



# SUPERIOR SOLUTIONS UNMATCHED VALUE

SELLING TRUST WITH TOOLS

VETO





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## INTRODUCTION

VETO Clamping Systems Pvt Ltd, manufactures world class CLAMPING ELEMENTS, TOOL ROOM ACCESSORIES & CUSTOMIZED CLAMPING SOLUTIONS. Started with an idea of providing standard clamping systems for the Plastic Injection Moulding Machines, Sheet Metal Presses, Die Casting Machines and other Tool Room Industry.

Today, we are proud to introduce ourselves as one of the leading manufacturer of Clamping Elements. The quest to stay ahead in the rapidly evolving market has made VETO constantly develop new Product range as per compliance with different demands & needs of our consumers. From conceptualization to execution, from drawing to production, there's just one single largest force that drives us, our CUSTOMERS. We have grown from a small setup to an established brand name just because of customers. Our range of clamps are sold at economical prices in the market to our respected clients.

## OUR COMPANY HISTORY

### 2009

Started Manufacturing Of Clamping Elements

### 2010

Got Quality Standard ISO 9000:2001

### 2012

Installed CNC Turning Centres In Manufacturing Setup

### 2014

Started Trading Of Standard Parts For Press Tools/Dies

### 2015

Got North India Dealership Of Fibro India Precision Product Pvt Ltd- A German Subsidiary In India

### 2017

Installed Vertical Machining Centres In Setup

### 2022

Got Shifted To Big Premises Of 9000 Sq. Ft For Manufacturing & Go down Establishment



### MISSION

"To exceed customer expectation in quality, delivery and cost through continuous improvement and customer satisfaction."

### VISION

"Continues value creation for customers."

### PURPOSE

"To be the supplier of choice in every industry we serve."

# COMPLETE RANGE

SELLING TRUST WITH TOOLS



Mould Clamp with heavy support bolt

Tapped End Clamp



Heavy Duty Pinch Clamp

Forged Mould Clamp



Stepped Strap Clamp

Adjustable Support plates



Mould Clamp

U-Type SPL Clamp



Flanged mounting with " Screw Jacks For Heavy Fabrication

Leveling Jack



Universal Strap Clamp

Low Height Pinch Clamp



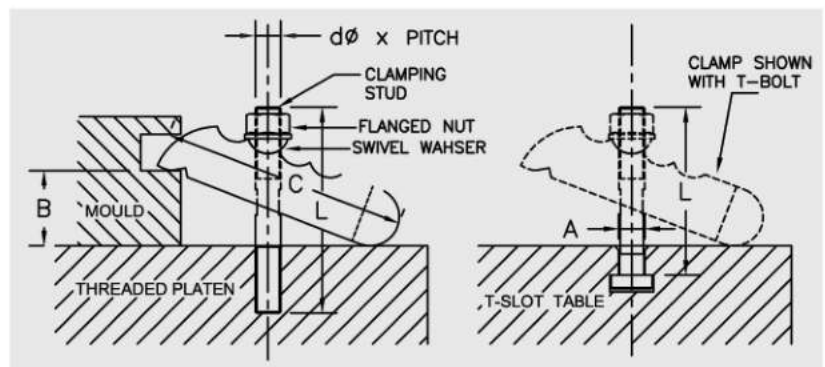




## MOULD CLAMP

### For Plastic Injection Moulding & Pressure Die Casting Machines

It is one of the conventional type clamping system made up of S.G.I steel in 500/7 grade. Used in clamping of heavy moulds on plastic injection moulding machines and pressure die casting machines. Its adjustable swivel washer adjust the height automatically with the help of grooved curve on upper portion of clamp. It comes with threaded Stud or T-bolt as suitable.



#### MOULD CLAMP - WITH "STUD WITH SLOT" (MOULD STUD)

MODEL	dØ x PITCH x L	CLAMPING RANGE B	LENGTH OF CLAMP C	BREATH OF CLAMP
VMC-12S	STUD M12 X 1.75 X 125	0-35	110	50
VMC-16S	STUD M16 X 2.0 X 125	0-40	135	60
VMC-20S	STUD M20 X 2.5 X 150	0-50	160	70
VMC-24S	STUD M24 X 3.0 X 200	0-60	180	80

#### MOULD CLAMP - WITH T-BOLT

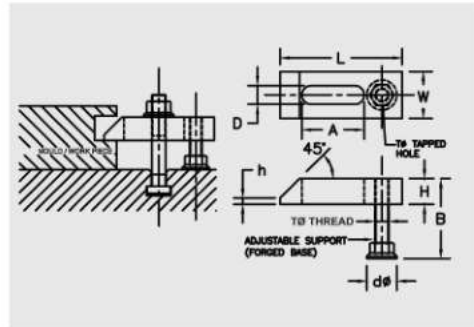
MODEL	dØ x PITCH x L	T-SLOT SIZE A	CLAMPING RANGE B	LENGTH OF CLAMP C	BREATH OF CLAMP
VMC-12T	T-BOLT M12 X 1.75 X 125	12	0-35	110	50
VMC-14T	T-BOLT M12 X 1.75 X 125	14	0-35	110	50
VMC-16T	T-BOLT M16 X 2.0 X 130	16	0-40	135	60
VMC-18T	T-BOLT M16 X 2.0 X 130	18	0-40	135	60
VMC-20T	T-BOLT M20 X 2.5 X 150	20	0-50	160	70
VMC-22T	T-BOLT M20 X 2.5 X 150	22	0-50	160	70
VMC-24T	T-BOLT M24 X 3.0 X 210	24	0-60	180	80
VMC-28T	T-BOLT M24 X 3.0 X 210	28	0-60	180	80

## TAPPED END CLAMP-WITH ADJUSTABLE SUPPORT

### Hardened & Tempered, Black Finish

Tapped End Clamps are most useful clamps for injection moulding or pressure die casting machine where mould / die is clamped in vertical position, these clamp have adjustable support to adjust the thickness of mould plate.

(Note : T-Bolt or Stud with Nut, Washer etc to be order separately.)



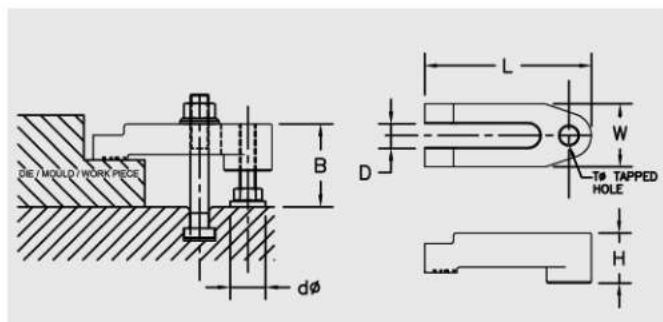
FOR PLASTIC INJECTION MOULDING & PRESSURE DIE CASTING MACHINES

MODEL	D SUITABLE FOR BOLT	L	A	W	H	h	TO TAPPED HOLE	d	B MAX
VTEC-12	M12	110	55	38	18	6	M12	30	60
VTEC-16	M16	125	60	48	24	8	M16	35	85
VTEC-20	M20	160	80	60	30	10	M20	38	90
VTEC-24	M24	200	110	72	38	10	M24	40	100

## U-TYPE SPECIAL MOULD CLAMP

### For Plastic Injection Moulding & Pressure Die Casting Machines

It is one of the conventional type clamping system made up of S.G.I steel in 500/7 grade. Used in clamping of heavy moulds on plastic injection moulding machines and pressure die casting machines. It comes with forged stopper bolt for the height adjustment and special washer at top of clamp to move the bolt in slot at desired portion. It is used to clamp different sizes of moulds on same machine through it height adjustment feature. It helps save the time of the operator while changing the mould on machine therefore increase the productivity



CLAMP - WITH "STUD WITH SLOT" (MOULD STUD)

MODEL	STUD WITH SLOT	D SUITABLE FOR BOLT	CLAMPING RANGE B	LENGTH OF CLAMP L	BREATH OF CLAMP W
VTUC-12S	M12 X 100	12	0-60	120	47
VTUC-16S	M16 X 125	16	0-80	130	50
VTUC-20S	M20 X 175	20	0-90	160	60
VTUC-24S	M24 X 200	24	0-95	200	73

MOULD CLAMP - WITH T-BOLT

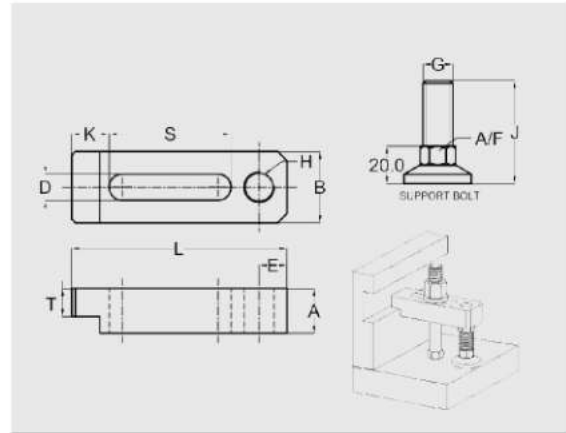
MODEL	T- Bolt	D SUITABLE FOR BOLT	CLAMPING RANGE B	LENGTH OF CLAMP L	BREATH OF CLAMP W
VTUC-12T	T-BOLT M12 X 1.75 X 125	12	0-60	120	47
VTUC-14T	T-BOLT M12 X 1.75 X 125	14	0-60	120	47
VTUC-16T	T-BOLT M16 X 2.0 X 150	16	0-80	130	50
VTUC-18T	T-BOLT M16 X 2.0 X 150	18	0-80	130	50
VTUC-20T	T-BOLT M20 X 2.5 X 150	20	0-90	160	60
VTUC-22T	T-BOLT M20 X 2.5 X 150	22	0-90	160	60
VTUC-24T	T-BOLT M24 X 3.0 X 210	24	0-95	200	73
VTUC-28T	T-BOLT M24 X 3.0 X 210	28	0-95	200	73



## MOULD CLAMP WITH HEAVY SUPPORT BOLT

### For Injection Moulding & Pressure Die casting Machines

Mould Clamp offers counter height adjustment by heavy duty support bolt with hex, round base and lock nut.



MODEL	Bolt Size	D X L	W	H	A	Stopper bolt size
VMCH 16-130	M16	18X130	20	48	31	M20
VMCH 16-160	M16	18X160	20	48	31	M20
VMCH 20-160	M20	22X160	25	64	38	M24
VMCH 20-200	M20	22X200	25	64	38	M24
VMCH 24-200	M24	26X200	30	74	48	M24
VMCH 24-240	M24	26X240	30	74	48	M24

## FORGED MOULD CLAMP

### For Injection Moulding Machines

Auto Clamps for Quick mould change on injection moulding machine without any hassle to arrange additional packing plates to adjust height for clamping various mould back plate sizes.

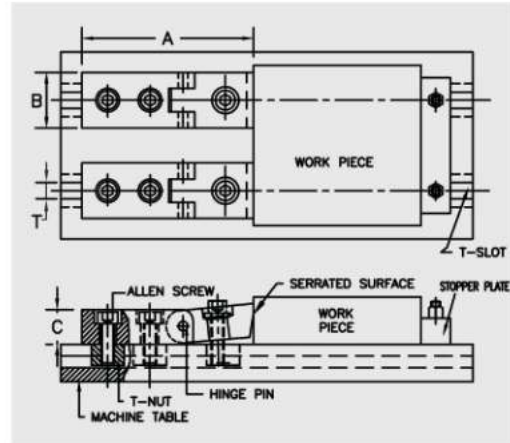


MODEL	STUD WITH BLOT	LENGTH (MM)	WIDHT (MM)	CLAMPING RANGE (MM)	WEIGHT (KGS.)
VFC-16	T-BOLT 16-130/ STUD 16-150	130	60	0-75	1.20
VFC-20	T-BOLT 20-150/ STUD 16-150	170	70	0-90	2.10
VFC-24	T-BOLT 20-150/ STUD 20-175	210	80	0-110	3.60

## LOW HEIGHT PINCH CLAMP

### For Machining Center, Milling, Shaping, Planning, Jig-Boring Etc.

Used in machining centre, milling, shaping, planning, jig boring, etc. This clamp is useful for job clamping where complete top surface of job is to be machined in one setting & hence can be clamped only from side faces. When serrated front portion pressed against the job by tightening the front bolt, it gives a downward as well as forward clamping force. It is made up of hardened steel & supplied with hardened T-nuts & Standard Bolts.

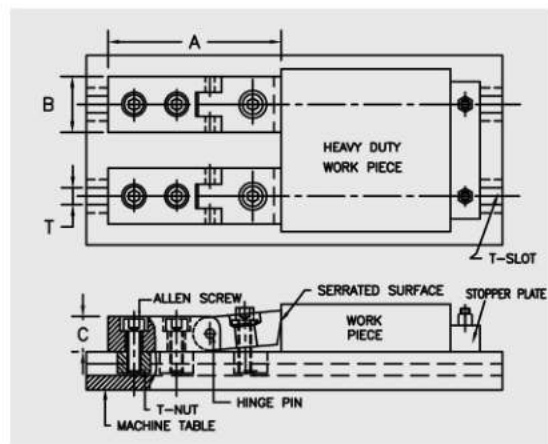


MODEL	SUITABLE FOR T-SLOT SIZE T	TOTAL LENGTH A	BREADTH B	HEIGHT C
VPC-12	12	115	30	15
VPC-14	14	115	30	15
VPC-16	16	145	38	18
VPC-18	18	145	38	18
VPC-20	20	180	48	24
VPC-22	22	180	48	24
VPC-24	24	180	48	24
VPC-28	28	180	48	24

## HEAVY DUTY PINCH CLAMP

### For Machining Center, Milling, Planning, Plano-Milling Etc.

These Clamps are offered in heavier version of the above clamp for clamping heavy blocks. Basic function is same but this is used for clamping from sides of heavy blocks or thicker plates for facing top face in one setting. It is made up of hardened steel & supplied with T-Nuts & Standard Bolts.

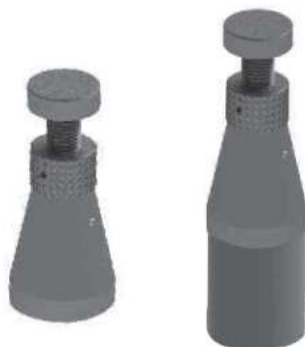


MODEL	SUITABLE FOR T-SLOT SIZE T	TOTAL LENGTH A	BREADTH B	HEIGHT C
VHDPC-18	18	185	60	38
VHDPC-20	20	185	60	38
VHDPC-22	22	185	60	38
VHDPC-24	24	185	60	38
VHDPC-28	28	185	60	38



## LEVELLING JACKS & HEIGHT BLOCKS

Levelling jack can be used as an adjustable support block for clamps and as a stopper or levelling block in fixtures or machines, as well as for levelling surface plates or other heavy duty work pieces. Its unique design does not allow the levelling screw to rotate while adjustment, hence makes it suitable for fine level adjustment.



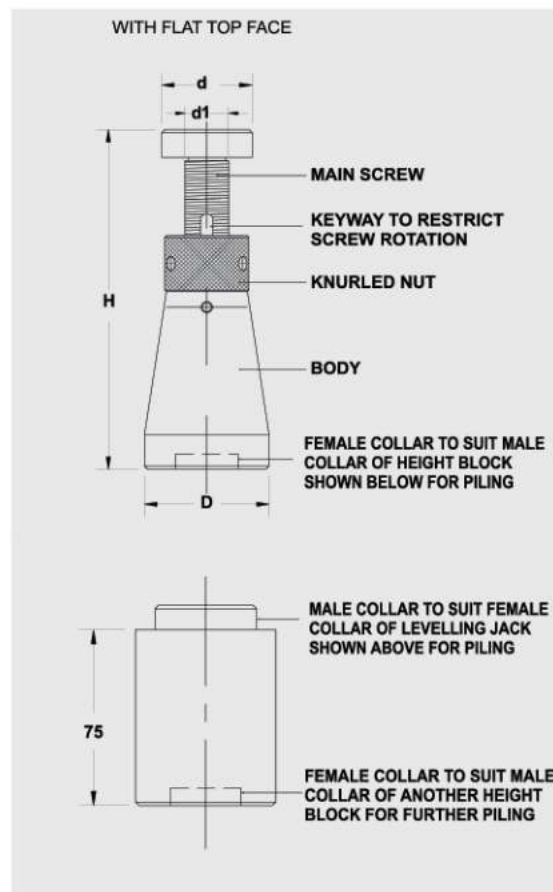
LEVELLING JACK

MODEL	H MIN. AT CLOSED POSITION	H MAX. AT OPEN POSITION	DIA AT BOTTOM $\phi$	DIA AT TOP $\phi$	DIA OF SCREW $\phi 1$	TYPE OF TOP FACE
VLJ-1	75	100	55	38	M-24	FLAT
VLJ-2	100	150	55	38	M-24	FLAT



HEIGHT BLOCK FOR  
LEVELLING JACK

MODEL	EFFECTIVE HEIGHT INCREASE WITH ON HEIGHT BLOCK
VHBLJ-75	75



## LEVELLING JACKS - HEAVY DUTY

Levelling jack-heavy duty is a heavier version of levelling jack with a heavy body and levelling screw & knurled nut. This jack is specially designed for heavy castings & machines. This is also available with flat head levelling screw.

MODEL	H MIN. AT CLOSED POSITION	H MAX. AT OPEN POSITION	DIA AT BOTTOM $\phi$	DIA AT TOP $\phi$	DIA OF SCREW $\phi 1$	TYPE OF TOP FACE
VLJ-HD	160	230	75	50	32Q	FLAT

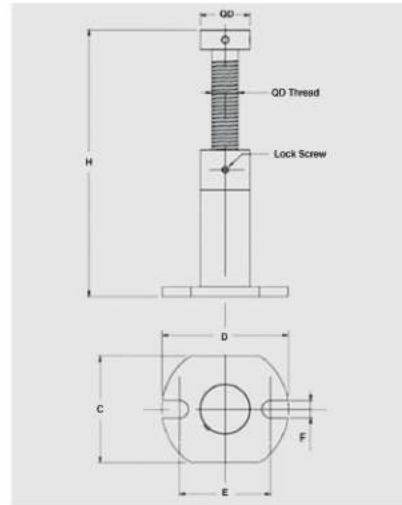
## HEIGHT BLOCK FOR LEVELLING JACKS - HEAVY DUTY

As in case of levelling jacks,height block for levelling jack-heavy duty model VHBLJ-HD-75 is available for piling with levelling jack heavy duty.

