

Desoutter



IndustrialTools

Accessories

- *Air System*
- *Ergonomics*
- *Consumables*

More Than Productivity





Industrial^{Tools}

Desoutter



More than productivity

Your global solutions partner

Desoutter is your single source of electric and pneumatic tool solutions, covering a wide range of assembly and manufacturing processes in automotive, aeronautics, general industry and light industry sectors.

Desoutter has a long history of producing high-quality industrial tools. Today, however, the scope of the brand has been expanded. It now combines the offering and expertise of many of the top names in power tools (including Chicago Pneumatic, Georges Renault, Scanrotor, Techmotive) under one flagship brand.

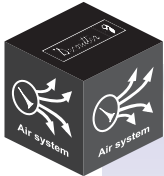
The reason behind our single-brand approach is simple: our customers, who include many of the world's largest and most successful manufacturers, want worldwide access to a global portfolio of assembly and manufacturing solutions.

With a single brand, we provide you with a single point of entry into a world of industrial possibilities...

Welcome to the new Desoutter

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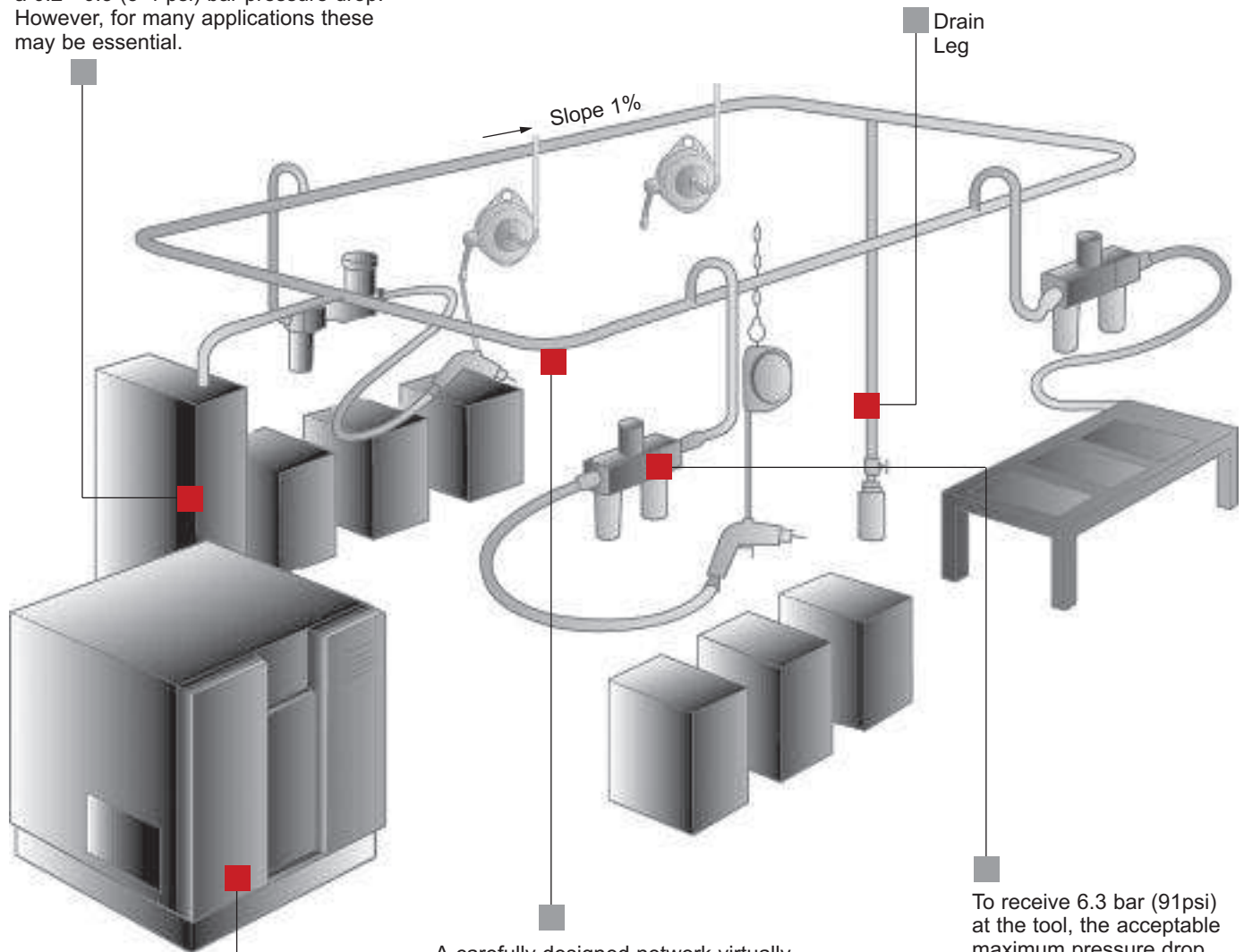
Air System



Air Line Network



Air dryers, filters and receives can cause a 0.2 - 0.3 (3-4 psi) bar pressure drop. However, for many applications these may be essential.



A carefully designed network virtually eliminates pressure drop. We recommend a Ring Main layout which has a slope away from the input of 1%.

To receive 6.3 bar (91psi) at the tool, the acceptable maximum pressure drop from airline accessories is 0.6 bar (9 psi). A combination of high performance components and careful engineering will achieve this.

A normal compressor can deliver up to 7.5 bar (109 psi) air line pressure, depending on start and stop settings.



Filter, Regulator and Lubricator

Why do you need a FRL?

Air filter

Filter separates impurities such as water and solid particles.

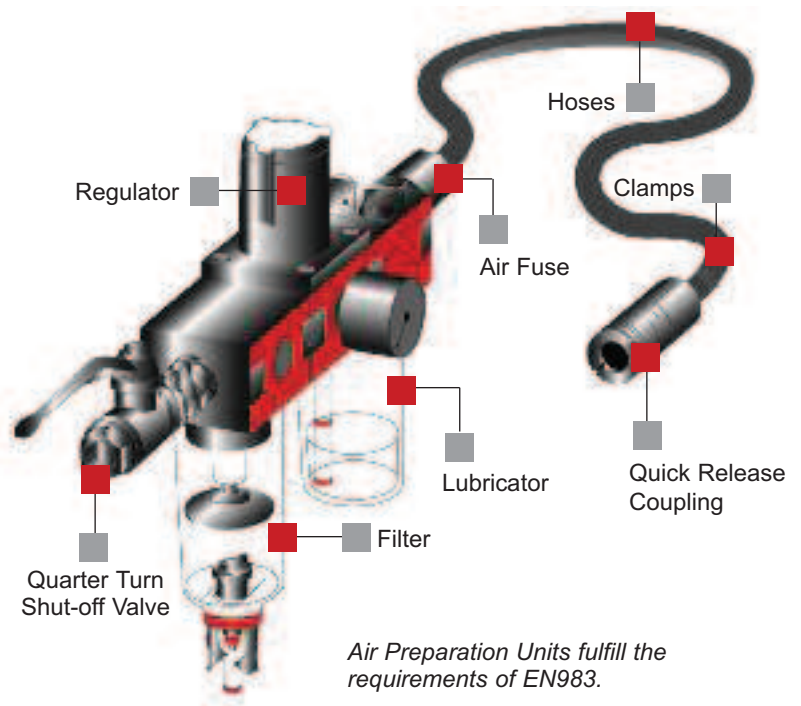
Not using filters in combination with air tools leads to shorter service life, higher maintenance costs and lower efficiency. Old air systems with cool dryers, for instance, generate a lot of rust and running tools without installing a filter could damage the tool in less than a week.

Desoutter filters separate up to 98% of the water when operating within the design working range. All three types (Small, Medium and Big) are very low pressure drop.

Air pressure regulators

The regulator ensures that the pre-set working pressure remains constant - regardless of pressure variations in the intake air and minor variations in the airflow rate. For example, a pressure of 1 bar higher than necessary results in a 16% increase in air consumption.

Spring controlled regulators are quick acting and therefore should be used for all types of air tools.



Air Preparation Units fulfill the requirements of EN983.

TOOL PRESSURE	AIR CONSUMPTION
6.3 bar	100%
7 bar	110%
8 bar	125%

Lubricators

If lubricators are not used the vanes have to be changed more often. The life of the vanes may decrease to as little as 1/10th of the normal working time. Most common type of lubricator, is the oil fog lubricator. It supplies drops of oil to the air hose.

DIFFERENT TYPES OF FRL:	PORT SIZE IN.	AIR FLOWS AT 6 BARS L/S L/S (CFM)
Small units	1/4	Up to 9 (19)
	3/8	Up to 14 (29.7)
Medium units	1/2	Up to 37 (78.4)
Big units	1	Up to 83 (175.9)

When to choose a small unit?

Small units are suitable for most assembly tools, percussive tools, drills, nibblers, saw and small grinders.



Filter, Regulator and Lubricator



PIC REF	DESCRIPTION	PORT SIZE	RECOMMENDED FLOW AT 6.3 BAR - l/s	MAX OPERATING PRESSURE (BAR)	PART NO.
FILTER					
A	FILTER SEMI AUTO DRAIN 3/8"	3/8"	14 (29.7)	16	109272
	FILTER SEMI AUTO DRAIN 1/2" BOWL GUARD ⁽¹⁾	1/2"	31 (65.7)	16	109182
LUBRICATORS					
B	OIL FOG LUBRICATOR 1/4"	1/4"	9 (19)	16	109072
	OIL FOG LUBRICATOR 3/8"	3/8"	14 (29.7)	16	109132
	OIL FOG LUBRICATOR 1/2"	1/2"	12 (25.4)	16	109202
REGULATORS					
C	REGULATOR 1/4"	1/4"	9 (19)	16	109062
	REGULATOR 3/8"	3/8"	14 (29.7)	16	109122
	REGULATOR 1/2"	1/2"	32 (69.8)	16	109192
FILTER-REGULATOR UNITS					
D	FILTER-REGULATOR SEMI AUTO DRAIN 3/8"	3/8"	9 (19)	16	109142
	FILTER-REGULATOR SEMI AUTO DRAIN 1/2"	1/2"	14 (29.7)	16	109232
	FILTER-REGULATOR SEMI AUTO DRAIN 1/2" BOWL GUARD ⁽¹⁾	1/2"	32 (69.8)	16	109222
FILTER REGULATOR LUBRICATOR 2 STAGE UNITS					
E	FILTER-REG. LUBRICA SEMI AUTO 1/4"	1/4"	9 (19)	16	109082
	FILTER-REG. LUBRICA SEMI AUTO 3/8"	3/8"	14 (29.7)	16	109152
	FILTER-REG. LUBRICA SEMI AUTO 1/2"	1/2"	37 (78.4)	16	109242
	FILTER-REG. LUBRICA SEMI AUTO 1"	1"	83 (175.9)	10	109292
	FILTER-REG. LUBRICA MANUAL 1/4"	1/4"	9 (19)	16	109092
	FILTER-REG. LUBRICA SEMI AUTO 3/8" ⁽¹⁾	3/8"	14 (29.7)	16	109162
	FILTER-REG. LUBRICA SEMI AUTO 1/2" ⁽¹⁾	1/2"	37 (78.4)	16	109252
FILTER REGULATOR LUBRICATOR 3 STAGE UNITS					
F	FILTER REG. LUBRICA SEMI AUTO 1/2"	1/2"	37 (78.4)	16	109262

(1) New drain valve & bowl



Accessories

PRESSURE GAUGE



DESCRIPTION	BSP Size	Ø mm	MAX PRESSURE (bar)	PART NO.
Pressure gauge 1/8" 0-10	1/8"	40	10	109352
Pressure gauge 1/4" 0-10	1/4"	50	10	109432
Pressure gauge 1/4" 0-16	1/4"	63	16	109482

FILTER ELEMENTS: replacement filter 5 or 30 m

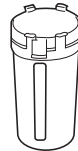


DESCRIPTION	FILTER ELEMENT	UNIT COMPATIBILITY	PART NO.
Filter Element 5 MI	5µm	1/4" port	109332
Filter Element 30 M	30µm	1/4" port	109342
Filter Element 5 MI	5µm	3/8" & 1/2" port	109362
Filter Element 30 M	30µm	3/8" & 1/2" port	109372
Filter Element 5 MI	30µm	1" port	109442
Filter Element	30µm	1" port	109452

ASSEMBLY / COUPLING KIT: to connect 2 single units



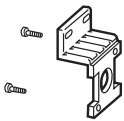
DESCRIPTION	UNIT COMPATIBILITY	PART NO.
Assembly Kit 3/8" - 1/2"	for 3/8" & 1/2"	109402
Assembly Kit 1"	for 1"	109472



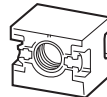
METAL BOWL GUARD KIT : metal bowl to fit polycarbonate filter and lubricator (metal bowl are standard on 1" units)

DESCRIPTION	UNIT COMPATIBILITY	PART NO.
Metal Bowl Guard	for 3/8" & 1/4"	109392

MOUNTING BRACKET KIT: for mounting to a vertical surface



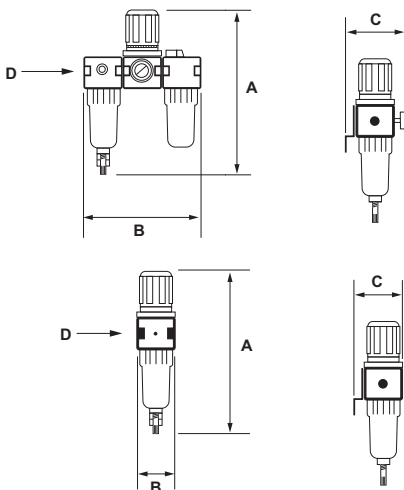
DESCRIPTION	UNIT COMPATIBILITY	PART NO.
Mounting Bracket 1/4"	1/4" port	109322
Mounting Bracket	3/8" & 1/2" port	109422
Mounting Bracket	1" port	109462



PORTING BLOCK KIT: to provide an additional port supplying non-lubricated air

DESCRIPTION	UNIT COMPATIBILITY	PART NO.
Porting Block Kit	1/2" port	109382

Dimensions and Spare Parts



AIR LINE SERVICE EQUIPMENT

A		DIMENSIONS				WEIGHT		PART NO.
B		C						
mm	in.	mm	in.	mm	in.	kg	lb	
185	7.3	95	3.7	112.5	4.4	0.75	1.6	109082, 109092
253	9.9	127	5.0	125	4.9	1.50	3.3	109152, 109162, 109242, 109252
253	9.9	189	7.4	125	4.9	1.85	4.1	109262
313	12.3	180	7.1	141	5.5	4.40	9.7	109292

A		DIMENSIONS				WEIGHT		PART NO.
		B		C				
mm	in.	mm	in.	mm	in.	kg	lb	
92.5	3.6	50	2.0	77.5	3.0	0.30	0.7	109062
135.5	5.3	50	2.0	77.5	3.0	0.25	0.6	109072
139.5	5.5	50	2.6	77.5	3.0	0.25	0.6	109102
115	4.5	65	2.6	89	3.5	0.55	1.2	109122, 109192
177	9.9	65	2.6	89	3.5	0.55	1.2	109132, 109202
253	7.2	65	2.6	89	3.5	0.75	1.6	109142, 109222, 109232
185	13.5	65	2.6	89	3.5	0.55	1.2	109172, 109182, 109272, 109282
342.5		97	3.8	109.5	4.3	2.20	4.8	109302

SPARE PARTS

DESCRIPTION	UNIT COMPATIBILITY	MATERIAL	PART NO.
Lubricator Bowl	1/4" port	Polycarbonate	111582
Filter Bowl	1/4" port	Polycarbonate	111592
Filter Bowl - Semi Auto Drain	1/4" port	Polycarbonate	111602
O Ring	1/4" port		111622
Lubricator Bowl	3/8" & 1/2" port	Polycarbonate	111632
Filter Bowl	3/8" & 1/2" port	Polycarbonate	111642
Filter Bowl - Semi Auto Drain	3/8" & 1/2" port	Polycarbonate	111652
O Ring	3/8" & 1/2" port		111662

Hoses, Hose Reels



Hoses should be chosen to meet the demands of the working environment. In most cases be between 6 to 13 mm. The hoses should have a length of 3-5 m to ensure sufficient mobility at the workplace and limited pressure drop. PVC hoses are suitable for general applications, from simple grinding to heavy assembly. To avoid too large pressure drop, the hose size should be increased by one size for a length of 5-10 m, two sizes for a length of 20 m and three sizes for lengths of 20-40 m.

HOSE RECOMMENDATIONS:

DESCRIPTION	PVC	RUBBER	POLUR
Pliable	Good	Good	Good
Flexible	Good	Very good	Good
Indoor / outdoor	Indoor	In / out	Indoor
Spark resistant	Bad	Good	Bad
Rough treatment	Good	Very good	Good

Hose Reels



CUSTOMER BENEFITS

- No hoses on the ground for an improved safety environment
- From 1 to 10 / 15 or 16 meters hose lengths with feedback force for a clean work space
- Directional swivel-plate to help you reach correctly your application
- High airflow for maximum productivity
- Lightweight and flexible polyurethane hose for less work fatigue
- Open Reels with Rubber hose available for heavy-duty grinding/spark areas

APPLICATIONS

- Workshops and service stations in the automotive, truck, earthmoving and farming industry
- Industrial assembly lines
- Shipyards, Foundries...



PIC REF	DESCRIPTION	HOSE I.D.	HOSE LENGTH		HOSE MATERIAL	THREAD TYPE	CONNECTION SIZES IN/OUT	PART NO.
		in.	m	ft			in.	
Composite Closed Casing - Small								
A	BSP Small	5/16"	10	33	PUR	BSP	1/4"	615 804 5020
	NPT Small	5/16"	10	33	PUR	NPT	1/4"	615 804 5030
Steel Closed Casing - Medium								
B	BSP Medium	3/8"	12	40	PUR	BSP	1/4"	615 804 5040
	NPT Medium	3/8"	12	40	PUR	NPT	1/4"	615 804 5050
Steel Open Casing - Medium								
C	Open BSP Medium	3/8"	16	50	PUR	BSP	1/4"	615 804 5060
	Open NPT Medium	3/8"	16	50	PUR	NPT	1/4"	615 804 5070
	Open BSP Rubber Medium	3/8"	15	50	Rubber	BSP	3/8"	615 804 5100
	Open NPT Rubber Medium	3/8"	15	50	Rubber	NPT	3/8"	615 804 5110
Steel Open Casing - Large								
D	Open BSP Large	1/2"	16	50	PUR	BSP	3/8"	615 804 5080
	Open NPT Large	1/2"	16	50	PUR	NPT	3/8"	615 804 5090
	Open BSP Rubber Large	1/2"	15	50	Rubber	BSP	3/8"	615 804 5120
	Open NPT Rubber Large	1/2"	15	50	Rubber	NPT	3/8"	615 804 5130



Hoses

Straight Hoses

Polyurethane braided hoses

Rolls with clear wrapping.
80 shore A "extreme-flexible" quality
20 Bar WP on all sizes.



Polyurethane braided hoses - Assembled sets

PUR quality -
Chromed thread
adapters fitted on the hose
with pressed ferrules



PUR BRAIDED HOSES

DIMENSIONS (ID x OD)		ROLL LENGTH (foil wrapped)		PART NO.
mm	in.	m	ft	
6.5 x 10,0 mm	1/4" ID	25.00	83.25	615 804 6230
8.0 x 12,0 mm	5/16" ID	25.00	83.25	615 804 6240
9.5 x 13,0 mm	3/8" ID	25.00	83.25	615 804 6250
13.0 x 18,0 mm	1/2" ID	25.00	83.25	615 804 6260

PUR BRAIDED HOSES - ASSEMBLED SETS

DIMENSIONS (ID x OD)		LENGTH (foil wrapped)		PART NO.
mm	in.	m	ft	
6.5 x 10,0 mm	1/4" ID	8.00	26.64	615 804 6270
8.0 x 12,0 mm	5/16" ID	8.00	26.64	615 804 6280
9.5 x 13,0 mm	3/8" ID	8.00	26.64	615 804 6290
13.0 x 18,0 mm	1/2" ID	8.00	26.64	615 804 6300

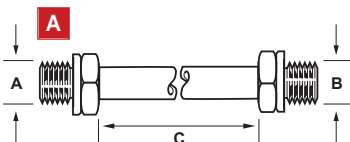
PVC SELF ASSEMBLY HOSES

DIMENSIONS (ID x OD)		LENGTH	WORKING PRESSURE		PART NO.
mm	in.		bar	PSI	
6 x 10,5 mm	1/4" ID	Per Meter (1 pc = 1 m)	18	261	271403
10 x 14 mm	3/8" ID	Per Meter (1 pc = 1 m)	13	188	271413
12 x 17 mm	1/2" ID	Per Meter (1 pc = 1 m)	11	160	271423

RUBBER ALLOY (RUBBER/PVC) HOSES

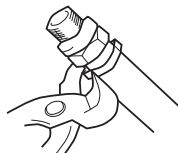
DIMENSIONS (ID x OD)		LENGTH		PART NO.
mm	in.	m	ft	
10 x 18 mm	3/8" ID	30	98	111702
12,5 x 22 mm	1/2" ID	30	98	111722

Working pressure = 6,3 bar (91 PSI)



Close the lugs firmly with
a pair of O-Clip pincers

'O'-Clip pincers
- Part No. 77282



PVC ASSEMBLED HOSES

PIC REF	HOSE BORE		HOSE OUTSIDE DIAMETER		LENGTH		MALE THREADS		WORKING PRESSURE (AT 20°C) (68°F)		TEMPERATURE RANGE		PART NO.
	mm	in.	mm	in.	metre	ft	A	B	bar	psi	°C	°F	
A	5	3/16	7	9/32	2	6.5	M5 x 1/8"		6.3	91	-15 to +50	-5 to +122	79322
	5	3/16	8.5	11/32	2	6.5	1/8" x 1/4"		6.3	91	-15 to +50	-5 to +122	75902
	5	3/16	8.5	11/32	3	10	1/8" x 1/4"		6.3	91	-15 to +50	-5 to +122	75922
	6	1/4	8	5/16	3	10	1/4" x 1/4"		6.3	91	-15 to +50	-5 to +122	75942
	6	1/4	8	5/16	5	16	1/4" x 1/4"		6.3	91	-15 to +50	-5 to +122	75952
	10	3/8	14	9/16	3	10	1/4" x 1/4"		6.3	91	-15 to +50	-5 to +140	75972
	10	3/8	14	9/16	5	16	1/4" x 1/4"		6.3	91	-15 to +50	-5 to +140	75982
	6	1/4	8	5/16	3	10	1/8" x 1/4"		6.3	91	-15 to +50	-5 to +122	104552

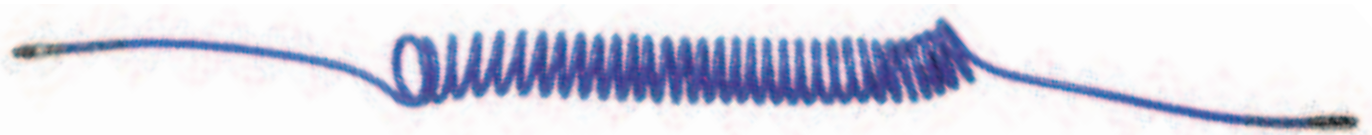
Working pressure = 6,3 bar (91 PSI)



Spiral hoses

The most usual way of using a small spiral hose is with a straight screwdriver together with a balancer. Another way is to use a larger spiral hose with pistol grip tools. The need of couplings is dependent on whether or not the operator needs to change tool/air consumer.

