



PHNC - KA

Power Operated High Speed Chucks
with Large Through Bore

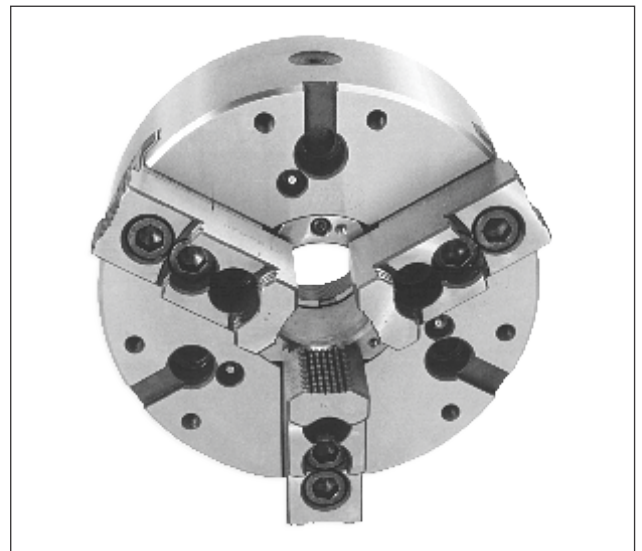
PHNC-KA

Power Operated Three Jaw Chuck with Large Through Bore

GMT Power Operated Hollow High Speed Chucks are designed to rotate at high speeds on CNC lathes. The compact construction of the PHNC-KA chucks offer further advantage of less weight and low inertia which have positive influence on the dynamic effect of CNC machine spindle. These chucks have a large through bore and are therefore suitable for bar work. The base jaws and top jaws weight are reduced in these chucks. This not only reduces the mass but also lowers the centre of gravity, which make the centrifugal losses low.

- Chucks on CNC machines need to deliver high initial gripping force. GMT takes care of this in the design by making the chuck operate with a large drawbar pull. Consequently, the wedge is designed to have large contact area with the base jaws.
- The weight of the body, base jaws and hard jaws are less, without the other essential criteria being sacrificed.

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



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

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

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

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

Serrations are ground on the top face of the base jaws. The reversible hard jaws have ground serrations on the bottom to match the base jaws.

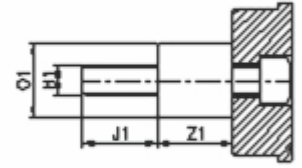
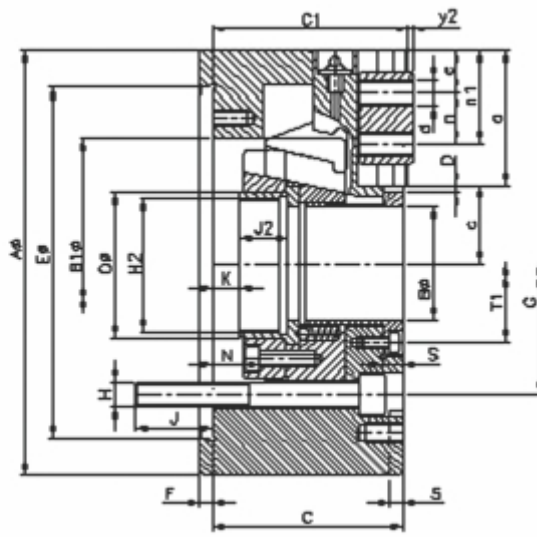
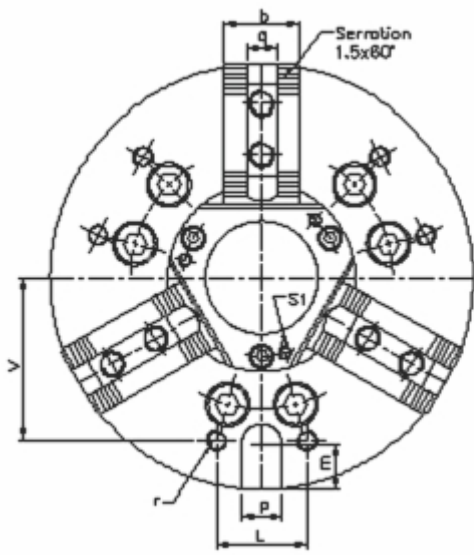
The various radii on the hard jaws in conjunction with the serrations are designed to grip a wide range of diameters.

The hardened guideways of the body, nickel chrome case hardened and ground base jaws and the wedge ensure high load carrying capacity.

Chuck performance detail

2 Jaw and 4 Jaw chucks with through bore can be offered on request

CHUCK SIZE Ø			165	210	254	305
Clamping Range	External	Maximum	165	210	254	305
		Minimum	16	38	23	55
	Internal	Maximum	165	210	254	305
		Minimum	-	118	106	130
Max Drawbar pull (Kgf)			2200	3400	4300	4800
Max gripping force (Kgf)			5400	8400	11100	5500
RPM max.			6000	4800	4200	3300
Weight (Kgs)			12	23	34	47
Flywheel effect GD ² (Kpm ²)			0.2	0.38	0.8	2.6
Max. top jaw weight (Kgs)			1.5	1.7	3.5	4

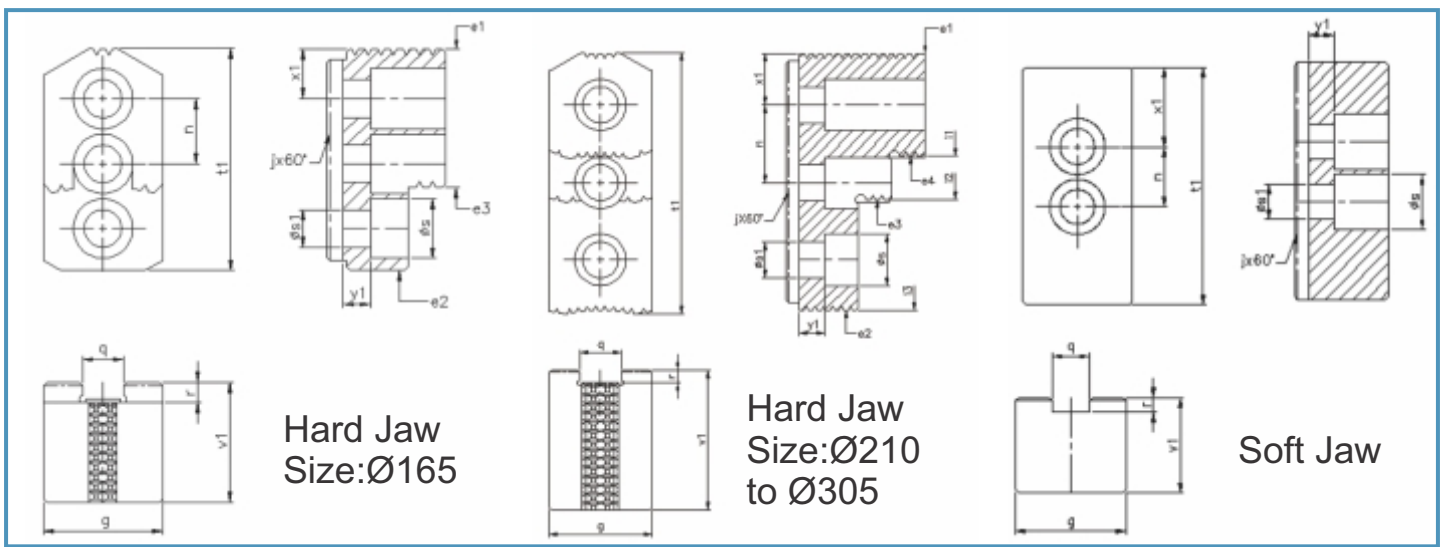


PHNC-KA

DIMENSIONAL SPECIFICATION

All Dimensions in mm

Model	67-01	67-02	67-03	67-04
Size Ø	165	210	254	305
A Ø	169	210	254	304
BØ H7	45	52	78	91
B1Ø	100	116	145	163
C	76	86	95	104
C1	80	88	97	108.5
D Jaw Stroke	2.75	3.7	4.4	5.3
EØ H6	140	170	220	220
F	5	5	6	6
G PCD	104.8	133.4	171.4	171.4
H	6xM10	6xM12	6xM16	6xM16
H2	M52x2	M60x2	M85x2	M100x2
J	15	17	23	24
J2	19	20.5	25	28
K min.	0	-1.5	-10.5	8
K max.	12	14.5	8.5	-15
N	12	16	19	23
OØ	57	66	94.5	108
S1	M5	M6	M6	M6
T1 PCD	63	72	99	117
a	52.5	66	75	90
b	30	40	45	50
c min.	29.25	35	48.6	56.7
c max.	32	38.7	53	62
d	M10	M12	M12	M14
e min	9	10	14	11
n	20	25	30	30
n1 max.	44	53	63	73
q H7	12	14	16	21
y2	2	2.5	2.5	2
P H12	16	16	16	20
r	M8	M8	M10	M10
m	18	28	30	55
L	36	45	60	60
V	65	85	105	125
Special Execution				
O1Ø	31.5	35	35	35
H1	M16	M20	M20	M20
J1	30	30	40	40
Z1	25	30	30	30



Hard Jaw
Size:Ø165

Hard Jaw
Size:Ø210
to Ø305

Soft Jaw

HARD JAW SPECIFICATIONS				
Ø-Size	165	210	254	305
g	35	35	40	50
jx60°	1.5	1.5	1.5	1.5
n	20	25	30	30
qH7	12	14	16	21
r	5	5	5	5
Øs	17.5	20	20	26
Øs1	11	14	14	18
t1	67	86	101.5	97.5
v1	36	51	54	55
x1	14.5	17	20	16.5
y1	8	8	10	10

SOFT JAW SPECIFICATIONS				
Ø-Size	165	210	254	305
g	35	35	40	50
jx60°	1.5	1.5	1.5	1.5
n	20	25	30	30
q+0.05	12	14	16	21
r	4.5	5	5	5
Øs	17.5	20	20	23
Øs1	11	14	14	15
t1	75	95	110	129
v1	30	38	42	50
x1	20	24	30	39
y1	8	10	10	15

HARD JAW CLAMPING RANGE				
Ø-Size	165	210	254	305
e1	16-81	40-130	23-124	55-182
e2	-	38-127	23-124	-
e3	70-134	95-184	109-210	-
e4	-	135-210	143-244	175-302
i1	-	118-206	106-206	130-252
i2	-	157-210	141-240	-
i3	-	-	227-254	-



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