on the PC
- Ethernet (TCP/IP) capable. Upload and receive setting values. Upload fastening result/waveform data through PC software
- Power Supply: UEP tool is driven by commercial electricity, providing flexible assembly line changes

Power Supply	AC100~240V ±10%
Power Frequency	50/60 Hz
Noise Protection	1000V 1μS (according to noise simulator)
Insulation Protection	DC500V over 10MΩ
Ambient Temperature	0~50°C (non-freezing)
Ambient Humidity	90%RH or less (no dew)
Weight	Approx. 11.30 kg
Dimensions	265(d) x 222(w) x 200(h)
Main Functions	Torque control, Torque monitoring, Fastener number count
Parameter Setup	Manual Input on Front LCD Panel PC (with exclusive setup software)
Display	Torque Resolution ±2048 (12-Bit A/D use) LCD type, 20 characters x 4 lines Contents: Work No., Bolt Count No., Tightening Time, Pulse Blow Number 1-digit digital display (DPM): Work No. displayed 4-digit digital display (DPM): Torque reading displayed
LED	Total Lamp (for count judgment): OK (Green), NOK (Red) Torque Lamp (for torque judgment): LOW (Yellow), OK (Green), HIGH (Red)
Input Terminal Signal	Operation Voltage/Current: DC24V, approx. 10mA 6 terminals available (programmable). Note: Contact input necessary
Output Terminal Signal	Contact Capacity: DC 30V, 1A 6 terminals available (programmable), VALVE

# UECD-4800 CONTROLLER

MODEL	24V I/O	URYU DATA, BARCODE & PRINTER	LIGHT TOWER & BYPASS SWITCH CAPABLE	ETHERNET PROTOCOLS	SERIAL PROTOCOLS & BAR CODE	ANYBUS DEVICENET	ANYBUS PROFIBUS	TOUCH PANEL DISPLAY
UECD-4800A-50	X	X						
UECD-4800A-60	X	X						
UECD-4800A-70	X	X						
UECD-4800A-100	X	X						
UECD-4800TPA-50	X	X						X
UECD-4800TPA-60	X	X						X
UECD-4800TPA-70	X	X						X
UECD-4800TPA-100	X	X						X
UECD-4800A-EX-50	X	X		X	X			
UECD-4800A-EXL-50	X	X	X	X	X			
UECD-4800A-EDA-50	X			X		X		
UECD-4800A-EDAL-50	X		X	X		X		
UECD-4800A-EPA-50	X			X			X	
UECD-4800A-EPAL-50	X		X	X			X	
UECD-4800A-EX-60	X	X		X	X			
UECD-4800A-EXL-60	X	X	X	X	X			
UECD-4800A-EDA-60	X			X		X		
UECD-4800A-EDAL-60	X		X	X		X		
UECD-4800A-EPA-60	X			X			X	
UECD-4800A-EPAL-60	X		X	X			X	
UECD-4800A-EX-70	X	X		X	X			
UECD-4800A-EXL-70	X	X	X	X	X			
UECD-4800A-EDA-70	X			X		X		
UECD-4800A-EDAL-70	X		X	X		X		
UECD-4800A-EPA-70	X			X			X	
UECD-4800A-EPAL-70	X		X	X			X	
UECD-4800A-EX-100	X	X		X	X			
UECD-4800A-EXL-100	X	X	X	X	X			
UECD-4800A-EDA-100	X			X		X		
UECD-4800A-EDAL-100	X		X	X		X		
UECD-4800A-EPA-100	X			X			X	
UECD-4800A-EPAL-100	X		X	X			X	
UECD-4800TPA-EX-50	X	X		X	X			X
UECD-4800TPA-EXL-50	X	X	X	X	X			X
UECD-4800TPA-EDA-50	X			X		X		X
UECD-4800TPA-EDAL-50	X		X	X		X		X
UECD-4800TPA-EPA-50	X			X			X	X
UECD-4800TPA-EPAL-50	X		X	X			X	X
UECD-4800TPA-EX-60	X	X		X	X			X
UECD-4800TPA-EXL-60	X	X	X	X	X			X
UECD-4800TPA-EDA-60	X			X		X		X
UECD-4800TPA-EDAL-60	X		X	X		X		X
UECD-4800TPA-EPA-60	X			X			X	X
UECD-4800TPA-EPAL-60	X		X	X			X	X
UECD-4800TPA-EX-70	X	X		X	X			X
UECD-4800TPA-EXL-70	X	X	X	X	X			X
UECD-4800TPA-EDA-70	X			X		X		X
UECD-4800TPA-EDAL-70	X		X	X		X		X
UECD-4800TPA-EPA-70	X			X			X	X
UECD-4800TPA-EPAL-70	X		X	X			X	X
UECD-4800TPA-EX-100	X	X		X	X			X
UECD-4800TPA-EXL-100	X	X	X	X	X			X
UECD-4800TPA-EDA-100	X			X		X		X
UECD-4800TPA-EDAL-100	X		X	X		X		X
UECD-4800TPA-EPA-100	X			X			X	X
UECD-4800TPA-EPAL-100	X		X	X			X	X

# UDP-MC / ACRA-PULSE MC SERIES

## UDP-MC SERIES

### FEATURES AND BENEFITS

- High speed for increased productivity
- No torque reaction
- Magnetostrictive Transducer provides increased durability with reduced size and weight
- Auto relief pulse mechanism for measured application of tightening energy
- Durable 11 mm cable
- Use with UECP-4800A Controller with integrated driver box
- Automatic Ventilation System: Cooling fan is activated automatically when pulling the throttle trigger, which reduces heat and increases duty cycle
- Safety: To protect the operator, the UDP-MC tool stops operation immediately when failure is detected, including overloaded operation, short circuit, and broken wire



UDP-A60MC



UDP-A80MC

MODEL	TYPE	TORQUE RANGE		FREE SPEED	WEIGHT	LENGTH	DRIVE	SOUND LEVEL	REQUIRED DRIVER BOX
		NM	FT-LB	RPM	LB	IN	IN	DB(A)	
UDP-A60MC	Transducerized	5 - 25	3.7 - 18.5	1,000 - 4,800	3.4	8.4	3/8 SQ.	74	n/a
UDP-A80MC	Transducerized	25 - 55	18.5 - 40.5	1,000 - 4,800	3.9	9.5	3/8 SQ.	76	n/a

## ACRA-PULSE MC SERIES

### FEATURES AND BENEFITS

- Electronically controlled built-in shut-off valve stops tool as soon as target torque is reached
- LED indicator shows Good or No Good after each tightening



UXR-1820MC



ALPHA-60SMC

MODEL	TORQUE RANGE		FREE SPEED	LENGTH		WEIGHT		DRIVE	NOISE LEVEL	AIR USAGE
	NM	FT-LB		RPM	MM	IN	LB			
<b>PISTOL</b>										
ALPHA-101MC	38 - 70	27.4 - 51.3	6,200	243	9.6	4.6	2.1	1/2 SQ.	80	17.6
UXR-1820MC	160 - 250	117.8 - 183.7	4,600	322	12.7	12.3	5.5	3/4 SQ.	84	24.7
<b>INLINE</b>										
ALPHA-60SMC*	10 - 17	7.2 - 14.4	6,300	280	11.0	2.6	1.4	3/8 SQ.	75	8.8
UXR-2400SMC	350 - 600	258.2 - 442.7	3,300	457	18.0	27.6	12.5	1.0 SQ.	85	35.3

Air Hose Size: 3/8" I.D.

Air Inlet: N.P.T. 1/4"

N.P.T. 3/8" for UXR-1820MC

N.P.T. 1/2" for UXR-2400SMC

\* External Solenoid Valve (909-749-0) Required

\*  logo indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

# UECP-4800 CONTROLLER

## UECP-4800 - UDP TOOLS

### FEATURES AND BENEFITS

- Integrates Tool Driver and UEC-4800 Controller – No Separate Box
- Windows-based PC software included
- Programmable tool speeds



### UECP-4800 FUNCTIONS AND SPECIFICATIONS

- Motor Setting**
  - Motor current can be set in four steps
  - Motor rotational speed can be set in 100 rpm increments
- Fastening error detection and fastener number countdown functions ensure seamless operation
- Allows setup or changeover of fastening torque and fastening number count
- Tool's maintenance is possible by counting both total cycle numbers (how many fasteners) and/or total pulse numbers
- Input/Output check and error messages can be checked from your PC or the front panel of UECP-4800, which will notify you with a buzzer
- Set up and monitor various control values on the front panel or on a PC
- Ethernet (TCP/IP) capable. Upload and receive setting values. Upload fastening result/waveform data through PC software
- Power Supply:** UDP tool is driven by commercial electricity, providing flexible assembly line changes

The UECP-4800 is an exclusive controller for UDP-MC Series, so it cannot be connected to other MC/EC tools.

Power Supply	AC100~240V ±10%
Power Frequency	50/60 Hz
Noise Protection	1000V 1μS (according to noise simulator)
Insulation Protection	DC500V over 10MΩ
Ambient Temperature	0~50°C (non-freezing)
Ambient Humidity	90%RH or less (no dew)
Weight	Approx. 11.30 kg
Dimensions	265(d) x 222(w) x 200(h)
Main Functions	Torque control, Torque monitoring, Fastener number count
Parameter Setup	Manual Input on Front LCD Panel PC (with exclusive setup software)
Display	Torque Resolution ±2048 (12-Bit A/D use) LCD type, 20 characters x 4 lines Contents: Work No., Bolt Count No., Tightening Time, Pulse Blow Number 1-digit digital display (DPM): Work No. displayed 4-digit digital display (DPM): Torque reading displayed
LED	Total Lamp (for count judgment): OK (Green), NOK (Red) Torque Lamp (for torque judgment): LOW (Yellow), OK (Green), HIGH (Red)
Input Terminal Signal	Operation Voltage/Current: DC24V, approx. 10mA 6 terminals available (programmable). Note: Contact input necessary
Output Terminal Signal	Contact Capacity: DC 30V, 1A 6 terminals available (programmable), VALVE

MODEL	24V I/O	URYU DATA, BARCODE, & PRINTER	LIGHT TOWER & BYPASS SWITCH CAPABLE	ETHERNET PROTOCOLS	SERIAL PROTOCOLS & BAR CODE	ANYBUS DEVICENET	ANYBUS PROFIBUS	TOUCH PANEL DISPLAY
UECP-4800A	X	X						
UECP-4800A-EX	X	X		X	X			
UECP-4800A-EXL	X	X	X	X	X			
UECP-4800A-EDA	X			X		X		
UECP-4800A-EDAL	X		X	X		X		
UECP-4800A-EPA	X			X			X	
UECP-4800A-EPAL	X		X	X			X	

# CONTROLLED PULSE TOOL CABLES / CONTROLLER BRACKETS



910-623-0



EC/MCCBL-25



910-975-0



911-023-0

## CONTROLLED PULSE TOOL CABLES

PART NUMBER	DESCRIPTION	FUNCTION	LENGTH		TOOL SERIES					CONTROLLER PLATFORM			
			M	FT	UA-MC	UA-AMC	UEP-MC	UDP-MC	ALPHA-MC	UXR-MC	UEC-4800	UECD-4800	UECP-4800
909-921-0	Sensor Cable Assy.	Tool Cable to Controller	5	18	X	X			X	X	X		
910-974-0	Joint Cable Assy.	Tool Cable to Controller	5	18				X				X	
910-975-0	Joint Cable Assy.	Tool Cable to Controller	10	35				X					X
910-546-0	Joint Cable Assy.	Tool Cable to Controller	3	10			X					X	
910-547-0	Joint Cable Assy.	Tool Cable to Controller	5	18			X					X	
910-548-0	Joint Cable Assy.	Tool Cable to Controller	10	35			X					X	

EC/MCCBL-3	Sensor Cable Assy.	Tool Cable to Controller	1	3	X	X			X	X	X		
EC/MCCBL-10	Sensor Cable Assy.	Tool Cable to Controller	3	10	X	X			X	X	X		
EC/MCCBL-25	Sensor Cable Assy.	Tool Cable to Controller	7	25	X	X			X	X	X		
EC/MCCBL-30	Sensor Cable Assy.	Tool Cable to Controller	9	30	X	X			X	X	X		
EC/MCCBL-35	Sensor Cable Assy.	Tool Cable to Controller	10	35	X	X			X	X	X		
EC/MCCBL-40	Sensor Cable Assy.	Tool Cable to Controller	12	40	X	X			X	X	X		
EC/MCCBL-45	Sensor Cable Assy.	Tool Cable to Controller	13	45	X	X			X	X	X		
EC/MCCBL-50	Sensor Cable Assy.	Tool Cable to Controller	15	50	X	X			X	X	X		
EC/MCCBL-60	Sensor Cable Assy.	Tool Cable to Controller	18	60	X	X			X	X	X		
EC/MCCBL-75	Sensor Cable Assy.	Tool Cable to Controller	22	75	X	X			X	X	X		

911-023-0	Encoder "Y" Cable	Enables Angle Sensor. Splits Tool Cable to Controller	0.3	1		X					X*		
910-623-0	Sensor Cable Assy.	External Driver Box to Controller	0.3	1			X				X		

\* Requires Controller with Angle Encoder Board installed



### UEC-4800 CONTROLLER BRACKET KIT

UEC-4800TRAY provides a stable platform for the UEC-4800 Controller.

- Flexible mounting configurations for easy access and viewing
- Provides compact storage of light tower and accessories with controller
- Durable, Powder Coat finish

UEC-4800TRAY

### TOOL HOLDERS

Rubber tool holders protect tool's torque sensor when not in use.



MODEL	USED FOR
852-644-1 KIT	ULT / UAT / UL 30 - 70 series UX 450 - 500 series UD-50 / UD-60 series
852-669-1 KIT	ULT / UAT / UL / UA-MC / UDBP-TA 40 - 60 series UX / UX-T 612 - 800 series UW-6 / UW-ST6 series
852-645-1 KIT	UL T / UAT / UL / UA-MC 90 - 130 series UDBP-TA 70 series UX-T 700 series UW-8 / UW-9 series

# FIXTURED F-SERIES NUTRUNNERS

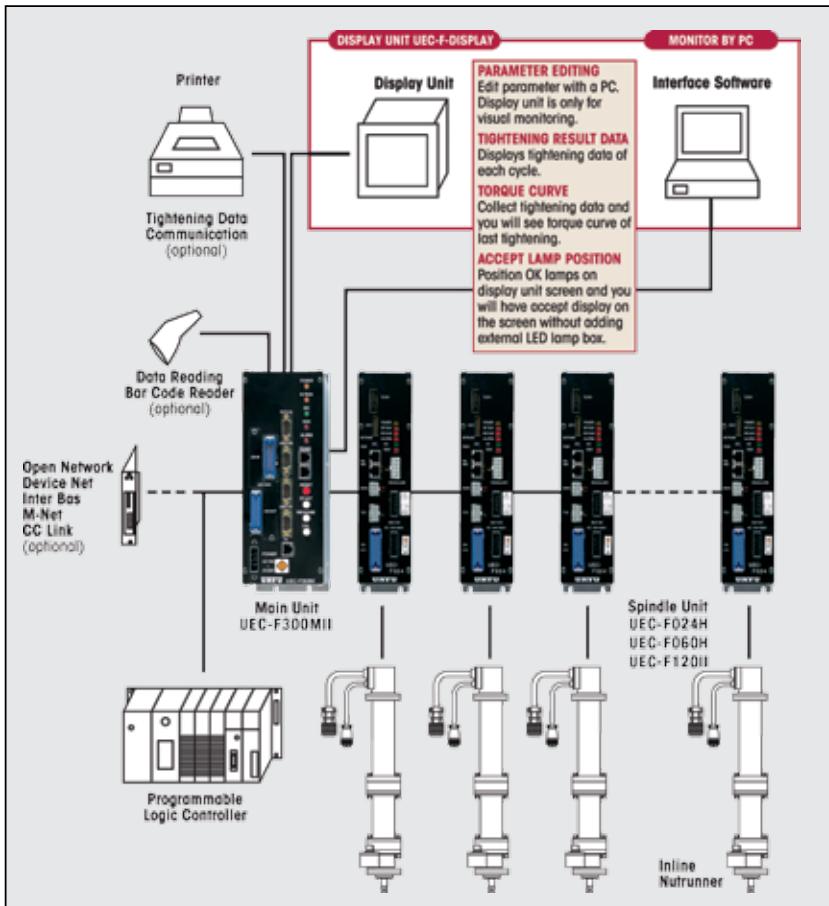


## FEATURES AND BENEFITS

- Reduced Cable Numbers – Integral type tube containing torque sensor cable and resolver cable
- Enhanced Memory Capacity – Designed with increased memory capacity for improved efficiency of assembly line and tightening data control
- Open Network Communication – Various communication boards are available (M-NET, Device net, Inter-bas, CC-link)
- Automatic Setting (Automatic recommended value input) – Advance value preparation per application will help you simplify your parameter setting
- Space Saving – One-piece spindle controller/driver unit reduces space occupancy by 40% to 60%

NO. OF SPINDLES	VOLUME & WIDTH BEFORE		UEC-F024H		VOLUME & WIDTH WITH F-SERIES		UEC-F120H	
	CM	MM	CM	MM	CM	MM	CM	MM
1-Spindle	16,800	200	5,512	130	6,106	144	6,784	160
2-Spindle	24,360	290	8,056	190	9,243	218	10,600	250
5-Spindle	47,040	560	15,688	370	18,656	440	22,048	520
10-Spindle	84,840	1,010	28,408	670	34,344	810	41,128	970

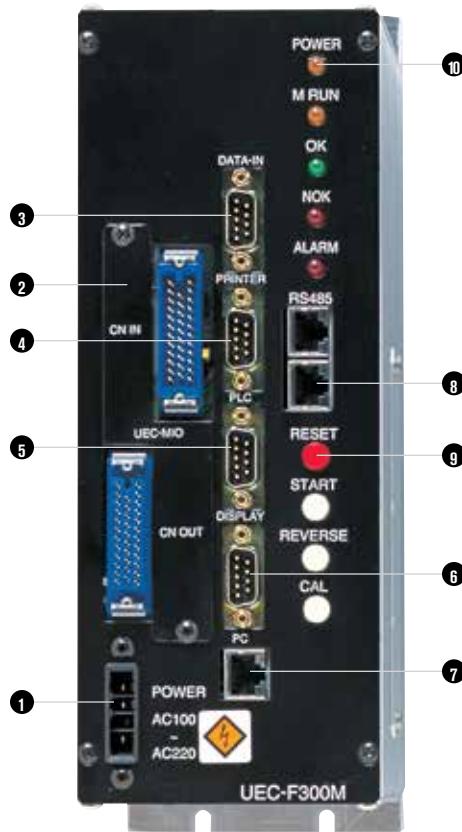
## F-SERIES NETWORK CONNECTIVITY



# FIXTURED F-SERIES NUTRUNNERS

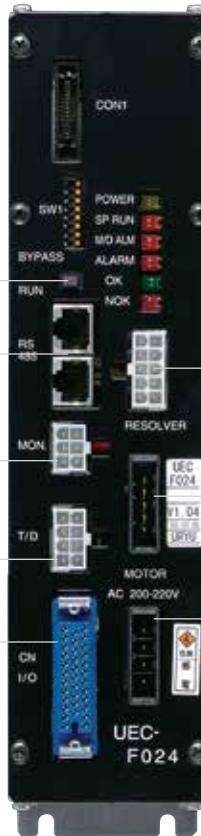
## Main Unit UEC-F300MII

Controls up to 31 spindle units and directs fastening.



## Spindle units UEC-F024H & UEC-F060H minus UEC-MKB

minus UEC-MKB



UEC-F024H with optional UEC-MKB display unit



### ① Power Socket

AC100~220V single phase

### ② External Input/Output Connector

PLC1: input signal connector for control signal input (fixed allocation)  
PLC2: output signal connector for judgement result and status output (free allocation)

### ③ Serial Port (Data Input Connector)

RS232C DATA-IN accepts serial numbers, etc. provided by external equipment such as a barcode reader then outputs tightening data together with serial numbers

### ④ Serial Port (Data Output Connector)

RS232C PRINTER outputs tightening result data to your printer (free format)

### ⑤ Serial Port (Data Output Connector)

RS232C PLC outputs tightening result data to PLC (free format)

### ⑥ Serial Port (Data Output Connector)

RS485 outputs tightening result data to an external exclusive display unit

### ⑦ PC Connector

RS232C for communication with a PC

### ⑧ Spindle-to-Spindle Communication Connector

RS485 for internal spindle unit to spindle unit communications

### ⑨ Manual Switches

RESET, START, REVERSE and CAL

### ⑩ LED Display

POWER, M RUN, ACCEPT, REJECT and ALARM

### ① Status Change Switch

RUN/BYPASS change switch

RUN: Operation possible status

BYPASS: Non-operation status

### ② External Communication Device

RS485 connector

### ③ Resolver Connector

Tool and resolver connection

### ④ MON Connector (Monitor Output)

Analog torque electric pressure and angle pulse output

### ⑤ T/D Connector

Tools torque sensor connection

### ⑥ I/O Connector

External input and output control connection

### ⑦ MOTOR Connector

Connection with tools magnet motor

### ⑧ AC IN Connector

AC200V~220V 3-phase power socket

### ① Manual Operation Switches

START: manual start switch

REVERSE: Manual reverse switch

CAL: Manual calibration switch

RESET: Manual reset switch

### ② Data Display Operation Switch

MODE switch

SET switch

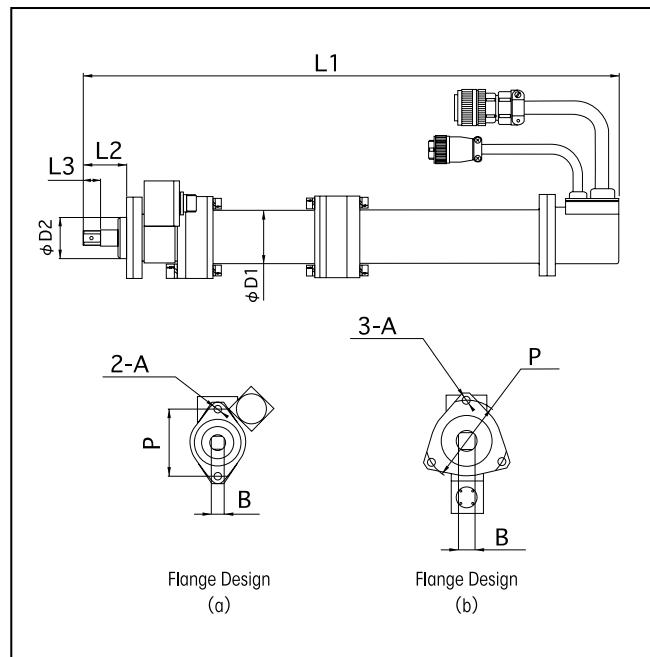
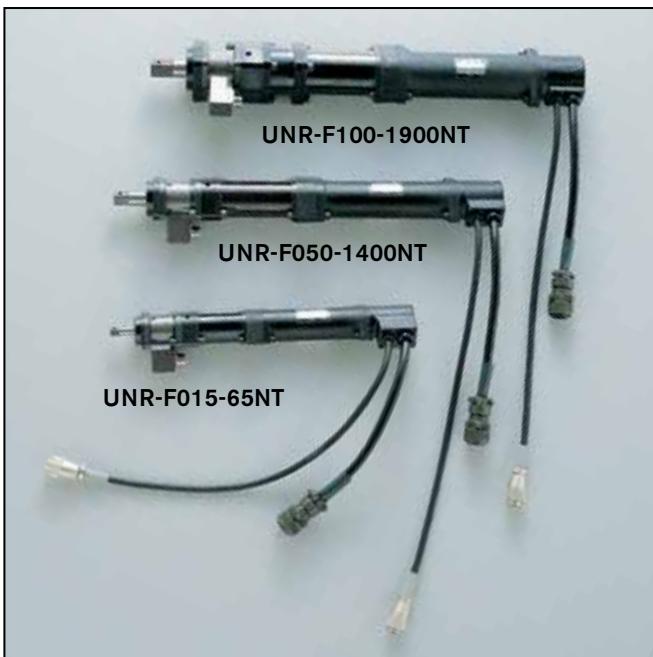
DATA UP switch

DATA DOWN switch

NOTE: Display unit (UEC-MKB) is an option

# FIXTURED F-SERIES NUTRUNNERS

## INLINE NUTRUNNERS



The "F" Series Nutrunner System will satisfy multiple tightening patterns.

- Torque tightening
- Pre-load detection
- Spline press fit tightening
- Angle
- Torque
- Idle operation check
- Pin hole alignment tightening
- Plastic range monitor
- Angle tightening

Rated Strain	2000X10 <sup>-6</sup>
Output Voltage	1.0 mV/V
Non-Linearity	±0.5% R.O.
Influence on Zero Point Due to Temperature	±0.1% R.O./°C
Temperature Rating	-10 ~ +65°C
Input Output Resistance	480Ω
Maximum Input Voltage	16V
Insulation Resistance	Greater than 300Ω
Overload Capacity	150%

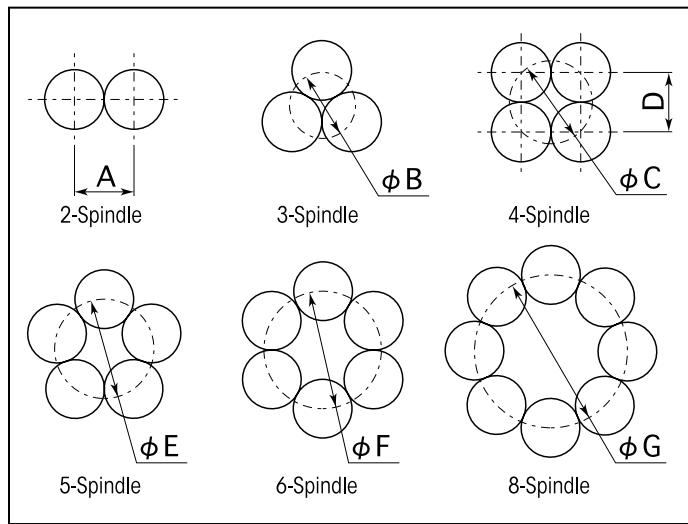
## INLINE NUTRUNNER SPECIFICATIONS

MODEL	EXTERNAL DIMENSIONS (MM)						TORQUE SENSOR	CAPACITY NM	MOTOR TYPE	TIGHTENING TORQUE NM	FREE SPEED RPM	WEIGHT KG	SPINDLE UNIT	FLANGE DESIGN	
	L1	L2	L3	D1	D2	P									
UNR-F015-45NT	371	41	12	40.5	38	51	M6	9.5	TM-035	34.3	F015	4.5	3,200	2.48	UEC-F024H (a)
UNR-F015-65NT	371	41	12	40.5	38	51	M6	9.5	TM-035	34.3	F015	6.5	2,200	2.48	UEC-F024H (a)
UNR-F015-200NT	400	41	12	40.5	38	51	M6	9.5	TM-035	34.3	F015	20	730	2.73	UEC-F024H (a)
UNR-F015-280NT	400	41	12	40.5	38	51	M6	9.5	TM-035	34.3	F015	28	500	2.73	UEC-F024H (a)
UNR-F015-350NT	400	41	12	40.5	38	51	M6	9.5	TM-035	34.3	F015	35	410	2.73	UEC-F024H (a)
UNR-F050-270NT	453.5	41	12	50	38	51	M6	9.5	TM-035	34.3	F050	27	1,750	4.86	UEC-F060H (a)
UNR-F050-630NT	500.5	41	16.5	50	38	62	M8	12.7	TM-085	83.3	F050	63	750	5.08	UEC-F060H (a)
UNR-F050-730NT	500.5	41	16.5	50	38	62	M8	12.7	TM-085	83.3	F050	73	650	5.08	UEC-F060H (a)
UNR-F050-880NT	512.5	45	20	50	48	62	M8	15.88	TM-150	147	F050	88	540	5.47	UEC-F060H (a)
UNR-F050-1400NT	512.5	45	20	50	48	62	M8	15.88	TM-150	147	F050	140	340	5.47	UEC-F060H (a)
UNR-F100-1300NT	519.5	45	20	62	48	62	M8	15.88	TM-150	147	F100	130	730	7.42	UEC-F120II (a)
UNR-F100-1900NT	515.5	45	20	62	48	76	M8	15.88	TM-250	245	F100	190	500	7.94	UEC-F120II (b)
UNR-F100-2500NT	515.5	45	20	62	48	76	M8	15.88	TM-250	245	F100	250	370	7.94	UEC-F120II (b)
UNR-F100-3700NT	589	57	30	62	58	76	M10	19	TM-400	392	F100	370	260	9.55	UEC-F120II (b)
UNR-F100-5400NT	704.5	80	40	62	70	90	M10	25.4	TM-700	686	F100	540	175	17.0	UEC-F120II (b)
UNR-F100-7000NT	704.5	80	40	62	70	90	M11	25.4	TM-700	686	F100	700	120	17.0	UEC-F120II (b)
UNR-F100-10000NT	704.5	80	40	62	70	90	M11	25.4	TM-1000	980	F100	1000	90	17.0	UEC-F120II (b)

# FIXTURED F-SERIES NUTRUNNERS

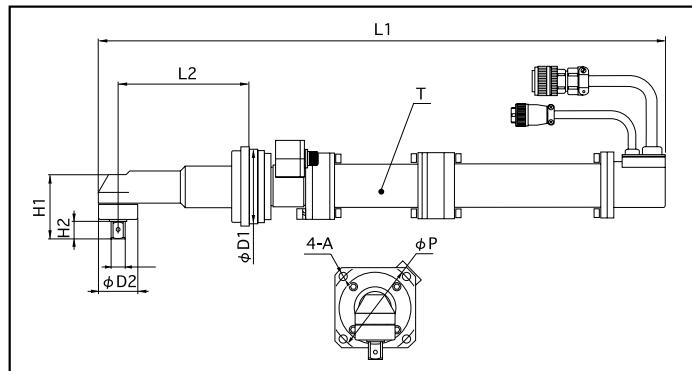
## "F" NUTRUNNER MOTORS' MINIMUM PITCH CIRCLE

Refer to minimum pitch circles for designing your machine.



TYPE	DIMENSIONS (mm)						
	A	B	C	D	E	F	G
UNR-F015-45NT	43	52	64	46	74	92	122
UNR-F015-65NT	43	52	64	46	74	92	122
UNR-F015-200NT	43	52	64	46	74	92	122
UNR-F015-280NT	43	52	64	46	74	92	122
UNR-F015-350NT	43	52	64	46	74	92	122
UNR-F050-270NT	59	72	90	64	108	122	160
UNR-F050-630NT	59	72	90	64	108	122	160
UNR-F050-730NT	59	72	90	64	108	122	160
UNR-F050-880NT	59	72	90	64	108	122	160
UNR-F050-1400NT	59	72	90	64	108	122	160
UNR-F100-1300NT	66	75	92	65	116	130	170
UNR-F100-1900NT	70	100	110	78	115	132	174
UNR-F100-2500NT	70	100	110	78	115	132	174
UNR-F100-3700NT	76	100	110	78	120	140	184
UNR-F100-5400NT	94	125	143	102	166	188	257
UNR-F100-7000NT	94	125	143	102	166	188	257
UNR-F100-10000NT	94	125	143	102	166	188	257

## RIGHT ANGLE NUTRUNNERS



## RIGHT ANGLE NUTRUNNER SPECIFICATIONS

MODEL	EXTERNAL DIMENSIONS (MM)							TYPE	STRAIGHT MOTORS			TIGHTENING TORQUE (NM)	FREE SPEED (RPM)	WEIGHT (KG)	SPINDLE UNIT	
	L1	L2	H1	H2	D1	D2	P	A	B	SENSOR	MOTOR					
UNR-F015-25NTC	507	120	49	10.6	70	28	85	M6	9.5	UNR-F015-200NT	TM-035	F015	25	460	4.18	UEC-F024
UNR-F015-55NTC	521	130	58	18	70	36	85	M6	12.7	UNR-F015-350NT	TM-035	F015	55	260	4.37	UEC-F024
UNR-F050-95NTC	643	150	73.5	20	85	45	102	M6	15.88	UNR-F050-630NT	TM-085	F050	95	480	8.08	UEC-F060
UNR-F050-130NTC	649	150	73.5	20	85	45	102	M6	15.88	UNR-F050-880NT	TM-150	F050	130	340	8.3	UEC-F060
UNR-F100-200NTC	681.5	170	85.5	20	85	56	102	M6	15.88	UNR-F100-1300NT	TM-150	F100	200	460	11.92	UEC-F120
UNR-F100-250NTC	677.5	170	85.5	20	100	56	120	M8	15.88	UNR-F100-1900NT	TTM-150	F100	250	340	12.3	UEC-F120
UNR-F100-380NTC	716.5	200	109.5	25	110	74	134	M10	19	UNR-F100-2500NT	TM-250	F100	380	235	15.92	UEC-F120
UNR-F100-550NTC	784	200	114.5	29	110	74	134	M10	25.4	UNR-F100-3700NT	TM-400	F100	550	165	17.43	UEC-F120

# TORQUE MEASUREMENT: OVERVIEW

Torque measurement and the verification of torque tools and applied torque are an integral part of today's threaded assembly process. The method used to measure torque can affect the judgments made regarding tool performance, assembly processes and overall product quality.

## DYNAMIC TORQUE

Dynamic torque is the torque produced during the actual tightening process, normally measured using rotary transducers and a torque analyzer.

### Advantages:

- Reduces operator influence
- Measures applied torque
- Can also include angle of rotation as error proofing parameter

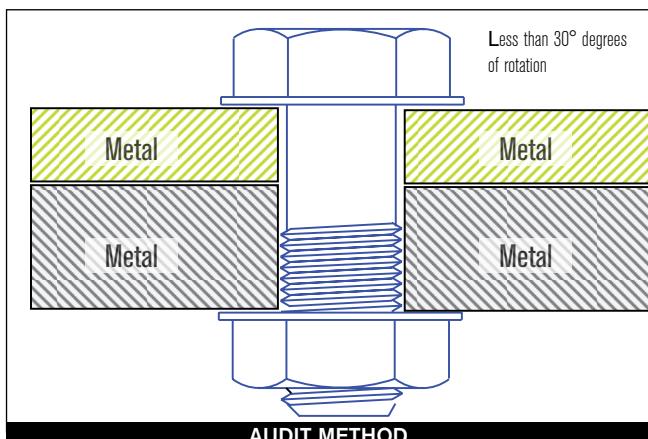
## RESIDUAL TORQUE

Residual torque is the torque measured by producing an incremental amount of movement of the fastener after the actual tightening process, normally measured using a dial or digital torque wrench.

### Advantages:

- Easy access to fastener
- Error proofing
- Can detect missed fasteners or joints with significant relaxation

### HARD JOINT



#### AUDIT METHOD



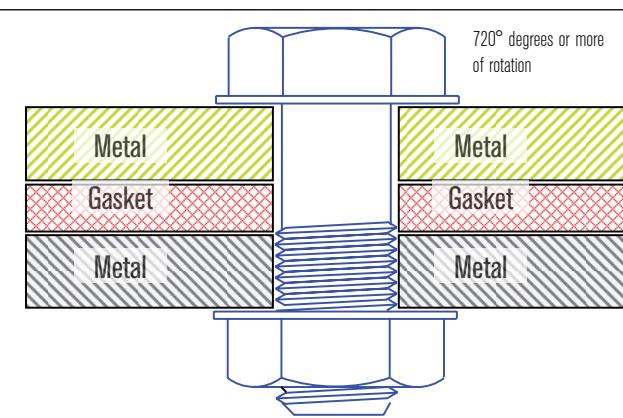
Dynamic Torque: 15 Nm

Residual Torque: 18 Nm

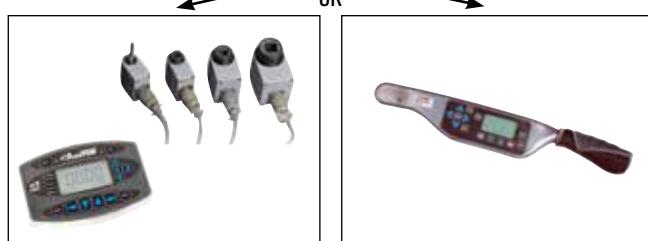
Values as examples only

A hard joint, one requiring a low degree of rotation during tightening, will normally show very little relaxation after tightening. Due to the high amount of remaining clamp load and friction within the joint members, additional movement of the fastener requires additional torque energy to be applied. Therefore, Residual Torque values will be higher than Dynamic Torque values.

### SOFT JOINT



#### AUDIT METHOD



Dynamic Torque: 15 Nm

Residual Torque: 12 Nm

Values as examples only

A soft joint, one requiring a high degree of rotation during tightening, will normally show significant amounts of relaxation after tightening. Relaxation leads to a loss of clamp load and friction within the joint members. Due to this relaxation, additional movement of the fastener requires relatively small amounts of additional torque energy and Residual Torque values will be lower than Dynamic Torque values.

# TORQUE MEASUREMENT: OVERVIEW

Checking torque measurement before, during, and after assembly ensures quality manufacturing. Proper torque measurement is critical in many assembly operations. AIMCO utilizes years of experience to design a process around your specific auditing requirements. From simple dial wrenches to electronic data collectors and joint analyzers for R&D, AIMCO is with you every step of the way.

BEFORE ASSEMBLY	DURING ASSEMBLY	AFTER ASSEMBLY
<b>Tool Capability</b>  	<b>Process Capability</b> 	<b>Product Capability</b> 
<b>Is the tool working correctly?</b> Testing and verifying tools under controlled conditions helps you identify accuracy and repeatability before using them in production.  <b>Equipment used:</b> <ul style="list-style-type: none"><li>• Desktop testers with internal transducers</li><li>• Auditor analyzers with either stationary or rotary transducers</li><li>• UFT hydraulic joint simulators and rotary transducers</li></ul>	<b>How does the tool work with the product being assembled?</b> Testing the tools during the actual process helps ensure that the process is working correctly. Variables in the parts and influences from the operator can be accounted for.  <b>Equipment used:</b> <ul style="list-style-type: none"><li>• Torque Data Collectors/Analyzers</li><li>• Auditor Rotary Transducers</li></ul>	<b>Does the finished product meet expectations?</b> Checking the product after assembly is the final opportunity to verify that product quality is satisfactory before user delivery  <b>Equipment used:</b> <ul style="list-style-type: none"><li>• Click/Dial wrenches</li><li>• Electronic wrenches with Auditor analyzers</li><li>• Rotary transducers and Auditor analyzers with hand driver to move fastener</li></ul>



# TORQUE MEASUREMENT: OVERVIEW

## MEASURING QUALITY – PROCESS CAPABILITY

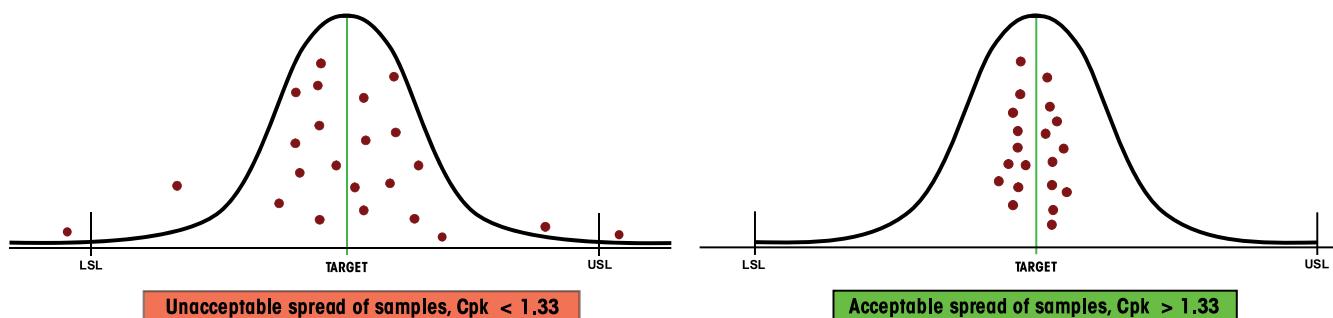
### STATISTICAL ANALYSIS IS AN IMPORTANT STEP IN ANY QUALITY CONTROL PROCESS.

One of the most widely accepted statistical indicators of process quality, and therefore product quality, is Cpk, or the process capability for a centered process. This value indicates how capable a process is and whether the results of that process are properly centered near a specific target. A capable process is one that approaches, as a limit, 100% conformance to specifications.

Cpk is a statistical value that indicates how tightly grouped a series of samples is around the target value. Cpk is a function of the Upper Specification Limit (USL), the Lower Specification Limit (LSL), the mean of the samples and the standard deviation ( $\sigma$ ) of the samples.

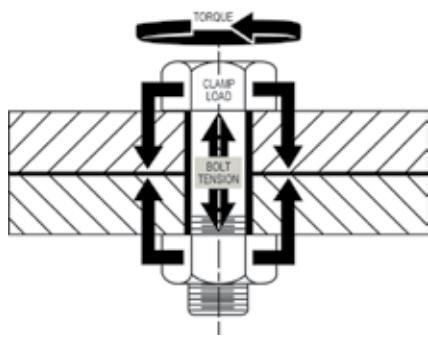
$$Cpk = \text{either } \frac{(USL - \text{Mean})}{(3 \times \sigma)} \text{ or } \frac{(\text{Mean} - LSL)}{(3 \times \sigma)}, \text{ whichever is smaller.}$$

An acceptable, or capable, process will normally have a Cpk value of at least 1.33.



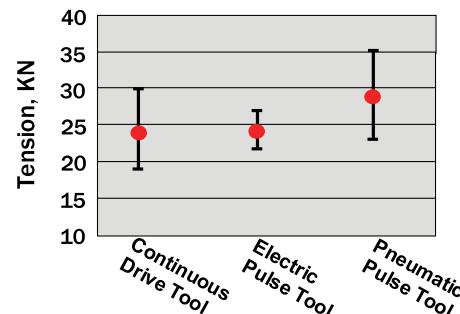
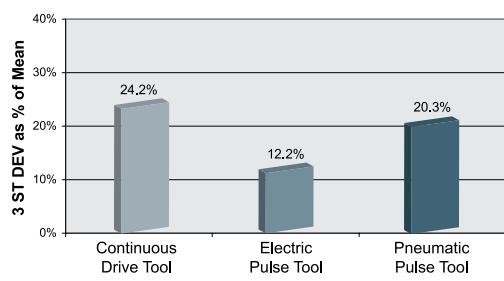
## MEASURING QUALITY – CLAMP LOAD

THE PURPOSE OF THREADED FASTENING IS TO PRODUCE THE CORRECT AMOUNT OF CLAMP LOAD WITHIN THE JOINT.



Due to the cost and difficulty of measuring clamp load during the actual assembly process, torque is used as the control parameter during tightening. Many manufacturers use torque values as the primary indicator of threaded assembly quality. However, achieving repeatable clamp load is a better indicator of joint quality.

Studies have shown that discontinuous drive tools can produce equal or better clamp load results when compared to continuous drive tools.



# TORQUE MEASUREMENT SYSTEMS



TORQUE MEASUREMENT SYSTEMS

Devices	Model Series	Data Collector	Integrated Transducer	Torque Wrench	Torque Wrench Loader	External Transducer Port	Stationary Transducers -Smart	Stationary Transducers -Ind Std	Rotary Transducer -Smart	Rotary Transducer - Ind Std
Testers	ATC			X						
	AUET			X						
	AUET-DC	X	X							
	AUET/MTM		X			X				
	AUET/MTM-DC	X	X			X				
Analyzers	ATDA					X				
	ATDA-DC	X				X				
	ATDA-8000 -10-DCA(-TA)(-TP)	X				X				
Test Stands	AHCTS*	X*	X*	X*			X*	X*	X*	X*
	AHCTS-K*	X*	X*	X*			X*	X*	X*	X*
	AHDTS*	X*	X*	X*			X*	X*	X*	X*
	AHBTS*	X*	X*	X*			X*	X*	X*	X*
	AIMTS*	X*	X*	X*			X*	X*	X*	X*
Wrenches	ADW				X					
	ADW-DC	X								
	APTW				X					
	ATW				X					
	ATWL					X				
	Moment Alpha	X		X						
Torque Cart	iTVC*	X*	X*	X*			X*	X*	X*	X*
Transducers	ARTIS									X
	ASTIS							X		
	AISI						X			
	AISF						X			
Rundown Fixtures	AJKR									
	AJKS									
	ARDFA									
	ARDIA									
	ARDA (Spline Drive)									
Joint Simulator	UFT									

\*configured to customer specifications

# TORQUE MEASUREMENT TESTERS

## TORQUE MEASUREMENT: TESTERS

Features and Benefits	ATC	AUET	AUET/MTM	AUET-DC	AUET/MTM-DC
<ul style="list-style-type: none"> <li>Heavy industrial design</li> <li>All software included</li> <li>Auditor Torque Testers are designed for intuitive and functional usability. AUET/MTM models are available with our unique dual integrated torque transducer package.</li> </ul> <p>Testers are designed to audit torque wrenches and power tools, including pulse tools</p>	Auditor Torque Cube	Auditor Universal Electronic Tester	Auditor Universal Electronic Tester - Multiple Transducer Module	Auditor Universal Electronic Tester - Data Collector	Auditor Universal Electronic Tester/Multiple transducer Module - Data Collector
Integrated Transducer Range (values are in full scale)	100 in/oz - 1,000 ft/lbs 1 - 1,350 Nm	100 in/oz - 750 ft/lbs 1 - 1,000 Nm	100 in/oz - 750 ft/lbs 1 - 1,000 Nm	100 in/oz - 750 ft/lbs 1 - 1,000 Nm	100 in/oz - 750 ft/lbs 1 - 1,000 Nm
External Transducer Capacity (Transducer sizes exceeding this range may be special ordered)			up to 5,000 ft-lbs		up to 5,000 ft-lbs
Vertical / Horizontal Mount	X				
Bi-directional accuracy of +/- X of indicated reading within the top 90% of the tester's capacity	1%	0.50%	0.50%	0.50%	0.50%
Data Output to PC	X	X	X	X	X
Integrated Torque Transducer	1	1	2	1	2
External Transducer Port			X		X
Number of Stored Readings	999	999	999	999	999
Adjustable Rundown Fixture Included *	1	1	2	1	2
Rechargeable NiMH Battery	X	X	X	X	X
Measurement Modes					
Peak	X	X	X	X	X
First Peak (Click)	X	X	X	X	X
Pulse	X	X	X	X	X
Track	X	X	X	X	X
Units of Measure Options	8	8	8	8	8
Tool Manager Software Included				X	X

\* Included with all testers and analyzers with a range up to 1000 in/lbs.

## TORQUE MEASUREMENT TESTERS USED IN CONJUNCTION WITH

External Transducers					
ASTIS - Stationary			X		X
AISI / AISF - Stationary - Analog			X		X
ARTIS - Rotary			X		X
Switch box for External Transducer					
AISWT-4L > 4 Way Intellect box			X		X
AISWT-6L > 6 Way Intellect box			X		X
Cables					
ICBL-USB - USB Serial > PC	X	X	X	X	X
ATDBLIS - IS Transducer w/angle (10 Pin)			X		X
ATDBRIS - IS Transducer (4 Pin)			X		X
ICBL-10P - Intellect transducer cable Identification chip in cable - 10 pin connector			X		X
ICBL-4P - Intellect transducer cable. Identification chip in cable - 4 pin connector			X		X
ICBL-5000L - Connect from AUET/MTM & ATDA to Intellect Transducers, Analog AISI / AISF			X		X

# AUDITOR TORQUE CUBE



ATC-10  
ATC-25  
ATC-100  
ATC-250  
ATC-500  
ATC-750  
ATC-1800



ATC-150F  
ATC-250F  
ATC-500F  
ATC-750F



## AUDITOR TORQUE CUBE

The Auditor Torque Cube (ATC) is a compact, versatile desktop tester that provides a multitude of capabilities. The ATC is designed to test hand or power tools with the following:

- Peak, first peak, and track modes
- Multiple engineering units
- Manual and auto clear function
- Multiple frequency response settings
- Bi-directional use and accuracy
- Accuracy is better than 1% of indicated reading top 90% of range
- Serial data output
- Memory: 999 data samples
- Battery and/or mains powered

Because precision and quality are critical, you can depend on our testers to calibrate and certify your tools. Whether you are assembling large complicated systems or small precise time pieces, AIMCO provides the best system for your application. Our instruments have been judged "best in class" by independent National Standards laboratories. Auditor Torque Cube is rugged enough to test and verify tools at "point of use" while still being accurate enough to calibrate hand and power tools.

Each tester is shipped with a mains/battery charger power cord, a hex to allen drive bit, and a bolting template. Models with max torque of 1,000 ft-lb or less also include a joint rundown fixture. The ATC can be positioned vertically or horizontally for the ergonomic testing of inline or pistol grip tools.

