

INDEXA Latch Plates

For use with latch type toggle clamps.



Base Size	Hook Width	Order Code IND-443	Price/1 TB
80 x 55mm	22mm	-8000K	798.00

Flanged Washers

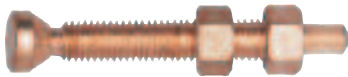
For use in conjunction with all spindles on clamps with adjustable 'U' bars.



To fit Spindle	Weight each	Order Code IND-443	Price/1 TB
5/32" (No.8/M4)	2g	-8700K	98.00
3/16" (No.10)	2g	-8720K	88.00
1/4"	4g	-8740K	98.00
5/16" (M8)	10g	-8780K	98.00
3/8" (M10)	15g	-8800K	98.00

Swivel Foot Spindles

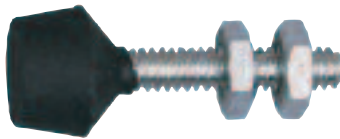
As Neoprene capped but suitable for clamping onto irregular shapes or angled workpieces.



Size	Length	Weight each	Order Code IND-443	Price/1 TB
1/4" UNC	2 1/4"	018g	-8500K	201.00
5/16" UNC	2 3/4"	031g	-8520K	258.00
3/8" UNC	3"	047g	-8540K	304.00
1/2" UNC	4"	115g	-8560K	335.00

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 IND-443	Price/1 TB
M4 x 0.7	25mm	5g	-8020K	67.00
M8 x 1.25	63mm	34g	-8100K	67.00
M10 x 1.5	85mm	64g	-8140K	67.00
No 10UNC	1 3/8"	9g	-8200K	108.00
1/4" UNC	1 3/4"	16g	-8220K	129.00
5/16" UNC	2 1/2"	31g	-8260K	129.00
3/8" UNC	3 1/2"	58g	-8300K	191.00
1/2" UNC	3 3/4"	125g	-8340K	308.00

Neoprene Caps

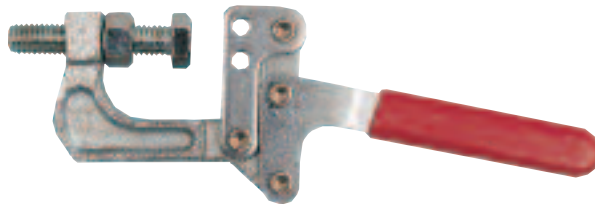
For standard adjustable spindles.



To fit Spindle	Weight each	Order Code IND-443	Price/1 TB
1/4"	8g	-8600K	98.00
5/16"	15g	-8620K	98.00
3/8"	24g	-8640K	98.00
1/2"	45g	-8660K	98.00

Cam Type Toggle G-Clamp (Pull Back Clamp)

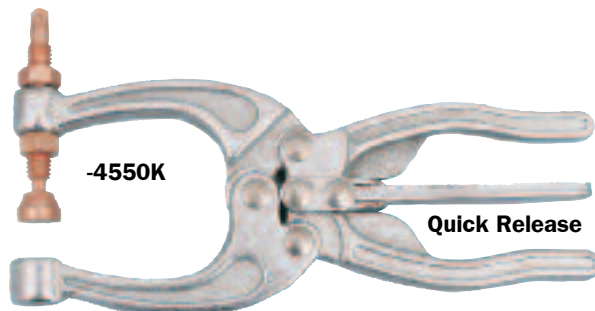
To securely fix the clamp into position the base can be welded to the work surface.



Holding Capacity	Jaw Opening	Jaw Movement	Handle Movement	Order Code IND-443	Price/1 TB
340kg	45.2mm	90°	50°	-5510K	1004.00

Toggle Pliers

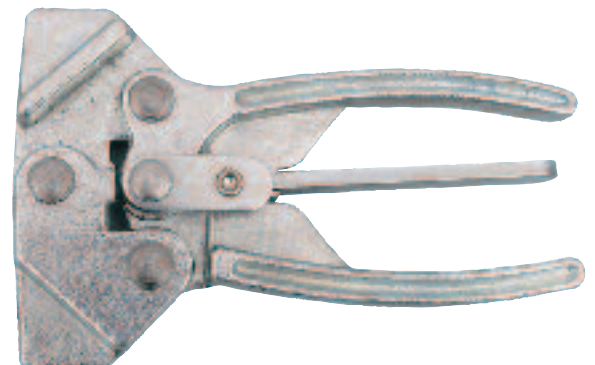
Toggle pliers have the advantage of a pivoting jaw mechanism to allow a deep throat depth to open and close easily when clamping awkward profiles such as steel angle section. The jaw spindle can be pre-set to achieve the optimum clamping distance and pressure and so is most useful for repetitive clamping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



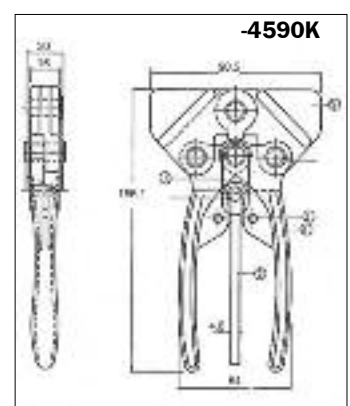
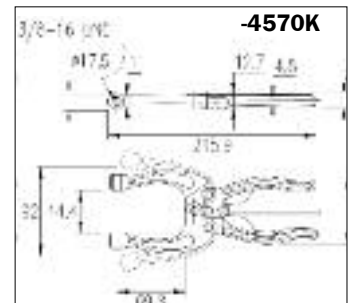
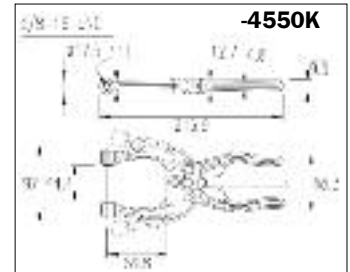
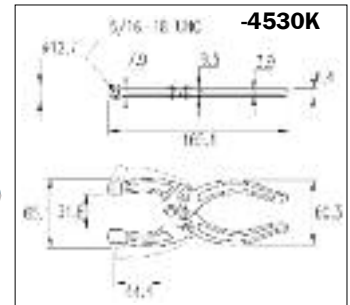
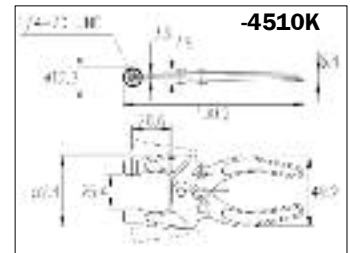
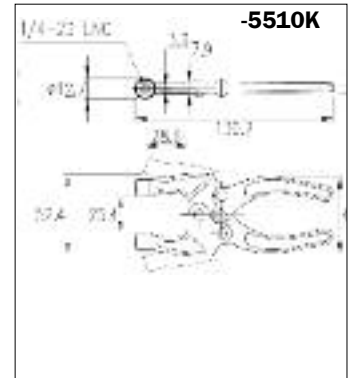
Holding Capacity	Jaw Opening Min	Jaw Opening Max	Standard Spindle Supplied	Order Code IND-443	Price/1 TB
90kg	25.4	52.4	Hex. Head	-4510K	901.00
159kg	31.8	65.1	Hex. Head	-4530K	876.00
318kg	44.4	92.0	Swivel	-4550K	1519.00
318kg	76.2	123.8	Hex. Head & Swivel	-4570K	1700.00

'Stub' Type Toggle Pliers

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



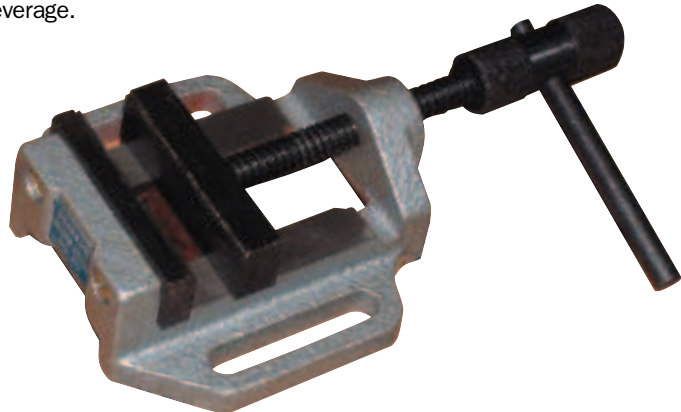
Holding Capacity	Closed Head Width (mm)	Overall Length	Order Code IND-443	Price/1 TB
500kg	95.6	156.1	-4590K	1416.00



GROUP 445 MACHINE VICES

SENATOR 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	Dimension Length x Height	Weight each	Order Code SEN-445	Price/1 TB
75mm	55	23	200 x 45	1.90kg	-0750K	824.00
100mm	95	25	250 x 55	3.25kg	-1000K	1004.00



ATLAS 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	Dimension L x W x H	Weight each	Order Code ATL-445	Price/1 TB
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Without Swivel Base

100mm	80	35	245 x 115 x 89	8kg	-0100K	5202.00
160mm	125	51	411 x 187 x 120	34kg	-0150K	8812.00
200mm	160	63	440 x 220 x 140	46kg	-0200K	9842.00

With Swivel Base

100mm	80	35	195 x 145 x 110	17kg	-1100K	5750.00
160mm	125	51	411 x 187 x 167	43kg	-1150K	9250.00
200mm	160	63	440 x 220 x 187	57kg	-1200K	12250.00

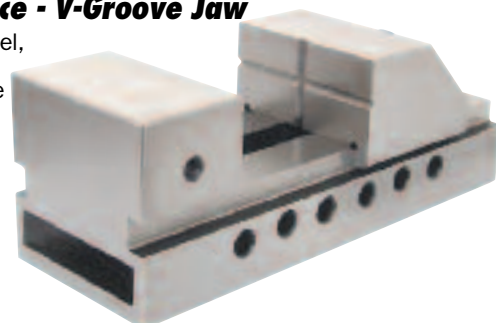
Spare Jaws to suit Atlas Machine Vices

Width	Order Code ATL-445	Price/1 TB
100mm	-1040K	500.00
160mm	-1060K	650.00
200mm	-1080K	850.00

Toolmakers 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 ATL-445	Price/1 TB
50 x 65 x 25mm	135	3kg	-0310K	3605.00

INDEXA Quick Grip Drill Press Vices

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.



