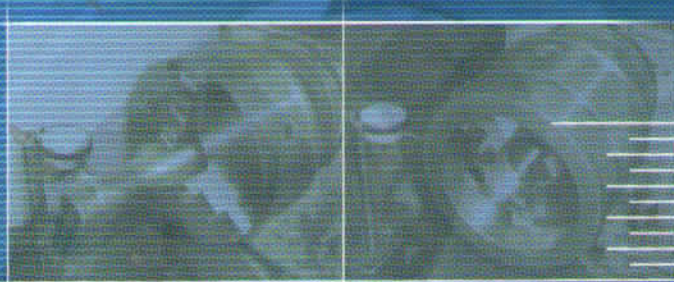


BONET[®]

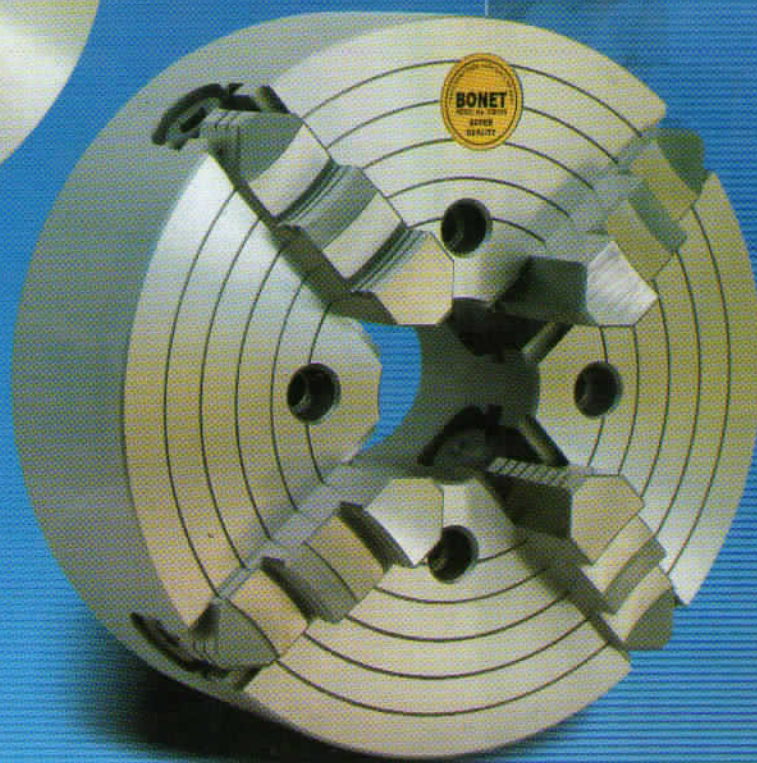
Self Centring Chucks / 4-jaw Independent Chucks

Precision beyond Imagination !!!

Gripping Force Since 1981



ISO 9001:2000 Certified Company



BONET[®]
BONMAC

Bonnet Machine Tools is an ISO 9001:2000 certified company and Bonet & Bonmac chucks represent a renowned Gripping Force since 1981. This experience of more than 20 years is behind Bonet in the development of Precision Chucks comparable to International Standards. Our chucks are manufactured at a most sophisticated plant well equipped with modern CNC machines and with updated measuring instruments. Strict quality control measures applied from raw materials purchase, its inspection, machining, heat treatment, fitting, final inspection and despatch assure international level quality to the satisfaction of our valued customers. This catalogue contains description of full range of manually operated chucks available with us.

"BONET" Self Centring Chucks

No doubt CNC machines have become popular in these days, but still manually operated chucks form a major chunk in the industries because a lot of development has been made in Tooling Systems which can be used on conventional machines which help in obtaining more production with minimum of cost which is the need of the day. So the customer expects following features from manually operated Self centring Chucks :

- Economy
- High Accuracy
- High Gripping Power
- Long Service Life
- Safety

Continuous Research & Development at Bonet has helped to fulfill the above mentioned expectations. Improvements are being made from time to time so that our customers get best value for their money.

"BONET" & "BONMAC" 4-jaw Independent Chucks

BONET Extra Light Duty: These chucks are manufactured for light machines and grinders where chuck weight is critical for the machine

BONET Extra Heavy Duty: These chucks are manufactured to cope with toughest working conditions

BONMAC Heavy Duty: These chucks are suitable for normal working conditions. However these chucks will stand well ahead in quality, Load carrying capacity and life if compared with other competitive brands available in the market.

We have tried our best to include every information regarding the manually operated self centring & 4-jaw Independent chucks available with us. The chuck sizes and mountings specified in the tables of dimensions represent the popular requirement.

Due to continuous Research & Development, the dimensions in tables can be changed without prior notice.

Variations in Sizes and Special type of Jaws can be available on request.

All Parts of Chucks are Interchangeable. The chucks come with a Guarantee of One Year against any manufacturing defect.

BONET Self Centring Chucks:

BONET brand chucks are widely accepted since 1981. These are economically priced and offer best value for the money spent.

Bodies of these chucks are made out of alloyed cast iron for maximum wear resistance. The bodies have hardness of 190 to 210 BHN.

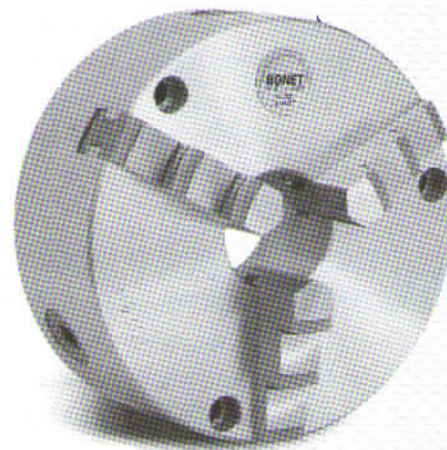
Jaws are made out of Case hardening steel and are suitably heat treated. The gripping portions have hardness of 57 to 62 HRC. These are precisely ground for perfect fitting in the body.

