



TURN

PLUS

An ISO Certified Company

ATTITUDE | TECHNOLOGY | WORKMANSHIP | PRECISION | RANGE



- » Hydraulic Power Chucks
- » Self Centring Chucks
- » Master Gripping Chucks
- » Independent Chucks
- » Rotary Cylinders
- » Back Plates



SJ TYPE

STANDARD JAWS SELF CENTRING CHUCKS

Standard jaw chucks are supplied with one set forward, one set reverse, handle & mounting bolts. These chucks are used in production jobs.

MATERIAL COMPOSITIONS

BODY

Semi steel bodies are manufactured from high tensile grade 25 cast iron. Hardness 180-210 BHN.

JAWS

Jaws are made of low carbon case hardening steel and hardened in modern heat treatment plant. Hardness 55-60 HRC.

SCROLL

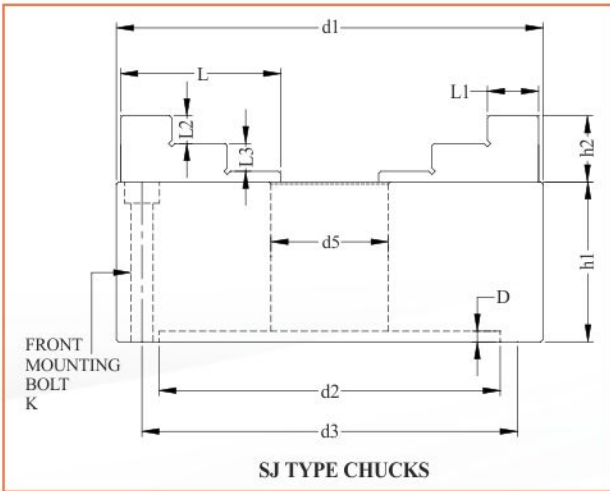
Scroll plates are manufactured from forged wear resistant alloy steel. Hardness 40-45 HRC.

PINION

Pinions are made of case hardening alloy steel. Hardness 40-45 HRC.

SPECIAL FEATURE OF TURNO PLUS

- » Knob & jaws ways of body hardened & ground.
- » Scroll bore & threads precisely ground from both sides.
- » Jaws teeth precisely ground from both sides.
- » Hardened & ground pinion.
- » Accuracy less than 0.05mm of 160-315 mm chucks.
- » Parts interchangeable.

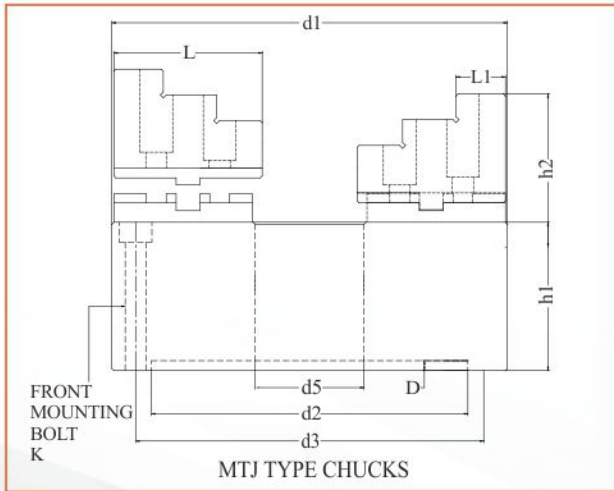


DIMENSIONAL DATA OF SELF CENTRING CHUCKS

Nominal Size d ₁	d2 H7	P.C.D		d5	h1	h2	D	L	K	L1	L2	L3	Thickness of Jaw	Size of Sq. of Handle	Approx. Wt. in Kgs.		
		d3	Tol. on d3												SJ3	SJ4	SJ6
80	56	67	±0.2	16	44	14	3	32	M6	11	6	6	10.5	6	1.3	-	-
100	70	83	±0.25	20	50	18	3	42	M8	14	8	8	14	8	2.4	2.4	-
110	80	94	±0.25	22	55	18	4	42	M8	14	8	8	14	9	3.1	3.5	-
125	95	108	±0.25	33	60	22	4	48	M8	16	9	9	16.5	9	4	4	4.5
160	125	140	±0.3	42	67	29	5	65	M10	20	12	12	18	10	8	8	9
200	160	176	±0.35	55	75	31	5	76	M10	24	12.5	12.5	22	11	13	14	14
250	200	224	±0.35	76	86	36	6	97	M12	30	13	14	28.5	12	24	24	24
270	220	245	±0.35	90	86	36	6	97	M12	30	13	14	28.5	12	26	27	27
315	260	286	±0.4	108	86	36	6	120	M12	38	14	14	28.5	14	36	37	38
375	320	349	±0.4	140	95	58	6	140	M12	38	25	25	34	16	56	62	64
400	330	362	±0.4	150	105	58	8	160	M16	40	25	25	34	16	70	72	78
500	433	465	±0.5	203	105	63	8	170	M16	48	25	25	40	16	102	105	110
610	538	567	±0.5	260	130	80	10	200	M16	55	35	35	50	19	180	182	188