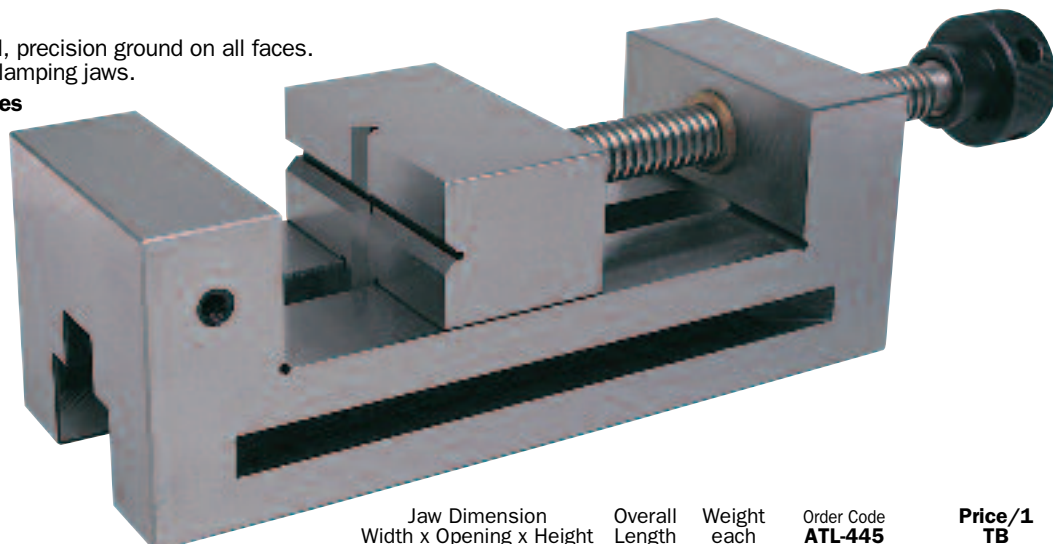
Jaw Width	Jaw Height	Maximum Opening	Weight each	Order Code IND-445	Price/1 TB
80mm	30mm	80mm	5.2kg	-0170K	13100.00
100mm	35mm	100mm	8.9kg	-0180K	17100.00

Toolmakers 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 ATL-445	Price/1 TB
63 x 85 x 32mm	185	3.80kg	-2010K	6550.00
100 x 125 x 45mm	255	13.00kg	-2050K	10299.00

INDEXA Drill Press Vices

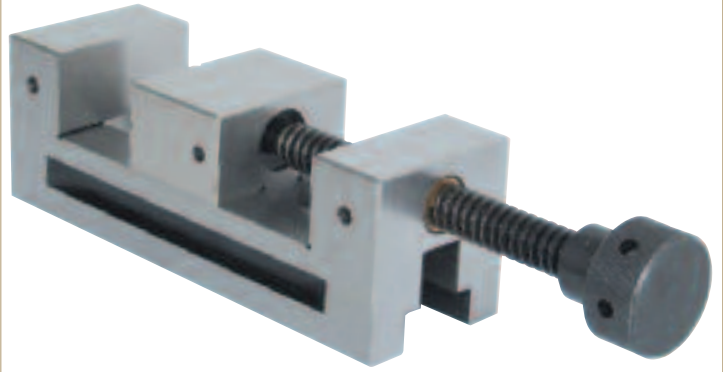
Available in four different jaw widths. For drilling, light milling, vertical and horizontal work. One grooved and one plain replaceable jaw for square and hexagonal shapes across flats or corners, thin strips and discs. Jaws and lead screw are hardened and ground.



Jaw Width	Jaw Opening	Order Code IND-445	Price/1 TB
85mm	70mm	-0010K	3150.00
100mm	85mm	-0020K	4250.00
120mm	120mm	-0030K	6100.00
150mm	150mm	-0040K	7100.00

Precision Toolmaker's Vices

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

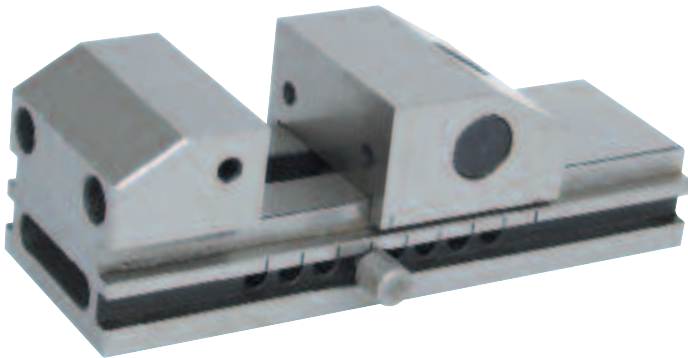


Jaw Dimension Width x Opening x Height	Overall Length	Weight each	Order Code IND-445	Price/1 TB
50 x 65 x 25mm	150	3.00kg	-0400K	9500.00
73 x 100 x 35mm	205	5.00kg	-0430K	12500.00
100 x 125 x 45mm	255	13.00kg	-0450K	14500.00

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.

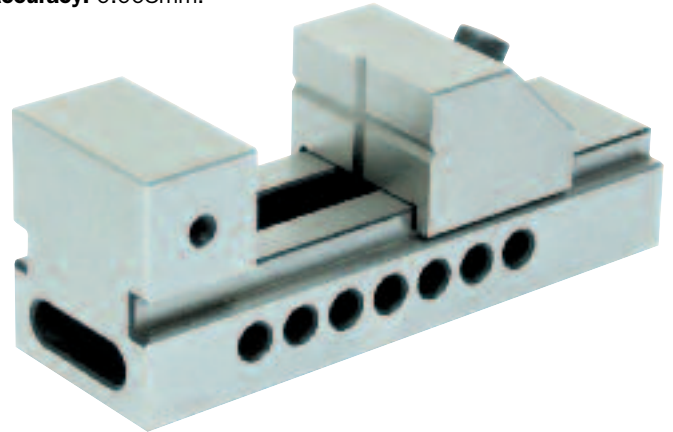


Jaw Dimension Width x Opening x Height	Overall Length	Weight each	Order Code IND-445	Price/1 TB
60 x 80 x 28mm	175mm	3.9kg	-0200K	16500.00
75 x 100 x 40mm	220mm	7.9kg	-0210K	21823.00

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.



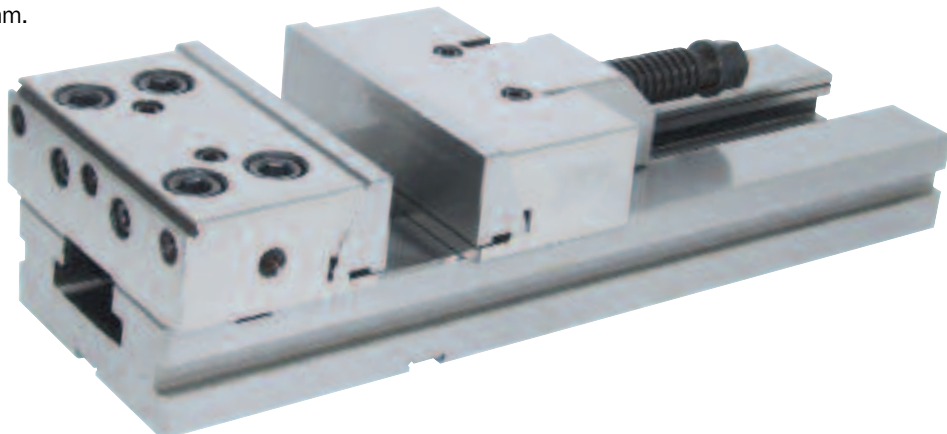
Jaw Dimension Width x Opening x Height	Overall Length	Weight each	Order Code IND-445	Price/1 TB
50 x 78 x 30mm	155mm	3.00kg	-0310K	11500.00

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.

Perpendicular accuracy: 0.005mm.

Parallelism: 0.005mm.

**Accessories:**

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

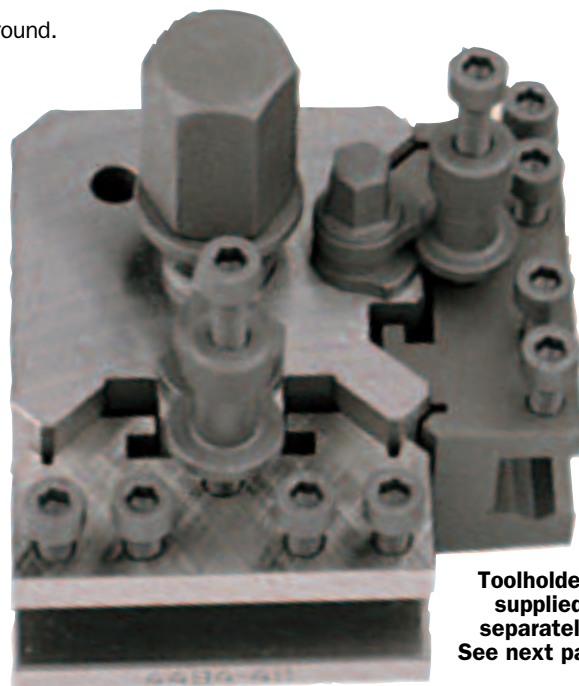
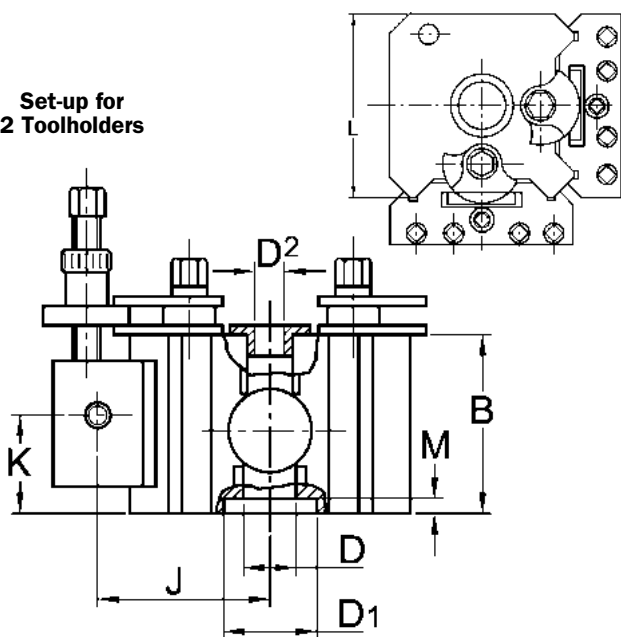
Jaw Width x Opening x Height	Overall Length	Clamping Force	Weight each	Order Code IND-445	Price/1 TB
100 x 100 x 30mm	270mm	3000kg	7.00kg	-0600K	45000.00
125 x 150 x 40mm	345mm	3000kg	12.70kg	-0620K	50000.00
150 x 200 x 50mm	420mm	5000kg	25.60kg	-0640K	70000.00
150 x 300 x 50mm	520mm	5000kg	29.50kg	-0660K	75000.00
200 x 300 x 65mm	595mm	8000kg	86.00kg	-0690K	80000.00

