

# ATP *Thors*

Divisions of Hy-Tech Machine



**PROFESSIONAL  
QUALITY INDUSTRIAL  
AND CONSTRUCTION  
POWER TOOLS**

**OZAT SOCKETS**



# ATP

A Division of Hy-Tech Machine

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1/2", 3/4", 1", 1 1/2", 2 1/2"  
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# ATP

A Division of Hy-Tech Machine



## Our ATP Advantage is Hy-Tech Machine

ATP's parent company Hy-Tech Machine uses state-of-the-art machining equipment to guarantee precision in ATP products. Rigid specifications are constantly maintained. Quality control is stringently monitored and custom machining requests are not a problem at ATP.

"In stock" can be a beautiful thing to hear when you're on a deadline and you need it now. Our product knowledge comes from hands on experience translated into a computerized data base. We've shaped our industry wide tool knowledge into a response system that's second to none.

ATP's product standards meet or exceed those of any tool manufacturer in the market place today with over 25,000 different air tool parts in stock. ATP has created replacement parts for tools with names such as Chicago Pneumatic, Ingersoll Rand, Cleco, Thor and others.

Creating new parts for air tools, contracting annual replacement part requirements or developing custom tools or parts gives ATP a unique strength. Our quality is already known, our standards are respected across the industry. You can use any of ATP's products with confidence.

Courteous, knowledgeable answers to your questions are part of the story. Our people are a tightly knit group who have worked together for years, we're like a family and we're proud of that.

### ATP's extended line of products

ATP offers a complete line of Air Tools produced to compete in today's "World Market". Just as we've become your source for air tool solutions, you can count on ATP for quality Air Tools shipped the same day.

ATP's Ozat Impact Sockets are unique. The Ozat electrochemical machining process makes Ozat's less-stress<sup>®</sup> sockets the most durable products available.



# ATP

A Division of Hy-Tech Machine

## Heavy Duty Impact Wrenches

An impact wrench has a relatively low torque motor which supplies rotary inertia to a special type clutch. The clutch converts this inertia into a series of rotary blows which gradually build up torque in the fastener.

The effect is similar to that obtained when a hand wrench is placed on a nut and the opposite end is struck with a hammer. Torque reaction is not transmitted back through the tool to the operator. Therefore, fasteners can be safely tightened to high torques with hand held tools.

The output of the impact wrench depends solely on the rated capacity of the tool and the length of time the tool is kept on the fastener.

Maximum output of the tool can be limited by controlling the air entering the tool or by introducing flexible elements between the anvil of the tool and the fastener to absorb some of the impact blow. These methods are effective, but the use of Torsion Bars are recommended when fastener torques must be held within close limits.



## ATP Clutch Basics

### Twin Hammer:

Two hammers strike balance blows for more torque per pound than any competitive tool. This simplified design with inertia engaged reversible hammers means easy, low cost maintenance. Good performance on both hard and soft joint applications, also less sensitive to air pressure changes than any other design.

### Ball and Cam:

Precision ball and cam mechanism converts air motor torque into powerful rotary impacts . . . a time tested design for maximum durability, ideal for soft joint applications. Utilized in very large impact tools.

### Two Jaw:

High energy per blow for maximum performance. High ultimate torque, highest power to weight ratio. Excellent choice for those tough MRO and assembly applications. Good on soft pull up joints, excellent on hard joint pull up joints.

### Three Jaw:

Very good all around general purpose clutch. Good on either hard or soft pull up applications, high ultimate torque.

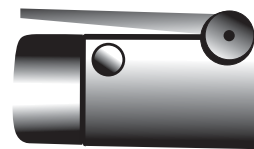
### Rocking Dog:

Long life clutch. Good for hard or soft pull-up applications. Fast run down of free running fasteners.

- |                               |                          |
|-------------------------------|--------------------------|
| PT = Pistol Grip/Trigger      | TH = Through Hole        |
| EI = End Grip/Inside Trigger  | 5S = 5 Spline            |
| EO = End Grip/Outside Trigger | RR = Ring Retainer       |
| LT = Lever Throttle           | 1H = 1" Sq. Through Hole |

Example:  
ATP 7560 PT-RR is a 3/4 Inch Drive Pistol Grip With A Ring Retainer

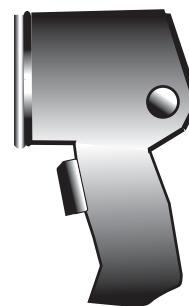
Lever Throttle



End Grip  
Outside Trigger



Pistol Grip



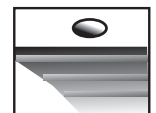
End Grip  
Inside Trigger



Spline Drive



Square Drive



Where Referenced:

CP is a registered trademark of Chicago Pneumatic  
IR is a registered trademark of Ingersoll Rand  
Cleco is a registered trademark of Cooper Industries

# Specialty Impact Tools



## UNA DRIV<sup>®</sup> Impact Wrenches

The UNA DRIV<sup>®</sup> impact wrench is a special tool that is used on UNA DRIV<sup>®</sup> bolts (see Picture). These bolts are used heavily in the manufacture and repair of railroad cars. In the center of the impact anvil is a male hex. This fits into the end of the bolt which keeps it from turning while the socket on the square drive drives the nut in place. Made in America with steel hammer case for greater durability in the toughest operating conditions.

### Applications

- Railcar Manufacturing/Repair
- Tractor Trailer Manufacturing/Repair



UNA DRIV<sup>®</sup> Bolts



ATP 7508/VW834

### UNA DRIV<sup>®</sup>

MODEL#	ATP 7508/VW834	ATP 7520/VW872
Torque Working Ft.-Lb	100-450	250-800
Max. Ft.-Lb	450	800
Handle Type	Pistol Grip	Pistol Grip
Data Shank	3/4" Sq. UNA DRIV <sup>®</sup>	1" Sq. UNA DRIV <sup>®</sup>
Length In.	12	12
Weight	9.25 Lb.	13.25 Lb.
Hose Size	1/2"	1/2"
Equivalent To	IR2908/VW834	IR2920/VW872

UNA DRIV<sup>®</sup> is a registered trademark of BBC Fasteners.



ATP 7520/VW872

## ATP - the name for all your special impact needs

ATP has over 80 years of experience in the design and manufacturing of specialty impact wrenches. Whether it is special materials, extended anvils, drive shanks or other specific requirements, ATP can deliver. Our special impacts have been in service in petrochemical plants, mining applications, underwater applications, steel mills, aluminum plants, chemical plants, military applications and more. Shown below are just a few of our special impacts.



# Heavy Duty Impact Tools



ATP 7560 PT-THZ  
Two Jaw



3/4" CAPACITY (19mm)

MODEL#	ATP 7560 PT-THZ	ATP 7560 PT-1HZ
Torque Working Ft.-Lb	560	575
Max. Ft.-Lb	1000	1025
Handle Type	Pistol Grip	Pistol Grip
Data Shank	3/4" Sq.	1" Sq.
Retainer	Through Hole	Through Hole
Length In.	7.60	7.60
Weight	15 Lb.	15.1 Lb.
Hose Size	1/2"	1/2"
Equivalent To	CP6060 ZASAB	CP6060 ZASAK

## ZAMAC

Why use Zamac for Power Tool Castings?

Zamac or ZA-12 (zinc) material is required by law in several countries where underground coal mining operations are being carried out.

The atmospheric conditions found in underground mining can cause a white powder to form on aluminium material (aluminium is typically used for housings on pneumatic tools). When the aluminium has been effected by this powder like growth, a spark may result if the housing is struck by a metal object. Given the environment, this sparking gives way to potential explosions.

The Zamac material used in the castings is spark proof and is uneffected by the atmospheric conditions found in underground mining. The ATP Zamac housing power tools are approved by the mining underwriters in the UK, Germany, Poland and Australia where aluminum power tools are not allowed.

### Applications

- Underground Mining



ATP 1040 EI-THZ  
Twin Hammer

1-1/4" BOLT CAPACITY (32mm)\*

MODEL#	ATP 1040 EI-THZ
Torque Working Ft.-Lb	1600
Max. Ft.-Lb	2000
Handle Type	End Grip I-T
Data Shank	1" Sq.
Retainer	Through Hole
Length In.	12.40
Weight	26.5 Lb.
Hose Size	3/4"



ATP 1011 EI-THZ  
Two Jaw

1-3/8" BOLT CAPACITY (35mm)

MODEL#	ATP 1011 EI-THZ
Torque Working Ft.-Lb	1800
Max. Ft.-Lb	2800
Handle Type	End Grip I-T
Data Shank	1" Sq.
Retainer	Through Hole
Length In.	12.50
Weight	27.0 Lb.
Hose Size	3/4"
Equivalent To	CP0611ZASED



ATP 1520 EI-THZ  
Two Jaw

1-1/2" BOLT CAPACITY (38mm)

MODEL#	ATP 1520 EI-THZ
Torque Working Ft.-Lb	2500
Max. Ft.-Lb	3500
Handle Type	End Grip I-T
Data Shank	1-1/2" Sq.
Retainer	Through Hole
Length In.	14.70
Weight	38 Lb.
Hose Size	3/4"
Equivalent To	CP6120ZASED



# Heavy Duty Impact Tools

ATP 2059  
 ATP 2060  
 ATP 2109  
 ATP 2110  
 ATP 2119  
 ATP 2120



ATP 2109 PT-1H

The right tools for your tough jobs. Repair and maintenance jobs are no problem with ATP's new line of high power impact wrenches. Available in both forward and reverse biased power, these impacts take charge over rusted, corroded and otherwise stubborn fasteners, eliminating the need for larger impacts or alternate equipment.

They all come with a smooth hitting mechanical design, great high power-to-weight ratio, and with multiple handle options, reduce operator fatigue. Positive oil bath lubrication provides long life for the hammer, anvil and other moving parts.

## Applications

- Refineries
- Ship Yards
- Railroads
- Steel/ Paper Mills
- Heavy Machine Repair
- Petrol/ Chemical Plants
- Heavy Assembly/ Disassembly

### 1-3/8" BOLT CAPACITY (35mm)

MODEL#	ATP 2109 PT-1H	ATP 2109 PT-5S	ATP 2110 PT-1H	ATP 2110 PT-5S
	Reverse Bias	Reverse Bias	Forward Bias	Forward Bias
Torque Working Ft.-Lb	750-1650	750-1800	750-1650	800-2000
Handle Type	Pistol Grip	Pistol Grip	Pistol Grip	Pistol Grip
Data Shank	1" Sq.	#5 Spline	1" Sq.	#5 Spline
Retainer	Through Hole	Button	Through Hole	Button
Length In.	9.50	9.75	9.50	9.75
Weight	20.75 Lb.	21.25 Lb.	20.75 Lb.	21.25 Lb.
Hose Size	3/4"	3/4"	3/4"	3/4"
Equivalent To	Cleco® WP-2109-B-8	Cleco® WPS-2109B	Cleco® WP-2110B-8	Cleco® WPS-2110B

Cleco® is a registered trademark of Cooper Industries

### 1-3/8" BOLT CAPACITY (35mm)

MODEL#	ATP 2109 EI-1H	ATP 2109 EI-5S	ATP 2110 EI-1H	ATP 2110 EI-5S
	Reverse Bias	Reverse Bias	Forward Bias	Forward Bias
Torque Working Ft.-Lb	750-1650	750-1800	750-1650	800-2000
Handle Type	End Grip I-T	End Grip I-T	End Grip I-T	End Grip I-T
Data Shank	1" Sq.	#5 Spline	1" Sq.	#5 Spline
Retainer	Through Hole	Button	Through Hole	Button
Length In.	12.88	13.12	12.88	13.12
Weight	21.00 Lb.	21.50 Lb.	21.00 Lb.	21.50 Lb.
Hose Size	3/4"	3/4"	3/4"	3/4"
Equivalent To	Cleco® WT-2109-8	Cleco® WTS-2109	Cleco® WT-2110-8	Cleco® WTS-2110

Cleco® is a registered trademark of Cooper Industries



ATP 2109 EI-1H

Power to Get The Job Done



# Heavy Duty Impact Tools



ATP 2059 PT



ATP 2119 EI-TH



## 1-1/8" BOLT CAPACITY (28mm)

MODEL#	ATP 2059 PT-TH	ATP 2059 PT-1H	ATP 2060 PT-TH	ATP 2060 PT-1H
	Reverse Bias	Reverse Bias	Forward Bias	Forward Bias
Torque Working Ft.-Lb	250-700	250-800	250-700	250-900
Handle Type	Pistol Grip	Pistol Grip	Pistol Grip	Pistol Grip
Data Shank	3/4" Sq.	1" Sq.	3/4" Sq.	1" Sq.
Retainer	Through Hole	Through Hole	Through Hole	Through Hole
Length In.	7.8	7.8	7.8	7.8
Weight	12 Lb.	12.1 Lb.	12 Lb.	12.1 Lb.
Hose Size	1/2"	1/2"	1/2"	1/2"
Equivalent To	Cleco® WP-2059-6	Cleco® WP-2059-8	Cleco® WP-2060B-6	Cleco® WP-2060B-8

Cleco® is a registered trademark of Cooper Industries



## 1-1/2" BOLT CAPACITY (38mm)

MODEL#	ATP 2119 EI-TH	ATP 2119 EI-5S	ATP 2120 EI-TH	ATP 2120 EI-5S
	Reverse Bias	Reverse Bias	Forward Bias	Forward Bias
Torque Working Ft.-Lb	1200-2600	1200-2500	1200-3000	1200-2800
Handle Type	End Grip I-T	End Grip I-T	End Grip I-T	End Grip I-T
Data Shank	1-1/2" Sq.	#5 Spline	1-1/2" Sq.	#5 Spline
Retainer	Through Hole	Button	Through Hole	Button
Length In.	14.25	14.25	14.25	14.25
Weight	29.00 Lb.	29.00 Lb.	29.00 Lb.	29.00 Lb.
Hose Size	3/4"	3/4"	3/4"	3/4"
Equivalent To	Cleco® WT-2119	Cleco® WTS-2119	Cleco® WT-2120	Cleco® WTS-2120

Cleco® is a registered trademark of Cooper Industries

## Features:

- Bi-Metal bearing plates for excellent wear resistance
- Stainless steel trigger and throttle valve seat for corrossions resistance (2059 and 2060)
- Improved socket retainer for #5 spline anvils





# Heavy Duty Impact Tools

## ATP 5040 Impact Wrench

ATP's "new" 1/2" ATP-5040 Impact Wrench is ideally suited for the heavy duty maintenance and assembly applications. The "rocking dog" clutch is designed for either soft or hard pull-up conditions, with a super fast run down. The three piece housing provides access to all moving parts while the oil bath clutch provides for constant lubrication for added durability.

### Applications

Auto/Truck/Tractor sub assembly, drilling wooden beams and poles, lag screw driving and general equipment maintenance.

## ATP 7506

The ATP 7506 is a powerful heavy duty 3/4" wrench. It is compact and easy to handle, suited for continuous duty cycles.

- 3 Jaw Clutch for quick run down and fast torque build-up
- 3 piece housing construction for ease of maintenance
- Oil lubricated clutch for long life
- Teasing throttle for easy bolt starting
- Excellent choice for soft pull-up jobs

### Applications

Ideal for industries such as petrochemical, metals, motor vehicles, construction, and machinery/ equipment, disassembly, maintenance and repair.



ATP 7506 EO-TH



ATP 5040

### 1/2" BOLT CAPACITY (13mm)

MODEL#	ATP 5040 PT-RR	ATP 5040 PT-PR	ATP 5040 PT-QC
Torque Working Ft.-Lb	250 (340 Nm)	250 (340 Nm)	250 (340 Nm)
Shank Size In.	1/2" Square.	1/2" Square	7/16" Female Hex
Retainer	Ring Retainer	Pin Retainer	Quick Change Chuck
Overall Length	6-7/8"	6-7/8"	8-1/8"
Net Weight	6 lb. (2.7 kg)	6 lb. (2.7 kg)	6.25 lb. (2.8 kg)
Hose Size	1/2"	1/2"	1/2"
Equivalent To	CP6440-RSR	CP6440-RS	CP6440-RSS

Max Torque 320 ft. lbs.



ATP 7506  
Three Jaw



### 5/8" - 3/4" BOLT CAPACITY (16mm-19mm)

MODEL#	ATP 7506 PT-TH	ATP7506 PT-RR	ATP 7506 EO-TH
Torque Working Ft.-Lb	390	390	390
Max. Ft.-Lb	650	650	650
Handle Type	Pistol Grip	Pistol Grip	End Grip Outside Trigger
Data Shank	3/4" Sq.	3/4" Sq.	*3/4"
Retainer	Through Hole	Ring Retainer	*Through Hole
Length In.	8.75"	8.75"	11.5"
Weight	12.0 Lb.	12.0 Lb.	12.75 Lb.
Hose Size	1/2"	1/2"	1/2"
Equivalent To	CP0606SASAB	CP0606SASAR	CP0606-GASAB

\*Also available with 1" Square Drive Anvil C043682, #4 Spline Anvil C-054202 or 3/4" Anvil C04664 with Ring Retainer

# Heavy Duty Impact Tools

3/4" BOLT CAPACITY



ATP 7520 PT-IH  
Twin Hammer



ATP 7560 PT-TH  
Two Jaw

## ATP Professional Tools

ATP professional tools feature alloy steel hammer cases that are machined from solid bar not drawn or cast. The model number is stamped in the motor housing under the name plate for permanent identification. There is a high power to weight ratio, plus 100% parts interchangeability to the equivalent tool. Your replacement parts inventory will work for any tool you purchase.

**100% American Made.**

- Steel clutch housing
- 3 piece housing construction for ease of maintenance.
- Pressure feed lubrication for impact mechanism
- Adjustable power regulator for forward and reverse power control
- Ergonomic handle
- Exhaust with sound reducing muffler

3/4" BOLT CAPACITY (19mm)

MODEL#	ATP 7520 PT-TH	ATP 7520 PT-1H
Torque Working Ft-Lb	800	800
Max. Ft.-Lb	1100	1100
Handle Type	Pistol Grip	Pistol Grip
Data Shank	3/4" Sq.	1" Sq.
Retainer	Through Hole	Through Hole
Length In.	12.50	12.50
Weight	12 Lb.	12 Lb.
Hose Size	1/2"	1/2"
Equivalent To	IR2920P1	IR2920P3

3/4" CAPACITY (19mm)

MODEL#	ATP 7560 PT-TH	ATP 7560 PT-RR	ATP 7560 PT-1H
Torque Working Ft-Lb	560	560	575
Max. Ft.-Lb	1000	1000	1025
Handle Type	Pistol Grip	Pistol Grip	Pistol Grip
Data Shank	3/4" Sq.	3/4" Sq.	1" Sq.
Retainer	Through Hole	Ring Retainer	Through Hole
Length In.	7.60	7.60	7.60
Weight	11.6 Lb.	11.6 Lb.	11.7 Lb.
Hose Size	1/2"	1/2"	1/2"
Equivalent To	CP6060 SASAB	CP6060 SASAR	CP6060 SASAK

ATP 7525



ATP 7525 PT-TH  
Twin Hammer

MODEL#	ATP 7525 PT-TH	ATP 7525 PT-1H	ATP 7525 PT-4S
Torque Working Ft-Lb	1400	1400	1400
Max. Ft.-Lb	1600	1600	1600
Handle Type	Pistol Grip	Pistol Grip	Pistol Grip
Data Shank	3/4" Sq.	1" Sq.	#4 Spline
Retainer	Through Hole	Through Hole	Through Hole
Length In.	8.9	8.9	8.9
Weight	12.5 Lb.	12.5 Lb.	12.5 Lb.
Hose Size	1/2"	1/2"	1/2"
Equivalent To	IR2925P1	IR2925P1	IR2925P1

- Rugged steel hammer case
- Powerful twin hammer clutch
- Three piece motor housing
- Reverse biased motor (forward bias available upon demand)
- Ergonomic handle
- Available in 3/4" and 1" Sq. Dr. and #4 Spline Dr.
- Adjustable power management design
- High output motor
- Easy access forward/reverse throttle



# Heavy Duty Impact Tools

- 3 Jaw Clutch for quick run down and fast torque build-up
- 3 piece housing construction for ease of maintenance
- Oil lubricated clutch for long life
- Teasing throttle for easy bolt starting
- Excellent choice for soft pull-up jobs

## ATP 1010

The ATP 1010 is a heavy duty tool for high volume, heavy production.

### Applications

Steel erection, heavy assembly/disassembly, mining and construction equipment maintenance. Also for general MRO applications found in foundries, petrochemical plants, mills, railroads, and heavy motor vehicle assembly plants.

## ATP 1017

The ATP 1017 is a powerful heavy duty 1" or 5 spline (6" extended anvil optional) impact wrench. It's single jumbo hammer and steel clutch housing make it a rugged tool ideally suited for truck and off road equipment repairs and tire work.

### Applications

Truck and equipment repairs, tire changing, MRO applications, railroad and heavy vehicle assembly.



ATP 1010  
Three Jaw



ATP 1017

### 1-1/4" BOLT CAPACITY (32mm)

MODEL#	ATP 1010 EO-TH	ATP 1010 EO-5S	ATP 1010 EI-TH
Torque Working Ft.-Lb	950	950	950
Max. Ft.-Lb	1350	1350	1350
Handle Type	End Grip O-T	End Grip O-T	End Grip I-T
Data Shank	1" Sq.	#5 Spline	1" Sq.
Retainer	Through Hole	Button	Through Hole
Length In.	13.5"	14"	13.5"
Weight	20.5 Lb.	20.5 Lb.	20.5 Lb.
Hose Size	3/4"	3/4"	3/4"
Equivalent To	CP610GALED	CP610GALEL	CP610PALED

### 1-1/4" BOLT CAPACITY (32mm)

MODEL#	ATP1017 EO/EI TH	ATP1017 EO/EI-6	ATP1017 EO/EI 5S
Torque Working Ft.-Lb	1000	1000	1000
Max. Ft.-Lb	1600	1600	1600
Handle Type	End Grip EO-EI	End Grip EO-EI	End Grip EO-EI
Data Shank	1" Sq.	1" Sq. 6" Ext.	#5 Spline 6" Ext.
Retainer	Through Hole	Through Hole	Button
Length In.	11.25"	17.25"	17.25"
Weight	18.25 Lb.	21.5 Lb.	21.5 Lb.
Hose Size	3/4"	3/4"	3/4"
Equivalent To	IR280	IR280-6	IR-2805S



# Heavy Duty Impact Tools

1-1/4" -1-3/8" BOLT CAPACITY



ATP 1040 PT-TH  
Twin Hammer

1-1/4" BOLT CAPACITY (32mm)

MODEL#	ATP 1040 EI-TH	ATP 1040 EI-5S	ATP 1040 PT-TH	ATP 1040PT-5S
Torque Working Ft.-Lb	1600	1600	1600	1600
Max. Ft.-Lb	2000	2000	2000	2000
Handle Type	End Grip I-T	End Grip I-T	Pistol Grip	Pistol Grip
Data Shank	1" Sq.	#5 Spline	1" Sq.	1" Sq.
Retainer	Through Hole	Button	Through Hole	Button
Length In.	12.40	12.40	11	11
Weight	22.0 Lb.	22.0 Lb.	24.0 Lb.	24.0 Lb.
Hose Size	3/4"	3/4"	3/4"	3/4"
Equivalent To	IR2940B2	IR2940B1	IR2940P2	N/A



ATP 1040 EO-5S  
Twin Hammer

1-1/4" BOLT CAPACITY (32mm)

MODEL#	ATP 1040 EO-5S	ATP 1044 EO-5S	ATP 1034 EI-TH
Torque Working Ft.-Lb	1600	1000	1100
Max. Ft.-Lb	2000	1350	1500
Handle Type	End Grip O-T	End Grip O-T	End Grip I-T
Data Shank	#5 Spline	#5 Spline	1" Sq.
Retainer	Button	Button	Through Hole
Length In.	12.40	11.25	11.25
Weight	22.0 Lb.	19.0 Lb.	19.0 Lb.
Hose Size	3/4"	3/4"	3/4"
Equivalent To	IR2940A1	IR1734A1	IR2934B2



ATP 1034 EI-TH  
Twin Hammer

1-1/4" BOLT CAPACITY (25mm-32mm)

MODEL#	ATP 1034 EI-5S	ATP 1034 EO-TH	ATP 1034 EO-5S
Torque Working Ft.-Lb	1100	1100	1100
Max. Ft.-Lb	1500	1500	1500
Handle Type	End Grip I-T	End Grip O-T	End Grip O-T
Data Shank	#5 Spline	1" Sq.	#5 Spline
Retainer	Button	Through Hole	Button
Length In.	11.25	11.25	11.25
Weight	19.0 Lb.	19.0 Lb.	19.0 Lb.
Hose Size	3/4"	3/4"	3/4"
Equivalent To	IR2934B1	IR2934A2	IR2934A1

ATP 1040 EI-TH Available with 6" Extended anvil  
 ATP 1040 EO-5S Available with 6" Extended anvil  
 ATP 1034 EO-TH Available with 6" Extended anvil  
 ATP 1040 EI-TH Available with 22" Extended anvil  
 I-T = Inside Trigger  
 O-T = Outside Trigger



# Heavy Duty Impact Tools

1-1/4" -1-3/8" BOLT CAPACITY



ATP 1011 EI-5S  
Two Jaw

1-1/4" BOLT CAPACITY (25mm-32mm)

MODEL#	ATP 1034 EI-TH	ATP 1012 EO-TH	ATP 1012 EI-TH
Torque Working Ft.-Lb	1000	1000	1000
Max. Ft.-Lb	1350	1350	1350
Handle Type	End Grip I-T	End Grip O-T	End Grip I-T
Data Shank	1" Sq.	1" Sq.	1" Sq.
Retainer	Through Hole	Through Hole	Through Hole
Length In.	18.7	11.25	11.25
Weight	35.7 Lb.	19.0 Lb.	19.0 Lb.
Hose Size	3/4"	3/4"	3/4"
Equivalent To	IR2934B9	IR1712A2	IR1712B1



ATP 1011 PT-TH

1-3/8" BOLT CAPACITY (35mm)

MODEL#	ATP 1011 EO-TH	ATP 1011 EO-5S	ATP 1011 EI-TH	ATP 1011 EI-5S	ATP 1011 PT-TH
Torque Working Ft.-Lb	1800	1800	1800	1800	1800
Max. Ft.-Lb	2800	2800	2800	2800	2800
Handle Type	End Grip O-T	End Grip O-T	End Grip I-T	End Grip I-T	Pistol Grip
Data Shank	1" Sq.	#5 Spline	1" Sq.	#5 Spline	1" Sq.
Retainer	Through Hole	Button	Through Hole	Button	Through Hole
Length In.	12.50	12.50	12.50	12.50	10.7
Weight	22.5 Lb.	22.5 Lb.	22.5 Lb.	22.5 Lb.	23.1
Hose Size	3/4"	3/4"	3/4"	3/4"	3/4"
Equivalent To	CP0611GASED	CP0611GASEL	CP0611PASED	CP0611PASEL	CP0611PRS



# Heavy Duty Impact Tools

## ATP 1516 Impact Wrench

ATP Impact Wrenches are designed for extra heavy duty assembly and disassembly.

### Features:

- 3-jaw clutch for hard hitting blows.
- Double, closed grip handle with twist bar throttle.
- Heavy malleable iron external housing.
- 2" bolt capacity.
- 3-piece housing design allows easy service of clutch or motor parts.
- Double grip spade handle, incline dead handle and twist throttle provide convenient grips for two handed operation.
- Dead handle is removable for increased accessibility in tight quarters.
- Steel thread inserts add strength and extended life to aluminum housing.



ATP 1516



MODEL#	ATP 1516 RT -TH
Torque Working Ft.-Lb	2800
Max. Ft.-Lb	4400
Handle Type	Twist Throttle/Side
Data Shank	1-1/2"
Retainer	Through Hole
Length In.	23.00
Weight	73.0 Lb.
Hose Size	3/4"
Equivalent To	CP0616SAMED

## ATP 1516 Impact Wrench

Model Number	Type of Handle	Capacity Bolt Dia. (in.)			Specifications		
		Mild Steel	A325 Grade 5	A490 Grade 8	Side to Center (in.)	Overall Length (in.)	Net Weight (lb.)
ATP-1516 RT-TH 1-1/2" dr.	Side Handle Twist Throttle	2	1 1/2	1 3/8	3	23	73

# Super Duty Impact Tools



ATP 1550 EO-TH  
Twin Hammer



ATP 1520 EI-5S  
Two Jaw



ATP 1578 LT-TH  
Ball and Cam



ATP 2588 LT-TH

## 1-1/2" BOLT CAPACITY (38mm)

MODEL#	ATP 1550 EI-TH	ATP 1550 EI-5S	ATP 1550 EO-TH
Torque Working Ft.-Lb	2500	2500	2500
Max. Ft.-Lb	3000	3000	3025
Handle Type	End Grip I-T	End Grip I-T	End Grip O-T
Data Shank	1-1/2" Sq.	#5 Spline	1-1/2" Sq.
Retainer	Through Hole	Button	Through Hole
Length In.	14.50	14.50	14.50
Weight	33.0 Lb.	33.0 Lb.	33.0 Lb.
Hose Size	3/4"	3/4"	3/4"
Equivalent To	IR2950B7	IR2950 W/#5SP	IR2950A7

## 1-1/2" BOLT CAPACITY (38mm)

MODEL#	ATP 1550 EO -5S	ATP 1520 EI-5S	ATP 1520 EI-TH
Torque Working Ft.-Lb	2500	2500	2500
Max. Ft.-Lb	3000	3500	3500
Handle Type	End Grip O-T	End Grip I-T	End Grip I-T
Data Shank	#5 Spline	#5 Spline	1-1/2" Sq.
Retainer	Button	Button	Through Hole
Length In.	14.50	14.70	14.70
Weight	33.0 lbs.	33.7 Lb.	33.7 Lb.
Hose Size	3/4"	3/4"	3/4"
Equivalent To	IR2950 W/#5SP	CP6120PASEL	CP6120PASED

## 1-1/2" -2" BOLT CAPACITY (38mm-51mm)

MODEL#	ATP 1578 LT -TH	ATP 1580 LT -TH
Torque Working Ft.-Lb	5500	5900
Max. Ft.-Lb	10000	13,560
Handle Type	Lever Type	Lever Type
Data Shank	1-1/2" Sq.	1-1/2" Sq.
Retainer	Through Hole	Through Hole
Length In.	23.00	23.00
Weight	86.0 Lb.	88.0 Lb.
Hose Size	3/4"	3/4"
Equivalent To	IR578A1	IR5980A1

## 2" -4" BOLT CAPACITY (51mm-102mm)

MODEL#	ATP 2582 LT-TH	ATP 2588 LT-TH
Torque Working Ft.-Lb	10,000	25,000
Max. Ft.-Lb	20,000	50,000
Handle Type	Lever	Lever
Data Shank	2-1/2" Sq.	2-1/2" Sq.
Retainer	Through Hole	Through Hole
Length In.	25-3/8"	25-3/8"
Weight	120 Lb. (54.5 kg)	215 Lb. (676 kg)
Hose Size	1" (25mm)	1" (25mm)
Equivalent To	IR5982A1**	IR588A1*

\* 1" NPT Air Inlet, \*\* 3/4" NPT Air Inlet

PT = Pistol Grip/Trigger  
EI = End Grip/Inside Trigger  
EO = End Grip/Outside Trigger  
LT = Lever Throttle

TH = Through Hole  
5S = 5 Spline  
RR = Ring Retainer  
1H = 1" Sq. Through Hole

Example:

ATP 7560 PT-RR is a 3/4 Inch Drive Pistol Grip With A Ring Retainer

# Air Drills



## ATP 2122-725WB Drill

The ATP 2122-725WB drills are designed for RUGGED, HEAVY DUTY drilling and reaming operations in the railroad, truck/tractor, petrochemical, machinery and construction industries. This heavy-duty drill is ideally suited for the heavy-duty MRO user.

### Features

- Ball bearing support for long life and smooth operation
- Roll throttle for excellent speed control
- Governor-controlled motor conserves air at light loads, holds speed at peak horse power under heavy loading
- Internal Oil Reservoir reduces "downtime"
- External Grease fitting for easy lubrication
- Self closing roll throttle with independent reverse

### Standard Equipment:

- Breast Plate, assist handle, 1/2" shank, wood bore chuck

### Optional Equipment:

- #2 Morse Taper Spindle or, 1/2" drill chuck

## ATP 3500 Drills

ATP 3500 Drills are used for extra-heavy duty drilling, reaming, tapping and tube rolling for truck, tractor, railroad, ship building, petrochemical machinery, building construction, equipment and the general construction industries.

### Features:

- Reversible self-closing roll throttle for one-hand throttle control and reversing.
- Governor controlled motor conserves air at light loads, holds speed at heavier loads while increasing power
- Heavy-duty Ball Bearings for long life
- 5.9 Horse power motor and rugged gearing provides maximum power output
- Integral #5 Morse Taper female socket for fast, easy change overs and positive drill bit retention



ATP 2122-725WB  
\*Shown with optional  
1/2" Drill Chuck  
and Morse Taper Spindle.



ATP 3500-100  
ATP 3500-60

## ATP 2122-725WB DRILL

MODEL#	Free Speed RPM	Weight		Height Over Spindle		Side To Center Distance		CFM	Spindle and Spindle Chuck
		Lb.	Kg	in.	mm	in.	mm		
ATP 2122-725WB	725	14.4	6.46	17.25	438	1-7/16	36	50	Threaded, 1/2" Shank Wood Bit Chuck

## ATP 3500 Air Drill

MODEL#	Free Speed RPM	Weight		Height Over Spindle		Side to Center		CFM	Spindle Size
		lb.	(kg)	in.	(mm)	in.	mm		
ATP 3500-100	100	69	(31.4)	23-1/4"	(591)	2-3/4"	(69.9)	165	#5MT
ATP 3500-60	60	69	(31.4)	23-1/4"	(591)	2-3/4"	(69.9)	165	#5MT



# Industrial Grinders



## ATP Grinder Specifications Vertical Models ATP 356 & 466

### Standard Equipment

All VSL models include:

- Safety Lock-off Lever Throttle
- Wheel Flange (2") and Spindle Nut
- Wheel Guard (as specified by model)
- Spindle Wrench 1100-200 (2") and 1102-015 (5/32") Allen Type Wrench

### Extra Cost Equipment:

- Spindle/Wheel Retention Screw and Retention Screw Collar 650-50
- Optional wheel guards



**ATP 356VSL-45-7**

Vertical Safety Lever  
3 hp, 4500 rpm  
7" Guard



**ATP 356VSL-60-6**

Vertical Safety Lever  
3 hp, 6000 rpm  
6" Cup/Wire Brush



**ATP 356VSL-60-7**

Vertical Safety Lever  
3 hp, 6000 rpm  
7" Guard



**ATP 356VSL-60-9**

Vertical Safety Lever  
3 hp, 6000 rpm  
9" Guard



**The ATP Metal Biters Say  
For Safety's Sake  
"TAKE A BITE OUT OF SAFETY"**

## 3 hp VERTICAL GRINDERS

MODEL#	Wheel Guard	Wheel Capacity Diameter In. (mm)	Weight Less Guard	Height to bottom of Flange	Side to Center Distance	Spindle Thread (Inch)	Air Inlet Thread	Hose Size (ID)	Free Speed RPM	Rated hp
*ATP 356VSL-45-7	Type 27	7" (178)	7-3/8 lbs. 3.3 Kg	5-1/2" 145mm	1-11/16" 43mm	5/8"-11	1/2" NPT	1/2" 13mm	4500	3 2.2kW
*ATP 356VSL-60-6	6" Cup/ Wire Brush	6" (152)	7-3/8 lbs. 3.3 Kg	5-1/2" 145mm	1-11/16" 43mm	5/8"-11	1/2" NPT	1/2" 13mm	6000	3 2.2kW
*ATP 356VSL-60-7	Type 27	7" (178)	7-3/8 lbs. 3.3 Kg	5-1/2" 145mm	1-11/16" 43mm	5/8"-11	1/2" NPT	1/2" 13mm	6000	3 2.2kW
*ATP 356VSL-60-9	Type 27	9" (229)	7-3/8 lbs. 3.3 Kg	5-1/2" 145mm	1-11/16" 43mm	5/8"-11	1/2" NPT	1/2" 13mm	6000	3 2.2kW

\*Equivalent to Top Cat's<sup>†</sup> 56VS Series

<sup>†</sup>Top Cat is a Registered Trademark of TC Services Co.

# Industrial Grinders



## Features Of All 3 hp and 4 hp ATP Grinders

- 12+ models to choose from
- Built in lubricator
- Stainless steel corrosion resistant governors
- Speeds From 4,500 - 6,000 RPM's
- Ergonomic user friendly and easy to service
- "Techalloy" housing provides the Ultimate in Strength in a light-weight casting



**ATP 466VSL-45-7**

Vertical Safety Lever  
4 hp, 4500 rpm  
7" Guard



**ATP 466VSL-60-6**

Vertical Safety Lever  
4 hp, 6000 rpm  
6" Cup/Wire Brush



**ATP 466VSL-60-7**

Vertical Safety Lever  
4 hp, 6000 rpm  
7" Guard



**ATP 466VSL-60-9**

Vertical Safety Lever  
4 hp, 6000 rpm  
9" Guard

## CAUTION

NEVER OPERATE A GRINDER WITHOUT THE PROPER GUARD IN PLACE. NEVER USE A GRINDING WHEEL, WIRE BRUSH OR ANY OTHER ACCESSORY THAT IS NOT RATED FOR THE SPEED AS MARKED ON THE GRINDER. NEVER MOUNT A GRINDING WHEEL ON A SANDER. Failure to Read and follow the safety instructions included with power tools could result in serious injury or death.



WARNING: To reduce the risk of injury, all operators and maintenance personnel must read and understand the grinder safety instructions before operating, changing accessories or performing maintenance on ATP Grinders.