MTJ 3



MTJ TYPE CHUCKS

MTJ TYPE
MASTER GRIPPING SELF CENTRING CHUCKS

In these chucks the jaws are made in two portions. The one is base hard jaw fitted in the body. One set of top hard reversible and one set of top soft jaw are supplied with each chuck. Top hard reversible & top soft jaws are mountable on the same base hard jaw with allen bolts provided with the chuck. The advantage of these chucks are that user can modified the soft jaws as per their requirement.

These chucks are supplied in 2,3,4 & 6 jaws.

MATERIAL COMPOSITIONS

BODY

Semi steel bodies are manufactured from high tensile grade 25 cast iron. Hardness 180-210 BHN.

JAWS

Jaws are made of low carbon case hardening steel and hardened in modern heat treatment plant. Hardness 55-60 HRC.

SCROLL

Scroll plates are manufactured from forged wear resistant alloy steel. Hardness 40-45 HRC.

PINION

Pinions are made of case hardening alloy steel. Hardness 40-45 HRC.

SPECIAL FEATURE OF TURN O PLUS

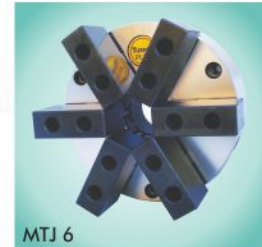
- » Knob & jaws ways of body hardened & ground.
- » Scroll bore & threads precisely ground from both sides.
- » Jaws teeth precisely ground from both sides.
- » Hardened & ground pinion.
- » Accuracy less than 0.05mm of 160-315 mm chucks.
- » Parts interchangeable.



MTJ 2



MTJ 4



MTJ 6

DIMENSIONAL DATA OF MTJ TYPE CHUCKS

Nominal Size d_1	d_2 H7	P.C.D		d_5	h_1	h_2	D	L	K	L1	Size of Sq. of Handle	Approx. Wt. in Kgs.			
		d_3	Tol. on d_3									MTJ2	MTJ3	MTJ4	MTJ6
125	95	108	± 0.25	33	60	42	4	55	M8	16	9	-	4.5	-	-
160	125	140	± 0.3	42	67	48	5	75	M10	21	10	8	8.5	8.25	8.4
200	160	176	± 0.35	55	75	62	5	80	M10	24	11	13.5	14.5	14.5	15.6
250	200	224	± 0.35	76	86	70	6	102	M12	30	12	24	25.5	25.5	26.5
270	220	245	± 0.35	90	86	70	6	102	M12	30	12	27	29	28.5	29
315	260	286	± 0.4	108	86	72	6	120	M12	30	14	38	38.5	40	40
375	320	349	± 0.4	140	95	102	6	140	M12	38	16	-	60	60	62
400	330	362	± 0.4	150	105	106	8	160	M16	44	16	-	77.5	81	86
500	433	465	± 0.5	203	105	110	8	180	M16	50	16	-	110	114	122
610	538	567	± 0.5	260	130	116	10	200	M16	55	19	-	189	195	212



AS 3

AS TYPE

ACCURACY ADJUSTABLE SELF CENTRING CHUCKS

AS type chucks are generally used for 2nd operations & in toolroom where's higher accuracy is required.