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



Toolposts Type T.00 - T.0

Set-up for 2 Toolholders



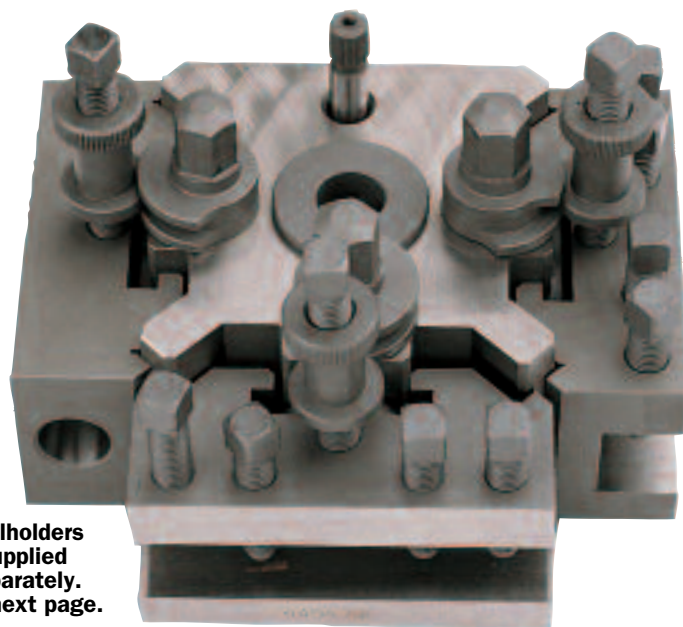
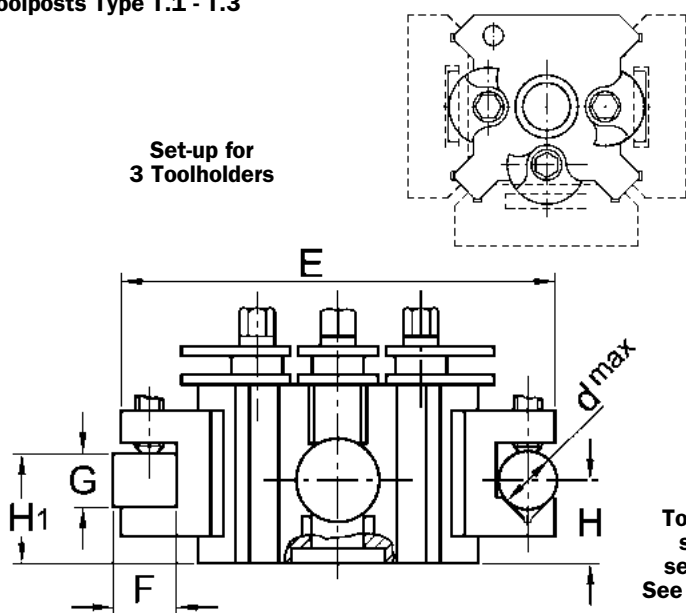
Toolholders supplied separately. See next page.

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.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	Price/1 TB
T.00M	11.0	22.5	12.5	-	-	-	-	58.0	-	0.90kg	-4800K	12000.00
T.0	16.0	32.0	16.0	1	52.5	28.5	16.0	73.0	16.0	2.00kg	-4820K	15000.00

Toolposts Type T.1 - T.3

Set-up for 3 Toolholders

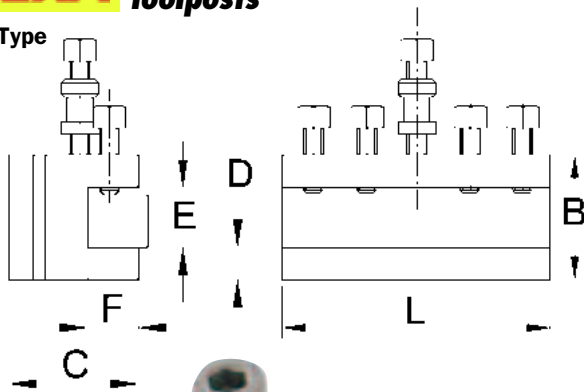


Toolholders supplied separately. See next page.

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

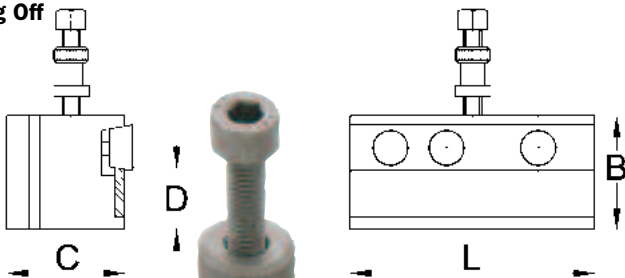
Type	Bar dia. d Max.	H Max.	H Min.	Taper	J	K Max.	K Min.	L	D2	Weight each	Order Code IND-445	Price/1 TB
T.1	16.0	44.5	25.5	1	52.5	41.0	22.0	73.0	16.0	2.30kg	-4830K	16500.00
T.1X	16.0	54.0	32.0	1 & 2	52.5	51.0	28.5	73.0	16.0	2.60kg	-4840K	17500.00
T.2	19.0	46.0	24.0	2	65.0	47.5	27.0	98.5	16.0	4.60kg	-4850K	19500.00
T.2T	19.0	50.0	24.0	2 & 3	70.0	47.5	27.0	106.5	16.0	5.80kg	-4860K	22000.00
T.3	25.5	51.0	28.5	3	85.5	58.5	36.5	125.5	22.0	10.8kg	-4870K	28000.00

Standard Type



Used On	L (mm)	B	C	D	E	F	Order Code IND-445	Price/1 TB
T.00	58.0	27.0	28.0	7.0	13.0	11	-5010K	3000.00
T.0	73.0	35.0	32.0	8.0	16.0	14	-5020K	4500.00
T.1	73.0	44.5	32.0	11.0	22.0	14	-5030K	6000.00
T.2	98.5	50.0	40.0	12.0	22.0	19	-5040K	7000.00
T.2T	98.5	57.0	40.0	14.0	28.5	19	-5050K	7250.00
T.3	124.0	70.0	48.5	17.5	35.0	23	-5060K	8500.00

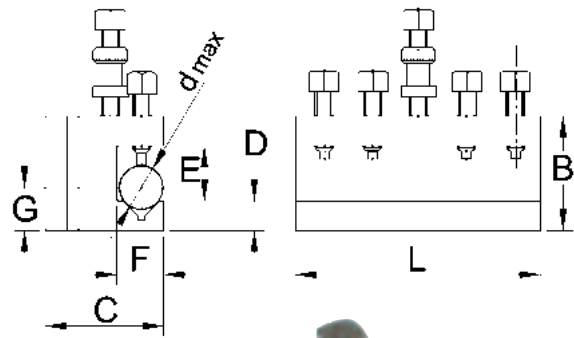
Parting Off Type



Used On	L (mm)	B	C	D	Order Code IND-445	Price/1 TB
T.0/T.1	73.0	47.5	32.0	27.0	-5370K	7350.00
T.2	98.5	57.0	39.5	33.5	-5380K	9450.00



Vee Type



Used On	L (mm)	B	C	D	E	F	G	d max	Order Code IND-445	Price/1 TB
T.00	58.0	27.0	28.0	8.0	13.0	11	13.5	11.0	-5110K	4000.00
T.0	73.0	35.0	32.0	8.0	16.0	14	16.0	16.0	-5120K	3500.00
T.1	73.0	44.5	32.0	16.0	17.0	14	24.0	16.0	-5130K	6500.00
T.2	98.5	50.0	40.0	14.0	22.0	19	24.0	19.0	-5140K	7500.00
T.2T	98.5	57.0	40.0	14.0	28.5	19	24.0	19.0	-5150K	7600.00
T.3	124.0	70.0	48.5	17.5	35.0	23	28.5	25.5	-5160K	8150.00

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 IND-445	Price/1 TB
Straight	12.5mm	0.10kg	-9000K	1100.00
	19.0mm	0.15kg	-9010K	1300.00
	25.0mm	0.30kg	-9020K	1500.00
	38.0mm	0.70kg	-9040K	2200.00
	50.0mm	1.50kg	-9060K	3500.00



Bent

Type	Capacity	Weight each	Order Code IND-445	Price/1 TB
Bent	12.5mm	0.10kg	-9200K	1500.00
	19.0mm	0.15kg	-9210K	1650.00
	25.0mm	0.30kg	-9220K	1950.00
	38.0mm	0.70kg	-9240K	2500.00
	50.0mm	1.50kg	-9260K	3500.00

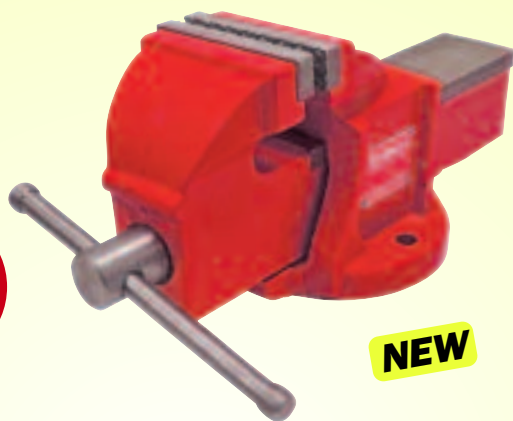
GROUP 445 BENCH VICES

KENNEDY 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



NEW

Model Number	Opening (mm)	Jaw Width (mm)	Weight each	Order Code KEN-445	Price/1 TB
KECV75	100 (4")	75 (3")	4.50kg	-0230K	2650.00
KECV100	140 (5 5/8")	100 (4")	9.50kg	-0240K	3150.00
KECV125	170 (6 3/4")	125 (5")	18.0kg	-0250K	4400.00
KECV150	190 (7 5/8")	150 (6")	25.0kg	-0260K	6200.00

SENATOR 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

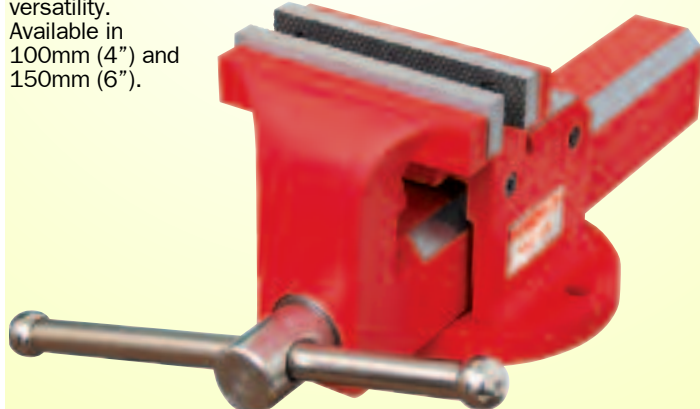


Opening (mm)	Jaw Width (mm)	Weight each	Order Code SEN-445	Price/1 TB
100 (4")	75 (3")	9.2kg	-1030K	1700.00
140 (5 1/2")	100 (4")	9.5kg	-1040K	2421.00
170 (6 1/2")	125 (5")	18.0kg	-1050K	4119.00
190 (7 1/2")	150 (6")	27.0kg	-1060K	4275.00

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").



Model Number	Opening (mm)	Jaw Width (mm)	Order Code KEN-445	Price/1 TB
VBS100	90 (3 1/2")	100 (4")	-0500K	6950.00
VBS150	220 (8 3/4")	150 (6")	-0540K	9500.00

Workshop 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.



Applicable to 6" version

Opening (mm)	Jaw Width (mm)	Weight each	Order Code SEN-445	Price/1 TB
145 (5 3/4")	100 (4")	13.5kg	-2040K	2884.00
200 (8")	150 (6")	14.0kg	-2060K	4944.00

SENATOR 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.