Pinions are manufactured out of case hardening steel and are suitably heat treated. These have hardness of 43 to 47 HRC.

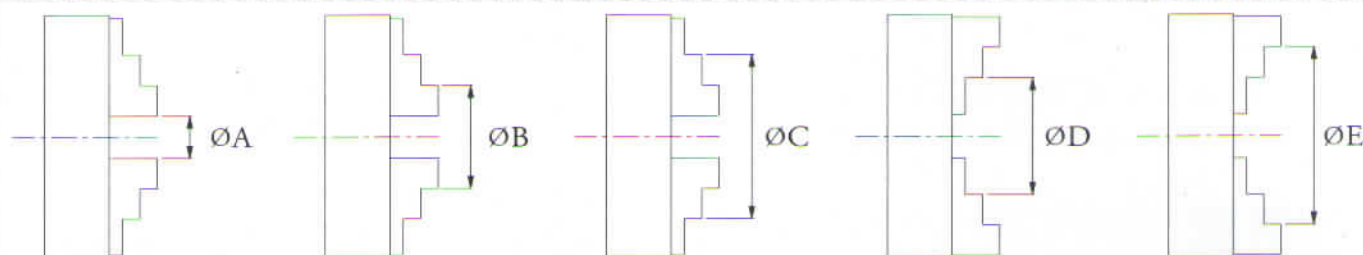
Scroll is made out of high strength steel and is suitably hardened to 38 to 45 HRC for maximum wear resistance. The threads of scroll are precisely ground which provide long service life to the chuck.

Operating key of suitable strength is provided with each chuck.

Mounting bolts & Inspection report is provided with each chuck.



Gripping Capacity of Self Centring Chucks

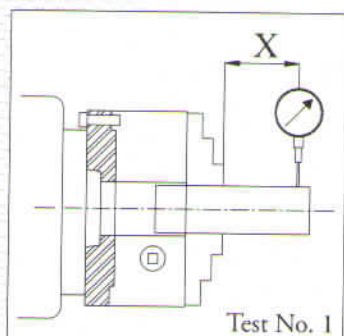


Size in mm	A (mm)		B (mm)		C (mm)		D (mm)		E (mm)	
	Min.	Max	Min.	Max	Min.	Max	Min.	Max	Min.	Max
100	3	33	25	60	55	87	32	70	60	93
160	3	68	42	105	90	154	48	110	100	160
200	4	90	52	130	110	194	60	140	120	200
250	5	110	62	165	120	240	75	170	145	250
270	7	130	70	185	135	260	85	195	155	270
315	10	180	80	200	150	299	96	225	165	315

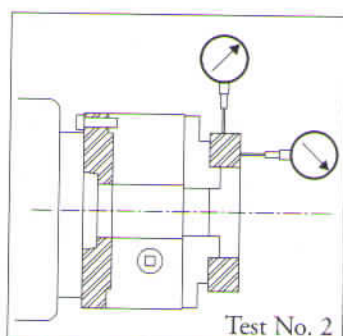
Recommended Max. RPM of Self Centring Chuck

Size in mm	100	160	200	250	270	315
Cast Iron Body	2500	1700	1300	1100	1000	800

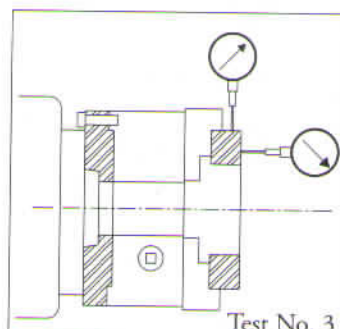
Accuracy of Self Centring Chucks



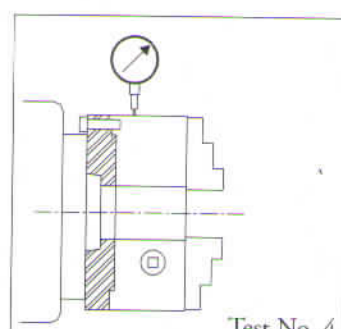
Test No. 1



Test No. 2



Test No. 3



Test No. 4

Test No.	Test Applied	Over	Size of chuck Upto and Including	Permissible Deviation in mm
1	Accuracy of Grip on Test Bar (Using Master Pinion)		160 mm X = 50 mm	0.040
		160 mm	250 mm X = 50 mm	0.060
		250 mm	315 mm X = 75 mm	0.075
1	Accuracy of Grip on Test Bar (Using Any Pinion)		160 mm X = 50 mm	0.080
		160 mm	250 mm X = 50 mm	0.080
		250 mm	315 mm X = 75 mm	0.100
2 & 3	Accuracy of Grip on Test Rings when gripped internally or Externally (Using Master Pinion)		160 mm	0.030
		160 mm	250 mm	0.040
		250 mm	315 mm	0.060
2 & 3	Accuracy of Grip on Test Rings on the Face of Ring		160 mm	0.025
		160 mm	250 mm	0.030
		250 mm	315 mm	0.040
4	Concentricity of Outside Diameter		160 mm	0.030
		160 mm	250 mm	0.040
		250 mm	315 mm	0.060

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BONET Extra Light Duty 4-Jaw Independent Chuck

These chucks have slim bodies and are light in weight. This reduces overhang and spindle nose to a minimum. These are suitable for use on small lathes and grinding machines etc.

