



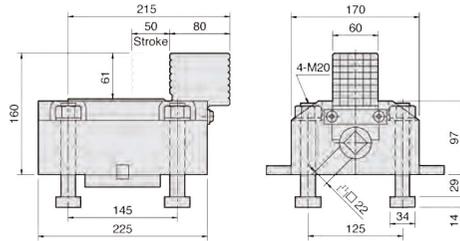
## HB4

### Boring mill jaw

1. Clamping of workpiece for larger size lathe, vertical lathe, die set with jig.
2. One set of 4-piece with T-bolt.

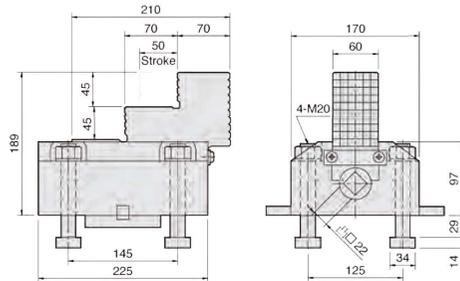
UNIT : mm

SPEC Model	Jaw Stroke (mm)	Max. Gripping Force (kN)	Weight (kg)
HB4-160	50	39.2	29



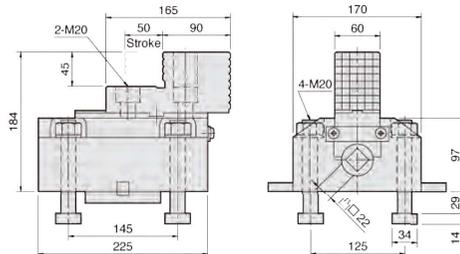
UNIT : mm

SPEC Model	Jaw Stroke (mm)	Max. Gripping Force (kN)	Weight (kg)
HB4-189	50	39.2	31



UNIT : mm

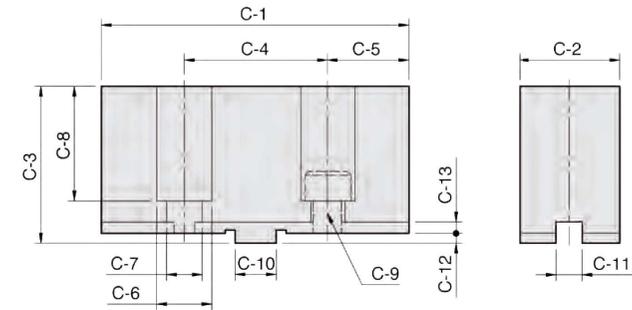
SPEC Model	Jaw Stroke (mm)	Max. Gripping Force (kN)	Weight (kg)	Matching Soft Jaw
HB4-2P	50	39.2	31	HE2486



## SKC

### Soft jaw for strong scroll chuck

1. Soft jaws for strong scroll chuck.
2. Manufactured in special specification.



UNIT : mm

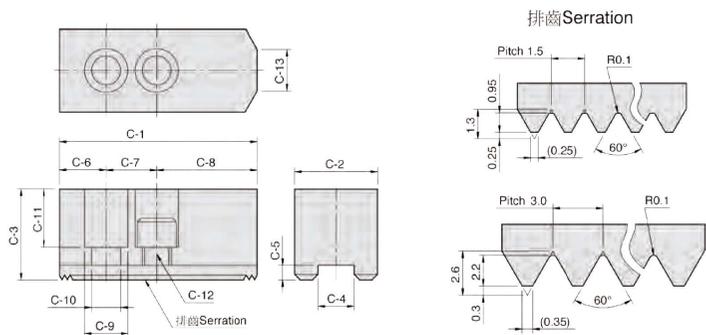
SPEC Model	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10	C-11	C-12	C-13	Matching Chuck	3 Jaw Weight (kg)
SKC04	52	19	30	24	14	11	7	21	M6	9.53	7.94	2.5	3	SK-4	0.45
SKC06	73	26	37	38	17.5	14	8.5	27	M8	12.68	7.94	3	3.5	SK-6, KD-6"	1.5
SKC07	95	31	48	44.5	25.25	17	11	35	M10	12.68	7.94	3	3.5	SK-7, SK-8, KD-8", KA-8"	2.7
SKC09	110	37	48	54	28	19	13	34	M12	19.03	12.7	3	3.5	SK-9, SK-10, KD-10", KA-10"	3.7
SKC12	125	40	54	63.5	30.75	19	13	40.5	M12	19.03	12.7	3	3.5	SK-12, KD-12", KA-12"	4.9
SKC16	160	50	70	76.2	41.9	25	17	48	M16	19.03	12.7	6	3.5	SK-16	11
HE2486	155	59	86	76.2	52.9	32	22	66	M20	19.03	12.7	6	4	HB4-2P	19.2(4PC)