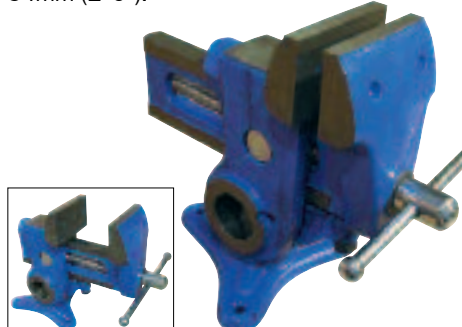


Opening (mm)	Jaw Width	Weight each	Order Code SEN-445	Price/1 TB
70 (2 3/4")	60	2.8kg	-0600K	979.00

Universal Vice

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

Jaw height: 54mm (2 1/8").

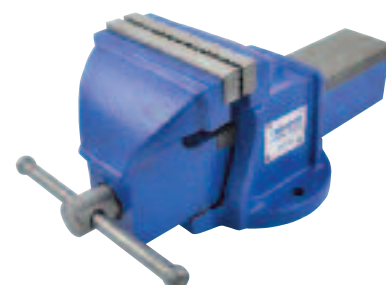


Opening (mm)	Jaw Width	Weight each	Order Code SEN-445	Price/1 TB
125 (5")	90 (3 1/2")	8.2kg	-4050K	3089.00

Light Duty Bench Vice

For light workshop, engineering and automotive use. Cast iron body with precision cut screw mechanism. The base bolts directly to the work bench surface for stability.

NEW



Opening (mm)	Jaw Width	Weight each	Order Code SEN-445	Price/1 TB
100 (4")	75 (3")	5.5kg	-0510K	2350.00
170 (6 1/2")	125 (5")	11.3kg	-0520K	3200.00
190 (7 1/2")	150 (6")	15.3kg	-0530K	4350.00

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 IND-447	Price/1 TB
1/4" Bore			
12" Hose			
4 Nozzles	40g	-6910K	1148.00
2 Connectors			
1/2" Bore			
13" Hose			
3 Nozzles	91g	-7910K	1210.00
2 Connectors			
3/4" Bore			
14" Hose			
2 Nozzles	126g	-8910K	1571.00
1 Connectors			

Tube Segments



Bore Size	Weight each	Order Code IND-447	Price/1 TB
11" Lengths (Green)			
1/4"	40g	-6210K	979.00
1/2"	69g	-7210K	1029.00
3/4"	102g	-8210K	1350.00
11" Lengths (Blue)			
3/4"	102g	-8230K	819.00
25ft Bulk Pack (Green)			
1/4"	886g	-6250K	11948.00
1/2"	1637g	-7250K	13982.00
3/4"	2381g	-8250K	16269.00

Modular Manifold Kits



Description	Bore Size	Weight each	Order Code IND-447	Price/1 TB
4x T-Pieces, 2x Plug, 1x Bracket, 4x Screws	1/4"	109g	-6450K	1025.00
	1/2"	98g	-7450K	1148.00

Modular Coolant Hose System

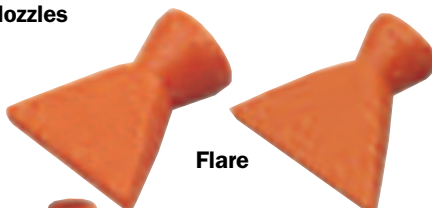
Threaded Spigots

Male Spigot



Bore Size	Inlet Size	Weight each	Order Code IND-447	Price/1 TB
1/4"	1/8" NPT Female	2g	-6710K	129.00
	1/4" NPT Female	2g	-6730K	129.00
1/4"	1/8" NPT Male	2g	-6170K	88.00
	1/4" NPT Male	2g	-6190K	88.00
1/2"	3/8" NPT Male	7g	-7170K	108.00
	1/2" NPT Male	7g	-7190K	108.00
	1/2" NPT Female	7g	-7730K	129.00
3/4"	3/4" NPT Male	10g	-8170K	129.00

Nozzles



Flare

Pointed

Type	Size	Weight each	Order Code IND-447	Price/1 TB
1/4" Bore				
Pointed	1/16"	5g	-6610K	88.00
	1/8"	5g	-6630K	98.00
	3/108"	5g	-6640K	108.00
	1/4"	5g	-6650K	118.00
Flare	1"	5g	-6670K	201.00
1/2" Bore				
Pointed	1/4"	5g	-7610K	113.00
	3/8"	5g	-7630K	129.00
	1/2"	5g	-7650K	129.00
Flare	1 3/4"	5g	-7670K	273.00
	2 1/2"	5g	-7690K	438.00
3/4" Bore				
Pointed	5/8"	10g	-8610K	129.00
	3/4"	10g	-8630K	129.00
Flare	3"	10g	-8650K	514.00

Plastic Valves

1/4 turn fitting.



Bore Size	Inlet Type	Weight each	Order Code IND-447	Price/1 TB
1/4"	In-line	10g	-6050K	361.00
1/2"	In-line	30g	-7050K	407.00

Metal Ball Valves

Threaded fitting 1/4 turn.



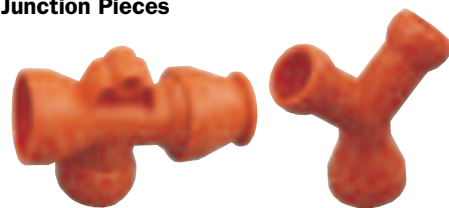
NPT Threads Male x Female	Weight each	Order Code IND-447	Price/1 TB
1/8" x 1/8"	81g	-6070K	335.00
1/4" x 1/4"	80g	-6090K	361.00
3/8" x 3/8"	76g	-7070K	407.00
1/2" x 1/2"	114g	-7090K	407.00
3/4" x 3/4"		-8070K	427.00

COOLANT HOSE

GROUP 447

Modular Coolant Hose System

Junction Pieces



L-Piece

Y-Piece

Type	Weight each	Order Code IND-447	Price/1 TB
1/4" Bore			
Y-Piece	3g	-6310K	232.00
T-Piece	3g	-6350K	263.00
L-Piece	4g	-6370K	263.00
1/2" Bore			
Y-Piece	9g	-7310K	258.00
T-Piece	9g	-7350K	294.00
L-Piece	12g	-7370K	308.00

Junction Reducers

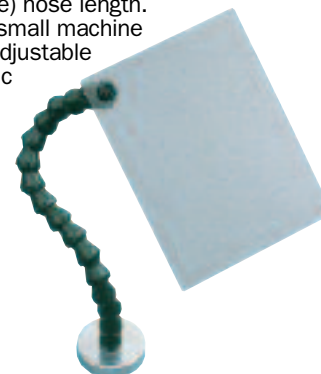


Type	Weight each	Order Code IND-447	Price/1 TB
1/2" Bore			
1/2" to 2 x 1/4"	4g	-7330K	299.00
1/2" to 1/4"	3g	-7510K	216.00
3/4" Bore			
3/4" to 1/2"	5g	-8510K	232.00

INDEXA

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 IND-447	Price/1 TB
6" x 8"	500g	-0250K	3167.00
7 1/2" x 10"	570g	-0260K	3476.00

Quick Action Assembly Pliers



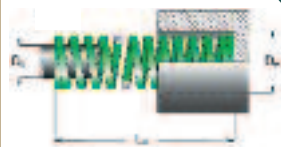
Bore Size	Order Code IND-447	Price/1 TB
1/4"	-0010K	1803.00
1/2"	-0020K	2650.00

PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR



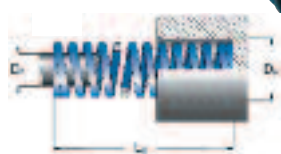
The heat and surface treatment plus the high quality of steel used in the manufacturing process ensure the springs will bear a high number of stresses without breaking or without appreciable loss of load. Every batch of springs is subject to a rigorous testing procedure to ensure that a consistent quality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

**Light Load Springs
Colour-Coded Green**



Product Number	Diameter DH	Dd	L ₀ (mm)	Rigidity (N/mm)	Weight each	Order Code IND-460	Price/1 TB
V10 x 25	10	4.5	25	10	4g	-8000A	55.00
V10 x 32	10	4.5	32	8.5	6g	-8001B	65.00
V10 x 38	10	4.5	38	6.8	7g	-8002C	70.00
V10 x 44	10	4.5	44	6.0	7g	-8003D	75.00
V10 x 51	10	4.5	51	5.0	8g	-8004E	80.00
V10 x 64	10	4.5	64	4.3	10g	-8005F	85.00
V10 x 76	10	4.5	76	3.2	11g	-8006G	95.00
V10 x 305	10	4.5	305	1.1	45g	-8007H	325.00
V13 x 25	13	7.0	25	17.9	6g	-8108J	65.00
V13 x 32	13	7.0	32	16.4	7g	-8109K	75.00
V13 x 38	13	7.0	38	13.6	9g	-8110L	85.00
V13 x 44	13	7.0	44	12.1	11g	-8111M	95.00
V13 x 51	13	7.0	51	11.4	12g	-8112N	105.00
V13 x 64	13	7.0	64	9.3	14g	-8113P	115.00
V13 x 76	13	7.0	76	7.1	16g	-8114Q	125.00
V13 x 305	13	7.0	305	1.4	63g	-8115R	375.00
V16 x 25	16	8.0	25	23.4	9g	-8216S	95.00
V16 x 32	16	8.0	32	22.9	11g	-8217T	105.00
V16 x 38	16	8.0	38	19.3	13g	-8218V	115.00
V16 x 44	16	8.0	44	17.1	17g	-8219W	125.00
V16 x 51	16	8.0	51	15.7	18g	-8220X	135.00
V16 x 64	16	8.0	64	10.7	22g	-8221Y	145.00
V16 x 76	16	8.0	76	10.0	26g	-8222Z	150.00
V16 x 102	16	8.0	102	7.8	35g	-8224B	165.00
V20 x 25	20	10.0	25	55.8	15g	-8326D	105.00
V20 x 32	20	10.0	32	45.0	20g	-8327E	115.00
V20 x 38	20	10.0	38	33.30	22g	-8328F	125.00
V20 x 44	20	10.0	44	30.0	28g	-8329G	135.00
V20 x 51	20	10.0	51	24.5	31g	-8330H	145.00
V20 x 64	20	10.0	64	20.0	40g	-8331J	155.00
V20 x 76	20	10.0	76	16.0	47g	-8332K	165.00
V20 x 89	20	10.0	89	14.0	54g	-8333L	175.00
V20 x 102	20	10.0	102	12.0	110g	-8334M	195.00
V20 x 115	20	10.0	115	10.9	123g	-8335N	215.00
V20 x 127	20	10.0	127	9.5	135g	-8336P	225.00
V20 x 152	20	10.0	152	7.5	90g	-8338R	250.00
V25 x 25	26	12.5	25	100.0	27g	-8440T	105.00
V25 x 32	26	12.5	32	80.3	35g	-8441V	115.00
V25 x 38	26	12.5	38	62.0	44g	-8442W	135.00
V25 x 51	26	12.5	51	44.0	57g	-8444Y	175.00
V25 x 64	26	12.5	64	35.2	71g	-8445Z	185.00
V25 x 76	26	12.5	76	28.0	87g	-8446A	195.00
V25 x 89	26	12.5	89	29.0	96g	-8447B	250.00
V25 x 102	26	12.5	102	21.1	110g	-8448C	275.00
V25 x 115	26	12.5	115	18.7	125g	-8449D	295.00
V25 x 127	26	12.5	127	16.7	135g	-8450E	325.00
V25 x 152	26	12.5	152	14.0	165g	-8452G	425.00
V25 x 203	26	12.5	203	10.4	215g	-8454J	450.00
V32 x 38	32	16.0	38	94.0	60g	-8557M	215.00
V32 x 76	32	16.0	76	44.0	132g	-8561R	295.00
V32 x 102	32	16.0	102	32.0	173g	-8563T	325.00
V32 x 115	32	16.0	115	29.0	190g	-8564V	395.00
V32 x 127	32	16.0	127	25.0	215g	-8565W	495.00
V32 x 152	32	16.0	152	21.5	262g	-8567Y	495.00
V32 x 178	32	16.0	178	18.2	300g	-8568Z	550.00
V32 x 203	32	16.0	203	1.40	350g	-8569K	625.00
V40 x 64	40	20.0	64	73.0	165g	-8673E	350.00
V40 x 76	40	20.0	76	63.0	188g	-8674F	350.00
V40 x 102	40	20.0	102	43.0	247g	-8676H	425.00
V50 x 64	50	25.0	64	156.0	305g	-8785S	450.00
V50 x 76	50	25.0	76	125.0	450g	-8786T	725.00
V50 x 102	50	25.0	102	94.0	470g	-8788W	725.00
V50 x 115	50	25.0	115	81.0	590g	-8789X	750.00