MODEL	EFFECTIVE HEIGHT INCREASE WITH ON HEIGHT BLOCK
VHBL-HD-75	75

## SCREW JACKS- FOR HEAVY FABRICATION

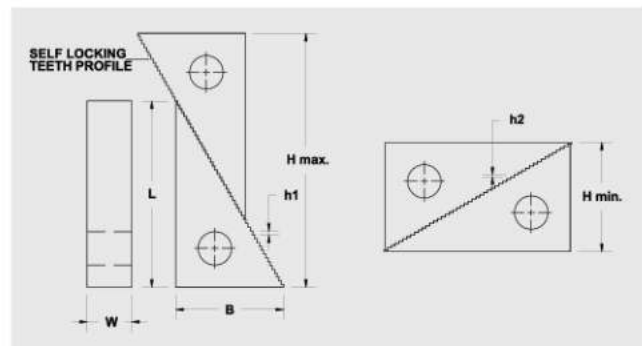
'TOOLFAST' Screw Jack-Heavy Duty is meant for heavy applications and with more height upto 660 mm. In this series of screw jacks the screw rotates while going up or down. Body is rigid, steel fabricated



MODEL	H		C	D	E	F	QS	QD	CAPACITY	NET WEIGHT kgs.
	MIN.	MAX.								
SJ-HD-1	250	400	160	190	136	26	75	40	25 Tons	9.4
SJ-HD-2	380	660	160	190	136	26	75	40	25 Tons	11.6

## STEP BLOCKS

Step Blocks are used as adjustable supporting Blocks at the rear of the clamps while clamping the workpiece. Different heights can be achieved by using combination of two different sizes of step blocks. Available in pairs. (Pair consists of 2 identical Step Blocks) Combination of two Step Blocks of same or different sizes is kept as support under one Strap Clamp. But in case of use of Step Blocks with Stepped Strap Clamp, only one Step Block of suitable size is kept as support under one stepped strap clamp.



### STEP BLOCK

MODEL	L	B	W	HEIGHT ADJUSTMENT		HEIGHT OF STEP h1	HEIGHT OF STEP h2
				H min.	H max.		
VSB-1	30	18	28	20	42	2.7	1.6
VSB-2	66	38	28	38	95	2.7	1.6
VSB-3	117	68	28	70	180	2.7	1.6

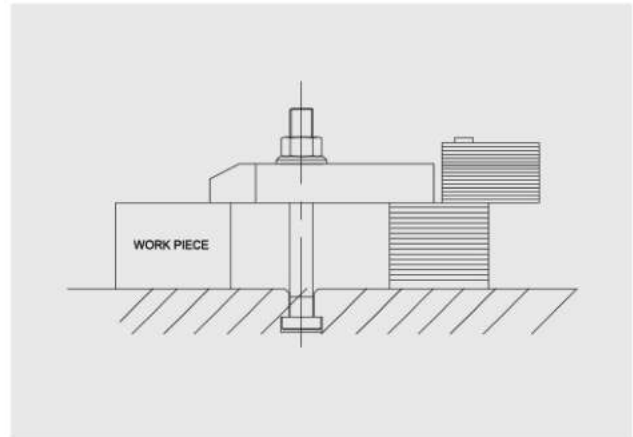
### STEP BLOCK-HEAVY DUTY

MODEL	L	B	W	HEIGHT ADJUSTMENT		HEIGHT OF STEP h1	HEIGHT OF STEP h2
				H min.	H max.		
VSB-4	66	38	47	38	95	2.7	1.6
VSB-5	117	68	47	70	180	2.7	1.6
VSB-6	156	92	47	94	230	2.7	1.6

Step Block - Heavy duty is different then step block above in width only, more width enables use on bigger T-Slots and also with bigger sizes of Stepped Strap Clamps.

## ADJUSTABLE SUPPORT PLATES

Adjustable support plates are used as adjustable support at the rear of the clamp. It comprises of number of plates each 2 mm thick hinged together. Desired height is achieved very easily by swinging aside the required number of plates and using the remaining as support block.

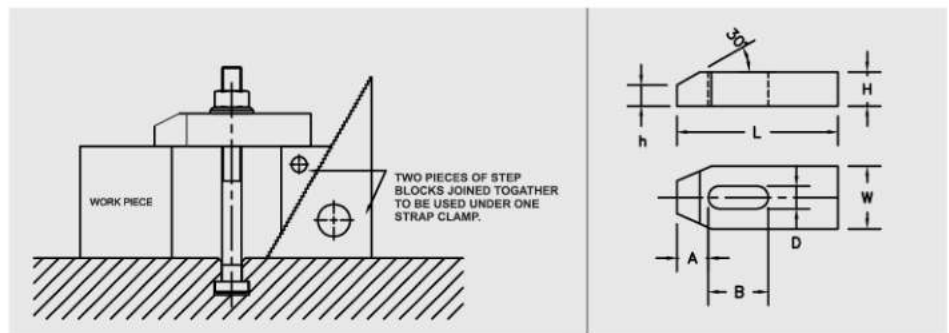


MODEL	MAXIMUM HEIGHT	PLATE THICKNESS	PLATE OVERALL SIZE	SIZE OF CLAMP REST AREA
VASP-250	50	2	50 X 35	25 X 35
VASP-2100	100	2	50 X 35	25 X 35
VASP-2150	150	2	50 X 35	25 X 35

## STRAP CLAMP

### Hardened & Tempered, Black Finish

These clamp are widely used for holding press tool and huge casting/dies while machining.



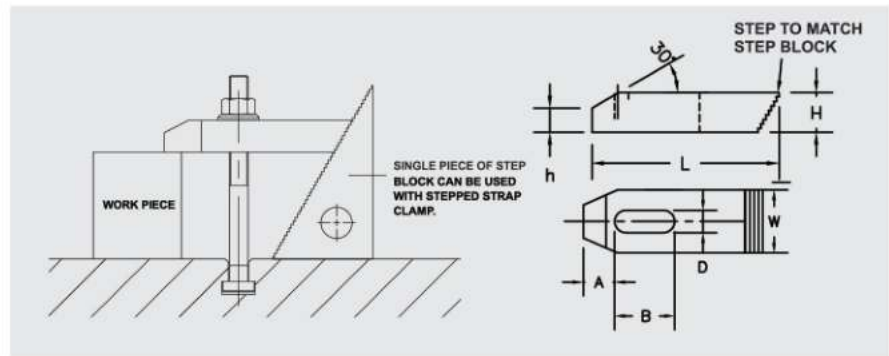
MODEL	Ø SUITABLE FOR BOLT	L	W	H	A	B	h
VSC-8-60	M8	60	24	12	13	22	7
VSC-10-80	M10	80	30	15	15	30	9
VSC-12-100	M12	100	38	18	21	40	12
VSC-12-125	M12	125	38	18	21	50	12
VSC-14-125	M14	125	48	24	26	45	15
VSC-16-125	M16	125	48	24	26	45	15
VSC-16-160	M16	160	48	24	26	65	15
VSC-20-160	M20	160	60	30	30	60	18
VSC-24-200	M24	200	72	38	35	80	21
VSC-30-250	M30	250	72	48	45	100	28



## STEPPED STRAP CLAMP

### Hardened & Tempered, Black Finish

These Stepped Strap Clamps have teeth at rear matching to that of Step Blocks to be used as support. Unlike other clamps, piece of step block (not a pair) can be used as support with Stepped Strap Clamp.

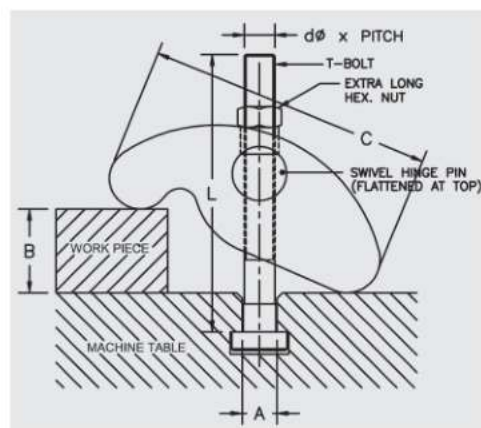


MODEL	D SUITABLE FOR BOLT	L	W	H	A	B	h
VSSC-12-65	M12	65	30	15	15	25	9
VSSC-12-100	M12	100	38	18	21	50	12
VSSC-12-150	M12	150	38	18	21	90	12
VSSC-16-75	M16	75	38	18	21	30	12
VSSC-16-125	M16	125	48	24	26	70	15
VSSC-16-160	M16	160	48	24	26	90	15
VSSC-20-160	M20	160	60	31	30	85	18
VSSC-24-200	M24	200	75	38	35	100	21

## UNIVERSAL STRAP CLAMP

### For Power Presses, Milling, Drilling, Shaping, Boring Etc.

It is made up of S.G.I steel in 500/7 grade. It is used on T-slot beds of Various machines like milling, drilling, sheet metal presses, shaper, boring machine etc. It's front portion holds the die and rear portion adjust on the bed of the machine with its design itself.



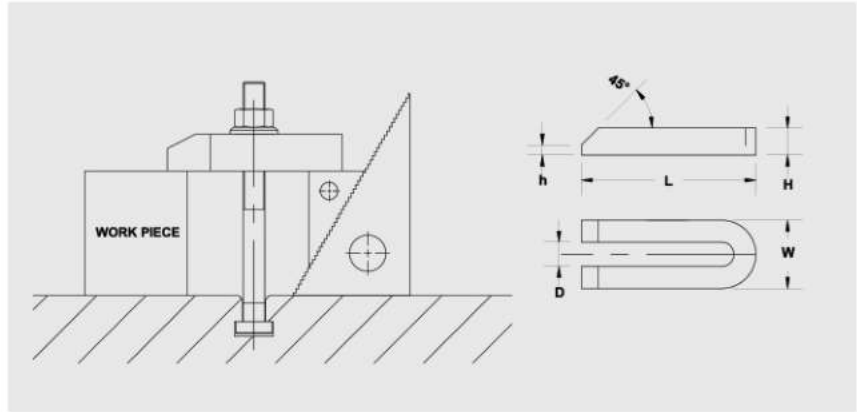
MODEL	dφ x PITCH X L	T-SLOT SIZE A	CLAMPING RANGE B	LENGTH OF CLAMP C	BREATH OF CLAMP
VUSC-12T	M12 X 1.75 X 125	12	0-60	105	42
VUSC-14T	M12 X 1.75 X 125	14	0-60	105	42
VUSC-16T	M16 X 2.0 X 130	16	0-80	130	50
VUSC-18T	M16 X 2.0 X 130	18	0-80	130	50
VUSC-20T	M20 X 2.5 X 150	20	0-100	160	55
VUSC-22T	M20 X 2.5 X 150	22	0-100	160	55
VUSC-24T	M24 X 3.0 X 210	24	0-120	190	65
VUSC-28T	M24 X 3.0 X 210	28	0-120	190	65



## U-CLAMP

### Hardened & Tempered, Black Finish

U-Clamp are widely used for repetitive clamping applications frequent insertion and removal of part being clamped.

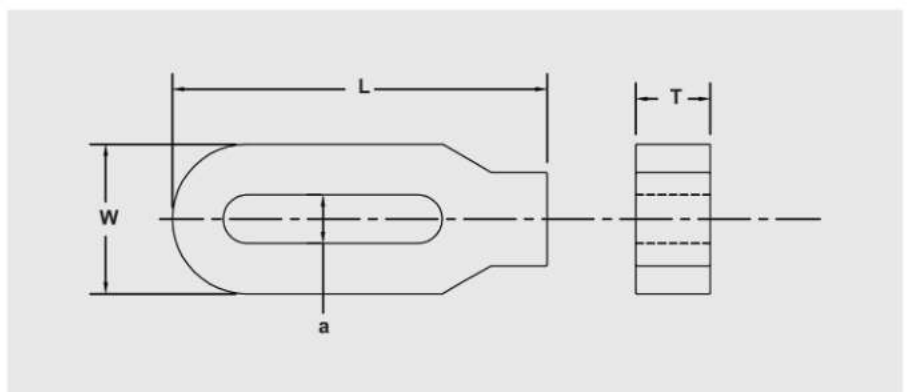


MODEL	Ø SUITABLE FOR BOLT	L	H	W	h
VUC-12-160	M12	160	24	38	6
VUC-16-200	M16	200	30	48	8
VUC-20-250	M20	250	38	62	10
VUC-24-250	M24	250	38	62	10

## HEAVY DUTY-SPL. LONG CLAMP

### Hardened & Tempered, Black Finish

These clamps are used for clamping medium to heavy jobs on machine beds horizontally.

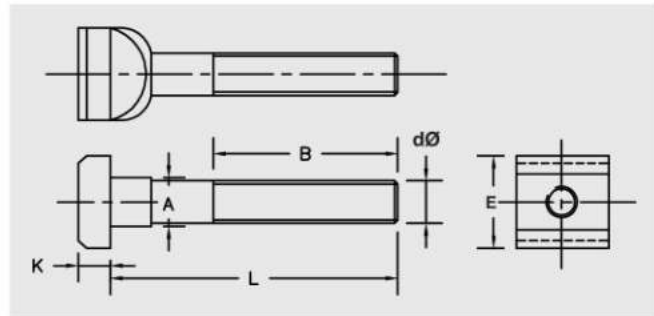


MODEL	L	W	T	A
VHD-SLC 24-200	200	78	38	26
VHD-SLC 24-400	400	78	38	26
VHD-SLC 24-600	600	78	38	26
VHD-SLC 30-200	200	78	38	32
VHD-SLC 30-400	400	98	48	32
VHD-SLC 30-600	600	98	48	32

## T-BOLT

### Forged Head, Hardened & Tempered, High Tensile steel, Black Finish

Application : Clamping Works / Fixtures / Press Tools.

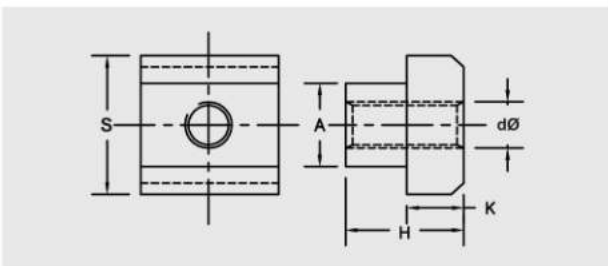


MODEL	A SUITABLE T-SLOT SIZE	dØ THREAD SIZE	L	B	E	K
VTB-1212-80	12	M12	80	40	18	7
VTB-1212-100			100	60		
VTB-1212-160			160	100		
VTB-1214-80	14	M12	80	55	22	8
VTB-1214-100			100	65		
VTB-1214-125			125	80		
VTB-1214-160			160	100		
VTB-1214-200			200	125		
VTB-1214-250	16	M16	250	155	25	9
VTB-1616-100			100	65		
VTB-1616-130			130	80		
VTB-1616-160			160	100		
VTB-1616-200	18	M16	200	125	28	10
VTB-1618-80			80	55		
VTB-1618-100			100	65		
VTB-1618-130			130	80		
VTB-1618-160			160	100		
VTB-1618-200			200	125		
VTB-1618-250	20	M20	250	155	32	12
VTB-1618-290			290	175		
VTB-2020-110			110	70		
VTB-2020-150			150	95		
VTB-2020-210	22	M20	210	130	35	14
VTB-2020-315			315	210		
VTB-2022-110			110	70		
VTB-2022-150			150	95		
VTB-2022-210			210	130		
VTB-2022-250	24	M24	250	155	40	16
VTB-2022-285			285	170		
VTB-2424-150			150	95		
VTB-2424-210			210	130		
VTB-2428-110	28	M24	110	65	44	18
VTB-2428-150			150	95		
VTB-2428-210			210	130		
VTB-2428-250			250	155		
VTB-2428-300			300	200		
VTB-2428-350			350	230		
VTB-2428-450			450	300		
VTB-3036-250	36	M30	250	150	54	22
VTB-3036-320			320	200		

## T-NUT

### Hardened & Tempered, Black Finish

Application : For use along with studs for work holdings, fixtures, etc.



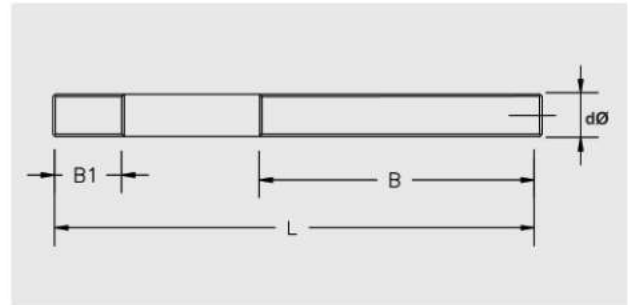
MODEL	A SUITABLE T-SLOT SIZE	dØ THREAD SIZE	H	K	S
VTN-8-6	8	M6	10	6	13
VTN-10-8	10	M8	12	6	15
VTN-12-10*	12	M10	14	7	18
VTN-14-10	14	M10	16	8	22
VTN-14-12*	14	M12	16	8	22
VTN-16-12	16	M12	18	9	25
VTN-16-14*	16	M14	18	9	25
VTN-18-12	18	M12	20	10	28
VTN-18-16*	18	M16	20	10	28
VTN-20-16	20	M16	24	12	32
VTN-22-16	22	M16	28	14	35
VTN-22-20*	22	M20	28	14	35
VTN-24-20	24	M20	24	16	40
VTN-28-24	28	M24	36	18	44
VTN-36-24	36	M24	44	22	54
VTN-36-30	36	M30	44	22	54

\* Marked models are not recommended for heavy duty use because of less wall thickness outside the threading.

## CLAMPING STUD (FOR USE WITH T-NUTS)

### Hardened & Tempered, High Tensile steel, Black Finish

These Studs are meant to be used with T-nuts to be tightened on smaller threaded length B1 shown in figure below and longer threaded length B shown in figure below is to accommodate Clamp/Nut/Washer etc.