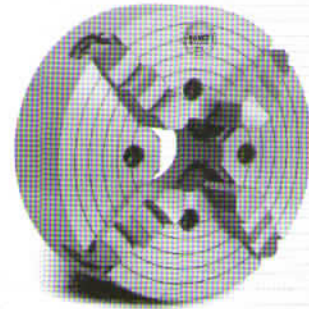
Bodies of these chucks upto 100mm are made of Steel and Other Sizes from SG Iron. **Screws** are made of high strength Alloy Steel. The Screws have ACME threads. Screws are properly heat treated to obtain best combination of wear resistance and toughness.

Jaws are made out of Case hardening steel and are suitably heat treated. The gripping portions have hardness of 57 to 62 HRC. These are precisely ground for perfect fitting in the body.

Thrust Bearings are made out of Alloy Steel and are heat treated for toughness.

Operating key of suitable strength is provided with each chuck.

Mounting bolts, Tap & Inspection report is provided with each chuck.



BONET Extra Heavy Duty 4-Jaw Independent Chuck

These chucks have been designed to tolerate the abnormal tough working environment. These are capable of withstanding heaviest type of load.

Bodies of these chucks are made of Cast Iron having Hardness of 180 to 210 BHN, Steel Bodies are also available.

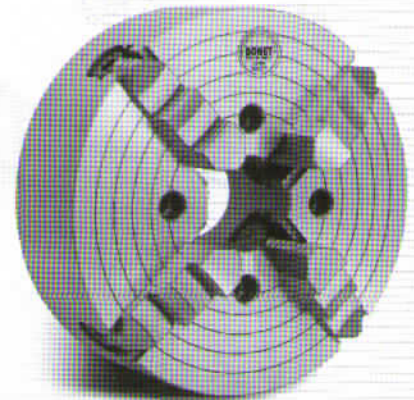
Screws are made of high strength Alloy Steel. The Screws have 29 degree taper ACME threads. These are properly heat treated to obtain best combination of wear resistance and toughness.

Jaws are made out of Case hardening steel and are suitably heat treated. The gripping portions have hardness of 57 to 62 HRC. These are precisely ground for perfect fitting in the body.

Thrust Bearings are made out of Alloy Steel and are heat treated for toughness.

Operating key of suitable strength is provided with each chuck.

Mounting bolts, Tap & Inspection report is provided with each chuck.



BONMAC Heavy Duty 4-Jaw Independent Chuck

These are economically priced and offer best value for the money spent. These are best suited to normal working conditions. However the same will stand well ahead of competitive brands available in the market. Where other brands fail, Bonmac will give trouble free service.

Bodies of these chucks are made of Cast Iron having Hardness of 180 to 210 BHN

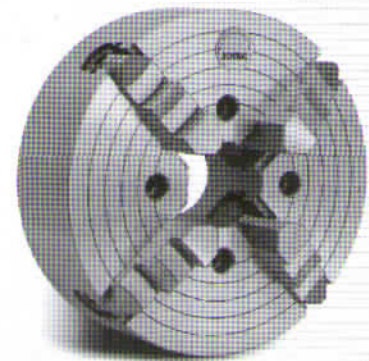
Screws are made of high strength steel. These have 29 degree taper ACME threads. The same are properly heat treated to obtain best combination of wear resistance and toughness.

Jaws are made out of Case hardening steel and are suitably heat treated. The gripping portions have hardness of 57 to 62 HRC. These are precisely ground for perfect fitting in the body.

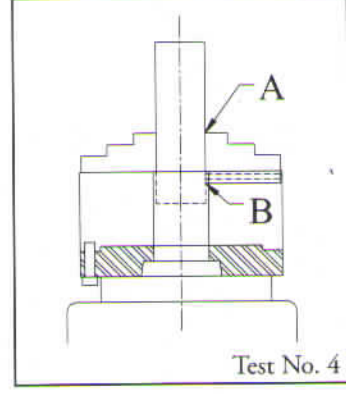
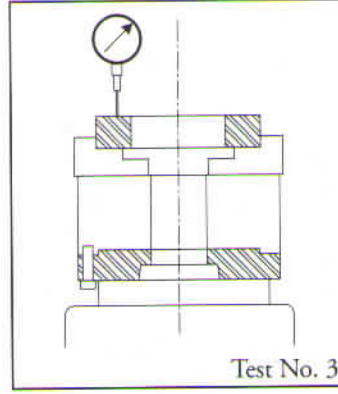
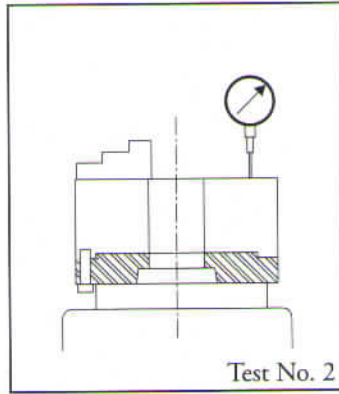
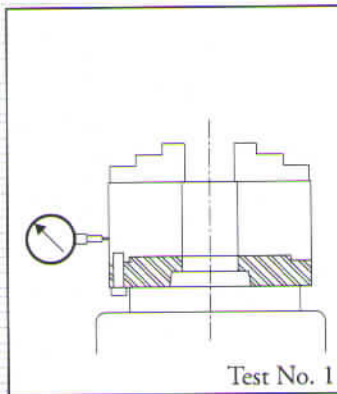
Thrust Bearings are made out of case hardening steel and are properly heat treated.

Operating key of suitable strength is provided with each chuck.

Mounting bolts & Inspection report is provided with each chuck.



