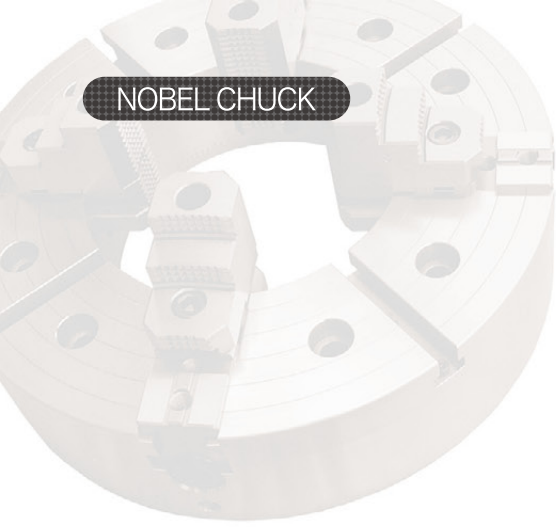


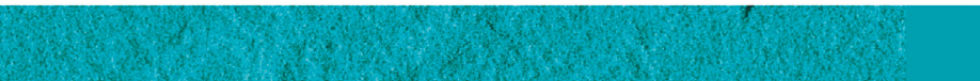


NOBEL CHUCK

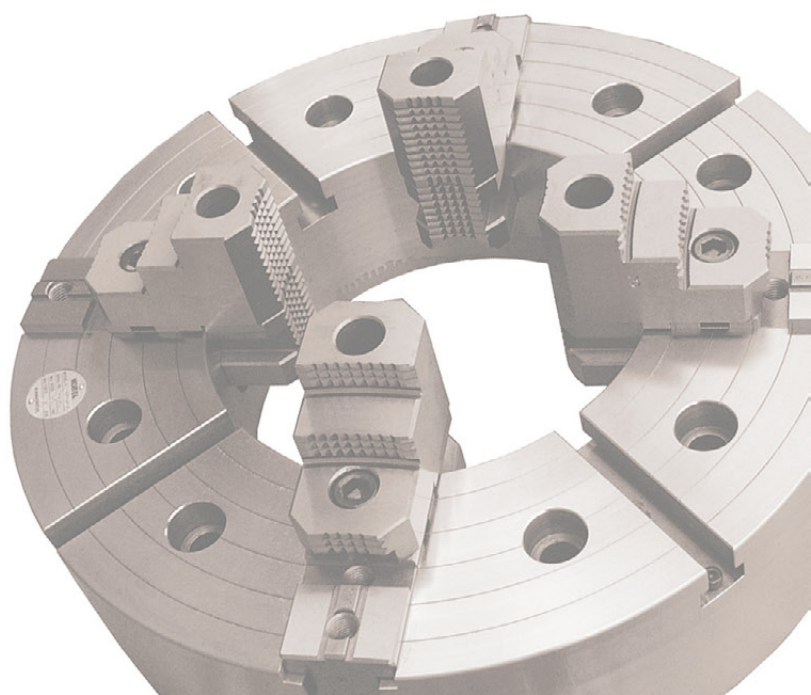
KAWA  ATATEC

NOBEL CHUCK GENERAL CATALOG

CE0210



NOBEL CHUCK



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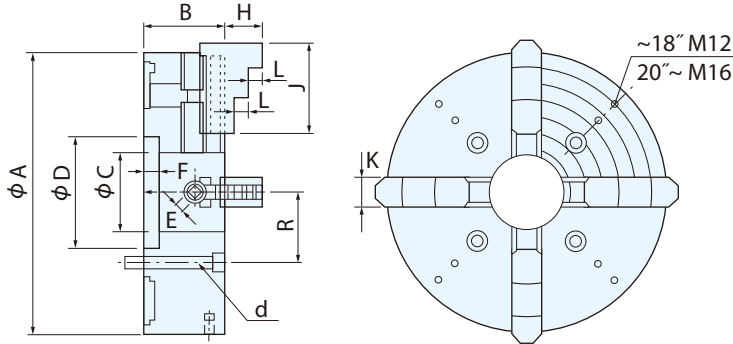
NOBEL

INDEPENDENT CHUCK

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FOR ADAPTER MOUNTING

- Installed on the lathe spindle nose after installation of a back plate
- Cast iron body
- Jig installation is safety-designed by adopting tapped holes



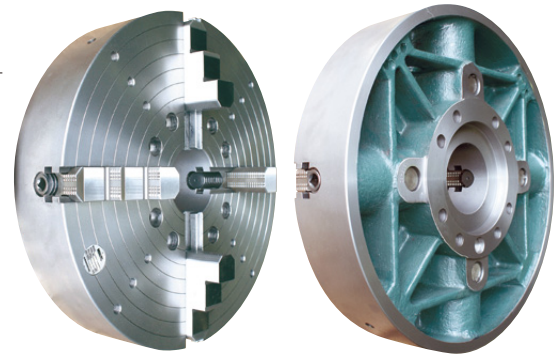
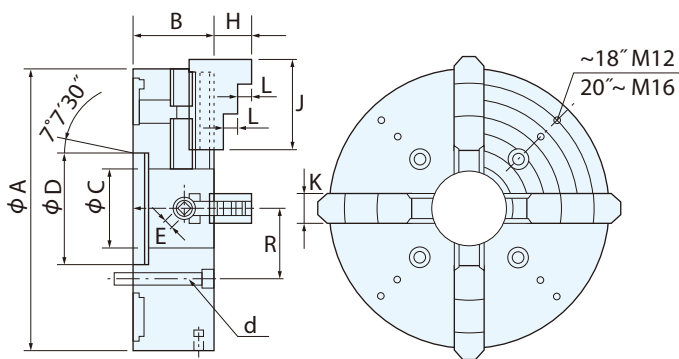
Unit (mm)

Chuck Size	No.	A	B	C	D _{H7}	E	F	H	J	K	L	R	d	Weight (kg)
12	4612 FC	300	90	70	110	12	18	45	112	35	18	66.7	4-M12	39
14	4614 FC	350	100	95	140	12	20	45	112	35	18	85.7	4-M16	49
16	4616 FC	400	100	100	140	14	20	55	132	40	22	85.7	4-M16	64
18	4618 FC	450	105	125	200	14	21	55	132	40	22	117.5	4-M20	86
20	4620 FC	500	110	125	200	14	21	65	149	45	27	117.5	4-M20	117
24	4624 FC	600	120	125	200	15	21	70	159	50	28	117.5	8-M20	164
28	4628 FC	700	130	140	200	16	21	90	190	55	32	117.5	8-M20	225
30	4630 FC	750	140	140	200	16	21	90	190	55	32	117.5	8-M20	275
32	4632 FC	810	140	180	200	26 (Hex.)	21	100	200	60	35	117.5	8-M20	320

※Chucks in a size 28 or larger have a T-slot between jaws. (No tapped holes)

FOR DIRECT MOUNTING

- Directly installed (JIS/ASA) short tapered type
- Cast iron body
- Jig installation is safety-designed by adopting tapped holes

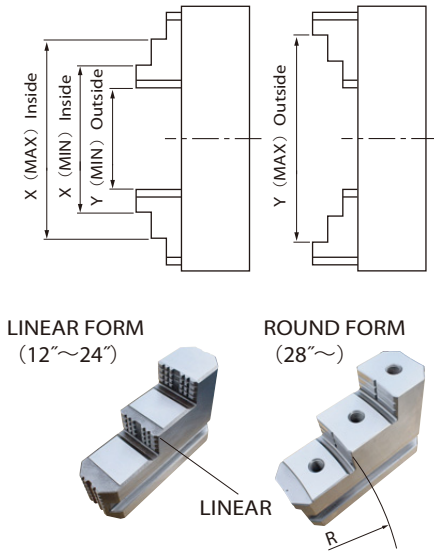


Unit (mm)

Chuck Size	Spindle Nose	No.	A	B	C	D _{H7}	E	H	J	K	L	R	d	Weight (kg)
12	A1- 6	4612 A 6	300	90	70	106.375	12	45	112	35	18	66.7	4-M 12	39
14	A2- 6	4614 A 6	350	100	95	106.375	12	45	112	35	18	66.7	4-M 12	49
16		4616 A 6	400	100	100	106.375	14	55	132	40	22	66.7	8-M 12	64
14		4614 A 8	350	100	95	139.719	12	45	112	35	18	85.7	4-M 16	49
16		4616 A 8	400	100	100	139.719	14	55	132	40	22	85.7	4-M 16	64
18	A1- 8	4618 A 8	450	105	125	139.719	14	55	132	40	22	85.7	4-M 16	87
20	A2- 8	4620 A 8	500	110	125	139.719	14	65	149	45	27	85.7	4-M 16	117
24		4624 A 8	600	120	125	139.719	15	70	159	50	28	85.7	8-M 16	164
18		4618 A 11	450	105	125	196.869	14	55	132	40	22	117.5	4-M 20	87
20	A1-11	4620 A 11	500	110	125	196.869	14	65	149	45	27	117.5	4-M 20	117
24	A2-11	4624 A 11	600	120	125	196.869	15	70	159	50	28	117.5	8-M 20	164

※For installation tapers other than above, prepare the tapers so as to be flanged.

PERFORMANCE TABLE



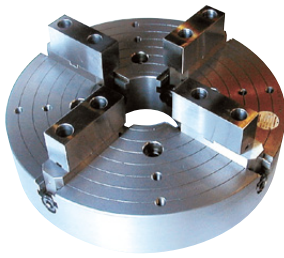
Chuck Size	No.	Gripping Force		Gripping Range		Max. Speed min ⁻¹ (r.p.m)
		Max. Wrench Torque N · m (kgf · m)	Per One Jaw kN (kgf)	Outside MIN~MAX (mm)	Inside MIN~MAX (mm)	
12	4612FC, 4612A6	176 (18)	19 (2000)	25~265	110~265	1800
14	4614FC, 4614A6, 4614A8	196 (20)	21 (2200)	25~310	110~310	1600
16	4616FC, 4616A6, 4616A8	245 (25)	23 (2400)	25~360	115~350	1450
18	4618FC, 4618A8, 4618A11	245 (25)	23 (2400)	25~410	115~390	1300
20	4620FC, 4620A8, 4620A11	294 (30)	27 (2800)	30~450	130~435	1150
24	4624FC, 4624A8, 4624A11	314 (32)	28 (2900)	50~550	140~530	950
28	4628FC, 442813, 442814	343 (35)	31 (3200)	60~640	160~610	700
30	4630FC, 443013, 443014	343 (35)	31 (3200)	60~700	160~650	650
32	4632FC, 443214, 443215	392 (40)	32 (3300)	80~750	200~730	600
36	443614	441 (45)	36 (3700)	80~840	200~800	530
40	444014, 444015	441 (45)	36 (3700)	100~920	200~890	480
47	444714, 444715	490 (50)	40 (4100)	100~1100	220~1070	360
55	445514, 445515	539 (55)	44 (4500)	150~1270	270~1225	300
59	445914, 445915	539 (55)	44 (4500)	200~1370	350~1325	270
63	446314, 446315	539 (55)	44 (4500)	300~1470	450~1425	240
71	447115	588 (60)	49 (5000)	450~1620	650~1640	210

MASTER JAW (OPTIONAL)

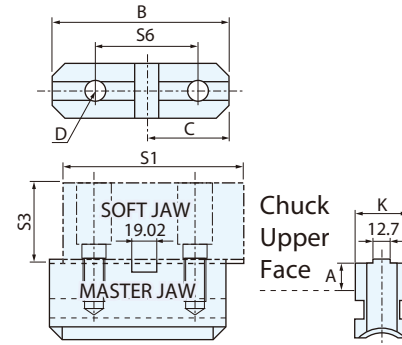
46DJ SERIES

Adoption of soft jaws is enabled by changing a solid jaw to this master jaw (optional).

FOR INDEPENDENT CHUCK



MASTER JAW



SOLID JAW



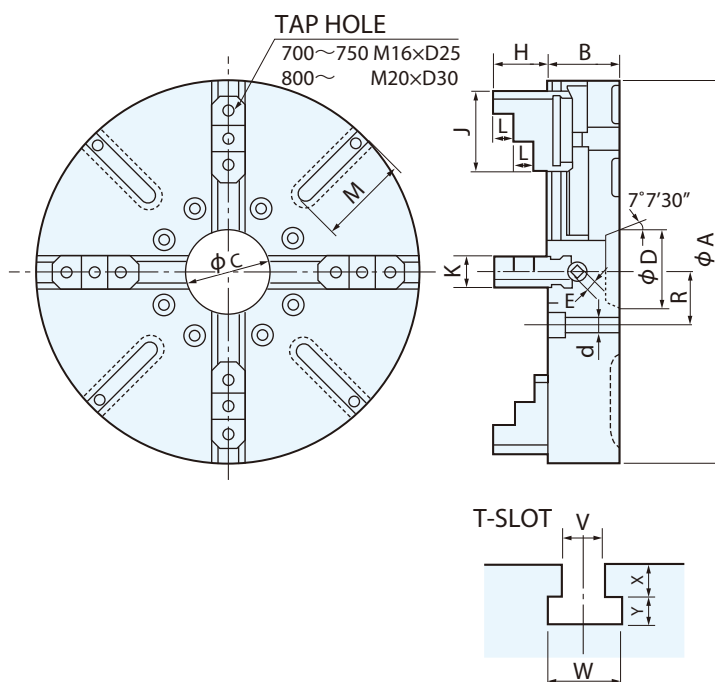
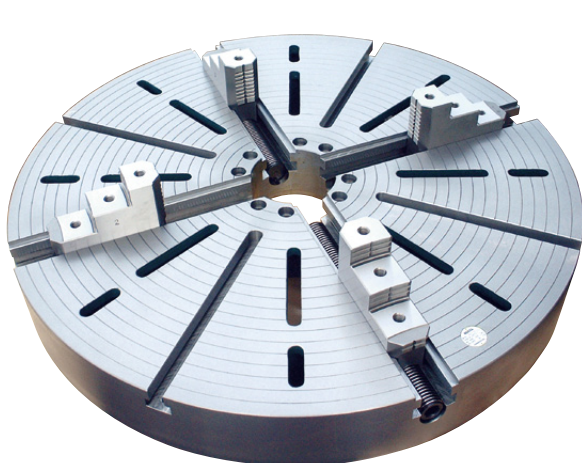
You can easily install soft jaws for boring.

MODEL	Chuck No.	MASTER JAW					SOFT JAW <Standard Soft Jaw>				<Higher Soft Jaw>		Unit (mm)
		A	B	C	D	K	No.	S1	S3	S6	No. x S3	Mounting Bolt(8pcs.)	
46 DJ 12	4612FC, 4612A6 4614FC, 4614A6, 4614A8	15	112	52	M 12	35	SJ115	115	49	63.5	SJ115 x 90	M12 x 30	
46 DJ 16	4616FC, 4616A6, 4616A8 4618FC, 4618A8, 4618A11	20	132	61	M 16	40	SJ135	135	60	76.2	SJ135 x120	M16 x 35	
46 DJ 20	4620FC, 4620A8, 4620A11	20	150	65	M 16	45	SJ135	135	60	76.2	SJ135 x 120	M16 x 35	
46 DJ 24	4624FC, 4624A8, 4624A11	25	160	70	M 20	50	SJ150	150	70	76.2	SJ150 x 120	M20 x 40	
46 DJ 28	4628FC, 442813, 442814 4630FC, 443013, 443014	25	190	73	M 20	55	SJ155	155	80	76.2	SJ155 x 140	M20 x 40	
46 DJ 32	4632FC, 443214, 443215	25	200	73	M 20	60	SJ155	155	80	76.2	SJ155 x 140	M20 x 40	

※ Things to keep in mind when using soft jaws : Please consider the jaw edge shape, higher jaw, flaw prevention, and safety, etc., before use.