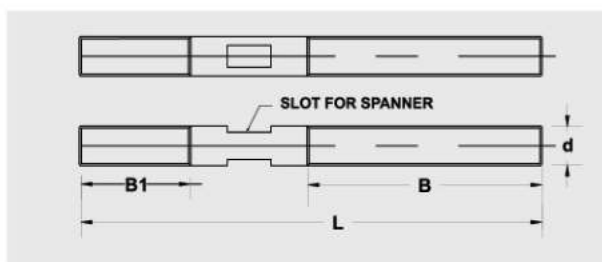
MODEL	dØ THREAD SIZE	L	B1	B
VCD-8-75	M8	75	11	48
VCD-8-100		100		63
VCD-8-150		150		95
VCD-10-75	M10	75	13	48
VCD-10-100		100		63
VCD-10-150		150		95
VCD-10-200	M12	200	15	125
VCD-12-75		75		48
VCD-12-100		100		63
VCD-12-125	M12	125	15	75
VCD-12-150		150		95
VCD-12-175		175		110
VCD-12-200	M12	200	15	125
VCD-12-250		250		160
VCD-12-300		300		190
VCD-14-100	M14	100	17	63
VCD-14-150		150		95
VCD-14-200		200		125
VCD-14-250	M16	250	19	160
VCD-16-75		75		50
VCD-16-100		100		63
VCD-16-125	M16	125	19	75
VCD-16-150		150		95
VCD-16-175		175		110
VCD-16-200	M16	200	19	125
VCD-16-250		250		160
VCD-16-300		300		190

MODEL	dØ THREAD SIZE	L	B1	B
VCD-20-75	M20	100	27	60
VCD-20-100		150		95
VCD-20-150		200		125
VCD-20-75	M20	250	27	160
VCD-20-100		300		190
VCD-20-150		400		250
VCD-20-200	M24	500	35	250
VCD-24-75		150		95
VCD-24-100		200		120
VCD-24-125	M24	250	35	160
VCD-24-150		300		190
VCD-24-175		400		250
VCD-24-200	M30	500	43	250
VCD-30-250		150		95
VCD-30-300		200		120
VCD-30-100	M30	250	43	160
VCD-30-150		300		190
VCD-30-200		400		250
VCD-30-250	M30	500	43	250

## STUD WITH SLOT (MOULD STUD)

### Hardened & Tempeired, High Tensile steel, Black Finish

These Studs are used on machine beds having tapped holes. They have longer threaded length on one side for longer insertion in the tapped holes of moulding machines. These studs have a flattened middle portion for tightening and loosening with the help of an open ended spanner.



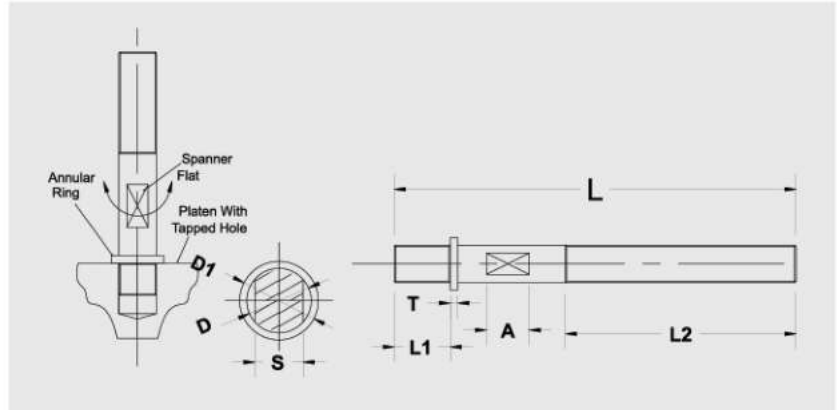
MODEL	dØ THREAD SIZE	L	B1	B
VCSB-12-100	M12	100	30	40
VCSB-12-125		125		50
VCSB-12-150		150		65
VCSB-12-175	M16	175	40	80
VCSB-16-125		125		50
VCSB-16-150		150		65
VCSB-16-175	M16	175	40	80
VCSB-16-200		200		100
VCSB-20-150	M20	150	50	60
VCSB-20-175		175		70
VCSB-20-200		200		80
VCSB-24-175	M24	175	60	70
VCSB-20-200		200		80
VCSB-20-225		225		90



## CLAMPING STUD WITH ANNULAR RING & SPANNER FLAT SELACTION

### Hardened & Tempered, High Tensile steel, Black Finish

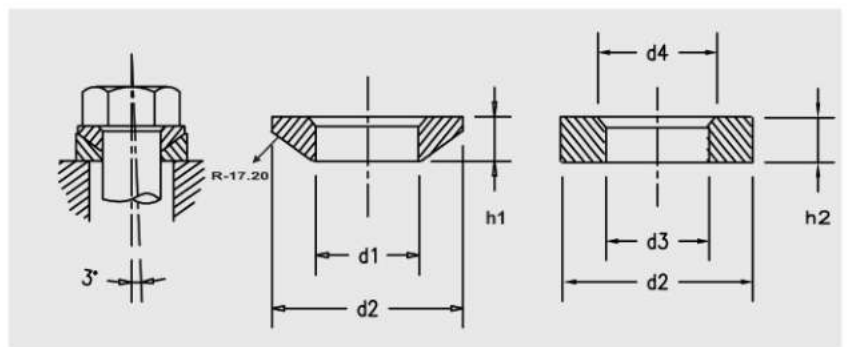
As the name suggest these studs have an added feature of annular ring after the shorter length of threading along with flattened middle portion for tightening & loosening with the help of an open end spanner.



MODEL	$\phi \times L$	$L_1$	$L_2$	$S$	$\phi_1$	$T$	$A$
VCSFR-12125	M12 X 125	25	60	10	14	4	10
VCSFR-12160	M12 X 160	25	90	10	14	4	10
VCSFR-16125	M16 X 125	35	60	13	20	5	10
VCSFR-16160	M16 X 160	35	80	13	20	5	10
VCSFR-16200	M16 X 200	35	100	13	20	5	10
VCSFR-20160	M20 X 160	45	80	17	24	5	10
VCSFR-20200	M20 X 200	45	100	17	24	5	10
VCSFR-24160	M24 X 160	55	70	22	38	6	10
VCSFR-24200	M24 X 200	55	110	22	38	6	10

## SPHERICAL WASHER WITH CONICAL SEAT

Spherical Washer are used for clamping on non parallel surfaces. It's a washer with one radius surface, which is designed to be used in conjunction with a matching nuts in order to correct for up to several degree of misalignment between parts.



MODEL	SIZE	$d_1$	$d_2$	$h_1$	$d_3$	$d_4$	$h_2$
VSWC-8	M8	8.4	17	3.2	10	14.5	3.5
VSWC-10	M10	10.5	21	4.0	12	18.5	4.2
VSWC-12	M12	13	24	4.6	15	20	5.0
VSWC-16	M16	17	30	5.3	19	26	6.2
VSWC-20	M20	21	36	6.3	24	31	7.5
VSWC-24	M24	25	44	8.2	28	37	9.5



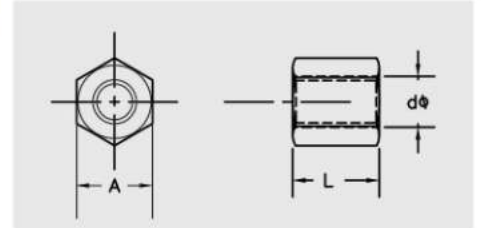
## EXTRA LONG NUT

### Hardened & Tempered, Black Finish

These nuts have longer life as they have more number of threads than ordinary nuts.



MODEL	d <sub>Q</sub> THREAD SIZE	L THREAD LENGTH	A HEX SIZE
VELN-8	M8	12	13
VELN-10	M10	15	17
VELN-12	M12	18	19
VELN-14	M14	21	24
VELN-16	M16	24	24
VELN-20	M20	30	30
VELN-24	M24	36	36
VELN-30	M30	45	45



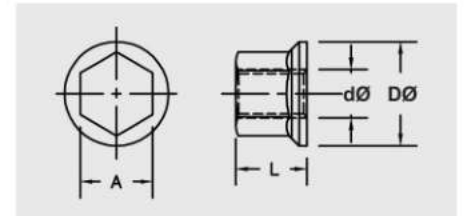
## FLANGED NUT

### Forged, Hardened & Tempered, High Tensile Steel, Black Finish

These nuts have flanged face for larger face contact with the surface to be tightened on.



MODEL	d <sub>Q</sub> THREAD SIZE	D <sub>Q</sub>	A	L
VFN-12	M12	25	19	18
VFN-16	M16	32	24	24
VFN-20	M20	40	30	30
VFN-24	M24	47	36	36
VFN-30	M30	60	45	40



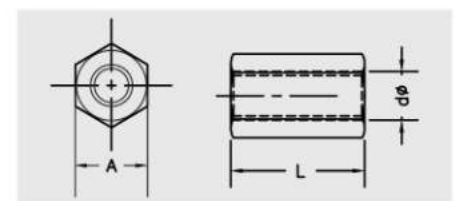
## EXTENSION NUT

### Hardened & Tempered, Black Finish

These nuts are used to couple the studs with studs or T-Bolts in order to increase their length.



MODEL	d <sub>Q</sub> THREAD SIZE	L THREAD LENGTH	A HEX SIZE
VEN-8	M8	24	13
VEN-10	M10	30	17
VEN-12	M12	36	19
VEN-14	M14	42	24
VEN-16	M16	48	24
VEN-20	M20	60	30
VEN-24	M24	72	36
VEN-30	M30	90	45



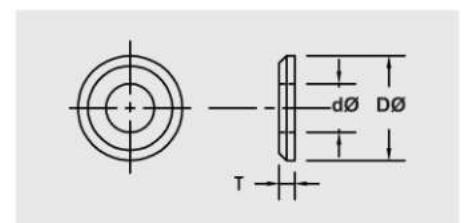
## PLAIN WASHER

### Case Hardened, Black Finish

These nuts have longer life as they have more number of threads than ordinary nuts.



MODEL	d <sub>Q</sub> THREAD SIZE	L THREAD LENGTH	A HEX SIZE
VPW-8	M8	4	23
VPW-10	M10	4	28
VPW-12	M12	5	35
VPW-14	M14	6	40
VPW-16	M16	7	45
VPW-20	M20	7	48
VPW-24	M24	9	60
VPW-30	M30	11	70



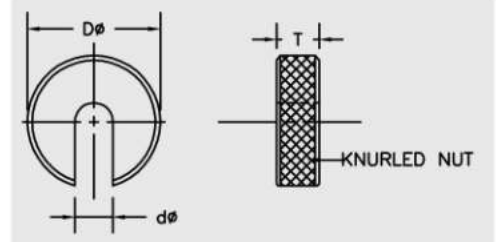
## C-WASHER

### Casa Hardened, Black Finish

These nuts have longer life as they have more number of threads than ordinary nuts.



MODEL	dQ SUITABLE FOR BOLT	T THICKNESS	dQ OUTER DIA
VCW-10	M10	9	40
VCW-14	M14	11	63
VCW-20	M20	11	80
VCW-30	M30	14	100

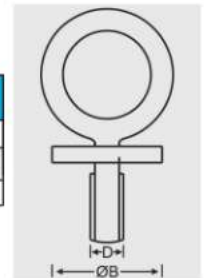


## EYE BOLT (IS 4190:1984)

Forged, Hardened & Tempered, High Tensile Steel, Black Finish/ZINC PLATED

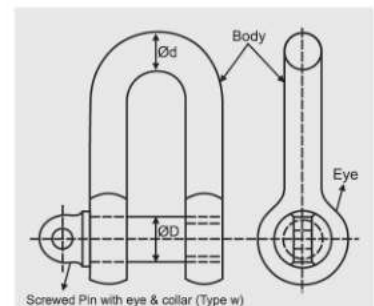


MODEL SIZE	M12	M16	M20	M24	M30	M36	M42	M48
QB	28	34	40	48	56	67	80	95
D	M12	M16	M20	M24	M30	M36	M42	M48
WILL	0.40	0.63	1.00	1.60	2.50	4.00	6.30	8.00



## DEE-SHACKLE (IS 2415:2004)

Forged, Hardened & Tempered, High Tensile Steel, Black Finish/ZINC PLATED



WILL SIZE	1 T	2 T	3 T	4 T	5 T	8 T	10 T	12.5 T	15 T
QD (mm)	16	22.4	28	31.5	36	45	50	56	63
Qd (mm)	14	20	25	28	32	40	45	50	56

## SUPPORT BOLT FOR HEIGHT ADJUSTMENT

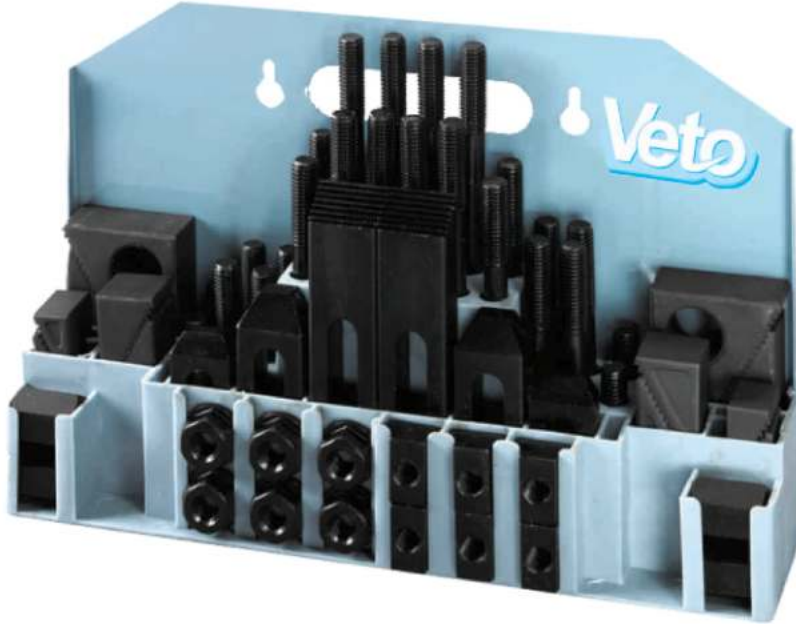
It is used with Tapped end clamp, Mould Clamp with Heavy Support bolt & U-type Spl. Mould clamp for adjusting height of clamping with respect to mould plate.



MODEL	Dia at Bottom	Thread Size	Overall Length
VSTB-1260	30	M-12* 1.75P	60
VSTB-1675	35	M-16* 2P	75
VSTB-2090	40	M-20* 2.5P	90
VSTB-2495	45	M-24* 3P	95
VSTB-24130	50	M-24* 3P	130

**CLAMPING KIT- 58 PIECE ( WITH STEP BLOCKS & STEPPED STRAP CLAMPS)**

VE TO Clamping kit - 58 Piece is available in an attractive powder coated metallic rack which can be hanged on machine or a wall or kept on a table. Each kit consists of all important clamping elements required to clamp a variety of work pieces. Following table shows the contents of each model of clamping kit suitable for different T-Slot sizes. All the items of clamping kit are taken from our range of products given in this catalogue.









<div>     </div>		MODEL	VCK-58-1412 T-SLOT SIZE 14 MM	VCK-58-1612 T-SLOT SIZE 16 MM	VCK-58-1812 T-SLOT SIZE 18 MM	VCK-58-1816 T-SLOT SIZE 18 MM
		CONTENTS				
T-NUTS	VTN-14-12-6 Nos.	VTN-16-12-6 Nos.	VTN-18-12-6 Nos.	VTN-18-16-6 Nos.		
CLAMPING STUDS	VCS-12-75-4 Nos.	VCS-12-75-4 Nos.	VCS-12-75-4 Nos.	VCS-16-75-4 Nos.		
	VCS-12-100-4 Nos.	VCS-12-100-4 Nos.	VCS-12-100-4 Nos.	VCS-16-100-4 Nos.		
	VCS-12-125-4 Nos.	VCS-12-125-4 Nos.	VCS-12-125-4 Nos.	VCS-16-125-4 Nos.		
	VCS-12-150-4 Nos.	VCS-12-150-4 Nos.	VCS-12-150-4 Nos.	VCS-16-150-4 Nos.		
	VCS-12-175-4 Nos.	VCS-12-175-4 Nos.	VCS-12-175-4 Nos.	VCS-16-175-4 Nos.		
	VCS-12-200-4 Nos.	VCS-12-200-4 Nos.	VCS-12-200-4 Nos.	VCS-16-200-4 Nos.		
FLANGED NUTS	VFN-12-6 Nos.	VFN-12-6 Nos.	VFN-12-6 Nos.	VFN-16-6 Nos.		
EXTENSION NUTS	VEN-12-4 Nos.	VEN-12-4 Nos.	VEN-12-4 Nos.	VEN-16-4 Nos.		
STEPPED STRAP CLAMPS	VSSC-12-65-2 Nos.	VSSC-12-65-2 Nos.	VSSC-12-65-2 Nos.	VSSC-16-75-2 Nos.		
	VSSC-12-100-2 Nos.	VSSC-12-100-2 Nos.	VSSC-12-100-2 Nos.	VSSC-16-125-2 Nos.		
	VSSC-12-150-2 Nos.	VSSC-12-150-2 Nos.	VSSC-12-150-2 Nos.	VSSC-16-160-2 Nos.		
STEP BLOCKS	VSF-1-2 PAIRS(4 Nos.)	VSF-1-2 PAIRS(4 Nos.)	VSF-1-2 PAIRS(4 Nos.)	VSF-1-2 PAIRS(4 Nos.)		
	VSF-2-2 PAIRS(4 Nos.)	VSF-2-2 PAIRS(4 Nos.)	VSF-2-2 PAIRS(4 Nos.)	VSF-2-2 PAIRS(4 Nos.)		
	VSF-3-2 PAIRS(4 Nos.)	VSF-3-2 PAIRS(4 Nos.)	VSF-3-2 PAIRS(4 Nos.)	VSF-3-2 PAIRS(4 Nos.)		
TOTAL NO. OF PIECES	58 PIECES	58 PIECES	58 PIECES	58 PIECES		



**CLAMPING KIT- 34 PIECE ( WITH ADJUSTABLE SUPPORT PLATES & STRAP CLAMPS)**

VE TO Clamping kit - 34 Piece is economical clamping kit housed in an elegant wooden box. Following table shows the contents of each model of clamping kit suitable different T-Slot sizes. All Items of clamping kit are taken from our range of products given in this catalogue.