Accuracy of 4-Jaw Independent Chucks

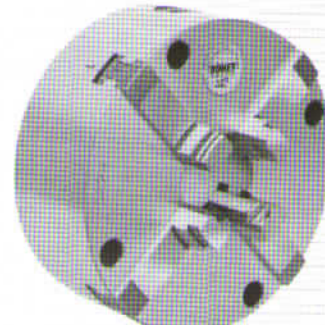
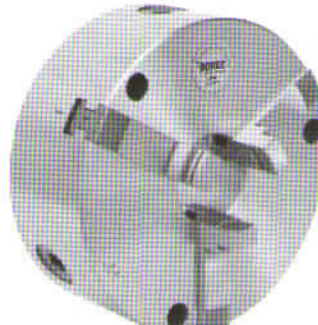
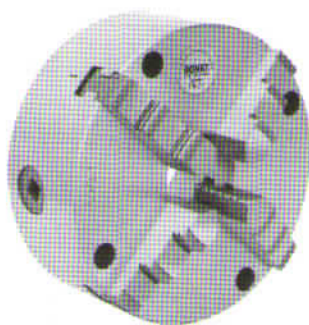
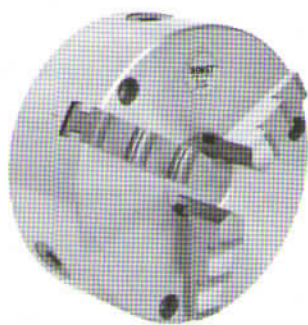


Test No.	Test Applied	Over	Size of chuck Upto and Including	Max. Permissible Deviation in mm
1	Body Diameter for True Running		200 mm	0.050
		200 mm	400 mm	0.100
		400 mm	630 mm	0.125
2	Body Face for True Running		200 mm	0.050
		200 mm	400 mm	0.100
		400 mm	630 mm	0.125
3	Step Face for True Running		200 mm	0.050
		200 mm	400 mm	0.100
		400 mm	630 mm	0.125
4	Uniformity of Gripping (Feeler gauge inserted at point A & B)	In all sizes 0.04 mm Feeler Gauge should not pass		

Gripping Capacity & Recommended Max. RPM of 4 Jaw Independent Chuck

Size in mm	80	100	125	160	200	250	305	350	400	450	500	600
Min. Capacity	3	4	4	6	12	18	18	18	25	25	55	55
Max. Capacity	80	100	125	160	200	250	305	350	400	450	500	600
RPM Cast Iron Body	1200	1200	1200	1200	1200	1100	900	800	700	600	500	400
RPM Steel Body	1700	1700	1700	1700	1700	1500	1200	1100	950	800	700	550

"BONET" 3-Jaw & 4-Jaw Standard & Bearing Races Chucks

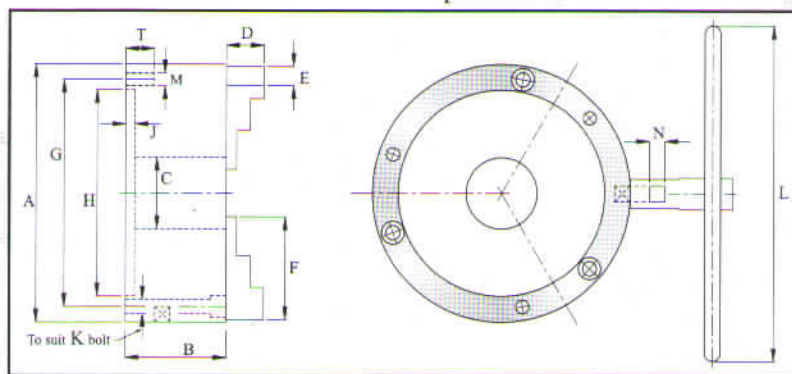


Standard Self Centring Chucks

These chucks are available with 3 jaws and 4 jaws and are referred as STC-3 and STC-4 respectively. STC-3 chucks are most popular. STC-4 chucks are used when the job is square or to grip jobs having thin walls as holding pressure is divided on four sides. One set of reverse Jaws, Mounting Bolts, Operating Key and Inspection Report is provided with each chuck

**Bearing Races Self Centring Chucks

These chucks are available with 3 jaws and 4 jaws and are referred as BRC-3 and BRC-4 respectively. The jaws are specially designed to grip machined or un-machined Bearing races. BRC-4 chucks are used to grip bearing races having thin walls as holding pressure is divided on six sides. One set of reverse Jaws, Mounting Bolts, Operating Key and Inspection Report is provided with each chuck

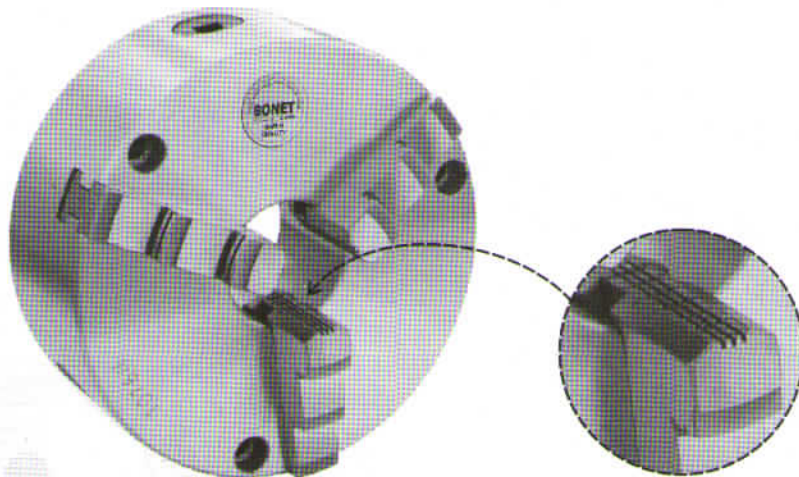


*Product Code	Size in mm	A	B	C	D	E	F	G	H	J	K/M	L	N	T	WEIGHT IN KGS (APPROX.)	
															3 JAW	4 JAW
5001-1003	100	103	52	26	17	15	37	89	76.2	3	M6	175	8	12	3.2	3.3
5001-1603	160	160	70	42	24	20	65	140	125	6	M10	200	10	20	9.2	9.5
5001-2003	200	200	78	55	29	22	80	176	160	7	M10	285	12	22	15.5	16.1
5001-2503	250	250	86	76	35	29	95		200	7	M12	315	13	25	26.2	27.5
5001-2703	270	270	86	90	35	29	95	245	220	7	M12	315	13	25	29	30.2
5001-3153	315	315	88	105	42	32	109	286	260	7	M12	350	14	25	40.5	42.3