LARGE-SIZED TYPE

- Directly installed (JIS/ASA) short tapered type
- Replaceable solid jaw type
- A stopper bolt provided at the T-slot end



Chuck Size	V	W	X	Y
28 (700) ~30 (750)	20	34	20	13.5
32 (800) ~40 (1000)	24	42	24	18
47 (1200) ~	28	48	28	20

Unit (mm)

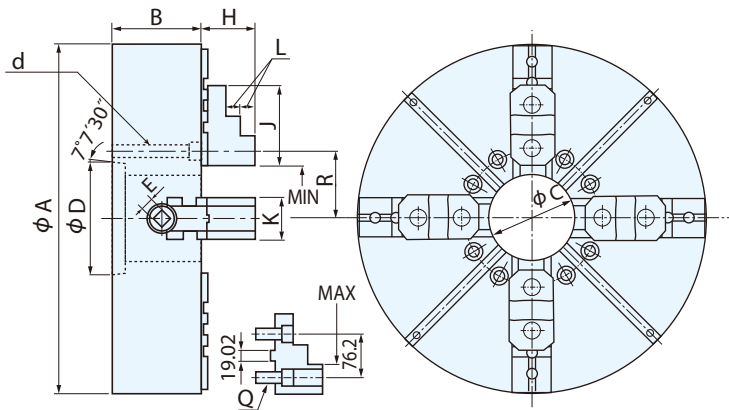
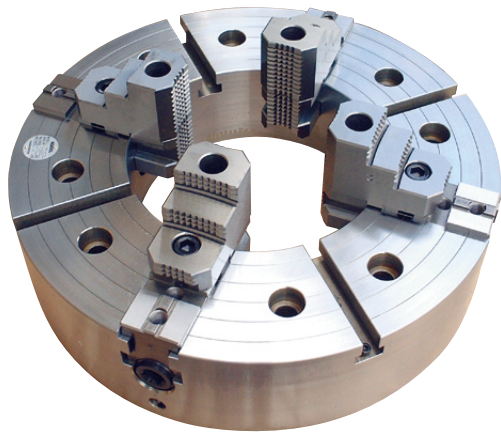
Chuck Size	MODEL	Spindle Nose	No.	A	B	C	D	E	H	J	K	L	M	R	d	Weight (kg)
28	700A8	A1- 8 A2- 8	442813	700	130	110	139.719	16 (Quad.)	90	190	55	32	200	85.7	4-M16	240
30	750A8		443013	750	140	120	//	16 (Quad.)	90	190	55	32	175	//	//	285
28	700A11	A1-11 A2-11	442814	700	130	140	196.869	16 (Quad.)	90	190	55	32	180	117.5	8-M20	235
30	750A11		443014	750	140	140	//	16 (Quad.)	90	190	55	32	175	//	//	280
32	810A11		443214	810	140	180	//	26 (Hex.)	100	200	60	35	235	//	//	320
36	915A11		443614	915	150	165	//	26 (Hex.)	100	200	60	35	260	//	//	460
40	1000A11		444014	1000	160	180	//	26 (Hex.)	100	200	60	35	320	//	//	485
47	1200A11		444714	1200	160	180	//	26 (Hex.)	110	230	80	40	400	//	//	690
55	1400A11		445514	1400	160	180	//	26 (Hex.)	110	230	80	40	420	//	//	970
59	1500A11		445914	1500	170	180	//	26 (Hex.)	110	230	80	40	480	//	//	1080
63	1600A11		446314	1600	190	180	//	26 (Hex.)	110	230	80	40	520	//	//	1450
32	800A15	A1-15 A2-15	443215	800	200	200	285.775	26 (Hex.)	110	230	80	40	150	165.1	8-M22	500
40	1000A15		444015	1000	200	180	//	26 (Hex.)	110	230	80	40	250	//	//	710
47	1200A15		444715	1200	200	200	//	26 (Hex.)	110	230	80	40	350	//	//	1050
55	1400A15		445515	1400	200	200	//	26 (Hex.)	110	230	80	40	420	//	//	1100
59	1500A15		445915	1500	200	200	//	26 (Hex.)	110	230	80	40	480	//	//	1200
63	1600A15		446315	1600	200	200	//	26 (Hex.)	110	230	80	40	520	//	//	1480
71	1800A15		447115	1800	220	200	//	26 (Hex.)	160	300	80	55	600	//	//	2100

※Manufacture of chucks in sizes other than the above is available.

FORGED STEEL BODY

- Directly installed (JIS/ASA) short tapered type
- Standard 2-piece tongue and groove jaws
- One set of hard top jaws included (Soft jaws not included)
- A stopper bolt provided at the T-slot end

410 : HEAVY DUTY
420 : MEDIUM DUTY
411,421 : TOP JAW UNC TYPE



※1 : Dimensions : metric, : inch. ※2 : Dimensions in brackets () are Max. thru-hole diameter which can be machined.
※3 : Bolt : for 410, 420 model Bolt : for 411, 421 model

Unit (mm)

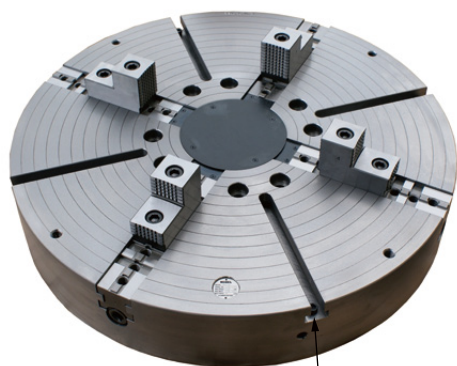
MODEL	Spindle Nose	A		B		C		D		Gripping Dia		R		Weight	
		(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	MIN (mm)	MAX (mm)	(mm)	(inch)	(kg)	(lb)
420 18 A8	A1 · A2- 8	457	18	127	5.0	115	4.5	139.7	5.5	35	1.4	430	17	165	365
420 18 A11	A1 · A2-11	457	18	127	5.0	152	6.0	196.9	7.8	35	1.4	430	17	156	345
420 21 A8	A1 · A2- 8	535	21	127	5.0	115	4.5	139.7	5.5	35	1.4	500	20	225	497
410 21 A11	A1 · A2-11	535	21	146	5.7	152 (160)	6.0 (6.3)	196.9	7.8	45	1.8	490	19	240	530
410 21 A15	A1 · A2-15	535	21	146	5.7	204	8.0	285.8	11.3	74	2.9	490	19	230	508
410 24 A11	A1 · A2-11	610	24	155	6.1	172 (185)	6.8 (7.3)	196.9	7.8	55	2.2	560	22	342	756
410 24 A15	A1 · A2-15	610	24	155	6.1	241 (259)	9.5 (10.2)	285.8	11.3	110	4.3	560	22	310	685
410 24 A20	A1 · A2-20	610	24	155	6.1	318	12.5	412.8	16.3	185	7.3	560	22	278	614
420 28 A11	A1 · A2-11	710	28	134	5.3	172	6.8	196.9	7.8	45	1.8	680	27	390	862
410 28 A15	A1 · A2-15	710	28	155	6.1	268 (275)	10.6 (10.8)	285.8	11.3	125	4.9	660	26	430	950
410 28 A20	A1 · A2-20	710	28	155	6.1	318	12.5	412.8	16.3	175	6.9	660	26	395	873
420 32 A11	A1 · A2-11	810	32	134	5.3	172	6.8	196.9	7.8	45	1.8	780	31	510	1127
410 32 A15	A1 · A2-15	810	32	165	6.5	268 (275)	10.6 (10.8)	285.8	11.3	125	4.9	760	30	595	1315
410 32 A20	A1 · A2-20	812	32	165	6.5	318 (370)	12.5 (14.6)	412.8	16.3	175	6.9	760	30	565	1249
410 36 A15	A1 · A2-15	915	36	175	6.9	268 (275)	10.6 (10.8)	285.8	11.3	125	4.9	860	34	820	1812
410 36 A20	A1 · A2-20	915	36	175	6.9	318 (370)	12.5 (14.6)	412.8	16.3	175	6.9	860	34	790	1746
410 42 A15	A1 · A2-15	1067	42	175	6.9	268 (275)	10.6 (10.8)	285.8	11.3	125	4.9	1010	40	1150	2542
410 42 A20	A1 · A2-20	1067	42	175	6.9	318 (370)	12.5 (14.6)	412.8	16.3	175	6.9	1010	40	1120	2475

MODEL	E		Q *3		J		K		H		d	Wrench Torque	Gripping Force	Max. Speed
	(mm)	(inch)	(Bolt For Top Jaws)		(mm)	(inch)	(mm)	(inch)	(mm)	(inch)		N · m (kgf · m)	Per Jaw kN (kgf)	min ⁻¹ (r.p.m)
420 18 A8	16	0.63	M20 UNC 3/4		135	5.3	50	1.97	75	2.95	4-M16	314(32)	29(3000)	1200
420 18 A11	16	0.63	M20 UNC 3/4		135	5.3	50	1.97	75	2.95	4-M20	314(32)	29(3000)	1200
420 21 A8	16	0.63	M20 UNC 3/4		135	5.3	50	1.97	75	2.95	4-M16	314(32)	29(3000)	1000
410 21 A11	19	0.75	M20 UNC 3/4		135	5.3	60	2.36	75	2.95	8-M20	343(35)	31(3200)	1000
410 21 A15	19	0.75	M20 UNC 3/4		135	5.3	60	2.36	75	2.95	8-M22	343(35)	31(3200)	1000
410 24 A11	22	0.87	M20 UNC 3/4		140	5.5	75	2.95	92	3.62	8-M20	392(40)	36(3700)	850
410 24 A15	22	0.87	M20 UNC 3/4		140	5.5	75	2.95	92	3.62	8-M22	392(40)	36(3700)	850
410 24 A20	22	0.87	M20 UNC 3/4		140	5.5	75	2.95	92	3.62	8-M24	392(40)	36(3700)	850
420 28 A11	19	0.75	M20 UNC 3/4		135	5.3	60	2.36	75	2.95	8-M20	392(40)	36(3700)	650
410 28 A15	22	0.87	M22 UNC 7/8		140	5.5	75	2.95	92	3.62	8-M22	441(45)	40(4100)	650
410 28 A20	22	0.87	M22 UNC 7/8		140	5.5	75	2.95	92	3.62	8-M24	441(45)	40(4100)	650
420 32 A11	19	0.75	M20 UNC 3/4		135	5.3	60	2.36	75	2.95	8-M20	392(40)	36(3700)	550
410 32 A15	22	0.87	M22 UNC 7/8		140	5.5	75	2.95	92	3.62	8-M22	441(45)	40(4100)	550
410 32 A20	22	0.87	M22 UNC 7/8		140	5.5	75	2.95	92	3.62	8-M24	441(45)	40(4100)	550
410 36 A15	22	0.87	M22 UNC 7/8		140	5.5	75	2.95	92	3.62	8-M22	490(50)	44(4500)	500
410 36 A20	22	0.87	M22 UNC 7/8		140	5.5	75	2.95	92	3.62	8-M24	490(50)	44(4500)	500
410 42 A15	22	0.87	M22 UNC 7/8		140	5.5	75	2.95	92	3.62	8-M22	490(50)	44(4500)	400
410 42 A20	22	0.87	M22 UNC 7/8		140	5.5	75	2.95	92	3.62	8-M24	490(50)	44(4500)	400

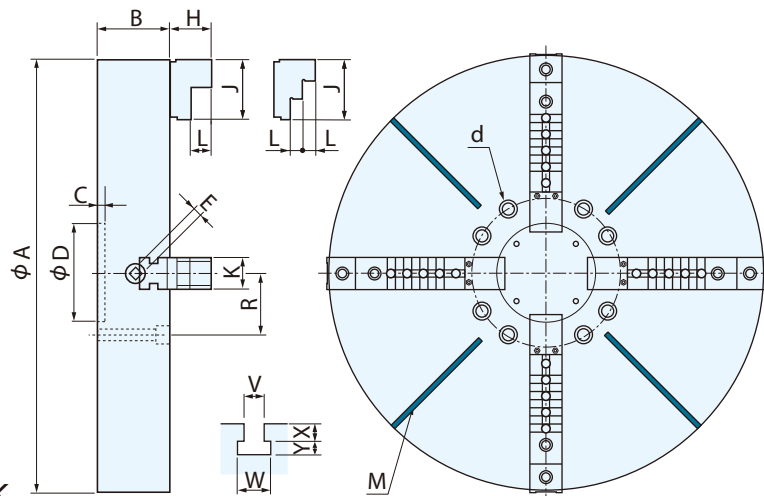
※ For master jaw dimensions and use of soft jaw, refer to page 19. ※ Manufacture of chucks in sizes other than the above is available.

4-JAW INDEPENDENT CHUCKS WITH COVER

- Cast iron body
- With chip covers
- One set of hard top jaws are included
(Soft jaws not included)



IDK
T-slot applied on surface

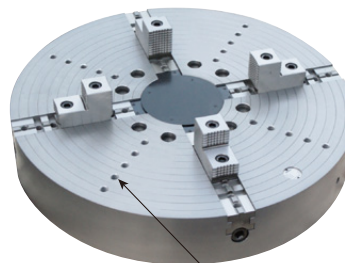
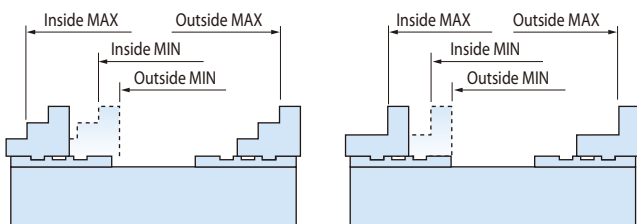


Unit (mm)

MODEL	A	B	C	D(H7)	E	H	J	K	L	Jaw Type	M	R	d	V	W	X	Y
IDV 450 ST	450	105	21	200	14	75	135	45	17.5	3-Step	8-M12	117.5	4-M20	-	-	-	-
IDV 500 ST	500	110	21	200	14	75	135	45	17.5	3-Step	8-M16	117.5	4-M20	-	-	-	-
IDV 600 ST	600	120	21	200	15	83	135	49	40	2-Step	12-M16	117.5	8-M20	-	-	-	-
IDK 700 ST	700	130	21	200	16	75	135	60	17.5	3-Step	T-Slot	117.5	8-M20	20	34	20	13.5
IDK 800 ST	800	160	20	200	19	92	140	69	46	2-Step	T-Slot	165.1	8-M24	24	42	24	18
IDK 915 ST	915	160	20	200	19	92	140	69	46	2-Step	T-Slot	165.1	8-M24	24	42	24	18
IDK 1000 ST	1000	160	20	200	19	92	140	69	46	2-Step	T-Slot	165.1	8-M24	24	42	24	18
IDK 1200 ST	1200	200	25	200	19	100	170	79	50	2-Step	T-Slot	165.1	8-M24	28	48	28	20
IDK 1400 ST	1400	200	25	280	26 (Hex.)	100	170	79	50	2-Step	T-Slot	165.1	8-M24	28	48	28	20
IDK 1500 ST	1500	200	25	280	26 (Hex.)	100	170	79	50	2-Step	T-Slot	165.1	8-M24	28	48	28	20
IDK 1600 ST	1600	200	25	280	26 (Hex.)	100	170	79	50	2-Step	T-Slot	165.1	8-M24	28	48	28	20
IDK 1800 ST	1800	220	25	280	26 (Hex.)	100	170	79	50	2-Step	T-Slot	165.1	8-M24	28	48	28	20

MODEL	Max. Static Gripping Force (Per Jaw) kN (kgf)	Max. Wrench Torque N · m (kgf · m)	Gripping Range		Max. Speed min ⁻¹	Chuck Weight (kg)	Soft Jaw	Bolt For Top Jaw
			Outside (φ mm) MIN ~ MAX	Inside (φ mm) MIN ~ MAX				
IDV 450 ST	23 (2400)	245 (25)	165 ~ 405	270 ~ 415	1300	87	SJ135	M16
IDV 500 ST	27 (2800)	294 (30)	190 ~ 430	295 ~ 440	1150	120	SJ135	M16
IDV 600 ST	28 (2900)	314 (32)	185 ~ 480	310 ~ 455	950	170	SJ135	M16
IDK 700 ST	31 (3200)	343 (35)	215 ~ 625	325 ~ 640	700	220	SJ155	M20
IDK 800 ST	34 (3500)	490 (50)	260 ~ 690	400 ~ 660	650	410	SJ160	M20
IDK 915 ST	36 (3700)	490 (50)	230 ~ 855	375 ~ 820	540	495	SJ160	M20
IDK 1000 ST	36 (3700)	490 (50)	230 ~ 880	375 ~ 840	470	550	SJ160	M20
IDK 1200 ST	40 (4100)	490 (50)	260 ~ 1080	420 ~ 1040	360	930	SJ170	M22
IDK 1400 ST	44 (4500)	539 (55)	260 ~ 1270	410 ~ 1240	300	1200	SJ170	M22
IDK 1500 ST	44 (4500)	539 (55)	300 ~ 1370	445 ~ 1340	270	1300	SJ170	M22
IDK 1600 ST	44 (4500)	539 (55)	400 ~ 1470	545 ~ 1440	240	1580	SJ170	M22
IDK 1800 ST	49 (5000)	588 (60)	400 ~ 1680	545 ~ 1650	210	2100	SJ170	M22

* For master jaw dimensions and use of soft jaw, refer to page 24.
* Manufacture of chucks in sizes other than the above is available.



