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# SECTION 4 Contents



## WORKSHOP EQUIPMENT

### Section 4 Product Groups 404 - 495

#### Product Grading



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Professional



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Workshop



Maintenance



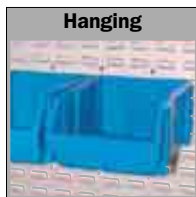
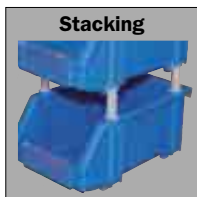
Home Improver

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**GROUP 404 BIN STORAGE SYSTEMS**

**MATLOCK Plastic Storage Bins**

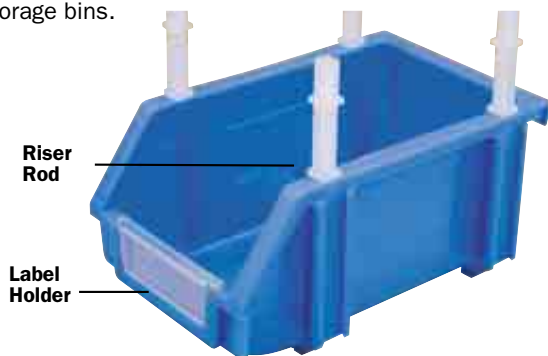
Manufactured from high strength polypropylene. Fit on standard louvre panel, interlocking design. Supplied with risers and label holders.



Size	Dimensions L x W x H (mm)	Order Code <b>MTL-404</b> Colours				Box Qty
		Blue	Green	Red	Yellow	
No.0	130 x 85 x 53	-1000B	-1000G	-1000R	-1000Y	300
No.1	163 x 104 x 80	-1010B	-1010G	-1010R	-1010Y	100
No.2	237 x 157 x 132	-1020B	-1020G	-1020R	-1020Y	64
No.3	278 x 222 x 165	-1030B	-1030G	-1030R	-1030Y	24
No.3A	350 x 280 x 184	-1035B	-1035G	-1035R	-1035Y	8
No.4	425 x 280 x 184	-1040B	-1040G	-1040R	-1040Y	12
No.5	425 x 280 x 260	-1050B	-1050G	-1050R	-1050Y	8

**Storage Bin Accessories**

For Matlock storage bins.



Description	Order Code
Set of 4 Riser Rods	<b>-9010K</b>
Single Riser rod for No.3A, 4 & 5 Bins	<b>-9020K</b>
Label Holder For No.0 Bins	<b>-3500K</b>
Label Holder For No.1 Bins	<b>-3510K</b>
Label Holder For No.2 Bins	<b>-3520K</b>
Label Holder For No.3 & 4 Bins	<b>-3530K</b>
Label Holder For No.3A & 5 Bins	<b>-3540K</b>

**Parts, Component & Tool Storage Bins**



High strength polypropylene Euro boxes with reinforced corners and rims and integral interlocking hinged lids. Smooth flat base allows silent movement on conveyors making them suitable for use in distribution centres or warehouse storage. All containers feature ergonomic hand and can be sealed using security tags.

Available in 20, 40 or 54ltr capacities.



Capacity	Size (L x W x H) (mm)	Colour	Order Code <b>MTL-404</b>
20ltr	400 x 300 x 260	Blue	<b>-2500K</b>
40ltr	600 x 400 x 250		<b>-2520K</b>
54ltr	600 x 400 x 335		<b>-2530K</b>
20ltr	400 x 300 x 260	Grey	<b>-2600K</b>
40ltr	600 x 400 x 250		<b>-2620K</b>
54ltr	600 x 400 x 335		<b>-2630K</b>

**SENATOR Plastic Storage Bins**

High strength polypropylene storage bins with label holders, designed for component or part storage. Bins can stand alone, be nested on top of each other or hung on louvred panels, allowing you to create the storage system to satisfy your specific requirements. Available in two sizes and two different colours blue and red.



Product Number	Dimensions	Colour	Order Code <b>SEN-404</b>
Sen1	165 x 110 x 75mm	Blue	<b>-1010B</b>
		Red	<b>-1010R</b>
Sen2	240 x 155 x 125mm	Blue	<b>-1020B</b>
		Red	<b>-1020R</b>

**AVON Cardboard Storage Bins**

For easy identification and storage of parts and other components on shelves. Manufactured from corrugated card with writable panels. Supplied flat in packs of 50.



**PACK OF 50**

**NEW**

Size L x W x H (mm)	Pack Qty	Order Code <b>AVN-404</b>
152 x 76 x 115 ( 6" x 3" x 4.5")	50	<b>-2010A</b>
228 x 100 x 115 ( 9" x 4" x 4.5")	50	<b>-2011B</b>
228 x 152 x 115 ( 9" x 6" x 4.5")	50	<b>-2012C</b>
228 x 204 x 115 ( 9" x 8" x 4.5")	50	<b>-2013D</b>
304 x 100 x 115 (12" x 4" x 4.5")	50	<b>-2014E</b>

**MATLOCK Mobile Trolleys/Racks**

Similar to a free standing rack by mobile. Fitted with four 5" castors to the base which supports double sided louvre panels. Available in one height and two widths.

**Colour:** dark grey/light grey.

**NEW**



**Storage Bins Not Included**

Description	Size (H x W)	Order Code
Mobile Louvre Rack	1080 x 457 1080 x 877	<b>-7410K</b> <b>-7420K</b>

**Steel Louvred Panels**

Pressed steel panels with high frequency louvres that will accept most makes of plastic storage bin. High frequency louvres allow bins to be hung in a high-density configuration in any mix of sizes/colours. The lip on the rear of the plastic storage bin sits securely over the louvre of the panel. The modular design allows storage bins to be easily removed and replaced when required.



Type	Width x Height (mm)	Order Code
LP450	450 x 450	<b>-2004P</b>
LP900	450 x 900	<b>-2009P</b>
LP1600	450 x 1600	<b>-2016P</b>
LP1800	450 x 1800	<b>-2018P</b>

**Free Standing Racks**

Available in two heights and two widths. Made from 16swg channel section which supports louvre panels either single or double sided.

**Colour:** dark grey/light grey.



**NEW**

**Storage Bins Not Included**



S/S = Single Sided. D/S = Double Sided

Description	Size (H x W)	Order Code
D/S Free Standing Louvre Rack	924 x 457 924 x 871 1838 x 457 1838 x 871	<b>MTL-405</b> <b>-7610K</b> <b>-7615K</b> <b>-7620K</b> <b>-7625K</b>
S/S Free Standing Louvre Rack	924 x 457 924 x 871 1838 x 457 1838 x 871	<b>-7650K</b> <b>-7655K</b> <b>-7660K</b> <b>-7665K</b>

**Bench Assembly Units**

A free standing unit supporting a louvre Panel for use on benches or tables. Available in one height and two widths. Kit comprises: louvre panel, support rods and fixings.

**Colour:** light grey.



Description	Size (H x W)	Order Code
Bench Louvre Rack	457 x 436 457 x 852	<b>MTL-405</b> <b>-7250K</b> <b>-7260K</b>

**WORKSHOP EQUIPMENT**

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 405 WORKBENCHES**

**KENNEDY** *Portable Bench & Vice*  
QUALITY INDUSTRIAL TOOLING

Rapid clamping. Full graduated working surface with channelled chuck block guides. Includes four adjustable chuck blocks and four profile blocks. Aluminium mitre guides and lower support arm to assist power tool use. Rapid fold/unfold with quick lock and release action, compact and easy to store.



**Rapid clamping**



**Rapid fold/unfold with auto lock**



**Lower support arm**



**Aluminium mitre guide**



**Mitre clamping**

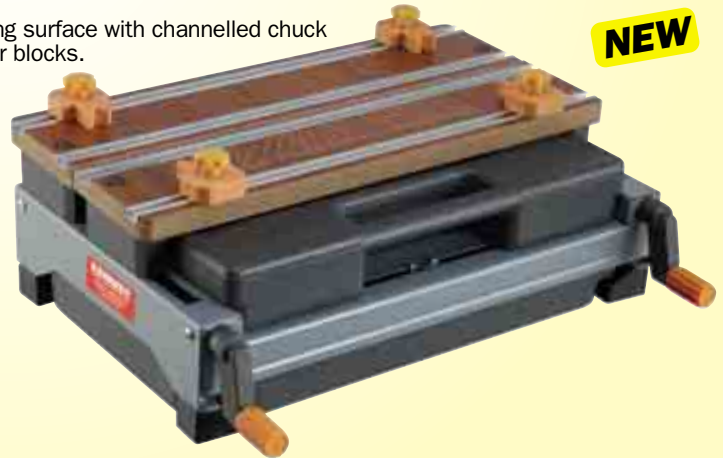
**Spare Parts**

Description	Order Code
Spare clamping block	<b>-4610K</b>
Replacement Rubber Feet (Pk 4)	<b>-4620K</b>

Description	Order Code
4 in 1 portable workbench	<b>-4600K</b>

**Portable Bench Top Workstation**

Includes two trays to store tools and small parts. Full graduated working surface with channelled chuck block guides. Includes four adjustable chuck blocks and profile adaptor blocks. Mounting holes in the feet of the workstation allow it to be fitted to a workbench if required. Compact, portable with carry handle and easy to store.



**Storage trays**



**Mitre clamping**



**Compact, portable and easy to store**



**Fully graduated working surface**

Description	Order Code
4 in 1 portable workbench	<b>-4700K</b>
<b>Spare Parts</b>	
Spare clamping block	<b>-4610K</b>
Spare clamping handle c/w sleeve	<b>-4720K</b>

**WORKSHOP EQUIPMENT**

**SENATOR** *Home Improver Workbench & Vice*  
QUALITY TOOLING

Medium duty for hobby and DIY use. All steel body. Solid beech worktop with metric/inch gauging scale and protractor markings. Easy to assemble. Sturdy splay legs with non-slip rubber feet. Four quick-change worktop functions. Supplied with four chuck blocks, assembly spanners and instructions.

- Worktop width:** 600mm.
- Worktop depth (individual):** 115mm.
- Worktop depth (combined):** 230mm.
- Overall height:** 800mm.
- Width (when collapsed for storage):** 280mm.
- Maximum opening capacity:** 140mm.
- Maximum clamping capacity (with blocks):** 285mm.
- Weight capacity:** 200kg/440lbs.



**Transforms to an upright vice with jaws set at 90°**



**Transforms to a versatile saw-horse with jaws set at 45°**



**Transforms to a T-vice**



**Ideal for clamping pipe and other convex workpieces**



**Solid hardwood worktop with protractor and rule markings.**

Height (mm)	Width (mm)	Order Code
800	600	<b>-9650K</b>

**SENATOR**  
QUALITY TOOLING

**Cabinet with Shelf & Workbench**

Manufactured from cold rolled steel plate with a hard wearing corrosion resistant powder coated finish. Hard wearing solid wooden work surface. Two shelves. Adjustable feet. Supplied with assembly instructions.

**Dimensions (W x D x H):**  
838 x 508 x 852mm.  
**Maximum shelf capacity:**  
20kg.  
**Maximum cabinet capacity:**  
150kg.

**SELF ASSEMBLY**  
Tools Required



Weight	Order Code
25.5kg	<b>SEN-405</b>
	<b>-5030K</b>

**Locking Cabinet & Workbench**

Lockable storage cabinet with two shelves.

**Overall dimensions (W x D x H):**  
838 x 508 x 852mm.  
**Max shelf capacity:**  
20kg.  
**Max cabinet capacity:**  
150kg.

**SELF ASSEMBLY**  
Tools Required



Weight	Order Code
27.0kg	<b>SEN-405</b>
	<b>-5020K</b>

**5 Drawer Cabinet & Workbench**

The five drawers have a smooth action sliding mechanism.

**Dimensions (W x D x H):**  
838 x 508 x 852mm.

**SELF ASSEMBLY**  
Tools Required



Weight	Order Code
43.0kg	<b>SEN-405</b>
	<b>-5010K</b>

**Locking Cabinet with Shelf & Workbench**

Lockable storage cabinet with two shelves and two open shelves for additional storage.

**Overall dimensions (W x D x H):**  
1372 x 508 x 865mm.  
**Max shelf/drawer capacity:** 25kg.  
**Max cabinet capacity:** 180kg.

**Shelf Capacity**  
**25kg**  
Uniformly Distributed Load

**SELF ASSEMBLY**  
Tools Required



Dimensions W x D x H (mm)	Weight	Order Code
1372 x 508 x 865	48.5kg	<b>SEN-405</b>
		<b>-5040K</b>

**5 Drawer Cabinet & Shelved Workbench**

The five drawers have a smooth action sliding mechanism. Two open shelves for additional storage.

**Overall dimensions (W x D x H):**  
1372 x 508 x 865mm.  
**Max shelf drawer capacity:** 25kg.  
**Max cabinet capacity:** 180kg.

**Shelf Capacity**  
**25kg**  
Uniformly Distributed Load

**SELF ASSEMBLY**  
Tools Required



Dimensions W x D x H (mm)	Weight	Order Code
1372 x 508 x 865	61.0kg	<b>SEN-405</b>
		<b>-5050K</b>

**KENNEDY** QUALITY INDUSTRIAL TOOLING **2 Drawer Workbench**

Professional quality two drawer workbench constructed from heavy gauge steel for sturdy long-term use. Ideal for a range of workshop and industrial applications. Drawers are lockable and fitted with smooth glide drawer runners. Full length storage shelf. Quick and easy assembly. Powder coated finish.

**Dimensions (W x D x H):** 1500 x 640 x 865mm.



**Shelf Capacity**  
**40kg**  
Uniformly Distributed Load

**SELF ASSEMBLY**  
Tools Required



Dimensions (W x D x H)	Weight	Order Code
1500 x 640 x 865	77.4kg	<b>KEN-405</b>
		<b>-2320K</b>

**GROUP 405 WORKBENCHES**

**MATLOCK Standard Duty Racking**

**5 Shelves**

This racking system has uprights and beams made of medium gauge steel with a corrosion resistant powder coating and rubber feet to protect the floor. It is easy to assemble, interlocking with no nuts and bolts to worry about. The shelves are easily adjustable and can take up to 150kg UDL (uniformly distributed load) with the rack being fixed to a wall.

**NEW**



**SELF ASSEMBLY Tools Required**

Dimensions (W x D x H) mm	Max. Shelf Capacity	Number of Shelves	Order Code
1230 x 460 x 1830	150kg	5	<b>-1760K</b>

**Heavy Duty Racking**

**5 Shelves**

This racking system has two ways of assembly with uprights and beams made of heavy gauge steel with a corrosion resistant powder coating and rubber feet to protect the floor.

It is easy to assemble, interlocking 'keyhole' slots, no nuts and bolts. The shelves are easily adjustable and can take up to 318kg UDL (uniformly distributed load) with the rack being fixed to a wall.



**FAST RACK**

**NEW**



**Assembly options**



**SELF ASSEMBLY Tools Required**

Dimensions (W x D x H) mm	Max. Shelf Capacity	Number of Shelves	Order Code
1230 x 460 x 1830	318kg	5	<b>-1740K</b>
1230 x 610 x 1830	318kg	5	<b>-1780K</b>

**WORKSHOP EQUIPMENT**

**Heavy Duty Racking**

**4 Shelves**

This racking system can be assembled in five ways and has uprights and beams made of heavy gauge steel with a corrosion resistant powder coating and rubber feet to protect the floor. It is easy to assemble, interlocking with just two nuts and bolts joining one upright frame to the next. The 430mm deep shelves are easily adjustable and can take up to 455kg UDL (uniformly distributed load) with the rack being fixed to a wall.

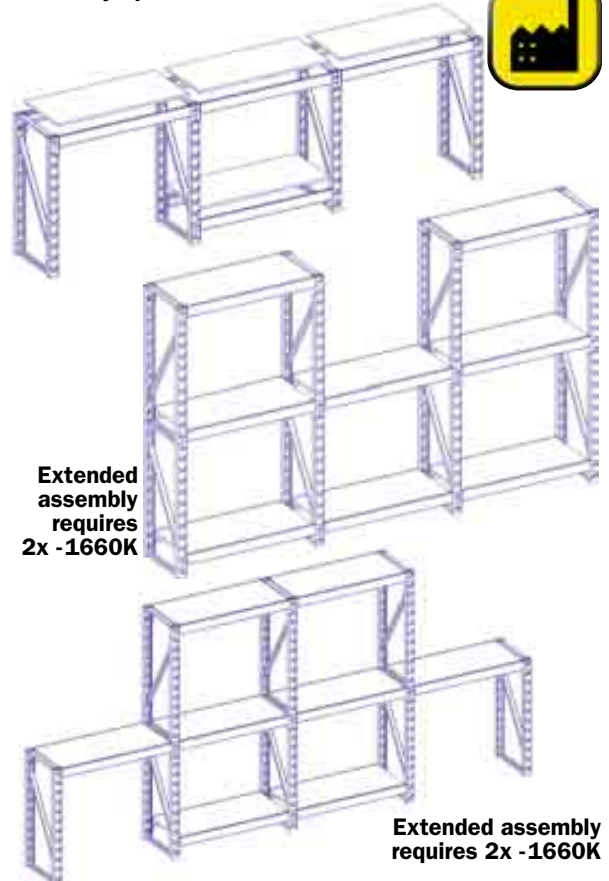
**NEW**



**SELF ASSEMBLY Tools Required**

Dimensions (W x D x H) mm	Max. Shelf Capacity	Number of Shelves	Order Code
1040 x 430 x 1830	455kg	4	<b>-1660K</b>

**Assembly options**

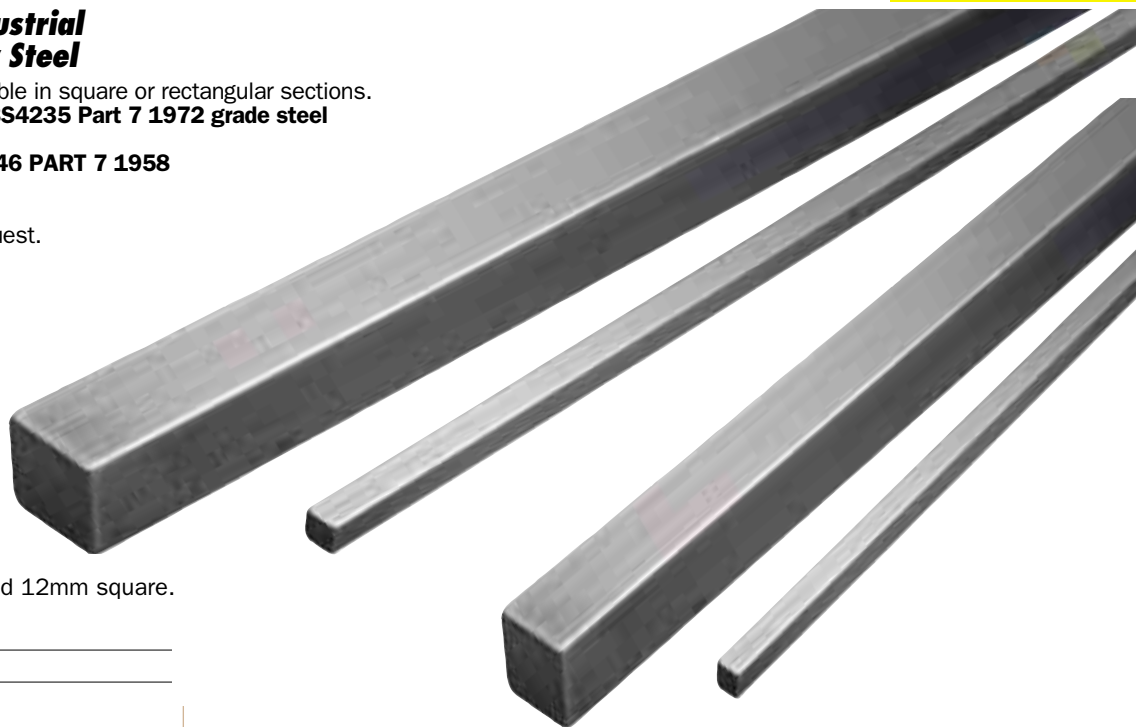


**Extended assembly requires 2x -1660K**

**Extended assembly requires 2x -1660K**

**KENNEDY Industrial**  
QUALITY INDUSTRIAL TOOLING **Key Steel**

High grade mild steel. Available in square or rectangular sections.  
Metric manufactured from: **BS4235 Part 7 1972 grade steel** equivalent to **DIN 6885**.  
Inch manufactured from: **BS46 PART 7 1958 grade steel**.  
**Length:** 300mm and 12".  
Other sizes available on request.



**Set Metric Square**

**Contents:** 4, 5, 6, 8, 10 and 12mm square.

No. of Pieces	Weight each	Order Code
6	850g	<b>-0500K</b>

**Square — Metric**

Type	Size	Weight each	Order Code
	2mm		<b>-0020K</b>
	3mm		<b>-0030K</b>
	4mm	40g	<b>-0040K</b>
	5mm	60g	<b>-0050K</b>
	6mm	90g	<b>-0060K</b>
	7mm	135g	<b>-0070K</b>
<b>mm</b>	8mm	160g	<b>-0080K</b>
	10mm	250g	<b>-0100K</b>
	12mm	350g	<b>-0120K</b>
	14mm	490g	<b>-0140K</b>
	16mm		<b>-0160K</b>
	18mm		<b>-0180K</b>
	20mm		<b>-0200K</b>
	22mm		<b>-0220K</b>
	25mm		<b>-0250K</b>

**Square — Inch**

Type	Size	Weight each	Order Code
	3/32"		<b>-3060K</b>
	1/8"	20g	<b>-3080K</b>
	5/32"		<b>-3100K</b>
<b>inch</b>	3/16"	60g	<b>-3120K</b>
	1/4"	100g	<b>-3160K</b>
	5/16"	160g	<b>-3200K</b>
	3/8"	220g	<b>-3240K</b>
	7/16"		<b>-3280K</b>
	1/2"	400g	<b>-3320K</b>

**Rectangular — Metric**

Type	Size	Weight each	Order Code
	8 x 5mm		<b>-0850K</b>
	8 x 7mm	140g	<b>-0870K</b>
	10 x 8mm	200g	<b>-1080K</b>
	12 x 8mm	240g	<b>-1280K</b>
	12 x 10mm		<b>-1300K</b>
	14 x 9mm	310g	<b>-1490K</b>
<b>mm</b>	16 x 10mm	390g	<b>-1610K</b>
	18 x 11mm	490g	<b>-1910K</b>
	20 x 12mm	590g	<b>-2120K</b>
	22 x 14mm		<b>-2400K</b>
	25 x 14mm		<b>-2420K</b>
	28 x 16mm		<b>-2550K</b>
	32 x 18mm		<b>-2650K</b>
	36 x 20mm		<b>-2700K</b>

**WORKSHOP EQUIPMENT**

**INDEXA Indexa T-Slot Clamping Kits**

Designed to save set up time and solve most T-Slot clamping problems. All Components are manufactured from **S45C (JIS)/CK45 (DIN)** grade non-alloy carbon steel. Heat treated to HRC 28 - 32 and have a manganese phosphate surface finish. Supplied in a robust plastic case.

**Contents:**

Engineers Studs (4 off each): 75, 100, 125, 150, 175 & 200mm long. Step Blocks (4 off each): 28, 35 & 98mm high. Step Clamps (2 off each): 64, 100 & 150mm long. Nuts Extension 4 off Flanged 6 off T-slot 6 off.



T-Slot Size	Thread Size	Part Number	Weight each	Order Code
12mm	M10	TK10	9kg	<b>-3610T</b>
14mm	M12	TK12	10kg	<b>-3612T</b>
16mm	M14	TK14	11kg	<b>-3614T</b>
18mm	M16	TK16	14kg	<b>-3616T</b>
20mm	M18	TK18	20.5kg	<b>-3618T</b>

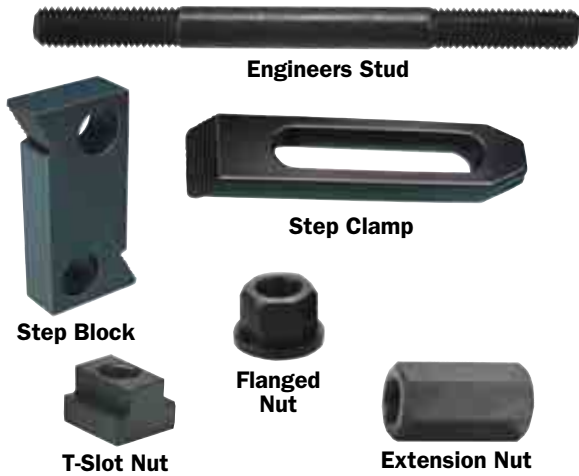
**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 425 CLAMPING FIXTURES**

**ATLAS WORKHOLDERS**

**T-Slot Steel Clamping Sets**

Designed to save set up time and solve most clamping problems. Manufactured to high standards. All step clamps are forged and hardened and the step blocks are made from high quality steel. All components (other than the studs) are heat treated and finished in black oxide. Available to suit a full range of metric and imperial T-Slot widths. Supplied in steel racks which can be wall mounted or fitted to workbenches for ease of storage (except M16 set which is supplied in wooden box).



**58 Pieces Metric Sets** (Quantity of each component part given in brackets)

Product Number	Table Slot Size x W x L (mm)	Thread Size	Engineers Stud L x Thread L (mm)	Step Clamp L x W x H (mm)	Extension Nuts	Flange Nuts	Step Blocks (Pairs) H Adj. Range	Weight each	Order Code <b>ATL-425</b>
CK120100	12 x 18 x 14 (6)	M10	75 x 30 (4) 100 x 30 (4) 125 x 30 (4) 150 x 30 (4) 175 x 30 (4) 200 x 30 (4)	55 x 25 x 12 (2) 88 x 25 x 16 (2) 128 x 28 x 19 (2)	M10 x 30mm Long (4)	M10 x 15mm (6)	28 20 - 38 (4) 35 28 - 64 (4) 98 64 - 152 (4)	10kg	<b>-1120K</b>
CK140120	14 x 22 x 16 (6)	M12	75 x 35 (4) 100 x 35 (4) 125 x 35 (4) 150 x 35 (4) 175 x 35 (4) 200 x 35 (4)	64 x 28 x 12 (2) 100 x 32 x 19 (2) 150 x 32 x 22 (2)	M12 x 36mm Long (4)	M12 x 18mm (6)	28 20 - 38 (4) 35 28 - 64 (4) 98 64 - 152 (4)	12kg	<b>-1140K</b>
CK160140	16 x 25 x 18 (6)	M14	75 x 35 (4) 100 x 35 (4) 125 x 35 (4) 150 x 35 (4) 175 x 35 (4) 200 x 35 (4)	64 x 28 x 12 (2) 100 x 32 x 19 (2) 150 x 32 x 22 (2)	M14 x 42mm Long (4)	M14 x 21mm (6)	28 20 - 38 (4) 35 28 - 64 (4) 98 64 - 152 (4)	12kg	<b>-1160K</b>
CK180140	18 x 25 x 18 (6)	M14	75 x 35 (4) 100 x 35 (4) 125 x 35 (4) 150 x 35 (4) 175 x 35 (4) 200 x 35 (4)	64 x 28 x 12 (2) 100 x 32 x 19 (2) 150 x 32 x 22 (2)	M14 x 42mm Long (4)	M14 x 21mm (6)	28 20 - 38 (4) 35 28 - 64 (4) 98 64 - 152 (4)	12kg	<b>-1180K</b>
CK200160	20 x 28 x 20 (6)	M16	75 x 35 (4) 100 x 35 (4) 125 x 35 (4) 150 x 35 (4) 175 x 35 (4) 200 x 35 (4)	64 x 31 x 12 (2) 100 x 38 x 20 (2) 150 x 38 x 22 (2)	M16 x 48mm Long (4)	M16 x 24mm (6)	28 20 - 38 (4) 35 28 - 64 (4) 98 64 - 152 (4)	14kg	<b>-1200K</b>

**58 Pieces Inch Sets** (Quantity of each component part given in brackets)

Product Number	Table Slot Size x W x L (mm)	Thread Size	Engineers Stud L x Thread L (mm)	Step Clamp L x H x W (mm)	Extension Nuts	Flange Nuts	Step Blocks (Pairs) H Adj. Range	Weight each	Order Code <b>ATL-425</b>
CK500375	1/2" x 1 1/16" x 17/32" (6)	3/8" UNC	3" x 1 1/4" (4) 4" x 1 1/4" (4) 5" x 1 1/4" (4) 6" x 1 1/4" (4) 7" x 1 1/4" (4) 8" x 1 1/4" (4)	2" x 1" x 1/2" (2) 3 1/2" x 1 1/4" x 3/4" (2) 5" x 1 1/4" x 7/8" (2)	3/8" UNC x 1" Long (4)	3/8" UNC 7/16" (6)	1 1/8" 3/4" - 1 1/2" (4) 1 3/4" 1 1/8" - 2 1/2" (4) 3 7/8" 2 1/2" - 6" (4)	10kg	<b>-1320K</b>
CK62500	9/16" x 7/8" x 6/8" (6)	1/2" UNC	3" x 1 1/4" (4) 4" x 1 1/2" (4) 5" x 1 1/2" (4) 6" x 1 1/2" (4) 7" x 1 1/2" (4) 8" x 1 1/2" (4)	2 1/2" x 1 1/8" x 1/2" (2) 2" x 1 1/4" x 3/4" (2) 6" x 1 1/4" x 7/8" (2)	1/2" UNC x 1 1/4" Long (4)	1/2" UNC 13/16" (6)	1 1/8" 3/4" - 1 1/2" (4) 1 3/4" 1 1/8" - 2 1/2" (4) 3 7/8" 2 1/2" - 6" (4)	12kg	<b>-1360K</b>
CK62550	5/8" x 7/8" x 6/8" (6)	1/2" UNC	3" x 1 1/4" (4) 4" x 1 1/2" (4) 5" x 1 1/2" (4) 6" x 1 1/2" (4) 7" x 1 1/2" (4) 8" x 1 1/2" (4)	2 1/2" x 1 1/8" x 1/2" (2) 2" x 1 1/4" x 3/4" (2) 6" x 1 1/4" x 7/8" (2)	1/2" UNC x 1 1/4" Long (4)	1/2" UNC 13/16" (6)	1 1/8" 3/4" - 1 1/2" (4) 1 3/4" 1 1/8" - 2 1/2" (4) 3 7/8" 2 1/2" - 6" (4)	12kg	<b>-1400K</b>
CK750625	3/4" x 1 3/8" x 1 1/8" (6)	5/8" UNC	3" x 1 1/4" (4) 4" x 1 1/2" (4) 5" x 1 1/2" (4) 6" x 1 1/2" (4) 7" x 1 1/2" (4) 8" x 1 1/2" (4)	2 1/2" x 1 1/8" x 1/2" (2) 2" x 1 1/4" x 3/4" (2) 6" x 1 1/4" x 7/8" (2)	5/8" UNC x 1 5/8" Long (4)	5/8" UNC 13/16" (6)	1 1/8" 3/4" - 1 1/2" (4) 1 3/4" 1 1/8" - 2 1/2" (4) 3 7/8" 2 1/2" - 6" (4)	12kg	<b>-1480K</b>

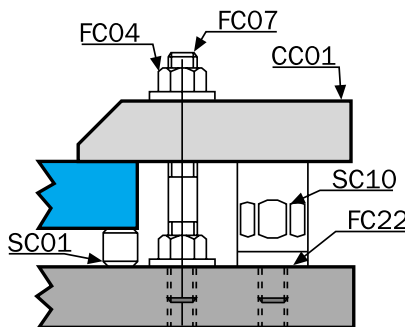
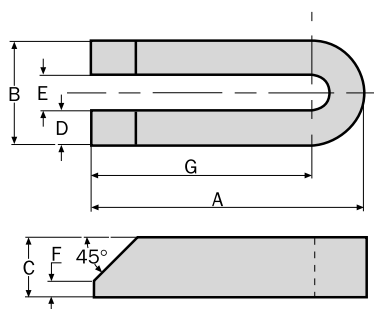
**WORKSHOP EQUIPMENT**

**INDEXA CC01 - U-Clamp**

Open end permits quick and easy installation.