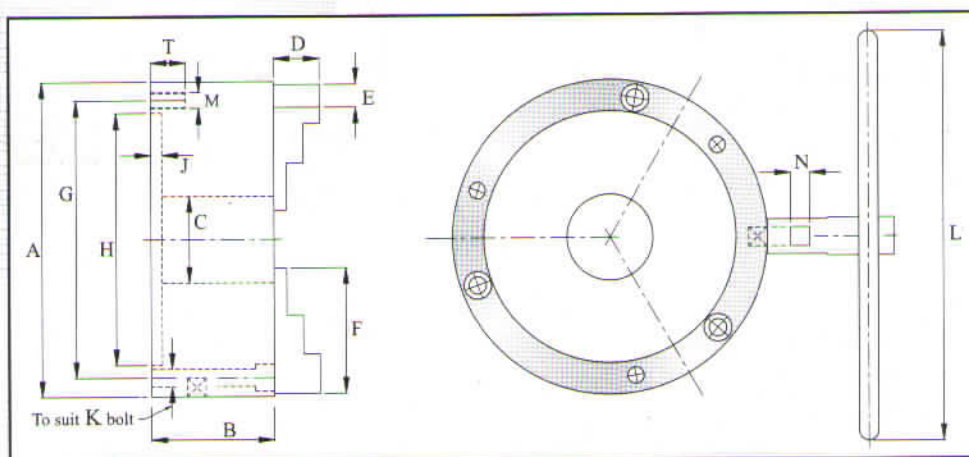
* The Product codes in the table are for BONET 3-Jaw Standard Self Centring Cast Iron Body Chucks. Please refer the Last Page to know how to use the Product Code.

** Please replace 5001 with 5004 in Product Code for Bearing Races Chucks.

"BONET" 3-Jaw Crankshaft Grinder Chucks



This chuck is available with 3 jaws only and is referred as CRC-3. This chuck is similar to Normal Standard Chuck. The only difference is that the gripping portion of jaws have serrations & rod of Operating key is longer. This is done to obtain maximum grip on crankshaft. One set of reverse Jaws, Mounting bolts, Operating Key and inspection report is provided with each chuck.

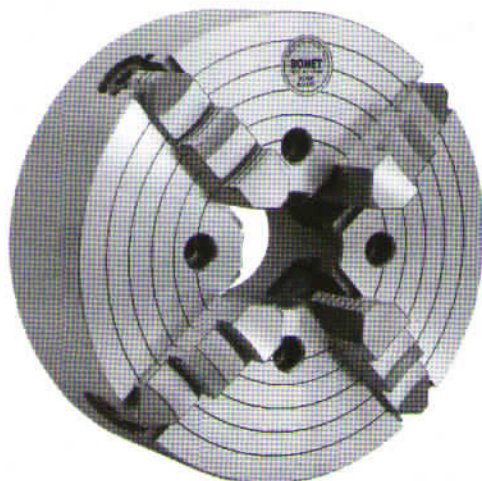


*Product Code	Size in mm	A	B	C	D	E	F	G	H	J	K/M	L	N	T	WEIGHT IN KGS (APPROX.) 3 JAW
5005-1603	160	160	70	42	24	20	65	140	125	6	M10	300	10	20	9.2
5005-2003	200	200	78	55	29	22	80	176	160	7	M10	350	12	22	15.5
5005-2503	250	250	86	76	35	29	95	224	200	7	M12	350	13	25	26.2
5005-2703	270	270	86	90	35	29	95	245	220	7	M12	350	13	25	29
5005-3153	315	315	88	105	42	32	109	286	260	7	M12	350	14	32	40.5

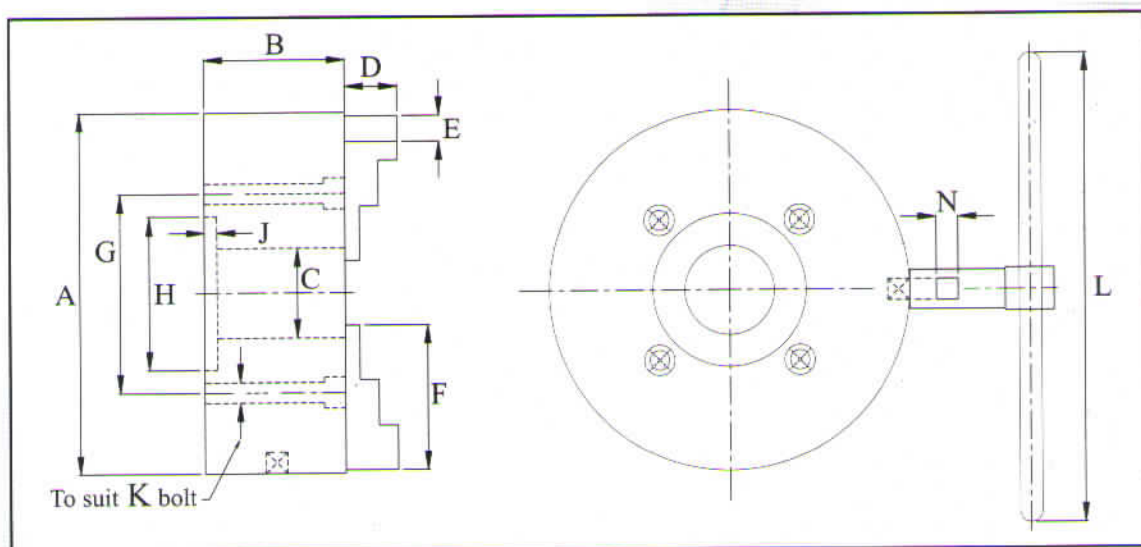
* The Product codes in the table are for BONET 3-Jaw Crankshaft Grinder Self Centring Cast Iron Body Chuck. Please refer the Last Page to know how to use the Product Code.