MODEL	RECOMMENDED TORQUE RANGE Nm	RECOMMENDED TORQUE RANGE in-lb/ft-lb	WEIGHT kg	WEIGHT lb	W X H X D mm	W X H X D in	SQUARE DRIVE in
Vertical Configuration							
ATC-10	0.13 - 1.13	1 - 10 in-lb	1.13	2.5	79 x 95 x 83	3.13 x 3.75 x 3.25	1/4
ATC-25	0.28 - 2.83	2.5 - 25 in-lb	1.13	2.5	79 x 95 x 83	3.13 x 3.75 x 3.25	1/4
ATC-100	1.13 - 11.3	10 - 100 in-lb	1.13	2.5	79 x 95 x 83	3.13 x 3.75 x 3.25	1/4
ATC-250	2.83 - 28.3	25 - 250 in-lb	1.13	2.5	79 x 95 x 83	3.13 x 3.75 x 3.25	3/8
ATC-500	5.65 - 56.5	50 - 500 in-lb	1.13	2.5	79 x 95 x 83	3.13 x 3.75 x 3.25	3/8
ATC-750	8.47 - 84.8	75 - 750 in-lb	1.13	2.5	79 x 95 x 83	3.13 x 3.75 x 3.25	3/8
ATC-1800	21.2 - 203	188 - 1,800 in-lb	1.13	2.5	79 x 95 x 83	3.13 x 3.75 x 3.25	1/2
Horizontal Configuration							
ATC-150F	20 - 200	15 - 150 ft-lb	2.25	5	79 x 95 x 83	3.13 x 3.75 x 3.25	1/2
ATC-250F	34 - 340	25 - 250 ft-lb	2.25	5	79 x 95 x 83	3.13 x 3.75 x 3.25	1/2
ATC-500F	68 - 678	50 - 500 ft-lb	2.25	5	79 x 95 x 83	3.13 x 3.75 x 3.25	3/4
ATC-750F	102 - 1017	75 - 750 ft-lb	2.25	5	79 x 95 x 83	3.13 x 3.75 x 3.25	3/4

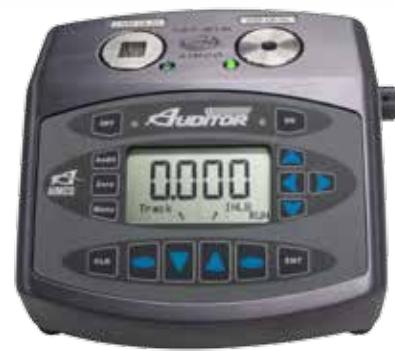
# AUDITOR BENCH-MOUNT TESTERS



AUET



AUET/MTM



AUET/MTM-DC

## AUDITOR UNIVERSAL ELECTRONIC TESTERS

Auditor Universal Electronic Testers (AUET) have a broad range of features to accommodate most requirements. They are designed to be bench-top mounted and are available in several configurations and various single or multiple torque ranges. Onboard memory allows you to capture 999 torque event readings. The testers are also available in file capability (DC) models that require PC software Auditor Tool Manager (ATM).

Instruments up to 1,000 in-lb are supplied with rundown adapters/joint kits. Rundown kits for larger instruments can be ordered separately. AUET/MTM units are supplied with an external transducer port and selector switch for connecting additional transducers.

AUET testers utilize the same transducers as the ATC instruments, providing the same high quality accuracy and durability. The common interface makes the Auditor tester extremely user friendly.



### SINGLE TRANSDUCER MODELS

MODEL*	RECOMMENDED TORQUE RANGE	
	In-oz/In-lb	kgf-cm/Nm
AUET-050(-DC)	5 - 50 in-oz	0.4 - 3.6 kgf-cm
AUET-0100(-DC)	10 - 100 in-oz	0.7 - 7.2 kgf-cm
AUET-10(-DC)	1 - 10 in-lb	1.1 - 11.5 kgf-cm
AUET-50(-DC)	5 - 50 in-lb	0.5 - 5.6 Nm
AUET-100(-DC)	10 - 100 in-lb	1.1 - 11.3 Nm
AUET-250(-DC)	25 - 250 in-lb	2.8 - 28.3 Nm
AUET-500(-DC)	50 - 500 in-lb	5.7 - 56.5 Nm
AUET-1000(-DC)	100 - 1,000 in-lb	11.3 - 113 Nm
AUET-1200(-DC)	120 - 1,200 in-lb	13.6 - 135.6 Nm
AUET-1800(-DC)	180 - 1,800 in-lb	20.3 - 203.4 Nm

\* Add "-DC" to part numbers for data collecting models.

Data collecting models allow multiple files/tools/applications to be associated with torque data. Requires Tool Manager software.

Custom sizes are also available. Contact an AIMCO Customer Service Associate for ordering options, 1-800-852-1368.

### DUAL TRANSDUCER MODELS

MODEL**	RECOMMENDED TORQUE RANGE			
	Transducer 1	Transducer 2	Transducer 1	Transducer 2
AUET/MTM-050-25	5 - 50 in-oz	2.5 - 25 in-lb	0.04 - 0.4 Nm	0.3 - 2.8 Nm
AUET/MTM-050-600(-DC)	5 - 50 in-oz	60 - 600 in-lb	0.04 - 0.4 Nm	6.8 - 67.8 Nm
AUET/MTM-0100-050(-DC)	10 - 100 in-oz	5 - 50 in-oz	0.07 - 0.71 Nm	0.04 - 0.4 Nm
AUET/MTM-10-100(-DC)	1.0 - 10 in-lb	10 - 100 in-lb	0.11 - 1.12 Nm	1.3 - 11.3 Nm
AUET/MTM-50-250(-DC)	5.0 - 50 in-lb	25 - 250 in-lb	0.56 - 5.65 Nm	2.8 - 28.3 Nm
AUET/MTM-50-500(-DC)	5.0 - 50 in-lb	50 - 500 in-lb	0.56 - 5.65 Nm	5.7 - 56.5 Nm
AUET/MTM-50-1000(-DC)	5.0 - 50 in-lb	100 - 1,000 in-lb	0.56 - 5.65 Nm	11.3 - 113 Nm
AUET/MTM-100-500(-DC)	10 - 100 in-lb	50 - 500 in-lb	1.13 - 11.3 Nm	5.7 - 56.5 Nm
AUET/MTM-100-1000(-DC)	10 - 100 in-lb	100 - 1,000 in-lb	1.13 - 11.3 Nm	11.3 - 113 Nm
AUET/MTM-100-1200(-DC)	10 - 100 in-lb	120 - 1,200 in-lb	1.13 - 11.3 Nm	13.6 - 135.6 Nm
AUET/MTM-100-1600(-DC)	10 - 100 in-lb	160 - 1,600 in-lb	1.13 - 11.3 Nm	18.1 - 180.8 Nm
AUET/MTM-100-2000(-DC)	10 - 100 in-lb	200 - 2,000 in-lb	1.13 - 11.3 Nm	22.6 - 226 Nm
AUET/MTM-250-1600(-DC)	25 - 250 in-lb	160 - 1,600 in-lb	2.82 - 28.2 Nm	18.1 - 180.8 Nm
AUET/MTM-250-1800(-DC)	25 - 250 in-lb	180 - 1,800 in-lb	2.82 - 28.2 Nm	20.3 - 203.4 Nm
AUET/MTM-250-2500(-DC)	25 - 250 in-lb	250 - 2,500 in-lb	2.82 - 28.2 Nm	28.2 - 282.5 Nm
AUET/MTM-500-2500(-DC)	50 - 500 in-lb	250 - 2,500 in-lb	5.7 - 56.5 Nm	28.2 - 282.5 Nm

Custom sizes are also available. Contact an AIMCO Customer Service Associate for ordering options, 1-800-852-1368.

# AUDITOR TORQUE MEASUREMENT ANALYZERS

## TORQUE MEASUREMENT: ANALYZERS

Features and Benefits				
	ATDA	ATDA-DC	ATDA-8000	ATDA-8000-10-DCA(TA)(TP)
	Auditor Torque Data Analyzer	Auditor Torque Data Analyzer with Data Collection	Auditor Torque Data Analyzer with 7" screen	Auditor Torque Data Analyzer 10" display with Data Collection. TA = Torque & Angle, TP = Torque & Pressure
Portable analyzer to be connected to various transducers	Portable analyzer to be connected to various transducers. Provides data collection capability with included software to interface with PC	7" screen with high resolution display and intuitive user interface	10" touch screen with high resolution display and intuitive user interface with multiplexer	
Bi-directional	X	X	X	X
Data Output to PC	X	X	X	X
External Transducer Port	1	1	1	4
Number of stored readings	999	999	999	999
Rechargeable NiMH Battery	X	X	X	X
Digital I/O for external devices	X	X	X	X
Measurement Modes	X	X	X	X
Peak	X	X	X	X
First Peak (Click)	X	X	X	X
Pulse	X	X	X	X
Track	X	X	X	X
Measurement Units	8	8	8	8
Software Included		X	X	X
Barcode Reader Capable			X	X

## USED IN CONJUNCTION WITH

Transducers				
AISI / AISF - Analog	X	X		
AISI / AISF - Digital			X	X
ASTIS - Stationary	X	X		
ARTIS - Rotary	X	X		
Wrenches				
ATW	X	X		
Switch boxes for External Transducers				
AISWT-4L > 4 Way Intellect box	X	X		
AISWT-6L > 6 Way Intellect box	X	X		
Cables				
ICBL-USB - USB Serial > PC	X	X		
ATDBLIS - IS Transducer w/ angle (10 Pin)	X	X		
ATDBRIS - IS Transducer (4 Pin)	X	X		
ICBL-10P - Intellect transducer cable. Identification chip in cable 10 pin connector	X	X		
ICBL-4P - Intellect transducer cable. Identification chip in cable 4 pin connector	X	X		
ICBL-5000L - Connect from AUET/MTM & ATDA to Intellect Transducer, Analog AISI / AISF	X	X		
ICBL-8000DIG - Connect from ATDA-8000 series analyzer to Digital AISI / AIFI transducer			X	X

# AUDITOR TORQUE DATA ANALYZERS



ATDA-DC

## AUDITOR TORQUE DATA ANALYZERS

The Auditor Torque Data Analyzer (ATDA) DC is designed to be portable or conveniently placed on a bench. The tester can be connected to various transducers, as well as transducerized wrenches and rotary or stationary transducers. The user interface is common between the ATC (Cube), AUET, AUET-DC, AUET/MTM, AUET/MTM-DC, ATDA, and ATDA-DC. All of these instruments have similar menus. Additionally, all data collector testers utilize Auditor Tool Manager for tool testing and data management.

The Auditor Torque Data Analyzer is available in two configurations:

- ATDA: A simple torque analyzer with sequential memory, 999 data samples, engineering limits, limited statistical processing average, range, Cp and CpK with serial output
- ATDA-DC: Contains all of the features of the ATDA and has additional file capability. It can associate data with file names and manage data collection with a computer and Auditor Tool Manager software

This is a great “starter” tool management system. It provides testing, archiving, and analysis of tools at single or multiple torque targets. The tool and torque data is stored in a SQL database and can be exported to Excel or any .csv spreadsheet.

MODEL	DESCRIPTION
ATDA	Auditor Torque Data Analyzer
ATDA-DC	Auditor Torque Data Collector

The logo consists of the word 'AUDITOR' in a bold, sans-serif font. The letter 'A' is stylized with a gear-like shape on its left side. A trademark symbol (TM) is located at the top right of the 'O'.

# AUDITOR TORQUE DATA ANALYZERS



## TOUCH SCREEN AUDITOR TORQUE DATA ANALYZERS

Auditor offers the ATDA-8000 and the ATDA-8000-10-DCA(-TA)(-TP). The ATDA-8000 is a touch screen instrument with a high resolution display and user interface that facilitates "point of use" tool validation. The user interface is intuitive and the display provides clear easy to read data. Features and parameter settings are password protected to ensure parameters cannot be inadvertently changed. After initial setup, the instrument provides semi-automatic tool validation and judgment.

The ATDA-8000 is a single channel instrument. The ATDA-8000-10-DCA(-TA)(-TP) is a larger instrument that includes a multiplexor for connection to multiple transducers allowing a wide range of tools to be tested with one instrument. The (-TA) model is designed for torque and angle analysis and the (-TP) model is designed for torque and pressure analysis.

Both the ADTA-8000 and the ATDA-8000-10-DCA(-TA)(-TP) systems work with AIMCO's line of digital transducers.

MODEL	DESCRIPTION
ATDA-8000	Auditor Torque Analyzer Single channel 7" touch screen point of use validation system
ATDA-8000-10-DCA(-TA)(-TP)	Auditor Torque Analyzer Multiple transducer 10" touch screen point of use validation system

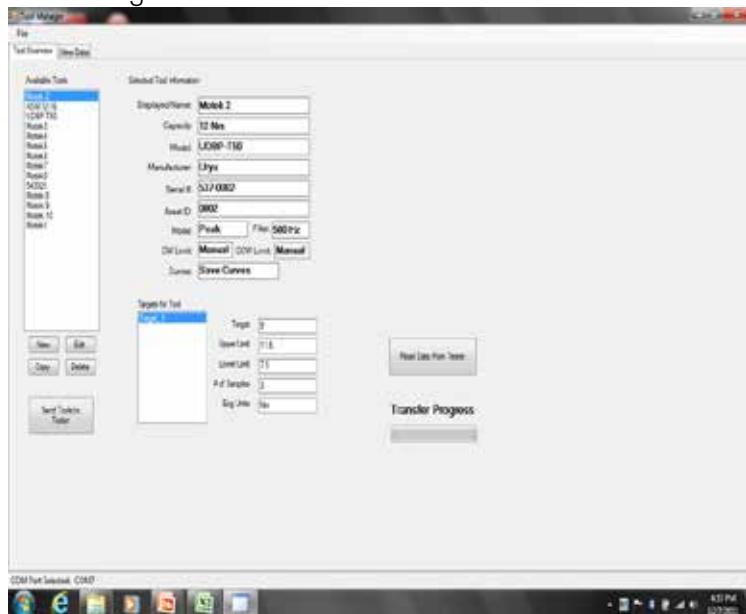


# AUDITOR TOOL MANAGER / AUDIT MANAGER

## AUDITOR TOOL MANAGER SOFTWARE

Tool Manager Software is included with the purchase of AUET-DC and AUET/MTM-DC data-collecting torque testers, as well as the ADW-DC data-collecting torque wrench. Create a database of tools and store test results with this easy-to-use software integrator to/from tester to PC.

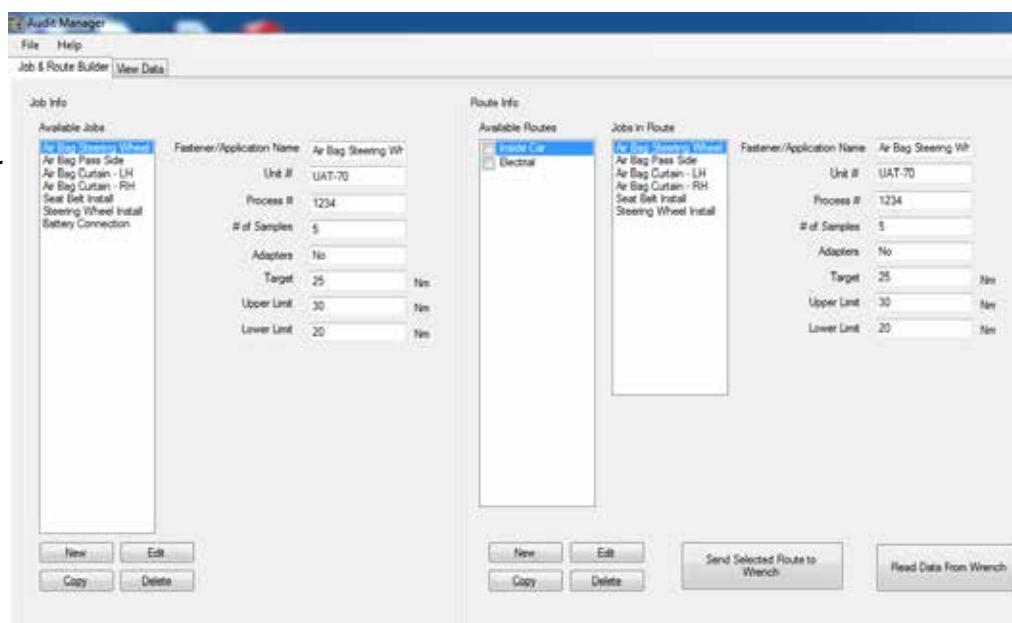
Tool Manager Software



## AUDITOR AUDIT MANAGER SOFTWARE

Audit Manager Software is included with the purchase of ATDA-DC data collecting torque analyzers. The View Data tab allows you to look at the collected data and the trace file. This data can be exported to Excel as a .csv file and displayed by Excel charts. The trace file displays the data in a torque/time graph and allows the user to supersede the move-on reading selected by the wrench by visually discerning via the trace where the fastener started to rotate. When selecting a single job the average, range, sigma, Cp, and CpK values are listed.

Audit Manager Software



# AUDITOR HIGH-CAPACITY TEST STANDS

## TORQUE MEASUREMENT: HIGH CAPACITY TEST STANDS

### Features and Benefits

- Advanced test stations for larger tools and higher torque output
- Configured to meet application requirements
- Durable industrial grade devices

					
	AHCTS	AHCTS-K	AHDTS	AHBTS	AIMTS
Auditor High Capacity Test Stand	Auditor High Capacity Test Stand	Auditor High Capacity Test Stand - Hydraulic	Auditor High Capacity Test Stand Dual Transducer	Auditor High Capacity Stand w/variable joint simulation	Auditor High Capacity Impact Test Stand
Designed for testing tools with continuous rotating output spindles and pulse tools.	Specifically designed for hydraulic wrenches testing.	Two transducers, one for rotary tools and one for hydraulic tools. Includes rundown & reaction fixtures with a single display.	Designed for testing rotating tools without the use of rundown fixtures. Adjustable airbrake joint simulation eliminates CCW rotation after rundown.	Ideal for testing impact wrenches and is recommended to utilize rundown fixtures when testing impacts.	
Capacity	6,750 Nm	33,750 Nm	33,750 Nm	6,750 Nm	2,700 Nm

### ACCESSORIES

Rundown fixtures					
AHCTS-3/4RDF	X		X		
AHCTS-1RDF	X		X		
AHCTS-1.5RDF	X		X		

## ADAPTERS

### AHCTS      AHCTS-K      AHDTS      AHBTS      AIMTS

#### Square to Square Drive Adapters\*

	CA1510    1-1/2" Male to 1" Female CA1550    1-1/2" Male to 1/2" Female CA1575    -1/2" Male to 3/4" Female	X		X	X	
		X		X	X	
		X		X	X	

#### Insert Adapters\*

	CA2510I    2-1/2" Male to 1" Female CA2515I    2-1/2" Male to 1-1/2" Female CA2575I    2-1/2" Male to 3/4" Female	X		X	X	
		X		X	X	
		X		X	X	

#### Square to Hex Drive Adapters\*

	CA150108DHD    1-1/2" Male to 1-1/2" Male Hex		X			

\* Partial list. Contact an AIMCO Customer Service Associate for more options, 1-800-852-1368.

# AUDITOR HIGH-CAPACITY TEST STANDS



AHCTS-5000



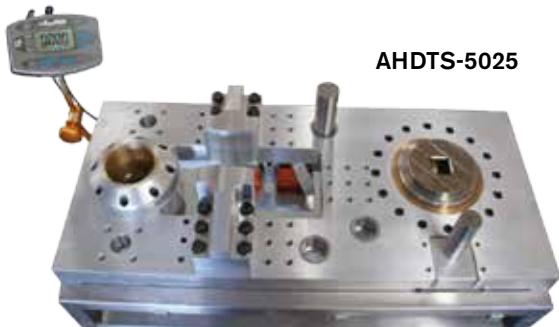
AHCTS-001K

## AHCTS TEST STAND FOR ROTATING TOOLS

Designed for testing tools with continuous rotating output spindles. The test stand includes a rundown fixture, bushing for side load support, reaction post or reaction paddles, transducer and torque analyzer display.

MODEL	DESCRIPTION
AHCTS-0500	3/4" Square Drive w/rundown fixture
AHCTS-2500	1.5" Square Drive w/rundown fixture
AHCTS-5000	1.5" Square Drive w/rundown fixture
AHCTS-7500	1.5" Square Drive w/rundown fixture

Please refer to Configuration Options on following page for required ordering options.



AHDTS-5025

## AHDTS DUAL TEST STAND FOR ROTATING AND HYDRAULIC TOOLS

This stand has two transducers embedded into the base, one for rotary tools and one for hydraulic tools. It comes with rundown and reaction fixtures and one display.

MODEL	DESCRIPTION
AHDTS-5025	1.5" Sq Dr dual station w/rundown fixture and reaction devices

Contact an AIMCO Customer Service Associate for ordering options, 1-800-852-1368.

## AHCTS-K STAND FOR HYDRAULIC TOOLS

The AHCTS-K stands are specifically designed for hydraulic wrench testing. Hydraulic wrenches have very low profiles but very high torque output, therefore, working height must be minimized to prevent side loading which could lead to errors in data or damage to tool or reaction devices.

Either stand can be ordered with options such as extension legs, casters, embedded or attached torque analyzers with various rundown fixtures and reaction devices. Contact an AIMCO Customer Service Associate for additional information, 1-800-852-1368.

MODEL	DESCRIPTION	CAPACITY Ft-Lb
AHCTS-0.5K	3/4" Square Drive w/reaction device	500
AHCTS-001K	1" Square Drive w/reaction device	1000
AHCTS-2.5K	1.5" Square Drive w/reaction device	2500
AHCTS-005K	1.5" Square Drive w/reaction device	5000
AHCTS-010K	1.5" Square Drive w/reaction device	10000
AHCTS-025K	2" Square Drive w/reaction device	25000

Please refer to Configuration Options on following page for required ordering options.

**Optional Pelican Case shown  
(ordered separately)**



# AUDITOR HIGH-CAPACITY TEST STANDS

## AHCTS Series High Capacity Test Stands for Rotary and Hydraulic Tools Configuration Options

Base Model Number	Display	Legs	Base Size	Rundown Fixture Capacity (ft-lb)	Reaction Post	Casters	Articulated Arm and Mount	Digital Module
AHCTS-xxxx	1 = ATDA 2 = No Embedded Display 3 = ATDA-DC 4 = ATDA-8000 Digital (7") 5 = ATDA-8000-10 Digital 6 = Standard Embedded Display  (1, 3, 4, 5 include articulated arm)	1 = 6" 2 = No legs (Standard) 3 = 18" 4 = Custom	0 = 8 x 8" 1 = 12 x 12" 3 = 14 x 19" 4 = 18 x 24" 5 = 18 x 36" 6 = NA	1 = 500 2 = No 3 = 1,000 4 = 2,500 5 = 5,000 6 = 7,500 7 = 1.5" Kit Max. capacity 7,500 Ft-Lb 8 = 2.5" Kit Max. capacity 7,500 Ft-Lb	1 = Single Post 2 = No 3 = Multiple Posts 6" 4 = Paddles 5 = Custom 6 = Single Post 9" (Standard for Hydraulic Models) 7 = Multiple Posts 9" 8 = 9" Post and Paddles (Standard for Rotary Models)	1 = Yes 2 = No	1 = Yes 2 = No	1 = Yes (for Tablet or PC direct) 2 = No
Model Number Digits 1-10	Model # Digit 11	Model # Digit 12	Model # Digit 13	Model # Digit 14	Model # Digit 15	Model # Digit 16	Model # Digit 17	Model # Digit 18

### Auditor High Capacity Test Stand for Rotary Tools

AHCTS-0500 500 ft-lb / 680 Nm			0, 1, or 3					
AHCTS-1000 1,000 ft-lb / 1,360 Nm			0, 1, or 3					
AHCTS-2500 2,500 ft-lb / 3,400 Nm			0, 1, or 3					
AHCTS-5000 5,000 ft-lb / 6,800 Nm			0, 1, or 3					
AHCTS-7500 7,500 ft-lb / 10,200 Nm			0, 1, or 3					

### Auditor High Capacity Test Stand for Hydraulic Tools

AHCTS-0.5K 500 ft-lb / 680 Nm			0-5 (3-5 come with casters)	2				
AHCTS-001K 1,000 ft-lb / 1,360 Nm			0-5 (3-5 come with casters)	2				
AHCTS-2.5K 2,500 ft-lb / 3,390 Nm			0-5 (3-5 come with casters)	2				
AHCTS-005K 5,000 ft-lb / 6,800 Nm			0-5 (3-5 come with casters)	2				
AHCTS-010K 10,000 ft-lb / 13,600 Nm			0-5 (3-5 come with casters)	2				
AHCTS-025K 25,000 ft-lb / 34,000 Nm			0-5 (3-5 come with casters)	2				
AHCTS-050K 50,000 ft-lb / 68,000 Nm			0-5 (3-5 come with casters)	2				

# AUDITOR HIGH-CAPACITY TEST STANDS

## AIMTS TEST STAND FOR IMPACT TOOLS

Obtain accurate test results with the AIMTS Series Impact Test Stand. When used with an Auditor ATDA Analyzer or AUET/MTM Desktop Torque Tester, the tool's performance data can be recorded and stored. Each Auditor Analyzer comes standard with PC-based software to store and organize data for use within a quality system. It is necessary to bolt the AIMTS to a bench. We also recommend that a rundown fixture always be used for testing impacts.



**AIMTS-0500**

Test stand for  
small impact tools



**AIMTS-2000**

Test stand for large impact tools

MODEL	DESCRIPTION
AIMTS-0500	3/4" square drive impact test stand
AIMTS-2000	1.5" square drive impact test stand

Refer to Configuration Options below for required ordering options.

### AIMTS Series High Capacity Impact Test Stand Configuration Options

Base Model #	Display	Legs	Base Size	Rundown Fixture Capacity (ft-lb)*	Options	Digital Module
AIMTS-xxxx	1 = ATDA 2 = No Embedded Display 3 = ATDA-DC 4 = ATDA-8000 Digital (7") 5 = ATDA-8000-10 Digital	1 = 6" 2 = No legs (Standard) 3 = 18" 4 = Custom	6 = Bench Stand	1 = 500      6 = 10,000 2 = No      7 = 20,000 3 = 2,000      8 = 250 4 = 50      9 = 2,500 5 = 5,000	Not available for AIMTS test stands. Enter 222 for model # digits 15-17	1 = Yes (for Tablet or PC direct) 2 = No
Model Number Digits 1-10	Model Number Digit 11	Model Number Digit 12	Model Number Digit 13	Model Number Digit 14	Model Number Digits 15-17	Model Number Digit 18
AIMTS-0050 50 ft-lb / 68 Nm		2	6		222	
AIMTS-0250 250 ft-lb / 40 Nm		2	6		222	
AIMTS-0500 500 ft-lb / 680 Nm		2	6		222	
AIMTS-2000 2,000 ft-lb / 2,720 Nm		2	6		222	
AIMTS-2500 2,500 ft-lb / 3,390 Nm		2	6		222	
AIMTS-5000 5,000 ft-lb / 6,780 Nm		2	6		222	

\* Ordering more than one rundown fixture is highly recommended if you're doing a lot of testing. Having multiple rundown fixtures ensures that you have spares when dealing with heat issues. AIMTS test stands are available in capacities of up to 20,000 ft-lb. Capacities other than what is shown here are quoted separately. Contact an AIMCO Customer Service Associate at 1-800-852-1368.

# AUDITOR HIGH-CAPACITY TEST STANDS



**AHBTS-2500**

Auto Release test stand for quickly testing large rotating tools

## AHBTS TEST STAND WITH BRAKING SYSTEM FOR ROTATING TOOLS

These test stands are for testing rotating tools without requiring the use of rundown fixtures. We utilize an airbrake for testing tools that cannot or should not be used in reverse. These test stands are compatible with any Auditor Torque Analyzer.

MODEL	DESCRIPTION
AHBTS-2500	1.5" square drive, brake system w/reaction device, rotary transducer and display
AHBTS-5000	1.5" square drive, brake system w/reaction device, rotary transducer and display

Refer to Configuration Options below for required ordering options.

## AHBTS Series High Capacity Test Stand with Brake System Configuration Options

Base Model Number	Display	Legs	Base Size	Rundown Fixture Capacity (ft-lb)	Reaction Post	Casters	Articulated Arm and Mount	Digital Module
AHBTS-xxxx	4 = ATDA-8000 Digital (7") 5 = ATDA-8000-10 Digital  (Requires Display Controller)	1 = 6" 2 = No legs (Standard) 3 = 18" 4 = Custom	0 = 8 x 8" 1 = 12 x 12" 3 = 14 x 19" (Standard) 4 = 18 x 24" 5 = 18 x 36" 6 = NA	2 = No	1 = Single Post 2 = No 3 = Multiple Posts 6" 5 = Custom 6 = Single Post 9" 7 = Multiple Posts 9"	1 = Yes 2 = No	1 = Yes 2 = No	1 = Yes 2 = No  (For Tablet or PC Direct)
Model # Digits 1-10	Model # Digit 11	Model # Digit 12	Model # Digit 13	Model # Digit 14	Model # Digit 15	Model # Digit 16	Model # Digit 17	Model # Digit 18
AHBTS-2500 2,500 ft-lb / 3,400 Nm				2				
AHBTS-5000 5,000 ft-lb / 6,800 Nm				2				



# AUDITOR TORQUE WRENCHES

## TORQUE MEASUREMENT: TORQUE WRENCH

Features and Benefits	ADW	ADW-DC	APTW	ATW	MOMENT ALPHA
	* Auditor Digital Wrench	* Auditor Digital Wrench with Data Collection	Auditor Preset Torque Wrench	Auditor Torque Wrench	Digital Torque Wrench with Angle
Torque Range	7 - 370 ft/lbs 10 - 500 Nm	7 - 370 ft/lbs 10 - 500 Nm	4 - 250 ft/lbs 5 - 340 Nm	4 - 148 ft/lbs 5 - 200 Nm	Screwdriver: 0.4 - 3.7 ft/lbs 0.5 - 5 Nm Wrench: 3.0 - 738 ft/lbs 4 - 1,000 Nm
	Digital wrench with multiple head options for line side testing/auditing	Data-collecting digital wrench with multiple head options for line side testing/auditing	Interchangeable heads. Preset uses proprietary adjustment tool to guard against unauthorized setting changes	Transducer on a stick. Communicates with data collecting testers and analyzers	Ensure accuracy in quality <u>QR</u> production applications. WiFi/Bluetooth delivery
Bi-Directional accuracy of +/- X of indicated reading within the top 90% of the tester's capacity	1%	1%	3%	0.50%	$\pm 4\%$
Software Included	X	X			

## USED IN CONJUNCTION WITH

ATDA(DC) Data Analyzer				X	
AUET(DC) Tester				X	
AUET/MTM(DC) Tester				X	

## TORQUE WRENCH LOADERS



For Calibration of all types of torque wrenches eliminating human variable for more accurate measurement - digital transducer used with ATDA-8000-10-DCA

ATWL-250	Torque range up to 250 ft/lbs
ATWL-750	Torque range up to 750 ft/lbs
ATWL-1000	Torque range up to 1000 ft/lbs

# AUDITOR DIGITAL WRENCH SERIES



ADW-0010K111312222



ADW-1400F125312222

## ADW DATA COLLECTING TORQUE WRENCH

- Large memory capacity
- Every torque value has associated trace file
- "Pick a Point" and "Move On" feature
- Barcode scanner
- Alpha Numeric screen for entering text
- Field replaceable batteries
- Docking station connection
- Serial connection
- Battery charger connection
- Ergonomic handle
- Switch between measure and data collection modes at any time
- Multiple files and route capability
- Data memory and simple statistics "On Board"
- Complete statistical analysis, data archiving and exporting in Audit Manager software
- Five models standard ranges 10 - 500 Nm full scale
- Torsion transducer — not length dependent
- Transducer is replaceable
- 1,400 Nm model uses different handle design

MODEL	TORQUE RANGE			WEIGHT		OVERALL LENGTH		SQ. DRIVE
	NM	FT-LB	LB	KG	IN	MM	IN	
ADW-0010K	1 - 10	0.7 - 7.4	2.2	1	18	457.2	1/4	
ADW-0075K	7.5 - 75	5.5-55	3.1	1.4	23.5	596.9	3/8	
ADW-0180K	18 - 180	13-130	3.6	1.6	30.1	765.2	1/2	
ADW-0270K	27 - 270	20-198	3.6	1.6	30.1	765.2	3/4	
ADW-0500K	50 - 500	37-369	4	1.8	36	914	1	
ADW-1400F	140 - 1,400	103-1,033	4.8	2.2	60	1524	1	

Unit accuracy is  $\pm 1.0\%$  FSD of indicated reading for the top 95% of full scale as indicated above.

Each model includes a case, a battery charger, and a standard square-drive head. Other heads are available at additional cost.

\*Part numbers with K, D or F followed by a 1 designate models with file and route capability. K followed by 2 indicate sequential memory but no file capability.

Part numbers with K, D or F followed by a 1,1 indicate file and route with bar code and docking station capability. K, D or F followed by a 1,2 indicate file and route capability with serial port only.

Please refer to the Configuration Options table on following page for required ordering options.



ADW-DS

## DOCKING STATION

- Nest for accepting all wrench sizes
- Charger and serial communication accomplished through docking station
- Bench mountable

# AUDITOR DIGITAL WRENCH SERIES

## ADW Series Digital Torque Wrenches Configuration Options

Base Model Number	Style	Data Collector	Bar Code and Docking Station	Square Drive Size	Type of Transducer	Engineering Unit	Future Options
ADW-xxxx Model # Digits 1-8	K = Katana D = Katana with Dovetail Transducer F = Straight Stick Model # Digit 9	1 = Yes 2 = No Model # Digit 10	1 = Yes 2 = No (Serial Port Only) Model # Digit 11	1 = 1/4" 2 = 3/8" 3 = 1/2" 4 = 3/4" 5 = 1" 6 = N/A Model # Digit 12	1 = Intellect 2 = Industrial Standard 3 = N/A Model # Digit 13	1 = Nm 2 = Ft-lbs 3 = In-lbs Model # Digit 14	Not yet available. Enter 2222 for model # digits 15-18 Model # Digits 15-18

### Non Data-Collecting (Sequential Memory)

ADW-0010K2 10 Nm / 7.4 ft-lb	K or D	2	2	1 or 2	3	1	2222
ADW-0075K2 75 Nm / 55 ft-lb	K or D	2	2	2	3	1	2222
ADW-0180K2 180 Nm / 130 ft-lb	K or D	2	2	3	3	1	2222
ADW-0270K2 270 Nm / 198 ft-lb	K or D	2	2	3	3	1	2222
ADW-0500K2 500 Nm / 369 ft-lb	K or D	2	2	4	3	1	2222
ADW-1000K2 1,000 Nm / 738 ft-lb	F	2	2	4 or 5	3	1	2222
ADW-1200K2 1,200 Nm / 885 ft-lb	F	2	2	5	3	1	2222
ADW-1000K2 1,400 Nm / 1033 ft-lb	F	2	2	5	3	1	2222
ADW-1200K2 2,000 Nm / 1,475 ft-lb	F	2	2	5	3	1	2222

### Data Collecting (File and Route Capability)

ADW-0010K1 10 Nm / 7.4 ft-lb		1		1 or 2	3	1	2222
ADW-0075K1 75 Nm / 55 ft-lb		1		2	3	1	2222
ADW-0180K1 180 Nm / 130 ft-lb		1		3	3	1	2222
ADW-0270K1 270 Nm / 198 ft-lb		1		3	3	1	2222
ADW-0500K1 500 Nm / 369 ft-lb		1		4	3	1	2222
ADW-1000K2 1,000 Nm / 738 ft-lb	F			4 or 5	3	1	2222
ADW-1200K2 1,200 Nm / 885 ft-lb	F			5	3	1	2222
ADW-1000K2 1,400 Nm / 1033 ft-lb	F			5	3	1	2222
ADW-1200K2 2,000 Nm / 1,475 ft-lb	F			5	3	1	2222

Standard capacities shown. Additional capacities available on request. Contact an AIMCO Customer Service Associate at 1-800-852-1368.

# AUDITOR ELECTRONIC TORQUE WRENCHES

## ALLOW PRECISE TIGHTENING AND AUDITING OF YOUR ASSEMBLY APPLICATIONS

### "TRANSDUCERS ON A STICK"

- Non-Length Dependent – Where the operator's hand is positioned during use has no effect on torque readings
- Available in Industry Standard (IS) or Intelligent (Intellect) Configurations – Transducer is compatible with a wide variety of IS style instruments or Auditor Intellect instruments that self recognize the transducer
- Durable – Steel, Aluminum and Carbon Fiber construction provide optimal strength and weight. Transducer supplied with overload capacity of 150% of full scale
- Accurate – Torque readings are accurate to 1% of indicated reading in top 95% of full scale



MODEL	Nm	TORQUE RANGE		SQUARE DRIVE in
		ft-lb		
ATW-0100F	14-136	10-100		3/8
ATW-0200F	27-272	20-200		1/2
ATW-0500F	68-680	50-500		3/4
ATW-1000F	136-1360	100-1000		1

Unit accuracy is  $\pm 0.5\%$  of indicated reading for the top 90% of full scale as indicated above.

Required Accessory: ATDBRIS IS cable to connect Auditor ATDA instrument.



# AUDITOR PRESET TORQUE WRENCHES

## FEATURES AND BENEFITS

- Easy-to-use preset wrenches for fastener torque auditing
- Torque ranges from 5 – 340 Nm
- User friendly, sleek, ergonomic design
- Tactile feedback on achievement of preset torque
- Proprietary adjustment tool guards against unauthorized setting changes
- Wide range of interchangeable heads provide flexibility and convenience
- +/- 3% accuracy when used in clockwise or counterclockwise directions



Preset Wrenches	Description
APTW-25	Auditor Preset Torque Wrench, 5 - 25 Nm, Accepts 12 mm Inserts
APTW-50	Auditor Preset Torque Wrench, 10 - 50 Nm, Accepts 12 mm Inserts
APTW-100	Auditor Preset Torque Wrench, 20 - 100 Nm, Accepts 12 mm Inserts
APTW-150	Auditor Preset Torque Wrench, 30 - 150 Nm, Accepts 12 mm Inserts
APTW-200	Auditor Preset Torque Wrench, 40 - 200 Nm, Accepts 14 mm Inserts
APTW-340	Auditor Preset Torque Wrench, 60 - 340 Nm, Accepts 14 mm Inserts

Ratchet and Square Drive Heads	Description
9 x 12	
APTH-12RT25	Auditor Preset Torque Wrench Ratchet Insert, 1/4 SQ DR, 12 mm
APTH-12RT38	Auditor Preset Torque Wrench Ratchet Insert, 3/8 SQ DR, 12 mm
APTH-12RT50	Auditor Preset Torque Wrench Ratchet Insert, 1/2 SQ DR, 12 mm
APTH-12SD25	Auditor Preset Torque Wrench SQ DR Insert, 1/4 SQ DR, 12 mm
APTH-12SD38	Auditor Preset Torque Wrench SD DR Insert, 3/8 SQ DR, 12 mm
APTH-12SD50	Auditor Preset Torque Wrench SQ DR Insert, 1/2 SQ DR, 12 mm
14 x 18	
APTH-14RT50	Auditor Preset Torque Wrench Ratchet Insert, 1/2 SQ DR, 14 mm
APTH-14RT34	Auditor Preset Torque Wrench Ratchet Insert, 3/4 SQ DR, 14 mm
APTH-14SD50	Auditor Preset Torque Wrench SQ DR Insert, 1/2 SQ DR, 14 mm



Open End Heads	Description
9 x 12	
APTH-12OE7	Auditor Preset Torque Wrench Insert 7 mm OE, 12 mm
APTH-12OE8	Auditor Preset Torque Wrench Insert 8 mm OE, 12 mm
APTH-12OE9	Auditor Preset Torque Wrench Insert 9 mm OE, 12 mm
APTH-12OE10	Auditor Preset Torque Wrench Insert 10 mm OE, 12 mm
APTH-12OE11	Auditor Preset Torque Wrench Insert 11 mm OE, 12 mm
APTH-12OE12	Auditor Preset Torque Wrench Insert 12 mm OE, 12 mm
APTH-12OE13	Auditor Preset Torque Wrench Insert 13 mm OE, 12 mm
APTH-12OE14	Auditor Preset Torque Wrench Insert 14 mm OE, 12 mm
APTH-12OE15	Auditor Preset Torque Wrench Insert 15 mm OE, 12 mm
APTH-12OE16	Auditor Preset Torque Wrench Insert 16 mm OE, 12 mm
APTH-12OE17	Auditor Preset Torque Wrench Insert 17 mm OE, 12 mm
APTH-12OE18	Auditor Preset Torque Wrench Insert 18 mm OE, 12 mm
APTH-12OE19	Auditor Preset Torque Wrench Insert 19 mm OE, 12 mm
APTH-12OE20	Auditor Preset Torque Wrench Insert 20 mm OE, 12 mm
14 x 18	
APTH-14OE1	Auditor Preset Torque Wrench Insert 1" OE, 14 mm
APTH-14OE13	Auditor Preset Torque Wrench Insert 13 mm OE, 14 mm
APTH-14OE14	Auditor Preset Torque Wrench Insert 14 mm OE, 14 mm
APTH-14OE15	Auditor Preset Torque Wrench Insert 15 mm OE, 14 mm
APTH-14OE16	Auditor Preset Torque Wrench Insert 16 mm OE, 14 mm
APTH-14OE17	Auditor Preset Torque Wrench Insert 17 mm OE, 14 mm
APTH-14OE18	Auditor Preset Torque Wrench Insert 18 mm OE, 14 mm
APTH-14OE19	Auditor Preset Torque Wrench Insert 19 mm OE, 14 mm
APTH-14OE21	Auditor Preset Torque Wrench Insert 21 mm OE, 14 mm
APTH-14OE22	Auditor Preset Torque Wrench Insert 22 mm OE, 14 mm
APTH-14OE24	Auditor Preset Torque Wrench Insert 24 mm OE, 14 mm
APTH-14OE25	Auditor Preset Torque Wrench Insert 25 mm OE, 14 mm
APTH-14OE27	Auditor Preset Torque Wrench Insert 27 mm OE, 14 mm
APTH-14OE30	Auditor Preset Torque Wrench Insert 30 mm OE, 14 mm
APTH-14OE32	Auditor Preset Torque Wrench Insert 32 mm OE, 14 mm
APTH-14OE34	Auditor Preset Torque Wrench Insert 34 mm OE, 14 mm
APTH-14OE36	Auditor Preset Torque Wrench Insert 36 mm OE, 14 mm
APTH-14OE38	Auditor Preset Torque Wrench Insert 38 mm OE, 14 mm
APTH-14OE41	Auditor Preset Torque Wrench Insert 41 mm OE, 14 mm
APTH-14OE118	Auditor Preset Torque Wrench Insert 1-1/8" OE, 14 mm
APTH-14OE138	Auditor Preset Torque Wrench Insert 1-3/8" OE, 14 mm

# MOMENT ALPHA DIGITAL TORQUE WRENCH

ENSURE ACCURACY IN QUALITY OR PRODUCTION APPLICATIONS

## FEATURES

- Torque *and* angle measurement
- Modular system with self-identifying accessories
- Wireless delivery WiFi/Bluetooth
- One wrench/tablet analyzer to perform audits in full torque range from 0.5 – 1,000 Nm (with optional accessories)
  - Screwdriver mode from 0.5 – 5 Nm
  - Flexion mode (wrench) from 4 – 1,000 Nm
- Works in both clockwise and counter-clockwise operation
- Uses standard drive adapters (see page 77)
- Tactile feedback to operator
- Rechargeable battery pack (wrench handle)



## KIT MODEL\* PARTS INCLUDED

### Production

CPSK500	Includes (1) Wrench, (1) Wrench Battery, (1) Battery Charger, (1) 40 Nm Adapter, (1) Production Controller, Production Premium Software, (1) 200 Nm Extension, (1) 600 Nm Extension, and (1) 14 x 18 Ratchet Head (see p. 77)
CPSMH00	Includes (1) Wrench, (1) Wrench Battery, (1) Battery Charger, (1) 40 Nm adapter, (1) Production Controller, and Production Premium Software

### Quality

CPSKU00	Includes (1) Wrench, (1) Wrench Battery, (1) Battery Charger, (1) 40 Nm Adapter, (1) Quality Controller, Quality Premium Software, (1) 200 Nm Extension, (1) 600 Nm Extension, and (1) 14 x 18 Ratchet Head (see p. 77)
CPSMJ00	Includes (1) Wrench, (1) Wrench Battery, (1) Battery Charger, (1) 40 Nm Adapter, (1) Quality Controller, Quality Premium Software

\* Additional kits available. Contact an AIMCO Customer Service Associate, 1-800-852-1368.

WRENCH HANDLE	TORQUE RANGE	LENGTH	WEIGHT	TORQUE TRANSDUCER ACCURACY	TIGHTENING ACCURACY	ANGLE TRANSDUCER ACCURACY
CPSKV00	Screwdriver Mode: 0.5 - 5 Nm Wrench Mode: 4 - 40 Nm (requires CPSJP81 adapter) 4 - 1,000 Nm (with appropriate extension*)	7.9" 200 mm	0.82 lb 0.37 kg	ISO 6789 < 1%	< ±4%	±1%

\* Wrench handle supplied with battery. Specific extensions for specific torques available separately (see page 79).

# MOMENT ALPHA DIGITAL TORQUE WRENCH

## REMOTE DISPLAY

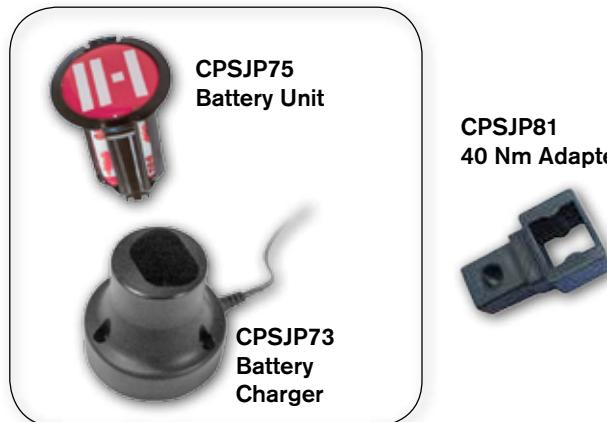


### FEATURES

- Pre-set tightening settings
- Audible alarm
- Four tightening modes: Torque, Angle, Torque and Angle, Angle and Torque
- 2.4" color display touchscreen
- International units: Nm, kg/m, kp/m, ft-lb, in-lb, ft-oz, in-oz
- Sturdy and suited to industrial environments

MODEL	DESCRIPTION	SIZE	WEIGHT
CPSKR81	Production Controller w/out software	7.1" x 13.8" x 5.9" 180 x 350 x 150 mm	7.05 lbs 3.2 kg
CPSKR82	Quality Controller w/out software	8.7" x 5.4" x 1.3" 221 x 138 x 32 mm	1.05 lbs 0.5 kg
CPSKS50	Production Premium Software	—	—
CPSKU50	Quality Premium Software	—	—

## ACCESSORIES



MODEL	DESCRIPTION	SIZE	END EFFECTOR CONNECTION	WEIGHT
CPSJP75	Battery Unit (includes 3 rechargeable AA batteries)	—	—	—
CPSJP73	Battery Charger	—	—	—
CPSJP81	Adapter 40 Nm	3.5" / 89 mm	—	0.03 lbs 0.01 kg
CPSKS86	Extension 100 Nm	5.71" / 145 mm	14 x 18*	0.06 lbs 0.03 kg
CPSKS81	Extension 200 Nm	14.41" / 366 mm	14 x 18*	1.1 lbs 0.5 kg
CPSKS85	Extension 300 Nm	27.06" / 688 mm	14 x 18*	2.6 lbs 1.2 kg
CPSKS87	Extension 400 Nm	30.27" / 769 mm	14 x 18*	3.08 lbs 1.4 kg
CPSKS82	Extension 600 Nm	42.72" / 1,085 mm	14 x 18*	5.07 lbs 2.3 kg
CPSKS88	Extension 1,000 Nm	70.86" / 1,800 mm	1 in.*	5.07 lbs 2.3 kg

\* End Effectors sold separately. See page 77.

# TORQUE CARTS

## TORQUE MEASUREMENT: TORQUE CARTS

### Features and Benefits

- Test on repeatable joint simulators or production joints
- Simple to sophisticated options
- Manual or self-propelled
- Mobile test carts can be configured for testing continuous and discontinuous drive tools that include DC electric, clutch, battery, impulse, and torque wrenches
- Each cart is customizable to meet testing needs from 1 - 1,356 Nm

Contact your AIMCO representative for a quote or more information



iTVC

### Hydraulic Braking Technology

- Dry braking with multiple hydraulic cylinders where thrust is generated equally to allow better linear control of the braking ramp
- Programmable joint characteristics for use with continuous drive tools - no unwinding required after testing

### UFT Repeatable Joint Simulator

- Mechanically adjustable hydraulic pressure circuits allow the bolt tightening body to be configured to simulate various joint characteristics
- Ideal for repeatable, linear joint rate simulation while testing all tools including impulse tools

DataPro Software

X

Torque Wrench Loader Option

X

\* Optional equipment - extension added to cart

## AUDITOR TORQUE CART



AIMCO offers torque carts for "lineside" or "point of use" tool validation and calibration. Our torque carts allow testing of tools on repeatable joint simulators and "in process" use on production joints, allowing users to identify process capability. There are multiple torque cart options:

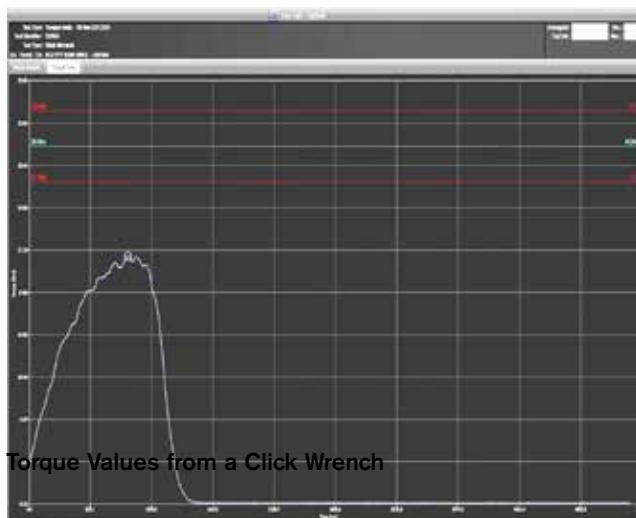
- Manual push carts equipped with simple torque testers
- Manual push carts equipped with data collectors and database application software
- Self propelled cart with computer and relational database application
- Driven cart with computer and relational database application

Each cart can be equipped to specific customer requirements. Maximum torque range on board torque cart is 1,000 ft-lb or 1,356 Nm. Ancillary test stands up to 50,000 ft-lb available.