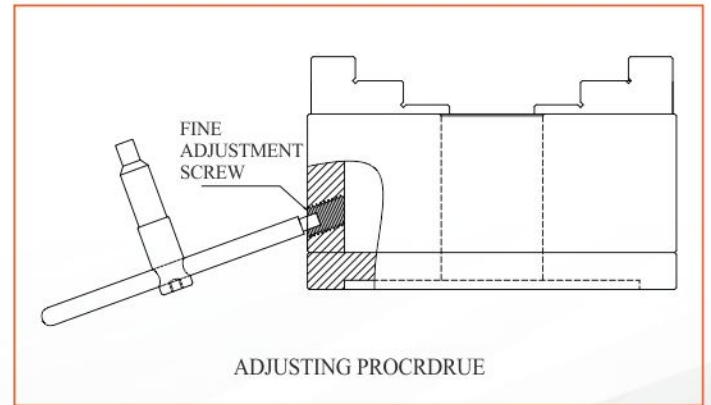
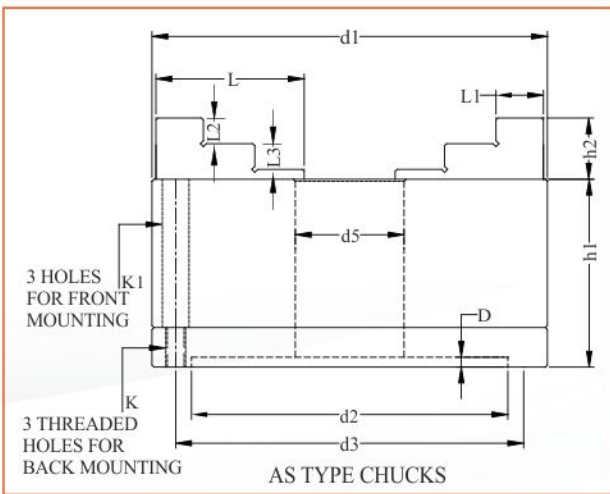
These chucks are adjustable up to 0.005 mm and repeating accuracy within 0.015 mm on the same dia.

LIMITATIONS:

AS type chucks are slightly unbalanced due to adjustment feature and may cause spindle vibration at high speed.

ADJUSTING PROCEDURE

Hold the workpiece in this chuck in normal manner. Slacken the adjusting screws with key provided with chuck. Place the dial indicator against workpiece and rotate the chuck till lowest reading is obtained. The adjusting screws nearest to low reading is then tightened until gauge needle moves half of the total concentricity reading. The same procedure is repeated till the desired level of concentricity is achieved. All adjusting screws then finally be checked for full tightness. No further adjustment is required for repetitive machining of similar jobs of the same dia which is possible within 0.015mm accuracy. Always use NOMINATED PINION for repetitive gripping accuracy.



DIMENSIONAL DATA OF AS TYPE CHUCKS

Nominal Size d_1	d2	d3	d5	h1	h2	D	L	K	K1	L1	L2	L3	Approx. Wt. in Kgs.	
													AS3	AS6
80	56	67	16	56	14	3	32	M6	M5	9	6	6	2	-
100	70	83	20	62	18	3	42	M8	M6	14	8	8	3	-
125	95	108	33	72	22	4	48	M8	M6	16	9	9	5	3.8
160	125	140	42	85	29	5	65	M8	M6	19	12	12	10	12
200	160	176	55	95	31	6	76	M10	M8	24	12.5	12.5	17	19
250	200	224	76	112	36	6	97	M12	M10	32	13	14	30	34
315	260	286	108	120	36	6	120	M12	M10	36	14	14	50	53



SINGLE SLOT INDEPENDENT CHUCKS

TECHNICAL FEATURES

BODY

Made from high strength cast iron and machined within tolerance for accurate fitting of jaws, screw and screw lock.
Hardness 180-210 BHN.

JAWS

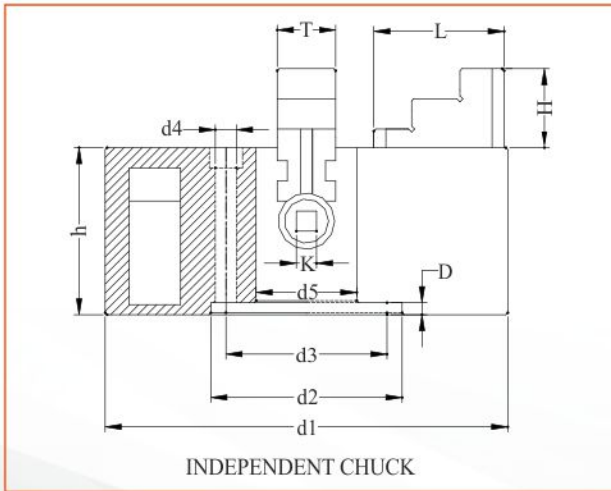
Jaws are made of low carbon case hardening steel and hardened in modern heat treatment plant. Jaw's slots are ground for accurate fitting and long life.
Hardness 55-60 HRC.