# HC

## Soft jaw for hydraulic power chuck



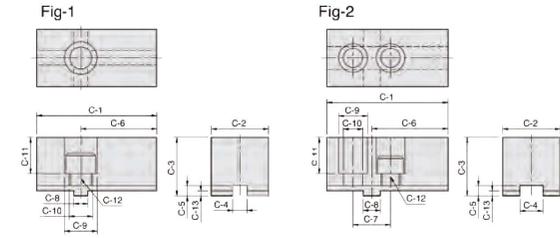
1. Soft jaws for hydraulic power chucks.
2. Soft jaw for CNC lathe.



DIM Model	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10	C-11	C-12	C-13	Serration Pitch	Matching Chuck	3 Jaw Weight (kg)
HC04	53	23	23	10	5	9	14	30	14	9	14	M8	3	1.5x60°	N-204	0.45
HC05	62	25	30	10	5	9	14	39	14	9	21	M8	5	1.5x60°	N-205	0.7
HC06	73	31	36	12	5	15	20	38	17	11	21	M10	14	1.5x60°	N-206, NB-306, V-206	1.5
HC08	95	35	37	14	5	24	25	46	19	13	22	M12	16	1.5x60°	N-208, NB-208, V-208	2.4
HC10	110	40	42	16	5	30	30	50	19	13	27	M12	18	1.5x60°	N-210, NB-210, V-210	3.7
HC12	130	50	50	21	5	39	30	61	25	17	33	M16	23	1.5x60°	N-212, NB-212	6.5
HC15	165	62	62	22	8	37	43	85	32	21	38	M20	—	1.5x60°	N-215, N-218, NB-215, NB-218	12.5
HC08-1	95	35	37	12	5	24	20	51	17	11	21	M10	14	1.5x60°	NHT-208	2.4
HC12-1	130	50	50	18	5	39	30	61	23	15	30	M14	23	1.5x60°	V-212, V-212R	6.6
HC15-1	165	62	62	25.5	5	37	43	85	32	21	38	M20	—	1.5x60°	V-215, V-218, V-215R, V-218R	12.5
HC24-1	180	64	70	25	9	40	60	80	32	21	45	M20	—	3.0x60°	N-220, N-224, V-221, V-224, V-221R, V-224R	15.8
HC32-1	210	74	90	25	9	40	80	90	32	21	65	M20	—	3.0x60°	V-232	29.2
HC15-2	156	64	70	26	9	34	50	72	32	21	45	M20	—	3.0x60°	V-215(P3.0), V-218(P3.0)	13.4

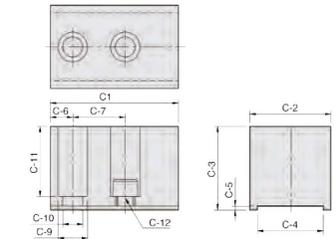
## Soft jaw for draw down power chuck

DIM Model	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10	C-11	C-12	C-13	Matching Chuck	3 Jaw Weight (kg)	Reference
DR-06	70	35	34	10	6	43	—	10	23	15.5	21	M14	2.5	DR-06	1.5	Fig-1
DR-08	84	40	44.5	16	7	53	26	12	20	13.5	29	M12	3.5	DR-08	2.7	Fig-2