**Medium Load Springs
Colour-Coded Blue**



Product Number	Diameter DH	Dd	L ₀ (mm)	Rigidity (N/mm)	Weight each	Order Code IND-460	Price/1 TB
B10 x 25	10	4.5	25	16.0	3g	-6000A	75.00
B10 x 32	10	4.5	32	13.0	4g	-6001B	75.00
B10 x 38	10	5.0	44	11.9	4g	-6002C	85.00
B10 x 44	10	4.5	44	10.3	5g	-6003D	85.00
B10 x 51	10	4.5	51	8.9	7g	-6004E	95.00
B10 x 64	10	4.5	64	7.5	9g	-6005F	105.00
B10 x 76	10	4.5	76	5.3	11g	-6006G	115.00
B10 x 305	10	4.5	305	1.6	45g	-6007H	450.00
B13 x 25	13	7.0	25	30.0	6g	-6108J	85.00
B13 x 32	13	7.0	32	24.8	8g	-6109K	85.00
B13 x 38	13	7.0	38	21.4	10g	-6110L	95.00
B13 x 44	13	7.0	44	18.5	12g	-6111M	105.00
B13 x 51	13	7.0	51	15.5	13g	-6112N	105.00
B13 x 64	13	7.0	64	12.1	15g	-6113P	125.00
B13 x 76	13	7.0	76	10.2	17g	-6114Q	135.00
B13 x 305	13	7.0	305	2.1	73g	-6115R	550.00
B16 x 25	16	8.0	25	49.4	12g	-6216S	95.00
B16 x 32	16	8.0	32	37.1	14g	-6217T	105.00
B16 x 38	16	8.0	38	33.9	15g	-6218V	125.00
B16 x 44	16	8.0	44	30.0	19g	-6219W	135.00
B16 x 51	16	8.0	51	26.4	21g	-6220X	145.00
B16 x 64	16	8.0	64	20.5	27g	-6221Y	155.00
B16 x 76	16	8.0	76	17.8	33g	-6222Z	165.00
B16 x 102	16	8.0	102	13.5	43g	-6224B	195.00
B20 x 25	20	10.0	25	98.0	19g	-6326D	105.00
B20 x 32	20	10.0	32	72.6	23g	-6327E	115.00
B20 x 38	20	10.0	38	56.0	26g	-6328F	135.00
B20 x 44	20	10.0	44	47.5	32g	-6329G	135.00
B20 x 51	20	10.0	51	41.7	35g	-6330H	175.00
B20 x 64	20	10.0	64	32.3	46g	-6331J	175.00
B20 x 76	20	10.0	76	25.1	55g	-6332K	175.00
B20 x 89	20	10.0	89	22.0	61g	-6333L	195.00
B20 x 102	20	10.0	102	19.8	68g	-6334M	215.00
B20 x 127	20	10.0	127	16.6	85g	-6336P	250.00
B20x152	20	10.0	152	1.30	103g	-6338R	295.00
B25 x 25	26	12.5	25	147.0	33g	-6440T	325.00
B25 x 32	26	12.5	32	118.0	42g	-6441V	125.00
B25 x 38	26	12.5	38	93.0	48g	-6442W	135.00
B25 x 44	26	12.5	44	80.8	56g	-6443X	155.00
B25 x 51	26	12.5	51	68.6	65g	-6444Y	185.00
B25 x 64	26	12.5	64	53.0	90g	-6445Z	195.00
B25 x 76	26	12.5	76	43.2	96g	-6446A	215.00
B25 x 89	26	12.5	89	38.2	118g	-6447B	275.00
B25 x 102	26	12.5	102	33.0	131g	-6448C	295.00
B25 x 152	26	12.5	152	20.8	190g	-6452G	395.00
B32 x 38	32	16.0	38	185.0	80g	-6557M	215.00
B32 x 44	32	16.0	44	158.0	90g	-6558N	225.00
B32 x 51	32	16.0	51	134.0	100g	-6559P	235.00
B32 x 64	32	16.0	64	99.0	130g	-6560Q	245.00
B32 x 76	32	16.0	76	80.5	152g	-6561R	295.00
B32 x 102	32	16.0	102	58.8	203g	-6563T	355.00
B32 x 115	32	16.0	115	51.5	223g	-6564V	425.00
B32 x 127	32	16.0	127	44.8	252g	-6565W	450.00
B32 x 152	32	16.0	152	37.8	292g	-6567Y	525.00
B32 x 178	32	16.0	178	32.5	320g	-6568Z	595.00
B40 x 51	40	20.0	51	181.6	157g	-6672D	295.00
B40 x 64	40	20.0	64	140.0	194g	-6673E	325.00
B40 x 89	40	20.0	89	90.7	265g	-6675G	450.00
B40 x 102	40	20.0	102	81.0	300g	-6676H	495.00
B50 x 64	51	25.0	65	209.0	340g	-6785S	550.00
B50 x 76	51	25.0	76	168.0	395g	-6786T	625.00

INDEXA Die Springs

EXTENDED RANGE



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

Extra Heavy-Load Springs
Colour Coded Yellow



Product Number	Diameter D _H	D _d	L ₀ (mm)	Rigidity (N/mm)	Weight each	Order Code IND-460	Price/1 TB
R10 x 25	10	4.5	25	22.10	4g	-1000A	75.00
R10 x 32	10	4.5	32	17.50	5g	-1001B	85.00
R10 x 38	10	4.5	38	17.10	6g	-1002C	95.00
R10 x 44	10	5.0	180	15.00	8g	-1003D	95.00
R10 x 51	10	4.5	51	12.80	8g	-1004E	105.00
R10 x 64	10	4.5	64	10.7	11g	-1005F	115.00
R13 x 25	13	7.0	25	42.1	12g	-1108J	95.00
R13 x 38	13	7.0	38	29.3	13g	-1110L	115.00
R13 x 44	13	7.0	44	24.6	15g	-1111M	125.00
R13 x 51	13	7.0	51	19.6	17g	-1112N	125.00
R13 x 64	13	7.0	64	15.0	21g	-1113P	145.00
R13 x 76	13	7.0	76	13.2	24g	-1114Q	165.00
R16 x 25	16	8.0	25	75.7	12g	-1216S	125.00
R16 x 32	16	8.0	32	52.8	14g	-1217T	125.00
R16 x 38	16	8.0	38	48.5	17g	-1218V	135.00
R16 x 44	16	8.0	44	42.8	20g	-1219W	145.00
R16 x 51	16	8.0	51	37.1	23g	-1220X	150.00
R16 x 64	16	8.0	64	30.3	27g	-1221Y	165.00
R16 x 76	16	8.0	76	25.7	34g	-1222Z	170.00
R20 x 25	20	10.0	25	216.0	20g	-1326D	140.00
R20 x 32	20	10.0	32	168.0	28g	-1327E	155.00
R20 x 38	20	10.0	38	129.0	32g	-1328F	165.00
R20 x 44	20	10.0	44	112.0	38g	-1329G	175.00
R20 x 51	20	10.0	51	94.0	44g	-1330H	185.00
R20 x 64	20	10.0	64	72.1	54g	-1331J	195.00
R20 x 76	20	10.0	76	59.7	63g	-1332K	215.00
R20 x 89	20	10.0	89	50.5	75g	-1333L	250.00
R20 x 102	20	10.0	102	44.2	88g	-1334M	250.00
R20 x 127	20	10.0	127	34.1	107g	-1336P	350.00
R25 x 32	26	12.5	32	297.0	48g	-1441V	195.00
R25 x 38	26	12.5	38	219.0	56g	-1442W	195.00
R25 x 44	26	12.5	44	187.0	57g	-1443X	215.00
R25 x 51	26	12.5	51	156.0	63g	-1444Y	250.00
R25 x 64	26	12.5	64	123.0	85g	-1445Z	275.00
R25 x 76	26	12.5	76	99.0	110g	-1446A	295.00
R25 x 89	26	12.5	89	84.0	139g	-1447B	325.00
R25 x 102	26	12.5	102	73.0	144g	-1448C	350.00
R25 x 115	26	12.5	115	65.0	168g	-1449D	375.00
R25 x 127	26	12.5	127	57.7	182g	-1450E	425.00
R25 x 152	26	12.5	152	47.8	222g	-1452G	450.00
R25 x 178	26	12.5	178	41.0	256g	-1453H	525.00
R32 x 38	32	16.0	38	388.0	93g	-1557M	225.00
R32 x 44	32	16.0	44	324.0	105g	-1558N	250.00
R32 x 51	32	16.0	51	272.0	117g	-1559P	275.00
R32 x 64	32	16.0	64	212.0	148g	-1560Q	325.00
R32 x 76	32	16.0	76	172.0	178g	-1561R	350.00
R32 x 89	32	16.0	89	141.0	204g	-1562S	395.00
R32 x 102	32	16.0	102	122.0	230g	-1563T	450.00
R32 x 152	32	16.0	152	78.0	380g	-1567Y	695.00
R32 x 178	32	16.0	178	67.2	410g	-1568Z	750.00
R40 x 51	40	20.0	51	350.0	181g	-1672D	325.00
R40 x 64	40	20.0	64	269.0	220g	-1673E	350.00
R40 x 76	40	20.0	76	219.0	261g	-1674F	450.00
R40 x 89	40	20.0	89	190.0	315g	-1675G	550.00
R40 x 102	40	20.0	102	163.0	341g	-1676H	625.00
R40 x 127	40	20.0	127	128.0	420g	-1678K	775.00
R40 x 152	40	20.0	152	105.0	500g	-1680M	850.00
R50 x 64	51	25.0	64	413.0	416g	-1785S	650.00
R50 x 76	51	25.0	76	339.0	438g	-1786T	750.00

