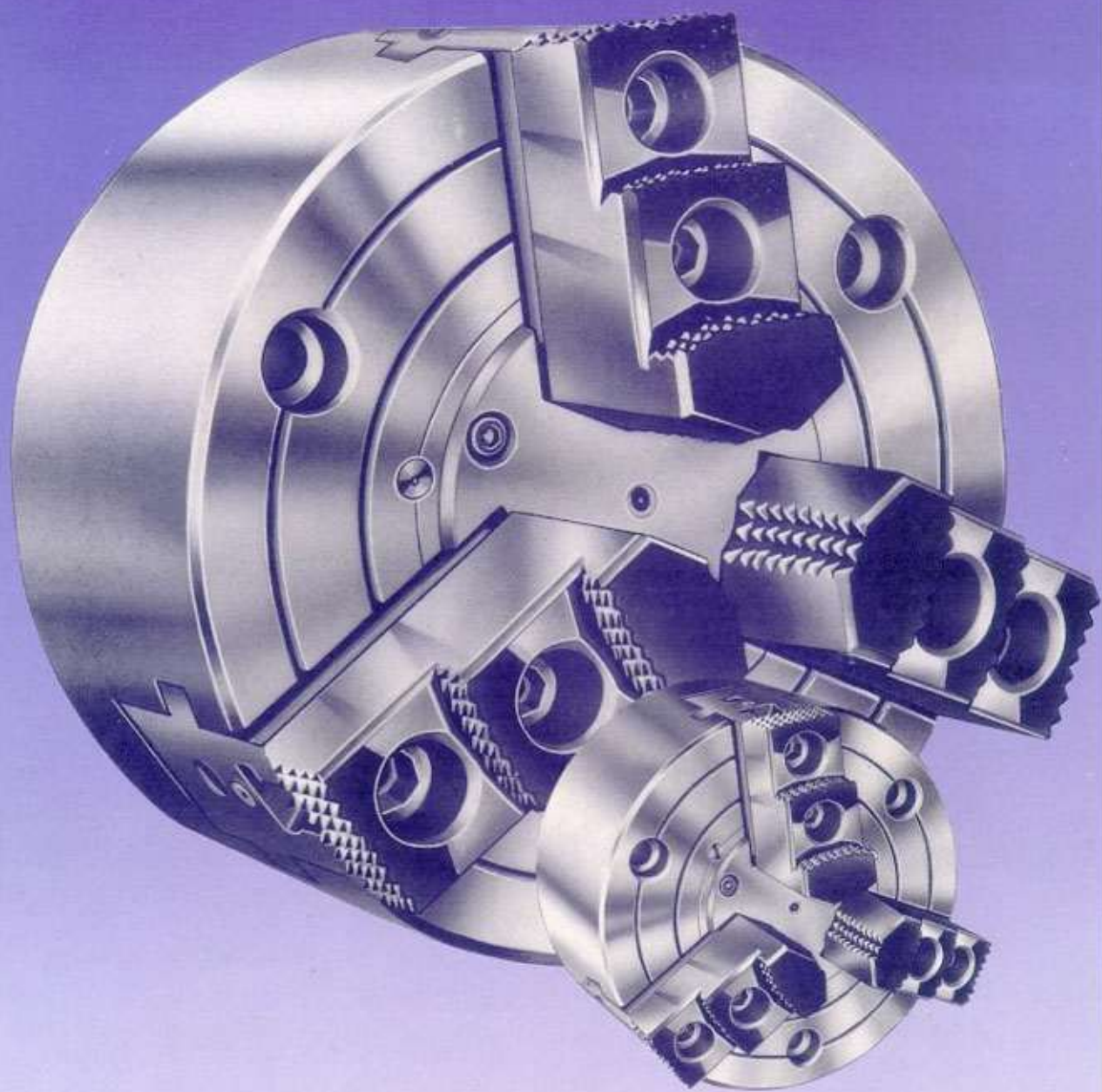


GMT



POWER OPERATED CHUCKS

110 mm to 1000 mm ϕ

PS

POWER OPERATED CHUCK – WEDGE TYPE



GMT Make Power Chucks are in the market for over two decades now. The design has undergone many changes for better performance. The basis of the design, viz., wedge type construction, is, however, maintained.

Construction

The chuck body is of forged steel. The guideways are hardened and ground.

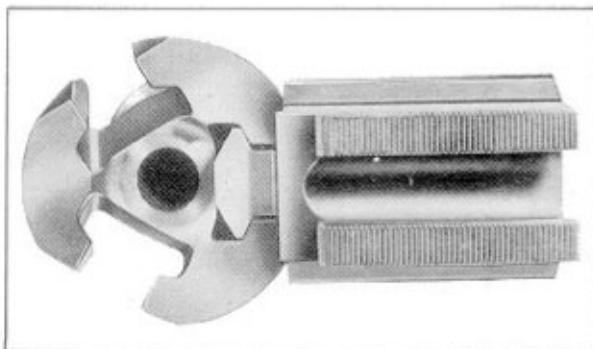
The wedge, made of nickel chrome steel is casehardened and ground on all the working surfaces.

The base jaws, also made of nickel-chrome steel, are casehardened and ground to match both the wedge and body guideways.

The base jaws are guided in deep, wide, hardened slots in the body, which provide the ample bearing area necessary to withstand the forces resulting from high gripping pressures.

Provision has been made for manual lubrication of the sliding surfaces periodically through grease nipples.

Serrations are provided on the top face of the base jaws.



The reversible, hardened and ground hard jaws have serrations on the bottom to match the base jaws.

The various radii on the hard jaws in conjunction with the serrations, are designed to grip a wide range of diameters.

The hardened and ground guideways of the body, nickel-chrome casehardened and ground base jaws and the wedge ensure high load carrying capacity over a long period.

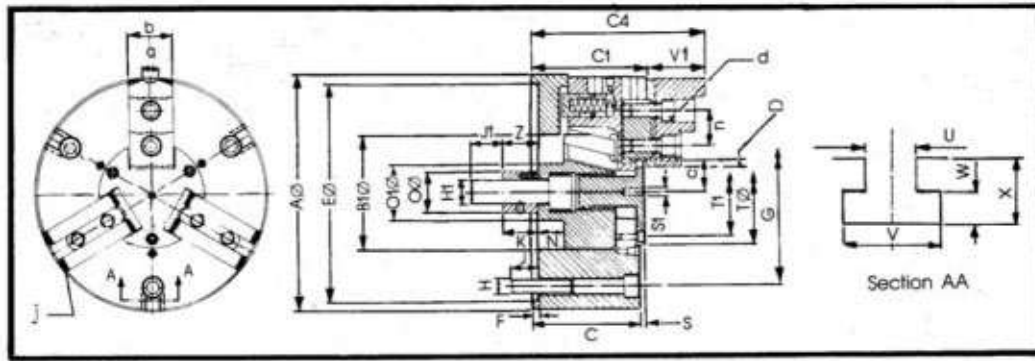
These Power-operated chucks can be actuated by a Pneumatic Rotating Cylinder, Hydraulic Rotating Cylinder or Electro-mechanical Actuator. Each of these has its own distinct advantages. These are dealt with elsewhere.

The actuating unit imparts a linear motion to the wedge through a drawbar. The linear motion of the wedge is transformed to radial movement of the base jaws. This transformation provides a mechanical advantage of 1:4. This ensures a minimum of 1:2 mechanical advantage after providing for internal losses, self-locking effect and losses in gripping power at high speeds.

The basic design of the GMT chucks permits actuation through pneumatic or hydraulic cylinder, at varying pressures or through Electro-mechanical Actuators.

GMT wedge-design chucks have distinct advantages over lever type chucks - for example, a wedge design is self-locking, which means a firm grip of the component even if there is a failure of pneumatic pressure or bursting of the hydraulic hoses. This unique self-locking wedge design prevents accidents, and the chuck does not lose its gripping power.

POWER OPERATED CHUCK 3 B PS



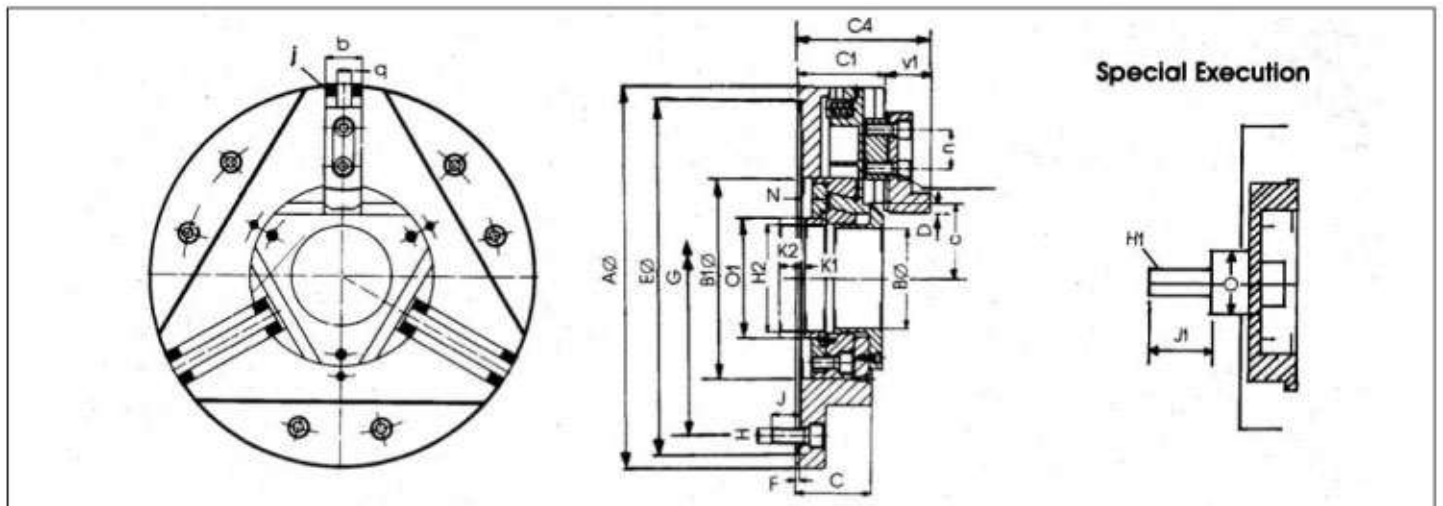
DIMENSIONAL SPECIFICATIONS

Model	04-42	04-01	04-26	04-22	04-23	04-05	04-33	04-34	
Size Ø	110	125	160	200	250	315	400	500	
A Ø	110	125	160	200	250	315	400	500	
B1Ø	45	60	78	97	97	120	180	180	
C	31.5	61	81	93	93	98	127	127	
C1	38.5	69.5	87	100	103.5	109	131	136	
C4	76	104.5	132	154.5	163.5	174	212	225	
D Jaw stroke	2.1	4.2	4.2	5.4	5.4	5.4	8	8	
EØ H6	92	115	150	185	185	300	300	460	
F	3	6	6	6	6	6	6	6	
G (PCD)	80	92	125	160	140	250	250	300	
H x 3nos	M8	M12	M12	M12	M16	M20	M24	M24	
H1	*M20 x 1.5	M12	M16	M20	M20	M20	M24	M24	
J	13	18	18	16	30	39	34	36	
J1	-	43	55	70	70	68	54	54	
K min	24.5	25	22	30	30	28	18	18	
K max	33	44	41	52	52	50	48	48	
N	8.5	19	19	22	22	22	30	30	
O1 Ø	-	35	40	48	48	52	75	75	
O Ø	-	27	31.5	35	35	35	46	46	
S	4	6	5	4.5	8	7	6	6	
S1	-	M5	M6	M6	M5	M8	M8	M8	
T Ø	65	52	68	89	89	98	145	145	
T1 (PCD)	55	40	58	75	75	80	105	105	
U	-	-	-	-	-	-	26	26	
V	-	-	-	-	-	-	37	37	
W	-	-	-	-	-	-	12	12	
X	-	-	-	-	-	-	27	27	
Z	-	25	25	30	30	30	30	30	
b	25	25	38	38	45	45	60	60	
c min	23.9	17.9	22.5	25.6	25.3	33.4	48.8	48.8	
c max	26	22.1	26.7	31	30.7	38.8	56.8	56.8	
d	M6	M8	M10	M12	M14	M16	M20	M20	
j x 90°	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	3/32"	3/32"	
n	12	15	25	30	35	40	50	60	
v1	31	35	45	53	60	65	81	89	
qH7	8	10	12	14	17	21	25.5	25.5	
Clamping Range	Outer min	4	10	18	20	24	50	95	108
	max	110	125	160	200	250	315	400	500
	Inner min	22	34	34	56	60	72	102	102
	max	110	125	160	200	250	315	400	500
Drawbar pull kgs	700	860	1280	2130	3680	5380	8720	8720	
RPM	4000	3200	2800	2300	2000	1700	1400	900	
Wt in kgs approx	2.1	8	11	19	31	60	100	160	

Shaded sizes are specials

* Drawbar will be threaded on to wedge

POWER OPERATED CHUCK 3 B PS (LARGE SIZE)

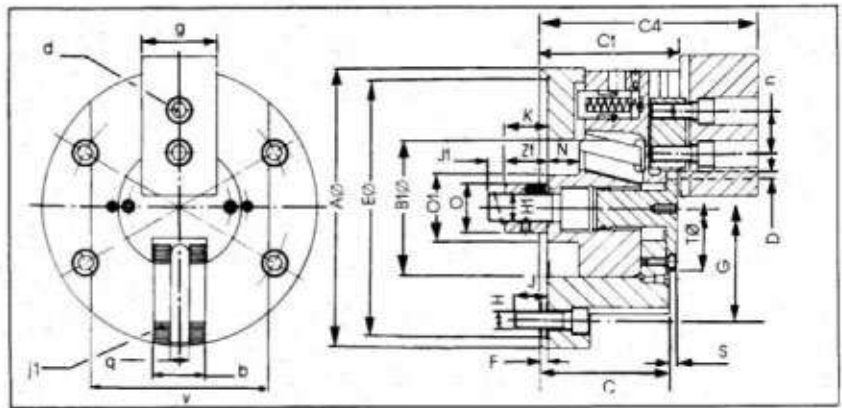
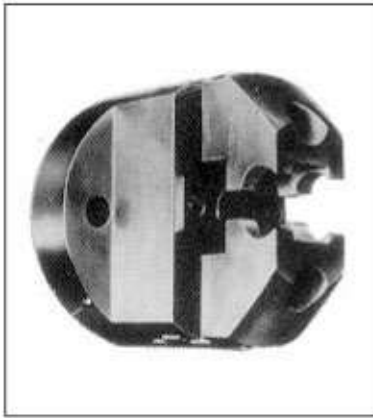


DIMENSIONAL SPECIFICATIONS

Model	04-51	04-46	04-57	04-47
Size \varnothing	630	800	900	1000
A \varnothing	630	800	900	1000
B \varnothing	165	165	165	165
B1 \varnothing	330	330	330	330
C	125	125	125	125
C1	142	142	142	142
C4	210	231	231	236
D Jaw Stroke	5	5	5	5
E \varnothing H6	580	580	580	580
F	6	6	6	6
G (PCD)	520	520	520	520
H	6 x M24	6 x M24	6 x M24	6 x M24
H1	M24	M30	M30	M30
H2	M176x2	M176x2	M176x2	M176x2
J	36	36	36	36
J1	60	100	100	100
K1 max	9	9	9	9
K2 max	11	11	11	11
N	20	20	20	20
O \varnothing	46	60	60	60
O1 \varnothing	192	192	192	192
b	60	60	60	60
c min	120	120	120	120
c max	125	125	125	125
d	M20	M20	M20	M20
j x 90°	3/32"	3/32"	3/32"	3/32"
n	65	65	65	65
qH7	25.5	25.5	25.5	25.5
v1	68	89	89	94
Drawbar pull (kgs)	10060	10060	10060	10060
RPM max	650	550	500	450
Wt in kgs (approx)	300	470	600	745

These chucks are specials

TWO JAW POWER CHUCK SERRATION TYPE 2B PS



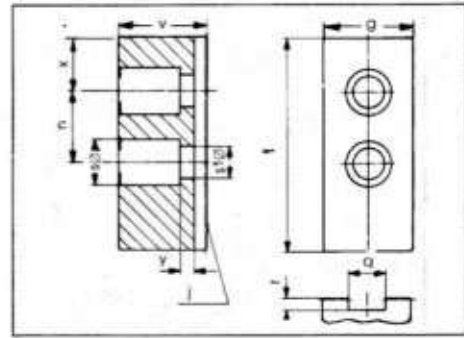
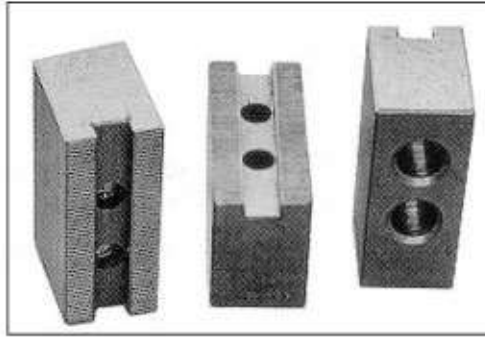
Two jaw chucks are pre-dominantly used when machining irregular shaped components and are therefore mainly used with contour jaws.

DIMENSIONAL SPECIFICATIONS

Model	15-39	15-01	15-26	15-22	15-23	15-05	15-33	15-34
Size Ø	110	125	160	200	250	315	400	500
A Ø	110	125	160	200	250	315	400	500
B1 Ø	45	60	78	97	97	120	180	180
C	31.5	61	81	93	93	98	127	127
C1	38.5	69.5	87	99	103.5	109.5	131	136
C4	-	104	135	154	163.5	174.5	212	225
D Jaw stroke	2.1	4.2	4.2	5.4	5.4	5.4	8	8
EØ H6	92	115	150	185	185	300	300	460
F	3	6	6	6	6	6	6	6
G (PCD)	80	92	125	160	140	250	250	300
H	4xM8	2xM12	2xM12	2xM12	2xM16	4xM20	4xM24	4xM24
H1	*M20 x 1.5	M12	M16	M20	M20	M20	M24	M24
J	15.5	18	24	29	30	39	34	36
J1	-	43	60	70	70	68	54	54
K-min	25	25	22	30	30	28	18	18
K-max	33	44	41	52	52	50	48	48
N	8	19	19	22	22	22	30	30
O	-	27	31.5	35	35	35	46	46
O1	-	35	40	48	48	52	75	75
T Ø	65	52	68	89	89	98	145	145
V	-	-	102	130	170	200	280	280
Z1	25	25	25	30	30	30	30	30
b	25	25	38	45	45	45	60	60
d	M6	M8	M10	M12	M14	M16	M20	M20
g	25	40	45	55	60	70	70	70
j1 x 90	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	3/32"	3/32"
n	12	15	25	30	35	40	50	60
qH7	-	10	12	14	17	21	25.5	25.5
Clamping range	Outer min	4	10	18	20	24	50	108
	max	110	125	160	200	250	315	500
	Inner min	22	34	34	56	60	72	106
	max	110	125	160	200	250	315	500
RPM	4000	3200	2800	2300	2000	1700	1400	900
Drawbar pull kgf	465	620	860	1420	2450	3590	5810	5810
Wt in kgs. (approx)	2.1	5	7	14	22	45	78	100

Shaded sizes are specials

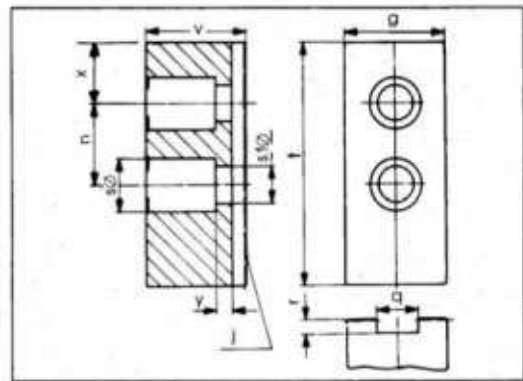
* Drawbar will be threaded on to wedge



3B-PS - SOFT JAW SPECIFICATIONS

Dimension	110Ø	125Ø	160Ø	200Ø	250Ø	315Ø	400Ø	500Ø	630Ø	800Ø	900Ø	1000Ø
g	25	25	38	38	45	45	60	60	60	60	60	60
j x 90°	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	3/32"	3/32"	3/32"	3/32"	3/32"	3/32"
n	12	15	25	30	35	40	50	60	65	100	65	90
qH7	8	10	12	14	17	21	25.5	25.5	25.5	25.5	25.5	25.5
r	3.5	5	7	7	7	6	6	6	7	7	7	7
sØ	*	*	16.75	19	23	25	31	31	*	*	*	*
s1Ø	6.6	9	10.5	13	15	17	21	21	22	22	22	22
t	53	50	85	90	110	130	160	190	160	195	195	225
v	35	35	45	55	60	65	81	89	68	89	89	93.5
x	28	22	25	35	45	60	70	90	65	100	100	90
y	7	7	7	7	8	8	8	8	15	15	15	12

* Length of slot 'l' width of slot 'w' for 110, 125, 630 to 1000 is, 23, 29 & 109 and 11, 14 & 34 respectively.



2B-PS - SOFT JAW SPECIFICATIONS

Size Ø	110	125	160	200	250	315	400	500
g	25	25	45	55	60	70	60	60
j x 90°	1/16"	1/16"	1/16"	1/16"	1/16"	1/16"	3/32"	3/32"
n	12	15	25	30	35	40	50	60
qH7	8	10	12	14	17	21	25.5	25.5
r	3.5	5	7	7	7	6	6	6
sØ	-	-	16.5	19	23	25	31	31
s1Ø	6.6	9	10.5	13	15	17	21	21
t	53	50	85	100	120	145	160	190
v	35	35	45	55	60	65	81	89
x	28	22	34	45	55	65	70	90
y	7	7	7	7	8	8	8	8



Guindy Machine Tools Limited

214, Velachery-Tambaram Main Road, Pallikaranai, Chennai-600 100, INDIA

Tel.: +91-44-22460627 / 28 / 29 Sales Dept.: +91-44-22460811 / 12

Fax.: +91-44-22460112 / +91-44-22460317

E-Mail : gmt@gmt.co.in Web : www.gmt.co.in