## 4 hp VERTICAL GRINDERS

MODEL#	Wheel Guard	Wheel Capacity Diameter In. (mm)	Weight Less Guard	Height to bottom of Flange	Side to Center Distance	Spindle Thread (Inch)	Air Inlet Thread	Hose Size (ID)	Free Speed RPM	Rated hp
*ATP 466VSL-45-7	Type 27	7" (178)	9-1/2 lbs. 4.3 Kg	6-7/16" 174mm	1-7/8" 48mm	5/8"-11	1/2" NPT	1/2" 13mm	4500	4 3kW
*ATP 466VSL-60-6	6" Cup/ Wire Brush	6" (152)	9-1/2 lbs. 4.3 Kg	6-7/16" 174mm	1-7/8" 48mm	5/8"-11	1/2" NPT	1/2" 13mm	6000	4 3kW
*ATP 466VSL-60-7	Type 27	7" (178)	9-1/2 lbs. 4.3 Kg	6-7/16" 174mm	1-7/8" 48mm	5/8"-11	1/2" NPT	1/2" 13mm	6000	4 3kW
*ATP 466VSL-60-9	Type 27	9" (229)	9-1/2 lbs. 4.3 Kg	6-7/16" 174mm	1-7/8" 48mm	5/8"-11	1/2" NPT	1/2" 13mm	6000	4 3kW

\*Equivalent to Top Cat's<sup>†</sup> 66VS Series

<sup>†</sup>Top Cat is a Registered Trademark of TC Services Co.

# Industrial Grinders



## ATP Grinder Specifications Horizontal Models ATP 356 & 466

### Standard Equipment

All HSL models include:

- Safety Lock-off Lever Throttle
- Wheel Flange (2") and Spindle Nut
- Wheel Guard (as specified by model)
- Spindle Wrench 1100-200 (2") and 1102-015 (5/32") Allen Type Wrench

### Extra Cost Equipment:

- Spindle/Wheel Retention Screw and Retention Screw Collar 650-50
- Optional wheel guards



The ATP Metal Biters Say  
For Safety's Sake  
"TAKE A BITE  
OUT OF SAFETY"



**ATP 356HSL-45-8**

Horizontal Safety Lever  
3 hp, 4500 rpm  
8" Guard



**ATP 356HSL-60-6**

Horizontal Safety Lever  
3 hp, 6000 rpm  
6" Guard



**ATP 465HSL-45-8**

Horizontal Safety Lever  
4 hp, 4500 rpm  
8" Guard



**ATP 465HSL-60-6**

Horizontal Safety Lever  
4 hp, 6000 rpm  
6" Guard

## 3 hp & 4 hp HORIZONTAL GRINDERS

MODEL#	Wheel Guard	Wheel Capacity Diameter In. (mm)	Weight Less Guard	Height to bottom of Flange	Side to Center Distance	Spindle Thread (Inch)	Air Inlet Thread	Hose Size (ID)	Free Speed RPM	Rated hp
*ATP 356HSL-45-8	8"	8" Straight Wheels or Wire Brush	10-1/2 lbs. 4.8 Kg	20-1/8" 524mm	1-1/4" 32mm	5/8"-11	1/2" NPT	1/2" 13mm	4500	3 2.2kW
*ATP 356HSL-60-6	6"	6" Straight Wheels or Wire Brush	10-1/2 lbs. 4.8 Kg	20-1/8" 524mm	1-1/46" 32mm	5/8"-11	1/2" NPT	1/2" 13mm	6000	3 2.2kW
*ATP 465HSL-45-8	8"	8" Straight Wheels or Wire Brush	12-1/2 lbs. 5.67 Kg	20-7/8" 530mm	1-1/4" 32mm	5/8"-11	1/2" NPT	1/2" 13mm	4500	4 3.3kW
*ATP 465HSL-60-6	6"	6" Straight Wheels or Wire Brush	12-1/2 lbs. 5.67 Kg	20-7/8" 530mm	1-1/4" 32mm	5/8"-11	1/2" NPT	1/2" 13mm	6000	4 3.3kW

\*Equivalent to Top Cat's<sup>1</sup> 56H & 65H Series

<sup>1</sup>Top Cat is a Registered Trademark of TC Services Co.

# Industrial Grinders

## ATP 9940 Angle Grinder Specifications

These Angle Grinders with their rugged .6 hp motors are primarily used with 3" and 4" Type 27 grinding wheels. They can be used for many cleaning, deburring, blending and smoothing applications found at ship yards, foundries, refineries, fabrication shops, power plants and a variety of other industries.

### Features:

- 13,500 rpm free speed
- Short or Long Models
- 1/2" Side-to-Center distance for work in close quarters
- Adjustable side exhaust deflector – directs exhaust away from operators and the work area.
- Interchangeable parts with the ATP Die Grinder 9913 to reduce your spare parts inventory



ATP 9940-3



ATP 9940L-4

## ATP 9940 ANGLE GRINDERS

MODEL#	Angle Housing	Free Speed rpm	Wheel Guard Dia. In. (mm)	Spindle Thread In.	Overall Length in. (mm)	Net Weight lb. (kg)	Motor Housing
ATP 9940-3	Short	13,500	3" (76mm)	3/8" - 24	7-5/8" (194mm)	3 lbs. 1.4 kg	Steel
ATP 9940-4	Short	13,500	4" (102mm)	3/8" - 24	7-5/8" (194mm)	3 lbs. 1.4 kg	Steel
ATP 9940L-3	Long	13,500	3" (76mm)	3/8" - 24	10" (254mm)	3.3 lbs. 1.5 kg	Steel
ATP 9940L-4	Long	13,500	4" (102mm)	3/8" - 24	10" (254mm)	3.3 lbs. 1.5 kg	Steel

Optional Safety Lock-off Throttle – Specify ST-ATP 9940-3-ST

# Industrial Grinders

## ATP Die Grinder Specifications

### Standard Equipment

**ATP 9913 is built for the long haul.** Encased in a rugged steel housing the ATP 9913's 1hp motor runs at 25,000 rpm's. Equipped with an Erickson 1/4" (6.4 mm) Collet Chuck for precise work and extra holding power for those tough jobs. The ATP 9913 is ideally suited for use with Mounted Points and Carbide Burrs.

With power to spare the ATP 9913 is at home in the Die Shop, Foundry, Shipyard, Construction, Petrochemical, Machinery and Equipment Shop and Fabrication Shop. Its uses include die contouring, die repairing, weld cleaning, casting and forging clean-up, deburring, blending and smoothing of rubber, plastics, composites, fiberglass, steel, brass, bronze, cast iron and aluminum materials.

**ATP 4420 is a rugged 1/2 HP air motor** encased in steel for heavy duty use and longer service life. Unique 3 ball bearing design reduces vibration for better ergonomics. One piece hardened and chromed plated spindle comes standard with 1/4" collet; 6 mm, 1/8", and 5/16" collets are available as optional collets.



## ATP 9913 DIE GRINDERS

MODEL#	Throttle Type	Free Speed rpm	Spindle Thread in.	Overall Length in. (mm)	Outside Diameter in. (mm)	Net Weight lb. (kg)	Motor Housing	Exhaust
ATP 9913	Lever	25,000	3/8"-24 x 9/16"	6-1/4" (158mm)	1-3/4" (44mm)	2 lbs. 0.9 kg	Steel	Front*
ATP 9913LS	Lever	25,000	Special 1/4" collet	11-1/8" (283mm)	1-3/4" (44mm)	3 lbs. 1.4 kg	Steel	Front
ATP 9913ST	Safety	25,000	3/8"-24 x 9/16"	6-1/4" (158mm)	1-3/4" (44mm)	2 lbs. 0.9 kg	Steel	Front
ATP 9913LS-ST	Safety	25,000	Special 1/4" collet	11-1/8" (283mm)	1-3/4" (44mm)	3 lbs. 1.4 kg	Steel	Front
ATP 9913-18	Lever	18,000	3/8"-24 x 9/16"	6-1/4" (158mm)	1-3/4" (44mm)	2 lbs. 0.9 kg	Steel	Front
ATP 4420	Lever	23,000	Special	6.8" (173 mm)	1-7/16"	1.7 lbs. 0.76 kg	Steel	Front
ATP 4420A	Lever	23,000	Special	6.8" (173 mm)	1-7/16"	1.0 lb. 0.45 kg	Aluminum	Front

Also available with Safety Lock-off Lever. Specify 9913 ST or 9913 LS-ST for models with Safety Lock-off Lever.

**Standard Equipment:** Erickson 1/4" (6.4mm) Chuck

**\*Optional Side Exhaust Model** available as ATP 9913R - For use as a Router or Side Exhaust Tool.  
Collet Wrenches for 9913 9/16" C116858, 5/8" x 3/4" C119327

# Hammer Tool Series

## ATP's Heavy Duty Chipping Hammers

ATP Chippers are ergonomically advanced in design, with a "HEAVY DUTY" alloy aluminum handle. Our chipping hammer's crisp smooth valve operation produces extra hard hitting power, while our heat treated alloy steel cylinder and piston provide long life. Available in the popular 2"-3"-4" stroke versions with either Hex or Round chisel bushing and in either Alloy Aluminum or Steel Handle. The closed grip handle design locates the operators arm in-line with the chisel for maximum effectiveness and comfort.

Favored by contractors and Industrial users alike, this new ATP Chipper sets new standards for American made pneumatic tools. Available in either Round or Hex chisel bushings, and in either Alloy Aluminum or Steel Handles. If you need a **RUGGED, RELIABLE PERFORMER** on your job site, you can't do better than the new **ATP ERGONOMIC CHIPPING HAMMER**.



### Standard Equipment:

- Oval Collar Retainer P/N 250012-525
- Spring P/N 250012-529

### Optional Equipment:

- Nozzle Bushing Removal Tool P/N 3CH-931
- Exhaust Deflector Extension Tool P/N 3CH-932
- 1/2" Hose Barb Swivel Assembly P/N 3CH-A165 (3/8" NPT)
- 1/2" Hose Barb Swivel Assembly P/N 3CH-3388 (7/8" x 24)
- Long Reach Handle Conversion Kit P/N LCH-1A
- 1/2" Hose Barb Inlet P/N 3CH-46



## ATP CHIPPING HAMMERS

MODEL#	Weight		Length Less Retainer	BPM	Bore x Stroke (Inches)	Chisel Bushing	Air Consumption
	Aluminum	Steel					
ATP-2HB	13.3 lbs	17 lbs.	14"	2300	1-1/8" x 3"	.580 Hex	26 cfm
ATP-2RB	13.3 lbs	17 lbs.	14"	2300	1-1/8" x 3"	.680 Round	26 cfm
ATP-3HB	14.8 lbs	18.5 lbs.	15.25"	2100	1-1/8" x 3.75"	.580 Hex	30 cfm
ATP-3RB	14.8 lbs.	18.5 lbs.	15.25"	2100	1-1/8" x 3.75"	.680 Round	30 cfm
ATP-4HB	15.8 lbs	19.5 lbs.	16.5"	1700	1-1/8" x 4.25"	.580 Hex	33 cfm
ATP-4RB	15.8 lbs.	19.5 lbs.	16.5"	1700	1-1/8" x 4.25"	.680 Round	33 cfm
ATP-2LRHB	-	24.1 lbs.	50"	2300	1-1/8" x 3"	.580 Hex	26 cfm
ATP-2LRRB	-	24.1 lbs.	50"	2300	1-1/8" x 3"	.680 Round	26 cfm
ATP-3LRHB	-	25.6 lbs.	51.4"	2100	1-1/8" x 3.75"	.580 Hex	30 cfm
ATP-3LRRB	-	25.6 lbs.	51.4"	2100	1-1/8" x 3.75"	.680 Round	30 cfm
ATP-4LRHB	-	26.6 lbs.	52.5"	1700	1-1/8" x 4.25"	.580 Hex	33 cfm
ATP-4LRRB	-	26.6 lbs.	52.5"	1700	1-1/8" x 4.25"	.680 Round	33 cfm

To order with aluminum handle add **A** after stroke, ex. ATP-2AHB

# Hammer Tool Series

## ATP 4 Bolt Chipping Hammer with Thread on Retainer

The 3" stroke versions of the ATP Heavy Duty Chipping Hammers are now available with Rubber Buffered Thread on Retainer for Round Collar Chisels. The ATP Chipping Hammer is ideally suited for chipping of steel castings, concrete roughing and chipping heavy duty weld seams. ATP's new Ergonomically designed Alloy Aluminum "Heavy Duty" Handle eliminates 3.68 lbs. of total tool weight. Our crisp smooth valve operation produces extra hard hitting power, while our heat treated alloy steel cylinder and piston provide long life.

Favored by contractors and Industrial users alike, this new ATP Chipper sets new standards for American made pneumatic tools. Available in either Round or Hex chisel bushings, and in either Alloy Aluminum or Steel Handles. If you need a **RUGGED, RELIABLE PERFORMER** on your job site, you can't do better than the new **ATP ERGONOMIC CHIPPING HAMMER**.

### Standard Equipment:

Thread on Retainer, buffer and spring on Thread on Barrel model only.



ATP 3AHBTR



### Optional Thread on Retainer

Available on 3" Stroke only

ATP Chippers are Ergonomically Advanced in Design, the Ergonomic Closed Grip Handle locates the operator's hand and arm in-line with the chisel for maximum effectiveness and operator comfort. This makes the ATP Chipper much easier to handle and less fatiguing when used over long periods of time.

## ATP CHIPPING HAMMERS

MODEL#	Weight		Length Less Retainer	BMP	Bore x Stroke (Inches)	Chisel Bushing	Air Consumption
	Aluminum	Steel					
ATP 3AHBTR	14.8 lbs	-	15"	2100	1-1/8" x 3.75"	Hex	30 cfm
ATP 3HBTR	-	18.5 lbs.	15"	2100	1-1/8" x 3.75"	Hex	30 cfm
ATP 3ARBTR	14.8 lbs	-	15"	2100	1-1/8" x 3.75"	Round	30 cfm
ATP 3RBTR	-	18.5 lbs.	15"	2100	1-1/8" x 3.75"	Round	30 cfm

# Hammer Tool Series

## ATP Rammers

ATP rammers ensure more uniform sand compaction in the mold. Keeping foundry production rates high. Choose the ATP Bench Rammers (2BA) for small to medium size castings and the ATP Floor Rammer (P-150) for medium to large castings.

### Features:

- Smooth contours and slim design
- Gives good clearance in mold area
- High power for fast sand distribution and compaction. Improved wiper glands for minimum maintenance



ATP 3347-5XB

## ATP 3347-5XB Riveting Hammer

The ATP 3347-5XB Riveting Hammer is used to drive 3/16" Dural and 1/4" Steel rivets used in aircraft maintenance and manufacturing and other assembly operations. This hammer can be used for a variety of metal cutting, peening, chipping and driving applications (including large nails). The Aero Cycling valve delivers slow, heavy blows necessary to drive medium-size rivets.

### Features

- Teasing Throttle for quick easy starts and precise control
- Heat treated steel piston and cylinder for maximum durability
- Acoustically designed muffler-reduces sound level

## ATP RAMMERS

MODEL#	Bore x Stroke	BPM	Length		Weight		Inlet Size
	in. (mm) x in. (mm)		in.	mm	lb.	kg	
2BA	1" (25.4) x 2-1/2" (64.1)	1100	15-3/4"	(403mm)	9 lbs.	(4.8 kg)	1/4" NPT
P-150	1-1/8" (28.8) x 4" (102)	760	42-1/2"	(1089mm)	15 lbs.	(6.81 kg)	1/4" NPT

## ATP 3347-5XB RIVETING HAMMER

MODEL#	Airframe Number	Capacity		Bore x Stroke	Chisel Size	BPM's	Length Overall		Net Weight	
		Dural	Steel				in.	(mm)	lb.	(kg)
ATP 3347-5XB	5XB	3/16"	1/4"	3/4" x 2-11/16"	.498	1560	8-5/16"	(227)	4.75	(2.2)





# Air Hoists



## ATP Air Hoist

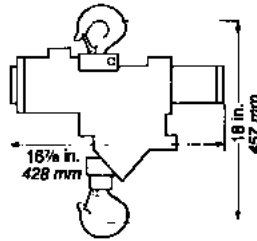
Chain Hoists - 500 to 4000 lb. Capacity

### Features:

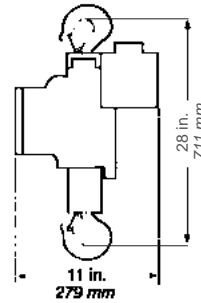
- Self-locking worm gear design eliminates the need for brakes. The worm gear stops and holds loads securely when air flow to motor stops-never requires any adjustments
- Heat-treated alloy steel chain provides strength and flexibility
- Powerful ATP air motor provides positive high-torque starting characteristics
- All rotating parts supported on anti-friction bearings for smooth operations
- Housing of sectioned aluminum "Techalloy" castings provide extra strength and durability
- Automatic, adjustable limit stops - prevent over-travel, even at fastest speeds
- Withstands constant stopping, starting and stalling - without damage or overheating
- Operator speed control - for precise load spotting
- Remote pendant control - available in all sizes
- Standard safety cable attachment point provides secure installation

### Applications:

The ATP 91200 extra heavy-duty hoist is designed to lift raw or processed materials in steel manufacturing plants, heavy assemblies in automobile, truck, tractor factories, aircraft, aerospace industries, heavy machinery manufacture, petrochemical plants and food processing operations.



ATP 91200 (500-2000 lb.)



ATP 91200 (4000 lb.)



## ATP AIR HOISTS

## ATP 91200

MODEL#	Description	Rated Capacity		Lifting Hook Speed at Rated Capacity		Length Hook Travel		Net Weight	
		lb.	(kg)	ft./min	(m/min)	ft	mm	lb.	(kg)
ATP 91200-DC	Pull Chain	500 lb.	(227)	44	(12.8)	15	(4.6)	60	(27.3)
ATP 91200-DP	Pendant Control	500 lb.	(227)	44	(12.8)	15	(4.6)	63	(28.6)
ATP 91200-MC	Pull Chain	1000 lb.	(455)	20	(6.1)	15	(4.6)	60	(27.3)
ATP 91200-MP	Pendant Control	1000 lb.	(455)	20	(6.1)	15	(4.6)	63	(28.6)
ATP 91200-2MC	Pull Chain	2000 lb.	(909)	12	(3.7)	15	(4.6)	60	(27.3)
ATP 91200-2MP	Pendant Control	2000 lb.	(909)	12	(3.7)	15	(4.6)	63	(28.6)
ATP 91200-4MC	Pull Chain	4000 lb.	(1818)	5	(1.5)	15	(4.6)	109	(49.5)
ATP 91200-4MP	Pendant Control	4000 lb.	(1818)	5	(1.5)	15	(4.6)	112	(50.9)

Standard Equipment: Latch Hooks, built-in lubricators and air strainer, exhaust muffler, optional chain bucket C088945

\*Parts are available from ATP for the CP 1100 Chain Hoist.

# Railroad Door Opener

## ATP Hopper Car Slide Gate Door Opener Line

Our simple designs to meet your varying needs.



ATP PDO7

ATP PDO5



ATP PDO9

The **ATP-PDO5** is a one person, trouble free machine used to open railroad slide gates. Designed and engineered for economy, speed and operator safety, this rugged compact opener is both powerful and mobile. Its compressed air drive motor and mechanism delivers 8000 ft. pounds of torque at the operator's fingertips. It is reversible, so it can open doors as well as close them.

**ATP-PDO7** has all the qualities and benefits of the ATP-PDO5, plus the capacity of the wheels that pivot sideways at the touch of a switch for opening or closing traveling knuckles. The wheels then return to their original position to move on to the next gate.

**ATP-PDO9** has wheels that pivot like the ATP-PDO7 needed for traveling gates. However, it has lever actuated adjustable elevation for varying gate heights. (12" adjustable spread with a 24" maximum height).



Hopper Car Gate Sockets, Pg 78

### Features

- **SAFE** - eliminates the danger of accidents incurred while manually opening hopper car gates.
- **FAST** - opens the most stubborn gates in about 4 seconds.
- **RELIABLE** - designed and engineered for years of trouble free service.
- **VERSATILE** - works in any and all weather conditions with no inherent shock hazards.
- **MOBILE** - oversize pneumatic tires make it easy to roll almost anywhere.
- **REVERSIBLE** - opens and closes railroad car slide-gate doors.
- **POWERFUL** - compressed air coupled to the impact mechanism produces the power of a giant.
- **PRACTICAL** - Simple one person operation.

Call or ask your sales representative about a demonstration video.

# 6-PAK

## 6-PAK 6 Station Air Distribution Manifold with Automatic Moisture Separator

The 6-PAK from ATP is an innovation for any industry. It can be used anywhere there is a need for supplying air to as many as six pneumatic tools at once. From impact wrenches, to breakers, to grinders; ATP's 6-PAK can decrease maintenance and repairs, extending the life of your tools.

### Features:

- Removes 100% of visible moisture from airlines
- No need for changing filter units
- Robust construction, made from high strength steel
- No interior moving parts

### Specifications:

- Supply; 2" NPT inlet  
600 cfm
- Outlets; (6) 3/4" NPT
- Dimensions: 36" Diameter x 18" Tall
- Weight: 175 lbs
- Self dumping drain valve at each station
- Working pressure 90 psi
- Welded tabs; for secure lifting, storage or stacking at the job site
- Protected pressure gauge
- Portable; rolls easily on tubular frame



ATP 6-PAK

**TAKE  
A  
6-PAK  
TO  
WORK**



# Air Motors

## ATP Air Motors

Use an ATP air motor wherever you need a reliable, install-it-and-forget-it source of power and an adequate source of compressed air is available.



### Direct Drive and Geared Rotary Vane Motors

HP: 0.28 to 12.5  
SPEEDS: 60 to 25,000 RPM  
TORQUE: 1.5 in. lbs. to 1,225 ft. lbs.  
MOUNTINGS: Foot, flange, face, hub  
ROTATION: Reversible/Non-reversible



ATP 8140

### Applications:

- Strapping Machines
- Pumps
- Conveyors
- Screw Jacks
- Valves
- Mixing/Agitating
- Feed Rollers
- Parts Feeders
- Index Tables
- Clamping
- Boring
- Actuating
- Ladle Tilters
- Plating Tanks
- Cutters
- Stretchers
- Cable Twisters
- And many more...



ATP 3501

### Features:

- Lightweight
- No electric shock hazard
- Variable Speed
- Custom Design
- Will withstand stalling or rapid reversal
- High starting torque
- Low maintenance
- Durable
- Mount in any position



ATP 318

ATP offers a wide range of standard air motors. ATP can also custom design motors for your unique applications. Contact ATP's customer service team for a quote or a copy of our air motor selection brochure.

# Air Tool Accessories

## ATP Automatic In-line Oilers

ATP Automatic In-line Oilers, (football type). The ATP Automatic In-line Oilers are designed to supply oil for tool lubrication anywhere stationary lubricators are not feasible to use. Automatic In-line Oilers should be installed as close to the air tool as possible. The ATP Automatic In-line Oilers have an adjustable needle valve flow control to permit easy regulation of oil flow. Oil flow while using ATP's Ice Free "Blue Magic" air tool lubricant should be set at approximately one drop per minute. The rugged cast housing provides long service life under the most severe service conditions.



## Whip Hoses

ATP recommends the use of whip hoses to prolong tool life. The use of whip hoses will reduce the stress and strain on the air inlet and live air handle of air tools where quick disconnects or heavy fittings are sometimes attached directly to the tool. Use of a whip hose will eliminate this stress on the inlet and the handle.



## IN-LINE OILER

PART#	Thread NPT/Hose Barb Pipe Size	Max. Working Pressures (PSI)	Recommended Oil Wt./Capacity (FL. OZ.)
ATP-0L	1/2" NPT	500	ATP Blue Magic/5 Wt. 1.4 Fl. Oz.
ATP-1L	3/4" NPT	260	ATP Blue Magic/5 Wt. 4.0 Fl. Oz.
ATP-2L	3/4" NPT	300	ATP Blue Magic/5 Wt. 11.0 Fl. Oz.
ATP-3L	1" NPT	250	ATP Blue Magic/5 Wt. 16.0 Fl. Oz.

Repair kit for In-line Oiler ATP-LRK

## WHIP HOSES

PART#	Hose ID	Overall Length	NPT male thread on each end
CA046270	1/4"	6' (183 cm)	1/4"
CA047271	3/8"	6' (183 cm)	1/4"
CA049271	1/2"	3' (91 cm)	3/8"
CA049270	1/2"	2' (61 cm)	1/2"
CA049272	1/2"	4' (122 cm)	1/2"

# Air Tool Accessories

## Standard Universal Hose Couplings

ATP Universal Hose Couplings are a rugged rust proof one-piece design with the convenience of a quarter turn connect/disconnect feature. The design increases holding power and seal with increase in air pressure. The gasket will not blow or fall out. The same size coupling end is used on all sizes making for easy interchange of different size hose assemblies. The coupling gasket are made of high-grade materials that retain their effective resiliency indefinitely. Gaskets are easily installed using only your fingers. No special tools are required for installation!

**WARNING: ALWAYS use a coupling lock pin (part number C142110) to prevent injury from accidental uncoupling of universal hose couplings. Whipping hoses can cause serious injury!**

Rubber Gasket for Standard Universal Hose Couplings C10115S (box of 25)  
\*One gasket supplied with each coupling

## Special Large Size Universal Couplings:

These have the same advantages of the Standard Universal Couplings except there is no interconnect ability with standard sizes.

Size	Bronze Part Number
1-1/2" NPT Male Pipe Thread	C-015145
1-1/2" NPT Female Pipe Thread	C-015175
1-1/2" Diameter Hose I.D.	C-015176

Rubber gasket for large Universal Couplings, C015071  
\*One gasket supplied with each coupling



## Male Thread Coupling

Size NPT Male Pipe Thread	Bronze Part Number
3/8"	C-015123
1/2"	C-015122
3/4"	C-015121
1"	C-015120



## Female Thread Coupling

Size NPT Female Pipe Thread	Bronze Part Number
3/8"	C-015128
1/2"	C-015127
3/4"	C-015126
1"	C-015125



## Hose End Coupling

Size Hose I.D.	Bronze Part Number
3/8"	C-015134
1/2"	C-015132
3/4"	C-015131
1"	C-015130

## Coupling Accessories

Dead End Cap	C-035019
3 Way Coupling	C-035021
Rubber Gasket	C-035138

# Blue Magic and Pure Gold

# ATP

A Division of Hy-Tech Machine

## ATP Ice Free "BLUE MAGIC" Air Tool Lubricant For Pneumatic Tools

This oil is especially compounded for lubricating Air Impact Wrenches, Hammers, Drills, Grinders, Pumps, Breakers, Air Motors and other Pneumatic Tools. moisture in compressed air tends to rapidly wash away most lubricating oils used in Air Tools. "BLUE MAGIC" oil, however, has additives that absorb such moisture into the lubricant, forming a stable emulsion which clings to the inside of the tool. It not only lubricates and rustproofs, but it prevents "ice" from forming in the tool's exhaust. During idle time, there is no separation of moisture and oil. This constantly maintained protective film prevents rust and corrosion in the inside of air tools.

### **IMPORTANT:**

When using "BLUE MAGIC" Ice Free Oil in Air Line Lubricators, adjust the feed rate to approximately 1/3 that used with regular oil. "BLUE MAGIC" oil **does not** wash out of air tools as rapidly as regular oils do.

### **Available in Pints - P-137646**

For 24/Case, Order 24

### **Available in Quarts - P-137145**

For 12/Case, Order 12

### **Available in Gallons - P-089507**

For 4/Case, Order 4

### **Available in 55 Gallons - P-089508**

## Impact Mechanism (Clutch) Lubricant "Pure Gold"

A superior synthetic moly-based extreme pressure lubricant for use in all types of grease lubricated impact wrench mechanisms, anvil bushings and high speed air motor bearings.

### **Available in 14.5 oz Cartridges Order # CA-131898**

### **Available in 7-1/2 lb. Pails Order # C-131689**





A Division of  
Hy-Tech Machine

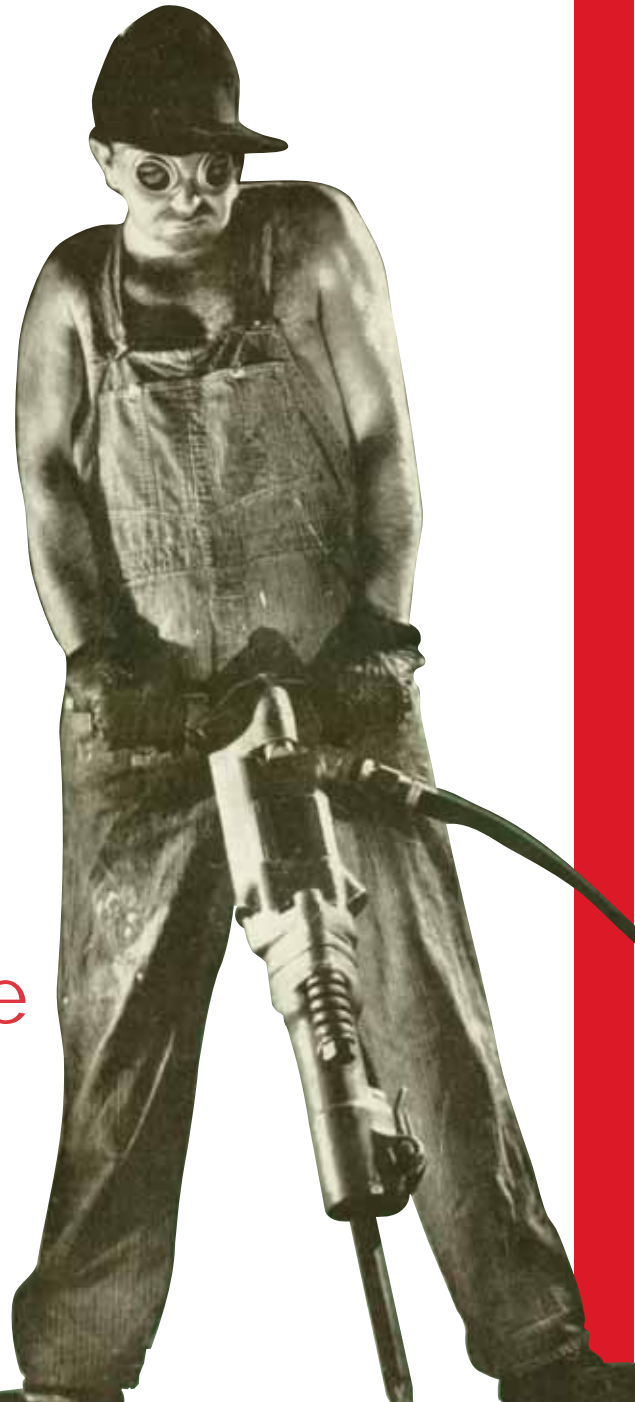
ATP, founded in Pittsburgh, PA in 1923 and Thor Power Tools, founded in Aurora, IL in 1886 have joined forces to bring you the All American Industrial and Construction Tools your customers demand!

The Thor 125 Breaker, the tool that led an entire industry, is back. We are proud to offer Thor Breakers, the most often imitated construction tool in the world. But cosmetic copies are no match for the Thor 125. Prolonged service life of the 125 is the result of using the highest quality material, consistent uniform heat treating and precision internal parts. The Thor Tools have stood the test of time and are "as tough as their name". They deserve a place in your construction operation.

Hy-Tech offers solid performance, dependability and competitively priced products. We've been manufacturing replacement parts for most of the industry's recognized professional tool products for decades, meeting all industry specifications, delivering on time and on budget. Our ATP tools are the embodiment of everything we've learned and now with the addition of Thor Power Tools we continue to grow stronger and look confidently ahead into the 21st century!

## Tools That Have Stood The Test of Time and Are As Tough As Their Name

Both Thor and ATP are divisions  
of Hy-Tech Machine, Inc.





# Breakers



## Thor Breakers

Thor Breakers, available in the 30, 60 and 90 lb Class, are "Tools as Tough as their name". The 30 lb class Thor 17 Breakers are light weight rugged tools designed for light to medium construction and plant maintenance work such as demolition of floors, pavement, masonry walls, black top and frozen dirt. The 17 is also an excellent choice for bridge deck demolition work.

The Thor 234 60 lb Class and Thor 125 90 lb. Class Breakers are designed to deliver the performance and endurance necessary for a variety of heavy duty construction and plant maintenance applications, such as breaking rock, concrete, reinforced concrete, frozen earth and pavement.

### Features of all Thor Breakers:

- Alloy steel forgings
- Precision American machined parts for long life
- Rugged 4 bolt design for extra duty service.
- Continuous lubrication provided by internal oilers for long service life
- Air inlet swivel for maneuverability.



17  
17-1  
(30lb Weight Class)



234-1.125  
234-1.25  
(60lb Weight Class)



125-1.125  
125-1.25  
(90lb Weight Class)

## THOR BREAKERS

MODEL#	Air Inlet	Chuck Size	Bore x Stroke in. (mm) x in. (mm)	BPM	Length in. mm	Weight lb. kg	CFM
17	3/8" NPT, male	7/8" x 3-1/4"	1-3/4" (44) x 3-3/8" (86)	1550	22-1/2" (572mm)	32 lbs. (14.5 kg)	46
17-1	3/8" NPT, male	1" x 4-1/4"	1-3/4" (44) x 3-3/8" (86)	1550	22-1/2" (572mm)	32 lbs. (14.5 kg)	46
ATP 234-1.125	3/4" NPT, male	1-1/8" x 6"	2-1/4" (57) x 4.0937" (104)	1400	25-5/8" (651mm)	67 lbs. (30 kg)	60
ATP 234-1.25	3/4" NPT, male	1-1/4" x 6"	2-1/4" (57) x 4.0937" (104)	1400	25-5/8" (651mm)	67 lbs. (30 kg)	60
ATP 125-1.125	3/4" NPT, male	1-1/8" x 6"	2-5/8" (66.67) x 6-1/16" (154)	1250	28-3/4" (730mm)	92 lbs. (42 kg)	80
ATP 125-1.25	3/4" NPT, male	1-1/4" x 6"	2-5/8" (66.67) x 6-1/16" (154)	1250	28-3/4" (730mm)	92 lbs. (42 kg)	80

# Demolition Tool Rivet Buster

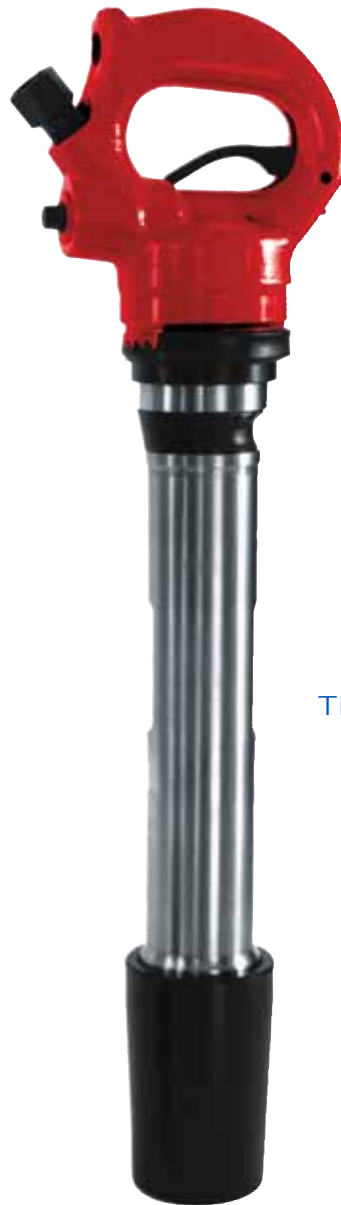


## Thor RB-11 Demolition and Rivet Buster

The Thor RB-11 Demolition Tool and Rivet Buster with its powerful 11" stroke is the ideal demolition tool for medium to heavy concrete demolition on bridge decks, parking garage columns, bridge pillars and large rivet and bolt cutting applications.

### Features:

- Rugged ergonomic closed grip with inside trigger for solid comfortable grip while protecting the trigger from external damage
- Hardened steel piston and cylinder for excellent wear resistance and long life
- Uses standard 11x Jumbo steel
- Teasing throttle for exceptional starting and control



THOR RB-11



## THOR RB-11

MODEL#	Air Inlet	Bore x Stroke in. (mm) x in. (mm)	BPM	Length in. mm	Weight lb. kg	CFM
RB-11	1/2" NPT, female	1-3/16" (30) x 11" (279)	850	25-1/2" (648mm)	33 lbs. (15 kg)	50

# Back Fill Tampers



## Thor 6T Backfill Tamper

Thor's 6T Backfill Tamper is a 40 lb. Class Tamper that has also "Stood the Test of Time". It's slow (800 BPM) powerful blows provide a well balanced, smooth operating tool that is easily guided by one person. Thor designed to effectively compact soil around foundations and other structures and for compacting backfill in trenches and other construction holes requiring compaction.

### Features:

- High power to weight ratio, slow powerful blows quickly compact all types of backfill material including clay and gravel.
- Heat treated cylinder and piston for long service life
- Hex Head Bolt Clamp Screw for quick and easy butt changes, no more stripped out screwdriver slots.



THOR 6T

## THOR 6T Backfill Tamper (40 lb. class)

MODEL#	Air Inlet	Taper	Bore x Stroke in. (mm) x in. (mm)	BPM	Length in. mm	Weight lb. kg	CFM
	6T	1/2" NPT, female	804 Taper	1-1/2" (38) x 5-1/2" (140)	800	48-1/4" (1226mm)	40 lbs. (18 kg)

# Clay & Trench Diggers

## Rock Drill



### Thor 18 "Digger"

Thor 18 CD is a dropped forged clay digger recommended for digging clay in packed soil from around footings, forms and other construction areas. It's 29 lb. weight makes it a hard hitting tool, making quick work of the task at hand.

#### Features:

- Slim design for work in tight areas.
- Heat treated alloy steel components.
- Latch retainers for positive retention and quick change of accessories.

### Thor Rock Drill

The Thor 14 Hammer Drill is designed for a wide variety of construction and MRO maintenance applications such as drilling or setting masonry anchors and drilling holes in rock, concrete or brick. With its excellent weight to power ratio, the Thor 14 drills holes faster and easier than comparable electric roto-hammers.

#### Features:

- Blower level for deep hole cleaning.
- Air inlet swivel of easy maneuverability.
- Cushioned piston to reduce shock to the operator.
- Forged steel housing to withstand rugged use.
- Internal oiler provides continuous lubrication.