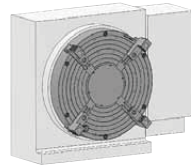
IDV

Tap hole applied on surface

LOW PROFILE LIGHT WEIGHT TYPE

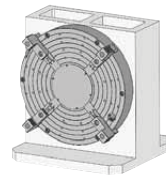
- Chucks used being installed on a tombstone, machining center table, or 5-axis machine table. (Note ※1)
- This will not influence the maximum load capacity and height of the workpiece since it is designed to be lightweight and thin-shaped.
- With chip covers

Installation Example

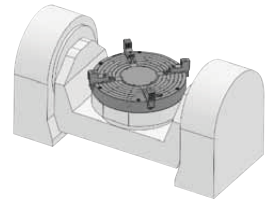


Rotary table

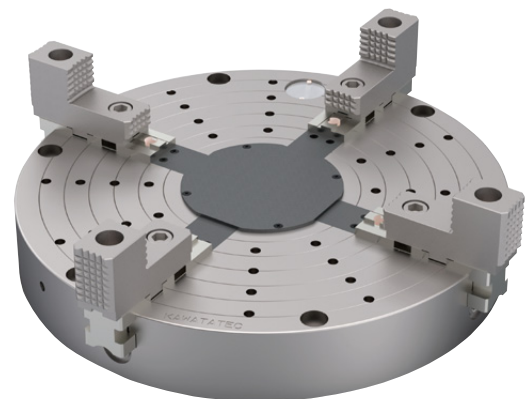
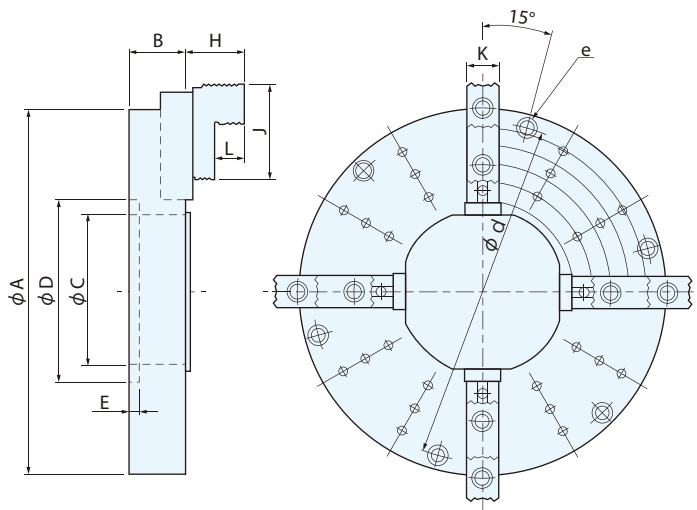
(Long workpiece can be gripped by removing cover)



Tombstone



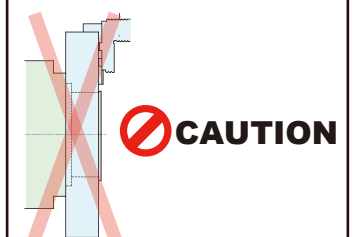
5 axis machine table

T-handle with spring
(Standard)Ratchet handle
/ Socket with spring
(Optional)

Unit (mm)

MODEL	A	B	C	D(H7)	E	H	J	K	L	d	e
TI 300	300	65	125	130	14	43	80	30	20	275	4-M12
TI 400	400	70	180	185	15	58	110	35	28	375	6-M12
TI 500	500	80	146	150	14	78	130	44	40	465	6-M16
TI 600	600	85	210	215	19	78	130	44	40	565	6-M16
TI 800	800	120	295	300	22.5	105	140	69	46	760	6-M20
TI 1000	1000	125	410	420	25	105	140	69	46	960	6-M20

MODEL	Allowable input torque (N·m)	Gripping force per one jaw (kN)	Gripping range (φ mm)	Max. speed (min ⁻¹)	Weight (kg)	Optional jaw
TI 300	123	15	80 ~ 260	1800	25	Soft jaw SJ85
TI 400	176	19	95 ~ 350	1450	50	SJ115
TI 500	245	23	135 ~ 450	1150	90	SJ135
TI 600	245	23	220 ~ 540	950	120	SJ135
TI 800	392	29	310 ~ 725	600	300	SJ160
TI 1000	392	29	430 ~ 920	450	420	SJ160



Note ※1

This chuck is designed on the assumption that it is installed on a tombstone and table with sufficient rigidity. Accordingly, it cannot be used being directly installed on the spindle of a lathe.

4-JAW INDEPENDENT CHUCKS

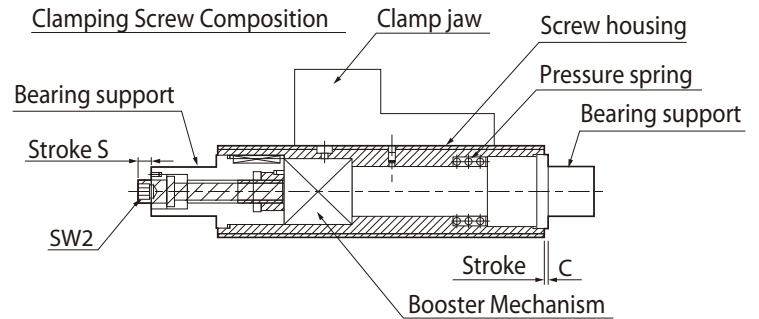
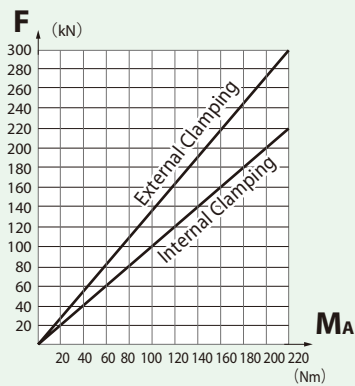
POWER CLAMP SCREW INCLUDED 4-JAW INDEPENDENT CHUCKS

MS(Clamp screw included) type

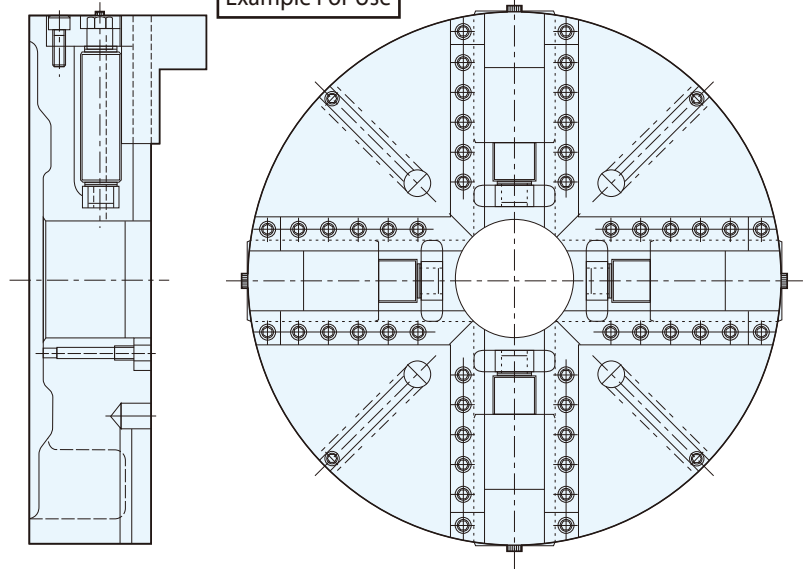
- Large clamping force with a low drive torque
- High reliability, high rigidity
- Easily adjustable stroke
- Simple operability and easy maintenance

Relationship between clamping force and tightening torque(SW2)

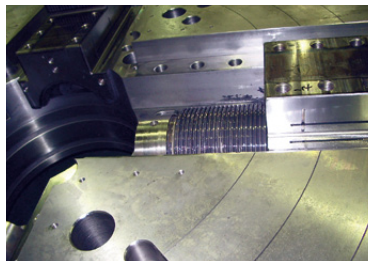
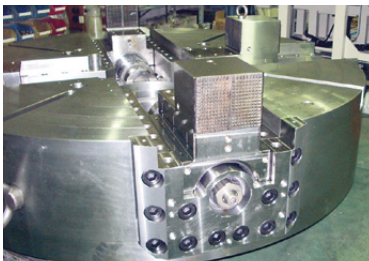
(In the case of MSPD-120)



Example For Use



MS size	65	80	100	120	160	200
ISO Trapezoidal Screw	Tr 65×4	Tr 80×5	Tr 100×6	Tr 120×6	Tr 160×8	Tr 200×10
Max. Clamping Force (External) [kN]	150	200	250	300	400	500
Max. Tightening Torque (SW2) [Nm]	80	100	130	160	160	160
Max. Static Load [kN]	250	300	400	600	800	1100
Stroke (C) [mm]	2.5	3	3	3	3	3
Tightening Travel Distance (S) [mm]	15	17	17	17	25	27

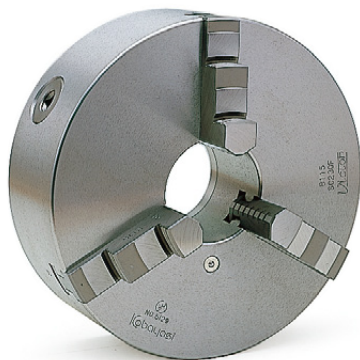


NOBEL

SELF-CENTERING CHUCK

P.10	SC SERIES	3-JAW SELF-CENTERING CHUCK SOLID JAW / FOR ADAPTER MOUNTING TYPE
P.11	NST SERIES	3-JAW SELF-CENTERING CHUCK 2-PIECE JAW / FOR ADAPTER MOUNTING TYPE
P.12	TC-4 SERIES	4-JAW SELF-CENTERING CHUCK 2-PIECE JAW / FOR ADAPTER MOUNTING TYPE
P.12	TC-6 SERIES	6-JAW SELF-CENTERING CHUCK 2-PIECE JAW / FOR ADAPTER MOUNTING TYPE
P.13	TA SERIES	3-JAW SELF-CENTERING CHUCK 2-PIECE JAW / FOR DIRECT MOUNTING TYPE
P.13	TC-2 SERIES	2-JAW SELF-CENTERING CHUCK 2-PIECE JAW / FOR ADAPTER MOUNTING TYPE
P.13	BP SERIES	ADAPTER FOR NST / TC / SC SERIES
P.14	31/32 SERIES	3-JAW SELF-CENTERING CHUCK STEEL TYPE
P.15	SRK/SRV SERIES	3/6-JAW SELF-CENTERING CHUCK WITH COVER
P.16	TM SERIES	3/4/6-JAW LOW PROFILE SELF-CENTERING CHUCK
P.18	PH SERIES	5-JAW SELF-CENTERING CHUCK FOR PIPE MACHINING

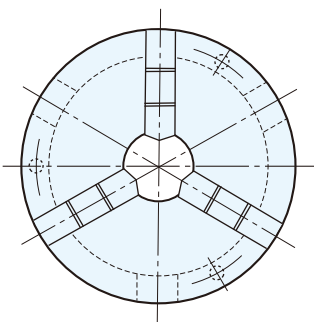
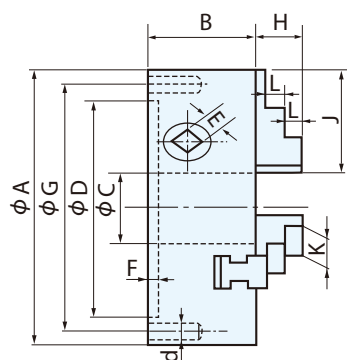
SOLID JAW/FOR ADAPTER MOUNTING TYPE



- Manufactured according to the JIS standard
Includes one set of heat-treated inside and outside jaws
- Cast iron body

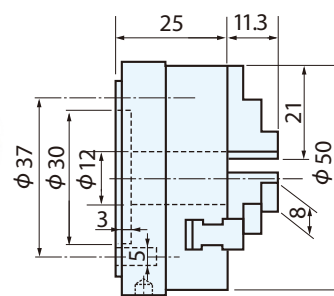


JAW



LC-2 LEVER CHUCK

- Used for table lathes or small-sized
- With inside/outside jaws



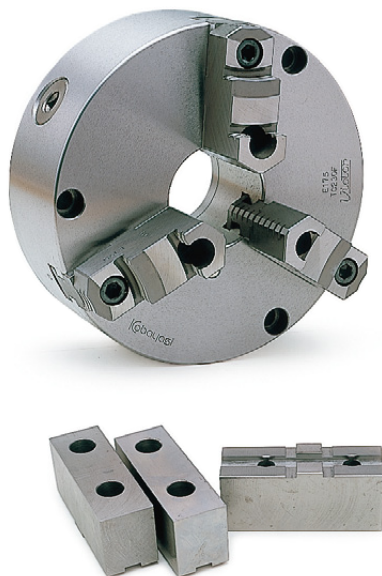
Unit (mm)

MODEL	SC85F	SC110F	SC130F	SC165F	SC190F	SC230F	SC273F	SC310F
Chuck Size	3	4	5	6	7	9	10	12
A	87	112	132	167	192	233	274	310
B	46	58	60	66	75	82	86	92
※1 C	16	24(26)	32(34)	44(46)	54(58)	70(75)	90(100)	110(120)
D	60 ^{+0.019} ₀	80 ^{+0.019} ₀	100 ^{+0.022} ₀	130 ^{+0.025} ₀	155 ^{+0.025} ₀	190 ^{+0.029} ₀	230 ^{+0.029} ₀	260 ^{+0.032} ₀
E	7	8	8	10	11	12	12	14
F	3	4	4	5	5	6	6	7
G	73	95	115	147	172	210	250	285
H	15	18	20	25	30	35	40	45
J	35	43	53	65	75	87	98	110
K	11	14	16	19	21	24	28	30
L	6	7	8	10	12	14	16	17
d	3-M6×35	3-M8×35	3-M8×35	3-M10×40	3-M10×40	3-M12×45	3-M12×50	3-M12×55
Gripping Range	Outside	φ2~φ71(86)	φ2~φ90(105)	φ2~φ105(132)	φ3~φ134(163)	φ3~φ152(195)	φ4~φ187(234)	φ5~φ220(274)
	※2 Inside	φ22~φ59(74)	φ30~φ80(95)	φ33~φ94(120)	φ43~φ122(151)	φ48~φ150(183)	φ56~φ175(222)	φ63~φ208(262)
Max. Wrench Torque N·m(kgf·m)	24.5(2.5)	44.1(4.5)	63.8(6.5)	107.9(11)	117.7(12)	137.3(14)	176.5(18)	196.2(20)
Max. Static Gripping Force kN(kgf)	10(1020)	17(1750)	24(2450)	31(3170)	31(3200)	37(3800)	46(4700)	55(5600)
Max. Speed min ⁻¹ (r.p.m)	4050	3700	3200	2500	2100	1900	1600	1400
GD ² N·m ² (kgf·m ²)	0.069(0.007)	0.196(0.02)	0.490(0.05)	1.28(0.13)	2.45(0.25)	5.69(0.58)	11.2(1.14)	19.6(2.00)
Chuck Weight kg	1.7	3.3	4.7	8.0	12	19	27	37

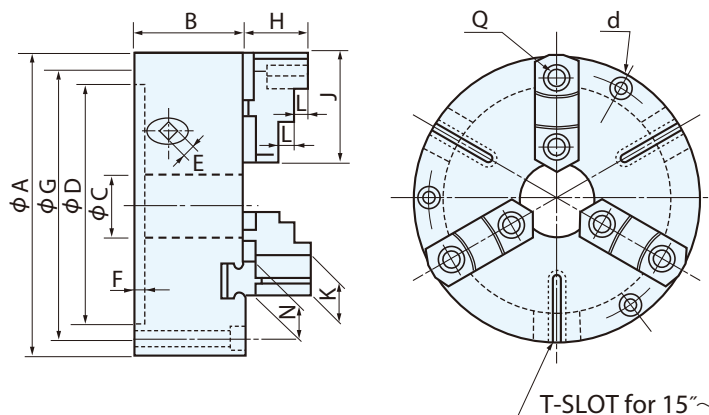
※1 Dimension C in brackets () are Max. thru-hole diameter which can be machined.