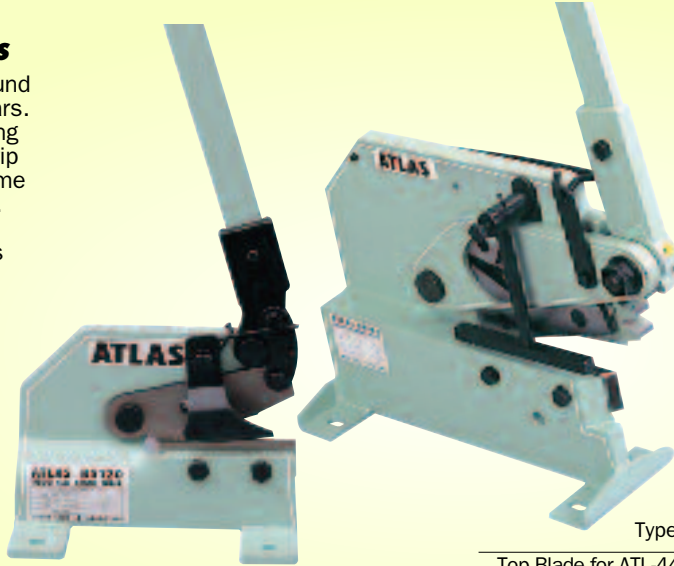
Product Number	Diameter D _H	D _d	L ₀ (mm)	Rigidity (N/mm)	Weight each	Order Code IND-460	Price/1 TB
G10 x 25	10	4.5	25	36.8	5g	-3000A	95.00
G10 x 32	10	4.5	32	27.9	7g	-3001B	105.00
G10 x 38	10	4.5	38	23.7	8g	-3002C	125.00
G10 x 44	10	4.5	44	19.2	9g	-3003D	130.00
G10 x 51	10	4.5	51	16.5	10g	-3004E	130.00
G10 x 64	10	5.0	64	13.2	11g	-3005F	150.00
G13 x 25	13	7.0	25	58.5	11g	-3108J	105.00
G13 x 32	13	7.0	32	43.9	11g	-3109K	120.00
G13 x 38	13	7.0	38	3.70	13g	-3110L	130.00
G13 x 44	13	7.0	44	30.3	15g	-3111M	150.00
G13 x 51	13	7.0	51	26.2	80g	-3112N	155.00
G13 x 64	13	7.0	64	21.2	22g	-3113P	160.00
G16 x 32	16	8.0	32	89.0	17g	-3217T	130.00
G16 x 38	16	8.0	38	72.1	22g	-3218V	140.00
G16 x 44	16	8.0	44	60.9	25g	-3219W	165.00
G16 x 51	16	8.0	51	52.3	29g	-3220X	170.00
G16 x 64	16	8.0	64	41.2	36g	-3221Y	175.00
G16 x 76	16	8.0	76	34.1	42g	-3222Z	195.00
G20 x 25	20	10.0	25	293.0	23g	-3326D	150.00
G20 x 32	20	10.0	32	224.0	28g	-3327E	175.00
G20 x 38	20	10.0	38	177.0	33g	-3328F	185.00
G20 x 44	20	10.0	44	149.0	39g	-3329G	195.00
G20 x 51	20	10.0	51	128.0	45g	-3330H	210.00
G20 x 64	20	10.0	64	99.0	56g	-3331J	215.00
G20 x 76	20	10.0	76	81.7	64g	-3332K	225.00
G20 x 89	20	10.0	89	69.5	73g	-3333L	250.00
G20 x 102	20	10.0	102	60.6	86g	-3334M	275.00
G25 x 32	26	12.5	32	374.4	48g	-3441V	175.00
G25 x 38	26	12.5	38	346.0	60g	-3442W	195.00
G25 x 44	26	12.5	44	244.0	70g	-3443X	215.00
G25 x 51	26	12.5	51	207.5	80g	-3444Y	225.00
G25 x 64	26	12.5	64	161.0	99g	-3445Z	250.00
G25 x 76	26	12.5	76	130.8	114g	-3446A	275.00
G25 x 89	26	12.5	89	110.5	134g	-3447B	295.00
G25 x 102	26	12.5	102	96.3	151g	-3448C	350.00
G25 x 115	25	12.5	115	85.7	174g	-3449D	375.00
G25 x 127	26	12.5	127	76.3	190g	-3450E	425.00
G32 x 38	32	16.0	38	528.2	98g	-3557M	275.00
G32 x 44	32	16.0	44	424.4	115g	-3558N	295.00
G32 x 51	32	16.0	51	353.0	131g	-3559P	315.00
G32 x 64	32	16.0	64	269.2	163g	-3560Q	350.00
G32 x 76	32	16.0	76	218.5	200g	-3561R	385.00
G32 x 89	32	16.0	89	180.3	226g	-3562S	425.00
G32 x 102	32	16.0	102	155.0	252g	-3563T	450.00
G32 x 140	32	16.0	140	112.3	350g	-3566X	725.00
G32 x 152	32	16.0	152	102.0	380g	-3567Y	750.00
G40 x 51	40	20.0	51	628.0	190g	-3672D	350.00
G40 x 64	40	20.0	64	487.0	238g	-3673E	425.00
G40 x 76	40	20.0	76	379.0	275g	-3674F	450.00
G40 x 89	40	20.0	89	321.0	330g	-3675G	650.00
G50 x 64	50	25.0	64	709.0	410g	-3785S	750.00
G50 x 89	51	25.0	89	475.0	593g	-3787V	850.00

PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR

ATLAS
WORKHOLDERS

Bench 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	Price/1 TB
BS120	4mm	5 x 70	10	120	8.3kg	-1200K	8240.00
BS200	6mm	7 x 70	13	200	19.0kg	-2000K	10558.00
BS406	8mm	10 x 100	16	200	43.0kg	-3000K	25750.00

Type	Weight each	Order Code	Price/1 TB
Top Blade for ATL-448-1200K Shear	445g	-3100K	2310.00
Bottom Blade for ATL-448-1200K Shear	250g	-3110K	1421.00
Top Blade for ATL-448-2000K Shear	1.4kg	-3150K	6515.00
Bottom Blade for ATL-448-2000K Shear	790g	-3160K	2961.00
Top Blade for ATL-448-3000K Shear	430g	-3200K	2073.00
Bottom Blade for ATL-448-3000K Shear	220g	-3210K	2961.00

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 $\frac{3}{4}$ " x $\frac{1}{4}$ " x $\frac{1}{4}$ ".

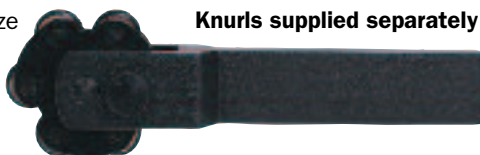


Size	Knurls Fitted	Weight each	Order Code	Price/1 TB
$\frac{1}{2}$ " x $\frac{1}{2}$ " x 4"	-1510B	140g	-8050F	2750.00

3/4" x 1/4" x 1/4" Knurls to suit Toolholder above					Price/1 TB
Style	Weight each	Order Code JHL-450			
		Coarse	Medium	Fine	
Straight	10g	-1500A	-1510B	-1520C	721.00
Right Hand	10g	-1600A	-1610B	-1620C	721.00
Left Hand	10g	-1700A	-1710B	-1720C	721.00
Checkered	10g	-1800A	-1810B	-1820C	721.00

Six Knurl Toolholder

Machine ground high grade steel, black mottle finish. Revolving head. For use with knurl size $\frac{3}{4}$ " x $\frac{3}{8}$ " x $\frac{1}{4}$ ".



Size	Knurls Fitted	Weight each	Order Code	Price/1 TB
$\frac{1}{2}$ " x $\frac{1}{8}$ " x $\frac{1}{4}$ "	-1110B & -1210B	640g	-8000A	14420.00

Two Knurl Toolholder

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



Size	Knurls Fitted	Weight each	Order Code	Price/1 TB
$\frac{1}{2}$ " x $\frac{7}{8}$ " x $\frac{1}{4}$ "	-1110B & -1210B	290g	-8020C	14420.00

3/4" x 3/8" x 1/4" Knurls to suit Toolholders above					Price/1 TB
Style	Weight each	Order Code JHL-450			
		Coarse	Medium	Fine	
Straight	10g	-1000A	-1010B	-1020C	850.00
Right Hand	10g	-1100A	-1110B	-1120C	850.00
Left Hand	10g	-1200A	-1210B	-1220C	850.00
Checkered	10g	-1300A	-1310B	-1320C	1545.00

Two Knurl Toolholder

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



Knurls supplied separately

Size	Knurls Fitted	Weight each	Order Code	Price/1 TB
20 x 25 x 85mm	-3110B & -3210B	900g	-8040E	21630.00

25 x 10 x 16mm Knurls to suit Toolholder above

Style	Weight each	Order Code JHL-450			Price/1 TB
		Coarse	Medium	Fine	
Straight	10g	-3000A	-3010B	-3020C	1442.00
Right Hand	10g	-3100A	-3110B	-3120C	1442.00
Left Hand	10g	-3200A	-3210B	-3220C	1442.00

Two Knurl Toolholder

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



Knurls supplied separately

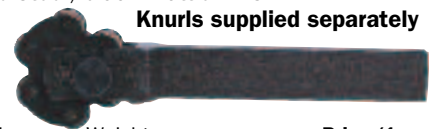
Size	Knurls Fitted	Weight each	Order Code	Price/1 TB
$\frac{3}{8}$ " x $\frac{7}{8}$ " x $\frac{1}{2}$ "	Supplied separately	390g	-8030D	14420.00

5/8" x 5/16" x 7/32" Knurls to suit Toolholder above

Style	Weight each	Order Code JHL-450			Price/1 TB
		Coarse	Medium	Fine	
Straight	10g	-2000A	-2010B	-2020C	721.00
Right Hand	10g	-2100A	-2110B	-2120C	721.00
Left Hand	10g	-2200A	-2210B	-2220C	721.00
Checkered	10g	-2300A	-2310B	-2320C	1236.00

Six Knurl Toolholder

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



Knurls supplied separately

Size	Knurls Fitted	Weight each	Order Code	Price/1 TB
$\frac{1}{2}$ " x $\frac{7}{8}$ " x $\frac{1}{4}$ "	-2610B & -2710B	930g	-8010B	14420.00

5/8" x 3/16" x 1/4" Knurls to suit Toolholder above

Style	Weight each	Order Code JHL-450			Price/1 TB
		Coarse	Medium	Fine	
Straight	10g	-2500A	-2510B	-2520C	608.00
Right Hand	10g	-2600A	-2610B	-2620C	876.00
Left Hand	10g	-2700A	-2710B	-2720C	876.00
Checkered	10g	-2800A	-2810B	-	773.00

INDEXA Self-Centring Geared Scroll Lathe Chucks

EXTENDED RANGE



Universal. 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.

Model 003-204

Rear mounting.

Model 003-274

Front mounting.