SCREW

Made from case hardening steel and hardened to provide long life.

SCREW LOCK

Made from case hardening steel and hardened to provide long life.



DIMENSIONAL DATA OF INDEPENDENT CHUCKS

Nominal Size d_1	d2	d3	d4	d5	D	T	h	k	L	H	Approximate Weight in Kgs
125	100	80	M8	33	5	19	56	7	49	25	5
160	125	140	M10	45	6	24	66	8	55	25	9
200	95	80	M10	50	6	29	83	10	76	34	15
250	125	105	M12	60	8	29	83	10	87	34	20
305	160	130	M12	75	10	34	93	12	98	43	33
350	160	130	M12	86	12	34	93	12	108	43	59
400	200	170	M16	100	14	40	103	14	125	57	65
450	200	170	M16	100	14	40	103	14	135	57	76



3 Jaw



2 Jaw



4 Jaw

Turno Plus Power Chuck 3 Jaws wedge type open centre.

Powerful gripping force and high turning speed. Manufactured from high grade allow steel hardened and ground for accuracy and repeatability. Available in 2, 3 and 4 Jaws.

MATERIAL COMPOSITIONS

BODY

The body of turno plus power chucks are manufactured from high tensile alloy steel, case hardened and precisely ground for accurate fitting & repetitive accuracy.

Hardness 50-55 HRC.

WEDGE

It is made of high tensile alloy steel, case hardened and precisely ground. It is designed to bear high force.

Hardness 55-60 HRC.

BASE JAWS & TOP HARD JAWS

These are made from high tensile steel case hardened and precisely ground all surfaces for close fitting and longer life.

Serrations of both jaws are grounded for accuracy.

Hardness 55-60 HRC.

DIMENSIONAL DATA OF OPEN CENTRE POWER CHUCKS

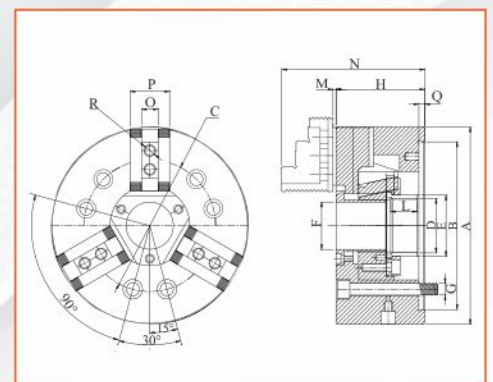
A	B H6	TAPER NOSE	C	D	E	F	G	H	L	M	N	O H7	P	Q	R	SERRATIONS	Max. R.P.M.	JAW STROKE
135	110	A2-4	82.6	M36x2	48	30	M10	61	23	2	92	10	27	4	M8	1/16x90°	6000	2.75
165	140	A2-5	104.8	M42x1.5	48	35	M10	82	26	5	122	12	35	5	M10	1/16x90°	6000	2.75
170	140	A2-5	104.8	M55x2	60	45	M10	81	20	2	119	12	32	5	M10	1.5x60°	6000	2.75
200	170	A2-6	133.4	M55x2	62	48	M12	91	28	3	145	17	40	5	M12	1/16x90°	5000	3.75
210	170	A2-6	133.4	M60x2	66	52	M12	91	20	3	145	14	37	5	M12	1.5x60°	5000	3.75
250	220	A2-8	171.4	M72x2	79	68	M16	94	28	4	157	21	45	6	M16	1/16x90°	4200	4.50
254	220	A2-8	171.4	M85x2	94	75	M16	100	20	2	153	16	42	6	M12	1.5x60°	4200	4.50
305	220	A2-8	171.4	M100x2	108	90	M16	110	35	4	174	21	52	6	M16	1.5x60°	3200	4.50
315	220/300	A2-8/A2-11	171.4/235	M92x2	102	80	M16	91	28	4	157	21	50	6	M16	1/16x90°	3200	4.50
400	380	A2-15	330.2	M133x2	142	120	M24	126	42	7	208	25.4	60	6	M20	3/32x90°	2500	5.30

EXTRA LARGE BORE

A	B H6	TAPER NOSE	C	D	E	F	G	H	L	M	N	O H7	P	Q	R	SERRATIONS	MAX. R.P.M.	JAW STROKE
170	140	A2-5	104.8	M60x2	65	52	M10	81	20	2	119	12	32	5	M10	1.5x60°	6000	2.75
210	170	A2-6	133.4	M75x2	80	66	M12	91	20	3	145	14	37	5	M12	1.5x60°	5000	3.75
254	220	A2-8	171.4	M98x2	103	90	M16	100	20	2	153	16	42	6	M12	1.5x60°	4200	4.5
325	300	A2-11	235	M115x2	123	117	M20	112	34	3	169	21	52	6	M16	1.5x60°	3200	4.5

LONG STROKE

A	B H6	TAPER NOSE	C	D	E	F	G	H	L	M	N	O H7	P	Q	R	SERRATIONS	MAX. R.P.M.	JAW STROKE
170	140	A2-5	104.8	M55x2	60	45	M10	92	20	2	130	12	32	5	M10	1.5x60°	6000	6.5
210	170	A2-6	133.4	M60x2	66	52	M12	102	20	3	156	14	37	5	M12	1.5x60°	5000	7.5
254	220	A2-8	171.4	M85x2	94	75	M16	112	20	2	165	16	42	6	M12	1.5x60°	4200	7.5
315	220/300	A2-8/A2-11	171.4/235	M92x2	102	80	M16	103	28	4	169	21	50	6	M16	1/16x90°	3200	8





3 Jaw

Turno Plus Power Chuck 3 Jaws wedge type close centre.

Powerful gripping force and high turning speed. Manufactured from high grade alloy steel hardened and ground for accuracy and repeatability. Available in 2, 3 and 4 Jaws.

MATERIAL COMPOSITIONS

BODY

The body of turno plus power chucks are manufactured from high tensile alloy steel, case hardened and precisely ground for accurate fitting & repetitive accuracy.

Hardness 50-55 HRC.

WEDGE

It is made of high tensile alloy steel, case hardened and precisely ground. It is designed to bear high force.

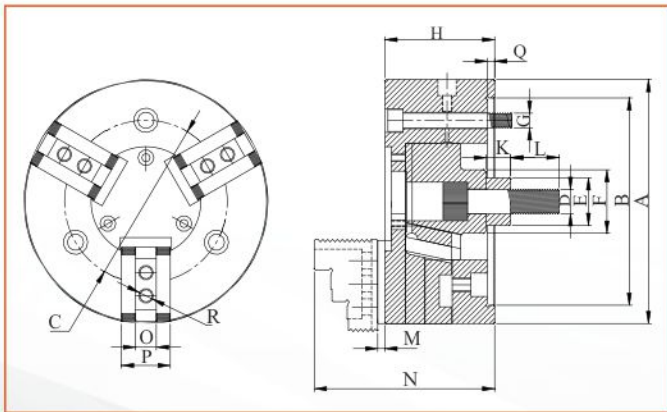
Hardness 55-60 HRC.

BASE JAWS & TOP HARD JAWS

These are made from high tensile steel case hardened and precisely ground all surfaces for close fitting and longer life.

Serrations of both jaws are grounded for accuracy.

Hardness 55-60 HRC.



2 Jaw



4 Jaw

DIMENSIONAL DATA OF CLOSE CENTRE POWER CHUCKS

A	B H6	TAPER NOSE	C	D	E	F	G	H	K	L	M	N	O H7	P	Q	R	SERRATIONS	Max. R.P.M.	JAW STROKE
125	115	A2-4	82.6	M12	24	35	M10	59	20	25	9	98	10	25	4	M8	1/16x90°	3000	3.50
160	140	A2-5	104.8	M16	32	42	M10	75	20	25	5	115	12	35	5	M10	1/16x90°	4000	4.50
200	170	A2-6	133.4	M20	39	52	M12	91	20	35	6	149	17	40	6	M12	1/16x90°	3800	4.50
250	220	A2-8	171.4	M20	39	52	M16	97	20	45	3	160	21	45	6	M16	1/16x90°	2500	5.50
315	220	A2-8	171.4	M20	39	60	M16	105	20	45	4	169	21	45	6	M16	1/16x90°	2000	5.50



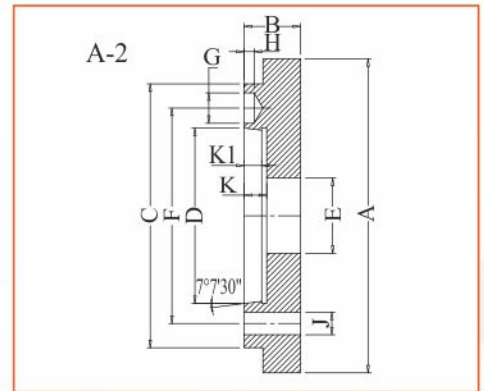
RANGE:

These plates are available in D1 & A2 Series in all sizes.
These plates are suitable for kirloskar, H.M.T., P.S.G. and CNC Lathe Machines.



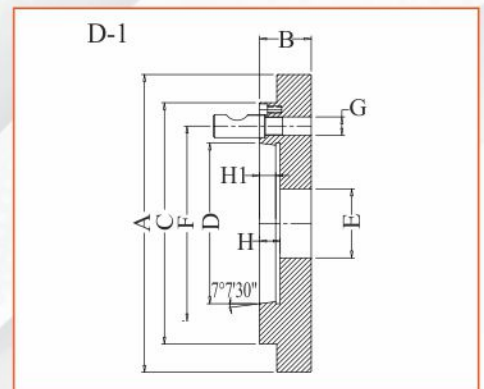
DIMENSIONAL DATA OF A-2 TYPE BACK PLATE

SIZE	A2-4	A2-5	A2-6	A2-8	A2-11
A	160, 200, 250	160, 200, 250	200, 250, 315	250, 315, 400	315, 400, 600
B	33	35	40	45	45
C	108	133	165	210	280
D	63.52	82.56	106.37	139.71	196.86
E (Max)	61	79	103	136	193
F	82.6	104.8	133.4	171.4	235
G	14.7	16.3	19.45	24.2	29.4
H	6.5	6.5	6.5	8	10
J	12	12	14	18	20
K	13	15	16	18	20
K1	10	12	13	14	16



DIMENSIONAL DATA OF D-1 TYPE BACK PLATE

SIZE	D1-4	D1-5	D1-6	D1-8	D1-11
A	160, 200, 250	160, 200, 250	200, 250, 315	2050, 315, 400	315, 400, 600
B	33	35	40	45	50
C	112	135	170	220	290
D	63.52	82.56	106.37	139.71	196.86
E (Max)	61	79	103	136	193
F	82.6	104.8	133.4	177.4	235
G	M10 x 1	M12 x 1	M16 x 1.5	M20 x 1.5	M22 x 1.5
H	13	15	16	18	20
H1	10	12	13	14	16





TURNO PLUS

Close centre rotary hydraulic cylinder suitable for CNC and auto lathes.

MATERIAL COMPOSITIONS

BODY

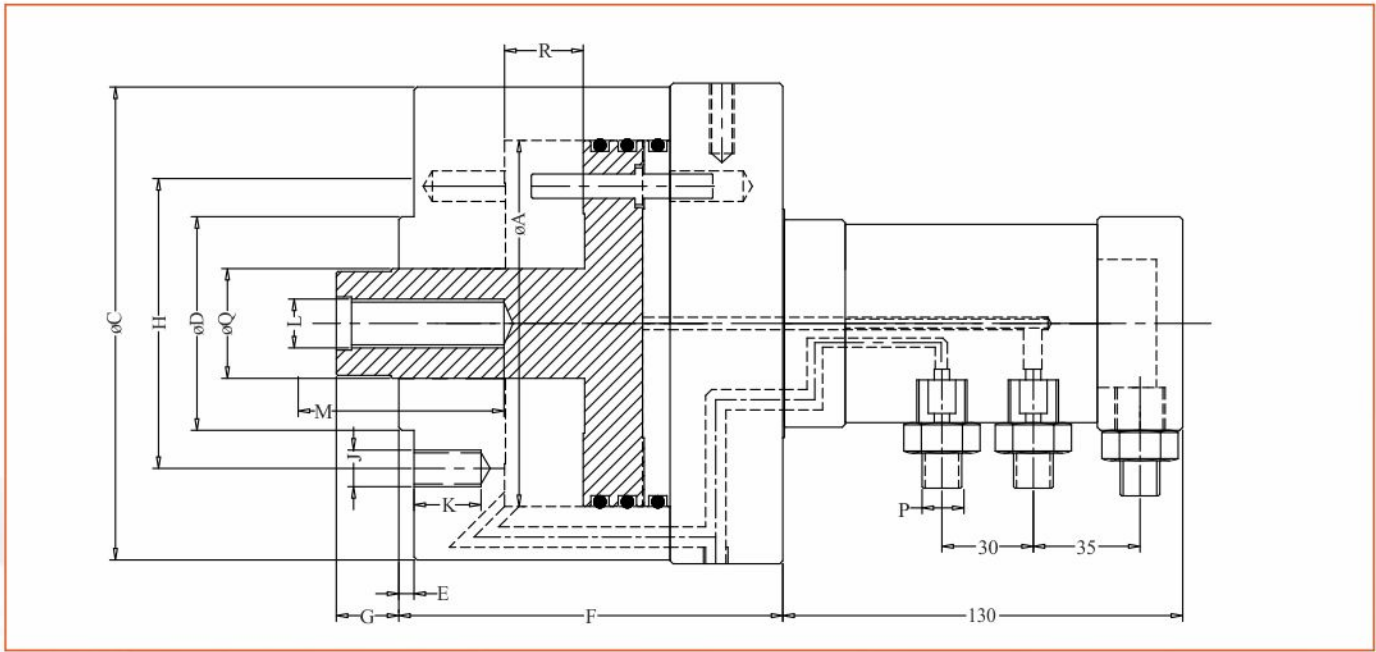
Made from alloy aluminium and precisely machined for accurate fitting and long life.

PISTON

Made from EN-8 steel and precisely machined for accurate fitting and long life.

ROTARY MANIFOLD

Made from alloy aluminium and EN-8 steel fitted with accurate and high speed bearings.



DIMENSIONAL DATA OF HYDRAULIC CLOSE CENTRE ROTARY CYLINDERS

MODEL	øA	øC	øD H6	E	F	G MIN	G MAX.	H PCD	J	K	L	M	P	Q	R	Wt. App. Kgsm	Draw Bar Pull in Kgs at 25Kg/cm ²	RPM
CBC 90	90	125	70	5	120	21	46	95	4xM10	20	M14	50	3/8" BSP	30	25	6.5	1400	3000
CBC 120	120	155	70	5	120	21	46	95	4xM12	20	M16	50	3/8" BSP	36	25	10	2600	3000
CBC 160	160	200	95	5	125	21	51	145	4xM16	25	M24	50	3/8" BSP	36	30	15	4800	3000
CBC 200	200	240	125	5	130	21	51	170	6xM16	25	M24	65	3/8" BSP	36	30	20	7600	2500



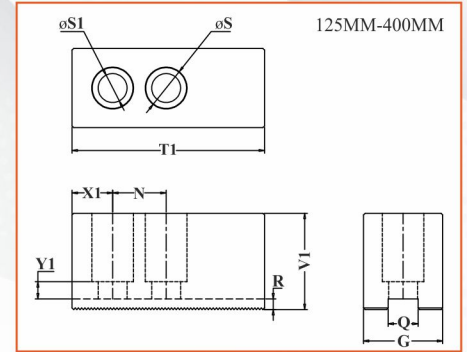
HARD / SOFT JAWS POWER CHUCKS

PLUS

SOFT JAWS

SIZE	125/135MM	165MM	170MM	200MM	210MM	250MM	254MM	305MM	315MM	400MM
G	25	32	32	40	37	45	40	45	45	60
N	15	19	19	19	25	25	30	30	25	34
Q H7	10	12	12	17	14	21	16	21	21	25.5
R	4.5	5	5	5	5	6	6	6	6	6
S	13.5	17.5	17.5	19.5	19.5	25.5	19.5	25.5	25.5	34
S1	9.5	11.5	11.5	13.5	13.5	17.5	13.5	17.5	17.5	22
T1	60	75	75	85	90	110	115	120	120	155
V1	30	40	40	45	45	60	60	60	60	60
X1	16	15	15	19	19	25	30	35	35	41
Y1	6	8	8	8	8	8	8	8	8	12
SERRATIONS	1/16x90°	1/16x90°	1.5x60°	1/16x90°	1.5x60°	1/16x90°	1.5x60°	1.5x60°	1/16x90°	3/32x90°

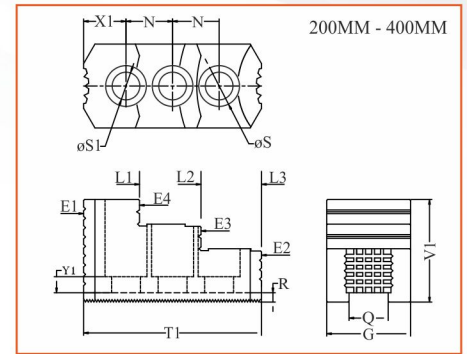
NOTE: SERRATIONS ARE OPTIONAL



TOP HARD JAWS

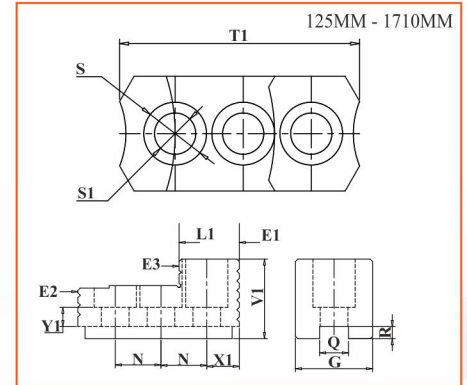
SIZE	125/135MM	165MM	170MM	200MM	210MM	250MM	254MM	305MM	315MM	400MM
G	25	32	32	40	35	45	40	45	45	60
N	15	19	19	19	25	25	30	30	25	34
Q H7	10	12	12	17	14	21	16	21	21	25.5
R	4.5	5	5	5	5	6	6	6	6	6
S	13.5	17.5	17.5	19.5	19.5	25.5	19.5	25.5	25.5	34
S1	9.5	11.5	11.5	13.5	13.5	17.5	13.5	17.5	17.5	22
T1	60	68	68	76	85	95	100	103	103	142
V1	30	35	35	52	52	60	55	60	60	75
X1	11.5	16	16	20	20	24	20	32	32	45
Y1	6	8	8	8	8	8	8	8	8	9
SERRATIONS	1/16x90°	1/16x90°	1.5x60°	1/16x90°	1.5x60°	1/16x90°	1.5x60°	1.5x60°	1/16x90°	3/32x90°

NOTE: SERRATIONS ARE OPTIONAL



CLAMPING RANGE POWER CHUCK

SIZE	125/135MM	165MM	170MM	200MM	210MM	250MM	254MM	305MM	315MM	400MM
E1	15-60	22-72	22-72	25-99	25-100	28-104	35-110	42-170	42-170	45-265
E2	15-30	22-40	22-40	25-102	25-100	41-124	45-130	56-195	56-195	80-240
E3	80-125	80-129	80-129	74-152	85-160	123-206	130-210	135-275	135-275	129-354
E4	-	-	-	124-200	130-210	205-250	210-255	220-315	220-315	298-400
L1	60-115	62-136	62-136	70-150	85-160	76-160	80-165	84-218	84-218	105-265
L2	-	-	-	116-190	130-200	156-242	160-250	148-303	148-303	217-377
L3	-	-	-	166-200	175-210	236-250	240-255	228-315	228-315	331-400

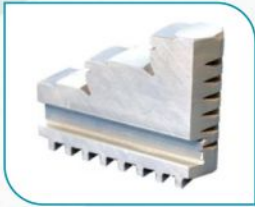


CLAMPING RANGE OF MANUAL CHUCK

SIZE	D1	D2	D3	D4	D5	D6	D7	D8
80 mm		2	27	22	69	2	25	70
100 mm		3	34	28	87	3	32	90
110 mm		3	38	30	90	3	35	100
125 mm		3	46	35	112	3	35	120
160 mm		4	62	43	154	4	48	160
200 mm		5	84	50	194	5	56	200
250 mm		5	108	66	240	5	70	250
270 mm		5	110	70	260	5	75	270
315 mm		10	145	70	300	10	90	315
375 mm		20	198	80	360	20	125	375
400 mm		25	240	85	380	25	130	400
500 mm		35	280	110	480	35	135	500
610 mm		50	390	130	590	50	200	610

SPARES FOR MANUAL CHUCKS

FORWARD JAW



REVERSE JAW



PINION & PIN



SCROLL



BASE HARD JAW



TOP HARD JAW



TOP SOFT JAW



HANDLE



REVERSIBLE JAW OF IC



SCREW



SCREW LOCK



SPARES FOR POWER CHUCKS

BASE HARD JAW OF O/C



BASE HARD JAW OF C/C



TOP HARD JAW



TOP SOFT JAW



WEDGE OF O/C



WEDGE OF C/C



DRAWBAR NUT



WEDGE PLATE



FRONT COVER OF O/C



FRONT COVER OF C/C



T-NUT



SPANNER





TURNO

PLUS

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