※2 Values in () are Max. values which the chucks can grip, but this is not recommended.

2-PIECE JAW/FOR ADAPTER MOUNTING TYPE



- 2-piece tongue and groove jaws
- One each set of soft jaws and hard top jaws are included
- Cast iron body



Unit (mm)

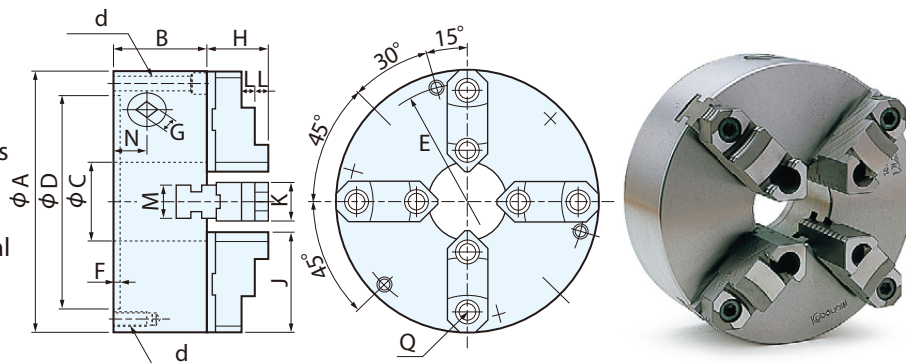
Unit (mm)											
MODEL	TC130F	NST 6	NST 7	NST 9	NST 10	NST 12	NST 15	NST 18	NST 21	NST 24	
Chuck Size(inch)	5	6	7	9	10	12	15	18	21	24	
A	132	167	192	233	274	310	385	460	535	610	
B	60	66	75	82	86	92	100	114	143	143	
C	32(34)	44(46)	54(58)	70(75)	90(100)	110(120)	130(150)	150(190)	160(197)	180(220)	
D	100 ^{+0.022 0}	130 ^{+0.025 0}	155 ^{+0.025 0}	190 ^{+0.029 0}	230 ^{+0.029 0}	260 ^{+0.032 0}	330 ^{+0.036 0}	400 ^{+0.036 0}	270 ^{+0.032 0}	300 ^{+0.032 0}	
E	8	10	11	12	12	14	15	17	22(Hex.)	22(Hex.)	
F	4	5	5	6	6	7	7	8	12	14	
G	115	147	172	210	250	285	355	425	235	260	
H	37	44	46	55	53	59	71	80	82	82	
J	56	68	80	90	95	110	127	130	130	130	
K	23	30	30	35	35	40	43	50	50	50	
L	8	9.5	9.5	12	12	14	15	17	17	17	
N	19	22	25	28	28	30	35	45	50	50	
Q (6pcs.)	M8×20	M10×20	M10×22	M12×25	M12×25	M12×30	M16×35	M20×45	M20×45	M20×45	
d	3-M8×65	3-M10×75	3-M10×80	3-M12×90	3-M12×95	3-M12×100	6-M12×110	6-M16×125	6-M20×140	6-M20×140	
Gripping Range	Outside	φ3~φ104 (134)	φ3~φ135 (170)	φ3~φ153 (206)	φ4~φ190 (242)	φ10~φ229 (277)	φ10~φ258 (322)	φ20~φ329 (394)	φ40~φ367 (478)	φ45~φ422 (508)	φ50~φ514 (614)
	Inside	φ42~φ92 (122)	φ52~φ119 (152)	φ56~φ134 (188)	φ64~φ169 (222)	φ72~φ208 (256)	φ82~φ238 (302)	φ100~φ302 (367)	φ150~φ379 (490)	φ155~φ434 (520)	φ160~φ526 (626)
Max. Wrench Torque N·m(kgf·m)		63.8(6.5)	107.9(11)	117.7(12)	137.3(14)	176.5(18)	196.2(20)	215.8(22)	255.0(26)	313.9(32)	372.7(38)
Max. Static Gripping Force kN(kgf)		24(2450)	31(3170)	31(3200)	37(3800)	46(4700)	55(5600)	57(5800)	65(6650)	73(7400)	80(8200)
Max. Speed min ⁻¹ (r.p.m)		2600	2100	1800	1600	1360	1200	980	870	950	850
GD ² N·m ² (kgf·m ²)		0.490(0.05)	1.28(0.13)	2.45(0.25)	5.69(0.58)	11.18(1.14)	19.6(2.00)	53.2(5.42)	124(12.6)	287(29.3)	488(49.8)
Chuck Weight kg		5.1	10	14	21	28	38	65	106	182	238
Soft Jaw		SJ62	SJ70	SJ85	SJ100	SJ100	SJ115	SJ135	SJ150	SJ150	SJ150

※Dimension C in brackets () are Max. thru-hole diameter which can be machined.

※For master jaw dimensions and use of soft jaw, refer to page 23-24.

TC-4F TYPE

- 4-jaw self-centering chuck
- 2-piece tongue and groove jaws
- One set of soft jaws and hard top jaws are included
- For adapter mounting
- Square (angular) works and cylindrical works can be gripped



Unit (mm)

MODEL	No	A	B	C	D	E	F	H	J	K	L	M	N	G	Q	※ R/F	d
TC110F4	4	112	58	24 (26)	80 ^{+0.019} ₀	95	4	31	45	19	7	16	23.6	8	8-M6×15	R	3-M8×35
TC130F4	5	132	60	32 (34)	100 ^{+0.022} ₀	115	4	37	56	23	8	19	24.0	8	8-M8×20	R	3-M8×35
TC165F4	6	167	66	44 (46)	130 ^{+0.025} ₀	147	5	44	68	30	9.5	22	24.6	10	8-M10×20	R	3-M10×40
TC190F4	7	192	75	54 (58)	155 ^{+0.025} ₀	172	5	46	80	30	9.5	25	27.2	11	8-M10×22	R	3-M10×40
TC230F4	9	233	82	70 (75)	190 ^{+0.029} ₀	210	6	55	90	35	12	28	29.5	12	8-M12×25	R	3-M12×45
TC273F4	10	274	86	90 (100)	230 ^{+0.029} ₀	250	6	53	95	35	12	28	30.0	12	8-M12×25	F	3-M12×95
TC310F4	12	310	92	110 (120)	260 ^{+0.032} ₀	285	7	59	110	40	14	30	32.2	14	8-M12×30	F	3-M12×100
TC385F4	15	385	100	130 (150)	330 ^{+0.036} ₀	355	7	71	127	43	15	35	32.8	15	8-M16×35	F	3-M12×110
TC460F4	18	460	114	150 (190)	400 ^{+0.036} ₀	425	8	80	130	50	17	45	38.0	17	8-M20×45	F	3-M16×125

Dimension C in brackets () are Max. thru-hole diameter which can be machined.

※ R : Rear-side mounting F : Front-side mounting

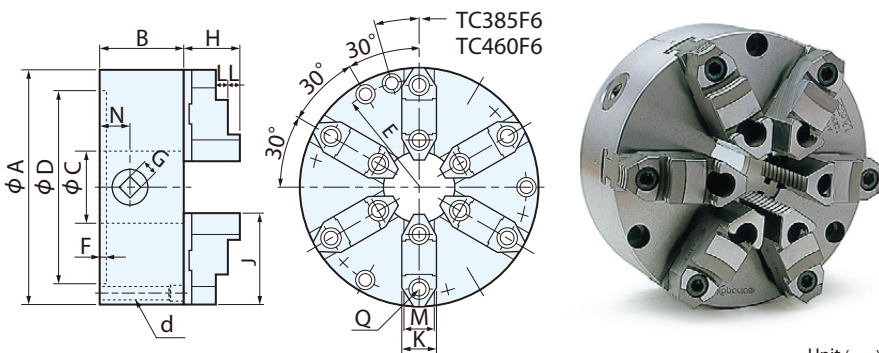
MODEL	Max. Wrench Torque N · m (kgf · m)	Max. Static Gripping Force kN (kgf)	Gripping Range		Soft Jaw (4 pcs.)	Weight (kg)	GD ² N · m ² (kgf · m ²)	Max. Speed min ⁻¹ (r.p.m)
			Outside φmm	Inside φmm				
TC110F4	44.1 (4.5)	16 (1660)	2.5~89 (108)	38~78 (97)	SJ53	3.4	0.294 (0.03)	2700
TC130F4	63.8 (6.5)	23 (2320)	3~104 (134)	43~92 (122)	SJ62	5.1	0.490 (0.05)	2300
TC165F4	107.9 (11)	30 (3010)	3.5~135 (170)	52~119 (152)	SJ70	10	1.57 (0.16)	1850
TC190F4	117.7 (12)	30 (3040)	4~153 (206)	57~134 (188)	SJ85	14	2.84 (0.29)	1600
TC230F4	137.3 (14)	35 (3610)	5~190 (242)	75~169 (220)	SJ100	21	6.27 (0.64)	1400
TC273F4	176.5 (18)	44 (4460)	10~229 (277)	75~208 (256)	SJ100	28	12.0 (1.22)	1200
TC310F4	196.2 (20)	52 (5320)	10~258 (322)	113~238 (302)	SJ115	38	21.2 (2.16)	1050
TC385F4	215.8 (22)	54 (5510)	20~329 (394)	131~302 (367)	SJ135	65	50.7 (5.17)	850
TC460F4	255.0 (26)	62 (6310)	40~367 (478)	136~379 (490)	SJ150	106	125 (12.7)	750

Values in () are maximum values which the chucks can grip, but this is not recommended.

For master jaw dimensions and use of soft jaw, refer to page 23-24.

TC-6F TYPE

- 6-jaw self-centering chuck
- 2-piece tongue and groove jaws
- One set of soft jaws and hard top jaws are included
- For adapter mounting Front-side mounting
- Pipe-shaped works can be gripped with little strain



Unit (mm)

MODEL	No	A	B	C	D	E	F	H	J	K	L	M	N	G	Q	d
TC230F6	9	233	82	70 (75)	190 ^{+0.029} ₀	210	6	55	90	35	12	28	29.5	12	12-M12×25	3-M12×90
TC273F6	10	274	86	90 (100)	230 ^{+0.029} ₀	250	6	53	95	35	12	28	30.0	12	12-M12×25	3-M12×95
TC310F6	12	310	92	110 (120)	260 ^{+0.032} ₀	285	7	59	110	40	14	30	32.2	14	12-M12×30	3-M12×100
TC385F6	15	385	100	130 (150)	330 ^{+0.036} ₀	355	7	71	127	43	15	35	32.8	15	12-M16×35	6-M12×110
TC460F6	18	460	114	150 (190)	400 ^{+0.036} ₀	425	8	80	130	50	17	45	38.0	17	12-M20×45	6-M16×125

Dimension C in brackets () are Max. thru-hole diameter which can be machined.

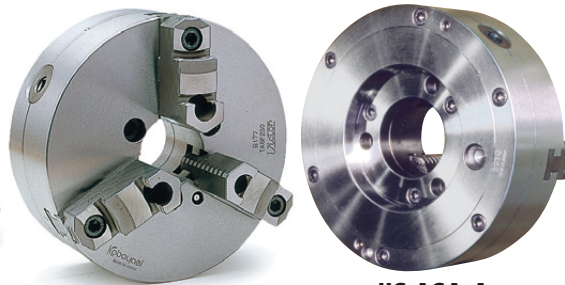
MODEL	Max. Wrench Torque N · m (kgf · m)	Max. Static Gripping Force kN (kgf)	Gripping Range		Soft Jaw (6 pcs.)	Weight (kg)	GD ² N · m ² (kgf · m ²)	Max. Speed min ⁻¹ (r.p.m)
			Outside φmm	Inside φmm				
TC230F6	137.3 (14)	34 (3420)	25~190 (242)	95~169 (222)	SJ100	23	6.87 (0.70)	1400
TC273F6	176.5 (18)	41 (4230)	25~229 (277)	110~208 (256)	SJ100	31	12.9 (1.31)	1200
TC310F6	196.2 (20)	49 (5040)	32~258 (322)	140~238 (302)	SJ115	43	22.8 (2.32)	1050
TC385F6	215.8 (22)	51 (5220)	32~329 (394)	150~302 (367)	SJ135	70	57.3 (5.84)	850
TC460F6	255.0 (26)	59 (5980)	38~367 (478)	180~379 (490)	SJ150	113	131 (13.4)	750

Values in () are maximum values which the chucks can grip, but this is not recommended.

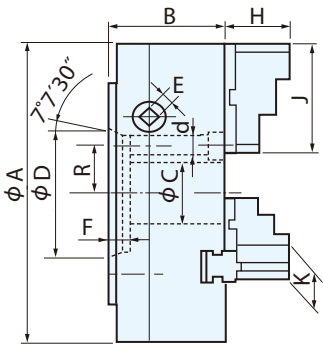
For master jaw dimensions and use of soft jaw, refer to page 23-24.

2-PIECE JAW/FOR DIRECT MOUNTING TYPE

- 2-piece tongue and groove jaws
- One set of soft jaws and hard top jaws are included
- For direct mounting on Type A1 spindle noses
- Cast iron body



JIS.ASA-A



Unit (mm)

Chuck Size (MODEL)	Spindle Nose	No.	A	B	C	D	E	F	H	J	K	R	d	Weight (kg)
6 (TA5F165)	A1-5	340611	165	70	40	82.558	10	14.29	44	68	30	31.0	3-M10×60	10
8 (TA5F200)		340811	210	82	40		11		47	80	30		3-M10×75	19
8 (TA6F200)		340812	210	82	56		11		47	80	30		3-M12×70	18
9 (TA6F230)	A1-6	340912	230	88	58	106.370	12	15.88	55	90	35	41.3	3-M12×75	23
10 (TA6F250)		341012	255	92	58		12		53	95	35		3-M12×80	30
12 (TA6F310)		341212	310	105	78		14		60	110	40		6-M12×110	48
10 (TA8F250)	A1-8	341013	255	92	78	139.714	12	17.46	53	95	35	55.6	3-M16×80	29
12 (TA8F310)		341213	310	105	78		14		60	110	40		3-M16×95	48
15 (TA8F385)		341513	385	111	100		15		71	127	43		6-M16×120	78
18 (TA8F460)	A1 · A2-8	341813	460	129	110	196.864	17	19.05	80	130	50	85.7	6-M16×135	136
15 (TA11F385)		341514	385	111	120		15		71	127	43		3-M20×100	77
18 (TA11F460)		341814	460	129	120		17		80	130	50		6-M20×120	132

※ Gripping range, gripping force, maximum rotation speed, and applicable soft jaws are the same as 3-JAW SELF-CENTERING CHUCKS NST. Also, refer to page 11.
For use of soft jaw, refer to page 23-24.