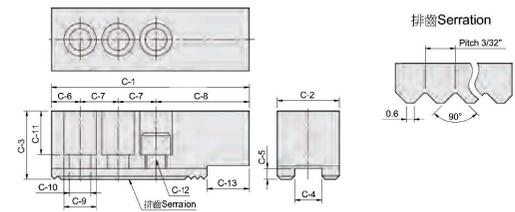
## Soft jaw for ball swing lock chuck

DIM Model	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-9	C-10	C-11	C-12	Matching Chuck	3 Jaw Weight (kg)
BL-12	108	70	70	57.1	3.3	19	44.45	25	17	59	M16	BL-12	10.6



## Soft jaws for pneumatic power chuck

DIM Model	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10	C-11	C-12	C-13	Matching Chuck	3 Jaw Weight (kg)
PB600	205	60	60	25.5	6	25	38	104	32	21	44	M20	55	PB-ES600	13.5
PB850	320	80	80	30	7	35	60	165	38	26	53	M24	110.5	PB-ES850	40.2



# HJ

## Hard jaw for hydraulic power chuck

1. Hard jaw for hydraulic power chucks.
2. Hard jaw for CNC lathes.



Fig-1

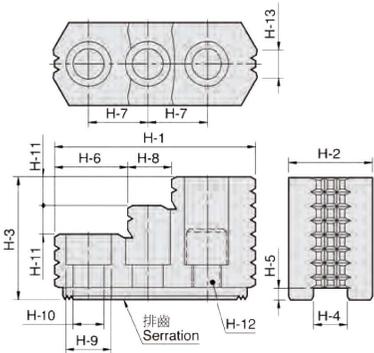
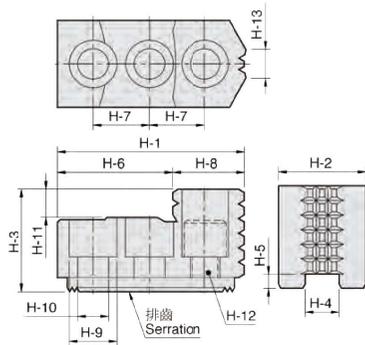


Fig-2



SPEC Model	UNIT : mm													Serration Pitch	Reference	Matching Chuck	3 Jaw Weight (kg)
	H-1	H-2	H-3	H-4	H-5	H-6	H-7	H-8	H-9	H-10	H-11	H-12	H-13				
HJ05	53	23	27.5	10	4	30.5	14	22.5	13.5	8.5	10	M8	6	1.5x60°	Fig-2	N-204, N-205	0.4
HJ06	67	31	35	12	5	39.5	20	27.5	17	11	12	M10	11	1.5x60°	Fig-2	N-206, V-206	1.0
HJ08	86	35	51	14	5	31	25	18	19	13	12	M12	12	1.5x60°	Fig-1	N-208, V-208	1.9
HJ10	99.5	40	54	16	5	43	30	17	19	13	13	M12	15	1.5x60°	Fig-1	N-210, V-210	2.9
HJ12	103	50	52	21	4	62.5	30	40.5	25	17	17	M16	30	1.5x60°	Fig-2	N-212	3.5
HJ12-1	103	50	52	18	5	62.5	30	40.5	22	15	17	M14	30	1.5x60°	Fig-2	V-212	3.6
HJ15	149	62	86	22	8	63	43	34	32	21	20	M20	40	1.5x60°	Fig-1	N-215, N-218	9.6
HJ15-1	149	62	86	25.5	5	63	43	34	32	21	20	M20	40	1.5x60°	Fig-1	V-215, V-218	9.5
HJ24-1	159.5	80	90	25	9	104.5	50	55	32	21	40	M20	55	3.0x60°	Fig-2	N-220, N-224, N-232, V-221, V-224, V-232	14.3
PB600	140	60	75	25.5	6	50.35	38	49.86	31	21	19	M20	21.1	3/32"x90°	Fig-1	PB-ES600	7.2
PB850	220	75	85	30	6.5	130	62	90	38	26	30	M25	35	3/32"x90°	Fig-2	PB-ES850	20.2



# ADAPTER

## Mounting adapter on short taper spindle noses DIN55026

TYPE1

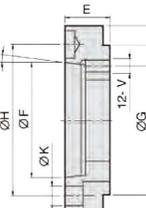
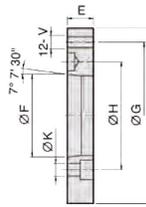
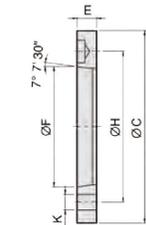
DIM Model	Spindle Nose	C	F	H	K	E	Matching Chuck
N-205A4	A4	110	63.513	82.55	3-11	15	N-205
NT-205A4	A4	110	63.513	82.55	4-11	15	NT-205
N-206A5	A5	140	82.563	104.78	6-11	15	N-206, NB-306, V-206, DR-06
NT-206A5	A5	140	82.563	104.78	6-11	15	NT-206, VT-206
NIT-206A5	A5	140	82.563	104.78	4-11	15	NIT-206
N-208A6	A6	170	106.375	133.35	6-13	17	N-208, NB-208, V-208, DR-08
NT-208A6	A6	170	106.375	133.35	6-13	17	NT-208, VT-208
NIT-208A6	A6	170	106.375	133.35	4-13	17	NIT-208
NHT-208A6	A6	170	106.375	133.35	6-13	17	NHT-208
N-210A8	A8	220	139.719	171.45	6-17	18	N-210, N-212, NB-210, V-210, V-212, NB-310, V-212R, BL-12
NT-210A8	A8	220	139.719	171.45	6-17	18	NT-210, NT-212, VT-210, VT-212
NIT-210A8	A8	220	139.719	171.45	4-17	18	NIT-210, NIT-212, VIT-212
N-215A11	A11	300	196.869	235	6-21	22	N-215, N-218, NB-212, V-215, V-218, VIT-212R, V-215R, V-218R
NT-215A11	A11	300	196.869	235	6-21	22	NT-215, VT-215, NT-218
NIT-215A11	A11	300	196.869	235	4-21	22	NIT-215, VIT-218, NIT-218
V-224A15	A15	380	285.775	330.2	6-25	27	N-220, NB-215, NB-218, V-232RD, V-221R, V-224R, V-232R
VIT-224A15	A15	380	285.775	330.2	8-25	27	VIT-224R, VIT-232R
N-224A20	A20	520	412.775	463.6	6-25	25	N-224, N-232, V-240, V-250, NIT-224

TYPE2

DIM Model	Spindle Nose	C	F	H	K	G	V	E	Matching Chuck
N-206A4	A4	140	63.513	82.55	11	104.78	M10	20	N-206, NT-206, NIT-206, V-206
N-208A5	A5	170	82.563	104.78	11	133.35	M12	23	N-208, NT-208, NIT-208, NHT-208, NB-208, V-208, VT-208
N-210A6	A6	220	106.375	133.35	13	171.45	M16	25	N-210, NT-210, NIT-210, N-212, NT-212, NIT-212, V-210, VT-210, V-212, VT-212, VIT-212, NB-210, NB-310
N-215A8	A8	300	139.719	171.45	17	235	M20	33	N-215, NT-215, NIT-215, N-218, NB-212, V-215, VT-215, V-218, VIT-218, NIT-218
N-220A11	A11	380	196.869	235	21	330.2	M24	41	N-220, VIT-232, NB-215, NB-218, NIT-224
N-224A11	A11	520	196.869	235	21	463.6	M24	45	N-224, N-232, V-240, V-250, NIT-224
N-224A15	A15	520	285.775	330.2	25	463.6	M24	42	N-224, N-232, V-240, V-250, VIT-240, VIT-250, NIT-224, VE-250
V-224A8	A8	380	139.719	171.45	17	330.2	M24	33	V-221, V-224, N-220, NB-215
V-224A11	A11	380	196.869	235	21	330.2	M24	27	V-221, V-224, V-232
VE-263A20	A20	720	412.775	463.6	27	647.6	M30	50	VE-263, VE-279

TYPE3

DIM Model	Spindle Nose	C	F	H	K	G	V	W	E	Matching Chuck
N-205A5	A5	110	82.563	104.78	11	82.55	M10	128	32	N-205, NT-205
N-206A6	A6	140	106.375	133.35	13	104.78	M10	165	35	N-206, NT-206, NB-306, V-206, VT-206, NIT-206
N-208A8	A8	170	139.719	171.45	17	133.35	M12	208	40	N-208, NT-208, NIT-208, NB-208, V-208, VT-208, NHT-208
N-212A11	A11	220	196.869	235	21	171.45	M16	278	50	N-210, NT-210, NIT-210, N-212, NT-212, NIT-212, NB-210, V-210, V-212, VT-212, VIT-212, NIT-212, V-215, NT-215, NIT-215, N-218, NB-212, V-215, VT-215, V-218, VIT-218, NIT-218
N-215A15	A15	300	285.775	330.2	25	235	M20	378	57	N-215, NT-215, NIT-215, N-218, NB-212, V-215, VT-215, V-218, VIT-218, NIT-218
N-224A20	A20	380	412.775	463.6	26	330.2	M24	520	58	N-220, V-221R, V-224R, V-232R



# T-NUTS

Suitable for power chuck



# F52

High speed and light weight type strong finger chuck for aluminum wheel



1. All sliding surfaces are hardened and ground for accurate actual running and long service repeatability.
2. Mounting : Adaptor mounting to fit with DIN, ISO, BS, ASA, B5-9 type A spindles.

Fig. 1

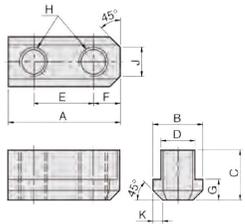


Fig. 2

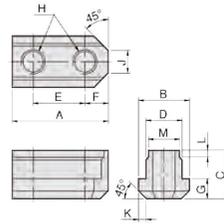
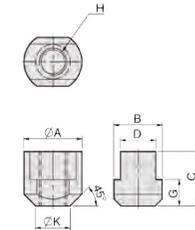
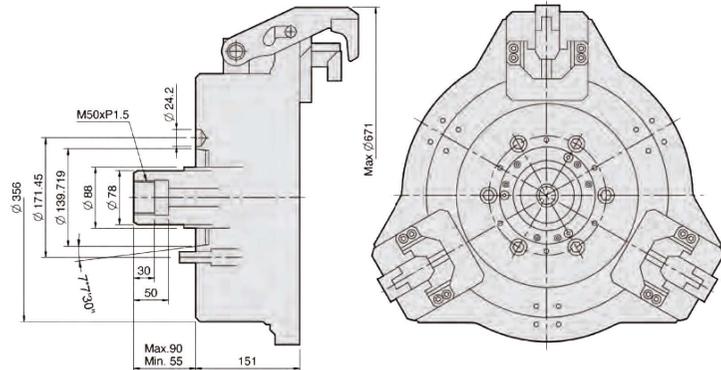


Fig. 3



UNIT : mm

DIM Model	A	B	C	D	E	F	G	H	J	K	L	M	Fig	Matching Chuck
N-205	26	14.5	15	10	14	6	5.5	M8	5	2	—	—	1	N-204, N-205
N-206	36	17.5	18.5	12	20	8.2	7.5	M10	8	2.5	—	—	1	N-206, NB-306
N-208	46.5	20.5	20.5	14	25	10.5	8.5	M12	12	4	—	—	1	N-208, NB-208
N-210	51	22.5	21.5	16	30	11	8.5	M12	11	3	—	—	1	N-210, NB-210
N-212	55.5	29.5	27.8	21	30	12	11.5	M16	13	4.5	—	—	1	N-212, NB212
N-215	80	33.5	45.5	24	43	17	16.5	M20	11	5	8	22	2	N-215, N-218
V-206	36.5	17.5	22.5	12	20	7.5	7.5	M10	6	3	—	—	1	V-206, NHT-208
V-208	48	20.5	25.5	14	25	11	9.5	M12	8	4	—	—	1	V-208
V-210	55	22.5	25.5	16	30	11	9.5	M12	8	4	—	—	1	V-210
V-212	55.5	26.5	33.5	18	30	11.5	13.5	M14	11	5	—	—	1	V-212
V-215	42	35	39.2	25.5	—	—	19	M20	—	25	—	—	3	V-215, V-218
V-215 26 M20	42	35	41.2	26	—	—	19	M20	—	25	—	—	3	V-215P3.0
V-224	46	37.5	45	25	—	—	19	M20	—	26.5	—	—	3	N-220, N-224, V-221, V-224, V-232



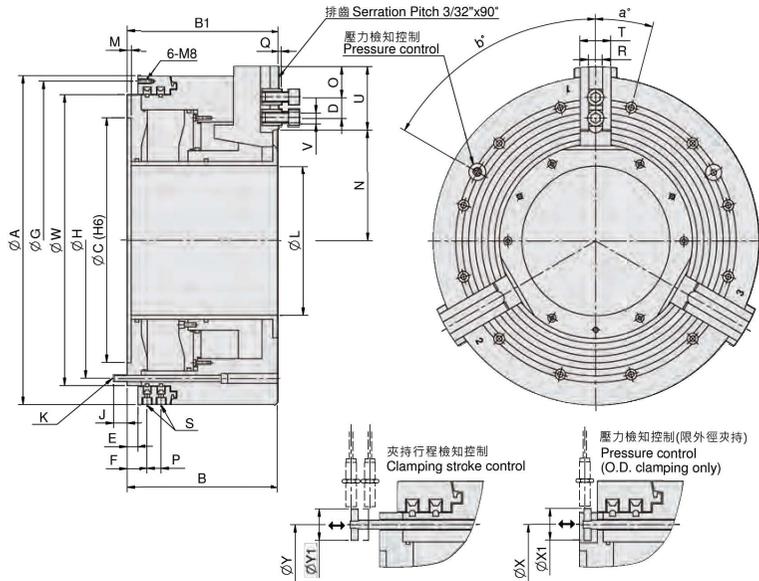
UNIT : mm

SPEC Model	Matching Wheel Size	Out. Dia. Of Chuck (mm)	Matching Spindle	Max. Pull Force (kN/kgf)	Max. Gripping Force (kN/kgf)	Max. Operating Pressure (MPa/kgf/cm <sup>2</sup> )	Max. Speed (r.p.m.)	Weight (Without Jigs) (kg)	Matching Cylinder
F52A8	12"-18"	521	A2-8	33.9(3456)	32.4(3303)	3.3(33.6)	2800(18"2200)	98	MS125C35

# PB-ES

## Pneumatic power chuck

1. Air chuck for external clamping with built-in pneumatic cylinder.
2. Fast and clamping jaw stroke.
3. Clamping pressure control.
4. Clamping stroke control.



UNIT : mm

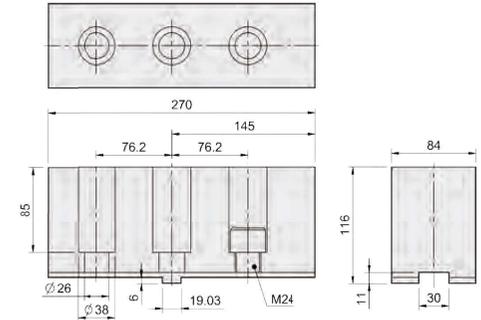
SPEC Model	Through-Hole (mm)	Total Stroke / Jaw (mm)	Fast Stroke / Jaw (mm)	Clamping Stroke / Jaw (mm)	Piston Area (cm <sup>2</sup> )	Operating Pressure Min.-Max. (bar)	Gripping* Force (kN)	Max. Speed (r.p.m.)	Weight (kg)	Moment Of Inertia I (kg · m <sup>2</sup> )	Air* Consumption (L)
600-275	275	25.4	16.9	8.5	954	2-10	180	1100	360	20.6	39.5
850-375	375	25.4	13.4	12	1342	2-10	250	750	980	110	68

\*When operating pressure at 6 bar.

DIM Model	A	B	B1	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	X1	Y	Y1	a	b
600-275	605	280	282	450	79/38	20	37	585	508	25	12-M12	275	8	204.6/179.2	14	26	3	25.5	G1/2	57	116.5	M20	535	508	35	508	35	15	60
850-375	850	352	354	700	140/47	25	44.5	830	745	30	12-M16	375	8	268/242.6	16	33	4	30	G1/2	75	182	M24	775	745	35	745	35	15	60

# HC40-1

## Soft jaw for hydraulic power chuck



# HJ40-1

## Hard jaw for hydraulic power chuck