BONET[®] BONMAC

"BONET" Extra Light Duty 4-Jaw Independent Chucks

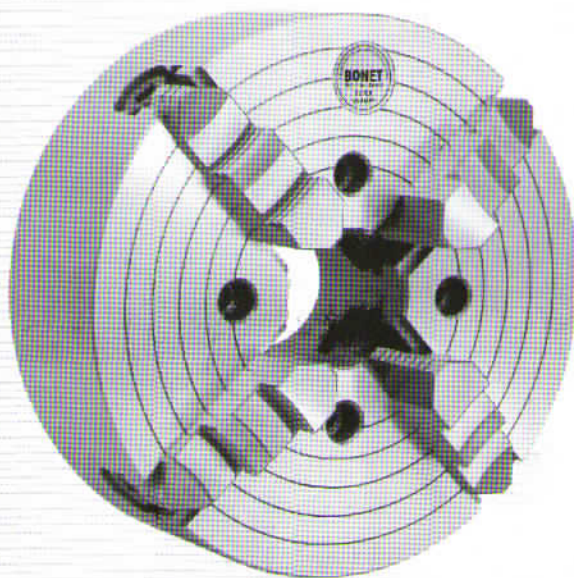


BONET Extra Light Duty Chucks referred as ELD, have been designed specially for use on small precision machines which are light in weight and where chuck weight is critical for the machine. The bodies of 80mm and 100mm chucks are made out of steel and above 100mm from SG Iron. This property of being light weight helps to retain the precision of the bearings of the machine for long time. The vibrations are reduced to the minimum. Used within the capacity, these chucks are sturdy and reliable. Operating Key, Mounting Bolts, Allen Key, Tap & Inspection Report is provided with each chuck.

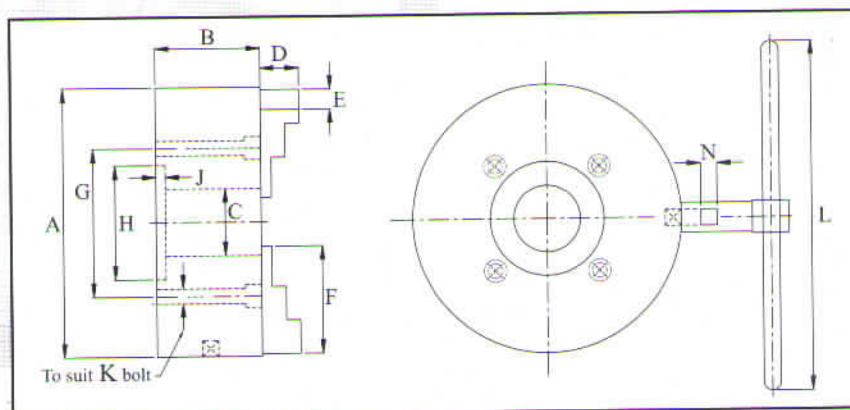


*Product Code	Size	A	B	C	D	E	F	G	H	J	K	L	N	WEIGHT IN KGS (APPROX.)
5191-3	3"	82	35	19	16	12	.35	60	70	2.5	M6	100	5	1.5
5191-4	4"	101	35	25.4	16	12	35	76.2	88.9	2.5	M8	115	5	2
5291-5	5"	130	45	25.4	20	15.7	51	60	70	3	M8	165	7	3.5
5291-6	6"	152	45	40	20	15.7	51	69.8	82.5	3	M8	165	7	4.5
5291-8	8"	203	50	45	24	19	63	82.5	95.25	3.5	M10	215	7.5	8.5
5291-10	10"	254	69	50	29	25.4	83	111	127	5	M10	265	9	18.8

"BONET" Extra Heavy Duty 4-Jaw Independent Chucks

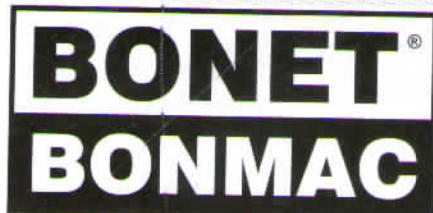


BONET Extra Heavy Duty chucks referred as EHD are manufactured to cope with toughest working conditions. These are capable of carrying heavy loads. The height of bodies though little more, but it helps not break under the loads. The jaw-ways in body are of robust proportion which can withstand heavy loads. The diameter of screws is large enough to tolerate heavy cutting pressure and moreover large diameter of screws provide more contact area with thread of jaws. ACME threads of screws are very strong as the same have 29 degree taper. These do not break easily due to strength provided by large base of taper thread. Alloy steel having Nickel, Chromium and Molybdenum is used in the manufacture of Screws, Thrust Bearings and Operating Key which are heat-treated to obtain wear resistance and toughness. Chucks from 160mm onward have double type thrust bearings of robust proportions which provide great strength. Operating Key, Mounting Bolts, Allen Key, Tap & Inspection Report is provided with each chuck.