# DATA COLLECTION SOFTWARE

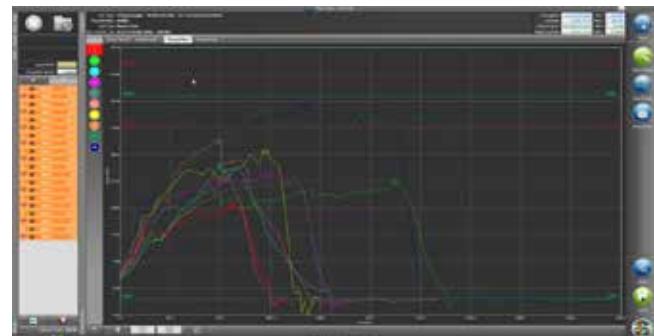
## **DATAPRO SOFTWARE + SQNET SOFTWARE - TORQUE CART DATA MANAGEMENT**

As the data management system for the AIMCO Torque Cart line, DataPro and SQnet software provide tool management, verification, and calibration. Users can manage complete tool inventory, create jobs/routes, and store collected data. Calibration sequencing can be scheduled by time or number of rundowns.



## **TORQUE VERIFICATION**

DataPro displays sample values of torque, angle, and pulse count. It calculates statistics: average, Cp, Cpk, Six Sigma, and Mean variation. As values are measured, they are graphically plotted on a X-bar range chart scaled to specification limits.



TRACES

The axis of the trace can be torque/time, torque/angle, angle/time. Save a trace, retrieve it, and overlay a new trace for comparison. Trace details are displayed at the bottom of the graph: max. values, plot time (ms), number of data points, filter frequency, and sample rate.

## SQNET - QUALITY CONTROL & PRODUCTION LINE

SQnet is designed to manage quality control of the production line, manage all the tools (supplier, models, technical specifications), and manage related quality-control tests (Cm, Cmk, and XR charts).

**Quality:** manage tools, operation locations, and quality-control of production lines.

**Production:** check residual torque or perform joint analysis in order to test bench settings and to set accurate tightening parameters.

## **DATABASE INFORMATION**

View operation lists and associated tools along with historic test or quality data. From the historic data screen, launch statistical graphs to view and analyze archived data. Graphs include X-bar range, histogram, Six Sigma, Cp, and Cpk graphs.

# TRANSDUCERS

## TORQUE MEASUREMENT: TRANSDUCERS

### Features and Benefits

Superior:

- Accuracy
- Compatibility
- Durability

Auditor offers multiple styles of transducers in various configurations. Industry standard transducers (2mv/v) and intellect transducers for Auditor instruments that reduce configuration set up time.

	Rotary	Stationary	
			
	ARTIS	ASTIS	AISI - AISF*
Auditor Rotary Transducer Industry Standard		Auditor Stationary Transducer Industry Standard	Auditor Industry Standard Stationary

### Used in Conjunction with Analyzer

ATC	X	X	
AUET	X	X	
AUET/MMT	X	X	
ATDA	X	X	
ATDA-8000			X

\* See Configuration Options on following page to configure complete part number for AISI / AISF models. Please contact an AIMCO Customer Service Associate for additional information, 1-800-852-1368.

## AUDITOR ROTARY TRANSDUCERS

Suitable for use with all continuous drive tools, impulse tools and torque wrenches.



**ARTIS Series**

MODEL	DRIVE	MAX TORQUE		WEIGHT lb
		Nm	in-lb/ft-lb	
ARTIS-25H-2T(A)	1/4 Hex	2	18 in-lb	1.0
ARTIS-25H-5T(A)	1/4 Hex	5	44 in-lb	1.0
ARTIS-25H-10T(A)	1/4 Hex	10	88 in-lb	1.0
ARTIS-25H-20T(A)	1/4 Hex	20	180 in-lb	1.0
ARTIS-25S-10T(A)	1/4 Sq.	10	88 in-lb	1.0
ARTIS-25S-20T(A)	1/4 Sq.	20	180 in-lb	1.0
ARTIS-38S-25T(A)	3/8 Sq.	25	225 in-lb	1.2
ARTIS-38S-75T(A)	3/8 Sq.	75	50 ft-lb	1.2
ARTIS-50S-180T(A)	1/2 Sq.	180	180 ft-lb	1.5
ARTIS-75S-250T(A)	3/4 Sq.	250	180 ft-lb	2.2
ARTIS-75S-500T(A)	3/4 Sq.	500	370 ft-lb	2.2
ARTIS-100S-750T(A)	1 Sq.	750	553 ft-lb	4.0
ARTIS-100S-1400T(A)	1 Sq.	1400	1025 ft-lb	4.0

\*Add "A" to the end of the part number to indicate torque/angle transducer.



# TRANSDUCERS

## AUDITOR STATIONARY TRANSDUCERS

Stationary Transducers with joint rundown fixtures and, where applicable, bench stands.



**ASTIS**

ASTIS industry standard transducers can be used with multiple analyzers.

MODEL	Nm	MAX TORQUE		DRIVE in
		in-lb/ft-lb	ft-lb	
ASTIS-25D-11	11	100 in-lb	10 ft-lb	1/4
ASTIS-25D-28	28	250 in-lb	28 ft-lb	1/4
ASTIS-38D-135	135	100 ft-lb	135 in-lb	3/8
ASTIS-50D-270	270	200 ft-lb	270 in-lb	1/2
ASTIS-75D-1000	1017	750 ft-lb	1,017 in-lb	3/4
ASTIS-100D-1700	1,695 Nm	750 ft-lb	1,695 in-lb	1
ASTIS-100S-3000	4,100 Nm	3,000 ft-lb	4,100 in-lb	1



**AISI**

AISI / AISF Transducers connect to the ATDA-8000 analyzer and mount directly to a benchtop.

MODEL*	Nm	MAX TORQUE		WEIGHT		W X H X D		DRIVE in
		in-lb/ft-lb	kg	lb	mm	in	in	
AISI-200025	2.8	25	1.13	2.5	79 x 95 x 83	3.13 x 3.75 x 3.25	1/4	
AISI-200100	11.3	100	1.13	2.5	79 x 95 x 83	3.13 x 3.75 x 3.25	1/4	
AISI-200500	56.5	500	1.13	2.5	79 x 95 x 83	3.13 x 3.75 x 3.25	3/8	
AISF-200100	135.6	1,200/100	2.25	5	100 x 65	4 x 3	1/2	
AISF-200250	339	3,000/250	2.25	5	100 x 65	4 x 3	1/2	
AISF-201000	1,350	12,000/1,000	2.8	6	100 x 65	4 x 3	1	

\* See Configuration Options below to configure complete part number for AISI / AISF models.

### Auditor AISI / AISF Industry Standard Transducers Configuration Options

Base Model #	Angle	Capacity	Configuration	Expanded Range*	Digital	Drive Size	Wireless
	1 = Yes 2 = No	00025 = 25 in-lb / 25 Ft-lb 00050 = 50 in-lb / 50 Ft-lb 00100 = 100 in-lb / 100 Ft-lb 00250 = 250 in-lb / 250 Ft-lb 00350 = 350 in-lb / 350 Ft-lb 00500 = 500 in-lb / 500 Ft-lb 00600 = 600 in-lb / 600 Ft-lb 00750 = 750 in-lb / 750 Ft-lb 01000 = 1,000 in-lb / 1,000 Ft-lb	1 = Bench Stand 2 = Inline 3 = Loader (1000 Series Only)	1 = Yes 2 = No	1 = Yes 2 = No	1 = 1/4" Hex (up to 100 in-lb / 8.3 Ft-lb) 2 = 1/4" Sq. (up to 100 in-lb / 8.3 Ft-lb) 3 = 3/8" Sq. (150–500 in-lb / 12.5–41.7 Ft-lb) 4 = 1/2" Sq. (1,800–3,000 in-lb / 150–250 Ft-lb) 5 = 3/4" Sq. (3,000–12,000 in-lb / 250–1,000 Ft-lb) 6 = 1" Sq. (12,000–24,000 in-lb / 1,000–2,000 Ft-lb) 7 = 1-1/2" Sq. (24,000+ in-lb / 2,000+ Ft-lb)	1 = Yes 2 = No
Model # Digits 1–5	Model # Digit 6	Model # Digits 7–11	Model # Digit 12	Model # Digit 13	Model # Digit 14	Model # Digit 15	Model # Digit 16
<b>Stationary</b>							
AISI- (in-lb capacities)	2						2
AISF- (ft-lb capacities)	2						2

\*Standard range is 10%–100% of maximum capacity. Expanded range is 5%–100% of maximum capacity.

Transducers are available in capacities of up to 10,000 Ft-lb. Contact an AIMCO Customer Service Associate at 1-800-852-1368.

# RUNDOWN FIXTURES

## TORQUE MEASUREMENT: RUNDOWN FIXTURES

### Features and Benefits

- Enables accurate and repeatable testing of pneumatic or electric power tools
- Mechanical Belleville system of bolt, nut or nut body, Belleville washers and main housing, 1/4" - 3/4" drive sizes, 10 in/lbs - 1,200 ft/lbs
- Fixtures can be ordered to simulate hard, med., or soft joints

					
	ARDFA-XXXXHD ARDIA-XXXHDS	ARDFA-XXXHDS ARDIA-XXXHDS	ARDFA-XXXHDE ARDIA-XXXHDE	ARDFA-XXX ARDIA-XXX	ARDIA-XXX
Wear-Resistant Heavy Duty	X				X
Heavy Duty, Fully Encapsulated		X			X
Heavy Duty, Encapsulated Washers			X		
Standard (Included w/ analyzer)				X	
Spline Drive					X*
Used in Conjunction with External Transducer					
ASTIS	X	X	X	X	
AISI / AIF	X	X	X	X	
ARTIS	X	X	X	X	

\*Spline drive feature provides rundown control when testing pulse tools.

## AUDITOR RUNDOWN FIXTURES



To test power tools, pneumatic or electric, consistent rotational speed must be achieved. The joint rundown fixture/simulator provides the means by which the tool motor and spindle rotates freely at the start of the test cycle and then develops torque as rotation resistance increases as fastener/joint load increases. The linearity and consistency of the joint rundown fixtures/simulators vary greatly and the tool test data is a product of the variations in these rundown fixtures. Higher quality joint rundown fixtures produce torque data with less scatter.

## ARDIA MODELS

MODEL*	RECOMMENDED TORQUE RANGE IN-LB	RECOMMENDED TORQUE RANGE Nm	SQUARE DRIVE
ARDIA-10(HD)(HDE)(HDS)	1.0 - 10	.13 - 1.13	1/4"
ARDIA-25(HD)(HDE)(HDS)	2.5 - 25	.28 - 2.8	1/4"
ARDIA-50(HD)(HDE)(HDS)	5 - 50	.56 - 5.6	1/4"
ARDIA-100(HD)(HDE)(HDS)	10 - 100	1.3 - 11.3	1/4"
ARDIA-150(HD)(HDE)(HDS)	15 - 150	1.7 - 16.9	1/4"
ARDIA-250(HD)(HDE)(HDS)	25 - 250	2.8 - 28.3	3/8"
ARDIA-350(HD)(HDE)(HDS)	35 - 350	4 - 40	3/8"
ARDIA-500(HD)(HDE)(HDS)	50 - 500	5.6 - 56.5	3/8"
ARDIA-750(HD)(HDE)(HDS)	75 - 750	8.5 - 84.7	3/8"
ARDIA-1000(HD)(HDE)(HDS)	100 - 1,000	11.3 - 113	3/8"

\*Add "HD" to part numbers for wear resistant models. Add "HDS" to part numbers for fully encapsulated wear resistant models.

\*Add "HDE" to part numbers for partial encapsulated wear resistant models.

## ARDFA MODELS

MODEL*	RECOMMENDED TORQUE RANGE FT-LB	RECOMMENDED TORQUE RANGE Nm	SQUARE DRIVE
ARDFA-100(HD)(HDE)(HDS)	10 - 100	13.6 - 136	1/2"
ARDFA-150(HD)(HDE)(HDS)	15 - 150	20.4 - 204	1/2"
ARDFA-250(HD)(HDE)(HDS)	25 - 250	34 - 340	1/2"
ARDFA-500(HD)(HDE)(HDS)	50 - 500	67.8 - 678	3/4"
ARDFA-600(HD)(HDE)(HDS)	60 - 600	81.6 - 816	3/4"
ARDFA-750(HD)(HDE)(HDS)	75 - 750	101.7 - 1,017	3/4"

\* Add "HD" to part numbers for wear resistant models. Add "HDS" to part numbers for encapsulated wear resistant models.

\* Add "HDE" to part numbers for partial encapsulated wear resistant models.

# JOINT KITS / JOINT SIMULATORS

## JOINT KITS

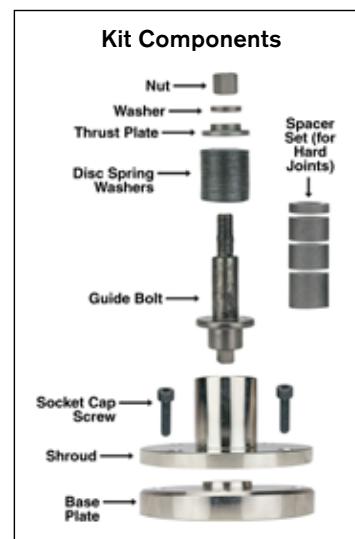
Joint kits are an essential accessory for accurate off-line testing of powered assembly tools.

- Represent production joint conditions off the production line
- Can be adjusted to include joint conditions specified by ISO 5393
- Allows free running of bolt before torque gradient
- Provide linear response. Repeatable 1/4" – 1" drive sizes, 28 – 1,695 Nm.

ROTARY KIT*	MODEL	DRIVE SIZE - IN
AJKR	AJKR-28	1/4
	AJKR-135	3/8
	AJKR-271	1/2
	AJKR-1017	3/4
	AJKR-1695	1
STATIONARY KIT**	MODEL	DRIVE SIZE - IN
AJKS	AJKS-25D	1/4
	AJKS-38D	3/8
	AJKS-50D	1/2
	AJKS-75D	3/4
	AJKS-100D	1

\* AJKR for use with ARTIS external transducers.

\*\* AJKS for use with ASTIS or ARTIS external transducers.



## UFT SERIES HYDRAULIC MECHANICAL JOINT SIMULATORS



- Designed for pulse tool and continuous drive tool certification and testing, UFT Joint Simulators offer the most repeatable and linear joint rate simulation on the market
- For use with ARTIS external transducers
- Bolt tightening body and hydraulic pressure loading mechanism are connected by a hydraulic pressure circuit. Ideal for ISO 5393 test procedures
- Quickly and easily simulate three joint rates by opening or closing two external valves
- Specially coated testing bolt produces over 100,000 cycles without variation or deformation

MODEL	BOLT SIZE	TORQUE RANGE FT-LB	NM	WEIGHT LB	KG
UFT-6	M5	2 - 4	3.2 - 5.4	8	3.6
	M6	4 - 11	5.4 - 14.7		
UFT-10 / UFT-S10	M6	5 - 11	6.7 - 14.7	43	19.5
	M8	11 - 23	14.7 - 31.4		
	M10	23 - 40	31.4 - 53.9		
UFT-16 / UFT-S16	M12	40 - 65	53.9 - 88.2	88	40
	M14	65 - 110	88.2 - 149		
	M16	110 - 140	149 - 190		
UFT-24*	M18	140 - 217	190 - 294	108	49.1
	M20	217 - 325	294 - 441		
	M24	325 - 506	441 - 686		

\* UFT-24 medium hard/soft joints only

Reaction fixture for continuous drive tools not included. Sockets included.

# TORQUE MEASUREMENT CABLES



## TORQUE MEASUREMENT CABLES

MODEL	DESCRIPTION	SERIAL CABLE	TRANSDUCER CABLE	ROTARY	ROTARY W/ANGLE	STATIONARY	IND STD	INTELLECT
ICBL-USB*	Connects between COM port of display to PC	X						
ATDBLIS*	Connect to IS transducer w/ angle - 10 pin		X		X		X	
ATDBRIS*	Connect to IS transducer - 4 pin		X	X		X	X	
ICBL-10P*	Intellect transducer cable. Identification chip in cable - 10 pin connector		X		X			X
ICBL-4P*	Intellect transducer cable. Identification chip in cable - 4 pin connector		X	X		X		X
ICBL-5000L	Connect from AUET/MTM & ATDA to Intellect Transducers, Analog AISI / AISF		X			X		X
ICBL-8000DIG	Connect from ATDA-8000 series analyzer to AISI / AIFI transducer		X					

\* Compatible with ATDA, AUET, ADW products

## TESTER / ANALYZER COMPATIBILITY

MODEL	ATC	AUET	AUET/MTM	AUET-DC	AUET/MTM-DC	ATDA	ATDA-DC	ATDA-8000	ATDA-8000-10-DCA(TA)(TP)	AISWT SWITCHBOX	ADW	ADW-DC	AIMTS TEST STAND
ICBL-USB	X	X	X	X	X	X	X				X	X	
ATDBLIS		X	X	X	X	X	X						
ATDBRIS		X	X	X	X	X	X						
ICBL-10P		X	X	X	X	X	X						
ICBL-4P		X	X	X	X	X	X						
ICBL-5000L			X		X	X	X	X	X	X			X
ICBL-8000DIG													

## TRANSDUCER COMPATIBILITY

MODEL	STATIONARY			ROTARY
	ASTIS	ANALOG AISI/AISF	DIGITAL AISI/AISF	ARTIS
ATDBLIS				X
ATDBRIS	X			X
ICBL-10P				X
ICBL-4P				X
ICBL-5000L		X		
ICBL-8000DIG			X	

**AUDITOR**™

# ACRADYNE HIGH TORQUE PNEUMATIC TOOLS



**AAP1B66600A**



**AAP1B76950A**



**AAP1B772000A**



**AAP1B885100A**

## FEATURES AND BENEFITS

AcraDyne's High Torque Pneumatic Bolting Tools offer a reliable and dependable solution for the installation and removal of heavy-duty fasteners. Appropriate for use in industries requiring high torque capability, accuracy, power, and safety.

- Modular design allows for ease of maintenance
- Interchangeable motors and gearing
- Same proven and reliable gearbox as the AcraDyne DC line
- One-hand reverse



MODEL	TORQUE (Nm)	TORQUE (Ft-lb)	SPEED (rpm)	WEIGHT (lb)	SQUARE DR. (in)	AIR CONSUMPTION (CFM)
AAP1B66400A	400	300	57	9.75	3/4	22.9
AAP1B66600A	600	450	39	9.75	3/4	22.9
AAP1B66850A	850	625	27	9.75	3/4	22.9
AAP1B76950A	950	700	31	10.4	3/4	26.3
AAP1B771350A	1350	1000	22	10.4	1	26.3
AAP1B772000A	2000	1475	14	12.7	1	26.3
AAP1B772950A	2950	2175	9	14.9	1	26.3
AAP1B885100A	5100	3775	8	23	1-1/2	31.5

## AIR PREPARATION UNITS

Many stacking filter/regulator combinations are available. See page 132 for options.



**AFRL-4**



**AFRL-4HTA  
Standalone Unit**

**28178  
HT Air Tool/AFRL  
Carrying Kit**



# ACRADYNE HIGH-SPEED SERIES HIGH TORQUE PNEUMATIC TOOLS

Our High-Torque Pneumatic High-Speed Series Bolting Tools offer a reliable and dependable solution for the installation and removal of heavy-duty fasteners with high torque capability, accuracy, power, and safety.

## FEATURES AND BENEFITS

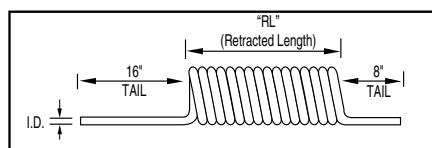
- Extremely fast rundown speed due to the dual motor design
- High torque output to weight ratio
- No reaction force due to the reaction bar and swivel gearbox
- Full swivel gearcase facilitates reaction bar positioning for ease of use and operator comfort
- Handle exhaust with low sound level
- Low air consumption compared to large motor frame type tools
- Uses the same durable and reliable gearbox from our DC line of high torque tools
- Modular design allows for easy maintenance
- One motor is used for all models in the range
- Two-piece handle construction enables flexible handle design
- Available in reversible and non-reversible models



MODEL	TORQUE (Nm)	TORQUE (Ft-lb)	SPEED (rpm)	WEIGHT (lb)	SQUARE DR. (in)
AAP2B76250A	250	185	660	10.5	3/4
AAP2B76450A	450	330	335	10.5	3/4
AAP2B76650A	650	480	223	10.5	3/4
AAP2B76950A	950	700	153	10.5	3/4
AAP2B771400A	1,400	1,000	110	14.6	1
AAP2B772000A	2,000	1,475	63	14.8	1
AAP2B773000A	3,000	2,210	52	12.4	1
AAP2B785100A	4,800	3,540	26.5	19.7	1.5

# ACRADYNE HT PNEUMATIC TOOL ACCESSORIES

## Polyurethane Hose for HT Tools



- Durable Polyurethane is chemical resistant and lightweight, and provides excellent recoil memory and maximum flexibility
- Available in transparent hose color (opaque also available)
- Assemblies for coiled hose include reusable swivel fitting. Straight hose available with or without fittings
- Working temperature: -104° F to 175° F
- Working pressure: 100 PSI



**STRAIGHT AIR HOSE  
(SOLD PER FOOT)**

MODEL	DESCRIPTION
ASH-500Z	1/2" I.D.
ASH-500C-15MSZ	3/4" x 1/2" x 15'

Contact an AIMCO Customer Service Associate about full reel pricing, 1-800-852-1368.

### SINGLE AIR HOSE ASSEMBLIES (COILED)

MODEL	DESCRIPTION (O.D. x I.D. x LENGTH)	RETRACTED LENGTH	NPT FITTINGS
ASH-500C-15MSZ	3/4" x 1/2" x 15'	13"	1/2"
ASH-500C-25MSZ	3/4" x 1/2" x 25'	23"	1/2"

Custom length coil assemblies and special colors available in minimum order quantities. Contact an AIMCO Customer Service Associate, 1-800-852-1368.

## Rubber Hose for HT Tools



- Designed for use in a wide range of industrial, construction, and agricultural applications
- Constructed of high grade, reinforced EPDM synthetic rubber
- Working temperature: -40° F to 190° F

### SINGLE AIR HOSE (RUBBER)

I.D.	O.D.	LENGTH	WORKING PRESSURE	WEIGHT
1/2"	0.81"	10 ft	200 psi	2.0 lb
5/8"	0.97"	10 ft	200 psi	2.7 lb
3/4"	1.12"	10 ft	200 psi	3.4 lb'

Custom lengths available. Contact an AIMCO Customer Service Associate for more details, 1-800-852-1368.

## REACTION BARS

Tool includes standard, spline attachment reaction device. See page 31 for part numbers. Custom reaction devices are available; contact an AIMCO Customer Service Associate for more details, 1-800-852-1368.



## Air Line Fittings



### PLUGS

MODEL	DESCRIPTION
28161	1/2" x 1/4" MPT
28162	1/2" x 3/8" MPT
28163	1/2" x 1/2" MPT
28164	1/2" x 1/2" FPT



### QUICK-CHANGE COUPLERS

MODEL	DESCRIPTION
27768	1/2" FPT
27769	1/2" MPT



### PROTECTIVE COUPLER

MODEL	DESCRIPTION
27771	Vinyl



### SWIVEL FITTING

MODEL	CAPACITY
500-SZ	1/2" NPT Swivel Fitting

# AIMCO PULSE TOOLS: OVERVIEW

## HOW DOES A PULSE TOOL WORK?

The unique design of a pulse tool, combining motor power and hydraulics, leads to an assembly tool that produces smooth, controlled torque in a series of very fast (2 – 4 ms) events and virtually no torque reaction.

- At free-speed, the entire pulse unit, a sealed cylinder containing hydraulic fluid and an output shaft, rotates at the same speed as the tool motor
- As resistance to rotation increases, the rotation of the output shaft slows, while the rotation of the

cylinder and the hydraulic fluid continues until they approach a seal point within the cylinder

- This seal point produces an increase in fluid pressure and transmits the energy from the rotational mass of the cylinder and fluid to the output shaft, producing torque on the fastener
- After a series of these cycles (pulses), fluid pressure builds to a point that overcomes the limit of a relief valve, allowing pressure to drop and torque to be controlled

## TIMELINE

### 1965

#### NEW TECHNOLOGY

The first pulse tool prototype was designed in an attempt to provide a tool that would provide torque control without the high maintenance costs of impact wrenches.



### 1980

#### U SERIES

Uryu produces the U-series, the first pulse tools to be available commercially for assembly. The U-Series evolves over the next several years to cover torque ranges from 4 – 850 Newton meters and finally, the development of full-shut-off tools. The lack of torque reaction and accurate, repeatable torque makes these tools a manufacturer standard.



### 1988

#### EC SERIES

The EC Series (and later the MC Series) combines the advantages of pulse tools with the technology of controlled tools. By incorporating a transducer into the design of the U-Series pulse tool, customers gain the Productivity and Ergonomics of pulse tools and the traceability and control of other transducerized assembly tools. Manufacturers with safety critical applications now have many more options for assembly tools.



### 2006

#### UEP-MC SERIES

Uryu does what no other manufacturer can by developing the UEP series, the first and only electric powered pulse tool. The lower speeds, quiet operation, and extremely repeatable torque make the UEP the perfect choice for applications where accuracy and clean operation are critical. By combining programmable tool speed with the MC-style transducer, extremely accurate and repeatable torque is achieved on a variety of applications.



### 2012

#### UDP-MC CONTROLLED SERIES

Uryu introduced the UDP-MC controlled series – smaller, lighter electric pulse tools that have an integrated fan unit. The state-of-the-art UECD controller with a built-in driver box eliminates the need for a secondary driver box in the system configuration.



# OMEGA PULSE TOOLS: OVERVIEW

## BENEFITS OF AIMCO PULSE TOOLS:

*Pulse tools offer advantages in all of the PERQ® elements – productivity, ergonomics, reliability and quality.*

By partnering with AIMCO, manufacturers can apply the advantages of pulse tools in many ways to reduce production costs and increase profits.

- Productivity – Combining high operating speeds with one-handed operation, AIMCO pulse tools help manufacturers produce at the highest possible rates
- Ergonomics – Light weight, low vibration and no torque reaction make AIMCO pulse tools the safest assembly tools available for threaded assembly

- Reliability – Advances in design and AIMCO's extensive maintenance and training programs add up to years of low cost service from any AIMCO pulse tool
- Quality – AIMCO pulse tools offer the most repeatable torque and clamp load results of any assembly tool, guaranteeing high product quality for manufacturers

**1995**

### ALPHA SERIES

The Alpha-series continued Uryu's advancements in pulse-tool design. In order to achieve the best possible power-to-weight ratio, the Alpha 9-blade, twin chamber air motor is developed. Still unique today, this new motor provides significantly more power, thereby, reducing cycle times and improving torque repeatability. The new Alpha air motor and design changes make the tools smaller and lighter, keeping Uryu at the forefront of pulse tool technology.



**2001**

### ULT / UL SERIES

Continuous innovations and developments include a new O-ring design that improves durability, roller bearings in the pulse unit to increase hydraulic fluid life and redesigned porting helps maintain fluid temperature and torque repeatability. UL tools, with their non-shut off operation, are ideal for applications where the lightest, fastest tool is necessary. Each model features the powerful Alpha air motor and latest in pulse unit design.



**2013**

### UA-AMC CONTROLLED PULSE SERIES

The UA-AMC Series features angle measurement for improved process control. It detects cross threading, double hits on the same fastener, stripped and damaged fastener threads and incorrect fasteners. It also features patented Auto Relief Technology, which modulates the beginning of the torque event, increases pulse frequency, and reduces resistance during the non-pulsing portion of the cycle. This shortens cycle time and increases fluid life.



### UAT SERIES

In 2013, Uryu developed and patented the latest innovation in Pulse Tool technology. Auto Relief (PAT) enables efficient delivery of torque energy to the application. Auto Relief responds to ever-changing pressures in the pulse unit, applying its energy in a smooth manner to the joint as the torque is developed. The Auto Relief valve is fully open during free run and automatically closes when torque resistance is sensed. No adjustment required. Benefits include elimination of initial torque spike on hard joints, reduction in oil flow resistance, and maximized performance of the tool.

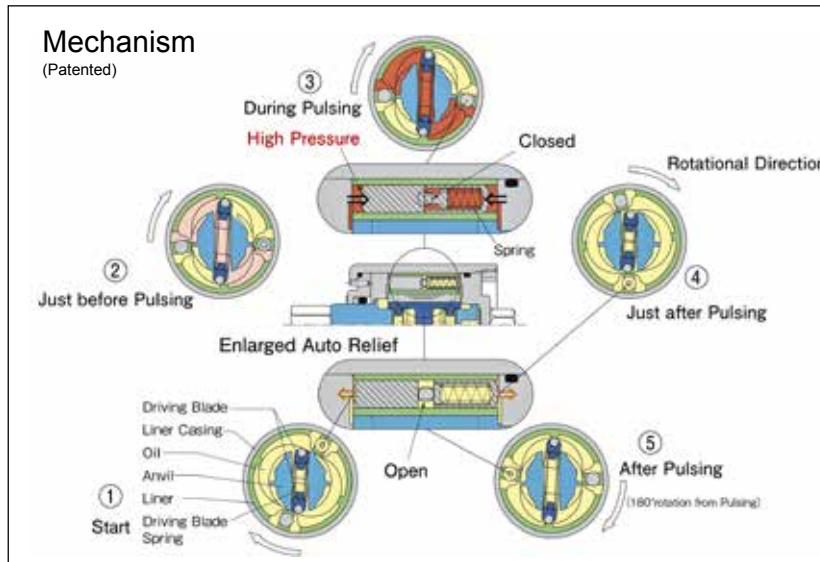


# OMEGA PULSE TOOLS: UAT SERIES

## PATENTED AUTO RELIEF TECHNOLOGY:

UAT features patented Auto Relief Technology providing additional control to the application of torque during the pulsing events.

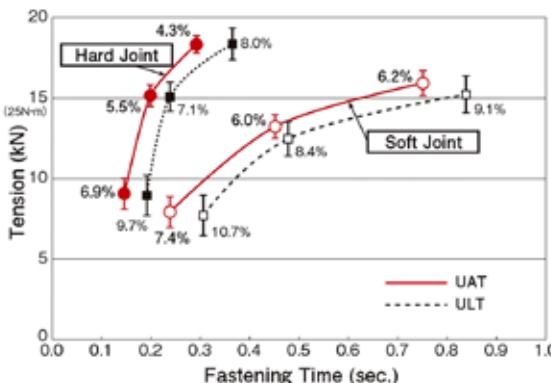
- Auto Relief eliminates initial spike of torque during a cycle. Highly effective on hard joint applications
- Auto Relief ramps up pressure within the pulse unit resulting in more pulses in less time providing a more efficient and even torque event



## A NEW LEAP FORWARD IN PRODUCTIVITY AND QUALITY:

- Fastening accuracy and time can be improved by as much as 30% depending on application

■ Fastening efficiency comparison (UAT vs ULT)

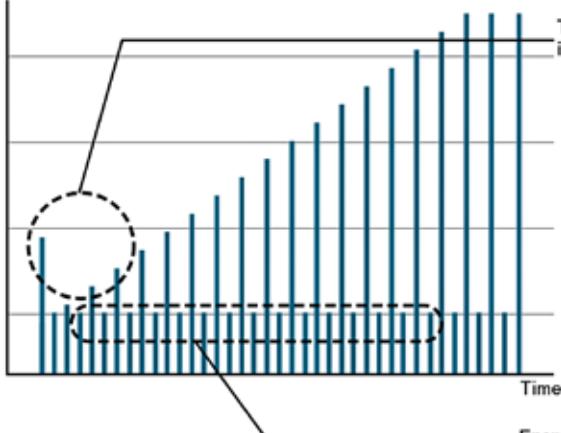


### Conventional Relief Valve

Dimension of Bypass (fixed)



Torque

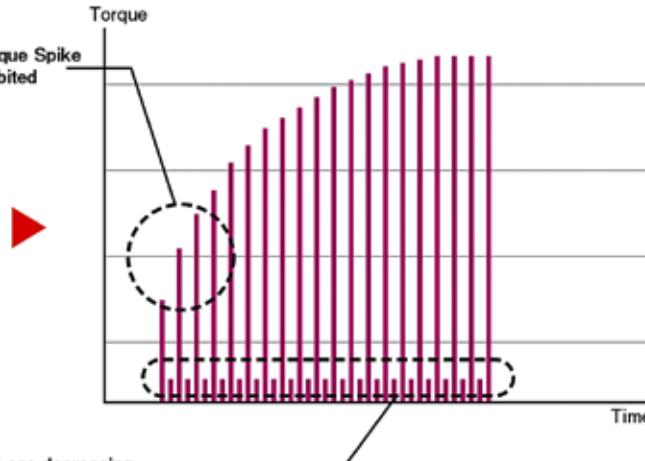


### Auto-relief

Dimension of Bypass (changing)



Torque



# OMEGA PULSE TOOLS: UAT SERIES



## PISTOL SHUT-OFF

Recommended Air Pressure: 85 psi

MODEL	FREE SPEED rpm	TORQUE RANGE Nm ft-lb	WEIGHT lb kg	OVERALL LENGTH in mm	DRIVE in	SOUND LEVEL dB(A)	AIR USAGE cfm		
UAT-30D	4,200	2.5 - 5.5	1.9	0.9	6.5	165	1/4	76	10.5
UAT-40	3,800	4.5 - 8	2.0	0.9	6.4	162	3/8	75	8.8
UAT-40D	3,800	4.5 - 8	2.0	0.9	6.5	165	1/4	75	8.8
UAT-50	4,600	7 - 15.5	2.0	0.9	6.4	162	3/8	78	8.8
UAT-50D	4,600	7 - 15.5	2.0	0.9	6.5	165	1/4	78	8.8
UAT-50L	4,000	7 - 15.5	2.0	0.9	6.4	162	3/8	75	8.8
UAT-50DL	4,000	7 - 15.5	2.0	0.9	6.5	165	1/4	75	8.8
UAT-60	6,700	15 - 32	2.1	1.0	6.8	174	3/8	80	12.3
UAT-60D	6,700	15 - 32	2.1	1.0	7.0	177	1/4	80	12.3
UAT-60L	6,000	13 - 28	2.1	1.0	6.8	174	3/8	77	8.8
UAT-70	6,000	30 - 55	2.3	1.1	7.1	180	3/8	80	14.0
UAT-70L	5,300	25 - 48	2.3	1.1	7.1	180	3/8	78	10.5
UAT-80	5,600	45 - 63	2.8	1.3	7.3	186	3/8	80	16.8
UAT-90	5,700	50 - 85	3.2	1.5	7.6	192	1/2	82	18.6
UAT-90L	5,100	45 - 75	3.2	1.5	7.6	192	1/2	79	15.8
UAT-100	5,200	70 - 130	3.7	1.7	7.8	199	1/2	82	19.3
UAT-100L	5,200	60 - 110	3.7	1.7	7.8	199	1/2	79	16.8
UAT-130	4,500	110 - 150	5.1	2.3	8.5	217	1/2	82	24.6
UAT-150	3,900	140 - 210	6.4	2.9	9.5	240	3/4	82	24.6
UAT-180	3,300	160 - 250	8.1	3.7	10.5	264	3/4	84	24.6
UAT-200	2,400	200 - 400	12.8	5.8	11.0	279	3/4	85	35.2

Air Hose Size: 1/4" ID for UAT-30 to UAT-50, 3/8" ID for UAT-60 to UAT-100, 1/2" ID for UAT-130 to UAT-200

Air Inlet Thread: 1/4" NPT for UAT-30 to UAT-100 3/8" NPT for UAT-130 to UAT-200

Note Torque Ranges reflect residual B joint torque values

UAT Models containing "L" indicate models designed to run at 57 PSI air pressure.

Most models can be equipped with TM (Tightening Monitor) feature for use with qualifier systems. Order TM tools by adding "TM" to model number (for example, UAT-60 becomes UAT-60TM).



## INLINE SHUT-OFF

Recommended Air Pressure: 85 psi

MODEL	FREE SPEED rpm	TORQUE RANGE Nm ft-lb	WEIGHT lb kg	OVERALL LENGTH in mm	DRIVE in	SOUND LEVEL dB(A)	AIR USAGE cfm		
UAT-30SD	3,400	2.5 - 5.5	1.9	0.8	8.7	222	1/4	68	12.3
UAT-40S	3,300	4.5 - 8.0	1.9	0.9	8.8	224	3/8	70	7.0
UAT-40SD	3,300	4.5 - 8.0	1.9	0.9	8.9	227	1/4	70	7.0
UAT-50S	3,900	7.0 - 15.5	1.9	0.9	8.8	224	3/8	78	8.8
UAT-50SD	3,900	7.0 - 15.5	1.9	0.9	8.9	227	1/4	78	8.8
UAT-50SL	3,800	7.0 - 15.5	1.9	0.9	8.8	224	3/8	75	7.0
UAT-50SDL	3,800	7.0 - 15.5	1.9	0.9	8.9	227	1/4	75	7.0
UAT-60S	5,700	15.0 - 32.0	1.9	0.9	9.0	229	3/8	80	10.5
UAT-60SD	5,700	15.0 - 32.0	1.9	0.9	9.1	232	1/4	80	10.5
UAT-60SL	5,300	13.0 - 28.0	1.9	0.9	9.0	229	3/8	77	8.8
UAT-60SDL	5,300	13.0 - 28.0	1.9	0.9	9.1	232	1/4	77	8.8
UAT-70S	4,700	30.0 - 50.0	2.1	1.0	9.4	239	3/8	80	12.3
UAT-70SL	4,400	25.0 - 45.0	2.1	1.0	9.4	239	3/8	78	9.5

Air Hose Size: 1/4" ID for UAT-30 to UAT-50, 3/8" ID for UAT-60 to UAT-70

Air Inlet Thread: 1/4" NPT for UAT-30 to UAT-100

Note Torque Ranges reflect residual B joint torque values

UAT Models containing "L" indicate models designed to run at 57 PSI air pressure.

Most models can be equipped with TM (Tightening Monitor) feature for use with qualifier systems. Order TM tools by adding "TM" to model number (for example, UAT-60 becomes UAT-60TM).

\*  logo indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

# OMEGA PULSE TOOLS: UL SERIES

## OMEGA UL SERIES

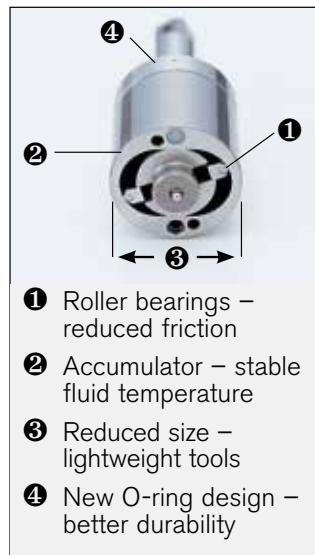
Whether the goal is improving productivity, ergonomics, reliability, or quality, the UL Series contains the technology to achieve success.

### FEATURES AND BENEFITS

- Models available from 6 – 230 Nm (4.4 – 170 Ft-lb)
- Available in Standard, Tightening Monitor, and Transducerized versions
- High power-to-weight ratio
- Reduced maintenance and extended service life
- Environmentally friendly design
- Accurate and repeatable



Omega Series Pulse Unit



### UL SERIES PISTOL NON SHUT-OFF

Recommended Air Pressure: 85 psi

MODEL	FREE SPEED rpm	TORQUE RANGE Nm	TORQUE RANGE ft-lb	WEIGHT lb	WEIGHT kg	OVERALL LENGTH in	OVERALL LENGTH mm	DRIVE in	SOUND LEVEL dB(A)	AIR USAGE cfm
UL-30D	5,700	6 - 12	4.4 - 8.9	1.5	0.7	5.4	137	1/4 hex	75	7.0
UL-30	5,700	6 - 12	4.4 - 8.9	1.5	0.7	5.2	133	3/8 sq.	75	7.0
UL-40D	6,100	11 - 20	8.1 - 14.8	1.5	0.7	5.4	137	1/4 hex	75	7.0
UL-40	6,100	13 - 22	9.6 - 16.3	1.5	0.7	5.2	133	3/8 sq.	75	7.0
UL-50D	6,400	18 - 28	13.3 - 20.7	1.7	0.8	5.8	146	1/4 hex	78	10.5
UL-50	6,400	22 - 35	16.3 - 25.9	1.7	0.8	5.5	140	3/8 sq.	78	10.5
UL-60D	7,000	22 - 35	16.3 - 25.9	1.8	0.8	5.6	143	1/4 sq..	80	14.0
UL-60	7,000	32 - 50	23.7 - 37.0	1.8	0.8	5.5	140	3/8 sq.	80	14.0
UL-70	5,700	40 - 65	29.6 - 48.1	2.1	1.0	6.0	153	3/8 sq.	80	15.8
UL-80	5,900	45 - 70	33.3 - 50.0	2.5	1.1	6.4	162	3/8 sq.	80	16.8
UL-90	6,000	60 - 100	44.4 - 74.0	2.9	1.3	6.7	170	1/2 sq.	82	18.6
UL-100	5,400	80 - 130	59.2 - 96.2	3.7	1.7	7.0	177	1/2 sq.	80	20.3
UL-130	4,400	100 - 180	74.0 - 118.4	5.1	2.3	7.8	197	1/2 sq.	83	22.7
UL-150	3,800	150 - 230	109.9 - 189.6	6.6	3.0	8.4	213	3/4 sq..	84	24.7



### UL SERIES INLINE NON SHUT-OFF

Recommended Air Pressure: 85 psi

MODEL	FREE SPEED rpm	TORQUE RANGE Nm	TORQUE RANGE ft-lb	WEIGHT lb	WEIGHT kg	OVERALL LENGTH in	OVERALL LENGTH mm	DRIVE in	SOUND LEVEL dB(A)	AIR USAGE cfm
UL-30SD	5,000	6 - 12	4.4 - 8.9	1.4	0.6	8.2	209	1/4 hex	75	8.1
UL-30S	5,000	6 - 12	4.4 - 8.9	1.4	0.6	8.1	205	3/8 sq.	72	8.1
UL-40SD	5,000	9 - 20	6.7 - 14.8	1.4	0.6	8.2	209	1/4 hex	75	8.1
UL-40S	5,000	11 - 22	8.1 - 16.3	1.4	0.6	8.1	205	3/8 sq.	72	8.1
UL-50SD	6,400	18 - 28	13.3 - 20.7	1.6	0.7	8.4	214	1/4 hex	78	12.3
UL-50S	6,400	22 - 35	16.3 - 25.9	1.6	0.7	8.2	208	3/8 sq.	78	12.3
UL-60SD	6,700	22 - 35	16.3 - 25.9	1.7	0.8	8.3	212	1/4 hex	80	15.8
UL-60S	6,700	32 - 50	23.7 - 37.0	1.7	0.8	8.2	209	3/8 sq.	80	15.8
UL-70S	5,400	36 - 60	26.6 - 44.4	1.9	0.9	8.8	223	3/8 sq.	84	14.0

Air Hose Size: 1/4 I.D. for UL-30 (D/SD) - UL-50 (D/SD) - 3/8" I.D. for UL-60 (D/SD) - UL-150 (D/SD)

Air Inlet: N.P.T. 1/4

NOTE: Torque ranges reflect residual B joint torque values

All pulse tools ending in "D" include a 1/4" Hex quick-change bit holder.

\*  logo indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

# OMEGA PULSE / ACRA-PULSE SERIES



## OMEGA PULSE ULT SERIES PISTOL / ANGLE SHUT-OFF

MODEL	FREE SPEED rpm	TORQUE RANGE Nm	TORQUE RANGE ft-lb	lb	WEIGHT kg	in	OVERALL LENGTH mm	DRIVE in	SOUND LEVEL db(a)	AIR USAGE cfm
PISTOL										
ULT-150	3,700	140 - 210	104 - 155	6.4	2.9	9.5	240	3/4" Sq. Dr.	82	24.7
ULT-180	3,300	160 - 250	118 - 185	8.1	3.7	10.4	264	3/4" Sq. Dr.	82	24.7
ANGLE										
ULT-40C	3,500	4.5 - 7.5	3.3 - 5.6	2.9	1.30	9.8	250	3/8" Sq. Dr.	70	7.0
ULT-50C	4,500	7.0 - 15.5	5.2 - 11.5	3.0	1.35	9.8	250	3/8" Sq. Dr.	78	8.6
ULT-60C	5,200	13 - 28	9.6 - 20.7	3.2	1.45	10.3	261	3/8" Sq. Dr.	80	10.5
ULT-70C	4,400	20 - 35	14.8 - 25.9	3.6	1.65	10.8	275	3/8" Sq. Dr.	82	12.3
ULT-70CH	2,500	30 - 50	22.2 - 37.0	4.1	1.85	11.4	290	1/2" Sq. Dr.	82	12.3

"L" following model number denotes Low Air Pressure type

NOTE: Torque ranges reflect residual B joint torque values

"H" within model number denotes High Torque type



## ACRA-PULSE PISTOL / INLINE SHUT-OFF 3/8" - 1/2" DRIVE

Recommended Air Pressure: 85 psi

MODEL	FREE SPEED RPM	TORQUE RANGE NM	TORQUE RANGE FT-LB	OVERALL LENGTH MM	WEIGHT LB	WEIGHT KG	FROM CENTER TO OUTSIDE MM	FROM CENTER TO OUTSIDE IN	SQ. DRIVE IN	NOISE LEVEL DB(A)	AIR USAGE CFM
PISTOL 3/8" - 1/2" DRIVE											
UX-T700L*	7,500	13 - 26	10 - 19	187	7.4	3.2	1.5	25.5	1.0	72	10.5
PISTOL 3/4" - 1" DRIVE											
UXR-T1820	4,400	150 - 250	110 - 180	270	10.6	9.9	4.5	42.0	1.7	84	24.7
UXR-T2000	4,000	200 - 400	150 - 290	303	11.9	15.0	6.8	47.0	1.8	85	34.0
INLINE											
UXR-T2400S*	3,600	360 - 650	260 - 470	444	17.5	26.5	12.0	61.5	2.4	85	35.3
UXR-T3000S	4,400	450 - 850	330 - 620	477	18.8	32.0	14.5	62.0	2.4	85	37.1

Air Hose Size: 3/8" I.D. 1/2" I.D. for UXR-T1820 - UXR-T3000S

Air Inlet: N.P.T. 1/4" 3/8" for UXR-T1820 & UXR-T2000 1/2" for UXR-T2400S & UXR-T3000S

NOTE: Torque ranges reflect residual B joint torque values

\* UX-T700L and UXR-T2400S models can be equipped with a TM (Tightening Monitor) feature for use with qualifier systems. Order TM tools by adding "TM" to model number (for example, UX-T700L becomes UX-T700LTM).

\* indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

# ACRA-PULSE SERIES



**U-350D**



**UX-450D**



**UX-500D**



**UX-612D**

## PISTOL NON SHUT-OFF 1/4" HEX DRIVE

Recommended Air Pressure: 85 psi

MODEL	FREE SPEED RPM	TORQUE RANGE NM	OVERALL LENGTH MM	WEIGHT LB	FROM CENTER TO OUTSIDE MM	NOISE LEVEL DB(A)	AIR USAGE CFM				
U-350D	10,500	3.5 - 5.8	2.5 - 4.2	154	6.1	1.7	0.8	22.0	0.9	74	5.3
UX-450D	9,500	8 - 14	5.8 - 10	152	6.0	1.9	0.9	22.0	0.9	<70	7.0
UX-500D	9,300	13 - 20	10 - 15	152	6.0	1.9	0.9	22.0	0.9	70	8.8
UX-612D	9,300	16 - 28	12 - 20	165	6.5	2.1	1.0	22.5	0.9	75	11.2

Air Hose Size: 1/4" I.D. for U-350D - UX-500D - 3/8" I.D. for UX-612D

All Tools Standard with 1/4" Quick Change Chuck

Air Inlet Thread: N.P.T. 1/4"

NOTE: Torque ranges reflect residual B joint torque values



**UX-450**



**UX-612**



**UX-500**



**UX-700**



**UX-800**



**UX-1300**



**UX-1400**

## PISTOL NON SHUT-OFF 3/8" - 1/2" DRIVE

Recommended Air Pressure: 85 psi

MODEL	FREE SPEED RPM	TORQUE RANGE NM	OVERALL LENGTH MM	WEIGHT LB	FROM CENTER TO OUTSIDE MM	SQ. DRIVE IN	NOISE LEVEL DB(A)	AIR USAGE CFM				
UX-450	9,500	9 - 15	6.5 - 11	147	5.8	1.9	0.9	22.0	0.9	3/8	65	7.0
UX-500	9,300	15 - 25	11 - 19	147	5.8	1.9	0.9	22.0	0.9	3/8	70	8.8
UX-612	9,300	20 - 35	15 - 25	160	6.3	2.1	1.0	22.5	0.9	3/8	75	11.2
UX-700	9,000	25 - 45	20 - 35	169	6.7	3.0	1.4	25.5	1.0	3/8	73	12.3
UX-800	9,000	35 - 60	25 - 45	175	6.9	3.7	1.7	28.0	1.1	3/8	73	14.1
UX-900	7,600	45 - 75	35 - 55	181	7.1	4.1	1.9	30.0	1.2	1/2	75	14.7
UX-1000	6,800	50 - 95	40 - 70	187	7.4	4.8	2.2	33.0	1.3	1/2	75	17.9
UX-1300	6,200	80 - 130	60 - 95	205	8.1	5.9	2.7	36.0	1.4	1/2	76	19.4
UX-1400	5,300	100 - 160	75 - 120	224	8.8	7.0	3.2	40.0	1.6	1/2	78	21.1

Air Hose Size: 1/4" I.D. for U-410 - UX-500 - 3/8" I.D. for UX-612 - UX-1400

Air Inlet: N.P.T. 1/4"

NOTE: Torque ranges reflect residual B joint torque values



**UX-1620**



**UXR-1820**



**UXR-2000**

## PISTOL NON SHUT-OFF 3/4" - 1" DRIVE

Recommended Air Pressure: 85 psi

MODEL	FREE SPEED RPM	TORQUE RANGE NM	OVERALL LENGTH MM	WEIGHT LB	FROM CENTER TO OUTSIDE MM	SQ. DRIVE IN	NOISE LEVEL DB(A)	AIR USAGE CFM				
UX-1620	5,000	120 - 190	90.0 - 140.0	241	9.5	7.9	3.6	40.0	1.6	3/4	82	22.9
UXR-1820	4,600	160 - 250	120.0 - 185.0	242	9.5	9.0	4.1	42.0	1.7	3/4	84	26.3
UXR-2000	4,200	300 - 450	220.0 - 330.0	282	11.1	14.3	6.5	47.0	1.8	3/4	85	31.5

Air Hose Size: 3/8" I.D. for UX-1620

1/2" I.D. for UXR-1820

Air Inlet: N.P.T. 1/4" for UX-1620 N.P.T. 3/8" for UXR-1820, UXR-2000

NOTE: Torque ranges reflect residual B joint torque values

Torque Control in Left-Hand Rotation Available for UX-2000

## AUTO REVERSING

Recommended Air Pressure: 85 psi

MODEL	FREE SPEED RPM	TORQUE RANGE NM	OVERALL LENGTH MM	WEIGHT LB	FROM CENTER TO OUTSIDE MM	NOISE LEVEL DB(A)	AIR USAGE CFM				
UX-ST800	7,300	35 - 55	25 - 40	195	7.7	3.8	1.8	28.0	1.1	75	10.5

Air Hose Size: 3/8" I.D.