	MODEL	VCK-34-1412 T-SLOT SIZE 14 MM	VCK-35-1612 T-SLOT SIZE 16 MM	VCK-34-1812 T-SLOT SIZE 18 MM
	CONTENTS			
	T-NUTS	VTN-14-12- 4 Nos.	VTN-16-12- 4 Nos.	VTN-18-12- 4 Nos.
	CLAMPING STUDS	VCS-12-75- 4 Nos.	VCS-12-75- 4 Nos.	VCS-12-75- 4 Nos.
		VCS-12-100- 4 Nos.	VCS-12-100- 4 Nos.	VCS-12-100- 4 Nos.
		VCS-12-150- 4 Nos.	VCS-12-150- 4 Nos.	VCS-12-150- 4 Nos.
		VCS-12-200- 4 Nos.	VCS-12-200- 4 Nos.	VCS-12-200- 4 Nos.
	FLANGED NUTS	VFN-12- 4 Nos.	VFN-12- 4 Nos.	VFN-12- 4 Nos.
	EXTENSION NUTS	VEN-12- 2 Nos.	VEN-12- 2 Nos.	VEN-12- 2 Nos.
	STRAP CLAMPS	VSC-12-100- 2 Nos.	VSC-12-100- 2 Nos.	VSSC-12-100- 2 Nos.
		VSC-12-150- 2 Nos.	VSC-12-125- 2 Nos.	VSSC-12-150- 2 Nos.
	ADJUSTABLE SUPPORT PLATES	VASP-250- 2 Nos.	VASP-250- 2 Nos.	VASP-250- 2 Nos.
		VASP-2100- 2 Nos.	VASP-2100- 2 Nos.	VASP-2100- 2 Nos.
	TOTAL NO. OF PIECES	34 PIECES	34 PIECES	34 PIECES



# TOOL ROOM ACCESSORIES

## SELLING TRUST WITH TOOLS



Grinding Vice-Lead Screw Type



Milling Machine Vice



Magnetic V Block



Milling Machine Vice



Steel Parallels (Hardened &amp; Ground)



Precision Sine Vice



Angle Plate-Slotted



Angle Lock Down Precision Machine Vice



## GRINDING VICES (HARDENED & GROUND)



### FEATURES

- Tool makers Vice- a must for every TOOL ROOM.
- One-piece construction made of Tool Steel-hardened tempered & precision ground.
- Can be used on the base or sides.
- Ideal for tool making, grinding, jig boring etc.
- Accurate to within 8 microns.
- Available as Pin Type or Screw Type

## GRINDING VICE-LEAD SCREW TYPE



MODEL	OVERALL LENGTH	OVERALL HEIGHT	OVERALL WIDTH	JAW DEPTH	MAX JAW OPENING
VSV-55 (En-31)	160	60	55	30	60
VSV-75 (En-31)	205	70	75	40	80
VSV-100(En-31)	240	90	100	45	105
VSV-55	160	60	55	30	60
VSV-75	200	70	75	40	80
VSV-95	235	90	95	45	105
VSV-150	300	96	150	48	150

## GRINDING VICE-PIN TYPE



MODEL	OVERALL LENGTH	OVERALL HEIGHT	OVERALL WIDTH	JAW DEPTH	MAX JAW OPENING
VSV-55 (En-31)	160	54	55	28	80
VSV-75 (En-31)	185	64	75	35	100
VSV-100(En-31)	235	90	100	45	125
VSV-55	160	54	55	28	80
VSV-75	178	64	75	35	100
VSV-95	235	90	95	45	125
VSV-150	330	94	150	48	175



## PRECISION SINE VICE



### FEATURES

- One-piece construction made of Tool Steel-hardened, tempered & precision ground.
- Accurate to within 8 microns.
- Hardened & Tempered to 52-56 HRC.
- Centre to centre distance controlled to within 5 Microns.
- Available as Pin Type or Screw Type.



### PRECISION SINE VICE-LEAD SCREW TYPE

MODEL	OVERALL LENGTH	OVERALL HEIGHT	OVERALL WIDTH	JAW DEPTH	MAX JAW OPENING	C.D. OF ROLLERS
VSSV-75T	205	100	75	40	85	150



### PRECISION SINE VICE-LEAD SCREW TYPE

MODEL	OVERALL LENGTH	OVERALL HEIGHT	OVERALL WIDTH	JAW DEPTH	MAX JAW OPENING	C.D. OF ROLLERS
VSPV-75T	195	102	75	40	105	150



## MILLING MACHINE VICE



### FEATURES

- Most popular machine vice
- Useful in milling, jig boring, shaping & grinding applications.
- Available with & without swivel base.
- Manufactured from close grained high tensile cast iron.
- All fasteners are high tensile.
- Jaws are fully hardened to 50-55 HRC.



MODEL	JAW WIDTH	JAW DEPTH	MAX JAW OPENING
VMMV-100	100	40	100
VMMV-150	150	55	150
VMMV-200	200	60	200



## ANGULAR VICES



### FEATURES

- Ideal where jobs require machining at an angle.
- Useful in milling, jig boring, shaping & grinding applications.
- Available as TWO WAY & THREE WAY ANGLE VICE (Tilt & Swivel)
- Manufactured from close grained high tensile cast iron.
- All fasteners are high tensile.  
Jaws are fully hardened to 50-55 HRC.
- Hold Down slots are provided for secure clamping of vice on the machine table.



TWO WAY ANGEL VICE (TILT AND SWIVEL)

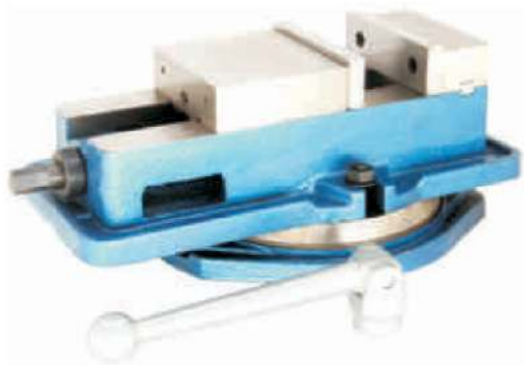
MODEL	JAW WIDTH	JAW DEPTH	MAX OPENING	TOTAL HEIGHT
VMMV-100(2W)	100	45	100	160
VMMV-150(2W)	150	54	150	200

THREE WAY ANGEL VICE (TILT AND SWIVEL)

MODEL	JAW WIDTH	JAW DEPTH	MAX OPENING	TOTAL HEIGHT
VMMV-100(3W)	100	45	100	190



## ANGLE LOCK DOWN PRECISION MACHINE VICE



### FEATURES

- Hardened Bed
- Unbreakable ductile iron cast body  
No work place tilt after clamping
- All parts interchangeable and available as spares.
- High Clamping force can be achieved by effortless handle movement which eliminates hammering on handle.

MODEL	JAW WIDTH	JAW DEPTH	MAX OPENING(STD.)	MAX OPENING (REVERSED)	TOTAL HEIGHT
VALPMV-100	100	36	105	270	135
VALPMV-160	160	47	155	360	160

## TWO PIECE VICE

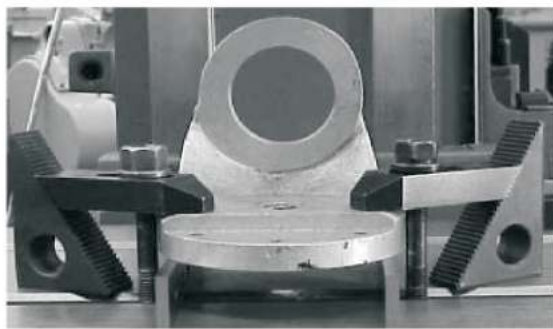


### FEATURES

- Useful in Milling, Planning Plano Milling, Machining
- Centres or Jig boring Machines
- Two Piece construction makes it versatile to hold any size of job which can be accommodated on the machine table.
- Hardened & Ground jaws made of Tool Steel.
- Most suitable for machining of big & heavy work pieces.

MODEL	JAW WIDTH	JAW DEPTH	TRAVEL OF MOVABLE JAW	TOTAL LENGTH
VTPV-150	150	75	15	329
VTPV-200	200	82	15	355

## STEEL PARALLELS (HARDENED & GROUND)



### FEATURES

- Steel parallels are used as precision packing supports under jobs or fixtures.
- Made from special alloy steel, hardened & tempered.
- Precision Ground in matched pairs.
- Parallelism within 8 microns upto 200mm length

MODEL	LENGTH	HEIGHT	WIDTH
VSP-10	150	20	10
VSP-15	150	25	15
VSP-20	200	45	20
VSP-25	250	55	25
VSP-30	300	60	30
VSP-45	300	75	45



## MAGNETIC V-BLOCKS



### FEATURES

- Magnetic V-Blocks are precision ground V-Blocks with high power magnets.
- "V" are hardened 55-60 HRC for increased wear resistance.
- Accuracy controlled to within 8 microns

MODEL	LENGTH	HEIGHT	WIDTH
VMVB-100	100	95	75
VMVB-150	150	95	75

## ANGLE PLATE- SLOTTED

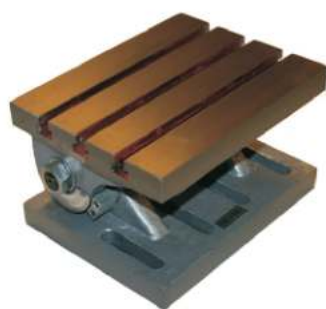


### FEATURES

- Angle Plate is L-shaped piece of high quality cast iron with slots to facilitate the clamping of work piece.
- All clamping slots are machined for uniformity.
- Accuracy in parallelism & squareness within 15 microns per 200mm length.

MODEL	LENGTH	HEIGHT	WIDTH
VAP-150	150	125	110
VAP-175	175	135	110
VAP-200	200	150	125
VAP-250	250	200	150

## SWIVEL ANGLE PLATES



### FEATURES

- Used for setting a job at an angle quickly & correctly.
- Useful in milling, drilling, shaping & grinding applications.
- Flatness of working face within 0.012/300mm & T-Slots parallel to edges within 0.05/300mm

MODEL	W X L X H	SUITABLE FOR T-NUT
VSAP-125	125×150×113	12-10
VSAP-125	150×200×135	12-10
VSAP-125	200×250×170	12-10
VSAP-125	250×300×205	14-12

## TILTING TABLES



### FEATURES

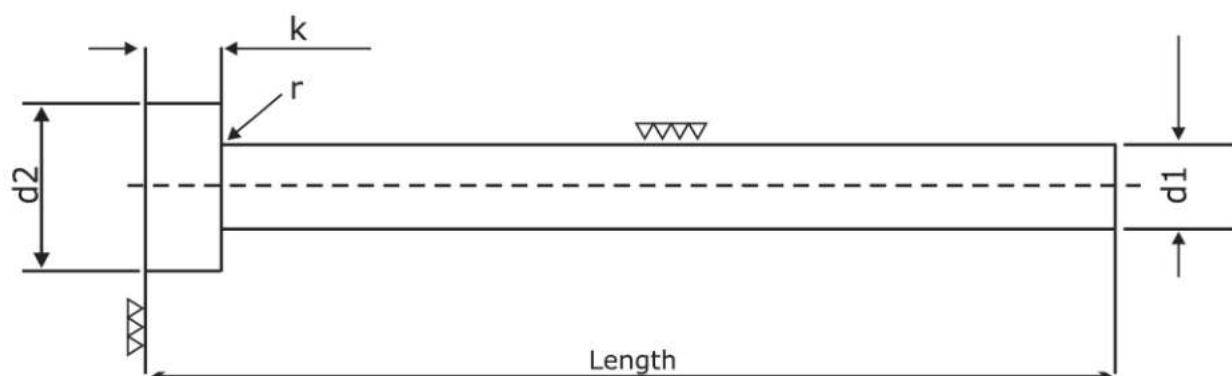
- Used for operations where angular setting of the job is required.
- Swivel face as machined T-Slots along the length and swings upto 45° on either side.
- Flatness of working face within 0.05/300mm. Table top & base parallel within 0.05/300mm

MODEL	W X L X H	SUITABLE FOR T-NUT
VIT-125	125×150×113	12-10
VIT-175	150×200×135	12-10
VIT-250	200×250×170	14-12



## EJECTOR PINS (DIN 1530)

Raw Material: Through Hardened & Ground Steel For Plastic Moulds And Hot Die Steel For Die Casting Dies.



<b>d1 (g6)</b>	2.0	2.5	3.0	4.0	5.0	6.0	8.0	10.0	12.5
<b>k (0.05)</b>	2.0	2.0	3.0	3.0	3.0	3.0	5.0	5.0	7.0
<b>d2 (0.2)</b>	4.0	5.0	6.0	8.0	10.0	10.0	10.0	14.0	16.0
<b>r</b>		0.2	0.3	0.3	0.3	0.3	0.5	0.5	0.8

### Length

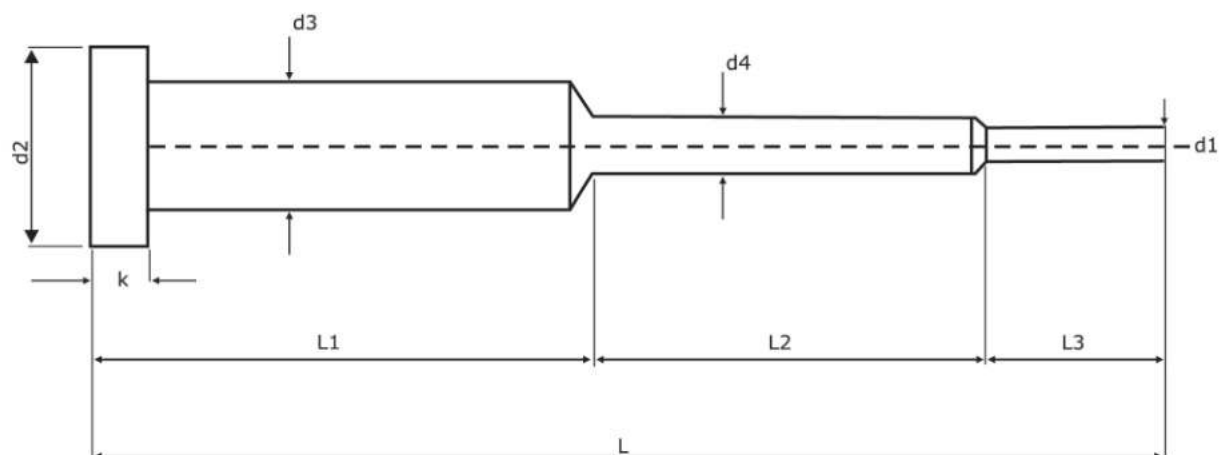
100	✓	✓	✓	✓	✓	✓	✓	✓	✓
125	✓	✓	✓	✓	✓	✓	✓	✓	✓
160	✓	✓	✓	✓	✓	✓	✓	✓	✓
200	✓	✓	✓	✓	✓	✓	✓	✓	✓
250	✓	✓	✓	✓	✓	✓	✓	✓	✓
300	✓	✓	✓	✓	✓	✓	✓	✓	✓
350	●	●	●	✓	✓	✓	✓	✓	✓
400	●	●	●	✓	✓	✓	✓	✓	✓
450	●	●	●	✓	✓	✓	✓	✓	✓
500	●	●	●	✓	✓	✓	✓	✓	✓

✓ = Ex-stock

● = Against Order

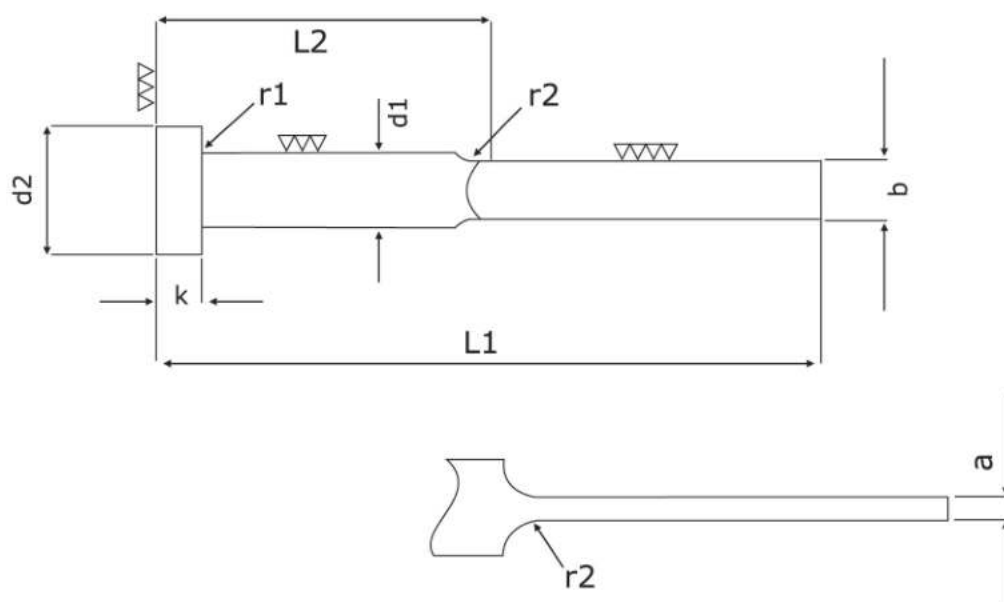
Note : d1 = Body Dia. k = Head Length, d2 = Head Dia, r = Radius  
All Dimensions are in mm

## FOR CUSTOMIZED STEP EJECTOR PINS



d1	d4	d3	d2	k	L1	L2	L3	L

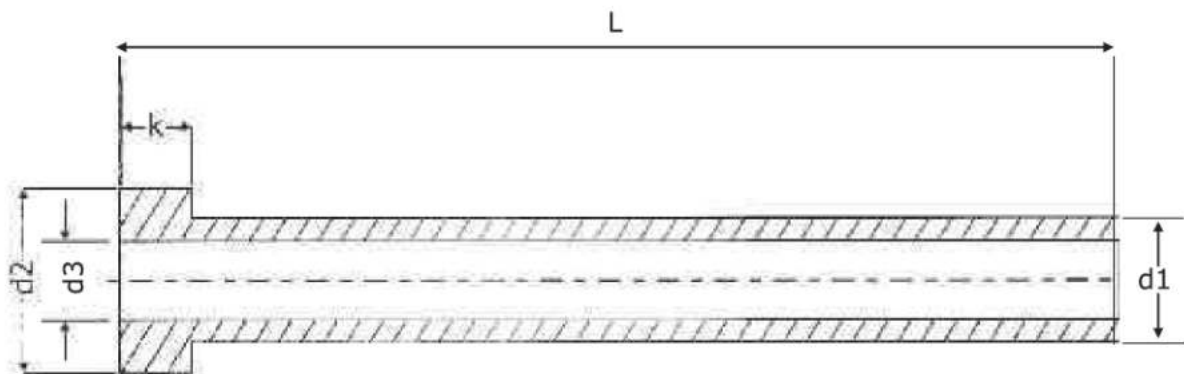
## FOR CUSTOMIZED BLADE EJECTOR PINS



d1	d2	a	b	k	L1	L2	r1	r2

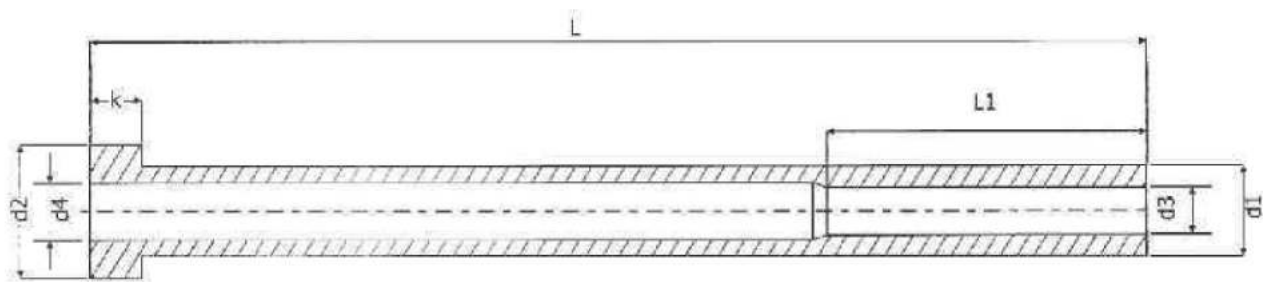
Please specify tolerance for all dimension

FOR CUSTOMIZED EJECTOR SLEEVES



d1	d2	a	b	k

FOR CUSTOMIZED STEP EJECTOR SLEEVES



d1	d2	a	b	k	L1	L2

Please specify tolerance for all dimension

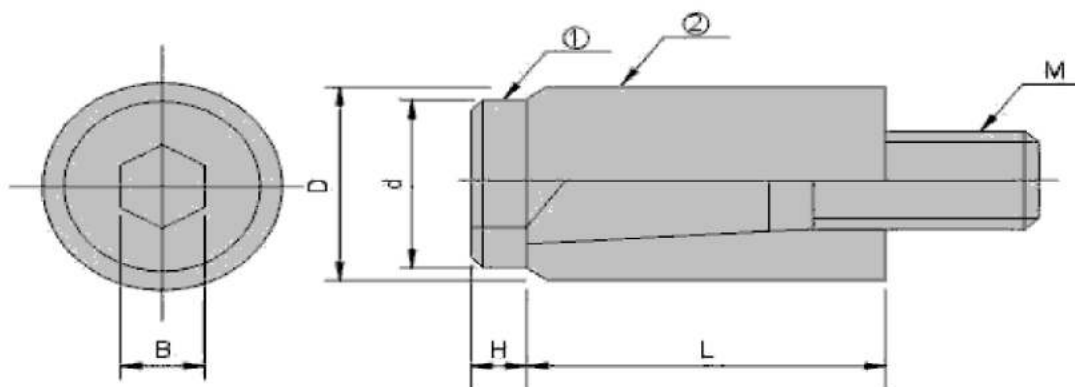


## PARTING LOCK / NYLON BUSH

### FEATURES

1. Use sloping screw to adjust m old plate and parting locks then turn 90 degrees. Parting locks can be closed up to 50,000 times.
2. Easy to assemble and disassemble, and cost efficient.
3. Can also be installed into small, medium size, and 2-sectional injecting metal pipes, or can be installed on sliding bases.
4. Mold weight <100kg, using 4 pcs of 12s Mold weight <50Dkg, using 4 pcs of 16B Mold weight <1,00Dkg, using 4 pcs of 200 Mold weight >1,000kg, using at least 6 pcs.
5. Insert Parting Locks into die m old about 3cm, then using H7 reamer to process m old hole within +0.1mm range.
6. Process mold surface to the shape of letter R. If processing to the chamfering of letter C, it will shorten its life cycle.
7. Do not add any oil on parting locks, doing so will reduce the friction.

**Color: white. Yellow. Orange**



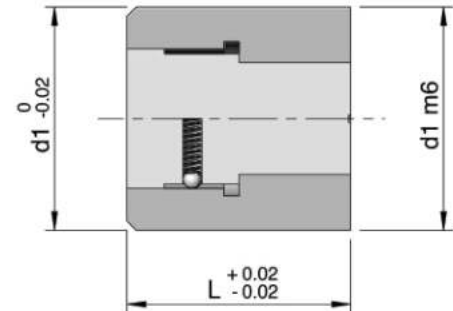
TYPE	D	d	H	L	M	B
VPL	10	8.5	3	18	M5	4
	12	11	35	20	M6	5
	13	11	35	20	M6	5
	16	14	4	25	M8	6
	20	16	5	30	M10	8
	25	16	7	40	M10	8

## DATE CALENDER INSERTS

### Single Piece Mould Date Indicator



Raw Material:SUS-420  
Hardness:45-50 HRC

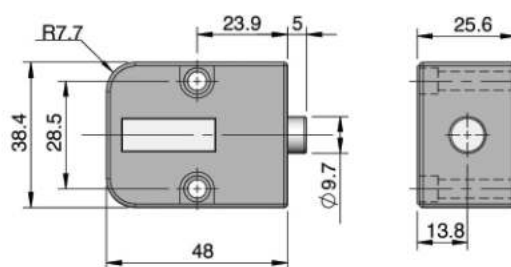


<b>VK11</b>	<b>VK12</b>	<b>VK13</b>	<b>VK14</b>	<b>VK15</b>	<b>VK16</b>	<b>VK17</b>	<b>VK18</b>	<b>VK19</b>
Only Month	Only Year	Month & Year	Only Days	Only Quarter	Only Week	Only Shift Numeric	Only Shift Alphabets	Only Arrow

Code	d1	L	Stock	Code	d1	L	Stock	Code	d1	L	Stock	Code	d1	L	Stock
VK1.1/3 × 6	3	6	•	VK1.2/6 × 8	6	8	✓	VK1.3/10 × 12	10	12	•	VK1.5/3 × 8	3	8	•
VK1.1/3 × 8		8	•	VK1.2/6 × 10		10	✓	VK1.3/12 × 12	12	12	✓	VK1.5/3 × 10		10	•
VK1.1/3 × 10		10	•	VK1.2/8 × 8	8	8	•	VK1.3/12 × 14		14	•	VK1.5/4 × 6	4	6	•
VK1.1/4 × 6	4	6	•	VK1.2/8 × 10		10	✓	VK1.3/16 × 14	16	14	✓	VK1.5/4 × 8		8	✓
VK1.1/4 × 8		8	✓	VK1.2/8 × 12	10	12	•	VK1.3/20 × 14	20	14	•	VK1.5/4 × 10	6	10	✓
VK1.1/4 × 10	6	10	✓	VK1.2/10 × 8		8	•	VK1.3/20 × 16		16	•	VK1.5/6 × 6		6	•
VK1.1/6 × 6		6	•	VK1.2/10 × 10	12	10	✓	VK1.4/3 × 6	3	6	•	VK1.5/6 × 8	8	8	✓
VK1.1/6 × 8	8	8	✓	VK1.2/10 × 12		12	•	VK1.4/3 × 8		8	•	VK1.5/6 × 10		10	✓
VK1.1/6 × 10		10	✓	VK1.2/12 × 12	16	12	✓	VK1.4/3 × 10	4	10	•	VK1.5/8 × 8	10	8	•
VK1.1/8 × 8	10	8	•	VK1.2/12 × 14		14	•	VK1.4/4 × 6		6	•	VK1.5/8 × 10		10	✓
VK1.1/8 × 10		10	✓	VK1.2/16 × 14	20	14	✓	VK1.4/4 × 8	6	8	✓	VK1.5/8 × 12	12	12	•
VK1.1/8 × 12	12	12	•	VK1.2/20 × 14		14	•	VK1.4/4 × 10		10	✓	VK1.5/10 × 8	14	8	•
VK1.1/10 × 8		8	•	VK1.2/20 × 16	3	16	•	VK1.4/6 × 6	8	6	•	VK1.5/10 × 10		10	✓
VK1.1/10 × 10	16	10	✓	VK1.3/3 × 6		6	•	VK1.4/6 × 8		8	✓	VK1.5/10 × 12	16	12	•
VK1.1/10 × 12		12	•	VK1.3/3 × 8	4	8	•	VK1.4/6 × 10	10	10	✓	VK1.5/12 × 12		12	✓
VK1.1/12 × 12	12	12	✓	VK1.3/3 × 10		10	•	VK1.4/8 × 8		8	•	VK1.5/12 × 14	20	14	•
VK1.1/12 × 14		14	•	VK1.3/4 × 6	6	6	•	VK1.4/8 × 10	12	10	✓	VK1.5/16 × 14		14	✓
VK1.1/16 × 14	16	14	✓	VK1.3/4 × 8		8	✓	VK1.4/8 × 12		12	•	VK1.5/20 × 14	16	14	•
VK1.1/20 × 14		14	•	VK1.3/4 × 10	8	10	✓	VK1.4/10 × 8	20	8	•	VK1.5/20 × 16		16	•
VK1.1/20 × 16	20	16	•	VK1.3/6 × 6		6	•	VK1.4/10 × 10		10	✓				
VK1.2/3 × 6		6	•	VK1.3/6 × 8	10	8	✓	VK1.4/10 × 12	12	12	•				
VK1.2/3 × 8	3	8	•	VK1.3/6 × 10		10	✓	VK1.4/12 × 12		12	✓				
VK1.2/3 × 10		10	•	VK1.3/8 × 8	4	8	•	VK1.4/12 × 14	16	14	•				
VK1.2/4 × 6	4	6	•	VK1.3/8 × 10		10	✓	VK1.4/16 × 14		14	✓				
VK1.2/4 × 8		8	✓	VK1.3/8 × 12	6	12	•	VK1.4/20 × 14	20	14	•				
VK1.2/4 × 10	6	10	✓	VK1.3/10 × 8		8	•	VK1.4/20 × 16		16	•				
VK1.2/6 × 6		6	•	VK1.3/10 × 10	8	10	✓								

✓ - Ex-stock • - Against Order | Ordering Example: Code -Quantity | VK1.2/6 × 6 - 5 Pcs

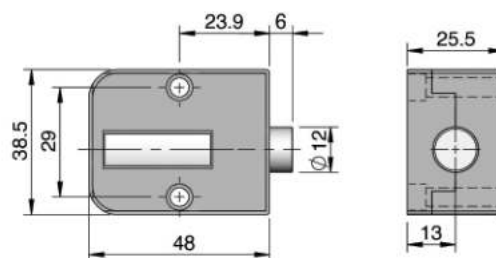
## MOULD SHOT COUNTERS ( MECHANICAL )



Code	Screw Size	Maximum Working Temperature	Stock
VK14.1 (Metric)	M4 X 0.7 X 25	120°C	

✓ - Ex-stock ● - Against Order | Ordering Example: Code - Quantity | VK14.1 - 5 Pcs

## MOULD SHOT COUNTERS ( MECHANICAL HIGH TEMPERATURE )

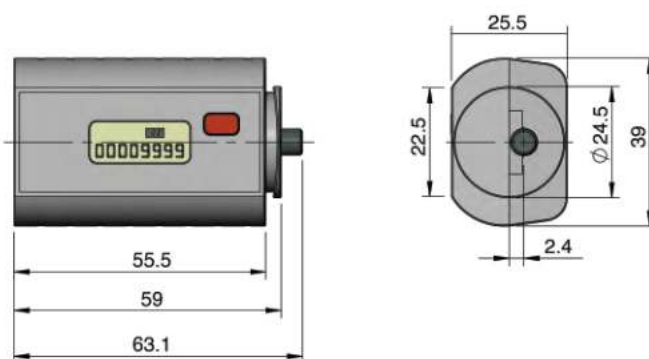


Note: High temperature mould counter should be installed outside the mould with insulation Plate.

Code	Screw Size	Maximum Working Temperature	Stock
VK14.2 (Metric)	M4 X 0.7 X 25	160°C	

✓ - Ex-stock ● - Against Order | Ordering Example: Code - Quantity | VK14.2 - 5 Pcs

## MOULD SHOT COUNTERS ( DIGITAL )

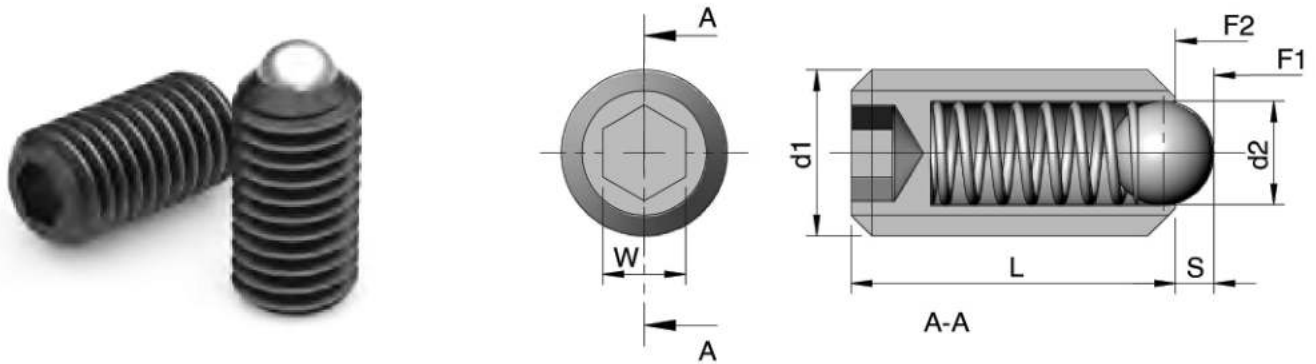


Code	Screw Size	Maximum Working Temperature	Stock
VK14.3 (Metric)	M4 X 0.7 X 25	85°C	

✓ - Ex-stock ● - Against Order | Ordering Example: Code - Quantity | VK14.3 - 5 Pcs

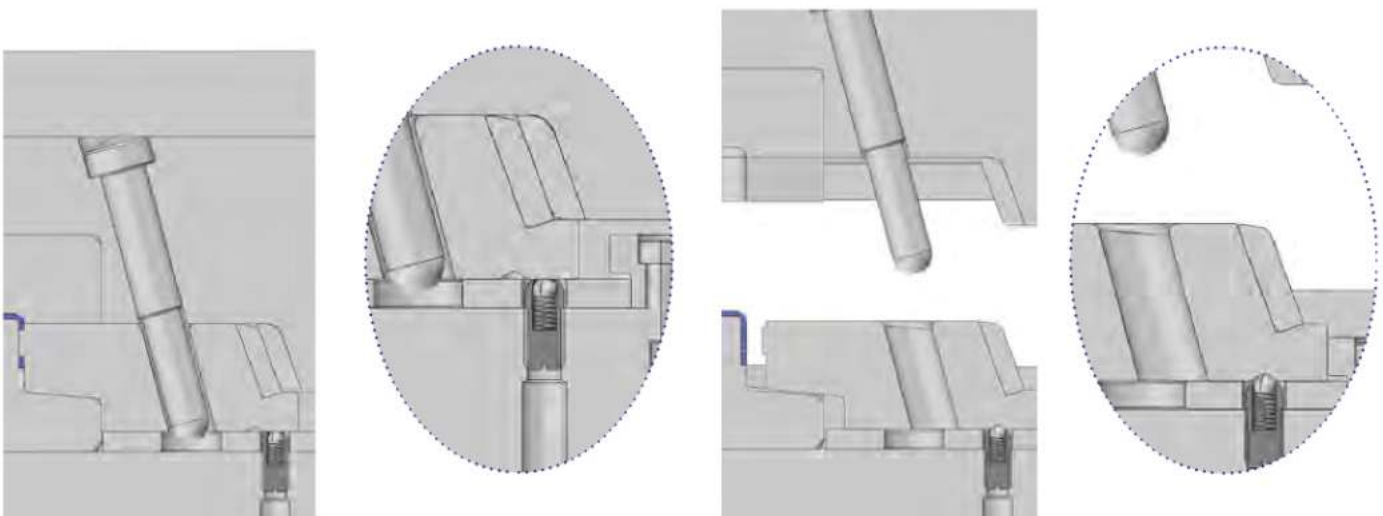


## BALL PLUNGER ( ALLEN KEY TYPE )



Code	d1	d2	L	W	S	Weight (g)	Initial Force F1 (N)	Final Force F2 (N)	Stock
VD3.2/ 001	M3	1.5	8	1.5	0.4	0.30	3.0	4.5	•
VD3.2/ 002	M4	2.5	12	2.0	0.8	0.70	8.5	14.0	•
VD3.2/ 003	M5	3.0	14	2.5	0.9	1.20	8.0	14.0	•
VD3.2/ 004	M6	3.5	15	3.0	1.0	1.80	11.0	18.0	•
VD3.2/ 005	M8	4.5	18	4.0	1.5	3.90	18.0	31.0	•
VD3.2/ 006	M10	6.0	23	5.0	2.0	8.10	24.0	45.0	•
VD3.2/ 007	M12	8.0	26	6.0	2.5	13.0	26.0	49.0	•
VD3.2/ 008	M16	10.0	33	8.0	3.5	32.0	41.0	86.0	•
VD3.2/ 009	M20	12.0	43	10.0	4.5	66.0	56.0	111.0	•
VD3.2/ 010	M24	15.0	48	12.0	5.5	106.0	81.0	151.0	•

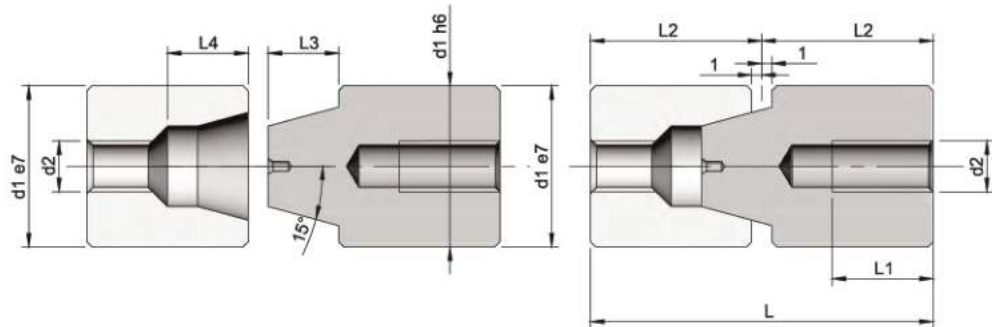
✓• Ex-stock - Against Order | Ordering Example: Code - Quantity | VD3.2/ 010 - 20 Pcs



## TAPER INTERLOCKS ( 5 TAPER )

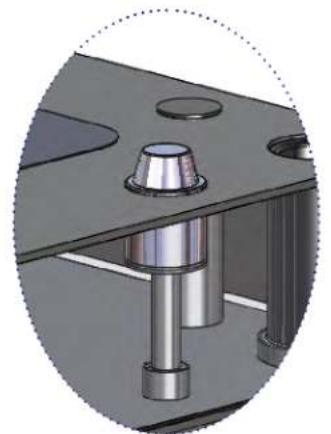
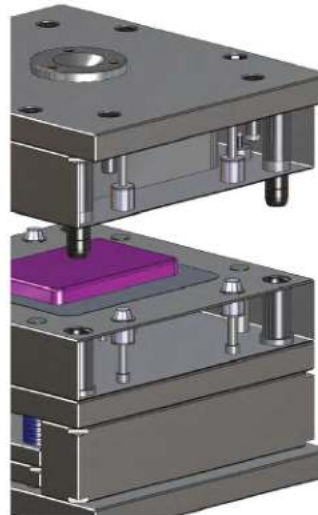
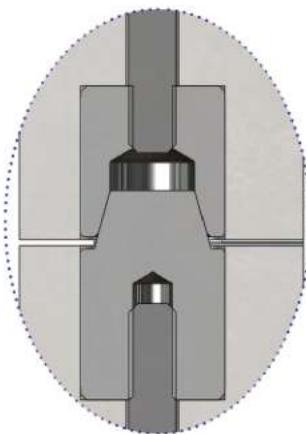
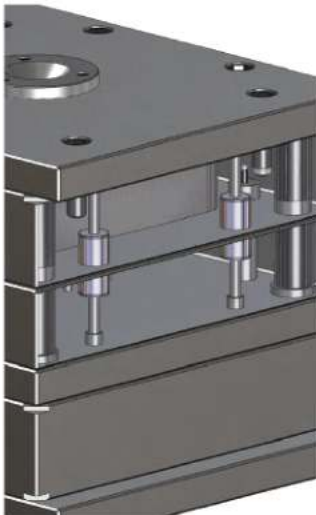


Raw Material: EN-31 Hardened and Ground  
Hardness:  $54 \pm 2$  HRC



Code	d1	d2	L	L1	L2	L3	L4	Stock
VB6.1/ 12	12	M4	34	11	17	4	8	✓
VB6.1/ 14	14	M5		12		7		✓
VB6.1/ 16	16			✓				
VB6.1/ 20	20	M8	54	15	27	40	13	✓
VB6.1/ 25	25							✓
VB6.1/ 26	26							●
VB6.1/ 30	30	M10	72	18	36	14	20	✓
VB6.1/ 32	32		✓					
VB6.1/ 42	42		92		46	18	25	●

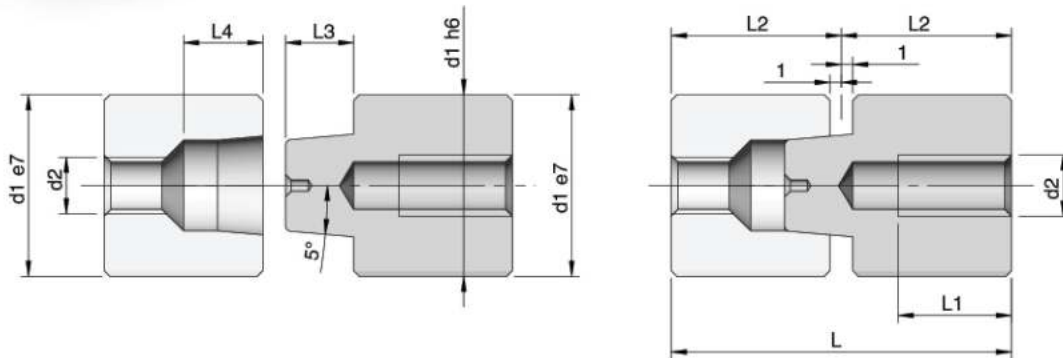
✓ - Ex-stock • - Against Order | Ordering Example: Code - Quantity | VB6.1/ 42 - 4 Pcs (1 Piece = 1 Male + 1 Female)  
Note: Any other Diameter & Length available as per customers requirement



## TAPER INTERLOCKS ( 5 TAPER )

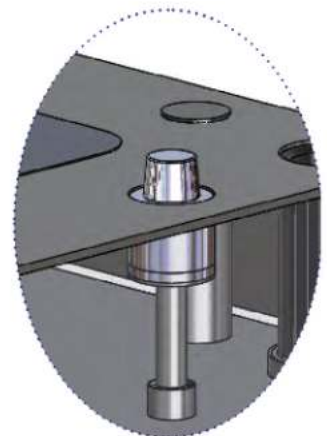
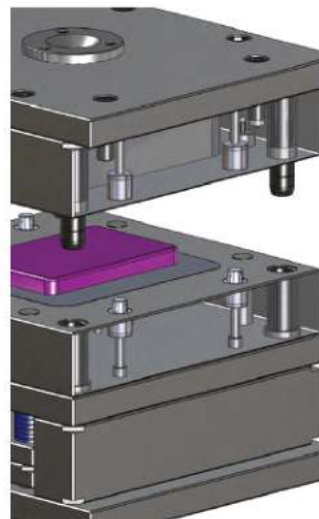
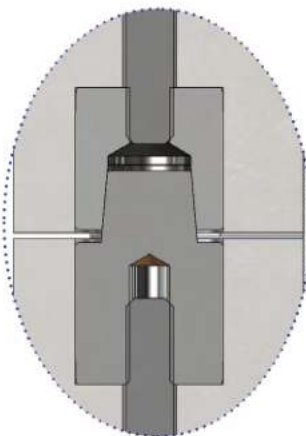
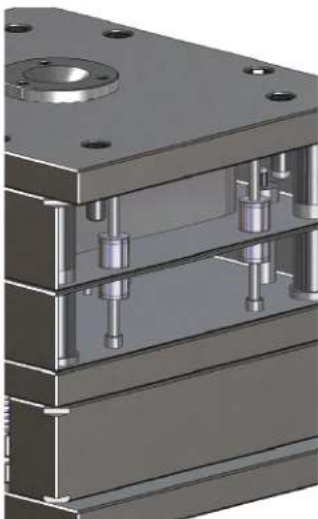


Raw Material: EN-31 Hardened and Ground  
Hardness:  $54 \pm 2$  HRC



Code	d1	d2	L	L1	L2	L3	L4	Stock
VB6.2/ 12	12	M4	30	10	15	6	5	✓
VB6.2/ 13	13							✓
VB6.2/ 14	14							✓
VB6.2/ 16	16	M5						✓
VB6.2/ 18	18	M6	40		20	9	7	✓
VB6.2/ 20	20			12			8	✓
VB6.2/ 25	25	M8	50	16	25	12	11	✓
VB6.2/ 30	30	M10	60	20	30	15	14	✓
VB6.2/ 35	35	M12	70		35	18	17	●

✓ - Ex-stock • - Against Order | Ordering Example: Code - Quantity | VB6.2/ 35 - 4 Pcs (1 Piece = 1 Male + 1 Female)  
Note: Any other Diameter & Length available as per customers requirement





# DIE STANDARD PARTS

SELLING TRUST WITH TOOLS



Piercing Punch

Button Dies



Guide post

Guide Pin & Guide Bush



Coil Spring

Gas Spring



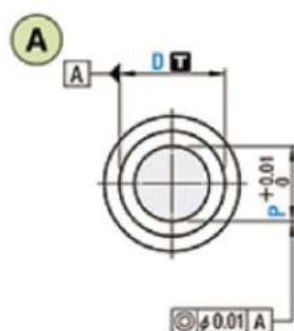
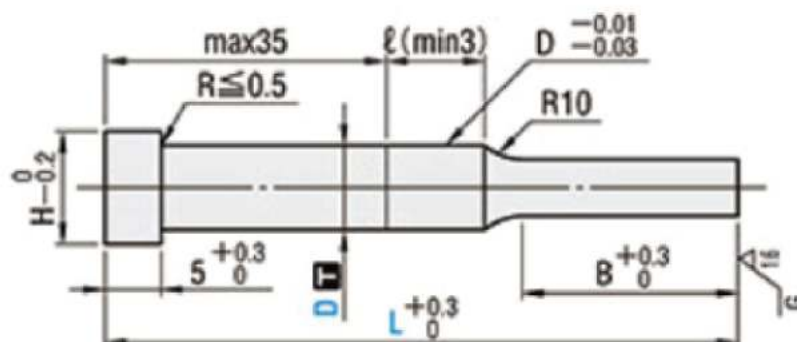
Wear Plate

Cam Unit



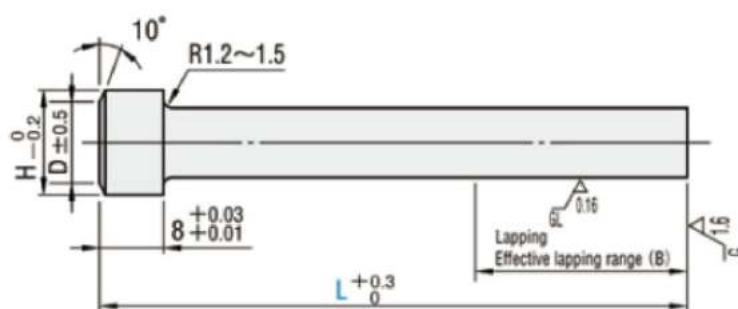
# PIERCING PUNCH

## SHOULDER PUNCH



D	L							P (MIN~MAX.)	B	H
3	40	50	60	70	80	90	100	1.00 ~ 2.99	8	5
4	40	50	60	70	80	90	100	1.00 ~ 3.99		7
5	40	50	60	70	80	90	100	2.00 ~ 4.99		8
6	40	50	60	70	80	90	100	2.00 ~ 5.99		9
8	40	50	60	70	80	90	100	3.00 ~ 7.99	13	11
10	40	50	60	70	80	90	100	3.00 ~ 9.99		13
12	-	-	-	70	80	90	100	5.00 ~ 11.99		15
13	40	50	60	70	80	90	100	6.00 ~ 12.99		16
16	40	50	60	70	80	90	100	10.00 ~ 15.99	19	19
20	40	50	60	70	80	90	100	13.00 ~ 19.99		23
25	40	50	60	70	80	90	100	18.00 ~ 24.99		28

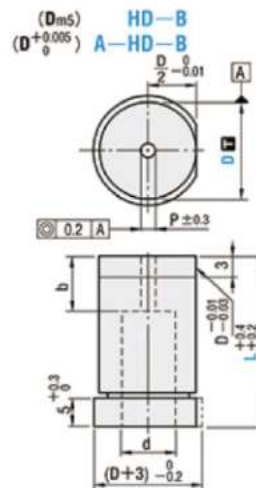
## STRAIGHT PUNCH



D	L	HSS	D2	H	T
1	30~40	•	•	2	3
1.6		•	•	2.6	
2		•	•	3	
2.5		•	•	3.5	
3	40~50	•	•	5	5
4		•	•	7	
5		•	•	8	
6		•	•	9	
8	40~100	•	•	11	
10		•	•	13	
13		•	•	16	
16		•	•	19	
20		•	•	23	
25		•	•	28	

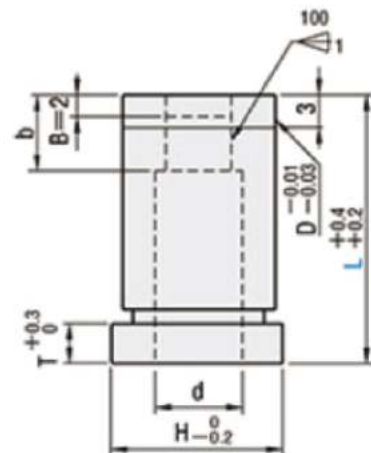
# BUTTON DIES

## Button Dies - Blanks

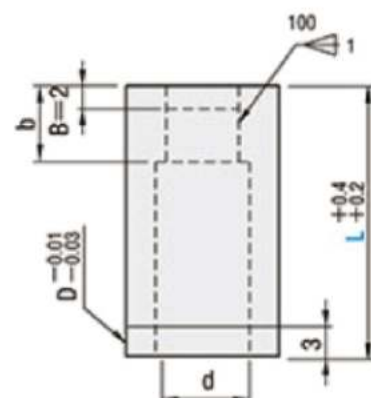


M Equivalent to SKD11  
H 60~63HRC

## Button Dies - Headed



## Button Dies - Straight







## 4031.41.

d1	25	32	38	50	60
d2	9	11	11	14	18
d3h7	8	8	10	10	13
a	84	100	130	166	190
b	48	58	75	90	120
c	66	76	100	125	150
a1	33	38	50	62.5	75
a2	15	18	22	30	40
h	20	20	25	25	30
h1	30	40	50	65	75
h2	50	60	70	70	100
D	31	40	46	58	68
K					
L	56	71	80	95	105
Scrow sl 20	8×35	10×40	10×45	12×50	16×60
Do wol sl 20	8×30	8×30	10×40	10×40	13×50
11					
80					
90					
100	●				
110	●				
120	●	●			
130	●	●	●		
140	●	●	●		
150	●	●	●		
160	●	●	●		
170	●	●	●		
180	●	●	●	●	
200	●	●	●	●	
220		●	●	●	●
240		●	●	●	●
260		●	●	●	●
300			●	●	●
350				●	●

**Execution:****Ball Guide Post Set with Fixed Retainer consisting of:**

Guide flange, guide pillar, retainer flange, hexagon, socket head cap screw, DN 972ASO, dowel pins with internal extracting thread~ISO 8735, ball cage retainer springs.

**Material:****Guide holder:**

Special castiron with hardened steel brush.

**Guide Pillar:**

Steel surface hardness.

Surface hardness: 60 + 3 HRC.

Hardness penetration depth: 2 + 1.6mm.

**Retaining bush:**

Special cast iron with non liquid lubricant.

**Retainer:**

Steel.

**Ball cage:**

Cage: Brass.

Balls: Steel hardened (DIN 5401)

**Note:**

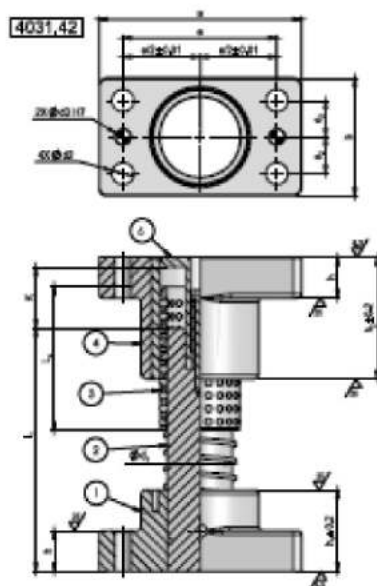
1. Perpendicularity of guide pillar with reference to retaining flanges < 0.02/10.0 length.
2. The preload on ball cage is as per FIBRO standards.
3. Individual parts may not be interchangeable i.e. with other standard guide posts.

**Ordering code (examples):** Ball guide post with retainer - 4031.41.

d1 - 32mm-032

l1 - 120mm-120

Order no. - 4031.41.032.120

**Ball Guide Post Set with Floating Retainer**

## 4031.42.

d1	20	25	32	38	50
d2	6.6	9	11	11	14
d3h7	6	8	8	10	10
a	74	84	100	130	155
b	44	48	58	75	90
c	66	66	76	100	125
a1	28	33	38	50	32.5
a2	16	16	18	22	30
h	16	20	20	25	25
h1	30	30	40	50	66
h2	50	50	60	70	90
D	26	31	40	46	58
K	24	24	29	34	46
L	66	66	71	80	95
Scrow sl 20	6×30	8×35	10×40	10×45	12×50
Dowel sl 20	6×20	8×30	8×30	10×40	10×40
11					
80					
90					
100	●	●			
110	●	●			
120	●	●	●		
130	●	●	●		
140	●	●	●	●	
150	●	●	●	●	
160	●	●	●	●	
170		●	●	●	
180		●	●	●	●
200		●	●	●	●
220			●	●	●
240			●	●	●
260			●	●	●
300				●	●
360					●

**Execution:****Ball Guide Post Set with Fixed Retainer consisting of:**

Guide flange, guide pillar, retainer flange, hexagon, socket head cap screw, DN 972ASO, dowel pins with internal extracting thread~ISO 8735, ball cage retainer springs.

**Material:****Guide holder:**

Special castiron with hardened steel brush.

**Guide Pillar:**

Steel surface hardness.

Surface hardness: 60 + 3 HRC.

Hardness penetration depth: 2 + 1.6mm.

**Retaining bush:**

Special cast iron with non liquid lubricant.

**Retainer:**

Steel.

**Ball cage:**

Cage: Brass.

Balls: Steel hardened (DIN 5401)

**Note:**

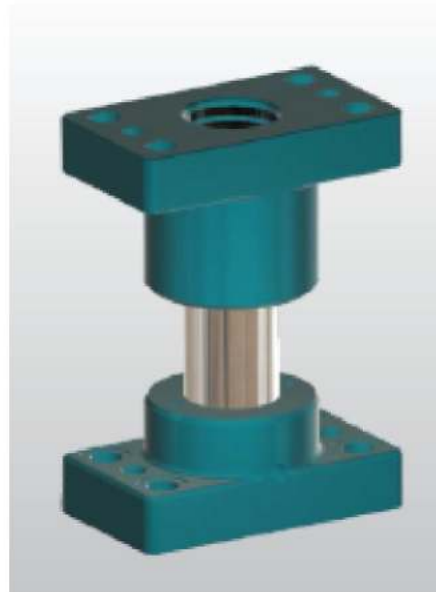
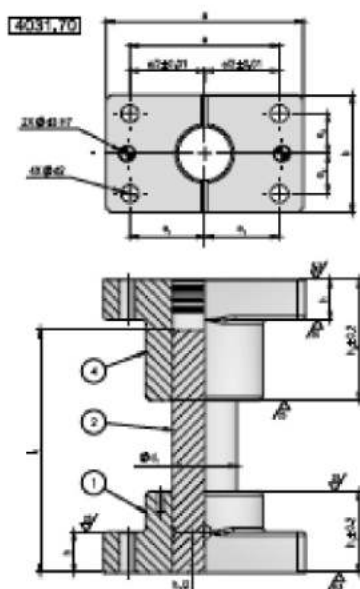
1. Perpendicularity of guide pillar with reference to retaining flanges < 0.02/10.0 length.
2. The preload on ball cage is as per FIBRO standards.
3. Individual parts may not be interchangeable i.e. with other standard guide posts.

**Ordering code (examples):** Ball guide post with retainer- 4031.42.

d1 - 38mm-038.

l1 - 300mm-300

Order no. - 4031.42.038.300

**Ball Guide Post Set with FLoating Retainer**



**4031.70.**

d1	20	25	32	38	50	60	80
d2	6.6	9	11	11	9	18	22
d3h7	6	8	8	10	8	13	16
a	74	84	100	130	84	190	230
b	44	48	58	75	48	120	150
c	56	66	76	100	66	150	190
a1	28	33	38	50	33	75	90
a2	16	16	18	22	16	40	66
h	15	20	20	25	20	30	36
h1	30	30	40	50	30	75	100
h2	40	45	50	60	50	100	130
Scrow sl 20	M6×30	M8×36	M10×40	M10×45	MG×30	M16×60	M20×75
Dowel sl 20	6×20	8×30	8×30	10×40	10×40	10×40	10×40
80	●	●					
90	●	●	●				
100	●	●	●				
110	●	●	●				
120	●	●	●				
130	●	●	●				
140	●	●	●	●			
150		●	●	●			
160		●	●	●	●		
170		●	●	●	●		
180			●	●	●	●	
200			●	●	●	●	
220				●	●	●	
250				●	●	●	●
280				●	●	●	●
300					●	●	●
350					●	●	●
400						●	●
450							●

**Execution:****Oilless Guide Post Set consisting of:**

Oilless flange, guide pillar, retainer flange, hexagon, socket head cap screw, DN 972ASO, dowel pins with internal extracting thread~ISO 8735.