THOR 18CD-875  
THOR 18CD-1



THOR 14D  
(14 lb Weight Class)



### THOR 18CD-6 Clay Digger

MODEL#	Air Inlet	Chuck Size	Bore in. (mm)	BMP	Length in. mm	Weight lb. kg	CFM
18CD-.875	3/8" NPT, male	7/8" Hex x 3-1/4"	1-3/4" (44.8)	1500	22-3/4" (583mm)	29 lbs. (13 kg)	38
18CD-1	3/8" NPT, male	1" Hex x 4-1/4"	1-3/4" (44.8)	1500	22-3/4" (583mm)	29 lbs. (13 kg)	38

### THOR ROCK DRILL (14 lb. class)

MODEL#	Air Inlet	Chuck Size	Bore x Stroke in. (mm) x in. (mm)	BPM	Length in. mm	Weight lb. kg	CFM
14D	3/8" NPT, male	7/8" Hex x 3-1/4"	1-15/16" (49) x 1-7/8" (48)	2900	18-3/8" (460mm)	14.3 lbs. (7 kg)	35

# Diggers & Scalers

## ATP "Diggers"

The all new ATP Diggers are ideally suited for medium density soil and light demolition work. Our 2 Bolt "D-Grip" Handle keeps the operator's hand and arm in-line with the work, making the task at hand a little easier and more comfortable for the operator. Available in 20 lb. and 30 lb. class models.



ATP 4073



ATP 4093



ATP 4095

## ATP 4073, 4093 & 4095 "DIGGER"

MODEL#	Retainer Type	Shank Size Hex/Collar Inch	Collar Diameter	Bore x Stroke in. (mm) x in. (mm)	BPM	Length in. mm	Weight		CFM
							lb.	kg	
ATP 4073S	*Sleeve	3/4" Square x 2-3/4"	1-5/8"	1-11/16" (43) x 2-1/2" (64)	1550	19-1/4" (493.5mm)	19 lbs.	(8.85 kg)	35
ATP 4073H	*Sleeve	7/8" Hex x 3-1/4"	1-5/8"	1-11/16" (43) x 2-1/2" (64)	1550	19-1/4" (493.5mm)	19 lbs.	(8.85 kg)	35
ATP 4093-7/8	Sleeve	7/8" Hex x 3-1/4"	1-5/8"	1-11/16" (43) x 4" (102)	1850	22" (560mm)	27 lbs.	(12.3 kg)	47
ATP 4095-7/8	*Sleeve	7/8" Hex x 3-1/4"	1-5/8"	1-11/16" (43) x 2-1/2" (64)	2350	18-7/8" (479mm)	22 lbs.	(10 kg)	39

\*Latch Retainers IRLAT - 3/4" square and 7/8" hex available on special order only

# Diggers & Scabblers

## ATP 3161 Triple Piston Scaler

The Three Piston Scaler provides rapid, hard hitting vibratory action for removal of old paint, loose concrete, rust and scale in shipyard, fabrication, construction and MRO operations.

### Features:

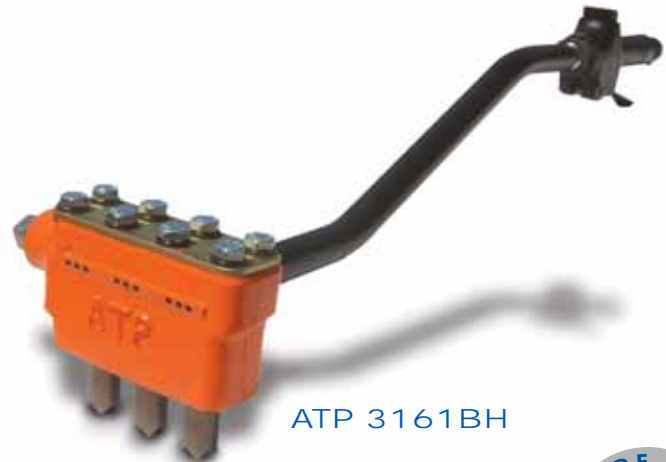
The throttle handle may be positioned on either the narrow or the wide side of the tool to suit the application. Heat Treated pistons and cylinders ensure excellent durability, simple valveless design reduces maintenance down time.

## Thor Single Piston Scabber

The Thor Scabber Tools are specifically designed for all types of concrete surface work where it is necessary to carry out surface hammering without in any way causing damage to the basic concrete. Stadium seating, concrete walkways, floors, retaining walls, airport runways, bridges, or similar large areas where it is required to expose the aggregate prior to top coating.



ATP 3161



ATP 3161BH



Thor-SPS

## ATP 3161 TRIPLE PISTON SCALER

MODEL#	Piston Description	Blows Per Minute	Height		Length		Weight		Throttle
			in.	mm	in.	mm	lb.	kg	
ATP 3161	Three Steel	3800	4	102	15-3/8	391	9.3	4.25	Lever
ATP 3161BH	Three Steel	3800	4	102	27	629	10.0	4.54	Lever

## Thor SPS

Thor SPS	Bore x Stroke		Length	Weight	Blows Per Minute	Air Inlet Thread
	1-5/16" (33.6 mm)	1" (25.4mm)	13" (333.3mm)	13.7 lbs. (6.22 kg)	3000 BPM	3/8" NPT Female Thread

# Concrete Scabblers



## Thor U-Type Multi-Scabblers

Thor U-Type Scabblers Tools are specifically designed for all types of concrete surface work where it is necessary to carry out surface hammering without in any way causing damage to the basic concrete. Stadium seating, concrete walkways, floors, retaining walls, airport runways, bridges, or similar large areas where it is required to expose the aggregate prior to top coating.

The machines are mounted on wheels for ease of transportation, but while the machines are operating the wheels rise clear of the working surface and the machines virtually float, enabling them to be manipulated with ease in a scything motion. Handle design gives good balance and control, together with conveniently placed "on/off" valve, makes machine operation extremely simple for the operator.

ATP-Thor is the North American McDonald distributor.



U5 (shown)

## THOR U-TYPE MULTI-SCABLERS

MODEL#	U3	U5	U7	U11
Overall Length Including Handle	50" (1270 mm)	50" (1270 mm)	50" (1270 mm)	50" (1270 mm)
Working Width Over Bits	5-5/8" (143 mm)	11-1/4" (286 mm)	15-3/4" (400 mm)	19" (483 mm)
Total Width Over Wheels	17" (432 mm)	25" (635 mm)	30" (762 mm)	33" (833 mm)
CFM	100	150	200	300
Hose Size	1" (25.4 mm)	1" (25.4 mm)	1" (25.4 mm)	1" (25.4 mm)
Weight	125 lbs (57 kg)	214 lbs (97 kg)	266 lbs (121 kg)	308 lbs (140 kg)
Length In.	50" (1270 mm)	50" (1270 mm)	50" (1270 mm)	50" (1270 mm)
Scabbling Rate ft <sup>2</sup> /hr x 1/8" deep (m <sup>2</sup> /hr x 1/8")	135'-202' (12.5-19 m)	225'-338' (21-31 m)	315'-472' (29-44 m)	495'-742' (46-69 m)
Number of Bits	3	5	7	11

# Scaler Tool Series

## Thor Scalers

Thor Scalers are offered in a compact design for close quarter work removing weld flux, paint, scale, weld spatter, rust and other residue from a variety irregular surfaces in fabrication shops, shipyards foundries, refineries, construction sites and MRO applications.

### Features:

Rugged design and precision manufacturing specifications make these Scalers last longer with low maintenance costs. Model A-1ALT Scaler quickly converts to Needle Scaler for better tool utilization.



Thor A-1ALT  
Weld Flux Scaler



Thor A-1ALTNS  
Needle Scaler



Thor A-A1AS  
Solid Back  
Head Scaler



Thor A-1ACO  
Coke Oven Scaler

## THOR SCALERS

MODEL#	Scaler Model Type	Throttle Type	Bore x Stroke in. (mm) x in. (mm)	Weight		Length		Inlet Size
				lb.	kg	in.	mm	
Thor A-1ALT	Weld Flux Scaler	Lever	1 (25.4) x 1-1/8 (28.8)	4.5	2.17	9-1/2	243	1/4" NPT
Thor A-1ALTNS	Needle Scaler	Lever	1 (25.4) x 1-1/8 (28.8)	6	2.7	17-1/2	448.7	3/8" NPT
Thor A-A1AS	Solid Back Head Scaler	*Solid Type	1 (25.4) x 1-1/8 (28.8)	4	1.81	8-1/2	217.9	1/2" NPT
Thor A-1ACO	Coke Oven Scaler	Coke Oven	1 (25.4) x 1-1/8 (28.8)	5	2.27	11-5/8	298	1/2" NPT
Thor A-1APT	Push Throttle Scaler	Push Type	1 (25.4) x 1-1/8 (28.8)	4.5	2.17	10	256.4	1/4" NPT

\*\* BPM 4600 all models. \*A-A1AS has no throttle built into the tool.



# Submersible Pump



## ATP 551P Sump Pump

The new ATP-551 is a light weight portable, air operated, fully submersible Sump Pump with the power to pump up to 216 gallons of water per minute. This non-clogging, self-cleaning pump for clean or dirty water, sewage, oil and sludge is capable of handling all your pumping requirements. The rugged cast iron housing is built to take life's hard knocks. The built in Oiler will handle up to 16 hours of continuous Air Motor lubrication. Convenient Carry Handles make this versatile pump easy to handle at the job site. The adjustable governor prevents "Run-away" when sump is pumped dry or if the impeller clears water while it is in operation.

### Features

- Submersible, lightweight
- Portable
- Air Operated

### Standard Equipment:

- Built in Oiler
- Extended Exhaust Pipe with check valve to prevent water from entering the motor through the exhaust and 2-1/2" NPT male to male pipe adapter.

### Optional Equipment:

- Air valve, lever type for remote operation. (at additional cost)



ATP 551P

## ATP 551P

MODEL#	Height		Weight		Opening Pump Will Enter	Discharge Opening	Air Inlet Thread	Pump Housing Material	CFM
	in.	mm	Lb.	Kg					
ATP 551P	20	513	41	18.6	8-5/8" x 10-1/2"	2-1/2" NPT female	1/2" NPT female	Cast Iron	75

\*interchanges with THOR 51T

**Performance Data:** Discharge (GPM) at specified air pressure.

Total Head in feet	100 psi	*90 psi	80 psi
10	216	198	179
20	191	174	155
30	166	148	128
40	138	120	101
50	110	92	73
60	83	65	46
70	55	37	--

\*recommended operating pressure is 90 psi (6.2 bar)

# Jet Air Fan (JA-20): Moving More Air by Design

## ATP JA-20 High Performance Air Mover

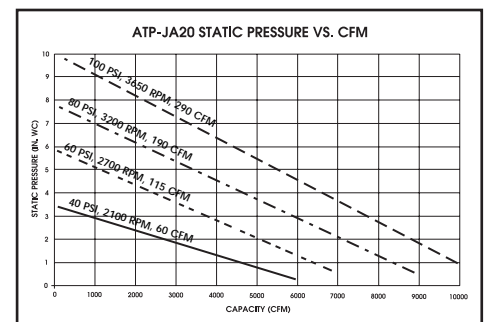
The engineering of the **JET AIR** blades cause more air to be pulled through the fan by our trailing edge design. By using the **ATP JET AIR** design, we are able to move more air in the forward direction like a Jet Prop, producing superior air flow with a lot less energy. The results are simple "We move more air by design at lower fan speeds using less energy than the competition does!"

### Features:

- Dynamically balanced 4 blade design for smoother operation.
- High visibility orange - powder coated stainless steel fan shroud for safety.
- Manufactured to air craft tolerances & specifications.
- Fits 20" API flange for quick and painless mounting.
- Moves more air by design, at air pressures between 40-110 psi (2.75 - 7.6 bar).
- Reduces air turbulence by design, smoother air flow at all RPM's using only 2 rotating parts.
- Hy-Tech bearing grease used in all high speed Jet Air Bearings.
- Can be used as a blower or exhauster by turning it around.

### Specifications:

- Fan assembly shaft rotates on permanently sealed ball bearings.
- Air consumption at 60 PSI, 115 CFM @ 2,700 RPM.
- Fits 20" (508 mm) API tank opening bolt circle.
- Delivery - up to 11,200 CFM (19,029 m3/hr).
- Max 120 PSI, Working pressure 40-110 PSI.
- Weight 103 lbs (Shipping weight 113 lbs).
- Mounting slots 1 1/8" diameter.
- Air inlet 3/4" NPT.



# ATP EUREKA VENTURI "AIR HORNS"

- Rugged "Tech-Alloy" Aluminum Casting
- No Moving Parts to Replace
- Periodic Steam Cleaning for Easy Maintenance
- Can Pull Air from Confined Areas or Blow Fresh Air Into Area
- Grounding Wire and Clamp - Standard Equipment
- Will Operate on Compressed Air or Steam



Note: Take a bite out of safety - always attach a grounding cable. Grounding clamp and wire must be used to prevent static electricity build up which could cause a spark.





## ATP Arnessen Portable "Rust-Busting" Chipping Hammers

Designed for intermittent or continuous use to clean steel and other hard surfaces of old paint; epoxy, rust, scale; and caked-on residue. Fast and economical, for heavy duty work on vertical, horizontal, or irregularly shaped surfaces. No special training for efficient operation by unskilled labor; one man can operate, capably cleaning over 900 square feet of plate area in an 8 hour shift. Fifteen types of rotating heads available for every conceivable scaling operation. Power source can be Electric or Pneumatic. Complete units and parts available from local distributors, worldwide.

## Electric Motor Driven Chipping Hammers

- Eight types of Electric Motors to choose from.
- All Electric Motors are furnished with 25 feet of S.O. Type Flexible Rubber Cable.

## Alternating Current Chipping Hammers. Complete Model

3M4-115/230 Volts, 60 Hz, 1 phase  
3M5-230 Volts, 50 Hz, 1 phase  
3M6-115/230 Volts, 60 Hz, 3 phase  
3M7-230/460 Volts, 60 Hz, 3 phase  
3M8-115/230 Volts, 50 Hz, 3 phase  
3M9-230/460 Volts, 50 Hz, 3 phase

## Direct Current Chipping Hammers; Complete Model

3M1 -115 Volts, DC  
3M2 -230 Volts, DC

## Standard Package

Each complete Chipping Hammer is furnished as a package comprising of the following:

- 1- Power Unit (either Electric or Pneumatic Motor), complete with carrying handle and mounted on steel skids
- 1- 10 foot Heavy Duty Flexible Shaft, with steel braided casing and neoprene covered, furnished complete with No. 37 Swivel Head, Grip Handle
- 1- Safety Guard No. 6H7
- 1- Double Finger Head No. 6H2
- 1 Single Wheel Head No. 6H5
- 1- Wire Brush Head No. 6H4



# ATP/Arnessen

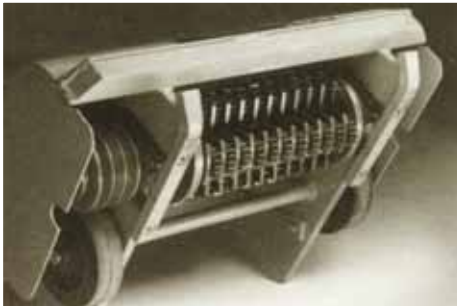
## Large Area "Rust Busting" Deck Sealers

Arnessen Deck Sealers are specifically engineered for the heavy duty removal of undesirable deposits from large flat areas of steel and concrete. Recognized by users to be the most powerful flat area "rust busters" to be found anywhere. Built to give years of punishing service, some 30 year old machines still going strong.

Easily maintained: the 44 hardened steel striking wheels, operating together on 4 parallel rods, can be quickly replaced when worn. Three models available: Electric, Pneumatic and Gasoline.

### Features

- All moving parts machined from hardened alloy steel
- Semi self-propelled
- One-man operation
- Will not pit or scar steel plates



Deck Sealer Under-Carriage showing the No. DS5 Cutter Drum Assembly.



**ATP DS1, ATP DS2**  
Model ATP DS1-1 phase,  
3 HP, 60 Hz, 115/230 VAC,  
1725 RPM, Electric Motor  
Driven. Overload protected.

Model ATP DS2-3 phase,  
3HP, 60 Hz, 230/460 VAC,  
1725 RPM, Electric Motor  
Driven. Overload protected.



**ATP DSA**  
Pneumatic Motor Driven; 9 HP  
Unit with maximum operating  
pressure 100 PSI (a 250 CFM  
(2000 RPM), complete  
with instruments, including  
pressure regulator, gauge,  
moisture filter lubricator, shut-  
off valve and air hose coupling.



**ATP DSG**  
Gasoline Motor Driven;  
5 HP (2000 RPM) Heavy  
Duty; 4 Stroke Engine with  
built-in clutch.



# ATP/Arnessen



## ATP/Arnessen Standard Chipping Heads

### ATP 6H1

#### Single Finger Head

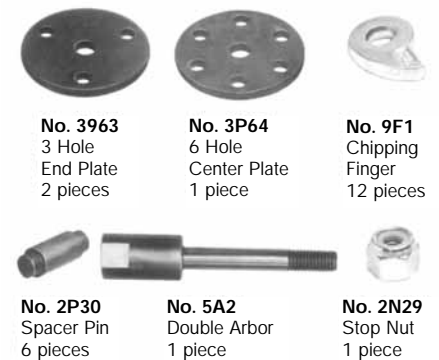
For scaling rust and paint accumulations from smaller surfaces-angles; corners and seams not accessible with the Double Finger Hammer Head.



### ATP 6H2

#### Double Finger Head

For scaling rust and paint accumulations from hulls, decks and other large metal surfaces where fast scaling is needed.



### ATP 6H5

#### Single Wheel Head

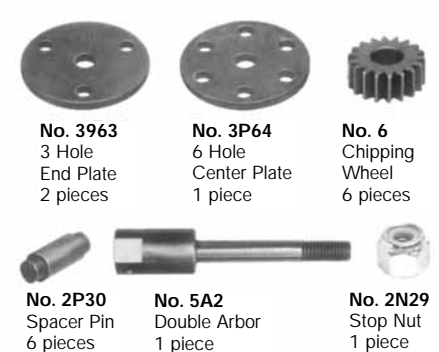
For scaling rust and paint accumulations from smaller surfaces of lighter gauge metal, and for corners; angles and seams not accessible with the Double Wheel Head.



### ATP 6H5

#### Double Wheel Head

For fast scaling of rust and paint accumulations from large surfaces. Can be safely used on lighter gauge metal surfaces.



# ATP/Arnessen

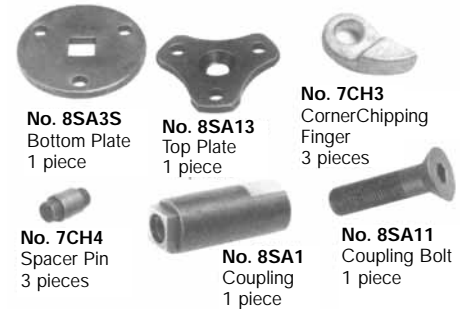


## ATP/Arnessen Standard Chipping Heads cont.

### ATP 6H1

#### Corner Finger Head

For removing rust from the very hard-to-get-at places-narrow openings; corners and crevices not accessible with larger heads.



## Chipping Hammer Flexible Shafts

All Swivel Flexible Shafts; furnished individually or as part of a standard Arnessen Chipping Hammer package; comprise an outer core of heavy duty; long lasting oil-resistant rubber; with internal steel braiding and an inner core of hardened torque resistant steel. Two types of shaft handles are available- Normally the No. 3H7 Grip Handle is furnished with all complete Flexible Shafts-and at no extra cost. Alternatively, the No. 1CL1 Safety Clutch Handle can be furnished instead but at extra cost.



### ATP2S68

Swivel, 10 foot flexible shaft, furnished with a No. 1CL1 Safety Clutch Handle

### ATP2S67

Inner Core for all flexible shafts

### ATP2S69

Outer casing for all flexible shafts

### ATP2S58

Standard swivel, 10 foot flexible shaft, furnished with a No. 3H7 Grip Handle



# ATP OZAT



**ATP OZAT**  
A Division of Hy-Tech Machine

# ATP OZAT

ATP / OZAT "Less-Stress" Impact Wrench Sockets are clearly superior in design to most other sockets available today. Our state of the art Electro-Chemical Machining (ECM) process makes it possible for us to produce all of our Sockets in the "Less-Stress" configuration.

ATP / OZAT Sockets are available in 1/2" through 3 1/2" Square Drive and in #4 and #5 Spline sizes, in 4 point, 6 point, 8 point, 12 point, Standard depth, Deep length, Thin walls, Hex bit, "In-Star" type bits, Magnetic bits, Rail Road sockets and Torsion bars. *Custom Sockets quoted upon request.* OZAT marked sockets carry a "Life Time Warranty" against breakage.





# Why OZAT?

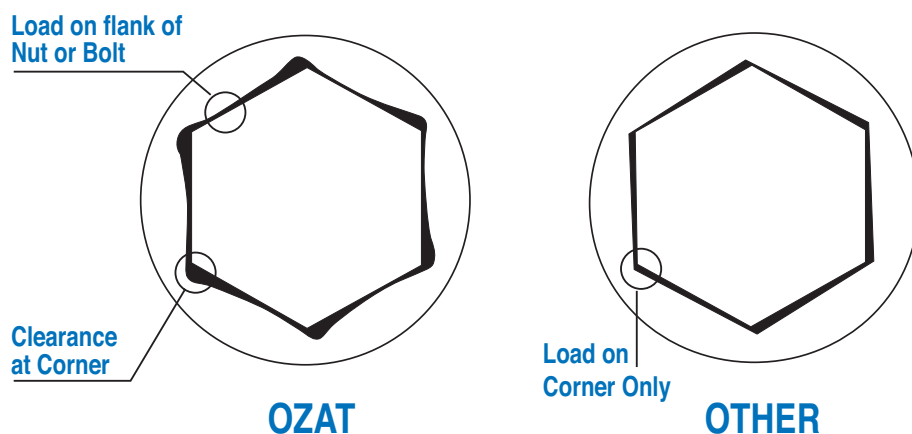
OZAT socket design is clearly superior to most other sockets available. Their state of the art electro-chemical machining process makes it possible for OZAT to produce all of their sockets in the **less-stress™** configuration illustrated below.

Without these special machining capabilities, cost of producing the preferred less-stress sockets becomes prohibitive. While other manufacturers, who use the normal broaching method to achieve the hex pattern in their sockets, may have to compromise in their selection of suitable steel, OZAT is able to specify the most perfectly matched material from which to manufacture the most durable and reliable sockets available.

The OZAT difference results in longer socket and fastener life and cost savings to the user.



## OZAT VS. OTHER SOCKETS



## Statement of Warranty

The OZAT warranty provides for free replacement, to the original purchaser, of any qualifying socket found to be defective in either material or workmanship, as indicated by breakage or premature wear. Determination of free replacement will be made after examination by ATP. Impact sockets, by their application, are subject to extreme stresses. Therefore special application sockets such as thinwall, hex driver, In-Star driver, and accessories are specifically excluded from the replacement warranty.

Products returned to ATP for warranty consideration must be shipped prepaid, with an ATP returned goods authorization (RGA) number issued by the customer service department.

# OZAT Contents

<b>1/2 Inch Square Drive</b>	<b>51</b>
Six Point Impact Sockets	
Steel/Aluminum Sockets	
In-star Drivers & Sockets	
Hex Driver and 12 Point Sockets	
Tire Shop Flip Sockets	
Ret Rings	
Power Line Utility Sockets	
<b>Orange Magnetic</b>	<b>58</b>
3/8" & 1/2" Square Drive	
<b>5/8 Inch Square Drive</b>	<b>59</b>
Six Point Impact Sockets	
Accessories	
<b>3/4 Inch Square Drive</b>	<b>61</b>
Six Point Impact Sockets	
BUDD Wheel Sockets	
Hex Driver Sockets	
Double Square Impact Sockets	
12 Point Sockets	
Accessories	
<b>1 Inch Square Drive</b>	<b>68</b>
Six Point Impact Sockets	
Hex Driver Sockets	
Double Square Impact Sockets	
BUDD Wheel Sockets	
12 Point Sockets	
Accessories	
<b>1-1/2 Inch Square Drive</b>	<b>75</b>
Six Point Impact Sockets	
12 Point Sockets	
Accessories	
<b>2-1/2 Inch Square Drive</b>	<b>80</b>
Six Point Impact Sockets	
Accessories	
<b>3-1/2 Inch Square Drive</b>	<b>84</b>
Six Point Impact Sockets	
Accessories	
<b># 5 Spline Drive</b>	<b>87</b>
Six Point Impact Sockets	<b>88</b>
BUDD Wheel Sockets	
Accessories for #5 Spline Drive	
<b># 4 Spline Sockets &amp; Universal Joint</b>	<b>89</b>
<b>Flat Striking Wrenches (12 Point Opening)</b>	<b>90</b>
<b>Offset Striking Wrenches (12 Point Opening)</b>	<b>92</b>
<b>Strike Force Mark Safety Wrenches (12 Point Opening)</b>	<b>92</b>
<b>Torsion Bars</b>	<b>93</b>
<b>Quick Change Torsion Bars</b>	<b>94</b>
<b>Request for Quote (Special Socket Order)</b>	<b>95</b>

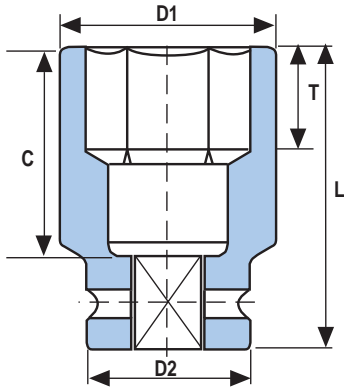
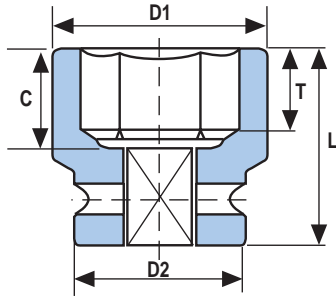


# 1/2" SQUARE DRIVE

## SIX POINT IMPACT SOCKETS

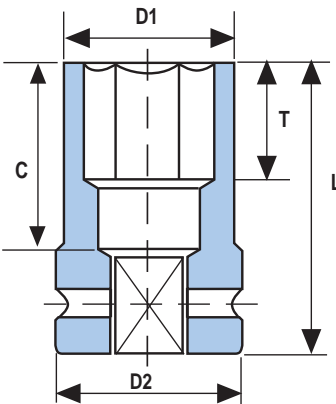
### STANDARD FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
3/8	Z-0806	0.630	0.984	1.482	0.157	0.595
7/16	Z-0807	0.748	0.984	1.482	0.236	0.595
1/2	Z-0808	0.787	0.984	1.482	0.236	0.674
9/16	Z-0809	0.866	0.984	1.482	0.276	0.674
5/8	Z-0810	0.984	1.181	1.482	0.315	0.753
11/16	Z-0811	1.102	1.181	1.482	0.354	0.753
3/4	Z-0812	1.102	1.181	1.482	0.335	0.753
13/16	Z-0813	1.181	1.181	1.482	0.433	0.832
7/8	Z-0814	1.181	1.181	1.482	0.512	0.910
15/16	Z-0815	1.378	1.181	1.482	0.512	0.910
1	Z-0816	1.496	1.181	1.482	0.512	0.950
1-1/16	Z-0817	1.496	1.181	1.950	0.512	0.950
1-1/8	Z-0818	1.614	1.181	1.560	0.643	1.107
1-3/16	Z-0819	1.614	1.181	1.950	0.643	1.107
1-1/4	Z-0820	1.732	1.378	1.560	0.669	1.107
1-5/16	Z-0821	1.732	1.378	1.677	0.748	1.186
1-3/8	Z-0822	1.929	1.378	1.560	0.748	1.265
1-7/16	Z-0823	1.929	1.732	1.950	0.748	1.265
1-1/2	Z-0824	2.047	1.732	1.950	0.846	1.344



### DEEP FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
3/8	Z-0806L	0.6307	0.984	3.042	0.157	2.721
7/16	Z-0807L	0.748	0.984	3.042	0.236	2.721
1/2	Z-0808L	0.787	0.984	3.042	0.236	2.721
9/16	Z-0809L	0.866	0.984	3.042	0.276	2.721
5/8	Z-0810L	0.984	1.181	3.042	0.315	2.721
11/16	Z-0811L	1.102	1.181	3.042	0.354	2.721
3/4	Z-0812L	1.102	1.181	3.042	0.335	2.721
13/16	Z-0813L	1.181	1.181	3.042	0.433	2.721
7/8	Z-0814L	1.181	1.181	3.042	0.512	2.721
15/16	Z-0815L	1.378	1.181	3.042	0.512	2.721
1	Z-0816L	1.496	1.181	3.042	0.512	2.721
1-1/16	Z-0817L	1.496	1.181	3.042	0.512	2.721
1-1/8	Z-0818L	1.614	1.181	3.042	0.643	2.721
1-3/16	Z-0819L	1.614	1.181	3.042	0.643	2.721
1-1/4	Z-0820L	1.732	1.378	3.042	0.669	2.721
1-5/16	Z-0821L	1.732	1.378	3.042	0.748	2.721
1-3/8	Z-0822L	1.929	1.378	3.042	0.748	2.721
1-7/16	Z-0823L	1.929	1.732	3.042	0.748	2.721
1-1/2	Z-0824L	2.047	1.732	3.042	0.846	2.721



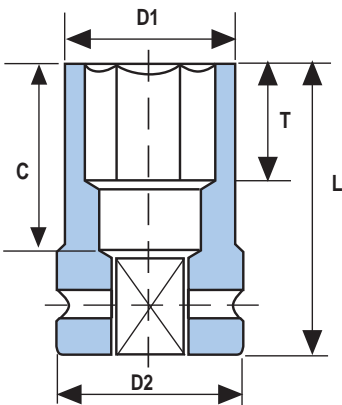
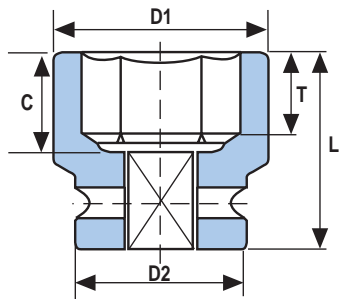
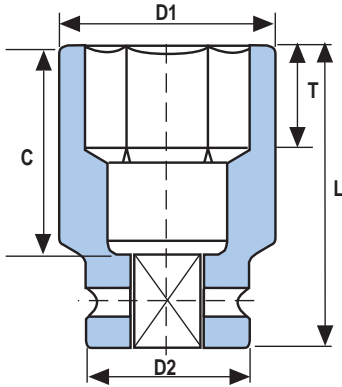
### STANDARD FRACTIONAL THINWALL

SIZE	PART#	D1	D2	L	T	C
9/16	Z-0809T	0.866	0.984	1.482	0.551	0.700
5/8	Z-0810T	0.984	0.984	1.482	0.551	0.750
11/16	Z-0811T	0.984	0.984	1.482	0.551	0.750
3/4	Z-0812T	1.102	1.181	1.482	0.551	0.750
13/16	Z-0813T	1.102	1.181	1.482	0.551	0.780
7/8	Z-0814T	1.181	1.181	1.482	0.551	0.780
15/16	Z-0815T	1.299	1.181	1.482	0.551	0.810

Quality OZAT 1/2" Drive impact sockets are preferred in many industrial applications where long wearing sockets are required for severe applications. From assembly lines to plant maintenance to busy tire shops, OZAT sockets reduce cost and downtime.

# 1/2" SQUARE DRIVE

## SIX POINT IMPACT SOCKETS



### DEEP FRACTIONAL THINWALL

SIZE	PART#	D1	D2	L	T	C
9/16	Z-0809LT	0.866	0.984	3.042	0.551	2.721
5/8	Z-0810LT	0.984	0.984	3.042	0.551	2.721
11/16	Z-0811LT	0.984	0.984	3.042	0.551	2.721
3/4	Z-0812LT	1.102	1.181	3.042	0.551	2.721
13/16	Z-0813LT	1.102	1.181	3.042	0.551	2.721
7/8	Z-0814LT	1.181	1.181	3.042	0.551	2.721
15/16	Z-0815LT	1.299	1.181	3.042	0.551	2.721

### STANDARD METRIC SIZES

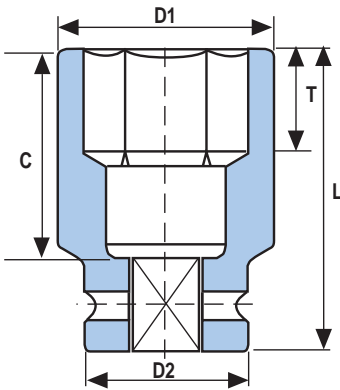
SIZE	PART#	D1	D2	L	T	C
8	Z-08M8	15	25	38	4	15
9	Z-08M9	16	25	38	4	15
10	Z-08M10	17	25	38	5	15
11	Z-08M11	19	21	38	5	15
12	Z-08M12	20	25	38	6	17
13	Z-08M13	21	25	38	6	17
14	Z-08M14	22	25	38	7	17
15	Z-08M15	24	30	38	7	19
16	Z-08M16	25	30	38	7	19
17	Z-08M17	26	30	38	9	19
18	Z-08M18	28	30	38	9	19
19	Z-08M19	28	30	38	9.5	19
20	Z-08M20	30	30	38	10	21
21	Z-08M21	30	30	38	10	21
22	Z-08M22	33	30	38	10	21
23	Z-08M23	35	30	38	12	23
24	Z-08M24	35	30	45	12	23
25	Z-08M25	35	30	45	13	24
26	Z-08M26	38	5	50	13	24
27	Z-08M27	38	35	50	13	24
28	Z-08M28	38	35	50	14	25
29	Z-08M29	41	35	50	14	28
30	Z-08M30	41	35	50	16.5	28
31	Z-08M31	44	35	50	16.5	28
32	Z-08M32	44	35	50	16.5	28
33	Z-08M33	44	35	50	17	28
34	Z-08M34	49	35	46	17	30
35	Z-08M35	49	35	50	19	31
36	Z-08M36	49	44	50	19	31
37	Z-08M37	52	44	47	19	31
38	Z-08M38	52	44	50	22	34

### STANDARD METRIC THINWALL

SIZE	PART#	D1	D2	L	T	C
13	Z-08M13T	21	25	38	6	18
14	Z-08M14T	22	25	38	7	18
15	Z-08M15T	24	30	38	7	19
16	Z-08M16T	25	30	38	7	19
17	Z-08M17T	25	30	38	9	19
18	Z-08M18T	25	30	38	9	19
19	Z-08M19T	28	30	38	9	19
20	Z-08M20T	28	30	38	10	20
21	Z-08M21T	30	30	38	10	20
22	Z-08M22T	30	30	38	10	20
23	Z-08M23T	33	30	38	12	20
24	Z-08M24T	33	30	45	12	20

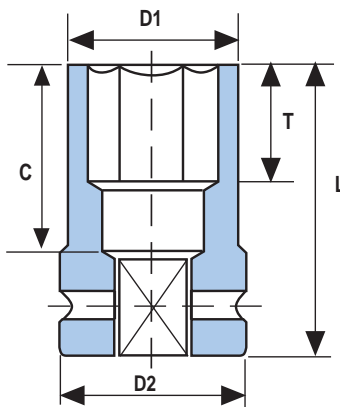
## SIX POINT IMPACT SOCKETS

### DEEP METRIC SIZES



SIZE	PART#	D1	D2	L	T	C
8	Z-08M8L	15	25	78	4	69
9	Z-08M9L	16	25	78	4	69
10	Z-08M10L	17	25	78	5	69
11	Z-08M11L	19	25	78	5	69
12	Z-08M12L	20	25	78	6	69
13	Z-08M13L	21	25	78	6	69
14	Z-08M14L	22	25	78	7	69
15	Z-08M15L	24	30	78	7	69
16	Z-08M16L	25	30	78	7	69
17	Z-08M17L	26	30	78	9	69
18	Z-08M18L	28	30	78	9	69
19	Z-08M19L	28	30	78	9.5	69
20	Z-08M20L	30	30	78	10	69
21	Z-08M21L	30	30	78	10	69
22	Z-08M22L	33	30	78	10	69
23	Z-08M23L	35	30	78	12	69
24	Z-08M24L	35	30	78	12	69
25	Z-08M25L	35	30	78	13	69
26	Z-08M26L	38	35	78	13	69
27	Z-08M27L	38	35	78	13	69
28	Z-08M28L	38	35	78	14	69
29	Z-08M29L	41	35	78	14	69
30	Z-08M30L	41	35	78	16.5	69
31	Z-08M31L	44	35	78	16.5	69
32	Z-08M32L	44	35	78	16.5	69
33	Z-08M33L	44	35	78	17	69
34	Z-08M34L	49	35	78	17	69
35	Z-08M35L	49	35	78	19	69
36	Z-08M36L	49	44	78	19	69
37	Z-08M37L	52	44	78	19	69
38	Z-08M38L	52	44	78	22	69

### DEEP METRIC THINWALL



SIZE	PART#	D1	D2	L	T	C
13	Z-08M13LT	21	25	78	6	69
14	Z-08M14LT	22	25	78	7	69
15	Z-08M15LT	24	30	78	7	69
16	Z-08M16LT	25	30	78	7	69
17	Z-08M17LT	25	30	78	9	69
18	Z-08M18LT	25	30	78	9	69
19	Z-08M19LT	28	30	78	9	69
20	Z-08M20LT	28	30	78	10	69
21	Z-08M21LT	30	30	78	10	69
22	Z-08M22LT	30	30	78	10	69
23	Z-08M23LT	33	30	78	12	69
24	Z-08M24LT	33	30	78	12	69

# 1/2" SQUARE DRIVE

## SIX POINT IMPACT SOCKETS

### 6 POINT STEEL/ALUMINUM IMPACT SOCKETS

NOMINAL OPENING			D1	D2	L	t min	Weight
mm	A/F Inch	CATALOG No.	mm	mm	mm	mm	gr
17		Z-08M17AP	26	30	50	25.0	110
19	3/4"	Z-0812M19AP	28	30	50	25.0	110
	13/16"	Z-0813AP	30	30	50	25.0	110
21		Z-08M21AP	30	30	50	25.0	110
	7/8"	Z-0814AP	33	33	50	25.0	130

Note: Non Marking Combo Sockets



### 6 POINT STEEL/ALUMINUM IMPACT SOCKETS

NOMINAL OPENING			D1	D2	L	t min	Weight
mm	A/F Inch	CATALOG No.	mm	mm	mm	mm	gr
17		Z-08M17LAP	26	30	85	25.0	200
19	3/4"	Z-0812M19LAP	28	30	85	25.0	210
	13/16"	Z-0813LAP	30	30	85	25.0	220
21		Z-08M21LAP	30	30	85	25.0	220
	7/8"	Z-0814LAP	33	33	85	25.0	250

Note: Non Marking Deep Combo Sockets



### IMPACT SOCKETS FOR IN-STAR FASTENERS

NOMINAL OPENING		D1	D2	L	t min	Weight
TORX®	CATALOG No.	mm	mm	mm	mm	gr
E10	Z-08E10	15.0	25	38	9.0	85
E11	Z-08E11	15.5	25	38	9.0	85
E12	Z-08E12	16.0	25	38	10.0	91
E14	Z-08E14	18.5	25	38	12.0	91
E16	Z-08E16	20.0	25	38	12.0	95
E18	Z-08E18	22.0	25	38	12.0	95
E20	Z-08E20	25.0	30	38	13.0	140
E22	Z-08E22	26.5	30	45	15.0	158
E24	Z-08E24	28.5	30	45	17.0	161



### SOCKET DRIVERS FOR IN-STAR FASTENERS

NOMINAL OPENING		D1	D2	L	t min	Weight
TORX®	CATALOG No.	mm	mm	mm	mm	gr
T30	Z-08T30	25	57	3.19	110	
T40	Z-08T40	25	57	3.30	110	
T50	Z-08T50	25	57	4.57	110	
T55	Z-08T55	25	57	5.08	110	
T60	Z-08T60	30	60	7.62	160	
T70	Z-08T70	30	60	8.89	170	

®TORX BIT is a registered trademark of Cam Car



## HEX DRIVER SOCKETS

### Bit Holders

PART#	DESCRIPTION
08H11	1/2" Sq. x 11mm Hex Bit Holders
08H16	1/2" Sq. x 16mm Hex Bit Holders

### Replacement Hex Bits For Sockets (2 Piece Inhex)

PART#	DESCRIPTION
H02	11mm Hex x 1/8"
H025	11mm Hex x 5/32"
H03	11mm Hex x 3/16"
H035	11mm Hex x 7/32"
H04	11mm Hex x 1/4"
H05	11mm Hex x 5/16"
H06	16mm Hex x 3/8"
H07	16mm Hex x 7/16"
H08	16mm Hex x 1/2"
H09	16mm Hex x 9/16"
H10	16mm Hex x 5/8"
H12	16mm Hex x 3/4"
H13	22mm Hex x 13/16"
H14	22mm Hex x 7/8"
H16	22mm Hex x 1"
H17	32mm Hex x 1-1/16"
H18	32mm Hex x 1-1/8"
H19	32mm Hex x 1-3/16"
H20	32mm Hex x 1-1/4"
HM03	11mm Hex x 3mm
HM04	11mm Hex x 4mm
HM05	11mm Hex x 5mm
HM06	11mm Hex x 6mm

### Replacement Hex Bits For Sockets

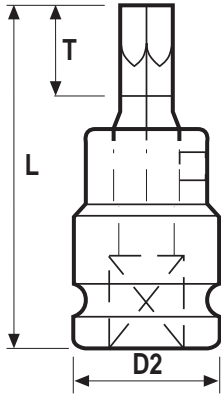
PART#	DESCRIPTION
HM08	11mm Hex x 8mm
HM10	16mm Hex x 10mm
HM12	16mm Hex x 12mm
HM14	16mm Hex x 14mm
HM17	16mm Hex x 17mm
HM19	16mm Hex x 19mm
HM22	22mm Hex x 22mm
HM24	22mm Hex x 24mm
HM27	32mm Hex x 27mm
HM30	32mm Hex x 30mm
HM32	32mm Hex x 32mm

### Replacement Instar TORX Bits

PART#	DESCRIPTION
HT30	11mm Hex x 30
HT40	11mm Hex x 40
HT50	11mm Hex x 50
HT55	16mm Hex x 55
HT60	16mm Hex x 60
HT70	16mm Hex x 70

# 1/2" SQUARE DRIVE

# HEX DRIVER SOCKETS



### FRACTIONAL SIZES

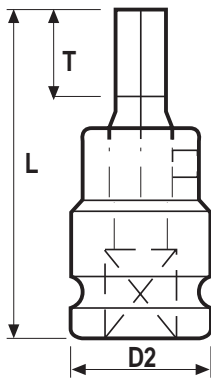
SIZE	PART#	D2	L	T
1/8	Z-0802H	0.984	1.716	0.748
5/32	Z-08005H	0.984	1.716	0.748
3/16	Z-0803H	0.984	1.716	0.748
7/32	Z-08007H	0.984	1.716	0.748
1/4	Z-0804H	0.984	1.716	0.748
5/16	Z-0805H	0.984	1.716	0.748
3/8	Z-0806H	0.984	1.833	0.866
7/16	Z-0807H	0.984	1.950	0.984
1/2	Z-0808H	1.181	1.950	0.984
9/16	Z-0809H	1.181	1.950	0.984
5/8	Z-0810H	1.181	1.950	0.984

Note: 1 Piece Construction

### METRIC SIZES

SIZE	PART#	D2	L	T
3	Z-08M3H	25	44	19
4	Z-08M4H	25	44	19
5	Z-08M5H	25	44	19
6	Z-08M6H	25	44	19
8	Z-08M8H	25	44	19
10	Z-08M10H	25	47	22
12	Z-08M12H	30	50	25
14	Z-08M14H	30	50	25
17	Z-08M17H	30	50	25
19	Z-08M19H	33	50	25

Note: 1 Piece Construction

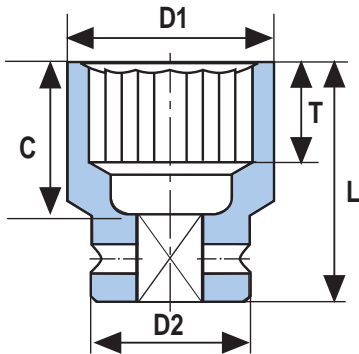


### 2 PART INHEX

NOMINAL OPENING		CATALOG No.	D2 mm	L mm	T mm	Weight gr
mm	A/F Inch					
	1/8"	Z-0802V	25	54	6	90
	5/32"	Z-08025V	25	54	6	90
	3/16"	Z-0803V	25	54	8	90
	7/32"	Z-08035V	25	54	9	90
	1/4"	Z-0804V	25	57	12	100
	5/16"	Z-0805V	25	57	12	100
	3/8"	Z-0806V	25	57	16	100
	7/16"	Z-0807V	25	57	18	100
	1/2"	Z-0808V	30	57	19	150
	9/16"	Z-0809V	30	57	21	150
	5/8"	Z-0810V	30	57	24	150
3		Z-08M03V	25	54	5	90
4		Z-08M04V	25	54	6	90
5		Z-08M05V	25	54	8	90
6		Z-08M06V	25	54	9	100
8		Z-08M08V	25	57	12	100
10		Z-08M10V	25	57	16	100
12		Z-08M12V	30	57	18	150
14		Z-08M14V	30	57	21	150
17		Z-08M17V	30	57	26	150
19		Z-08M19V	30	72	26	150

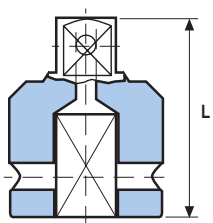
Note: 2 Piece Construction

# 12 POINT IMPACT SOCKETS



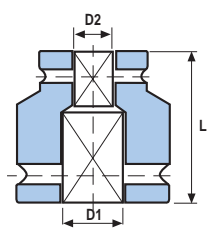
### 12 POINT IMPACT SOCKETS

NOMINAL OPENING		CATALOG No.	D1 mm	D2 mm	L mm	tmin mm	Weight gr
mm	A/F Inch						
	15/16"	DH-0815	35	35	38	13.0	160
	1"	DH-0816	38	35	38	13.0	200
27	1/16"	DH-0817M27	38	35	50	13.0	200
	1-1/8"	DH-0818	41	35	40	16.5	290
30	1 3/16"	DH-0819M30	41	35	50	16.5	290
	1-1/4"	DH-0820	44	35	40	17.0	350
	1-5/16"	DH-0821	49	35	43	19.0	370
35	1-3/8"	DH-0822M35	49	35	50	19.0	370
	1-7/16"	DH-0823	49	44	50	19.0	370
38	1-1/2"	DH-0824M38	52	44	50	22.0	400



### ADAPTERS

PART#	FEMALE	MALE	L
A0810	1/2	5/8	1.380
A0812	1/2	3/4	1.690



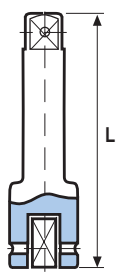
### DOUBLE ENDED FEMALE ADAPTERS

PART#	D1	D2	L
AN0808	1/2	1/2	1.290
AN1008	1/2	5/8	1.610
AN1208	1/2	3/4	1.930



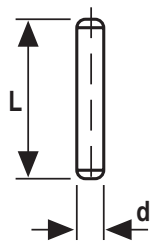
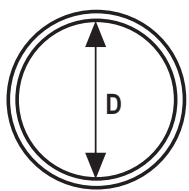
### UNIVERSAL JOINT

SIZE	PART#
1/2	U0808



### EXTENSIONS

PART#	L
E0803	3
E0805	5
E0810	10



### RETAINING PINS AND RINGS

SQUARE DRIVE	THROUGH HEX SIZE	PIN #	RING#	d	L	D
1/2	9/16 - 14mm	P0825	R0825	.117	.780	.741
1/2	1-3/16 - 30mm	P0830	R0830	.117	.975	.936
1/2	Above 1-3/16	P0835	R0835	.117	1.170	1.170



# 1/2" SQUARE DRIVE

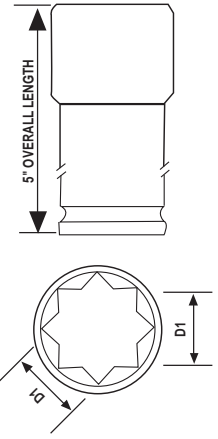
## UTILITY SOCKETS

### UTILITY SOCKETS (POWER LINE SOCKETS)

Z-081315S5 - 13/16" x 15/16"

Z-081618S5 - 1" X 1-1/8"

Specifically designed for hydraulic wrenches and impact wrenches



## SQUARE DRIVE ADAPTOR

### DOUBLE ENDED MALE ADAPTORS 7/16" HEX TO 1/2" SQUARE

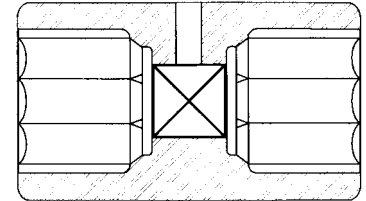
PART#	D1	L
S084874	0.661	2.25



## TIRE SHOP FLIP SOCKETS

### TIRE SHOP FLIP SOCKETS

PART#	SIZE
D-1213	3/4 X 13/16
D-19M21	19mm x 21mm



## SOCKET SETS

### FRACTIONAL

PART#	DESCRIPTION	INCLUDES:
Z-08S1	11 Piece with U-Joint	1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1, 1-1/16, 1-1/8, U-Joint
Z-08S2	13 Piece	7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1, 1-1/16, 1-1/8, 1-1/4
Z-08S3	7 Piece	7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16
Z-08LS1	14 Piece Deep	3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1, 1-1/16, 1-1/8, 1-1/4
Z-08LS2	7 Piece Deep	7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16

### METRIC

PART#	DESCRIPTION	INCLUDES:
Z-08MS1	13 Piece	8mm, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21
Z-08MS2	16 Piece	10mm, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27
Z-08MS3	6 Piece	13mm, 14, 15, 16, 17, 18
Z-08LMS1	16 Piece Deep	10mm, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27
Z-08LMS2	12 Piece Deep	10mm 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21

## RETAINING RING®



Steel Insert  
Encapsulated  
To Reinforce  
Stress Point



### RET RING® SOCKET RETAINER FOR IMPACT WRENCHES

RET RING® W/ STEEL INSERTS	RET RING® DIAMETER	FOR USE ON SQUARE DRIVE
RR10005S	1-1/4"	3/4"
RR10032S	1-7/16"	3/4"
RR10034S	1-5/8"	3/4"
RR18708S	1-3/4"	3/4"
RR18710S	2"	3/4"
RR18715S	2-1/8"	3/4"
RR18716S	2-1/4"	3/4"
RR10008S	1-3/4"	1"
RR10010S	2"	1"
RR10015S	2-1/8"	1"
RR10016S	2-1/4"	1"
RR10017S	2-1/2"	1"
RR10019S	2-5/8"	1"
RR10020S	2-7/8"	1"
RR10025S	3-3/8"	1-1/2"
RR10030S	3-7/8"	1-1/2"
RR10035S	4-3/8"	1-1/2"

# ATP OZAT ORANGE MAGNETIC

## 3/8" SQUARE DRIVE

### 6 POINT IMPACT SOCKETS MAGNETIC STANDARD

NOMINAL OPENING		CATALOG No.	D1	D2	L	t min
mm	A/F Inch		IN	IN	IN	IN
6		Z-06M06M	.43	.75	1.18	.118
7		Z-06M07M	.49	.75	1.18	.118
8		Z-06M08M	.57	.75	1.18	.157
9		Z-06M09M	.59	.75	1.18	.157
	3/8"	Z-0606M	.49	.75	1.18	.157
10		Z-06M10M	.62	.75	1.18	.196
11		Z-06M11M	.68	.75	1.18	.196
	7/16"	Z-0607M	.66	.75	1.18	.236
12		Z-06M12M	.75	.75	1.18	.236
	1/2"	Z-0608M	.75	.75	1.18	.236
13		Z-06M13M	.78	.86	1.18	.236
14		Z-06M14M	.82	.86	1.18	.275
	9/16"	Z-0609M	.78	.78	1.18	.275
15		Z-06M15M	.86	.86	1.18	.275
	5/8"	Z-0610M	.94	.94	1.18	.314
16		Z-06M16M	.94	.86	1.18	.275
17		Z-06M17M	.98	.86	1.18	.354
	11/16"	Z-0611M	.94	.94	1.18	.354
18		Z-06M18M	1.02	.86	1.18	.354
19	3/4"	Z-0612M19M	1.08	.86	1.18	.375

### 6 POINT IMPACT SOCKETS MAGNETIC DEEP

NOMINAL OPENING		CATALOG No.	D1	D2	L	t min
mm	A/F Inch		IN	IN	IN	IN
6		Z-06M06LM	.43	.75	2.24	.118
7		Z-06M07LM	.49	.75	2.55	.118
8		Z-06M08LM	.57	.75	2.55	.157
9		Z-06M09LM	.59	.75	2.55	.157
	3/8"	Z-0606LM	.49	.75	2.55	.157
10		Z-06M10LM	.62	.75	2.55	.196
11		Z-06M11LM	.68	.75	2.55	.196
	7/16"	Z-0607LM	.66	.75	2.55	.236
12		Z-06M12LM	.75	.75	2.55	.236
	1/2"	Z-0608LM	.75	.75	2.55	.236
13		Z-06M13LM	.78	.86	2.55	.236
14		Z-06M14LM	.82	.86	2.55	.275
	9/16"	Z-0609LM	.78	.78	2.55	.275
15		Z-06M15LM	.86	.86	2.55	.275
	5/8"	Z-0610LM	.94	.94	2.55	.314
16		Z-06M16LM	.94	.86	2.55	.275
17		Z-06M17LM	.98	.86	2.55	.354
	11/16"	Z-0611LM	.94	.94	2.55	.354
18		Z-06M18LM	1.02	.86	2.55	.354
19	3/4"	Z-0612M19LM	1.08	.86	2.55	.375

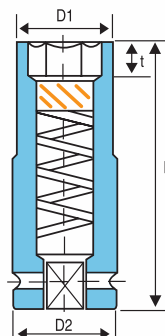
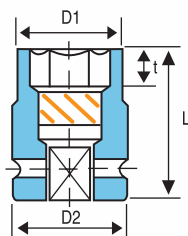
## 1/2" SQUARE DRIVE

### 6 POINT IMPACT SOCKETS MAGNETIC STANDARD

NOMINAL OPENING		CATALOG No.	D1	D2	L	t min
mm	A/F Inch		IN	IN	IN	IN
	3/8"	Z-0806M	.62	.86	1.49	.157
10		Z-08M10M	.68	.98	1.49	.196
11		Z-08M11M	.78	.98	1.49	.196
	7/16"	Z-0807M	.70	.86	1.49	.236
12		Z-08M12M	.78	.98	1.49	.236
	1/2"	Z-0808M	.78	.86	1.49	.236
13		Z-08M13M	.82	.98	1.49	.236
14		Z-08M14M	.88	.98	1.49	.275
	9/16"	Z-0809M	.86	.94	1.49	.275
15		Z-08M15M	.93	1.18	1.49	.275
	5/8"	Z-0810M	.98	.98	1.49	.314
16		Z-08M16M	.98	1.18	1.49	.314
17		Z-08M17M	1.02	1.18	1.49	.354
	11/16"	Z-0811M	1.02	1.02	1.49	.354
18		Z-08M18M	1.08	1.18	1.49	.354
19	3/4"	Z-0812M19M	1.12	1.18	1.49	.357

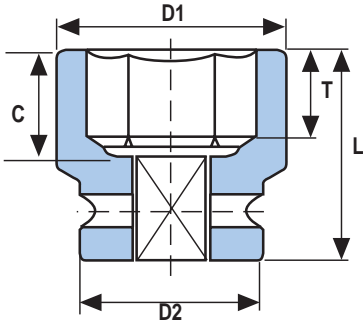
### 6 POINT IMPACT SOCKETS MAGNETIC DEEP

NOMINAL OPENING		CATALOG No.	D1	D2	L	t min
mm	A/F Inch		IN	IN	IN	IN
	3/8"	Z-0806LM	.62	.86	3.07	.157
10		Z-08M10LM	.68	.98	3.07	.196
11		Z-08M11LM	.78	.98	3.07	.196
	7/16"	Z-0807LM	.70	.86	3.07	.236
12		Z-08M12LM	.78	.98	3.07	.236
	1/2"	Z-0808LM	.78	.86	3.07	.236
13		Z-08M13LM	.82	.98	3.07	.236
14		Z-08M14LM	.88	.98	3.07	.275
	9/16"	Z-0809LM	.86	.94	3.07	.275
15		Z-08M15LM	.93	1.18	3.07	.275
	5/8"	Z-0810LM	.98	.98	3.07	.314
16		Z-08M16LM	.98	1.18	3.07	.314
17		Z-08M17LM	1.02	1.18	3.07	.354
	11/16"	Z-0811LM	1.02	1.02	3.07	.354
18		Z-08M17LM	1.08	1.18	3.07	.354
19	3/4"	Z-0812M19LM	1.12	1.18	3.07	.375



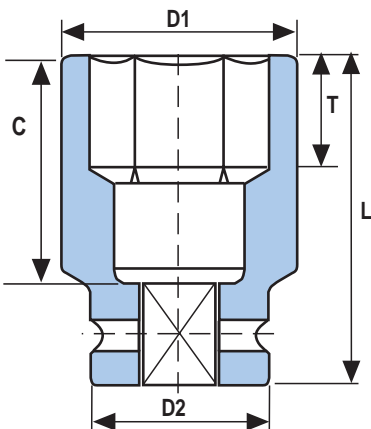
# 5/8" SQUARE DRIVE

## SIX POINT IMPACT SOCKETS



### STANDARD FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
1/2	Z-1008	0.906	1.378	1.365	0.236	0.753
9/16	Z-1009	0.945	1.378	1.365	0.275	0.753
5/8	Z-1010	1.024	1.378	1.365	0.315	0.753
11/16	Z-1011	1.142	1.378	1.482	0.354	0.871
3/4	Z-1012	1.220	1.378	1.482	0.375	0.871
13/16	Z-1013	1.299	1.378	1.482	0.433	0.871
7/8	Z-1014	1.378	1.378	1.560	0.512	0.950
15/16	Z-1015	1.378	1.378	1.560	0.512	0.950
1	Z-1016	1.496	1.378	1.600	0.512	0.989
1-1/16	Z-1017	1.614	1.378	1.600	0.512	0.989
1-1/8	Z-1018	1.614	1.378	1.638	0.650	1.147
1-3/16	Z-1019	1.732	1.378	1.638	0.650	1.147
1-1/4	Z-1020	1.732	1.378	1.794	0.669	1.186
1-5/16	Z-1021	1.929	1.378	1.911	0.748	1.265
1-3/8	Z-1022	1.929	1.378	1.989	0.748	1.383
1-7/16	Z-1023	2.047	1.732	1.989	0.748	1.383
1-1/2	Z-1024	2.126	1.732	1.989	0.866	1.383



### DEEP FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
1/2	Z-1008L	0.906	1.378	3.465	0.236	2.840
9/16	Z-1009L	0.945	1.378	3.465	0.275	2.840
5/8	Z-1010L	1.024	1.378	3.465	0.315	2.840
11/16	Z-1011L	1.142	1.378	3.465	0.354	2.840
3/4	Z-1012L	1.220	1.378	3.465	0.375	2.840
13/16	Z-1013L	1.299	1.378	3.465	0.433	2.840
7/8	Z-1014L	1.378	1.378	3.465	0.512	2.840
15/16	Z-1015L	1.378	1.378	3.465	0.512	2.840
1	Z-1016L	1.496	1.378	3.465	0.512	2.840
1-1/16	Z-1017L	1.614	1.378	3.465	0.512	2.840
1-1/8	Z-1018L	1.614	1.378	3.465	0.650	2.840
1-3/16	Z-1019L	1.732	1.378	3.465	0.650	2.840
1-1/4	Z-1020L	1.732	1.378	3.465	0.669	2.840
1-5/16	Z-1021L	1.929	1.378	3.465	0.748	2.840
1-3/8	Z-1022L	1.929	1.378	3.465	0.748	2.840
1-7/16	Z-1023L	2.047	1.732	3.465	0.748	2.840
1-1/2	Z-1024L	2.126	1.732	3.465	0.866	2.840

Why 5/8" drive? This unusual drive size was originally introduced in the 1930's to eliminate the "disappearing socket syndrome". It remains popular in several applications today for the heavier wall thickness than comparable 1/2" drive sockets.

## STANDARD METRIC SIZES

SIZE	PART#	D1	D2	L	T	C
13	Z-10M13	23	35	35	6	19
14	Z-10M14	24	35	35	7	19
15	Z-10M15	26	35	35	7	19
16	Z-10M16	26	35	35	7	19
17	Z-10M17	28	35	38	9	22
18	Z-10M18	30	35	38	9	22
19	Z-10M19	31	35	38	9.5	22
20	Z-10M20	32	35	38	10	22
21	Z-10M21	33	35	38	10	22
22	Z-10M22	35	35	40	10	24
23	Z-10M23	35	35	40	12	24
24	Z-10M24	35	35	40	12	24
25	Z-10M25	38	35	41	13	25
26	Z-10M26	38	35	41	13	25
27	Z-10M27	41	35	42	13	25
28	Z-10M28	41	35	42	14	26
29	Z-10M29	41	35	45	14	29
30	Z-10M30	44	35	45	16.5	29
31	Z-10M31	44	35	46	16.5	42
32	Z-10M32	44	35	47	16.5	42
33	Z-10M33	44	35	47	17	31
34	Z-10M34	49	35	50	17	34
35	Z-10M35	49	35	51	19	35
36	Z-10M36	52	35	51	19	35
37	Z-10M37	54	44	51	19	35
38	Z-10M38	54	44	51	22	35

## DEEP METRIC SIZES

SIZE	PART#	D1	D2	L	T	C
13	Z-10M13L	23	35	88	6	72
14	Z-10M14L	24	35	88	7	72
15	Z-10M15L	26	35	88	7	72
16	Z-10M16L	26	35	88	7	72
17	Z-10M17L	28	35	88	9	72
18	Z-10M18L	30	35	88	9	72
19	Z-10M19L	31	35	88	9.5	72
20	Z-10M20L	32	35	88	10	72
21	Z-10M21L	33	35	88	10	72
22	Z-10M22L	35	35	88	10	72
23	Z-10M23L	35	35	88	12	72
24	Z-10M24L	35	35	88	12	72
25	Z-10M25L	38	35	88	13	72
26	Z-10M26L	38	35	88	13	72
27	Z-10M27L	41	35	88	13	72
28	Z-10M28L	41	35	88	14	72
29	Z-10M29L	41	35	88	14	72
30	Z-10M30L	44	35	88	16.5	72
31	Z-10M31L	44	35	88	16.5	72
32	Z-10M32L	44	35	88	16.5	72
33	Z-10M33L	44	35	88	17	72
34	Z-10M34L	49	35	88	17	72
35	Z-10M35L	49	35	88	19	72
36	Z-10M36L	52	35	88	19	72
37	Z-10M37L	54	44	88	19	72
38	Z-10M38L	54	44	88	22	72

## ACCESSORIES

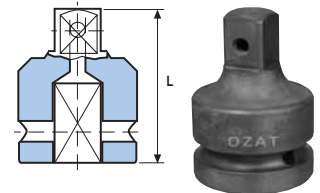
### UNIVERSAL JOINT

SIZE	PART#
5/8	U1010



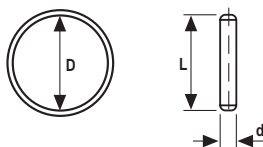
### ADAPTERS

PART#	FEMALE	MALE	L
A1008	5/8	1/2	1.900
A1012	5/8	3/4	1.770



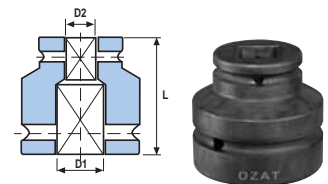
### RETAINING PINS AND RINGS

SQUARE DRIVE	THROUGH HEX SIZE	PIN #	RING#	d	L	D
5/8	1-3/16 - 30mm	P1035	R1035	.117	1.070	1.092
5/8	Above 1-3/16	P1044	R1044	.117	1.521	1.443



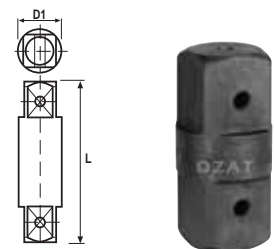
### DOUBLE ENDED FEMALE ADAPTERS

PART#	D1	D2	L
AN1008	1/2	5/8	1.299
AN1010	5/8	5/8	1.378
AN1012	5/8	3/4	1.969



### DOUBLE ENDED MALE EXTENSIONS

PART#	D1	L
Z1002	0.830	2
Z1003	0.830	3
Z1006	0.830	6
Z1012	0.830	12

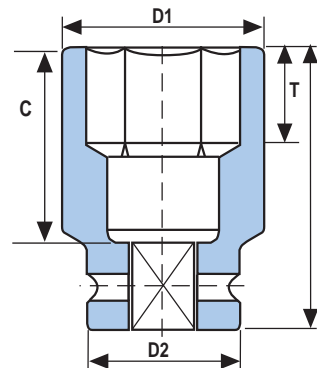
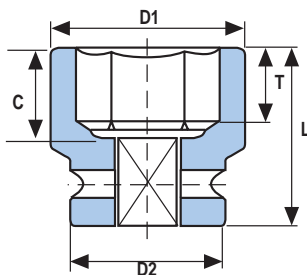


### STANDARD FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
1/2	Z-1208	0.945	1.732	1.755	0.236	0.772
9/16	Z-1209	0.984	1.732	1.755	0.276	0.772
5/8	Z-1210	1.102	1.732	1.755	0.315	0.772
11/16	Z-1211	1.142	1.732	1.755	0.354	0.772
3/4	Z-1212	1.260	1.732	1.755	0.372	0.772
13/16	Z-1213	1.378	1.732	1.794	0.433	0.890
7/8	Z-1214	1.496	1.732	1.794	0.512	0.890
15/16	Z-1215	1.575	1.732	1.794	0.512	0.890
1	Z-1216	1.614	1.732	1.794	0.512	0.890
1-1/16	Z-1217	1.732	1.732	2.028	0.512	1.047
1-1/8	Z-1218	1.732	1.732	2.028	0.650	1.047
1-3/16	Z-1219	1.732	1.732	2.028	0.650	1.047
1-1/4	Z-1220	1.929	1.732	2.028	0.650	1.047
1-5/16	Z-1221	1.929	1.732	2.145	0.748	1.165
1-3/8	Z-1222	2.047	1.732	2.145	0.748	1.165
1-7/16	Z-1223	2.047	1.732	2.184	0.748	1.205
1-1/2	Z-1224	2.126	1.732	2.301	0.866	1.283
1-9/16	Z-1225	2.244	1.732	2.301	0.866	1.283
1-5/8	Z-1226	2.244	1.732	2.301	0.866	1.283
1-11/16	Z-1227	2.480	1.732	2.496	0.984	1.441
1-3/4	Z-1228	2.480	1.732	2.496	0.995	1.480
1-13/16	Z-1229	2.638	1.732	2.496	0.995	1.480
1-7/8	Z-1230	2.638	2.126	2.613	1.062	1.598
1-15/16	Z-1231	2.756	2.126	2.613	1.062	1.598
2	Z-1232	2.874	2.126	2.613	1.062	1.598
2-1/16	Z-1233	2.874	2.126	2.769	1.181	1.756
2-1/8	Z-1234	2.874	2.126	2.769	1.181	1.795
2-3/16	Z-1235	3.071	2.126	2.886	1.260	1.795
2-1/4	Z-1236	3.228	2.126	2.925	1.299	1.913
2-5/16	Z-1237	3.228	2.126	2.925	1.299	1.953
2-3/8	Z-1238	3.228	2.126	2.925	1.378	1.953

### DEEP FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
1/2	Z-1208L	0.945	1.732	3.510	0.236	2.543
9/16	Z-1209L	0.984	1.732	3.510	0.276	2.543
5/8	Z-1210L	1.102	1.732	3.510	0.315	2.543
11/16	Z-1211L	1.142	1.732	3.510	0.354	2.543
3/4	Z-1212L	1.260	1.732	3.510	0.372	2.543
13/16	Z-1213L	1.378	1.732	3.510	0.433	2.543
7/8	Z-1214L	1.496	1.732	3.510	0.512	2.543
15/16	Z-1215L	1.575	1.732	3.510	0.512	2.543
1	Z-1216L	1.614	1.732	3.510	0.512	2.543
1-1/16	Z-1217L	1.732	1.732	3.510	0.512	2.543
1-1/8	Z-1218L	1.732	1.732	3.510	0.650	2.543
1-3/16	Z-1219L	1.732	1.732	3.510	0.650	2.543
1-1/4	Z-1220L	1.929	1.732	3.510	0.669	2.543
1-5/16	Z-1221L	1.929	1.732	3.510	0.748	2.543
1-3/8	Z-1222L	2.047	1.732	3.510	0.748	2.543
1-7/16	Z-1223L	2.047	1.732	3.510	0.748	2.543
1-1/2	Z-1224L	2.126	1.732	3.510	0.866	2.543
1-9/16	Z-1225L	2.244	1.732	3.510	0.866	2.543
1-5/8	Z-1226L	2.244	1.732	3.510	0.866	2.543
1-11/16	Z-1227L	2.480	1.732	3.510	0.984	2.543
1-3/4	Z-1228L	2.480	1.732	3.510	0.995	2.543
1-13/16	Z-1229L	2.638	1.732	3.510	0.995	2.543
1-7/8	Z-1230L	2.638	2.126	3.510	1.062	2.543
1-15/16	Z-1231L	2.756	2.126	3.510	1.062	2.543
2	Z-1232L	2.874	2.126	3.510	1.062	2.543
2-1/16	Z-1233L	2.874	2.126	3.666	1.181	2.701
2-1/8	Z-1234L	2.874	2.126	3.666	1.181	2.740
2-3/16	Z-1235L	3.071	2.126	3.666	1.260	2.740
2-1/4	Z-1236L	3.228	2.126	3.822	1.299	2.858
2-5/16	Z-1237L	3.228	2.126	3.822	1.299	2.898
2-3/8	Z-1238L	3.228	2.126	3.822	1.378	2.898



OZAT 3/4" drive sockets (and larger) are also available by special order as Spark Resistant for use in mines, chemical plants, grain processors and anywhere explosive conditions exist.

### STANDARD METRIC SIZES

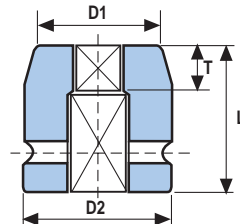
SIZE	PART#	D1	D2	L	T	C
13	Z-12M13	25	44	45	6	20
14	Z-12M14	25	44	45	7	20
15	Z-12M15	28	44	45	7	20
16	Z-12M16	29	44	45	7	20
17	Z-12M17	29	44	45	9	20
18	Z-12M18	32	44	45	9.5	20
19	Z-12M19	32	44	45	9.5	20
20	Z-12M20	35	44	46	10	21
21	Z-12M21	35	44	46	10	21
22	Z-12M22	38	44	46	10	21
23	Z-12M23	38	44	46	12	21
24	Z-12M24	40	44	46	12	21
25	Z-12M25	41	44	46	13	21
26	Z-12M26	41	44	46	13	21
27	Z-12M27	41	44	48	13	23
28	Z-12M28	44	44	48	14	23
29	Z-12M29	44	44	52	14	27
30	Z-12M30	44	44	52	16.5	27
31	Z-12M31	49	44	52	16.5	27
32	Z-12M32	49	44	52	16.5	27
33	Z-12M33	49	44	55	17	30
34	Z-12M34	52	44	55	17	30
35	Z-12M35	52	44	55	19	30
36	Z-12M36	52	44	56	19	31
37	Z-12M37	54	44	56	19	31
38	Z-12M38	54	44	59	22	34
39	Z-12M39	57	44	59	21.5	34
40	Z-12M40	57	44	59	21.5	34
41	Z-12M41	57	44	59	22	34
42	Z-12M42	60	44	59	21.5	34
43	Z-12M43	63	44	64	25	39
44	Z-12M44	63	44	64	21.5	39
45	Z-12M45	63	44	64	21.5	39
46	Z-12M46	67	44	64	25.5	39
47	Z-12M47	67	54	64	23.5	39
48	Z-12M48	67	54	67	23.5	42
49	Z-12M49	70	54	67	27	42
50	Z-12M50	70	54	67	23.5	42
51	Z-12M51	73	54	67	27	42
52	Z-12M52	73	54	70	27	45
54	Z-12M54	78	54	71	30	46
55	Z-12M55	78	54	71	27	46
56	Z-12M56	78	54	74	28	49
57	Z-12M57	82	54	75	33	50
58	Z-12M58	82	54	75	28	50
59	Z-12M59	82	54	75	33	50
60	Z-12M60	82	54	75	28	50
61	Z-12M61	86	54	75	28	50

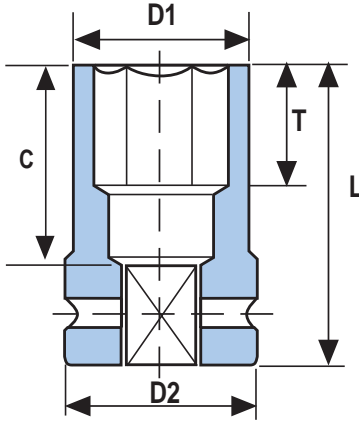
### DEEP METRIC SIZES

SIZE	PART#	D1	D2	L	T	C
13	Z-12M13L	25	44	90	6	65
14	Z-12M14L	25	44	90	7	65
15	Z-12M15L	28	44	90	7	65
16	Z-12M16L	29	44	90	7	65
17	Z-12M17L	29	44	90	9	65
18	Z-12M18L	32	44	90	9	65
19	Z-12M19L	32	44	90	9.5	65
20	Z-12M20L	35	44	90	10	65
21	Z-12M21L	35	44	90	10	65
22	Z-12M22L	38	44	90	10	65
23	Z-12M23L	38	44	90	12	65
24	Z-12M24L	40	44	90	12	65
25	Z-12M25L	41	44	90	13	65
26	Z-12M26L	41	44	90	13	65
27	Z-12M27L	41	44	90	13	65
28	Z-12M28L	44	44	90	14	65
29	Z-12M29L	44	44	90	14	65
30	Z-12M30L	44	44	90	16.5	65
31	Z-12M31L	49	44	90	16.5	65
32	Z-12M32L	49	44	90	16.5	65
33	Z-12M33L	49	44	90	17	65
34	Z-12M34L	52	44	90	17	65
35	Z-12M35L	52	44	90	19	65
36	Z-12M36L	52	44	90	19	65
37	Z-12M37L	54	44	90	19	65
38	Z-12M38L	54	44	90	22	65
39	Z-12M39L	57	44	90	21.5	65
40	Z-12M40L	57	44	90	21.5	65
41	Z-12M41L	57	44	90	22	65
42	Z-12M42L	60	44	90	21.5	65
43	Z-12M43L	63	44	90	25	65
44	Z-12M44L	63	44	90	21.5	65
45	Z-12M45L	63	44	90	21.5	65
46	Z-12M46L	67	44	90	25.5	65
47	Z-12M47L	67	54	90	23.5	65
48	Z-12M48L	67	54	90	23.5	65
49	Z-12M49L	70	54	90	27	65
50	Z-12M50L	70	54	90	23.5	65
51	Z-12M51L	73	54	94	27	65
52	Z-12M52L	73	54	94	27	65
54	Z-12M54L	78	54	94	30	69
55	Z-12M55L	78	54	94	27	69
56	Z-12M56L	78	54	98	28	69
57	Z-12M57L	82	54	98	33	73
58	Z-12M58L	82	54	98	28	73
59	Z-12M59L	82	54	98	33	73
60	Z-12M60L	82	54	98	28	73
61	Z-12M61L	86	54	98	28	73

### BUDD WHEEL SOCKETS

SIZE	PART#	D1	D2	L	T
13/16	Z-1213B	1.653	1.732	1.950	0.433
13/16	Z-1213B	1.653	1.732	3.510	0.433
13/16 X 1-1/2	Z-1224BS	2.126	1.732	3.510	0.571





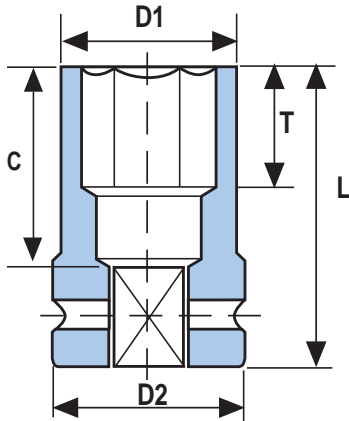
### STANDARD FRACTIONAL THINWALL

SIZE	PART#	D1	D2	L	T	C
11/16	Z-1211T	1.102	1.732	1.755	0.354	0.969
3/4	Z-1212T	1.181	1.732	1.755	0.375	0.969
13/16	Z-1213T	1.378	1.732	1.794	0.433	0.969
7/8	Z-1214T	1.378	1.732	1.794	0.512	0.969
15/16	Z-1215T	1.378	1.732	1.794	0.512	0.969
1	Z-1216T	1.496	1.732	1.794	0.512	0.969
1-1/16	Z-1217T	1.614	1.732	1.872	0.512	1.047
1-1/8	Z-1218T	1.614	1.732	2.028	0.650	1.047
1-3/16	Z-1219T	1.732	1.732	2.028	0.650	1.047
1-1/4	Z-1220T	1.732	1.732	2.028	0.669	1.047
1-5/16	Z-1221T	1.929	1.732	2.145	0.748	1.165
1-3/8	Z-1222T	2.047	1.732	2.145	0.748	1.165
1-7/16	Z-1223T	2.047	1.732	2.184	0.748	1.205
1-1/2	Z-1224T	2.126	1.732	2.301	0.866	1.283
1-9/16	Z-1225T	2.126	1.732	2.301	0.866	1.283
1-5/8	Z-1226T	2.126	1.732	2.301	0.866	1.283
1-11/16	Z-1227T	2.362	1.732	2.496	0.984	1.441
1-3/4	Z-1228T	2.362	1.732	2.496	0.995	1.480
1-13/16	Z-1229T	2.480	1.732	2.496	0.995	1.480



### STANDARD METRIC THINWALL

SIZE	PART#	D1	D2	L	T	C
17	Z-12M17T	28	44	45	9	20
18	Z-12M18T	30	44	45	9	20
19	Z-12M19T	30	44	45	9.5	21
20	Z-12M20T	30	44	46	10	21
21	Z-12M21T	35	44	46	10	21
22	Z-12M22T	35	44	46	10	21
23	Z-12M23T	35	44	46	12	21
24	Z-12M24T	38	44	46	12	21
25	Z-12M25T	38	44	46	13	21
26	Z-12M26T	41	44	46	13	21
27	Z-12M27T	41	44	48	13	23
28	Z-12M28T	41	44	48	14	23
29	Z-12M29T	41	44	52	14	27
30	Z-12M30T	41	44	52	16.5	27
31	Z-12M31T	44	44	52	16.5	27
32	Z-12M32T	48	44	52	16.5	27
33	Z-12M33T	48	44	55	17	30
34	Z-12M34T	49	44	55	17	30
35	Z-12M35T	50	44	55	19	30
36	Z-12M36T	52	44	56	19	31
37	Z-12M37T	52	44	56	19	31
38	Z-12M38T	52	44	59	22	34
39	Z-12M39T	54	44	59	21.5	34
40	Z-12M40T	54	44	59	21.5	34
41	Z-12M41T	54	44	59	22	34
42	Z-12M42T	57	44	59	21.5	34
43	Z-12M43T	60	44	64	25	39
44	Z-12M44T	60	44	64	21.5	39
45	Z-12M45T	60	44	64	21.5	39
46	Z-12M46T	63	44	64	25.5	39



### DEEP FRACTIONAL THINWALL

SIZE	PART#	D1	D2	L	T	C
11/16	Z-1211LT	1.102	1.732	3.510	0.709	2.543
3/4	Z-1212LT	1.181	1.732	3.510	0.748	2.543
13/16	Z-1213LT	1.378	1.732	3.510	0.866	2.543
7/8	Z-1214LT	1.378	1.732	3.510	1.024	2.543
15/16	Z-1215LT	1.378	1.732	3.510	1.024	2.543
1	Z-1216LT	1.496	1.732	3.510	1.024	2.543
1-1/16	Z-1217LT	1.614	1.732	3.510	1.024	2.543
1-1/8	Z-1218LT	1.614	1.732	3.510	1.299	2.543
1-3/16	Z-1219LT	1.732	1.732	3.510	1.299	2.543
1-1/4	Z-1220LT	1.732	1.732	3.510	1.339	2.543
1-5/16	Z-1221LT	1.929	1.732	3.510	1.496	2.543
1-3/8	Z-1222LT	2.047	1.732	3.510	1.496	2.543
1-7/16	Z-1223LT	2.047	1.732	3.510	1.496	2.543
1-1/2	Z-1224LT	2.126	1.732	3.510	1.732	2.543
1-9/16	Z-1225LT	2.126	1.732	3.510	1.732	2.543
1-5/8	Z-1226LT	2.126	1.732	3.510	1.732	2.543
1-11/16	Z-1227LT	2.362	1.732	3.510	1.969	2.543
1-3/4	Z-1228LT	2.362	1.732	3.510	2.008	2.543
1-13/16	Z-1229LT	2.480	1.732	3.510	2.008	2.543

### DEEP METRIC THINWALL

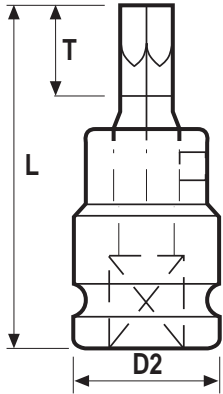
SIZE	PART#	D1	D2	L	T	C
17	Z-12M17LT	28	44	90	18	65
18	Z-12M18LT	30	44	90	18	65
19	Z-12M19LT	30	44	90	19	65
20	Z-12M20LT	30	44	90	20	65
21	Z-12M21LT	35	44	90	20	65
22	Z-12M22LT	35	44	90	20	65
23	Z-12M23LT	35	44	90	24	65
24	Z-12M24LT	38	44	90	24	65
25	Z-12M25LT	38	44	90	26	65
26	Z-12M26LT	41	44	90	26	65
27	Z-12M27LT	41	44	90	26	65
28	Z-12M28LT	41	44	90	28	65
29	Z-12M29LT	41	44	90	28	65
30	Z-12M30LT	41	44	90	33	65
31	Z-12M31LT	44	44	90	33	65
32	Z-12M32LT	48	44	90	33	65
33	Z-12M33LT	48	44	90	34	65
34	Z-12M34LT	49	44	90	34	65
35	Z-12M35LT	50	44	90	38	65
36	Z-12M36LT	52	44	90	38	65
37	Z-12M37LT	52	44	90	38	65
38	Z-12M38LT	52	44	90	44	65
39	Z-12M39LT	54	44	90	43	65
40	Z-12M40LT	54	44	90	43	65
41	Z-12M41LT	54	44	90	44	65
42	Z-12M42LT	57	44	90	43	65
43	Z-12M43LT	60	44	90	50	65
44	Z-12M44LT	60	44	90	43	65
45	Z-12M45LT	60	44	90	43	65
46	Z-12M46LT	63	44	90	51	65





# 3/4" SQUARE DRIVE

# HEX DRIVER SOCKETS



### FRACTIONAL SIZES

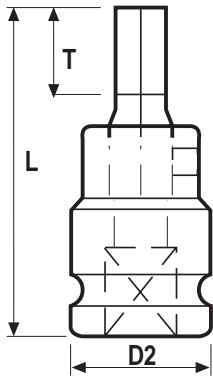
SIZE	PART#	D2	L	T
3/8	Z-1206H	1.496	2.637	1.130
7/16	Z-1207H	1.496	2.637	1.130
1/2	Z-1208H	1.496	2.637	1.130
9/16	Z-1209H	1.496	2.637	1.130
5/8	Z-1210H	1.496	2.637	1.130
3/4	Z-1212H	1.732	2.637	1.130
13/16	Z-1213H	1.732	2.795	1.295
7/8	Z-1214H	1.732	2.795	1.295
1	Z-1216H	1.732	2.795	1.295

Note: 1 Piece Construction

### METRIC SIZES

SIZE	PART#	D2	L	T
10	Z-12M10H	38	67	29
12	Z-12M12H	38	67	29
14	Z-12M14H	38	67	29
17	Z-12M17H	38	67	29
19	Z-12M19H	44	67	29
22	Z-12M22H	44	71	33
24	Z-12M24H	44	71	33

Note: 1 Piece Construction



### 2 PART INHEX

NOMINAL OPENING			D2	L	T	Weight
mm	A/F Inch	CATALOG No.	mm	mm	mm	gr
	3/8"	Z-1206V	38	69	16	310
	7/16"	Z-1207V	38	69	18	310
	1/2"	Z-1208V	38	69	19	310
	9/16"	Z-1209V	38	69	21	310
	5/8"	Z-1210V	38	69	24	310
	3/4"	Z-1212V	44	69	26	630
	13/16"	Z-1213V	44	84	26	630
	7/8"	Z-1214V	44	84	26	630
	1"	Z-1216V	44	104	30	630
10		Z-12M10V	38	69	16	310
12		Z-12M12V	38	69	18	310
14		Z-12M14V	38	69	21	310
17		Z-12M17V	38	69	26	310
19		Z-12M19V	44	84	26	630
22		Z-12M22V	44	84	26	630
24		Z-12M24V	44	84	26	630

Note: 2 Piece Construction

# DOUBLE SQUARE IMPACT EIGHT POINT SOCKETS



### STANDARD FRACTIONAL SIZES

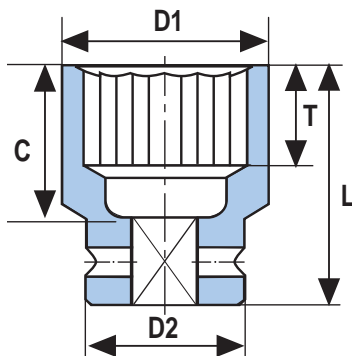
SIZE	PART#	D1	D2	L	T	C
1-1/4	DS-1220	2.362	1.732	2.067	0.669	1.087
1-5/16	DS-1221	2.480	1.732	2.067	0.748	1.087
1-3/8	DS-1222	2.638	1.732	2.067	0.748	1.087
1-7/16	DS-1223	2.638	1.732	2.223	0.748	1.244
1-1/2	DS-1224	2.638	1.732	2.223	0.866	1.244
1-9/16	DS-1225	3.071	2.126	2.223	0.866	1.244
1-5/8	DS-1226	3.071	2.126	2.223	0.866	1.244
1-11/16	DS-1227	3.228	2.126	2.418	0.984	1.441
1-3/4	DS-1228	3.228	2.126	2.457	1.005	1.480
1-13/16	DS-1229	3.228	2.126	2.457	1.005	1.480
1-7/8	DS-1230	3.228	2.126	2.535	1.063	1.559

### DEEP FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
1-1/4	DS-1220L	2.362	1.732	3.159	0.669	2.189
1-5/16	DS-1221L	2.480	1.732	3.159	0.748	2.189
1-3/8	DS-1222L	2.638	1.732	3.159	0.748	2.189
1-7/16	DS-1223L	2.638	1.732	3.159	0.748	2.189
1-1/2	DS-1224L	2.638	1.732	3.159	0.866	2.189
1-9/16	DS-1225L	3.071	2.126	3.159	0.866	2.189
1-5/8	DS-1226L	3.071	2.126	3.159	0.866	2.189
1-11/16	DS-1227L	3.228	2.126	3.159	0.984	2.189
1-3/4	DS-1228L	3.228	2.126	3.159	1.005	2.189
1-13/16	DS-1229L	3.228	2.126	3.159	1.005	2.189
1-7/8	DS-1230L	3.228	2.126	3.159	1.063	2.189

## 12 POINT IMPACT SOCKETS REGULAR LENGTH

	NOMINAL OPENING		D1	D2	L	tmin	Weight
	mm	A/F Inch					
	15/16"	DH-1215	40	44	46	13.0	340
	1"	DH-1216	41	44	46	13.0	340
27	1-1/16"	DH-1217M27	41	44	48	13.0	340
	1-1/8"	DH-1218	44	44	52	16.5	380
30	1-3/16"	DH-1219M30	44	44	52	16.5	380
	1-1/4"	DH-1220	49	44	52	17.0	420
	1-5/16"	DH-1221	49	44	55	19.0	430
33		DH-12M33	49	44	55	17.0	430
34		DH-12M34	52	44	55	19.0	460
35	1-3/8"	DH-1222M35	52	44	55	19.0	460
36		DH-12M36	52	44	55	19.0	460
	1-7/16"	DH-1223	52	44	56	19.0	460
37		DH-12M37	54	44	56	19.0	490
38	1-1/2"	DH-1224M38	54	44	59	22.0	490
39		DH-12M39	57	44	59	22.0	520
	1-9/16"	DH-1225	57	44	59	22.0	520
40		DH-12M40	57	44	59	22.0	520
41	1-5/8"	DH-1226M41	57	44	59	22.0	520
42		DH-12M42	60	44	59	22.0	520
43	1-11/16"	DH-1227M43	63	44	64	25.0	600
44		DH-12M44	63	44	64	25.0	600
	1-3/4"	DH-1228	63	44	64	25.0	600
45		DH-12M45	63	44	64	25.0	600
46	1-13/16"	DH-1229M46	67	44	64	25.0	850
47		DH-12M47	67	54	64	25.0	850
	1-7/8"	DH-1230	67	54	67	27.0	910
48		DH-12M48	67	54	67	27.0	910
49	1-15/16"	DH-1231M49	70	54	67	27.0	950
50		DH-12M50	70	54	67	27.0	950
51	2"	DH-1232M51	73	54	67	27.0	1040
52		DH-12M52	73	54	70	27.0	1040
	2-1/16"	DH-1233	73	54	71	30.0	1040
54	2-1/8"	DH-1234M54	73	54	71	30.0	1040
55		DH-12M55	78	54	71	30.0	1200
	2-3/16"	DH-1235	78	54	74	32.0	1200
56		DH-12M56	78	54	74	32.0	1200
57	2-1/4"	DH-1236M57	82	54	75	33.0	1320
58		DH-12M58	82	54	75	33.0	1320
59	2-5/16"	DH-1237M59	82	54	75	33.0	1320
60		DH-12M60	82	54	75	33.0	1320
	2-3/8"	DH-1238	82	54	75	35.0	1320
61		DH-12M61	86	54	75	35.0	1430

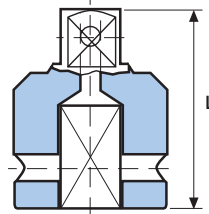


# 3/4" SQUARE DRIVE

## ACCESSORIES

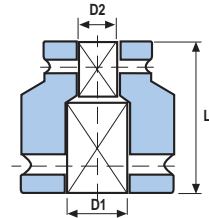
### ADAPTERS

PART#	FEMALE	MALE	L
A1208	3/4	1/2	2.165
A1210	3/4	5/8	2.244
A1216	3/4	1	2.322



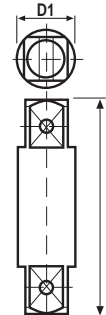
### DOUBLE ENDED FEMALE ADAPTERS

PART#	D1	D2	L
AN1208	3/4	1/2	1.929
AN1210	3/4	5/8	1.968
AN1212	3/4	3/4	1.929
AN1612	3/4	1	2.480



### DOUBLE ENDED MALE ADAPTERS

PART#	D1	L
Z1202	1	2
Z1203	1	3
Z1204	1	4
Z1205	1	5
Z1207	1	7
Z1210	1	10
Z1213	1	13
Z1215	1	15
Z1216	1	16

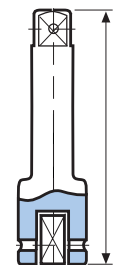


### UNIVERSAL JOINT

SIZE	PART#
3/4	U1212

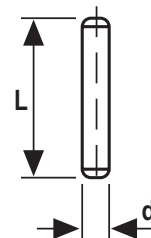
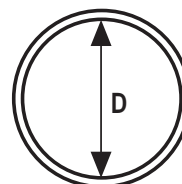
### EXTENSIONS

PART#	L
E1203	3
E1204	4
E1205	5
E1207	7
E1213	13



### RETAINING PINS AND RINGS

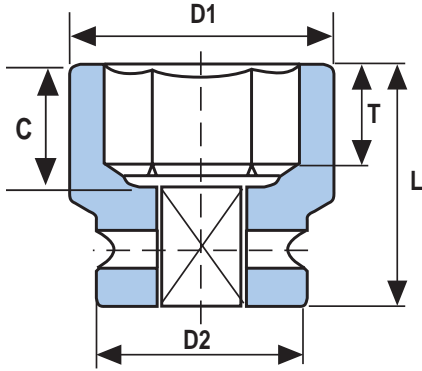
SQUARE DRIVE	THROUGH HEX SIZE	PIN #	RING#	d	L	D
3/4	1-3/16 - 46mm	P1244	R1244	.156	1.365	1.404
5/8	Above 1-3/16	P1254	R1254	.156	1.750	1.794



# 1" SQUARE DRIVE

## SIX POINT IMPACT SOCKETS

### STANDARD FRACTIONAL SIZES



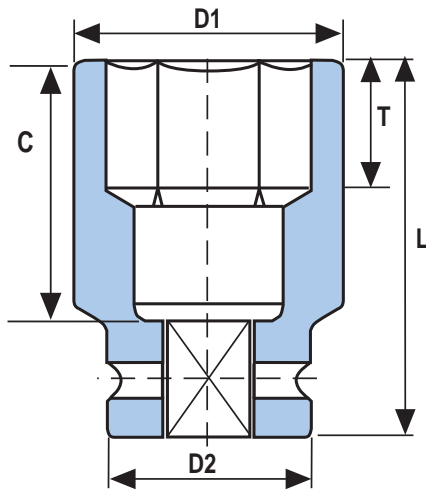
ATP maintains "in stock" one of the broadest ranges of 1" drive sockets available to industry. OZAT 1" drive sizes are equally well suited for construction, maintenance, and heavy assembly applications, as well as for precision bolting with hydraulic bolting equipment.

SIZE	PART#	D1	D2	L	T	C
3/4	Z-1612	1.417	2.126	2.145	0.374	1.040
13/16	Z-1613	1.496	2.126	2.145	0.433	1.040
7/8	Z-1614	1.575	2.126	2.145	0.551	1.040
15/16	Z-1615	1.614	2.126	2.145	0.551	1.040
1	Z-1616	1.693	2.126	2.145	0.551	1.119
1-1/16	Z-1617	1.811	2.126	2.145	0.551	1.119
1-1/8	Z-1618	1.890	2.126	2.223	0.650	1.119
1-3/16	Z-1619	1.969	2.126	2.223	0.650	1.119
1-1/4	Z-1620	2.008	2.126	2.223	0.669	1.119
1-5/16	Z-1621	2.126	2.126	2.340	0.748	1.198
1-3/8	Z-1622	2.126	2.126	2.340	0.748	1.198
1-7/16	Z-1623	2.126	2.126	2.340	0.748	1.198
1-1/2	Z-1624	2.362	2.126	2.496	0.866	1.316
1-9/16	Z-1625	2.362	2.126	2.496	0.866	1.316
1-5/8	Z-1626	2.480	2.126	2.496	0.866	1.316
1-11/16	Z-1627	2.638	2.126	2.691	0.984	1.513
1-3/4	Z-1628	2.756	2.126	2.691	1.004	1.592
1-13/16	Z-1629	2.756	2.126	2.691	1.004	1.592
1-7/8	Z-1630	2.756	2.126	2.808	1.062	1.631
1-15/16	Z-1631	2.874	2.126	2.808	1.062	1.631
2	Z-1632	2.874	2.126	2.808	1.062	1.631
2-1/16	Z-1633	3.071	2.126	2.964	1.181	1.828
2-1/8	Z-1634	3.228	2.126	2.964	1.181	1.828
2-3/16	Z-1635	3.228	2.126	3.120	1.259	1.946
2-1/4	Z-1636	3.228	2.126	3.120	1.299	1.946
2-5/16	Z-1637	3.386	2.126	3.198	1.299	2.025
2-3/8	Z-1638	3.386	2.126	3.315	1.378	2.418
2-7/16	Z-1639	3.622	2.126	3.315	1.378	2.418
2-1/2	Z-1640	3.622	2.126	3.315	1.378	2.418
2-9/16	Z-1641	3.622	2.126	3.315	1.378	2.458
2-5/8	Z-1642	3.622	2.126	3.432	1.496	2.536
2-11/16	Z-1643	3.780	2.126	3.432	1.496	2.576
2-3/4	Z-1644	3.780	3.386	3.432	1.496	2.615
2-13/16	Z-1645	3.937	3.386	3.588	1.575	2.615
2-7/8	Z-1646	3.937	3.386	3.588	1.614	2.615
2-15/16	Z-1647	3.937	3.386	3.588	1.614	2.615
3	Z-1648	4.134	3.386	3.783	1.732	2.655
3-1/16	Z-1649	4.134	3.386	3.783	1.732	2.655
3-1/8	Z-1650	4.134	3.386	3.783	1.732	2.655
3-3/16	Z-1651	4.291	3.386	3.900	1.850	2.812
3-1/4	Z-1652	4.291	3.386	3.900	1.850	2.812
3-5/16	Z-1653	4.291	3.386	3.900	1.850	2.812
3-3/8	Z-1654	4.291	3.386	4.056	1.929	2.930
3-7/16	Z-1655	4.764	3.386	4.056	1.929	2.930
3-1/2	Z-1656	4.764	3.386	4.056	1.929	2.930
3-9/16	Z-1657	5.000	3.386	4.056	1.890	2.930
3-5/8	Z-1658	5.118	3.386	4.056	1.929	2.930
3-11/16	Z-1659	5.118	3.386	4.056	1.929	2.930
3-3/4	Z-1660	5.315	3.386	4.134	1.929	3.245
3-13/16	Z-1661	5.315	3.386	4.368	2.125	3.245
3-7/8	Z-1662	5.315	3.386	4.368	2.125	3.245
3-15/16	Z-1663	5.315	3.386	4.368	2.125	3.245
4	Z-1664	5.512	5	4.368	2.125	3.245
4-1/16	Z-1665	4.512	5	4.368	2.125	3.245
4-1/8	Z-1666	5.709	5	4.368	2.125	3.245
4-3/16	Z-1667	5.709	5	4.758	2.441	3.245
4-1/4	Z-1668	5.709	5	4.758	2.441	3.599
4-5/16	Z-1669	5.906	5	4.758	2.441	3.599
4-3/8	Z-1670	5.906	5	4.758	2.441	3.599
4-7/16	Z-1671	6.102	5	4.758	2.441	3.599
4-1/2	Z-1672	6.102	5	4.758	2.441	3.599

# 1" SQUARE DRIVE

## SIX POINT IMPACT SOCKETS

### DEEP FRACTIONAL SIZES



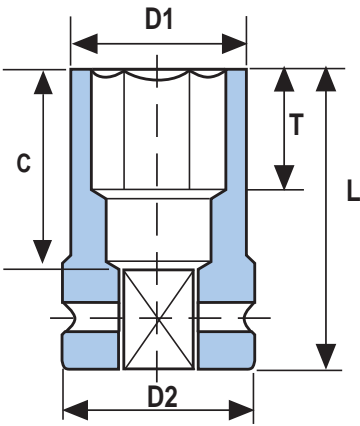
SIZE	PART#	D1	D2	L	T	C
3/4	Z-1612L	1.417	2.126	3.900	0.374	2.812
13/16	Z-1613L	1.496	2.126	3.900	0.433	2.812
7/8	Z-1614L	1.575	2.126	3.900	0.551	2.812
15/16	Z-1615L	1.614	2.126	3.900	0.551	2.812
1	Z-1616L	1.693	2.126	3.900	0.551	2.812
1-1/16	Z-1617L	1.811	2.126	3.900	0.551	2.812
1-1/8	Z-1618L	1.890	2.126	3.900	0.650	2.812
1-3/16	Z-1619L	1.969	2.126	3.900	0.650	2.812
1-1/4	Z-1620L	2.008	2.126	3.900	0.669	2.812
1-5/16	Z-1621L	2.126	2.126	3.900	0.748	2.812
1-3/8	Z-1622L	2.126	2.126	3.900	0.748	2.812
1-7/16	Z-1623L	2.126	2.126	3.900	0.748	2.812
1-1/2	Z-1624L	2.362	2.126	3.900	0.866	2.812
1-9/16	Z-1625L	2.362	2.126	3.900	0.866	2.812
1-5/8	Z-1626L	2.480	2.126	3.900	0.866	2.812
1-11/16	Z-1627L	2.638	2.126	3.900	0.984	2.812
1-3/4	Z-1628L	2.756	2.126	3.900	1.004	2.812
1-13/16	Z-1629L	2.756	2.126	3.900	1.004	2.812
1-7/8	Z-1630L	2.756	2.126	3.900	1.062	2.812
1-15/16	Z-1631L	2.874	2.126	3.900	1.062	2.812
2	Z-1632L	2.874	2.126	3.900	1.062	2.812
2-1/16	Z-1633L	3.071	2.126	3.900	1.181	2.969
2-1/8	Z-1634L	3.228	2.126	4.056	1.181	2.969
2-3/16	Z-1635L	3.228	2.126	4.095	1.259	3.088
2-1/4	Z-1636L	3.228	2.126	4.095	1.299	3.088
2-5/16	Z-1637L	3.386	2.126	4.368	1.299	3.166
2-3/8	Z-1638L	3.386	2.126	4.368	1.378	3.560
2-7/16	Z-1639L	3.622	2.126	4.602	1.378	3.560
2-1/2	Z-1640L	3.622	2.126	4.602	1.378	3.560
2-9/16	Z-1641L	3.622	2.126	4.602	1.378	3.599
2-5/8	Z-1642L	3.622	2.126	4.602	1.496	3.678
2-11/16	Z-1643L	3.780	2.126	4.836	1.496	3.718
2-3/4	Z-1644L	3.780	3.386	4.836	1.496	3.757
2-13/16	Z-1645L	3.937	3.386	4.836	1.575	3.757
2-7/8	Z-1646L	3.937	3.386	4.836	1.614	3.757
2-15/16	Z-1647L	3.937	3.386	4.836	1.614	3.757
3	Z-1648L	4.134	3.386	5.07	1.732	3.796
3-1/16	Z-1649L	4.134	3.386	5.07	1.732	3.796
3-1/8	Z-1650L	4.134	3.386	5.148	1.732	3.796
3-3/16	Z-1651L	4.291	3.386	5.148	1.850	3.954
3-1/4	Z-1652L	4.291	3.386	5.148	1.850	3.954
3-5/16	Z-1653L	4.291	3.386	5.148	1.850	3.954
3-3/8	Z-1654L	4.291	3.386	5.460	1.929	4.072
3-7/16	Z-1655L	4.764	3.386	5.460	1.929	4.072
3-1/2	Z-1656L	4.764	3.386	5.460	1.929	4.072
3-9/16	Z-1657L	5.000	3.386	5.460	1.890	4.072
3-5/8	Z-1658L	5.118	3.386	5.460	1.929	4.072
3-11/16	Z-1659L	5.118	3.386	5.460	1.929	4.072
3-3/4	Z-1660L	5.315	3.386	5.460	1.929	4.387
3-13/16	Z-1661L	5.315	3.386	5.577	2.125	4.387
3-7/8	Z-1662L	5.315	3.386	5.577	2.125	4.387
3-15/16	Z-1663L	5.315	3.386	5.577	2.125	4.387
4	Z-1664L	5.512	5.000	5.577	2.125	4.387
4-1/16	Z-1665L	4.512	5.000	5.577	2.125	4.387
4-1/8	Z-1666L	5.709	5.000	5.577	2.125	4.387
4-3/16	Z-1667L	5.709	5.000	5.811	2.441	4.387
4-1/4	Z-1668L	5.709	5.000	5.811	2.441	4.741
4-5/16	Z-1669L	5.906	5.000	5.811	2.441	4.741
4-3/8	Z-1670L	5.906	5.000	5.811	2.441	4.741
4-7/16	Z-1671L	6.102	5.000	5.811	2.441	4.741
4-1/2	Z-1672L	6.102	5.000	5.811	2.441	4.741

## DEEP FRACTIONAL THINWALL

SIZE	PART#	D1	D2	L	T	C
7/8	Z-1614LT	1.496	2.126	3.937	.500	2.812
15/16	Z-1615LT	1.496	2.126	3.937	.500	2.812
1	Z-1616LT	1.614	2.126	3.937	.500	2.812
1-1/16	Z-1617LT	1.732	2.126	3.937	.500	2.812
1-1/8	Z-1618LT	1.732	2.126	3.937	.500	2.812
1-3/16	Z-1619LT	1.929	2.126	3.937	1.299	2.812
1-1/4	Z-1620LT	1.929	2.126	3.937	1.339	2.812
1-5/16	Z-1621LT	2.047	2.126	3.937	1.496	2.812
1-3/8	Z-1622LT	2.047	2.126	3.937	1.496	2.812
1-7/16	Z-1623LT	2.126	2.126	3.937	1.496	2.812
1-1/2	Z-1624LT	2.224	2.126	3.937	1.732	2.812
1-9/16	Z-1625LT	2.244	2.126	3.937	1.732	2.812
1-5/8	Z-1626LT	2.362	2.126	3.937	1.732	2.812
1-11/16	Z-1627LT	2.480	2.126	3.937	1.968	2.812
1-3/4	Z-1628LT	2.638	2.126	3.937	2.008	2.812
1-13/16	Z-1629LT	2.638	2.126	3.937	2.008	2.812

## DEEP METRIC THINWALL

SIZE	PART#	D1	D2	L	T	C
22	Z-16M22LT	38	54	100	20	71
23	Z-16M23LT	38	54	100	24	71
24	Z-16M24LT	38	54	100	24	71
25	Z-16M25LT	41	54	100	26	71
26	Z-16M26LT	44	54	100	26	71
27	Z-16M27LT	44	54	100	26	71
28	Z-16M28LT	44	54	100	28	71
29	Z-16M29LT	44	54	100	28	71
30	Z-16M30LT	49	54	100	33	71
31	Z-16M31LT	49	54	100	33	71
32	Z-16M32LT	49	54	100	33	71
33	Z-16M33LT	52	54	100	34	71
34	Z-16M34LT	52	54	100	34	71
35	Z-16M35LT	52	54	100	38	71
36	Z-16M36LT	54	54	100	38	71
37	Z-16M37LT	54	54	100	38	71
38	Z-16M38LT	54	54	100	43	71
39	Z-16M39LT	54	54	100	43	71
40	Z-16M40LT	54	54	100	43	71
41	Z-16M41LT	54	54	100	44	71
42	Z-16M42LT	54	54	100	44	71
43	Z-16M43LT	54	54	100	50	71
44	Z-16M44LT	54	54	100	50	71
45	Z-16M45LT	54	54	100	51	71
46	Z-16M46LT	54	54	100	51	71



See page 94 for information on "special" sockets. OZAT routinely manufactures extra deep, extra heavy, spark resistant, special shape, or special drive type sockets.

# 1" SQUARE DRIVE

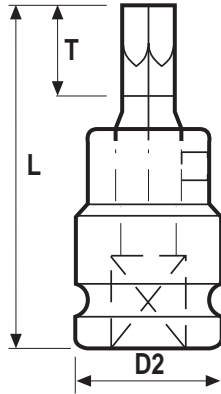
# SIX POINT IMPACT SOCKETS

## STANDARD METRIC SIZES

SIZE	PART#	D1	D2	L	T	C
19	Z-16M19	36	54	55	9.5	26
20	Z-16M20	37	54	55	10	26
21	Z-16M21	38	54	55	10	26
22	Z-16M22	40	54	55	10	26
23	Z-16M23	41	54	55	12	26
24	Z-16M24	42	54	55	12	26
25	Z-16M25	43	54	55	13	26
26	Z-16M26	45	54	55	13	26
27	Z-16M27	46	54	55	13	26
28	Z-16M28	47	54	55	14	26
29	Z-16M29	48	54	57	14	28
30	Z-16M30	50	54	57	16.5	28
31	Z-16M31	51	54	57	16.5	28
32	Z-16M32	51	54	57	16.5	28
33	Z-16M33	54	54	57	17	28
34	Z-16M34	54	54	60	19	31
35	Z-16M35	54	54	60	19	31
36	Z-16M36	54	54	60	19	31
37	Z-16M37	57	54	60	19	31
38	Z-16M38	60	54	64	22	35
39	Z-16M39	60	54	64	21.5	35
40	Z-16M40	63	54	64	21.5	35
41	Z-16M41	63	54	64	22	35
42	Z-16M42	63	54	64	21.5	35
43	Z-16M43	67	54	69	25	40
44	Z-16M44	67	54	69	21.5	40
45	Z-16M45	70	54	69	21.5	40
46	Z-16M46	70	54	69	25.5	40
47	Z-16M47	70	54	69	23.5	40
48	Z-16M48	73	54	72	23.5	43
49	Z-16M49	73	54	72	27	43
50	Z-16M50	73	54	72	23.5	43
51	Z-16M51	73	54	72	27	43
52	Z-16M52	78	54	72	27	43
54	Z-16M54	82	54	76	30	47
55	Z-16M55	82	54	76	27	47
56	Z-16M56	82	54	75	28	46
57	Z-16M57	82	54	80	33	51
58	Z-16M58	86	54	75	28	46
59	Z-16M59	86	54	82	33	53
60	Z-16M60	86	54	75	28	46
61	Z-16M61	88	54	85	28	56
62	Z-16M62	92	54	85	35	56
65	Z-16M65	92	54	85	35	56
67	Z-16M67	92	54	88	38	62
70	Z-16M70	96	54	88	38	79
73	Z-16M73	100	86	92	41	83
75	Z-16M75	100	86	92	41	83
76	Z-16M76	105	86	97	44	68
77	Z-16M77	105	86	97	44	68
80	Z-16M80	105	86	97	37	59
85	Z-16M85	115	86	100	40	63
86	Z-16M86	115	86	104	49	75
90	Z-16M90	127	86	104	43	68
95	Z-16M95	135	86	106	49	77
100	Z-16M100	135	86	112	54	83
105	Z-16M105	145	127	112	54	83
110	Z-16M110	150	127	122	62	93
115	Z-16M115	155	127	122	57	91

## DEEP METRIC SIZES

SIZE	PART#	D1	D2	L	T	C
19	Z-16M19L	36	54	100	9.5	71
20	Z-16M20L	37	54	100	10	71
21	Z-16M21L	38	54	100	10	71
22	Z-16M22L	40	54	100	10	71
23	Z-16M23L	41	54	100	12	71
24	Z-16M24L	42	54	100	12	71
25	Z-16M25L	43	54	100	13	71
26	Z-16M26L	45	54	100	13	71
27	Z-16M27L	46	54	100	13	71
28	Z-16M28L	47	54	100	14	71
29	Z-16M29L	48	54	100	14	71
30	Z-16M30L	50	54	100	16.5	71
31	Z-16M31L	51	54	100	16.5	71
32	Z-16M32L	51	54	100	16.5	71
33	Z-16M33L	54	54	100	17	71
34	Z-16M34L	54	54	100	19	71
35	Z-16M35L	54	54	100	19	71
36	Z-16M36L	54	54	100	19	71
37	Z-16M37L	57	54	100	19	71
38	Z-16M38L	60	54	100	22	71
39	Z-16M39L	60	54	100	21.5	71
40	Z-16M40L	63	54	100	21.5	71
41	Z-16M41L	63	54	100	22	71
42	Z-16M42L	63	54	100	21.5	71
43	Z-16M43L	67	54	100	25	71
44	Z-16M44L	67	54	100	21.5	71
45	Z-16M45L	70	54	100	21.5	71
46	Z-16M46L	70	54	100	25.5	71
47	Z-16M47L	70	54	100	23.5	71
48	Z-16M48L	73	54	100	23.5	71
49	Z-16M49L	73	54	100	27	71
50	Z-16M50L	73	54	100	23.5	71
51	Z-16M51L	73	54	100	27	71
52	Z-16M52L	78	54	100	27	71
54	Z-16M54L	82	54	104	30	75
55	Z-16M55L	82	54	104	27	75
56	Z-16M56L	82	54	105	28	76
57	Z-16M57L	82	54	105	33	76
58	Z-16M58L	86	54	105	28	76
59	Z-16M59L	86	54	112	33	83
60	Z-16M60L	86	54	105	28	83
61	Z-16M61L	88	54	112	28	83
62	Z-16M62L	92	54	118	35	89
65	Z-16M65L	92	54	118	35	89
67	Z-16M67L	92	54	118	38	89
70	Z-16M70L	96	54	124	38	95
73	Z-16M73L	100	86	124	41	95
75	Z-16M75L	100	86	124	41	95
76	Z-16M76L	105	86	130	44	101
77	Z-16M77L	105	86	130	44	101
80	Z-16M80L	105	86	132	37	103
85	Z-16M85L	115	86	132	40	103
86	Z-16M86L	115	86	140	49	111
90	Z-16M90L	127	86	140	43	111
95	Z-16M95L	135	86	140	49	111
100	Z-16M100L	135	86	143	54	114
105	Z-16M105L	145	127	143	54	114
110	Z-16M110L	150	127	149	62	120
115	Z-16M115L	155	127	149	57	120



### FRACTIONAL SIZES

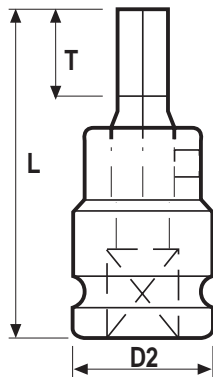
SIZE	PART#	D2	L	T
1/2	Z-1608H	2.125	2.91	1.16
9/16	Z-1609H	2.125	2.91	1.16
5/8	Z-1610H	2.125	2.91	1.16
3/4	Z-1612H	2.125	2.91	1.16
13/16	Z-1613H	2.125	3.07	1.32
7/8	Z-1614H	2.125	3.07	1.32
1	Z-1616H	2.125	3.07	1.32
1-1/16	Z-1617H	2.125	3.23	1.48
1-1/8	Z-1618H	2.125	3.23	1.48
1-3/16	Z-1619H	2.125	3.23	1.48
1-1/4	Z-1620H	2.125	3.43	1.68

Note: 1 Piece Construction

### METRIC SIZES

SIZE	PART#	D2	L	T
10	Z-16M10H	2.125	2.91	1.16
12	Z-16M12H	2.125	2.91	1.16
14	Z-16M14H	2.125	2.91	1.16
17	Z-16M17H	2.125	2.91	1.16
19	Z-16M19H	2.125	2.91	1.16
22	Z-16M22H	2.125	3.07	1.32
24	Z-16M24H	2.125	3.07	1.32
27	Z-16M27H	2.125	3.23	1.48
30	Z-16M30H	2.125	3.23	1.48
32	Z-16M32H	2.125	3.43	1.68

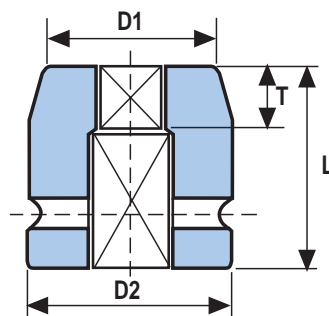
Note: 1 Piece Construction



### 2 PART INHEX

NOMINAL OPENING		Part #	D2 mm	L mm	T mm	Weight gr
mm	A/F Inch					
	1/2"	Z-1608V	54	74	19	800
	9/16"	Z-1609V	54	74	21	800
	5/8"	Z-1610V	54	74	24	800
	3/4"	Z-1612V	54	74	26	800
	13/16"	Z-1613V	54	89	26	900
	7/8"	Z-1614V	54	89	26	900
	1"	Z-1616V	54	109	30	1000
	1-1/6"	Z-1617V	54	111	32	1000
	1-1/8"	Z-1618V	54	111	32	1000
	1-3/16"	Z-1619V	54	115	36	1000
	1-1/4"	Z-1620V	54	117	38	1000
10		Z-16M10V	54	74	16	800
12		Z-16M12V	54	74	18	800
14		Z-16M14V	54	74	21	800
17		Z-16M17V	54	74	26	800
19		Z-16M19V	54	89	26	900
22		Z-16M22V	54	89	26	900
24		Z-16M24V	54	89	26	900
27		Z-16M27V	54	111	32	1000
30		Z-16M30V	54	115	36	1000
32		Z-16M32V	54	117	38	1000

Note: 2 Piece Construction



### BUDD WHEEL SOCKETS

SIZE	PART#	D1	D2	L	T
17	Z-16M17B	40	54	55	9
21	Z-16M21B	47	54	55	10
13/16	Z-1613B	1.85	2.125	2.145	0.472
15/16	Z-1615B	2.07	2.125	2.340	0.512
13/16	Z-1613BL	1.85	2.125	3.900	0.472
15/16	Z-1615BL	2.07	2.125	3.900	0.512
13/16 X 1-1/2	Z-1624BS	2.24	2.125	3.900	0.571

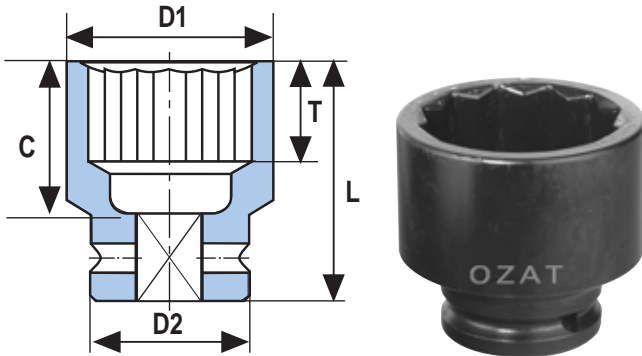
1-1/2 Deep

Z-1624 M38 LR with poly protective ring



# 1" SQUARE DRIVE

# 12 POINT IMPACT SOCKETS



## 12 POINT IMPACT SOCKETS

NOMINAL OPENING		CATALOG No.	D1	D2	L	tmin	Weight
mm	A/F Inch		mm	mm	mm	mm	gr
	15/16"	DH-1615	41	54	55	13.0	600
	1"	DH-1616	43	54	55	13.0	600
27	1-1/16"	DH-1617M27	46	54	55	13.0	600
	1-1/8"	DH-1618	48	54	57	16.5	630
30	1-3/16"	DH-1619M30	50	54	57	16.5	630
	1-1/4"	DH-1620	51	54	57	17.0	630
	1-5/16"	DH-1621	54	54	60	19.0	650
35	1-3/8"	DH-1622M35	54	54	60	19.0	650
	1-7/16"	DH-1623	54	54	60	19.0	650
38	1-1/2"	DH-1624M38	60	54	64	22.0	760
	1-9/16"	DH-1625	60	54	64	22.0	760
41	1-5/8"	DH-1626M41	63	54	64	22.0	800
43	1-11/16"	DH-1627M43	67	54	69	25.0	950
	1-3/4"	DH-1628	70	54	69	25.5	1000

# DOUBLE SQUARE IMPACT EIGHT POINT SOCKETS



## STANDARD FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
1-5/16	DS-1621	2.480	2.126	2.262	0.748	1.283
1-3/8	DS-1622	2.638	2.362	2.262	0.748	1.283
1-7/16	DS-1623	2.638	2.362	2.262	0.748	1.283
1-1/2	DS-1624	2.756	2.362	2.418	0.866	1.441
1-9/16	DS-1625	3.071	2.362	2.418	0.866	1.441
1-5/8	DS-1626	3.071	2.362	2.418	0.866	1.441
1-11/16	DS-1627	3.228	2.362	2.613	0.984	1.638
1-3/4	DS-1628	3.228	2.362	2.613	1.005	1.638
1-13/16	DS-1629	3.386	2.362	2.613	1.005	1.638
1-7/8	DS-1630	3.386	2.362	2.730	1.063	1.756
2	DS-1632	3.622	2.362	2.730	1.063	1.756
2-1/8	DS-1634	3.937	2.362	2.925	1.181	1.953
2-3/16	DS-1635	3.937	2.362	3.042	1.260	2.071
2-1/4	DS-1636	3.937	2.362	3.042	1.260	2.071
2-3/8	DS-1638	4.134	2.362	3.198	1.378	2.228
2-1/2	DS-1640	4.291	2.362	3.432	1.378	2.465

## DEEP FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
1-5/16	DS-1621L	2.480	2.126	3.159	0.748	2.189
1-3/8	DS-1622L	2.638	2.362	3.159	0.748	2.189
1-7/16	DS-1623L	2.638	2.362	3.159	0.748	2.189
1-1/2	DS-1624L	2.756	2.362	3.393	0.866	2.322
1-9/16	DS-1625L	3.071	2.362	3.432	0.866	2.322
1-5/8	DS-1626L	3.071	2.362	3.432	0.866	2.322
1-11/16	DS-1627L	3.228	2.362	3.432	0.984	2.322
1-3/4	DS-1628L	3.228	2.362	3.432	1.005	2.322
1-13/16	DS-1629L	3.386	2.362	3.432	1.005	2.322
1-7/8	DS-1630L	3.386	2.362	3.432	1.063	2.322
2	DS-1632L	3.622	2.362	3.432	1.063	2.322
2-1/8	DS-1634L	3.937	2.362	3.783	1.181	2.819
2-3/16	DS-1635L	3.937	2.362	3.783	1.260	2.819
2-1/4	DS-1636L	3.937	2.362	3.900	1.260	2.937
2-3/8	DS-1638L	4.134	2.362	3.900	1.378	2.937
2-1/2	DS-1640L	4.291	2.362	3.900	1.378	2.937

\*Metric sizes 35, 38, 41, 43, 46, 51, 54, 57 are also available by special order. (POA)

# SPECIAL RAILROAD SOCKETS

PART NUMBER	DESCRIPTION
N4046A	15/16" X 1/2" Six Point Extended Socket
N4046A-1	1" X 1/2" Six Point Extended Socket
Z-161418RTL	7/8" X 1-1/8" Rectangle X 1" SQ. DR.
Z-16170	70MM X 1" SQ. DR. Torx Bit Socket
N7167A	Domed Head Socket w/Pins

Railroad Sockets are also available in square 4 point and rectangular 4 point tapered to fit Lag Screws by special order. (POA)

N4046A-1

N4046A



Z-161418 RTL

N7167A

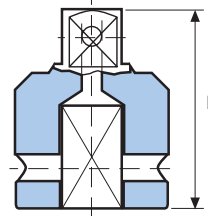
Z-16170

# 1" SQUARE DRIVE

## ACCESSORIES

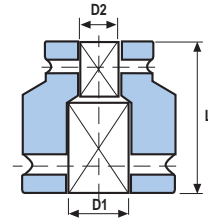
### ADAPTERS

PART#	FEMALE	MALE	L
A1612	1	3/4	2.750
A1624	1	1-1/2	3.346
A1695	1	#5 Spline	4.330



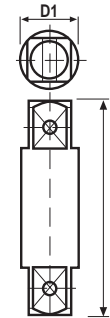
### DOUBLE ENDED FEMALE ADAPTERS

PART#	D1	D2	L
AN1612	1	3/4	2.48
AN1616	1	1	2.32
AN2416	1	1-1/2	3.27



### DOUBLE ENDED MALE ADAPTERS

PART#	D1	L
Z1603	1.3	3
Z1604	1.3	4
Z1605	1.3	5
Z1606	1.3	6
Z1607	1.3	7
Z1610	1.3	10
Z1613	1.3	13
Z1615	1.3	15
Z1616	1.3	16
Z1617	1.3	17

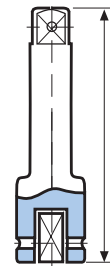


### UNIVERSAL JOINT

SIZE	PART#	L
		Hole to Hole
1	U1616	4.250

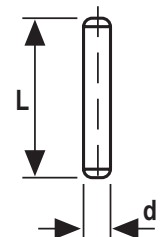
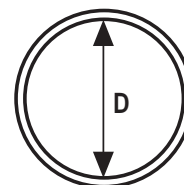
### EXTENSIONS

PART#	D1	L
E1604	2.125	4
E1605	2.125	5
E1607	2.125	7
E1610	2.125	10
E1613	2.125	13



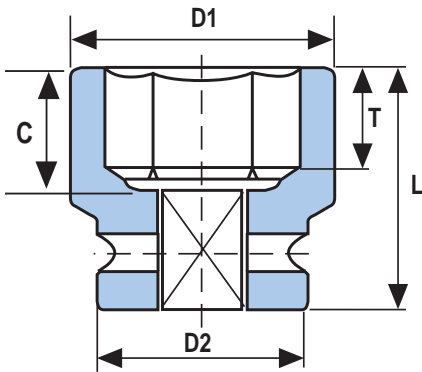
### RETAINING PINS AND RINGS

SQUARE DRIVE	THROUGH HEX SIZE	PIN #	RING#	d	L	D
1	2-3/4 - 70mm	P1654	R1654	.195	1.750	1.750
1	3-5/16 - 100mm	P1686	R1686	.195	3.000	3.000
1	Above 3-5/16	P16127	R16127	.195	4.600	4.600



## SIX POINT IMPACT SOCKETS

### STANDARD FRACTIONAL SIZES

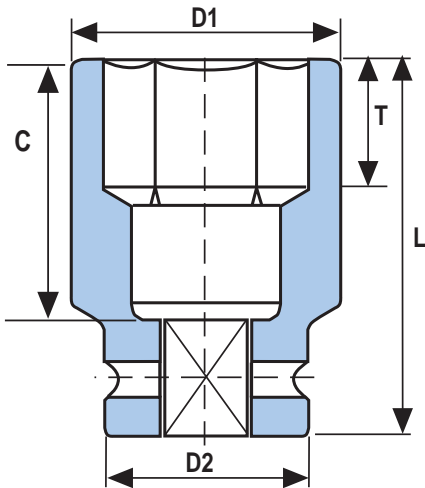


SIZE	PART#	D1	D2	L	T	C
1-5/16	Z-2421	2.402	3.386	2.925	0.748	1.328
1-3/8	Z-2422	2.480	3.386	2.925	0.748	1.328
1-7/16	Z-2423	2.520	3.386	3.120	0.748	1.525
1-1/2	Z-2424	2.520	3.386	3.120	0.866	1.525
1-9/16	Z-2425	2.677	3.386	3.120	0.866	1.525
1-5/8	Z-2426	2.795	3.386	3.120	0.866	1.525
1-11/16	Z-2427	2.874	3.386	3.120	0.984	1.525
1-3/4	Z-2428	2.953	3.386	3.120	1.004	1.525
1-13/16	Z-2429	2.953	3.386	3.120	1.004	1.525
1-7/8	Z-2430	3.150	3.386	3.198	1.036	1.603
1-15/16	Z-2431	3.150	3.386	3.198	1.063	1.603
2	Z-2432	3.150	3.386	3.198	1.063	1.603
2-1/16	Z-2433	3.386	3.386	3.471	1.181	1.840
2-1/8	Z-2434	3.386	3.386	3.471	1.181	1.840
2-3/16	Z-2435	3.386	3.386	3.588	1.260	1.958
2-1/4	Z-2436	3.386	3.386	3.588	1.280	1.958
2-5/16	Z-2437	3.622	3.386	3.588	1.300	1.958
2-3/8	Z-2438	3.622	3.386	3.744	1.378	2.115
2-7/16	Z-2439	3.780	3.386	3.744	1.378	2.115
2-1/2	Z-2440	3.937	3.386	3.744	1.378	2.115
2-9/16	Z-2441	3.937	3.386	3.744	1.378	2.115
2-5/8	Z-2442	3.937	3.386	3.939	1.496	2.312
2-11/16	Z-2443	4.134	3.386	3.939	1.496	2.312
2-3/4	Z-2444	4.134	3.386	3.939	1.496	2.312
2-13/16	Z-2445	4.291	3.386	4.095	1.575	2.509
2-7/8	Z-2446	4.291	3.386	4.095	1.614	2.509
2-15/16	Z-2447	4.291	3.386	4.095	1.614	2.509
3	Z-2448	4.528	3.386	4.290	1.732	2.706
3-1/16	Z-2449	4.528	3.386	4.290	1.732	2.706
3-1/8	Z-2450	4.528	3.386	4.290	1.770	2.706
3-3/16	Z-2451	4.764	3.386	4.524	1.850	3.099
3-1/4	Z-2452	4.764	3.386	4.524	1.850	3.099
3-5/16	Z-2453	4.764	3.386	4.524	1.850	3.099
3-3/8	Z-2454	5.000	3.386	4.524	1.930	3.099
3-7/16	Z-2455	5.000	3.386	4.602	1.930	3.099
3-1/2	Z-2456	5.118	3.386	4.602	1.930	3.099
3-9/16	Z-2457	5.118	3.386	4.602	1.930	3.099
3-5/8	Z-2458	5.315	5.000	4.602	1.930	3.099
3-11/16	Z-2459	5.315	5.000	4.602	1.930	3.099
3-3/4	Z-2460	5.315	5.000	4.602	1.930	3.296
3-13/16	Z-2461	5.512	5.000	4.875	2.125	3.296
3-7/8	Z-2462	5.512	5.000	4.875	2.125	3.296
3-15/16	Z-2463	5.512	5.000	4.875	2.125	3.296
4	Z-2464	5.709	5.000	4.875	2.125	3.296
4-1/16	Z-2465	5.709	5.000	4.875	2.125	3.296
4-1/8	Z-2466	5.906	5.000	4.875	2.126	3.296
4-3/16	Z-2467	5.906	5.000	5.343	2.440	3.296
4-1/4	Z-2468	5.906	5.000	5.343	2.440	3.690
4-5/16	Z-2469	6.102	5.000	5.343	2.440	3.690
4-3/8	Z-2470	6.102	5.000	5.343	2.440	3.690
4-7/16	Z-2471	6.102	5.000	5.343	2.440	3.690
4-1/2	Z-2472	6.299	5.000	5.343	2.440	3.690
4-5/8	Z-2474	6.496	5.000	5.577	2.640	4.084
4-3/4	Z-2476	6.693	5.000	5.655	2.640	4.084
4-7/8	Z-2478	6.693	5.000	5.655	2.640	4.084
5	Z-2480	7.087	5.000	5.850	2.830	4.281
5-1/8	Z-2482	7.087	5.000	6.162	2.990	4.674
5-3/16	Z-2483	7.087	5.000	6.162	2.990	4.674
5-1/4	Z-2484	7.480	5.000	6.162	2.980	4.574
5-3/8	Z-2486	7.480	5.000	6.162	2.990	4.674

# 1 1/2" SQUARE DRIVE

## SIX POINT IMPACT SOCKETS

### DEEP FRACTIONAL SIZES



OZAT's exclusive electro chemical machining process, (ECM) produces a far stronger socket than one manufactured by conventional machining or broaching methods. The exceptional strength of the OZAT 1-1/2" drive sockets often makes them the preferred choice of hydraulic bolting specialists.

Speciality sockets for the precision bolting market are available from ATP.

SIZE	PART#	D1	D2	L	T	C
1-5/16	Z-2421L	2.402	3.386	5.460	0.748	3.887
1-3/8	Z-2422L	2.480	3.386	5.460	0.748	3.887
1-7/16	Z-2423L	2.520	3.386	5.460	0.748	3.887
1-1/2	Z-2424L	2.520	3.386	5.460	0.866	3.887
1-9/16	Z-2425L	2.677	3.386	5.460	0.866	3.887
1-5/8	Z-2426L	2.795	3.386	5.460	0.866	3.887
1-11/16	Z-2427L	2.874	3.386	5.460	0.984	3.887
1-3/4	Z-2428L	2.953	3.386	5.460	1.004	3.887
1-13/16	Z-2429L	2.953	3.386	5.460	1.004	3.887
1-7/8	Z-2430L	3.150	3.386	5.460	1.036	3.887
1-15/16	Z-2431L	3.150	3.386	5.460	1.063	3.887
2	Z-2432L	3.150	3.386	5.460	1.063	3.887
2-1/16	Z-2433L	3.386	3.386	5.460	1.181	3.887
2-1/8	Z-2434L	3.386	3.386	5.460	1.181	3.887
2-3/16	Z-2435L	3.386	3.386	5.460	1.260	3.887
2-1/4	Z-2436L	3.386	3.386	5.460	1.280	3.887
2-5/16	Z-2437L	3.622	3.386	5.460	1.300	3.887
2-3/8	Z-2438L	3.622	3.386	5.460	1.378	3.887
2-7/16	Z-2439L	3.780	3.386	5.460	1.378	3.887
2-1/2	Z-2440L	3.937	3.386	5.460	1.378	3.887
2-9/16	Z-2441L	3.937	3.386	5.460	1.378	3.887
2-5/8	Z-2442L	3.937	3.386	5.460	1.496	3.887
2-11/16	Z-2443L	4.134	3.386	5.460	1.496	3.887
2-3/4	Z-2444L	4.134	3.386	5.460	1.496	3.887
2-13/16	Z-2445L	4.291	3.386	5.460	1.575	3.887
2-7/8	Z-2446L	4.291	3.386	5.460	1.614	3.887
2-15/16	Z-2447L	4.291	3.386	5.460	1.614	3.887
3	Z-2448L	4.528	3.386	5.460	1.732	3.887
3-1/16	Z-2449L	4.528	3.386	5.460	1.732	3.887
3-1/8	Z-2450L	4.528	3.386	5.460	1.770	3.887
3-3/16	Z-2451L	4.764	3.386	5.460	1.850	3.887
3-1/4	Z-2452L	4.764	3.386	5.460	1.850	3.887
3-5/16	Z-2453L	4.764	3.386	5.460	1.850	3.887
3-3/8	Z-2454L	5.000	3.386	5.460	1.930	3.887
3-7/16	Z-2455L	5.000	3.386	5.460	1.930	3.887
3-1/2	Z-2456L	5.118	3.386	5.460	1.930	3.887
3-9/16	Z-2457L	5.118	3.386	5.460	1.930	3.887
3-5/8	Z-2458L	5.315	5.000	5.460	1.930	3.887
3-11/16	Z-2459L	5.315	5.000	5.460	1.930	4.281
3-3/4	Z-2460L	5.315	5.000	5.850	1.930	4.281
3-13/16	Z-2461L	5.512	5.000	5.850	2.125	4.281
3-7/8	Z-2462L	5.512	5.000	5.850	2.125	4.281
3-15/16	Z-2463L	5.512	5.000	5.850	2.125	4.281
4	Z-2464L	5.709	5.000	5.850	2.125	4.281
4-1/16	Z-2465L	5.709	5.000	5.850	2.125	4.281
4-1/8	Z-2466L	5.906	5.000	5.850	2.126	4.281
4-3/16	Z-2467L	5.906	5.000	5.850	2.440	4.281
4-1/4	Z-2468L	5.906	5.000	6.240	2.440	4.674
4-5/16	Z-2469L	6.102	5.000	6.240	2.440	4.674
4-3/8	Z-2470L	6.102	5.000	6.240	2.440	4.674
4-7/16	Z-2471L	6.102	5.000	6.240	2.440	4.674
4-1/2	Z-2472L	6.299	5.000	6.240	2.440	4.674
4-5/8	Z-2474L	6.496	5.000	6.630	2.640	5.068
4-3/4	Z-2476L	6.693	5.000	6.630	2.640	5.068
4-7/8	Z-2478L	6.693	5.000	6.630	2.640	5.068
5	Z-2480L	7.087	5.000	7.020	2.830	5.462
5-1/8	Z-2482L	7.087	5.000	7.215	2.990	5.658
5-3/16	Z-2483L	7.087	5.000	7.215	2.990	5.658
5-3/8	Z-2486L	7.480	5.000	7.215	2.990	5.658

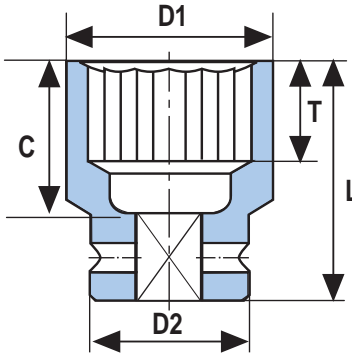
## STANDARD METRIC SIZES

SIZE	PART#	D1	D2	L	T	C
32	Z-24M32	60	86	75	16.5	34
33	Z-24M33	60	86	75	17	34
34	Z-24M34	60	86	75	17	34
35	Z-24M35	60	86	75	19	34
36	Z-24M36	64	86	80	19	39
37	Z-24M37	64	86	80	19	39
38	Z-24M38	64	86	80	22	39
39	Z-24M39	70	86	80	21.5	39
40	Z-24M40	70	86	80	21.5	39
41	Z-24M41	70	86	80	22	39
42	Z-24M42	70	86	80	21.5	39
43	Z-24M43	75	86	80	25	39
44	Z-24M44	75	86	80	21.5	39
45	Z-24M45	75	86	80	21.5	39
46	Z-24M46	75	86	80	25.5	39
47	Z-24M47	75	86	80	23.5	39
48	Z-24M48	80	86	82	23.5	41
49	Z-24M49	80	86	82	27	41
50	Z-24M50	80	86	82	23.5	41
51	Z-24M51	80	86	82	27	41
52	Z-24M52	80	86	82	27	41
54	Z-24M54	86	86	89	30	47
55	Z-24M55	86	86	89	27	47
56	Z-24M56	86	86	92	28	50
57	Z-24M57	86	86	92	32.5	50
58	Z-24M58	92	86	92	28	50
59	Z-24M59	92	86	92	33	50
60	Z-24M60	92	86	92	28	50
61	Z-24M61	96	86	96	28	54
62	Z-24M62	96	86	96	35	54
65	Z-24M65	100	86	96	35	54
67	Z-24M67	100	86	101	38	59
70	Z-24M70	105	86	101	38	59
73	Z-24M73	109	86	105	41	64
75	Z-24M75	109	86	105	41	64
76	Z-24M76	115	86	110	44	69
80	Z-24M80	115	86	110	37	69
85	Z-24M85	121	86	116	40	79
86	Z-24M86	127	86	116	49	79
90	Z-24M90	130	86	118	43	79
95	Z-24M95	135	127	118	49	84
100	Z-24M100	140	127	125	54	84
105	Z-24M105	150	127	125	54	84
110	Z-24M110	155	127	137	62	94
115	Z-24M115	160	127	137	57	94
120	Z-24M120	165	127	145	67	104
125	Z-24M125	170	127	145	67	104
130	Z-24M130	180	127	158	76	119

## DEEP METRIC SIZES

SIZE	PART#	D1	D2	L	T	C
32	Z-24M32L	60	86	140	16.5	99
33	Z-24M33L	60	86	140	17	99
34	Z-24M34L	60	86	140	17	99
35	Z-24M35L	60	86	140	19	99
36	Z-24M36L	64	86	140	19	99
37	Z-24M37L	64	86	140	19	99
38	Z-24M38L	64	86	140	22	99
39	Z-24M39L	70	86	140	21.5	99
40	Z-24M40L	70	86	140	21.5	99
41	Z-24M41L	70	86	140	22	99
42	Z-24M42L	70	86	140	21.5	99
43	Z-24M43L	75	86	140	25	99
44	Z-24M44L	75	86	140	21.5	99
45	Z-24M45L	75	86	140	21.5	99
46	Z-24M46L	75	86	140	25.5	99
47	Z-24M47L	75	86	140	23.5	99
48	Z-24M48L	80	86	140	23.5	99
49	Z-24M49L	80	86	140	27	99
50	Z-24M50L	80	86	140	23.5	99
51	Z-24M51L	80	86	140	27	99
52	Z-24M52L	80	86	140	27	99
54	Z-24M54L	86	86	140	30	99
55	Z-24M55L	86	86	140	27	99
56	Z-24M56L	86	86	140	28	99
57	Z-24M57L	86	86	140	32.5	99
58	Z-24M58L	92	86	140	28	99
59	Z-24M59L	92	86	140	33	99
60	Z-24M60L	92	86	140	28	99
61	Z-24M61L	96	86	140	28	99
62	Z-24M62L	96	86	140	35	99
65	Z-24M65L	100	86	140	35	99
67	Z-24M67L	100	86	140	38	99
70	Z-24M70L	105	86	140	38	99
73	Z-24M73L	109	86	140	41	99
75	Z-24M75L	109	86	140	41	99
76	Z-24M76L	115	86	140	44	99
80	Z-24M80L	115	86	140	37	99
85	Z-24M85L	121	86	140	40	99
86	Z-24M86L	127	86	140	49	99
90	Z-24M90L	130	86	140	43	99
95	Z-24M95L	135	127	150	49	109
100	Z-24M100L	140	127	150	54	109
105	Z-24M105L	150	127	150	54	109
110	Z-24M110L	155	127	160	62	119
115	Z-24M115L	160	127	160	57	119
120	Z-24M120L	165	127	170	67	129
125	Z-24M125L	170	127	170	67	129
130	Z-24M130L	180	127	185	76	144

## 12 POINT IMPACT SOCKETS



NOMINAL OPENING			D1	D2	L	tmin	Weight
mm	A/F Inch	CATALOG No.	mm	mm	mm	mm	gr
	1-5/16	DH-2421	60	86	75	19	1800
35	1-3/8	DH-2422M35	60	86	75	19	1800
	1-7/16	DH-2423	64	86	80	19	2200
38	1-1/2	DH-2424M38	64	86	80	22	2200
	1-9/16	DH-2425	70	86	80	22	2200
41	1-5/8	DH-2426M41	70	86	80	22	2200
43	1-11/16	DH-2427M43	75	86	80	25	2200
	1-3/4	DH-2428	75	86	80	25.5	2200
46	1-13/16	DH-2429M46	75	86	80	25.5	2200
	1-7/8	DH-2430	80	86	82	27	2300
49	1-15/16	DH-2431M49	80	86	82	27	2300
51	2	DH-2432M51	80	86	82	27	2300
	2-1/16	DH-2433	86	86	89	30	2500
54	2-1/8	DH-2434M54	86	86	89	30	2500
55		DH-24M55	86	86	89	30	2500
	2-3/16	DH-2435	86	86	92	32	2500
57	2-1/4	DH-2436M57	86	86	92	32.5	2500
59	2-5/16	DH-2437M59	92	86	92	33	280
	2-3/8	DH-2438	92	86	96	35	2800
62	2-7/16	DH-2439M62	96	86	96	35	3200
	2-1/2	DH-2440	100	86	96	35	3350
65	2-9/16	DH-2441M65	100	86	96	35	3350
67	2-5/8	DH-2442M67	100	86	101	38	3350
70	2-3/4	DH-2444M70	105	86	101	38	3600
73	2-7/8	DH-2446M73	105	86	101	44	3900
75	2-15/16	DH-2447M75	105	86	101	44	3900
	2-13/16	DH-2445	105	86	105	44	3900
76	3	DH-2448M76	115	86	110	44	4500
	3-1/8	DH-2450	115	86	110	44	4500

# 1 1/2" SQUARE DRIVE

## ACCESSORIES

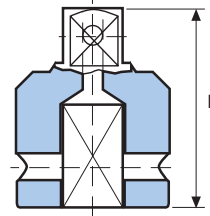


SPECIAL HOPPER CAR GATE SOCKETS

PART#	FEMALE	MALE TAPER
HEX-3	1-1/2" sq.	3/4" sq. to 1-7/8" sq
HEX-12	2-1/2" sq.	3/4" sq. to 1-7/8" sq

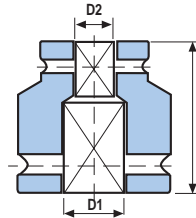
### ADAPTERS

PART#	FEMALE	MALE	L
A2416	1-1/2	1	3.75
A2440	1-1/2	2-1/2	3.50
A2495	1-1/2	#5 Spline	4.33



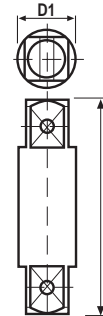
### DOUBLE ENDED FEMALE ADAPTERS

PART#	D1	D2	L
AN2416	1-1/2	1	3.27
AN2424	1-1/2	1-1/2	3.35
AN4024	1-1/2	2-1/2	4.53



### DOUBLE ENDED MALE ADAPTERS

PART#	D1	L
Z2404	1.93	4
Z2405	1.93	5
Z2410	1.93	10
Z2420	1.93	20

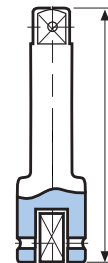


UNIVERSAL JOINT

SIZE	PART#
1-1/2	U2424

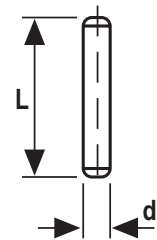
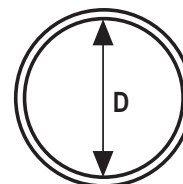
### EXTENSIONS

PART#	L
E2406	6
E2412	12



### RETAINING PINS AND RINGS

SQUARE DRIVE	THROUGH HEX SIZE	PIN #	RING#	d	L	D
1-1/2	3-9/16 - 90mm	P2486	R2486	.234	2.925	2.925
1-1/2	Above 3-9/16	P24127	R24127	.234	4.525	4.525



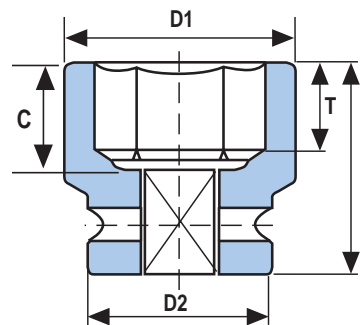
### STANDARD FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
1-5/8	Z-4026	4.094	5.000	4.485	0.846	2.349
1-11/16	Z-4027	4.094	5.000	4.485	0.984	2.349
1-3/4	Z-4028	4.094	5.000	4.485	1.000	2.349
1-13/16	Z-4029	4.094	5.000	4.485	1.000	2.349
1-7/8	Z-4030	4.094	5.000	4.485	1.062	2.349
1-15/16	Z-4031	4.094	5.000	4.485	1.062	2.349
2	Z-4032	4.094	5.000	4.485	1.062	2.349
2-1/16	Z-4033	4.094	5.000	4.485	1.181	2.349
2-1/8	Z-4034	4.094	5.000	4.485	1.181	2.349
2-3/16	Z-4035	4.094	5.000	4.485	1.260	2.349
2-1/4	Z-4036	4.094	5.000	4.485	1.280	2.349
2-5/16	Z-4037	4.094	5.000	4.485	1.299	2.349
2-3/8	Z-4038	4.094	5.000	4.485	1.378	2.349
2-7/16	Z-4039	4.094	5.000	4.485	1.378	2.349
2-1/2	Z-4040	4.094	5.000	4.485	1.378	2.349
2-9/16	Z-4041	4.094	5.000	4.485	1.378	2.349
2-5/8	Z-4042	4.094	5.000	4.485	1.496	2.349
2-11/16	Z-4043	4.094	5.000	4.485	1.496	2.349
2-3/4	Z-4044	4.094	5.000	4.485	1.496	2.349
2-13/16	Z-4045	4.094	5.000	4.870	1.575	2.349
2-7/8	Z-4046	4.094	5.000	4.870	1.614	2.349
2-15/16	Z-4047	4.094	5.000	4.870	1.614	2.349
3	Z-4048	4.094	5.000	4.870	1.732	2.349
3-1/16	Z-4049	4.094	5.000	4.870	1.732	2.349
3-1/8	Z-4050	4.094	5.000	4.870	1.732	2.349
3-3/16	Z-4051	5.000	5.000	5.070	1.850	2.743
3-1/4	Z-4052	5.000	5.000	5.070	1.850	2.743
3-5/16	Z-4053	5.000	5.000	5.070	1.850	2.743
3-3/8	Z-4054	5.000	5.000	5.070	1.930	2.743
3-7/16	Z-4055	5.315	5.000	5.140	1.930	2.822
3-1/2	Z-4056	5.315	5.000	5.140	1.930	2.822
3-9/16	Z-4057	5.315	5.000	5.140	1.930	2.822
3-5/8	Z-4058	5.315	5.000	5.140	1.930	2.822
3-11/16	Z-4059	5.315	5.000	5.140	1.930	2.822
3-3/4	Z-4060	5.512	5.000	5.140	1.930	2.822
3-13/16	Z-4061	5.709	5.000	5.500	2.125	3.137
3-7/8	Z-4062	5.709	5.000	5.500	2.125	3.137
3-15/16	Z-4063	5.709	5.000	5.500	2.125	3.137
4	Z-4064	5.906	5.000	5.500	2.125	3.137
4-1/16	Z-4065	5.906	5.000	5.500	2.125	3.137
4-1/8	Z-4066	6.102	5.000	5.500	2.125	3.137
4-3/16	Z-4067	6.102	5.000	5.850	2.440	3.491
4-1/4	Z-4068	6.102	5.000	5.850	2.440	3.491
4-5/16	Z-4069	6.299	5.000	5.850	2.440	3.49
4-3/8	Z-4070	6.299	5.000	5.850	2.440	3.491
4-7/16	Z-4071	6.496	5.000	5.850	2.440	3.49
4-1/2	Z-4072	6.496	5.000	5.850	2.440	3.491
4-5/8	Z-4074	6.693	5.000	6.160	2.640	3.806
4-3/4	Z-4076	6.693	5.000	6.160	2.640	3.806
4-7/8	Z-4078	6.693	5.000	6.160	2.640	3.806
5	Z-4080	7.087	5.000	6.435	2.830	4.121
5-1/8	Z-4082	7.087	5.000	6.430	2.990	4.436
5-3/16	Z-4083	7.087	5.000	6.780	2.909	4.436

Table continued next column

### STANDARD FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
5-1/4	Z-4084	7.480	5.000	6.780	2.99	4.436
5-3/8	Z-4086	7.480	5.000	6.780	2.99	4.436
5-1/2	Z-4088	7.480	5.000	6.860	3.11	4.790
5-5/8	Z-4090	7.874	5.906	7.090	3.27	4.790
5-3/4	Z-4092	7.874	5.906	7.090	3.27	4.790
5-7/8	Z-4094	8.268	5.906	7.410	3.46	5.105
6	Z-4096	8.268	5.906	7.410	3.46	5.105
6-1/8	Z-4098	8.268	5.906	7.410	3.46	5.105
6-1/4	Z-40100	8.661	5.906	7.560	3.58	5.263
6-3/8	Z-40102	8.661	5.906	7.560	3.58	5.263
6-1/2	Z-40104	9.055	6.890	7.830	3.70	5.735
6-5/8	Z-40106	9.055	6.890	7.830	3.70	5.735
6-3/4	Z-40108	9.055	6.890	8.110	3.90	5.735
6-7/8	Z-40110	9.449	6.890	8.110	3.90	5.735
7	Z-40112	9.449	6.890	8.340	4.09	6.050
7-1/8	Z-40114	9.843	6.890	8.340	4.09	6.050
7-1/4	Z-40116	9.843	6.890	8.340	4.09	6.050
7-3/8	Z-40118	9.843	6.890	8.500	4.21	6.208
7-1/2	Z-40120	10.236	6.890	8.500	4.21	6.208
7-5/8	Z-40122	10.236	6.890	8.650	4.29	6.365
7-3/4	Z-40124	10.630	6.890	8.810	4.41	6.523
7-13/16	Z-40125	10.630	6.890	8.810	4.41	6.523
7-7/8	Z-40126	10.630	6.890	8.810	4.41	6.523
8	Z-40128	10.630	6.890	9.040	4.53	7.034
8-1/8	Z-40130	11.024	6.890	9.040	4.53	7.034
8-1/4	Z-40132	11.024	6.890	9.040	4.53	7.034
8-3/8	Z-40134	11.417	6.890	9.320	4.72	7.034
8-1/2	Z-40136	11.417	6.890	9.750	4.80	7.782
8-3/4	Z-40140	11.811	6.890	9.870	4.88	7.782
8-7/8	Z-40142	11.811	6.890	10.062	4.96	7.782
9	Z-40144	12.205	6.890	10.062	5.04	7.782
9-1/8	Z-40146	12.205	6.890	10.062	5.16	7.782
9-1/4	Z-40148	12.205	6.890	10.725	5.24	9.515





### DEEP FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
1-5/8	Z-4026L	4.094	5.000	7.480	0.846	5.184
1-11/16	Z-4027L	4.094	5.000	7.480	0.984	5.184
1-3/4	Z-4028L	4.094	5.000	7.480	1.000	5.184
1-13/16	Z-4029L	4.094	5.000	7.480	1.000	5.184
1-7/8	Z-4030L	4.094	5.000	7.480	1.062	5.184
1-15/16	Z-4031L	4.094	5.000	7.480	1.062	5.184
2	Z-4032L	4.094	5.000	7.480	1.062	5.184
2-1/16	Z-4033L	4.094	5.000	7.480	1.181	5.184
2-1/8	Z-4034L	4.094	5.000	7.480	1.181	5.184
2-3/16	Z-4035L	4.094	5.000	7.480	1.260	5.184
2-1/4	Z-4036L	4.094	5.000	7.480	1.280	5.184
2-5/16	Z-4037L	4.094	5.000	7.480	1.299	5.184
2-3/8	Z-4038L	4.094	5.000	7.480	1.378	5.184
2-7/16	Z-4039L	4.094	5.000	7.480	1.378	5.184
2-1/2	Z-4040L	4.094	5.000	7.480	1.378	5.184
2-9/16	Z-4041L	4.094	5.000	7.480	1.378	5.184
2-5/8	Z-4042L	4.094	5.000	7.480	1.496	5.184
2-11/16	Z-4043L	4.094	5.000	7.480	1.496	5.184
2-3/4	Z-4044L	4.094	5.000	7.480	1.496	5.184
2-13/16	Z-4045L	4.094	5.000	7.480	1.575	5.184
2-7/8	Z-4046L	4.094	5.000	7.480	1.614	5.184
2-15/16	Z-4047L	4.094	5.000	7.480	1.614	5.184
3	Z-4048L	4.094	5.000	7.480	1.732	5.184
3-1/16	Z-4049L	4.094	5.000	7.480	1.732	5.184
3-1/8	Z-4050L	4.094	5.000	7.480	1.732	5.184
3-3/16	Z-4051L	5.000	5.000	7.480	1.850	5.184
3-1/4	Z-4052L	5.000	5.000	7.480	1.850	5.184
3-5/16	Z-4053L	5.000	5.000	7.480	1.850	5.184
3-3/8	Z-4054L	5.000	5.000	7.480	1.930	5.184
3-7/16	Z-4055L	5.315	5.000	7.480	1.930	5.184
3-1/2	Z-4056L	5.315	5.000	7.480	1.930	5.184
3-9/16	Z-4057L	5.315	5.000	7.480	1.930	5.184
3-5/8	Z-4058L	5.315	5.000	7.480	1.930	5.184
3-11/16	Z-4059L	5.315	5.000	7.480	1.930	5.184
3-3/4	Z-4060L	5.512	5.000	7.480	1.930	5.184
3-13/16	Z-4061L	5.709	5.000	7.720	2.125	5.420
3-7/8	Z-4062L	5.709	5.000	7.720	2.125	5.420
3-15/16	Z-4063L	5.709	5.000	7.720	2.125	5.420
4	Z-4064L	5.906	5.000	7.720	2.125	5.420
4-1/16	Z-4065L	5.906	5.000	7.720	2.125	5.420
4-1/8	Z-4066L	6.102	5.000	7.720	2.125	5.420
4-3/16	Z-4067L	6.102	5.000	8.070	2.440	5.775
4-1/4	Z-4068L	6.102	5.000	8.070	2.440	5.775
4-5/16	Z-4069L	6.299	5.000	8.070	2.44	5.775
4-3/8	Z-4070L	6.299	5.000	8.070	2.44	5.775
4-7/16	Z-4071L	6.496	5.000	8.070	2.44	5.775
4-1/2	Z-4072L	6.496	5.000	8.070	2.44	5.775
4-5/8	Z-4074L	6.693	5.000	8.380	2.64	6.090
4-3/4	Z-4076L	6.693	5.000	8.380	2.64	6.090
4-7/8	Z-4078L	6.693	5.000	8.380	2.64	6.090
5	Z-4080L	7.087	5.000	8.700	2.83	6.405
5-1/8	Z-4082L	7.087	5.000	9.000	2.99	6.719
5-3/16	Z-4083L	7.087	5.000	9.000	2.99	6.719

### DEEP FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
5-1/4	Z-4084L	7.480	5.000	9.000	2.99	6.719
5-3/8	Z-4086L	7.480	5.000	9.000	2.99	6.719
5-1/2	Z-4088L	7.480	5.000	9.120	3.110	7.074
5-5/8	Z-4090L	7.874	5.906	9.360	3.270	7.074
5-3/4	Z-4092L	7.874	5.906	9.360	3.270	7.074
5-7/8	Z-4094L	8.268	5.906	9.670	3.460	7.389
6	Z-4096L	8.268	5.906	9.670	3.460	7.389
6-1/8	Z-4098L	8.268	5.906	9.670	3.460	7.389
6-1/4	Z-4100L	8.661	5.906	9.820	3.580	7.546
6-3/8	Z-4102L	8.661	5.906	9.820	3.580	7.546
6-1/2	Z-4104L	9.055	6.890	10.140	3.7000	8.019
6-5/8	Z-4106L	9.055	6.890	10.140	3.700	8.019
6-3/4	Z-4108L	9.055	6.890	10.300	3.900	8.019
6-7/8	Z-4110L	9.449	6.890	10.300	3.900	8.019
7	Z-4112L	9.449	6.890	10.600	4.090	8.334
7-1/8	Z-4114L	9.843	6.890	10.600	4.090	8.334
7-1/4	Z-4116L	9.843	6.890	10.600	4.090	8.334
7-3/8	Z-4118L	9.843	6.890	10.760	4.210	8.491
7-1/2	Z-4120L	10.236	6.890	10.760	4.210	8.491
7-5/8	Z-4122L	10.236	6.890	10.920	4.290	8.649
7-3/4	Z-4124L	10.630	6.890	10.070	4.410	8.806
7-13/16	Z-4125L	10.630	6.890	10.070	4.410	8.806
7-7/8	Z-4126L	10.630	6.890	10.070	4.410	8.806
8	Z-4128L	10.630	6.890	11.310	4.530	9.318
8-1/8	Z-4130L	11.024	6.890	11.310	4.530	9.318
8-1/4	Z-4132L	11.024	6.890	11.310	4.530	9.318
8-3/8	Z-4134L	11.417	6.890	11.580	4.720	9.318
8-1/2	Z-4136L	11.417	6.890	12.320	4.800	10.066
8-3/4	Z-4140L	11.811	6.890	12.320	4.880	10.066
8-7/8	Z-4142L	11.811	6.890	12.320	4.960	10.066
9	Z-4144L	12.205	6.890	12.320	5.040	10.066
9-1/8	Z-4146L	12.205	6.890	12.320	5.160	10.066
9-1/4	Z-4148L	12.205	6.890	12.980	5.240	11.798

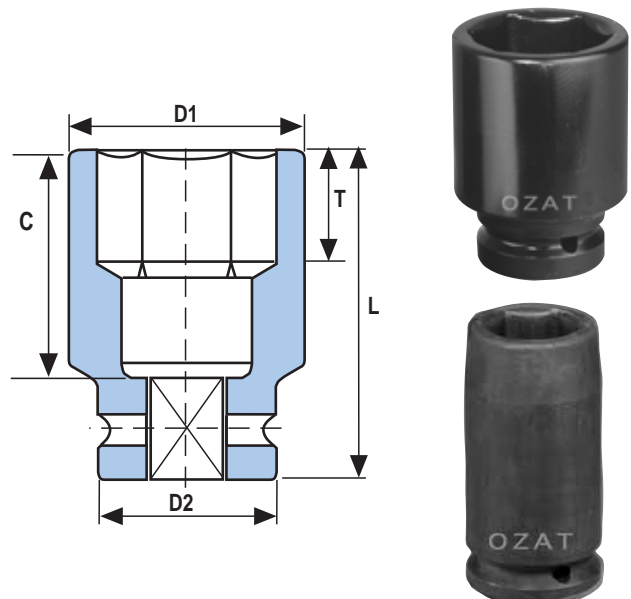


Table continued next column

# 2 1/2" SQUARE DRIVE

# SIX POINT IMPACT SOCKETS

## STANDARD METRIC SIZES

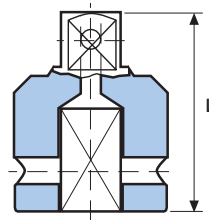
SIZE	PART#	D1	D2	L	T	C
41	Z-40M41	104	127	115	21.5	60
42	Z-40M42	104	127	115	21.5	60
43	Z-40M43	104	127	115	25	60
44	Z-40M44	104	127	115	21.5	60
45	Z-40M45	104	127	115	21.5	60
46	Z-40M46	104	127	115	25.5	60
47	Z-40M47	104	127	115	23.5	60
48	Z-40M48	104	127	115	23.5	60
49	Z-40M49	104	127	115	27	60
50	Z-40M50	104	127	115	23.5	60
51	Z-40M51	104	127	115	27	60
52	Z-40M52	104	127	115	27	60
54	Z-40M54	104	127	115	30	60
55	Z-40M55	104	127	115	27	60
56	Z-40M56	104	127	115	28	60
57	Z-40M57	104	127	115	32.5	60
58	Z-40M58	104	127	115	28	60
59	Z-40M59	104	127	115	33	60
60	Z-40M60	104	127	115	28	60
61	Z-40M61	104	127	115	28	60
62	Z-40M62	104	127	115	35	60
65	Z-40M65	104	127	115	35	60
67	Z-40M67	104	127	115	38	60
70	Z-40M70	104	127	115	38	60
73	Z-40M73	115	127	125	41	70
75	Z-40M75	115	127	125	41	70
76	Z-40M76	115	127	125	44	70
80	Z-40M80	115	127	125	37	70
85	Z-40M85	127	127	130	40	75
86	Z-40M86	127	127	130	49	75
90	Z-40M90	135	127	132	43	77
95	Z-40M95	140	127	132	49	77
100	Z-40M100	145	127	141	54	86
105	Z-40M105	150	127	141	54	86
110	Z-40M110	160	127	150	62	95
115	Z-40M115	165	127	158	57	103
120	Z-40M120	170	127	158	67	103
125	Z-40M125	170	127	158	67	103
130	Z-40M130	180	127	174	76	119
135	Z-40M135	190	127	174	76	119
140	Z-40M140	190	127	176	79	121
145	Z-40M145	200	150	182	83	127
150	Z-40M150	210	150	190	88	135
155	Z-40M155	210	150	190	88	135
160	Z-40M160	220	150	194	91	139
165	Z-40M165	230	175	201	94	146
170	Z-40M170	230	175	201	94	146
175	Z-40M175	240	175	208	99	153
180	Z-40M180	240	175	214	104	159
185	Z-40M185	250	175	214	104	159
190	Z-40M190	260	175	218	107	163
195	Z-40M195	260	175	222	109	167
200	Z-40M200	270	175	226	112	171
210	Z-40M210	280	175	232	115	177
215	Z-40M215	290	175	239	120	184
225	Z-40M225	300	175	258	126	203
235	Z-40M235	310	175	275	131	220

## DEEP METRIC SIZES

SIZE	PART#	D1	D2	L	T	C
41	Z-40M41L	104	127	192	21.5	132
42	Z-40M42L	104	127	192	21.5	132
43	Z-40M43L	104	127	192	25	132
44	Z-40M44L	104	127	192	21.5	132
45	Z-40M45L	104	127	192	21.5	132
46	Z-40M46L	104	127	192	25.5	132
47	Z-40M47L	104	127	192	23.5	132
48	Z-40M48L	104	127	192	23.5	132
49	Z-40M49L	104	127	192	27	132
50	Z-40M50L	104	127	192	23.5	132
51	Z-40M51L	104	127	192	27	132
52	Z-40M52L	104	127	192	27	132
54	Z-40M54L	104	127	192	30	132
55	Z-40M55L	104	127	192	27	132
56	Z-40M56L	104	127	192	28	132
57	Z-40M57L	104	127	192	32.5	132
58	Z-40M58L	104	127	192	28	132
59	Z-40M59L	104	127	192	33	132
60	Z-40M60L	104	127	192	28	132
61	Z-40M61L	104	127	192	28	132
62	Z-40M62L	104	127	192	35	132
65	Z-40M65L	104	127	192	35	132
67	Z-40M67L	104	127	192	38	132
70	Z-40M70L	104	127	192	38	132
73	Z-40M73L	115	127	192	41	132
75	Z-40M75L	115	127	192	41	132
76	Z-40M76L	115	127	192	44	132
80	Z-40M80L	115	127	192	37	132
85	Z-40M85L	127	127	192	40	132
86	Z-40M86L	127	127	192	49	132
90	Z-40M90L	135	127	192	43	132
95	Z-40M95L	140	127	192	49	132
100	Z-40M100L	145	127	198	54	138
105	Z-40M105L	150	127	198	54	138
110	Z-40M110L	160	127	207	62	147
115	Z-40M115L	165	127	207	57	147
120	Z-40M120L	170	127	215	67	155
125	Z-40M125L	170	127	215	67	155
130	Z-40M130L	180	127	223	76	163
135	Z-40M135L	190	127	231	76	151
140	Z-40M140L	190	127	234	79	174
145	Z-40M145L	200	150	240	83	180
150	Z-40M150L	210	150	248	88	188
155	Z-40M155L	210	150	248	88	188
160	Z-40M160L	220	150	252	91	192
165	Z-40M165L	230	175	260	94	200
170	Z-40M170L	230	175	260	94	200
175	Z-40M175L	240	175	264	99	204
180	Z-40M180L	240	175	272	104	212
185	Z-40M185L	250	175	272	104	212
190	Z-40M190L	260	175	276	107	216
195	Z-40M195L	260	175	280	109	220
200	Z-40M200L	270	175	284	112	224
210	Z-40M210L	280	175	290	115	230
215	Z-40M215L	290	175	316	120	256
225	Z-40M225L	300	175	316	126	256
235	Z-40M235L	310	175	333	131	273

### ADAPTERS

PART#	FEMALE	MALE	L
A4024	2-1/2	1-1/2	5.380
A4056	2-1/2	3-1/2	5.538

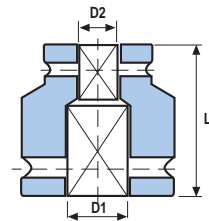


No one offers a broader line of 2-1/2" drive sockets than ATP for the heaviest bolting applications in construction, plant maintenance, power generation, shipbuilding, and refining,

OZAT sockets prove their value. They are guaranteed for hydraulic bolting jobs as well as for large impact wrenches, OZAT has a socket to exactly match your application. If not available from our standard product range, we'll custom design one for you. (See Page 71.)

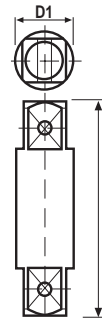
### DOUBLE ENDED FEMALE ADAPTERS

PART#	D1	D2	L
AN4024	2-1/2	1-1/2	4.53
AN4040	2-1/2	2-1/2	4.61
AN5640	2-1/2	3-1/2	6.34



### DOUBLE ENDED MALE ADAPTERS

PART#	D1	L
Z4005	3.31	5
Z4006	3.31	6
Z4008	3.31	8
Z4010	3.31	10
Z4015	3.31	15
Z4020	3.31	20
Z4026	3.31	26



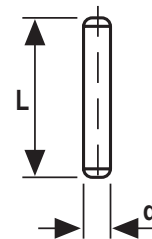
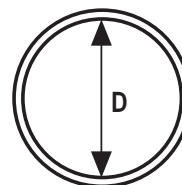
### UNIVERSAL JOINT

SIZE	PART#
2-1/2	U4040



### RETAINING PINS AND RINGS

SQUARE DRIVE	THROUGH HEX SIZE	PIN #	RING#	d	L	D
2-1/2	5-1/2 - 140mm	P40127	R40127	.312	4.290	4.446
2-1/2	6-3/8 - 160mm	P40150	R40150	.312	5.187	5.309
2-1/2	Above 6-3/8	P40175	R40175	.312	6.162	6.318

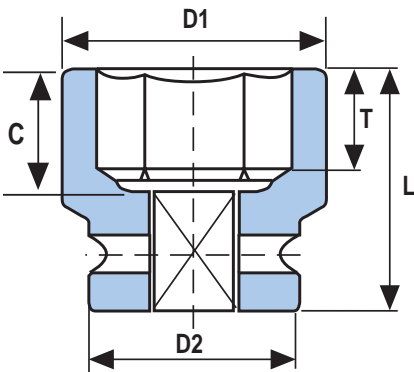


# 3 1/2" SQUARE DRIVE

## SIX POINT IMPACT SOCKETS

### STANDARD FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
3-7/8	Z-5662	6.890	6.890	6.435	2.125	3.371
3-15/16	Z-5663	6.890	6.890	6.435	2.125	3.725
4	Z-5664	6.890	6.890	6.435	2.125	3.725
4-1/16	Z-5665	6.890	6.890	6.435	2.125	3.725
4-1/8	Z-5666	6.890	6.890	6.435	2.125	3.725
4-3/16	Z-5667	6.890	6.890	6.786	2.440	3.725
4-1/4	Z-5668	6.890	6.890	6.786	2.440	3.725
4-5/16	Z-5669	6.890	6.890	6.786	2.440	4.040
4-3/8	Z-5670	6.890	6.890	6.786	2.440	4.040
4-7/16	Z-5671	6.890	6.890	6.786	2.440	4.040
4-1/2	Z-5672	6.890	6.890	6.786	2.440	4.040
4-5/8	Z-5674	6.890	6.890	7.100	2.640	4.040
4-3/4	Z-5676	6.890	6.890	7.100	2.640	4.355
4-7/8	Z-5678	6.890	6.890	7.100	2.640	4.355
5	Z-5680	7.480	6.890	7.722	2.830	4.355
5-1/8	Z-5682	7.480	6.890	7.722	3.000	4.355
5-3/16	Z-5683	7.480	6.890	7.722	3.000	4.670
5-1/4	Z-5684	7.480	6.890	7.722	3.000	4.670
5-3/8	Z-5686	7.874	6.890	7.722	3.000	4.670
5-1/2	Z-5688	7.874	6.890	8.000	3.110	5.300
5-5/8	Z-5690	8.268	6.890	8.270	3.270	5.300
5-3/4	Z-5692	8.268	6.890	8.270	3.270	5.300
5-7/8	Z-5694	8.268	6.890	8.270	3.460	5.300
6	Z-5696	8.661	6.890	8.350	3.460	5.300
6-1/8	Z-5698	8.661	6.890	8.350	3.460	5.300
6-1/4	Z-56100	9.055	6.890	8.500	3.580	5.458
6-3/8	Z-56102	9.055	6.890	8.500	3.580	5.458
6-1/2	Z-56104	9.055	6.890	8.970	3.700	5.930
6-5/8	Z-56106	9.449	6.890	8.970	3.700	5.930
6-3/4	Z-56108	9.449	6.890	8.970	3.900	5.930
6-7/8	Z-56110	9.843	6.890	8.970	3.900	5.930
7	Z-56112	9.843	6.890	9.250	4.090	6.206
7-1/8	Z-56114	9.843	6.890	9.250	4.090	6.206
7-1/4	Z-56116	10.236	6.890	9.250	4.090	6.206
7-3/8	Z-56118	10.236	6.890	9.438	4.210	6.363
7-1/2	Z-56120	10.630	6.890	9.438	4.210	6.363
7-5/8	Z-56122	10.630	6.890	9.600	4.290	6.521
7-3/4	Z-56124	10.630	6.890	9.710	4.410	6.678
7-13/16	Z-56125	11.024	6.890	9.710	4.410	6.678
7-7/8	Z-56126	11.024	6.890	9.710	4.410	6.678
8	Z-56128	11.024	6.890	10.000	4.530	7.229
8-1/8	Z-56130	11.417	6.890	10.000	4.530	7.229
8-1/4	Z-56132	11.417	6.890	10.000	4.530	7.229
8-3/8	Z-56134	11.417	6.890	10.250	4.720	7.229
8-1/2	Z-56136	11.811	6.890	10.410	4.800	7.859
8-3/4	Z-56140	12.205	6.890	10.530	4.880	7.859
8-7/8	Z-56142	12.205	6.890	10.640	4.960	7.859
9	Z-56144	12.205	6.890	10.760	5.040	7.859
9-1/8	Z-56146	12.598	6.890	10.880	5.160	7.859
9-1/4	Z-56148	12.598	6.890	11.110	5.240	9.198

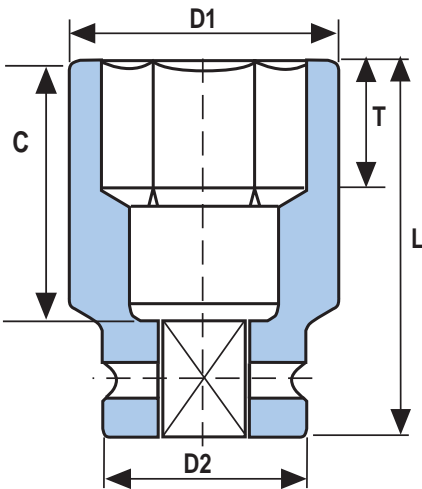


# 3 1/2" SQUARE DRIVE

## SIX POINT IMPACT SOCKETS

### DEEP FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
3-7/8	Z-5662L	6.890	6.890	10.800	2.125	7.781
3-15/16	Z-5663L	6.890	6.890	10.800	2.125	7.781
4	Z-5664L	6.890	6.890	10.800	2.125	7.781
4-1/16	Z-5665L	6.890	6.890	10.800	2.125	7.781
4-1/8	Z-5666L	6.890	6.890	10.800	2.125	7.781
4-3/16	Z-5667L	6.890	6.890	10.800	2.440	7.781
4-1/4	Z-5668L	6.890	6.890	10.800	2.440	7.781
4-5/16	Z-5669L	6.890	6.890	10.800	2.440	7.781
4-3/8	Z-5670L	6.890	6.890	10.800	2.440	7.781
4-7/16	Z-5671L	6.890	6.890	10.800	2.440	7.781
4-1/2	Z-5672L	6.890	6.890	10.800	2.440	7.781
4-5/8	Z-5674L	6.890	6.890	10.800	2.640	7.781
4-3/4	Z-5676L	6.890	6.890	10.800	2.640	7.781
4-7/8	Z-5678L	6.890	6.890	10.800	2.640	7.781
5	Z-5680L	7.480	6.890	10.800	2.830	7.781
5-1/8	Z-5682L	7.480	6.890	10.920	3.000	7.781
5-3/16	Z-5683L	7.480	6.890	10.920	3.000	7.899
5-1/4	Z-5684L	7.480	6.890	10.920	3.000	7.899
5-3/8	Z-5686L	7.874	6.890	10.920	3.000	7.899
5-1/2	Z-5688L	7.874	6.890	11.230	3.110	8.568
5-5/8	Z-5690L	8.268	6.890	11.500	3.270	8.568
5-3/4	Z-5692L	8.268	6.890	11.500	3.270	8.568
5-7/8	Z-5694L	8.268	6.890	11.500	3.460	8.568
6	Z-5696L	8.661	6.890	11.580	3.460	8.568
6-1/8	Z-5698L	8.661	6.890	11.580	3.460	8.568
6-1/4	Z-56100L	9.055	6.890	11.740	3.580	8.725
6-3/8	Z-56102L	9.055	6.890	11.740	3.580	8.725
6-1/2	Z-56104L	9.055	6.890	12.220	3.700	9.198
6-5/8	Z-56106L	9.449	6.890	12.220	3.700	9.198
6-3/4	Z-56108L	9.449	6.890	12.220	3.900	9.198
6-7/8	Z-56110L	9.843	6.890	12.220	3.900	9.198
7	Z-56112L	9.843	6.890	12.480	4.090	9.473
7-1/8	Z-56114L	9.843	6.890	12.480	4.090	9.473
7-1/4	Z-56116L	10.236	6.890	12.480	4.090	9.473
7-3/8	Z-56118L	10.236	6.890	12.630	4.210	9.631
7-1/2	Z-56120L	10.630	6.890	12.630	4.210	9.631
7-5/8	Z-56122L	10.630	6.890	12.800	4.290	9.788
7-3/4	Z-56124L	10.630	6.890	12.950	4.410	9.946
7-13/16	Z-56125L	11.024	6.890	12.950	4.410	9.946
7-7/8	Z-56126L	11.024	6.890	12.950	4.410	9.946
8	Z-56128L	11.024	6.890	13.220	4.530	10.497
8-1/8	Z-56130L	11.417	6.890	13.220	4.530	10.497
8-1/4	Z-56132L	11.417	6.890	13.220	4.530	10.497
8-3/8	Z-56134L	11.417	6.890	13.500	4.720	10.497
8-1/2	Z-56136L	11.811	6.890	13.650	4.800	11.127
8-3/4	Z-56140L	12.205	6.890	13.800	4.880	11.127
8-7/8	Z-56142L	12.205	6.890	13.920	4.960	11.127
9	Z-56144L	12.205	6.890	14.000	5.040	11.127
9-1/8	Z-56146L	12.598	6.890	14.110	5.160	11.127
9-1/4	Z-56148L	12.598	6.890	14.430	5.240	12.426



## STANDARD METRIC SIZES

SIZE	PART#	D1	D2	L	T	C
100	Z-56M100	175	175	165	54	95
105	Z-56M105	175	175	165	54	94
110	Z-56M110	175	175	174	62	103
115	Z-56M115	175	175	174	57	103
120	Z-56M120	175	175	182	67	111
125	Z-56M125	175	175	182	67	111
130	Z-56M130	190	175	198	76	111
135	Z-56M135	190	175	198	76	119
140	Z-56M140	200	175	205	79	135
145	Z-56M145	210	175	212	83	135
150	Z-56M150	210	175	212	88	135
155	Z-56M155	220	175	214	88	135
160	Z-56M160	220	175	218	91	139
165	Z-56M165	230	175	230	94	151
170	Z-56M170	240	175	230	94	151
175	Z-56M175	250	175	230	99	151
180	Z-56M180	250	175	237	104	158
185	Z-56M185	260	175	237	104	158
190	Z-56M190	260	175	242	107	162
195	Z-56M195	270	175	246	109	166
200	Z-56M200	280	175	249	112	170
210	Z-56M210	290	175	256	115	184
215	Z-56M215	300	175	263	120	220
225	Z-56M225	310	175	273	126	200
230	Z-56M230	310	175	276	128	200
235	Z-56M235	320	175	279	131	200

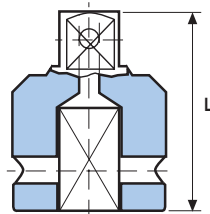
## DEEP METRIC SIZES

SIZE	PART#	D1	D2	L	T	C
100	Z-56M100L	175	175	277	54	198
105	Z-56M105L	175	175	277	54	198
110	Z-56M110L	175	175	277	62	198
115	Z-56M115L	175	175	277	57	198
120	Z-56M120L	175	175	277	67	198
125	Z-56M125L	175	175	277	67	198
130	Z-56M130L	190	175	280	76	198
135	Z-56M135L	190	175	280	76	201
140	Z-56M140L	200	175	288	79	218
145	Z-56M145L	210	175	295	83	218
150	Z-56M150L	210	175	295	88	218
155	Z-56M155L	220	175	297	88	218
160	Z-56M160L	220	175	301	91	222
165	Z-56M165L	230	175	313	94	234
170	Z-56M170L	240	175	313	94	234
175	Z-56M175L	250	175	313	99	234
180	Z-56M180L	250	175	320	104	241
185	Z-56M185L	260	175	320	104	241
190	Z-56M190L	260	175	324	107	245
195	Z-56M195L	270	175	328	109	249
200	Z-56M200L	280	175	332	112	253
210	Z-56M210L	290	175	339	115	267
215	Z-56M215L	300	175	346	120	283
225	Z-56M225L	310	175	357	126	283
230	Z-56M230L	310	175	359	128	283
235	Z-56M235L	320	175	362	131	283

## ACCESSORIES

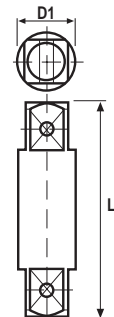
### ADAPTERS

PART#	FEMALE	MALE	L
A5640	3-1/2	2-1/2	7.137



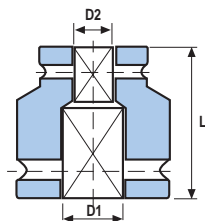
### DOUBLE ENDED MALE EXTENSIONS

PART#	D1	L
Z5610	4.685	10
Z5620	4.685	20
Z5640	4.685	40



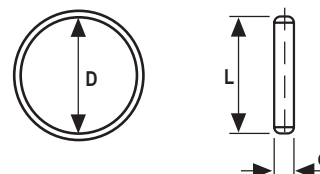
### DOUBLE ENDED FEMALE ADAPTERS

PART#	D1	L
AN5640	3-1/2	2-1/2
AN5656	3-1/2	3-1/2



### RETAINING PINS AND RINGS

SQUARE DRIVE	THROUGH HEX SIZE	PIN #	RING#	d	L	D
3-1/2	ALL	P56175	R56175	.390	6.24	6.24

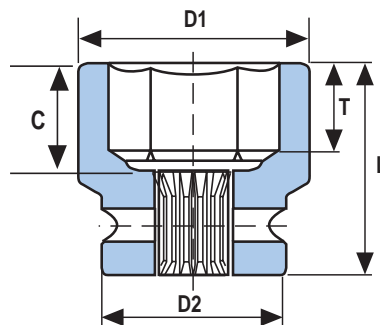


## STANDARD FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
3/4	Z-9512	1.890	2.362	2.730	0.374	1.006
13/16	Z-9513	1.890	2.362	2.730	0.435	1.006
7/8	Z-9514	1.890	2.362	2.730	0.512	1.006
15/16	Z-9515	1.890	2.362	2.730	0.512	1.006
1	Z-9516	1.929	2.362	2.730	0.512	1.006
1-1/16	Z-9517	2.008	2.362	2.730	0.512	1.006
1-1/8	Z-9518	2.008	2.362	2.730	0.650	1.006
1-3/16	Z-9519	2.126	2.362	2.730	0.650	1.006
1-1/4	Z-9520	2.362	2.362	2.925	0.669	1.203
1-5/16	Z-9521	2.362	2.362	3.000	0.748	1.281
1-3/8	Z-9522	2.362	2.362	3.000	0.748	1.281
1-7/16	Z-9523	2.480	2.362	3.000	0.748	1.281
1-1/2	Z-9524	2.480	2.362	3.125	0.866	1.400
1-9/16	Z-9525	2.638	2.362	3.125	0.866	1.400
1-5/8	Z-9526	2.638	2.362	3.125	0.866	1.400
1-11/16	Z-9527	2.638	2.362	3.275	0.984	1.557
1-3/4	Z-9528	2.874	2.362	3.275	1.000	1.557
1-13/16	Z-9529	2.874	2.362	3.275	1.000	1.577
1-7/8	Z-9530	2.874	2.362	3.432	1.063	1.715
1-15/16	Z-9531	2.874	2.362	3.432	1.063	1.715
2	Z-9532	3.228	2.362	3.432	1.063	1.715
2-1/16	Z-9533	3.228	3.386	3.625	1.181	1.911
2-1/8	Z-9534	3.228	3.386	3.625	1.181	1.911
2-3/16	Z-9535	3.228	3.386	3.740	1.260	2.030
2-1/4	Z-9536	3.465	3.386	3.740	1.299	2.030
2-5/16	Z-9537	3.465	3.386	3.740	1.299	2.030
2-3/8	Z-9538	3.465	3.386	3.822	1.378	2.108
2-7/16	Z-9539	3.465	3.386	3.900	1.378	2.108
2-1/2	Z-9540	3.937	3.386	3.900	1.378	2.108
2-9/16	Z-9541	3.937	3.386	3.900	1.378	2.108
2-5/8	Z-9542	3.937	3.386	3.978	1.496	2.266
2-11/16	Z-9543	3.937	3.386	3.978	1.496	2.266
2-3/4	Z-9544	3.937	3.386	3.978	1.496	2.266
2-13/16	Z-9545	4.134	3.386	4.210	1.575	2.502
2-7/8	Z-9546	4.134	3.386	4.210	1.614	2.502
2-15/16	Z-9547	4.134	3.386	4.210	1.614	2.502
3	Z-9548	4.291	3.386	4.446	1.732	2.738
3-1/16	Z-9549	4.291	3.386	4.446	1.732	2.738
3-1/8	Z-9550	4.291	3.386	4.446	1.732	2.738
3-1/4	Z-9552	5.062	3.386	4.909	2.106	2.781
3-5/16	Z-9553	5.062	3.386	4.909	2.106	2.781
3-3/8	Z-9554	5.062	3.386	4.909	2.106	2.781
3-1/2	Z-9556	5.129	3.386	4.909	2.106	2.781
3-5/8	Z-9558	5.256	3.386	4.909	2.106	2.781
3-3/4	Z-9560	5.309	3.386	4.909	2.106	2.781
3-7/8	Z-9562	5.442	3.386	4.909	2.106	2.781
4	Z-9564	5.511	3.386	4.909	2.106	2.781

## DEEP FRACTIONAL SIZES

SIZE	PART#	D1	D2	L	T	C
3/4	Z-9512L	1.890	2.362	6.240	0.374	4.549
13/16	Z-9513L	1.890	2.362	6.240	0.435	4.549
7/8	Z-9514L	1.890	2.362	6.240	0.512	4.549
15/16	Z-9515L	1.890	2.362	6.240	0.512	4.549
1	Z-9516L	1.929	2.362	6.240	0.512	4.549
1-1/16	Z-9517L	2.008	2.362	6.240	0.512	4.549
1-1/8	Z-9518L	2.008	2.362	6.240	0.650	4.549
1-3/16	Z-9519L	2.126	2.362	6.240	0.650	4.549
1-1/4	Z-9520L	2.362	2.362	6.240	0.669	4.549
1-5/16	Z-9521L	2.362	2.362	6.240	0.748	4.549
1-3/8	Z-9522L	2.362	2.362	6.240	0.748	4.549
1-7/16	Z-9523L	2.480	2.362	6.240	0.748	4.549
1-1/2	Z-9524L	2.480	2.362	6.240	0.866	4.549
1-9/16	Z-9525L	2.638	2.362	6.240	0.866	4.549
1-5/8	Z-9526L	2.638	2.362	6.240	0.866	4.549
1-11/16	Z-9527L	2.638	2.362	6.240	0.984	4.549
1-3/4	Z-9528L	2.874	2.362	6.240	1.000	4.549
1-13/16	Z-9529L	2.874	2.362	6.240	1.000	4.549
1-7/8	Z-9530L	2.874	2.362	6.240	1.063	4.549
1-15/16	Z-9531L	2.874	2.362	6.240	1.063	4.549
2	Z-9532L	3.228	2.362	6.240	1.063	4.549
2-1/16	Z-9533L	3.228	3.386	6.240	1.181	4.549
2-1/8	Z-9534L	3.228	3.386	6.240	1.181	4.549
2-3/16	Z-9535L	3.228	3.386	6.240	1.260	4.549
2-1/4	Z-9536L	3.465	3.386	6.240	1.299	4.549
2-5/16	Z-9537L	3.465	3.386	6.240	1.299	4.549
2-3/8	Z-9538L	3.465	3.386	6.240	1.373	4.549
2-7/16	Z-9539L	3.465	3.386	6.240	1.378	4.549
2-1/2	Z-9540L	3.937	3.386	6.240	1.378	4.549
2-9/16	Z-9541L	3.937	3.386	6.240	1.378	4.549
2-5/8	Z-9542L	3.937	3.386	6.240	1.496	4.549
2-11/16	Z-9543L	3.937	3.386	6.240	1.496	4.549
2-3/4	Z-9544L	3.937	3.386	6.240	1.496	4.549
2-13/16	Z-9545L	4.134	3.386	6.240	1.575	4.549
2-7/8	Z-9546L	4.134	3.386	6.240	1.614	4.549
2-15/16	Z-9547L	4.134	3.386	6.240	1.614	4.549
3	Z-9548L	4.291	3.386	6.240	1.732	4.628
3-1/16	Z-9549L	4.291	3.386	6.310	1.732	4.628
3-1/8	Z-9550L	4.291	3.386	6.310	1.732	4.628



# #5 SPLINE DRIVE

# SIX POINT IMPACT SOCKETS

## STANDARD METRIC SIZES

SIZE	PART#	D1	D2	L	T	C
19	Z-95M19	48	60	70	0.374	26
20	Z-95M20	48	60	70	0.394	26
21	Z-95M21	48	60	70	0.394	26
22	Z-95M22	48	60	70	0.394	26
23	Z-95M23	48	60	70	0.472	26
24	Z-95M24	49	60	70	0.472	26
25	Z-95M25	49	60	70	0.512	26
26	Z-95M26	51	60	70	0.512	26
27	Z-95M27	51	60	70	0.512	26
28	Z-95M28	51	60	70	0.551	26
29	Z-95M29	54	60	70	0.551	26
30	Z-95M30	54	60	70	0.650	26
31	Z-95M31	60	60	75	0.650	31
32	Z-95M32	60	60	75	0.650	31
33	Z-95M33	60	60	75	0.669	31
34	Z-95M34	60	60	77	0.669	33
35	Z-95M35	60	60	77	0.748	33
36	Z-95M36	63	60	77	0.748	33
37	Z-95M37	63	60	77	0.748	33
38	Z-95M38	63	60	80	0.866	36
39	Z-95M39	67	60	80	0.866	36
40	Z-95M40	67	60	80	0.866	36
41	Z-95M41	67	60	80	0.866	36
42	Z-95M42	67	60	80	0.846	36
43	Z-95M43	67	60	84	0.984	40
44	Z-95M44	73	60	84	0.846	40
45	Z-95M45	73	60	84	0.846	40
46	Z-95M46	73	60	84	1.004	40
47	Z-95M47	73	60	84	0.925	40
48	Z-95M48	73	60	88	0.925	44
49	Z-95M49	73	60	88	1.063	44
50	Z-95M50	82	60	88	0.925	44
51	Z-95M51	82	60	88	1.063	44
52	Z-95M52	82	60	88	1.063	44
54	Z-95M54	82	60	93	1.181	49
55	Z-95M55	82	60	93	1.063	49
56	Z-95M56	88	86	96	1.102	52
57	Z-95M57	88	76	96	1.299	52
58	Z-95M58	88	86	96	1.102	52
59	Z-95M59	88	86	96	1.299	52
60	Z-95M60	88	86	96	1.102	52
61	Z-95M61	88	86	98	1.102	54
62	Z-95M62	88	86	100	1.378	56
65	Z-95M65	100	86	100	1.378	56
67	Z-95M67	100	86	102	1.496	58
70	Z-95M70	100	86	102	1.496	58
73	Z-95M73	105	86	108	1.614	64
75	Z-95M75	105	86	108	1.614	64
76	Z-95M76	109	86	114	1.732	70
80	Z-95M80	115	86	114	1.457	70

## DEEP METRIC SIZES

SIZE	PART#	D1	D2	L	T	C
19	Z-95M19L	48	60	160	0.374	116
20	Z-95M20L	48	60	160	0.394	116
21	Z-95M21L	48	60	160	0.394	116
22	Z-95M22L	48	60	160	0.394	116
23	Z-95M23L	48	60	160	0.472	116
24	Z-95M24L	49	60	160	0.472	116
25	Z-95M25L	49	60	160	0.512	116
26	Z-95M26L	51	60	160	0.512	116
27	Z-95M27L	51	60	160	0.512	116
28	Z-95M28L	51	60	160	0.551	116
29	Z-95M29L	54	60	160	0.551	116
30	Z-95M30L	54	60	160	0.650	116
31	Z-95M31L	60	60	160	0.650	116
32	Z-95M32L	60	60	160	0.650	116
33	Z-95M33L	60	60	160	0.669	116
34	Z-95M34L	60	60	160	0.669	116
35	Z-95M35L	60	60	160	0.748	116
36	Z-95M36L	63	60	160	0.748	116
37	Z-95M37L	63	60	160	0.748	116
38	Z-95M38L	63	60	160	0.866	116
39	Z-95M39L	67	60	160	0.866	116
40	Z-95M40L	67	60	160	0.866	116
41	Z-95M41L	67	60	160	0.866	116
42	Z-95M42L	67	60	160	0.846	116
43	Z-95M43L	67	60	160	0.984	116
44	Z-95M44L	73	60	160	0.846	116
45	Z-95M45L	73	60	160	0.846	116
46	Z-95M46L	73	60	160	1.004	116
47	Z-95M47L	73	60	160	0.925	116
48	Z-95M48L	73	60	160	0.925	116
49	Z-95M49L	73	60	160	1.063	116
50	Z-95M50L	82	60	160	0.925	116
51	Z-95M51L	82	60	160	1.063	116
52	Z-95M52L	82	60	160	1.063	116
54	Z-95M54L	82	60	160	1.181	116
55	Z-95M55L	82	60	160	1.063	116
56	Z-95M56L	88	86	160	1.102	116
57	Z-95M57L	88	76	160	1.299	116
58	Z-95M58L	88	86	160	1.102	116
59	Z-95M59L	88	86	160	1.299	116
60	Z-95M60L	88	86	160	1.102	116
61	Z-95M61L	88	86	160	1.102	116
62	Z-95M62L	88	86	160	1.378	116
65	Z-95M65L	100	86	160	1.378	116
67	Z-95M67L	100	86	160	1.496	116
70	Z-95M70L	100	86	160	1.496	116
73	Z-95M73L	105	86	160	1.614	116
75	Z-95M75L	105	86	162	1.614	116
76	Z-95M76L	109	86	162	1.732	118
80	Z-95M80L	115	86	162	1.457	118

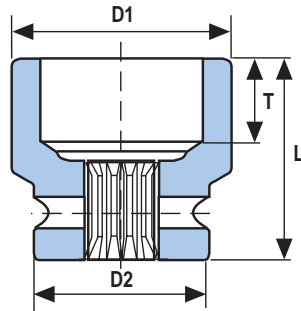
## BUDD WHEEL SOCKETS

SIZE	PART#	D1	D2	L	T
13/16 X 1-1/2	Z-9524BS	2.48	2.36	4.133	0.571
13/16	Z-9513B	2.008	2.36	2.756	0.472



# #4 SPLINE DRIVE

# IMPACT SOCKETS



### UNIVERSAL JOINT

SIZE	PART#
#4 Spline Drive	U9494

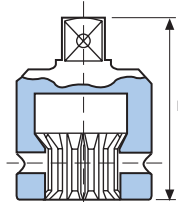
### 6 POINT IMPACT SOCKETS REGULAR LENGTH

NOMINAL OPENING			D1	D2	L	
mm	A/F Inch	CATALOG No.	mm	mm	mm	t min
17	1-1/16"	Z-9417M27	46.0	52	59	13.0
	1-1/8"	Z-9418	48	52	65	16.5
30	1 3/16"	Z-9419M30	50	52	65	16.5
	1-1/4"	Z-9420	52	52	65	17
	1-5/16"	Z-9421	52	52	68	19
35	1 3/8"	Z-9422M35	52	52	68	19
	1-7/16"	Z-9423	52	52	68	19
38	1-1/2"	Z-9424M38	52	52	73	22
	1-9/16"	Z-9425	57	52	73	22
41	1-5/8"	Z-9426M41	57	52	73	22
	1-11/16"	Z-9427	57	52	73	22
	1-3/4"	Z-9428	63	52	78	25.5
	1-13/16"	Z-9429	67	52	78	25.5
	1-7/8"	Z-9430	67	52	78	27
	1-15/16"	Z-9431	70	52	81	27
	2"	Z-9432	73	52	81	27
	2-1/16"	Z-9433	73	52	85	30
	2-1/8"	Z-9434	78	52	88	32
	2-1/4"	Z-9435	78	52	88	23

# ACCESSORIES FOR #5 SPLINE DRIVE

### ADAPTERS

PART#	FEMALE	MALE
A9516	#5	1"
A9524	#5	1-1/2"
A2495	1-1/2"	#5



### EXTENSIONS

PART#	L
E9508	8
E9515	15

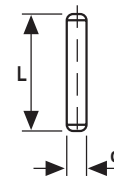
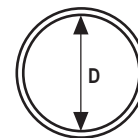
### UNIVERSAL JOINT

SIZE	PART#
#5 Spline Drive	U9595



### UNIVERSAL JOINT REPAIR KITS

PART #	DESCRIPTION
95UK1	Retainer Kit Contents: Hex Plunger, Lock Button, Inner & Outer Springs
95UK2	Pin Kit Contents: Drive Pin, Trunions, Spiral Pins
95UK3	Retrofit Kit Contents: All Parts From the Above 2 Kits



### RETAINING PINS AND RINGS

SQUARE DRIVE	THROUGH HEX SIZE	PIN #	RING#	d	L	D
#5	2-3/16-55mm	P9560	R9560	.950	1.950	1.950
#5	Above 2-3/16	P9586	R9586	.950	2.964	2.964

# 12 POINT OPENING

# FLAT STRIKING WRENCHES

## FRACTIONAL SIZES

PART#	SIZE	D	C	L
FSW14	7/8	1-13/16	9/16	6-1/2
FSW15	15/16	1-13/16	9/16	6-1/2
FSW16	1	1-13/16	9/16	6-1/2
FSW17	1-1/16	1-13/16	5/8	7-1/16
FSW18	1-1/8	1-13/16	5/8	7-1/16
FSW19	1-3/16	2-1/16	11/16	7-1/2
FSW20	1-1/4	2-1/16	11/16	7-1/2
FSW21	1-5/16	2-1/16	11/16	7-1/2
FSW22	1-3/8	2-1/16	11/16	7-1/2
FSW23	1-7/16	2-15/16	11/16	8-1/16
FSW24	1-1/2	2-15/16	11/16	8-1/16
FSW25	1-9/16	2-15/16	11/16	8-1/16
FSW26	1-5/8	2-15/16	13/16	9-1/16
FSW27	1-11/16	2-15/16	13/16	9-1/16
FSW28	1-3/4	2-15/16	13/16	9-1/16
FSW29	1-13/16	2-15/16	7/8	9-7/16
FSW30	1-7/8	2-15/16	7/8	9-7/16
FSW31	1-15/16	2-15/16	7/8	9-7/16
FSW32	2	3-1/8	15/16	10-1/16
FSW33	2-1/16	3-1/8	15/16	10-1/16
FSW34	2-1/8	3-1/8	15/16	10-1/16
FSW35	2-3/16	3-3/8	1	10-5/8
FSW36	2-1/4	3-3/8	1	10-5/8
FSW37	2-5/16	3-3/8	1	10-5/8
FSW38	2-3/8	3-11/16	1	11
FSW39	2-7/16	3-11/16	1	11
FSW40	2-1/2	3-11/16	1	11
FSW41	2-9/16	4	1-3/16	11-13/16
FSW42	2-5/8	4	1-3/16	11-13/16
FSW43	2-11/16	4	1-3/16	11-13/16
FSW44	2-3/4	4-5/16	1-5/16	13
FSW45	2-13/16	4-5/16	1-5/16	13
FSW46	2-7/8	4-5/16	1-5/16	13
FSW47	2-15/16	4-5/16	1-5/16	13
FSW48	3	4-5/16	1-5/16	13
FSW49	3-1/16	4-5/16	1-5/16	13
FSW50	3-1/8	4-15/16	1-7/16	14-3/16
FSW51	3-3/16	4-15/16	1-7/16	14-3/16
FSW52	3-1/4	4-15/16	1-7/16	14-3/16
FSW53	3-5/16	4-15/16	1-7/16	14-3/16
FSW54	3-3/8	4-15/16	1-7/16	14-3/16
FSW55	3-7/16	4-15/16	1-7/16	14-3/16
FSW56	3-1/2	4-15/16	1-7/16	14-3/16
FSW57	3-9/16	5-9/16	1-9/16	15-3/8
FSW58	3-5/8	5-9/16	1-9/16	15-3/8
FSW59	3-11/16	5-9/16	1-9/16	15-3/8
FSW60	3-3/4	5-9/16	1-9/16	15-3/8
FSW61	3-13/16	5-9/16	1-9/16	15-3/8
FSW62	3-7/8	5-9/16	1-9/16	15-3/8
FSW63	3-15/16	6-1/8	1-3/4	16-9/16
FSW64	4	6-1/8	1-3/4	16-9/16
FSW65	4-1/16	6-1/8	1-3/4	16-9/16
FSW66	4-1/8	6-1/8	1-3/4	16-9/16
FSW67	4-3/16	6-1/8	1-3/4	16-9/16
FSW68	4-1/4	6-1/8	1-3/4	16-9/16

Table continued next column

## FRACTIONAL SIZES

PART#	SIZE	D	C	L
FSW69	4-5/16	6-11/16	1-7/8	17-11/16
FSW70	4-3/8	6-11/16	1-7/8	17-11/16
FSW71	4-7/16	6-11/16	1-7/8	17-11/16
FSW72	4-1/2	6-11/16	1-7/8	17-11/16
FSW74	4-5/8	6-11/16	1-7/8	17-11/16
FSW76	4-3/4	7-3/16	2-1/8	18-7/8
FSW78	4-7/8	7-3/16	2-1/8	18-7/8
FSW80	5	7-3/16	2-1/8	18-7/8
FSW82	5-1/8	7-15/16	2-5/16	20-1/2
FSW83	5-3/16	7-15/16	2-5/16	20-1/2
FSW84	5-1/4	7-15/16	2-5/16	20-1/2
FSW86	5-3/8	7-15/16	2-5/16	20-1/2
FSW88	5-1/2	8-1/4	2-5/16	20-1/2
FSW90	5-5/8	8-1/4	2-5/16	20-1/2
FSW92	5-3/4	9	2-1/2	22-13/16
FSW94	5-7/8	9	2-1/2	22-13/16
FSW96	6	9	2-1/2	22-13/16
FSW98	6-1/8	9	2-1/2	22-13/16
FSW100	6-1/4	9	2-1/2	22-13/16
FSW102	6-3/8	9-7/16	2-1/2	22-13/16
FSW104	6-1/2	10-7/16	2-3/4	25-9/16
FSW106	6-5/8	10-7/16	2-3/4	25-9/16
FSW108	6-3/4	10-7/16	2-3/4	25-9/16
FSW110	6-7/8	10-7/16	2-3/4	25-9/16
FSW112	7	10-7/16	2-3/4	25-9/16
FSW114	7-1/8	10-7/16	2-3/4	25-9/16
FSW116	7-1/4	11-7/16	2-15/16	27-9/16
FSW118	7-3/8	11-7/16	2-15/16	27-9/16
FSW120	7-1/2	11-7/16	2-15/16	27-9/16
FSW122	7-5/8	11-7/16	2-15/16	27-9/16
FSW124	7-3/4	11-7/16	2-15/16	27-9/16
FSW125	7-13/16	11-7/16	2-15/16	27-9/16
FSW126	7-7/8	11-7/16	2-15/16	27-9/16
FSW128	8	11-7/16	2-15/16	27-9/16
FSW130	8-1/8	11-7/16	2-15/16	27-9/16
FSW132	8-1/4	12-5/8	3-1/8	29-1/2
FSW134	8-3/8	12-5/8	3-1/8	29-1/2
FSW136	8-1/2	12-5/8	3-1/8	29-1/2
FSW140	8-5/8	12-5/8	3-1/8	29-1/2
FSW142	8-7/8	12-5/8	3-1/8	29-1/2
FSW144	9	12-5/8	3-1/8	29-1/2



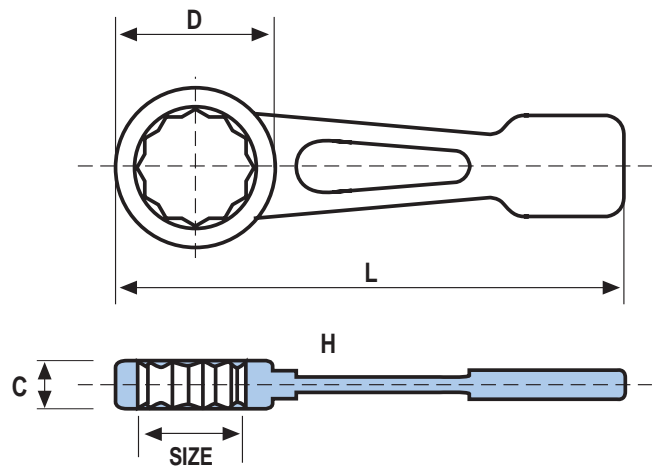
## METRIC SIZES

PART#	SIZE	D	C	L
FSWM22	22	43	15	165
FSWM23	23	43	15	165
FSWM24	24	43	15	165
FSWM25	25	43	15	165
FSWM26	26	43	15	165
FSWM27	27	46	16	180
FSWM28	28	46	16	180
FSWM29	29	46	16	180
FSWM30	30	52	17	190
FSWM31	31	52	17	190
FSWM32	32	52	17	190
FSWM33	33	52	17	190
FSWM34	34	52	17	190
FSWM35	35	52	17	190
FSWM36	36	58	18	205
FSWM37	37	58	18	205
FSWM38	38	58	18	205
FSWM39	39	58	18	205
FSWM40	40	58	18	205
FSWM41	41	66	20	230
FSWM42	42	66	20	230
FSWM43	43	66	20	230
FSWM44	44	66	20	230
FSWM45	45	66	20	230
FSWM46	46	74	22	240
FSWM47	47	74	22	240
FSWM48	48	74	22	240
FSWM49	49	74	22	240
FSWM50	50	80	24	255
FSWM51	51	80	24	255
FSWM52	52	80	24	255
FSWM54	54	80	24	255
FSWM55	55	86	25	270
FSWM56	56	86	25	270
FSWM57	57	86	25	270
FSWM58	58	86	25	270
FSWM59	59	86	25	270
FSWM60	60	93	26	280

Table continued next column

## METRIC SIZES

PART#	SIZE	D	C	L
FSWM61	61	93	26	280
FSWM62	62	93	26	280
FSWM65	65	102	30	300
FSWM67	67	102	30	300
FSWM70	70	110	33	330
FSWM73	73	110	33	330
FSWM75	75	110	33	330
FSWM76	76	110	33	330
FSWM80	80	125	36	360
FSWM85	85	125	36	360
FSWM86	86	125	36	360
FSWM90	90	142	40	390
FSWM95	95	142	40	390
FSWM100	100	115	45	420
FSWM105	105	155	45	420
FSWM110	110	170	48	450
FSWM115	115	170	48	450
FSWM120	120	182	54	480
FSWM125	125	182	54	480
FSWM130	130	202	58	520
FSWM135	135	202	58	520
FSWM140	140	210	58	520
FSWM145	145	228	64	580
FSWM150	150	228	64	580
FSWM155	155	228	64	580
FSWM160	160	240	64	580
FSWM165	165	265	70	650
FSWM170	170	265	70	650
FSWM175	175	265	70	650
FSWM180	180	265	70	650
FSWM185	185	290	75	700
FSWM190	190	290	75	700
FSWM195	195	290	75	700
FSWM200	200	290	75	700
FSWM210	210	320	80	750
FSWM215	215	320	80	750
FSWM225	225	320	80	750
FSWM230	230	320	80	750



# 12 POINT OPENING



Field Tested

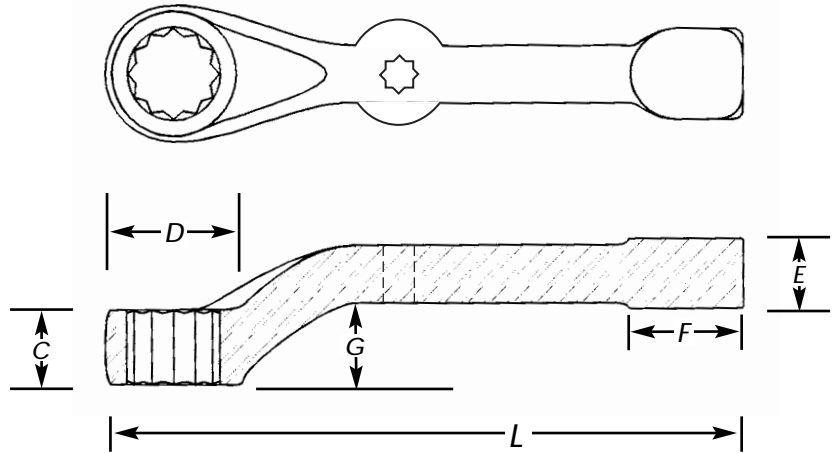


**SAFE** **INDUSTRY INNOVATION**  
**EFFICIENT**

## OFFSET STRIKING WRENCHES STRIKE FORCE MARK SAFETY

Our strike force has all of the basic features of a regular striking wrench, with one added benefit - it has been engineered with your safety in mind.

Hand related injuries have increased on the job site, some minor, others proving far more serious. Our "Strike Force" striking wrench is simply innovative. We have incorporated a square drive hole into the handle that will accept any standard 1/2" "breaker bar", keeping the users hands away from the point of impact. Combine it with ATP's SWBB-18 breaker bar, designed with a pro-active shock dampener to absorb the "sting", for a safer and more efficient striking wrench system.

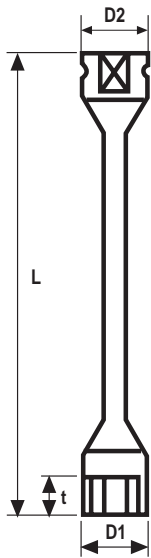


Strike Force Mark Safety Wrenches

Fractional Sizes	Size	D	C	L	E	G	F
Part #							
SW17-SP	1-1/16"	2-1/16"	13/16"	12"	1-1/4"	1-5/8"	3-1/4"
SW20-SP	1-1/4"	2-1/16"	13/16"	12"	1-1/4"	1-5/8"	3-1/4"
SW23-SP	1-7/16"	2-19/32"	1-1/16"	12"	1-1/4"	1-5/8"	3-1/4"
SW24-SP	1-1/2"	2-19/32"	1-1/16"	12"	1-1/4"	1-5/8"	3-1/4"
SW26-SP	1-5/8"	2-19/32"	1-1/16"	12"	1-1/4"	1-5/8"	3-1/4"
SW27-SP	1-11/16"	2-19/32"	1-1/16"	12"	1-1/4"	1-5/8"	3-1/4"
SW28-SP	1-3/4"	3-1/16"	1-1/4"	14-3/8"	1-1/2"	1-7/8"	3-11/16"
SW29-SP	1-13/16"	3-1/16"	1-1/4"	14-3/8"	1-1/2"	1-7/8"	3-11/16"
SW30-SP	1-7/8"	3-1/16"	1-1/4"	14-3/8"	1-1/2"	1-7/8"	3-11/16"
SW31-SP	1-15/16"	3-1/16"	1-1/4"	14-3/8"	1-1/2"	1-7/8"	3-11/16"
SW32-SP	2"	3-1/16"	1-1/4"	14-3/8"	1-1/2"	1-7/8"	3-11/16"
SW34-SP	2-1/8"	3-1/16"	1-1/4"	14-3/8"	1-1/2"	1-7/8"	3-11/16"
SWBB-18	Flex Breaker Bar - 1/2" sq. drive, 18" long						

All Fractional Offset sizes listed above are also available for Strike Force Mark Safety Wrenches. Other sizes in inch and metric are available upon request.

ATP can manufacture specialized striking wrenches to suit your individual applications. Sizes larger than shown in the charts, open ended, short handled, six point, etc. are available on a special order basis.



## 1/2" SQUARE DRIVE TORSION BARS

NOMINAL OPENING				D1	D2	L	tmin	TORQUE	Foot	Weight
mm	A/F Inch	CATALOG No.	COLOR	mm	mm	mm	mm	(NM)	Lbs.	gr
17		Z-08M17Q75	BROWN	26	30	205	20	75	55	290
17		Z-08M17Q95	GREEN	26	30	205	20	95	70	300
17		Z-08M17Q110	CREAM	26	30	205	20	110	80	320
19	3/4"	Z-08M19Q75	BLUE	28	30	205	20	75	55	290
19	3/4"	Z-08M19Q90	YELLOW	28	30	205	20	90	66	300
19	3/4"	Z-08M19Q110	LIGHT BLUE	28	30	205	20	110	80	330
19	3/4"	Z-08M19Q135	RED	28	30	205	20	135	100	360
21		Z-08M21Q80	BLACK	30	30	205	20	80	60	290
21		Z-08M21Q110	WHITE	30	30	205	20	110	80	330

\*Special order Torsion Bars, priced upon application

## 1" SQUARE DRIVE TORSION BARS

NOMINAL OPENING				D1	D2	L	tmin	TORQUE	Foot	Weight
mm	A/F Inch	CATALOG No.	COLOR	mm	mm	mm	mm	(NM)	Lbs.	gr
24		Z-16M24Q300	BROWN	42	54	305	28	300	220	1.10
27	11/16"	Z-16M27Q350	GREEN	46	54	305	28	350	255	1.15
27	11/16"	Z-16M27Q450	CREAM	46	54	305	28	450	330	1.20
30	13/16"	Z-16M30Q450	BLUE	50	54	305	28	450	330	1.25
30	13/16"	Z-16M30Q550	YELLOW	50	54	305	23	550	405	1.30
32		Z-16M32Q500	LIGHT BLUE	51	54	305	28	500	370	1.30
32		Z-16M32Q600	RED	51	54	305	28	600	440	1.35
32		Z-16M32Q700	BLACK	51	54	305	23	700	515	1.40
33		Z-16M33Q500	WHITE	54	54	305	23	500	370	1.40
33		Z-16M33Q600	BROWN	54	54	305	38	600	440	1.45
33		Z-16M33Q650	GREEN	54	54	305	28	650	480	1.50
38	1-1/2"	Z-16M38Q500	CREAM	60	54	305	28	500	370	1.50

\*Special order Torsion Bars, priced upon application



### Torsion-Bar, Torque Tightening Limiter

When tightening wheel nuts, and using an impact wrench is required, the exact torque becomes a problem to be solved. OZAT's Torsion-bar will allow you to tighten the nut as much as you want but will not be tightened by higher torque than necessary.

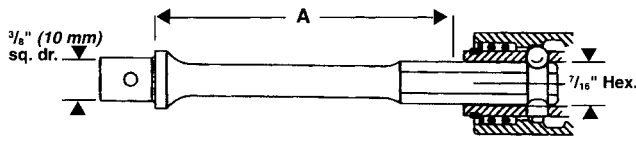
OZAT's Torsion-bar will absorb by means of Torsion all extra power generated by the impact wrench.

OZAT's Torsion-bar is pre-determinate long and narrow high quality steel socket, this socket is designed to twist and spring back when the nut reaches its correct torque and the impact wrench continues to hammer. The nut of course in this case will stop turning at the correct torque.

OZAT's Torsion-bar cannot promise minimum torque, the torque must be generated by the impact wrench used.

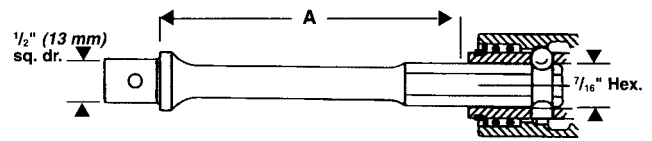
# TORK BAR

# QUICK CHANGE TORSION BARS



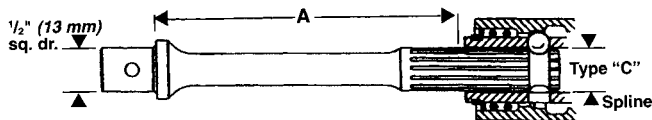
7/16" HEX DRIVE TORK BARS CP-6031-TEBAV\*

PART NUMBER	NOMINAL NUMBER & COLOR	LENGTH TORQUE RANGE				"A"
		FT. LB.	NM	IN.	MM	
C-112301	1 RED	8-10	11-14	3-3/4	95	
C-112302	2 ORANGE	10-12	14-16	3-3/4	95	
C-112303	3 YELLOW	12-15	16-20	3-3/4	95	
C-112304	4 GREEN	15-18	20-24	3-3/4	95	
C-112305	5 BLUE	18-21	24-28	3-3/4	95	
C-112306	6 PURPLE	21-24	28-33	3-3/4	95	
C-112307	7 RED/WHITE	24-27	33-37	3-3/4	95	
C-112308	8 OR/WHITE	27-30	37-41	3-3/4	95	
C-112309	9 YEL/WHITE	30-34	41-46	3-7/16	87	
C-112310 <sup>1</sup>	10 GRN/WHITE	34-38	46-52	3-7/16	87	
C-112311 <sup>1</sup>	11 BLUE/WHITE	38-42	52-57	3-7/16	87	
C-112312 <sup>1</sup>	12 PUR/WHITE	42-46	57-62	1-15/16	49	
C-113412	TORK BAR KIT					



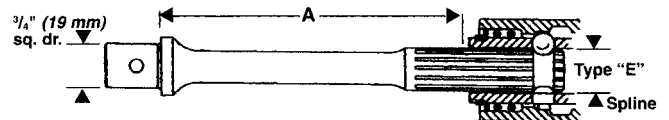
7/16" HEX DRIVE TORK BARS CP-6041-TEBAS\*

PART NUMBER	NOMINAL NUMBER & COLOR	LENGTH TORQUE RANGE				"A"
		FT. LB.	NM	IN.	MM	
C-113201	1 RED	15-20	20-27	4-5/16	110	
C-113202	2 ORANGE	20-25	27-34	4-5/16	110	
C-113203	3 YELLOW	25-30	34-41	4-5/16	110	
C-113204	4 GREEN	30-35	41-48	4-5/16	110	
C-113205	5 BLUE	35-40	48-54	4-5/16	110	
C-113206	6 PURPLE	40-45	54-61	4-5/16	110	
C-113207	7 RED/WHITE	45-50	61-68	4-5/16	110	
C-113208	8 OR/WHITE	50-55	68-75	4-5/16	110	
C-113209	9 YEL/WHITE	55-60	75-81	4-5/16	110	
C-113210	10 GRN/WHITE	60-70	81-95	3-5/8	92	
C-113211	11 BLUE/WHITE	70-80	95-109	2-5/8	67	
C-113212	12 PUR/WHITE	80-90	109-122	1-5/8	41	
C-113765	TORK BAR KIT					



TYPE "C" SPLINE DRIVE TORK BARS CP-6041-TEBAD\*

PART NUMBER	NOMINAL NUMBER & COLOR	LENGTH TORQUE RANGE				"A"
		FT. LB.	NM	IN.	MM	
C-051531	1 RED	15-20	20-27	4-3/16	106	
C-051532	2 ORANGE	20-25	27-34	4-3/16	106	
C-051533	3 YELLOW	25-30	34-41	4-3/16	106	
C-051534	4 GREEN	30-35	41-48	4-3/16	106	
C-051535	5 BLUE	35-40	48-54	4-3/16	106	
C-051536	6 PURPLE	40-45	54-61	4-3/16	106	
C-051537	7 RED/WHITE	45-50	61-68	4-3/16	106	
C-051538	8 OR/WHITE	50-55	68-75	4-3/16	106	
C-051539	9 YEL/WHITE	55-60	75-81	4-3/16	106	
C-051540	10 GRN/WHITE	60-70	81-95	4-3/16	106	
C-051541	11 BLUE/WHITE	70-80	95-109	4-3/16	106	
C-051542	12 PUR/WHITE	80-90	109-122	4-3/16	106	
C-052329	TORK BAR KIT					



TYPE "E" SPLINE DRIVE TORK BARS CP-6060-TESAT\*

PART NUMBER	NOMINAL NUMBER & COLOR	LENGTH TORQUE RANGE				"A"
		FT. LB.	NM	IN.	MM	
C-059901	1 RED	100-110	136-149	5-9/16	141	
C-059902	2 ORANGE	110-120	149-163	5-9/16	141	
C-059903	3 YELLOW	120-130	163-176	5-9/16	141	
C-059904	4 GREEN	130-140	176-190	5-9/16	141	
C-059905	5 BLUE	140-150	190-203	5-9/16	141	
C-059906	6 PURPLE	150-160	203-217	5-9/16	141	
C-059907	7 RED/WHITE	160-170	217-230	5-9/16	141	
C-059908	8 OR/WHITE	170-180	230-244	5-9/16	141	
C-059909	9 YEL/WHITE	180-210	244-285	2-5/8	67	
C-059910	10 GRN/WHITE	210-240	285-325	2-5/8	67	
C-059911	11 BLUE/WHITE	240-270	325-366	2-5/8	67	
C-059912	12 PUR/WHITE	270-300	366-407	2-5/8	67	
C-101075	TORK BAR KIT					

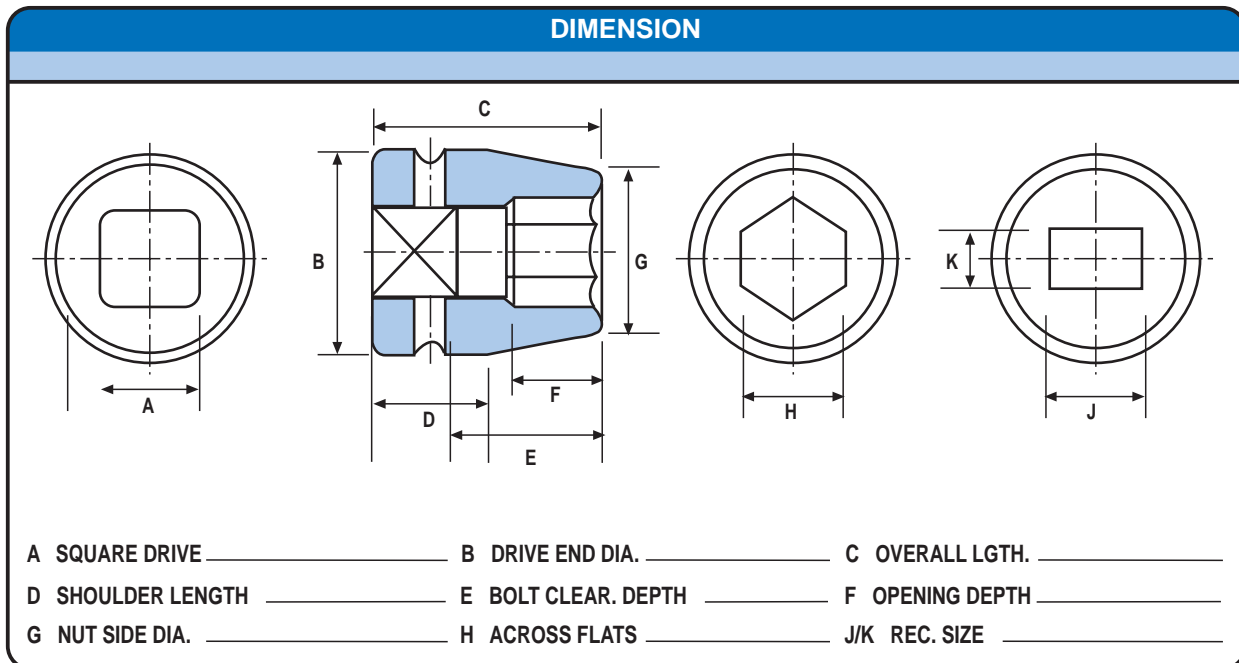
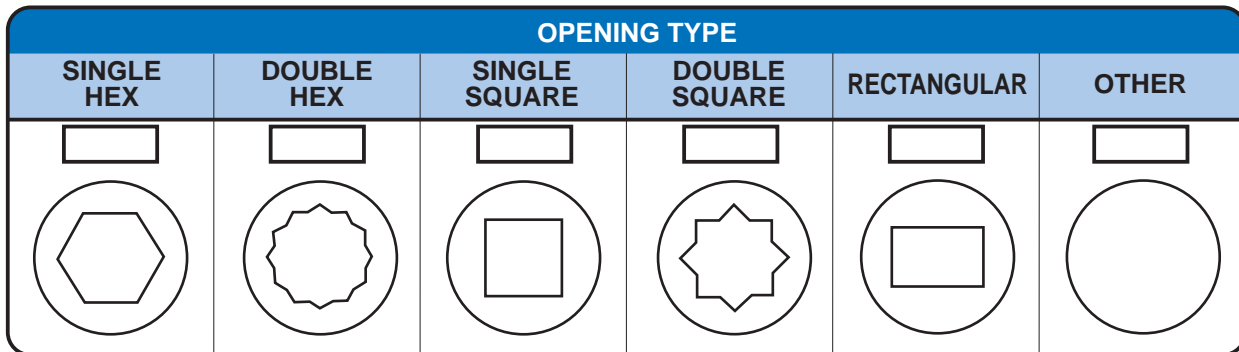
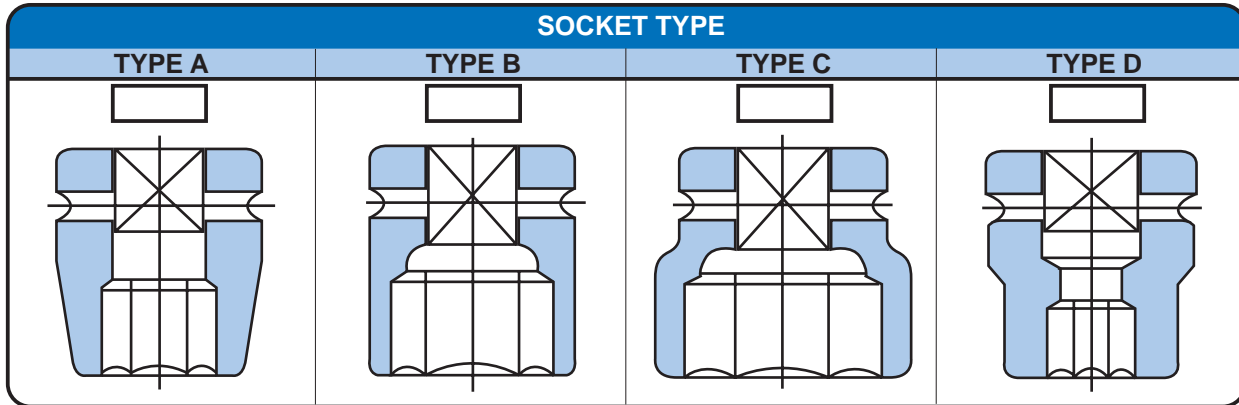
Under normal working conditions a Tork Bar will hold a wrench's mean torque output within the limits listed. Under unusual work conditions it may be necessary to use a higher or lower rated bar to get desired torque. After selecting a bar for a specific job always check the selection by driving a few fasteners and measuring the torque delivered.

\*CP is a Registered Trademark of Chicago Pneumatic

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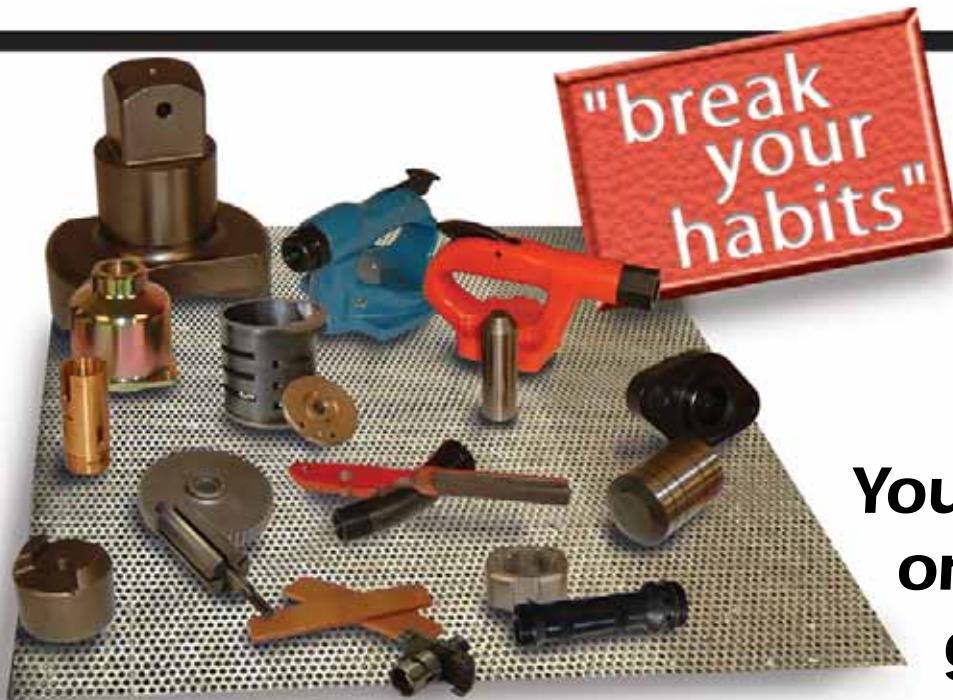
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good  
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## Hy-Tech Machine's Mission Statement

The employees and management of Hy-Tech Machine are committed to improving its position as a recognized leader in the machining industry. We realize that our leadership position relies on the continued success and satisfaction of our customers.

We believe that the objectives set forth reflect the core values and principles of every Hy-Tech employee. These objectives include:

- Dedicating all Hy-Tech resources to quality requirements that meet or exceed customer expectations.
- Maintaining continuous improvement of processes, skills, products and services. Fostering the concepts of team work and employee involvement as a key element of our operating philosophy.
- Emphasizing mutually beneficial partnerships with our customers and suppliers.
- Reducing costs through effective planning and resource utilization so that all may benefit.

The executive management of Hy-Tech will provide the necessary resources toward this endeavor and will entrust the success of our mission to the employees whose skills, knowledge, and attitudes reflect the exemplary spirit of Hy-Tech Machine, Inc..

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Divisions of Hy-Tech Machine

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