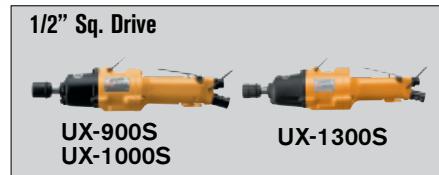
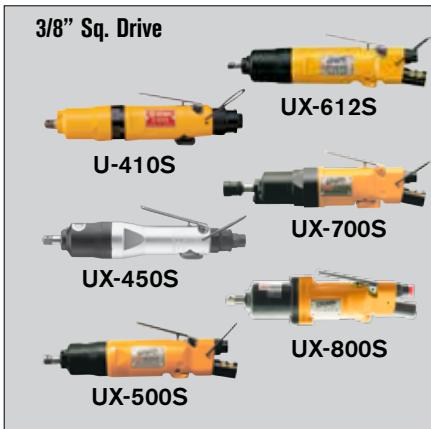
Air Inlet: N.P.T. 1/4"

NOTE: Torque ranges reflect residual B joint torque values

\* logo indicates where ERGO-DRIVE sockets/extensions benefit tool operation.



# ACRA-PULSE SERIES



## INLINE NON SHUT-OFF

Recommended Air Pressure: 85 psi

MODEL	FREE SPEED RPM	TORQUE RANGE NM	TORQUE RANGE FT-LB	OVERALL LENGTH MM	WEIGHT LB	WEIGHT KG	FROM CENTER TO OUTSIDE MM	FROM CENTER TO OUTSIDE IN	NOISE LEVEL DB(A)	AIR USAGE CFM	AIR HOSE SIZE (I.D.)
1/4" Hex Drive (Tools Come Standard with 1/4" Quick Change Chuck)											
U-310SD	11,000	2.5 - 3.1	1.8 - 2.2	222	8.7	1.5	0.6	18.0	0.7	74	5.3
U-350SD	10,500	3.5 - 5.8	2.5 - 4.2	238	9.4	1.5	0.7	22.0	0.7	74	5.3
U-410SD	10,500	7 - 10	5.0 - 7.2	240	9.5	1.8	0.8	22.0	0.9	70	5.3
UX-450SD	9,500	8 - 14	5.8 - 10	239	9.4	1.8	0.8	22.0	0.9	<70	7.0
UX-500SD	9,300	13 - 20	10 - 15	244	9.5	2.0	0.9	22.0	0.9	70	8.8
UX-612SD	9,300	16 - 28	12 - 20	253	10.0	2.2	1.0	23.3	0.9	75	11.1
UX-700SD	9,000	20 - 36	16 - 28	249	9.8	2.8	1.3	26.5	1.0	78	12.3
3/8" Sq. Drive											
U-410S	10,500	7 - 10	5.0 - 7.2	239	9.4	1.8	0.8	22.0	0.9	70	5.3
UX-450S	9,500	9 - 15	6.5 - 11	234	9.2	1.8	0.8	22.0	0.9	<70	7.0
UX-500S	9,300	15 - 25	11 - 19	239	9.4	2.0	0.9	22.0	0.9	70	8.8
UX-612S	9,300	20 - 35	15 - 25	248	9.8	2.2	1.0	23.3	0.9	75	11.1
UX-700S	9,000	25 - 45	20 - 35	244	9.5	2.8	1.3	26.5	1.0	78	12.3
UX-800S	9,000	35 - 60	25 - 45	250	9.8	3.2	1.5	35.5	1.0	75	14.2
1/2" Sq. Drive											
UX-900S	7,600	45 - 75	35 - 55	310	12.2	3.9	1.8	37.5	1.1	75	14.9
UX-1000S	6,800	50 - 95	40 - 70	320	12.6	4.6	2.1	39.0	1.1	75	17.9
UX-1300S	6,200	80 - 130	60 - 95	336	13.2	6.6	2.6	42.0	1.3	77	19.4
3/4" Drive											
UXR-2000S*	4,200	300 - 450	220 - 330	340	13.4	15.4	7.0	47.0	1.8	85	31.6
1" Sq. Drive											
UXR-2400S*	4,000	400 - 650	290 - 470	385	15.2	23.7	11.0	55.0	2.1	85	35.2
UXR-3000S*	4,400	500 - 850	360 - 630	455	17.9	29.3	13.3	62.0	2.1	85	37.1

Air Inlet N.P.T.: 1/4" 3/8" for UXR-2000S 1/2" for UXR-2400S and UXR-3000S

\*Torque control in left-hand rotation available

NOTE: Torque ranges reflect residual B joint torque values



## ANGLE 3/8" - 1/2" DRIVE

Recommended Air Pressure: 85 psi

MODEL	FREE SPEED RPM	TORQUE RANGE NM	TORQUE RANGE FT-LB	WEIGHT LB	WEIGHT KG	OVERALL LENGTH MM	SQ. DRIVE IN	NOISE LEVEL DB(A)	AIR USAGE CFM	
ALPHA-70C	6,300	28 - 45	20.2 - 32.5	3.9	1.8	266	10.5	3/8	82	15.8
ALPHA-70CH	3,600	50 - 76	36.1 - 56.0	4.4	2.0	282	11.1	1/2	82	15.8
UX-500C	9,300	13 - 20	10.0 - 15.0	2.8	1.3	270	10.6	3/8	82	8.8
UX-612C	9,800	16 - 28	12.0 - 20.0	3.0	1.4	283	11.1	3/8	85	11.2
UX-700C	9,500	20 - 36	16.0 - 28.0	3.7	1.7	273	10.8	3/8	85	12.3
UX-800C	9,000	29 - 43	20.0 - 31.0	4.3	1.9	285	11.2	3/8	85	14.1
UX-1000C	6,800	50 - 80	40.0 - 58.0	6.8	3.1	365	14.4	1/2	90	17.9

Air Hose Size: 1/4" I.D. for UX-500C - 3/8" I.D. for ALPHA-70C, ALPHA-70CH, UX-612C - UX-1000C

Air Inlet: N.P.T. 1/4

NOTE: Torque ranges reflect residual B joint torque values

\* logo indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

# UDBP PULSE SERIES CORDLESS TOOLS

**The next-generation cordless pulse tool combines industry-leading pulse technology with Lithium-Ion battery power.**

## FEATURES AND BENEFITS

- Uryu Direct Battery Pulse (UDBP) – This new design connects the pulse unit directly to the motor – no reduction gearing – resulting in a tool with less noise and vibration
- Brushless Internal Permanent Magnet (IPM) motor provides longer motor life and more efficiency allowing more fastening cycles per battery charge
- UDBP features patented Auto Relief Technology providing additional control to the application of torque during the pulsing events
- On board LEDs for application illumination
- Li-Ion battery provides more power and ends the “battery-memory” issues of NiCd batteries
- Tool/battery combination is 27% lighter than earlier UBP tools
- RF Types transmit “good” signal to receiver (sold separately) over 426Mhz
- “Good” signal can be used for Poka-Yoke or Bolt Counting



**UDBP-TA50**



**Battery:** UB111Li,  
UB222Li, UB333Li



**Charger:** UBC

The lithium-ion battery provides excellent power-to-weight ratio. It does not experience the memory effect caused by repeated recharging after being only partially discharged.

The battery power indicator provides you with a visual indication to charge the lithium-ion battery.

● = good charge

■ = low charge (recharging needed)

■ = very low charge (immediate recharging needed)

The slide design battery provides the high-energy efficiency in power and no damage to contact.

(RF) represents the tool with wireless transmission feature.

MODEL	TYPE	FREE SPEED RPM	TORQUE RANGE		WEIGHT W/ BATTERY lb	LENGTH in	DRIVE in	SOUND LEVEL dB(A)	VOLTAGE V		BATTERY	CHARGER
			Nm	ft-lb					VOLTAGE V	BATTERY		
UDBP-TA40(RF)	Shut-off	4,800	4.5 - 8	3.3 - 5.9	3.1	8.2	1/4 hex	75	11.1	UB111Li	UBC	
UDBP-TA40(P)-RF	Shut-off	4,800	4.5 - 8	3.3 - 5.9	3.1	8.2	1/4 hex	75	11.1	UB111Li	UBC	
UDBP-TA50(RF)	Shut-off	4,800	6.5 - 13	4.8 - 9.6	3.1	8.2	1/4 hex	76	11.1	UB111Li	UBC	
UDBP-TA50(P)-RF	Shut-off	4,800	7 - 15	5.1 - 11.1	3.1	8.1	3/8 sq.	76	11.1	UB111Li	UBC	
UDBP-TA60(RF)	Shut-off	4,800	13 - 26	9.6 - 19.2	3.7	8.8	1/4 hex	77	22.2	UB222Li	UBC	
UDBP-TA60(P)-RF	Shut-off	4,800	15 - 28	11.1 - 20.7	3.7	8.7	3/8 sq.	76	22.2	UB222Li	UBC	
UDBP-TA70(P)-RF	Shut-off	4,800	26 - 47	19.2 - 34.7	4.4	9.2	3/8 sq.	76	33.3	UB333Li	UBC	

(P) Designates 3/8" square drive anvil with socket retainer pin. Tools with no (P) suffix have a quick-change driver anvil.

Adding "KIT" to the tool model number will include two (2) batteries and the battery charger with the specified tool. Example: UDBP-T50KIT

NOTE: Torque ranges reflect residual B joint torque values.

Charge Time: 80% battery capacity - 40 minutes, 100% battery capacity - 64 minutes.

\* indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

# UDBP PULSE TOOL BATTERIES

## UDBP SERIES KITS AND COMPONENTS

Standard Shut Off Type

TOOL	TOOL BATTERY (SUPPLIED SEPARATELY)	CHARGER	TOOL PLUS 1 BATTERY	TOOL PLUS 2 BATTERIES AND 1 CHARGER
UDBP-TA40	UB111LI	UBC	UDBP-TA40-B	UDBP-TA40-KIT
UDBP-TA50	UB111LI	UBC	UDBP-TA50-B	UDBP-TA50-KIT
UDBP-TA50(P)	UB111LI	UBC	UDBP-TA50(P)-B	UDBP-TA50(P)-KIT
UDBP-TA60	UB-222LI	UBC	UDBP-TA60-B	UDBP-TA60-KIT
UDBP-TA60(P)	UB-222LI	UBC	UDBP-TA60(P)-B	UDBP-TA60(P)-KIT
UDBP-TA70(P)	UB-333LI	UBC	UDBP-TA70(P)-B	UDBP-TA70(P)-KIT

Shut Off Type With Rf Communication (Poka Yoke)

TOOL	2 CHANNEL RF RECEIVER	TOOL BATTERY (SUPPLIED SEPARATELY)	CHARGER	TOOL PLUS 1 BATTERY	TOOL PLUS 2 BATTERIES AND 1 CHARGER	TOOL PLUS 2 BATTERIES, 1 CHARGER, AND 1 RECEIVER
UDBP-TA40RF	TWF-600R	UB111LI	UBC	UDBP-TA40RF-B	UDBP-TA40RF-KIT	UDBP-TA40RF-KTR
UDBP-TA40(P)RF	TWF-600R	UB111LI	UBC	UDBP-TA40(P)RF-B	UDBP-TA40(P)RF-KIT	UDBP-TA40(P)RF-KTR
UDBP-TA50RF	TWF-600R	UB111LI	UBC	UDBP-TA50RF-B	UDBP-TA50RF-KIT	UDBP-TA50RF-KTR
UDBP-TA50(P)-RF	TWF-600R	UB111LI	UBC	UDBP-TA50(P)-RF-B	UDBP-TA50(P)-RF-KIT	UDBP-TA50(P)-RF-KTR
UDBP-TA60RF	TWF-600R	UB-222LI	UBC	UDBP-TA60RF-B	UDBP-TA60RF-KIT	UDBP-TA60RF-KTR
UDBP-TA60(P)-RF	TWF-600R	UB-222LI	UBC	UDBP-TA60(P)-RF-B	UDBP-TA60(P)-RF-KIT	UDBP-TA60(P)-RF-KTR
UDBP-TA70(P)-RF	TWF-600R	UB-333LI	UBC	UDBP-TA70(P)-RF-B	UDBP-TA70(P)-RF-KIT	UDBP-TA70(P)-RF-KTR

## BODY JACKETS FOR UDBP SERIES



MODEL	DESCRIPTION
863-964-1	Body Jacket for UDBP 40/50 Series
863-965-1	Body Jacket for UDBP 60 Series
863-966-1	Body Jacket for UDBP 70 Series

## BATTERY COVERS



MODEL	DESCRIPTION
863-976-1	Battery Cover for UDBP 40/50 Series
863-977-1	Battery Cover for UDBP 60 Series
863-978-1	Battery Cover for UDBP 70 Series

## RECEIVER



MODEL	DESCRIPTION
TWF-600R	Receiver for UDBP (RF) type tools 426Mhz (sold separately)

[www.aimco-global.com](http://www.aimco-global.com)

800-852-1368



Visit our NEW website [www.aimco-global.com](http://www.aimco-global.com)

# UDP-TA SERIES

## DIRECT PLUG IN, SHUT OFF PULSE TOOLS

### FEATURES AND BENEFITS

- Direct Wall Plug in – Tool plugs directly to 100 – 115 VAC wall power with circuit protection breaker box or integrated power cable balancer
- Brushless (IPM) Motor provides long motor life with integrated trigger activated fan for increased duty cycle
- Patented Auto Relief Pulse Unit Technology
- Lightweight, high impact, rugged plastic housing for superior ergonomics
- Optional power cable integrated balancer available



UDP-TA40(B)



UDP-TA50D(B-TL)

MODEL	TORQUE RANGE NM	TORQUE RANGE FT LBS	RPM FREE SPEED	OVERALL LENGTH IN	OVERALL LENGTH MM	WEIGHT LB	WEIGHT KG	DRIVE
Bottom Cable Exit Models (denoted by B)								
UDP-TA40 (B)	4.5 - 8.0	3.3 - 5.9	3,300	7.1	179.5	3.0	1.4	3/8" Sq.
UDP-TA40D (B)	4.5 - 8.0	3.3 - 5.9	3,300	7.2	182.5	3.0	1.4	1/4" Hex
UDP-TA50 (B)	7.0 - 15.5	5.2 - 11.5	3,900	7.1	179.5	3.0	1.4	3/8 Sq.
UDP-TA50D (B)	7.0 - 15.5	5.2 - 11.5	3,900	7.2	182.5	3.0	1.4	1/4" Hex
UDP-TA55 (B)	12.5 - 25.0	9.3 - 18.5	4,800	7.3	184.5	3.0	1.4	3/8" Sq.

### Top Cable Exit Models (denoted by (B-TL))

UDP-TA40 (B-TL)	4.5 - 8.0	3.3 - 5.9	3,300	7.1	179.5	3.0	1.4	3/8" Sq.
UDP-TA40D (B-TL)	4.5 - 8.0	3.3 - 5.9	3,300	7.2	182.5	3.0	1.4	1/4" Hex
UDP-TA50 (B-TL)	7.0 - 15.5	5.2 - 11.5	3,900	7.1	179.5	3.0	1.4	3/8" Sq.
UDP-TA50D (B-TL)	7.0 - 15.5	5.2 - 11.5	3,900	7.2	182.5	3.0	1.4	1/4" Hex
UDP-TA55 (B-TL)	12.5 - 25.0	9.3 - 18.5	4,800	7.3	184.5	3.0	1.4	3/8" Sq.

### OPTIONAL ACCESSORIES

MODEL	DESCRIPTION
UCB-25	Power Cable Balancer
UCB-TA-CBL	110VAC Wall-to-Breaker Power Cable
910-629-0	Breaker Unit
910-618-0	5M UDP Tool to Breaker Cable
910-619-0	10M UDP Tool to Breaker Cable
910-627-0	5M UDP Extension Cable*

\* Extension Cables connect between Tool and Breaker Cables



UCB-25  
Power Cable  
Balancer



910-619-0  
10M Tool-to-Breaker Cable



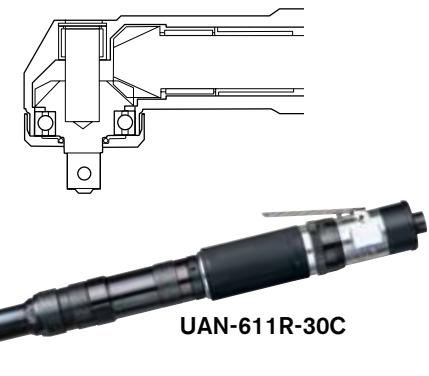
910-629-0      Breaker Unit  
UCB-TA-CBL    Wall-to-Breaker  
                  Power Cable

# UAN & URW SERIES NUTRUNNERS

## UAN SERIES ANGLE NUTRUNNERS

Designed for fastening in tight quarters or applications not served well by a pulse tool. The UAN Series transfers torque through beveled angle gears, continuously driving the fastener. When the resistance to rotation overcomes the spring resistance on the clutch, the tool will disengage at the adjusted torque value. Low reaction force characteristics on hard joints make it comfortable for the operator to use. Ideal for applications ranging from 6 – 60 Nm (4 – 44 ft-lbs).

- Torque Control
- Electronically Monitored or Controlled type



**UAN-611R-30C**

Recommended Air Pressure: 85 psi

## ANGLE/INLINE TORQUE CONTROL UAN SERIES

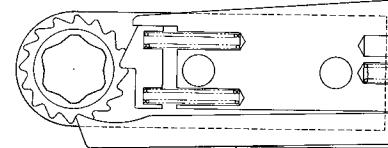
MODEL	TORQUE RANGE NM	TORQUE RANGE FT-LB	FREE SPEED RPM	OVERALL LENGTH MM	OVERALL LENGTH IN	ANGLE HEAD HEIGHT MM	ANGLE HEAD HEIGHT IN	FROM CENTER TO OUTSIDE MM	FROM CENTER TO OUTSIDE IN	WEIGHT LESS SOCKET KG	WEIGHT LESS SOCKET LB	SQUARE DRIVE IN	NOISE LEVEL DB(A)	AIR USAGE CFM
<b>ANGLE</b>														
UAN-611R-60C	6.5 - 12.0	4.3 - 8.6	620	383	15.1	47	1.9	14.0	0.5	1.6	3.5	3/8	80	21.2
UAN-611R-50C	8.5 - 15.0	5.7 - 10.8	470	373	14.7	47	1.9	14.0	0.5	1.6	3.5	3/8	80	21.2
UAN-611R-40C	10.0 - 18.0	7.2 - 12.9	400	373	14.7	47	1.9	14.0	0.5	1.6	3.5	3/8	80	21.2
UAN-611R-30C	13.0 - 25.0	9.3 - 18.0	270	373	14.7	47	1.9	14.0	0.5	1.6	3.5	3/8	80	21.2
UAN-701R-60C	20.0 - 31.0	14.5 - 23.1	600	445	17.5	47	1.9	14.0	0.5	2.4	5.3	3/8	85	31.8
UAN-701R-40C	28.0 - 45.0	21.0 - 33.3	400	455	17.9	51	2.0	18.0	0.7	2.4	5.3	3/8	85	31.8
UAN-701R-30C	37.0 - 60.0	27.5 - 44.1	300	455	17.9	58	2.3	18.0	0.7	2.4	5.3	1/2	85	31.8

Air Hose Size: 3/8 I.D.

Air Inlet: N.P.T. 1/4

## URW SERIES IN-LINE RATCHET WRENCHES

Designed to set flush over the fastener head, the URW Series is ideal for narrow fastening spaces. Motor torque is transferred from a gear driven, dual lobed cam that pushes a spring loaded push rod, rotating the socket one tooth at a time. A wide variety of socket sizes, head thicknesses, and tool lengths allow the URW Series access to many difficult applications.



## URW SERIES RATCHET WRENCHES

MODEL	MAX TORQUE Nm	MAX TORQUE ft-lb	FREE SPEED rpm	OVERALL LENGTH mm	OVERALL LENGTH in	WEIGHT lb	WEIGHT kg	MIN/MAX HEX SOCKET SIZE mm	MIN/MAX HEX SOCKET SIZE in	AIR USAGE cfm
<b>STRAIGHT HEAD</b>										
URW-6	11	8.1	210	292	11.5	2.5	1.2	6 - 12	1/4 - 7/16	9.9
URW-8N	16	11.8	260	300	11.8	4.2	1.9	7 - 15	7/16 - 9/16	19.5
URW-8	16	11.8	240	360	14.2	5.0	2.3	7 - 15	7/16 - 9/16	19.8
URW-9N	31	22.9	140	380	15.0	5.2	2.4	7 - 15	7/16 - 9/16	23.7
URW-10N	57	42.2	155	394	15.5	5.8	2.7	10 - 19	9/16 - 3/4	25.0
URW-12N	59	43.7	145	397	15.6	5.9	2.7	12 - 23	3/8 - 13/16	25.0

Air Hose Size: 3/8 I.D.

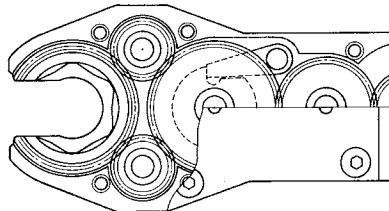
Air Inlet: N.P.T. 1/4

# TUBENUT & GEARED NUTRUNNERS

## UOW SERIES OPEN-END NUTRUNNERS

Designed for tubenut fastening, the UOW Series can transfer torque through a variety of options.

- Stall Type – Depending on the application requirements, the standard UOW Series will stall when torque resistance matches power output
- Mechanical Shut-off Type – For greater torque accuracy and less reaction impulse to the operator, the UOW-T Series incorporates a mechanical clutch to shut off the tool at the preset torque
- Electronically Monitored Type – For critical torque applications requiring monitoring or controlling of the fastening torque, the UOW-M Series utilizes a transducer to signal the clutch shut-off
- UOW series incorporates a one-hand, two-step throttle, which automatically reverses the socket to a preset open position



UOW-11-10      UOW-11-14      UOW-11-22      UOW-11-30      UOW-T60-22      UGW-8N

## UOW/UOW-T SERIES TUBENUT WRENCHES

Recommended Air Pressure: 85 psi

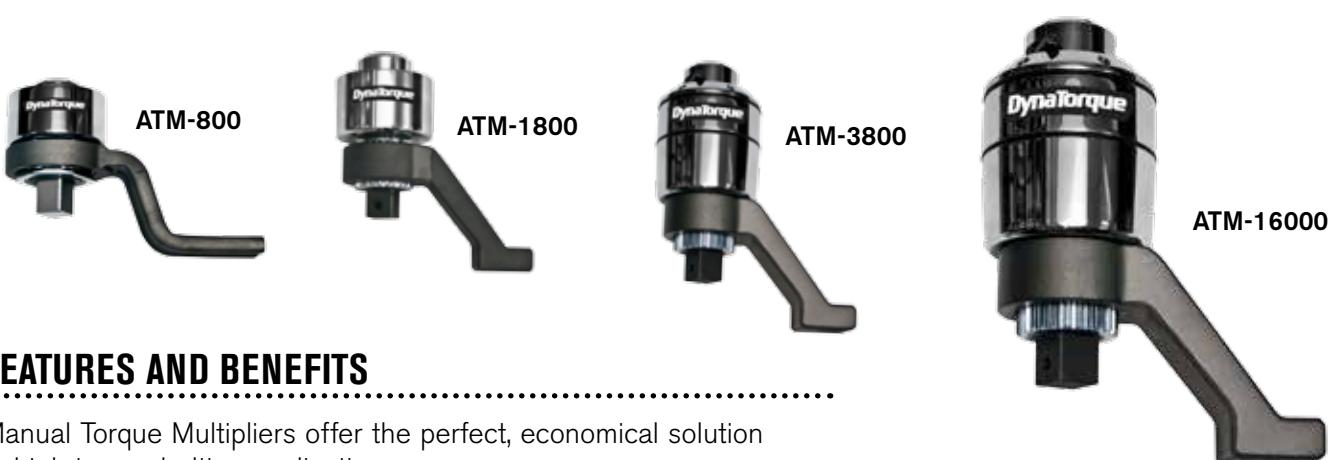
MODEL	MAX TORQUE/RANGE NM	MAX TORQUE/RANGE FT-LB	FREE SPEED RPM	OVERALL LENGTH MM	OVERALL LENGTH IN	WEIGHT LB	WEIGHT KG	MIN/MAX HEX SOCKET SIZE MM	MIN/MAX HEX SOCKET SIZE IN	NOISE LEVEL DB(A)	AIR USAGE CFM
<b>STALL</b>											
UOW-11-10	13	9.6	390	295	11.7	3.3	1.5	7 - 12	1/4 - 7/16	76	10.5
UOW-11-14	16	11.8	290	311	12.3	3.5	1.6	10 - 17	7/16 - 5/8	76	10.5
UOW-11-22	24	17.8	220	326	12.8	3.9	1.8	11 - 24	7/16 - 5/8	76	10.5
UOW-11-30	32	23.7	160	347	13.7	4.4	2.0	14 - 36	5/8 - 1-3/16	76	10.5
<b>SHUT-OFF CLUTCH</b>											
UOW-T60-10	4 - 14	3.0 - 10.4	300	370	14.6	4.6	2.1	7 - 12	1/4 - 7/16	76	10.5
UOW-T60-14	5 - 17	3.7 - 12.6	240	395	15.1	4.9	2.2	10 - 17	7/16 - 5/8	76	10.5
UOW-T60-22	7 - 24	5.2 - 17.8	170	400	15.8	5.2	2.4	11 - 24	7/16 - 5/8	76	10.5
UOW-T60-30	10 - 32	7.4 - 23.7	130	420	16.6	5.7	2.6	14 - 36	5/8 - 1-3/16	76	10.5
<b>GEARED WRENCHES</b>											
UGW-6N	18	13.3	530	310	12.2	3.1	1.4	9 - 12	3/8 - 7/16	76	10.5
UGW-8N	23	17.0	410	322	12.7	3.2	1.5	10 - 17	7/16 - 5/8	76	10.5

Air Hose Size: 3/8 I.D.

Air Inlet: N.P.T. 1/4

\*  logo indicates where ERGO-DRIVE sockets/extensions benefit tool operation.

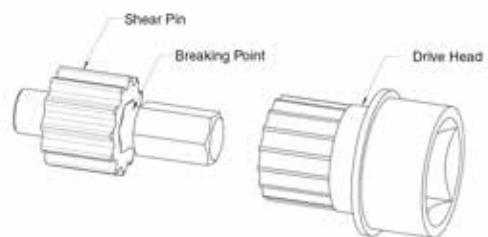
# DYNATORQUE MANUAL TORQUE MULTIPLIERS



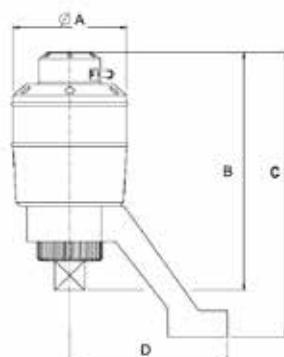
## FEATURES AND BENEFITS

Manual Torque Multipliers offer the perfect, economical solution to high torque bolting applications.

- Superior power to weight ratio
- Delivered torque accuracy +/- 4%
- Anti-Wind Up safety feature (2,800 NM models and up) prevents input device from springing backward when released
- True torque multiplication ratios
- Standard reaction arms supplied. Custom reaction arms/nose extensions available to suit specific applications
- No preventative maintenance required
- Overload protected by shear-drive design (spare torsion shaft included). Easily replace sheared-off pins at the work site



MODEL	INPUT IN	OUTPUT IN	RATIO	MAX TORQUE OUTPUT Ft-Lb	MAX TORQUE OUTPUT Nm	A (MM)	B (MM)	C (MM)	D (MM)	WEIGHT* LB	WEIGHT* KG
ATM-800	1/2	3/4	1:3.5	590	800	65	105	132	130	2.9	1.3
ATM-1800	3/4	1	1:3.6	1238	1800	90	150	188	132	6.6	3.0
ATM-2800	1/2	1	1:13	2066	2800	95	200	240	132	11.5	5.2
ATM-3800	3/4	1	1:13	2804	3800	95	200	240	132	11.5	5.2
ATM-5000	3/4	1.5	1:17	3690	5000	120	215	272	150	15.4	7.0
ATM-8000	3/4	1.5	1:49	5904	8000	132	268	344	200	25.4	11.5
ATM-12000	3/4	1.5	1:58	8856	12000	156	272	348	200	30.9	14.0
ATM-16000	3/4	2.5	1:75	11808	16000	215	292	370	225	57.3	26.0



\* Weight shown does not include weight of reaction device.



## CARRYING CASE

All DynaTorque Multipliers are supplied in a rugged, weather-resistant, portable carrying case.



# US-LT PNEUMATIC SCREWDRIVERS

## TORQUE CONTROL AUTOMATIC SHUT-OFF TYPE

- Precise repeatability improves quality
- Minimal wear on internal parts for longer life
- Quick shut off for minimum torque reaction
- Speed choice for flexibility
- Easy external torque adjustment
- Midrange air motor provides high speed during entire cycle
- Ideal for industrial torque control applications



US-LT30B Series



US-LT50B Series



US-LT10B



US-LT20B Series



US-LT40B Series

## TORQUE CONTROL LIGHT TOUCH (LT) SERIES - PUSH-TO-START INLINE

Recommended Air Pressure: 85 psi

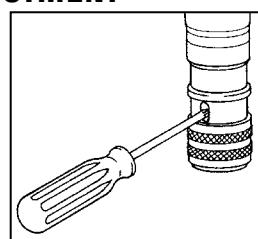
MODEL	TORQUE RANGE Nm	TORQUE RANGE in-lb	FREE SPEED rpm	OVERALL LENGTH mm	OVERALL LENGTH in	WEIGHT lb	WEIGHT kg	FROM CENTER TO OUTSIDE mm	FROM CENTER TO OUTSIDE in	NOISE LEVEL dB(A)	AIR USAGE cfm
US-LT10B	0.2 - 0.6	1.8 - 5.3	1,000	191	7.5	0.6	0.3	12.0	0.5	75	5.2
US-LT20B-10	0.4 - 1.1	3.1 - 9.7	1,000	180	7.1	0.7	0.3	13.0	0.5	70	5.6
US-LT20B-18	0.3 - 0.7	2.2 - 6.2	1,800	180	7.1	0.7	0.3	13.0	0.5	70	5.6
US-LT30B-11	1.1 - 2.1	9.7 - 18.5	1,100	187	7.4	0.9	0.4	15.5	0.6	70	7.0
US-LT30B-17	0.7 - 1.5	6.2 - 13.2	1,700	187	7.4	0.9	0.4	15.5	0.6	70	7.0
US-LT30B-23	0.4 - 1.0	3.5 - 8.8	2,300	187	7.4	0.9	0.4	15.5	0.6	71	7.0
US-LT40B-08	1.6 - 4.0	14.1 - 35.2	800	209	8.2	1.4	0.7	16.5	0.6	70	10.5
US-LT40B-15	1.0 - 2.2	6.2 - 19.4	1,500	209	8.2	1.4	0.7	16.5	0.6	70	10.5
US-LT40B-21	1.0 - 1.7	6.2 - 15.0	2,100	209	8.2	1.4	0.7	16.5	0.6	74	10.5
US-LT50B-05	5.0 - 10.2	44.0 - 92.4	480	240	9.5	2.2	1.0	19.5	0.8	74	17.5
US-LT50B-08	3.0 - 5.5	26.4 - 48.4	800	240	9.5	2.2	1.0	19.5	0.8	75	17.5
US-LT50B-17	1.5 - 2.6	9.7 - 23.0	1,700	240	9.5	2.2	1.0	19.5	0.8	75	17.5

Air Hose Size: 1/4 I.D. for US-LT10B - US-LT40B Series - 3/8" I.D. for US-LT50B Series  
Each model is equipped with its standard and alternate clutch springs

Air Inlet: 1/8 for US-LT10B - US-LT20B Series - 1/4" for US-LT30B - US-LT50B Series

## EXTERNAL TORQUE ADJUSTMENT (AIR SHUT-OFF)

Set the hand driver into the key hole on the Adjusting Gear, turn clockwise to increase torque. Turn counter clockwise to decrease torque.



408-088-2

## SILENCER ASSEMBLIES

MODEL	DIRECT TYPE SILENCER	LEADER HOSE ASSEMBLY	EXHAUST HOSE ASSEMBLY
US-LT10 Series	N/A	934-201-0	459-885-1
US-LT20 Series	N/A	934-201-0	455-885-1
US-LT30 Series	408-088-2	934-150-0	408-885-0
US-LT40 Series	496-088-1	934-150-0	-

# US-LT PNEUMATIC SCREWDRIVERS



US-LT30B\_C Series



US-LT40B\_C Series



US-LT40\_C Series



US-LT30BL Series



US-LT40BL Series

## TORQUE CONTROL LIGHT TOUCH (LT) SERIES - ANGLE AND LEVER

Recommended Air Pressure: 85 psi

MODEL	TORQUE RANGE SOFT JOINT Nm in-lb	FREE SPEED rpm	OVERALL LENGTH mm in	WEIGHT lb kg	FROM CENTER TO OUTSIDE mm in	HEX BIT OR DRIVE SIZE in	NOISE LEVEL dB(A)	AIR USAGE cfm
<b>ANGLE</b>								
US-LT30B-11C	1.1 - 2.1 3.5 - 18.5	1,100	298 10.7	1.5 0.7	36 1.4	1/4	73	7.0
US-LT30B-17C	0.7 - 1.5 3.5 - 13.2	1,700	295 10.7	1.5 0.7	36 1.4	1/4	73	7.0
US-LT40B-03C	5.0 - 10.0 44 - 88	300	359 14.2	2.4 1.1	35.5 1.4	3/4	72	10.5
US-LT40B-05C	2.3 - 5.7 20.0 - 49.5	500	322 13.0	2.1 0.9	38.5 1.5	1/4	75	10.5
US-LT40B-08C	1.6 - 4.0 8.7 - 34.7	800	320 12.8	2.0 0.9	36 1.4	1/4	75	10.5
US-LT40B-15C	1.0 - 2.2 8.7 - 19.4	1,500	320 12.8	2.0 0.9	36 1.4	1/4	75	10.5
US-LT40-03C	5.0 - 10.0 43.4 - 86.8	300	360 14.2	2.4 1.1	35.5 1.4	1/4 Sq.	72	10.5
US-LT40-05C	2.3 - 5.7 20.0 - 50.2	500	322 13.0	2.1 0.9	35.5 1.4	1/4 Sq.	75	10.5
US-LT40-08C	1.6 - 4.0 8.7 - 34.7	800	320 12.8	2.0 0.9	32 1.3	1/4 Sq.	75	10.5
<b>LEVER</b>								
US-LT30BL-11	1.1 - 2.1 9.7 - 18.5	1,100	229 8.2	1.2 0.5	15 0.6	1/4	70	5.2
US-LT30BL-17	0.7 - 1.5 6.2 - 13.2	1,700	229 8.2	1.2 0.5	15 0.6	1/4	70	5.2
US-LT40BL-08	1.6 - 4.0 14.1 - 35.2	800	249 9.8	1.5 0.7	17 0.7	1/4	70	5.6
US-LT40BL-15	1.0 - 2.2 8.8 - 19.4	1,500	249 9.8	1.5 0.7	17 0.7	1/4	70	5.6

Angle Head Height: 32 - 36mm

Air Inlet: N.P.T. 1/4"

Air Hose Size: 1/4" I.D. for all models



US-LT31PB Series



US-LT41PB Series



US-LT51PB Series



US-LT60P Series

## TORQUE CONTROL LIGHT TOUCH (LT) SERIES - PISTOL

Recommended Air Pressure: 85 psi

MODEL	TORQUE RANGE (SOFT JOINT) Nm in-lb	FREE SPEED rpm	OVERALL LENGTH mm in	WEIGHT lb kg	FROM CENTER TO OUTSIDE mm in	NOISE LEVEL dB(A)	AIR USAGE cfm
US-LT31PB-05	2.4 - 5.0 21.1 - 44.0	500	189 8.2	1.9 0.9	16 0.6	70	7.0
US-LT31PB-11	1.1 - 2.1 9.7 - 18.5	1,100	170 7.0	1.6 0.7	16 0.6	70	7.0
US-LT31PB-17	0.7 - 1.5 6.2 - 13.2	1,700	170 7.0	1.6 0.7	16 0.6	70	7.0
US-LT31PB-23	0.4 - 1.0 3.5 - 8.8	2,300	170 7.0	1.6 0.7	16 0.6	70	7.0
US-LT41PB-08	1.6 - 4.0 14.0 - 35.2	800	175 7.7	1.9 0.9	17 0.6	70	10.5
US-LT41PB-15	1.0 - 2.2 8.8 - 19.4	1,500	175 7.7	1.9 0.9	17 0.6	70	10.5
US-LT41PB-21	1.0 - 1.7 8.8 - 15.0	2,500	175 7.7	1.9 0.9	17 0.6	74	10.5
US-LT51PB-05	5.0 - 10.5 44.0 - 92.4	480	198 8.5	2.6 1.2	20 0.8	74	17.5
US-LT51PB-08	3.0 - 5.5 26.4 - 48.4	800	198 8.5	2.6 1.2	20 0.8	75	17.5
US-LT51PB-17	1.5 - 2.6 13.2 - 22.9	1,700	198 8.5	2.6 1.2	20 0.8	75	17.5
US-LT60P-03*	7.0 - 20.0 61.6 - 176.0	320	230 9.1	3.7 1.7	22 0.9	75	21.0
US-LT60P-07*	4.0 - 10.0 35.2 - 88.0	650	230 9.1	3.7 1.7	22 0.9	76	21.0
US-LT60P-11*	4.0 - 7.0 35.2 - 61.6	1,100	230 9.1	3.7 1.7	22 0.9	77	21.0

Air Hose Size: 1/4 I.D. for US-LT31PB & US-LT41PB Series

Air Inlet: N.P.T. 1/4"

3/8 I.D. for US-LT31PB-05, US-LT51PB Series & US-LT60P Series

\* Optional 3/8" Sq. Drive available for US-LT60P Series ADD (P) to Model Number

# US & US-LD PNEUMATIC SCREWDRIVERS



**US-LD40P-15**



**US-LD50P-08**



**US-3.5ACB**

## DIRECT DRIVE SERIES

### MAX TORQUE

MODEL	SOFT JOINT		HARD JOINT		FREE SPEED rpm	OVERALL LENGTH mm in		WEIGHT lb kg	FROM CENTER TO OUTSIDE mm in		NOISE LEVEL db(A)	AIR USAGE cfm
	Nm	ft-lb	Nm	ft-lb		mm	in		mm	in		
<b>PISTOL</b>												
US-LD40P-08	4.8	3.6	5.7	4.2	940	130	5.1	1.5	0.7	17	0.7	70
US-LD40P-15	3.0	2.2	3.2	2.4	1,700	130	5.1	1.5	0.7	17	0.7	70
US-LD40P-21	2.0	1.5	2.8	2.1	2,500	130	5.1	1.5	0.7	17	0.7	74
US-LD50P-05	10.0	7.4	11.2	8.3	500	153	6.0	2.0	0.9	20	0.8	74
US-LD50P-08	6.5	4.8	7.8	5.8	900	153	6.0	2.0	0.9	20	0.8	75
US-LD50P-17	3.5	2.6	5.9	4.4	1,900	150	5.9	2.0	0.9	20	0.8	75

Air Hose Size: 1/4" I.D.

Air Inlet: N.P.T. 1/4"



**US-3.5ACB**



**US-5**

## CUSHION CLUTCH SERIES

Recommended Air Pressure: 57 psi

MODEL	CAPACITY (SCREW SIZE)		FREE SPEED rpm	OVERALL LENGTH		WEIGHT LESS BIT		FROM CENTER TO OUTSIDE		NOISE LEVEL db(A)	AIR USAGE cfm
	mm	in		mm	in	lb	kg	mm	in		
US-3.5B	4	No. 8	2,000	214	8.5	1.4	0.6	17	0.7	75	7.0
US-5	5	No. 10	1,400	236	7.1	2.4	1.1	21	0.8	75	7.0

Air Hose Size: 1/4" I.D.

Air Inlet: N.P.T. 1/4"



**US-350PW**



**US-450PW**



**US-652PW**



**US-450WB**

## IMPACT SERIES

Recommended Air Pressure: 85 psi

MODEL	CAPACITY (SCREW SIZE)		FREE SPEED rpm	OVERALL LENGTH		WEIGHT LESS BIT		FROM CENTER TO OUTSIDE		NOISE LEVEL db(A)	AIR USAGE cfm
	mm	in		mm	in	lb	kg	mm	in		
<b>PISTOL</b>											
US-350PW	4	No. 8	15,000	121	4.8	1.2	0.5	17	0.7	81	7.0
US-450PW	5	No. 10	14,000	151	5.9	1.7	0.8	17	0.7	79	7.0
US-652PW	6	1/4	9,000	155	6.1	1.9	0.9	23	0.9	79	12.4
<b>STRAIGHT</b>											
US-6W	6	1/4	9,500	187	7.4	1.8	0.8	22.5	0.9	85	10.5
US-450WB	5	No. 10	11,000	161	6.3	1.2	0.6	18.5	0.7	80	7.0

Air Hose Size: 1/4" I.D.

Air Inlet: N.P.T. 1/4"

Recommended air pressure: 57 psi for US-350PW, US-450PW, US-6W, and US-450WB / 72 psi for US-652PW.

(R) Denotes Directional Muffled Rear Exhaust option

NOTE: Additional models available. Please contact AIMCO, 1-800-852-1368

**Tested and PROVEN to BEAT the competition in vibration and noise levels. These tools outperform the competition in number of rundowns per battery charge.**



### SHUT-OFF IMPACT TOOLS

The **Signature Series** Impact Shut-Off Pistol Tool can operate as a standard impact wrench or as an impact wrench with a programmable shut-off point, preventing over-torquing. These innovative tools deliver a torque range of 2–89 ft-lb (3–120 Nm). No torque reaction, coupled with the ergonomic, lightweight design and reduced vibration, helps to prevent user injury.



SIW-P5538

### FEATURES AND BENEFITS

- Brushless motor provides longer motor life and increased efficiency
- Easy-to-read process information lights
- Advanced shut-off system
- LED light for work-area illumination
- Programmable buttons for easy operation
- Li-Ion battery provides long battery life
- Mini USB port for connection to optional programmer (SPC-2PGM)

Model	TORQUE RANGE		MAX TORQUE				WEIGHT			
	ft-lb	Nm	ft-lb	Nm	Free Speed	Battery (V)	Lb	Kg	Anvil Size	Noise Level db(A)
SIW-P2525Q	2-18	3-25	30	40	2,400	18	2.2	1	1/4 QC	71
SIW-P3225Q	4-24	6-32	66	90	2,400	18	2.2	1	1/4 QC	71
SIW-P3238	4-24	6-32	66	90	2,400	18	2.2	1	3/8 Sq Dr	71
SIW-P5538	11-41	15-55	90	120	2,400	18	2.4	1.1	3/8 Sq Dr	71
SIW-P10050	18-74	25-100	133	180	2,400	18	2.4	1.1	1/2 Sq Dr	71
SIW-P12050	22-89	30-120	155	210	2,400	18	2.9	1.3	1/2 Sq Dr	71

Shut-Off Impact Tools Include: Body Jacket, Bail, and one (1) 18V Li-Ion Battery

### BATTERY AND CHARGER

The **Signature Series** Shut-Off Impact Tool battery features a slim profile design and a slide mount connection to the tool, which ensures durability and makes changing out batteries quick and easy.

BATTERY MODEL #	VOLTAGE / CAPACITY	TYPE
SIW-B18LI	18V, 2.0Ah	Li-Ion
SIW-B1BLI-HC	18V, 4.0Ah	Li-Ion
CHARGER MODEL #	OUTPUT	INPUT
SIW-C18	18V-19.2V, 4.0A	100-240VAC, 50-60Hz



SIW-B18LI



SIW-C18

### ACCESSORIES

MODEL #	DESCRIPTION
BJ10091	Grey Body Jacket Cover
SIW-PBL	Suspension Bail
SIW-38PR	Pin Retainer Kit, 3/8" Drive
SIW-50PR	Pin Retainer Kit, 1/2" Drive



BJ10091



SIW-PBL

**Quick shut-off, precision clutch minimizes torque reaction, ensuring precise application of torque.**

### PRECISION CLUTCH TOOLS

**Signature Series** precision clutch tools feature a quick-releasing clutch that delivers accuracy across multiple joint types. Constructed of precision machined parts, this tool guarantees accuracy and durability over the life of the tool.

### FEATURES AND BENEFITS

- LED indicator provides simple process information to the operator. The signal is visible from any angle
- Press button for easy F/R operation
- LED light for working in dark areas
- Trigger repeat protection avoids double hits on already seated screws
- Easily attached sliding battery system
- Mini USB port for connection to optional programmer (SPC-2PGM)
- Li-Ion battery pack delivers longer run time
- Ergonomic handle design provides outstanding balance and weight and is ideal for accessing hard-to-reach locations
- Angle tool enables multiple head positions



SPC-P2325Q



SPC-A21625

MODEL	TORQUE RANGE		FREE SPEED RPM RANGE (Programmable with Programmer Accessory)	BATTERY VOLTAGE	TOOL WEIGHT (W/O BATTERY)		ANVIL SIZE
	ft-lb	Nm			lb	kg	
<i>Pistol Grip*</i>							
SPC-P2325Q	.6-2.2	.8-3	500-1,550	18V	2.1	.95	1/4" hex
SPC-P2625Q	.7-4.4	1-6	300-1,000	18V	2.1	.95	1/4" hex
SPC-P2925Q	1.1-6.6	1.5-9	300-800	18V	2.1	.95	1/4" hex
SPC-P21225Q	1.5-8.8	2-12	250-600	18V	2.1	.95	1/4" hex
<i>Right Angle Nutrunner**</i>							
SPC-A21025Q	2.2-8.8	3-12	400-1000	18V	3.5	1.6	1/4" hex
SPC-A21025	2.2-8.8	3-12	400-1000	18V	3.5	1.6	1/4" Sq
SPC-A21038	2.2-8.8	3-12	400-1000	18V	3.5	1.6	3/8" Sq
SPC-A21625Q	3.7-13.3	5-18	300-600	18V	3.5	1.6	1/4" hex
SPC-A21625	3.7-13.3	5-18	300-600	18V	3.5	1.6	1/4" Sq
SPC-A21638	3.7-13.3	5-18	300-600	18V	3.5	1.6	3/8" Sq
SPC-A23038	5.9-22	8-30	250-480	18V	3.5	1.6	3/8" Sq
SPC-A23538	7.4-25.8	10-35	220-330	18V	3.5	1.6	3/8" Sq
SPC-A25038	7.4-37	10-50	200 Non-Programmable Fixed Speed***	18V	5.3	2.4	3/8" Sq
SPC-A27038	14.8-51.7	20-70	170 Non-Programmable Fixed Speed***	18V	6.3	2.9	3/8" Sq

\* Pistol Grip Tools include: Torque Adjustment Tool and one (1) 18V Li-Ion Battery

\*\* Angle Nutrunners include: Torque Adjustment Tool, Head Indexing Spanner Wrench, and one (1) 18V Li-Ion Battery

\*\*\* High torque tools feature fixed RPM.