**Material:****Guide bush:**

Special cast iron with non liquid lubricant.

**Guide Pillar:**

Steel surface hardness.  
Surface hardness: 60 + 3 HRC.  
Hardness penetration depth: 2 + 1.6mm.

**Retaining bush:**

Special cast iron with non liquid lubricant.

**Ball cage:**

Cage: Brass.  
Balls: Steel hardened (DIN 5401)

**Note:**

1. Perpendicularity of guide pillar with reference to retaining flanges < 0.02/10.0 length.

**Ordering code (examples):**

Ball guide post with retainer- 4031.70.  
d1 - 38mm-050.  
l1 - 300mm-200  
Order no. - 4031.70.050.200

## GUIDE PIN & GUIDE BUSH



# COIL SPRING

## RECTANGULAR WIRE COIL SPRINGS ISO 10243


The Coil Springs are used in mould applications for pushing the ejector plates to moulded parts and are also used in sheet metal die applications for retraction of tool plate after stamping, punching/piercing, drawing and blank process. These are imported springs from FIBRO which are manufactured in ISO standard with high grade spring steel raw in rectangular shaped wire.





### Spring Selection

Spring selection is facilitated by the tables in our catalogue which indicates the load and stroke values in two different working deflection hypothesis. The following table summarizes the deflection calculated for each series.

STANDARD	SERIES	LOAD	XLL Long Life Total Deflection	CYCLES	MAXIMUM WORKING TOTAL DEFLECTION	CYCLES	
	1L	Extra Light	35%	+3.000.000	50%	200.000	Total Deflection: Preload + Working Stroke
ISO 10243	1S	Light	30%	+3.000.000	40%	200.000	
ISO 10243	2S	Medium	25%	+3.000.000	37.5%	200.000	Cycles: Lifetime statistic data under the recommendations specified
ISO 10243	3S	Heavy	20%	+3.000.000	30%	200.000	
ISO 10243	4S	Extra Heavy	17%	+5.000.000	25%	300.000	
	5S	Super Heavy	10%	+5.000.000	15%	500.000	

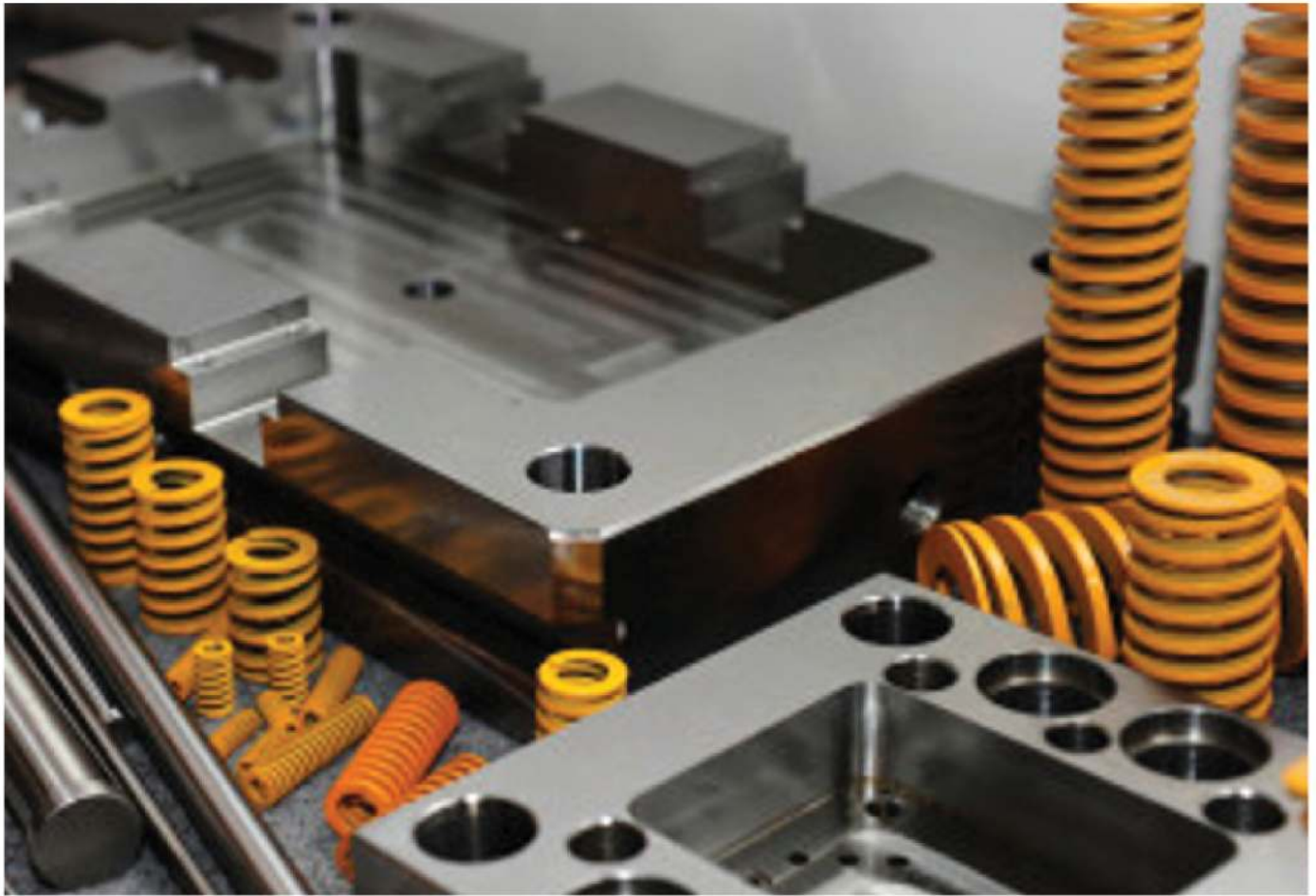

















## RECTANGULAR WIRE COIL SPRINGS ( JIS STANDARD )



TYPE			COLOR	OUTER DIAMETER		FREE LENGTH		AVAILABLE MAX.BEND	LOAD IN KGS		
				MIN.	MAX.	MIN.	MAX.		MIN.	MAX.	
COIL SPRING	 SF	 SL	SF	YELLOW	ϕ6 (ϕ3)	ϕ70	10	500	40% (1) 50% (0.3)	58.8 (6)	2255.5 (230)
			SL	BLUE	ϕ6 (ϕ3)	ϕ70	10	500	32% (1) 40% (0.3)	78.5 (8)	2824.3 (288)
	 SM	 SH	SM	RED	ϕ6 (ϕ3)	ϕ70	10	350	25% (1) 35% (0.3)	78.5 (8)	3814.4 (389)
			SH	GREEN	ϕ6 (ϕ3)	ϕ70	10	350	19.2% (1) 24% (0.3)	98.1 (10)	4766.0 (486)
	 SB	 SG	SB	BROWN	ϕ6 (ϕ3)	ϕ70	10	350	16% (1) 20% (0.3)	107.9 (11)	5638.8 (525)
			SG	BLACK	ϕ10 (ϕ5)	ϕ50	15	300	16% (1) 20% (0.3)	137.3 (14)	7060.8 (720)
	 SU	 SR	SU	SKY	ϕ10.5	ϕ43	15	300	50% (1) 60% (0.3)	166.7 (17)	8472.9 (864)
			SR	WHITE	ϕ10.5	ϕ46	15	300	50% (1) 55% (0.3)	205.9 (21)	10591.2 (1080)
	 SY		SY	PURPLE	ϕ10.5	ϕ46	15	300	50% (1) 60% (0.3)	255.0 (26)	11297.3 (152)

## GAS SPRINGS

Nitrogen gas spring are used in replacement of normal coil spring where there is requirement of less stroke in heavy forces or where there is requirement of high stroke in space constraint die applications. This pressure equipment is filled with high pressure nitrogen at pressure of 150 bar.



Made: FIBRO ( manufactured in SWEDEN )

STANDARD MODEL			
NOMINAL FORCE ( DAN )	OUTSIDE DIAMETER ( MM )	STROKE ( MM )	BUILT LENGTH ( MM )
250	38	10-125	70-300
500	45.2	10-160	105-405
750	50.2	13-300	120.4-695
1500	75.2	13-300	135-710
3000	95.2	13-300	145-720
5000	120.2	25-300	190-470
7500	150.2	25-300	205-755
10000	195	25-300	210-760

HEAVY DUTY - POWER LINE			
NOMINAL FORCE ( DAN )	OUTSIDE DIAMETER ( MM )	STROKE ( MM )	BUILT LENGTH ( MM )
170	19	7-125	44-285
320	24.9	7-125	44-285
350	32	10-125	50-280
500	38	10-125	50-280
750	45.2	10-125	50-282

1000	50.2	13-125	64-288
1500	63.2	13-125	70-294
2400	75.2	16-125	77-295
4200	95.2	16-125	90-308
6600	120.2	16-125	100-318
9500	150.2	19-125	116-328
20000	195	19-125	148-360

Note: For more details refer detailed catalog.

Safety features as per catalog shared by FIBRO.

## **FIBRO ADVANTAGE + SAFETY FOR GAS SPRING**





## FIBRO ADVANTAGE

**EXTENSION OF GAS SPRING TECHNOLOGY**

FIBRO gas springs are an ideal supplement to the expansion of the traditional FIBRO product lines of helical, disc and elastomer springs more manufacturing tools, devices, moulds and machines. FIBRO gas springs are designed and developed to fulfil the wishes of customers, i.e., higher forces from smaller space, longer stroke lengths. FIBRO gas springs take care of both demands, even in combination.

**Benefits of the gas spring, compared to a typical mechanical spring...****Smaller but Stronger**

## FIBRO ADVANTAGE EXTENSION PRODUCT RANGE

FIBRO PROVIDES WIDE RANGE OF GAS SPRINGS TO SUIT VARIOUS APPLICATIONS & FORCE REQUIREMENTS

### FEATURES

- Delivers force from min 5kg - max 20 tons.
- Available for high-temperature environments.
- Stroke lengths available from 10mm - 300mm.
- Approved design and manufacturing from european pressure equipment directive (2014/68/EU).

#### ISO Standard gas springs

Original standard gas springs, setting ISO standard for springs.



#### Power line gas

The world's shortest and most powerful piston rod sealed gas springs offering impressive force in a very compact format.



#### Gas springs standard- Heavy duty

Crossover between the standard ISO series and the power line series available with forces upto 200,000 N and 300mm stroke lengths.



#### Compact gas springs

Super compact gas springs provide extreme forces with minimal cylinder diameters and high stroke rates.



#### Gas spring-Compact extreme

Provides extreme forces and allow for higher pressure and high stroke rates.



#### Gas springs (Spring Plunger) with hexagon socket VDI 3004

Ejector pin with rounded top for panel lifting with fully adjustable force.



#### Dampened LCF gas spring

Innovative low contact force gas springs reducing shock load and noise levels.



#### Speed control gas spring

Reduce or eliminate blank holder bounce associated with increased return stroke speed.



#### Controllable gas springs

Springs with lockable piston rod and delayed return, eliminating the need for a hydraulic cushion or double action press.



#### Parts lifter

Maintenance free lifter providing guiding, damping gas spring force and long lifetime.



#### Die separation springs

Energy saving, very slow return spring function, reduces wear of dies and presses.



## FIBRO ADVANTAGE

**WIDEST CHOICE OF MOUNTS****STANDARD MOUNTS**

All FIBRO gas springs are available with multiple mounting options to suit various applications. They are all included in most of the automotive standards.

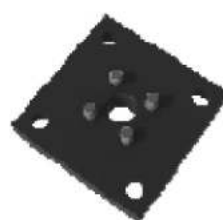
20 18.40.xxxxx



2480.055.xxxxx



2480.051.xxxxx



2480.022.xxxxx



2480.007.xxxxx



2480.008.xxxxx



2480.011.xxxxx



2480.044.xxxxx

**Special and OEM Standard Mounts**

2480.047.xxxxx



2480.00020.xxxxx



2480.057.xxxxx





FIBRO ADVANTAGE

## ACCESSORIES TO REDEFINE EFFICIENCY

### Shock absorbing pressure plate

Mounted between tools and the piston rod of the gas spring, Shock absorbing pressure plates are designed to reduce:

- Extreme impact loads.
- Consequent high costs for press maintenance.
- High level noise.
- Risk of production of lower quality parts.



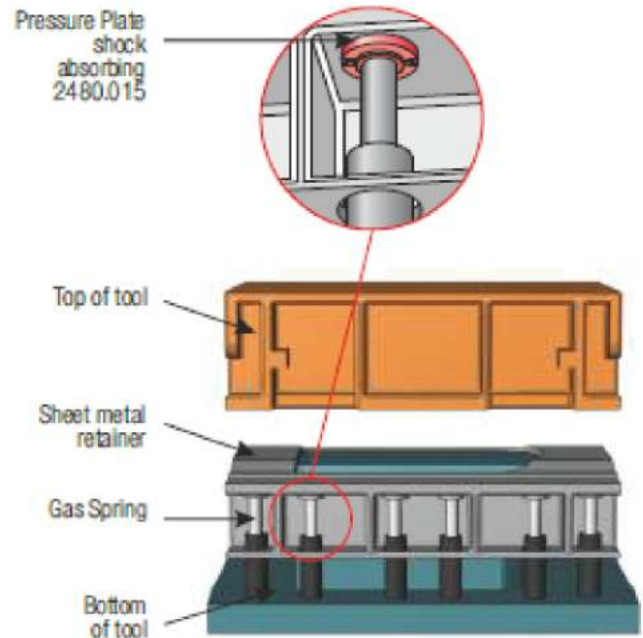
### Mainfold system and composite plates:

Composite plate consists of multiple nitrogen cylinders and a control panel, which are connected to one another via boreholes in the lower plate. It provides all the benefits of the self-contained gas spring in the linked system.

- Extreme impact loads.
- Consequent high costs for press maintenance.
- High level noise.
- Risk of production of lower quality parts.
- High level noise.
- Risk of production of lower quality parts.



### Installation example



### Compact gas booster:

Developed to compress nitrogen gas. It increases the output pressure of the nitrogen cylinders considerably.

- Compact design & light weight.
- Increase in utilization capacity.
- Reduction in cylinder replacement time.
- Minimization of number of cylinder.
- Simple installation directly in all standard nitrogen cylinders.



FIBRO ADVANTAGE

**SPECIAL SOLUTION****Speed control gas springs:**

Designed to reduce or eliminate blank holder bounce.

- Minimize damages to the pressing tool and die parts.
- Reduces noise level.
- Increases productivity by increasing part transfer efficiency.
- Increases strokes per minute in most implementation.
- Is linkable by using a hose-system.
- Is available in stroke lengths 80mm - 300mm.

**Controllable gas springs:**

Gas springs with a lockable piston rod and delayed return stroke.

- Does not follow press arm .
- Ideas for application like two step deep draw' where immediate return of gas can deform the part..
- High level noise.
- Available with stroke lengths from 5mm - 6mm.
- Available in 15kN, 30kN, 50kN and 75kN versions.
- Interconnection is possible.



### LCF gas springs:

Designed to reduce excessive shock loads, high noise level and extreme pad bounce.

- Improved part transfer efficiency, increased production rate and reduced scrap.
- Low maintenance cost, quieter and healthier working environment..
- Stroke length are available from 13mm - 300mm.
- Available in 750kg, 1500kg, 3000kg, 5000kg, and 7500kg force.
- Can reduce shock load by 50%.
- 100% interchangeable with the standard ISO gas spring.



### Die separation gas springs:

Specially developed for tool spacing.

- Very slow return stroke speed compared to standard gas springs
- Avoid unnecessary wear of the die, press and gas springs.
- Stroke length are available from 50mm - 300mm.
- Uses up to 80% less energy compared to conventional gas spring.



### Gas spring for mould making:

Smart alternative.

- Requires less maintenance.
- Along service life of at least 1,000,000 strokes.
- Constant operating temperature of 120°C.
- Initial force available from 40kg - 1000kg.
- Can be interconnected.





FIBRO ADVANTAGE

## SAFETY FEATURES

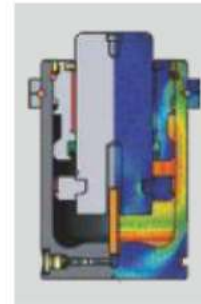
At FIBRO, safety and reliability are paramount. FIBRO gas spring-The safer choice, provides protection against failure, damage, error, accidents, harm or other events. Below are some examples of what we do to help provide a safer working environment.

### 1. PED approval for 2 million stroke.



#### The benefits for you:

- PED approved for 2 million\* full stroke.
- Guaranteed safety and reliability for the entire service life of the spring .

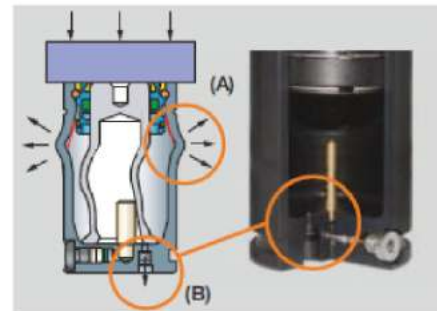


### 2. Over stroke protection.



#### FIBRO gas springs are different:

The patented protection system against overstroke ensures either deformation of the spring cylinder wall in a predefined manner (A) or ripturing of the bolt by piston rod at the bottom of the cylinder (B) thereby allowing the gas to escape into the atmosphere.

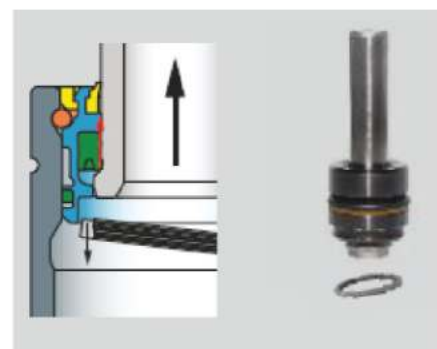


### 3. Return stroke protection.



#### FIBRO gas springs are different:

If the speed is too high during the return stroke, the collar on the piston rod will automatically break. The integrated patented safety stop the piston rod then destroys the seal allowing the gas to escape into the atmosphere and the gas spring to become depressurised.



### 4. Over pressure protection.



#### FIBRO gas springs are different:

If the pressure rises above the maximum permitted value, the safety collar on the sealing set is automatically destroyed allowing the gas to escape into the atmosphere thus de-pressurising the gas spring.