A spiral hose together with balancers is ideal for vertical applications. Spiral hoses are, due to their shape, very long and thus have very high pressure drop. To avoid big losses, choose a short spiral hose.



PUR ASSEMBLED SPIRAL HOSES

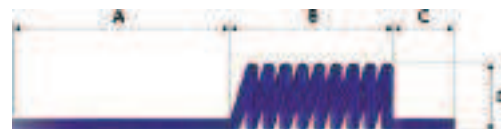
HOSE BORE DIAMETER		WORKING LENGTH		MALE THREADS		PART NO.
mm	in.	m	ft	A thread	B thread	
6	1/4	1.5	5	1/8	1/4	99922
6	1/4	1.5	5	1/4	1/4	99932
6.5	1/4	2	6.5	1/4	1/4	96832
6.5	1/4	4	13	1/4	1/4	96852
6.5	1/4	3	10	1/4	1/4	98072
6.5	1/4	4	13	1/4	1/4	98082
8.5	11/32	5	16	1/4	1/4	98092
8.5	11/32	5	16	3/8	3/8	98102

PUR SPIRAL HOSES ASSEMBLIES

Assembled with Series 2009 ball type swivel fittings and kink protection.
98 shore A ester PUR raw material.



HOSE DIMENSIONS (ID x OD)		WORKING LENGTH		CONNECTION	PART NO.
mm	in.	m	ft	BSPP	
Sets complete with ball bearing type swivelling fittings and self-sealing O-rings					
5.0 x 8 mm	3/16 ID	2	6.5	1/4"	615 804 6310
5.0 x 8 mm	3/16 ID	4	13	1/4"	615 804 6320
5.0 x 8 mm	3/16 ID	6	19.5	1/4"	615 804 6330
5.0 x 8 mm	3/16 ID	8	26	1/4"	615 804 6340
6.5 x 10mm	1/4 ID	2	6.5	1/4"	615 804 6350
6.5 x 10mm	1/4 ID	4	13	1/4"	615 804 6360
6.5 x 10mm	1/4 ID	6	19.5	1/4"	615 804 6370
6.5 x 10mm	1/4 ID	8	26	1/4"	615 804 6380
8.0 x 12mm	5/16 ID	2	6.5	3/8"	615 804 6390
8.0 x 12mm	5/16 ID	4	13	3/8"	615 804 6400
8.0 x 12mm	5/16 ID	6	19.5	3/8"	615 804 6410
8.0 x 12mm	5/16 ID	8	26	3/8"	615 804 6420
Sets complete with rigid fittings, flexible kink protection and self-sealing O-rings					
11.0 x 16mm	1/2 ID	2	6.5	3/8"	615 804 6430
11.0 x 16mm	1/2 ID	4	13	3/8"	615 804 6440
11.0 x 16mm	1/2 ID	6	19.5	3/8"	615 804 6450
11.0 x 16mm	1/2 ID	8	26	3/8"	615 804 6460



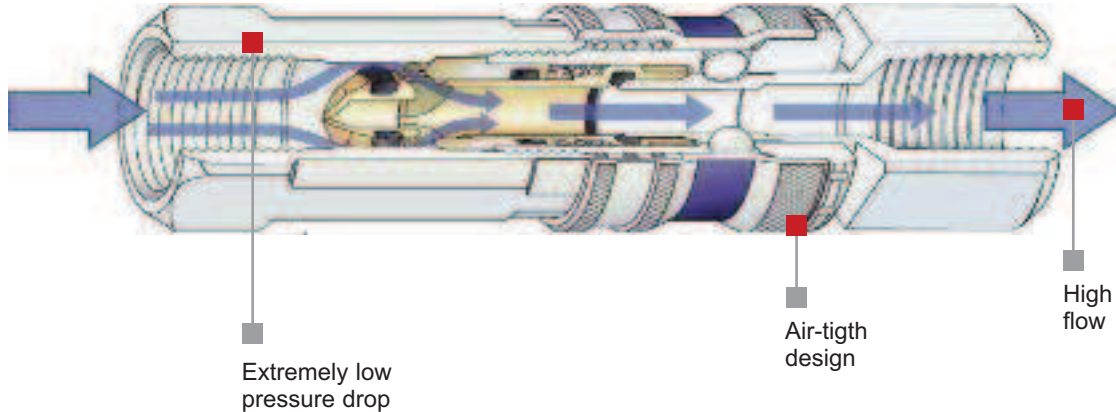
SELF ASSEMBLY SPIRAL HOSES

HOSE BORE		WORKING LENGTH		DIMENSIONS								PART NO.
				A		B		C		D		
mm	in.	m	ft	mm	in.	mm	in.	mm	in.	mm	in.	
8 x 12.0	5/16 x 0.47	2.5	8	500	19.7	180	7.1	100	3.9	65	2.6	102892
8 x 12.0	5/16 x 0.47	5	16	500	19.7	390	15	100	3.9	65	2.6	102902



Couplings and Nipples

■ QUICK COUPLINGS (for minor to medium air flows)



- The most conventional type of quick coupling used since many years is a female body (coupling) and a male body (nipple). When pushed straight together interlocks by means of balls, pins etc.

These couplings disconnect when an external sleeve is manually

operated. At connection two types are distinguished. Two hand operated - the sleeve must be pulled back and released at connection - and the one hand operated - the sleeve automatically releases at connection.

■ How to select the right coupling and nipple?

Look at the information of the tool
Example:

screwdriver SD140

Air flow: 8.7 l/s

Air inlet: 1/4"

Hose int. Ø: 3/8" / 10mm

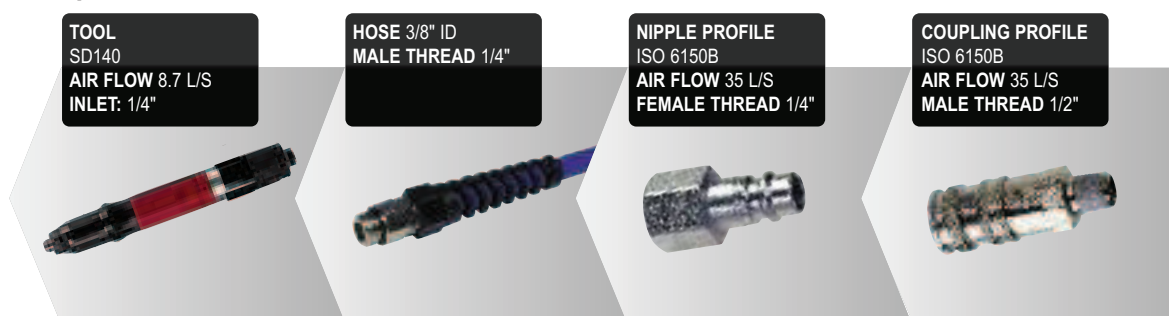
At the back of the tool it is recommended to have a hose nipple (see page 15) or an assembled hose with male thread.

Choose a hose with internal diameter of 3/8" / 10mm and 1/4" male thread.

Then at the other end of the hose, you'll select a nipple with air flow 18 l/s, profile ISO 6150B and 1/4" female thread.

The coupling will have the same profile to connect with the nipple and a male thread to fit on a 1/2" FRL unit for instance.

Example :



Couplings and Nipples



Coupling

	FITTING SIZE		AIR FLOW AT 6 BAR (87 PSI)		CONNECTION	PROFILE	TYPE	PART NO.
	In.	mm	l/s	cfm				
Air Coupling Male Thread 	1/4"	6	18	38	Male	ISO 6150B (former US std)	BSPT	615 804 6470
	1/4"	6	18	38	Male	ISO 6150B (former US std)	NPT	615 804 6480
	1/4"	6	35	73	Male	EURO STD 7.6	BSPT	909 200 8911
	1/4"	6	35	73	Male	EURO STD 7.6	NPT	615 804 6490
	3/8"	10	18	38	Male	ISO 6150B (former US std)	BSPT	615 804 6500
	3/8"	10	18	38	Male	ISO 6150B (former US std)	NPT	615 804 6510
	3/8"	10	35	73	Male	EURO STD 7.6	BSPT	909 200 8941
	3/8"	10	35	73	Male	EURO STD 7.6	NPT	615 804 6520
	1/2"	13	35	73	Male	EURO STD 7.6	BSPT	909 200 8971
	1/2"	13	35	73	Male	EURO STD 7.6	NPT	615 804 6530
Air Coupling Female Thread 	1/4"	6	18	38	Female	ISO 6150B (former US std)	BSP	615 804 6540
	1/4"	6	18	38	Female	ISO 6150B (former US std)	NPT	615 804 6550
	1/4"	6	35	73	Female	EURO STD 7.6	BSP	909 200 8821
	1/4"	6	35	73	Female	EURO STD 7.6	NPT	615 804 6560
	3/8"	10	18	38	Female	ISO 6150B (former US std)	BSP	615 804 6570
	3/8"	10	18	38	Female	ISO 6150B (former US std)	NPT	615 804 6580
	3/8"	10	35	73	Female	EURO STD 7.6	BSP	909 200 8861
	3/8"	10	35	73	Female	EURO STD 7.6	NPT	615 804 6590
	1/2"	13	35	73	Female	EURO STD 7.6	BSP	909 200 8881
	1/2"	13	35	73	Female	EURO STD 7.6	NPT	615 804 6600
Air Coupling Barbed 	In.	mm	l/s	cfm	Connection	Profile		PART NO.
	1/4"	6	18	38	Hose	ISO 6150B (former US std)		615 804 6610
	1/4"	6	35	73	Hose	EURO STD 7.6		909 200 9181
	5/16"	8	18	38	Hose	ISO 6150B (former US std)		615 804 6620
	5/16"	8	35	73	Hose	EURO STD 7.6		909 201 3091
	3/8"	10	18	38	Hose	EURO STD 7.6		909 200 9931
	3/8"	10	35	73	Hose	EURO STD 7.6		909 200 9211
	1/2"	13	35	73	Hose	EURO STD 7.6		909 200 9241
Air Coupling Barb & Nut 	6.5x10	hose	35	73	Barb & Nut	EURO STD 7.6		909 201 0131
	8x12	hose	35	73	Barb & Nut	EURO STD 7.6		909 201 0161

Coupling picture reference refers to corresponding nipple profile

Nipples

	FITTING SIZE		AIR FLOW AT 6 BAR (87 PSI)		CONNECTION	PROFILE	TYPE	PART NO.
	In.	mm	l/s	cfm				
Air Nipple Male Thread 	1/8"	3	18	38	Male	ISO 6150B (former US std)	BSPT	909 200 9691
	1/8"	3	18	38	Male	ISO 6150B (former US std)	NPT	615 804 6630
	1/8"	3	35	73	Male	EURO STD 7.6	BSPT	909 201 3061
	1/8"	3	35	73	Male	EURO STD 7.6	NPT	615 804 6640
	1/4"	6	18	38	Male	ISO 6150B (former US std)	BSPT	909 200 9721
	1/4"	6	18	38	Male	ISO 6150B (former US std)	NPT	615 804 6650
	1/4"	6	35	73	Male	EURO STD 7.6	BSPT	909 200 9091
	1/4"	6	35	73	Male	EURO STD 7.6	NPT	615 804 6660
	3/8"	10	18	38	Male	ISO 6150B (former US std)	BSPT	909 200 9751
	3/8"	10	18	38	Male	ISO 6150B (former US std)	NPT	615 804 6670
	3/8"	10	35	73	Male	EURO STD 7.6	BSPT	909 200 9121
	3/8"	10	35	73	Male	EURO STD 7.6	NPT	615 804 6680
	3/8"	10	64	134	Male	EURO STD 10.4	BSP	909 201 3361
	1/2"	13	35	73	Male	EURO STD 7.6	BSPT	909 200 9151
Air Nipple Female Thread 	In.	mm	l/s	cfm	Connection	Profile	Type	PART NO.
	1/4"	6	35	73	Female	EURO STD 7.6	BSP	909 200 9001
	1/4"	6	35	73	Female	EURO STD 7.6	NPT	615 804 6700
	3/8"	10	35	73	Female	EURO STD 7.6	BSP	909 200 9031
	3/8"	10	35	73	Female	EURO STD 7.6	NPT	615 804 6710
	1/2"	13	35	73	Female	EURO STD 7.6	BSP	909 200 9061
Air Nipple Barbed 	In.	mm	l/s	cfm	Connection	Profile		PART NO.
	1/4"	6	35	73	Barbed	EURO STD 7.6		909 200 9271
	5/16"	8	18	38	Barbed	ISO 6150B (former US std)		909 200 9571
	5/16"	8	35	73	Barbed	EURO STD 7.6		909 201 0221
	3/8"	10	18	38	Barbed	ISO 6150B (former US std)		909 200 9601
	3/8"	10	35	73	Barbed	EURO STD 7.6		909 200 9301
	1/2"	13	35	73	Barbed	EURO STD 7.6		909 200 9331
Air Coupling Barb & Nut 	6.5x10	hose	35	73	Barb & Nut	EURO STD 7.6		909 201 0281
	8x12	hose	35	73	Barb & Nut	EURO STD 7.6		909 201 0311

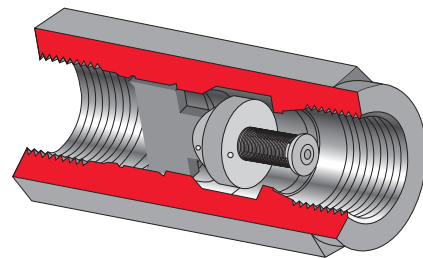


Air Fuses

- When a fitting comes loose from a pressurised hose or the hose is severely damaged, the hose starts to blow an excessive amount of air in an uncontrolled way, causing the hose whipping around. This can injure people, damage the work-piece and destroy the environment.
- A way to ensure that this doesn't happen is to use a blow protector.

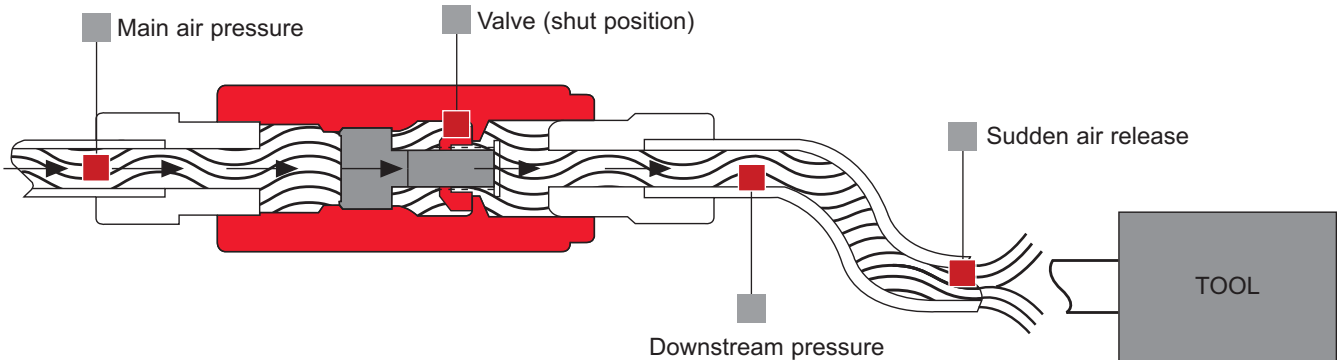
An Air Fuse reduces the likelihood of potentially dangerous hose whip caused when a hose bursts or a fitting becomes detached. Air Fuses quickly shut off the supply and reset automatically as soon as back pressure in the line downstream is restored.

Air Fuses help to meet OSHA requirement 1926.302 (USA) and may eliminate the need for restraining or shielding hose, as required by European Standard EN983.



MATERIALS

Body	Anodised aluminium
Internal parts	Brass
Spring	Stainless steel

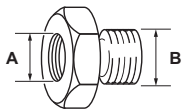


- Reduces risk of hose whip, helping to protect personnel
- Simple and reliable design
- High life expectancy

- Aluminium anodised body for high corrosion resistance
- Auto-Reset to restart downstream activity with the minimum downtime

PORT SIZE		PRESSURE DROP AT SHUT OFF FLOW		SHUT OFF FLOW RATE AT 7 BAR		TOOL MAXIMUM AIR FLOW		FOR FLOW RATES	PART NO.
BSP	NPT	bar	psi	l/s	cfm	l/s	cfm		
1/4"		0.30	4.35	13.00	27.30	10.00	21.00	High	110402
3/8"		0.14	2.03	18.00	37.80	10.00	21.00	Low	110422
3/8"		0.30	4.35	32.00	67.20	25.00	52.50	High	110432
1/2"		0.30	4.35	45.00	94.50	35.00	73.50	High	110442
	1"	0.30	4.35	86.00	180.60	70.00	147.00	High	110542

Adaptors & Threaded Fittings

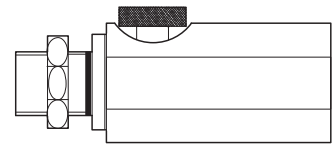


REDUCERS

FEMALE THREAD A	MALE THREAD B	PART NO.
in.	in.	
1/8 BSP	1/4 BSP	62972
1/4 BSP	1/8 BSP	615 804 6060
1/4 NPT	1/4 BSP	181523
1/8 NPT	1/8 BSP	61103
3/8 BSP	1/4 BSP	615 804 6070
1/2 BSP	3/8 BSP	615 804 8080
1/8 BSP	1/8 NPT	271463
1/4 BSP	1/8 BSP	209843

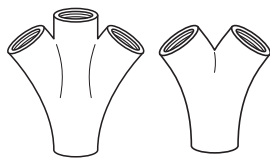
DOUBLE CONNECTION

MALE THREAD	PART NO.
in.	
1/8" 1/8"	615 804 5750
1/8" 1/4"	615 804 5760
1/4" 1/4"	615 804 5770
1/4" 3/8"	615 804 5780
3/8" 3/8"	615 804 5790
3/8" 1/2"	615 804 5800
1/2" 1/2"	615 804 5810
1/2" 3/4"	615 804 5820
3/4" 3/4"	615 804 5830
3/4" 1"	615 804 5840



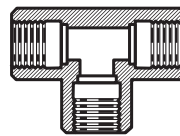
AIR INLET REGULATOR

SIZE	PART NO.
in.	
1/4 BSP	81223
1/4 BSP	694



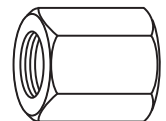
ADAPTOR

SIZE	PART NO. A	PART NO. B
in.		
3/8 BSP	100032	
1/2 BSP	98662	100042



EQUAL TEE

SIZE	PART NO.
in.	
1/4 BSP	63802
3/8 BSP	63822



DOUBLE FEMALE SLEEVE

SIZE	PART NO.
in.	
1/4 BSP	62962



BUSHING

FEMALE THREAD	MALE THREAD	PART NO.
in.	in.	
1/4	1/8	615 804 5860
3/8	1/4	615 804 5870
1/2	1/4	615 804 5880
1/2	3/8	615 804 5890
3/4	1/2	615 804 5900
1	3/4	615 804 5910



HOSE CONNECTION

MALE THREAD	HOSE NIPPLE	PART NO.
in.	in. mm	
1/8 BSP	1/8 3.2	615 804 5920
1/8 BSPT	3/16 5	615 804 5930
1/8 BSPT	1/4 6.3	615 804 5940
1/4 BSP	1/8 3.2	615 804 5950
1/4 BSPT	1/4 6.3	615 804 5960
1/4 BSPT	5/16 8	615 804 5970
1/4 BSPT	3/8 10	615 804 5980
3/8 BSPT	3/8 10	615 804 5990
3/8 BSPT	1/2 12.5	615 804 6000
1/2 BSPT	1/2 12.5	615 804 6010
1/2 BSPT	5/8 16	615 804 6020
1/2 BSPT	3/4 20	615 804 6030
3/4 BSP	3/4 20	615 804 6040
1 BSP	1 25	615 804 6050

GASKETS

(between material & nipple)



FOR COUPLING WITH MALE PARALLEL THREAD	PART NO.
M5	615 804 6090
1/8 BSP	615 804 6100
1/4 BSP	615 804 6110
3/8 BSP	615 804 6120
1/2 BSP	615 804 6130
3/4 BSP	615 804 6140
1 BSP	615 804 6150



PRESSURE CLAMPS

MEDIUM CLAMP FOR DRIVE mm	PART NO.
8,0-14,0	615 804 6730
11,0-17,0	615 804 6740
13,0-20,0	615 804 6750
15,0-24,0	615 804 6760
19,0-28,0	615 804 6770
22,0-32,0	615 804 6780

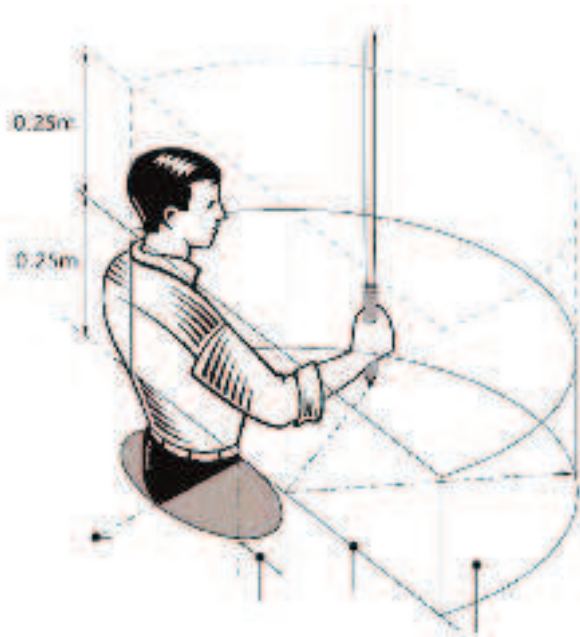
Ergonomics



Ergonomic Accessories



Balancing Arms - for increased performance ■



FEATURES

- Easy to position and handle
- Heavy duty Modular
- Ensures correct orientation of tool to workpiece

BENEFITS

- Relieves operator stress
- Long term operation and reliability
- Use in large variety of applications and tools
- Prevents damage to assembly and improves quality

■ The range of modular balancing arms provides a wide operating area with a minimal bench requirement.