Chuck Size (mm)	Through Hole	Weight each	Order Code IND-475		Price/1 TB
			003-204 Rear Mount	003-274 Front Mount	
80	16	1.51kg	-1010K	-	15500.00
80	18	1.70kg	-	-1220K	16000.00
100	20	2.98kg	-1030K	-1230K	16000.00
125	32	4.84kg	-1040K	-1240K	16500.00
160	42	9.78kg	-1060K	-1260K	17000.00
200	55	16.0kg	-1070K	-1270K	18500.00
250	76	27.9kg	-1080K	-1280K	28000.00
315	103	47.5kg	-1090K	-1290K	47000.00

Cast Iron 3 Jaw Plain Back Chuck

DIN 6350 (form A).

Three jaw plain back with adaptor recess.

Model 003-275

Front mounting, reversible jaws.

EXTENDED RANGE



Chuck Size (mm)	Through Hole	Weight each	Order Code IND-475	Price/1 TB
125	32	5.0kg	-1450K	21000.00
160	42	10.8kg	-1460K	24500.00
200	55	17.5kg	-1470K	34000.00
250	76	29.2kg	-1480K	27650.00
315	103	50.0kg	-1490K	41850.00

Steel 3 Jaw Plain Back Chuck

DIN 6350 (form A).

Three jaw plain back with adaptor recess.

Model 003-504

Rear mounting.

NEW



Chuck Size (mm)	Through Hole	Weight each	Order Code IND-475	Price/1 TB
100	20	3.0kg	-1630K	14950.00
125	35	5.0kg	-1640K	18000.00
160	42	8.5kg	-1660K	19000.00
200	55	16.0kg	-1670K	25000.00
250	76	32.0kg	-1680K	33000.00
315	103	50.0kg	-1690K	49500.00

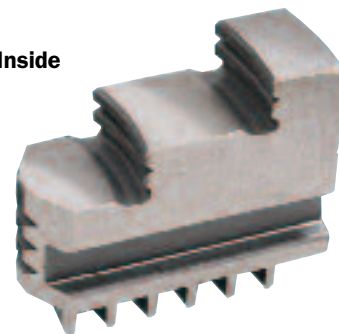
Lathe Chuck Jaws For Self-Centring Lathe Chucks

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

Hard Jaws

Inside

Fig.2



Size (mm)	Dimensions (mm)								Order Code IND-490	Price/1 TB
	A	B	C	D	E	F	G	H		
100	42	15	32	6	6	7	11	27	-1020K	8500.00
125	51	20	40	8	8	8	13	33.5	-1030K	9800.00
160	70	20	53	8	8	10	19	45	-1050K	11270.00
200	85	25	54	9	10	12	23	57	-1060K	12650.00
250	105	28	63	11	12	14	28	69.5	-1070K	16675.00
315	125	32	73	12.7	12	18	34.5	83	-1080K	18000.00

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 IND-490	Price/1 TB
11	160/200	347g	-5930K	2500.00
14	250/315	756g	-5950K	3250.00

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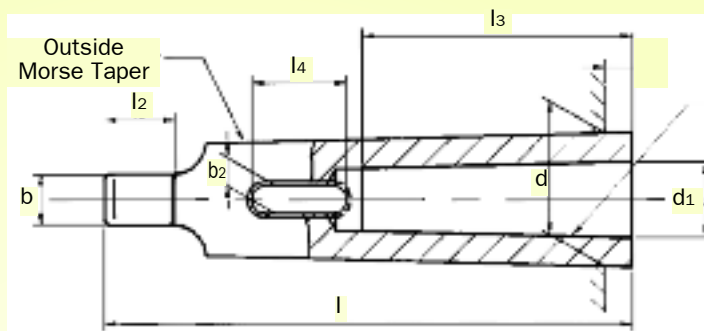
GROUP 482 MORSE TAPER SLEEVES

KENNEDY Morse Taper 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.

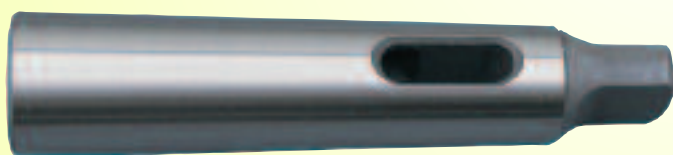
ISO 238 BS 1660 : 2.

Morse Taper Sleeve Data



MT		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 Sleeves



Taper Inside x Outside	Length (mm)	Weight each	Order Code KEN-482	Price/1 TB
1 x 2 MT	95	110g	-2120K	205.00
1 x 3 MT	97	220g	-2130K	276.00
1 x 4 MT	120	560g	-2140K	480.00
1 x 5 MT	152	1500g	-2150K	706.00
2 x 3 MT	110	200g	-2230K	285.00
2 x 4 MT	123	490g	-2240K	495.00
2 x 5 MT	155	1500g	-2250K	752.00
3 x 4 MT	140	430g	-2340K	473.00
3 x 5 MT	155	1200g	-2350K	752.00
4 x 5 MT	170	1100g	-2450K	1126.00
4 x 6 MT	215	3600g	-2460K	1680.00
5 x 6 MT	225	2800g	-2560K	1680.00

Drill Drifts

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



To Release Morse Taper	Weight each	Order Code KEN-482	Price/1 TB
0	40g	-9500K	166.00
1 & 2	80g	-9520K	178.00
3	220g	-9530K	207.00
3 & 5	380g	-9540K	231.00
5 & 6	760g	-9560K	468.00

Extension Sockets



Taper Inside x Outside	Length (mm)	Weight each	Order Code KEN-482	Price/1 TB
1 x 1 MT	145	275g	-4110K	481.00
1 x 2 MT	160	290g	-4120K	515.00
2 x 1 MT	175	300g	-4210K	515.00
2 x 2 MT	175	390g	-4220K	918.00
2 x 3 MT	194	710g	-4230K	1126.00
3 x 2 MT	194	620g	-4320K	1007.00
3 x 3 MT	230	750g	-4330K	1007.00
3 x 4 MT	255	1400g	-4340K	1481.00
4 x 3 MT	255	1500g	-4430K	1481.00
4 x 5 MT	300	3000g	-4450K	2192.00
5 x 4 MT	300	2500g	-4540K	2961.00

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 KEN-482	Price/1 TB
5	995g	-9900K	1457.00



Standard Duty Revolving Centres

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.

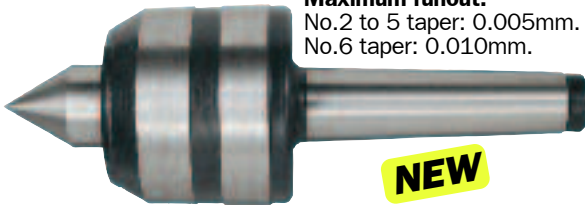


Morse Taper	Max rpm	Radial Load (rpm)		Axial Load (rpm)		Weight each	Order Code	Price/1 TB
		@100 (kgf)	@max (kgf)	@100 (kgf)	@3000 (kgf)		KEN-488	
No.1	7000	80	32	250	50	0.37kg	-1010K	3258.00
No.2	7000	200	55	275	60	0.43kg	-1020K	5330.00
No.3	6000	300	70	400	70	0.67kg	-1030K	6219.00
No.4	5000	600	75	500	125	1.23kg	-1040K	8588.00
No.5	4000	800	280	570	230	3.00kg	-1050K	12437.00

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.



NEW

Morse Taper	Max rpm	Radial Load (rpm)		Axial Load (rpm)		Weight each	Order Code	Price/1 TB
		@100 (kgf)	@max (kgf)	@100 (kgf)	@3000 (kgf)		IND-488	
No.1	5000	35	10	190	50	0.25kg	-2010K	5253.00
No.2	5000	85	20	350	100	0.35kg	-2020K	6077.00
No.3	4000	175	50	700	200	0.92kg	-2030K	6953.00
No.4	3000	350	125	700	200	1.45kg	-2040K	9167.00
No.5	2500	800	350	1200	500 ⁽¹⁾	3.55kg	-2050K	13184.00
No.6	2000	1250	600	3000	1000 ⁽²⁾	11.40kg	-2060K	28171.00
No.7	1000	3500	2000	4500	1800 ⁽³⁾	22.80kg	-2070K	91567.00

⁽¹⁾@2500rpm; ⁽²⁾@2000rpm; ⁽³⁾1000rpm

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.



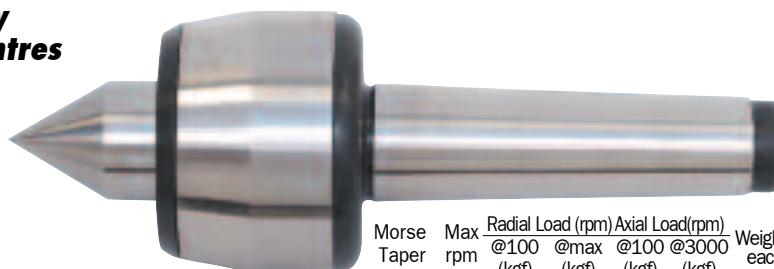
Morse Taper	Diameter (mm)	Across Flats	Length (mm)	Weight each	Order Code	Price/1 TB
					KEN-487	
No.1	12.20	10	78	60g	-1010K	325.00
No.2	18.00	13	90	200g	-1020K	273.00
No.3	24.10	19	138	300g	-1030K	415.00
No.4	31.60	24	138	450g	-1040K	652.00



Standard Duty Revolving Centres

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.

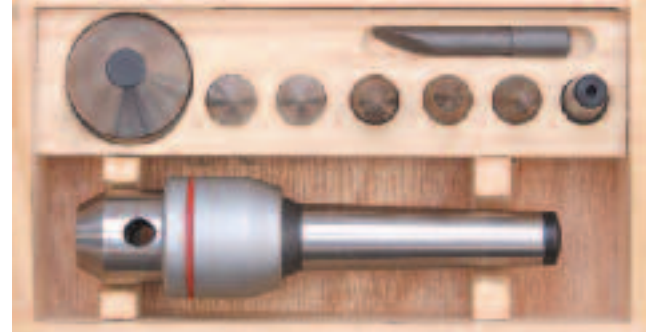
Maximum runout: 0.005mm.



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.