**Material:** Medium Carbon Steel.  
**Heat Treated To:** HRC 32 - 38.  
**Surface Finish:** Black Oxide.

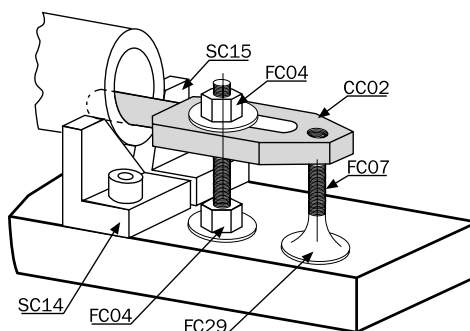
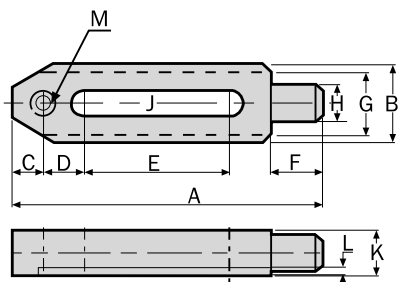


Product Number	Length x Width A x B	Dimensions (mm)					Weight each	Order Code
		C	D	E	F	G		
CC010112	100 x 38mm	22	12.5	13	6	81	0.41kg	<b>IND-425</b> <b>-1005D</b>
CC010316	150 x 50mm	30	16.5	17	8	125	1.10kg	<b>-1005J</b>
CC010420	200 x 60mm	35	19.5	21	10	170	2.10kg	<b>-1005M</b>

**CC02 - Bore Clamp**

The cylindrical pin minimises the contact area. This clamp is for clamping inside horizontal bores and onto concave surfaces.

**Material:** Medium Carbon Steel.  
**Heat Treated To:** HR C32 - 38.  
**Surface Finish:** Black Oxide.

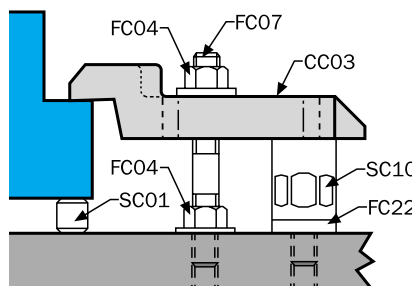
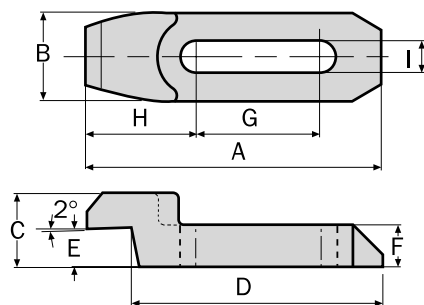


Product Number	Length x Width A x B	Dimensions (mm)									Weight each	Order Code	
		C	D	E	F	G	H	J	K	L			M
CC020112	150 x 38mm	15	20	70	25	30	18	13	22	4	M12	0.58kg	<b>IND-425</b> <b>-1010D</b>
CC020216	150 x 48mm	20	25	40	35	40	24	17	32	5	M16	1.12kg	<b>-1010G</b>

**CC03 - Swan Necked Clamp**

Low profile design helps eliminate cutter interference.

**Material:** Medium Carbon Steel.  
**Heat Treated To:** HRC 32 - 38.  
**Surface Finish:** Black Oxide.



Product Number	Length x Width A x B	Dimensions (mm)							Weight each	Order Code
		C	D	E	F	G	H	I		
CC030216	150 x 48mm	48	130	25	25	55	60	17	1.30kg	<b>IND-425</b> <b>-1015K</b>
CC030320	175 x 60mm	60	150	30	30	65	70	21	2.26kg	<b>-1015N</b>
CC030112	120 x 36mm	30	102	16	17	50	45	13	0.49kg	<b>-1015H</b>

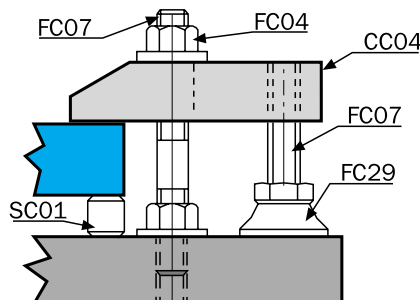
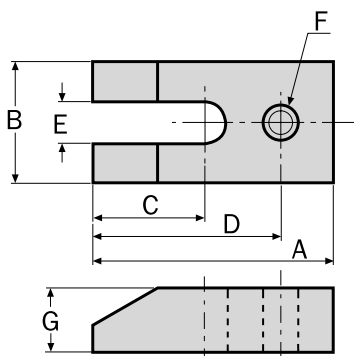
**GROUP 425 CLAMPING FIXTURES**

**INDEXA CC04 - Tapped End U-Clamp**

Open end design permits easy assembly.



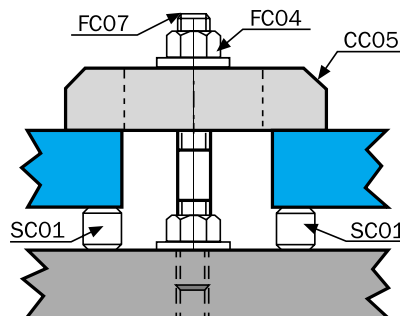
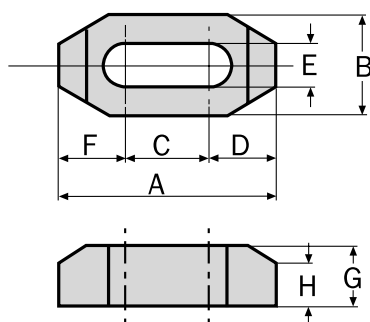
**Material:** Medium Carbon Steel.  
**Heat Treated To:** HRC 32 - 38.  
**Surface Finish:** Black Oxide.



Product Number	Length x Width A x B	Dimensions (mm)					Weight each	Order Code
		C	D	E	F	G		
CC040616	150 x 50mm	95	130	17	M16	25	1.50kg	<b>IND-425</b> <b>-1020R</b>

**CC05 - Plain Clamp**

**Material:** Medium Carbon Steel.  
**Heat Treated To:** HRC 32 - 38.  
**Surface Finish:** Black Oxide.

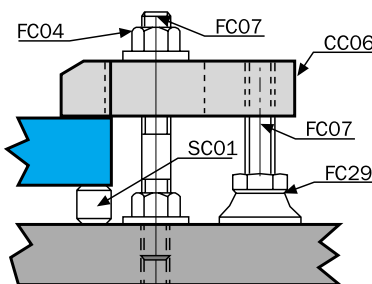
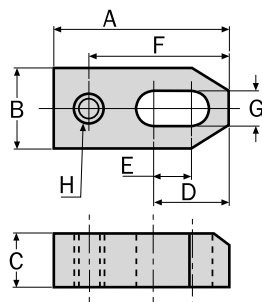


Product Number	Length x Width A x B	Dimensions (mm)						Weight each	Order Code
		C	D	E	F	G	H		
CC050112	65 x 32mm	25	20.0	13	20.0	19	13	0.22kg	<b>IND-425</b> <b>-1025D</b>
CC050212	100 x 32mm	40	30.0	13	30.0	19	13	0.33kg	<b>-1025G</b>
CC050316	80 x 38mm	24	28.0	17	28.0	22	14	0.34kg	<b>-1025J</b>
CC050416	125 x 38mm	41	42.0	17	42.0	22	14	0.57kg	<b>-1025M</b>
CC050520	100 x 38mm	32	34.0	21	34.0	22	14	0.41kg	<b>-1025P</b>
CC050620	125 x 38mm	40	42.5	21	42.5	25	15	0.62kg	<b>-1025R</b>

**CC06 - Tapped End Plain Clamp**

For use with various knobs, jack screws, clamps and pads.

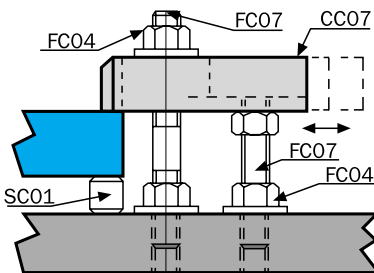
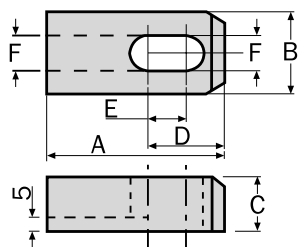
**Material:** Medium Carbon Steel.  
**Heat Treated To:** HRC 32 - 38.  
**Surface Finish:** Black Oxide.



Product Number	Length x Width A x B	Dimensions (mm)						Weight each	Order Code
		C	D	E	F	G	H		
CC060112	65 x 32mm	19	32	14	52	13	M12	0.22kg	<b>IND-425</b> <b>-1030D</b>
CC060212	80 x 32mm	19	48	25	69	13	M12	0.27kg	<b>-1030F</b>
CC060312	100 x 32mm	19	60	40	89	13	M12	0.33kg	<b>-1030H</b>
CC060416	80 x 38mm	19	40	17	65	17	M16	0.32kg	<b>-1030J</b>
CC060516	100 x 38mm	25	55	30	85	17	M16	0.53kg	<b>-1030L</b>
CC060616	125 x 38mm	25	70	45	110	17	M16	0.65kg	<b>-1030N</b>
CC060720	150 x 50mm	25	82	50	134	21	M20	1.10kg	<b>-1030P</b>
CC060820	200 x 50mm	25	112	80	184	21	M20	1.90kg	<b>-1030R</b>

WORKSHOP EQUIPMENT

**INDEXA CC07 - Slotted End Clamp**



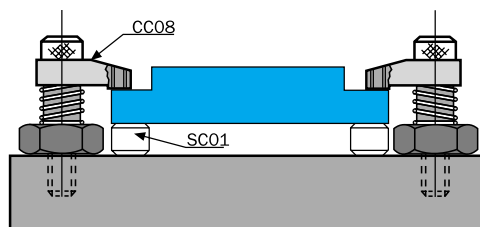
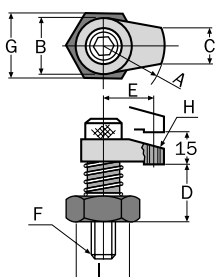
**Material:** Medium Carbon Steel.  
**Hardness:** HRC 32 - 38.  
**Surface Finish:** Black Oxide.



Product Number	Length x Width A x B	Dimensions (mm)					Weight each	Order Code <b>IND-425</b>
		C	D	E	F	G		
CC070212	80 x 32mm	22	48	25	13		0.31kg	<b>-1035F</b>
CC070616	125 x 38mm	25	70	45	17		0.65kg	<b>-1035N</b>

**CC08 - Swing Clamp**

A small clamp with good holding power, ideal for tight spaces, full swing away feature permits easy part loading.



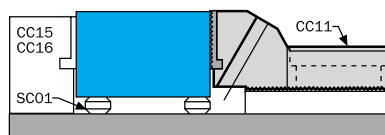
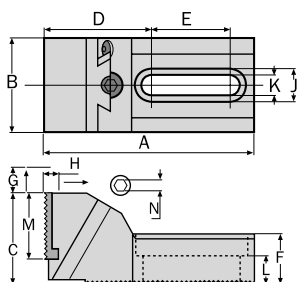
**Material:** Case Hardened Steel.  
**Hardness:** HRC 38 - 42.  
**Surface Finish:** Black Oxide.



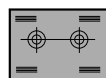
Product Number	Length x Width A x B	Dimensions (mm)								Weight each	Order Code <b>IND-425</b>
		C	D	E	F	G	H	I			
CC080112	30 x 28mm	16	40	-	M12	29	-	21	0.29kg	<b>-1040D</b>	
CC080212	50 x 32mm	20	45	40	M12	36	M12	26	0.50kg	<b>-1040G</b>	
CC080316	60 x 40mm	25	45	45	M16	41	M16	32	0.75kg	<b>-1040J</b>	

**CC11 - Free Vice Jaw**

Clamping force in two directions, with serrated jaws for holding large or irregular shapes.



Serrated



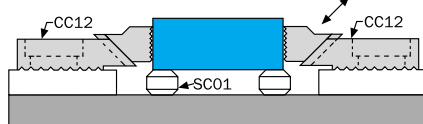
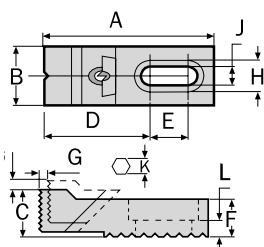
**Material:** Body: Grey Cast Iron.  
Jaw: Medium Carbon Steel EN8D.  
**Hardness:** Jaw Only: HRC 45 - 48.  
**Surface Finish:** Jaw: Black Oxide.



Product Number	Type	Length x Width A x B	Dimensions (mm)												Weight each	Order Code <b>IND-425</b>
			C	D	E	F	G	H	J	K	L	M	N			
CC110112	Serrated	133 x 60mm	54.5	68	50	32	16	6	22	13	16.8	42	10	2.0kg	<b>-1045D</b>	

**CC12 - Adjustable Clamp**

Low profile clamp that keeps top surfaces clear for machining. Ideal for rough or finished parts.



Ground

Serrated



**Material:** Medium Carbon Steel.  
**Hardness:** Jaw Only: HRC 38.  
**Surface Finish:** Black Oxide.  
**Jaws:** Surface treated with high frequency quenching.

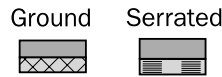
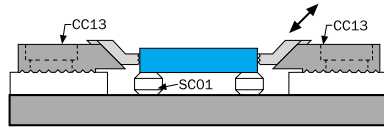
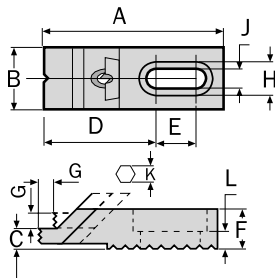


Product Number	Type	Length x Width x Height A x B x C	Dimensions (mm)								Weight each	Order Code <b>IND-425</b>
			D	E	F	G	H	J	K	L		
CC120108	Serrated	73.45 x 25 x 18mm	46.95	16.5	16	7	14	8.5	4	7	0.18kg	<b>-1050D</b>
CC120212		106.64 x 35 x 27.5mm	62.14	30.0	22	12	20	13.5	6	9	0.52kg	<b>-1050F</b>
CC120316		134.64 x 40 x 37.5mm	82.14	35.0	30	14	26	17.0	8	13	1.02kg	<b>-1050H</b>
CC120408	Ground	72.00 x 25 x 20.0mm	45.00	16.0	16	7	14	8.5	4	7	0.16kg	<b>-1050J</b>
CC120512		104.64 x 35 x 27.5mm	62.14	30.0	22	12	20	13.5	6	9	0.52kg	<b>-1050M</b>
CC120616		134.64 x 40 x 37.5mm	82.14	35.0	30	14	26	17.0	8	13	1.02kg	<b>-1050R</b>

**GROUP 425 CLAMPING FIXTURES**

**INDEXA CC13 - Adjustable Stepped Clamp**

Low profile clamp for holding thin parts and keeping top surfaces clear for machining.

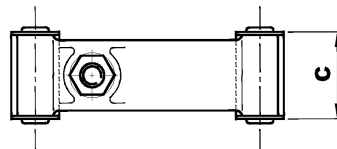
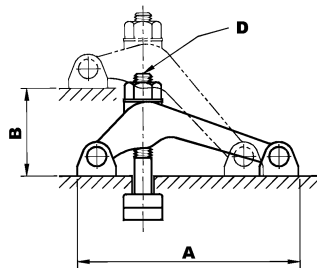


**Material:** Medium Carbon Steel.  
**Heat Treated To:** HRC 38.  
**Surface Finish:** Black Oxide.  
**Jaws:** Surface treated with high frequency quenching.



Product Number	Type	Length x Width x Height A x B x C	Dimensions (mm)								Weight each	Order Code <b>IND-425</b>
			D	E	F	G	H	J	K	L		
CC130108	Serrated	73.45 x 25 x 18mm	46.95	16.5	16.5	7	14	8.5	5	7	0.18kg	<b>-1055D</b>
CC130212		106.64 x 35 x 27.5mm	64.14	30.0	22.0	12	20	13.5	6	9	0.52kg	<b>-1055F</b>
CC130316	Ground	133.14 x 40 x 14mm	90.00	30.0	30.0	14	26	17.0	8	13	0.85kg	<b>-1055H</b>
CC130512		105 x 35 x 27.5mm	64.14	26.0	22.0	12	20	13.5	6	9	0.52kg	<b>-1055M</b>

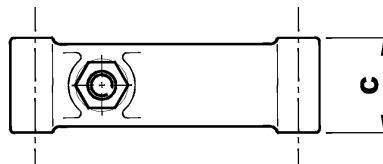
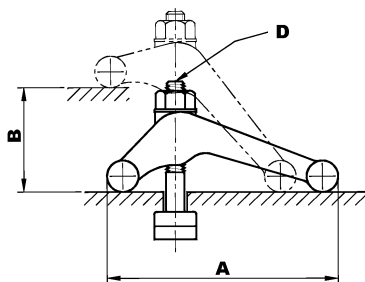
**CC19 - Forged Swivel Clamp**



**Material:** Medium Carbon Steel/Steel Forging.  
**Heat Treated To:** 32 - 38°.  
**Surface Finish:** Black Oxide.

Product Number	Length x Width A x B	Dimensions (mm)		Weight each	Order Code <b>IND-425</b>
		C	D		
CC19-NC50	131 x 75mm	46.5	M12-125	1.50kg	<b>-1085D</b>

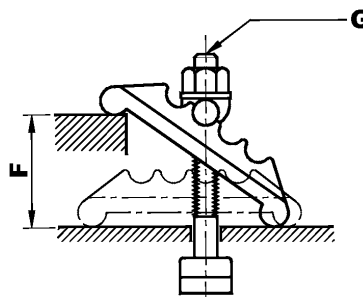
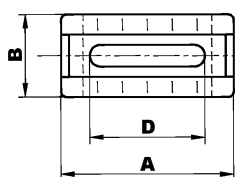
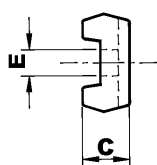
**CC20 - Forged Swivel Clamp**



**Material:** Medium Carbon Steel/Steel Forging.  
**Heat Treated To:** 32 - 38°.  
**Surface Finish:** Black Oxide.

Product Number	Length x Width A x B	Dimensions (mm)		Weight each	Order Code <b>IND-425</b>
		C	D		
CC20-NC6	150 x 85mm	52	M16-150	2.42kg	<b>-1090M</b>
CC20-NC8	194 x 105mm	58	M20-175	4.50kg	<b>-1090T</b>

**CC21 - Swivel Rack Clamp**

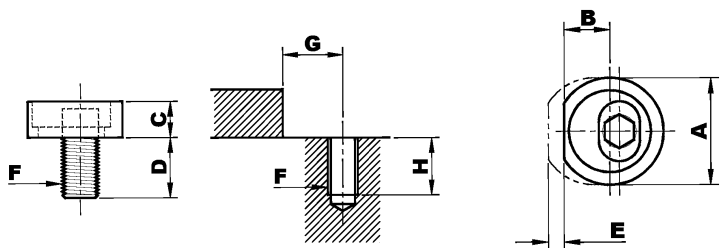


**Material:** Medium Carbon Steel/Steel Forging.  
**Surface Finish:** Black Oxide.

Product Number	Length x Width A x B	Dimensions (mm)					Weight each	Order Code <b>IND-425</b>
		C	D	E	F	G		
CC21-0216	125 x 56mm	33	84	18	65	M16	2.10kg	<b>-1095M</b>

WORKSHOP EQUIPMENT

**INDEXA CC24 - Eccentric Cam Lock**

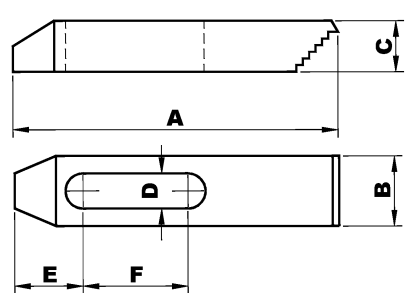


**Material:** Medium Carbon Steel.  
**Hardness:** HRC 35.  
**Surface Finish:** Black Oxide.



Product Number	Dimensions (mm)								Weight each	Order Code <b>IND-425</b>
	A	B	C	D	E	F	G	H		
CC240210	26	11.8	8	14.3	4	M10	12.5	22	.03kg	<b>-1110C</b>
CC240312	30	13.5	9	19	5	M12	14.5	22	.06kg	<b>-1110G</b>
CC240416	38	16.0	12	23	6	M16	17.5	26	.12kg	<b>-1110P</b>

**CC25 - Step Clamp**

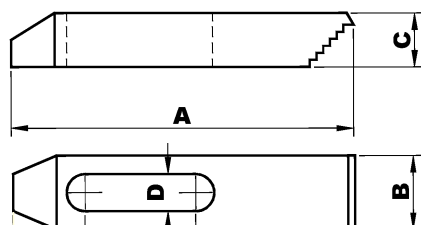


**Material:** Medium Carbon Steel.  
**Hardness:** HRC 32 - 38.  
**Surface Finish:** Black Oxide.



Product Number	Length x Width A x B	Dimensions (mm)				To Suit Stud Size	Weight each	Order Code <b>IND-425</b>
		C	D	E	F			
CC251463	63 x 25mm	13	15	20	14	M14	0.12kg	<b>-1130C</b>
CC2514100	100 x 32mm	19	15	29	34	M14	0.38kg	<b>-1130G</b>
CC2514150	150 x 32mm	22	15	32	50	M14	0.68kg	<b>-1130J</b>
CC2516100	100 x 32mm	19	17	31	26	M16	0.42kg	<b>-1135G</b>
CC2516150	150 x 30mm	22	17	40	47	M16	0.72kg	<b>-1135J</b>

**ATLAS WORKHOLDERS Step Clamp**



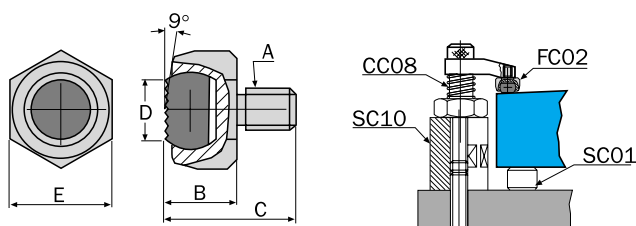
**Material:** Medium Carbon Steel.  
**Hardness:** HRC 32 - 38.  
**Surface Finish:** Black Oxide.



Product Number	To Suit Stud Size	Dimensions (mm)				Order Code <b>ATL-425</b>
		A x B	C	D	D	
SC105222	M10 <sup>3/8</sup> " UNC	55 x 25	12	13	<b>-2020K</b>	
SC108825		88 x 25	16	11	<b>-2040K</b>	
SC1012828		128 x 28	19	11	<b>-2060K</b>	
SC126428	M12 <sup>1/2</sup> " UNC	64 x 28	12	13	<b>-2120K</b>	
SC1210032		100 x 32	19	13	<b>-2140K</b>	
SC1215032		150 x 32	22	13	<b>-2160K</b>	
SC146428	M14	64 x 28	12	15	<b>-2220K</b>	
SC1410035		100 x 35	19	15	<b>-2240K</b>	
SC1415032		150 x 32	22	15	<b>-2260K</b>	
SC166432	M16 <sup>5/8</sup> " UNC	64 x 32	12	17	<b>-2420K</b>	
SC1610038		100 x 38	20	17	<b>-2440K</b>	
SC1615038		150 x 38	22	17	<b>-2460K</b>	

**INDEXA FC02 - Seratted Ball End**

Precision swivel ball that can be used either as a contact bolt or rest pad. As contact pads these swivel ball units are ideal for evenly distributing clamping pressure on sloped or uneven surfaces.



**Material:**  
 Body - Medium Carbon Steel.  
 Ball - Through Hardened Steel  
**EN 31.**  
**Hardness:**  
 Bolt - HRC 35.  
 Ball - HRC 62.  
**Surface Finish:**  
 Black Oxide.



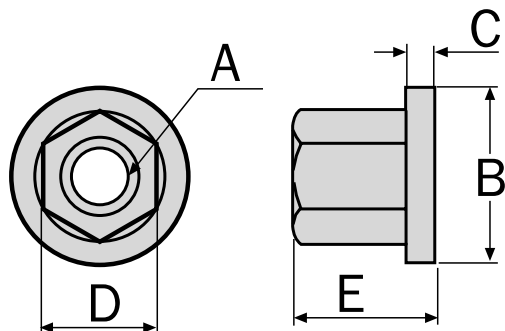
Product Number	Thread	Dimensions (mm)				Weight each	Order Code <b>IND-425</b>
		A	B	C	D		
FC010112	M12 x 1.75	22	35	12	22	0.070kg	<b>-2015J</b>
FC010216	M16 x 2.00	26	42	14	27	0.14kg	<b>-2015R</b>

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**WORKSHOP EQUIPMENT**

**INDEXA FC04 - Flanged Nut**

**Material:** Medium Carbon Steel.  
**Hardness:** HRC 30 - 35.  
**Surface Finish:** Black Oxide.

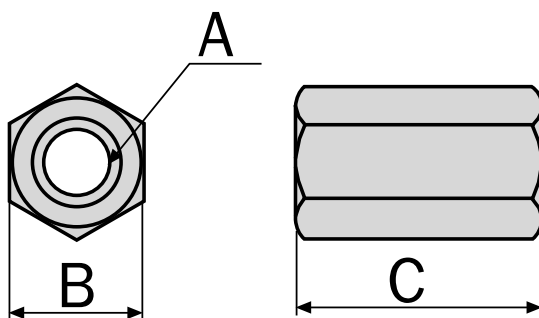


Product Number	Thread A	Dimensions (mm)				Weight each	Order Code
		B	C	D	E		
FC040110	M10	22	3	17	13	0.020kg	<b>IND-425</b> <b>-2025G</b>
FC040212	M12	28	4	19	17	0.040kg	<b>-2025K</b>
FC040214	M14	28	4	22	17	0.040kg	<b>-2025M</b>
FC040316	M16	33	5	24	20	0.060kg	<b>-2025P</b>
FC040420	M20	40	6	30	25	0.110kg	<b>-2025T</b>

**FC05 - Extension Nut**

Extends the length of clamping studs.

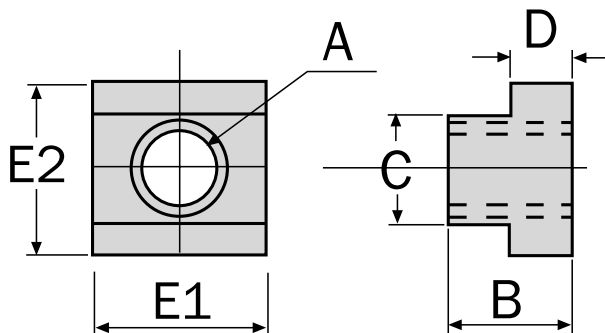
**Material:** Medium Carbon Steel.  
**Hardness:** HRC 30 - 35.  
**Surface Finish:** Black Oxide.



Product Number	Size A	Dimensions (mm)		Weight each	Order Code
		B	C		
FC050110	M10	17	30	0.030kg	<b>IND-425</b> <b>-2030F</b>
FC050212	M12	19	36	0.046kg	<b>-2030K</b>
FC050314	M14	22	42	0.065kg	<b>-2030M</b>
FC050316	M16	24	48	0.110kg	<b>-2030N</b>
FC050420	M20	30	60	0.220kg	<b>-2030R</b>

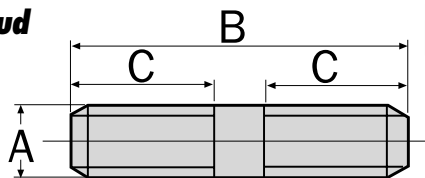
**FC06 - T-Slot Nut (Milled)**

**Material:** Medium Carbon Steel.  
**Hardness:** HRC 30 - 35.  
**Surface Finish:** Black Oxide.



Product Number	Size A	Dimensions (mm)					Weight each	Order Code
		B	C	D	E1	E2		
FC060110	M10	14.0	11.8	7.0	22	18.0	0.022kg	<b>IND-425</b> <b>-2035G</b>
FC060212	M12	16.0	13.8	8.0	28	22.0	0.048kg	<b>-2035K</b>
FC050314	M14	16.0	15.8	8.0	28	25.0	0.057kg	<b>-2035M</b>
FC060316	M16	20.0	17.7	10.5	30	28.5	0.085kg	<b>-2035P</b>
FC060420	M20	25.0	22.0	14.0	38	36.0	0.190kg	<b>-2035T</b>

**INDEXA FC07 - Engineers Stud**



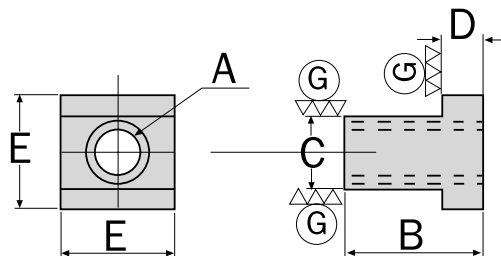
**Material:** Medium Carbon Steel.  
**Hardness:** HRC 30 - 35.  
**Surface Finish:** Black Oxide.



Product Number	Size A x B	Dimension C	Weight each	Order Code IND-425
FC070110	M10 x 50mm	22	30g	-2120S
FC070210	M10 x 75mm	30	42g	-2125S
FC070310	M10 x 100mm	38	55g	-2130S
FC070510	M10 x 150mm	50	90g	-2140S
FC070612	M12 x 50mm	22	40g	-2145S
FC070712	M12 x 75mm	30	60g	-2150S
FC070812	M12 x 100mm	38	80g	-2155S
FC070912	M12 x 125mm	38	100g	-2160S
FC071012	M12 x 150mm	50	125g	-2165S
FC071112	M12 x 200mm	65	160g	-2170S
FC071212	M12 x 300mm	80	240g	-2175S
FC071214	M14 x 75mm	30	65g	-2176S
FC071214	M14 x 100mm	38	85g	-2177A
FC071214	M14 x 125mm	38	105g	-2177G
FC071214	M14 x 150mm	50	130g	-2177K
FC071214	M14 x 200mm	65	165g	-2177T
FC071316	M16 x 75mm	20	120g	-2180S
FC071416	M16 x 100mm	38	145g	-2185S
FC071516	M16 x 125mm	38	180g	-2190S
FC071616	M16 x 150mm	50	230g	-2195S
FC071616	M16 x 175mm	50	240g	-2197S
FC071716	M16 x 200mm	65	290g	-2200S
FC071816	M16 x 250mm	65	350g	-2205S
FC071916	M16 x 300mm	80	450g	-2210S
FC072016	M16 x 400mm	100	580g	-2215S
FC072116	M16 x 500mm	100	700g	-2220S
FC072220	M20 x 75mm	30	170g	-2225S
FC072320	M20 x 100mm	38	230g	-2230S
FC072420	M20 x 125mm	38	280g	-2235S
FC072520	M20 x 150mm	50	360g	-2240S
FC072620	M20 x 200mm	65	450g	-2245S
FC072720	M20 x 250mm	65	550g	-2250S
FC072820	M20 x 300mm	80	700g	-2255S
FC072920	M20 x 400mm	100	880g	-2260S
FC073020	M20 x 500mm	100	1100g	-2265S

**FC08 - T-Slot Nut (Ground)**

Ground surfaces provide accurate positioning inside of T-slot.



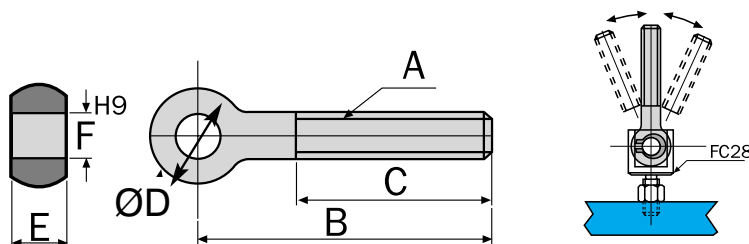
**Material:** Medium Carbon Steel.  
**Hardness:** HRC 30 - 35.



Product Number	Thread A	Dimensions (mm)				Weight each	Order Code IND-425
		B	C (h6)	D	E		
FC008112	M12	22	14	8	22	45g	-2505J
FC008216	M16	30	18	10	28	80g	-2505R

**FC09 - Swing Bolt**

Reamed hole for smooth swiveling.



**Material:** Medium Carbon Steel.  
**Hardness:** HRC 30 - 35.

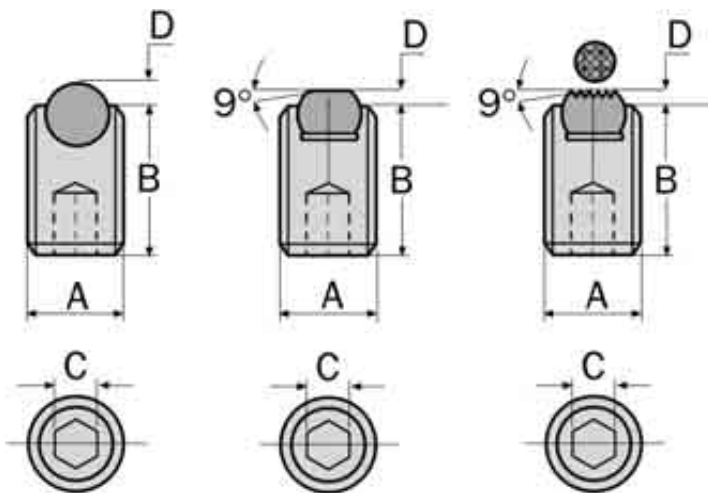


Product Number	Size A x B	Dimensions (mm)				Weight each	Order Code IND-425
		C	D	E	F		
FC040110	M10 x 75mm	40	20	12	10	60g	-2510E
FC090210	M10 x 100mm	40	20	12	10	80g	-2510H
FC090412	M12 x 100mm	60	25	14	12	120g	-2510N
FC090516	M16 x 125mm	60	32	17	16	250g	-2510P
FC090616	M16 x 150mm	75	32	17	16	300g	-2510R

**INDEXA FC16 - Swivel Clamping Screw**

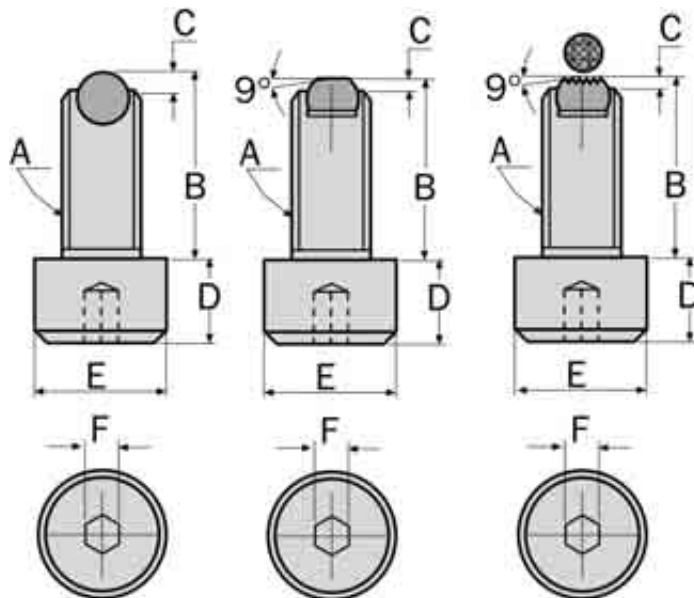


**Material:**  
 Body - Medium Carbon Steel **EN198**.  
 Point - Through Hardened Steel **EN 31**.  
**Hardness:**  
 Body - HRC 32 - 38.  
 Point - HRC 62.  
**Surface Finish:**  
 Point - Hardened and Ground.



Ball Point				Dog Point				Serrated Point			
Thread x Length	mm	Weight	Product	mm	Order Code	Product	mm	Order Code	Product	mm	Order Code
A x B	C	each	Number	D	<b>IND-425</b>	Number	D	<b>IND-425</b>	Number	D	<b>IND-425</b>
M6 x 15mm	3	2.4g	FC160206	1.4	<b>-2610H</b>	-	-	-	-	-	-
M6 x 25mm	3	3.8g	FC160306	1.4	<b>-2610N</b>	-	-	-	-	-	-
M8 x 12mm	4	3.2g	FC160408	1.9	<b>-2615D</b>	-	-	-	-	-	-
M8 x 20mm	4	5.8g	FC160508	1.9	<b>-2615H</b>	FC162308	0.6	<b>-2645H</b>	-	-	-
M8 x 30mm	4	9.0g	FC160608	1.9	<b>-2615N</b>	-	-	-	-	-	-
M10 x 15mm	5	6.7g	FC160710	2.4	<b>-2620D</b>	-	-	-	-	-	-
M10 x 25mm	5	11.2g	FC160810	2.4	<b>-2620H</b>	-	-	-	-	-	-
M10 x 35mm	5	16.2g	-	-	-	FC162710	0.7	<b>-2650N</b>	-	-	-
M12 x 30mm	6	20.0g	-	-	-	FC162912	0.9	<b>-2655H</b>	-	-	-
M12 x 50mm	6	40.0g	FC161312	2.9	<b>-2625T</b>	-	-	-	-	-	-
M16 x 55mm	8	55.0g	-	-	-	FC163516	1.0	<b>-2660R</b>	-	-	-
M16 x 65mm	8	65.0g	-	-	-	-	-	-	FC165416	1.0	<b>-2690T</b>

**FC17 - Swivel Shoulder Clamping Screw**



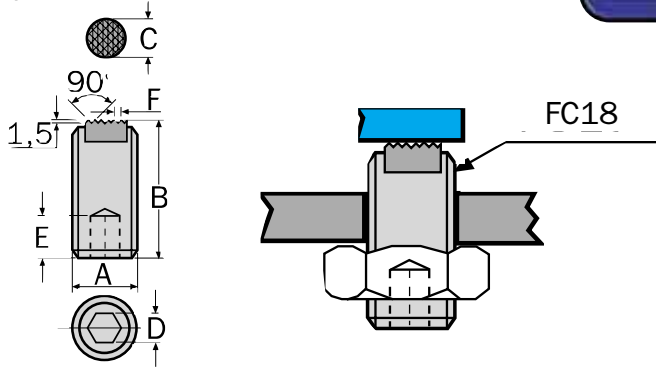
**Material:**  
 Body - Medium Carbon Steel **EN198**.  
 Point - Through Hardened Steel **EN 31**.  
**Hardness:**  
 Body - HRC 32 - 38.  
 Point - HRC 62.  
**Surface Finish:**  
 Point - Hardened and Ground.



Ball Point				Dog Point				Serrated Point			
Thread x L	Dimensions	Weight	Product	mm	Order Code	Product	mm	Order Code	Product	mm	Order Code
A x B (mm)	D E F	each	Number	C	<b>IND-425</b>	Number	C	<b>IND-425</b>	Number	C	<b>IND-425</b>
M6 x 25	6 10 5	7.4g	-	-	-	-	-	-	-	-	-
M8 x 40	8 13 6	24g	-	-	-	-	-	-	-	-	-
M12 x 30	12 18 10	40g	-	-	-	-	-	-	-	-	-
M12 x 45	12 18 10	50g	-	-	-	-	-	-	-	-	-
M12 x 65	12 18 10	70g	FC171212	2.9	<b>-2735N</b>	-	-	-	-	-	-
M12 x 80	12 18 10	83g	-	-	-	-	-	-	-	-	-
M16 x 40	16 24 14	90g	FC171416	4.0	<b>-2740D</b>	-	-	-	-	-	-
M16 x 50	16 24 14	110g	-	-	-	-	-	-	-	-	-
M16 x 65	16 24 14	130g	-	-	-	-	-	-	-	-	-

**INDEXA FC18 - Grip Point Screw**

Multipurpose work support and clamping unit, ideal for rough parts.



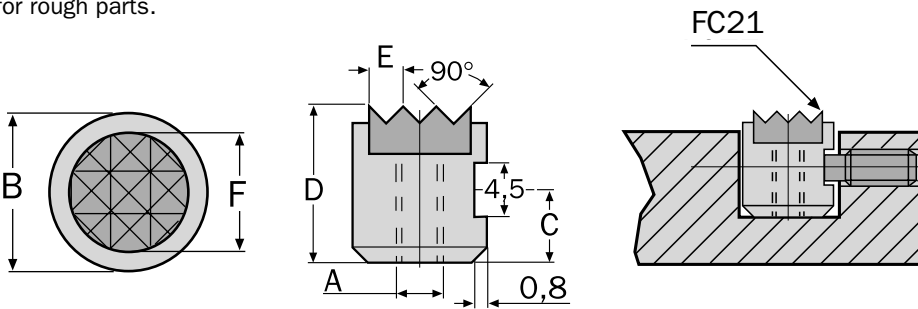
**Material:** Medium Carbon Steel EN19B.  
**Hardness:** HRC 32 - 38.  
 Tooth plate HRC 60.  
**Serrated Surface:** Induction Hardened.  
**Surface Finish:** Black Oxide.



Product Number	Thread x Length A x B	Dimensions (mm)				Weight each	Order Code
		C	D	E	F		
FC180110	M10 x 25mm	6.5	5	4	2.3	15g	IND-425 -2825D

**FC21 - Round Grip Pad**

Multipurpose work support and clamping unit, ideal for rough parts.



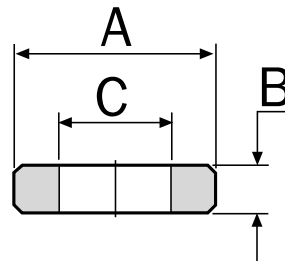
**Material:** Hardened Steel EN16M.  
**Hardness:** HRC 60.  
**Surface Finish:** Black Oxide.



Product Number	Thread x Dia A x B	Dimensions (mm)				Weight each	Order Code
		C	D	E	F		
FC210212	M6 x 12mm	4.0	12	3.0	9.6	8g	IND-425 -2840G

**FC22 - Spacer**

For use with jig components for increasing height or extending length.

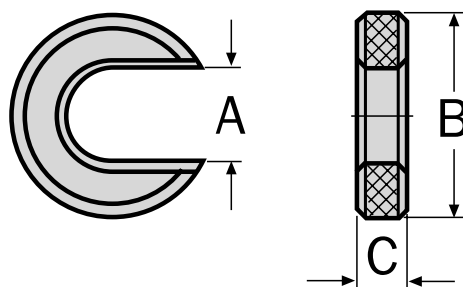


**Material:** Medium Carbon Steel.  
**Hardness:** HRC 40.



Product Number	Dimensions (mm)			Weight each	Order Code
	A	B	C		
FC220616	50	5	17	70g	-2845P
FC220716	50	10	17	350g	-2845T

**FC23 - 'C' Washer**



**Material:** Medium Carbon Steel.  
**Hardness:** HRC 40.  
**Surface Finish:** Black Oxide.



Product Number	Dimensions (mm)			Weight each	Order Code
	A	B	C		
CC010212	13	55	10	150g	IND-425 -2850G

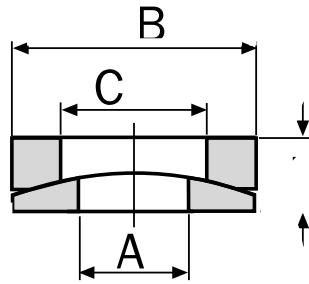
**GROUP 425 CLAMPING FIXTURES**

**INDEXA FC25 - Spherical Washer Set**

2 piece washer set that compensates whenever a stud and clamping surface are not exactly perpendicular.



**Material:** Medium Carbon Steel.  
**Hardness:** HRC 38.  
**Surface Finish:** Black Oxide.

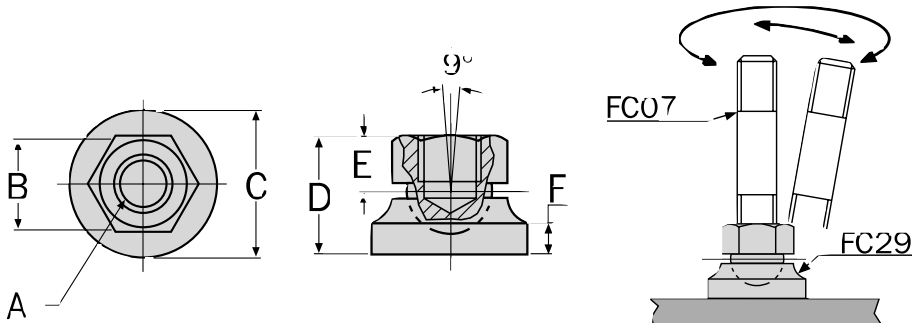


Product Number	Dimensions (mm)				Weight each	Order Code
	A	B	C	D		
FC250112	13	26	15	7.5	20g	<b>-2860D</b>
FC250216	17	32	19	9.0	30g	<b>-2860G</b>
FC250320	21	40	23	12.0	50g	<b>-2860L</b>

**FC29 - Swivel Foot**

Used for supporting uneven surfaces.

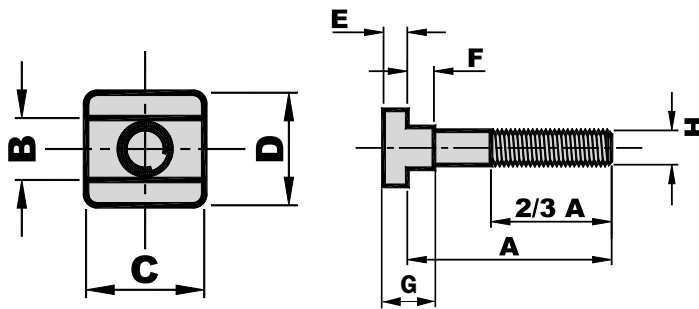
**Material:** Medium Carbon Steel.  
**Hardness:** HRC 32 - 38.  
**Surface Finish:** Black Oxide.



Product Number	Size A	Dimensions (mm)					Weight each	Order Code
		B	C	D	E	F		
FC290112	M12	19	35	24	11	7	80g	<b>-2870D</b>
FC290216	M16	24	40	29	13	8	150g	<b>-2870G</b>

**FC40 - T-Slot Bolt**

**Material:** Medium Carbon Steel.  
**Hardness:** HRC 32 - 38.  
**Surface Finish:** Black Oxide.



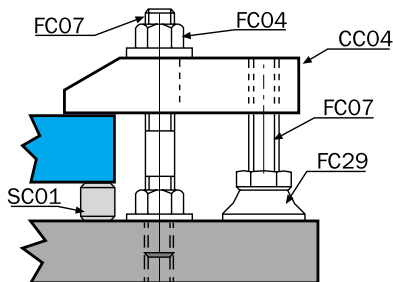
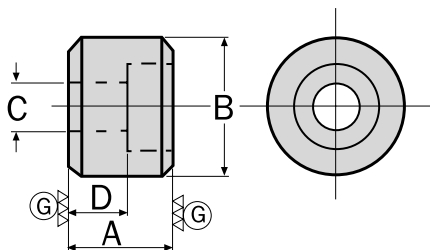
Product Number	Dimensions (mm)								Weight each	Order Code	
	A	B	C	D	E	F	G	H			
FC40-1250	50									54g	<b>-2900D</b>
FC40-1275	75									57g	<b>-2900F</b>
FC40-12100	100									110g	<b>-2900H</b>
FC40-12125	125	12	26	22	7	6	13	M12		125g	<b>-2900K</b>
FC40-12150	150									140g	<b>-2900M</b>
FC40-12175	175									170g	<b>-2900P</b>
FC40-12200	200									185g	<b>-2900R</b>
FC40-1650	50									130g	<b>-2910D</b>
FC40-1675	75									160g	<b>-2910F</b>
FC40-16100	100									200g	<b>-2910H</b>
FC40-16125	125	16	32	27	8	8	16	M16		230g	<b>-2910K</b>
FC40-16150	150									270g	<b>-2910M</b>
FC40-16175	175									305g	<b>-2910P</b>
FC40-16200	200									325g	<b>-2910R</b>
FC40-2075	75									290g	<b>-2920F</b>
FC40-20100	100									350g	<b>-2920H</b>
FC40-20125	125	20	40	30	11	11	22	M20		400g	<b>-2920K</b>
FC40-20150	150									455g	<b>-2920M</b>
FC40-20175	175									505g	<b>-2920P</b>
FC40-20200	200									560g	<b>-2920R</b>
FC40-24150	150	24	50	44	16	15	31	M24		775g	<b>-2930M</b>
FC40-24200	200									925g	<b>-2930R</b>

WORKSHOP EQUIPMENT

**INDEXA** **SC01 - Support Spacer**



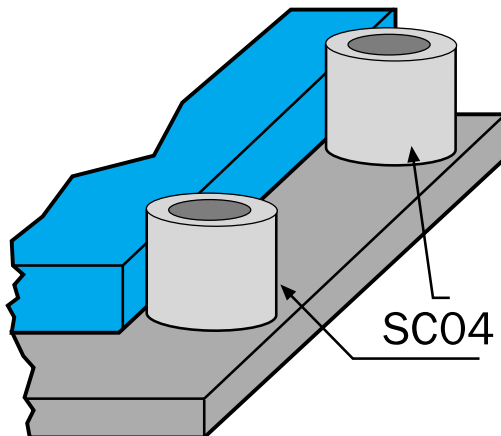
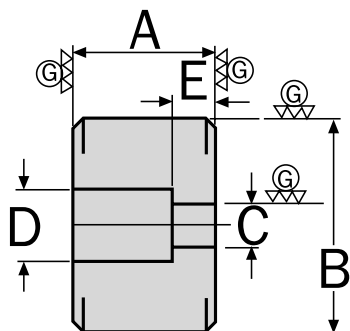
**Material:** Medium Carbon Steel.  
**Hardness:** HRC 40.  
**Surface Finish:** Black Oxide.



Product Number	Height x Diameter A (±0.01) x B	Dimensions (mm)		Weight each	Order Code
		C	D		
SC010112	30 x 40mm	M12	17	240g	<b>IND-425 -3005D</b>

**SC04 - Location Collar**

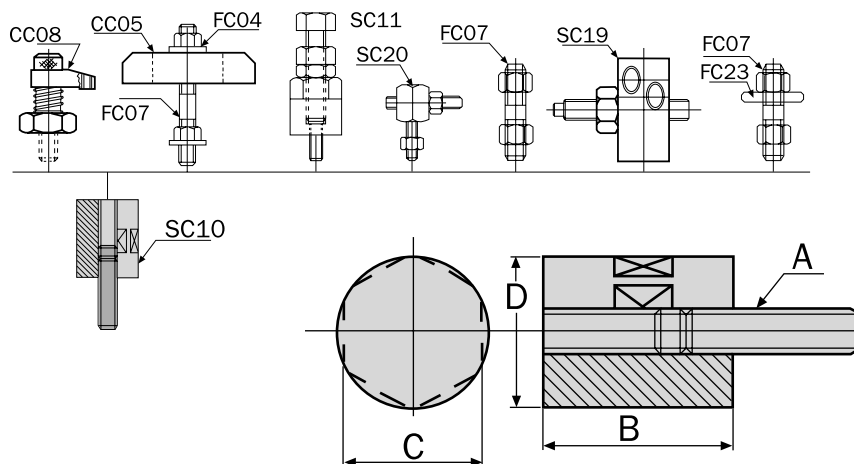
**Material:** Medium Carbon Steel.  
**Hardness:** HRC 40.  
**Surface Finish:** Black Oxide.



Product Number	Height x Diameter A (±0.01) x B (±0.01)	Dimensions (mm)			Weight each	Order Code
		C	D	E		
SC040112	30 x 40mm	∅ 12	∅ 20	12	240g	<b>IND-425 -3020D</b>
SC040212	40 x 40mm	∅ 12	∅ 20	12	320g	<b>IND-425 -3020F</b>

**SC10 - Extension Pillar**

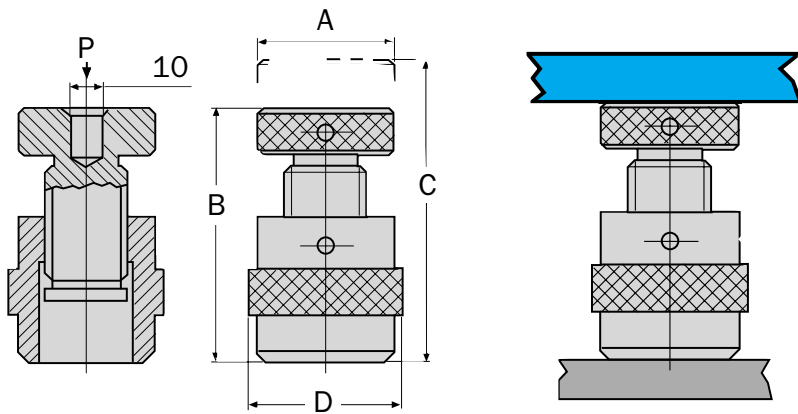
**Material:** Medium Carbon Steel.  
**Hardness:** HRC 40.  
**Surface Finish:** Black Oxide.



Product Number	Height x Diameter A x B	Dimensions (mm)		Weight each	Order Code
		C	D		
SC100450	M16 x 50	46	50	820g	<b>IND-425 -3050J</b>

**GROUP 425 CLAMPING FIXTURES**

**INDEXA SC11A - Screw Jack**

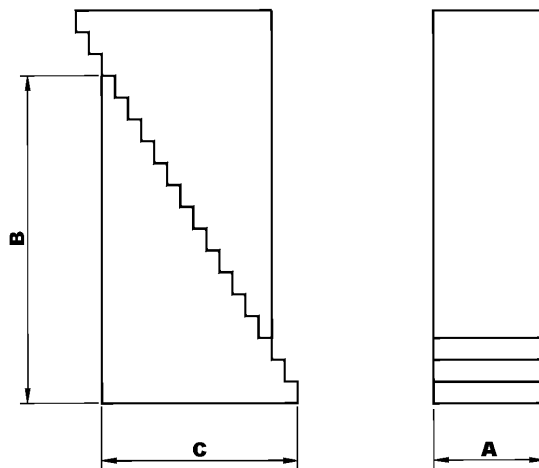


**Material:** Medium Carbon Steel.  
**Hardness:** HRC 40.  
**Surface Finish:** Black Oxide.



Product Number	Diameter x Height A x B (Min)	Dimensions (mm)		Holding Load (kN)	Weight each	Order Code
		C	D			
SC20032050	32 x 40mm	60	32	72	230g	<b>-3057D</b>
SC20070140	65 x 100mm	150	70	135	274g	<b>-3057P</b>

**SU25 - Step Block**

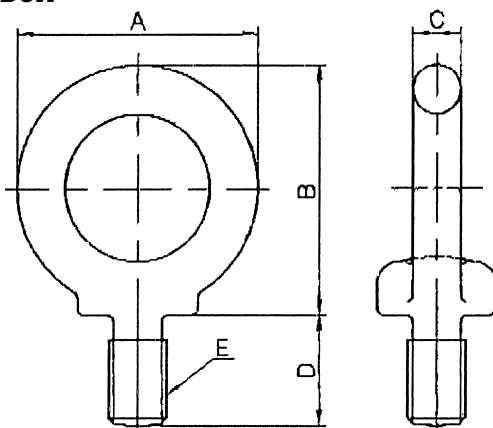


**Material:** Medium Carbon Steel.  
**Hardness:** HRC 32 - 36.  
**Surface Finish:** Black Oxide.



Product Number	Supporting Height	Dimensions (mm)			Weight each	Order Code
		A	B	C		
SU252530	19 - 49		29	17	0.05kg	<b>-3125E</b>
SU252545	28 - 68	25	45	27	0.12kg	<b>-3125H</b>
SU252597	58 - 150		97.5	57	0.50kg	<b>-3125L</b>
SU253259	38 - 90		59	35	0.24kg	<b>-3132J</b>
SU253297	58 - 150	32	97.5	57	0.62kg	<b>-3132L</b>
SU2532139	82 - 210		139	81	1.32kg	<b>-3132P</b>

**SEB - Shoulder Eye Bolt**



Product Number	Thread (E)	Dimensions (mm)				Load	Weight each	Order Code
		A	B	C	D			
SEB1017	M10	41	41.5	8	18	150kg	0.063kg	<b>-3210S</b>
SEB1220	M12	50	51	10	22	220kg	0.125kg	<b>-3212S</b>
SEB1525	M16	60	60	12.5	27	450kg	0.216kg	<b>-3216S</b>
SEB2030	M20	72	71	16	30	630kg	0.4kg	<b>-3220S</b>

**WORKSHOP EQUIPMENT**

**INDEXA Type 5821 Horizontal & Vertical Indexing Units**

Ideal for milling, drilling, jig boring and related tool room machining operations. Indexing accuracy  $\pm 120$  sec.

Simple and compact construction allows two types of dividing:

**Angular Indexing**

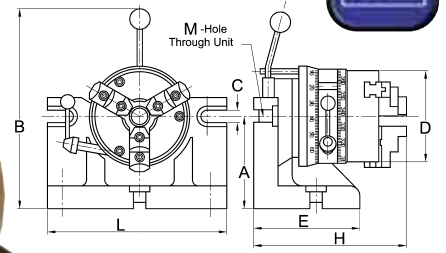
Through the graduation ring from  $0^\circ$  to  $360^\circ$  in increments of  $1^\circ$ .

**Basic Indexing**

By means of catch device.

This permits divisions of 2, 3, 4, 6, 8, 12 and 24 without disassembly.

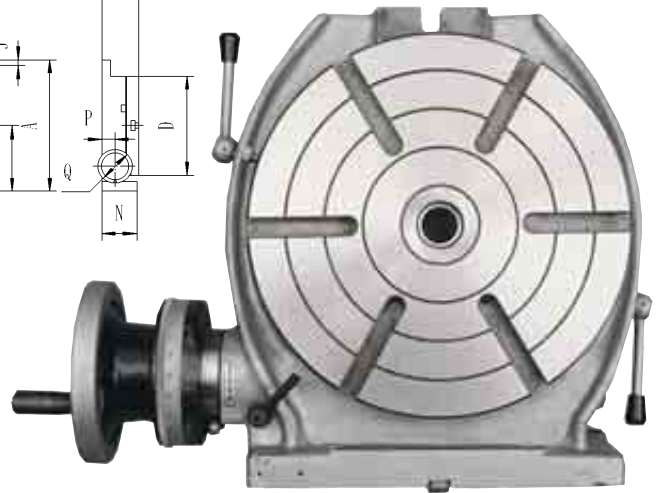
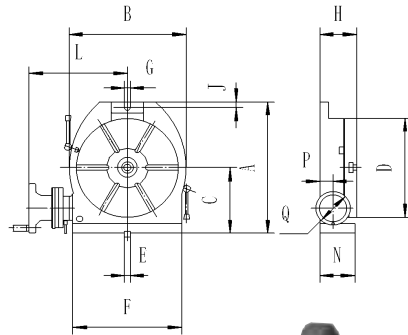
Fitted with standard 3-jaw self-centring scroll chuck with 2-piece reversible jaws, model -0400K has a special design allowing the use of 5C collets.



Chuck Diameter	Dimensions (mm)										Weight each	Order Code
	A	G	B	C	E	F	H	L	M			
125mm	100	167	254	14	14	130	215	206	25.0	17.8kg	<b>-0400K</b>	
160mm	125	210	303	14	14	145	245	214	20.2	34.0kg	<b>-0410K</b>	
200mm	160	265	384	18	18	160	300	244	26.5	58.0kg	<b>-0420K</b>	
250mm	200	330	473	18	18	185	340	277	38.2	94.0kg	<b>-0430K</b>	

**Type SOPP Horizontal & Vertical Rotary Tables**

With a disengageable worm gear which allows rapid indexing. One rotation of handle equals four degrees on collar. The table is made of high grade cast iron. Works as an indexing unit in the vertical position as well as a conventional rotary table for circular cutting, boring or angle setting, etc. Optional dividing plates are available separately.



**Accuracy:**

- Parallelism of clamping surface to base: 0.020mm
- Flatness of clamping surface: 0.015mm
- True running cylindrical centre bore: 0.020mm
- True running of tapered centre bore: 0.020mm
- Squareness of clamping surface to centre slot: 0.010mm

**Optional Extras**

Description	Order Code
Dividing Plate for INDEXA Rotary Tables	<b>-1000K</b>

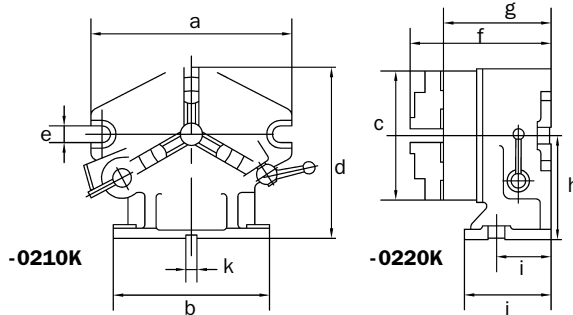
**Rotary Tables**

Diameter D	Max. Capacity C	Centre Hole M	Dimensions (mm)												No. of T-slots	Weight each	Order Code
			A	B	E	F	G	H	J	L	N	P	Q				
200mm	150	3 MT	285	236	14	208	14	100	15	211	99	48	125	4	42kg	<b>-0500K</b>	
250mm	170	3 MT	328	286	14	253	14	110	16	241	106	48	125	6	57kg	<b>-0510K</b>	
320mm	210	4 MT	410	360	18	320	18	120	16	273	118	48	140	6	92kg	<b>-0520K</b>	

**Horizontal & Vertical Index Unit Chucks**

Ideal for indexing items to be machined in pre-set or manually set incremental angles. Indexing accuracy 25 seconds. Angular indexing through the graduation ring from 0 to 360 degrees in 1 degree increments. Basic indexing by means of a catch device permitting divisions of 2, 3, 4, 6, 8, 12 and 24 without disassembly.

Fitted with standard three jaw self-centring scroll chuck with two sets of jaws, for inside and outside gripping.



Chuck Diameter	Dimensions (mm)											Weight each	Order Code
	A	B	C	D	E	F	G	H	I	J	K		
167mm	260	220	167	220.00	18	197.5	155.5	130.00	70	130	16	17.8kg	<b>-0210K</b>
220mm	310	255	210	255.25	18	214.0	171.5	149.25	80	150	16	94.0kg	<b>-0220K</b>

**GROUP 440 CHUCKS**

**KENNEDY** Spiro-Rapid Clamping Keyless Drill Chuck  
QUALITY INDUSTRIAL TOOLING

Allows quick tool change, while maintaining high precision and high concentricity. Fully hardened jaws, sleeve and retaining ring for durability and wear resistance. Self-tightening.



Capacity (mm)	Mount	Maximum Diameter	Weight each	Order Code KEN-440
13.0	2JT	50.0	1000g	-3320K
13.0	6JT	50.0	1000g	-3340K
16.0	6JT	55.0	1200g	-3440K

**Supra-Rapid Clamping Industrial Keyless Drill Chuck**

Fully hardened and ground working parts. The jaws are centre ground for alignment concentricity. Robustly designed for durability and wear resistance in the most arduous of industrial applications on stationary drilling machines. Unsuitable for reversing drills.



Capacity (mm)	Mount	Maximum Diameter	Weight each	Order Code KEN-440
10.0	2JT	42.5	670g	-4120K
10.0	DIN-B12	42.5	670g	-5220K
10.0	DIN-B16	42.5	690g	-5240K
13.0	6JT	46.0	920g	-4240K
13.0	1/2" - 20F	46.0	660g	-4280K
13.0	DIN-B12	46.0	900g	-5260K
13.0	DIN-B16	46.0	940g	-5280K
16.0	6JT	51.0	1100g	-4340K
16.0	DIN-B16	51.0	1090g	-5300K

**KOBE** Drill Chuck

Fully hardened and ground for durability and wear resistance. Suitable for use with portable power tools.



Capacity (mm)	Mount	Weight each	Order Code KBE-440
1.0 - 10.0	3/8" - 24F		-2010A
1.5 - 13.0	3/8" - 24F		-2020B
1.5 - 13.0	1/2" - 20F		-2030C

**Drill Chuck**

For use with portable power tools. Female mount. Supplied with key. UNF keyed chuck, hardened and ground for durability and wear resistance. For use with reversible drills. Excellent value for money.



Capacity (mm)	Mount	Weight each	Order Code KBE-440
1.0 - 10.0	3/8" - 24F	135g	-1010A
1.5 - 13.0	3/8" - 24F	270g	-1020B
1.5 - 13.0	1/2" - 20F	270g	-1030C

**Extra Keyless Drill Chuck**

Designed for use on cordless screwdrivers, cordless and cored drills. Unique gripping mechanism engages automatically when tightened. Fully hardened and ground jaws protect against work surface abrasion. Through drilled for use on reversible drills.



Capacity (mm)	Mount	Weight each	Order Code KEN-440
1 - 10	3/8" - 24F		-4720K
1.5 - 13	3/8" - 24F		-4760K
1 - 10	1/2" - 20F		-4700K
1.5 - 13	1/2" - 20F		-4740K

**Standard Duty Industrial Keyed Drill Chuck**

Fully hardened and ground for durability and wear resistance. Suitable for use with portable power tools. Supplied with key. Manufactured to DIN 6349. \*Primarily for use with hand operated machines



Capacity (mm)	Mounting	Maximum Diameter	Weight each	Order Code KEN-440
0.5 - 8	3/8" x 24F	30.0	140g	-2260K
0.8 - 10.0	3/8" x 24F	34.0	240g	-2360K
0.8 - 10.0*	3/8" x 24M	34.0	250g	-2370K
0.8 - 10.0*	1/2" x 20F	34.0	220g	-2380K
1.5 - 13.0	3/8" x 24F	42.7	390g	-2460K
1.5 - 13.0	3/8" x 24M	42.7	430g	-2470K
1.5 - 13.0	1/2" x 20F	42.7	390g	-2480K

**Heavy Duty Industrial Keyed Drill Chuck**

Fully hardened and ground working parts. The jaws are centre ground for alignment and concentricity. Key holes and teeth are fully hardened for durability and wear resistance. Suitable for use on machine tools and all types of industrial power tools. Supplied with key. Manufactured to DIN 6349. \* Primarily for use with hand operated machines. † Not suitable for reversing drills.



Capacity (mm)	Mounting	Maximum Diameter	Weight each	Order Code KEN-440
0.5 - 4	0JT	26.0	110g	-1060K
0.5 - 6.5	1JT	30.0	140g	-1110K
0.5 - 6.5	3/8"-24F †	30.0	140g	-1160K
1.0 - 10.0	2JT	42.7	430g	-1320K
1.0 - 10.0*	3/8"-24F †	38.0	270g	-1360K
0.8 - 10.0	DIN-B12	42.7	400g	-5020K
1.0 - 13.0	2JT	52.0	760g	-1420K
1.0 - 13.0	6JT	52.0	730g	-1440K
1.5 - 13.0	DIN-B12	52.7	750g	-5060K
1.0 - 13.0	DIN-B16	52.7	780g	-5080K
1.0 - 16.0	3JT	56.5	970g	-1530K
1.5 - 13.0	1/2"-20F	42.8	270g	-4640K
1.5 - 13.0	3/8"-24F †	42.5	420g	-1460K
1.5 - 13.0	1/2"-20F †	46.0	530g	-1480K
3.0 - 16.0	DIN-B16	56.5	890g	-5100K
3.0 - 16.0*	1/2"-20F †	50.0	610g	-1580K
5.0 - 20.0	3JT	65.0	1300g	-1630K
5.0 - 20.0	DIN-B22	65.0	1335g	-5120K

**Extra-RV Drill Chuck**

Radial locking. Suitable for use on impact drills. Maintains full gripping pressure on the drill bit during hammer drilling. Compensates and absorbs the vibration and forces produced when hammer drilling, unlike rigid gripping chucks, preventing drill slippage and providing consistent performance under severe conditions. Fully hardened and ground jaws protect against work surface abrasion. Through drilled for use on reversible drills.

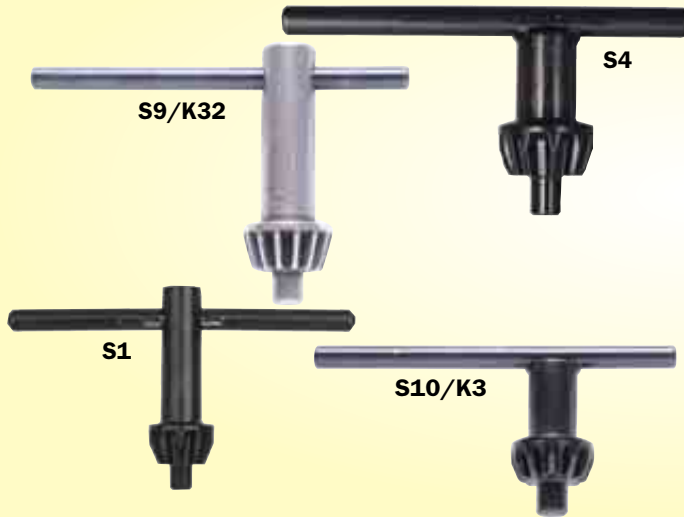


Capacity (mm)	Mount	Maximum Diameter	Weight each	Order Code KEN-440
13.0	3/8" - 24F	42.8	310g	-3860K
13.0	1/2" - 20F	42.8	310g	-3880K

WORKSHOP EQUIPMENT

**KENNEDY** *Chuck Keys*  
QUALITY INDUSTRIAL TOOLING

Suitable for use with all industrial keyed chucks (including Rohm\* and Jacobs).



Ref No.	For Use With Chuck Number	Jacobs Equivalent	Weight each	Order Code KEN-441
S1	440-106/111/116 & 226 *4, 6, 6M & 8M	-	20g	-0020K
S2	440-132/136/138/139/146/148/236/237/238/246/247/248 & all Supercraft Chucks *10S, 10, 10M, 13S & 13M	K8/10	50g	-0040K
S3	440-142/144/145/153 & 158	-	70g	-0060K
S4	440-163 *20 & 26	-	160g	-0080K
S7	1 Series	K1	20g	-0140K
S8	31 Series & 8½N	K30S	50g	-0160K
S9	32 & 33 Series, 11N	K32	60g	-0180K
S13	36 Series, 16, 18N	K4	150g	-0260K
S14	¼", ⅝", ⅜" Multicraft	KG	20g	-0280K
S18	7 Series	K7	30g	-0360K
S10	3 & 6 Series, 14N	K3	90g	-0400K
K2	2 Series	K2	40g	-1020K

**KOBE** *Chuck Keys*

Model Number	To Suit Drill Chuck	Weight each	Order Code KBE-441
10043KG	10mm	40g	-2010A
10038KK	13mm	50g	-2020B



**Industrial Drill Chuck Arbors**

Precision machined, fully hardened and ground to give maximum surface contact.

**Morse Taper Drive to Jacobs Taper**



Description	Overall Length	Weight each	Order Code KEN-442
No.1 MT x 1JT	90mm	70g	-9110K
No.1 MT x 2JT	95mm	80g	-9120K
No.1 MT x 6JT	96mm	100g	-9160K
No.1 MT x 33JT	95mm	90g	-9190K
No.2 MT x 1JT	100mm	150g	-9210K
No.2 MT x 2JT	105mm	160g	-9220K
No.2 MT x 3JT	115mm	220g	-9230K
No.2 MT x 4JT	125mm	370g	-9240K
No.2 MT x 6JT	110mm	180g	-9260K
No.2 MT x 33JT	110mm	180g	-9290K
No.3 MT x 1JT	120mm	310g	-9310K
No.3 MT x 2JT	125mm	330g	-9320K
No.3 MT x 3JT	135mm	380g	-9330K
No.3 MT x 4JT	145mm	520g	-9340K
No.3 MT x 6JT	130mm	340g	-9360K
No.3 MT x 33JT	125mm	340g	-9390K
No.4 MT x 2JT	135mm	700g	-9420K
No.4 MT x 3JT	160mm	730g	-9430K
No.4 MT x 6JT	155mm	690g	-9460K
No.4 MT x 33JT	155mm	680g	-9490K
No.5 MT x 3JT	190mm	1700g	-9530K

**Bridgeport Drive to Jacobs Taper**



Description	Overall Length	Weight each	Order Code KEN-442
R8 x 1JT	130mm	420g	-9610K
R8 x 2JT	135mm	440g	-9620K
R8 x 3JT	145mm	510g	-9630K
R8 x 6JT	135mm	450g	-9660K
R8 x 33JT	135mm	460g	-9690K

**Morse Taper Drive to Threaded**



Description	Overall Length	Weight each	Order Code KEN-442
No.1 MT ½ x 20	92mm	100g	-1120K
No.1 MT ⅜ x 24	95mm	80g	-1380K
No.2 MT ½ x 20	105mm	170g	-2120K
No.2 MT ⅜ x 24	105mm	170g	-2380K
No.2 MT ⅝ x 16	105mm	180g	-2580K
No.3 MT ½ x 20	125mm	360g	-3120K
No.3 MT ⅝ x 16	125mm	370g	-3580K

**KD Type - Morse Taper Shank to Din Taper Arbors**  
Fully hardened and ground Morse Taper to DIN 228. Chuck taper to DIN 238.



Morse Taper	Chuck Taper	Overall length	Order Code KEN-442
No.2 MT	B12	106.5mm	-5220K
No.2 MT	B16	111.5mm	-5260K
No.3 MT	B12	125.0mm	-5320K
No.3 MT	B16	134.0mm	-5360K
No.4 MT	B16	159.0mm	-5420K
No.4 MT	B22	176.0mm	-5460K

**SDS Adaptor**

Complete with retaining screw for reserve action. Suitable for use in rotary mode only.

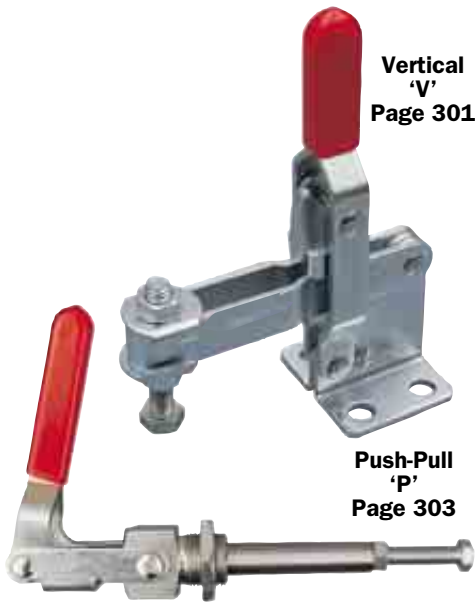


Description	Overall Length	Weight each	Order Code KEN-442
SDS ½"x20	75mm	40g	-9000K

WORKSHOP EQUIPMENT

Indexa-Seiki fixed grip toggle clamps form a complete range suitable for countless applications including holding components in jigs and fixtures, clamping loads etc.

**Selection - Clamp Type**



**Vertical 'V'**  
Page 301

**Push-Pull 'P'**  
Page 303

**Vertical**  
For general application in automotive and other heavy industries where trouble free life and robust construction are required. Force applied downward, 90° to bar.

**Horizontal**  
For general application in areas where a lower profile and unobstructiveness are required. Force applied downward, 90° to bar.

**Push-Pull**  
Clamps lock in extended and retracted positions. Force applied in line with spindle (straight line action).

**Latch**  
Suitable for applications such as sealing chamber doors, lids of mould closures. Latch bolts are threaded to allow easy adjustment.

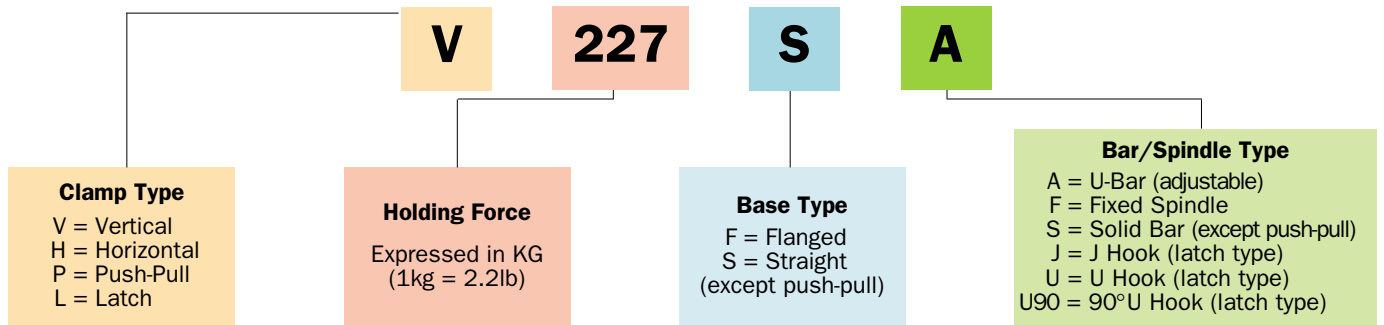


**Horizontal 'H'**  
Page 302



**Latch 'L'**  
Page 302

**Selection by Product Number**



**Flanged 'F'**

**Selection - Base Type**

**Flanged**  
Suitable for bolting or welding the clamp on to a flat surface.

**Straight**  
Suitable for mounting on to an outside face or edge of workpiece.



**Straight 'S'**

**Selection - Bar/Spindle Type**

**U-Bar**  
Clamping spindle can be adjusted along length of bar.

**Fixed Spindle**  
Clamping spindle is in a fixed position on the arm.

**Solid Bar**  
Clamping spindle and retainer are supplied loose to allow the arm to be cut to length and welded in desired position.

**Threaded Spindle**  
Used for push-pull type of clamp.

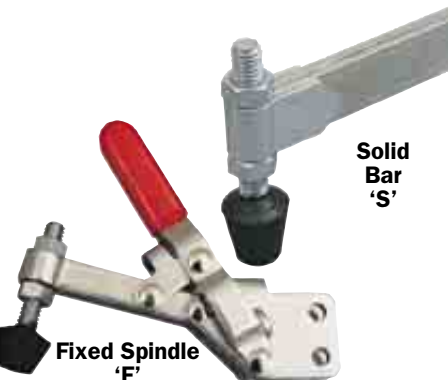
**U-Hook**  
Threaded for easy adjustment.

**J-Hook**  
Locks directly regardless of angle of hook.

**90° U Hook**  
Locks at 90° to clamp.



**U-Bar 'A'**



**Solid Bar 'S'**

**Fixed Spindle 'F'**



**Threaded Spindle 'handle position'**



**U-Hook 'U'**



**90° U-Hook 'U90'**

**J-Hook 'J'**



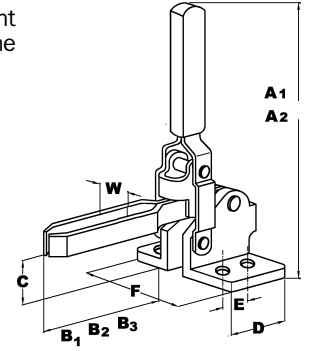
**INDEXA Vertical Industrial Toggle Clamp**

Designed to improve performance in fabrication and engineering clamping applications. The rapid clamping/unclamping made possible by the use of toggle clamps can greatly reduce machine/operator 'down-time' during all stages of production.

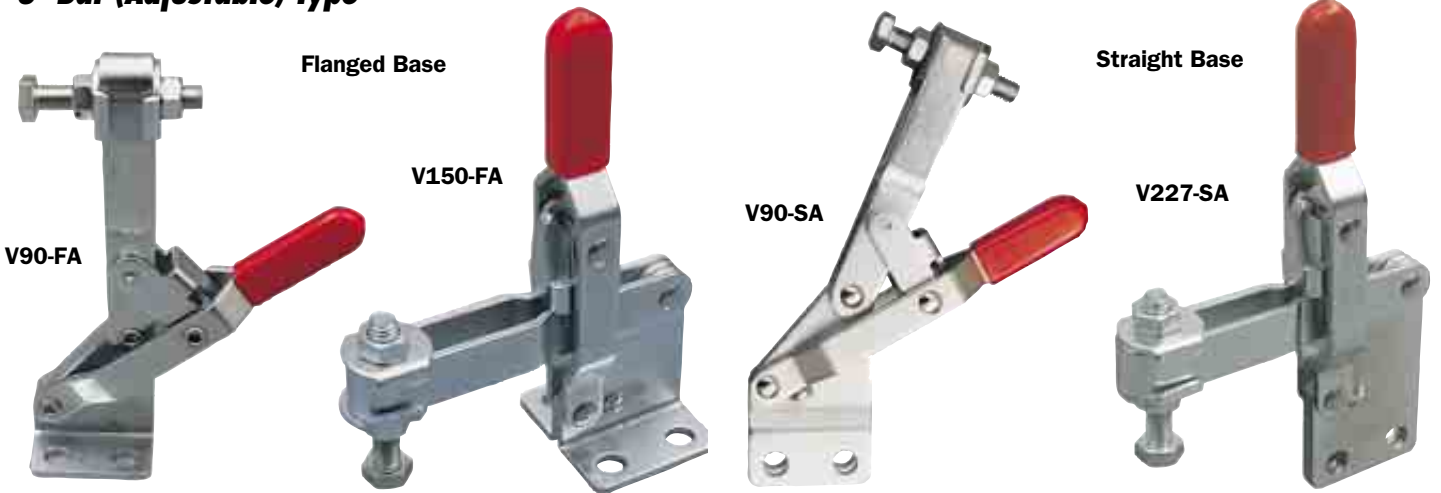
**Clamping Capacity** - the forces stated are the maximum loads that can be applied without causing permanent deformation. Due to leverage ratios, the holding capacity will be greatest at the point on the bar nearest to the handle of the clamp and forces stated have been achieved at this point.

**Vertical Clamp Dimensions (mm)**

Holding Capacity	A <sub>1</sub> Flanged Base	A <sub>2</sub> Straight Base	B <sub>1</sub> Adj. Bar	B <sub>2</sub> Fixed Bar	B <sub>3</sub> Solid Bar	C Flanged Base	D	E	F Flanged Base	W
50kg	75.0	83.8	24.5	—	—	19.0	25.4	15.9	33.3	5.2
90kg	95.2	107.1	33.2	33.2	—	23.0	25.4	12.7	39.7	6.4
150kg	139.0	160.0	63.0	—	—	38.0	43.0	33.0	50.0	11.0
227kg	139.7	154.0	71.4	—	57.2	31.8	34.9	31.8	46.0	8.3
300kg	285.0	330.0	120.0	—	—	50.0	60.0	30.0	77.0	13.5
450kg	225.4	257.5	125.4	—	—	50.8	50.8	31.8	64.2	13.5
550kg	304.8	352.4	153.0	—	153.0	82.6	76.2	50.8	95.2	16.7

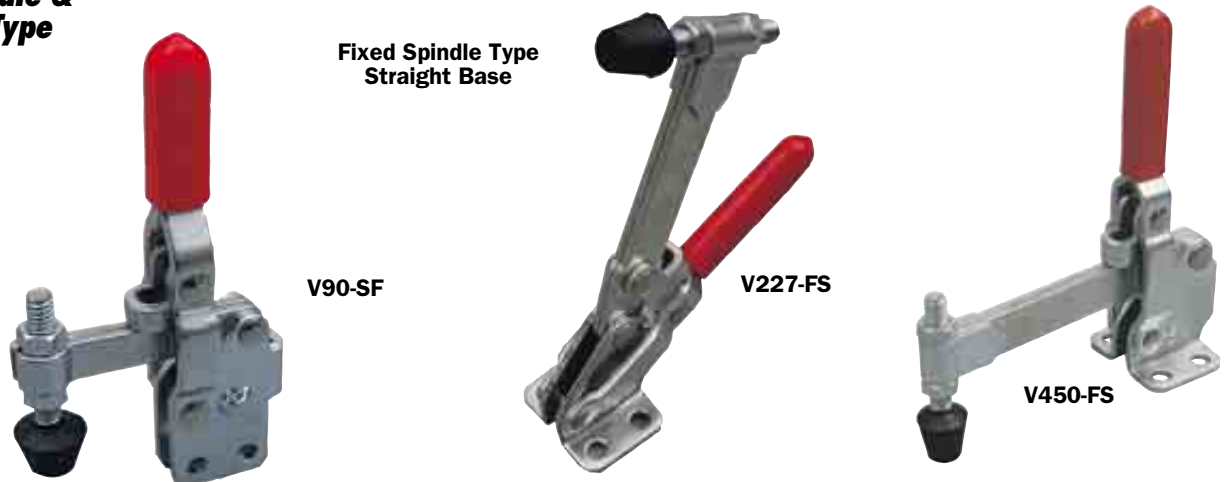


**'U' Bar (Adjustable) Type**



Product Number	Holding Capacity	Movement		Base Type	Supplied With	Weight each	Order Code
		Handle	Bar				
V50-FA	50kg	56°	100°	Flanged	Tipped Spindle (No.10) and Flanged Washer	60g	<b>-1020K</b>
V90-FA	90kg	60°	100°		Spindle (1/4") and Flanged Washer	1250g	<b>-1220K</b>
V150-FA	150kg	45°	94°		Hex Head Spindle (M8) and Bolt Retainer	320g	<b>-1320K</b>
V227-FA	227kg	60°	100°		Tipped Spindle (5/16") and Flanged Washer	355g	<b>-1420K</b>
V300-FA	300kg	67°	140°		Hex Head Spindle (M10)	1250g	<b>-1620K</b>
V450-FA	450kg	70°	135°		Hex Head Spindle (1/2") and Flanged Washer	1140g	<b>-1720K</b>
V550-FA	550kg	60°	140°		Hex Head Spindle (5/8") and Flanged Washer	2540g	<b>-1920K</b>
V340-FA	340kg	58°	105°	Straight	Tipped Spindle (3/8") and Flanged Washer	635g	<b>-1590K</b>
V90-SA	90kg	60°	100°		Spindle (1/4") and Flanged Washer	170g	<b>-1270K</b>
V150-SA	150kg	45°	94°		Hex Head Spindle (M8) and Bolt Retainer	320g	<b>-1370K</b>
V227-SA	227kg	60°	100°		Tipped Spindle (5/16") and Flanged Washer	355g	<b>-1470K</b>

**Fixed Spindle & Solid Bar Type**



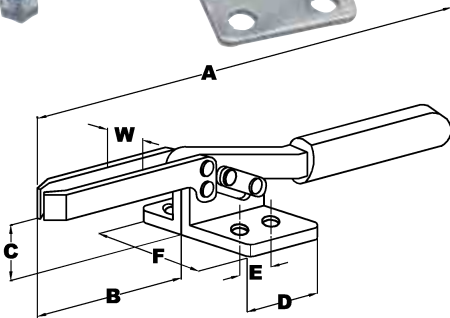
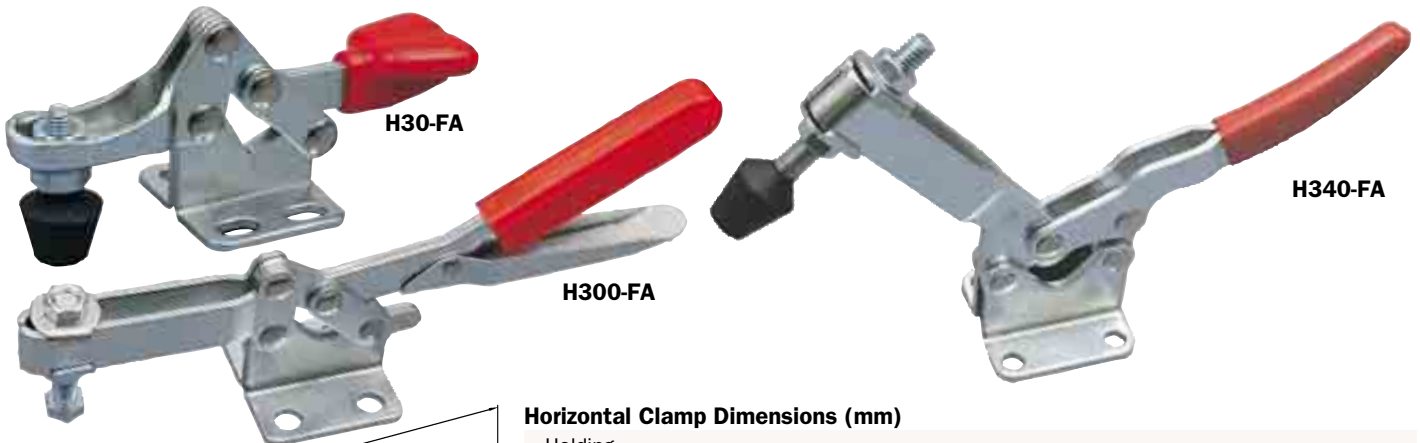
Product Number	Holding Capacity	Movement		Base Type	Supplied With	Weight each	Order Code
		Handle	Bar				
V90-FF	90kg	60°	100°	Flanged	Fixed Spindle (1/4")	170g	<b>-1120K</b>
V90-SF	90kg	60°	100°	Straight	Fixed Spindle (1/4")	170g	<b>-1170K</b>
V227-FS	227kg	60°	100°	Flanged	Solid Bar Hex Head (5/16") and Bolt Retainer*	340g	<b>-1520K</b>
V450-FS	450kg	70°	135°		Solid Bar Hex Head Spindle (1/2") and Bolt Retainer*	1250g	<b>-1820K</b>
V550-FS	550kg	60°	140°		Solid Bar Hex Head Spindle (5/8") and Bolt Retainer*	2540g	<b>-1940K</b>
V227-SS	227kg	60°	100°	Straight	Solid Bar Tipped Spindle (5/16") and Bolt Retainer*	340g	<b>-1570K</b>

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 443 TOGGLE CLAMPS**

**INDEXA Horizontal Industrial Toggle Clamp**

With a low profile design suitable for use in applications requiring increased access to the actual workpiece. Available in eight sizes for general application in areas where a lower profile is required. Force applied downwards 90° to bar.



**Horizontal Clamp Dimensions (mm)**

Holding Capacity	A	B	C	D	E	F	W
30kg	76.5	28.0	12.5	24.0	11.5	28.5	8.5
90kg	138.0	55.0	25.4	37.0	25.4	36.0	7.4
227kg	168.0	70.0	34.9	38.0	25.4	35.0	8.3
300kg	270.0	85.0	36.5	58.0	34.0	60.0	11.0
340kg	262.0	107.5	46.9	57.1	41.3	57.2	11.0
400kg	240.0	60.0	54.0	70.0	42.0	50.0	12.6
500kg	270.0	91.2	38.0	58.0	37.0	70.0	11.0
636kg	272.0	76.2	51.0	90.0		48.0	12.7

**WORKSHOP EQUIPMENT**

Product Number	Holding Capacity	Movement Handle	Bar	Base Type	Supplied with	Weight each	Order Code
H65-FA	75kg	76°	94°	Flanged	Hex Head Spindle (M5) Moulded PVC Handles	100g	<b>-1960K</b>
H86-FA	150kg	76°	94°		Hex Head Spindle (M6) Moulded PVC Handles	230g	<b>-1970K</b>
H217-FA	250kg	76°	94°		Hex Head Spindle (M8) Moulded PVC Handles	430g	<b>-1980K</b>
H30-FA	30kg	88°	80°	Flanged	Tipped Spindle (M4)	40g	<b>-2020K</b>
H90-FA	90kg	60°	85°		Tipped Spindle (1/4") and Flanged Washer	130g	<b>-2120K</b>
H227-FA	227kg	65°	90°		Tipped Spindle (9/16") and Flanged Washer	255g	<b>-2220K</b>
H300-FA	300kg	85°	80°		Hexagon Head Spindle (3/8") and Flanged Washer	490g	<b>-2320K</b>
H340-FA	340kg	50°	85°		Tipped Spindle (3/8") and Flanged Washer	640g	<b>-2420K</b>
H400-FA	400kg	85°	84°		Tipped Spindle (3/8") and Flanged Washer	600g	<b>-2520K</b>
H500-FA	500kg	85°	65°		Hexagon Head Spindle (M10) and Flanged Washer	450g	<b>-2620K</b>
H636-FA	636kg	94°	91°		Hexagon Head Spindle (1/2") and Flanged Washer**	1220g	<b>-2720K</b>

\*\*Single mounting centre hole 13mm diameter for 'Tee' bolt mounting

**Latch Type Toggle Clamp**

Suitable for sealing chamber doors or mould closures. The latched bolts are threaded to allow easy adjustment and provide positive connection with latch plate.



See Group **732**

\*Optional latch plate **IND-443-8000K**

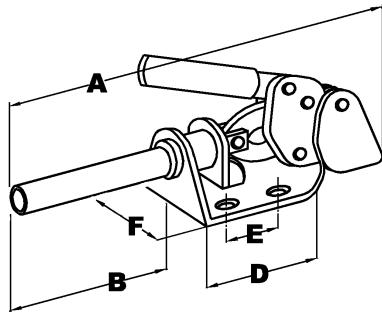
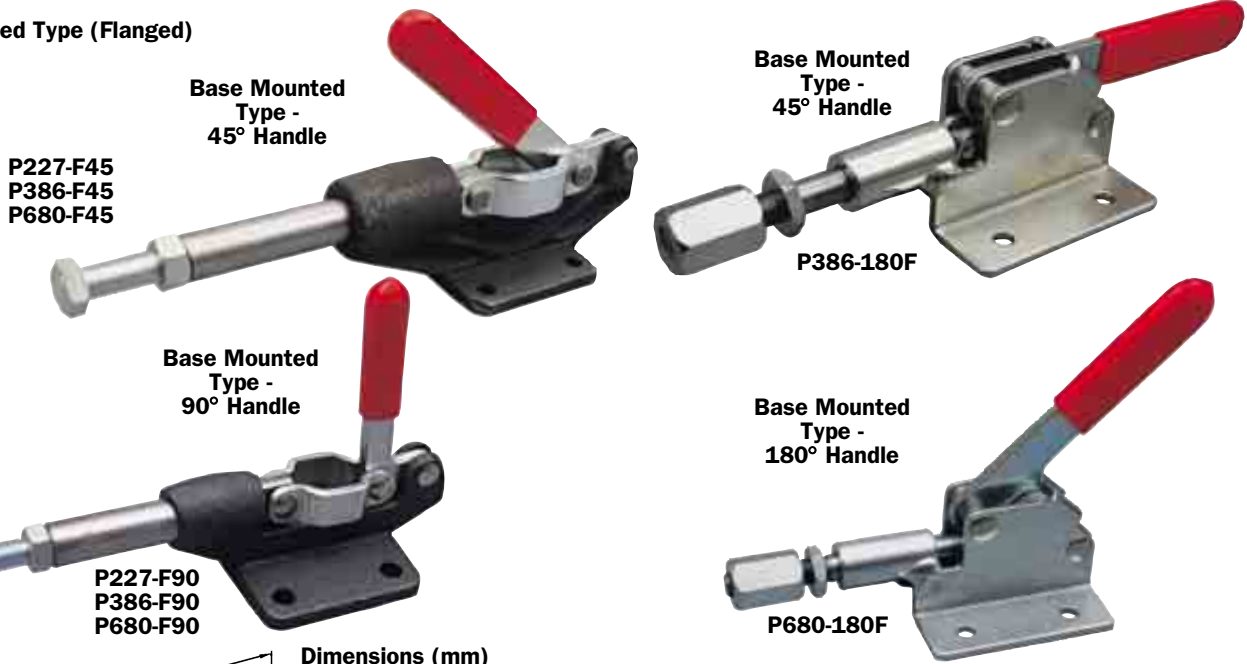
Product Number	Holding Capacity	Drawing Movement	Drawing Adjust	Base Type	Description	Weight each	Order Code
L164-FU	164kg	30mm	9.9mm	Flanged	U-Style Bolt	80g	<b>-4070K</b>
L318-FU	318kg	45mm	9.6mm		U-Style Bolt	225g	<b>-4010K</b>
L900-FU	900kg	80mm	23.8mm		U-Style Bolt	680g	<b>-4130K</b>
L1818-FU	1818kg	88.9mm	19mm	Flanged	U-Style Bolt*	1260g	<b>-4170K</b>
L3400-FU	3400kg	55.6mm	28.6mm		U-Style Bolt*	1480g	<b>-4210K</b>
L170-FJ	170kg	100mm	6.5mm	Flanged	J-Style Bolt	270g	<b>-4030K</b>
L170-FJ	170kg	105mm	35mm		J-Style Bolt	255g	<b>-4050K</b>
L340-FJ	340kg	140mm	40mm		J-Style Bolt	340g	<b>-4190K</b>
L225-FU90	225kg	25mm	15mm	Flanged	90° Angle U-Style Bolt	113g	<b>-4090K</b>
L450-FU90	450kg	65mm	33mm		90° Angle U-Style Bolt	250g	<b>-4110K</b>
L900-FU90	900kg	45mm	40mm		90° Angle U-Style Bolt	700g	<b>-4150K</b>



**INDEXA** *Push Pull Industrial Toggle Clamp*

The straight line action which gives these plunger-style clamps extremely high loading capacities whilst maintaining compactness. These clamps also lock in the open position which allows a 'pull' to be exerted (for instance, in use with foam moulds). All models have tapped spindles for use with adjustable spindles.

**Base Mounted Type (Flanged)**

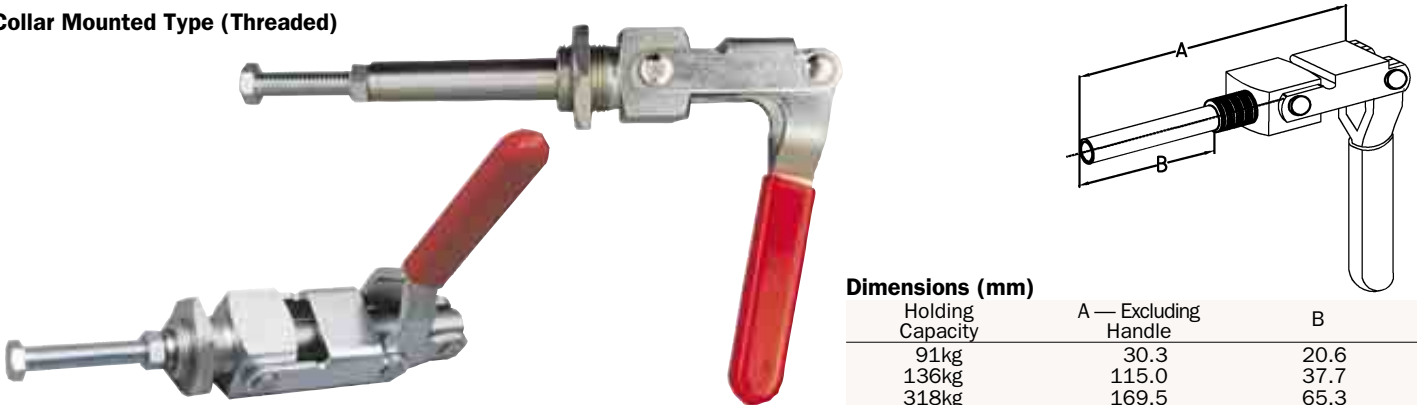


**Dimensions (mm)**

Holding Capacity	A — Excluding Handle	B	C	D	E	F
45kg	72.2	38.9	9.5	33.3	15.0	27.0
50kg	71.9	16.9	13.0	49.0	24.0	42.0
136kg	138.0	47.0	24.6	48.0	35.0	56.0
160kg	146.0	76.0	15.5	70.0	40.0	72.0
200kg	124.5	41.5	14.0	48.0	40.0	50.0
227kg	125.4	52.4	19.0	52.4	35.0	57.2
295kg	204.0	112.0	17.7	92.0	60.0	83.0
386kg	158.8	81.0	23.8	58.8	41.4	57.2
680kg	238.2	120.8	35.0	73.2	50.8	71.4
1136kg	178.6	50.8	12.5	127.8	34.9	56.2
1136kg	178.6	50.8	12.5	127.8	41.3 (6 holes)	56.2
1600kg	310.0	87.0	47.0	227.0	80.0	107.0

Product Number	Holding Capacity	Spindle Thread	Handle Movement	Handle Position	Base Type	Supplied With	Weight each	Order Code <b>IND-443</b>
P45-F45	45kg	1/4" UNC x 12 Deep	190°			Nylon Spindle	50g	<b>-3030K</b>
P136-F45	136kg	M8	180°			Hexagon Head Spindle	300g	<b>-3060K</b>
P200-F45	180kg	M8 x 1.25	144.5°			Hexagon Head Spindle	345g	<b>-3090K</b>
P180-FA	180kg	M8 x 1.25	145°			Hexagon Head Spindle	35g	<b>-3100K</b>
P227-F45	227kg	M8	180°	45°	Flanged	Hexagon Head Spindle	340g	<b>-3120K</b>
P386-F45	386kg	M10	180°	Extended	Flanged	Hexagon Head Spindle	580g	<b>-3180K</b>
P680-F45	680kg	M12	180°			Hexagon Head Spindle	1480g	<b>-3240K</b>
P1136-F45	1136kg	M10	180°			Hexagon Head Spindle	935g	<b>-3300K</b>
P227-F90	227kg	M8 x 30 Deep	180°	90°	Flanged	Hexagon Head Spindle	340g	<b>-3150K</b>
P386-F90	386kg	M10 x 40 Deep	180°	Extended	Flanged	Hexagon Head Spindle	580g	<b>-3210K</b>
P680-F90	680kg	M12 x 50 Deep	180°			Hexagon Head Spindle	1480g	<b>-3270K</b>
P50-180F	50kg	M5	66°	180°	Flanged	Hexagon Head Spindle	100g	<b>-3700K</b>
P386-180F	160kg	M10	45°	Extended	Flanged	Hexagon Head Spindle	454g	<b>-3730K</b>
P680-180F	295kg	1/2" UNC	45°	Extended	Flanged	Hexagon Head Spindle	1270g	<b>-3760K</b>

**Collar Mounted Type (Threaded)**



**Dimensions (mm)**

Holding Capacity	A — Excluding Handle	B
91kg	30.3	20.6
136kg	115.0	37.7
318kg	169.5	65.3

Product Number	Holding Capacity	Spindle Thread	Collar Thread	Handle Movement	Base Type	Supplied with	Weight each	Order Code <b>IND-443</b>
P91-FT	91kg	1/4" UNC	M16	180°		Nylon Spindle	113g	<b>-3530K</b>
P136-FT	136kg	5/16" UNC	M20	180°	Flanged	Hexagon Head Spindle	270g	<b>-3560K</b>
P318-FT	318kg	3/8" UNC	M27	180°		Hexagon Head Spindle	690g	<b>-3590K</b>

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**GROUP 443 TOGGLE CLAMPS**

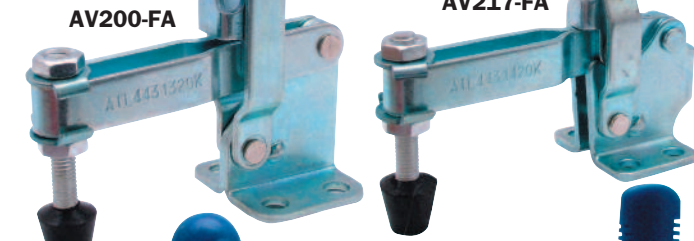
**ATLAS WORKHOLDERS Vertical Industrial Toggle Clamp**

Designed to improve performance in fabrication and engineering clamping applications. The rapid clamping/unclamping made possible by the use of toggle clamps can greatly reduce machine/operator 'down-time' during all stages of production.



'U' Bar (Adjustable) Type with Flanged Base

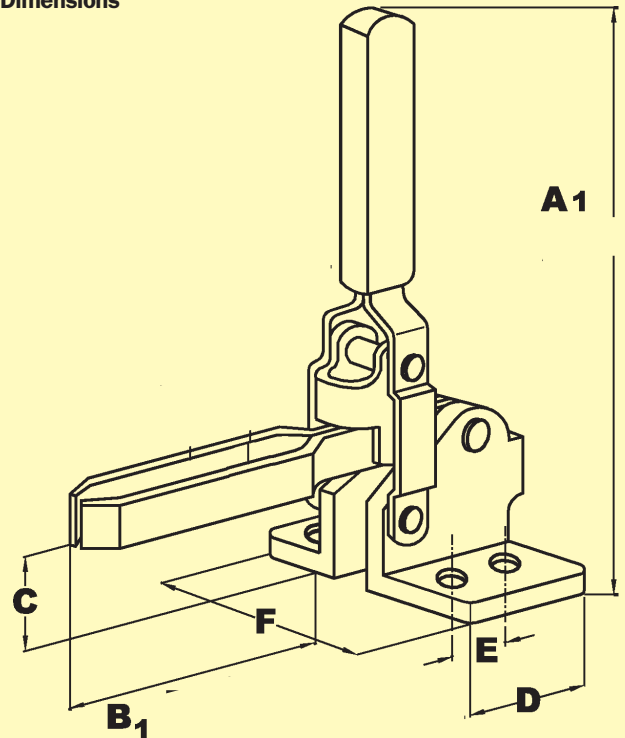
'U' Bar (Adjustable) Type with Side Facing Flanged Base



AV200-FA

AV217-FA

**Dimensions**



**'U' Bar (Adjustable) Type with Flanged Base**

Product Number	A <sub>1</sub> Flanged Base	B <sub>1</sub> Flanged Base	C Flanged Base	D	E	F Flanged Base
AV50-FA	75.0	24.5	19.0	25.4	15.9	39.7
AV90-FA	93.0	39.0	23.0	29.0	14.0	28.0
AV150-FA	143.0	44.0	31.0	19.0	12.7	42.0
AV200-FA	139.0	63.0	38.0	43.0	24.0	50.0
AV217-FA	139.7	71.4	31.8	34.9	19.0	46.0
AV450-FA	272.0	125.0	62.0	70.0	40.0	70.0

**Fixed Spindle Type with Flanged Base**

Product Number	A <sub>1</sub> Flanged Base	B <sub>1</sub> Flanged Base	C Flanged Base	D	E	F Flanged Base
AV80-FF	100.0	27.0	23.8	25.4	12.7	39.7
AV217-FS	139.7	57.2	31.8	34.9	19.0	46.0



AV150-FA

AV450-FA

Fixed Spindle Type with Flanged Base

Solid Bar Type with Flanged Base

AV217-FS

AV80-FF

**'U' Bar (Adjustable) Type with Flanged Base**

Product Number	Holding Capacity	Movement Handle	Movement Bar	Base Type	Supplied With	Weight each	Order Code
AV50-FA	50kg	56°	100°	Flanged	Tipped Spindle (M5) and Flanged Washers	60g	<b>-1020K</b>
AV90-FA**	90kg	60°	100°		Spindle (M6) and Bolt Retainer	115g	<b>-1220K</b>
AV150-FA	150kg	70°	108°		Hex Head Spindle (M6) Moulded PVC Handle	230g	<b>-1970K</b>
AV200-FA	200kg	45°	94°		Hex Head Spindle (M8) and Flanged Washers	370g	<b>-1320K</b>
AV217-FA	217kg	60°	100°		Tipped Spindle (M8) and Flanged Washers	310g	<b>-1420K</b>
AV450-FA	450kg	70°	135°		Hex Head Spindle (M12) and Flanged Washers	1220g	<b>-1720K</b>

\*\* Model AV90-FA has Side Flange - All other FA models listed have Flat Flanges

**Fixed Spindle Type with Flanged Base**

Product Number	Holding Capacity	Movement Handle	Movement Bar	Base Type	Supplied With	Weight each	Order Code
AV80-FF	90kg	60°	100°	Flanged	Fixed Spindle (M8)	170g	<b>-1120K</b>
AV217-FS	217kg	60°	100°		Solid Bar and Bolt Retainer (M8)*	310g	<b>-1520K</b>

\* Please note that the bolt retainer supplied needs to be welded in to position by the user.

WORKSHOP EQUIPMENT



See Group 732



**Horizontal Industrial Toggle Clamps**



With a low profile design suitable for use in applications requiring increased access to the actual workpiece. Available in eight sizes for general application in areas where a lower profile is required. Force applied downwards 90° to bar.

**'U' Bar (Adjustable) Type with Flanged Base**

AH250-FA



AH20-FA



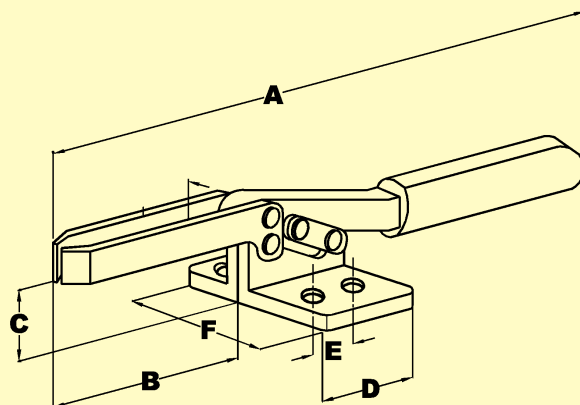
AH340-FA



AH80-FA



**Dimensions**



Product Number	A	B	C	D	E	F
AH20-FA	110.0	37.5	24.8	36.5	24.0	30.0
AH80-FA	138.1	55.0	25.4	36.5	25.4	38.0
AH217-FA	168.0	70.0	34.9	38.0	53.4	35.0
AH250-FA	274.0	108.0	45.0	59.0	41.2	59.0
AH340-FA	263.5	108.0	44.4	57.2	41.3	57.2

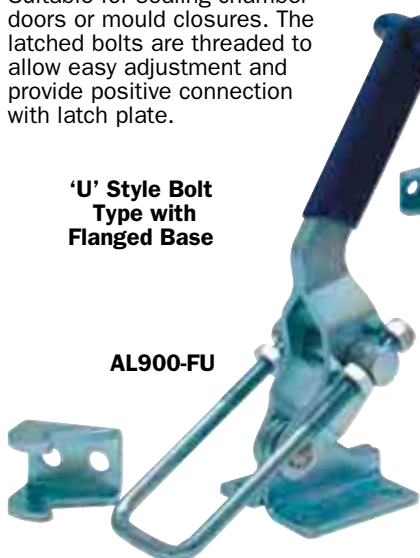
Product Number	Holding Capacity	Movement Handle	Movement Bar	Base Type	Supplied with	Weight each	Order Code
AH20-FA	30kg	88°	80°	Flanged	Tipped Spindle (M6) and Flanged Washers	100g	<b>-2020K</b>
AH80-FA	80kg	60°	85°		Tipped Spindle (M6) and Flanged Washers	130g	<b>-2120K</b>
AH217-FA	217kg	65°	90°		Tipped Spindle (M8) and Flanged Washers	312g	<b>-2220K</b>
AH250-FA	250kg	94°	76°		Hexagon Head Spindle (M10) and Flanged Washers	500g	<b>-2620K</b>
AH340-FA	340kg	50°	85°		Tipped Spindle (M10) and Flanged Washers	265g	<b>-2420K</b>

**Latch Type Toggle Clamps**

Suitable for sealing chamber doors or mould closures. The latched bolts are threaded to allow easy adjustment and provide positive connection with latch plate.

**'U' Style Bolt Type with Flanged Base**

AL165-FU

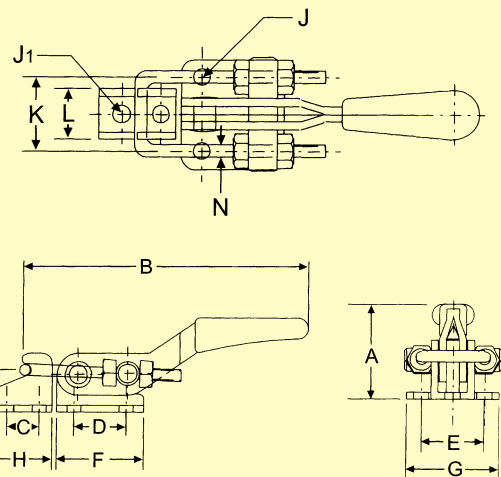


AL900-FU



AL320-FU

**Dimensions**



Product Number	A	B	C	D	E	F	G	H	J	J <sub>1</sub>	K	L	N	O
AL165-FU	36	88	9.9	16	19	26	28	45	4.3	4.3	19	13.2	3.3	12
AL320-FU	45	151.6	14	19	31.8	39.6	44.5	25	6.8	6.8	25.4	17.5	4	17
AL900-FU	70.6	190	19	41.4	38	60.5	54	38	8.4	8.4	44.5	30.0	8	24

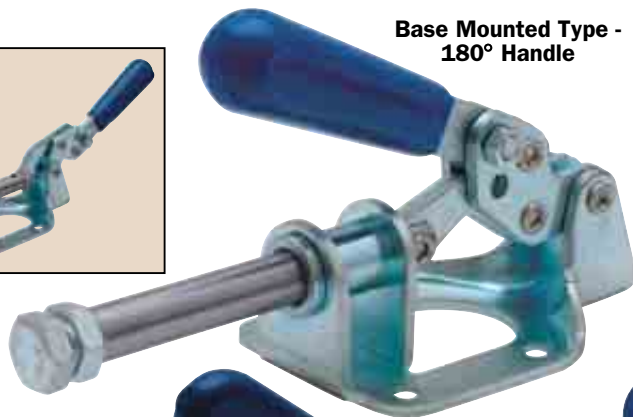
Product Number	Holding Capacity	Drawing Movement	Drawing Adjust	Base Type	Description	Weight each	Order Code
AL165-FU	165kg	30mm	9.9mm	Flanged	U-Style Bolt	68g	<b>-4070K</b>
AL320-FU	320kg	45mm	9.6mm		U-Style Bolt	225g	<b>-4010K</b>
AL900-FU	900kg	80mm	23.8mm		U-Style Bolt	650g	<b>-4130K</b>

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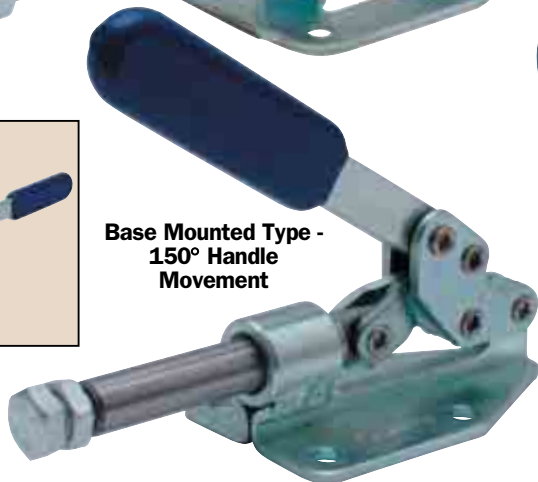
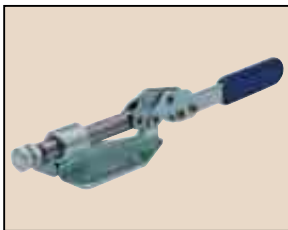
**GROUP 443 TOGGLE CLAMPS**

**ATLAS WORKHOLDERS Push Pull Industrial Toggle Clamps**

The straight line action which gives these plunger-style clamps extremely high loading capacities whilst maintaining compactness. These clamps also lock in the open position which allows a 'pull' to be exerted (for instance, in use with foam moulds). All models have tapped spindles for use with adjustable spindles.



**Base Mounted Type - 180° Handle**

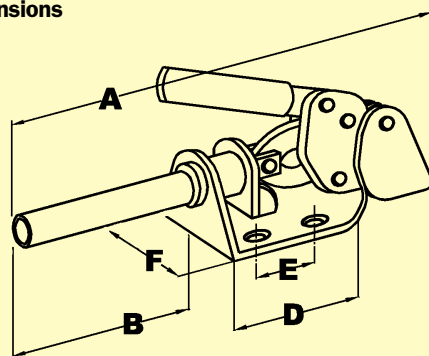


**Base Mounted Type - 150° Handle Movement**



**Base Mounted Type - 190° Handle Movement**

**Dimensions**



Product Number	A - Excl. Handle	B	C	D	E	F
AP136	138.1	49.2	24.6	88.9	34.9	55.6
AP200	124.5	41.5	14.0	83.0	40.0	50.0
AP227	151.0	63.0	15.0	88.0	32.0	63.0

Product Number	Holding Capacity	Spindle Thread	Handle Movement	Handle Position	Base Type	Supplied With	Weight each	Order Code
AP136	136kg	M8	180°			Hexagon Head Spindle	285g	<b>-3060K</b>
AP200	200kg	M8 x 1.25	150°	45°	Flanged	Hexagon Head Spindle	330g	<b>-3090K</b>
AP227	227kg	M8 x 30 Deep	190°	Extended		Hexagon Head Spindle	540g	<b>-3150K</b>

**WORKSHOP EQUIPMENT**

**INDEXA Heavy Duty Weldable Toggle Clamps**

Hold down action suitable for high production automotive type applications. Heavy duty forged components with hardened and ground pivot points. The users provide their own handle and bar and weld them to the clamp which is then welded to a base. The flexible mounting of these clamps allows them to be used in situations where standard clamps are not effective.



**Group 880**



Holding Capacity	Base Width	Clamp Height with Handle	Weight each	Order Code
700kg	28mm	110mm	808g	<b>-5010K</b>
700kg	45mm	130mm	915g	<b>-5030K</b>
1100kg	35mm	140mm	1468g	<b>-5050K</b>
1100kg	50mm	170mm	1574g	<b>-5070K</b>

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**



**INDEXA Latch Plates**

For use with latch type toggle clamps.



Base Size	Hook Width	Order Code
80 x 55mm	22mm	<b>-8000K</b>

**Flanged Washers**

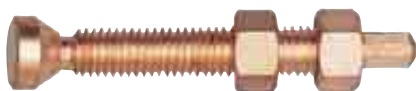
For use in conjunction with all spindles on clamps with adjustable 'U' bars.



To fit Spindle	Weight each	Order Code
1/4"	4g	<b>-8740K</b>
5/16" (M8)	10g	<b>-8780K</b>
3/8" (M10)	15g	<b>-8800K</b>

**Swivel Foot Spindles**

As Neoprene capped but suitable for clamping onto irregular shapes or angled workpieces.



Size	Length	Weight each	Order Code
5/16" UNC	2 3/4"	031g	<b>-8520K</b>
3/8" UNC	3"	047g	<b>-8540K</b>

**Neoprene Capped Spindles**

For use with adjustable 'U' bar type clamps and solid bar type clamps that have bolt retainers.



Size	Length	Weight each	Order Code
M4 x 0.7	25mm	5g	<b>-8020K</b>
M8 x 1.25	63mm	34g	<b>-8100K</b>
M10 x 1.5	85mm	64g	<b>-8140K</b>
No 10UNC	1 3/8"	9g	<b>-8200K</b>
1/4" UNC	1 3/4"	16g	<b>-8220K</b>
5/16" UNC	2 1/2"	31g	<b>-8260K</b>
3/8" UNC	3 1/2"	58g	<b>-8300K</b>
1/2" UNC	3 3/4"	125g	<b>-8340K</b>

**Neoprene Caps**

For standard adjustable spindles.



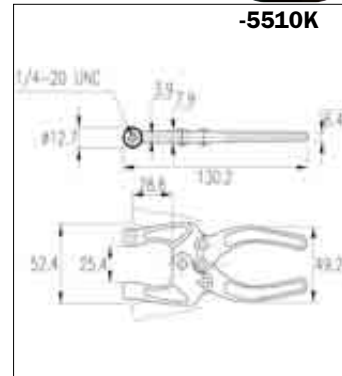
To fit Spindle	Weight each	Order Code
1/4"	08g	<b>-8600K</b>
5/16"	15g	<b>-8620K</b>
3/8"	24g	<b>-8640K</b>
1/2"	45g	<b>-8660K</b>

**Cam Type Toggle G-Clamp (Pull Back Clamp)**

To securely fix the clamp into position the base can be welded to the work surface.

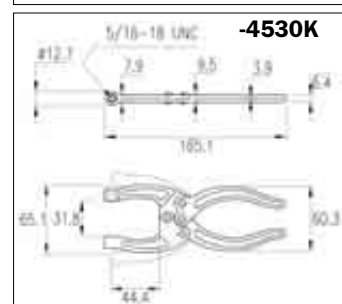
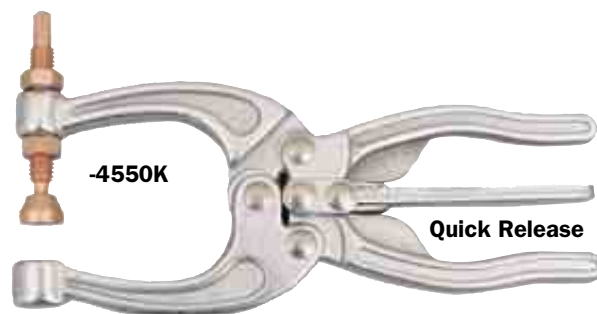
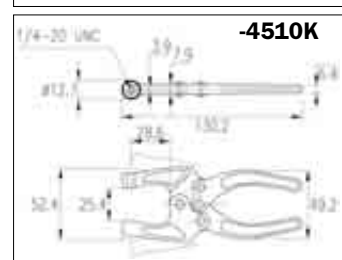


Holding Capacity	Jaw Opening	Jaw Movement	Handle Movement	Order Code
340kg	45.2mm	90°	50°	<b>-5510K</b>

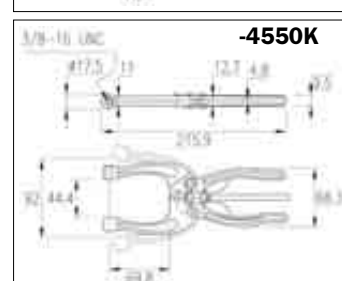


**Toggle Pliers**

Toggle pliers have the advantage of a pivoting jaw mechanism to allow a deep throat depth to open and close easily when clamping awkward profiles such as steel angle section. The jaw spindle can be pre-set to achieve the optimum clamping distance and pressure and so is most useful for repetitious clamping applications.

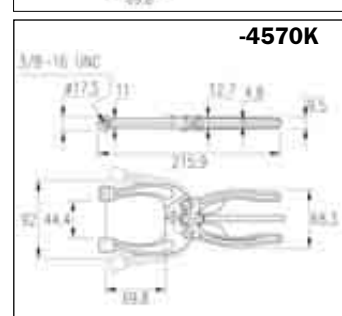


Holding Capacity	Jaw Opening Min	Jaw Opening Max	Standard Spindle Supplied	Order Code
90kg	25.4	52.4	Hex. Head	<b>-4510K</b>
159kg	31.8	65.1	Hex. Head	<b>-4530K</b>
318kg	44.4	92.0	Swivel	<b>-4550K</b>
318kg	76.2	123.8	Hex. Head & Swivel	<b>-4570K</b>

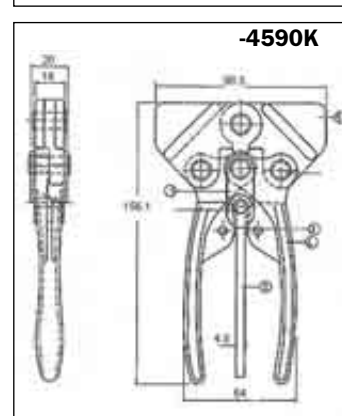


**'Stub' Type Toggle Pliers**

With two stub arms for easy linking to special jaw extensions.



Holding Capacity	Closed Head Width (mm)	Overall Length	Order Code
500kg	95.6	156.1	<b>-4590K</b>



**WORKSHOP EQUIPMENT**

**GROUP 445 VICES**

**KENNEDY PROFESSIONAL**

**Steel Bench Vices**



These premium quality bench vices are as good as you get, made from solid steel with replaceable jaws, integral pipe jaws and anvil for versatility. Available in 100mm (4") and 150mm (6").



**NEW**

Model Number	Jaw Width x Opening (mm)	Weight each	Order Code <b>KEN-445</b>
VBS100	100 x 90	-0500K	
VBS150	150 x 220	-0540K	

**SENATOR QUALITY TOOLING**

**Engineer's Vice**



Manufactured from the highest quality castings with precision cut screw mechanisms and precision machined jaws. Suitable for workshop, automotive and engineering use.



**Do Not Strike with a Hammer**



**Group 405**

Opening (mm)	Jaw Width (mm)	Weight each	Order Code <b>SEN-445</b>
100 (4")	75 (3")	9.2kg	-1030K
140 (5½")	100 (4")	9.5kg	-1040K
170 (6½")	125 (5")	18.0kg	-1050K
190 (7½")	150 (6")	27.0kg	-1060K

**Replacement Jaws (Pairs)**

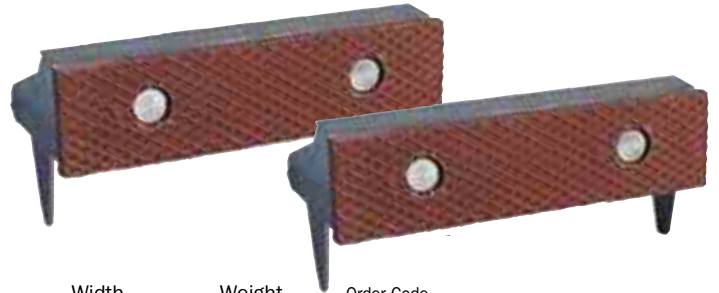
Engineers Vice Size	Weight each	Order Code <b>SEN-567</b>
To suit 75mm jaw width	1.4kg	-1030K
To suit 100mm jaw width	1.8kg	-1040K
To suit 125mm jaw width	2.0kg	-1050K
To suit 150mm jaw width	2.3kg	-1060K

**KENNEDY QUALITY INDUSTRIAL TOOLING**

**Fibre Grips**



Fibre-faced aluminium vice jaws for use with copper, aluminium, brass and wooden workpieces to prevent marking of work surface. Supplied in pairs.



Width (mm)	Weight each	Order Code <b>KEN-589</b>
76 (3")	165g	-0300K
90 (3½")	180g	-0350K
100 (4")	180g	-0400K
110 (4½")	230g	-0420K
115 (4½")	245g	-0450K
127 (5")	245g	-0500K
133 (5¼")	260g	-0520K
150 (6")	280g	-0600K

**Magnetic Vice Jaws**

Suitable for all steel and iron vices - engineers, fitters, machine. Quick and easy to fit and remove.

**Profiled Aluminium**



Width (mm)	Weight each	Order Code <b>KEN-589</b>
75 (3")	125g	-1300K
100 (4")	165g	-1400K
125 (5")	210g	-1500K
150 (6")	250g	-1600K

**Aluminium Jaw with a Fibre Face**



Width (mm)	Weight each	Order Code <b>KEN-589</b>
75 (3")	115g	-2300K
100 (4")	160g	-2400K
125 (5")	195g	-2500K
150 (6")	235g	-2600K

**Aluminium Jaw with a Rubber Face**



Width (mm)	Weight each	Order Code <b>KEN-589</b>
75 (3")	120g	-3300K
100 (4")	160g	-3400K
125 (5")	210g	-3500K
150 (6")	250g	-3600K

**WORKSHOP EQUIPMENT**



**SENATOR** *Workshop*  
**QUALITY TOOLING** *Vice*

American pattern bench mounting, steel vice with anvil suitable for workshop, garage and machine-shop use. Fixed base directly mounts onto work bench. Cast iron body with steel jaws and a cross drilled threaded handle with adjustable T-bar for extra leverage.



Opening (mm)	Jaw Width (mm)	Weight each	Order Code
145 (5 <sup>3</sup> / <sub>4</sub> "	100 (4")	13.5kg	<b>-2040K</b>
200 (8")	150 (6")	14.0kg	<b>-2060K</b>

**Portable Bench Vice**

Lightweight and portable with a swivel base and light duty anvil. Ideal for model makers, DIY and light industrial use. Can be fitted to any convenient work surface. Solid cast grey iron body with steel guide rods and main screw.

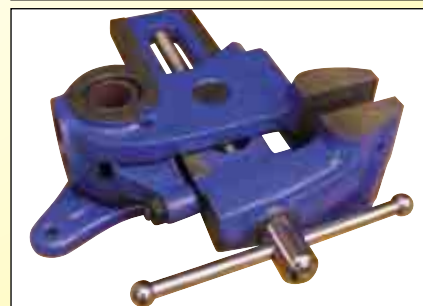
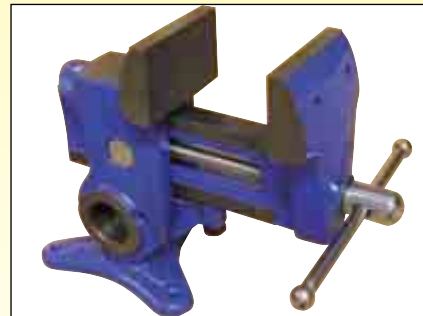
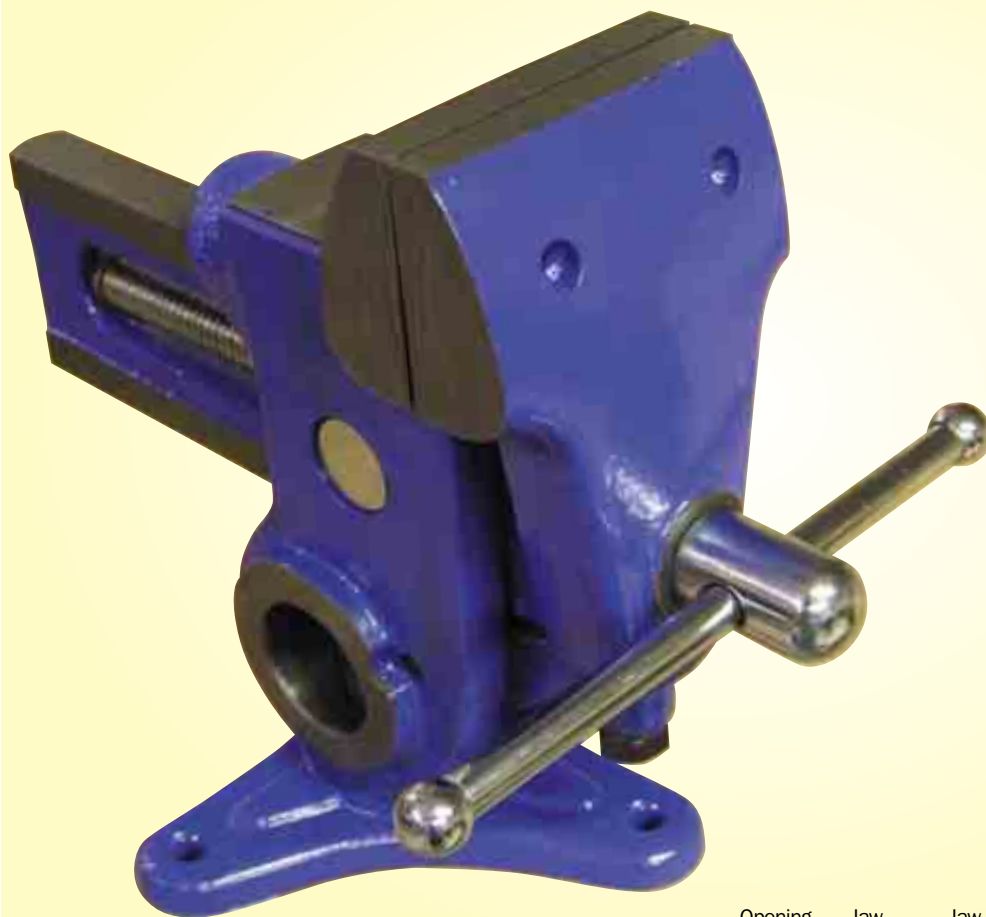


Opening (mm)	Jaw Width	Weight each	Order Code
70 (2 <sup>3</sup> / <sub>4</sub> "	60	2.8kg	<b>-0600K</b>

**125mm (5") Universal Vice**

Can be bench mounted either vertically or horizontally. Unique design permits the vice to rotate a full 360° then self-lock when jaws are tightened.

**Jaw height:** 54mm (2<sup>1</sup>/<sub>8</sub>".)



Opening (mm)	Jaw Width	Jaw Height	Weight each	Order Code
125 (5")	90 (3 <sup>1</sup> / <sub>2</sub> "	54 (2 <sup>1</sup> / <sub>8</sub> "	8.2kg	<b>-4050K</b>

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**WORKSHOP EQUIPMENT**

**GROUP 445 VICES**

**SENATOR QUALITY TOOLING Drill Press Vice**



Suitable for use on pillar/bench drills to steady the workpiece in all light duty drilling applications for the garage or small workshop. Cast construction with machined slots which are spaced to fit all popular drill stand bases. Cross drilled handle with sliding T-bar for extra leverage.



Jaw Width	Maximum Opening	Jaw Height	O/all Dimension Length x Height	Weight each	Order Code
75mm	55	23	200 x 45	1.90kg	<b>-0750K</b>
100mm	95	25	250 x 55	3.25kg	<b>-1000K</b>

**INDEXA Drill Press Vices - Quick Grip**



**Fixed Jaw**

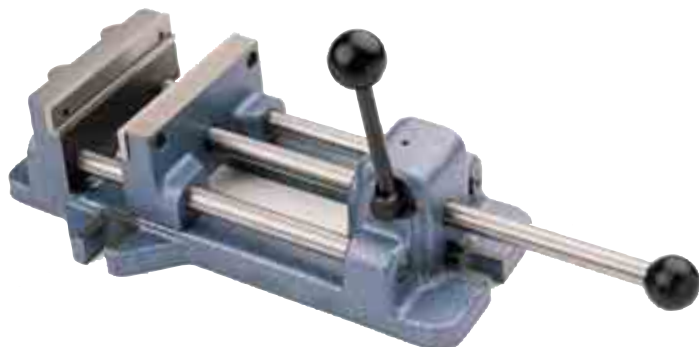
Quick acting cam can be set instantly to hold work. Fixed jaw with V-block to handle flat or round pieces, vertically or horizontally. Jaw inserts are hardened and ground. The heavy base can be clamped down to a milling machine or drill press.



Jaw Width	Jaw Height	Maximum Opening	Weight each	Order Code
80mm	30mm	80mm	5.2kg	<b>-0170K</b>
100mm	35mm	100mm	8.9kg	<b>-0180K</b>

**Sliding Jaw**

Recessed, replaceable jaws. Quick-acting cam gives instant settings by moving sliding steel bar attached to inside jaw. With cut-out base for clear through drilling. Hardened and ground lever arm locking mechanism. Heavy base can be clamped down to a milling machine or drill press. Adjustable clamping pressure.



Jaw Width	Max. Opening	Overall Length	Base Width	Weight each	Order Code
80mm	80mm	222mm	120mm	4.0kg	<b>-0110K</b>
100mm	125mm	293mm	160mm	7.0kg	<b>-0120K</b>
125mm	150mm	327mm	185mm	10.0kg	<b>-0130K</b>
160mm	160mm	380mm	224mm	15.5	<b>-0140K</b>

**ATLAS WORKHOLDERS Machine Vices**



**Machine Vices without Swivel Base**

Manufactured in accordance with high quality criteria. Designed for general purpose milling, planing and drilling applications.

**Machine Vices with Swivel Base Type**

Also available complete with a swivel base designed for milling, planing and drilling applications. Graduated to 1°.



**Swivel Base Type**

Jaws are fully ground in pairs

Jaw Width	Max. Opening	Jaw Height	O/all Dimension L x W x H	Weight each	Order Code
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**Without Swivel Base**

100mm	80	35	245 x 115 x 89	8kg	<b>-0100K</b>
160mm	125	51	411 x 187 x 120	34kg	<b>-0150K</b>
200mm	160	63	440 x 220 x 140	46kg	<b>-0200K</b>

**With Swivel Base**

100mm	80	35	195 x 145 x 110	17kg	<b>-1100K</b>
160mm	125	51	411 x 187 x 167	43kg	<b>-1150K</b>
200mm	160	63	440 x 220 x 187	57kg	<b>-1200K</b>

**Spare Jaws to suit Atlas Machine Vices**

Width	Order Code
100mm	<b>-1040K</b>
160mm	<b>-1060K</b>
200mm	<b>-1080K</b>

**Toolmaker's Vice - V-Groove Jaw**

Made from alloy steel, case hardened. With a quick release mechanism.

**Accuracy:**  
0.005mm.



Jaw Dimension Width x Opening x Height	Overall Length	Weight each	Order Code
50 x 65 x 25mm	135	3kg	<b>-0310K</b>

**Toolmaker's Vices**

Manufactured from high carbon steel, precision ground on all faces. Phosphor bronze bush, 90° vee on clamping jaws.

**Standard Precision Toolmaker's Vices**

Squareness and parallelism to within **0.005mm**.



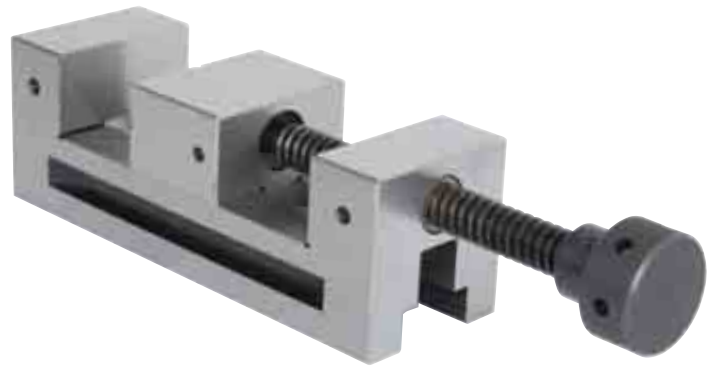
Jaw Dimension Width x Opening x Height	Overall Length	Weight each	Order Code
63 x 85 x 32mm	185	3.80kg	<b>-2010K</b>
100 x 125 x 45mm	255	13.00kg	<b>-2050K</b>

WORKSHOP EQUIPMENT



**Precision Toolmaker's Vices**

Squareness and parallelism to within **0.003mm**. Designed for precision grinding and many other tool room applications.

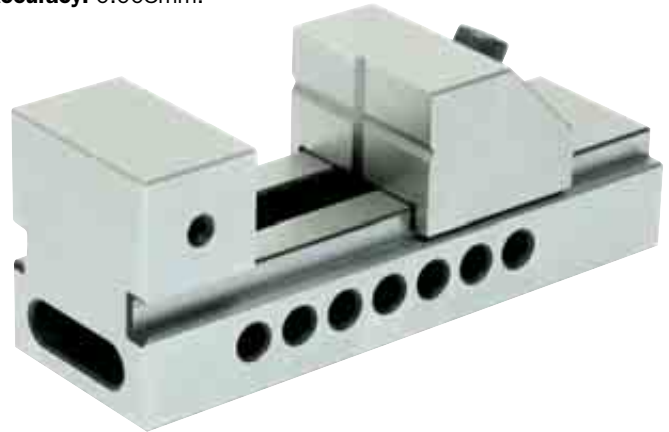


Jaw Dimension Width x Opening x Height	Overall Length	Weight each	Order Code <b>IND-445</b>
50 x 65 x 25mm	150	3.00kg	<b>-0400K</b>
73 x 100 x 35mm	205	5.00kg	<b>-0430K</b>
100 x 125 x 45mm	255	13.00kg	<b>-0450K</b>

**Toolmaker's Vice - V-Groove Jaw**

Manufactured from high quality alloy steel, case hardened to HRC 58 - 62. With a rack quick release mechanism.

**Accuracy:** 0.003mm.



Jaw Dimension Width x Opening x Height	Overall Length	Weight each	Order Code <b>IND-445</b>
50 x 78 x 30mm	155mm	3.00kg	<b>-0310K</b>

**INDEXA Drill Press Vices**

Available in four different jaw widths. For drilling, light milling, vertical and horizontal work. One grooved and one plain replaceable jaw for square and hexagonal shapes across flats or corners, thin strips and discs. Jaws and lead screw are hardened and ground.

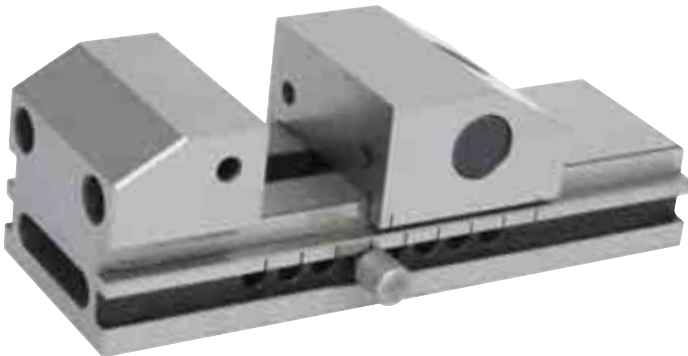


Jaw Width	Jaw Opening	Order Code <b>IND-445</b>
85mm	70mm	<b>-0010K</b>
100mm	85mm	<b>-0020K</b>
120mm	120mm	<b>-0030K</b>
150mm	150mm	<b>-0040K</b>

**Toolmaker's Vices - Plain Jaw**

Manufactured from high quality alloy steel, case hardened to HRC 58 - 62. For wire cutting, machining, measurement and inspection. With a dowel pin quick release mechanism with linear scale for accurate alignment.

**Accuracy:** 0.003mm.



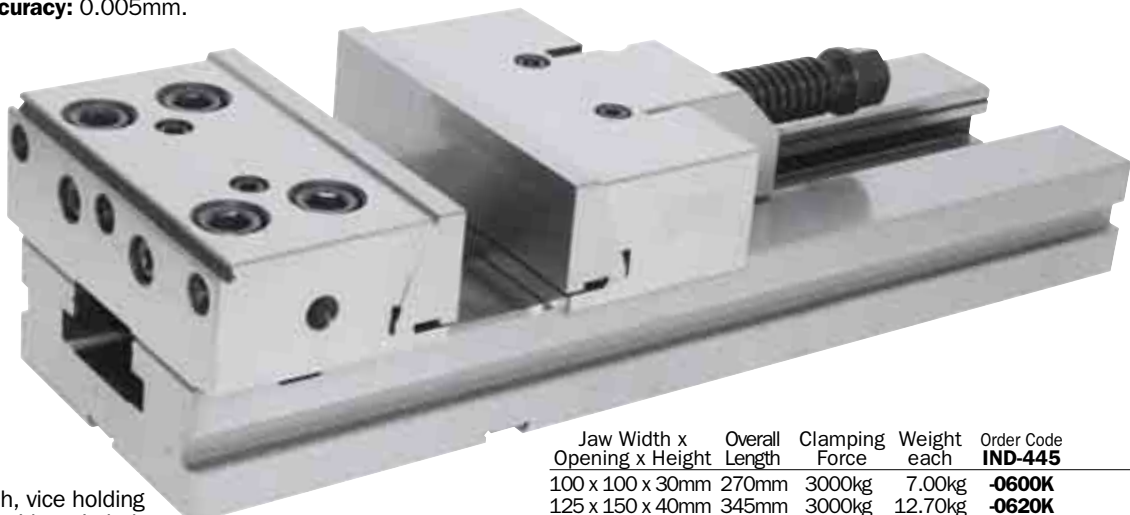
Jaw Dimension Width x Opening x Height	Overall Length	Weight each	Order Code <b>IND-445</b>
60 x 80 x 28mm	175mm	3.9kg	<b>-0200K</b>
75 x 100 x 40mm	220mm	7.9kg	<b>-0210K</b>

**Modular Precision Machine Vices**

Precision modular vices are designed to be used on standard and CNC machines for precision grinding and milling. The vice could be set up individually or work in multiples, on tables or palletised components depending on the machined material dimensions. Made from hardened high grade alloy steel.

**Parallelism:** 0.005mm.

**Perpendicular accuracy:** 0.005mm.



Jaw Width x Opening x Height	Overall Length	Clamping Force	Weight each	Order Code <b>IND-445</b>
100 x 100 x 30mm	270mm	3000kg	7.00kg	<b>-0600K</b>
125 x 150 x 40mm	345mm	3000kg	12.70kg	<b>-0620K</b>
150 x 200 x 50mm	420mm	5000kg	25.60kg	<b>-0640K</b>
150 x 300 x 50mm	520mm	5000kg	29.50kg	<b>-0660K</b>

**Accessories:**

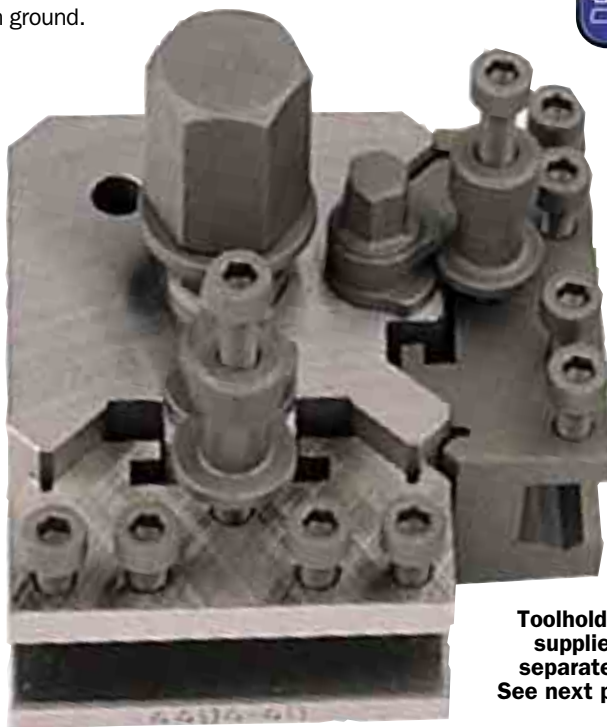
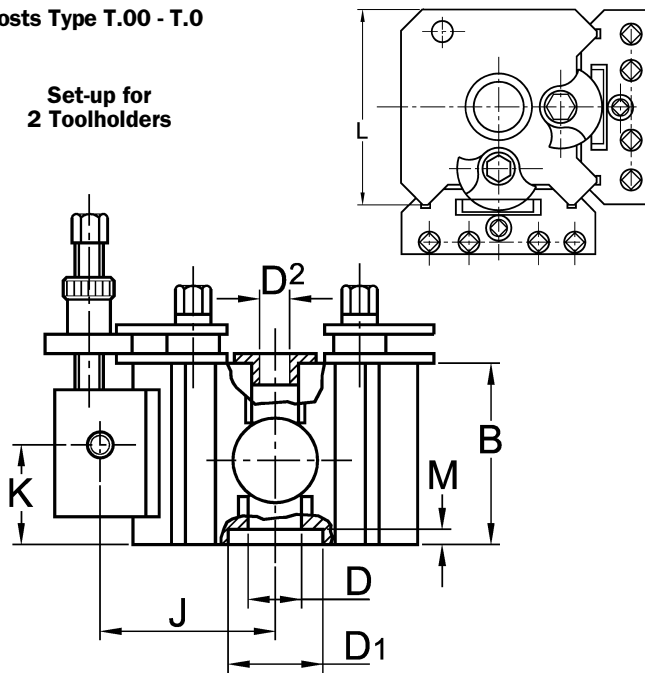
L-wrench, T-wrench, vice holding clamp, work stop with main bolt, positioning key-nuts etc.

Made of alloy case steel. All working surfaces are hardened and precision ground.



**Toolposts Type T.00 - T.0**

Set-up for 2 Toolholders



Toolholders supplied separately. See next page.

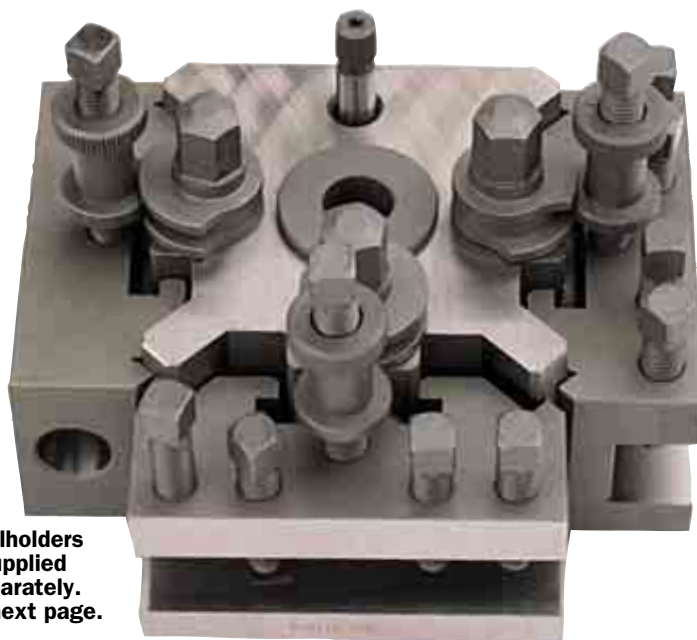
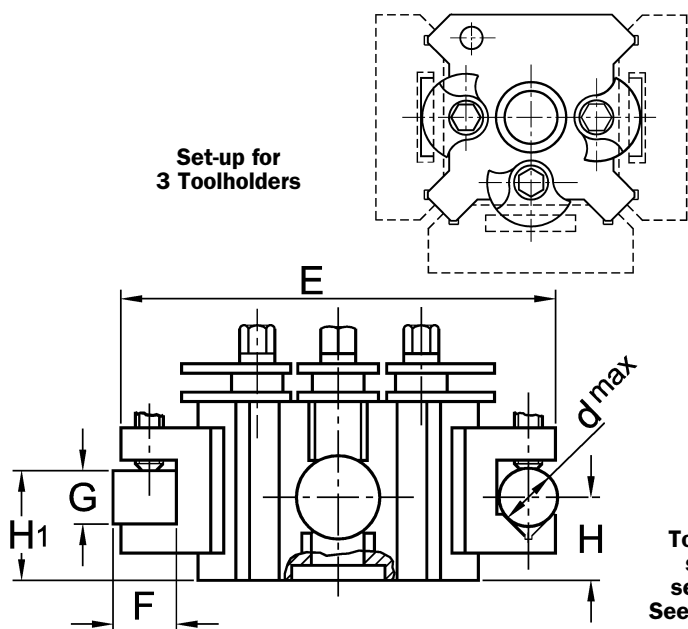
Type	No. of Toolholders	Lathe Capacity	B	D1 Dia.	M Depth	D	E	G	F	H1 Max	H1 Min.
T.00M	2	Up to 89mm	37.0	-	-	11.2	-	10	11	27	17
T.00B	2	Up to 89mm	42.0	-	-	16.0	-	10	11	32	17
T.0	3	Up to 114mm	51.0	22.22	5.0	19.0	124	13	13	36.5	20.5

Type	Bar dia. d Max.	H Max.	H Min.	Taper	J	K Max.	K Min.	L	D2	Weight each	Order Code IND-445
T.00M	11.0	22.5	12.5	-	-	-	-	58.0	-	0.90kg	<b>-4800K</b>
T.0	16.0	32.0	16.0	1	52.5	28.5	16.0	73.0	16.0	2.00kg	<b>-4820K</b>

**Toolposts Type T.1 - T.3**

Set-up for 3 Toolholders



Toolholders supplied separately. See next page.