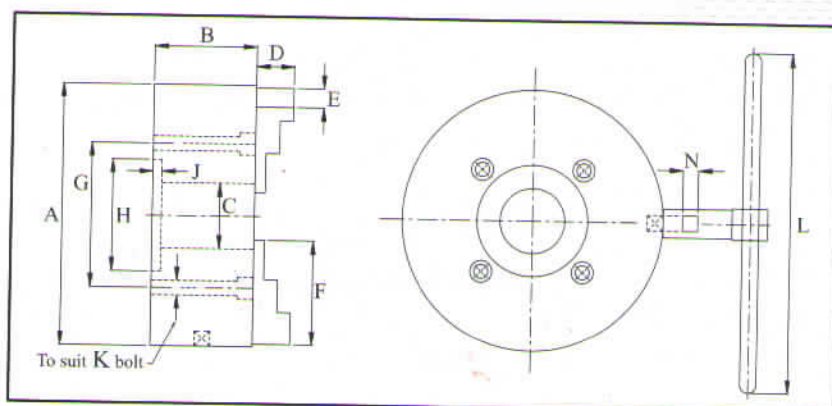
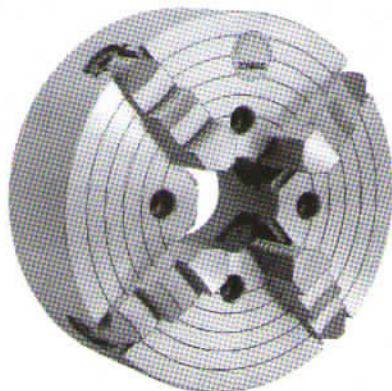
*Product Code	Size	A	B	C	D	E	F	G	H	J	M	L	N	WEIGHT IN KGS (APPROX.)
5092-6	6"	152	78	45	25	23.9	55	105	127	6	M10	165	8	9.6
5092-8	8"	203	93	50	32	30.1	80	110	85	6	M10	215	10	18.1
5092-10	10"	254	94	60	39	34.9	90	126	100	8	M12	265	11	26.3
5092-12	12"	305	101	75	45	38.1	105	140	160	10	M12	340	12	39.7
5092-14	14"	355	101	85	52	38.1	115	155	175	10	M12	340	12	50.5
5092-16	16"	406	107	100	54	44.5	125	175	200	10	M16	420	13	68
5092-18	18"	457	107	100	54	44.5	150	175	200	10	M16	420	13	82

* The Product codes in the table are for BONET 4-Jaw Independent Chuck with Cast Iron Body. Please refer the Last Page to know how to use the Product Code.



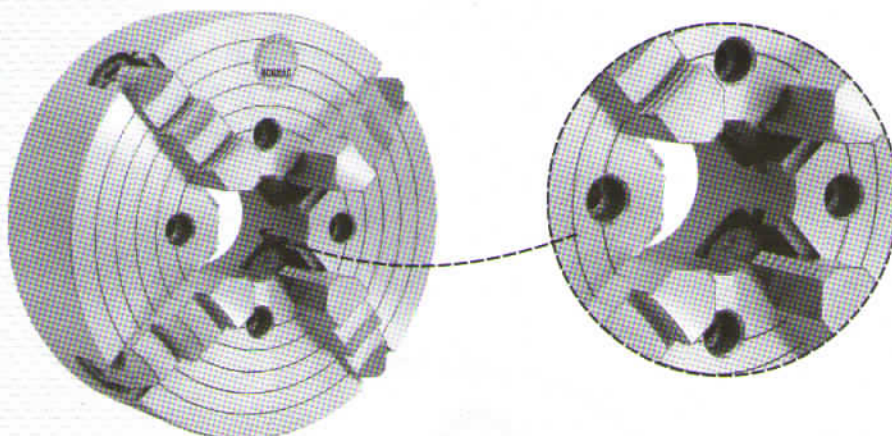
"BONMAC" Heavy Duty 4-Jaw Independent Chucks

BONMAC Heavy Duty chucks refereed as HD, are suitable for normal working conditions. However these chucks will stand well ahead in Quality, Load carrying capacity and Life if compared with other competitive brands available in the market. Where other brands of chucks fail to give service, Bonmac chucks will give trouble free service for long period. The jaw-ways in body are of robust proportion which can withstand heavy loads. The diameter of screws is large enough to tolerate heavy cutting pressure and moreover large diameter of screws provide more contact area with threads of jaws. ACME threads of screws are very strong as the same have 29 degree taper. These do not break easily due to strength provided by large base of taper thread. Chucks from 160mm onward have double type thrust bearings of robust proportions which provide great strength. Operating Key, Mounting Bolts & Inspection Report is provided with each chuck.