The D57, D58 and D59 models complement the D53 range of bench stands by providing greater tool carrying capacity in terms of weight and torque reaction.

■ A range of tool holders allow the tool to be positioned vertically or at 45° to the work piece thereby avoiding damage and off centre assembly. Hole quality when drilling and tapping are also greatly improved. These balancing arms are designed for heavy-duty operation over a long period of time.

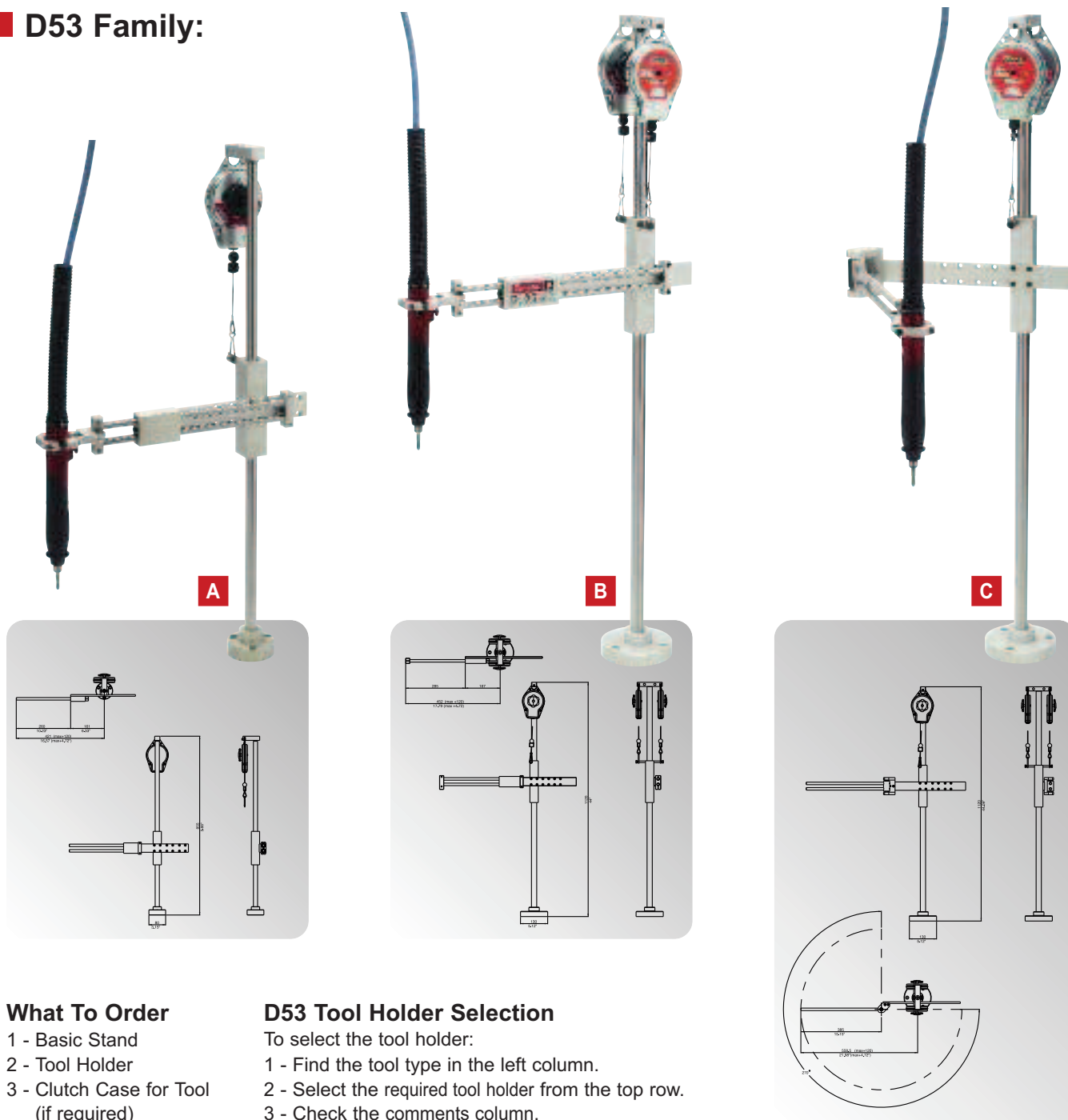
■ The range of balancing arms provide assistance to an operator when using hand held tools such as screwdrivers, drills and nutrunners. The operator's arm, wrist and shoulder are relieved of stress from torque, vibration and weight of the tool which means that quality, productivity and operator comfort are greatly improved.





Linear and Swivel Arms

■ D53 Family:



What To Order

- 1 - Basic Stand
- 2 - Tool Holder
- 3 - Clutch Case for Tool
(if required)

D53 Tool Holder Selection

- To select the tool holder:
- 1 - Find the tool type in the left column.
 - 2 - Select the required tool holder from the top row.
 - 3 - Check the comments column.

D53 LINEAR AND SWIVEL STANDS

PIC REF.	MODEL	PART NO.	MAXIMUM TORQUE		HORIZONTAL STROKE		VERTICAL STROKE		TOOL WEIGHT CAPACITY	
			Nm	ft.lb	mm	in.	mm	in.	kg	lb
LINEAR STAND										
A	D53-10	615 804 5710	10	7.37	245	9.64	360	14.17	1.0	2.20
B	D53-20	388163	20	14.75	265	10.43	600	23.60	1.5	3.31
	D53-20X (extended reach)	388173	20	14.75	395	15.90	600	23.60	1.5	3.31
SWIVEL STAND										
C	D53-20S	615 804 5720	20	14.75	-	-	-	-	1.5	3.31

Linear and Swivel Arms



Accessories



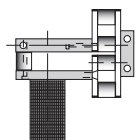
A



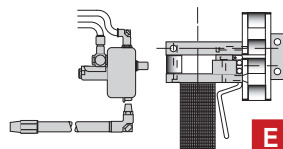
B



C



D



E



F

OPTIONAL ACCESSORIES

ITEM	PART NO.
A Clamp Adaptor - Interface Adaptor D53	615 396 6150
B Standard Tool clamp Ø28.5-41mm (1.12-1.6") - SB/SC/SD/SME/S5/SLE/ECD5/ERD5	615 396 6160
C Standard Tool clamp Ø40-50mm (1.57-1.97") - ECL	615 396 6280
D E2 Comfort Grip for Push Start	388193
E EL Comfort Grip for Lever Start	388203

D53 SPARES

PIC REF.	MODEL	DESCRIPTION	PART NO.
	SPARE	D53-20 HORIZONTAL SLIDE	615 804 5690
F	5DU	BALANCER 1.4-2.4kg	50542

PART NO.	Tool Clamp Ø28.5-41mm 615 396 6160	Tool Clamp Ø40-50mm 615 396 6280	E2 Comfort Grip for Push Start 388193	EL Comfort Grip for Lever Start 388203	
Straight Case Screwdrivers					
SB-AR/AB	X				For E2 fit clutch case 411653 & 432703
SC-AR/AB	X		X		
SC-L/SC2	X			X	
SD-AR/AB	X		X		For EL fit clutch case 411653 & 432703 and remove lever extension
SD-LR/LB				X	For EL fit clutch case 465463 for 320/1470rpm, 465443 for 2200/3500rpm
					For EL fit clutch case 465463 for 320/1470rpm, 465443 for 2200/3500rpm and remove lever extension
Electric Screwdrivers					
SME/SLK	X				SLK + Adaptor 615 225 065 0 for SLK003/007/010 Adaptor 615 225 066 0 for SLK011/015
S5	X				
SLE/SLC	X	X			
ECS					
ECD5					Nose mount only, fit clutch case 443843
ERD5					
Drills and Tappers					
C	X				
D Drills	X			X	
D Tappers	X			X	

The minimum and maximum reach can be changed in 30 mm increments for 5 positions.

POSITION	D53-20 + 615 396 616 0 / 615 396 628 0		MINIMUM / MAXIMUM REACH D53-20 + 388193 / 388203		D53-20X + 615 396 616 0 / 615 396 628 0		D53-20X + 388193 / 388203	
	mm	in.	mm	in.	mm	in.	mm	in.
1	220/480	8.6/18.9	285/545	11.2/21.4	175/570	6.9/22.4	240/635	9.5/25
2	250/510	9.8/20	315/575	12.4/22.6	205/600	8.0/23.6	270/665	10.6/26.2
3	280/540	11.0/21.2	345/605	13.6/23.8	235/630	9.2/24.8	300/695	11.8/27.4
4	310/570	12.2/22.4	375/635	14.7/25	265/660	10.4/25.9	330/725	13.0/28.6
5	340/600	13.4/23.6	405/665	15.9/26.2	295/690	11.6/27.1	360/755	14.2/29.7



Balancing Arms

■ D57, D58, D59

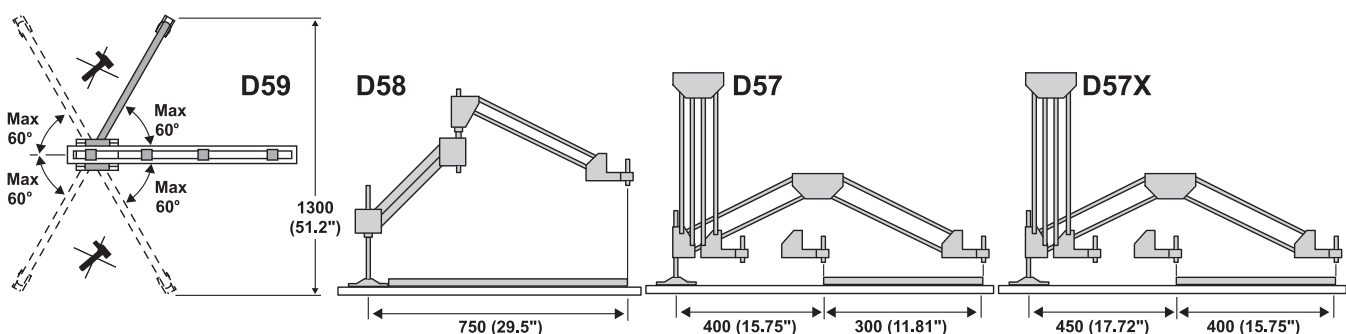


■ D57/D57X/D58 How To Order

1. Basic Stand
2. Tool Holder
3. Optional Accessories

■ D59 How To Order

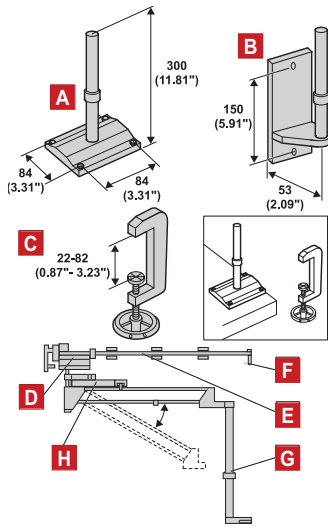
1. Basic Stand
2. Tool Holder
3. Rail (supplied per metre, e.g. for 3m order (3) off)
4. Rail End Stops (2 required per complete rail)
5. Optional Accessories



D57 / 58 / 59 BALANCING ARMS

PIC REF.	DESCRIPTION	PART NO.	MAXIMUM TORQUE		MAXIMUM REACH		MINIMUM REACH		VERTICAL STROKE		TOOL WEIGHT CAPACITY		ACCESSORIES INCLUDED
			Nm	ft.lb	mm	in.	mm	in.	mm	in.	mm	mm	
A	D57	408903	20	14.7	700	25.55	400	15.75			2.0	4.4	BENCH MOUNT
A	D57X	408913	20	14.7	850	33.46	450	17.72			2.0	4.4	BENCH MOUNT
B	D58	408923	20	14.7	750	29.52	500	19.68			2.0	4.4	BENCH MOUNT
C	D59	408933	50	14.7	650	25.59			300	11.80	2.0	4.4	RAIL CARRIAGE

Balancing Arms

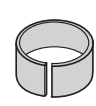
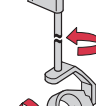
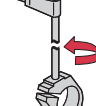
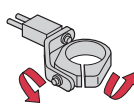


ACCESSORIES

ITEM	PART NO.	DESCRIPTION	D57 / D57X	D58	D59
A	408953	Bench Mount (Included with the stand)	X	X	
B	408963	Wall Mount Bracket	X	X	
C	408973	Table Stand Clamp	X	X	
•	408993	Heavy Duty Spring 1 - 2,5 kg	X		
D	409253	Rail Carriage (Included with the stand)			X
E	409213	Rail Per Meter			X
F	409223	Rail End Stops			X
G	409203	Telescopic Height Adjustments			X
H	409233	Top Arrestor / Vertical Lock			X
H	409243	Side Arrestor / Horizontal Lock			X

must also order top arrestor when using side arrestor

PART NO.	Tool Holder Ø25-41mm	Tool Holder Ø40-50mm	Vertical 2 Axis Rotation	Horizontal Single Axis Rotation	Horizontal 2 Axis Rotation	Adaptor Sleeve Blank (supplied as standard with tool holders to be machined to suit the tool)
	615 396 6140	615 396 6290	409083 Ø36mm 409093 Ø46mm 409103 Ø56mm	409113 Ø36mm 409123 Ø46mm 409133 Ø56mm	409173 Ø36mm 409183 Ø46mm 409193 Ø56mm	409273 Ø46mm (outside) Ø30mm (inside) 409023 Ø56mm (outside) Ø40mm (inside)



Straight Case Screwdrivers

SB-AR/AB	X		409083	409113	409173	409273 or 409023
SC-AR/AB/SC2	X		409083	409113	409173	409273 or 409023
SL-L/SC2	X		409083	409113	409173	409273 or 409023
SD-AR/AB	X		409093	409123	409183	409273 or 409023
SD-RL/LB	X		409093	409123	409183	409273 or 409023
2AF89-AX-630-900	X	X	409103	409133	409193	409273 or 409023

Electric Screwdrivers

SME/SLK	X		409103	409133	409193	409273 or 409023
S5	X		409093	409123		409273 or 409023
SLE/SLC	X		409093	409123	409193	409273 or 409023
ECS	X	X	409103	409123		409273 or 409023
ECD5			409093	409123	409193	409273 or 409023
ERD5			409093	409123	409193	409273 or 409023

Drills and Tappers

C	X		409093	409113		409273 or 409023
D Drills	X		409083	409113		409273 or 409023
D Tappers	X		409083	409113		409273 or 409023
DR750			409103	409133	409193	409273 or 409023



Telescopic Reaction Arms



Telescopic and extreme lightweight arm for a maximum flexibility of use

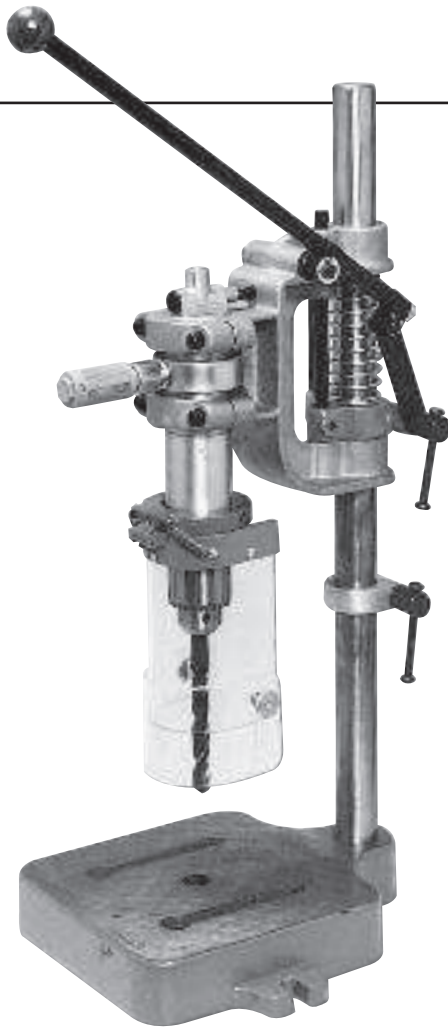
- With its aluminium bracket, the telescopic reaction arm can be fitted to all flat surfaces. For fixation on tubes, a circular adaptor is available on request.
- Fitted on a bench mounted swinging arm with a balancer, the telescopic reaction arm offers an innovative and efficient solution to minimise operator fatigue and improve productivity.



MODEL	PART NO.	MAXIMUM TORQUE		TOOL CLAMP Ø MIN - MAX		WEIGHT		STROKE MIN-MAX	
		Nm	ft.lb	mm	in.	kg	lb.	mm.	in.
TRA 12	615 396 5320	12		25-42	0.98-1.65	0.57	1.25	550-1139	21.6 - 44.8
TRA 25	615 396 5330	25		25-42	0.98-1.65	0.80	1.76	570-1165	22.4 - 45.9
TRA 40	615 804 5700	40		30-50	1.19-1.96	0.95	2.08	661-1346	25.98 - 52.9

OPTIONAL ACCESSORIES

ITEM	PART NO.
A ADAPTOR FOR SLK003 / 007 / 010	615 225 0650
A ADAPTOR FOR SLK011 / 015	615 225 0660
B CIRCULAR ADAPTOR FOR STAND	615 595 3800
C BENCH MOUNTED SWINGING ARM	66542



■ Lever Operated Stands

a range of stands for bench mounting

with lever operation:

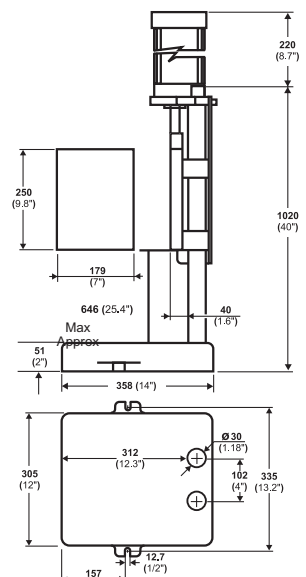
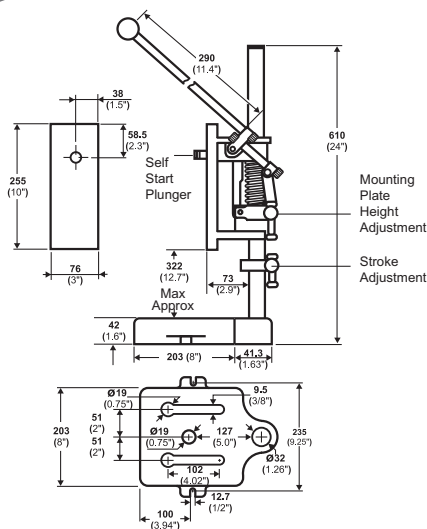
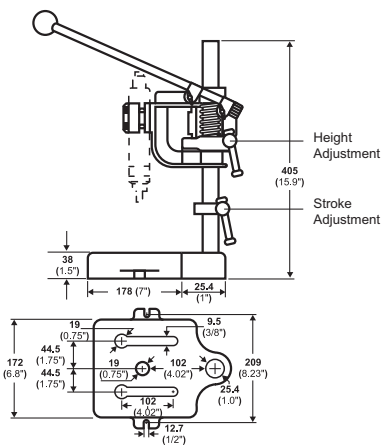
D54, R55S

■ Cylinder Operated Stands

the MC55 stand for semi-automation

with cylinder operation:

MC55



D54

Tool Types

SC-AB/AR Screwdrivers
SD-1AM Torque Motor
SD-2RM Torque Motor
DM Air Motors

R55S

Tool Types

All types with maximum torque of 16Nm
Mounting bracket required

MC55

Tool Types

All types with maximum torque of 51Nm
Mounting bracket required
Pneumatic circuit required

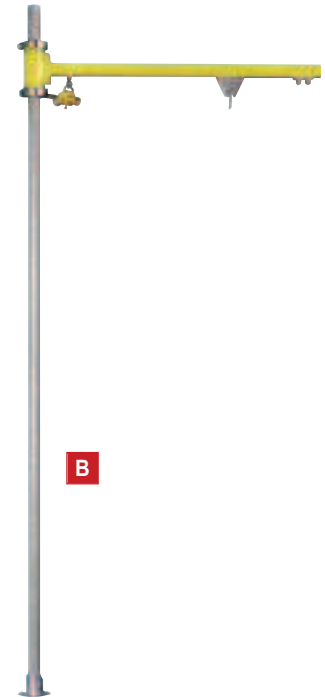
STANDS - D54 / R55S / MC55

MODEL	PART NO.	MAXIMUM TORQUE		MAXIMUM STROKE		MAXIMUM MOUNTED PLATE LOAD		MAXIMUM TORQUE	
		Nm	ft.lb	mm	in.	kg	lb	kg	lb
D54	901944	16	11.8	45	1.77			7	3.2
R55S	903644	16	11.8	57	2.24	6	2.7	11.3	5.1
MC55	902914	51	37.6	100	3.93	68	30.4	32	14.5



Bench Tidy Kit & Bench Mounted Swinging Arm

- Three complete Bench Tidy Kits to suit 1.5m, 2m and 2.5m bench widths with flexibility of mounting in height and spacing of upright supports.
- Everything included to set up a simple system within minutes, which can be enhanced with the accessories shown on the accessories page, adding to the versatility.
- Supplied in 2 packs, needing only 10/13/17mm a/f wrenches and standard screwdrivers to assemble.

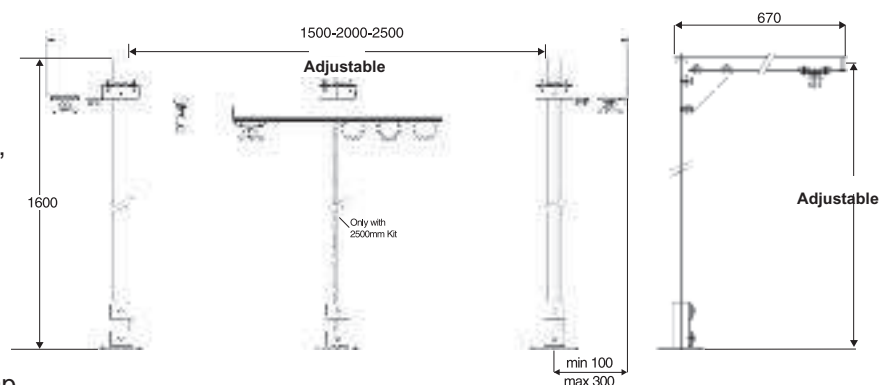


COMPLETE BENCH TIDY KIT - READY TO ASSEMBLE

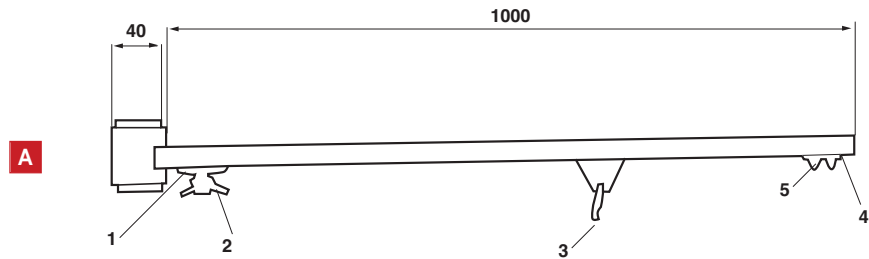
Each kit consist of:

- Tool Suspension Track of specified length
- Hose trolley
- Horizontal outrigger arms
- Hose clamp
- Vertical C-rail uprights with base for benchtop mounting (2 uprights with 1.5m and 2m kits, 3 with 2.5m kits)
- All necessary brackets, fittings and end stops/clamps
- Simple, step by step assembly instructions
- Tool Suspension trolley with 3 suspension rings and hoseclamp

INSTALLATION HINT



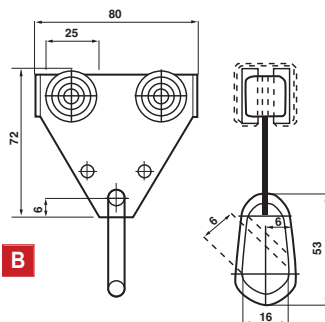
PIC REF	PART NO.	LENGTH OF SUSPENSION TRACK		HEIGHT		HORIZONTAL STROKE		WEIGHT LOAD	
		mm	in.	mm	in.	mm	in.	kg	lb
BENCH TIDY									
A	111672	1500	59.0	1600	63			22	48.5
A	111682	2000	78.7	1600	63			24	53.0
A	111692	2500	98.4	1600	63			26	57.0
BENCH MOUNTED SWINGING ARM									
B	66542			1600	63	630	24.8	10	22.0



Bench Tidy Components

OPTIONAL ACCESSORIES

ITEM	PART NO.
Swivel Arm	
A Suitable for suspending equipment	66462
Max. load at 1000mm = 16kg	
Weight: 3kg	
Supplied complete with:	
1 End Clamp	66332
2 Hose Clip	66292
3 Suspension Trolley	66352
4 End Cap	66372
5 End Stop	66422



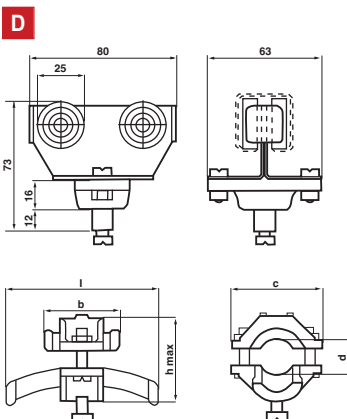
Suspension Trolley

B Suspension trolley	66352
Use for suspending tool balancers, or coiled hoses	
To run in 32 x 30 'C' Rail Track	
Weight: 0.3kg	
Max. load: 20kg	
Materials:	
Chassis: Steel, plastic, galvanized / Axles: Steel galvanised / Spring safety hook: Steel, galvanized	



Hose Trolley

C Hose Trolley	66282
Used in conjunction with Hose Clip to run in 32 x 30 'C' Rail Track	
Weight: 0.26kg	
Max. load: 20kg	
Materials:	
Bearing part: Steel plate, plastic covered / Rollers (ball bearings): Steel, galvanized	
Ball & Socket Joint: Nylon / Small parts: Steel, galvanized	



Hose Clip

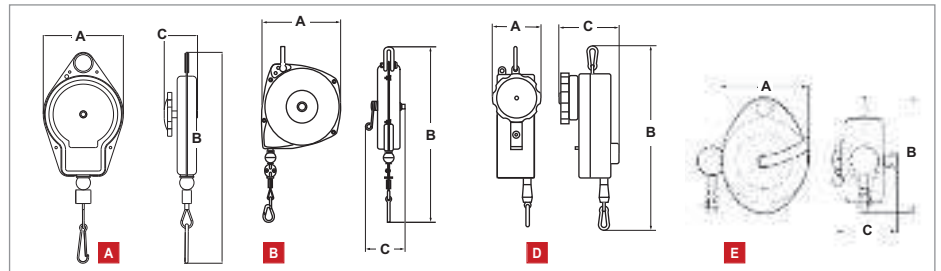
D Hose Clip	
Used to support coils of air hose or electric cable	

d		r		l		h max		b		c		b		PART NO.
mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	
10-16	0.39-0.63	80	3.15	70	2.75	38	1.50	35	1.38	42	1.65	0.04	0.09	66292
17-25	0.67-0.98	125	4.92	100	3.94	47	1.85	50	1.97	50	1.97	0.06	0.13	66302
26-36	1.02-1.42	180	7.08	140	5.51	58	2.58	70	2.75	64	2.52	0.12	0.30	66322



Balancers

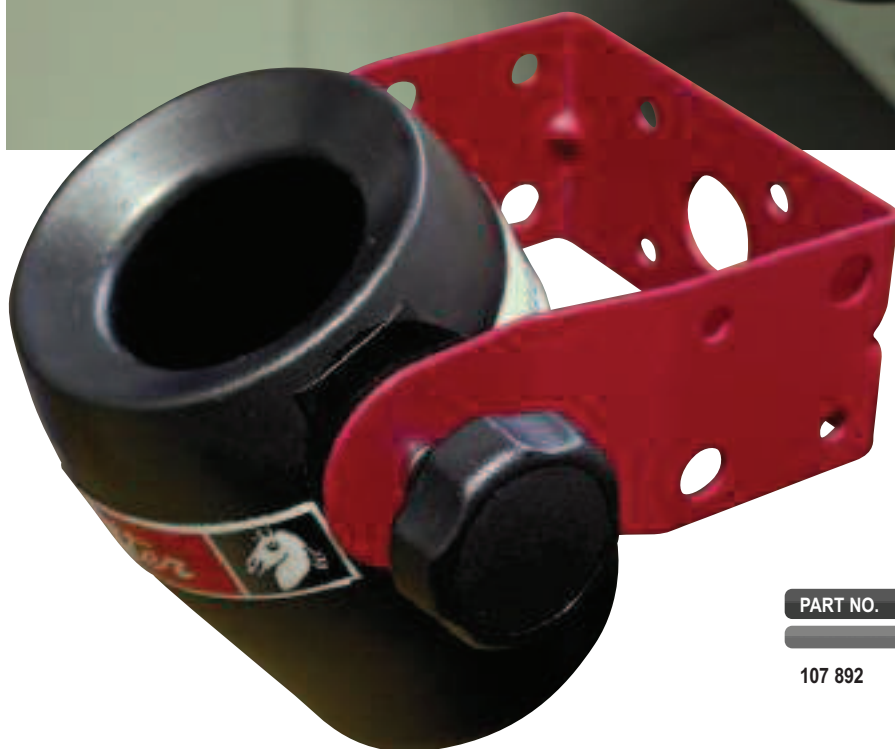
■ Light & Medium



PIC REF.	MODEL	PART NO.	MIN. CAPACITY		MAX. CAPACITY		CABLE TRAVEL		WEIGHT		DIMENSIONS		
			kg	lb	kg	lb	m	ft	kg	lb	A mm (in.)	B mm (in.)	C mm (in.)
Balancers													
A	1DU	52542	0	0	0.5	1.1	1.5	4.9	0.6	1.3	106 (4.2)	230 (9.1)	43 (1.7)
	2DU	50522	0.5	1.1	1	2.2	1.5	4.9	0.6	1.3	106 (4.2)	230 (9.1)	43 (1.7)
	2DUS	54532	0.5	1.1	1	2.2	3	9.8	0.6	1.3	106 (4.2)	230 (9.1)	43 (1.7)
	3DU	52862	1	2.2	1.5	3.1	1.5	4.9	0.6	1.3	106 (4.2)	230 (9.1)	43 (1.7)
	4DU	50532	1	2.2	2	4.4	1.5	4.9	0.6	1.3	106 (4.2)	230 (9.1)	43 (1.7)
B	5DU	50542	1.4	3.1	2.4	5.3	1.5	4.9	0.6	1.3	106 (4.2)	230 (9.1)	43 (1.7)
	10D	50052	2	4.4	5	11	2.4	7.8	2.7	6	190 (7.5)	369 (14.5)	77 (3.0)
	15D	50062	5	11	7	15.4	2.4	7.8	3.2	7.1	190 (7.5)	369 (14.5)	77 (3.0)
	22D	50072	6	13.2	10	22	2.4	7.8	3.2	7.1	190 (7.5)	369 (14.5)	77 (3.0)
Balancers with drum lock features													
B	10S	50572	2	4.4	5	11	2.4	7.8	2.7	6	190 (7.5)	370 (14.6)	77 (3.0)
	15S	50582	5	11	7	15.4	2.4	7.8	3.2	7.1	190 (7.5)	370 (14.6)	77 (3.0)
	22S	50592	6	13.2	10	22	2.4	7.8	3.2	7.1	190 (7.5)	370 (14.6)	77 (3.0)
Reaction Free Self-Lock Balancers													
C	2R	54422	0.7	1.5	1.3	2.9	1.7	5.5	0.5	1.1	72 (2.8)	245 (9.6)	108 (4.3)
	4R	54432	1	2.2	2	4.4	1.7	5.5	0.5	1.1	72 (2.8)	245 (9.6)	108 (4.3)
D	5R	54442	1.7	3.7	3.5	7.7	2.4	7.8	2.3	5.1	116 (4.6)	427 (16.8)	155 (6.1)
	10R	54452	3	6.6	6	13.2	2.4	7.8	2.3	5.1	116 (4.6)	427 (16.8)	155 (6.1)

PIC REF.	MODEL	PART NO.	MIN. CAPACITY		MAX. CAPACITY		FLOW RATE		HOSE TRAVEL		WEIGHT		DIMENSIONS		
			kg	lb	kg	lb	l/s	scfm	m	ft	kg	lb	A mm (in.)	B mm (in.)	C mm (in.)
Hose Reel Balancers															
E	1HU	52552	0	0	0.5	1.1	7.1	15	1.5	4.9	1.2	2.6	132 (5.2)	173 (6.8)	92 (3.6)
	3HU	50552	0.5	1.1	1.4	3.1	7.1	15	1	3.3	1.2	2.6	132 (5.2)	173 (6.8)	92 (3.6)
	4HU	50562	0.7	1.5	2	4.4	7.1	15	1	3.3	1.4	3.1	132 (5.2)	173 (6.8)	92 (3.6)

Tool Holster



■ Adapted for all straight or pistol grip tools with an outside diameter of maximum 42mm.

With the mounting plate to can be fastened in several position and the plastic ring angle can be set.

PART NO.	DESCRIPTION	MAX. DIAMETER	
		mm	in.
107 892	DTH-42	42	1.65

Consumables

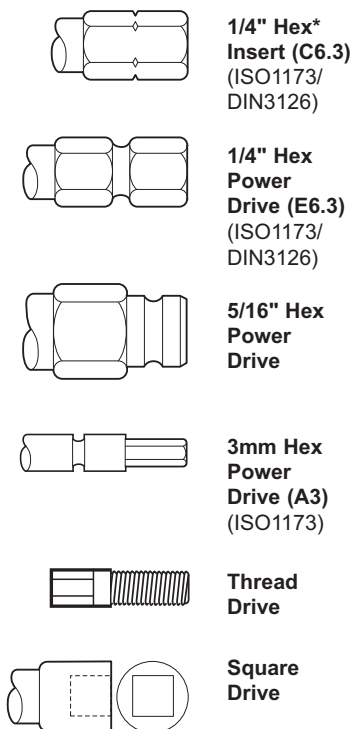




Screwdriver Bits



Drives



**1/4" Hex*
Insert (C6.3)**
(ISO1173/
DIN3126)

**1/4" Hex
Power
Drive (E6.3)**
(ISO1173/
DIN3126)

**5/16" Hex
Power
Drive**

**3mm Hex
Power
Drive (A3)**
(ISO1173)

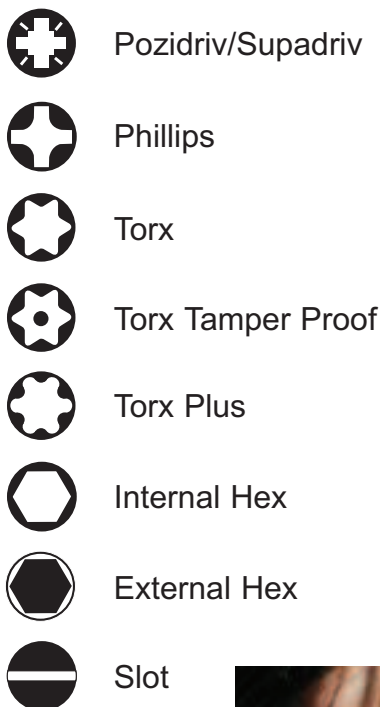
**Thread
Drive**

**Square
Drive**

*** Note:** to be used with a bit holder

Torx®, Torx Plus® are registered trademarks of Camcar Div., Textron Inc.
ACR®, Pozidriv®, Torq-Set®, Tri-Wing® are registered trademarks of Phillips Screw Co.

Fastener Head Type



Pozidriv/Supadriv

Phillips

Torx

Torx Tamper Proof

Torx Plus

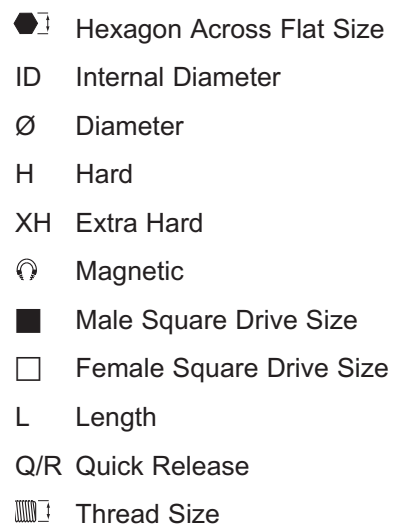
Internal Hex

External Hex

Slot

Symbols

The following symbols are used in this catalogue:

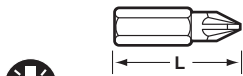




Screwdriver Bits

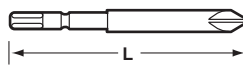


Pozidriv/Supadriv



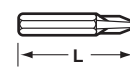
1/4" HEX INSERT (C6.3)

POINT SIZE	L		PART NO. H	PART NO. XH
	mm	in.		
0	25	1	108082	
1	25	1	6158046790	110752
2	25	1	6158046800	110762
3	25	1	6158046810	110772
1	50	2	6158046820	
2	50	2	6158046830	
4	30	1 3/16		110182



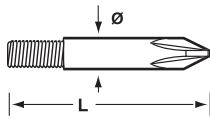
3mm HEX POWER (A3)

POINT SIZE	L		PART NO. XH
	mm	in.	
0	50	2	80782
1	50	2	80792



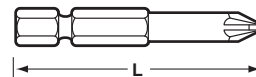
4mm HEX INSERT (C4)

POINT SIZE	L		PART NO. XH
	mm	in.	
0	28	1 1/8	80872
1	28	1 1/8	80882



THREAD DRIVE

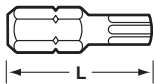
POINT SIZE	L		Ø	THREAD	PART NO. XH
	mm	in.	mm		
1	33	1 5/16	6	M4	65422
2	33	1 5/16	6	M4	65442
2	33	1 5/16	7	M5	65452
2	33	1 5/16	8	M6	105732
3	33	1 5/16	8	M6	105742



1/4" HEX POWER (E6.3)

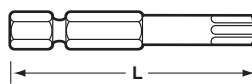
POINT SIZE	L		PART NO. H	PART NO. XH
	mm	in.		
1	50	2	6158046840	111162
2	50	2	6158046850	111172
3	50	2	6158046860	111182
1	70	2 3/4	6158046870	111192
2	70	2 3/4	6158046880	111202
3	70	2 3/4	6158046890	111222
1	89	3 1/2	6158046900	111232
2	89	3 1/2	6158046910	111242
3	89	3 1/2	6158046920	111252
1	150	6		110292
2	150	6		110302

Torx



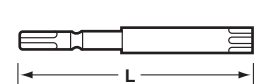
1/4" HEX INSERT (C6.3)

POINT SIZE	L		PART NO. H
	mm	in.	
T6	25	1	6158046930
T7	25	1	6158046940
T8	25	1	6158046950
T9	25	1	6158046960
T10	25	1	111272
T15	25	1	111282
T20	25	1	111292
T25	25	1	111302
T27	25	1	111322
T30	25	1	111332
T40	25	1	111342



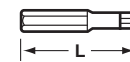
1/4" HEX POWER (E6.3)

POINT SIZE	L		PART NO. H
	mm	in.	
T8	50	2	6158046970
T9	50	2	6158046980
T10	50	2	111352
T15	50	2	111372
T20	50	2	111382
T25	50	2	111392
T27	50	2	111402
T30	50	2	111422
T40	50	2	111432
T40	70	2 3/4	110042
T20	89	3 1/2	108912



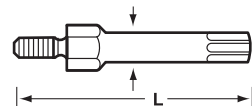
3mm HEX POWER (A3)

POINT SIZE	L		PART NO. XH
	mm	in.	
T6	50	2	89962
T8	50	2	89972
T10	50	2	89982



4mm HEX INSERT (C4)

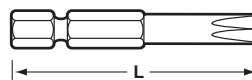
POINT SIZE	L		PART NO. XH
	mm	in.	
T6	28	1 1/8	99772



THREAD DRIVE

POINT SIZE	L		Ø	THREAD	PART NO. XH
	mm	in.	mm		
T8	33	1 5/16	6	M4	105772
T10	33	1 5/16	6	M4	105782
T20	33	1 5/16	6	M4	105802
T10	33	1 5/16	7	M5	105832
T15	33	1 5/16	7	M5	105842
T20	33	1 5/16	7	M5	105852
T25	33	1 5/16	7	M5	105862
T30	33	1 5/16	7	M5	105882

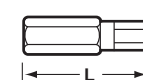
Torx Plus



TORX PLUS 1/4" HEX POWER (E6.3)

POINT SIZE	L		PART NO. XH
	mm	in.	
IP10	89	3 1/2	108132
IP15	89	3 1/2	108142

Torx Tamper Proof



1/4" HEX INSERT (C6.3)

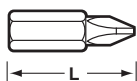
TYPE	L		PART NO. XH
	mm	in.	
TP10	25	1	6158045460
TP20	25	1	6158045470
TP30	25	1	6158045480



Screwdriver Bits



1/4" HEX INSERT (C6.3)

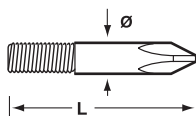


POINT SIZE	L		PART NO. H	PART NO. XH
	mm	in.		
0	25	1		110682
1	25	1	6158047060	110692
2	25	1	6158047070	110702
3	25	1	6158047080	110722
4	32	1 1/4		110732
1	50	2	6158047090	
2	50	2	6158047100	110742
3	50	2	6158047110	
2	70	2 3/4		110172

Phillips



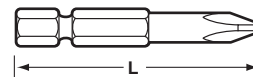
THREAD DRIVE



POINT SIZE	L		Ø	THREAD	PART NO. XH
	mm	in.			
1	33	1 5/16	6	M4	95902
1	33	1 5/16	7	M5	95942
2	33	1 5/16	7	M5	65382



1/4" HEX POWER (E6.3)



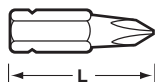
POINT SIZE	L		PART NO. H	PART NO. XH	PART NO. ACR
	mm	in.			
0	50	2		110232	
1	50	2	6158047120	111522	111082
2	50	2	6158047130	111532	111092
3	50	2	6158047140	111542	111102
1	70	2 3/4		110242	
2	70	2 3/4		110252	
3	70	2 3/4		110262	
1	89	3 1/2	6158047150	111552	111122
2	89	3 1/2	6158047160	111562	111132
3	89	3 1/2	6158047170		
2	150	6		111152	

ACR® = Anti-Cam-out Ribs



REDUCED NOSE DIAMETER

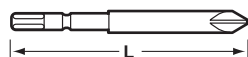
1/4" HEX INSERT (C6.3)



POINT SIZE	L		PART NO. H	PART NO. XH
	mm	in.		
1	25	1	6158047180	6158047200
2	25	1	6158047190	6158047210



3mm HEX POWER (A3)



POINT SIZE	L		PART NO. XH
	mm	in.	
00	50	2	82102
0	50	2	80762
1	50	2	80772



4mm HEX INSERT (C4)



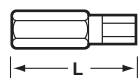
POINT SIZE	L		PART NO. XH
	mm	in.	
0	28	1 1/8	80852
1	28	1 1/8	80862

For 5/16" Hex Power Accessories see pages 36/37

Internal Hex



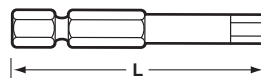
1/4" HEX INSERT (C6.3)



HEX	L		PART NO. XH
	mm	in.	
2.0mm	25	1	110782
3/32"	25	1	6158046990
2.5mm	25	1	110792
3.0mm	25	1	110802
1/8"	25	1	6158047000
9/64"	25	1	6158047010
4.0mm	25	1	110822
3/16"	25	1	6158047020
5.0mm	25	1	110832
7/32"	25	1	6158047030
6.0mm	25	1	110842
1/4"	25	1	6158047040
7.0mm	25	1	6158047050
8.0mm	25	1	110852



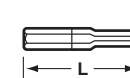
1/4" HEX POWER (E6.3)



HEX	L		PART NO. XH
	mm	in.	
2.0mm	50	2	110202
2.5mm	50	2	110862
3.0mm	50	2	110872
4.0mm	50	2	110882
5.0mm	50	2	110892
6.0mm	50	2	110902
8.0mm	50	2	110922
10.0mm	50	2	110932



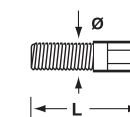
4mm HEX INSERT (C4)



HEX	L		PART NO. XH
	mm	in.	
1.5mm	28	1 1/8	81192
2.0mm	28	1 1/8	81202
2.5mm	28	1 1/8	81222
3.0mm	28	1 1/8	81232



THREAD DRIVE



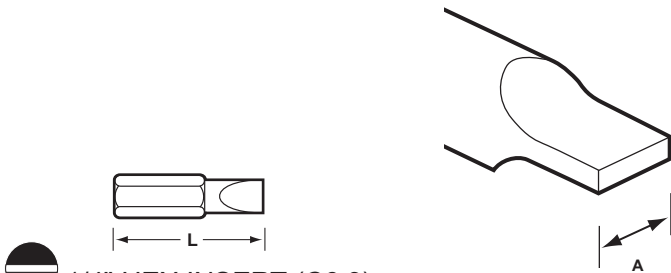
HEX	L		Ø	THREAD	PART NO. XH
	mm	in.			
3.0mm	33	1 5/16	7	M5	105922
4.0mm	33	1 5/16	7	M5	105932
5.0mm	33	1 5/16	8	M6	105942



Screwdriver Bits

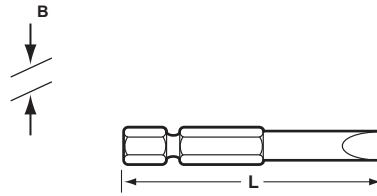


Slot



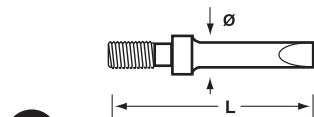
1/4" HEX INSERT (C6.3)

A		B		L		PART NO. H	PART NO. XH
mm	in.	mm	in.	mm	in.		
3.5	0.14	0.7	0.026	25	1	6158047220	6158047240
4.0	0.15	0.8	0.030	25	1		6158047250
4.7	0.17	0.9	0.034	25	1		110662
5.0	0.20	0.8	0.031	25	1	6158047230	
6.3	0.25	1.0	0.042	25	1		615 8047260



1/4" HEX POWER (E6.3)

A		B		L		PART NO. H	PART NO. XH
mm	in.	mm	in.	mm	in.		
3.2	0.12	0.7	0.026	50	2	6158047270	110642
3.9	0.15	0.8	0.032	50	2	6158047280	110942
4.7	0.19	0.9	0.034	50	2	6158047290	110952
5.4	0.22	0.8	0.032	50	2	6158047300	
6.3	0.25	1.0	0.038	50	2		110962
6.5	0.26	1.2	0.047	50	2		
7.2	0.28	1.1	0.042	50	2	6158047310	110972
7.9	0.31	1.2	0.046	50	2	6158047320	111002
8.0	0.31	1.6	0.063	50	2		
9.1	0.36	1.3	0.050	50	2		111022
3.2	0.12	0.7	0.026	76	3		110652
3.9	0.15	0.8	0.032	76	3		111032
4.7	0.19	0.9	0.034	76	3	6158047330	111042
6.3	0.25	1.0	0.038	76	3		111052
8.0	0.31	1.2	0.046	76	3		110082
9.1	0.36	1.3	0.050	76	3		110092
3.2	0.12	0.7	0.026	101	4		6158047340
3.9	0.15	0.8	0.032	101	4		6158047350
4.7	0.19	0.9	0.034	101	4		6158047360
6.3	0.25	1.0	0.038	101	4		6158047370
7.2	0.28	1.1	0.042	101	4		6158047380
7.9	0.31	1.2	0.046	101	4		6158047390
9.1	0.36	1.3	0.050	101	4		6158047400



THREAD DRIVE

A	B	L	Ø	THREAD	PART NO. XH
mm	in.	mm	mm	mm	
4.8	0.19	0.6	33	5.5	M4
6.0	0.24	0.7	33	6.0	M4
7.0	0.28	0.9	33	7.0	M5
7.0	0.28	1.0	33	7.0	M5
8.0	0.32	1.0	33	8.0	M6



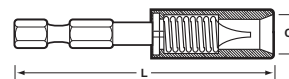
3mm HEX POWER (A3)

A		B		L		PART NO. XH
mm	in.	mm	in.	mm	in.	
2.0	0.08	0.3	0.012	50	2	88962
2.5	0.10	0.4	0.016	50	2	80722
3.0	0.12	0.5	0.020	50	2	80732
4.0	0.16	0.6	0.024	50	2	80742
5.0	0.20	0.8	0.031	50	2	80752



4mm HEX INSERT (C4)

A		B		L		PART NO. XH
mm	in.	mm	in.	mm	in.	
3.0	0.12	0.5	0.020	28	1 1/8	80802
4.5	0.18	0.6	0.024	28	1 1/8	80832
5.5	0.22	0.8	0.031	28	1 1/8	80842

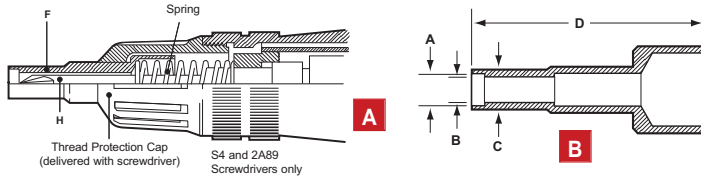


COMBINED BIT AND FINDER SLEEVES
1/4" HEX POWER (E6.3)

A		B		L		C		PART NO. XH
mm	in.	mm	in.	mm	in.	mm	in.	
4.9	0.20	0.91	0.04	95	3 13/16	8.0	0.32	111062
6.1	0.24	1.07	0.04	95	3 13/16	9.4	0.38	111072
7.3	0.29	1.07	0.04	95	3 13/16	10.8	0.43	6158047410
8.9	0.36	1.17	0.05	95	3 13/16	11.3	0.45	6158047420
10.0	0.40	1.27	0.05	98	3 59/64	12.6	0.50	6158047430
3.91	0.16	0.6	0.02	53	2 1/8	4.0	0.17	108032
3.91	0.16	0.7	0.03	53	2 1/8	4.0	0.17	108042
7.0	0.28	1.2	0.05	95	3 13/16	9.3	0.37	110222
9.0	0.36	1.6	0.06	95	3 13/16	12.0	0.48	110122
10.0	0.40	1.6	0.06	95	3 13/16	15.0	0.60	110132



Screwdriver Bits, Vacuum Systems & Finder Sleeves

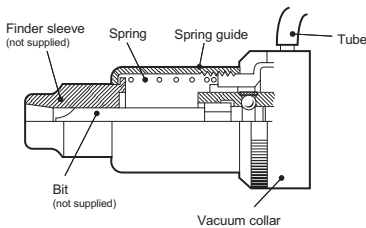


FINDER SLEEVES & BITS FOR 3mm HEX POWER (A3) SCREWDRIVERS BITS

To use 3mm Hex Power Bits (A3) with Non Rotating Finder Sleeves spring Part No. 280443 will be required.

PIC REF			ØA		ØB		ØC		D		PART NO. F	PART NO. H	PART NO. H	POINT SIZE	PART NO. H	POINT SIZE
	ømm	in.	mm	in.	mm	in.	mm	in.	mm	in.						
A & B	3.0	0.12	3.10	0.12	2.4	0.09	3.80	0.15	34	1 ³ / ₈	81042	80722	80782	0	82102/80762	000/00/0
A & B	3.8	0.15	3.85	0.15	3.1	0.125	4.75	0.19	34	1 ³ / ₈	81052	80732	80782	0	80762	0
A & B	4.3	0.17	4.60	0.18	4.1	0.16	5.45	0.21	34	1 ³ / ₈	81062	80742	80792	1	80772	1
A & B	4.7	0.19	4.85	0.19	4.1	0.16	5.70	0.22	34	1 ³ / ₈	81072	80742	80792	1	80772	1
A & B	5.6	0.22	5.65	0.22	5.1	0.20	6.60	0.26	34	1 ³ / ₈	81082	80752	80792	1	80772	
B	Finder Sleeve Blank						6.60	0.26	100	4	88992					

Can be used with suction screw pick-up



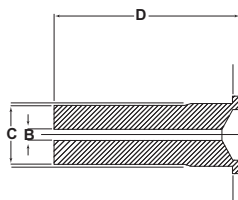
VACUUM CREW PICK-UP KIT FOR SB & SC SCREWDRIVERS

DESCRIPTION	PART NO.
ømm	
Kit (SB) including:	108892
Spring Guide	464213
Spring	464223
Vacuum collar	464233
Vacuum tube (2.3m long)	111223
Blank finder sleeve machining instructions	464183
Kit (SC):	
5/16" hex	74762

NON-ROTATING FINDER SLEEVE KIT FOR SB SCREWDRIVERS

DESCRIPTION	PART NO.
ømm	
Kit including:	108902
Spring	464223
Blank finder sleeve machining instructions	464183

Note: Finder sleeves to suit screw/screwdriver bit must be machined from plastic or steel blanks (see below)



DESCRIPTION	ØB		ØC		D		PART NO.
	mm	in.	mm	in.	mm	in.	
Finder Sleeve Blank – Delrin (SB)	3.0	0.12	14.2	0.6	105	4.1	464103
Finder Sleeve Blank – Steel (SB)	3.0	0.12	14.2	0.6	105	4.1	464093
Finder Sleeve Blank – Steel (SC)	3.35	0.13	15.6	0.6	26	1.0	464753

AIR-POWERED VACUUM ATTACHMENTS FOR BALANCERS

DU Cable Balancers can be simply converted into a vacuum source by fitting a Vacuum Attachment. Vacuum is adjustable and switches off automatically when screwdriver is released.



BALANCER TYPE	VACUUM WATER GAUGE (1mm w.g. = 81.1 mbar)						HOSE LENGTH		HOSE BORE	
	mm	in.	l/s	cfm	dB(A)	part no.	m	ft.	mm	in.
DU	4570	13	0.47	1	64	51482	1.6	5 1/2	4	0.16

AIR-POWERED AV201 VACUUM UNIT

The AV201 is installed into the air line system by screwing into the gauge port of a combination filter/regulator or into a tee piece between a regulator and lubricator.



VACUUM MERCURY GAUGE						AIR INLET	HOSE LENGTH		HOSE BORE	
mm	in.	l/s	cfm	dB(A)	part no.		m	ft.	mm	in.
4570	13	0.7	1.5	54	112063	1/8	2.3	7 1/2	4	0.16

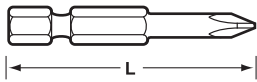


Consumables



Impulse/Impact Bits

Designed for use with impact and impulse tools to absorb shock loading



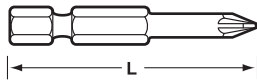
1/4" HEX POWER (E6.3)

POINT OR HEX	L		PART NO.
	mm	in.	
2	49	2	9092012111
3	49	2	9092012141



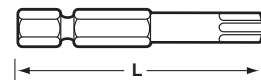
1/4" HEX POWER (E6.3)

POINT OR HEX	L		PART NO.
	mm	in.	
4	49	2	9092012291
5	49	2	9092012321



1/4" HEX POWER (E6.3)

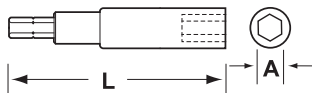
POINT OR HEX	L		PART NO.
	mm	in.	
2	49	2	9092012051
3	49	2	9092012081



1/4" HEX POWER (E6.3)

POINT OR HEX	L		PART NO.
	mm	in.	
T25	49	2	9092012201
T30	49	2	9092012231

Bit Holders



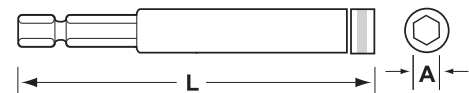
1/4" HEX INSERT (C6.3)

L		A		Q/R	PART NO.
mm	in.				
43	1.7	1/4" Hex Insert (D6.3)	X	X	22322



3mm HEX POWER (A3)

L		A	⌀	Q/R	PART NO.
mm	in.				
57	2.25	4mm Hex Insert (D4)	✓	X	80892
57	2.25	4mm Hex Insert (D4)	X	X	80902
50	2.0	1/4" Hex Insert (D6.3)	X	X	82322



1/4" HEX POWER (E6.3)

L		A		Q/R	PART NO.
mm	in.				
50	2.0	1/4" Hex Power (E6.3)	X	✓	75782 ³⁾
50	2.0	5/16" Hex Power	X	X	110622
45	1.8	4mm Hex Insert (D4)	✓	X	97632
50	2.0	1/4" Hex Insert (D6.3)	✓	X	107952
73	2.9	1/4" Hex Insert (D6.3)	✓	X	99752 ¹⁾
75	3.0	1/4" Hex Insert (D6.3)	X	✓	111262 ³⁾
74	2.9	1/4" Hex Insert (D6.3)	✓	X	101252 ²⁾
42	1.6	1/4" Hex Insert (D6.3)	X	X	101282
74	2.9	1/4" Hex Insert (D6.3)	✓	✓	100162
80	3.1	1/4" Hex Insert (D6.3)	✓	X	110362 ³⁾
100	3.9	1/4" Hex Insert (D6.3)	X	X	110342
150	5.9	1/4" Hex Insert (D6.3)	✓	X	110102
150	5.9	1/4" Hex Insert (D6.3)	X	X	110352

¹⁾ Reduced external diameter 9.5mm (3/8"), no retention clip

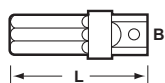
²⁾ Copper beryllium

³⁾ With retaining screw

For 5/16" Hex. Power Accessories see page 128

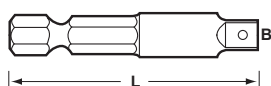


Adaptors



SQUARE DRIVE ADAPTORS 1/4" HEX INSERT (C6.3)

B	L		PART NO.
	mm	in.	
1/4" Square Drive	39	1.5	14372



1/4" HEX POWER (E6.3)

B	L		PART NO.
	mm	in.	
1/4" Square Drive	35	1.4	95352
1/4" Square Drive	50	2.0	97132
3/8" Square Drive	41	1.6	95362



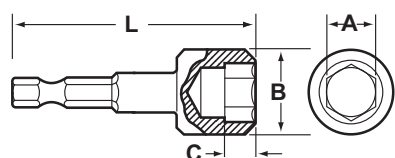
3mm HEX POWER (A3)

B	L		PART NO.
	mm	in.	
1/4" Square Drive	50	2.0	82732



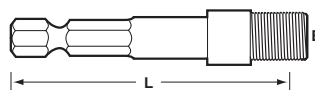
1/4" HEX INSERT (C6.3)

	A	B	C	L	PART NO.
	mm	in.	mm	in.	
M4	7.0 0.27	11 0.43	2.4 0.09	28 1.1	9092011961
M5	8.0 0.31	13 0.51	2.9 0.11	28 1.1	9092011991
M6	10.0 0.39	14 0.56	5.0 0.20	32 1.25	9092012021



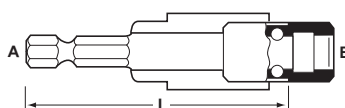
1/4" HEX POWER (E6.3)

	A	B	C	L	PART NO.
	mm	in.	mm	in.	
M3	5.5 0.21	11 0.43	3.9 0.15	65 2.5	9092011451
M3.5	6.0 0.23	11 0.43	3.9 0.15	65 2.5	9092011511
	4 1/4	11 0.43	4.4 0.17	65 2.5	9092011751
M4	7.0 0.27	12 0.47	4.8 0.19	65 2.5	9092011571
M5	8.0 0.31	13 0.51	5.6 0.22	65 2.5	9092011631
M6	10.0 0.39	14 0.56	6.7 0.26	65 2.5	9092011691
	5/16	13 0.51	5.6 0.22	65 2.5	9092011811



THREAD ADAPTOR 1/4" HEX POWER (E6.3)

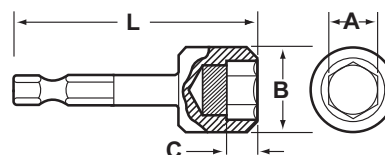
B	L		PART NO.
	mm	in.	
3/8" x 24 UNF	45	1.7	96743



TELESCOPIC SPINDLE EXTENSION ADAPTORS

A	B	L		STROKE		PART NO.
		mm	in.	mm	in.	
5/16" Hex Power	3/8" Square Drive	67	2.6	9.5	0.81	71593
1/4" Hex Power E6.3	1/4" Hex Power E6.3	84	4.2	9.5	0.81	96713
3/8" Square Drive	1/4" Hex Power E6.3	73	3.8	9.5	0.81	96723

Nutrunners



1/4" HEX POWER (E6.3)

		A		B		C		L		PART NO.
ISO	UNF/C	mm	in.	mm	in.	mm	in.	mm	in.	
M3		5.5	0.22	11	0.43	2.3	0.09	65	2.5	9092011481
M3.5		6.0	0.24	11	0.43	2.4	0.09	65	2.5	9092011541
	4	1/4		11	0.43	2.4	0.09	65	2.5	9092011781
M4		7.0	0.27	12	0.47	2.8	0.11	65	2.5	9092011601
M5		8.0	0.31	13	0.51	2.9	0.11	65	2.5	9092011661
M6		10.0	0.39	14	0.56	5.0	0.19	65	2.5	9092011721
	12 1/4"	11 1/4	0.44	16	0.63	5.0	0.19	65	2.5	9092011931



Consumables

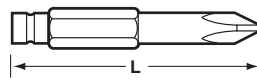


5/16" Hex Power Bits



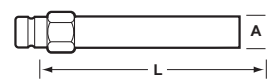
SCREWDRIVER BITS 5/16" HEX POWER

POINT SIZE	L		PART NO. XH
	mm	in.	
1	32	1.3	11642
2	32	1.3	11652
1	52	2.0	11672
2	52	2.0	11682
3	52	2.0	11692
1	92	3.6	11702
2	92	3.6	11722
3	92	3.6	11732



SCREWDRIVER BITS 5/16" HEX POWER

POINT SIZE	L		PART NO. XH
	mm	in.	
1	32	1.3	11532
2	32	1.3	11542
1	44	1.7	13362
1	52	2.0	11562
2	52	2.0	11572
3	52	2.0	11582
1	92	3.6	11602
2	92	3.6	11622
3	92	3.6	11632



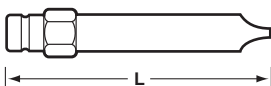
SCREWDRIVER BIT BLANK 5/16" HEX POWER

A		L		PART NO. XH
mm	in.	mm	in.	
10.2	0.40	52	2	10522
10.2	0.40	154	6	10692



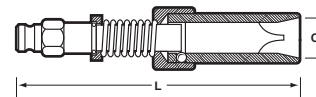
SCREWDRIVER BITS 5/16" HEX POWER

HEX		L		PART NO. XH
mm	in.	mm	in.	
3	0.12	50	2.0	99842
4	0.16	50	2.0	99852
5	0.19	50	2.0	99862
6	0.23	50	2.0	99872
8	0.31	50	2.0	99882



SCREWDRIVER BITS 5/16" HEX POWER

A		B		L		PART NO. XH
mm	in.	mm	in.	mm	in.	
3.1	0.12	0.6	0.023	52	2.04	10082
3.7	0.14	0.8	0.031	52	2.04	10092
5.0	0.19	1.0	0.038	52	2.04	10102
6.2	0.24	1.0	0.038	52	2.04	10122
7.5	0.29	1.2	0.047	52	2.04	10132
8.8	0.34	1.3	0.051	52	2.04	10142
10.2	0.40	1.5	0.059	52	2.04	10152
3.1	0.12	0.6	0.023	78	3.07	10162
3.7	0.14	0.8	0.032	78	3.07	10172
5.0	0.19	1.0	0.038	78	3.07	10182
6.2	0.24	1.0	0.038	78	3.07	10192
7.5	0.29	1.2	0.047	78	3.07	10202
8.8	0.34	1.3	0.051	78	3.07	10222
10.2	0.40	1.5	0.059	78	3.07	10232
3.1	0.12	0.6	0.023	103	4.05	10242
3.7	0.14	0.8	0.032	103	4.05	10252
5.0	0.19	1.0	0.038	103	4.05	10262
6.2	0.24	1.0	0.038	103	4.05	10272
7.5	0.29	1.2	0.047	103	4.05	10282
10.2	0.40	1.5	0.059	103	4.05	10302
5.0	0.19	1.0	0.308	154	6.06	10422

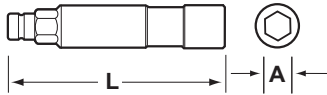


SCREWDRIVER BITS – COMBINED BIT AND FINDER SLEEVES 5/16" HEX POWER

A		B		L		C		PART NO. XH
mm	in.	mm	in.	mm	in.	mm	in.	
3.2	0.12	0.6	0.023	84	3.3	4.2	0.16	10822
3.9	0.15	0.8	0.031	84	3.3	5.7	0.22	10832
5.1	0.20	1.0	0.038	84	3.3	7.2	0.28	10842
6.4	0.25	1.1	0.043	84	3.3	8.6	0.34	10852
7.7	0.30	1.2	0.047	84	3.3	10.1	0.39	10862
8.8	0.34	1.4	0.055	84	3.3	11.6	0.45	10872
11.0	0.42	1.6	0.062	84	3.3	13.0	0.51	10882
3.9	0.15	0.8	0.031	110	4.3	5.7	0.22	10902
5.1	0.20	1.0	0.038	110	4.3	7.2	0.28	10922
6.4	0.25	1.1	0.043	110	4.3	8.6	0.34	10932
7.7	0.30	1.2	0.047	110	4.3	10.1	0.39	10942



5/16" Hex Power Accessories



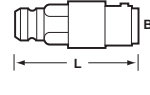
BIT HOLDERS 5/16" HEX POWER

L		A		Q/R	PART NO.
mm	in.				
45	1.77	1/4" Hex Power (F6.3)	X	✓	78882
46	1.81	1/4" Hex Insert (D6.3)	X	X	11522
62	2.44	1/4" Hex Insert (D6.3)	✓	X	11502
Replacement Spring Ring for 11522, 11502					
					260613
70	2.75	1/4" Hex Insert (D6.3)	✓	✓	100172
55	2.16	1/4" Hex Insert (D6.3)	✓	X	98682
Cap and O Ring for 98682					
			X	X	100132



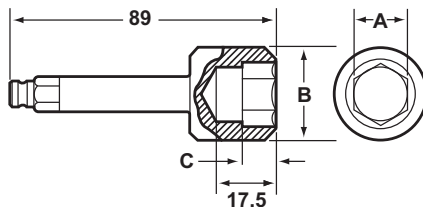
EXTENSION ADAPTORS 5/16" HEX POWER

B	L		PART NO.
	mm	in.	
5/16" Hex Power	51	2.0	10762
5/16" Hex Power	76	2.9	10772
5/16" Hex Power	101	3.9	10782
5/16" Hex Power	126	4.9	10792
5/16" Hex Power	151	5.9	10802



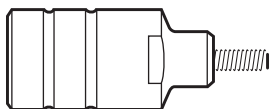
SQUARE DRIVE ADAPTORS 5/16" HEX POWER

B	L		PART NO.
	mm	in.	
1/4" Square Drive	34	1.3	32962
1/4" Square Drive	75	2.9	23592
1/4" Square Drive	100	3.9	23602
3/8" Square Drive	37	1.4	91772



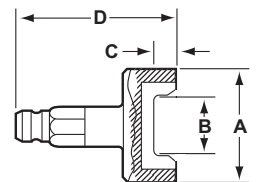
NUTRUNNERS 5/16" HEX POWER

		A		B		C		PART NO.
ISO	UNF/C	mm	in.	mm	in.	mm	in.	
M2.5		5.1	0.20	8.9	0.35	2.3	0.09	7342
M3		5.5	0.21	9.5	0.37	2.4	0.09	61332
M3.5		6.1	0.24	10.4	0.41	3.2	0.12	7372
	4	6.5	0.25	11.4	0.44	3.3	0.13	7392
M4		7.2	0.28	11.9	0.46	3.3	0.13	61342
M5	5-6	8.1	0.31	13.7	0.54	4.1	0.16	7412
		8.3	0.32	13.7	0.54	4.1	0.16	7422
M6		10.1	0.39	16.0	0.63	4.8	0.18	7462
	12 1/4"	11.4	0.44	17.5	0.68	5.6	0.22	7482
	5/16"	13.0	0.51	19.6	0.77	6.4	0.25	7512
M8		13.2	0.52	19.8	0.78	6.4	0.25	752
	3/8"	14.5	0.57	21.3	0.83	7.9	0.31	7552
M10		17.3	0.68	24.6	0.96	9.7	0.38	7582



NOSE ATTACHMENT KITS FOR THE ASSEMBLY OF THREADED CAPTIVE FASTENERS, RIVET NUTS, ETC USE WITH TOOLS 2F189

THREAD SIZE	PART NO. ASSEMBLY KIT	THREAD SIZE	PART NO. ASSEMBLY KIT
M3 x 0.5	76552	6 x 32 UNC	77602
M4 x 0.7	76562	8 x 32 UNC	AS50109-04
M5 x 0.8	76572	10 x 24 UNC	AS50109-03
M6 x 1.0	76582	10 x 32 UNF	AS50109-06
M8 x 1.25	76592	1/4" -20 UNC	AS50109-01
		1/4" -28 UNF	AS50109-02
		5/16" UNC	76672
		5/16" UNF	76682



BOTTLE CAP DRIVERS 5/16" HEX POWER

ØA		ØB		C		D		PART NO.
mm	in.	mm	in.	mm	in.	mm	in.	
25.4	1.0	14.3	0.56	6.4	0.25	38.1	1.50	11832
28.6	1.12	17.5	0.68	6.4	0.25	38.1	1.50	11842
31.7	1.24	22.2	0.87	6.4	0.25	38.1	1.50	11852
34.9	1.37	23.8	0.93	6.4	0.25	38.1	1.50	11862
39.7	1.56	27.0	1.06	6.4	0.25	38.9	1.53	11872
42.9	1.68	30.2	1.18	6.4	0.25	38.9	1.53	11882
49.2	1.93	36.5	1.43	7.9	0.31	40.4	1.59	11892
55.6	2.18	42.9	1.68	7.9	0.31	40.4	1.59	11902

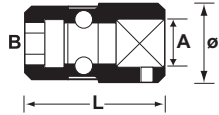


THREAD SIZE	PART NO. A	PART NO. B	PART NO. C	LENGTH D		PART NO.	E A/F SIZE		PART NO.	PART NO. F	PART NO. G
				mm	in.		mm	in.			
M3 x 0.5	273513	273603	273423	35	1.37	279683	2.5	0.09	72362	273613	16313
M4 x 0.7	273533	273603	273443	35	1.37	273643	3.0	0.12	72172		
M5 x 0.8	273563	273603	273473	35	1.37	273653	4.0	0.15	72192		
M6 x 1.0	273573	273603	273483	35	1.37	237893	5.0	0.19	72222		
M8 x 1.25	273593		300383	45	1.77	300393	6.0	0.23	72242		



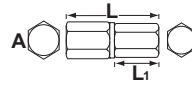
Sockets

■ Square Drive Adaptors



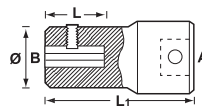
SQUARE DRIVE TO SCREWDRIVER BIT ADAPTORS QUICK RELEASE AND CLIP/BALL RETENTION

A	B	L		Ø MAX		Q/R	PART NO.
in.		mm	in.	mm	in.		
3/8	1/4" Hex Insert (D6.3)	32	1.26	16	0.62		21792
3/8	1/4" Hex Power (F6.3)	46	1.81	22	0.86	Q/R	108052
3/8	5/16" Hex Power	68	2.67	21	0.82	Q/R	21762
1/2	1/4" Hex Insert (D6.3)	45	1.77	22	0.86		6158123060
1/4	5/16" Hex Power	25	1.0				26892



HEXAGONAL BITS 7/16"

SIZE ON FLATS A		L		HEX LENGTH L1		PART NO.
mm	in.	mm	in.	mm	in.	
8		28	1.10	12	0.47	6158041080
10		28	1.10	12	0.47	6158041090
12		28	1.10	12	0.47	6158041100

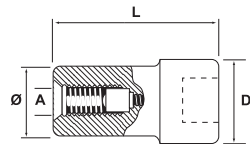


POSITIVE RETENTION

A	B	L		Ø	L1		PART NO.
in.		mm	in.	mm	in.	mm	in.
3/8	1/4" Hex	14	0.55	14	0.55	38	1.49
3/8	7/16" Hex	14	0.55	14	0.55	38	1.49

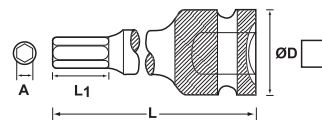


■ Sockets 1/2" Drive with Male Hex/Stud Runners



STUD RUNNER

THREAD A	SQUARE DRIVE	Ø		D		L		PART NO.
	in.	mm	in.	mm	in.	mm	in.	
M5 x 80	3/8	15	0.59	19	0.74	55	2.16	6158041530
M6 x 100	3/8	15	0.59	19	0.74	55	2.16	6158041610
M8 x 125	3/8	17	0.66	19	0.74	55	2.16	6158041620
M10 x 150	3/8	19	0.74	24	0.94	55	2.16	6158041540
M6 x 100	1/2	22	0.86	24	0.94	65	2.55	6158041550
M8 x 125	1/2	24	0.94	24	0.94	65	2.55	6158041630
M10 x 150	1/2	24	0.94	24	0.94	65	2.55	6158041640
M12 x 175	1/2	24	0.94	24	0.94	65	2.55	6158041650
M14 x 200	1/2	24	0.94	24	0.94	65	2.55	6158041680
M16 x 200	1/2	24	0.94	24	0.94	65	2.55	6158041580



HEXAGONAL DRIVES WITH PIN AND O RING RETENTION

A	SQUARE DRIVE		L		L1		ØD		PART NO.
mm	in.	in.	mm	in.	mm	in.	mm	in.	
4	0.15	3/8	50	1.96	16	0.63	19	0.74	9092013781
5	0.19	3/8	50	1.96	16	0.63	19	0.74	9092013811
6	0.23	3/8	50	1.96	16	0.63	19	0.74	9092013841
8	0.31	3/8	50	1.96	16	0.63	19	0.74	9092013871
10	0.39	3/8	50	1.96	16	0.63	19	0.74	9092013901
8	0.31	1/2	75	2.95	16	0.63	25	0.98	9092013961
10	0.39	1/2	75	2.95	16	0.63	25	0.98	9092013991
14	0.55	1/2	75	2.95	20	0.78	25	0.98	9092014051

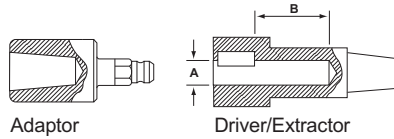


SOCKET 1/2" DRIVE WITH MALE HEX

HEX		L		L1		PART NO.
mm	in.	mm	in.	mm	in.	
4	0.15	44	1.73	6	0.23	6158040400
5	0.19	44	1.73	8	0.31	6158040410
6	0.23	44	1.73	9	0.35	6158040420
8	0.31	44	1.73	12	0.47	6158040430
10	0.39	47	1.85	16	0.63	6158040440
14	0.55	50	1.96	21	0.82	6158040450
17	0.67	50	1.96	26	1.02	6158040460
19	0.74	50	1.96	26	1.02	6158040470
	5/16	44	1.73	12	0.47	6158040490
	3/8	47	1.85	16	0.63	6158040500
	1/2	50	1.96	19	0.74	6158040520

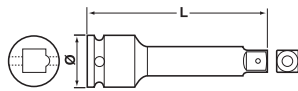


Sockets



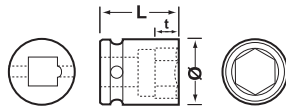
STUD DRIVER/EXTRACTORS 5/16" HEX POWER

A	B		PART NO.	PART NO.
	mm	in.	ADAPTOR	DRIVER/EXTRACTOR
M4	18.2	0.71		15262
M5	19.8	0.78		15302
M6	12.7	0.50	15502	15332
	14.3	0.56	15502	15342
M7	19.0	0.74	15502	15362
M8	19.0	0.74	15502	15372



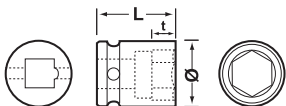
EXTENSIONS

FEMALE SQ.	SQ. DRIVE	L		Ø		PART NO.
in.	in.	mm	in.	mm	in.	
1/4	1/4	51	2.0	13	0.51	6158071050
1/4	1/4	75	2.9	13	0.51	6158071070
1/4	1/4	100	3.9	13	0.51	6158071100
1/4	1/4	150	5.9	13	0.51	6158071150
3/8	3/8	76	3.0	19	0.74	6158072070
3/8	3/8	152	5.9	19	0.74	6158072150
1/2	1/2	51	2.0	30	1.18	6158073050
1/2	1/2	127	5.0	30	1.18	6158073130
1/2	1/2	254	10.0	30	1.18	6158073250
3/4	3/4	102	4.0	44	1.73	6158075100
3/4	3/4	178	7.0	44	1.73	6158075170
1	1	178	7.0	54	2.12	6158076180
#5	#5	203	7.9	54	2.12	6158040340



MAGNETIC 1/4" SQUARE DRIVE IMPACT SOCKETS

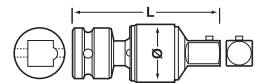
SIZE ON FLATS	L		Ø		DEPTH t		PART NO.
	mm	in.	mm	in.	mm	in.	
7	25	1	19	0.75	3	0.12	6158040050
8	25	1	19	0.75	4	0.16	6158040060
10	25	1	19	0.75	5	0.20	6158040070



EXTENDED 3/8" SQUARE DRIVE IMPACT SOCKETS

SIZE ON FLATS	L		Ø		DEPTH t		PART NO.
	mm	in.	mm	in.	mm	in.	
8	57	2.24	12.5	0.49	8	0.31	6158062080
10	57	2.24	15.5	0.61	10	0.39	6158062100
11	57	2.24	17.0	0.67	11	0.43	6158062110
12	57	2.24	18.0	0.71	12	0.47	6158062120
13	57	2.24	19.5	0.77	13	0.51	6158062130
15	57	2.24	22.0	0.87	15	0.59	6158062150
16	57	2.24	23.0	0.91	16	0.63	6158062160
17	57	2.24	24.5	0.96	17	0.67	6158062170
18	57	2.24	25.5	1.00	18	0.71	6158062180
19	57	2.24	27.0	1.06	19	0.75	6158062190

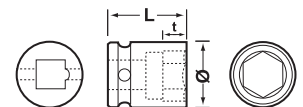
Extensions Universal Joints Adaptors



UNIVERSAL JOINTS

FEMALE SQ.	SQ. DRIVE	L		Ø		PART NO.
in.	in.	mm	in.	mm	in.	
1/4	1/4	42	1.6	17	0.66	6158081010
3/8	3/8	60	2.3	20	0.78	6158082010
1/2	1/2	76	3.0	32	1.26	6158083010
3/4	3/4	89	3.5	44	1.73	6158085010
1	1	112	4.4	54	2.12	6158086010
#4	#4	132	5.2	86	3.38	6158040320
#5	#5	143	5.6	86	3.38	6158040330

Sockets 1/4" - 3/8" Square Drive



STANDARD 1/4" SQUARE DRIVE IMPACT SOCKETS

SIZE ON FLATS	L		Ø		DEPTH t		PART NO.
	mm	in.	mm	in.	mm	in.	
4.0	25	1	7.5	0.30	4	0.16	6158051040
4.5	25	1	8.0	0.31	4	0.16	6158051450
5.0	25	1	8.5	0.33	4	0.16	6158051050
5.5	25	1	9.0	0.35	4	0.16	6158051550
6.0	25	1	9.5	0.37	5	0.20	6158051060
7.0	25	1	11.0	0.43	5	0.20	6158051070
8.0	25	1	12.0	0.47	6	0.24	6158051080
9.0	25	1	13.0	0.51	7	0.28	6158051090
10.0	25	1	14.5	0.57	7	0.28	6158051100
11.0	25	1	16.0	0.63	8	0.31	6158051110
12.0	25	1	17.0	0.67	8	0.31	6158051120
13.0	25	1	18.0	0.71	9	0.35	6158051130
14.0	25	1	19.0	0.75	9	0.35	6158051140

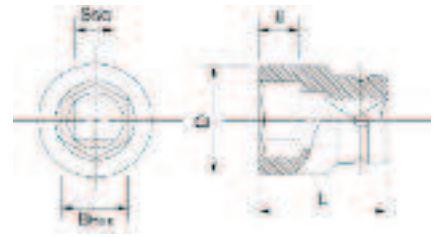
STANDARD 3/8" SQUARE DRIVE IMPACT SOCKETS

SIZE ON FLATS	L		Ø		DEPTH t		PART NO.
	mm	in.	mm	in.	mm	in.	
6	34	1.34	10.0	0.39	5.0	0.20	6158052060
7	34	1.34	11.0	0.43	6.5	0.26	6158052070
10	34	1.34	15.0	0.59	8.0	0.31	6158052100
11	34	1.34	16.5	0.65	9.0	0.35	6158052110
12	34	1.34	18.0	0.71	9.0	0.35	6158052120
13	34	1.34	19.5	0.77	10.0	0.39	6158052130
14	34	1.34	20.5	0.81	10.0	0.39	6158052140
15	34	1.34	22.0	0.87	10.0	0.39	6158052150
16	34	1.34	23.0	0.91	10.0	0.39	6158052160
17	34	1.34	24.5	0.96	10.0	0.39	6158052170
18	34	1.34	25.5	1.00	10.0	0.39	6158052180
19	34	1.34	27.0	1.06	11.0	0.43	6158052190
3/8"	30	1.18	14.5	0.57	4.0	0.16	6158042660
1/2"	30	1.18	19.0	0.75	6.0	0.24	6158042680
9/16"	30	1.18	20.0	0.79	7.0	0.28	6158042690
3/4"	30	1.18	24.0	0.94	10.0	0.39	4026091900



Sockets

■ Sockets 1/2" - 3/4" Square Drive



STANDARD 1/2" SQUARE DRIVE IMPACT SOCKETS

SIZE ON FLATS	L		Ø		DEPTH t		PART NO.
	mm	in.	mm	in.	mm	in.	
10	38	1.50	16.0	0.63	8.0	0.31	6158053100
11	38	1.50	17.5	0.69	9.0	0.35	6158053110
12	38	1.50	19.0	0.75	9.0	0.35	6158053120
13	38	1.50	20.5	0.81	10.0	0.39	6158053130
14	38	1.50	22.0	0.87	10.0	0.39	6158053140
15	38	1.50	23.5	0.93	10.0	0.39	6158053150
16	38	1.50	24.5	0.96	10.0	0.39	6158053160
17	38	1.50	26.0	1.02	10.0	0.39	6158053170
18	38	1.50	27.5	1.08	10.0	0.39	6158053180
19	38	1.50	29.0	1.14	11.0	0.43	6158053190
20	38	1.50	30.0	1.18	12.0	0.47	6158053200
21	38	1.50	31.0	1.22	13.0	0.51	6158053210
22	38	1.50	32.5	1.28	13.0	0.51	6158053220
23	38	1.50	34.0	1.34	15.0	0.59	6158053230
24	45	1.77	35.0	1.38	15.0	0.59	6158053240
26	45	1.77	38.0	1.50	15.0	0.59	6158053260
27	50	1.97	39.0	1.54	16.0	0.63	6158053270
29	50	1.97	41.0	1.61	17.0	0.67	6158053290
30	50	1.97	42.5	1.67	18.0	0.71	6158053300
3/8"	38	1.50	16.0	0.63	4.0	0.16	6158042780
9/16"	38	1.50	22.0	0.87	7.0	0.28	6158042810
3/4"	38	1.50	28.7	1.13	9.5	0.37	6158053190
13/16"	38	1.50	30.0	1.18	11.0	0.43	6158042840
15/16"	38	1.50	34.0	1.34	13.0	0.51	6158042860
11/16"	38	1.50	38.7	1.52	13.0	0.51	6158053270
13/16"	40	1.57	42.0	1.65	16.5	0.65	6158053300



STANDARD 3/4" SQUARE DRIVE IMPACT SOCKETS

SIZE ON FLATS	L		Ø		DEPTH t		PART NO.
	mm	in.	mm	in.	mm	in.	
19	50	1.97	32	1.26	13	0.51	6158055190
21	50	1.97	35	1.38	13	0.51	6158055210
22	50	1.97	35	1.38	13	0.51	6158055220
24	50	1.97	39	1.54	15	0.59	6158055240
27	54	2.13	42	1.65	16	0.63	6158055270
30	54	2.13	46	1.81	18	0.71	6158055300
32	56	2.20	49	1.93	18	0.71	6158055320
36	56	2.20	54	2.13	20	0.79	6158055360
41	58	2.28	61	2.40	22	0.87	6158055410
3/4"	45	1.77	36	1.42	9.5	0.37	6158055190
11/16"	48	1.89	46	1.81	13.0	0.51	6158055270



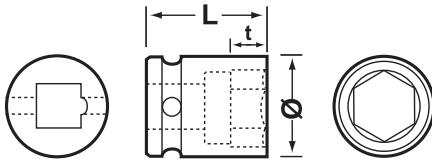
EXTENDED 1/2" SQUARE DRIVE IMPACT SOCKETS

SIZE ON FLATS	L		Ø		DEPTH t		PART NO.
	mm	in.	mm	in.	mm	in.	
10	78	3.07	17.0	0.67	10.0	0.39	6158063100
11	78	3.07	18.5	0.73	11.0	0.43	6158063110
13	78	3.07	21.5	0.85	13.0	0.51	6158063130
14	78	3.07	23.0	0.91	14.0	0.55	6158063140
15	78	3.07	23.5	0.93	15.0	0.59	6158063150
16	78	3.07	24.5	0.96	16.0	0.63	6158063160
17	78	3.07	26.0	1.02	17.0	0.67	6158063170
18	78	3.07	27.5	1.08	18.0	0.71	6158063180
19	78	3.07	29.0	1.14	19.0	0.75	6158063190
20	78	3.07	30.0	1.18	20.0	0.79	6158063200
22	78	3.07	32.5	1.28	23.0	0.91	6158063220
24	78	3.07	35.0	1.38	25.0	0.98	6158063240
27	78	3.07	39.0	1.54	26.0	1.02	6158063270
30	78	3.07	43.0	1.69	30.0	1.18	6158063300
3/4"	78	3.07	28.7	1.13	9.5	0.37	6158063190
11/16"	78	3.07	38.7	1.52	13.0	0.51	6158063270



EXTENDED 3/4" SQUARE DRIVE IMPACT SOCKETS

SIZE ON FLATS	L		Ø		DEPTH t		PART NO.
	mm	in.	mm	in.	mm	in.	
24	100	3.94	40	1.57	24	0.94	6158065240
32	100	3.94	49	1.93	32	1.26	6158065320
36	100	3.94	54	2.13	32	1.26	6158065360



Sockets 1" Square Drive



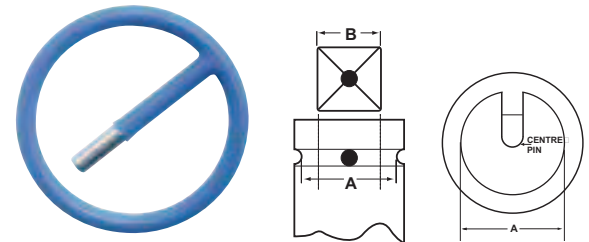
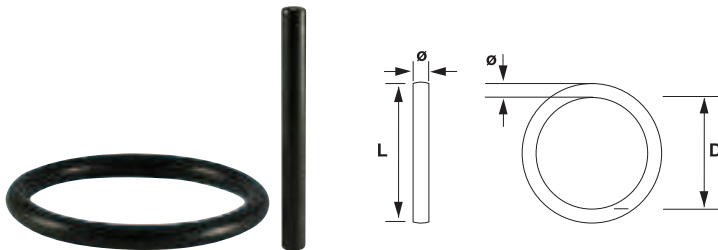
STANDARD 1" SQUARE DRIVE IMPACT SOCKETS

SIZE ON FLATS	L		Ø		DEPTH t		PART NO.
	mm	in.	mm	in.	mm	in.	
24	59	2.32	38	1.50	15.0	0.59	6158056240
27	59	2.32	44	1.73	16.0	0.63	6158056270
30	61	2.40	50	1.97	18.0	0.71	6158056300
32	61	2.40	52	2.05	19.0	0.75	6158056320
33	61	2.40	54	2.13	19.0	0.75	6158056330
36	65	2.56	57	2.24	23.0	0.91	6158056360
41	70	2.76	63	2.48	25.0	0.98	6158056410
42	70	2.76	64	2.52	25.0	0.98	6158056420
46	75	2.95	69	2.72	30.0	1.18	6158056460
55	83	3.27	81	3.19	33.0	1.30	6158056550
65	86	3.39	94	3.70	38.0	1.50	6158056650
19/16"	55	2.17	41	1.61	13.0	0.51	6158043180

EXTENDED 1" SQUARE DRIVE IMPACT SOCKETS

SIZE ON FLATS	L		Ø		DEPTH t		PART NO.
	mm	in.	mm	in.	mm	in.	
24	100	3.94	39	1.54	24.0	0.94	6158066240
30	100	3.94	51	2.01	30.0	1.18	6158066300
32	100	3.94	53	2.09	30.0	1.18	6158066320
33	100	3.94	54	2.13	30.0	1.18	6158066330
38	100	3.94	59	2.32	33.0	1.30	6158066380
41	100	3.94	63	2.48	35.0	1.38	6158066410
46	115	4.53	69	2.72	35.0	1.38	6158066460
50	125	4.92	75	2.95	38.0	1.50	6158066500
60	125	4.92	87	3.43	40.0	1.57	6158066600
2 3/4"	110	4.33	96	3.78	38.0	1.50	6158043400

Socket Retention



PIN AND O-RING RETENTION

HEX SIZE		L		Ø		PIN		D		Ø		O RING	
mm	in.	mm	in.	mm	in.	PART NO.		mm	in.	mm	in.	PART NO.	
6-12	3/8	16	0.64	3	0.12	6158043880		13	0.52	3.5	0.14	6158044020	
13-19	3/8	16	0.64	3	0.12	6158043880		16	0.64	3.5	0.14	6158044030	
10-14	1/2	20	0.78	3	0.12	6158043900		19	0.76	4.0	0.16	6158044040	
15-30	1/2	25	0.98	3	0.12	6158043910		24	0.96	4.0	0.16	6158044050	
18-41	3/4	35	1.37	4	0.16	6158043920		36	1.44	5.0	0.19	6158044060	
24-65	1	45	1.77	5	0.19	6158043930		45	1.77	7.0	0.28	6158044070	
50-90	1-1/2							75	2.95	10.0	0.39	6158044080	

SOCKET RETAINERS FOR IMPACT WRENCHES

RET. RING PART NO.	INSIDE Ø OF RET. RING	FOR USE ON SQUARE DRIVE
C-155467	1 1/4"	3/4"
C-155468	1 7/16"	3/4"
C-134690	1 5/8"	3/4"
C-134691	1 3/4"	3/4"
C-155585	2"	3/4"
C-155470	1 3/4"	1"
C-155471	2"	1"
C-155472	2 1/8"	1"
C-134692	2 1/4"	1"
C-155473	2 1/2"	1"
C-134693	2 7/8"	1 1/2"
C-134694	3 3/8"	1 1/2"
C-134695	3 7/8"	1 1/2"
C-134696	4 3/8"	1 1/2"



Chisels



For RA1, RA1BL, RA2C, RA2H, GV5 & CP-0456

SHANK	CHISEL TYPE	MODEL	WIDTH		LENGHT		TOOL	PART NO.
			mm	in.	mm	in.		
Shank ø 9.5 x 9mm (3/8" x 23/64")								
	1	Chisel	9	23/64	150	9-27/32	RA1	615 040 115 0
	2	Chisel	9	23/64	150	9-27/32	RA1	615 040 437 0
	3	Chisel	9	23/64	150	9-27/32	RA1	615 040 438 0
Shank ø 9.5 x 9mm (3/8" x 23/64")								
	4	Chisel	9	23/64	150	9-27/32	RA1BL	615 041 114 0
	4	Chisel	9	23/64	150	9-27/32	RA1BL	615 041 120 0
Shank 126 - ø 15 x 55mm (19/32" x 2-11/64")								
	5	Chisel	16	5/8	185	7-9/32	RA2C	615 045 118 0
	5	Chisel	16	5/8	250	9-27/32	RA2C	615 804 088 0
	6	Pick		185		7-9/32	RA2C	615 045 218 0
Shank 122 - Hex 12.5 x 55mm (19/32" x 2-11/64")								
	7	Chisel	16	5/8	185	7-9/32	RA2H	615 046 118 0
	7	Chisel	16	5/8	250	9-27/32	RA2H	615 804 089 0
	7	Chisel	16	5/8	310	12-13/64	RA2H	615 804 431 0
	7	Chisel	16	5/8	500	19-11/16	RA2H	615 804 090 0
	8	Chisel	24	15/16	310	12-13/64	RA2H	615 804 440 0
	8	Chisel	50	1-31/32	250	9-27/32	RA2H	615 804 421 0*
	* Supplied with retainer spring 615 690 089 0 (former TR0289)							
	9	Blank tool			175	6-57/64	RA2H	615 046 017 0
	9	Blank tool			240	9-29/64	RA2H	615 046 024 0
	10	Pick			185	7-9/32	RA2C	615 046 218 0
	10	Pick			250	9-27/32	RA2C	615 804 092 0
	11	Blade cutter			200	7-7/8	RA2C	615 046 920 0
Hex. shank 19.2 x 50mm (13/4" x 1-31/32")								
	12	Chisel	19	3/4	300	11-15/16	GV5	615 804 095 0
	12	Chisel	19	3/4	500	19-11/16	GV5	615 804 096 0
	13	Pick			300	11-15/16	GV5	615 804 093 0
	13	Pick			500	19-11/16	GV5	615 804 094 0
	14	Scraper	60	2-23/64	250	9-27/32	GV5	615 804 097 0
Shank: Qtr. Oct WF 1/2"								
CP0456								
	15	Flat Chisel	15.9	5/8	191	7-1/2	CP-0456	P073225
	15	Flat Chisel	35	1-3/8	102	4	CP-0456	P072213
	15	Flat Chisel	35	1-3/8	229	9	CP-0456	P084175
	15	Flat Chisel	35	1-3/8	305	12	CP-0456	P084176
	15	Flat Chisel	35	1-3/8	457	18	CP-0456	P084177
	15	Flat Chisel	44	1-3/4	213	5-3/8	CP-0456	P070982
	•	Angle scaling	35	1-3/8	165	6-1/2	CP-0456	P084376
	16	Cape	6.4	1/4	191	7-1/2	CP-0456	P073224
	17	Diamond	6.4	1/4	191	7-1/2	CP-0456	P073223



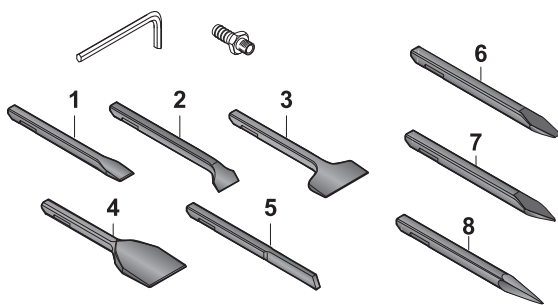
Chisels



For B15, B16, B18, B19, B21B/M, 19B1, P-0456-LASAN, LASAV

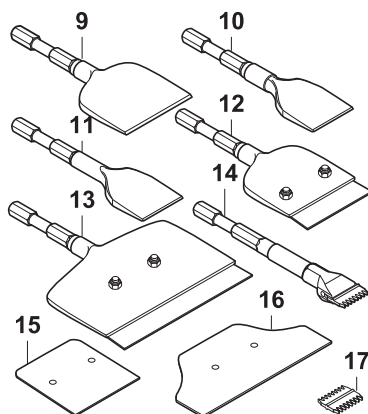
SHANK	CHISEL TYPE	MODEL	WIDTH		LENGHT		TOOL	PART NO.
			mm	in.	mm	in.		

ISO 1/2" Square Shank chisels



1	Chisel	19	3/4	180	7	B15B	615 804 443 0
2	Chisel	35	1-3/8	180	7	B15B	615 040 437 0
3	Chisel	60	3-23/64	180	7	B15B	615 804 445 0
4	Spark-resistant chisel	50	1-31/32			B15B	615 003 900 0
5	Chisel	6	1/4	180	7	B15B	615 804 062 0
6	Flat Chisel	15.9	5/8	191	7-1/2	B15B	P073225
6	Flat Chisel	35	1-3/8	102	4	B15B	P072213
6	Flat Chisel	35	1-3/8	229	9	B15B	P084175
6	Flat Chisel	35	1-3/8	305	12	B15B	P084176
6	Flat Chisel	35	1-3/8	457	18	B15B	P084177
6	Flat Chisel	44	1-3/8	213	5-3/8	B15B	P070982
7	Cape	6.4	1/4	191	7-1/2	B15B	P073224
8	Diamond	6.4	1/4	191	7-1/2	B15B	P073223

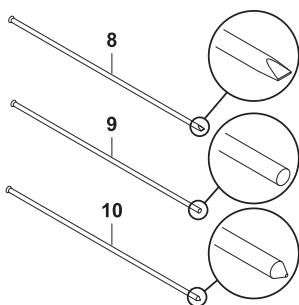
Hex. Shank 5/8" Chisels



9	Chisel	100	3-15/16	180	7	B19B1/B20	615 804 441 0
10	Chisel	50	1-31/32	180	7	B19B1/B20	615 804 442 0
11	Spark-resistant chisel	50	1-31/32			B19B1/B20	615 002 900 0
12	Scaling tool	100	3-15/16			B19B1/B20	615 002 901 0
13	Scaling tool	200	7-7/8			B19B1/B20	615 002 902 0
14	Comb-type chisel	38	1-1/2	180	7	B19B1/B20	615 002 903 0
15	Spare blade	100	3-15/16			B19B1/B20	615 250 527 0
16	Spare blade	200	7-7/8			B19B1/B20	615 250 528 0
17	Spare COMB	38	1-1/2			B19B1/B20	615 250 539 0

SHANK	MODEL	NEEDLE CAPACITY		LENGHT		TOOL	PART NO.
		mm	in.	mm	in.		

Needle sets



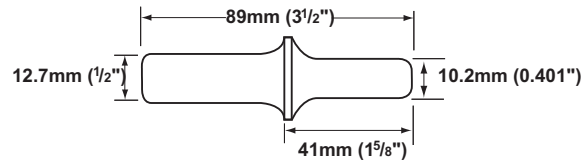
8	Chisel tip needle (Qty 100)	3	1/8	178	7	B..M	615 399 819 0
9	Flat tip needle (Qty 100)	2	5/64	178	7	B..M	615 399 816 0*
9	Flat tip needle (Qty 100)	3	1/8	178	7	B..M	615 399 817 0
9	Flat tip needle (Qty 100)	4	5/32	178	7	B..M	615 399 818 0*
10	Pointed tip needle	3	1/8	178	7	B..M	615 399 821 0
10	Pointed tip needle	4	5/32	178	7	B..M	615 399 821 0*
* Except for B18MAV							
	Steel needle (Qty 19)	3	1/8	178	7	P-0456-LASAN	P100146
	Steel needle (Qty 29)	2	5/64	178	7	P-0456-LASAN	NP123905
	Steel needle (Qty 53)	2	5/64	178	7	P-0456-LASAN	NP123906
	Steel needle (Qty 19)	2	5/64	178	7	P-0456-LASAN	P136403
	Steel needle (Qty 12)	3	1/8	178	7	P-0456-LASAN	NP123901
	Steel needle (Qty 23)	3	1/8	178	7	P-0456-LASAN	NP123902
	Steel needle (Qty 28)	3	1/8	178	7	P-0456-LASAN	NP123903
	Steel needle (Qty 28)	3	1/8	178	7	P-0456-LASAN	NP137638
	Stainless, needle (Qty 19)	3	1/8	178	7	P-0456-LASAN	P106454



Riveting Hammers



Rivet sets for CP4444, CP4450, CP4450-S, CP4447 & CP4475



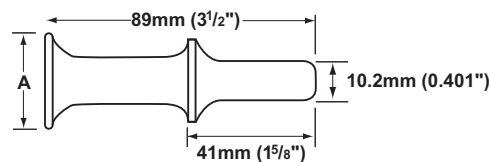
Type I Rivet Sets $\varnothing$ 10.2mm (0.401")

Rivet Head Cupping	TOOL	PART NO.				
		2.4mm (3/32")	3.2mm (1/8")	4.0mm (5/32")	4.8mm (3/16")	6.4mm (31/4")

ISO 1/2" Square Shank chisels

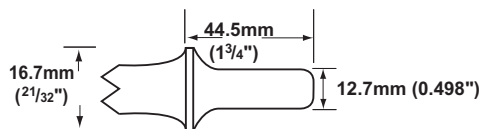
Round (AN-430)	CP4444/4450/4450-S	P089206	P089207	P089208	P089209	P089210*
Brazier (AN-455)	CP4444/4450/4450-S	P089211	P089212	P089213	P089214	P089215*
Universal (AN-470)	CP4444/4450/4450-S	P089221	P089222	P089223	P089224	P089225*
Soft Blank Set	CP4444/4450/4450-S	P071108				
Hardened Blank Set	CP4444/4450/4450-S	P080178				

* Must uses Light Wire Quick-change Retainer, A046095 with these sets



Type I Flush Rivet Sets $\varnothing$ 10.2mm (0.401")

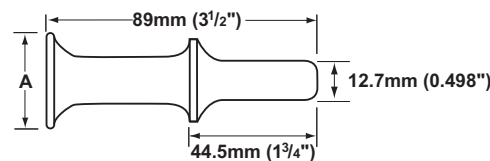
	TOOL	PART NO.	
		mm	in
	CP4444/4450/4450-S	25.4	1"
	CP4444/4450/4450-S	31.8	1-1/4"
	CP4444/4450/4450-S	38.1	1-1/2"
	CP4444/4450/4450-S	44.5	1-3/4"



Type D Rivet Sets $\varnothing$ 12.7mm (0.498")

Rivet Head Cupping	TOOL	PART NO.		
		4.8mm (3/16")	6.4mm (31/4")	8mm (5/16")
Round (AN-430)	CP4447/4475	P089240	P089241	P089242*
Brazier (AN-455)	CP4447/4475	P089244	P089245	
Modified Brazier (AN-456C)	CP4447/4475	P089248	P089244	P089245*
Universal (AN-470)	CP4447/4475	P089252	P089253	P089254*
Soft Blank Set	CP4447/4475	P070995		
Hardened Blank Set	CP4447/4475	P080198		

* Must uses Light Wire Quick-change Retainer, A046095

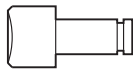


Type D Flush Rivet Sets $\varnothing$ 10.2mm (0.401")

TOOL	PART NO.		
	mm	in	
CP4447/4475	31.8	1-1/4"	A047091



Compression Tools - Riveting



Compression Rivet Sets

(Complete with retaining rings)

Minimum Order: 6 of any part number.

Note: The illustration above shows one rivet set. Two rivet sets are required to be used per tool. Part numbers are for one rivet set only.

Selecting rivet sets to fit ■ CP0214, CP0341 and CP0351 Riveters

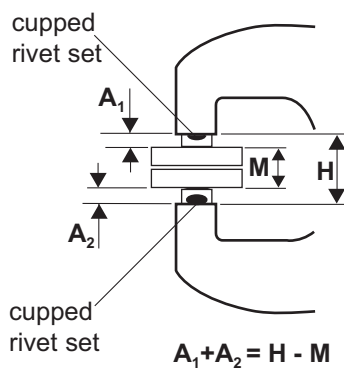
To develop maximum power, the riveter must drive (set) the rivet at the end of the riveter's stroke (with the exception of the CP0341 which develops max power throughout its full stroke).

For maximum power the combined length of the two rivet sets must be of the correct length.

Determine the correct lengths as follows:

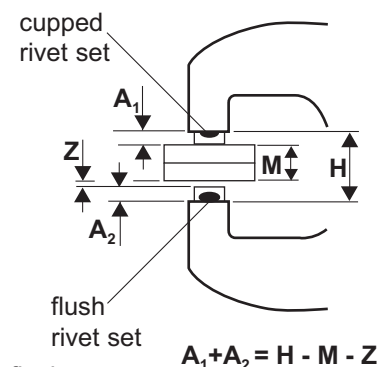
1) When two cupped rivet sets are used:

The length of the body dimensions of the rivet sets (A1, A2) should equal the closed height dimension of the yoke H minus the total thickness of material being riveted together.



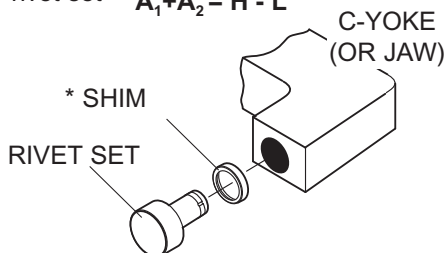
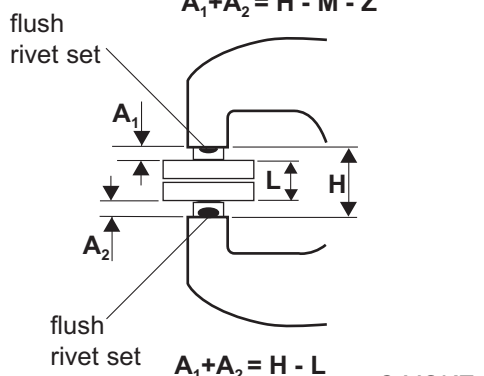
2) When one cupped set and one flush set are used:

The length of the body dimensions of the two rivet sets (A1, A2) should equal the closed height dimension of the yoke (H) minus the total thickness of the material being riveted (M) and the height of the finished rivet head (Z) compressed by the flush set (A).



3) When two flush sets are used:

The length of the body dimensions of the two rivet sets (A1, A2) should equal the closed height dimension of the yoke (H) minus the overall length of the rivet (L) after it is compressed.



If necessary, select rivet sets a little short and shim to the correct length using spacer shims.

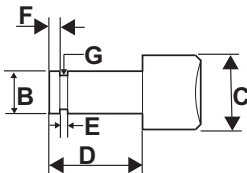
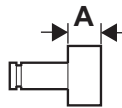
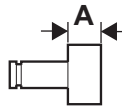
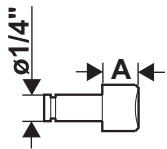
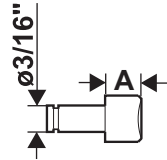
* Set Length Spacer Shims

TYPE RIVET SET SHANK	PART NUMBERS OF HARDENED SHIMS		
	0.4mm thick (1/64")	0.8mm thick (1/32")	1.6mm thick (1/16")
CR-1	P083254	P083255	P083256
CR-2		P083257	P083258



Compression Tools - Riveting

Rivet sets



RIVET DIAMETER		'A' BODY LENGTH		AN-435 BUTTON	AN-430 ROUND	AN-455 BRAZIER	AN-456 MODIFIED BRAZIER	AN-470 UNIVERSAL	AN-442 FLAT
mm	in.	mm	in.	part no.	part no.	part no.	part no.	part no.	part no.

CR-1 SHANK RIVET SETS FOR CP0214 and CP0351 – CUPPED SETS

(C-Yoke tools – CP0214 CELEL, FALEL, CUDEL, FUEDEL + all Alligator Yoke tools)

2.4	3/32"	6.4	1/4"	P091601	P089370	P089390	P089410	P089430	P091621
2.4	3/32"	9.5	3/8"	P091602	P089371	P089391	P089411	P089431	P091622
2.4	3/32"	12.7	1/2"	—	—	—	P089412	P089432	P091623
3.2	1/8"	6.4	1/4"	P091606	P089375	P089395	P053826	P089435	P091626
3.2	1/8"	9.5	3/8"	P091607	P089376	—	P053827	P089436	P091627
3.2	1/8"	12.7	1/2"	P091608	P089377	P089397	—	P089437	P091628
4.0	5/32"	6.4	1/4"	P091611	P089380	P089400	P053831	P089440	P091631
4.0	5/32"	9.5	3/8"	P091612	P089381	P089401	P053832	P089441	P091632
4.0	5/32"	12.7	1/2"	P091613	P089382	P089402	P053833	P089442	P091633
4.8	3/16"	6.4	1/4"	P091616	P089385	P089405	P053836	P089445	P091636
4.8	3/16"	9.5	3/8"	P091617	P089386	P089406	P053837	P089446	P091637
4.8	3/16"	12.7	1/2"	P091618	P089387	P089407	P053838	P089447	P091638

CR-2 SHANK RIVET SETS FOR CP0214 and CP0341 – CUPPED SETS

(C-Yoke tools – CP0214 SETEL, KETEL + CP0341 CUDEL)

3.2	1/8"	6.4	1/4"	—	—	—	—	P089510	P091661
3.2	1/8"	9.5	3/8"	P091642	—	—	—	P089511	—
3.2	1/8"	12.7	1/2"	—	—	—	—	P089512	P091663
4.0	5/32"	6.4	1/4"	—	P089455	—	—	P089515	—
4.0	5/32"	9.5	3/8"	—	—	—	—	P089516	P091667
4.0	5/32"	12.7	1/2"	P091648	—	—	—	P089517	P091668
4.8	3/16"	6.4	1/4"	—	P089460	P089480	—	P089520	P091671
4.8	3/16"	9.5	3/8"	—	P089461	P089481	—	P089521	P491672
4.8	3/16"	12.7	1/2"	P091653	—	P089482	—	P089522	P091673
6.4	1/4"	6.4	1/4"	—	P089465	P089485	—	P089525	P091676
6.4	1/4"	9.5	3/8"	—	P089466	P089486	—	P089526	—
6.4	1/4"	12.7	1/2"	—	P089467	—	—	P089527	P091678

SHANK SIZE	'A' BODY LENGTH					
	3.2mm (1/8")	6.4mm (1/4")	9.5mm (3/8")	12.7mm (1/2")	15.8mm (5/8")	19mm (3/4")

FLUSH SETS for any rivet size

CR-1 (ø 4.8mm 3/16")	P089495	P089496	P089497	P089498	P089499	P089500
CR-2 (ø 6.4mm 1/4")	—	P089501	P089502	P089503	P089504	P089505

TYPE OF RIVET SET SHANK	'A' LENGTH		BODY DIAMETER		PART NUMBER
	mm	in.	mm	in.	

SOFT SET BLANKS

CR-1 (ø 4.8mm 3/16")	19.1	3/4"	15.9	5/8"	P093672
CR-2 (ø 6.4mm 1/4")	19.1	3/4"	19.1	3/4"	P093673

SET LENGTH SPACER SHIMS

TYPE RIVET SET SHANK	PART NUMBERS OF HARDENED SHIMS		
	0.4mm (1/64")	0.8mm (1/32")	1.6mm (1/16")
CR-1	P083254	P083255	P083256
CR-2	—	P083257	P083258

RIVET SET RETAINER RING

TYPE RIVET SET SHANK	PART NUMBER
CR-1	P071916
CR-2	P071917

* 'C' dimension is for flush set only. 'C' varies on cupped sets according to rivet size and type of head.

TYPE OF RIVET SET SHANK	B		C*		D		E		F		G	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.

SHANK DIMENSIONS FOR RIVET SETS

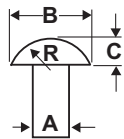
For CP0214, CP0351 and CP0341 Compression Riveters

CR-1 (ø 4.8mm 3/16")	4.75-4.72	0.187-0.186	12.7	1/2	12.7	1/2	3.45-3.38	0.136-0.133	1.6	1/16	3.23-3.12	0.127-0.123
CR-2 (ø 6.4mm 1/4")	6.42-6.40	0.249-0.248	15.9	5/8	15.9	5/8	3.45-3.38	0.136-0.133	2.4	3/32	4.80-4.70	0.189-0.185

Compression Tools - Riveting



Rivet sets ■

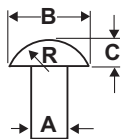


**AN-435
Button**

A		B		C		R	
mm	in.	mm	in.	mm	in.	mm	in.

AN-435 A.S.A. BUTTON

2.4	$\frac{3}{32}$ "	4.22	0.166	1.78	0.070	2.13	0.084
3.2	$\frac{1}{8}$ "	5.56	0.219	2.39	0.094	2.82	0.111
4.0	$\frac{5}{32}$ "	6.93	0.273	4.32	0.117	3.51	0.138
4.8	$\frac{3}{16}$ "	8.33	0.328	3.58	0.141	4.22	0.166
6.4	$\frac{1}{4}$ "	11.10	0.437	4.78	0.188	5.61	0.221
7.9	$\frac{5}{16}$ "	13.87	0.546	5.94	0.234	7.01	0.276

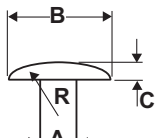


**AN-430
Round**

A		B		C		R	
mm	in.	mm	in.	mm	in.	mm	in.

AN-430 ROUND

2.4	$\frac{3}{32}$ "	4.75	0.187	1.78	0.070	2.49	0.098
3.2	$\frac{1}{8}$ "	6.45	0.250	2.39	0.094	3.30	0.130
4.0	$\frac{5}{32}$ "	7.92	0.312	2.97	0.117	4.11	0.162
4.8	$\frac{3}{16}$ "	9.53	0.375	3.58	0.141	4.95	0.195
6.4	$\frac{1}{4}$ "	12.70	0.500	4.78	0.188	6.60	0.260
7.9	$\frac{5}{16}$ "	16.46	0.648	5.94	0.234	8.26	0.325

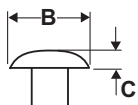


**AN-455
Brazier**

A		B		C		R	
mm	in.	mm	in.	mm	in.	mm	in.

AN-455 BRAZIER

2.4	$\frac{3}{32}$ "	5.94	0.234	1.19	0.047	4.32	0.170
3.2	$\frac{1}{8}$ "	7.92	0.312	1.60	0.063	5.74	0.226
4.0	$\frac{5}{32}$ "	9.90	0.390	1.98	0.078	7.19	0.283
4.8	$\frac{3}{16}$ "	11.89	0.468	2.39	0.094	8.64	0.340
6.4	$\frac{1}{4}$ "	15.83	0.625	3.18	0.125	11.51	0.453
7.9	$\frac{5}{16}$ "	19.84	0.781	3.96	0.156	14.35	0.565

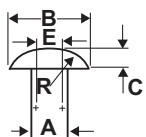


**AN-456
Modified
Brazier**

A		B		C	
mm	in.	mm	in.	mm	in.

AN-456 MODIFIED BRAZIER

2.4	$\frac{3}{32}$ "	3.96	0.156	0.79	0.031
3.2	$\frac{1}{8}$ "	5.97	0.235	1.19	0.047
4.0	$\frac{5}{32}$ "	7.92	0.312	1.60	0.063
4.8	$\frac{3}{16}$ "	9.91	0.390	1.98	0.078
6.4	$\frac{1}{4}$ "	11.89	0.468	2.39	0.094
7.9	$\frac{5}{16}$ "	15.88	0.625	3.18	0.125

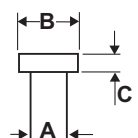


**AN-470
Universal**

A		B		C		R		E	
mm	in.	mm	in.	mm	in.	mm	in.	mm	in.

AN-470 UNIVERSAL

2.4	$\frac{3}{32}$ "	4.75	0.187	1.04	0.041	2.08	0.082	1.19	0.047
3.2	$\frac{1}{8}$ "	6.45	0.250	1.37	0.054	2.74	0.108	1.60	0.063
4.0	$\frac{5}{32}$ "	7.92	0.312	1.70	0.067	3.43	0.135	1.98	0.078
4.8	$\frac{3}{16}$ "	9.53	0.375	2.08	0.082	4.17	0.164	2.39	0.094
6.4	$\frac{1}{4}$ "	12.70	0.500	2.72	0.107	5.51	0.217	3.18	0.125
7.9	$\frac{5}{16}$ "	16.46	0.648	3.45	0.136	6.91	0.272	3.96	0.156



**AN-442
Flat**

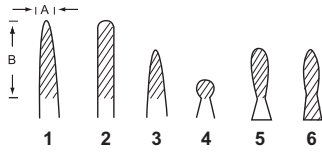
A		B		C	
mm	in.	mm	in.	mm	in.

AN-442 FLAT

2.4	$\frac{3}{32}$ "	4.75	0.187	0.94	0.037
3.2	$\frac{1}{8}$ "	6.45	0.250	1.27	0.050
4.0	$\frac{5}{32}$ "	7.92	0.312	1.57	0.062
4.8	$\frac{3}{16}$ "	9.53	0.375	1.91	0.075
6.4	$\frac{1}{4}$ "	12.70	0.500	2.54	0.100
7.9	$\frac{5}{16}$ "	16.46	0.648	3.18	0.125



Collet Grinder & Belt Sander Accessories



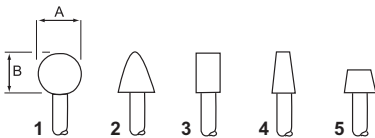
TUNGSTEN CARBIDE BURRS 3mm Ø SHANK

Can also be used with collet type CNOMO or 200 & 300 Series (1/8")

PIC REF	A		B		PART NO.
	mm	in.	mm	in.	
1	3	1/8	13	1/2	38122
2	3	1/8	13	1/2	38132
3	3	1/8	8	5/16	38142
4	3	1/8	3	1/8	38152
5	3	1/8	8	5/16	38162
6	3	1/8	8	5/16	38172



Aluminium Oxide Mounted Points are available in red grades. Red grades are suitable for grinding high tensile materials such as ordinary and alloy steels, high speed steel and annealed malleable iron.



MOUNTED POINTS 3mm Ø SHANK - RED

Can also be used with collet type CNOMO or 200 & 300 Series (1/8")

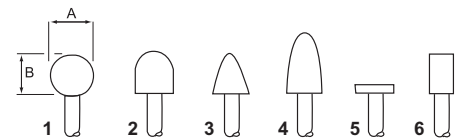
PIC REF	MAX SPEED	A		B		PART NO.
		mm	in.	mm	in.	
1	104000	5	0.19	5	0.19	38582
2	104000	5	0.19	8	0.31	38522
3	81000	6	0.25	6	0.25	38632
4	105000	4	0.16	4	0.16	38562
5	81000	6	0.25	6	0.25	38542



TUNGSTEN CARBIDE BURRS 6mm Ø SHANK

Can also be used with collet type CNOMO or 200 & 300 Series (1/4")

PIC REF	A		B		PART NO.
	mm	in.	mm	in.	
1	6	1/4	13	1/2	38182
2	6	1/4	16	5/8	38192
3	6	1/4	19	3/4	38202
4	6	1/4	6	1/4	38222
5	10	3/8	19	3/4	36122
6	10	3/8	19	3/4	36132
7	10	3/8	19	3/4	36142
8	10	3/8	10	3/8	38232



MOUNTED POINTS 6mm Ø SHANK - RED

Can also be used with collet type CNOMO or 200 & 300 Series (1/4")

PIC REF	MAX SPEED	A		B		PART NO.
		mm	in.	mm	in.	
1	59000	16	0.62	16	0.62	435983
2	50000	20	0.79	16	0.62	435993
3	45000	20	0.79	28	1.10	436003
4	48000	20	0.79	32	1.26	436013
5	53000	20	0.79	22	0.87	436023
6	40000	13	0.51	25	1.00	436033
6	38000	25	1.00	3	0.11	436043

RECOMMENDED SPEEDS FOR TUNGSTEN CARBIDE BURRS - rpm x 1000

MATERIAL	HEAD DIAMETER				
	3mm (1/8")	6mm (1/4")	10mm (3/8")	13mm (1/2")	16mm (5/8")
Alum, Zinc Base, Plastics	30-90	15-70	10-50	17-38	6-30
Cast Iron, Brass, Copper, Bronze	45-90	23-60	15-40	11-30	9-24
Mild Steel	60-90	45-60	30-40	22-30	18-24
Titanium, Stainless, Hardened Steels, Ceramics	60-90	30-45	19-30	15-22	12-18



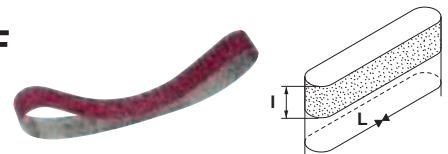
BACKING PAD WITH 6mm Ø SHANK

SPEED	Ø		PART NO.
rpm	mm	in.	
25000	50	1.97	615 804 098 0

ABRASIVE DISCS

SPEED	GRIT	PART NO.
rpm		
25000	P40	615 804 099 0
25000	P60	615 804 100 0
25000	P80	615 804 101 0
25000	P120	615 804 102 0

For PL05-10D, 10E, 10F



COATED ABRASIVES BELTS

L x I		GRIT NUMBER				
		P40	P50	P60	P90	P100
480 x 16	18 7/8 x 5/8	615 848 313 0	615 848 314 0	615 848 315 0	615 848 316 0	615 848 317 0
480 x 20	18 7/8 x 25/32	615 848 323 0	615 848 324 0	615 848 325 0	615 848 326 0	615 848 327 0
480 x 25	18 7/8 x 63/64	615 848 333 0	615 848 334 0	615 848 335 0	615 848 336 0	615 848 337 0

L x I		GRIT NUMBER			
		P120	P150	P190	P240
480 x 16	18 7/8 x 5/8	615 848 318 0	615 848 319 0		
480 x 20	18 7/8 x 25/32	615 848 328 0	615 848 329 0	615 848 320 0	
480 x 25	18 7/8 x 63/64	615 848 338 0	615 848 339 0	615 848 330 0	615 848 331 0

Technical Data/Air Tool Oil



SELECTING AIR SERVICE EQUIPMENT

The main criteria when selecting Desoutter Air Service equipment is the air consumption of the product to be coupled to it. The table below provides a guide to the maximum number of pneumatic tools of a certain air consumption that can be supplied via the 4 sizes of Air Service Equipment.

	PORT SIZE OF AIR SERVICE EQUIPMENT			
	G 1/4"	G 3/8"	G 1/2"	G 1"
Maximum Air Flow at 6 bar – l/s – (cfm)	9 (19.1)	14 (6.6)	31 (14.6)	83 (39.2)
Air Consumption of Tools at 6 bar				
0-4 l/s (0-8 cfm)	2	3	6#	20#
5-8 l/s (10.6-16.9 cfm)	1	1	3	9#
9-12 l/s (19-25.4 cfm)	–	1	2	5#
13-15 l/s (27.5-31.8 cfm)	–	–	2	4#
16-30 l/s (33.9-63.6 cfm)	–	–	1	2
31-80 l/s (65.7-169.5 cfm)	–	–	–	1

For a lubricated system it is preferable to use 2 or more smaller size Air Service Units to ensure the correct amount of lubrication reaches all the tools or parts of the circuit.

Note: G size ports are compatible with BSP threaded fittings only

RECOMMENDED LUBRICATING OILS – GENERAL PNEUMATIC EQUIPMENT

Satisfactory operation of Desoutter Air Line Lubricators and effective lubrication depends upon the proper selection of lubricating oils. Most lubricating oils, preferably having good corrosion and oxidation resistant properties which conform with the following classifications, are suitable.

PNEUMATIC TOOLS

For the lubrication of high speed pneumatic tools, high speed spindles and other light duty requirements, it is recommended that lubricating oils be used which have a kinematic viscosity below 50 cSt at 20°C. See table below.

OIL	GRADE OF OIL	VISCOSITY		
		IP71 AT 40°C	CST AT 20°C	SEAL COMPATIBILITY INDEX BS4832
Castrol	Hyspin AWS10	10	18.5	25
B.P.	HLP40	10	18.9	16
Shell	Tellus 15	10	19.5	15
Fina	Cirkan 15	10	21.0	17
Texaco	Spintex 60	10	22.8	34
Total	Azolla 10	–	23	16
Century	P198	15	28	26
Rocol	MO-4	15	29	20
Mobil	Gargoyle Artic Oil Light	15	31.5	17
Esso	Nuto H36	15	33	12.8
Valvoline	R125	22	46	7
Chevron	Spindle Oil 22	22	47.5	21
Gulf	Harmony 41	22	48.1	9
Fuchs	Silkair VG22	22	48	–

LUBRICATION OF PNEUMATIC TOOLS – OIL TYPES AVAILABLE

Although many Desoutter Power Tools have Dryline™ motors and are therefore able to be run without lubrication, service intervals may be extended by lubrication. Tools which do not have Dryline motors require lubrication. We recommend the use of Desoutter air line lubricators, which should be adjusted to give 5 drops/minute with the tool running at free running speed. See table below for available oil/quantities.

DESCRIPTION	USE WITH	PART NUMBER
Lubricating Oil 0.250 ltr – ISO VG15	All power tools (except grinders & impact)	27652
Lubricating Oil 1 ltr – ISO VG15		98532
Airoilene™ Oil 5 ltr – ISO VG22	For grinders and impact wrenches	P089507

SPECIAL AIR TOOL TUNE-UP OIL: PROTECTO-LUBE

Air tools that are used infrequently or in hot/humid conditions can become low on power or may not start. This is due to old oil deposits/contaminants sticking inside the motor. To restore peak performance, we recommend use of Protecto-Lube tune-up oil from time to time.

DESCRIPTION	USE WITH	PART NUMBER
Protecto-Lube oil 0.5 ltr (1pt)	All air tools	CA000046



Notes

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More Than Productivity



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