Type	No. of Toolholders	Lathe Capacity	B	D1 Dia.	M Depth	D	E	G	F	H1 Max	H1 Min.
T.1	3	114 to 127mm	63.5	31.75	6.5	19.0	124	19	13	46	30
T.1X	3	114 to 127mm	73.0	31.75	6.5	19.0	124	19	13	57	35
T.2	3	127 to 203mm	71.5	44.45	8.0	25.5	159	19	19	54	36.5
T.2T	3	127 to 203mm	76.0	44.45	8.0	25.5	168	25.5	25.5	58.5	39.5
T.3	3	203 to 292mm	92.0	50.80	9.5	25.5	203	31.5	22.5	73	51

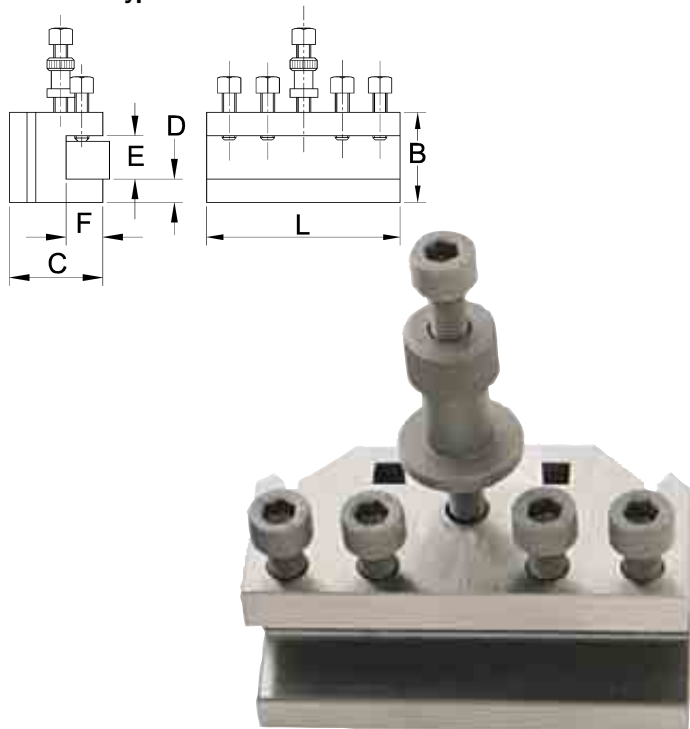
Type	Bar dia. d Max.	H Max.	H Min.	Taper	J	K Max.	K Min.	L	D2	Weight each	Order Code IND-445
T.1	16.0	44.5	25.5	1	52.5	41.0	22.0	73.0	16.0	2.30kg	<b>-4830K</b>
T.1X	16.0	54.0	32.0	1 & 2	52.5	51.0	28.5	73.0	16.0	2.60kg	<b>-4840K</b>
T.2	19.0	46.0	24.0	2	65.0	47.5	27.0	98.5	16.0	4.60kg	<b>-4850K</b>
T.2T	19.0	50.0	24.0	2 & 3	70.0	47.5	27.0	106.5	16.0	5.80kg	<b>-4860K</b>
T.3	25.5	51.0	28.5	3	85.5	58.5	36.5	125.5	22.0	10.8kg	<b>-4870K</b>

**Vee Type**



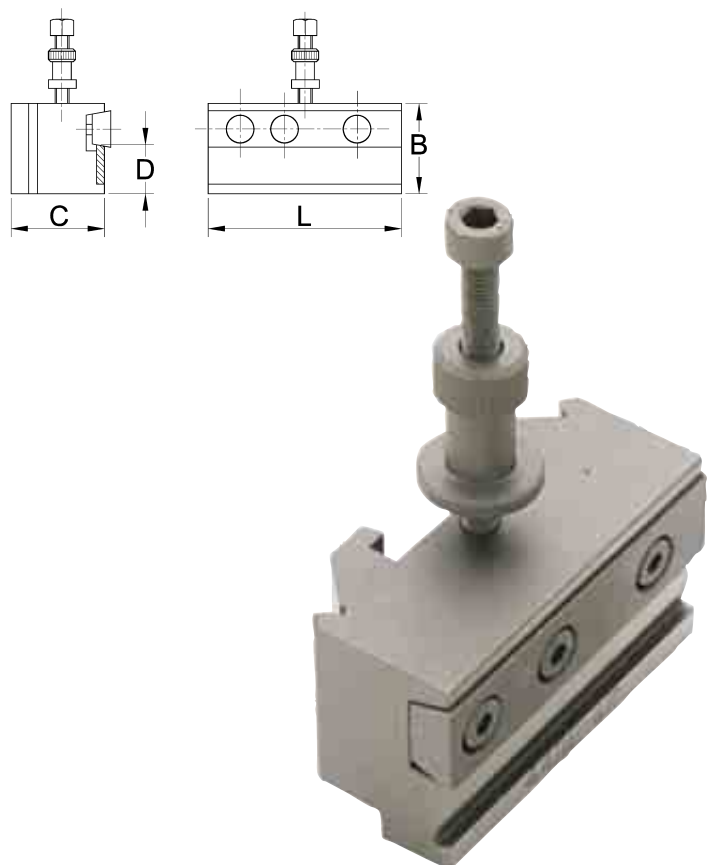
**INDEXA Toolholders for Quick Change Toolposts**

**Standard Type**

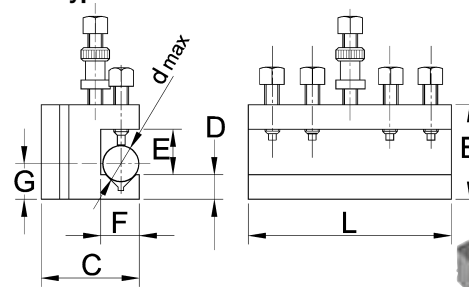


Used On	L (mm)	B	C	D	E	F	Order Code
T.00	58.0	27.0	28.0	7.0	13.0	11	<b>-5010K</b>
T.0	73.0	35.0	32.0	8.0	16.0	14	<b>-5020K</b>
T.1	73.0	44.5	32.0	11.0	22.0	14	<b>-5030K</b>
T.2	98.5	50.0	40.0	12.0	22.0	19	<b>-5040K</b>
T.2T	98.5	57.0	40.0	14.0	28.5	19	<b>-5050K</b>
T.3	124.0	70.0	48.5	17.5	35.0	23	<b>-5060K</b>

**Parting Off Type**



Used On	L (mm)	B	C	D	Order Code
T.0/T.1	73.0	47.5	32.0	27.0	<b>-5370K</b>
T.2	98.5	57.0	39.5	33.5	<b>-5380K</b>



Used On	L (mm)	B	C	D	E	F	G	d Max	Order Code
T.00	58.0	27.0	28.0	8.0	13.0	11	13.5	11.0	<b>-5110K</b>
T.0	73.0	35.0	32.0	8.0	16.0	14	16.0	16.0	<b>-5120K</b>
T.1	73.0	44.5	32.0	11.0	22.0	14	24.0	16.0	<b>-5130K</b>
T.2	98.5	50.0	40.0	14.0	22.0	19	24.0	19.0	<b>-5140K</b>
T.2T	98.5	57.0	40.0	14.0	28.5	19	24.0	19.0	<b>-5150K</b>
T.3	124.0	70.0	48.5	17.5	35.0	23	28.5	25.5	<b>-5160K</b>

**Industrial Lathe Carriers**

Available with straight or bent tail. Manufactured from high grade, malleable cast iron with high tensile strength. Smooth action square head clamping screw.



**Straight**



Type	Capacity	Weight each	Order Code
Straight	12.5mm	0.10kg	<b>-9000K</b>
	19.0mm	0.15kg	<b>-9010K</b>
	25.0mm	0.30kg	<b>-9020K</b>
	38.0mm	0.70kg	<b>-9040K</b>
	50.0mm	1.50kg	<b>-9060K</b>

**Bent**



Type	Capacity	Weight each	Order Code
Bent	12.5mm	0.10kg	<b>-9200K</b>
	19.0mm	0.15kg	<b>-9210K</b>
	25.0mm	0.30kg	<b>-9220K</b>
	38.0mm	0.70kg	<b>-9240K</b>
	50.0mm	1.50kg	<b>-9260K</b>

**WORKSHOP EQUIPMENT**

**GROUP 447 COOLANT HOSE**

**INDEXA Modular Coolant Hose System**

Modular coolant hose system is ideal for coolants, fluids and air lines. Suitable for all wet machining, spark erosion and air line operations up to 50psi air and 30psi liquid. Flow direction is easily and accurately positioned with no spring-back. All parts are fully interchangeable and fully replaceable if a single section is damaged. Manufactured from acetal - non-conductive and chemical resistant. Available with 1/4", 1/2" and 3/4" bore. Hose is green, all other fittings are orange. Threaded fittings are fully compatible with BSPT.



**Starter Packs**

Contents	Weight each	Order Code
<b>1/4" Bore</b>		
12" Hose		
4 Nozzles	40g	<b>-6910K</b>
2 Connectors		
<b>1/2" Bore</b>		
13" Hose		
3 Nozzles	91g	<b>-7910K</b>
2 Connectors		
<b>3/4" Bore</b>		
14" Hose		
2 Nozzles	126g	<b>-8910K</b>
1 Connectors		

**Tube Segments**



Bore Size	Weight each	Order Code
<b>11" Lengths (Green)</b>		
1/4"	40g	<b>-6210K</b>
1/2"	69g	<b>-7210K</b>
3/4"	102g	<b>-8210K</b>
<b>11" Lengths (Blue)</b>		
3/4"	102g	<b>-8230K</b>
<b>25ft Bulk Pack (Green)</b>		
1/4"	886g	<b>-6250K</b>
1/2"	1637g	<b>-7250K</b>
3/4"	2381g	<b>-8250K</b>

**Threaded Spigots**

**Male Spigot**



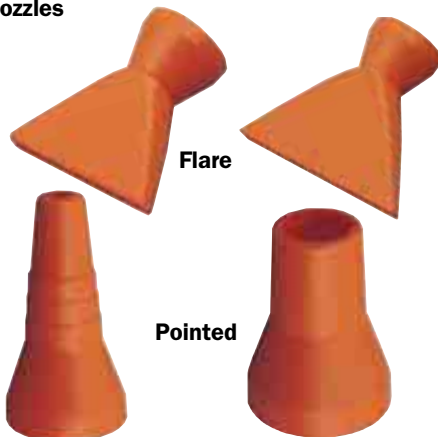
Bore Size	Inlet Size	Weight each	Order Code
1/4"	1/8" NPT Female	2g	<b>-6710K</b>
1/4"	1/4" NPT Female	2g	<b>-6730K</b>
1/4"	1/8" NPT Male	2g	<b>-6170K</b>
1/4"	1/4" NPT Male	2g	<b>-6190K</b>
1/2"	3/8" NPT Male	7g	<b>-7170K</b>
1/2"	1/2" NPT Male	7g	<b>-7190K</b>
1/2"	1/2" NPT Female	7g	<b>-7730K</b>
3/4"	3/4" NPT Male	10g	<b>-8170K</b>

**Modular Manifold Kits**



Description	Bore Size	Weight each	Order Code
4x T-Pieces, 2x Plug, 1x Bracket, 4x Screws	1/4"	109g	<b>-6450K</b>
	1/2"	98g	<b>-7450K</b>

**Nozzles**



Type	Size	Weight each	Order Code
<b>1/4" Bore</b>			
Pointed	1/16"	5g	<b>-6610K</b>
	1/8"	5g	<b>-6630K</b>
	3/8"	5g	<b>-6640K</b>
	1/4"	5g	<b>-6650K</b>
Flare	1"	5g	<b>-6670K</b>
	<b>1/2" Bore</b>		
Pointed	1/4"	5g	<b>-7610K</b>
	3/8"	5g	<b>-7630K</b>
	1/2"	5g	<b>-7650K</b>
Flare	1 3/4"	5g	<b>-7670K</b>
	2 1/2"	5g	<b>-7690K</b>
<b>3/4" Bore</b>			
Pointed	5/8"	10g	<b>-8610K</b>
	3/4"	10g	<b>-8630K</b>
Flare	3"	10g	<b>-8650K</b>

**Plastic Valves**

1/4 turn fitting.



Bore Size	Inlet Type	Weight each	Order Code
1/4"	In-line	10g	<b>-6050K</b>
1/2"	In-line	30g	<b>-7050K</b>

**Metal Ball Valves**

Threaded fitting 1/4 turn.



NPT Threads	Weight each	Order Code
Male x Female		<b>IND-447</b>
1/8" x 1/8"	81g	<b>-6070K</b>
1/4" x 1/4"	80g	<b>-6090K</b>
1/2" x 1/2"	114g	<b>-7090K</b>
3/4" x 3/4"		<b>-8070K</b>

**Junction Pieces**



**L-Piece**

**Y-Piece**

Type	Weight each	Order Code
<b>1/4" Bore</b>		
Y-Piece	3g	<b>-6310K</b>
T-Piece	3g	<b>-6350K</b>
L-Piece	4g	<b>-6370K</b>
<b>1/2" Bore</b>		
Y-Piece	9g	<b>-7310K</b>
T-Piece	9g	<b>-7350K</b>
L-Piece	12g	<b>-7370K</b>

**Junction Reducers**



Type	Weight each	Order Code
<b>1/2" Bore</b>		
1/2" to 2 x 1/4"	4g	<b>-7330K</b>
1/2" to 1/4"	3g	<b>-7510K</b>
<b>3/4" Bore</b>		
3/4" to 1/2"	5g	<b>-8510K</b>

**Quick Set Machine Shields**

14" (3/4" bore) hose length. Suitable for small machine tools. Fully adjustable with magnetic base.



Visor Size	Weight each	Order Code
<b>Shield (complete)</b>		
6" x 8"	500g	<b>-0250K</b>
7 1/2" x 10"	570g	<b>-0260K</b>

**Quick Action Assembly Pliers**

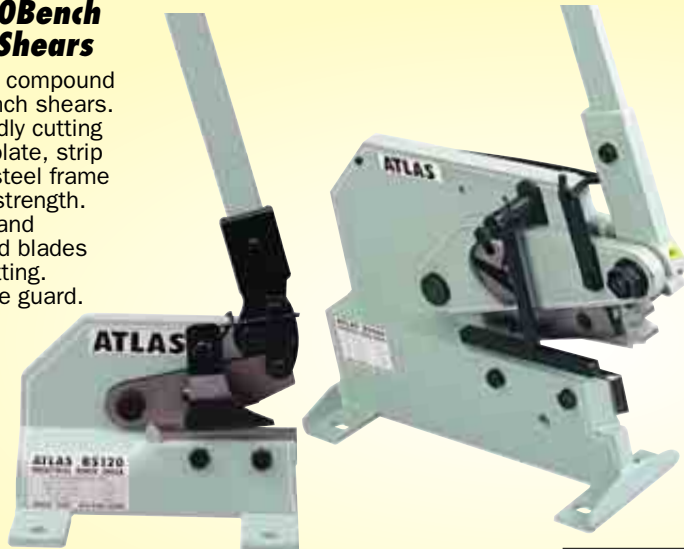


Bore Size	Weight each	Order Code
1/4"		<b>-0010K</b>
1/2"		<b>-0020K</b>

**WORKSHOP EQUIPMENT**

**ATLAS WORKHOLDERS** **OBench Shears**

Hand operated, compound lever action bench shears. Capable of rapidly cutting through metal plate, strip and bar. Solid steel frame for rigidity and strength. With hardened and precision ground blades for accurate cutting. Adjustable blade guard.



Model Number	Plate	Maximum Strip	Bar	Jaw Width	Weight each	Order Code
BS120	4mm	5 x 70	10	120	8.3kg	<b>-1200K</b>
BS200	6mm	7 x 70	13	200	19.0kg	<b>-2000K</b>
BS406	8mm	10 x 100	16	200	43.0kg	<b>-3000K</b>

Type	Weight each	Order Code
Top Blade for ATL-448-1200K Shear	445g	<b>-3100K</b>
Bottom Blade for ATL-448-1200K Shear	250g	<b>-3110K</b>
Top Blade for ATL-448-2000K Shear	1.4kg	<b>-3150K</b>
Bottom Blade for ATL-448-2000K Shear	790g	<b>-3160K</b>
Top Blade for ATL-448-3000K Shear	430g	<b>-3200K</b>
Bottom Blade for ATL-448-3000K Shear	220g	<b>-3210K</b>



**JHL** **Single Knurl Toolholder**

Machine ground high grade steel, black mottle finish. Fitted as standard with medium pitch straight hand knurl. Right, left and checkered also available separately, see table below. For use with knurl size 3/4" x 1/4" x 1/4".



Size	Knurls Fitted	Weight each	Order Code
1/2" x 1/2" x 4"	-1510B	140g	<b>-8050F</b>

Capacity (mm)		Order Code <b>JHL-450</b>		
Weight each	Coarse	Medium	Fine	
Straight 10g	<b>-1500A</b>	<b>-1510B</b>	<b>-1520C</b>	
Right Hand 10g	<b>-1600A</b>	<b>-1610B</b>	<b>-1620C</b>	
Left Hand 10g	<b>-1700A</b>	<b>-1710B</b>	<b>-1720C</b>	
Checkered 10g	<b>-1800A</b>	<b>-1810B</b>	<b>-1820C</b>	

**Six Knurl Toolholder**

Machine ground high grade steel, black mottle finish. Revolving head. For use with knurl size 3/4" x 3/8" x 1/4".



Size	Knurls Fitted	Weight each	Order Code
1/2" x 1 1/8" x 6 1/2"	-1110B & -1210B	640g	<b>-8000A</b>

**Two Knurl Toolholder**

Machine ground high grade steel, black mottle finish. Self-adjusting head. For use with knurl size 3/4" x 3/8" x 1/4".



Size	Knurls Fitted	Weight each	Order Code
1/2" x 7/8" x 6 1/2"	-1110B & -1210B	290g	<b>-8020C</b>

Capacity (mm)		Order Code <b>JHL-450</b>		
Weight each	Coarse	Medium	Fine	
Straight 10g	<b>-1000A</b>	<b>-1010B</b>	<b>-1020C</b>	
Right Hand 10g	<b>-1100A</b>	<b>-1110B</b>	<b>-1120C</b>	
Left Hand 10g	<b>-1200A</b>	<b>-1210B</b>	<b>-1220C</b>	
Checkered 10g	<b>-1300A</b>	<b>-1310B</b>	<b>-1320C</b>	

**Two Knurl Toolholder**

Side knurling up to a face or shoulder. For use with knurl size 25 x 10 x 16mm.



Size	Knurls Fitted	Weight each	Order Code
20 x 25 x 85mm	-3110B & -3210B	900g	<b>-8040E</b>

**25 x 10 x 16mm Knurls to Suit Toolholder Above**

Capacity (mm)		Order Code <b>JHL-450</b>		
Weight each	Coarse	Medium	Fine	
Straight 10g	<b>-3000A</b>	<b>-3010B</b>	<b>-3020C</b>	
Right Hand 10g	<b>-3100A</b>	<b>-3110B</b>	<b>-3120C</b>	
Left Hand 10g	<b>-3200A</b>	<b>-3210B</b>	<b>-3220C</b>	

**Two Knurl Toolholder**

Machine ground high grade steel, black mottle finish. Self-adjusting head. For use with knurl size 5/8" x 5/16" x 7/32".



Size	Knurls Fitted	Weight each	Order Code
3/8" x 7/8" x 5 1/2"	Supplied separately	390g	<b>-8030D</b>

**5/8" x 5/16" x 7/32" Knurls to Suit Toolholder Above**

Capacity (mm)		Order Code <b>JHL-450</b>		
Weight each	Coarse	Medium	Fine	
Straight 10g	<b>-2000A</b>	<b>-2010B</b>	<b>-2020C</b>	
Right Hand 10g	<b>-2100A</b>	<b>-2110B</b>	<b>-2120C</b>	
Left Hand 10g	<b>-2200A</b>	<b>-2210B</b>	<b>-2220C</b>	
Checkered 10g	<b>-2300A</b>	<b>-2310B</b>	<b>-2320C</b>	

**Six Knurl Toolholder**

Machine ground high grade steel, black mottle finish. Revolving head. For use with knurl size 5/8" x 3/16" x 1/4".



Size	Knurls Fitted	Weight each	Order Code
1/2" x 7/8" x 6 1/2"	-2610B & -2710B	930g	<b>-8010B</b>

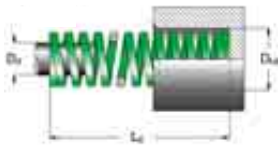
**5/8" x 3/16" x 1/4" Knurls to Suit Toolholders Above**

Capacity (mm)		Order Code <b>JHL-450</b>		
Weight each	Coarse	Medium	Fine	
Straight 10g	<b>-2500A</b>	<b>-2510B</b>	<b>-2520C</b>	
Right Hand 10g	<b>-2600A</b>	<b>-2610B</b>	<b>-2620C</b>	
Left Hand 10g	<b>-2700A</b>	<b>-2710B</b>	<b>-2720C</b>	
Checkered 10g	<b>-2800A</b>	<b>-2810B</b>	-	

The heat and surface treatment plus the high quality of steel used in the manufacturing process ensure the springs will bear a high number of stresses without breaking or without appreciable loss of load. Every batch of springs is subject to a rigorous testing procedure to ensure that a consistent quality is maintained. Longer springs should be guided along their course.

**Light Load Springs  
Colour Coded Green**

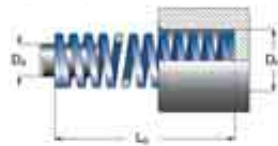
**NEW**



Product Number	Diameter		L <sub>0</sub> (mm)	Rigidity (N/mm)	Weight each	Order Code
	DH	Dd				
V10 x 25	10	4.5	25	10	4g	<b>-8000A</b>
V10 x 32	10	4.5	32	8.5	6g	<b>-8001B</b>
V10 x 38	10	4.5	38	6.8	7g	<b>-8002C</b>
V10 x 44	10	4.5	44	6.0	7g	<b>-8003D</b>
V10 x 51	10	4.5	51	5.0	8g	<b>-8004E</b>
V10 x 64	10	4.5	64	4.3	10g	<b>-8005F</b>
V10 x 76	10	4.5	76	3.2	11g	<b>-8006G</b>
V10 x 305	10	4.5	305	1.1	45g	<b>-8007H</b>
V13 x 25	13	7.0	25	17.9	6g	<b>-8108J</b>
V13 x 32	13	7.0	32	16.4	7g	<b>-8109K</b>
V13 x 38	13	7.0	38	13.6	9g	<b>-8110L</b>
V13 x 44	13	7.0	44	12.1	11g	<b>-8111M</b>
V13 x 51	13	7.0	51	11.4	12g	<b>-8112N</b>
V13 x 64	13	7.0	64	9.3	14g	<b>-8113P</b>
V13 x 76	13	7.0	76	7.1	16g	<b>-8114Q</b>
V13 x 305	13	7.0	305	1.4	63g	<b>-8115R</b>
V16 x 25	16	8.0	25	23.4	9g	<b>-8216S</b>
V16 x 32	16	8.0	32	22.9	11g	<b>-8217T</b>
V16 x 38	16	8.0	38	19.3	13g	<b>-8218V</b>
V16 x 44	16	8.0	44	17.1	17g	<b>-8219W</b>
V16 x 51	16	8.0	51	15.7	18g	<b>-8220X</b>
V16 x 64	16	8.0	64	10.7	22g	<b>-8221Y</b>
V16 x 76	16	8.0	76	10.0	26g	<b>-8222Z</b>
V16 x 102	16	8.0	102	7.8	35g	<b>-8224B</b>
V20 x 25	20	10.0	25	55.8	15g	<b>-8326D</b>
V20 x 32	20	10.0	32	45.0	20g	<b>-8327E</b>
V20 x 38	20	10.0	38	33.30	22g	<b>-8328F</b>
V20 x 44	20	10.0	44	30.0	28g	<b>-8329G</b>
V20 x 51	20	10.0	51	24.5	31g	<b>-8330H</b>
V20 x 64	20	10.0	64	20.0	40g	<b>-8331J</b>
V20 x 76	20	10.0	76	16.0	47g	<b>-8332K</b>
V20 x 89	20	10.0	89	14.0	54g	<b>-8333L</b>
V20 x 102	20	10.0	102	12.0	110g	<b>-8334M</b>
V20 x 115	20	10.0	115	10.9	123g	<b>-8335N</b>
V20 x 127	20	10.0	127	9.5	135g	<b>-8336P</b>
V20 x 152	20	10.0	152	7.5	90g	<b>-8338R</b>
V25 x 25	26	12.5	25	100.0	27g	<b>-8440T</b>
V25 x 32	26	12.5	32	80.3	35g	<b>-8441V</b>
V25 x 38	26	12.5	38	62.0	44g	<b>-8442W</b>
V25 x 51	26	12.5	51	44.0	57g	<b>-8444Y</b>
V25 x 64	26	12.5	64	35.2	71g	<b>-8445Z</b>
V25 x 76	26	12.5	76	28.0	87g	<b>-8446A</b>
V25 x 89	26	12.5	89	29.0	96g	<b>-8447B</b>
V25 x 102	26	12.5	102	21.1	110g	<b>-8448C</b>
V25 x 115	26	12.5	115	18.7	125g	<b>-8449D</b>
V25 x 127	26	12.5	127	16.7	135g	<b>-8450E</b>
V25 x 152	26	12.5	152	14.0	165g	<b>-8452G</b>
V25 x 203	26	12.5	203	10.4	215g	<b>-8454J</b>
V32 x 38	32	16.0	38	94.0	60g	<b>-8557M</b>
V32 x 76	32	16.0	76	44.0	132g	<b>-8561R</b>
V32 x 102	32	16.0	102	32.0	173g	<b>-8563T</b>
V32 x 115	32	16.0	115	29.0	190g	<b>-8564V</b>
V32 x 127	32	16.0	127	25.0	215g	<b>-8565W</b>
V32 x 152	32	16.0	152	21.5	262g	<b>-8567Y</b>
V32 x 178	32	16.0	178	18.2	300g	<b>-8568Z</b>
V32 x 203	32	16.0	203	1.40	350g	<b>-8569K</b>
V40 x 64	40	20.0	64	73.0	165g	<b>-8673E</b>
V40 x 76	40	20.0	76	63.0	188g	<b>-8674F</b>
V40 x 102	40	20.0	102	43.0	247g	<b>-8676H</b>
V50 x 64	50	25.0	64	156.0	305g	<b>-8785S</b>
V50 x 76	50	25.0	76	125.0	450g	<b>-8786T</b>
V50 x 102	50	25.0	102	94.0	470g	<b>-8788W</b>
V50 x 115	50	25.0	115	81.0	590g	<b>-8789X</b>

**Medium Load Springs  
Colour Coded Blue**

**NEW**



Product Number	Diameter		L <sub>0</sub> (mm)	Rigidity (N/mm)	Weight each	Order Code
	DH	Dd				
B10 x 25	10	4.5	25	16.0	3g	<b>-6000A</b>
B10 x 32	10	4.5	32	13.0	4g	<b>-6001B</b>
B10 x 44	10	4.5	44	10.3	5g	<b>-6003D</b>
B10 x 51	10	4.5	51	8.9	7g	<b>-6004E</b>
B10 x 64	10	4.5	64	7.5	9g	<b>-6005F</b>
B10 x 76	10	4.5	76	5.3	11g	<b>-6006G</b>
B10 x 305	10	4.5	305	1.6	45g	<b>-6007H</b>
B13 x 25	13	7.0	25	30.0	6g	<b>-6108J</b>
B13 x 32	13	7.0	32	24.8	8g	<b>-6109K</b>
B13 x 38	13	7.0	38	21.4	10g	<b>-6110L</b>
B13 x 44	13	7.0	44	18.5	12g	<b>-6111M</b>
B13 x 51	13	7.0	51	15.5	13g	<b>-6112N</b>
B13 x 64	13	7.0	64	12.1	15g	<b>-6113P</b>
B13 x 76	13	7.0	76	10.2	17g	<b>-6114Q</b>
B13 x 305	13	7.0	305	2.1	73g	<b>-6115R</b>
B16 x 25	16	8.0	25	49.4	12g	<b>-6216S</b>
B16 x 32	16	8.0	32	37.1	14g	<b>-6217T</b>
B16 x 38	16	8.0	38	33.9	15g	<b>-6218V</b>
B16 x 44	16	8.0	44	30.0	19g	<b>-6219W</b>
B16 x 51	16	8.0	51	26.4	21g	<b>-6220X</b>
B16 x 64	16	8.0	64	20.5	27g	<b>-6221Y</b>
B16 x 76	16	8.0	76	17.8	33g	<b>-6222Z</b>
B16 x 102	16	8.0	102	13.5	43g	<b>-6224B</b>
B20 x 25	20	10.0	25	98.0	19g	<b>-6326D</b>
B20 x 32	20	10.0	32	72.6	23g	<b>-6327E</b>
B20 x 38	20	10.0	38	56.0	26g	<b>-6328F</b>
B20 x 44	20	10.0	44	47.5	32g	<b>-6329G</b>
B20 x 51	20	10.0	51	41.7	35g	<b>-6330H</b>
B20 x 64	20	10.0	64	32.3	46g	<b>-6331J</b>
B20 x 76	20	10.0	76	25.1	55g	<b>-6332K</b>
B20 x 89	20	10.0	89	22.0	61g	<b>-6333L</b>
B20 x 102	20	10.0	102	19.8	68g	<b>-6334M</b>
B20 x 127	20	10.0	127	16.6	85g	<b>-6336P</b>
B20x152	20	10.0	152	1.30	103g	<b>-6338R</b>
B25 x 25	26	12.5	25	147.0	33g	<b>-6440T</b>
B25 x 32	26	12.5	32	118.0	42g	<b>-6441V</b>
B25 x 38	26	12.5	38	93.0	48g	<b>-6442W</b>
B25 x 44	26	12.5	44	80.8	56g	<b>-6443X</b>
B25 x 51	26	12.5	51	68.6	65g	<b>-6444Y</b>
B25 x 64	26	12.5	64	53.0	90g	<b>-6445Z</b>
B25 x 76	26	12.5	76	43.2	96g	<b>-6446A</b>
B25 x 89	26	12.5	89	38.2	118g	<b>-6447B</b>
B25 x 102	26	12.5	102	33.0	131g	<b>-6448C</b>
B25 x 152	26	12.5	152	20.8	190g	<b>-6452G</b>
B32 x 38	32	16.0	38	185.0	80g	<b>-6557M</b>
B32 x 44	32	16.0	44	158.0	90g	<b>-6558N</b>
B32 x 51	32	16.0	51	134.0	100g	<b>-6559P</b>
B32 x 64	32	16.0	64	99.0	130g	<b>-6560Q</b>
B32 x 76	32	16.0	76	80.5	152g	<b>-6561R</b>
B32 x 102	32	16.0	102	58.8	203g	<b>-6563T</b>
B32 x 115	32	16.0	115	51.5	223g	<b>-6564V</b>
B32 x 127	32	16.0	127	44.8	252g	<b>-6565W</b>
B32 x 152	32	16.0	152	37.8	292g	<b>-6567Y</b>
B32 x 178	32	16.0	178	32.5	320g	<b>-6568Z</b>
B40 x 51	40	20.0	51	181.6	157g	<b>-6672D</b>
B40 x 64	40	20.0	64	140.0	194g	<b>-6673E</b>
B40 x 89	40	20.0	89	90.7	265g	<b>-6675G</b>
B40 x 102	40	20.0	102	81.0	300g	<b>-6676H</b>
B50 x 64	51	25.0	65	209.0	340g	<b>-6785S</b>
B50 x 76	51	25.0	76	168.0	395g	<b>-6786T</b>

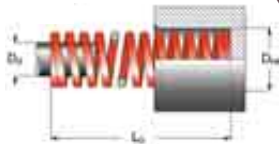
**WORKSHOP EQUIPMENT**

**INDEXA Die Springs**

The heat and surface treatment plus the high quality of steel used in the manufacturing process ensure the springs will bear a high number of stresses without breaking or without appreciable loss of load. Every batch of springs is subject to a rigorous testing procedure to ensure that a consistent quality is maintained. Longer springs should be guided along their course.