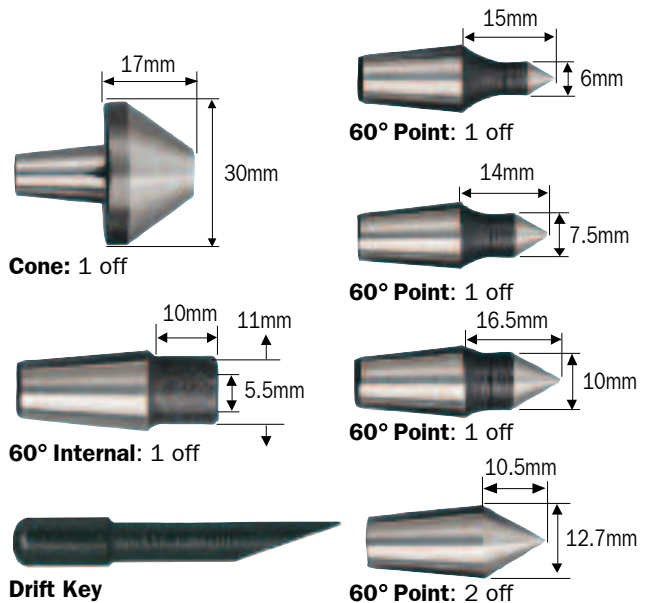


Morse Taper	Axial Load at 100rpm	Radial Load at 100rpm	Max rpm	Max Runout
No. 2	200Kgf	100Kgf	4000	0.005mm
No. 3	400Kgf	200Kgf	3000	0.005mm

Morse Taper	Length (mm)	Diameter (mm)	Weight each	Order Code	Price/1 TB
				KEN-488	
No.2	124	33	0.85kg	-1320K	10500.00
No.3	152	42	1.10kg	-1330K	10950.00

Interchangeable Points

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



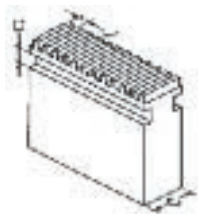
Description	Weight each	Order Code	Price/1 TB
		KEN-489	
60° Point x 6mm Dia.	20g	-1020K	1724.00
60° Point x 7.5mm Dia.	20g	-1030K	1724.00
60° Point x 10mm Dia.	25g	-1040K	650.00
60° Point x 12.7mm Dia.	20g	-1050K	750.00

GROUP 490 LATHE CHUCK JAWS

KENNEDY Scroll Jaws

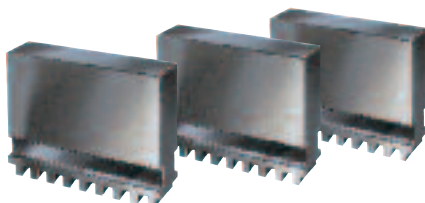
To Suit Pratt Burnard Chucks

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, C, E, G, J, M, P, Q, R
All Steel (Type 78)	L, O
Burnard	I, K, N
Pratt Old Type	H
Hardinge/Pratt Type	F

3 Jaw Sets



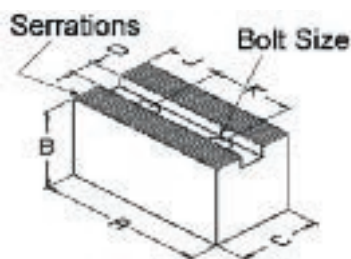
4 and 6 jaw sets available on request

Jaw Code	Chuck Diameter	Dimensions (mm)			Order Code	Price/1 TB
		C	D	J	KEN-490	
EJC	100mm	14.10	4.85	5.08	-1030K	2645.00
EJE	125mm	15.75	8.03	6.35	-1050K	2645.00
EJF	125mm	14.10	4.85	6.35	-1060K	3163.00
EJG	160mm	18.79	8.03	6.35	-1070K	2875.00
EJJ	200mm	20.62	9.53	8.46	-1100K	3163.00
EJL	230mm	25.40	9.52	8.46	-1120K	5463.00
EJM	250mm	25.40	11.10	8.46	-1130K	13000.00
EJP	315mm	28.19	12.88	8.46	-1160K	5348.00

Serrated Soft Jaws

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

3 Jaw Sets

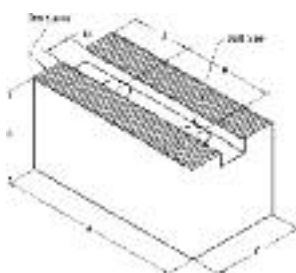


Jaw Code	Chuck Diameter	Dimensions (mm)				K/J Bolt	Serrations	Order Code	Price/1 TB
		A	B	C	D			KEN-490	
B006	165mm	72	38	32	12	20/15/M10	1.5mm x 60	-5560K	2076.00
DJ06	165mm	72	57	32	12	20/15/M10	1.5mm x 60	-5860K	3102.00
PT06	165mm	82	32	32	12	20/15/M10	1.5mm x 60	-2060K	2875.00
B008	210mm	95	44	32	14	25/25/M12	1.5mm x 60	-5580K	2237.00
DJ08	210mm	95	70	32	14	25/25/M12	1.5mm x 60	-5880K	3858.00
PT08	210mm	102	44	32	14	25/20/M12	1.5mm x 60	-2080K	3565.00
B010	254mm	110	40	40	16	30/30/M12	1.5mm x 60	-5600K	2452.00
DJ10	254mm	110	80	40	16	30/30/M12	1.5mm x 60	-5900K	4395.00
DK10	254mm	90	60	40	16	30/21/M12	1.5mm x 60	-5970K	3738.00
PT10	254mm	125	40	40	16	30/30/M12	1.5mm x 60	-2100K	3565.00
DK11	254mm	110	60	40	16	30/21/M12	1.5mm x 60	-5980K	6613.00
B012	315mm	130	50	50	18	30/40/M14	1.5mm x 60	-5620K	3450.00
DJ12	315mm	130	80	50	18	30/40/M14	1.5mm x 60	-5920K	7008.00
BR13	315mm	130	50	50	21	30/40/M16	1.5mm x 60	-5700K	4250.00
DJ13	315mm	130	80	50	21	30/40/M16	1.5mm x 60	-5930K	7697.00
B015	380mm	165	76	64	22	43/37/M20	1.5mm x 60	-5650K	8731.00
DJ15	380mm	165	127	64	22	43/37/M20	1.5mm x 60	-5950K	15914.00
B018	454/530/610mm	180	76	64	25	60/40/M20	3.0mm x 60	-5660K	12100.00

Serrated Soft Jaws

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

3 Piece Set

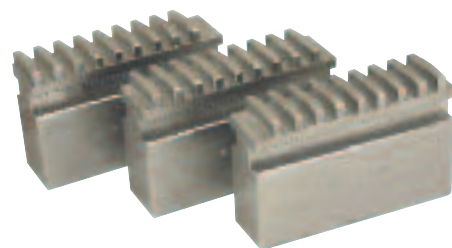


Jaw Code	Chuck Diameter	Dimensions (mm)				K/J Bolt	Serrations	Order Code	Price/1 TB
		A	B	C	D			KEN-490	
BN90	165/200mm	90	60	40	17.0	22/15/M12	1/16" x 90	-5090K	2873.00
BN12	250/315mm	120	80	50	21.0	28/20/M16	1/16" x 90	-5120K	4480.00
BN23	400/500/630mm	155	89	64	25.5	35/30/M20	3/32" x 90	-5230K	9200.00

Scroll Jaws

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

3 Jaw Sets



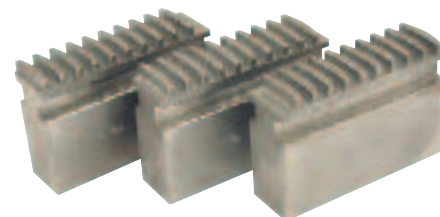
4 and 6 jaw sets available on request

Jaw Code	Chuck Diameter	Dimensions (mm)			Order Code	Price/1 TB
		C	D	J	KEN-490	
EK16	160mm	18	7	6	-6030K	3048.00
EK20	200mm	22	8	8	-6040K	3163.00
EK25	250mm	25	8	8	-6050K	4543.00
EK32	315mm	32	12	10	-6060K	5074.00

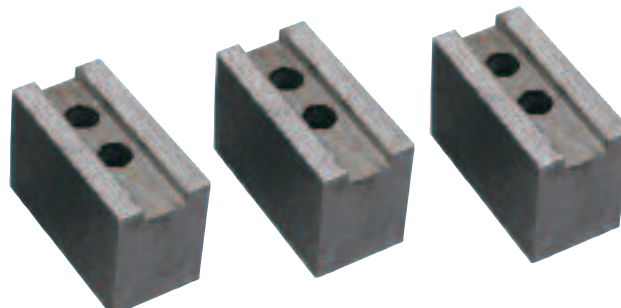
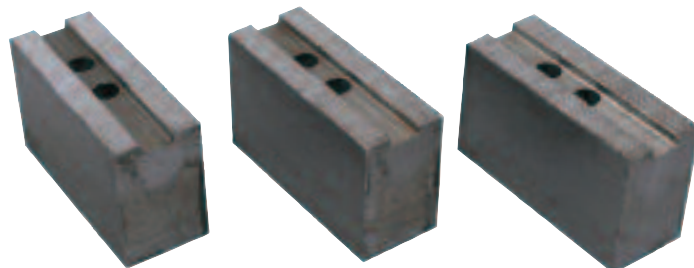
Scroll Jaws

To suit Toolmex/Bison chucks.

3 Jaw Sets



Jaw Code	Chuck Diameter	Dimensions (mm)			Order Code	Price/1 TB
		C	D	J	KEN-490	
EN08	80mm	11	6	4	-6180K	3100.00
EN10	100mm	15	6	6	-6200K	2243.00
EN13	125mm	20	8	7	-6220K	2588.00
EN16	160mm	20	8	8	-6230K	3048.00
EN20	200mm	25	10	8	-6240K	3450.00
EN25	250mm	28	12	9	-6250K	5175.00
EN32	315mm	32	12	10	-6260K	6325.00





Huntington Type 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 KEN-495	Price/1 TB
No.0	Up to 510mm (20")	0.85kg	-0100K	1065.00
No.1	Up to 760mm (30")	1.00kg	-0110K	1364.00
No.2	Over 760mm (30")	2.50kg	-0120K	1869.00

Replacement Wheel Sets



Description	Weight per 10 Sets	Order Code KEN-495	Price/1 TB
Spare Wheels for Type No.0	0.45kg	-1000K	159.00
Spare Wheels for Type No.1	0.53kg	-1010K	180.00
Spare Wheels for Type No.2	2.90kg	-1020K	409.00

Replacement Parts

Description	Weight per 10	Order Code KEN-495	Price/1 TB
Side Bush for Type No.0	79g	-2000K	592.00
Cutter Bush for Type No.1	110g	-2010K	592.00
Cutter Bush for Type No.2	234g	-2020K	714.00
Spare Spindle for Type No.0	130g	-3000K	311.00
Spare Spindle for Type No.1	310g	-3010K	791.00
Spare Spindle for Type No.2	310g	-3020K	951.00
Side Washer for Type No.1	70g	-4010K	474.00
Side Washer for Type No.2	50g	-4020K	592.00



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 KEN-496	Price/1 TB
SP50	0.50	180mm (7")	160g	-0050K	1121.00
SP75	0.75	255mm (10")	160g	-0070K	1724.00
SP100	1.00	355mm (14")	170g	-0100K	2414.00
SP150	1.50	460mm (18")	170g	-0150K	3449.00
SP200	2.00	600mm (24")	170g	-0200K	4657.00

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.



Product Number	Included Angle	Nose Radius	Weight each	Order Code KEN-496	Price/1 TB
D605		0.005"	160g	-1000K	5665.00
D405		0.005"	170g	-1100K	5665.00



Diamond Dressers

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 SEN-496	Price/1 TB
Up to 150	0.25	149g	-0250K	644.00
Up to 180	0.50	150g	-0500K	757.00
Up to 250	0.75	150g	-0750K	1082.00
Up to 350	1.00	151g	-1000K	1288.00
Up to 500	1.50	149g	-1500K	1931.00
Up to 600	2.00	150g	-2000K	2549.00
3 Piece Set 0.5, 0.75 & 1 Carat Set			-9100K	3399.00

PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR