# Self Centering Chucks Independent Four Jaws Lathe Chucks

IP







#### Salient Features:

**Body:** KIC Self Centering Chucks are supplied in semi steel bodies. Semi-steel alloyed body is casted with the addition of alloys like chromium, nickel, copper manganese etc.

*Jaws:* Jaws are of case hardening steel and are properly case hardened and tempered for ensuring reliability and durability. Faces of internal and external jaws are ground on both sides and are tested for ensuring quality and accuracy.

*Scrolls:* Scrolls are manufactured from carbon and steel and are properly heat treated for ensuring quality durability.

**Pinion Gears:** Pinion Gears are manufactured from the solid tough alloy steel and have a square recess to be operated with the chuck operating key.

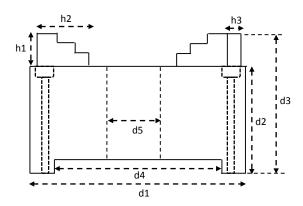
*Guarantee:* KIC Self Centering Chucks bear guarantee of one year against any manufacturing defect.

**Standard Equipment:** Every KIC Self Centering Chuck is provided with one set of reversible jaws, one operating key, inspection Chart and a set of Mounting Bolts.





Parts	Hardness
Body	190-200 Bhn
Jaws	55-60 hrc
Scroll Plate	35-40 hrc
Pinion	40-45 hrc



Size	d1	d2	d3	d4	d5	h1	h2	h3	PCD	Weight
112 mm	112	52	72	82.5	26	20	45	14	95	3 kg.
125 mm	125	58	79	95	32	21	49	16	107	3.5 kg.
160 mm	160	70	95	125	41.5	25	64	22	140	9.5 kg.
200 mm	200	76	105	160	54	29	75	22	176	15 kg.
250 mm	250	89	129	200	76	40	100	28.5	223	26 kg.
315 mm	315	92	138	260	104	46	120	28.5	285	43 kg.
355 mm	355	92	138	300	127	46	120	28.5	325	60 kg.
400 mm	400	102	152	330	150	50	145	35	363	70 kg.
455 mm	455	105	163	380	178	57	152	35	413	85 kg.
500 mm	500	105	163	433	203	57	175	35	465	125 kg.
600 mm	600	125	187	530	254	62	175	44	558	200 kg.
800 mm	800	150	227	710	380	80	230	44	760	350 kg.
1000 mm	1000	152	267	910	460	115	250	50	950	600 kg.

These are approximate dimensions and could be changes for further development.









#### Salient Features:

The two piece design of jaws of this chuck offers wide range of application .Different sets of top jaws, suitable for different jobs mountable on some base jaws are solution to numerous odd problems. Standard provision of top hard reversible set and soft set of jaws make this chuck versatile for precision machining and mass production.

**Body:** KIC Self Centering Chucks are supplied in semi steel bodies. Semi-steel alloyed body is casted with the addition of alloys like chromium, nickel, copper manganese etc.

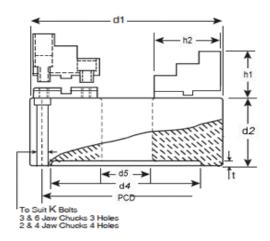
*Jaws:* Jaws are of case hardening steel and are properly case hardened and tempered for ensuring reliability and durability. Faces of internal and external jaws are ground on both sides and are tested for ensuring quality and accuracy.

*Scrolls:* Scrolls are manufactured from carbon and steel and are properly heat treated for ensuring quality durability.

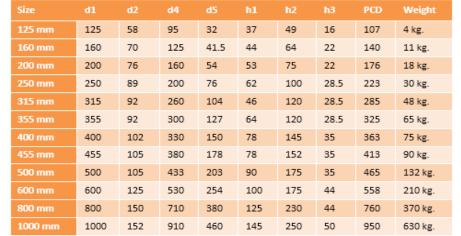
**Pinion Gears:** Pinion Gears are manufactured from the solid tough alloy steel and have a square recess to be operated with the chuck operating key.



2



Parts	Hardness
Body	190-200 Bhn
Jaws	55-60 hrc
Scroll Plate	35-40 hrc
Pinion	40-45 hrc



These are approximate dimensions and could be changes for further development.



Hardened & Ground Scroll, Pinion & Jaws



2-JAWS



3- JAWS





4-JAWS

6-JAWS



#### Salient Features:

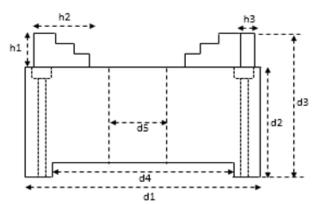
We are one of the leading manufacturers and suppliers of **Big Bore Self Centering Chuck**. These chucks are specially manufactured for holding big pipe. These are tested by our quality controllers to ensure their high quality and compliance with various quality parameters. Our **Big Bore Self Centering Chucks** are widely acknowledged by our clients for their high tensile strength, durability & longevity. These are fabricated using high grade factor inputs and advanced technology as per the international quality standards. Moreover, we offer this premium quality product range at market leading price.

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*Jaws:* Jaws are of case hardening steel and are properly case hardened and tempered for ensuring reliability and durability. Faces of internal and external jaws are ground on both sides and are tested for ensuring quality and accuracy.

*Scrolls:* Scrolls are manufactured from carbon and steel and are properly heat treated for ensuring quality durability.

**Pinion Gears:** Pinion Gears are manufactured from the solid tough alloy steel and have a square recess to be operated with the chuck operating key.



Size	d1	d2	d3	d4	d5	h1	h2	k1	k2	В	Wt. Approx.
250 mm	250	89	129	200	104	40	100	355	12	M12	26 kg.
315 mm	315	92	138	260	127	46	120	355	12	M12	43 kg.
355 mm	355	92	138	300	150	46	120	380	12	M12	60 kg.
400 mm	400	102	152	330	178	50	145	430	14	M16	70 kg.
455 mm	455	105	163	380	203	57	152	470	14	M12	85 kg.
500 mm	500	105	163	433	254	57	178	520	14	M16	125 kg.
600 mm	600	125	187	538	304	62	203	620	16	M16	200 kg.
1000 mm	1000	152	267	910	500	115	250	750	22	M26	600 kg.







#### Salient Features:

**KIC** Brand Independent Lathe Chucks are manufactured specially for heavy duty and rigid gripping. Bodies of graded casting are made from selected material, hardness is kept to the standard ratio.

*Jaws:* Jaws are of case hardening steel and are properly case hardened and tempered for ensuring reliability and durability. Every step of jaws are ground for ensuring proper gripping, quality and accuracy.

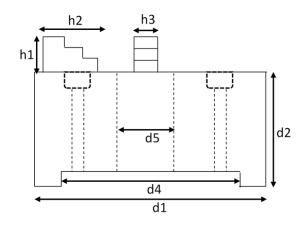
**Screws:** Chuck screws are manufactured from the solid tough alloy steel and have a square recess to be operated with the chuck operating key.

**Test:** Every chuck after completion is put on test, the gripping of jaws is tested by Dial Indicator.

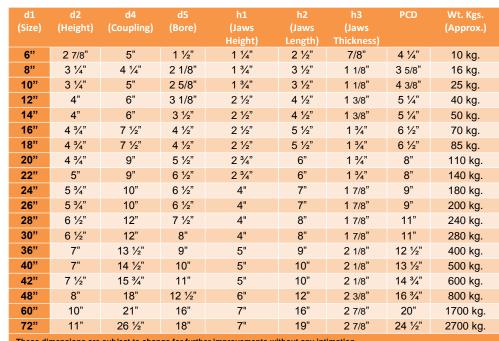
*Grinding:* Round back and front surface of body are grinded for accurate running. Every step of jaws is grinded to precision, accurate and for exact holding.

**Standard Equipment:** Every chuck is supplied with one operating key and a set of mounting bolts.

*Guarantee:* KIC Independent Lathe Chucks bear guarantee of one year against any manufacturing defect.



Parts	Hardness
Jaws	55-60 hrc
Screw	35-40 hrc
Locks	25-30 hrc



These dimensions are subject to change for further improvements without any intimate



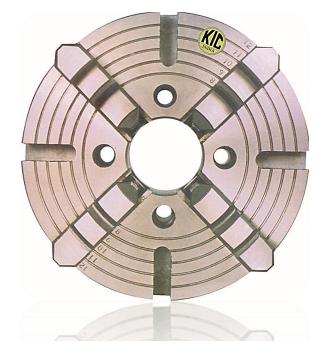
Standard 4-jaws Independent Chuck



Heavy Duty 4-jaws Independent Chuck



Big Bore 4-jaws Independent Chuck







We bring forth the best-in-class Power Chuck. Made from the finest quality raw material and steel at our vendors end, these products are highly durable and give high performance. Skilled work force along with superior quality machinery is used for the manufacture of the products. To ensure perfect finish, these products are carefully tested for the satisfaction of our valued clients.

#### BODY

The body of KIC Power Chucks are manufactured from high tensile alloy steel, case hardened and precision ground for accurate fitting & repetitive accuracy. Hardness 50-55 Hrc.

#### WEDGE

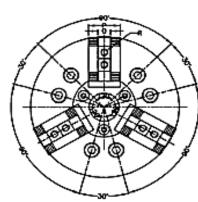
It is made of high tensile alloy steel, case hardened and precision ground. It is designed to bear high forces. Hardness 50-60 Hrc.

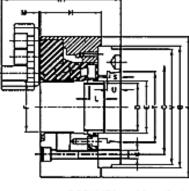
#### BASE JAWS & TOP HARD JAWS

These are made from high tensile alloy steel case hardened and precision ground all surface for close fitting and longer life. Serrations of both jaws are ground. Hardness 55-60 Hrc.

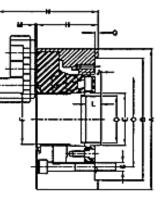


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OCDK (Direct Mounting)



OCK (Plain Back)

A	в	Taper Nose	с	D	Е	F	G	н	J Min.	Max.	L	м	N	N1	O H7	Р	۵	R	s	т	U	Serrations
135 mm	110	A2-4	82.6	M36 x 2.0	48	33	3xM10	61	-2.30	8.20	20	1.5	92	105	10	27	4	M8 x 1.25	10	65.513	12	1.5 x 60º
170 mm	140	A2-5	104.8	M55 x 2.0	60	45	6xM10	81	-11.30	2.60	20	2	117	130	12	32	5	M10 x 1.25	12	82.563	15	1.5 x 60°
210 mm	170	A2-6	133.4	M60 x 2.0	66	52	6xM12	9	-11.70	2.25	20	2	144	163	14	37	5	M12 x 1.75	13	106.375	16	1.5mm x 60°
254 mm	220	A2-8	171.4	M85 x 2.0	94	75	6xM16	100	-10.00	9.00	20	2	156	175	16	42	5	M12 x 1.75	14	139.719	18	1.5mm x 60°
305 mm	220	A2-8	171.4	M90 x 2.0	108	90	6xM16	110	-10.00	9.00	20	4	161	185	18	50	6	M14 x 2.0	14	139.719	18	1.5mm x 60°
380 mm	300	A2-11	235.0	M130 x 2.0	139	117.5	6xM20	131	-10.50	14.50	34	5	222.5	250	24	62	6	M20 x 2.5	16	196.869	20	1.5mm x 60°
450 mm	380	A2-11	235.0	M130 x 2.0	139	117.5	6xM20	131	-10.50	14.50	34	5	222.5	250	24	62	6	M20 x 2.5	16	196.869	20	1.5nm X 60º

#### EXTRA LARGE BORE

170 mm	140	A2-5	104.8	M60 x 2.0	65	52	6xM10	81	-11.50	1.00	20	2	117	130.0	12	32	5	M10 x 1.25	12	82.563	15	1.5 x 60°
210 mm	170	A2-6	133.4	M75 x 2.0	80	62	6xM12	91	-17.20	3.00	20	2	144	163.0	14	37	5	M12 x 1.75	13	106.375	16	1.5mm x 60°
254 mm	220	A2-8	171.4	M90 x 2.0	123	81	6xM16	100	-10.50	11.00	20	2	156	175.0	16	42	5	M12 x 1.75	14	139.719	18	1.5mm x 60°
325 mm	300	A2-11	235	M115 x 2.0	123	110	6xM20	112	-5.50	14.50	34	3	169	193.0	21	52	6	M14 x 2.0	16	196.869	20	1.5mm x 60°

NOTE : 1/16" x 90° serrations are optional



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#### BODY

The body of KIC Power Chucks are manufactured from high tensile alloy steel, case hardened and precision ground for accurate fitting & repetitive accuracy. Hardness 50-55 Hrc.

#### WEDGE

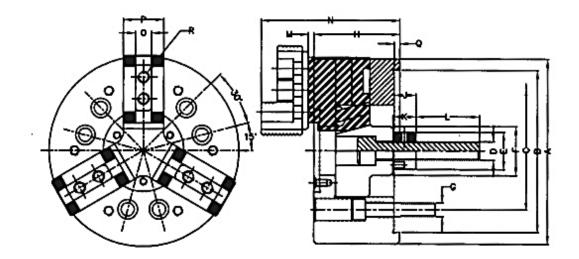
It is made of high tensile alloy steel, case hardened and precision ground. It is designed to bear high forces. Hardness 50-60 Hrc.

#### **BASE JAWS & TOP HARD JAWS**

These are made from high tensile alloy steel case hardened and precision ground all surface for close fitting and longer life. Serrations of both jaws are ground. Hardness 55-60 Hrc.



6



A	B H6	С	D	Е	F	G	J Min.	Max.	н	к	L	м	Ν	0 H7	Ρ	Q	R	SERRATIONS
125 mm	115.0	82.6	M12	24	35	M 10	22.0	39.0	59	20	55	9	100	10	25	4	M8 x 1.25	1/16" x 90º
160 mm	140.0	104.8	M16	32	42	M10	19.0	40.0	75	20	55	5	114	12	35	5	M10 x 1.5	1/16" x 90º
200 mm	170.0	133.4	M20	36	52	M12	19.0	41.0	90	20	55	6	148	17	40	6	M12 x 1.75	1/16" x 90º
250 mm	220	133.4/171.4	M20	36	52	M12/M16	19.0	40.0	97	20	55	3	155	21	45	6	M16 x 2.0	1/16" x 90º
315 mm	220/300	171.4/235	M20	36	60	M16/ M18	16.0	42.0	105	20	50	4	171	21	45	6	M16 x 2.0	1/16" x 90º

NOTE : 1.5mm x 60º serrations are optional.



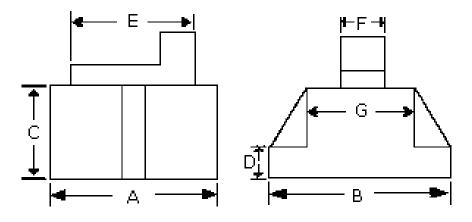
These type of jaws are mostly suitable for heavy duty gripping of jobs on vertical lathes, boring mills and faceplates. Special type of faceplate jaws can also be manufacture for non-standard applications or faceplates.

**KIC** Brand Face Plate Jaws are manufactured specially for heavy duty and rigid gripping.

*Jaws:* Jaws are of case hardening steel and are properly case hardened and tempered for ensuring reliability and durability. Every step of jaws are ground for ensuring proper gripping, quality and accuracy.

**Screws:** Jaws screws are manufactured from the solid tough alloy steel and have a square recess to be operated with the jaw operating key.





Dimensio	Dimensional Information (in millimeters)											
S. No.	Α	В	С	D	Е	F						
FPJ 1	370	254	145	45	305	60						
FPJ 2	270	254	145	40	225	54						
FPJ 3	254	190	127	40	190	47						
FPJ 4	210	190	114	30	152	44						



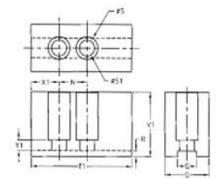


#### SOFT JAWS & TOP HARD JAWS

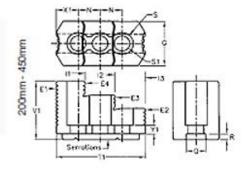
Soft jaws for all kinds & makes of chucks both in 1.5 x  $60^{\circ}$  & 1/16 x  $90^{\circ}$  are available

SIZE	G	Ν	Q-H7	R	S	S1	T1	V1	X1	Y1	Serrations
125/135 mm	25	15	10	4.5	13.5	9.5	60	30	16	6	1/16" x 90º
165 mm	31	19	12	5	17.5	11.5	75	38	15	8	1/16" x 90º
170 mm	31	20	12	5	17.5	11.5	75	38	15	8	1.5" x 60º
200 mm	38	19	17	5	19.5	13.5	85	45	19	8	1/16" x 90º
210 mm	38	25	14	5	19.5	13.5	85	38	19	8	1.5" x 60º
250 mm	45	25	21	6	25.4	17.5	110	60	25	8	1/16" x 90°
254 mm	45	30	16	6	25.4	17.5	110	50	25	8	1.5" x 60º
305 mm	45	30	16	6	25.4	17.5	120	60	35	8	1.5" x 60º
315 mm	45	25	21	6	25.4	17.5	120	60	35	8	1/16" x 90º
380/450 mm	62	43	22	8	32.0	22.0	165	66	37	16	1/16" x 90º







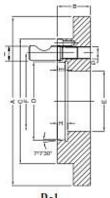


### TOP HARD JAWS

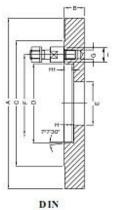
SIZE	G	Ν	Q-H7	R	S	S1	T1	V1	X1	Y1	Serrations
125/135 mm	25.5	15	10	4.5	13.5	9.5	61	30	11.5	6	1/16" x 90º
165 mm	31	19	12	5	17.5	11.5	68.5	35	13.5	8	1/16" x 90º
170 mm	31	20	12	5	17.5	11.5	70	35	13.5	4	1.5" x 60º
200 mm	40	19	17	5	19.5	13.5	77	52	19	8	1/16" x 90º
210 mm	40	25	14	5	19.5	13.5	85	51	16.5	8	1.5" x 60º
250 mm	45	25	21	6	25.4	17.5	95	55	24	8	1/16" x 90º
254 mm	40	30	16	5	19.5	13.5	100	54	20	8	1.5" x 60º
305 mm	45	30	16	5	25.4	17.5	103	59	21.5	10	1.5" x 60º
315 mm	45	25	21	6	25.4	17.5	103	58	32	8	1/16" x 90º
380/450 mm	62	43	22	8	32.0	22.0	149	86	32	13	1/16" x 90º

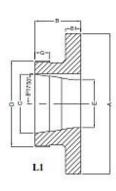


A-1, A-2



D	-	1	













SIZE	4	5	6	8	11	15
A	160, 200, 250	160, 200, 250	200, 250, 315	250, 315, 400	315, 400, 600	315, 400, 500, 630
В	33.0	35.00	35.0	45.0	45.0	50.0
С	117	146	165	210	280	380
D	63.513	82.563	106.375	139.719	196.869	285.775
E (Max)	61.0	79.0	103.0	136.0	193.0	282.0
F (A2)	82.6	104.8	133.4	171.4	235.0	330.2
F1 (A1)		61.90	82.6	111.10	165.10	247.6
G	14.7	16.3	19.45	24.20	29.4	35.7
Н	6.5	6.5	6.5	8.0	10.0	10.0
J	12.0	12.0	14.0	18.0	20.0	24.0
К	1.1	15.0	16.0	18.0	20.0	21.0
K1	10.0	12.0	13.0	14.0	16.0	17.0

#### D1 TYPE

SIZE	4	5	6	8	11	15
А	160, 200, 250	160, 200, 250	200, 250, 315	250, 315, 400	315, 400, 600	400, 500, 630
В	33.0	35.00	40.0	45.0	50.0	55
С	117	146	181	222	298	403
D	63.513	82.563	106.39	139.735	196.885	285.775
E (Max)	61.0	79.0	103.0	136.0	193.0	282.0
F	82.6	104.8	133.4	171.4	235.0	330.2
G	M-10x1	M-12x1	M-16x1.5	M-20x1.5	M-22x1.50	M-24x1.5
Н	13	15	16	18	20	21
H1	10	12	13	14	16	17
1	15.9	19	22.2	25.4	30.2	34.9

#### DIN TYPE

				-		
SIZE	4	5	6	8	11	15
Α	160, 200, 250	160, 200, 250	200, 250, 315	250, 315, 400	315, 400, 600	400, 500, 630
В	33.0	35.00	40.0	45.0	50.0	55
С	117	146	165	222	290	380
D	63.525	82.575	106.39	139.735	196.885	285.80
E (Max)	61.0	79.0	103.0	136.0	193.0	282.0
F	85	104.8	133.4	171.4	235.0	330.2
G	M-10x1	M-10x1	M-12x1	M-16x1	M-20x1	M-24
Н	13	16	17	19	21	22.0
H1	10	12	13	14	16	18.0
	19.5	19.5	21.5	27	34	-

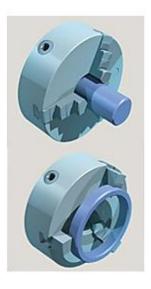
#### L1 TYPE

SIZE	A	В	B1	- C	D	E	G
LO	160, 200, 250, 315	63.5	28	82.55	4.1/4x6	66	15
L1	200, 250, 315, 400	76.2	28	104.78	6x6	84.5	16



#### Clamping Range of Manual Self Centering Chuck

SIZE									
d1	d5min.	d6max.	d7min.	d8max.	d9max.	d10min.	d11min.	d12max.	d13max.
80	2	27	22	69	91	2	25	71	91
100	3	34	28	87	115	3	31	93	115
125	3	46	35	112	148	3	33	120	148
160	3	62	43	154	200	3	48	160	200
200	4	84	50	194	250	4	56	200	250
250	5	108	66	240	310	5	70	250	310
315	10	145	70	299	385	10	90	315	385
400	20	198	85	380	480	20	125	400	480
500	35	280	110	480	600	35	132	500	600
630	50	390	130	610	750	50	190	630	750



#### Test Specification of Manual Self Centering Chuck



NOMINAL SIZE

CHUCK

UPTO &

INCLUDING

200

400

630

800

1000

OVER

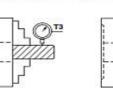
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200

400

630

800



TEST -A

PERMISSIBLE

DEVIATION

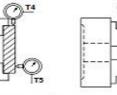
0.050

0.100

0.125

0.150

0.200



TEST-B

PERMISSIBLE

DEVIATION

0.050

0.050

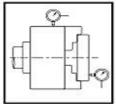
0.125

0.150

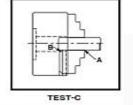
0.200

Chuck Dia in MM	T1,T2	T3	T4	T5	T6	17
80-125	0.025	0.075	0.04	0.025	0.04	0.025
160-250	0.03	0.04	0.04	0.03	0.04	0.03
315-400	0.04	0.075	0.06	0.04	0.06	0.04
500-630	0.06	0.10	0.075	0.05	0.075	0.05

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#### Maximum Speed for Manual Self Centering Chucka

CHUCK SIZE	CAST IRON BODY	S.G IRON BODY		
80 mm	4000	5600		
100 mm	3300	4800		
125 mm	2700	3800		
160 mm	2000	2500		
200 mm	1600	2200		
250 mm	1300	2000		
315 mm	1000	1500		
400 mm	850	1200		
500 mm	650	1000		
630 mm	545	800		

#### CAUTIONS :-

\* It is better to use chucks at 75% of the maximum RPM.

TEST-C

PERMISSIBLE

DEVIATION

.04 FILLER GAUGE

SHALL NOT PASS

AT

POINT A & POINT B

\* Gripping force can drop due to centrifugal force if jaws are changed by user. In such cases users should be access the speed or consult us.

\* Older chucks should be operated at low RPM as there is possibility of loss of gripping force due to wear & tear.





Manufacturer

## **KHALSA INDUSTRIAL COPROATION**

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