# RELIABILITY FEATURES

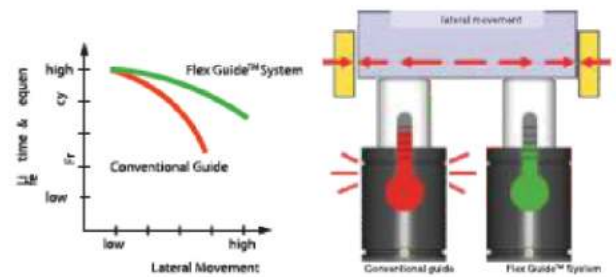
## 1. Flex guide solution



The Flex Guide System is a flexible guide in the gas spring which absorbs the lateral movements of the piston rod. It minimizes the friction and lowers the temperature.

The benefits for customers:

- Extended service life.
- Increased stroke frequency i.e. more strokes per minute.



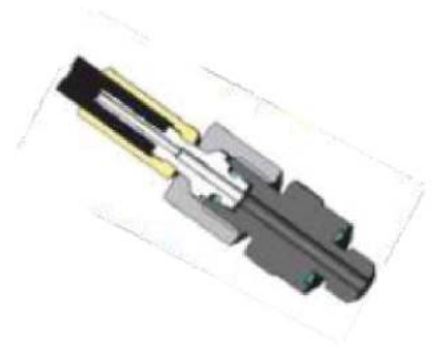
## 2. Safe Hose Connection, The Dual Seal System



The FIBRO Dual Seal System combines a metal seal with a soft elastomer seal.

The benefits for customers:

- Leak-tight connection, even under vibration.
- High process reliability.
- Minimalized tool down time.
- Simple installation, thanks to anti-rotation function.



## 3. Safe Hose Connection, The Dual Seal System



The benefits for customers:

- Wirelessly monitors the pressure and temperature of FIBRO gas springs.
- Preventive quality assurance.
- High process reliability.
- Minimalized tool down time.
- Reduced maintenance and costs.



## 4. Protected Piston Rods



The benefits for customers:

- Significantly longer service life for gas springs under harsh operating conditions.

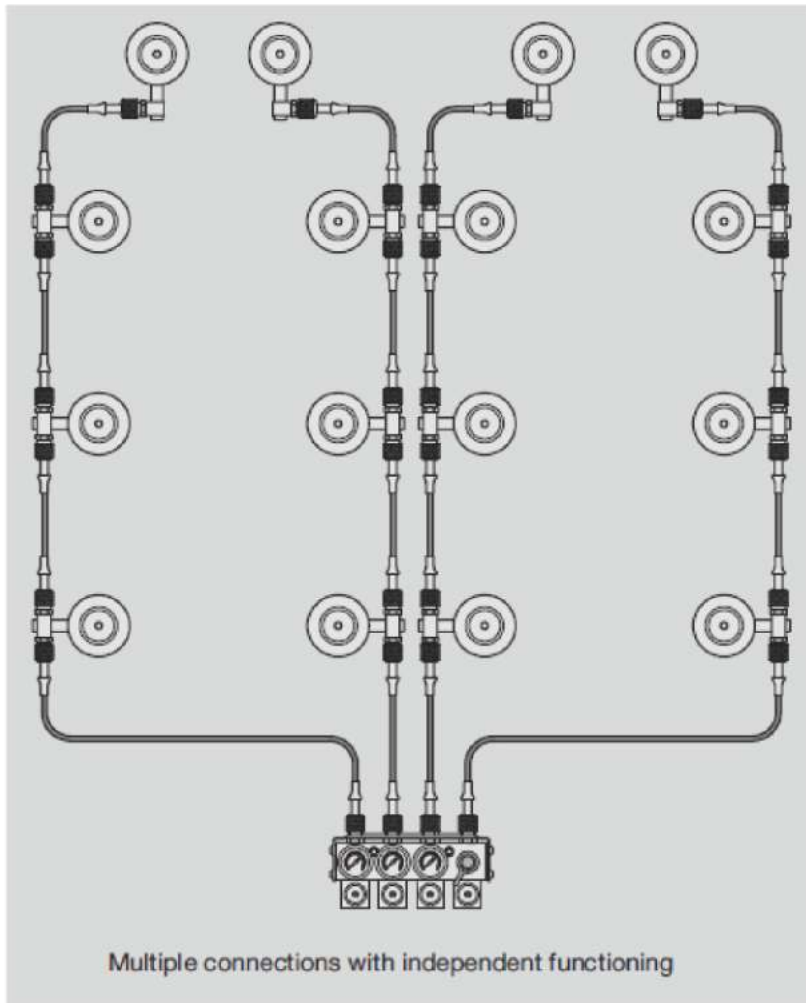
Additional features:

Heavy Duty Protection, HDP Series:

1. Double the lifetime of the gas spring.
2. Fits all standard gas springs and all mounting options without any modifications.



FIBRO ADVANTAGE

**SERVICE AT YOUR DOOR STEP NOW**

With extensive use of gas spring in tools and dies, inter-connection of gas springs is becoming mandatory these days such as in draw applications. Until now, due to incorrect hose lengths in inter-connection, toolmakers were facing unnecessary delay in tool commissioning and bearing extra cost. Understanding this situation, we are now providing this value addition service of gas spring inter-connection to our customers at their work.

The FIBRO battery-operated handheld hose-crimping machine enables simple and fast in-die hose crimping. This quick crimping of hoses benefits the customer to have accurate lengths of hoses done by our skilled team.

**The benefits for customers:**

- **Simplicity:** Simple and fast in-die hose crimping.
- **Efficient:** No additional work in and outside die required.
- **Accuracy:** Correct hose lengths are obtained with correct crimp force.
- **Cost effective:** Additional cost due to incorrect hose lengths are eliminated.





## RELIABILITY FEATURES

### Gas Spring Interconnection Options

Connecting gas springs in one system enables the user to monitor gas spring pressure from outside the tool, to adjust it if necessary, to fill it and to drain it.

The benefits for customers:

- Ease of maintenance.
- Reliability.
- Improvement in the quality of gas spring use in the tool.
- Single point for gas filling and release.
- Avoid uneven forming due to uniform pressure in all gas spring.
- Improved part quality.
- Cost effective.

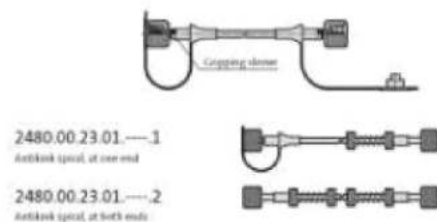
**FIBRO offers 3 different system for hose connections for gas springs:**

#### A. Minimes - System 2480.00.23./24.

**Recommended application:**

Most used system for all gas springs with G 1/8 gas connection.

- Small external hose diameter = 5mm.
- Small bending radius  $R_{min} = 20$ .
- High pressure resistance upto 630 bar.
- Temperature range from  $0^{\circ} - 100^{\circ} C$ .
- Vibration-proof measurement couplings.
- Connector with valve.
- No tools needed for connecting/disconnecting hose to adapter.
- Swaged non-detachable hose fitting.



#### B. 24 - Cone system 2480.00.25./26.

**Recommended application:**

- Suitable for connecting to a pressure reservoir.
- Wide range of connection adapters.
- Vibration-proof (O-Ring Seal).
- High pressure resistance.
- Maximum permissible pressure 315 bar.

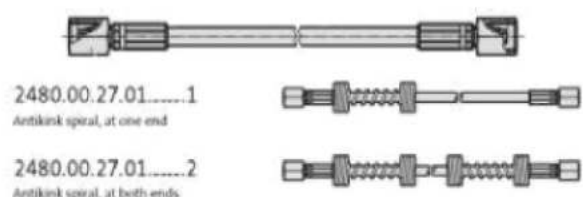


#### C. Connector - System 24° micro 2480.00.27./28.

**Recommended application:**

For all gas springs with M6 connection.  
G1/8 & G1/4 connection can be connected with the use of an appropriate adapter.

- Small external hose diameter = 5mm.
- Hose: Small bending radius  $R_{min} = 20mm$ .
- Pipe: Min. bending radius = 12mm.
- High pressure resistance.
- Small connection fitting.
- Vibration-safe due to O-Ring Seal.



FIBRO ADVANTAGE

**KNOW HOW****Gas Spring Configurator**

A unique online tool for gas springs selection with 3 basic inputs in configurator-total force, no. of springs required and nominal stroke.

**Benefits:**

- Convenient way if gas spring selection.
- Filters can be increased to find accurate gas spring for the application..
- Timesaver.
- Automatically calculates filling pressure, temperature & force required from individual gas spring in case of multiple gas springs.
- Download Technical data sheet and 3D data.

**FIBRO Gas Spring Training Program**

Training customer employees being one of our top priorities, we offer various in-house as well as customer's dooestep training programs for all gas springs which includes:

- Gas spring selection for the application.
- Safe use of gas spring.
- Gas spring filling and servicing.

Because gaining knowledge leads us to continuous growth:

For both our customers and ourselves.



Scan the QR code for  
GAS SPRING CONFIGURATION.

FIBRO ADVANTAGE

## QUICK AND EASY ECOMMERCE

### Chat live with FIBRO India

Now, don't wait for a perfect time to connect with us. We are now just one click away from you!

#### Benefits:

- Real time, online chat.
- Convenient way for you interact with our technical support.
- Over 60 years of technical expertise assisting you find the right solution.
- Instant connection to the team of professionals that take your calls and emails.
- Visit our website [www.fibro-india.com](http://www.fibro-india.com) to start conversation.



Scan the QR code for  
WEBSHOP STANDARD PARTS.

ADVANTAGE

## FIBRO INDIA

### FIBRO Logistics fastest delivery

FIBRO India manufacturing facilities owns committed logistics center in Pune and is equipped with systematic storage system and state of the art conveyance.

- Over 3000 gas springs in stock.
- Guaranteed dispatch in 48hrs.
- Flexible choices of logistics to ensure prompt delivery at multiple location globally.
- Bar code system ensures accuracy of items and speed at the time of dispatch.



### Chat live with FIBRO India

Do you know your FIBRO article number? Now get your order done in just few steps on our webshop. Visit our website [www.fibro-india.com](http://www.fibro-india.com) to access the webshop specially developed to serve our indian customer more efficiently.

#### Benefits:

- Quick order.
- One login and you have all processes at glance.
- Webshop open 24x7/365.
- Create your own quotation and place order.
- Greater flexibility.
- Track your orders online.

### FIBRO Logistics fastest delivery

Our service engineer can be quickly available to you upon your request. For instance, they can professionally integrate all types of gas spring network into your production facility. The service will be provided globally as smoothly as your operation.



THE ECONOMICS TIMES  
**BEST METAL FORMING  
BRANDS AWARD 2021**



FIBRO ADVANTAGE

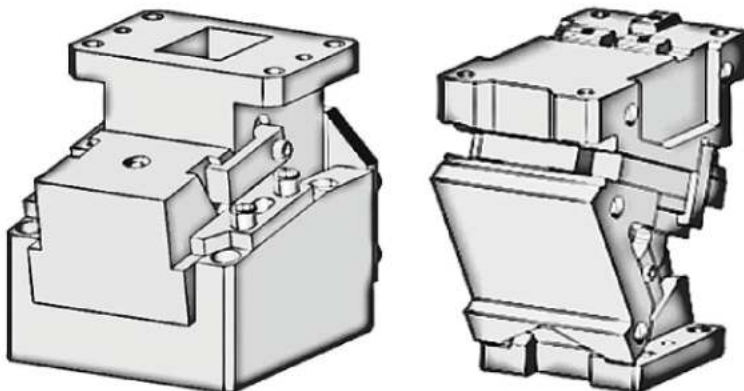
## NEW PRODUCTS

### C.I WEAR PLATE



### CAM UNIT

Reduces the number of tools and the associated costs.



## **PUNCHES**

Our precision punches results exceptionally long die life by reducing the need for tool touching.



## **EXTENDED RANGE OF LIFTING EQUIPMENTS**

Utmost safety to your tool transport.



## TOGGLE CLAMPS

Toggle clamps are widely used in the industry to manufacture fixtures of sheet material fabrication and other machinery fixtures.

### DOWNHOLD ACTION TOGGLE CLAMP

Vertical hold down action



Horizontal hold down action



### STRAIGHT LINE ACTION PULL-PUSH TOGGLE CLAMP





## LATCH-TYPE CLAMP



## AUTOMOTIVE CLAMP

Automotive fixture clamp

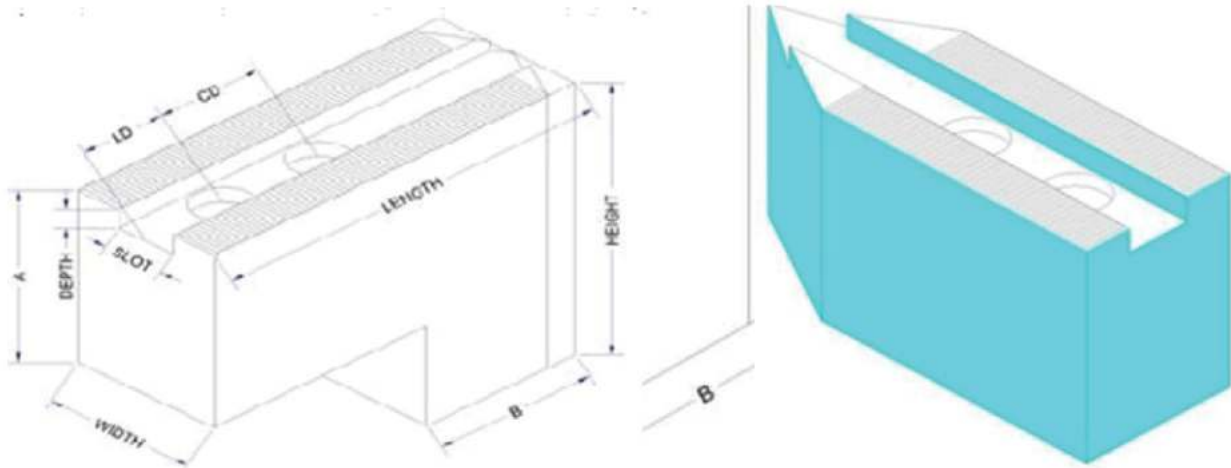


Weldable automotive toggle clamp



Note: For more details ask for detailed catalog\*\*

# SOFT JAWS & ITS ACCESSORIES



## STANDARD V-TYPE SOFT JAWS (MATERIAL EN-8)

CHUCK SIZE	SERRATION	SLOT	DRILL SIZE( CD )	DIMENSION
4"/5" Standard	60/90°	10mm	ø 8.5(14)	25×40×65mm
6" Standard	60/90°	12mm	ø 11.0(19.5)	32×46×85mm
8" Standard	60/90°	14/17mm	ø 13.0(25)/ø 13.0(19.5)	35×48×95mm
10" Standard	60/90°	16mm	ø 13(30)	40×50×110mm
10" Standard	60/90°	21mm	ø 17(25)	50×50×120mm
12" Standard	60/90°	18/21mm	ø 17(30)	50×50×120mm
15" Standard	60/90°	25mm	Custom	62×62×165mm

## STANDARD L-TYPE SOFT JAWS (MATERIAL EN-8)

CHUCK SIZE	SERRATION	SLOT	DRILL SIZE( CD )	DIMENSION
4"/5" L-Type	60/90°	10mm	ø 8.5(14)	25×75×55/65
75mm				
4"/5" L-Type 100mm	60/90°	10mm	ø 8.5(14)	25×100×55/65
4"/5" L-Type 125mm	60/90°	10mm	ø 8.5(14)	25×125×55/65
6" L-Type 75mm	60/90°	12mm	ø 11.0(19.5)	32×75×85mm
6" L-Type 100mm	60/90°	12mm	ø 11.0(19.5)	32×100×85mm
6" L-Type 125mm	60/90°	12mm	ø 11.0(19.5)	32×125×85mm
6" L-Type 150mm	60/90°	12mm	ø 11.0(19.5)	32×150×85mm

6" L-Type 150mm	60/90°	12mm	φ11.0(19.5)	32×150×85mm
8" L-Type 75mm	60/90°	14/17mm	φ13(25)/φ13(19.5)	35×75×95mm
8" L-Type 100mm	60/90°	14/17mm	φ13(25)/φ13.0(19.5)	35×100×95mm
8" L-Type 125mm	60/90°	14/17mm	φ13(25)/φ13.0(19.5)	35×125×95mm
8" L-Type 150mm	60/90°	14/17mm	φ13(25)/φ13.0(19.5)	35×150×95mm
8" L-Type UPTO 250mm	60/90°	14/17mm	φ13(25)/φ13.0(19.5)	35×250×95mm
10" L-Type 75mm	60/90°	16/21mm	φ13(30)/φ13(25)	40×75×110mm
10" L-Type 100mm	60/90°	16/21mm	φ13(30)/φ13(25)	40×100×110mm
10" L-Type 125mm	60/90°	16/21mm	φ13(30)/φ13(25)	40×125×110mm
10" L-Type 150mm	60/90°	16/21mm	φ13(30)/φ13(25)	40×150×110mm
10" L-Type UPTO 250mm	60/90°	16/21mm	φ13(30)/φ13(25)	40×250×110mm
12" L-Type 75mm	60/90°	18/21/25	φ13(30)/φ13(25)	50×75×120mm
12" L-Type 100mm	60/90°	18/21/25	φ13(30)/φ13(25)	50×100×120mm
12" L-Type 125mm	60/90°	18/21/25	φ13(30)/φ13(25)	50×125×120mm
12" L-Type 150mm	60/90°	18/21/25	φ13(30)/φ13(25)	50×150×120mm
12" L-Type 250mm	60/90°	18/21/25	φ13(30)/φ13(25)	50×250×120mm
15" L-Type 75mm	60/90°	25mm	φ13(30)/φ13(25)	62×75×165mm
15" L-Type 100mm	60/90°	25mm	φ13(30)/φ13(25)	62×100×165mm
15" L-Type 125mm	60/90°	25mm	φ13(30)/φ13(25)	62×125×165mm

## **SPECIAL V-TYPE SOFT JAWS (MATERIAL EN-8)**

CHUCK SIZE	SERRATION	SLOT	DRILL SIZE( CD )	DIMENSION
4"/5" Full Height 75/100/125/150mm	60/90°	10mm	φ8.5(14)	25XHX65mm
6" Full Height 75/100/125/150mm	60/90°	12mm	φ11.0(19.5)	32XHX85mm
8" Full Height 75/100/125/150mm	60/90°	14/17mm	φ13(25)/φ13(19.5)	35XHX95mm
10" Full Height 75/100/125/150mm	60/90°	16/21mm	φ13(30)/φ13(25)	40XHX110mm
12" Full Height 75/100/125/150mm	60/90°	21/25mm	CUSTOM	50XHX120mm





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