**Heavy Load Springs**  
**Colour Coded Red**

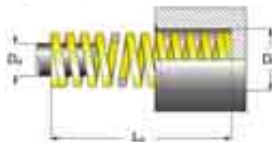
**NEW**



Product Number	Diameter Dh	Dd	L <sub>0</sub> (mm)	Rigidity (N/mm)	Weight each	Order Code <b>IND-460</b>
R10 x 25	10	4.5	25	22.10	4g	<b>-1000A</b>
R10 x 32	10	4.5	32	17.50	5g	<b>-1001B</b>
R10 x 38	10	4.5	38	17.10	6g	<b>-1002C</b>
R10 x 51	10	4.5	51	12.80	8g	<b>-1004E</b>
R10 x 64	10	4.5	64	10.7	11g	<b>-1005F</b>
R13 x 25	13	7.0	25	42.1	12g	<b>-1101L</b>
R13 x 38	13	7.0	38	29.3	13g	<b>-1108J</b>
R13 x 44	13	7.0	44	24.6	15g	<b>-1111M</b>
R13 x 51	13	7.0	51	19.6	17g	<b>-1112N</b>
R13 x 64	13	7.0	64	15.0	21g	<b>-1113P</b>
R13 x 76	13	7.0	76	13.2	24g	<b>-1114Q</b>
R16 x 25	16	8.0	25	75.7	12g	<b>-1216S</b>
R16 x 32	16	8.0	32	52.8	14g	<b>-1217T</b>
R16 x 38	16	8.0	38	48.5	17g	<b>-1218V</b>
R16 x 44	16	8.0	44	42.8	20g	<b>-1219W</b>
R16 x 51	16	8.0	51	37.1	23g	<b>-1220X</b>
R16 x 64	16	8.0	64	30.3	27g	<b>-1221Y</b>
R16 x 76	16	8.0	76	25.7	34g	<b>-1222Z</b>
R20 x 25	20	10.0	25	216.0	20g	<b>-1326D</b>
R20 x 32	20	10.0	32	168.0	28g	<b>-1327E</b>
R20 x 38	20	10.0	38	129.0	32g	<b>-1328F</b>
R20 x 44	20	10.0	44	112.0	38g	<b>-1329G</b>
R20 x 51	20	10.0	51	94.0	44g	<b>-1330H</b>
R20 x 64	20	10.0	64	72.1	54g	<b>-1331J</b>
R20 x 76	20	10.0	76	59.7	63g	<b>-1332K</b>
R20 x 89	20	10.0	89	50.5	75g	<b>-1333L</b>
R20 x 127	20	10.0	127	34.1	107g	<b>-1336P</b>
R25 x 32	26	12.5	32	297.0	48g	<b>-1441V</b>
R25 x 38	26	12.5	38	219.0	56g	<b>-1442W</b>
R25 x 44	26	12.5	44	187.0	57g	<b>-1443X</b>
R25 x 51	26	12.5	51	156.0	63g	<b>-1444Y</b>
R25 x 64	26	12.5	64	123.0	85g	<b>-1445Z</b>
R25 x 76	26	12.5	76	99.0	110g	<b>-1446A</b>
R25 x 89	26	12.5	89	84.0	139g	<b>-1447B</b>
R25 x 102	26	12.5	102	73.0	144g	<b>-1448C</b>
R25 x 115	26	12.5	115	65.0	168g	<b>-1449D</b>
R25 x 127	26	12.5	127	57.7	182g	<b>-1450E</b>
R25 x 152	26	12.5	152	47.8	222g	<b>-1452G</b>
R25 x 178	26	12.5	178	41.0	256g	<b>-1453H</b>
R32 x 38	32	16.0	38	388.0	93g	<b>-1557M</b>
R32 x 44	32	16.0	44	324.0	105g	<b>-1558N</b>
R32 x 51	32	16.0	51	272.0	117g	<b>-1559P</b>
R32 x 64	32	16.0	64	212.0	148g	<b>-1560Q</b>
R32 x 76	32	16.0	76	172.0	178g	<b>-1561R</b>
R32 x 89	32	16.0	89	141.0	204g	<b>-1562S</b>
R32 x 102	32	16.0	102	122.0	230g	<b>-1563T</b>
R32 x 152	32	16.0	152	78.0	380g	<b>-1567Y</b>
R32 x 178	32	16.0	178	67.2	410g	<b>-1568Z</b>
R40 x 51	40	20.0	51	350.0	181g	<b>-1672D</b>
R40 x 64	40	20.0	64	269.0	220g	<b>-1673E</b>
R40 x 76	40	20.0	76	219.0	261g	<b>-1674F</b>
R40 x 89	40	20.0	89	190.0	315g	<b>-1675G</b>
R40 x 102	40	20.0	102	163.0	341g	<b>-1676H</b>
R40 x 127	40	20.0	127	128.0	420g	<b>-1678K</b>
R40 x 152	40	20.0	152	105.0	500g	<b>-1680M</b>
R50 x 64	51	25.0	64	413.0	416g	<b>-1785S</b>
R50 x 76	51	25.0	76	339.0	438g	<b>-1786T</b>

**Extra Heavy Load Springs**  
**Colour Coded Yellow**

**NEW**



Product Number	Diameter Dh	Dd	L <sub>0</sub> (mm)	Rigidity (N/mm)	Weight each	Order Code <b>IND-460</b>
G10 x 25	10	4.5	25	36.8	5g	<b>-3000A</b>
G10 x 32	10	4.5	32	27.9	7g	<b>-3001B</b>
G10 x 38	10	4.5	38	23.7	8g	<b>-3002C</b>
G10 x 44	10	4.5	44	19.2	9g	<b>-3003D</b>
G10 x 51	10	4.5	51	16.5	10g	<b>-3004E</b>
G13 x 25	13	7.0	25	58.5	9g	<b>-3108J</b>
G13 x 32	13	7.0	32	43.9	11g	<b>-3109K</b>
G13 x 38	13	7.0	38	37.0	13g	<b>-3110L</b>
G13 x 44	13	7.0	44	30.3	15g	<b>-3111M</b>
G13 x 51	13	7.0	51	26.2	80g	<b>-3112N</b>
G13 x 64	13	7.0	64	21.2	22g	<b>-3113P</b>
G16 x 32	16	8.0	32	89.0	17g	<b>-3217T</b>
G16 x 38	16	8.0	38	72.1	22g	<b>-3218V</b>
G16 x 44	16	8.0	44	60.9	25g	<b>-3219W</b>
G16 x 51	16	8.0	51	52.3	29g	<b>-3220X</b>
G16 x 64	16	8.0	64	41.2	36g	<b>-3221Y</b>
G16 x 76	16	8.0	76	34.1	42g	<b>-3222Z</b>
G20 x 25	20	10.0	25	293.0	23g	<b>-3326D</b>
G20 x 32	20	10.0	32	224.0	28g	<b>-3327E</b>
G20 x 38	20	10.0	38	177.0	33g	<b>-3328F</b>
G20 x 44	20	10.0	44	149.0	39g	<b>-3329G</b>
G20 x 51	20	10.0	51	128.0	45g	<b>-3330H</b>
G20 x 64	20	10.0	64	99.0	56g	<b>-3331J</b>
G20 x 89	20	10.0	89	69.5	73g	<b>-3333L</b>
G20 x 102	20	10.0	102	60.6	86g	<b>-3334M</b>
G25 x 32	26	12.5	32	374.4	48g	<b>-3441V</b>
G25 x 38	26	12.5	38	346.0	60g	<b>-3442W</b>
G25 x 44	26	12.5	44	244.0	70g	<b>-3443X</b>
G25 x 51	26	12.5	51	207.5	80g	<b>-3444Y</b>
G25 x 64	26	12.5	64	161.0	99g	<b>-3445Z</b>
G25 x 76	26	12.5	76	130.8	114g	<b>-3446A</b>
G25 x 89	26	12.5	89	110.5	134g	<b>-3447B</b>
G25 x 102	26	12.5	102	96.3	151g	<b>-3448C</b>
G25 x 115	25	12.5	115	85.7	174g	<b>-3449D</b>
G25 x 127	26	12.5	127	76.3	190g	<b>-3450E</b>
G32 x 38	32	16.0	38	528.2	98g	<b>-3557M</b>
G32 x 44	32	16.0	44	424.4	115g	<b>-3558N</b>
G32 x 51	32	16.0	51	353.0	131g	<b>-3559P</b>
G32 x 64	32	16.0	64	269.2	163g	<b>-3560Q</b>
G32 x 76	32	16.0	76	218.5	200g	<b>-3561R</b>
G32 x 89	32	16.0	89	180.3	226g	<b>-3562S</b>
G32 x 102	32	16.0	102	155.0	252g	<b>-3563T</b>
G32 x 140	32	16.0	140	112.3	350g	<b>-3566X</b>
G32 x 152	32	16.0	152	102.0	380g	<b>-3567Y</b>
G40 x 51	40	20.0	51	628.0	190g	<b>-3672D</b>
G40 x 64	40	20.0	64	487.0	238g	<b>-3673E</b>
G40 x 76	40	20.0	76	379.0	275g	<b>-3674F</b>
G40 x 89	40	20.0	89	321.0	330g	<b>-3675G</b>
G50 x 64	50	25.0	64	709.0	410g	<b>-3785S</b>
G50 x 89	51	25.0	89	475.0	593g	<b>-3787V</b>

**WORKSHOP EQUIPMENT**

**PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR**

**INDEXA** *Self-Centring Geared Scroll Lathe Chucks*



Produced to a well proven design for universal application. Scrolls are forged, balanced and hardened. Thread flanks are ground on both sides. All models have grease nipples for easy lubrication and are supplied with two sets of solid jaws - internal and external stepped.

**Cast Iron 3 Jaw Plain Back Chuck DIN 6350 (form A)**  
Three jaw plain back with adaptor recess.

- Type 3204**  
Rear mounting.
- Type 3274**  
Front mounting.
- Type 3275**  
Front mounting, reversible jaws.



Chuck Size (mm)	Thru Hole	Order Code <b>IND-475</b>		
		Type 3204 Rr Mnt	Type 3274 Fr Mnt	Type 3275 Fr Mnt
80	16	-1010K	-	-
85	18	-	-1220K	-
100	20	-1030K	-	-
125	32	-1040K	-1240K	-
160	42	-1060K	-1260K	-1460K
200	55	-1070K	-1270K	-1470K
250	76	-1080K	-1280K	-
315	103	-1090K	-1290K	-

**Lathe Chuck Jaws**

For self-centring lathe chucks (IND-475) - Indexa 3200 and 3500. Chuck jaws supplied in sets of three.



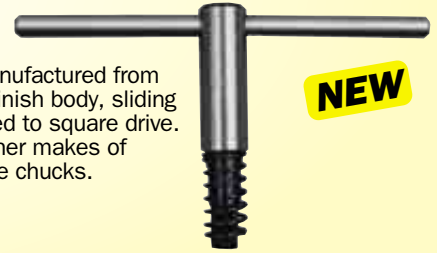
**Hard Jaws**

Chuck Dia (mm)	Weight per set	Order Code <b>IND-490</b>
125	561g	-1030K
160	1166g	-1050K
200	1627g	-1060K
250	2604g	-1070K



**Lathe Chuck Keys**

Supplied as standard with all Indexa lathe chucks manufactured from high quality steel, ground finish body, sliding T-bar and spring return fitted to square drive. Suitable for use with all other makes of square drive adjusting lathe chucks.



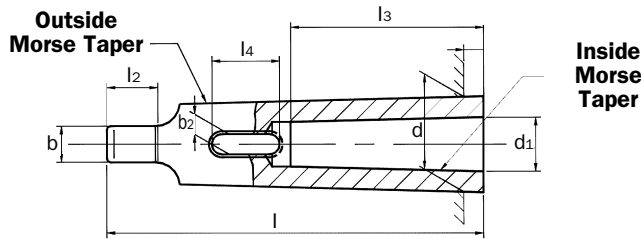
Square (AF) Size (mm)	Use With Chucks	Weight each	Order Code <b>IND-490</b>
11	160/200	347g	-5930K
14	250/315	756g	-5950K

**WORKSHOP EQUIPMENT**

**KENNEDY** *Morse Taper Tooling*  
QUALITY INDUSTRIAL TOOLING

A range of quality traditional workholding equipment. Manufactured from high quality steel and case hardened all over. All sleeves and sockets are fully hardened and ground internally and externally. **ISO 238 BS 1660 : 2.**

**Morse Taper Sleeve Data**



MT	MT		l	d	b	l2	d1	l3	l4	b2
	Inside	Outside								
1	2	92.00	17.780	6.350	11.112	12.065	52.388	19.050	5.410	
1	3	99.00	23.825	7.938	14.288	12.065	52.388	19.050	5.410	
2	3	112.00	23.825	7.938	14.288	17.780	63.500	22.225	6.604	
1	4	124.00	31.267	11.906	15.875	12.065	52.388	19.050	5.410	
2	4	124.00	31.267	11.906	15.875	17.780	63.500	22.225	6.604	
3	4	140.00	31.267	11.906	15.875	23.825	77.788	30.162	8.179	
1	5	156.00	44.399	15.875	19.050	12.065	52.388	19.050	5.410	
2	5	156.00	44.399	15.875	19.050	17.780	63.500	22.225	6.604	
3	5	156.00	44.399	15.875	19.050	23.825	77.788	30.162	8.179	
4	5	171.00	44.399	15.875	19.050	31.267	98.425	31.750	12.141	
1	6	218.00	63.348	19.050	28.575	12.065	52.388	19.050	5.410	
2	6	218.00	63.348	19.050	28.575	17.780	63.500	22.225	6.604	
3	6	218.00	63.348	19.050	28.575	23.825	77.788	30.162	8.179	
4	6	218.00	63.348	19.050	28.575	31.267	98.425	31.750	12.141	
5	6	218.00	63.348	19.050	28.575	44.399	125.412	38.100	16.129	

**Drill Sleeve & Drift Set**

Set of three drill sleeves 1 - 2, 2 - 3, 3 - 4 MT. Fully hardened and ground inside and out. Two drill drifts to release 1 - 2 and 3 - 4 MT.

**5**  
**PIECES**



No. of Pieces	Weight Set	Order Code <b>KEN-482</b>
5	995g	-9900K

**Drill Sleeves**



Taper Inside x Outside	Length (mm)	Weight each	Order Code <b>KEN-482</b>
1 x 2 MT	95	110g	-2120K
1 x 3 MT	97	220g	-2130K
1 x 4 MT	120	560g	-2140K
1 x 5 MT	152	1500g	-2150K
2 x 3 MT	110	200g	-2230K
2 x 4 MT	123	490g	-2240K
2 x 5 MT	155	1500g	-2250K
3 x 4 MT	140	430g	-2340K
3 x 5 MT	155	1200g	-2350K
4 x 5 MT	170	1100g	-2450K
4 x 6 MT	215	3600g	-2460K
5 x 6 MT	225	2800g	-2560K

**Extension Sockets**



Taper Inside x Outside	Length (mm)	Weight each	Order Code <b>KEN-482</b>
1 x 1 MT	145	275g	-4110K
1 x 2 MT	160	290g	-4120K
2 x 1 MT	175	300g	-4210K
2 x 2 MT	175	390g	-4220K
2 x 3 MT	194	710g	-4230K
3 x 2 MT	194	620g	-4320K
3 x 3 MT	230	750g	-4330K
3 x 4 MT	255	1400g	-4340K
4 x 3 MT	255	1500g	-4430K
4 x 5 MT	300	3000g	-4450K
5 x 4 MT	300	2500g	-4540K

**Drill Drifts**

To release Morse Taper Tooling without damaging machine socket or tools.



To Release Morse Taper	Weight each	Order Code <b>KEN-482</b>
0	40g	-9500K
1 & 2	80g	-9520K
3	220g	-9530K
4	380g	-9540K
5 & 6	760g	-9560K

**KENNEDY** Standard Duty Revolving Centres  
QUALITY INDUSTRIAL TOOLING

Manufactured from high alloy steel hardened and tempered then precision ground externally. Precision bearings are fitted as standard and the centres have a 60° point. Mounting Tapers are accurate to **DIN228** Form A, Tolerance Class AT5.

**Maximum runout:**  
 No.1 to 4 taper: 0.005mm.  
 No.5 to 6 taper: 0.010mm.



Morse Taper	Max rpm	Radial Load (rpm)		Axial Load(rpm)		Weight each	Order Code
		@100 (kgf)	@max (kgf)	@100 (kgf)	@3000 (kgf)		<b>KEN-488</b>
No.1	7000	80	32	250	50	0.37kg	<b>-1010K</b>
No.2	7000	200	55	275	60	0.43kg	<b>-1020K</b>
No.3	6000	300	70	400	70	0.67kg	<b>-1030K</b>
No.4	5000	600	75	500	125	1.23kg	<b>-1040K</b>
No.5	4000	800	280	570	230	3.00kg	<b>-1050K</b>

**Heavy Duty Revolving Centres**

Manufactured from high alloy steel, heat treated and precision ground. Fitted with heavy duty precision taper roller and thrust bearings to support both radial and axial loads. The 60° point is ground after assembly for absolute concentricity. Designed for heavy load and high production applications where durability is the main criteria. Mounting Tapers are accurate to **DIN228** Form A, Tolerance Class AT5.

**Maximum runout:**  
 No.2 to 5 taper: 0.005mm.  
 No.6 taper: 0.010mm.



Morse Taper	Max rpm	Radial Load (rpm)		Axial Load(rpm)		Weight each	Order Code
		@100 (kgf)	@max (kgf)	@100 (kgf)	@3000 (kgf)		<b>KEN-488</b>
No.2	5500	260	82	580	190	0.59kg	<b>-2020K</b>
No.3	4000	480	180	810	270	1.35kg	<b>-2030K</b>
No.4	3000	800	270	1300	400	2.69kg	<b>-2040K</b>
No.5	2500	1050	500	1600	490	5.64kg	<b>-2050K</b>

**Industrial Solid Centres**

Manufactured from high quality tool steel, hardened and ground with 60° point and spanner flats as standard. Mounting Tapers are accurate to **DIN228** Form A, Tolerance Class AT5.



Morse Taper	Diameter (mm)	Across Flats	Length (mm)	Weight each	Order Code
					<b>KEN-487</b>
No.1	12.20	10	78	60g	<b>-1010K</b>
No.2	18.00	13	90	200g	<b>-1020K</b>
No.3	24.10	19	138	300g	<b>-1030K</b>
No.4	31.60	24	138	450g	<b>-1040K</b>

**REVOLVING & SOLID CENTRES**

**Standard Duty Interchangeable Revolving Centre Sets**



Manufactured from high alloy steel, precision ground internally and externally with pre-lubricated bearings. A versatile revolving centre with interchangeable points for a wide variety of applications. Ideal for toolroom or manufacture of small turned components. Points fit into body by means of a taper and are removed by use of the drift key supplied. All mating surfaces are precision ground and the set is supplied in a varnished wooden storage box.

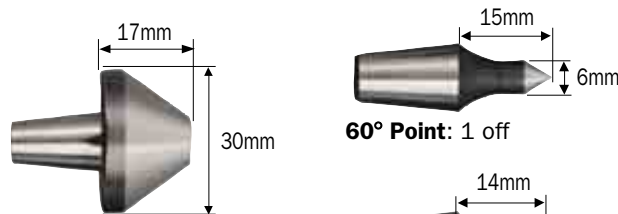
Morse Taper	Axial Load at 100rpm	Radial Load at 100rpm	Max rpm	Max Runout
No. 2	200Kgf	100Kgf	4000	0.005mm
No. 3	400Kgf	200Kgf	3000	0.005mm



Morse Taper	Length (mm)	Diameter (mm)	Weight each	Order Code
				<b>KEN-488</b>
No.2	124	33	0.85kg	<b>-1320K</b>
No.3	152	42	1.10kg	<b>-1330K</b>

**Interchangeable Points**

A complete range of interchangeable points to complement the revolving centre sets.



**60° Point: 1 off**

**Cone: 1 off**



**60° Point: 1 off**



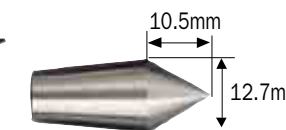
**60° Internal: 1 off**



**60° Point: 1 off**



**Drift Key**



**60° Point: 2 off**

Description	Weight each	Order Code
		<b>KEN-489</b>
60° Point x 6mm Dia.	20g	<b>-1020K</b>
60° Point x 7.5mm Dia.	20g	<b>-1030K</b>
60° Point x 10mm Dia.	25g	<b>-1040K</b>
60° Point x 12.7mm Dia.	20g	<b>-1050K</b>

**WORKSHOP EQUIPMENT**

**ATLAS** Standard Duty Revolving Centres  
WORKHOLDERS

Manufactured from high alloy steel hardened and tempered then precision ground externally. Precision bearings are fitted as standard and the centres have a 60° point.

**Maximum runout:** 0.005mm.



Morse Taper	Max rpm	Radial Load (rpm)		Axial Load(rpm)		Weight each	Order Code
		@100 (kgf)	@max (kgf)	@100 (kgf)	@3000 (kgf)		<b>ATL-488</b>
No.2	7000	200	50	250	50	0.50kg	<b>-1020K</b>
No.3	6000	300	80	380	90	0.80kg	<b>-1030K</b>
No.4	5000	800	220	900	270	2.30kg	<b>-1040K</b>

**GROUP 490 LATHE CHUCK JAWS**

**KENNEDY** *Scroll Jaws*  
 QUALITY INDUSTRIAL TOOLING

**To Suit Pratt Burnard Chucks**

For Standard, Super Precision, Griptru. All steel (type 78), Pratt Burnard old type (Inch) and Hardinge chucks.



Chuck Type	Jaw Code (Refer to Diameter)
Standard, Griptru, Super Precision	<b>B, C, E, G, J, M, P, Q, R</b>
All Steel (Type 78)	<b>L, O</b>
Burnard	<b>I, K, N</b>
Pratt Old Type	<b>H</b>
Hardinge/Pratt Type	<b>F</b>

**3 Jaw Sets**



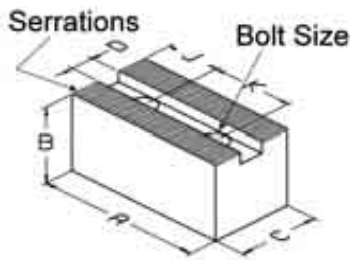
4 and 6 jaw sets available on request

Jaw Code	Chuck Diameter	Dimensions (mm)			Order Code
		C	D	J	<b>KEN-490</b>
EJC	100mm	14.10	4.85	5.08	<b>-1030K</b>
EJE	125mm	15.75	8.03	6.35	<b>-1050K</b>
EJF	125mm	14.10	4.85	6.35	<b>-1060K</b>
EJG	160mm	18.79	8.03	6.35	<b>-1070K</b>
EJJ	200mm	20.62	9.53	8.46	<b>-1100K</b>
EJL	230mm	25.40	9.52	8.46	<b>-1120K</b>
EJM	250mm	25.40	11.10	8.46	<b>-1130K</b>
EJP	315mm	28.19	12.88	8.46	<b>-1160K</b>

**Serrated Soft Jaws**

To suit metric serrated power chucks (Kitagawa/Howa/Matsumoto/Pratt Burnard/SMW/Autoblok etc.).

**3 Jaw Sets**

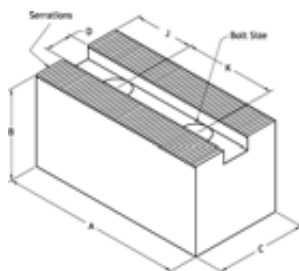


Jaw Code	Chuck Diameter	Dimensions (mm)				K/J Bolt	Serrations	Order Code
		A	B	C	D			<b>KEN-490</b>
B006	165mm	72	38	32	12	20/15/M10	1.5mm x 60	<b>-5560K</b>
DJ06	165mm	72	57	32	12	20/15/M10	1.5mm x 60	<b>-5860K</b>
PT06	165mm	82	32	32	12	20/15/M10	1.5mm x 60	<b>-2060K</b>
B008	210mm	95	44	32	14	25/25/M12	1.5mm x 60	<b>-5580K</b>
DJ08	210mm	95	70	32	14	25/25/M12	1.5mm x 60	<b>-5880K</b>
PT08	210mm	102	44	32	14	25/20/M12	1.5mm x 60	<b>-2080K</b>
B010	254mm	110	40	40	16	30/30/M12	1.5mm x 60	<b>-5600K</b>
DJ10	254mm	110	80	40	16	30/30/M12	1.5mm x 60	<b>-5900K</b>
DK10	254mm	90	60	40	16	30/21/M12	1.5mm x 60	<b>-5970K</b>
PT10	254mm	125	40	40	16	30/30/M12	1.5mm x 60	<b>-2100K</b>
DK11	254mm	110	60	40	16	30/21/M12	1.5mm x 60	<b>-5980K</b>
B012	315mm	130	50	50	18	30/40/M14	1.5mm x 60	<b>-5620K</b>
DJ12	315mm	130	80	50	18	30/40/M14	1.5mm x 60	<b>-5920K</b>
BR13	315mm	130	50	50	21	30/40/M16	1.5mm x 60	<b>-5700K</b>
DJ13	315mm	130	80	50	21	30/40/M16	1.5mm x 60	<b>-5930K</b>
B015	380mm	165	76	64	22	43/37/M20	1.5mm x 60	<b>-5650K</b>
DJ15	380mm	165	127	64	22	43/37/M20	1.5mm x 60	<b>-5950K</b>
B018	454/530/610mm	180	76	64	25	60/40/M20	3mm x 60	<b>-5660K</b>

**Serrated Soft Jaws**

To suit inch serrated power chucks (Berg/Forkardt/Rohm/Pratt Burnard/SMW/Autoblok etc.).

**3 Piece Set**



Jaw Code	Chuck Diameter	Dimensions (mm)				K/J Bolt	Serrations	Order Code
		A	B	C	D			<b>KEN-490</b>
BN90	165/200mm	90	60	40	17.0	22/15/M12	1/16" x 90	<b>-5090K</b>
BN12	250/315mm	120	80	50	21.0	28/20/M16	1/16" x 90	<b>-5120K</b>
BN23	400/500/630mm	155	89	64	25.5	35/30/M20	3/32" x 90	<b>-5230K</b>

**Scroll Jaws**

To suit Pratt Burnard metric chucks (Standard Accuracy and Super Precision).

**3 Jaw Sets**



4 and 6 jaw sets available on request

Jaw Code	Chuck Diameter	Dimensions (mm)			Order Code
		C	D	J	<b>KEN-490</b>
EK16	160mm	18	7	6	<b>-6030K</b>
EK20	200mm	22	8	8	<b>-6040K</b>
EK25	250mm	25	8	8	<b>-6050K</b>
EK32	315mm	32	12	10	<b>-6060K</b>

**Scroll Jaws**

To suit Toolmex/Bison chucks.

**3 Jaw Sets**



Jaw Code	Chuck Diameter	Dimensions (mm)			Order Code
		C	D	J	<b>KEN-490</b>
EN08	80mm	11	6	4	<b>-6180K</b>
EN10	100mm	15	6	6	<b>-6200K</b>
EN13	125mm	20	8	7	<b>-6220K</b>
EN16	160mm	20	8	8	<b>-6230K</b>
EN20	200mm	25	10	8	<b>-6240K</b>
EN25	250mm	28	12	9	<b>-6250K</b>
EN32	315mm	32	12	10	<b>-6260K</b>

**WORKSHOP EQUIPMENT**

**KENNEDY** *Huntington Type*  
QUALITY INDUSTRIAL TOOLING **Wheel Dressers**

With improved quick release cutter wheel design which reduces down-time when changing wheels. Ergonomically designed cast iron handle and case hardened, polished cutters. Suitable for cleaning, sharpening and truing grinding wheels.



Type	For Wheel Diameter	Weight each	Order Code <b>KEN-495</b>
No.0	Up to 510mm (20")	0.85kg	<b>-0100K</b>
No.1	Up to 760mm (30")	1.00kg	<b>-0110K</b>
No.2	Over 760mm (30")	2.50kg	<b>-0120K</b>



**Replacement Wheel Sets**



Description	Weight per 10 Sets	Order Code <b>KEN-495</b>
Spare Wheels for Type No.0	0.45kg	<b>-1000K</b>
Spare Wheels for Type No.1	0.53kg	<b>-1010K</b>
Spare Wheels for Type No.2	2.90kg	<b>-1020K</b>

**Replacement Parts**

Description	Weight per 10	Order Code <b>KEN-495</b>
Side Bush for Type No.0	79g	<b>-2000K</b>
Cutter Bush for Type No.1	110g	<b>-2010K</b>
Cutter Bush for Type No.2	234g	<b>-2020K</b>
Spare Spindle for Type No.0	130g	<b>-3000K</b>
Spare Spindle for Type No.1	310g	<b>-3010K</b>
Spare Spindle for Type No.2	310g	<b>-3020K</b>
Side Washer for Type No.1	70g	<b>-4010K</b>
Side Washer for Type No.2	50g	<b>-4020K</b>

**Diamond Point Wheel Dressing Tools**

**Single-Point Tools**

For general use. The diamond point can be reset when it 'flats', giving extended tool life (resetting prices available on request). 1/2" x 6" holder size.



Product Number	Diamond Size, Carat	For use on Wheel	Weight each	Order Code <b>KEN-496</b>
SP50	0.50	180mm (7")	160g	<b>-0050K</b>
SP75	0.75	255mm (10")	160g	<b>-0070K</b>
SP100	1.00	355mm (14")	170g	<b>-0100K</b>
SP150	1.50	460mm (18")	170g	<b>-0150K</b>
SP200	2.00	600mm (24")	170g	<b>-0200K</b>

**Chisel-Point Tools**

Designed for dressing formed wheels. Similar to single point tools but more robust and no resetting required. 3/8" x 3" holder size.



**NEW**

Product Number	Included Angle	Nose Radius	Weight each	Order Code <b>KEN-496</b>
D605		0.005"	160g	<b>-1000K</b>
D405		0.005"	170g	<b>-1100K</b>

**SENATOR** *Diamond Dressers*  
QUALITY TOOLING

For truing and dressing grinding wheels. Truing is the process of aligning the periphery of the grinding wheel so that it runs concentric with its axis of rotation. This allows accurate and precise relative motion between the grinding wheel and the part being ground. Dressing removes dulled abrasives and foreign material that has been embedded into the wheel. This allows the wheel to cut properly. These tools are mainly used to true straight-faced wheels.

**3 Piece Set**

For medium-duty use. 1/2" dia. x 6" (-9100K).



Wheel Size (mm)	Carat Size	Weight each	Order Code <b>SEN-496</b>
Up to 150	0.25	149g	<b>-0250K</b>
Up to 180	0.50	150g	<b>-0500K</b>
Up to 250	0.75	150g	<b>-0750K</b>
Up to 350	1.00	151g	<b>-1000K</b>
Up to 500	1.50	149g	<b>-1500K</b>
Up to 600	2.00	150g	<b>-2000K</b>
3 Piece Set 0.5, 0.75 & 1 Carat Set			<b>-9100K</b>