### BATTERY AND CHARGER

The AIMCO **Signature Series**

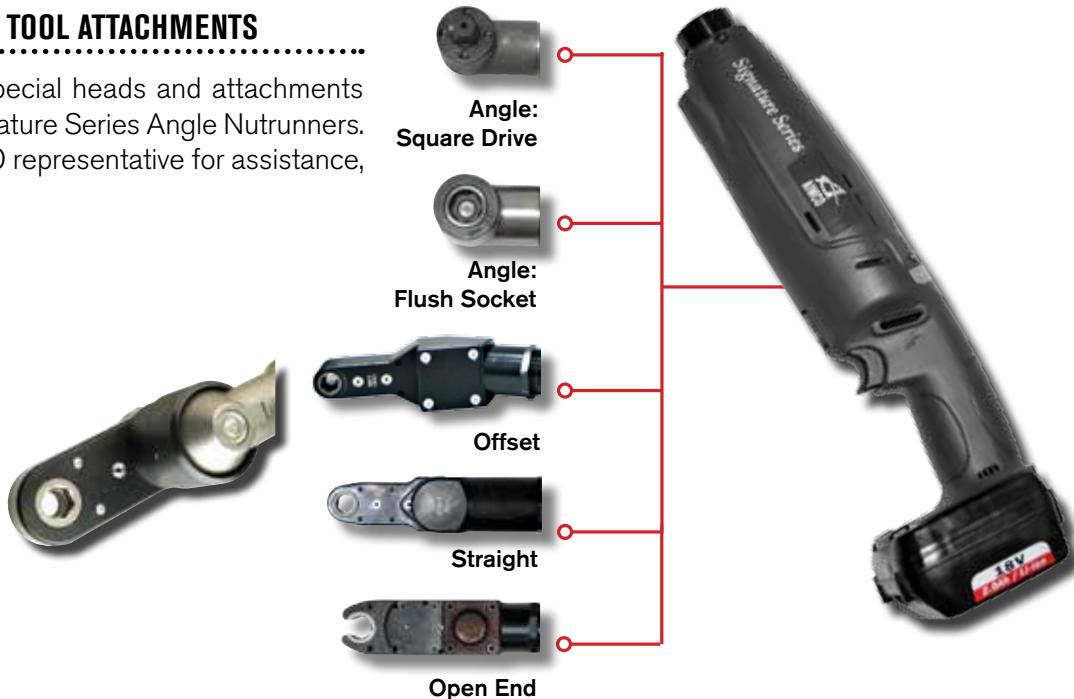
Precision Clutch Tool battery and charging system could not be more simple. One universal battery and charger interface with all of the **Signature Series** Precision Clutch tools. Each tool utilizes the same lightweight 18V Li-Ion battery, which provides superior battery life. The charger accepts input AC power of 100–240VAC, making use simple anywhere in the world.



BATTERY MODEL #	VOLTAGE	TYPE	CAPACITY	WEIGHT
SPC-B218LI	18V	Li-Ion	2.0Ah	.8 Lb/.4 kg
SPC-B218LI-HC	18V	Li-Ion	4.0Ah	1.4 Lb/.64 kg
CHARGER MODEL #	OUTPUT	INPUT	DIMENSIONS (W/O BATTERY)	WEIGHT
SPC-C218-19	18V-19.2V, 3.0A	100-240VAC, 50-60Hz	6.25" deep x 5" wide x 3.5" tall 158.75 mm x 127 mm x 89 mm	1.2 Lb/.54 kg

### PRECISION CLUTCH TOOL ATTACHMENTS

A wide variety of special heads and attachments can be fitted to Signature Series Angle Nutrunners. Contact your AIMCO representative for assistance, 1-800-852-1368.



### QUICK CLIP

The two piece Quick Clip comes with a belt clip and a stretch cord attachment for the Signature Series Precision Clutch pistol tool. The patented ball feature allows for quick and easy release.

SPC-QC

### BODY JACKETS

Prevent damage to the workpiece.

MODEL	DESCRIPTION
	BJ10082 Clear Body Jacket for Signature Series Precision Clutch Pistol Tools
	BJ10083 Clear Body Jacket for Signature Series Precision Clutch Angle Nutrunners

**TOOL SPEED PROGRAMMER**

Each **Signature Series** battery tool has programmable features that enhance operator efficiency. Programmable features include:

- Tool speed control from minimum (1,500 rpm) to maximum (2,400 rpm) speed in 50 rpm increments
- Forward/Reverse Mode - Three setting options
- Two-stage trigger delay control
- Screw count / impact count
- Supervisor level "lock-out" control



Additionally, the **Signature Series** battery tool has an integrated mini USB connector that couples to the **Signature Series** Programmer module. Simply connect the tool to the Programmer Module and flash the tool to the desired RPM. The programmed RPM will remain until a change is desired.

**HOLSTERS**

AIMCO offers right-hand and left-hand holsters for pistol and right angle tools.

**SPC-P-HL-LH for Left Hand**  
**SPC-P-HL-RH for Right Hand**

# *Signature Series*

Signature Series tools can be adapted to a wide range of application-specific configurations. Contact your AIMCO Representative for assistance, 1-800-852-1368.

# ELECTRIC SCREWDRIVERS

## **Electra® SERIES**

- Available in push-to-start and lever start styles
- Ergonomic design – Lightweight, compact housings ensure operator comfort during operation
- Accurate torque control – Precise controlled fastening with automatic shut-off clutches
- External brush replacement – Virtually no down time for brush replacement
- External torque adjustment – Torque level can be easily adjusted by simply turning the external adjustment ring



AE-5681



### ELECTRA® SERIES

MODEL	TORQUE RANGE IN-LB	KGF-CM	FREE SPEED RPM	WEIGHT LB	WEIGHT KG	LENGTH IN	LENGTH MM	HEX DRIVE IN	HEX DRIVE MM	POWER SOURCE
PUSH-TO-START DIRECT PLUG-IN SERIES										
AE-5681 (Includes torque cover)	3.5 - 15.6	4 - 18.0	1,000	1.2	0.5	9.3	237	1/4	6.4	115V AC*
AE-8681 (Includes pistol grip handle adapter)	15 - 45	23.0 - 51.8	600	1.6	0.7	10.6	269	1/4	6.4	115V AC*
LOW-VOLTAGE LEVER START SERIES (Requires External Power Supply)										
AE-2020	.35 - 1.3	.40 - 1.5	720	0.7	0.3	8.0	203	1/4	6.4	See page 113 for
AE-4020	.9 - 5	1.0 - 6.0	720	0.7	0.3	8.0	203	1/4	6.4	required power
AE-4520	1.3 - 8.7	1.5 - 10.0	720	0.7	0.3	8.0	203	1/4	6.4	supplies <sup>2</sup>
AE-7010	6.1 - 17.4	7.0 - 20.0	750	1.4	0.6	9.3	236	1/4	6.4	
AE-8010	10.4 - 26.0	12.0 - 29.9	550	1.4	0.6	9.3	236	1/4	6.4	
LOW-VOLTAGE PUSH-TO-START SERIES (Requires External Power Supply)										
AE-7010PS	6.1 - 17.4	7.0 - 20.0	750	1.4	0.6	9.3	236	1/4	6.4	See page 113 for
AE-8010PS	10.4 - 26.0	12.0 - 29.9	550	1.4	0.6	9.3	236	1/4	6.4	power supplies <sup>2</sup>

\* 220V AC is available upon request. Contact AIMCO at 1-800-852-1368.

### ELECTRA® LOW ESD SERIES

- Grounded bit – Grounded chuck assembly routes any existing charge to ground
- Carbonized housing – Handle material and buttons are constructed of carbonized plastic throughout, enabling any charge received by the handle to be routed to ground
- Long-Lasting ESD resistant handle – Material will maintain its integrity for the life of the handle, unlike coatings or paints



AE-5681ESD



### ELECTRA® LOW ESD SERIES

MODEL	TORQUE RANGE IN-LB	KGF-CM	FREE SPEED RPM	WEIGHT LB	WEIGHT KG	LENGTH IN	LENGTH MM	HEX DRIVE IN	HEX DRIVE MM	POWER SOURCE
AE-4520ESD*	1.3 - 8.7	1.5 - 10.0	720	0.9	0.4	8.0	204	1/4	6.4	35V DC
AE-5681ESD	3.5 - 15.6	4 - 18.0	1,000	1.2	0.5	9.3	237	1/4	6.4	115V AC**

\* Low-voltage units require an external power supply.

\*\* 220V AC is available upon request. Contact AIMCO at 1-800-852-1368.

# ELECTRIC SCREWDRIVERS

## ELECTRA® SLIP CLUTCH SERIES

- High-speed performance – For quick and consistent assembly and disassembly
- Maximum ergonomics and convenience – Offers a combination of a slip clutch with a high speed motor to provide low torque reaction; one of the best power-to-weight ratios in the industry
- Added maintenance feature – LED light indicates when to change brushes. Brush cap contains a switch that shuts off the power during brush replacement
- Direct 110V plug-in – Eliminates the need for an external power supply



**AE-2015**



- 1/4" hex quick change chuck for easy bit changes
- External torque collar for easy torque adjustment.

## ELECTRA® SLIP CLUTCH SERIES

MODEL	RECOMMENDED TORQUE RANGE IN-LB	RECOMMENDED TORQUE RANGE KGF-CM	FREE SPEED RPM	WEIGHT LB	WEIGHT KG	LENGTH IN	LENGTH MM	HEX DRIVE IN	HEX DRIVE MM	POWER SOURCE
AE-2015	4.3 - 21.7	5.0 - 25.0	1000	1.2	.55	9.2	234	1/4	6.4	110 V / 120V AC*

\* 220V AC is available upon request. Contact AIMCO at 1-800-852-1368.

## PRECISION SERIES

### For low torque applications

- Featuring ergonomic design
- Comes with options such as long-life brushless motors and adjustable speed power supplies



**AE-6300  
AE-6450**



### STANDARD MODELS

- Optional speed control power supply – Enables infinite control from 20% to 100% of maximum tool speed and adjustable soft start to minimize cross threading
- Ergonomic housing – Oval shape conforms to hand
- Duralite – Casing material provides a secure grip
- Integrated Lever – Feather touch integrated lever reduces travel and stress. Requires only 2 mm of travel to activate
- External torque control – Twist and go

### EXTENDED LIFE MODELS

- Sealed Swiss motor – For higher duty cycles, longer life, and less maintenance. Sealed casing means no brush changes are necessary
- Extended warranty on tool motor – Three year standard motor warranty
- Compact power supply – Makes setup a breeze

## PRECISION SERIES

MODEL	TORQUE RANGE IN-LB	TORQUE RANGE KGF-CM	FREE SPEED RPM	WEIGHT LB	WEIGHT KG	LENGTH IN	LENGTH MM	HEX DRIVE IN
<b>STANDARD</b>								
AE-6300	.85 - 5.0	1.0 - 5.8	725	0.9	0.4	8.5	216	1/4
AE-6450	1.3 - 8.7	1.5 - 10.0	770	0.9	0.4	8.5	216	1/4
<b>HIGH SPEED</b>								
AE-6300S	.35 - 4.3	0.4 - 5.0	920	0.9	0.4	8.5	216	1/4
AE-6450S	1.3 - 8.7	1.5 - 10.0	920	0.9	0.4	8.5	216	1/4
<b>EXTENDED LIFE</b>								
AE-6300M	1.0 - 5.5	1.1 - 6.3	550	0.9	0.4	8.5	216	1/4

# ELECTRIC SCREWDRIVERS



**APS-35W**



**APM-30**



**AE-224PS  
AE-278PS**

## ELECTRA® SERIES ACCESSORIES - POWER SUPPLIES

MODEL	COMPATIBLE SCREWDRIVERS	TOOL RPM	VOLTAGE CONVERSION	DIMENSIONS (LB)	WEIGHT (KG)
AE-224PS	AE-2020 AE-2020ESD AE-4020 AE-4520 AE-4520ESD		720	110V AC / 35V DC  2.6 x 1.6 x 5.0 66 x 41 x 127 mm	1.0 .45
APS-35W	AE-2020 AE-2020ESD AE-4020 AE-4520 AE-4520ESD		VARIABLE SPEED / SOFT START	110V AC / 35V DC  2.6 x 1.6 x 5.0 66 x 41 x 127 mm	1.0 .5
AE-278PS	AE-7010 AE-7010PS	STANDARD	110V AC - 220V AC / 30V DC	1.6 x 5.0 x 2.6 41 x 127 x 66 mm	1.0 .45
APM-30	AE-6300M	550	110V AC - 220V AC / 30V DC	2.1 x 3.4 x 1.9 53 x 87 x 48 mm	0.4 .2



### ANGLE HEAD ATTACHMENTS

Available for lever start series.

Not available for Low ESD Series.



### PISTOL GRIP HANDLE

Converts to a pistol style driver for horizontal fastening. Available for Trigger Start only (included with AE-8681).



### TORQUE COVER

Prevents accidental torque adjustment by the operator (included with AE-5681).



### FASTENER COUNTER

Verifies and error-proofs assembly process.

## OPTIONAL ACCESSORIES

ITEM	MODEL	COMPATIBLE SCREWDRIVERS
Angle Head Attachments	AE-2045A AE-7080A	For AE-2020, AE-4020, AE-4520 For AE-7010, AE-8010
Pistol Grip Handle	AE-PG7080	For AE-7010, AE-7010PS, AE-8010, AE-8010PS
Torque Cover	AE-TC2040 AE-TC7080 4H2055	For AE-2020, AE-4020, AE-4520 For AE-7010, AE-7010PS, AE-8010, AE-8010PS For AE-8681
Fastener Counter	AM-45 AM-65	For AE-2020, AE-4020, AE-4520 Standard and ESD types For AE-7010, AE-7010PS, AE-8010 and AE-8010PS

# IMPACT TOOLS

## UW-SERIES IMPACT TOOLS

UW-Series impact tools offer fast, economical operation in high-volume heavy assembly applications.



## TWIN HAMMER PISTOL IMPACT WRENCHES

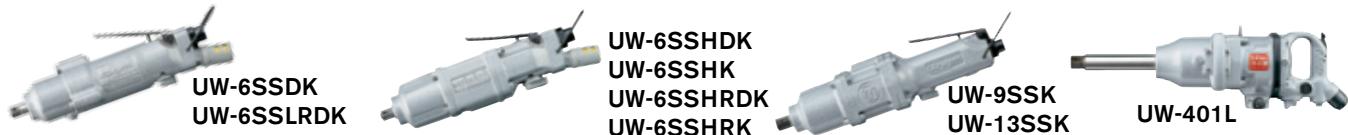
Recommended Air Pressure: 85 psi

MODEL	CAPACITY		TORQUE RANGE (APPROX)		SPEED	OVERALL LENGTH		WEIGHT	FROM CENTER TO OUTSIDE	SQ. DR. OR HEX SIZE	NOISE LEVEL	AVERAGE AIR CONSUMPTION
	MM	IN	NM	FT-LB	RPM	MM	IN	KG	LB	MM	IN	DB(A)
UW-6SLRDK	6	1/4	6.9 - 18	5 - 13	8,500	175	6.9	1.0	2.1	31.0	1.2	1/4 Hex
UW-6SLDK	6	1/4	6.9 - 18	5 - 13	8,500	175	6.9	1.0	2.1	31.0	1.2	1/4 Hex
UW-6SLK	6	1/4	7.8 - 19	6 - 14	8,500	175	6.9	1.0	2.1	31.0	1.2	1/4 Sq.
UW-6SLRK	6	1/4	7.8 - 19	6 - 14	8,500	175	6.9	1.0	2.1	31.0	1.2	1/4 Sq.
UW-61ERK	8	5/16	14 - 40	10 - 30	7,300	150	5.9	1.5	3.3	29.5	1.2	3/8 Sq.
UW-8SHRK	8	5/16	18 - 40	13 - 30	7,300	172	6.8	1.6	3.4	31.0	1.2	1/2 Sq.
UW-8SHK	8	5/16	29 - 69	21 - 51	7,500	172	6.8	1.6	3.4	31.0	1.2	1/2 Sq.
UW-9SRK	10	3/8	35 - 87	26 - 64	7,000	178	7.0	1.8	3.9	34.0	1.3	1/2 Sq.
UW-9SK	10	3/8	35 - 87	26 - 64	7,000	178	7.0	1.8	4.0	34.0	1.3	1/2 Sq.
UW-10SHRK	12	1/2	47 - 170	35 - 125	6,000	183	7.2	2.1	4.7	30.5	1.4	1/2 Sq.
UW-10SHK	12	1/2	49 - 180	36 - 133	6,500	183	7.2	2.1	4.7	35.0	1.4	1/2 Sq.
UW-13SRK	13	1/2	88 - 250	65 - 184	6,000	215	8.5	2.6	5.7	37.5	1.5	1/2 Sq.
UW-13SK	13	1/2	88 - 250	65 - 184	6,500	215	8.5	2.6	5.7	37.5	1.5	1/2 Sq.
UW-131ERK	13	1/2	84 - 260	62 - 192	5,500	205	8.1	3.0	6.5	37.5	1.5	1/2 Sq.

Air Hose Size: 3/8" I.D.

Air Inlet: N.P.T. 1/4"

NOTE: Additional models available. Please contact AIMCO, 1-800-852-1368.



## TWIN HAMMER INLINE IMPACT WRENCHES

Recommended Air Pressure: 85 psi

MODEL	CAPACITY		TORQUE RANGE (APPROX)		SPEED	OVERALL LENGTH		WEIGHT	FROM CENTER TO OUTSIDE	SQ. DR. OR HEX SIZE	NOISE LEVEL	AVERAGE AIR CONSUMPTION
	MM	IN	NM	FT-LB	RPM	MM	IN	KG	IN	IN	DB(A)	
UW-6SSDK	6	1/4	7.8 - 22	6 - 16	7,500	185	7.3	1.0	2.1	28.0	1.1	1/4 Hex
UW-6SSLK	6	1/4	7.8 - 20	6 - 15	8,500	197	7.8	0.9	1.9	31.0	1.2	3/8 Sq.
UW-6SSRK	6	1/4	9.8 - 26	7 - 19	7,500	225	8.9	1.0	2.1	29.5	1.2	3/8 Sq.
UW-6SSHDK	8	5/16	15 - 30	11 - 22	7,500	205	8.1	1.2	2.7	22.0	0.8	1/4 Hex
UW-6SSLRK	6	1/4	6.9 - 18	5 - 13	8,500	239	9.4	0.9	1.9	31.0	1.3	1/4 Hex
UW-6SSHK	8	5/16	22 - 50	16 - 37	7,500	205	8.1	1.3	2.7	27.5	1.1	1/4 Sq.
UW-6SSHRRDK	8	5/16	15 - 30	11 - 22	7,300	249	9.8	1.3	2.8	27.5	1.1	1/4 Hex
UW-6SSHRK	8	5/16	22 - 50	16 - 37	7,300	249	9.8	1.3	2.8	27.5	1.1	3/8 Sq.
UW-9SSK	10	3/8	35 - 87	26 - 64	7,000	290	11.4	2.1	4.6	34.0	1.3	1/2 Sq.
UW-13SSK	13	1/2	89 - 250	66 - 184	6,300	281	11.1	3.2	7.0	39.0	1.5	1/2 Sq.
UW-401	38	1-1/2	880 - 2,500	649 - 1,844	3,200	494	19.5	15.1	33.2	62.5	2.5	1 Sq.
UW-401L	38	1-1/2	790 - 2,300	583 - 1,696	3,200	654	25.8	16.5	36.3	62.5	2.5	1 Sq.

Air Hose Size: 3/8" I.D.

1/2" I.D. for UW-401 and UW-401L models

Air Inlet: N.P.T. 1/4"

NOTE: Additional models available. Please contact AIMCO, 1-800-852-1368.

### IMPACT TOOLS MODEL NUMBER KEY

UW- SH = Pistol grip  
UW- SSH = Straight handle  
UW- CSH = Angle head  
UW- P = Pistol grip for 140 and 381 series

L = Long anvil + K = Lightweight  
R = Rear exhaust + DK = Driver-type anvil, lightweight

# IMPACT TOOLS



**UW-6CSK**



**UW-6CSHK**  
**UW-6CSHRK**



**UW-9CSK**



**UW-13CSK**

## TWIN HAMMER ANGLE IMPACT WRENCHES

Recommended Air Pressure: 85 psi

MODEL	CAPACITY		TORQUE RANGE (APPROX)		SPEED	OVERALL LENGTH		WEIGHT	FROM CENTER TO OUTSIDE		SQ. DR. OR HEX SIZE	NOISE LEVEL DB(A)	AVERAGE AIR CONSUMPTION	
	MM	IN	NM	FT-LB	RPM	MM	IN	KG	LB	MM	IN			
UW-6CSK	6	1/4	7.8 - 22	6 - 16	7,500	218	8.6	1.4	3.1	28.0	1.1	3/8 Sq.	94	10.5
UW-6CSHK	8	5/16	19 - 41	14 - 30	7,500	238	9.4	1.7	3.8	27.5	1.1	3/8 Sq.	94	12.4
UW-6CSHRK	8	5/16	19 - 41	14 - 30	7,300	282	11.1	1.7	3.8	27.5	1.1	3/8 Sq.	94	10.5
UW-9CSK	10	3/8	27 - 71	20 - 52	7,000	337	13.3	2.8	6.1	34.0	1.3	1/2 Sq.	95	12.4
UW-13CSK	13	1/2	75 - 200	55 - 148	6,500	374	14.7	5.2	11.4	39.0	1.5	1/2 Sq.	97	26.5

Air Hose Size: 3/8" I.D.

Air Inlet: N.P.T. 1/4"

NOTE: Additional models available. Please contact AIMCO, 1-800-852-1368.



**UW-140P(WR)**



**UW-220P**  
**UW-220PL**



**UW-251P**



**UW-381**  
**UW-381L**



**UW-381P**

## SWING HAMMER IMPACT WRENCHES

Recommended Air Pressure: 85 psi

MODEL	CAPACITY		TORQUE RANGE (APPROX)		SPEED	OVERALL LENGTH		WEIGHT	FROM CENTER TO OUTSIDE		SQ. DR. OR HEX SIZE	NOISE LEVEL DB(A)	AVERAGE AIR CONSUMPTION	
	MM	IN	NM	FT-LB	RPM	MM	IN	KG	LB	MM	IN			
UW-140P(WR)	12	1/2	70 - 210	52 - 155	6,500	200	7.9	2.7	5.9	33.0	1.3	1/2 Sq.	93	28.0
UW-220P	19	3/4	300 - 700	221 - 516	5,500	230	9.1	2.8	9.6	42.0	1.7	3/4 Sq.	95	25.0
UW-220PL	19	3/4	300 - 700	221 - 516	5,500	350	13.8	4.4	10.3	42.0	1.7	3/4 Sq.	95	25.0
UW-251P	25	1	600 - 1,000	443 - 738	5,500	276	10.9	8.0	17.6	55.0	2.0	1 Sq.	95	28.0
UW-381	38	1-1/2	760 - 2,000	561 - 1,475	4,700	395	115.6	9.5	20.9	58.5	2.3	1 Sq.	100	31.5
UW-381L	38	1-1/2	1,400 - 2,000	1,033 - 1,475	4,700	543	21.4	10.0	20.9	58.5	2.3	1 Sq.	100	31.5
UW-381P	38	1-1/2	760 - 2,000	561 - 1,475	4,700	276	10.9	10.0	20.9	58.5	2.3	1 Sq.	99	31.5

Air Hose Size: 3/8" for UW-140P(WR)

1/2" I.D. for other models

Air Inlet: N.P.T. 1/4" for UW-140P(WR)

N.P.T. 3/8" for UW-220P and UW-251P series

NOTE: Additional models available. Please contact AIMCO, 1-800-852-1368.

N.P.T. 1/2" for UW-381 series



**UW-550**



**UW-75S**

Recommended Air Pressure: 85 psi

## TWIN HAMMER JUMBO IMPACT WRENCHES

MODEL	CAPACITY		TORQUE RANGE (APPROX)		SPEED	OVERALL LENGTH		WEIGHT	FROM CENTER TO OUTSIDE		SQ. DR. OR HEX SIZE	NOISE LEVEL DB(A)	AVERAGE AIR CONSUMPTION	
	MM	IN	NM	FT-LB	RPM	MM	IN	KG	LB	MM	IN			
UW-550	55	2-1/4	2,500 - 5,800	1,844 - 4,278	3,500	525	20.7	36.0	79.0	78.0	3.1	1-1/2 Sq.	112	79.0
UW-75S	76	3	7,800 - 17,000	5,753 - 12,539	1,400	670	26.4	56.0	123.0	96.0	3.8	1-1/2 Sq.	112	114.0

Air Hose Size: 3/4" I.D.

Air Inlet: N.P.T. 1"

NOTE: Additional models available. Please contact AIMCO, 1-800-852-1368.

## STUD BOLT WRENCH

Recommended Air Pressure: 85 psi

MODEL	CAPACITY		TORQUE RANGE (APPROX)		SPEED	OVERALL LENGTH		WEIGHT	FROM CENTER TO OUTSIDE		SQ. DR. OR HEX SIZE	NOISE LEVEL DB(A)	AVERAGE AIR CONSUMPTION	
	MM	IN	NM	FT-LB	RPM	MM	IN	KG	LB	MM	IN			
UW-ST6SHK	8	5/16	22 - 49	16 - 36	6,500	170	6.7	1.7	3.7	24.0	1.0	3/8 Sq.	92	14.0

Air Hose Size: 3/8" I.D.

Air Inlet: N.P.T. 1/4"

NOTE: Additional models available. Please contact AIMCO, 1-800-852-1368.



**UW-ST6SHK**

# GRINDERS



**UAG-40SBL-136**



**UAG-50SBL-109**



**UAG-50SBL-120**



**UAG-70SBL-76**

**UAG-90SBL-59**

Recommended Air Pressure: 85 psi

## ANGLE GRINDERS

MODEL*	CAPACITY (WHEEL SIZE)		SPEED RPM	RATED HORSEPOWER HP	OVERALL LENGTH MM		OVERALL HEIGHT IN MM		WEIGHT KG	NOISE LEVEL DB(A)	AVERAGE AIR CONSUMPTION CFM
	IN	MM			IN	MM	IN	MM			
UAG-40SBL-136	4	102	13,600	1.0	246	9.7	76	3.0	1.3	2.9	34.0
UAG-50SBL-109	5	127	10,900	1.0	246	9.7	76	3.0	1.4	3.1	34.0
UAG-50SBL-120	5	127	12,000	1.0	246	9.7	76	3.0	1.4	3.1	34.0
UAG-70SBL-76	7	178	7,600	2.0	300	11.8	98	3.9	2.9	6.4	57.0
UAG-90SBL-59	9	229	5,900	2.5	308	12.1	98	3.9	3.3	7.3	67.0



**UG-25NA**



**UG-38N**



**UG-38NA**



**UG-38NL**



**UG-38NS**



**UG-50S-200**



**UG-60S-29**

Recommended Air Pressure: 85 psi

## DIE GRINDERS

MODEL*	COLLET CHUCK SIZE		SPEED RPM	RATED HORSEPOWER HP	OVERALL LENGTH MM		WEIGHT KG LB		NOISE LEVEL DB(A)	AVERAGE AIR CONSUMPTION CFM
	IN	MM			IN	MM	IN	MM		
UG-25NA	1/4	6.35	23,500	0.3	153	6.0	0.5	1.2	82	10.7
UG-38N	1/4	6.35	25,000	0.4	164	6.5	0.6	1.3	85	10.7
UG-38NA	1/4	6.35	22,000	0.4	165	6.5	0.7	1.4	75	14.0
UG-38NL	1/4	6.35	21,000	0.4	317	12.5	0.9	2.0	85	10.7
UG-38NS	1/4	6.35	25,000	0.4	174	6.8	0.6	1.3	85	10.7
UG-50S-200	1/4	6.35	23,000	0.3	198	7.8	0.6	1.3	73	14.0
UG-45H	1/4	6.35	18,000	0.5	196	7.7	0.8	1.8	76	22.0
UG-60S-29*	1/4	6.35	2,900	0.5	227	8.9	1.1	2.3	77	18.0

\* UG-60S-29 includes spanner wrench to tighten collet

## MINI ANGLE DIE GRINDERS

Recommended Air Pressure: 85 psi

MODEL*	COLLET CHUCK SIZE		SPEED RPM	RATED HORSEPOWER HP	OVERALL LENGTH MM		OVERALL HEIGHT IN MM		WEIGHT KG	NOISE LEVEL DB(A)	AVERAGE AIR CONSUMPTION CFM
	IN	MM			IN	MM	IN	MM			
UG-20A-200	1/4	6.35	20,000	0.2	131	5.2	80	3.2	0.5	1.1	75
UG-20A-120	1/4	6.35	12,000	0.2	131	5.2	80	3.2	0.5	1.1	76
UG-50S-200A	1/4	6.35	20,000	0.3	195	7.7	87	3.4	0.9	2.0	75



**UG-65EB**



**UG-65EGL**



**UG-650EL**

Recommended Air Pressure: 85 psi

## LIGHTWEIGHT GRINDERS

MODEL*	CAPACITY (WHEEL SIZE)		SPEED RPM	RATED HORSEPOWER HP	OVERALL LENGTH MM		WEIGHT KG LB		NOISE LEVEL DB(A)	AVERAGE AIR CONSUMPTION CFM
	IN	MM			IN	MM	IN	MM		
UG-65EB	2.5	63.5	14,600	0.6	242	9.8	1.3	2.8	95	22.0
UG-65EGL	2.5	63.5	14,600	0.6	272	10.7	1.4	3.1	95	22.0
UG-650EL	2.5	63.5	14,600	0.6	420	16.5	1.6	3.4	85	22.0

## HORIZONTAL GRINDER

Recommended Air Pressure: 85 psi

MODEL	CAPACITY (WHEEL SIZE)		SPEED RPM	RATED HORSEPOWER HP	OVERALL LENGTH MM		WEIGHT KG LB		NOISE LEVEL DB(A)	AVERAGE AIR CONSUMPTION CFM
	IN	MM			IN	MM	IN	MM		
UG-1250L-72	5	127	7,200	1.0	436	17.2	2.8	6.2	88	32.7



**UG-1250L-72**

# SANDERS AND DRILLS

## SANDER

Recommended Air Pressure: 85 psi

MODEL	CAPACITY (WHEEL SIZE) IN	SPEED RPM	RATED HORSEPOWER HP	OVERALL LENGTH MM	WEIGHT KG	NOISE LEVEL DB(A)	AVERAGE AIR CONSUMPTION CFM
UP-25DB	5	10,000	0.3	212	8.3	1.7	3.7

Air Hose Size: 3/8" I.D.

Air Inlet: N.P.T. 1/4" NOTE: Additional models available. Please contact AIMCO, 1-800-852-1368.



**UP-25DB**



**UD-50-22**  
**UD-50-200**



**UD-50-45**



**UD-60-04**  
**UD-60-07**



**UD-60-15**  
**UD-60-20**



**UD-60-29**



**UD-80-04**  
**UD-80-07**



**UD-80-12**



**UD-50S-22**  
**UD-50S-45**



**UD-60S-15**  
**UD-60S-29**



**UD-50S-45A**  
**UD-50S-45A\***



**UD-60S-15C**  
**UD-60S-29C**

## DRILLS

Recommended Air Pressure: 85 psi

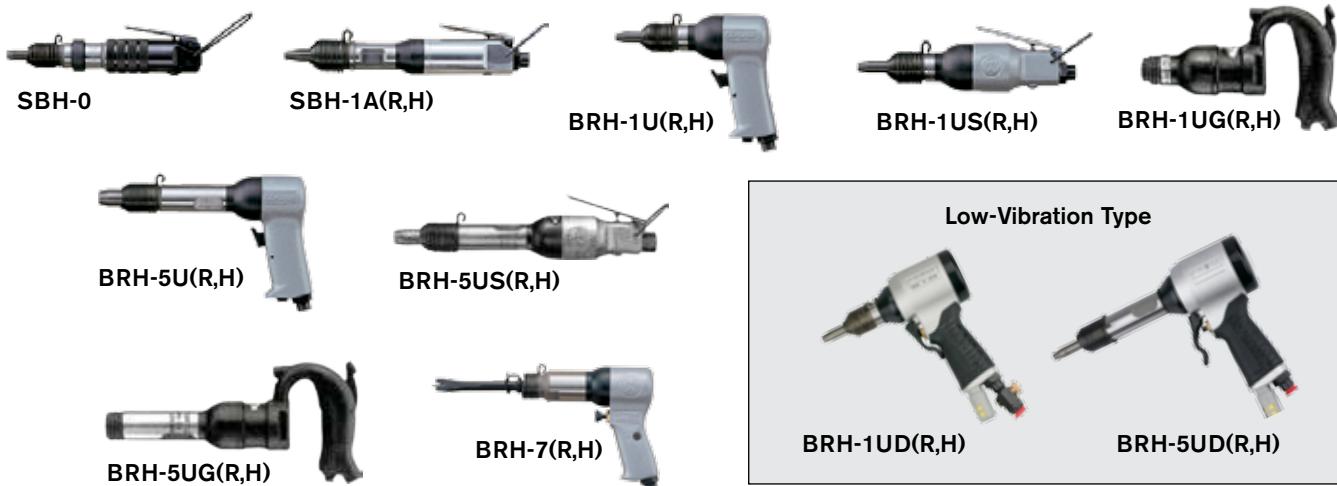
MODEL	CAPACITY MM	CAPACITY IN	SPEED RPM	OVERALL LENGTH MM	OVERALL LENGTH IN	WEIGHT WITH CHUCK KG	WEIGHT WITH CHUCK LB	FROM CENTER TO OUTSIDE MM	FROM CENTER TO OUTSIDE IN	NOMINAL CHUCK SIZE IN	TYPE OF SPINDLE IN-THR'D	NOISE LEVEL DB(A)	AVERAGE AIR CONSUMPTION CFM
<b>PISTOL</b>													
UD-50-200	3	1/8	23,000	135	5.3	0.7	1.5	21.0	0.8	5/16	3/8-24UNF	73	14
UD-50-45	6	1/4	5,000	145	5.7	0.9	1.9	21.0	0.8	5/16	3/8-24UNF	72	14
UD-50-22	8	5/16	2,200	140	5.5	0.9	2.0	21.0	0.8	5/16	3/8-24UNF	72	14
UD-60-29	8	5/16	2,900	167	6.6	1.1	2.4	22.5	0.9	5/16	3/8-24UNF	77	18
UD-60-20	8	5/16	2,000	180	7.1	1.2	2.6	22.5	0.9	5/16	3/8-24UNF	77	18
UD-60-15	8	5/16	1,600	180	7.1	1.2	2.6	22.5	0.9	5/16	3/8-24UNF	76	18
UD-60-07	13	1/2	700	219	8.6	1.4	3.1	22.5	0.9	1/2	1/2-20UNF	75	18
UD-60-04	13	1/2	500	220	8.6	1.4	3.1	22.5	0.9	1/2	1/2-20UNF	75	18
UD-80-12	13	1/2	1,200	216	8.5	1.8	4.0	26.0	1.0	1/2	1/2-20UNF	79	23
UD-80-07	13	1/2	700	239	9.4	2.3	5.1	26.0	1.0	1/2	1/2-20UNF	79	23
UD-80-04	16	5/8	400	247	9.7	2.9	6.4	26.0	1.0	5/8	5/8-16UNF	79	23
<b>INLINE</b>													
UD-50S-45	6	1/4	5,000	210	8.3	0.9	1.9	21.0	0.8	5/16	3/8-24UNF	77	14
UD-50S-22	8	5/16	2,200	205	8.1	0.8	1.8	21.0	0.8	5/16	3/8-24UNF	77	14
UD-60S-29	8	5/16	2,900	227	8.9	1.1	2.3	22.5	0.9	5/16	3/8-24UNF	77	18
UD-60S-15	8	5/16	1,600	238	9.4	1.2	2.5	22.5	0.9	5/16	3/8-24UNF	77	18
<b>ANGLE</b>													
UD-50S-45A	4	#8	5,000	253	10	0.9	1.98	21.0	0.8	-	1/4-28UNF	79	14
UD-50S-45A*	4	#8	5,000	253	10	0.9	1.98	21.0	0.8	-	1/4-28UNF	79	14
UD-60S-29C	8	5/16	2,900	276	10.9	1.5	3.3	22.5	0.9	5/16	3/8-24UNF	79	18
UD-60S-15C	8	5/16	1,600	283	11.1	1.6	3.5	22.5	0.9	5/16	3/8-24UNF	79	18

\* UD-50S-45A\* comes with a cone jaw chuck installed.

Air Hose Size: 3/8" I.D. Air Inlet: N.P.T. 1/4"

NOTE: Other models are available. Please contact AIMCO, 1-800-852-1368.

# PERCUSSION TOOLS



## RIVETING HAMMERS

Recommended Air Pressure: 85 psi

MODEL	CAPACITY		BLOW PER MIN. BPM	OVERALL LENGTH		WEIGHT		PISTON DIAMETER		PISTON STROKE		NOISE LEVEL DB(A)	AVERAGE AIR CONSUMPTION CFM
	DURALUMIN IN	STEEL IN		MM	IN	KG	LB	MM	IN	MM	IN		
SBH-0	3/32	–	6,500	123	4.8	0.3	0.7	10.0	0.4	23	0.9	90	3.5
SBH-1A(R,H)*	7/64	–	4,000	209	8.2	0.9	1.9	11.1	0.4	56	2.2	92	5.0
BRH-1U(R,H)	1/8	3/32	2,800	122	4.9	1.1	2.4	14.3	0.6	38	1.5	95	12.0
BRH-1US(R,H)	1/8	3/32	2,800	180	7.1	1.0	2.2	14.3	0.6	38	1.5	95	12.0
BRH-1UG(R,H)	1/8	3/32	2,800	187	7.4	1.8	3.9	14.3	0.6	38	1.5	95	12.0
BRH-5U(R,H)*	1/4	3/16	1,800	189	7.4	1.4	3.1	12.7	0.5	100	4.0	95	13.0
BRH-5US(R,H)	1/4	3/16	1,800	246	9.7	1.5	3.2	12.7	0.5	100	4.0	95	13.0
BRH-5UG(R,H)	1/4	3/16	1,800	258	10.2	2.1	4.7	12.7	0.5	100	4.0	95	13.0
BRH-7(R,H)*	–	–	3,400	168	6.6	1.6	3.6	19.1	0.8	50	2.0	100	17.0
VIBRATION-PROOF TYPE (Vibration total value < 2.5 m/s <sup>2</sup> )													
BRH-1UD(R,H)	#5	#3	2,800	143	5.6	1.4	3.1	14.3	0.6	38	1.5	95	12.0
BRH-5UD(R,H)	1/4	#10	2,800	211	10.7	1.7	3.6	12.7	0.6	100	1.5	95	12.0

Air Hose Size: 3/8" I.D.

Air Inlet: N.P.T. 1/4"

\* R - Round Bushing    H - Hex Bushing



## ONE SHOT HAMMERS

Recommended Air Pressure: 85 psi

MODEL	BLOW POWER LB	RIVET SET DIA X LENGTH IN	SHANK DIAMETER		STROKE		LENGTH		WEIGHT	
			MM	IN	MM	IN	MM	IN	LB	KG
CB-13P	1.7	4.04 x 9.86	–	–	3.0	0.12	185	7.3	0.7	0.3
RH-25	20.4	–	10.2	0.401	29.8	1.2	213	8.4	2.0	0.9
RH-80	27.6	–	10.2	0.401	29.8	1.2	254	10.0	2.9	0.3
RH-90	103	–	10.2	0.401	29.8	1.2	328	12.9	3.5	1.6
RH-100Z	78.1	–	10.2	0.401	29.8	1.2	328	12.9	3.9	1.8
RH-200	139	–	10.2	0.401	39.8	1.2	341	13.4	4.6	2.1

Air Hose Size: 3/8" I.D.

Air Inlet: N.P.T. 1/4"

NOTE: Additional models available. Please contact AIMCO, 1-800-852-1368.

# SCREW PRESENTERS: OVERVIEW

For semi-automated assembly, look no further – AIMCO's Acra-Feed screw presenters provide:

## PRODUCTIVITY

- One hand operation eliminates manual handling of screws
- Screw is presented to operator for easy magnetic or vacuum pickup
- Keeps workspace clear of dropped fasteners
- Quick feed rate from oscillating hopper design – up to two (2) screws per second
- Large hopper holds approximately 1,000 – 1,500 fasteners
- Solid design – no tie downs or straps required



Acra-Feed® Screw Presenter

## FLEXIBILITY

- Perfect for contract or dedicated assembly
- Switch rails in minutes for different screw sizes

## ERGONOMICS

- Allows for fewer arm and hand movements

## RELIABILITY

- Heavy duty industrial design
- Modular design for easy repairs

**ACRA-FEED®**

## QUALITY

- Uses existing or our new torque control drivers
- Keeps stray fasteners from getting into assemblies

## FASTENING IN 3 EASY STEPS



**1** Load screws into the hopper. There is no side to load unit and no gates to limit capacity.



**2** Address screw with magnetized bit.



**3** Bring screw to workpiece and fasten parts.

# A-50 SCREW PRESENTERS



**A-50BRBT-1**  
Robotic Screw  
Presenter



**A-50BRBTC-4**  
Compact Robotic  
Screw Presenter



**A-50B-1**  
Standard Screw Presenter

## STANDARD SCREW PRESENTERS

MODEL	PART NO.	ADDITIONAL RAIL		SCREW SIZE		MAX SCREW LENGTH	
				IN	MM	IN	MM
A-50A-0	AR-0	#0	1.4	.39	10		
A-50A-1.7	AR-1.7	-	1.7	.39	10		
A-50B-1	BR-1	#1	2.0	.75	18		
A-50B-2	BR-2	#2	2.3	.75	18		
A-50B-3	BR-3	#3	2.6	.75	18		
A-50B-4	BR-4	#4	3.0	.75	18		
A-50C-6	CR-6	#6	3.5	.75	18		
A-50C-8	CR-8	#6-8	4.0	.75	18		
A-50C-10	CR-10	#10	5.0	.75	18		

Dimensions: 5.1 (W) x 8.5 (L) x 5.3 (H)    Weight: 7.0 lbs.

## COMPACT ROBOTIC SCREW PRESENTERS

MODEL	PART NO.	ADDITIONAL RAIL		NOMINAL SCREW SIZE		MAX SCREW LENGTH	
				IN	MM	IN	MM
A-50ARBTC-0	AR-RBT-0	#0	1.4	.390	10		
A-50ARBTC-1.7	AR-RBT-1.7	-	1.7	.390	10		
A-50BRBTC-1	BR-RBT-1	#1	2.0	.700	18		
A-50BRBTC-2	BR-RBT-2	#2	2.3	.700	18		
A-50BRBTC-3	BR-RBT-3	#3	2.6	.700	18		
A-50BRBTC-4	BR-RBT-4	#4	3.0	.700	18		
A-50CRBT-6	CR-RBT-6	#6	3.5	.700	18		
A-50CRBT-8	CR-RBT-8	#6-8	4.0	.700	18		
A-50CRBT-10	CR-RBT-10	#10	5.0	.700	18		

Dimensions: 7.2 (L) x 4.9 (W) x 5.7 (H)    Weight: 6.7 lbs.

## OPTIONAL ACCESSORIES

MODEL	PART NO.
Mag-0-Net Bit Magnetizer	AM1/4Z, AM5Z, AM3/16Z

## ROBOTIC SCREW PRESENTERS

MODEL	PART NO.	ADDITIONAL RAIL		SCREW SIZE		MAX SCREW LENGTH	
				IN	MM	IN	MM
A-50ARBT-0	AR-RBT-0	#0	1.4	.39	10		
A-50ARBT-1.7	AR-RBT-1.7	-	1.7	.39	10		
A-50BRBT-1	BR-RBT-1	#1	2.0	.70	18		
A-50BRBT-2	BR-RBT-2	#2	2.3	.70	18		
A-50BRBT-3	BR-RBT-3	#3	2.6	.70	18		
A-50BRBT-4	BR-RBT-4	#4	3.0	.70	18		
A-50CRBT-6	CR-RBT-6	#6	3.5	.70	18		
A-50CRBT-8	CR-RBT-8	#6-8	4.0	.70	18		
A-50CRBT-10	CR-RBT-10	#10	5.0	.70	18		

Dimensions: 5.1" (W) x 10.8" (L) x 5.3" (H)    Weight: 9.2 lbs.

## WHICH TO USE...?

### Standard Screw Presenters

For manual assembly stations where the operator must otherwise pick up and hold fasteners by hand.

### Robotic Screw Presenters

For automated fastening systems or manual systems using vacuum assist to pick up non-ferrous fasteners.

### Compact Robotic Screw Presenters

For automated systems, or manual systems, using vacuum-assist to pick up nonferrous fasteners when work space is limited,

# ACRA-FEED AUTOMATIC SCREW FEED SYSTEMS

***Reduces Cycle Time By Approximately Two Seconds Per Fastener***

## FEATURES AND BENEFITS

- Delivers fastener directly to the driver
- For #2 - #10 fasteners, up to 1 inch long
- Available for captive washer type screws (A-315V)
- Feed speed of up to 1 screw per second
- System includes feeder, hose assembly, air screwdriver, and FRL

## PRODUCTIVE

- Eliminates reaching for fasteners
- Most jams are easily cleared on the line
- Frees operator's hand for productive use
- Large hopper holds between 1,000 – 5,000 fasteners

## ERGONOMIC

- Eliminates manual handling of fasteners and shavings
- Reduces workspace clutter
- Keeps workspace clean of dropped fasteners
- Torque reaction of standard driver is minimal and can be eliminated with optional Ergo-Arm

## RELIABLE

- Longest warranty in the industry – 3 years
- Rocking Bar design only operates as needed
- "Photo eyes" maximize motor life
- Design eliminates burrs and shavings by minimal handling of the fastener
- Durable head assembly lasts for years
- There are more Acra-Feed systems in use than any other system

**ACRA-FEED®**



A-2100

**ACRA-FEED®**



A-315V

MODEL	APPLICABLE SCREWS	SCREW LENGTH IN	SCREW LENGTH MM	HOPPER CAPACITY	MAX FASTENING SPEED	WEIGHT (LB)	DIMENSIONS L X W X H (IN)
A-2100 Series	M2-M5 (#2 - #10)	1/4-1	6-25	1,500cc (1,000-5,000 pcs)*	60 screws/min*	68	7 x 17 x 16
A-315V Series	M2-M5 (#2 - #10)	1/4-1	6-25	450cc (500-2,500 pcs)*	60 screws/min*	74	10 x 21 x 16

\* Dependent on screw size

Delivery Hose: 10 ft

Air Pressure: 85 psi

Power: AC 110V, 20W, AC 220V by request. Contact AIMCO at 1-800-852-1368.

**HOW TO ORDER:** Acra-Feed systems are application-specific and configured to the unique workpiece and requirements of the user. Quotations are provided from a review of sample workpieces, 25 fasteners, and required torque specifications.

# GRAVITY-DEFYING BALANCERS

## TW-SERIES BALANCERS



**TW-0 & TW-00 Series**

### TW-0 and TW-00

- Gravity defying / "true balance"
- No tension buildup to cause worker fatigue
- Easy external direct drive tensioning
- 360 degree upper swivel
- Safety cable provision
- Tool clip included



### TW-3 through TW-70

- Tapered drum allows "true balance" throughout cable travel
- Easy external direct drive tensioning
- Cast aluminum casing for durability
- Permanent lubrication
- 360 degree top swivel

### TW-3 to TW-70 Series

- Enclosed spiral spring for added safety
- Safety chain provision (TW-3 through TW-15 models)
- Automatic safety lock plus manual drum lock (TW-22 through TW-70)

MODEL	CAPACITY		ANTI-GRAVITY CAPACITY (LB)	CABLE
	LB	KG		
TW-00	1.1 - 3.3	0.5 - 1.5	2.5 - 3.0	18" stranded steel cable 1/8" dia.
TW-0	1.1 - 3.3	0.5 - 1.5	2.5 - 3.0	3.3-ft stranded steel cable 1/8" dia.
TW-3	2.2 - 6.6	1.0 - 3.0	4.5 - 6.0	4.3-ft stranded steel cable 5/32" dia.
TW-5	5.5 - 11.0	2.5 - 5.0	8.0 - 10.5	4.3-ft stranded steel cable 5/32" dia.
TW-9	9.9 - 19.8	4.5 - 9.0	15.0 - 19.0	4.3-ft stranded steel cable 5/32" dia.
TW-15	19.8 - 33.0	9.0 - 15.0	26.0 - 32.5	4.3-ft stranded steel cable 5/32" dia.
TW-22	33.0 - 48.4	15 - 22	41.0 - 48.0	5-ft stranded steel cable 3/16" dia.
TW-30	48.4 - 66.0	22 - 30	58.0 - 65.5	5-ft stranded steel cable 3/16" dia.
TW-40	66.0 - 88.0	30 - 40	77.5 - 87.5	5-ft stranded steel cable 3/16" dia.
TW-50	88.0 - 110.0	40 - 50	100.0 - 109.5	5-ft stranded steel cable 3/16" dia.
TW-60	110.0 - 132.0	50 - 60	122.0 - 131.0	5-ft stranded steel cable 3/16" dia.
TW-70	132.0 - 154.0	60 - 70	144.0 - 153.0	5-ft stranded steel cable 3/16" dia.

## ASB-SERIES BALANCERS

- Built-in Safety Features: The cable, drum, and enclosed spring are fully visible without opening the unit for easy and convenient safety checks. The sturdy spiral spring is enclosed for greater control and safety
- Ergonomic Spring Release: The automatic safety lock provides extra control
- Extended Cable Length: Stainless steel cables allow for extended reach on applications
- Enhanced Gear Mechanism: Allows for more exact adjustment of tension
- No Recoil and Low Resistance: Tapered drum style provides gravity defying tool positioning and low travel



**ASB-OC Gravity Defying and Hand Adjustable Balancer**



**ASB-3C  
ASB-5C**

MODEL	CAPACITY	STROKE	WEIGHT
ASB-OC	1.1 - 3.3 lb	0.5 - 1.5 kg	51.1 in 130 cm 1.5 lb 0.7 kg
ASB-3C	3.3 - 6.6 lb	1.5 - 3 kg	864 in 220 cm 3.0 lb 1.4 kg
ASB-5C	5.5 - 11 lb	2.5 - 5 kg	864 in 220 cm 3.4 lb 1.5 kg

# LINE REEL BALANCERS / RETRACTORS

## LINE REEL BALANCERS

### LR-Series

- Designed for light duty applications with small pneumatic tools
- Integrating air hose and support cable keep work areas clean
- Adjustable ball stop for optional positioning
- 1/4" I.D. polyvinyl hose with 1/4" NPT inlet
- 360 degree upper swivel
- Maximum 142 PSI



LR-09B-90/200

MODEL	HOSE LENGTH		CAPACITY	
LR-09B-90	35.5 in	90 cm	3 lb	1.5 kg
LR-09B-200	78.3 in	199 cm	3 lb	1.5 kg

## RETRACTORS

### RPA Series

- No tools needed to set tension
- 5 ft nylon coated steel cable
- Reinforced hanging bracket includes safety cable provision
- Adjustable cable stop
- Three (3) models support weight 0.5 – 5 lb
- Tool clip included



### RMA-L Series

- Steel housing with polyester finish
- Reinforced hanging bracket includes safety cable provision
- 8 ft of 3/32" diameter coated steel cable
- Permanently lubricated
- Tool clip included
- External tension adjustment
- Ratchet cable lock

MODEL	CAPACITY	
RPA-1	0.5 - 1.5 lb	0.2 - 0.7 kg
RPA-2	1.5 - 3.0 lb	0.7 - 1.4 kg
RPA-3	3.0 - 5.0 lb	1.4 - 2.3 kg
RMA-7L	5 - 10 lb*	2.3 - 4.8 kg*
RMA-15L	10 - 15 lb*	4.5 - 6.8 kg*
RMA-20L	15 - 23 lb*	6.8 - 10.4 kg*

\* With ratchet lock

# ERGO-ARM TOOL SUPPORT SYSTEMS

## FEATURES AND BENEFITS

- Ergonomic support for electric and pneumatic tools reduces operator fatigue
- Increases productivity, consistency, and accuracy



### PARALLEL ARM SERIES

AD-D1098-P, AD-D1098-PAC, AD-D1098-PACE

- Minimizes operator control
- Vertical adjustment eliminates cross-threading
- Fixture tool increases repeatability
- Adjustable reach
- Available in air or oil cylinder models
- Electric tool mount standard on PACE model

### SINGLE ARM SERIES

AD-D1098-S, AD-D1098-SAC

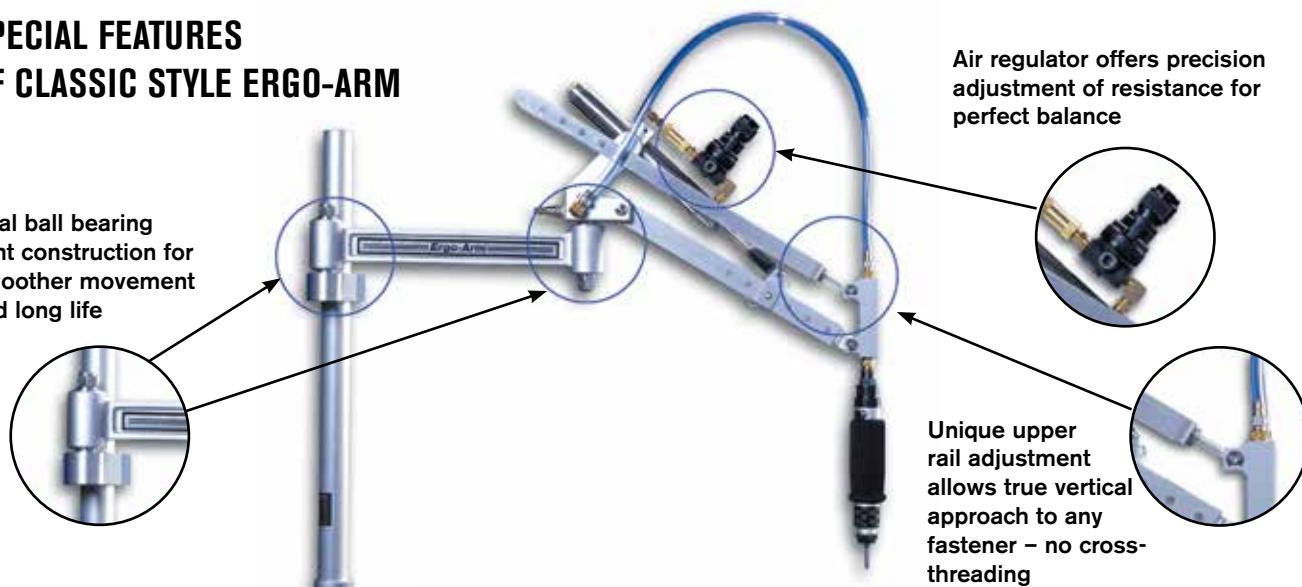
- Full tool rotation
- Operator control
- Adjustable reach
- Compatible with automatic screw feeder
- Available in air or oil cylinder models

MODEL	ARM STYLE	TOOL MOUNT	REACH IN	REACH MM	CAPACITY LB	CAPACITY KG	MAXIMUM TORQUE*	MAXIMUM TORQUE*
							IN-LB	NM
AIR CYLINDER SERIES								
AD-D1098-SAC	Single	Air manifold	4 - 33	102 - 838	0 - 15	0 - 7	110	12
AD-D1098-PAC	Parallel	Air manifold	4 - 33	102 - 838	0 - 15	0 - 7	110	12
AD-D1098-PACE	Parallel	Electric	4 - 33	102 - 838	0 - 15	0 - 7	110	12
OIL CYLINDER SERIES								
AD-D1098-S	Single	Air manifold**	4 - 33	102 - 838	0 - 15	0 - 7	110	12
AD-D1098-P	Parallel	Air manifold	4 - 33	102 - 838	0 - 15	0 - 7	110	12

\* Max torque allowed may be dependent on tool clutch type and joint rate

\*\* For single arm electric tool mount, order EAP-202ED-KIT

## SPECIAL FEATURES OF CLASSIC STYLE ERGO-ARM



# ERGO-ARM ACCESSORIES AND LINEAR ARM

## ERGO-ARM ACCESSORIES

- End-of-Arm Tooling options for the Ergo-Arm allow you to choose the style right for your application
- Tool holders permit the tool to swivel, rotate, swing, or twist. Heavy duty construction can lock out any single, or combination of rotating, actions allowing only the motions required by your application
- End-of-Arm Tooling Brackets are simple to use. One Ergo-Arm can be used for more than one application

FOR USE WITH MODELS  
AD-D1098-S/SAC



**EAP-202ED-KIT**  
Electric Driver Tool  
Mount Kit

FOR USE WITH MODELS  
AD-D1098-P/PAC



**EAP-203-ASSY**  
Air Manifold  
Tool Mount Kit  
(Standard on  
parallel units)



**EAP-202ASSY**  
Driver Tool  
Mount

## LINEAR ARM

- Smooth movement and perfect balance while limiting operator control
- Machined stainless steel and ball bearing construction
- Two high quality tool balancers are included with each arm to provide a wide range of adjustment

### LINEAR ARM KIT



**LQ-0002 Linear Arm**  
ships with two ASB-0C  
balancers.

**LQ-0004 Linear Arm**  
ships with two TW-3  
balancers.

**LQ-0024H Heavy Duty  
Arm**  
ships with two TW-3  
balancers.

### PARALLEL ARM KIT

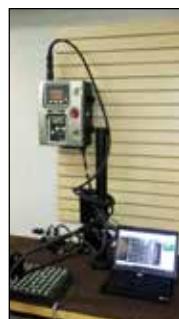


**EAA-04** - Provides easy  
conversion of standard Ergo-  
Arms to the parallel style.

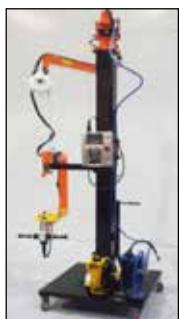
MODEL	DESCRIPTION	MAX. REACH		WEIGHT CAPACITY		MAX TORQUE		HEIGHT		STANDARD TOOL MOUNT DIAMETER	
		IN	CM	LB	KG	FT-LB	NM	IN	CM	IN	CM
LQ-0002	Linear Arm	14	37	1- 5	0.5 - 2.3	20	27	24	61	1.6	4.1
LQ-0004	Linear Arm	24	58	3 - 10	1.4 - 4.5	25	34	36	91.4	1.6	4.1
LQ-0024H	Heavy Duty Arm	24	58	3 - 10	1.4 - 4.5	75	102	36	91.4	1.6	4.1

## CUSTOM REACTION DEVICES

- Torque Tubes
- Articulating Torque Arms
- Ergo Arm 3 Zero Gravity Arms
- Smart Arms



**Articulating  
Smart Carbon  
Arm**



**Articulating  
Torque Arm**



**Carbon Fiber  
Arm**



**Ergo-Arm 3**



**Torque Tube**

Contact an AIMCO Customer Service Associate, 1-800-852-1368, in order to determine the exact torque reaction system needed to improve the productivity and ergonomics of your assembly station.

# GCI TORQUE REACTION ARMS

RUGGED FLEXIBILITY FOR EVEN THE MOST COMPLEX TORQUE APPLICATIONS



Constructed of durable aluminum, steel, or carbon fiber, GCI Torque Arms are available with multiple tool mounting options for application specifics. These highly ergonomic and user friendly arms are available in torque ranges of 150 Nm to 7,500 Nm and with reaches ranging up to 20 ft.

GCI arms can be designed as Smart Arms with encoders and intuitive PC-based AdaptiCS software. This complete Smart Arm system error-proofs even the most complex torque applications.



Rugged tablet  
PC option for Smart Arm

## FEATURES AND BENEFITS

- Available in aluminum, steel, or carbon fiber
- Configurable installation: floor mount, wall mount, overhead mount, bench mount, or portable base
- Braking options: manual/automatic, discrete braking with verification, parking brakes, and electric/pneumatic actuation
- Tool holding options: fixed position, gimbal mount
- Integrated tool start/brake actuation capability: tool trigger start, remote tool start
- Smart Arm Capabilities:
  - Available with as many as six encoders to monitor all desirable tool positions relative to application
  - Intuitive, user-friendly AdaptiCS PC-based software that runs on an integrated industrial PC or on a customer supplied PC
  - Accepts easily scalable part images

MODEL	MAX. TORQUE	MAX. TOOL WEIGHT	MAX. REACH	MAX. VERTICAL TRAVEL	CONSTRUCTION
IPT SERIES - TORQUES TO 375 NM					
IPT150	150 Nm	12 lb	5 ft	30 in	Aluminum
IPT375	375 Nm	50 lb	6 ft	36 in	Steel
IP SERIES - TORQUES TO 4,000 NM					
IP4	550 Nm	30 lb	8 ft	48 in	Steel
IP5	1,000 Nm	50 lb	12 ft	60 in	Steel
IP7	3,000 Nm	100 lb	12 ft	60 in	Steel
IP8T	4,000 Nm	100 lb	12 ft	72 in	Steel
F SERIES - CARBON FIBER ARMS					
F70	70 Nm	10 lb	3 ft	18 in	Carbon Fiber Composite
F600	600 Nm	50 lb	20 ft	72 in	Carbon Fiber Composite
F1500	1,500 Nm	50 lb	20 ft	72 in	Carbon Fiber Composite
F3000	3,000 Nm	75 lb	20 ft	72 in	Carbon Fiber Composite
F7500	7,500 Nm	75 lb	12 ft	72 in	Carbon Fiber Composite

# GCI TORQUE REACTION ARMS

## FEATURES



**AdaptiCS Software**



- Batch count capabilities
  - Bidirectional arm articulation tracking
  - Full torque/angle results display
  - Integrates into any line control (PLC, MES, etc.)
  - Multiple part locate strategies (1-point, 2-point, 3-point)
  - Fully programmable dynamic display with integrated PC option
  - Multiple rework strategies to fit customer requirements
  - Integrates devices such as torque controllers via open protocol, encoded GCI torque reaction arms, scanners, vision cameras, and digital IO (pass/fail)
  - AdapticS Enterprise (optional) provides full line control, interlocks, and data collection
  - Runs on Windows 7, 8, and 10

# CARBON TORQUE ARMS / TUBES

## CARBON TORQUE ARMS / TUBES

Carbon Arms and Carbon Torque tubes are lightweight, yet strong devices designed to absorb torque reactive forces. Highly flexible and modular, they adapt to a wide range of tools, and eliminate hazards to operators during fastening processes.



### FEATURES AND BENEFITS

- Absorb torque reaction from continuous drive tools
- Counter balance tool weight when configured with AIMCO's wide array of tool balancers (page 122) or with integrated balancer kits
- Orient tool correctly to the workpiece to improve efficiency and reduce operator effort in alignment to the fastener



### ACA-POSIX POSITIONING SYSTEM

The compact, self-contained

ACA-Posix process visualization system guides operators through their assigned tasks. It connects to ACA-P2 series arms with integrated balancer kits.

### FEATURES AND BENEFITS

- Intuitive and simple programming on 7" color LCD touch-screen display
- Store up to 500 unique assembly sequences
- Communicates directly with Power Tool controllers over digital I/O
- Store and display product images or CAD drawings. Images/drawings are displayed with targeting sequences to direct operators easily through their task
- Output for synchronizing with line controls

## TELESCOPIC TORQUE ARMS



ACA Series

MODEL	MIN. LENGTH MM	MAX. LENGTH MM	MAX TORQUE NM
ACA10-1000	495	1105	10
ACA10-1500	665	1605	10
ACA15-1000	486	1066	15
ACA15-1500	646	1556	15
ACA15-2000	806	2046	15
ACA40-1000	486	1066	40
ACA40-1500	646	1556	40
ACA40-2000	806	2046	40
ACA40-2500	986	2576	40
ACA80-1500	658	1586	80
ACA80-2000	828	2078	80
ACA80-2500	998	2588	80
ACA150-1500	668	1578	150
ACA150-2000	838	1918	150
ACA150-2500	1003	2248	150
ACA220-1500	668	1578	220
ACA220-2000	838	2088	220
ACA220-2500	1003	2588	220



ACA-V Series

MODEL	MIN. LENGTH MM	MAX. LENGTH MM	MAX TORQUE NM
ACA-V15-1000	777	1345	15
ACA-V15-1500	937	1835	15
ACA-V15-2000	1097	2325	15
ACA-V40-1000	777	1345	40
ACA-V40-1500	937	1835	40
ACA-V40-2000	1097	2325	40
ACA-V40-2500	1277	2855	40
ACA-V80-1500	949	1865	80
ACA-V80-2000	1119	2357	80
ACA-V80-2500	1289	2867	80
ACA-V150-1500	960	1957.5	150
ACA-V150-2000	1129	2357	150
ACA-V150-2500	1294	2862	150
ACA-V220-1500	960	1957.5	220
ACA-V220-2000	1129	2357	220
ACA-V220-2500	1294	2867	220



ACA-P2 Series  
X,Y Axis Encoders  
(Requires ACA-POSIX System)

MODEL	MIN. LENGTH MM	MAX. LENGTH MM	MAX TORQUE NM
ACA-P215-1000	647	1227	15
ACA-P215-1500	803	1713	15
ACA-P215-2000	977	2227	15
ACA-P240-1000	647	1227	40
ACA-P240-1500	803	1713	40
ACA-P240-2000	977	2227	40
ACA-P240-2500	1157	2737	40
ACA-P280-1500	830	1757	80
ACA-P280-2000	1000	2249	80
ACA-P280-2500	1169	2760	80
ACA-P2150-1500	839	1749	150
ACA-P2150-2000	1009	2087	150
ACA-P2150-2500	1174	2419	150
ACA-P2220-1500	839	1749	220
ACA-P2220-2000	1009	2259	220
ACA-P2220-2500	1174	2760	220

# CARBON TORQUE ARMS / TUBES

## ANTI-ROTATION TORQUE ARMS



ACTT-V40-850 300



ACPTT-V40-SA-510 150

## ACTT SERIES TORQUE TUBES

MODEL	MIN. LENGTH MM	MAX. LENGTH MM	MAX TORQUE NM
ACTT-V15-600 150	150	600	15
ACTT-V15-800 300	300	800	15
ACTT-V40-600 150	150	600	40
ACTT-V40-850 300	300	850	40
ACTT-V40-1500 600	600	1500	40
ACTT-V80-900 300	300	900	80
ACTT-V80-1500 600	600	1500	80
ACTT-V80-2100 900	900	2100	80

## ACPTT SERIES TORQUE TUBES FOR ACSA ARTICULATING SUPPORT ARMS

MODEL	MIN. LENGTH MM	MAX. LENGTH MM	MAX LENGTH MM
ACPTT-V15-510 150	150	600	15
ACPTT-V15-710 300	300	800	15
ACPTT-V40-510 150	150	600	40
ACPTT-V40-760 300	300	850	40
ACPTT-V40-1410 600	600	1500	40
ACPTT-V80-810 300	300	900	80
ACPTT-V80-1410 600	600	1500	80

## ACCESSORIES

### TOOL HOLDERS

MODEL	DESCRIPTION	MIN. TOOL GRIP (MM)	MAX. TOOL GRIP (MM)	
<b>FOR TELESCOPIC ARMS</b>				
	ACAH-15	Base tool holder 4 screws	27	45
	ACAH-40-80	Base tool holder 4 screws	30	60
	ACAH-150-220	Base tool holder 4 screws	40	70
<b>Multi-Position</b>				
	ACAH-15-MPE2745	Multi-position tool holder interface	27	45
	ACAH-150220-MPE4070	Multi position tool holder	40	70
	ACAH-4080-MPE2745	Multi-position tool holder	27	45
<b>Swivel</b>				
	ACAH-S154080	Swivel tool holder 20 to 35 mm	20	35
	ACAH-SL15150	Swivel tool holder 40 to 55 mm	40	55

MODEL	DESCRIPTION	MIN. CAPACITY (KG)	MAX. CAPACITY (KG)
ACAHTT-15A-3060	Angle Tool Holder - 15 Nm Arm	30	60
ACAHTT-15S-2745	Straight Tool Holder - 15 Nm Arm	27	45
ACAHTT-4080A-3165	Angle Tool Holder - 40/80 Nm Arms	31	65
ACAHTT-40S-2745	Straight Tool Holder - 40/80 Nm Arms	27	45

### ACSA ARTICULATING SUPPORT ARMS



ACSA-600-1500

MODEL	MAX REACH MM	MAX HEIGHT MM	MAX TORQUE NM
ACSA-600-1500	600	1500	80
ACSA-800-1500	800	1500	80
ACSA-1000-1500	1000	1500	80

### BALANCER KITS FOR ACA-P2 SERIES

MODEL	MIN. CAPACITY (KG)	MAX. CAPACITY (KG)
ACA-P2BK-4	2	4
ACA-P2BK-6	4	6
ACA-P2BK-8	6	8
ACA-P2BK-10	8	10
ACA-P2BK-14	10	14



ACA-P2BK-10

# WORKSTATION COMPONENTS AND ASSEMBLIES

## COMPONENTS

### TRACK

Steel with beige polyester finish. Use for vertical and horizontal workstation support.



PART NUMBER	30# TRACK
AT3-3	3 ft track
AT3-4	4 ft track
AT3-6	6 ft track
AT3-9*	9 ft track

PART NUMBER	30# TRACK
AT5-3	3 ft track
AT5-4	4 ft track
AT5-6	6 ft track
AT5-9*	9 ft track
AT5-12*	12 ft track

### TRACK NUT (ATN-3/5)

Zinc plated steel. Use to attach accessories to track, as end stops, or to isolate rolling accessories.

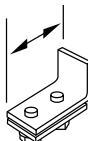
- ATN-3 for 30 lb. track
- ATN-5 for 50 lb. track



### END STOP (AES-3/5)

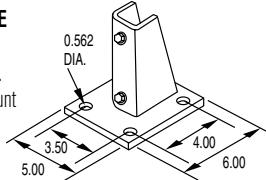
Zinc oxide finish. Use to prevent balancer trolley from "overtraveling" horizontal track.

- AES-3 for 30 lb. track
- AES-5 for 50 lb. track



### MOUNTING PLATE (AMP-5)

Black polyester finish. Use as a base to mount vertical uprights.



### END CAP (AEP-3/5)

Black molded vinyl. Use to cap track ends for a professional finish.

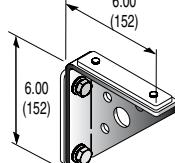
- AEP-3 for 30 lb. track
- AEP-5 for 50 lb. track



### ANGLE BRACKET (AB-3/5)

Black polyester finish. Use to mount horizontal track to vertical track.

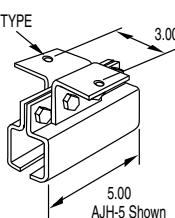
- AB-3 for 30 lb. track
- AB-5 for 50 lb. track



### JOINT HANGER BRACKET (AJH-3/5)

Black polyester finish. Use to couple and hang end-to-end track.

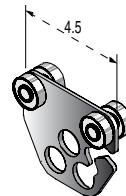
- AJH-3 for 30 lb. track
- AJH-5 for 50 lb. track



### BALANCER TROLLEY (ABT-3/5)

Black polyester finish. Use as moving support for tool balancers, hose, and cable. Quality ball bearing wheels for long life and smooth tracking.

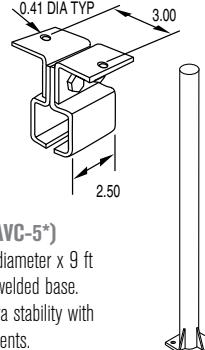
- ABT-3 for 30 lb track (1.00 dia)
- ABT-5 for 50 lb track (1.25 dia)



### HANGER BRACKET (AHB-3/5)

Black polyester finish. Use to suspend track at right angle.

- AHB-3 for 30 lb. track
- AHB-5 for 50 lb. track



### VERTICAL COLUMN (AVC-5\*)

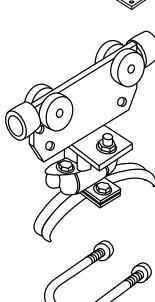
Beige polyester finish, 3" diameter x 9 ft upright steel column with welded base. Use as floor mount for extra stability with jibs or workstation components.



### HOSE/CABLE TROLLEY

Black polyester finish. Use for moving cable or hose festoon. Supports hose cable OD .60-.94.

- AIC3-2 for 30 lb. track
- AIC5-2 for 50 lb. track



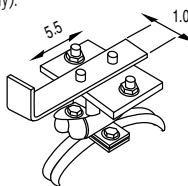
### U-BOLTS (AUB-5)

Zinc plated steel. Use to secure boom bracket, or any flat metal plate, to AVC-5 (sold individually).



### END CLAMP (AEC5-2)

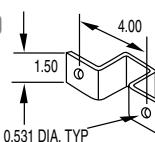
Black polyester finish. Use as end stop with hose carrier for festoon. Cable/hose OD .60-.94.



### SUPPORT CLAMPS (ASC-3/5)

Black polyester finish. Use as additional support for track.

- ASC-3 for 30 lb. track
- ASC-5 for 50 lb. track



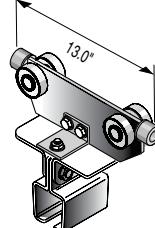
### TOOL CLIP (SH-5)

Steel clip with safety latch. Use for tool attachment and as replacement clip for lightweight tool balancers. Measures 2.37" long.



### ROLLING HANGER (ABT5-R)

Black polyester finish. Use as support for rolling track. Allows X/Y axis movement, includes ball bearing wheels.



### 90° CONNECTOR FOR 3/8" HOSE (WSCH)

3/8" I.D. Brass. Use to provide stable transfer point from air line to tool. 90 degree connector attaches to ABT-5.



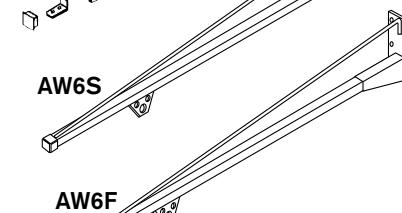
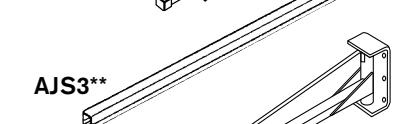
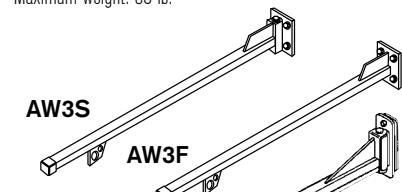
## WALL- AND FLOOR-MOUNTED JIBS

### 3 FT. SWINGING JIB (AW3S)

### 3 FT FIXED JIB (AW3F)

### 3 FT. SWINGING JIB FOR CHANNEL MOUNT (AJS3\*\*)

Jibs are mounted to wall or beams to create free standing workstations. End stop, end cap, and balancer trolley included. Maximum weight: 30 lb.



### 6 FT. SWINGING JIB (AW6S)

### 6 FT FIXED JIB (AW6F)

Jibs can be wall mounted or attached to vertical column (AVC-5) to create a freestanding workstation. End stop, end caps, and balancer trolley are included. Maximum weight: 50 lbs.

All complete assemblies are beige polyester finish and include balancer trolley, end caps, and end stops. Floor mounted assemblies are not able to ship via UPS.

**When choosing a workstation system, remember...**

Total weight capacities should include tool balancer, hose/cable, and tool/fixtures. Units need to be supported vertically and horizontally every 6 ft.

\* Additional freight may apply

\*\* AJS3 Does not include balancer trolley

# WORKSTATION COMPONENTS AND ASSEMBLIES

## FLOOR MOUNTED 3 FT. SWINGING JIB\* (AW3FMS)

## FLOOR MOUNTED 3 FT. FIXED JIB\* (AW3FMF)

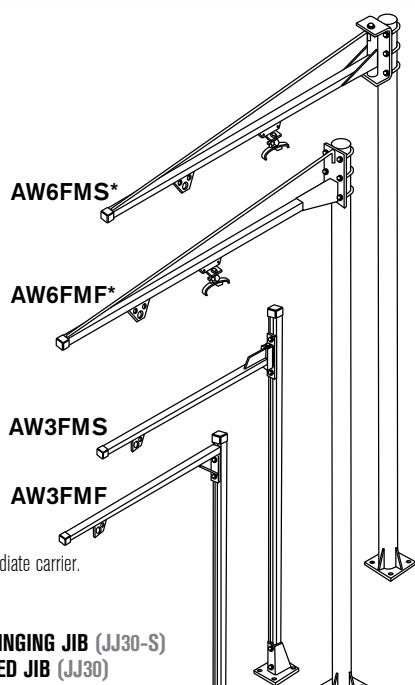
Maximum weight: 30 lb  
Column height: 6 ft

## FLOOR MOUNTED 6 FT. SWINGING JIB\* (AW6FMS\*)

## FLOOR MOUNTED 6 FT. FIXED JIB\* (AW6FMF\*)

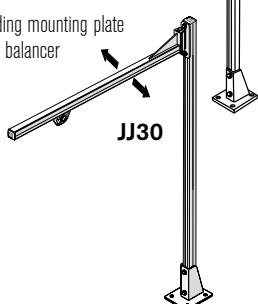
Maximum weight: 50 lb  
Column height: 9 ft

\*Units include end stop,  
balancer trolley and intermediate carrier.



## BENCH MOUNTED SWINGING JIB (JJ30-S) BENCH MOUNTED FIXED JIB (JJ30)

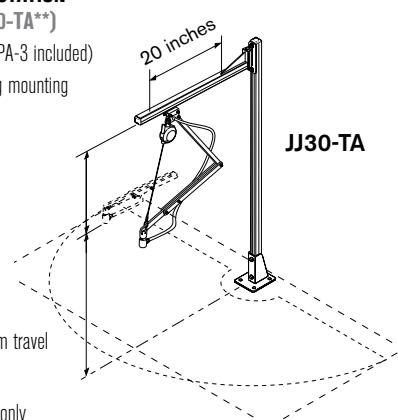
Maximum weight: 30 lbs  
Column height: 48" including mounting plate  
3 ft. swinging jib includes balancer  
trolley, end stop, and cap



## AIMCO WORKSTATION KIT

### BENCH MOUNTED WORKSTATION WITH TORQUE ARM (JJ30-TA\*\*)

- 5 lb. maximum weight (RPA-3 included)
- 5' column height including mounting plate
- 38" jib length (swinging)
- 15 ft-lb torque rating
- 3/8" NPT inlet
- 1/4" NPT outlet
- Beige polyester finish
- 1/4" braided air hose
- 21" maximum vertical arm travel



\*\*Additional freight may apply

\*\*For use with pneumatic tools only

## CREATE A CUSTOM SUPPORT SYSTEM USING AIMCO'S QUALITY PRODUCTS

- Organize work area to create a safe, productive working environment
- Reduce risk of injury to assembler by providing support for heavy tools
- Protect valuable tools, fixtures, and monitoring devices from damage by suspending them out of the way

### AIMCO BASIC WORKSTATION KIT (ATW-50)



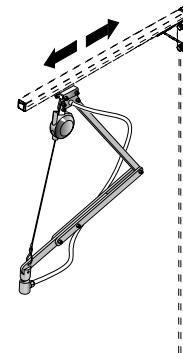
- 50 lb maximum weight capacity
- 48" uprights
- 36" extensions
- Table mounts included
- 6' tool rail with rolling trolley included
- All necessary hardware included

### TROLLEY MOUNTED TORQUE ARM WITH 3-LB RETRACTOR AND HOSE (FA-50-2\*)

Ergonomic arm absorbs torque reaction.  
Moves front to back along overhead jib.

(TA-50-2)

Moves side to side on overhead track.



AIMCO can customize a workstation for you.  
Contact an AIMCO Customer Service Associate  
1-800-852-1368.

# AIR PREPARATION UNITS

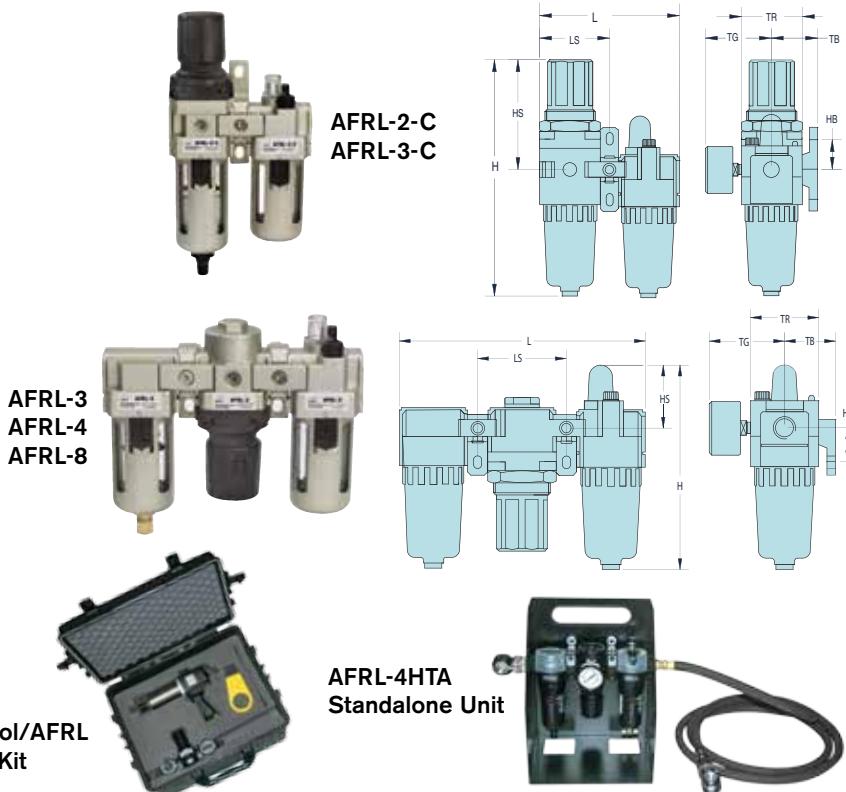
## AFRL STACKING FILTER/REGULATORS

Stacking filter/regulator combinations provide air filtration and precise regulation in a single unit for easy mounting and installation.

### FEATURES AND BENEFITS

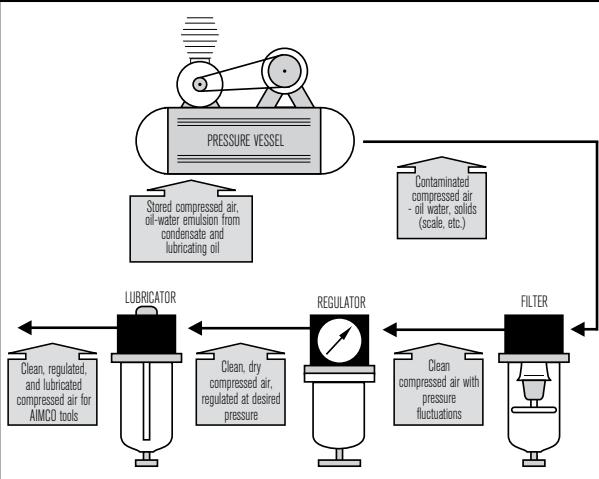
- All models include L-mount bracket, gauge, and metal bowl shields
- Polycarbonate filter and lubricator bowls (metal bowls standard on AFRL-8)
- 25-micron filter included on all models
- Regulating range: 7 – 125 PSI
- Custom order upgrade items include metal bowl, 5 micron filter, semi-automatic filter drain, and reduced PSI range regulator. Contact an AIMCO Customer Service Associate for more information, 1-800-852-1368

**28178**  
HT Air Tool/AFRL  
Carrying Kit



MODEL	PORT	GAUGE PORT	FLOW RATE CFM	BOWL SHIELD	H IN/MM	HB IN/MM	HS IN/MM	L IN/MM	LS IN/MM	TB IN/MM	TG IN/MM	TR IN/MM	
AFRL-2	1/4"	1/8"	70	2,000	yes	6.16 (156.5)	1.39 (35.3)	1.50 (38.1)	7.13 (181.1)	2.52 (64.0)	1.61 (41.0)	2.39 (60.7)	2.09 (53.1)
AFRL-2-C	1/4"	1/8"	60	1,700	yes	8.31 (211.1)	1.38 (35.1)	3.64 (92.5)	4.61 (117.1)	2.30 (58.4)	1.61 (40.9)	2.39 (60.7)	2.09 (53.1)
AFRL-3	3/8"	1/4"	140	4,000	yes	7.54 (191.5)	1.57 (40.0)	1.61 (40.9)	9.37 (238.0)	3.31 (84.1)	1.97 (50.0)	2.58 (65.5)	2.76 (70.1)
AFRL-3-C	3/8"	1/4"	105	3,000	yes	10.31 (261.9)	1.57 (39.9)	4.41 (112.0)	6.06 (153.9)	3.03 (77.0)	1.97 (50.0)	2.58 (65.5)	2.76 (70.1)
AFRL-4	1/2"	1/4"	140	4,000	yes	7.54 (191.5)	1.57 (40.0)	1.61 (40.9)	9.37 (238.0)	3.31 (84.1)	1.97 (50.0)	2.58 (65.5)	2.76 (70.1)
AFRL-8	1"	1/4"	180	5,000	yes	10.69 (271.5)	1.97 (50.0)	1.89 (48.0)	11.81 (300.0)	4.13 (104.9)	2.75 (69.9)	2.97 (75.4)	3.54 (89.9)

### AIR PREPARATION UNITS: BASIC FUNCTIONS



The supply of clean, dry air is essential to the operation of pneumatic powered tools. Use only clean filtered air for longer tool life. Provide proper airflow (CFM) and regulate air pressure (PSI) for optimum performance.

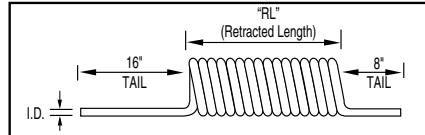
#### To determine unit size for application, you need to know:

- Total air flow (CFM) required for application
- Size of incoming air line and size of air line required by tool
- Air supply pressure (PSI)
- Allowable pressure drop
- Does the application require lubrication?
- Does the overall system have the required capacity?

## Polyurethane Hose



- Durable Polyurethane is chemical resistant and lightweight, and provides excellent recoil memory and maximum flexibility
- Available in transparent hose color (opaque also available)
- Assemblies for coiled hose include reusable swivel fitting. Straight hose available with or without fittings
- Working temperature: -104° F to 175° F



### SINGLE AIR HOSE ASSEMBLIES (COILED)

MODEL	DESCRIPTION (O.D. x I.D. x LENGTH)	RETRACTED LENGTH	WORKING PRESSURE	NPT FITTINGS
ASH-250C-10MSZ	3/8" x 1/4" x 10'	7"	100 psi	1/4"
ASH-250C-15MSZ	3/8" x 1/4" x 15'	9 1/2"	100 psi	1/4"
ASH-250C-25MSZ	3/8" x 1/4" x 25'	15 1/2"	100 psi	1/4"
ASH-375C-15MSZ	9/16" x 3/8" x 15'	10"	100 psi	3/8"
ASH-375C-25MSZ	9/16" x 3/8" x 25'	14"	100 psi	3/8"
ASH-500C-15MSZ	3/4" x 1/2" x 15'	13"	100 psi	1/2"
ASH-500C-25MSZ	3/4" x 1/2" x 25'	23"	100 psi	1/2"



### STRAIGHT AIR HOSE (SOLD PER FOOT)

MODEL	DESCRIPTION
ASH-375Z	3/8" I.D.
ASH-500Z	1/2" I.D.

Contact an AIMCO Customer Service Associate about full reel pricing. 1-800-852-1368.

Custom length coil assemblies and special colors available in minimum order quantities.  
Contact an AIMCO Customer Service Associate, 1-800-852-1368.

## Rubber Hose



- Designed for use in a wide range of industrial, construction, and agricultural applications
- Constructed of high grade, reinforced EPDM synthetic rubber
- Working temperature: -40° F to 190° F

### SINGLE AIR HOSE (RUBBER)

ID.	O.D.	LENGTH	WORKING PRESSURE	WEIGHT
3/16"	0.44"	10 ft	200 psi	0.8 lb
1/4"	0.5	10 ft	200 psi	0.9 lb
5/16"	0.58	10 ft	200 psi	1.2 lb
3/8"	0.67"	10 ft	200 psi	1.5 lb
1/2"	0.81"	10 ft	200 psi	2.0 lb
5/8"	0.97"	10 ft	200 psi	2.7 lb
3/4"	1.12"	10 ft	200 psi	3.4 lb

Custom lengths available. Contact an AIMCO Customer Service Associate for more details. 1-800-852-1368.

## HELPFUL HINTS FOR AIR HOSE USE

- Use recommended I.D. air hose and fittings
- Replace air hose regularly to help maintain clean air
- A clear hose allows you to see water or dirt accumulation in hose
- Use correct length of hose to reduce air loss and pressure drop
- Use locking quick-disconnect couplers for additional safety

# AIR LINE ACCESSORIES

## BRASS QUICK COUPLERS

Manual ball couplers designed for use with ergonomic twist plugs. Brass with nitrile seals, rated to 300 PSI, from -40° to +250° F.

MODEL	DESCRIPTION
B23	1/4" NPT F x 1/4" QC Brass Coupler
B23E	1/4" NPT F x 3/8" QC Brass Coupler
B25	3/8" NPT F x 3/8" QC Brass Coupler



## IN-LINE MINI REGULATORS

Easily adjust airflow with the turn of a dial.

MODEL	CAPACITY
932-100-0	1/8" NPT
932-110-0A	1/4" NPT



## MINI AIR GAUGE SWIVEL JOINT KITS

- Bi-directional 360° rotation
- Keeps air hose straight and untwisted
- Decreases operator fatigue



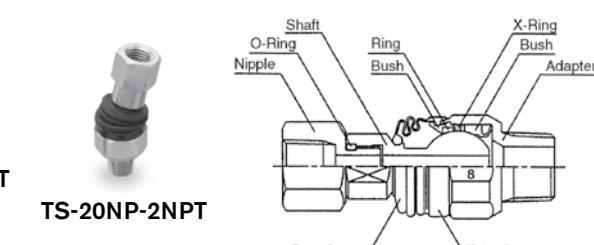
MODEL	INLET	WEIGHT	MAX PSI	TOOL CFM
7021AG	1/4" NPT	3 oz	Up to 125	25
7041AG	3/8" NPT	3 oz	Up to 125	50



## ERGONOMIC TWIST PLUGS

These unique, ergonomically designed hose fittings provide 360° rotation and 35° angled rotation in any direction.

- Two rotation points prevent kinking of air hose
- Design ensures full air pressure flow
- Rotating joint comes with polyurethane dust cover
- Heavy duty construction



MODEL	DESCRIPTION
TS-30NP-2NPT	3/8" NPT Female x 1/4" NPT Male
TS-20NP-2NPT	1/4" NPT Female x 1/4" NPT Male
TS-20US-2NPT	1/4" US Plug x 1/4" NPT Male
TS-30US-3NPT	3/8" US Plug x 3/8" NPT Male

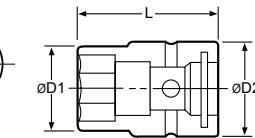
# STANDARD FASTENER TOOLS

## STANDARD FASTENER TOOLS

Connect your tool to the application with Bits, Sockets and Nutsetters from AIMCO.

AIMCO has assembled the most complete package of commonly used screwdriver bits and nutsetters in the industry. Our goal is to supply you with the highest quality bits and nutsetters for your fastener needs. Whether you're in electronics, aerospace, automotive, or general industry, AIMCO has the bits and nutsetters to fit your needs.

## IMPACT SOCKETS



PART NO	HEX	D1 MM	D1 IN	D2 MM	D2 IN	L MM	L IN
---------	-----	----------	----------	----------	----------	---------	---------

3/8" Square Drive								
SAE	A31/4	1/4"	10	0.39	19	0.75	34	1.34
	A35/16	5/16"	12	0.47	19	0.75	34	1.34
METRIC	A33/8	3/8"	15	0.59	19	0.75	34	1.34
	A306	6 mm	10	0.39	19	0.75	34	1.34
	A307	7 mm	13	0.49	20	0.79	32	1.26
	A308	8 mm	14	0.55	20	0.79	32	1.26

3/8" Square Drive, Deep								
	A307-2	7 mm	13	0.49	20	0.79	50	1.97
	A307-2.75	7 mm	13	0.49	20	0.79	70	2.76
	A308-2	8 mm	14	0.55	20	0.79	50	1.97

3/8" Square Drive, Magnetic								
SAE	A31/4MP	1/4"	10	0.39	19	0.75	34	1.34
	A35/16MP	5/16"	12	0.47	19	0.75	34	1.34
METRIC	A33/8MP	3/8"	15	0.59	19	0.75	34	1.34
	A308MP	8 mm	14	0.55	20	0.79	32	1.26
	A310MP	10 mm	17	0.65	20	0.79	32	1.26
	A311MP	11 mm	17	0.65	19	0.75	34	1.34

1/2" Square Drive								
SAE	A43/8	3/8"	16	0.63	25	0.98	38	1.50
	A47/16	7/16"	18	0.69	25	0.98	38	1.50
METRIC	A41/2	1/2"	19	0.75	25	0.98	50	1.97
	A408	8 mm	16	0.61	25	0.98	40	1.58
	A409	9 mm	16	0.63	25	0.98	40	1.58
	A410	10 mm	18	0.69	25	0.98	40	1.58

1/2" Square Drive, Deep								
SAE	A43/8-3.25	3/8"	17	0.67	25	0.98	82	3.23
	A47/16-3.25	7/16"	19	0.73	25	0.98	82	3.23
METRIC	A41/2-3.25	1/2"	22	0.85	25	0.98	82	3.23
	A410-2	10 mm	18	0.69	25	0.98	50	1.97
	A410-3	10 mm	18	0.69	25	0.98	75	2.95
	A410-3.25	10 mm	17	0.67	25	0.98	82	3.23
	A411-3.25	11 mm	19	0.73	25	0.98	82	3.23

PART NO	HEX	D1 MM	D1 IN	D2 MM	D2 IN	L MM	L IN
---------	-----	----------	----------	----------	----------	---------	---------

### 1/2" Square Drive, Magnetic

A408MP	8 mm	16	0.61	25	0.98	40	1.58
A410MP	10 mm	18	0.69	25	0.98	40	1.58
A412MP	12 mm	21	0.81	25	0.98	40	1.58

### 3/4" Square Drive

SAE							
A611/16	11/16"	30	1.18	44	1.73	50	1.97
A63/4	3/4"	32	1.26	44	1.73	50	1.97
A613/16	13/16"	35	1.38	44	1.73	50	1.97
A614	14 mm	24	0.95	38	1.50	55	2.17
A616	16 mm	27	1.06	44	1.73	50	1.97
A617	17 mm	30	1.18	38	1.50	55	2.17

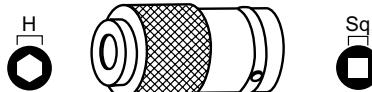
### 3/4" Square Drive, Deep

SAE							
A611/16-4	11/16"	31	1.22	44	1.73	100	3.94
A63/4-4	3/4"	33	1.30	44	1.73	100	3.94
A613/16-4	13/16"	36	1.42	44	1.73	100	3.94
A617-4	17 mm	31	1.22	44	1.73	100	3.94
A618-4	18 mm	32	1.26	44	1.73	100	3.94
A619-4	19 mm	33	1.30	38	1.50	100	3.94

### 1" Square Drive

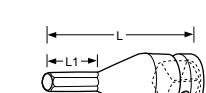
SAE								
A87/8	7/8"	37	1.46	54	2.13	59	2.32	
A815/16	15/16"	38	1.50	54	2.13	59	2.32	
A81	1"	41	1.61	54	2.13	59	2.32	
METRIC	A817	17 mm	31	1.22	50	1.97	63	2.48
	A819	19 mm	33	1.30	50	1.97	63	2.48
	A821	21 mm	37	1.46	50	1.97	63	2.48

## QUICK CHANGE CHUCKS



PART NO	DRIVE	HEX	D1 MM	D1 IN	L MM	L IN
ADC-2S	1/4"	1/4"	19	0.75	38	1.50
ADC-3S	3/8"	1/4"	20	0.79	42	1.65
ADC-4S	1/2"	1/4"	19	0.75	46	1.81
ADC-3SH7/16Z	3/8"	7/16"	25	0.98	46	1.81
ADC-4SH7/16Z	1/2"	7/16"	33	1.30	55	2.17

## ALLEN SOCKETS



PART NO	HEX	L1 MM	L1 IN	L MM	L IN
A31/4C	1/4"	10	0.39	42	1.65
A304C	4 mm	10	0.39	42	1.65

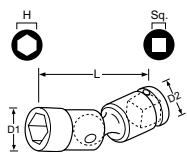
### 1/2" Square Drive

PART NO	HEX	L1 MM	L1 IN	L MM	L IN
A411/4C	1/4"	25	0.98	50	1.97
A405C	5 mm	25	0.98	50	1.97

Additional types and sizes of fastener tools, as well as custom parts, are available upon request. 1-800-852-1368.

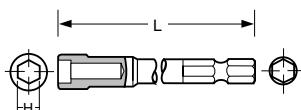
# STANDARD FASTENER TOOLS

## UNIVERSAL SOCKETS



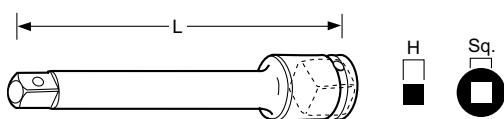
PART NO	HEX	D1 MM	D1 IN	D2 MM	D2 IN	L MM	L IN
<b>3/8" Square Drive</b>							
A310U	10 mm	16	0.63	20	0.79	55	2.17
A311U	11 mm	16	0.63	20	0.79	60	2.36
<b>1/2" Square Drive</b>							
A412U	12 mm	20.5	0.81	25	0.98	70	2.76
A413U	13 mm	19	0.75	24	0.95	70	2.76

## NUTSETTERS



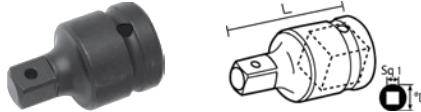
PART NO	HEX	L MM	L IN
A3B1/4-2	1/4"	50	1.97
A3B1/4-2.5	1/4"	63	2.50
A3B5/16-2	5/16"	50	1.97
A3B5/16-2.5	5/16"	63	2.50
A3B3/8-2	3/8"	50	1.97
A3B3/8-2.5	3/8"	63	2.50
A3B05-2.75	5 mm	70	2.76
A3B55-1.2	5.5 mm	30	1.18
A3B55-2.75	5.5 mm	70	2.76
A3B55-4	5.5 mm	100	3.94
A3B06-2.75	6 mm	70	2.76
A3B07-1.2	7 mm	30	1.18
A3B07-2	7 mm	50	1.97
A3B07-2.75	7 mm	70	2.76
A3B07-4	7 mm	100	3.94
A3B08-1.2	8 mm	30	1.18
A3B08-2	8 mm	50	1.97
A3B08-2.75	8 mm	70	2.76
A3B08-4	8 mm	100	3.94
A3B08-6	8 mm	150	5.91
A3B08-8	8 mm	200	7.87
A3B09-2.75	9 mm	70	2.76
A3B09-4	9 mm	100	3.94
A3B10-1.2	10 mm	30	1.18
A3B10-2	10 mm	50	1.97
A3B10-2.75	10 mm	70	2.76
A3B11-2.75	11 mm	70	2.76
A3B12-1.2	12 mm	30	1.18
A3B13-2.75	13 mm	70	2.76
A3B14-2.75	14 mm	70	2.76
A3B16-2.75	16 mm	70	2.76
A3B17-2.75	17 mm	70	2.76

## EXTENSIONS



PART NO	SQ. DRIVE	HEX	L MM	L IN	D MM	D IN
A375E	3/8"	3/8"	75	2.95	20	0.79
A405E	1/2"	1/2"	51	2.01	30	1.18
A610E	3/4"	3/4"	100	3.94	44	1.73
A810E	1"	1"	102	4.02	54	2.13
A1220E	1-1/4"	1-1/4"	200	7.87	60	2.36
A1418E	1-1/2"	1-1/2"	178	7.01	84	3.31
A2426E	2-1/2"	2-1/2"	264	10.39	137	5.39

## SOCKET ADAPTERS



PART NO	FEMALE SQ. DRIVE	MALE SQ. DRIVE	D MM	D IN	L MM	L IN
A302A	3/8"	1/4"	22	0.87	35	1.38
A403A	1/2"	3/8"	25	0.98	37	1.46
A504A	5/8"	1/2"	35	1.38	47	1.46
A604A	3/4"	1/2"	38	1.50	53	2.09
A806A	1"	3/4"	50	1.97	70	2.76
A128A	1-1/4"	1"	60	2.36	76	2.99
A#508A	Spline #5	1"	60	2.36	90	3.54

## Bit and Nutsetter Part Number Nomenclature

Precedes Part Number	Contained within Part Number
<b>BITS</b>	
A3S = Phillips® Power Drive	A7 = 7/16 Power Drive
A3S = Double Ended Phillips®	AS = Electric Type Phillips®
A3W = Phillips® Insert	AM = Electric Type Slotted
A39S = Phillips® Insert Reduced Nose	ATW = ElectricType Tri-Wing®
A3M = Slotted Power Drive	AT = Electric Hios Type Torx®
A38M = Slotted Insert	A26S = Electric Driver Phillips®
A3MT = Slotted Power Drive Reduced Nose	A26M = Electric Driver Slotted
A3C = Allen Socket Head Power Drive	A26C = Electric Driver Allen
A38C = Allen Socket Head Insert	Socket Head
A3R = Square Recess Power Drive	A3BHM = Insert Bit Holder (Magnetic Type)
A3RT = Square Recess Turned Down (Power)	A3BHD = Insert Bit Holder (Non Magnetic)
A38R = Square Recess Insert	<b>NUTSETTERS</b>
A3T = Torx® Power Drive	A3B = Nutsetter
A38T = Torx® Insert	A3BMP = Magnetic (MP) Pressed Type
A3TS = Torq-Set® Power Drive	A3BMS = Magnetic (MS) Spring Loaded
A38TS = Torq-Set® Insert	A3BMT = Magnetic (MT) Tube Type
A3TA = Triangle Power Drive	A3BU = Universal Nutsetter
A3TW = Tri-Wing® Power Drive	<b>MAG-O-NETS</b>
A38TW = Tri-Wing® Insert	AM = AIMCO Mag-O-Net®

Additional types and sizes of fastener tools, as well as custom parts, are available upon request. 1-800-852-1368.

# STANDARD FASTENER TOOLS

## MAG-O-NETS®: A Revolutionary Way to Convert Standard Bits to Magnetic Bits

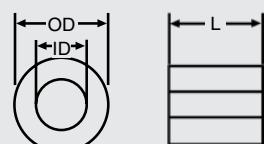
### FEATURES AND BENEFITS

- Easy, cost effective alternative to traditional magnetic bit holder and insert bit combination
- Improves torque transfer by eliminating "wobble effect"
- Easily adjust magnetic attraction by moving Mag-O-Net collar closer to or further from fastener
- Fits virtually any standard screwdriver bit
- Reusable and interchangeable – once a bit is worn out, simply remove your Mag-O-Net and slide it onto the next bit
- Lifetime guarantee on magnetic attraction

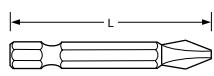
PART NO	INNER DIAMETER (ID)	OUTER DIAMETER (OD)	L MM
AM1/4Z	7 mm	19 mm	10
AM5Z	6 mm	17.5 mm	10
AM3/16Z	3/16 in	17.5 mm	10



\*U.S. Patent 5861789

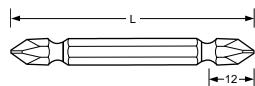


### PHILLIPS POWER BITS



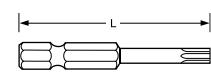
PART NO	POINT SIZE	L MM	L IN
A3S0-2	0	50	1.97
A3S1-2	1	50	1.97
A3S1-2.75	1	70	2.76
A3S1-3	1	75	2.95
A3S1-3.5	1	90	3.54
A3S1-4	1	100	3.94
A3S1-6	1	150	5.91
A3S2-1.2	2	30	1.18
A3S2-1.6	2	40	1.57
A3S3-2	3	50	1.97
A3S3-2.75	3	70	2.76

#### Double-Ended



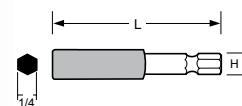
PART NO	POINT SIZE	L MM	L IN
A3W1-3	1	75	2.94
A3W1-4	1	100	3.94
A3W2-2	2	50	1.97
A3W2-3	2	75	2.94
A3W2-4	2	100	3.94
A3W2-6	2	150	5.91
A3W2-8	2	200	7.87
A3W2-10	2	250	9.84
A3W2-12	2	300	11.81
A3W3-2	3	50	1.97
A3W3-3	3	75	2.94
A3W3-4	3	100	3.94
A3W3-6	3	150	5.91
A3W3-8	3	200	7.87

### TORX POWER BITS



PART NO	TORX SIZE	L MM	L IN
A3T6-2	T6	50	1.97
A3T7-2	T7	50	1.97
A3T7-2.75	T7	70	2.76
A3T7-3.5	T7	90	3.54
A3T7-6	T7	150	5.91
A3T8-2	T8	50	1.97
A3T9-2.75	T9	70	2.76

### BIT HOLDERS



PART NO	L MM	L IN
<b>1/4" Hex, Magnetic</b>		
A3BHM-3	75	2.94
A3BHM-4	100	3.94
A3BHM-6	150	5.91
A3BHM-8	200	7.87
A3BHM-10	250	9.84

Additional types and sizes of fastener tools, as well as custom parts, are available upon request. 1-800-852-1368.

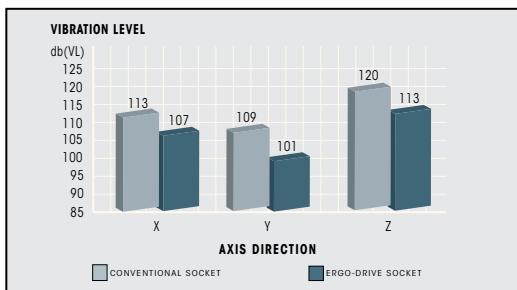
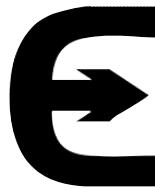
# ERGO-DRIVE SERIES

## ERGO-DRIVE® SOCKETS PROTECT...



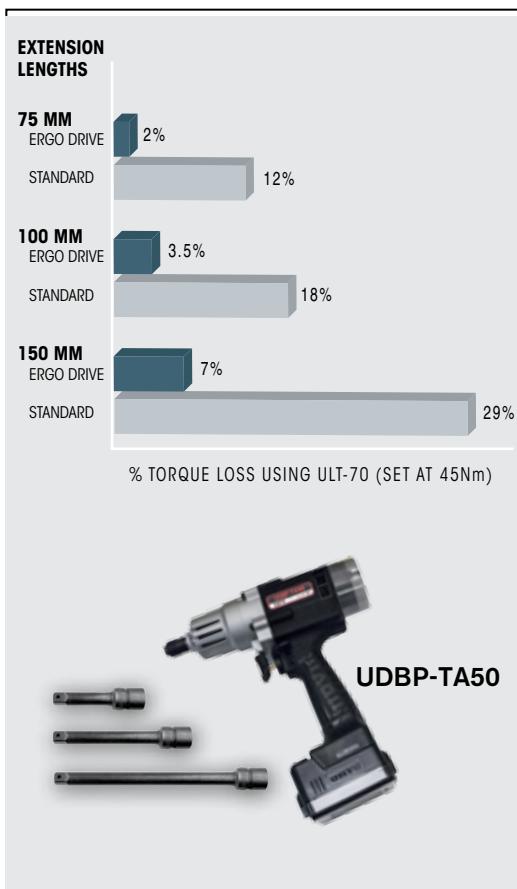
### ...YOUR INVESTMENT!

Pulse tools are an investment and the anvil is the most expensive single part of any pulse tool. ERGO-DRIVE sockets decrease vibration and wear on this critical component.



### ...YOUR ASSEMBLERS!

ERGO-DRIVE sockets cause significantly less vibration during fastening than conventional sockets. This allows your assemblers to do their jobs without the worry of vibration related injuries.

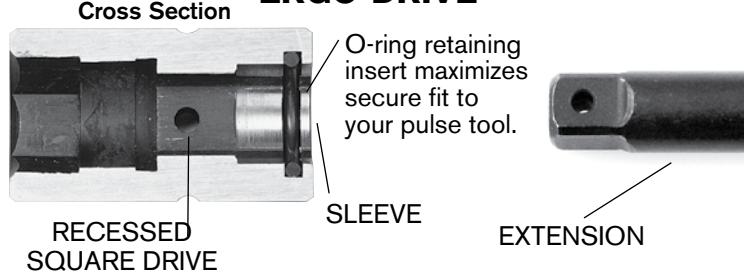


### ...YOUR PRODUCTS!

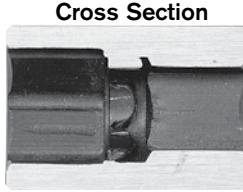
By reducing run-out and vibration, ERGO-DRIVE sockets allow the most repeatable, accurate rundowns to take place, ensuring excellent product quality.

### ERGO-DRIVE VS. STANDARD

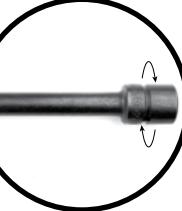
#### ERGO-DRIVE



#### STANDARD



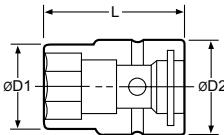
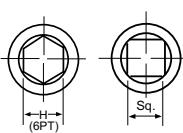
STANDARD EXTENSION



ERGO-DRIVE

# ERGO-DRIVE FASTENER TOOLS

## ERGO-DRIVE SOCKETS



PART NO	HEX	D1 MM	D1 IN	D2 MM	D2 IN	L MM	L IN
---------	-----	----------	----------	----------	----------	---------	---------

### 3/8" Square Drive

A314EDS	1/4"	10	0.39	19	0.75	44	1.73
A312EDS	1/2"	20	0.77	22	0.87	44	1.73
A306EDS	6 mm	10	0.39	19	0.75	44	1.73
A308EDS	8 mm	14	0.55	20	0.79	42	1.65
A310EDS	10 mm	17	0.65	20	0.79	42	1.65
A312EDS	12 mm	20	0.79	20	0.79	42	1.65
A314EDS	14 mm	22	0.87	20	0.79	42	1.65
A316EDS	16 mm	25	0.98	20	0.79	45	1.77
A318EDS	18 mm	27	1.06	20	0.79	45	1.77

### 1/2" Square Drive

A412EDS	1/2"	19	0.75	25	0.98	50	1.97
A413EDS	13 mm	22	0.85	25	0.98	52	2.05
A414EDS	14 mm	23	0.89	25	0.98	52	2.05
A415EDS	15 mm	24	0.93	25	0.98	52	2.05
A416EDS	16 mm	25	0.98	25	0.98	52	2.05
A417EDS	17 mm	28	1.10	28	1.10	54	2.13
A418EDS	18 mm	29	1.14	28	1.10	54	2.13
A419EDS	19 mm	30	1.18	28	1.10	54	2.13

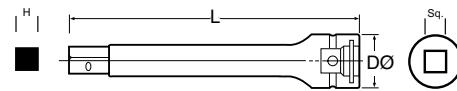
### 3/4" Square Drive

A61-1/8EDS	1-1/8"	44	1.73	44	1.73	64	2.52
A61-1/4EDS	1-1/4"	49	1.91	44	1.73	66	2.60
A61-1/2EDS	1-1/2"	57	2.24	44	1.73	68	2.68
A618EDS	18 mm	31	1.22	44	1.73	60	2.36
A624EDS	24 mm	40	1.52	40	1.73	65	2.36

### 1" Square Drive

A815/16EDS	15/16"	38	1.50	54	2.13	69	2.72
A8100EDS	100 mm	136	5.35	76	2.99	120	4.72

## ERGO-DRIVE EXTENSIONS



PART NO	SQ DRIVE	H	L MM	L IN	D MM	D IN
---------	-------------	---	---------	---------	---------	---------

### 3/8" Square Drive

A352EDE	3/8"	3/8"	52	2.05	20	0.79
A3100EDE	3/8"	3/8"	100	3.94	20	0.79
A375EDE	3/8"	3/8"	75	2.95	20	0.79
A3150EDE	3/8"	3/8"	150	5.91	20	0.79
A3190EDE	3/8"	3/8"	190	7.48	20	0.79
A3254EDE	3/8"	3/8"	254	10.00	20	0.79
A3300EDE	3/8"	3/8"	300	11.81	20	0.79
A3320EDE	3/8"	3/8"	320	12.60	20	0.79

### 1/2" Square Drive

A464EDE	1/2"	1/2"	64	2.52	28	1.10
A476EDE	1/2"	1/2"	76	2.99	28	1.10
A4125EDE	1/2"	1/2"	125	4.92	28	1.10
A4204EDE	1/2"	1/2"	204	8.03	28	1.10
A4254EDE	1/2"	1/2"	254	10.00	28	1.10
A4355EDE	1/2"	1/2"	355	13.98	28	1.10

### 3/4" Square Drive

A676EDE	3/4"	3/4"	76	2.99	40	1.58
A6100EDE	3/4"	3/4"	100	3.94	40	1.58
A6150EDE	3/4"	3/4"	150	5.91	40	1.58
A6200EDE	3/4"	3/4"	200	7.87	40	1.58

### 1" Square Drive

A8150EDE	1"	1"	150	5.91	54	2.13
A8200EDE	1"	1"	200	7.87	54	2.13

## QUICK CHANGE CHUCKS



PART NO	SQUARE DRIVE	HEX
3/8" Square Drive		
ADC-3SEDSQ	3/8"	1/4"
ADC-3SEDSQH7/16	3/8"	7/16"
1/2" Square Drive		
ADC-4SEDSQ	1/2"	1/4"
ADC-4SEDSQH7/16	1/2"	7/16"

Additional types and sizes of fastener tools, as well as custom parts, are available upon request. 1-800-852-1368.

# CUSTOM BITS, SOCKETS, AND EXTENSIONS

## CUSTOM BITS, SOCKETS, AND EXTENSIONS

### FOR THE POWER TOOL USER

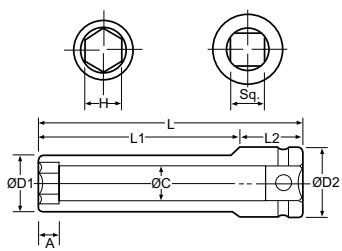
AIMCO can provide specials for virtually any application. From design to delivery, AIMCO's quick response ensures high quality, tight tolerance specials.

**Specials are available in every style including:**

- Deep Socket
- Extended Socket
- Universal
- Allen Head
- Torx Head
- Socket Adapter
- Nut Runner Socket
- Nut Runner Joint
- Nutsetter
- Magnetic Nutsetter
- Universal Nutsetter
- Screwdriver Bits



**Sample request forms are shown. Your detailed requirements will allow AIMCO to quickly respond with custom solutions for your fastening requirements.**

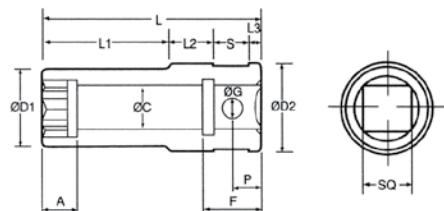


**SOCKET**

MAGNET	H	L	L <sub>1</sub>	L <sub>2</sub>	A	ØC	ØD <sub>1</sub>	ØD <sub>2</sub>	Sq.
MP	•	•	•	•	•	•	•	•	•
MT	•	•	•	•	•	•	•	•	•
MS	•	•	•	•	•	•	•	•	•

# SPECIAL PARTS

## SOCKET TYPES

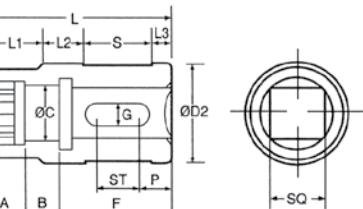


NUTRUNNER SOCKET TYPE A

Min. Qty. 10

Magnet MP MT MS	H	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	S	ØD <sub>1</sub>	A	ØC	ØG	P	F	ØD <sub>2</sub>	Sq.	Qty.
SIZE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
TYPE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

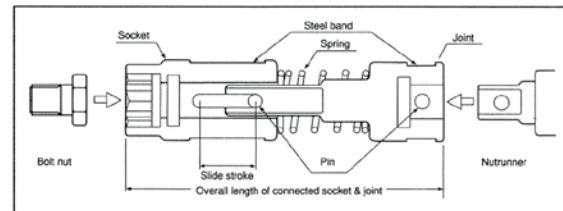
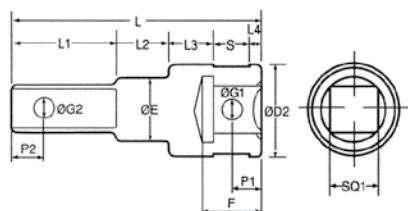
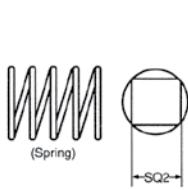
✓ Box for Ergo-Drive



NUTRUNNER SOCKET TYPE B

Min. Qty. 10

SIZE	H	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	S	ØD <sub>1</sub>	A	B	ØC	G	P	F	ST	ØD <sub>2</sub>	Sq.	Qty.
TYPE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

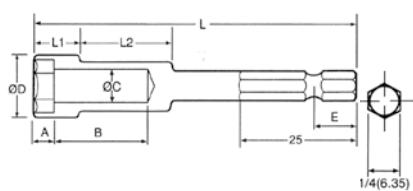


NUTRUNNER JOINT TYPE B

Min. Qty. 10

SQ <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	S	P <sub>1</sub>	ØG <sub>2</sub>	ØE	F	ØG <sub>1</sub>	P <sub>2</sub>	ØD <sub>2</sub>	SQ <sub>1</sub>	Qty.	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

✓ Box for Ergo-Drive



NUT SETTER

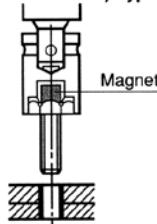
Min. Qty. 10

SIZE	H	ØD	L	E	L <sub>1</sub>	L <sub>2</sub>	A	B	ØC	Qty.
TYPE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

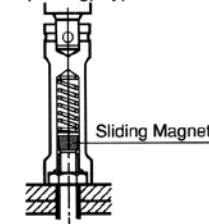
# SPECIAL PARTS

## MAGNETIC STYLES:

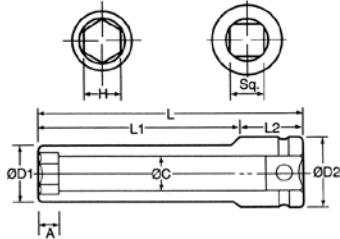
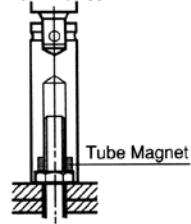
MP (Press-inserted) Type



MS (Sliding) Type



MT (Tube) Type



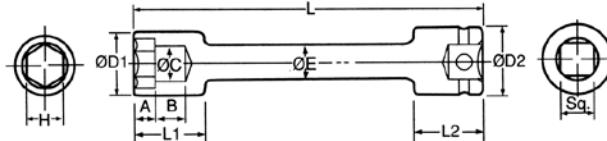
Magnet	MP	MT	MS
SIZE			
TYPE			

## SOCKET

H	L	L <sub>1</sub>	L <sub>2</sub>	A	ØC	ØD <sub>1</sub>	ØD <sub>2</sub>	Sq.	Qty.
SIZE									
TYPE									

Min. Qty. 10

✓ Box for Ergo-Drive



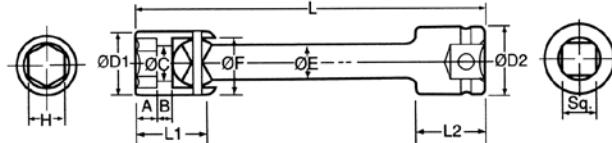
## EXTENSION SOCKET

Magnet	MP	MT	MS
SIZE			
TYPE			

H	L	L <sub>1</sub>	L <sub>2</sub>	A	B	ØC	ØD <sub>1</sub>	ØD <sub>2</sub>	ØE	Sq.	Qty.
SIZE											
TYPE											

Min. Qty. 10

✓ Box for Ergo-Drive



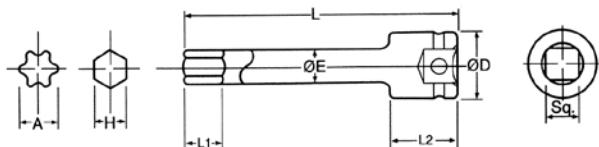
## UNIVERSAL SOCKET

Magnet	MP	MT	MS
SIZE			
TYPE			

H	L	L <sub>1</sub>	L <sub>2</sub>	A	B	ØC	ØD <sub>1</sub>	ØD <sub>2</sub>	ØE	ØF	Sq.	Qty.
SIZE												
TYPE												

Min. Qty. 10

✓ Box for Ergo-Drive

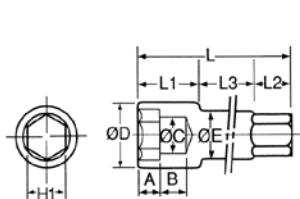


## ALLEN HEAD/TORX HEAD

Torx	H	L	L <sub>1</sub>	L <sub>2</sub>	ØD	ØE	Sq.	Qty.

Min. Qty. 10

✓ Box for Ergo-Drive

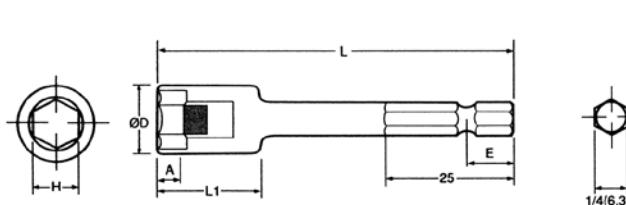


H <sub>1</sub>	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	ØD	A	B	ØC	ØE	H <sub>2</sub>	Qty.
SIZE											
TYPE											

Min. Qty. 10

✓ Box for Ergo-Drive

# SPECIAL PARTS

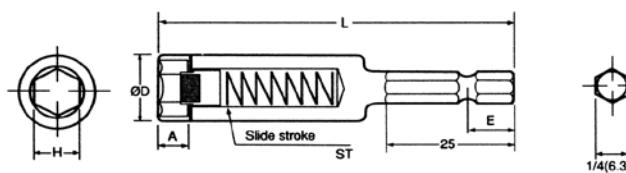


**(MP) MAGNETIC NUT SETTER**

Min. Qty. 10

H	L	E	L <sub>1</sub>	ØD	A	Qty.
SIZE						
TYPE						

1/4(6.35)

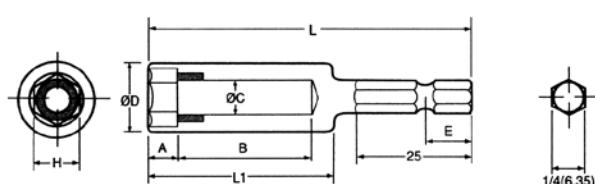


**(MS) MAGNETIC NUT SETTER**

Min. Qty. 10

H	L	E	ØD	A	ST	Qty.
SIZE						
TYPE						

1/4(6.35)

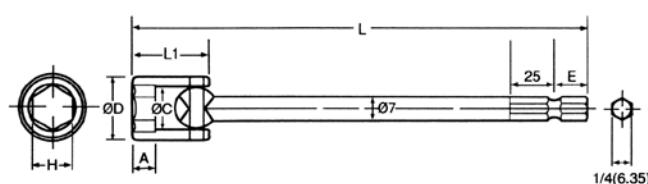


**(MT) MAGNETIC NUT SETTER**

Min. Qty. 10

H	L	E	L <sub>1</sub>	ØD	A	B	ØC	Qty.
SIZE								
TYPE								

1/4(6.35)

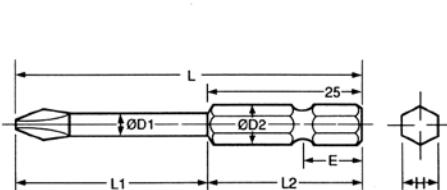


**UNIVERSAL NUT SETTER**

Min. Qty. 10

H	L	E	L <sub>1</sub>	A	ØC	ØD	Qty.
SIZE							
TYPE							

1/4(6.35)



**SCREWDRIVER BIT**

Min. Qty. 500

Point Size	L	L <sub>1</sub>	L <sub>2</sub>	ØD <sub>1</sub>	ØD <sub>2</sub>	E	H	Qty.
Phillips®								
Slotted								
Torx®								
Tamper Resistant								
Pozidriv®								
Supadriv®								
Square Recess								
Allen Head								
Torq-Set®								
Tri-Wing®								

CIRCLE ONE:

- Phillips®
- Slotted
- Torx®
- Tamper Resistant
- Pozidriv®
- Supadriv®
- Square Recess
- Allen Head
- Torq-Set®
- Tri-Wing®

# CONVERSION CHARTS

## Fraction ■ Decimal ■ Metric Conversions (to .32)

	<b>Decimal</b>	<b>mm</b>		<b>Decimal</b>	<b>mm</b>		<b>Decimal</b>	<b>mm</b>		<b>Decimal</b>	<b>mm</b>
1/32	.03125	.7938	9/32	.28125	7.1438	17/32	.53125	13.4938	25/32	.78125	19.8438
1/16	.0625	1.5875	5/16	.3125	7.9375	9/16	.5625	14.2875	13/16	.8125	20.6375
3/32	.09375	2.3812	11/32	.34375	8.7312	19/32	.59375	15.0812	27/32	.84375	21.4312
1/8	.125	3.175	3/8	.375	9.525	5/8	.625	15.875	7/8	.875	22.225
5/32	.15625	3.9688	13/32	.40625	10.3188	21/32	.65625	16.6688	29/32	.90625	23.0188
3/16	.1875	4.7625	7/16	.4375	11.1125	11/16	.6875	17.4625	15/16	.9375	23.8125
7/32	.21875	5.5562	15/32	.46875	11.9062	23/32	.71875	18.2562	31/32	.96875	24.6062
1/4	.25	6.35	1/2	.5	12.7	3/4	.75	19.05	1	1.0	25.4

## Thread Size to Hex Size

								
	MM		MM		UNC		INCHES	
M 2	4		M 27	41	1/4		7/16	
M 2.3	4.5		M 30	46	5/16		1/2	
M 2.6	5		M 33	50	3/8		9/16	
M 3	5.5		M 36	55	7/16		11/16	
M 3.5	6		M 39	60	1/2		3/4	
M 4	7		M 42	65	9/16		7/8	
M 5	8		M 45	70	5/8		15/16	
(M 5-6)	9		M 48	75	3/4		1-1/8	
M 6	10		M 52	80	7/8		1-5/16	
M 7	11		M 56	85	1		1-1/2	
M 8	13		M 60	90	1-1/8		1-11/16	
(M 8)	14		M 64	95	1-1/4		1-7/8	
M 10	16		M 68	100	1-3/8		2-1/16	
(M 10)	17		M 72	105	1-1/2		2-1/4	
M 12	18		M 76	110	1-3/4		2-5/8	
(M 12)	19		M 80	115	2		3	
M 14	21		M 85	120	2-1/4		3-3/8	
(M 14)	22		M 90	130	2-1/2		3-3/4	
M 16	24		M 95	135				
M 18	27		M 100	145				
M 20	30		M 105	150				
(M 22)	32		M 110	155				
M 22	34		M 115	165				
M 24	36		M 120	170				

## Torque Conversion Factors

Units to be Converted	SAE			METRIC			INTERNATIONAL SYSTEM - S.I.		
	ozf-in	lbf-in	lbf-ft	gf-cm	kgf-cm	kgf-m	mNm	cNm	Nm
1 ozf-in	= 1	0.0625	0.005	72	0.072	0.0007	7.062	0.706	0.007
1 lbf-in	= 16	1	0.083	1152.1	1.152	0.0115	113	11.3	0.113
1 lbf-ft	= 192	12	1	13826	13.83	0.138	1356	135.6	1.356
1 gf-cm	= 0.014	0.0009	0.00007	1	0.001	0.00001	0.098	0.01	0.0001
1 kgf-cm	= 13.89	0.868	0.072	1000	1	0.01	98.07	9.807	0.098
1 kgf-m	= 1389	86.8	7.233	100000	100	1	9807	980.7	9.807
1 mN-m	= 0.142	0.009	0.0007	10.2	0.01	0.0001	1	0.1	0.001
1 cN-m	= 1.42	0.088	0.007	102	0.102	0.001	10	1	0.01
1 N-m	= 141.6	8.851	0.738	10197	10.20	0.102	1000	100	1

# INDEX

MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE
<b>A</b>									
A128A . . . . .	136	A3B55-1.2 . . . . .	136	A4254EDE . . . . .	139	AAP2B76250A . . . . .	88	ACA-P240-2500 . . . . .	128
A1220E . . . . .	136	A3B55-2.75 . . . . .	136	A4355EDE . . . . .	139	AAP2B76450A . . . . .	88	ACA-P280-1500 . . . . .	128
A1418E . . . . .	136	A3B55-4 . . . . .	136	A-50A-0 . . . . .	120	AAP2B76650A . . . . .	88	ACA-P280-2000 . . . . .	128
A-2100 . . . . .	121	A3BHM-3 . . . . .	137	A-50A-1.7 . . . . .	120	AAP2B76950A . . . . .	88	ACA-P280-2500 . . . . .	128
A2426E . . . . .	136	A3BHM-4 . . . . .	137	A-50ARBT-0 . . . . .	120	AAP2B771400A . . . . .	88	ACA-P2150-1500 . . . . .	128
A31/2EDS . . . . .	139	A3BHM-6 . . . . .	137	A-50ARBT-1.7 . . . . .	120	AAP2B772000A . . . . .	88	ACA-P2150-2000 . . . . .	128
A31/4 . . . . .	135	A3BHM-8 . . . . .	137	A-50ARBTC-0 . . . . .	120	AAP2B773000A . . . . .	88	ACA-P2150-2500 . . . . .	128
A31/4C . . . . .	135	A3BHM-10 . . . . .	137	A-50ARBTC-1.7 . . . . .	120	AAP2B785100A . . . . .	88	ACA-P2220-1500 . . . . .	128
A31/4EDS . . . . .	139	A3S0-2 . . . . .	137	A-50B-1 . . . . .	120	AB-3 . . . . .	130	ACA-P2220-2000 . . . . .	128
A31/4MP . . . . .	135	A3S1-2 . . . . .	137	A-50B-2 . . . . .	120	AB-3/5 . . . . .	130	ACA-P2220-2500 . . . . .	128
A33/8 . . . . .	135	A3S1-2.75 . . . . .	137	A-50B-3 . . . . .	120	ACA-POSIX . . . . .	128	ACA-V15-1000 . . . . .	128
A33/8MP . . . . .	135	A3S1-3 . . . . .	137	A-50B-4 . . . . .	120	AB-B1825LI . . . . .	38	ACA-V15-1500 . . . . .	128
A35/16 . . . . .	135	A3S1-3.5 . . . . .	137	A-50BRBT-1 . . . . .	120	AB-B1850LI . . . . .	38	ACA-V15-2000 . . . . .	128
A35/16MP . . . . .	135	A3S1-4 . . . . .	137	A-50BRBT-2 . . . . .	120	AB-C18110 . . . . .	38	ACA-V18220 . . . . .	38
A302A . . . . .	136	A3S1-6 . . . . .	137	A-50BRBT-3 . . . . .	120	ABN-CTA10(W)(B)(WB) . . . . .	37	ACA-V40-1000 . . . . .	128
A304C . . . . .	135	A3S2-1.2 . . . . .	137	A-50BRBT-4 . . . . .	120	ABN-CTA12(W)(B)(WB) . . . . .	37	ACA-V40-1500 . . . . .	128
A306 . . . . .	135	A3S2-1.6 . . . . .	137	A-50BRBTC-1 . . . . .	120	ABN-CTA20(W)(B)(WB) . . . . .	37	ACA-V40-2000 . . . . .	128
A306EDS . . . . .	139	A3S3-2 . . . . .	137	A-50BRBTC-2 . . . . .	120	ABN-CTA30(W)(B)(WB) . . . . .	37	ACA-V40-2500 . . . . .	128
A307 . . . . .	135	A3S3-2.75 . . . . .	137	A-50BRBTC-3 . . . . .	120	ABN-CTA55(W)(B)(WB) . . . . .	37	ACA-V80-1500 . . . . .	128
A307-2 . . . . .	135	A3T6-2 . . . . .	137	A-50BRBTC-4 . . . . .	120	ABN-CTA90(W)(B)(WB) . . . . .	37	ACA-V80-2000 . . . . .	128
A307-2.75 . . . . .	135	A3T7-2 . . . . .	137	A-50C-6 . . . . .	120	ABN-CTA120(W)(B)(WB) . . . . .	37	ACA-V80-2500 . . . . .	128
A308 . . . . .	135	A3T7-2.75 . . . . .	137	A-50C-8 . . . . .	120	ABP-CTA11Q(WQ)(BQ) . . . . .	37	ACA-V150-1500 . . . . .	128
A308-2 . . . . .	135	A3T7-3.5 . . . . .	137	A-50C-10 . . . . .	120	(WBQ) . . . . .	37	ACA-V150-2000 . . . . .	128
A308EDS . . . . .	139	A3T7-6 . . . . .	137	A-50CRBT-6 . . . . .	120	ACPA-CTA14Q(WQ)(BQ) . . . . .	37	ACA-V150-2500 . . . . .	128
A308MP . . . . .	135	A3T8-2 . . . . .	137	A-50CRBT-8 . . . . .	120	ABP-CTA14Q(WQ)(BQ) . . . . .	37	ACA-V220-1500 . . . . .	128
A310EDS . . . . .	139	A3T9-2.75 . . . . .	137	A-50CRBT-10 . . . . .	120	(WBQ) . . . . .	37	ACA-V220-2000 . . . . .	128
A310MP . . . . .	135	A3W1-3 . . . . .	137	A-50CRBTC-6 . . . . .	120	ABS-CTA11Q(WQ)(BQ) . . . . .	37	ACA-V220-2500 . . . . .	128
A310U . . . . .	136	A3W1-4 . . . . .	137	A-50CRBTC-8 . . . . .	120	(WBQ) . . . . .	37	ACPTT-V15-510 150 . . . . .	129
A311MP . . . . .	135	A3W2-2 . . . . .	137	A-50CRBTC-10 . . . . .	120	ACPTT-V15-710 300 . . . . .	129	ACPTT-V15-710 300 . . . . .	129
A311U . . . . .	136	A3W2-3 . . . . .	137	A504A . . . . .	136	ACPTT-V40-510 150 . . . . .	129	ACPTT-V40-510 150 . . . . .	129
A312EDS . . . . .	139	A3W2-4 . . . . .	137	A#508A . . . . .	136	ACPTT-V40-760 300 . . . . .	129	ACPTT-V40-760 300 . . . . .	129
A314EDS . . . . .	139	A3W2-6 . . . . .	137	A61-1/2EDS . . . . .	139	ACPTT-V40-1410 600 . . . . .	129	ACPTT-V40-1410 600 . . . . .	129
A-315V . . . . .	121	A3W2-8 . . . . .	137	A61-1/4EDS . . . . .	139	ACPTT-V80-810 300 . . . . .	129	ACPTT-V80-810 300 . . . . .	129
A316EDS . . . . .	139	A3W2-10 . . . . .	137	A61-1/8EDS . . . . .	139	ACPTT-V80-1410 600 . . . . .	129	ACPTT-V80-1410 600 . . . . .	129
A316EDE . . . . .	139	A3W2-12 . . . . .	137	A63/4 . . . . .	135	ACSA-600-1500 . . . . .	129	ACSA-600-1500 . . . . .	129
A318EDS . . . . .	139	A3W3-2 . . . . .	137	A63/4-4 . . . . .	135	ACSA-800-1500 . . . . .	129	ACSA-800-1500 . . . . .	129
A352EDE . . . . .	139	A3W3-3 . . . . .	137	A604A . . . . .	136	ACSA-1000-1500 . . . . .	129	ACSA-1000-1500 . . . . .	129
A375E . . . . .	136	A3W3-4 . . . . .	137	A610E . . . . .	136	ACTT-V15-600 150 . . . . .	129	ACTT-V15-600 150 . . . . .	129
A375EDE . . . . .	139	A3W3-6 . . . . .	137	A611/16 . . . . .	135	ACTT-V15-800 300 . . . . .	129	ACTT-V15-800 300 . . . . .	129
A3100EDE . . . . .	139	A3W3-8 . . . . .	137	A611/16-4 . . . . .	135	ACTT-V40-600 150 . . . . .	129	ACTT-V40-600 150 . . . . .	129
A3150EDE . . . . .	139	A41/2 . . . . .	135	A613/16 . . . . .	135	ACTT-V40-850 300 . . . . .	129	ACTT-V40-850 300 . . . . .	129
A3190EDE . . . . .	139	A41/2-3.25 . . . . .	135	A613/16-4 . . . . .	135	ACA40-2000 . . . . .	128	ACA40-2000 . . . . .	128
A3254EDE . . . . .	139	A41/2EDS . . . . .	139	A614 . . . . .	135	ACA40-2500 . . . . .	128	ACA40-2500 . . . . .	128
A3300EDE . . . . .	139	A41/4C . . . . .	135	A616 . . . . .	135	ACA80-2000 . . . . .	128	ACA80-2000 . . . . .	128
A3320EDE . . . . .	139	A43/8 . . . . .	135	A617 . . . . .	135	ACA80-2500 . . . . .	128	ACA80-2500 . . . . .	128
A3B1/4-2 . . . . .	136	A43/8-3.25 . . . . .	135	A617-4 . . . . .	135	ACA150-1500 . . . . .	128	ACA150-1500 . . . . .	128
A3B1/4-2.5 . . . . .	136	A47/16 . . . . .	135	A618-4 . . . . .	135	ACA150-2000 . . . . .	128	ACA150-2000 . . . . .	128
A3B3/8-2 . . . . .	136	A47/16-3.25 . . . . .	135	A618EDS . . . . .	139	ACA150-2500 . . . . .	128	ACA150-2500 . . . . .	128
A3B3/8-2.5 . . . . .	136	A403A . . . . .	136	A619-4 . . . . .	135	ACA220-1500 . . . . .	128	ACA220-1500 . . . . .	128
A3B05-2.75 . . . . .	136	A405C . . . . .	135	A624EDS . . . . .	139	ACA220-2000 . . . . .	128	ACA220-2000 . . . . .	128
A3B5/16-2 . . . . .	136	A405E . . . . .	136	A676EDE . . . . .	139	ACA220-2500 . . . . .	128	ACA220-2500 . . . . .	128
A3B5/16-2.5 . . . . .	136	A408 . . . . .	135	A6100EDE . . . . .	139	ACA15-15 . . . . .	129	ACA15-15 . . . . .	129
A3B06-2.75 . . . . .	136	A408MP . . . . .	135	A6150EDE . . . . .	139	ACA15-15-MPE2745 . . . . .	129	ACA15-15-MPE2745 . . . . .	129
A3B07-1.2 . . . . .	136	A409 . . . . .	135	A6200EDE . . . . .	139	ACAH-40-80 . . . . .	129	ACAH-40-80 . . . . .	129
A3B07-2 . . . . .	136	A410 . . . . .	135	A81 . . . . .	135	ACAH-150-220 . . . . .	129	ACAH-150-220 . . . . .	129
A3B07-2.75 . . . . .	136	A410-2 . . . . .	135	A87/8 . . . . .	135	ACAH-4080-MPE2745 . . . . .	129	ACAH-4080-MPE2745 . . . . .	129
A3B07-4 . . . . .	136	A410-3 . . . . .	135	A806A . . . . .	136	ACAH-150220-MPE4070 . . . . .	129	ACAH-150220-MPE4070 . . . . .	129
A3B08-1.2 . . . . .	136	A410-3.25 . . . . .	135	A810E . . . . .	136	ACAH-S154080 . . . . .	129	ACAH-S154080 . . . . .	129
A3B08-2 . . . . .	136	A410MP . . . . .	135	A815/16 . . . . .	135	ACAH-SL15150 . . . . .	129	ACAH-SL15150 . . . . .	129
A3B08-2.75 . . . . .	136	A411-3.25 . . . . .	135	A815/16EDS . . . . .	139	ACAHTT-15A-3060 . . . . .	129	ACAHTT-15A-3060 . . . . .	129
A3B08-4 . . . . .	136	A412MP . . . . .	135	A817 . . . . .	135	ACAHTT-155-2745 . . . . .	129	ACAHTT-155-2745 . . . . .	129
A3B08-6 . . . . .	136	A412U . . . . .	136	A819 . . . . .	135	ACAHTT-40S-2745 . . . . .	129	ACAHTT-40S-2745 . . . . .	129
A3B08-8 . . . . .	136	A413EDS . . . . .	139	A821 . . . . .	135	ACAHTT-4080A-3165 . . . . .	129	ACAHTT-4080A-3165 . . . . .	129
A3B09-2.75 . . . . .	136	A413U . . . . .	136	A8100EDS . . . . .	139	ACA-P2BK-4 . . . . .	129	ACA-P2BK-4 . . . . .	129
A3B09-4 . . . . .	136	A414EDS . . . . .	139	A8150EDE . . . . .	139	ACA-P2BK-6 . . . . .	129	ACA-P2BK-6 . . . . .	129
A3B10-1.2 . . . . .	136	A415EDS . . . . .	139	A8200EDE . . . . .	139	ACA-P2BK-8 . . . . .	129	ACA-P2BK-8 . . . . .	129
A3B10-2 . . . . .	136	A416EDS . . . . .	139	AAP1B66400A . . . . .	87	ACA-P2BK-10 . . . . .	129	ACA-P2BK-10 . . . . .	129
A3B10-2.75 . . . . .	136	A417EDS . . . . .	139	AAP1B66600A . . . . .	87	ACA-P2BK-14 . . . . .	129	ACA-P2BK-14 . . . . .	129
A3B11-2.75 . . . . .	136	A418EDS . . . . .	139	AAP1B66850A . . . . .	87	ACA-P215-1000 . . . . .	128	ACA-P215-1000 . . . . .	128
A3B12-2 . . . . .	136	A419EDS . . . . .	139	AAP1B76950A . . . . .	87	ACA-P215-1500 . . . . .	128	ACA-P215-1500 . . . . .	128
A3B13-2.75 . . . . .	136	A464EDE . . . . .	139	AAP1B771350A . . . . .	87	ACA-P215-2000 . . . . .	128	ACA-P215-2000 . . . . .	128
A3B14-2.75 . . . . .	136	A476EDE . . . . .	139	AAP1B772000A . . . . .	87	ACA-P240-1000 . . . . .	128	ACA-P240-1000 . . . . .	128
A3B16-2.75 . . . . .	136	A4125EDE . . . . .	139	AAP1B772950A . . . . .	87	ACA-P240-1500 . . . . .	128	ACA-P240-1500 . . . . .	128
A3B17-2.75 . . . . .	136	A4204EDE . . . . .	139	AAP1B885100A . . . . .	87	ACA-P240-2000 . . . . .	128	ACA-P240-2000 . . . . .	128

# INDEX

MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE
AE-5681 . . . . .	111	AEH32025C-(1,2) . . . . .	25	AEN4C12022B . . . . .	18	AEP4B898100B . . . . .	28	AET32050C(DL) . . . . .	24
AE-5681ESD . . . . .	111	AEH32030C-(1,2) . . . . .	25	AEN4C22015BM(F) . . . . .	26	AEP-5 . . . . .	130	AET4A12025B-KD . . . . .	24
AE-6300 . . . . .	112	AEH32040C-(1,2) . . . . .	25	AEN4F22030BM(F) . . . . .	26	AE-PG7080. . . . .	113	AET4AA12018B. . . . .	24
AE-6300M . . . . .	112	AEH33042C-(1,2) . . . . .	25	AEN4F22037BM(F) . . . . .	26	AES-3 . . . . .	130	AET4AB12025B. . . . .	24
AE-6300S. . . . .	112	AEH33053C-(1,2) . . . . .	25	AEN4F22044BM(F) . . . . .	26	AES32010C(V)(Q) . . . . .	22	AE-TC2040. . . . .	113
AE-6450 . . . . .	112	AEH33060C-(1,2) . . . . .	25	AEP-3 . . . . .	130	AES32020C(V)(Q) . . . . .	22	AE-TC7080. . . . .	113
AE-6450S. . . . .	112	AEH33090C-(1,2) . . . . .	25	AEP35075AV(T) . . . . .	20	AES32025C(V)(Q) . . . . .	22	AFRL-4 . . . . .	87, 132
AE-7010 . . . . .	111	AEH33120C-(1,2) . . . . .	25	AEP35090AV(T) . . . . .	20	AES32038C(V) . . . . .	22	AFRL-4HTA. . . . .	87, 132
AE-7010PS. . . . .	111	AEH33200C-(1,2) . . . . .	25	AEP35110AV(T) . . . . .	20	AES33040C(V)(-2) . . . . .	22	AFRL-2 . . . . .	132
AE-7080A . . . . .	113	AEH35140B-(1,2) . . . . .	25	AEP35135AV(T) . . . . .	20	AES33060C(V)(-2) . . . . .	22	AFRL-2-C . . . . .	132
AE-8010 . . . . .	111	AEH35175B-(1,2) . . . . .	25	AEP35170AV(T) . . . . .	20	AES33100C(V)(-2) . . . . .	22	AFRL-3 . . . . .	132
AE-8010PS. . . . .	111	AEH4F12020B-(1,2) . . . . .	25	AEP35280A(T) . . . . .	20	AES33150CV . . . . .	22	AFRL-3-C . . . . .	132
AE-8681 . . . . .	111	AEH4F12026B-(1,2) . . . . .	25	AEP35350A(T) . . . . .	20	AES33230C(V)(-2) . . . . .	22	AFRL-8 . . . . .	132
AECS-2 . . . . .	130	AEH35090B-(1,2) . . . . .	25	AEP35420A(T) . . . . .	20	AES33400C . . . . .	22	AHB-3. . . . .	130
AED4A66250B . . . . .	28	AEH35225B-(1,2) . . . . .	25	AEP35515A(T) . . . . .	20	AES33600C . . . . .	22	AHB-5. . . . .	130
AED4A66425B . . . . .	28	AEH35285B-(1,2) . . . . .	25	AEP35635A(T) . . . . .	20	AES35075AV. . . . .	22	AHCTS-2500. . . . .	72
AED4A66625B . . . . .	28	AEH35350B-(1,2) . . . . .	25	AEP4(A)(R)(T)12006BR. . . . .	27	AES35090AV. . . . .	22	AHCTS-5000. . . . .	72
AED4A66925B . . . . .	28	AEJ4A8X12000B . . . . .	28	AEP4(A)(R)(T)12011BR. . . . .	27	AES35110AV. . . . .	22	AHCTS-0.5K . . . . .	69
AED4A771200B. . . . .	28	AEJ4A66250B. . . . .	28	AEP4(A)(R)(T)2025BR. . . . .	27	AES35135AV. . . . .	22	AHCTS-1.5RDF . . . . .	68
AED4A773000B. . . . .	28	AEJ4A66425B. . . . .	28	AEP4(A)(R)(T)12014BR. . . . .	27	AES35170AV. . . . .	22	AHCTS-001K. . . . .	69
AED4A884200B. . . . .	28	AEJ4A66625B. . . . .	28	AEP4(A)(R)(T)12018BR. . . . .	27	AES35280A . . . . .	22	AHCTS-1RDF . . . . .	68
AED4A884200B1. . . . .	28	AEJ4A66925B. . . . .	28	AEP4(A)(R)(T)12022BR. . . . .	27	AES35350A . . . . .	22	AHCTS-2.5K . . . . .	69
AED4A885000B. . . . .	28	AEJ4A771200B. . . . .	28	AEP4(A)(R)(T)22020BR. . . . .	27	AES35420A . . . . .	22	AHCTS-3/4RDF . . . . .	68
AED4A896500B. . . . .	28	AEJ4A773000B. . . . .	28	AEP4(A)(R)(T)22030BR. . . . .	27	AES35515A . . . . .	22	AHCTS-005K. . . . .	69
AED4A898100B. . . . .	28	AEJ4A884200B. . . . .	28	AEP4(A)(R)(T)22040BR. . . . .	27	AES35635A . . . . .	22	AHCTS-010K. . . . .	69
AED4B898100B. . . . .	28	AEJ4A884200B1 . . . . .	28	AEP4A8X12000B. . . . .	28	AES4A12003B(V)(Q). . . . .	18	AHCTS-025K. . . . .	69
AEF35075A(V)(VB)(-2) . . . . .	23	AEJ4A885000B. . . . .	28	AEP4A66250B. . . . .	28	AES4A12006B(V)(Q). . . . .	18	AHCTS-0500. . . . .	69
AEF35090A(V)(VB)(-2) . . . . .	23	AEJ4A896500B. . . . .	28	AEP4A66425B. . . . .	28	AES4A12011B(V)(Q). . . . .	18	AHCTS-2500. . . . .	69
AEF35110A(V)(VB)(-2) . . . . .	23	AEJ4A898100B. . . . .	28	AEP4A66625B. . . . .	28	AES4A12014B(V)(Q). . . . .	18	AHCTS-7500. . . . .	69
AEF35135A(V)(VB)(-2) . . . . .	23	AEJ4B8X12000B . . . . .	28	AEP4A66925B. . . . .	28	AES4A12018BV. . . . .	18	AHDTS-5025. . . . .	69
AEF35151A(V)(VB)(-2) . . . . .	23	AEJ4B66250B . . . . .	28	AEP4A771200B. . . . .	28	AES4A2022BV. . . . .	18	AIC3-2 . . . . .	130
AEF35350A(B)(VB)(-2) . . . . .	23	AEJ4B66425B . . . . .	28	AEP4A773000B. . . . .	28	AES4A22020BVM . . . . .	26	AIC5-2 . . . . .	130
AEF35420A(B)(VB)(-2) . . . . .	23	AEJ4B66625B . . . . .	28	AEP4A884200B. . . . .	28	AES4A22025BVM . . . . .	26	AIMTS-0500. . . . .	71
AEF35515A(B)(VB)(-2) . . . . .	23	AEJ4B66925B . . . . .	28	AEP4A884200B1 . . . . .	28	AES4A22030BVM . . . . .	26	AIMTS-2000. . . . .	71
AEF35635A(B)(VB)(-2) . . . . .	23	AEJ4B771200B . . . . .	28	AEP4A885000B. . . . .	28	AES4A22040BVM . . . . .	26	AISF-200100. . . . .	83
AEF4A66250B . . . . .	28	AEJ4B773000B . . . . .	28	AEP4A896500B. . . . .	28	AES4A66250B. . . . .	28	AISF-200250. . . . .	83
AEF4A66425B . . . . .	28	AEJ4B884200B . . . . .	28	AEP4A898100B. . . . .	28	AES4A66425B. . . . .	28	AISF-201000. . . . .	83
AEF4A66625B . . . . .	28	AEJ4B884200B1 . . . . .	28	AEP4(A)(B)66425BDL . . . . .	30	AES4A66625B. . . . .	28	AISI-200025 . . . . .	83
AEF4A66925B . . . . .	28	AEJ4B885000B . . . . .	28	AEP4(A)(B)66425BDL . . . . .	30	AES4A66925B. . . . .	28	AISI-200100 . . . . .	83
AEF4A771200B . . . . .	28	AEJ4B898100B . . . . .	28	AEP4(A)(B)66925BDL . . . . .	30	AES4A771200B. . . . .	28	AISI-200500 . . . . .	83
AEF4A773000B . . . . .	28	AEJ4B991200B . . . . .	28	AEP4(A)(B)771200BDL . . . . .	30	AES4A773000B. . . . .	28	AISWT-4L . . . . .	61
AEF4A884200B . . . . .	28	AEJ4C12006B(Q) . . . . .	18	AEP4(A)(B)773000BDL . . . . .	30	AES4A884200B . . . . .	28	AISWT-6L . . . . .	61
AEF4A884200B1 . . . . .	28	AEJ4C12006B(Q) . . . . .	18	AEP4(A)(B)884200BDL . . . . .	30	AES4A884200B1 . . . . .	28	AJH-3 . . . . .	130
AEF4A885000B . . . . .	28	AEJ4C12011B(Q) . . . . .	18	AEP4(A)(B)884200BDL . . . . .	30	AES4A885000B . . . . .	28	AJH-5 . . . . .	130
AEF4A8898100B . . . . .	28	AEJ4C12014B(Q) . . . . .	18	AEP4(A)(B)884200BDL . . . . .	30	AES4A896500B . . . . .	28	AJKR-28 . . . . .	85
AEF4A771200B . . . . .	28	AEJ4C12018B . . . . .	18	AEP4(A)(B)885000BDL . . . . .	30	AES4A898100B . . . . .	28	AJKR-135 . . . . .	85
AEF4A773000B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4(A)(B)896500BDL . . . . .	30	AES4(A)(B)66250BDL		AJKR-271 . . . . .	85
AEF4A884200B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4(A)(B)898100BDL . . . . .	30	(L,R) . . . . .		AJKR-1017 . . . . .	85
AEF4A884200B1 . . . . .	28	AEJ4C12022B . . . . .	18	AEP4(A)(R)(T)12003B . . . . .	20	AES4(A)(B)66425BDL		AJKR-1695 . . . . .	85
AEF4A885000B . . . . .	28	AEJ4C12022B . . . . .	18	(V)(Q) . . . . .	20	(L,R) . . . . .		AJKS-25D . . . . .	85
AEF4A896500B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4(A)(R)(T)12014B . . . . .	20	AES4(A)(B)66625BDL		AJKS-38D . . . . .	85
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	(V)(Q) . . . . .	20	(L,R) . . . . .		AJKS-50D . . . . .	85
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4(A)(R)(T)12011B . . . . .	20	AES4(A)(R)66925BDL		AJKS-75D . . . . .	85
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	(V) . . . . .	20	(L,R) . . . . .		AJKS-100D . . . . .	85
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4(A)(R)(T)12014B . . . . .	20	AJS3 . . . . .		AJS3 . . . . .	130
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	(V) . . . . .	20	ALPHA-60SMC . . . . .		ALPHA-60SMC . . . . .	50
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4(A)(R)(T)22022B(V) . . . . .	20	ALPHA-70C . . . . .		ALPHA-70C . . . . .	97
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4(A)(R)(T)22020B(V) . . . . .	20	ALPHA-70CH . . . . .		ALPHA-70CH . . . . .	97
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4(A)(R)(T)22025B(V) . . . . .	20	ALPHA-101MC . . . . .		ALPHA-101MC . . . . .	50
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4(A)(R)(T)22030B(V) . . . . .	20	AM1/4Z . . . . .		AM1/4Z . . . . .	137
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4(A)(R)(T)22035B(V) . . . . .	20	AM3/16Z . . . . .		AM3/16Z . . . . .	137
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4(A)(R)(T)22040B(V) . . . . .	20	AM5Z . . . . .		AM5Z . . . . .	137
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4B8X12000B . . . . .	28	AM-45 . . . . .		AM-45 . . . . .	113
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4B66250B . . . . .	28	AM-65 . . . . .		AM-65 . . . . .	113
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4B66425B . . . . .	28	AM-OIL . . . . .		AM-OIL . . . . .	41
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4B66625B . . . . .	28	AMP-5 . . . . .		AMP-5 . . . . .	130
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4B898100BDL		AMPST-2-I . . . . .		AMPST-2-I . . . . .	35
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	(L,R) . . . . .		AMPST-2-U . . . . .		AMPST-2-U . . . . .	35
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AES-5 . . . . .		AMPST-4-I . . . . .		AMPST-4-I . . . . .	35
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AES33150C-2 . . . . .		AMPST-4-U . . . . .		AMPST-4-U . . . . .	35
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AES33230C-2 . . . . .		AMPT-6-I . . . . .		AMPT-6-I . . . . .	35
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4B884200B . . . . .	28	AMPT-6-U . . . . .		AMPT-6-U . . . . .	35
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4B884200B1 . . . . .	28	AMPT-65-I . . . . .		AMPT-65-I . . . . .	35
AEF4A898100B . . . . .	28	AEJ4C12022B . . . . .	18	AEP4B885000B . . . . .	28	AMPT-65-U . . . . .		AMPT-65-U . . . . .	35

# INDEX

MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE																																																																																																																																																																																												
AMPST-8-I . . . . .	35	ARDIA-250(HD)(HDE) (HDS) . . . . .	84	ATM-3800 . . . . .	103	BJ10083 . . . . .	109	<b>G - H</b>																																																																																																																																																																																													
AMPST-8-IL . . . . .	35	ARDIA-350(HD)(HDE) (HDS) . . . . .	84	ATM-5000 . . . . .	103	BJ10091 . . . . .	107	Gen IV ACE Controller . .	10																																																																																																																																																																																												
AMPST-8-U . . . . .	35	ARDIA-500(HD)(HDE) (HDS) . . . . .	84	ATM-8000 . . . . .	103	BRH-1U(R,H) . . . . .	118	<b>I</b>																																																																																																																																																																																													
APM-30 . . . . .	113	ARTIS-25H-2T(A) . . . . .	82	ATM-12000 . . . . .	103	BRH-1UD(R,H) . . . . .	118	iAC4E . . . . .	14																																																																																																																																																																																												
APS-35W . . . . .	113	ARTIS-25H-5T(A) . . . . .	82	ATM-16000 . . . . .	103	BRH-1UG(R,H) . . . . .	118	iAC4EG . . . . .	14																																																																																																																																																																																												
APTH-12OE7 . . . . .	77	ARTIS-25H-10T(A) . . . . .	82	ATN-3 . . . . .	130	BRH-1US(R,H) . . . . .	118	iAC4EVG . . . . .	14																																																																																																																																																																																												
APTH-12OE8 . . . . .	77	ARTIS-25H-25T(A) . . . . .	82	ATN-5 . . . . .	130	BRH-5U(R,H) . . . . .	118	iAC4ES . . . . .	14																																																																																																																																																																																												
APTH-12OE9 . . . . .	77	ARTIS-25H-50T(A) . . . . .	82	ATW-50 . . . . .	131	BRH-5UD(R,H) . . . . .	118	iAC4ESG . . . . .	14																																																																																																																																																																																												
APTH-12OE10 . . . . .	77	ARTIS-1000(HD)(HDE) (HDS) . . . . .	84	ATW-0100F . . . . .	76	BRH-5UG(R,H) . . . . .	118	iAC4ESGV . . . . .	14																																																																																																																																																																																												
APTH-12OE11 . . . . .	77	ARTIS-25S-180T(A) . . . . .	82	ATW-0200F . . . . .	76	BRH-5US(R,H) . . . . .	118	iAC4ESRG . . . . .	14																																																																																																																																																																																												
APTH-12OE12 . . . . .	77	ARTIS-25S-250T(A) . . . . .	82	ATW-0500F . . . . .	76	BRH-7(R,H) . . . . .	118	iAC4ESRV . . . . .	14																																																																																																																																																																																												
APTH-12OE13 . . . . .	77	ARTIS-25S-500T(A) . . . . .	82	ATW-1000F . . . . .	76	<b>C</b>																																																																																																																																																																																															
APTH-12OE14 . . . . .	77	ARTIS-100S-1400T(A) . . . . .	82	ATWL-250 . . . . .	73	CA150108DHD . . . . .	68																																																																																																																																																																																														
APTH-12OE15 . . . . .	77	ARTIS-38S-75T(A) . . . . .	82	ATWL-750 . . . . .	73	CA1510 . . . . .	68																																																																																																																																																																																														
APTH-12OE16 . . . . .	77	ARTIS-50S-180T(A) . . . . .	82	ATWL-1000 . . . . .	73	CA1550 . . . . .	68																																																																																																																																																																																														
APTH-12OE17 . . . . .	77	ARTIS-75S-250T(A) . . . . .	82	AUB-5 . . . . .	130	CA1575 . . . . .	68																																																																																																																																																																																														
APTH-12OE18 . . . . .	77	ARTIS-75S-500T(A) . . . . .	82	Audit Manager Software . . . . .	67	CA2510I . . . . .	68																																																																																																																																																																																														
APTH-12OE19 . . . . .	77	ARTIS-100S-1400T(A) . . . . .	82	AUET-10-(DC) . . . . .	63	CA2515I . . . . .	68																																																																																																																																																																																														
APTH-12OE20 . . . . .	77	ARTIS-25H-10T(A) . . . . .	82	AUET-50-(DC) . . . . .	63	CA2575I . . . . .	68																																																																																																																																																																																														
APTH-12RT25 . . . . .	77	ARTIS-25S-20T(A) . . . . .	82	AUET-0100-(DC) . . . . .	63	CB-13P . . . . .	118																																																																																																																																																																																														
APTH-12RT38 . . . . .	77	ARTIS-38S-25T(A) . . . . .	82	AUET-250-(DC) . . . . .	63	CPSJP73 . . . . .	79																																																																																																																																																																																														
APTH-12RT50 . . . . .	77	ARTIS-100S-750T(A) . . . . .	82	AUET-500-(DC) . . . . .	63	CPSJP75 . . . . .	79																																																																																																																																																																																														
APTH-12SD25 . . . . .	77	ASB-0C . . . . .	122	AUET-1000-(DC) . . . . .	63	CPSJP81 . . . . .	79																																																																																																																																																																																														
APTH-12SD38 . . . . .	77	ASB-3C . . . . .	122	AUET-1200-(DC) . . . . .	63	CPSKR81 . . . . .	79																																																																																																																																																																																														
APTH-12SD50 . . . . .	77	ASB-5C . . . . .	122	AUET-1800-(DC) . . . . .	63	CPSKR82 . . . . .	79																																																																																																																																																																																														
APTH-14OE1 . . . . .	77	ASC-3 . . . . .	130	AUET/MTM-10-100-(DC) . . . . .	63	CPSKS00 . . . . .	78																																																																																																																																																																																														
APTH-14OE13 . . . . .	77	ASC-5 . . . . .	130	AUET/MTM-050-25 . . . . .	63	CPSKS50 . . . . .	79																																																																																																																																																																																														
APTH-14OE14 . . . . .	77	ASH-250C-10MSZ . . . . .	133	AUET/MTM-50-500-(DC) . . . . .	63	CPSKS81 . . . . .	79																																																																																																																																																																																														
APTH-14OE15 . . . . .	77	ASH-250C-15MSZ . . . . .	133	AUET/MTM-050-600-(DC) . . . . .	63	CPSKS82 . . . . .	79																																																																																																																																																																																														
APTH-14OE16 . . . . .	77	ASH-250C-25MSZ . . . . .	133	AUET/MTM-50-1000-(DC) . . . . .	63	CPSKS85 . . . . .	79																																																																																																																																																																																														
APTH-14OE17 . . . . .	77	ASH-375C-15MSZ . . . . .	133	AUET/MTM-0100-050 . . . . .	63	CPSKS86 . . . . .	79																																																																																																																																																																																														
APTH-14OE18 . . . . .	77	ASH-375C-25MSZ . . . . .	133	(-DC) . . . . .	63	CPSKS87 . . . . .	79																																																																																																																																																																																														
APTH-14OE19 . . . . .	77	ASH-375Z . . . . .	133	AUET/MTM-100-500 . . . . .	63	CPSKS88 . . . . .	79																																																																																																																																																																																														
APTH-14OE21 . . . . .	77	ASH-500C-15MSZ . . . . .	89, 133	(-DC) . . . . .	63	CPSKU00 . . . . .	78																																																																																																																																																																																														
APTH-14OE22 . . . . .	77	ASH-500C-25MSZ . . . . .	89, 133	AUET/MTM-100-1000 . . . . .	63	CPSKU50 . . . . .	79																																																																																																																																																																																														
APTH-14OE24 . . . . .	77	ASH-500Z . . . . .	89, 133	(-DC) . . . . .	63	CPSKV00 . . . . .	78																																																																																																																																																																																														
APTH-14OE25 . . . . .	77	ASTIS-25D-11 . . . . .	83	AUET/MTM-100-1200 . . . . .	63	CPSMH00 . . . . .	78																																																																																																																																																																																														
APTH-14OE27 . . . . .	77	ASTIS-25D-28 . . . . .	83	(-DC) . . . . .	63	CPSMJ00 . . . . .	78																																																																																																																																																																																														
APTH-14OE30 . . . . .	77	ASTIS-38D-135 . . . . .	83	<b>D</b>																																																																																																																																																																																																	
APTH-14OE32 . . . . .	77	ASTIS-50D-270 . . . . .	83	DATA PRO + SQNET . . . . .	81	APTH-14OE34 . . . . .	77	ASTIS-75D-1000 . . . . .	83	Software . . . . .	81	APTH-14OE36 . . . . .	77	ASTIS-100D-1700 . . . . .	83	<b>E</b>		APTH-14OE38 . . . . .	77	ASTIS-100S-3000 . . . . .	83	EAA-04 . . . . .	125	APTH-14OE41 . . . . .	77	AT3-3 . . . . .	130	EAP-202ASSY . . . . .	125	APTH-14OE118 . . . . .	77	AT3-4 . . . . .	130	EAP-202ED-KIT . . . . .	125	APTH-14OE138 . . . . .	77	AT3-6 . . . . .	130	EAP-203ASSY . . . . .	125	APTH-14RT34 . . . . .	77	AT3-9 . . . . .	130	EC/MCCBL-3 . . . . .	52	APTH-14RT50 . . . . .	77	AT5-3 . . . . .	130	EC/MCCBL-10 . . . . .	52	APTH-14SD50 . . . . .	77	AT5-4 . . . . .	130	EC/MCCBL-25 . . . . .	52	APTW-25 . . . . .	77	AT5-6 . . . . .	130	EC/MCCBL-30 . . . . .	52	APTW-50 . . . . .	77	AT5-9 . . . . .	130	EC/MCCBL-35 . . . . .	52	APTW-100 . . . . .	77	AT5-12 . . . . .	130	EC/MCCBL-40 . . . . .	52	APTW-150 . . . . .	77	ATC-10 . . . . .	62	EC/MCCBL-45 . . . . .	52	APTW-200 . . . . .	77	ATC-25 . . . . .	62	EC/MCCBL-50 . . . . .	52	APTW-340 . . . . .	77	ATC-100 . . . . .	62	EC/MCCBL-60 . . . . .	52	ARDFA-100(HD)(HDE) (HDS) . . . . .	84	ATC-150F . . . . .	62	EC/MCCBL-75 . . . . .	52	ARDFA-150(HD)(HDE) (HDS) . . . . .	84	ATC-250 . . . . .	62	EY0L82B . . . . .	46	ARDFA-250(HD)(HDE) (HDS) . . . . .	84	ATC-250F . . . . .	62	EYFB32 . . . . .	46	ARDFA-500(HD)(HDE) (HDS) . . . . .	84	ATC-500 . . . . .	62	EYFB41 . . . . .	46	ARDFA-750(HD)(HDE) (HDS) . . . . .	84	ATC-500F . . . . .	62	EYFB50 . . . . .	46	ARDFA-10(HD)(HDE)(HDS) . . . . .	84	ATC-750 . . . . .	62	<b>F</b>		ARDIA-25(HD)(HDS) . . . . .	84	ATC-750F . . . . .	62	F70 . . . . .	126	ARDIA-50(HD)(HDE)(HDS) . . . . .	84	ATC-1800 . . . . .	62	F600 . . . . .	126	ARDIA-100(HD)(HDE) (HDS) . . . . .	84	ATDA . . . . .	65	F1500 . . . . .	126	ARDIA-150(HD)(HDE) (HDS) . . . . .	84	ATDA-8000 . . . . .	66	F3000 . . . . .	126	ARDDBRIS . . . . .	86	ATDA-8000-10-DCA (-TA)(-TP) . . . . .	66	F7500 . . . . .	126	ATM-800 . . . . .	103	ATDA-DC . . . . .	65	FA-50-2 . . . . .	131	ATM-1800 . . . . .	103	ATDBLIS . . . . .	86	<b>S</b>		ATM-2800 . . . . .	103	ATM-3800 . . . . .	103	SBH-0 . . . . .	118			ATM-5000 . . . . .	103	SBH-1A(R,H) . . . . .	118			ATM-8000 . . . . .	103	SH-5 . . . . .	130			ATM-12000 . . . . .	103	SIW-38PR . . . . .	107
APTH-14OE34 . . . . .	77	ASTIS-75D-1000 . . . . .	83	Software . . . . .	81																																																																																																																																																																																																
APTH-14OE36 . . . . .	77	ASTIS-100D-1700 . . . . .	83	<b>E</b>																																																																																																																																																																																																	
APTH-14OE38 . . . . .	77	ASTIS-100S-3000 . . . . .	83	EAA-04 . . . . .	125																																																																																																																																																																																																
APTH-14OE41 . . . . .	77	AT3-3 . . . . .	130	EAP-202ASSY . . . . .	125																																																																																																																																																																																																
APTH-14OE118 . . . . .	77	AT3-4 . . . . .	130	EAP-202ED-KIT . . . . .	125																																																																																																																																																																																																
APTH-14OE138 . . . . .	77	AT3-6 . . . . .	130	EAP-203ASSY . . . . .	125																																																																																																																																																																																																
APTH-14RT34 . . . . .	77	AT3-9 . . . . .	130	EC/MCCBL-3 . . . . .	52																																																																																																																																																																																																
APTH-14RT50 . . . . .	77	AT5-3 . . . . .	130	EC/MCCBL-10 . . . . .	52																																																																																																																																																																																																
APTH-14SD50 . . . . .	77	AT5-4 . . . . .	130	EC/MCCBL-25 . . . . .	52																																																																																																																																																																																																
APTW-25 . . . . .	77	AT5-6 . . . . .	130	EC/MCCBL-30 . . . . .	52																																																																																																																																																																																																
APTW-50 . . . . .	77	AT5-9 . . . . .	130	EC/MCCBL-35 . . . . .	52																																																																																																																																																																																																
APTW-100 . . . . .	77	AT5-12 . . . . .	130	EC/MCCBL-40 . . . . .	52																																																																																																																																																																																																
APTW-150 . . . . .	77	ATC-10 . . . . .	62	EC/MCCBL-45 . . . . .	52																																																																																																																																																																																																
APTW-200 . . . . .	77	ATC-25 . . . . .	62	EC/MCCBL-50 . . . . .	52																																																																																																																																																																																																
APTW-340 . . . . .	77	ATC-100 . . . . .	62	EC/MCCBL-60 . . . . .	52																																																																																																																																																																																																
ARDFA-100(HD)(HDE) (HDS) . . . . .	84	ATC-150F . . . . .	62	EC/MCCBL-75 . . . . .	52																																																																																																																																																																																																
ARDFA-150(HD)(HDE) (HDS) . . . . .	84	ATC-250 . . . . .	62	EY0L82B . . . . .	46																																																																																																																																																																																																
ARDFA-250(HD)(HDE) (HDS) . . . . .	84	ATC-250F . . . . .	62	EYFB32 . . . . .	46																																																																																																																																																																																																
ARDFA-500(HD)(HDE) (HDS) . . . . .	84	ATC-500 . . . . .	62	EYFB41 . . . . .	46																																																																																																																																																																																																
ARDFA-750(HD)(HDE) (HDS) . . . . .	84	ATC-500F . . . . .	62	EYFB50 . . . . .	46																																																																																																																																																																																																
ARDFA-10(HD)(HDE)(HDS) . . . . .	84	ATC-750 . . . . .	62	<b>F</b>																																																																																																																																																																																																	
ARDIA-25(HD)(HDS) . . . . .	84	ATC-750F . . . . .	62	F70 . . . . .	126																																																																																																																																																																																																
ARDIA-50(HD)(HDE)(HDS) . . . . .	84	ATC-1800 . . . . .	62	F600 . . . . .	126																																																																																																																																																																																																
ARDIA-100(HD)(HDE) (HDS) . . . . .	84	ATDA . . . . .	65	F1500 . . . . .	126																																																																																																																																																																																																
ARDIA-150(HD)(HDE) (HDS) . . . . .	84	ATDA-8000 . . . . .	66	F3000 . . . . .	126																																																																																																																																																																																																
ARDDBRIS . . . . .	86	ATDA-8000-10-DCA (-TA)(-TP) . . . . .	66	F7500 . . . . .	126																																																																																																																																																																																																
ATM-800 . . . . .	103	ATDA-DC . . . . .	65	FA-50-2 . . . . .	131																																																																																																																																																																																																
ATM-1800 . . . . .	103	ATDBLIS . . . . .	86	<b>S</b>																																																																																																																																																																																																	
ATM-2800 . . . . .	103	ATM-3800 . . . . .	103	SBH-0 . . . . .	118																																																																																																																																																																																																
		ATM-5000 . . . . .	103	SBH-1A(R,H) . . . . .	118																																																																																																																																																																																																
		ATM-8000 . . . . .	103	SH-5 . . . . .	130																																																																																																																																																																																																
		ATM-12000 . . . . .	103	SIW-38PR . . . . .	107																																																																																																																																																																																																

# INDEX

MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE
SIW-50PR . . . . .	107	UA-80MC . . . . .	40	UD-60-15 . . . . .	117	UEC-4800A-EXL . . . . .	42	UECD-4800TPA-EXL-60 . . .	49
SIW-B1BLI-HC . . . . .	107	UA-90MC . . . . .	40	UD-60-20 . . . . .	117	UEC-4800-EDA . . . . .	42	UECD-4800TPA-EXL-70 . . .	49
SIW-B18LI . . . . .	107	UA-100MC . . . . .	40	UD-60-29 . . . . .	117	UEC-4800-EPA . . . . .	42	UECD-4800TPA-EXL-100 . . .	49
SIW-C18 . . . . .	107	UA-130MC . . . . .	40	UD-60S-15 . . . . .	117	UEC-4800-EPAL . . . . .	42	UEC-F024H . . . . .	53
SIW-P2525Q . . . . .	107	UA-150MC . . . . .	40	UD-60S-15C . . . . .	117	UEC-4800-EX . . . . .	42	UEC-F060H . . . . .	53
SIW-P3225Q . . . . .	107	UA-400AMC . . . . .	41	UD-60S-29 . . . . .	117	UEC-4800-EXL . . . . .	42	UEC-F120H . . . . .	53
SIW-P3238 . . . . .	107	UA-500AMC . . . . .	41	UD-60S-29C . . . . .	117	UEC-4800TP . . . . .	42	UEC-F300MII . . . . .	54
SIW-P5538 . . . . .	107	UA-600AMC . . . . .	41	UD-80-04 . . . . .	117	UEC-4800TPA . . . . .	42	UEC-MKB . . . . .	54
SIW-P10050 . . . . .	107	UA-700AMC . . . . .	41	UD-80-07 . . . . .	117	UEC-4800TPA-EDA . . . .	42	UECP-4800A . . . . .	51
SIW-P12050 . . . . .	107	UA-800AMC . . . . .	41	UD-80-12 . . . . .	117	UEC-4800TPA-EDAL . . . .	42	UECP-4800A-EDA . . . . .	51
SIW-PBL . . . . .	107	UA-900AMC . . . . .	41	UDBP-AF50(P)-STA . . . . .	45	UEC-4800TPA-EPA . . . . .	42	UECP-4800A-EDAL . . . . .	51
SPC-2PGM . . . . .	110	UA-1000AMC . . . . .	41	UDBP-AF50Z(P)-STA . . . . .	45	UEC-4800TPA-EPAL . . . . .	42	UECP-4800A-EPA . . . . .	51
SPC-A21025 . . . . .	108	UA-1300AMC . . . . .	41	UDBP-AF60(P)-STA . . . . .	45	UEC-4800TPA-EX . . . . .	42	UECP-4800A-EPAL . . . . .	51
SPC-A21025Q . . . . .	108	UAG-40SBL-136 . . . . .	116	UDBP-AF60Z(P)-STA . . . . .	45	UEC-4800TPA-EXL . . . . .	42	UECP-4800A-EX . . . . .	51
SPC-A21038 . . . . .	108	UAG-50SBL-109 . . . . .	116	UDBP-AF70(P)-STA . . . . .	45	UEC-4800TP-EDA . . . . .	42	UECP-4800A-EXL . . . . .	51
SPC-A21625 . . . . .	108	UAG-50SBL-120 . . . . .	116	UDBP-AF70Z(P)-STA . . . . .	45	UEC-4800TP-EDAL . . . . .	42	UEP-50DMC-STDA . . . . .	47
SPC-A21625Q . . . . .	108	UAG-70SBL-76 . . . . .	116	UDBP-AFSET . . . . .	46	UEC-4800TP-EPA . . . . .	42	UEP-50MC(-STDA) . . . . .	47
SPC-A21638 . . . . .	108	UAG-90SBL-59 . . . . .	116	UDBP-TA40-B . . . . .	99	UEC-4800TP-EPAL . . . . .	42	UEP-60DMC(-STDA) . . . . .	47
SPC-A23038 . . . . .	108	UAN-611R-30C . . . . .	101	UDBP-TA40-KIT . . . . .	99	UEC-4800TP-EX . . . . .	42	UEP-60MC(-STDA) . . . . .	47
SPC-A23538 . . . . .	108	UAN-611R-40C . . . . .	101	UDBP-TA40(P)-RF . . . . .	98	UEC-4800TP-EXL . . . . .	42	UEP-70MC(-STDA) . . . . .	47
SPC-A25038 . . . . .	108	UAN-611R-50C . . . . .	101	UDBP-TA40(P)RF-KTR . . . . .	99	UEC-5500 . . . . .	42	UEP-80MC(-STDA) . . . . .	47
SPC-A27038 . . . . .	108	UAN-611R-60C . . . . .	101	UDBP-TA40(R) . . . . .	98	UECD-4800A-50 . . . . .	49	UEP-100MC(-STDA) . . . . .	47
SPC-B218LI . . . . .	109	UAN-701R-30C . . . . .	101	UDBP-TA40RF-B . . . . .	99	UECD-4800A-60 . . . . .	49	UEPD-51A-UL . . . . .	47
SPC-B218LI-HC . . . . .	109	UAN-701R-40C . . . . .	101	UDBP-TA40RF-KIT . . . . .	99	UECD-4800A-70 . . . . .	49	UEPD-61A-UL . . . . .	47
SPC-C218-19 . . . . .	109	UAN-701R-60C . . . . .	101	UDBP-TA40RF-KTR . . . . .	99	UECD-4800A-100 . . . . .	49	UEPD-71A-UL . . . . .	47
SPC-P2325Q . . . . .	108	UAT-30D . . . . .	93	UDBP-TA50-B . . . . .	99	UECD-4800A-EDA-50 . . . . .	49	UEPD-101A-UL . . . . .	47
SPC-P2625Q . . . . .	108	UAT-30SD . . . . .	93	UDBP-TA50-KIT . . . . .	99	UECD-4800A-EDA-60 . . . . .	49	UFT-6 . . . . .	85
SPC-P2925Q . . . . .	108	UAT-40 . . . . .	93	UDBP-TA50(P)-B . . . . .	99	UECD-4800A-EDA-70 . . . . .	49	UFT-10 . . . . .	85
SPC-P21225Q . . . . .	108	UAT-40D . . . . .	93	UDBP-TA50(P)-KIT . . . . .	99	UECD-4800A-EDA-100 . . . . .	49	UFT-16 . . . . .	85
SPC-P-HL . . . . .	110	UAT-40S . . . . .	93	UDBP-TA50(P)-RF . . . . .	98	UECD-4800A-EDAL-50 . . . . .	49	UFT-24 . . . . .	85
SPC-P-HL-RH . . . . .	110	UAT-40SD . . . . .	93	UDBP-TA50(P)-RF-B . . . . .	99	UECD-4800A-EDAL-60 . . . . .	49	UFT-S10 . . . . .	85
SPC-QC . . . . .	109	UAT-50 . . . . .	93	UDBP-TA50(P)-RF-KIT . . . . .	99	UECD-4800A-EDAL-70 . . . . .	49	UFT-S16 . . . . .	85
UAT-50D . . . . .	93	UAT-50D . . . . .	93	UDBP-TA50(P)-RF-KTR . . . . .	99	UECD-4800A-EDAL-100 . . . . .	49	UG-20A-120 . . . . .	116
UAT-50L . . . . .	93	UAT-50L . . . . .	93	UDBP-TA50(RF) . . . . .	98	UECD-4800A-EPA-50 . . . . .	49	UG-20A-200 . . . . .	116
UAT-50S . . . . .	93	UAT-50S . . . . .	93	UDBP-TA50RF-B . . . . .	99	UECD-4800A-EPA-60 . . . . .	49	UG-25NA . . . . .	116
UAT-50SD . . . . .	93	UAT-50SD . . . . .	93	UDBP-TA50RF-KIT . . . . .	99	UECD-4800A-EPA-70 . . . . .	49	UG-38N . . . . .	116
UAT-50SDL . . . . .	93	UAT-50SL . . . . .	93	UDBP-TA50RF-KTR . . . . .	99	UECD-4800A-EPA-100 . . . . .	49	UG-38NA . . . . .	116
UAT-50SL . . . . .	93	UAT-60 . . . . .	93	UDBP-TA60-B . . . . .	99	UECD-4800A-EPAL-50 . . . . .	49	UG-38NL . . . . .	116
UAT-60 . . . . .	93	UAT-60D . . . . .	93	UDBP-TA60-KIT . . . . .	99	UECD-4800A-EPAL-60 . . . . .	49	UG-38NS . . . . .	116
UAT-60D . . . . .	93	UAT-60D . . . . .	93	UDBP-TA60(P)-B . . . . .	99	UECD-4800A-EPAL-70 . . . . .	49	UG-45H . . . . .	116
UAT-60L . . . . .	93	UAT-60L . . . . .	93	UDBP-TA60(P)-KIT . . . . .	99	UECD-4800A-EPAL-100 . . . . .	49	UG-50S-200 . . . . .	116
UAT-60S . . . . .	93	UAT-60S . . . . .	93	UDBP-TA60(P)-RF . . . . .	98	UECD-4800A-EX-50 . . . . .	49	UG-50S-200A . . . . .	116
UAT-60SD . . . . .	93	UAT-60SD . . . . .	93	UDBP-TA60(P)-RF-B . . . . .	99	UECD-4800A-EX-60 . . . . .	49	UG-60S-29 . . . . .	116
UAT-60SL . . . . .	93	UAT-60SL . . . . .	93	UDBP-TA60(P)-RF-KIT . . . . .	99	UECD-4800A-EX-70 . . . . .	49	UG-65EB . . . . .	116
UAT-60T . . . . .	93	UAT-60T . . . . .	93	UDBP-TA60(P)-RF-KTR . . . . .	99	UECD-4800A-EX-100 . . . . .	49	UG-65EGL . . . . .	116
UAT-70 . . . . .	93	UAT-70 . . . . .	93	UDBP-TA60(RF) . . . . .	98	UECD-4800A-EXL-50 . . . . .	49	UG-650EL . . . . .	116
UAT-70L . . . . .	93	UAT-70L . . . . .	93	UDBP-TA60RF-B . . . . .	99	UECD-4800A-EXL-60 . . . . .	49	UG-1250L-72 . . . . .	116
UAT-70S . . . . .	93	UAT-70S . . . . .	93	UDBP-TA60RF-KIT . . . . .	99	UECD-4800A-EXL-70 . . . . .	49	UGW-6N . . . . .	102
UAT-70SL . . . . .	93	UAT-70SL . . . . .	93	UDBP-TA70(P)-B . . . . .	99	UECD-4800A-EXL-100 . . . . .	49	UGW-8N . . . . .	102
UAT-80 . . . . .	93	UAT-80 . . . . .	93	UDBP-TA70(P)-KIT . . . . .	99	UECD-4800TPA-50 . . . . .	49	UL-30 . . . . .	94
UAT-90 . . . . .	93	UAT-90 . . . . .	93	UDBP-TA70(P)-RF . . . . .	98	UECD-4800TPA-60 . . . . .	49	UL-30D . . . . .	94
UAT-90L . . . . .	93	UAT-90L . . . . .	93	UDBP-TA70(P)-RF-B . . . . .	99	UECD-4800TPA-70 . . . . .	49	UL-30S . . . . .	94
UAT-100 . . . . .	93	UAT-100 . . . . .	93	UDBP-TA70(P)-RF-KIT . . . . .	99	UECD-4800TPA-100 . . . . .	49	UL-30SD . . . . .	94
UAT-100L . . . . .	93	UAT-130 . . . . .	93	UDBP-TA70(P)-RF-KTR . . . . .	99	UECD-4800TPA-EDA-50 . . . . .	49	UL-40 . . . . .	94
UAT-150 . . . . .	93	UAT-150 . . . . .	93	UDP-A60MC . . . . .	50	UECD-4800TPA-EDA-60 . . . . .	49	UL-40D . . . . .	94
UAT-180 . . . . .	93	UAT-200 . . . . .	93	UDP-A80MC . . . . .	50	UECD-4800TPA-EDA-70 . . . . .	49	UL-40S . . . . .	94
UAT-200 . . . . .	93	UB111Li . . . . .	98	UDP-TA40 (B) . . . . .	100	UECD-4800TPA-EDA-100 . . . . .	49	UL-40SD . . . . .	94
UB111Li . . . . .	98	UD222Li . . . . .	98	UDP-TA40 (B-TL) . . . . .	100	UECD-4800TPA-EDAL-60 . . . . .	49	UL-50D . . . . .	94
UD222Li . . . . .	98	UD333Li . . . . .	98	UDP-TA40D (B) . . . . .	100	UECD-4800TPA-EDAL-70 . . . . .	49	UL-50S . . . . .	94
UD333Li . . . . .	98	UBC . . . . .	98	UDP-TA40D (B-TL) . . . . .	100	UECD-4800TPA-EDAL-100 . . . . .	49	UL-50SD . . . . .	94
UBC . . . . .	98	UCB-25 . . . . .	100	UDP-TA50 (B) . . . . .	100	UECD-4800TPA-EPAL-50 . . . . .	49	UL-60 . . . . .	94
UCB-25 . . . . .	100	UCB-TA-CBL . . . . .	100	UDP-TA50 (B-TL) . . . . .	100	UECD-4800TPA-EPAL-60 . . . . .	49	UL-60D . . . . .	94
UCB-TA-CBL . . . . .	100	UD-50-22 . . . . .	117	UDP-TA50D (B) . . . . .	100	UECD-4800TPA-EPAL-70 . . . . .	49	UL-60S . . . . .	94
UD-50-22 . . . . .	117	UD-50-45 . . . . .	117	UDP-TA50D (B-TL) . . . . .	100	UECD-4800TPA-EPAL-100 . . . . .	49	UL-60SD . . . . .	94
UD-50-45 . . . . .	117	UD-50-45 . . . . .	117	UDP-TA55 (B) . . . . .	100	UECD-4800TPA-EPAL-50 . . . . .	49	UL-70S . . . . .	94
UD-50-45 . . . . .	117	UD-50-200 . . . . .	117	UDP-TA55 (B-TL) . . . . .	100	UECD-4800TPA-EPAL-60 . . . . .	49	UL-80 . . . . .	94
UD-50-200 . . . . .	117	UD-50S-22 . . . . .	117	UEC-4800 . . . . .	42	UECD-4800TPA-EPAL-70 . . . . .	49	UL-90 . . . . .	94
UD-50S-22 . . . . .	117	UD-50S-45 . . . . .	117	UEC-4800A-ANGLE . . . . .	42	UECD-4800TPA-EPAL-100 . . . . .	49	UL-100 . . . . .	94
UD-50S-45 . . . . .	117	UD-50S-45A . . . . .	117	UEC-4800A-EDA . . . . .	42	UECD-4800TPA-EX-50 . . . . .	49	UL-130 . . . . .	94
UD-50S-45A . . . . .	117	UD-50S-45A* . . . . .	117	UEC-4800A-EDAL . . . . .	42	UECD-4800TPA-EX-60 . . . . .	49	UL-150 . . . . .	94
UD-50S-45A* . . . . .	117	UD-60-04 . . . . .	117	UEC-4800A-EPA . . . . .	42	UECD-4800TPA-EX-70 . . . . .	49	ULT-40C . . . . .	95
UD-60-04 . . . . .	117	UD-60-07 . . . . .	117	UEC-4800A-EPAL . . . . .	42	UECD-4800TPA-EX-100 . . . . .	49	ULT-50C . . . . .	95
UD-60-07 . . . . .	117	UEC-4800A-EPL . . . . .	42	UECD-4800TPA-EXL-50 . . . . .	49				

MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE	MODEL #	PAGE
ULT-60C . . . . .	95	US-LT40-05C. . . . .	105	UX-612C . . . . .	97	25843. . . . .	36	863-966-1 . . . . .	99
ULT-70C . . . . .	95	US-LT40-08C. . . . .	105	UX-612D . . . . .	96	26327. . . . .	31	863-976-1 . . . . .	99
ULT-70CH . . . . .	95	US-LT40B-03C. . . . .	105	UX-612S . . . . .	97	26328. . . . .	31	863-977-1 . . . . .	99
ULT-150. . . . .	95	US-LT40B-05C. . . . .	105	UX-612SD . . . . .	97	26332. . . . .	31	863-978-1 . . . . .	99
ULT-180. . . . .	95	US-LT40B-08. . . . .	104	UX-700 . . . . .	96	26336. . . . .	31	909-921-0 . . . . .	52
UNR-F015-25NTC . . . . .	56	US-LT40B-08C. . . . .	105	UX-700C . . . . .	97	26337. . . . .	31	910-546-0 . . . . .	52
UNR-F015-45NT . . . . .	55	US-LT40B-15. . . . .	104	UX-700S . . . . .	97	26364. . . . .	34	910-547-0 . . . . .	52
UNR-F015-55NTC . . . . .	56	US-LT40B-15C. . . . .	105	UX-700SD . . . . .	97	26443. . . . .	36	910-548-0 . . . . .	52
UNR-F015-65NT . . . . .	55	US-LT40B-21. . . . .	104	UX-800 . . . . .	96	26477. . . . .	31	910-618-0 . . . . .	100
UNR-F015-200NT . . . . .	55	US-LT40BL-08. . . . .	105	UX-800C . . . . .	97	26478. . . . .	31	910-619-0 . . . . .	100
UNR-F015-280NT . . . . .	55	US-LT40BL-15. . . . .	105	UX-8005 . . . . .	97	26479. . . . .	31	910-623-0 . . . . .	52
UNR-F015-350NT . . . . .	55	US-LT41PB-08. . . . .	105	UX-900 . . . . .	96	26568. . . . .	35	910-627-0 . . . . .	100
UNR-F050-95NTC . . . . .	56	US-LT41PB-15. . . . .	105	UX-900S . . . . .	97	26570. . . . .	36	910-629-0 . . . . .	100
UNR-F050-130NTC . . . . .	56	US-LT41PB-21. . . . .	105	UX-1000 . . . . .	96	26594. . . . .	34	910-974-0 . . . . .	52
UNR-F050-270NT . . . . .	55	US-LT50B-05. . . . .	104	UX-1000C . . . . .	97	26630. . . . .	31	910-975-0 . . . . .	52
UNR-F050-630NT . . . . .	55	US-LT50B-08. . . . .	104	UX-1000S . . . . .	97	26700. . . . .	34	911-023-0 . . . . .	52
UNR-F050-730NT . . . . .	55	US-LT50B-17. . . . .	104	UX-1300 . . . . .	96	26709. . . . .	34	932-100-0 . . . . .	134
UNR-F050-880NT . . . . .	55	US-LT51PB-05. . . . .	105	UX-1300S . . . . .	97	26800. . . . .	31	932-110-0A . . . . .	134
UNR-F050-1400NT . . . . .	55	US-LT51PB-08. . . . .	105	UX-1400 . . . . .	96	26810. . . . .	31	934-150-0 . . . . .	104
UNR-F100-200NTC . . . . .	56	US-LT51PB-17. . . . .	105	UX-1620 . . . . .	96	26815. . . . .	31	934-201-0 . . . . .	104
UNR-F100-250NTC . . . . .	56	US-LT60P-03. . . . .	105	UXR-1820 . . . . .	96	26820. . . . .	31	852-644-1 KIT . . . . .	52
UNR-F100-380NTC . . . . .	56	US-LT60P-07. . . . .	105	UXR-1820MC . . . . .	50	26830. . . . .	31	863-991-1 . . . . .	46
UNR-F100-550NTC . . . . .	56	US-LT60P-11. . . . .	105	UXR-2000 . . . . .	96	26840. . . . .	31	910-391-0 . . . . .	46
UNR-F100-1300NT . . . . .	55	UW-6CSHK. . . . .	115	UXR-2000S . . . . .	97	26885. . . . .	31	910-393-0 . . . . .	46
UNR-F100-1900NT . . . . .	55	UW-6CSHRK. . . . .	115	UXR-2400S. . . . .	97	26890. . . . .	31	910-395-0 . . . . .	46
UNR-F100-2500NT . . . . .	55	UW-6CSK. . . . .	115	UXR-2400SMC . . . . .	50	26934. . . . .	34		
UNR-F100-3700NT . . . . .	55	UW-6SLDK. . . . .	114	UXR-3000S. . . . .	97	27045. . . . .	31		
UNR-F100-5400NT . . . . .	55	UW-6SLK. . . . .	114	UXR-T1820. . . . .	95	27110. . . . .	34		
UNR-F100-7000NT . . . . .	55	UW-6SLRDK. . . . .	114	UXR-T2000. . . . .	95	27115. . . . .	34		
UNR-F100-10000NT . . . . .	55	UW-6SLRK. . . . .	114	UXR-T2400S. . . . .	95	27122. . . . .	34		
UOW-11-10 . . . . .	102	UW-6SSDK. . . . .	114	UXR-T3000S. . . . .	95	27200. . . . .	31		
UOW-11-14 . . . . .	102	UW-6SSHDK. . . . .	114	UX-ST800 . . . . .	96	27210. . . . .	34		
UOW-11-22 . . . . .	102	UW-6SSHK. . . . .	114	UX-T700L . . . . .	95	27255. . . . .	31		
UOW-11-30 . . . . .	102	UW-6SSHRDK. . . . .	114			27348. . . . .	34		
UOW-T60-10 . . . . .	102	UW-6SSHRK. . . . .	114			27370. . . . .	34		
UOW-T60-14 . . . . .	102	UW-6SSLK. . . . .	114			27594. . . . .	35		
UOW-T60-22 . . . . .	102	UW-6SSLRDK. . . . .	114			27768. . . . .	89		
UOW-T60-30 . . . . .	102	UW-6SSRK. . . . .	114			27769. . . . .	89		
UP-25DB . . . . .	117	UW-8SHK. . . . .	114			27771. . . . .	89		
URW-6 . . . . .	101	UW-8SHRK. . . . .	114			27791. . . . .	35		
URW-8 . . . . .	101	UW-9CSK. . . . .	115			27816. . . . .	36		
URW-8N . . . . .	101	UW-9SK. . . . .	114			28161. . . . .	89		
URW-9N . . . . .	101	UW-9SRK. . . . .	114			28162. . . . .	89		
URW-10N . . . . .	101	UW-9SSK. . . . .	114			28163. . . . .	89		
URW-12N . . . . .	101	UW-10SHK. . . . .	114			28164. . . . .	89		
US-3.5ACB . . . . .	106	UW-10SHRK. . . . .	114			28178. . . . .	87, 132		
US-3.5B. . . . .	106	UW-13CSK. . . . .	115			28292. . . . .	34		
US-5 . . . . .	106	UW-13SK. . . . .	114			28475. . . . .	35		
US-6W . . . . .	106	UW-13SRK. . . . .	114			28489. . . . .	36		
US-350PW . . . . .	106	UW-13SSK. . . . .	114			28514. . . . .	31		
US-450PW . . . . .	106	UW-61ERK. . . . .	114			28549. . . . .	31		
US-450WB . . . . .	106	UW-75S. . . . .	115			28796. . . . .	89, 133		
US-652PW . . . . .	106	UW-131ERK . . . . .	114			28843. . . . .	23, 35		
US-LD40P-08 . . . . .	106	UW-140P(WR). . . . .	115			28859. . . . .	36		
US-LD40P-15 . . . . .	106	UW-220P. . . . .	115			375-RZ . . . . .	134		
US-LD40P-21 . . . . .	106	UW-220PL . . . . .	115			375-SZ . . . . .	134		
US-LD50P-05 . . . . .	106	UW-251P. . . . .	115			30300. . . . .	31		
US-LD50P-08 . . . . .	106	UW-381. . . . .	115			30351. . . . .	36		
US-LD50P-17 . . . . .	106	UW-381L. . . . .	115			4H2055. . . . .	113		
US-LT10B. . . . .	104	UW-381P. . . . .	115			408-088-2 . . . . .	104		
US-LT20B-10. . . . .	104	UW-401. . . . .	114			408-885-0 . . . . .	104		
US-LT20B-18. . . . .	104	UW-401L. . . . .	114			455-885-1 . . . . .	104		
US-LT30B-11. . . . .	104	UW-550. . . . .	115			459-885-1 . . . . .	104		
US-LT30B-11C. . . . .	105	UW-ST6SHK. . . . .	115			496-088-1 . . . . .	104		
US-LT30B-17. . . . .	104	UX-450 . . . . .	96			500-SZ . . . . .	89, 134		
US-LT30B-17C. . . . .	105	UX-450D . . . . .	96			7021. . . . .	134		
US-LT30B-23. . . . .	104	UX-450S . . . . .	97			7021AG. . . . .	134		
US-LT30BL-11. . . . .	105	UX-450SD . . . . .	97			7041A. . . . .	134		
US-LT30BL-17. . . . .	105	UX-500 . . . . .	96			7041AG. . . . .	134		
US-LT31PB-05. . . . .	105	UX-500C . . . . .	97			7051. . . . .	134		
US-LT31PB-11. . . . .	105	UX-500D . . . . .	96			852-645-1 KIT . . . . .	52		
US-LT31PB-17. . . . .	105	UX-500S . . . . .	97			852-669-1 KIT . . . . .	52		
US-LT31PB-23. . . . .	105	UX-500SD . . . . .	97			863-964-1 . . . . .	99		
US-LT40-03C. . . . .	105	UX-612 . . . . .	96			863-965-1 . . . . .	99		

## NOTES



AIMCO CORPORATE HEADQUARTERS  
10000 SE Pine Street  
Portland, Oregon 97216  
Phone: (503) 254-6600  
Toll Free: 1-800-852-1368

AIMCO CORPORATION DE MEXICO SA DE CV  
Ave. Cristobal Colon 14529  
Chihuahua, Chihuahua. 31125  
Phone: (01-614) 380-1010  
Fax: (01-614) 380-1019

AIMCO SOUTH AMERICA  
Carrera 29A, #7B-91.  
Origami Building. Int604.  
Medellin; Colombia 050021

AIMCO EUROPE  
Dibao Plaza Avenida Río Gallo, 431  
19174 Galápagos - Guadalajara  
Spain  
Phone: +34 673 34 99 25

AIMCO CHINA  
Room 607, No. 3998 Hongxin Rd  
Minhang District, Shanghai  
China  
Phone: 0086-21-34319246  
Fax: 0086-21-34319245



[www.AIMCO-GLOBAL.com](http://www.AIMCO-GLOBAL.com)

PRINTED IN THE U.S.A.

LIT-AT100, REV 05-25-17, ©2017 AIMCO