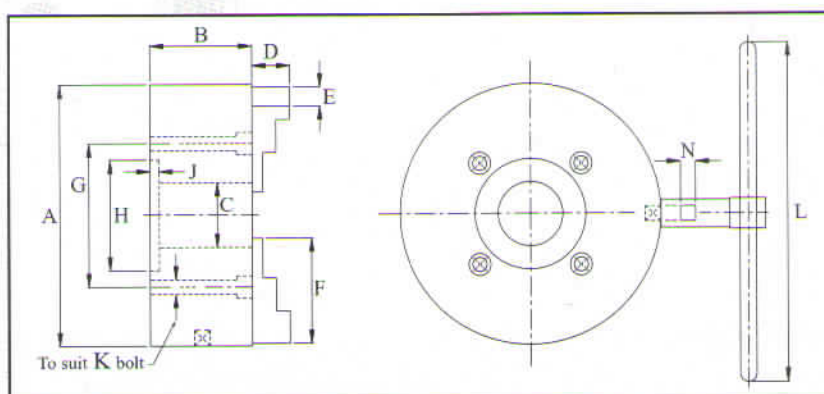


*Product Code	Size In mm.	A	B	C	D	E	F	G	H	J	K	L	N	WEIGHT IN KGS (APPROX.)
6093-80	80	82	45	20	20	12	32	60	70	4	M6	90	5	2
6093-100	100	102	55	25.4	22	19	48	70	85	5	M8	120	7	3
6093-125	125	125	55	32	22	19	48	80	100	5	M8	140	7	4.5
6093-160	160	160	75	45	24	23.9	55	138	120	6	M10	165	8	9
6093-200	200	200	87	50	32	29.9	75	100	80	6	M10	215	10	15.5
6093-250	250	250	87	60	33	29.9	85	110	130	8	M10	265	10	21.5
6093-305	305	305	95	75	45	34.9	100	140	160	10	M12	340	12	36.5
6093-350	350	350	95	85	51	34.9	110	140	160	10	M12	340	12	43
6093-400	400	400	105	100	60	40.7	125	175	200	12	M16	420	13	64
6093-450	450	450	105	100	60	40.7	150	175	200	12	M16	470	13	76.5
6093-500	500	510	115	110	66	47	170	235	260	12	M20	520	14	113.5
6093-600	600	610	115	140	66	47	170	235	260	12	M20	620	14	133.5

'BONET' & "BONMAC" Big Bore 4-Jaw Independent Chucks



These 4-Jaw Independent Chucks have larger Bore than normal Chucks. These are suitable where machine is light and the Job demands larger Bore. Operating Key, Mounting Bolts, Allen Key, Tap & Inspection Report is provided with each chuck.

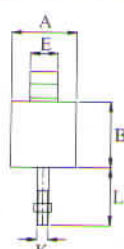
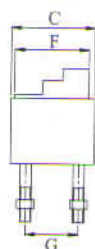


BONET	*Product Code	Size	A	B	C	D	E	F	G	H	J	M	L	N	WEIGHT IN KGS (APPROX.)
	5094-12	12"	305	101	100	45	38.1	105	185	160	10	M12	340	12	37
	5094-14	14"	355	101	125	52	38.1	115	200	175	10	M12	340	12	45.5
	5094-16	16"	406	107	150	54	44.5	125	230	200	10	M16	420	13	60
	5094-18	18"	457	107	150	54	45.5	150	330	200	10	M16	420	13	74

* The Product codes in the table are for BONET 4-Jaw Independent Cast Iron Body Chuck. Please refer the Last Page to know how to use the Product Code.

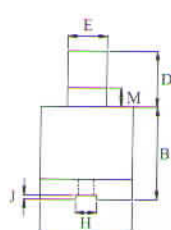
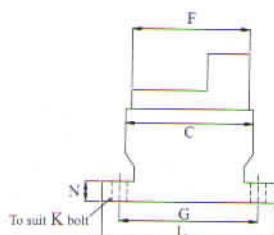
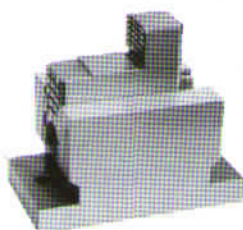
BONMAC	Product Code	Size in mm	A	B	C	D	E	F	G	H	J	M	L	N	WEIGHT IN KGS (APPROX.)
	6094-12	305	305	101	100	45	34.9	100	185	160	10	M12	340	12	34
	6094-14	350	350	101	125	51	34.9	110	200	175	10	M12	340	12	38
	6094-16	400	400	107	150	60	40.7	125	230	200	10	M16	420	13	56
	6094-18	450	450	107	150	60	40.7	150	330	200	10	M16	420	13	68.5

"BONET" Face Plate Jaws



These are light duty single type face plate Jaws. These are mounted on face plates and can be used on lathes or any other similar applications.


*Product Code	Size In mm.	A	B	C	D	E	F	G	K	L	WEIGHT IN KGS (APPROX.)
5195-90	90	76.2	76.2	90	32	30.1	80	57.1	M12	62	3.5



These are heavy duty single type face plate Jaws. These are mounted on face plates and can be used on lathes or any other similar applications.

*Product Code	Size In mm.	A	B	C	D	E	F	G	H	J	K	L	M	N	WEIGHT IN KGS (APPROX.)
5195-150	150	110	110	150	66	47	140	162	25.4	5	M18	205	22	24	14
5195-200	200	110	110	200	66	47	170	213	25.4	5	M18	260	22	24	18

Back Plates / Mounting Flanges

	Model	Suitable for	Sizes/Product Code			
			160mm	200mm	250mm	315mm
	L1	LB-17/20/25 (HMT) H-22/26 (HMT) A-124-124 (PSG)	5013-160	5013-200	5013-250	5013-315
	A2-4	Turnmaster-35 (Kirloskar), EP-380 (Kirloskar)	5017-160	5017-200	5017-250	5017-315
	A2-6	Turnmaster-40/45 (Kirloskar), NH-22/26, NL-22/26 (HMT), LMT-20, L2-22 TP/LT-20 (HMT), 9B/VIKRAM, A24UP(HMT)	--	5019-200	5019-250	5019-315
	A2-8	Turnmaster-50 (Kirloskar) BECO	--	5020-200	5020-250	5020-315
	D1-4	Turnmaster-35/Nagmati-175, EP-1330/1550/355 (Kirloskar)	5026-160	5026-200	5026-250	--
	D1-6	Turnmaster-40/45, EP-1675/400/425 (Kirloskar), VIKRAM (HMT)	--	5028-200	5028-250	5028-315
	D1-8	Turnmaster-50, EP-1810/450/500 (Kirloskar) B-32 (HMT)	--	5029-200	5029-250	5029-315
	D1-11	EP-2210/2215/2615 (Kirloskar), L-45 (HMT)	--	5030-200	5030-250	5030-315