SELF-CENTERING CHUCKS

TC SERIES

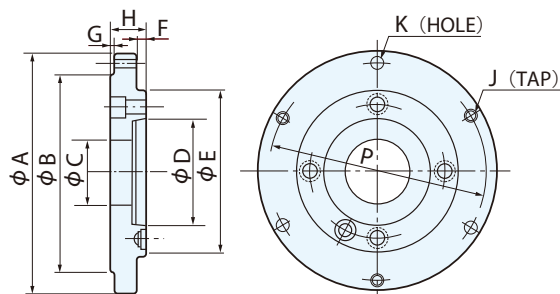
TC-2F TYPE

- 2-jaw self-centering chuck
- 2-piece tongue and groove jaws
- One set of soft jaws and hard top jaws are included
- For adapter mounting (Front-side mounting)
- Suitable for gripping irregular shaped works, such as a valve



Plates for NST, TC, SC, series

BP SERIES



Unit (mm)

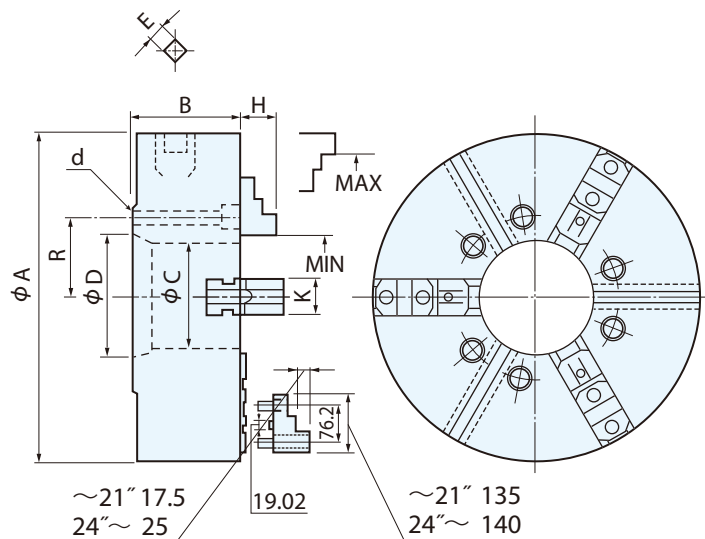
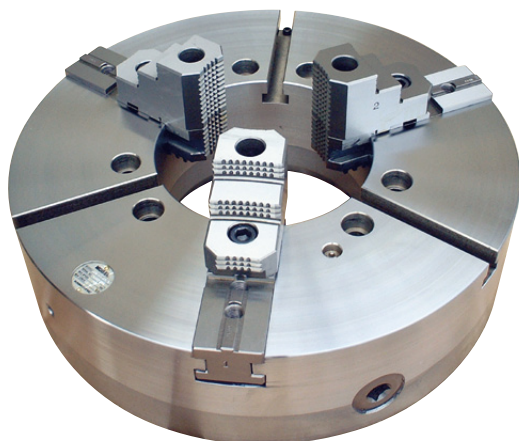
	BP-A6-75	BP-A6-95	BP-A6-105	BP-A6-125	BP-A6-155	BP-A8-105	BP-A8-125	BP-A8-155	BP-A11-125	BP-A11-155	BP-A11-185
A	195	235	277	313	388	277	313	388	313	388	463
B	156	191	231	261	331	231	261	331	261	331	401
C			60				84		110		136
D			106.375				139.719			196.869	
E			166				212			282	
F	12	10	9	8	4	14	13	9	—	18	15
G	3	3.5	3.5	4	4	3.5	4	4	5	4	5
H			40				45			54	
P	172	210	250	285	355	250	285	355	285	355	425
J	3-M10	3-M12	3-M12	3-M12	6-M12	3-M12	3-M12	3-M12	3-M12	3-M12	3-M16
K	3-φ 11	3-φ 13	3-φ 13	3-φ 13	—	3-φ 13	3-φ 13	—	3-φ 13	—	—
Weight(kg)	8	11	15	19	35	17	22	33	26	40	56

※ B dimensions include a machining allowance of 1m/m. After installation of a plate to the lathe spindle nose, finish the outer circumferential face.

FORGED STEEL BODY

- Heavy / Medium duty
- Directly installed (JIS/ASA) short tapered type
- Standard 2-piece tongue and groove jaws
- One set of hard top jaws included
(Soft jaws not included)

310 : HEAVY DUTY
320 : MEDIUM DUTY
311,321 : TOP JAW UNC TYPE



※1 : Dimensions : metric, : inch. ※2 : Dimensions in brackets () are Max. thru-hole diameter which can be machined.
※3 : Bolt : for 310, 320 model Bolt : for 311, 321 model

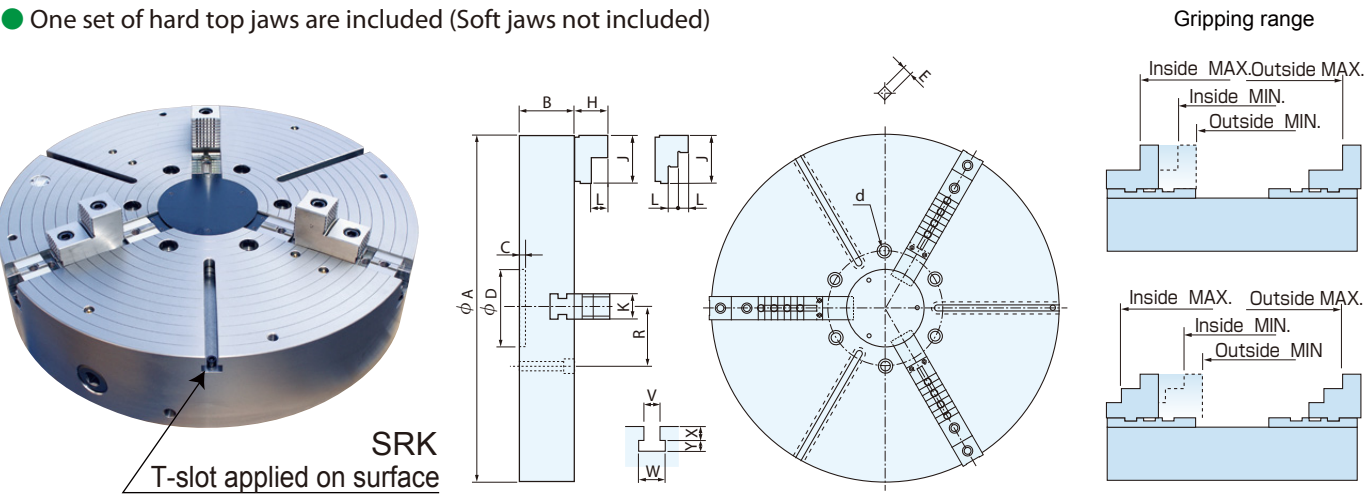
MODEL	Spindle Nose	A		B		C ※2		D		Gripping Range				R		Unit (mm)
		(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	MIN	(inch)	MAX	(inch)	(mm)	(inch)	
320 18 A8	A1 · A2- 8	457	18	140	5.51	115 (130)	4.53 (5.12)	139.7	5.5	65	2.6	430	16.9	85.7	3.37	
310 18 A11	A1 · A2- 11	457	18	152	5.98	152 (160)	5.98 (6.3)	196.9	7.8	65	2.6	430	16.9	117.5	4.63	
310 21 A11	A1 · A2- 11	535	21	152	5.98	152 (160)	5.98 (6.3)	196.9	7.8	80	3.1	490	19.3	117.5	4.63	
310 21 A15	A1-15	535	21	152	5.98	204	8.03	285.8	11.3	90	3.5	490	19.3	123.8	4.87	
310 24 A11	A1 · A2- 11	610	24	167	6.57	172 (185)	6.77 (7.28)	196.9	7.8	80	3.1	560	22	117.5	4.63	
310 24 A15	A1 · A2- 15	610	24	167	6.57	241 (259)	9.49 (10.2)	285.8	11.3	90	3.5	560	22	165.1	6.5	
310 24 A20	A1-20	610	24	167	6.57	266 (280)	10.47 (11.02)	412.8	16.3	90	3.5	560	22	184.2	7.25	
310 28 A11	A1 · A2- 11	710	28	180	7.09	172 (185)	6.77 (7.28)	196.9	7.8	90	3.5	660	26	117.5	4.63	
310 28 A15	A1 · A2- 15	710	28	180	7.09	241 (259)	9.49 (10.2)	285.8	11.3	110	4.3	660	26	165.1	6.5	
310 28 A20	A1-20	710	28	180	7.09	318	12.52	412.8	16.3	150	5.9	660	26	184.2	7.25	
310 32 A11	A1 · A2- 11	812	32	190	7.48	172 (185)	6.77 (7.28)	196.9	7.8	100	3.9	760	29.9	117.5	4.63	
310 32 A15	A1 · A2- 15	812	32	190	7.48	266 (275)	10.47 (10.83)	285.8	11.3	150	5.9	760	29.9	165.1	6.5	
310 32 A20	A1 · A2- 20	812	32	190	7.48	318 (370)	12.52 (14.57)	412.8	16.3	200	7.9	760	29.9	231.8	9.13	
310 36 A15	A1 · A2- 15	915	36	200	7.87	266 (275)	10.47 (10.83)	285.8	11.3	150	5.9	860	33.9	165.1	6.5	
310 36 A20	A1 · A2- 20	915	36	200	7.87	318 (370)	12.52 (14.57)	412.8	16.3	200	7.9	860	33.9	231.8	9.13	

MODEL	Weight		Bolt For Top Jaw ※3		H		K		E		Gripping Force kN (kgf)	Max. Speed min ⁻¹ (r.p.m)	d
	(kg)	(lb)			(mm)	(inch)	(mm)	(inch)	(mm)	(inch)			
320 18 A8	140	310	M20	UNC3/4	75	2.95	50	1.97	19	0.75	63 (6400)	1250	6-M16
310 18 A11	150	331	M20	UNC3/4	75	2.95	60	2.36	19	0.75	68 (6900)	1200	6-M20
310 21 A11	200	441	M20	UNC3/4	75	2.95	60	2.36	19	0.75	73 (7400)	1000	6-M20
310 21 A15	190	419	M20	UNC3/4	75	2.95	60	2.36	19	0.75	73 (7400)	1000	6-M22
310 24 A11	300	662	M20	UNC3/4	92	3.62	75	2.95	22	0.87	80 (8200)	900	6-M20
310 24 A15	270	596	M20	UNC3/4	92	3.62	75	2.95	22	0.87	80 (8200)	900	6-M22
310 24 A20	250	552	M20	UNC3/4	92	3.62	75	2.95	22	0.87	80 (8200)	900	6-M24
310 28 A11	430	948	M22	UNC7/8	92	3.62	75	2.95	22	0.87	83 (8500)	650	6-M20
310 28 A15	400	882	M22	UNC7/8	92	3.62	75	2.95	22	0.87	83 (8500)	650	6-M22
310 28 A20	380	838	M22	UNC7/8	92	3.62	75	2.95	22	0.87	83 (8500)	650	6-M24
310 32 A11	600	1323	M22	UNC7/8	92	3.62	75	2.95	22	0.87	85 (8700)	550	6-M20
310 32 A15	560	1235	M22	UNC7/8	92	3.62	75	2.95	22	0.87	85 (8700)	550	6-M22
310 32 A20	530	1169	M22	UNC7/8	92	3.62	75	2.95	22	0.87	85 (8700)	550	6-M24
310 36 A15	800	1764	M22	UNC7/8	92	3.62	75	2.95	22	0.87	85 (8700)	450	6-M22
310 36 A20	760	1676	M22	UNC7/8	92	3.62	75	2.95	22	0.87	85 (8700)	450	6-M24

※For master jaw dimensions and use of soft jaw, refer to page 23. ※Manufacture of chucks in sizes other than the above is available.

SELF-CENTERING CHUCK WITH COVER

- ~ φ 710 : Steel body φ 800~ : Cast iron body
- With chip covers
- One set of hard top jaws are included (Soft jaws not included)



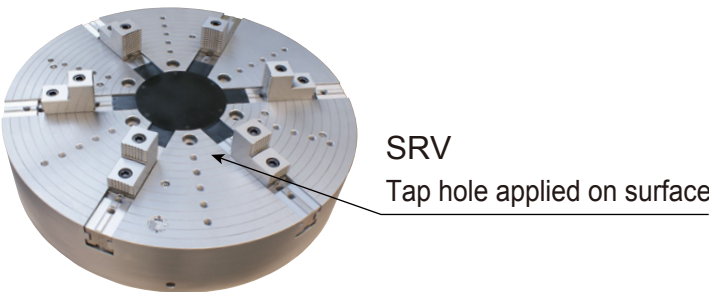
Unit (mm)																
MODEL	A	B	C	D(H7)	E	H	J	K	L	R	d	V	W	X	Y	
SRK 535 ST 3J	535	140	20	200	19	75	135	50	17.5	117.5	6-M20	16	27	16	11	
SRK 610 ST 3J	610	167	20	200	22	75	135	60	17.5	117.5	6-M20	20	34	20	13.5	
SRK 710 ST 3J	710	167	20	200	22	75	135	60	17.5	117.5	6-M20	20	34	20	13.5	
SRK 800 ST 3J	800	190	20	200	22	92	140	69	46	165.1	6-M24	20	34	20	13.5	
SRK 915 ST 3J	915	200	20	200	25.4	92	140	69	46	165.1	6-M24	24	42	24	18	
SRK 1000 ST 3J	1000	200	20	200	25.4	92	140	69	46	165.1	6-M24	24	42	24	18	
SRK 1250 ST 3J	1250	220	25	400	25.4	100	170	79	50	231.8	6-M24	24	42	24	18	
SRK 1400 ST 3J	1400	230	25	400	25.4	100	170	79	50	231.8	6-M24	24	42	24	18	
SRK 1500 ST 3J	1500	240	25	500	25.4	100	170	79	50	290	9-M24	24	42	24	18	
SRK 1600 ST 3J	1600	240	25	500	25.4	100	170	79	50	290	9-M24	24	42	24	18	
SRK 1800 ST 3J	1800	250	25	500	25.4	100	170	79	50	290	9-M24	24	42	24	18	

MODEL	Max. Static Gripping Force kN (kgf)	Max. handle torque N · m (kgf · m)	Gripping range (φ mm)		Allowable Max. speed min ⁻¹	Chuck Weight kg	Jaw step	Optional soft jaw	Bolt for top jaw
			Outside MIN ~ MAX	Inside MIN ~ MAX					
SRK 535 ST 3J	72 (7300)	372 (38)	160 ~ 475	270 ~ 490	950	195	3-Step	SJ150	M20
SRK 610 ST 3J	73 (7500)	392 (40)	215 ~ 535	330 ~ 550	800	280	3-Step	SJ155	M20
SRK 710 ST 3J	73 (7500)	392 (40)	220 ~ 615	330 ~ 630	650	390	3-Step	SJ155	M20
SRK 800 ST 3J	73 (7500)	490 (50)	250 ~ 685	390 ~ 650	560	550	2-Step	SJ160	M20
SRK 915 ST 3J	78 (8000)	490 (50)	275 ~ 825	420 ~ 790	500	800	2-Step	SJ160	M20
SRK 1000 ST 3J	78 (8000)	490 (50)	275 ~ 880	420 ~ 850	470	900	2-Step	SJ160	M20
SRK 1250 ST 3J	68 (7000)	490 (50)	310 ~ 1120	465 ~ 1090	350	1500	2-Step	SJ170	M22
SRK 1400 ST 3J	68 (7000)	490 (50)	310 ~ 1270	465 ~ 1240	300	1750	2-Step	SJ170	M22
SRK 1500 ST 3J	68 (7000)	588 (60)	320 ~ 1370	475 ~ 1340	260	2150	2-Step	SJ170	M22
SRK 1600 ST 3J	68 (7000)	588 (60)	320 ~ 1470	475 ~ 1440	230	2400	2-Step	SJ170	M22
SRK 1800 ST 3J	68 (7000)	588 (60)	410 ~ 1675	560 ~ 1640	200	2900	2-Step	SJ170	M22

Lineup

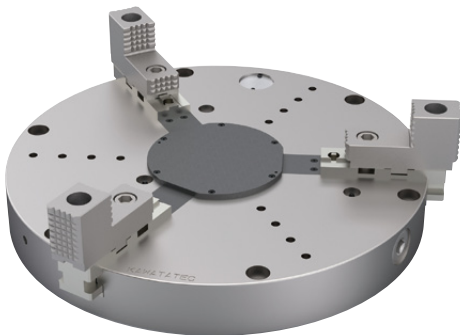
- SRK-3J : T-SLOT · 3-JAW TYPE
- SRK-6J : T-SLOT · 6-JAW TYPE
- SRV-3J : TAP HOLE · 3-JAW TYPE
- SRV-6J : TAP HOLE · 6-JAW TYPE

※Values of Max. speed , gripping range and weight differ between 3-JAW and 6-JAW.
For the specifications of models other than those above, please contact us.

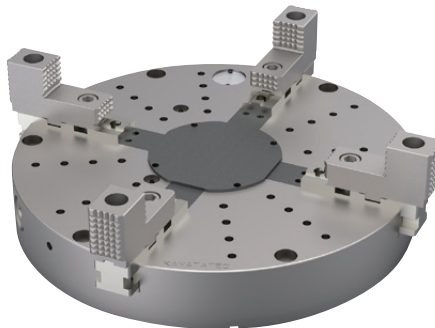


LOW PROFILE LIGHT WEIGHT TYPE

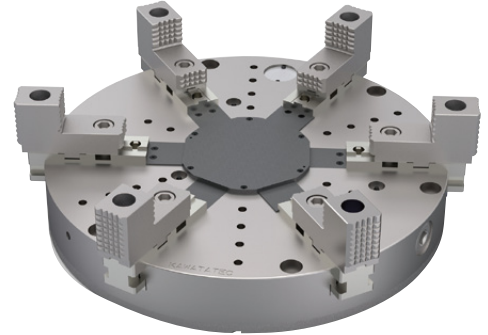
- Chucks used being installed on a tombstone, machining center table, or 5-axis machine table.
(Note ※1)
- This will not influence the maximum load capacity and height of the workpiece since it is designed to be lightweight and thin-shaped.
- With chip covers for vertical use



3-JAW



4-JAW

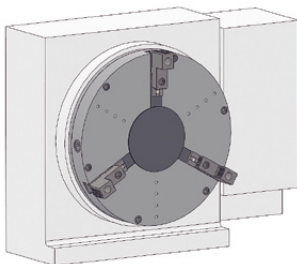


6-JAW

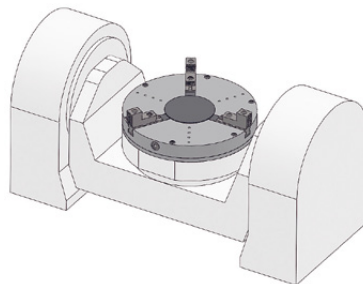


T-handle with spring
(Standard)

Installation Example

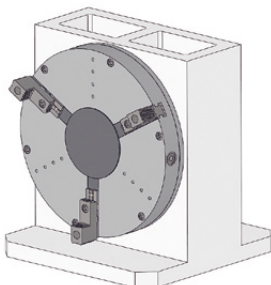


Rotary table
(Long workpiece can be gripped by removing cover)

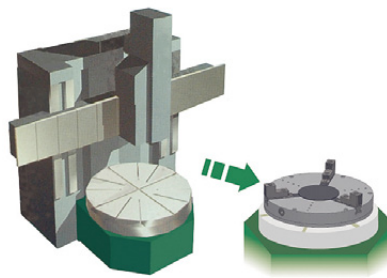


5 axis machine table

Vertical MC
(Ratchet handle is optional accessory)

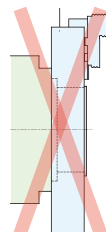


Tombstone



Vertical lathe table

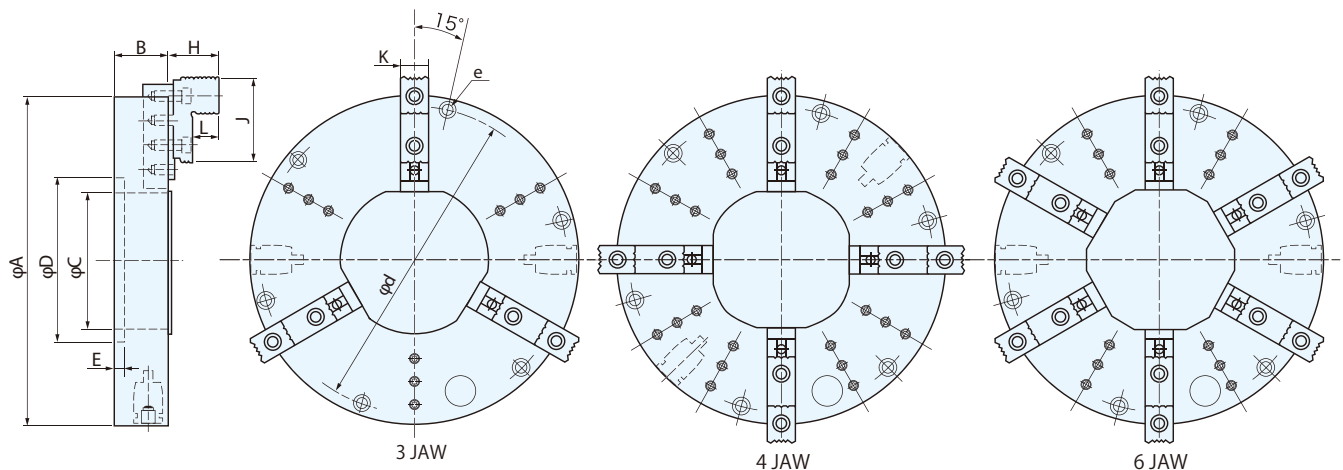
CAUTION



Note ※1

This chuck is designed on the assumption that it is installed on a tombstone and table with sufficient rigidity.

Accordingly, it cannot be used being directly installed on the spindle of a lathe.



Unit (mm)

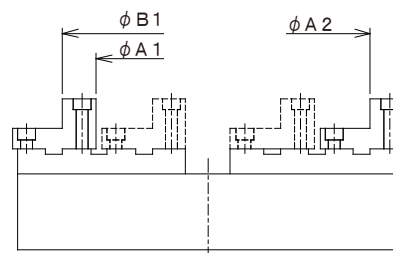
MODEL	A	B	C	DH7	E	K	H	J	L	d	e	Allowable input torque (N·m)	Gripping force (kN)
TM 300	300	75	125	130	14	30	43	80	20	275	4-M12	196	49
TM 400	400	85	180	185	15	35	58	110	28	375	6-M12	245	59
TM 500	500	80	146	150	14	44	78	130	40	465	6-M16	294	73
TM 600	600	85	210	215	19	44	78	130	40	565	6-M16	294	73
TM 800	800	120	295	300	22.5	69	105	140	46	760	6-M20	392	83
TM 1000	1000	125	410	420	25	69	105	140	46	960	6-M20	392	83

MODEL	Max. speed (min ⁻¹)			Weight (kg)			Optional accessory	
	3 Jaw	4 Jaw	6 Jaw	3 Jaw	4 Jaw	6 Jaw	Soft jaw	Ratchet handle/Socket
TM 300	1800	1800	1800	28	29	30	SJ85	RT12.7D/SKB12D12.7B
TM 400	1450	1450	1250	60	62	65	SJ115	RT12.7D/SKB14D12.7B
TM 500	1150	1150	900	100	105	110	SJ135	RT19D/SKB15D19B
TM 600	950	950	750	155	155	160	SJ135	RT19D/SKB15D19B
TM 800	600	580	450	400	400	410	SJ160	RT19D/SKB19D19B
TM 1000	450	450	380	610	610	620	SJ160	RT19D/SKB19D19B



Ratchet handle
/ Socket with spring
(Optional)

MODEL	Gripping range (mm)		
	Outside	Inside	
	A1	A2	B1
TM 300	80~172	168~260	155~250
TM 400	95~225	215~350	195~320
TM 500	135~295	290~450	250~400
TM 600	220~380	380~540	340~500
TM 800	310~565	470~725	445~700
TM 1000	430~760	590~920	565~895



Lineup

TM-3J : 3-JAW TYPE

TM-4J : 4-JAW TYPE

TM-6J : 6-JAW TYPE

WITH LARGE THRU HOLE FOR PIPE MACHINING

- Solid jaw type and 2-piece jaw type are available
- Cast iron body
- Clamping with 5 jaws prevents pipes from deformation

Lineup

PH-1P : Solid jaw type
PH-2P : 2-piece jaw type



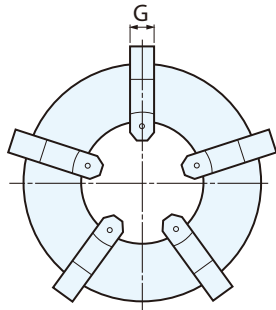
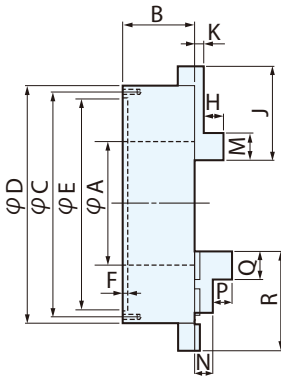
SOLID JAW TYPE



2-PIECE JAWS TYPE



Soft jaws (5pcs.) included



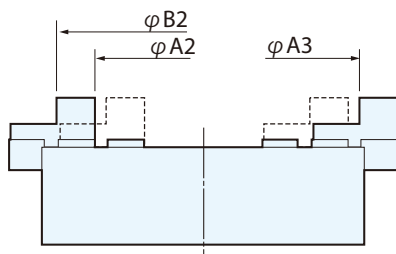
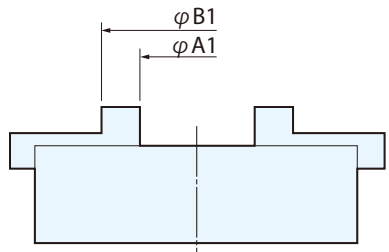
Unit (mm)

MODEL	A	B	C	D	E (H7)	F	G	H	J	K	M	N	P	Q	R
PH 175 1P	175	109	330	350	300	7	35	30	130	10	40	-	-	-	-
PH 260 1P	260	150	472.5	500	445	10	50	40	200	20	55	-	-	-	-
PH 320 1P	320	150	530	560	505	10	50	50	230	20	70	-	-	-	-
PH 420 1P	420	170	665	700	640	15	60	50	260	30	80	-	-	-	-
PH 175 2P	175	109	330	350	300	7	35	-	-	-	-	35	20	45	125
PH 260 2P	260	150	472.5	500	445	10	50	-	-	-	-	38	40	60	210
PH 320 2P	320	150	530	560	505	10	50	-	-	-	-	40	48	70	220
PH 420 2P	420	170	665	700	640	15	60	-	-	-	-	65	40	55	260

MODEL	Mounting Bolt	Max. Wrench Torque N · m(kgf · m)	Max. Static Gripping Force kN(kgf)	Max. Speed min ⁻¹ (r.p.m)	Weight kg	Soft Jaw
PH 175 1P	6-M12	196(20)	34.3(3500)	1200	53	-
PH 260 1P	6-M12	343(35)	37(3776)	640	140	-
PH 320 1P	6-M12	343(35)	37(3776)	540	170	-
PH 420 1P	8-M12	382(39)	40(4082)	390	290	-
PH 175 2P	6-M12	196(20)	34.3(3500)	1150	58	SJ115
PH 260 2P	6-M12	343(35)	37(3776)	580	140	SJ135
PH 320 2P	6-M12	343(35)	37(3776)	500	170	SJ150
PH 420 2P	8-M12	382(39)	40(4082)	360	300	SJ155

Gripping Range						
SOLID JAW TYPE			2-PIECE JAW TYPE			
	Outside (φ mm)	Inside (φ mm)		Outside (φ mm)	Inside (φ mm)	
MODEL	A1	B1	MODEL	A2	A3	B2
PH 175 1P	40~170	125~250	PH 175 2P	40~170	180~322	140~260
PH 260 1P	50~255	175~375	PH 260 2P	50~412	202~564	180~530
PH 320 1P	60~315	200~455	PH 320 2P	60~465	195~605	210~605
PH 420 1P	150~415	310~575	PH 420 2P	140~520	322~700	260~700

Accessories : Handle, Mounting Bolts, L-Wrench, Eye Bolt.
Specially manufactured chucks with an A dimension of φ 1200 are available.



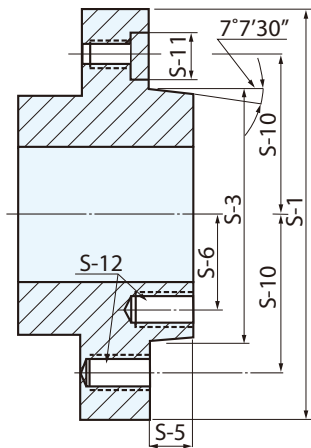
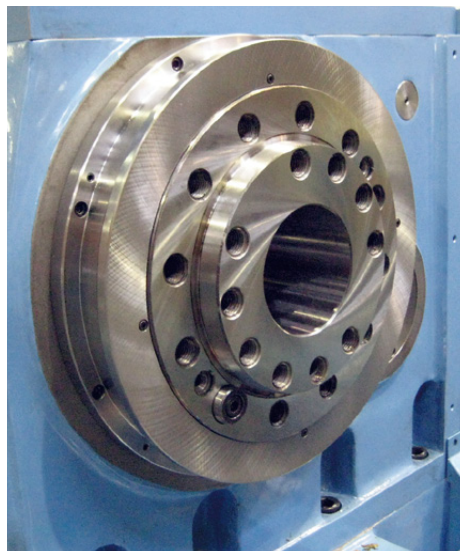
NOBEL

PARTS / BORING MILL JAW / JAW

P.20	LATHE SPINDLE NOSE and CHUCK INSTLLATION
P.21	PARTS
P.24 SJ SERIES	SOFT JAW
P.24 SJV/SHJ SERIES	SOFT JAW
P.25 JL SERIES	SOFT JAW BORING RING - JAW LOCK
P.26 BM SERIES	BORING MILL JAW
P.28 FBK/FBJ SERIES	FACE PLATE WITH BORING MILL JAWS

Lathe Spindle Nose and Chuck Installation

THE MOST COMMON TYPES OF SPINDLE NOSES

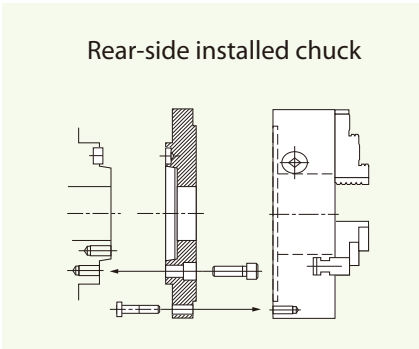


These spindle noses are used on turret lathes, single spindle automatic lathes and big engine lathes.

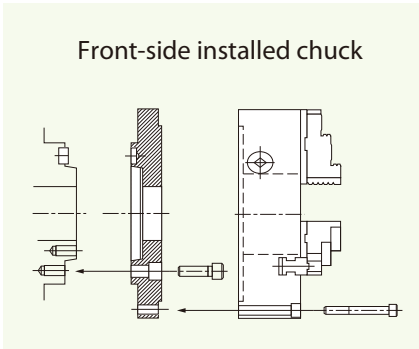
- A-1** Has tapped holes on both the outer bolt circle S-10 and inner bolt circle S-6
- A-2** Has tapped holes on the outer bolt circle S-10, but has no holes on inner bolt circle S-6.

Spindle Nose	S-1	S-3	S-5	S-6	S-10	S-11	S-12	
							MM	UNC
A-5	133	82.563 (+0.01)	14.288 (−0.025)	30.95	52.4	15.88 (+0.027)	M 10	7/16"–14"
A-6	165	106.375 (+0.01)	15.875 (−0.025)	41.30	66.7	19.05 (+0.033)	M 12	1/2"–13"
A-8	210	139.719 (+0.012)	17.462 (−0.025)	55.55	85.7	23.81 (+0.033)	M 16	5/8"–11"
A-11	280	196.869 (+0.014)	19.050 (−0.025)	82.55	117.5	28.58 (+0.033)	M 20	3/4"–10"
A-15	380	285.775 (+0.016)	20.638 (−0.025)	123.80	165.1	34.93 (+0.039)	M 22	7/8"– 9"
A-20	520	412.775 (+0.02)	22.225 (−0.025)	184.15	231.8	41.28 (+0.039)	M 24	1"– 8"
A-28	725	584.225 (+0.023)	25.400 (−0.025)	265.10	323.8	50.80 (+0.046)	M 30	1 1/4"– 7"

Rear/ Front-Side Mounting For NST, TC, SC series



For rear-side installed type chucks, insert hexagon bolts in the tapped holes on the main body bottom part from the backside of the plate and fix the chuck.



For front-side installed chucks, insert hexagon socket bolts in the tapped holes from the front side of the main body and fix the chuck.

Cautions for installation

When installing the chuck to the lathe, inspect that no flaws, rust, nor attached matter exists on each of the contact surfaces of the spindle, plate, and chuck, and remove any of these conditions. Please carry out maintenance consistently, since a small flaw, etc., will largely influence the degree of accuracy.

PART NAME and DIMENSION

SPARE PARTS

■ FOR INDEPENDENT CHUCKS



TOP JAW



MASTER JAW



OPERATING SCREW



STOPPER



HANDLE



JAW

■ FOR SELF-CENTERING CHUCKS



TOP JAW



MASTER JAW



PINION



PINION RETAINER



SCROLL GEAR



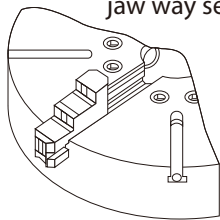
HANDLE

Order and Repair of Part

SOLID JAWS

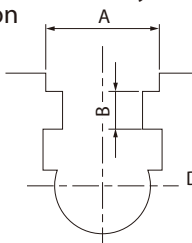
44 SERIES
46 SERIES

Fitting jaw to main body
jaw way section



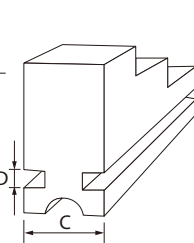
Grind the jaw way section, and
carry out fitting the jaw to the
chuck main body jaw way section.

Jaw way



Grind the jaw in accordance
with the dimensions A to D.

Jaw in use



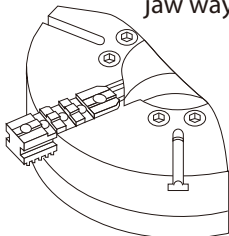
〈Caution〉

Jaws are stored in a mill scale
condition in our stock. When placing
an order or requesting repair of a jaw,
send the jaw with the chuck main
body. We will manufacture or repair
the jaw while fitting it to the chuck
main body. However, if you cannot
send the chuck main body, measure
the dimensions A, B, C and D in the
above figure before an order or request.

**TOP JAWS and
MASTER JAWS**

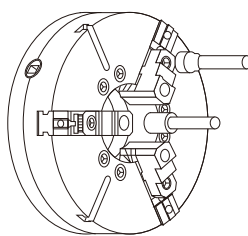
31/32 SERIES
SC SERIES
NST SERIES
TC SERIES
TA SERIES

Fitting jaw to main body
jaw way section



Grind the jaw way section, and carry out
fitting the master jaw to the chuck main
body jaw way section.

Spin finishing



When the master jaw or top jaw of the chuck is replaced,
make sure to attach it to the chuck used before spin finishing
and step finishing.

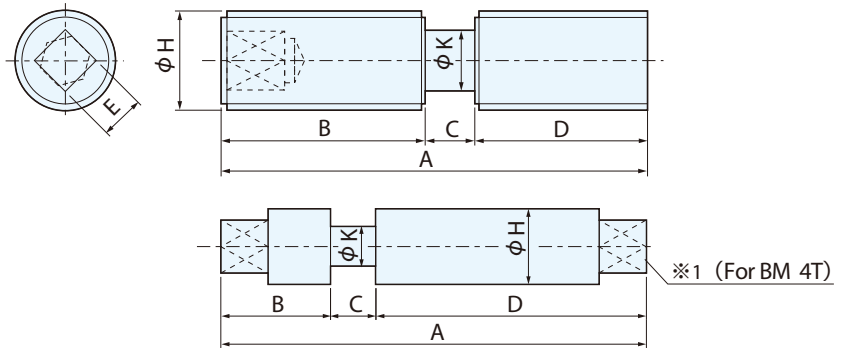
〈Caution〉

When placing an order of parts for
the top jaw or master jaw, the
degree of accuracy cannot be
maintained unless spin finishing
and step finishing are carried out as
shown in the figure on the left.

PART NAME and DIMENSION

SPARE PARTS

OPERATING SCREW



OPERATING SCREW DIMENSION

								Unit (mm)	
No.	Chuck Size	Chuck No.	A	B	C	D	H (φ)	K (φ)	E
OP120036	300	441240(FC)	114	76	14	24	29.8	15	12
OP120024		441212(A6)/4612FC/4612A6	112	41	14	57	29.8	15	12
OP120037	350	441440(FC)	134	91	14	29	29.8	15	12
OP120025		441412(A6)	134	66	14	54	29.8	15	12
OP120018		441413(A8)/ 4614FC/4614A6/ 4614A8	123	46	14	63	29.8	15	12
OP120038	400	441640(FC)	152	104	18	30	34	18	14
OP120026		441612(A6)	152	84	18	50	34	18	14
OP120019		441613(A8)/4616FC/4616A6, 4616A8	147	49	18	80	34	18	14
OP120039	450	441840(FC)	172	119	18	35	34	18	14
OP120020		441812(A6)/441813(A8)	172	82	18	72	34	18	14
OP120007		441814(A11)/4618FC/4618A8/4618A11/IDV450ST	158	54	18	86	34	18	14
OP120040	500	442040(FC)	192	134	18	40	34	18	14
OP120028		442012(A6)	202	109	18	75	34	18	14
OP120021		442013(A8)	192	109	18	65	34	18	14
OP120009		442014(A11)/4620FC/4620A8/4620A11/IDV500ST	184	77	18	89	34	18	14
OP900010	535	410 21 A15	160	40	25	95	45	25	19
OP120041	550	442240(FC)	214	154	18	42	34	18	14
OP120012		442213(A8)/442214(A11)	208	82	18	108	34	18	14
OP120042	600	442440(FC)	230	163	20	47	36	19	15
OP120023		442413(A8)	230	153	20	57	36	19	15
OP120014		442414/4624FC/4624A8/4624A11/IDV600ST	230	123	20	87	36	19	15
OP900013	610	410 24 A15	180	50	25	105	50	30	22
OP900014		410 24 A20	140	50	25	65	50	30	22
OP120043	650	442640(FC)	260	177	20	63	36	19	15
OP120016		442614(A11)	257	127	20	110	36	19	15
OP123006	700	442813(A8)/442814(A11)/4628FC/IDK(V)700ST	274	100	24	150	40	22	16
OP123009	750	443013(A8)/443014(A11)/4630FC	300	180	24	96	40	22	16
OP123023	800	MC800	314	118	24	172	40	22	16
OP123049		443215(A15)	264	135	25	105	50	30	26
OP123532	800/915/1000	IDK(V)800/915/1000ST	310	55	25	230	45	25	19
OP123012	810	443214(A11)/4632FC	309	177	25	107	50	30	26
OP900024		410 32 A15	266	90	25	151	50	30	22
OP900026		410 32 A20	240	90	25	125	50	30	22
OP123015	915	443614(A11)	371	222	25	124	50	30	26
OP123025	1000	MC1000	404	150	24	230	40	22	16
OP123016		444014(A11)	404	149	25	230	50	30	26
OP123029		444015(A15)	364	225	25	115	50	30	26
OP123042	1200	444714	490	179	25	286	50	30	26
OP123686		444715	460	179	25	256	50	30	26
OP123019	1400	445514(A11)/445515(A15)	560	212	25	323	50	30	26
OP123044	1500	445914(A11)/445915(A15)	570	220	25	325	50	30	26
OP123045	1600	446314(A11)/446315(A15)	570	243	25	303	50	30	26
OP130008	-	BM 3T	176	43	20	113	36	19	15
OP130009	-	BM 4T (Please see ※ 1)	225	58	24	143	40	22	22

(E=26 : Hexagon)

PART NAME and DIMENSION

SPARE PARTS

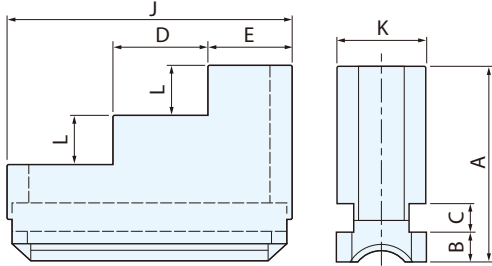
44/46 SERIES STANDARD SOLID JAW

Chuck Size	A	B	C	D	E	J	K	L
12·14	76.5	12.5	12	36	35	112	35	18
16·18	90.5	14.5	14	43	37	132	40	22
20	102.5	15.5	15	49	44	150	45	27
24	109.5	16.5	16	53	47	160	50	28
28·30	136.5	18.5	18	65	50	190	55	32
32·36·40(A11)	150.5	20.5	20	65	60	200	60	35
32·40(A15)	170.5	25.5	25	75	65	230	80	40
47·55·59·63	170.5	25.5	25	75	65	230	80	40
71	220.5	25.5	25	100	90	300	80	55



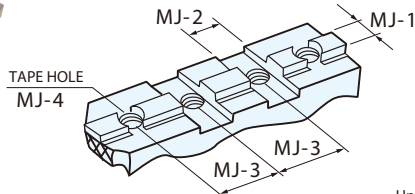
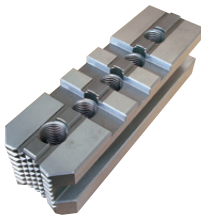
The shape of above jaw is linear.

Chucking surface shape Linear (12" ~ 24")
 Round (28"~)



31/32/41/42 SERIES

AMERICAN STANDARD MASTER JAW
(2-PIECE TONGUE & GROOVE)

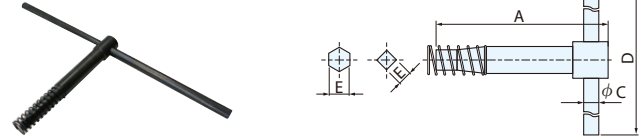


Unit (mm)

SC/NST/TC/TA SERIES	31 · 41 SERIES	32 · 42 SERIES	MJ-1	MJ-2	MJ-3	MJ-4	Number of key steps
6"			7.94	12.7	19.05	M10 UNC3 / 8 (16)	1
7" · 8"			7.94	12.7	22.2	M10 // 3 / 8 (16)	1
9" · 10"			12.7	19.02	27.0	M12 // 1 / 2 (13)	1
12"			12.7	19.02	31.75	M12 // 1 / 2 (13)	1
15"			12.7	19.02	38.1	M16 // 5 / 8 (11)	1
18"	18"	18"	12.7	19.02	38.1	M20 // 3 / 4 (10)	2
	21" · 24"	21"~32"	12.7	19.02	38.1	M20 // 3 / 4 (10)	3
	28"~		12.7	19.02	38.1	M22 // 7 / 8 (9)	3 (Partially, 4)

STANDARD HANDLE

T-HANDLE with spring BS/BR SERIES



(For Independent Chuck)

Model	E	A※	C(φ)	D	Ref. Chuck size
BS 12	□12	165	13	300	300 · 350
BS 14	□14	220	16	450	400 · 450 · 500 · 550
BS 15	□15	220	16	450	600 · 650
BS 16	□16	250	19	500	700 · 750
BS 19	□19	175 (280)	19	500	(41/42SERIES) 21" · 28"(A11) · 32"(A11)
BS 22	□22	132 (280)	22	700	(41/42SERIES) 24"~42"
BR 132	○26	132 (350)	22	700	800~1800

(For Self-Centering Chuck)

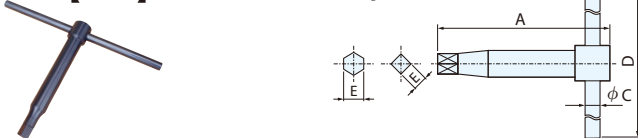
Model	E	A※	C(φ)	D	Ref. Chuck size
BS 14	□14	220	16	450	PH175
BS 19	□19	175 (280)	19	500	PH260 · PH320 · WPS (31/32SERIES) 18" · 21"
BS 22	□22	132 (280)	22	700	(31/32SERIES) · 24"~36"

※The dimension in () of A is for maintenance handle.

(For Self-Centering Chuck of Victor)

Model	E	A	C(φ)	D	Chuck Model
HB 165	□10	120	10	210	NST 6
HB 190	□11	140	11	240	NST 7
HB 230	□12	160	13	290	NST 9
HB 273	□12	160	13	330	NST 10
HB 310	□14	160	16	390	NST 12
HB 385	□15	175	16	450	NST 15
HB 460	□17	175	16	500	NST 18

[Ref.] T-HANDLE TS/TR SERIES



(For Independent Chuck)

Model	E	A	C(φ)	D	Ref. Chuck size
TS 12	□12	165	13	300	300 · 350
TS 14	□14	220	16	450	400 · 450 · 500 · 550
TS 15	□15	220	16	450	600 · 650
TS 16	□16	250	19	500	700 · 750
TS 19	□19	290	19	500	(41/42SERIES) 21" · 28"(A11) · 32"(A11)
TS 22	□22	320	22	700	(41/42SERIES) 24"~42"
TR 90	○26	90	22	700	1000~1800
TR 290	○26	290	22	700	800 · 915 · 1000(A11)
TR 330	○26	330	22	700	800(A15) · 1200~1600
TR 380	○26	380	22	700	1800

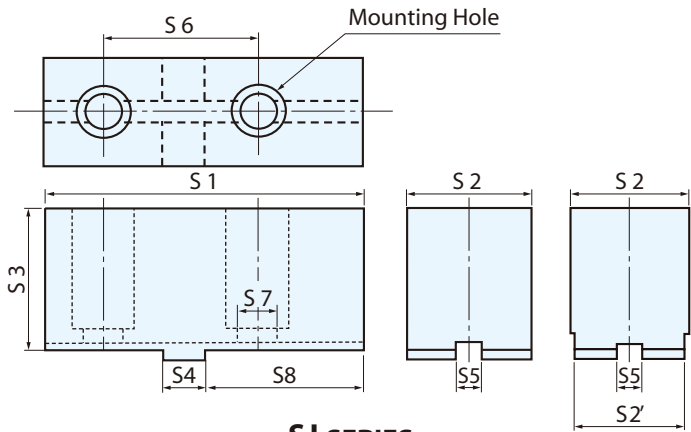
(For Self-Centering Chuck)

Model	E	A	C(φ)	D	Ref. Chuck size
TS 14	□14	220	16	450	PH175
TS 19	□19	290	19	500	PH260 · PH320 · WPS (31/32SERIES) 18" · 21"
TS 22	□22	320	22	700	(31/32SERIES) · 14"~36"

(For Self-Centering Chuck of Victor)

Model	E	A	C(φ)	D	Chuck Model
H 165	□10	120	10	210	NST 6
H 190	□11	140	11	240	NST 7
H 230	□12	160	13	290	NST 9
H 273	□12	160	13	330	NST 10
H 310	□14	160	16	390	NST 12
H 385	□15	175	16	450	NST 15
H 460	□17	175	16	500	NST 18

Parts / BM Jaw

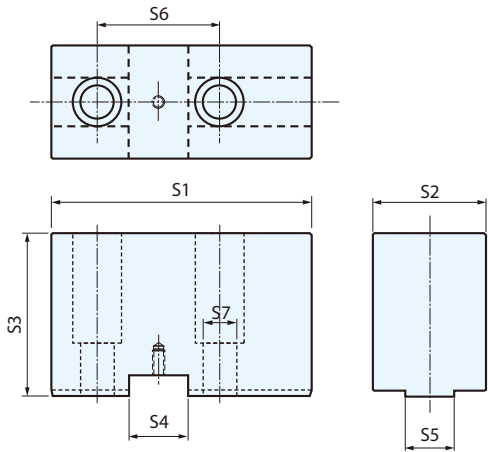


SJ SERIES

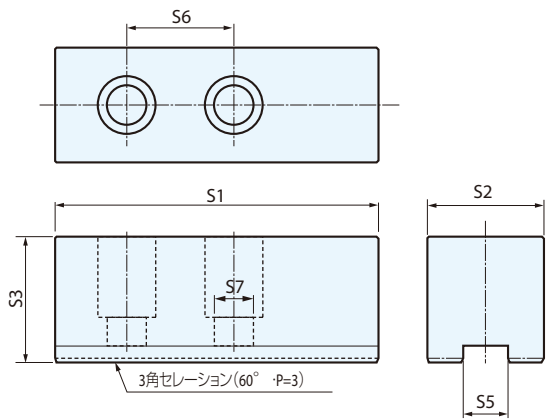
Correspondence Table of Chuck and Soft Jaw															Unit(mm)
	NST・TC SERIES	31 SERIES	32 SERIES	41 SERIES	42 SERIES	S1	S2(S2')	S3		S4	S5	S6	S7	S8	Standard Jaw Weight per One (kg)
								Standard	Higher						
SJ 62	5"					62	23	32.5	—	12.7	7.94	32	9	27	0.4
SJ 70	6"					70	30	36	(60)	12.7	7.94	38.1	11	32	0.5
SJ 85	7"・8"					85	30	38	(60)	12.7	7.94	44.4	11	41	0.6
SJ 100	9"・10"					100	35	46	(85)	19.02	12.7	53.9	14	45	1
SJ 115	12"					115	40	49	(90)	19.02	12.7	63.5	14	53	1.5
SJ 135	15"					135	45	60	(120)	19.02	12.7	76.2	18	65	2.5
SJ 150	18"~24"		18"・21"		18"・21"	150	49	70	(120)	19.02	12.7	76.2	22	73.98	3.5
SJ 155		18"・21"	24"	18"・21"	24"~32"	155	59	80	(140)	19.02	12.7	76.2	22	78.98	5
SJ 160		24"		24"		160	74(69)	90	(150)	19.02	12.7	76.2	22	83.98	7
SJ 170		28"~36"		28"~42"		170	74	90	(150)	19.02	12.7	76.2	24	93.98	8

There are 2 types for Jaw height (S3).

SJV/SHJ SERIES



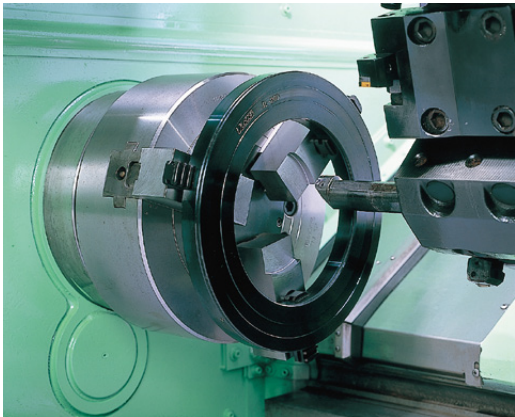
SJV SERIES



SHJ SERIES

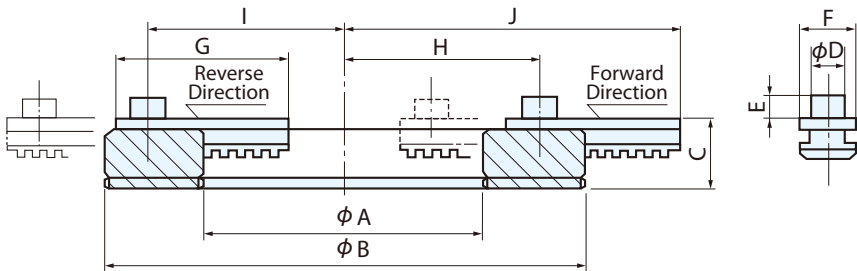
Correspondence Table of Chuck and Soft Jaw													
	CVH SERIES	CV SERIES	4HA SERIES	FCH SERIES	ASM SERIES	S1	S2	S3	S4	S5	S6	S7	Weight per One (kg)
SJV 150	700~800		610~810	700~800		150	69	86	38.9	28	70	22	6
SJV 170	1000~1600		1000~1600	1000~1600		170	74	106	38.9	32	80	22	9
SHJ 18		530			460~600	180	64	70	-	25	60	22	6
SHJ 24		610				210	74	90	-	25	80	22	10

3-Jaw Self-Centering Chuck Soft Jaw Boring Rings



Parts / BM Jaw

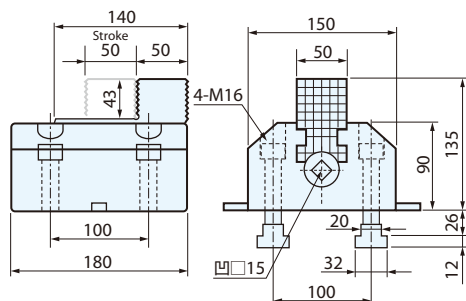
- Dose not require rings and cored bars which have been conventionally necessary for boring soft jaws, and greatly contributes significantly to cost reductions and labor savings.
- Minimizes wear of soft jaws since the operation is simple and stepless fine adjustment is enabled.
- Very convenient when conventional cored bars cannot be used to bore soft jaws for gripping small-diameter objects.
- Machining range is enlarged by reversing the installation direction of the jaw.
- Can be used for hydraulic chucks.



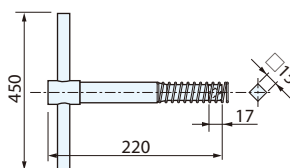
		Unit (mm)				
SPECIFICATION	MODEL	JL-063	JL-100	JL-125	JL-160	JL-200
Main Body Inner Diameter	ϕA	63	100	125	160	200
Main Body Outer Diameter	ϕB	132	170	200	248	300
Effective Thickness	C	26	26	26	31	31
Pin Diameter-Length	ϕD -E	12-7	13-7	13-7	14-8.5	16-8.5
Jaw Width-Length	F-G	16-53	19-61	19-61	24-80	24-80
Pin(ϕD) Center Travel Range (Radius)	Forward Direction H	Outer Clamping	21~52	32~70	45~85	51~106
		Internal Clamping	14~45	25~63	37~77	42~97
	Reverse Direction I	Outer Clamping	52~83	70~108	83~123	105~160
		Internal Clamping	45~76	63~101	75~115	96~151
Jaw Max. Swing (Outer Clamping) J		95	120	135	173	197
Jaw Stroke (Scroll One Rotation)		7.3	7.3	7.3	8.5	8.5
Load Capability Per Jaw kN(kgf)		14 (1,400)	15 (1,500)	15 (1,500)	17 (1,750)	23 (2,300)
Max. Speed min ⁻¹ (r.p.m)		900	800	700	600	500
Weight kg		1.8	2.5	3.1	5.4	7.4
Standard Applicable Chuck Size		#4~6	#5~8	#6~10	#8~12	#10~15

- Use for large-sized lathes, vertical lathes, milling machines, and jig installations.
- BM series are a set of 4 piece.

BM 3T



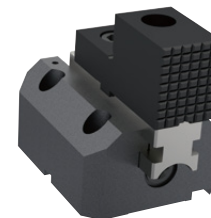
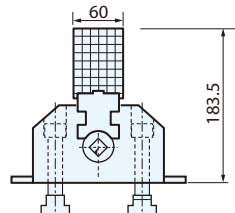
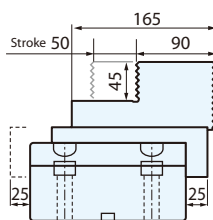
Accessory
T-handle with spring



Gripping Force : 29 kN
(Input Torque : 392 N·m) Weight : 19 kg

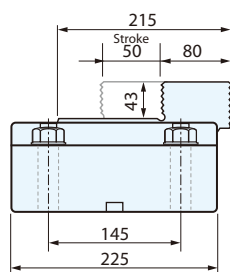
BM 3T 2P(2-PIECE TYPE)

Optional Soft Jaw : SJ155

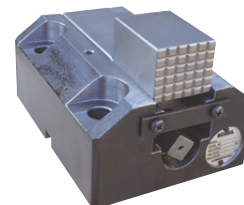
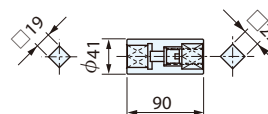


Gripping Force : 29 kN
(Input Torque : 392 N·m) Weight : 21 kg

BM 4T



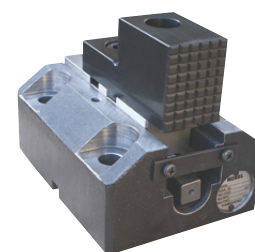
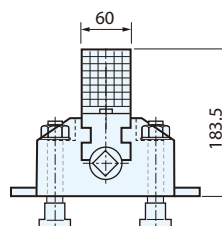
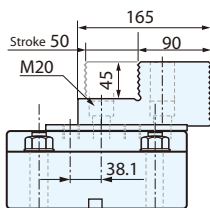
Accessory
Ratchet Handle (RT19D)
Socket with spring (SKB22B19B)



Gripping Force : 39 kN
(Input Torque : 441 N·m) Weight : 26 kg

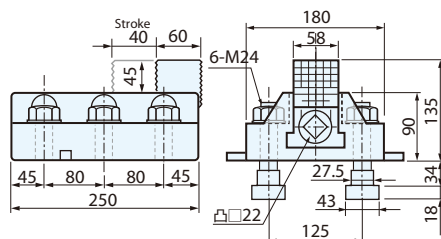
BM 4T 2P(2-PIECE TYPE)

Optional Soft Jaw : SJ-155

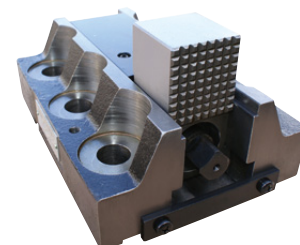
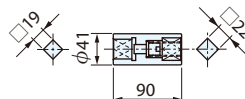


Gripping Force : 39 kN
(Input Torque : 441 N·m) Weight : 28 kg

BM 6T



Accessory
Ratchet Handle (RT19D)
Socket with spring (SKB22B19B)



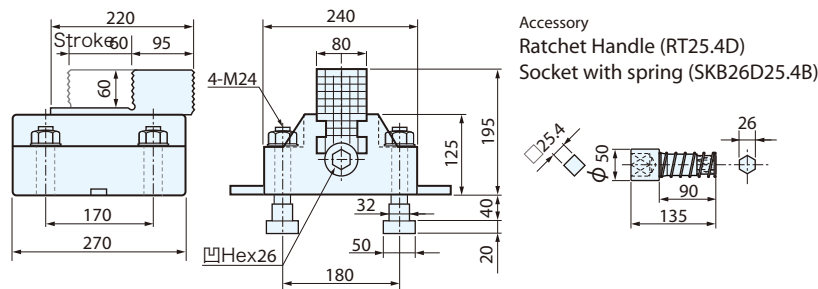
Gripping Force : 59 kN
(Input Torque : 686 N·m) Weight : 30 kg

NOBEL

BORING MILL JAWS

■

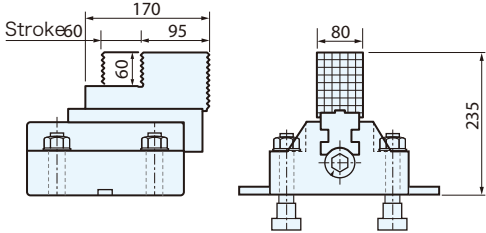
BM 7T



Gripping Force : 68 kN
(Input Torque : 735 N·m) Weight : 55 kg

BM 7T 2P(2-PIECE TYPE)

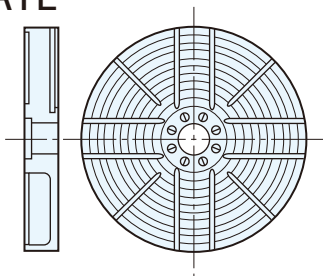
Optional Soft Jaw : SJ170



Gripping Force : 68 kN
(Input Torque : 735 N·m) Weight : 60 kg

■

FACE PLATE



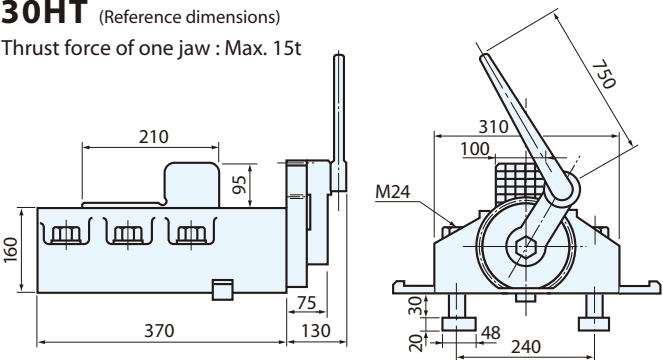
- Face plate are also manufactured. $\phi 800 \sim \phi 3000$
- We can design and manufactured boring mill jaws and face plates at your request. Please inform us of the chuck diameter, installation dimensions, size of workpiece and machining conditions, etc.

■

POWERFUL TYPE BORING MILL JAWS (with a retightening clamp)

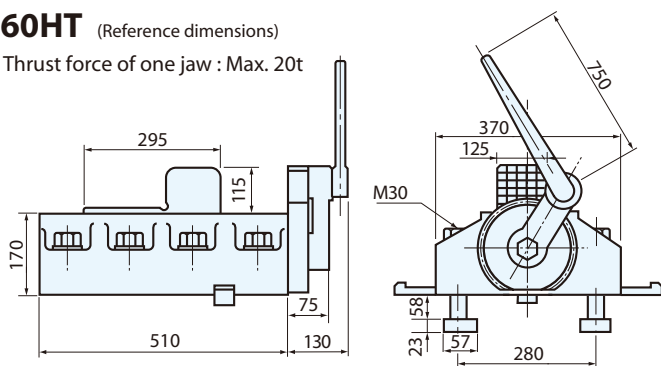
30HT (Reference dimensions)

Thrust force of one jaw : Max. 15t



60HT (Reference dimensions)

Thrust force of one jaw : Max. 20t

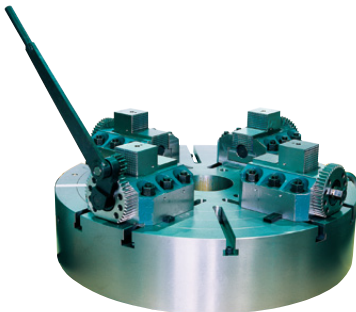
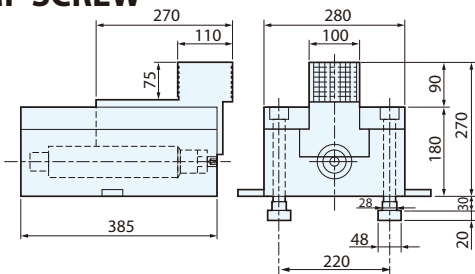


SPECIAL DESIGN

JAKOB POWER CLAMP SCREW

(Reference dimensions)

Thrust force of one jaw : Max. 15t~



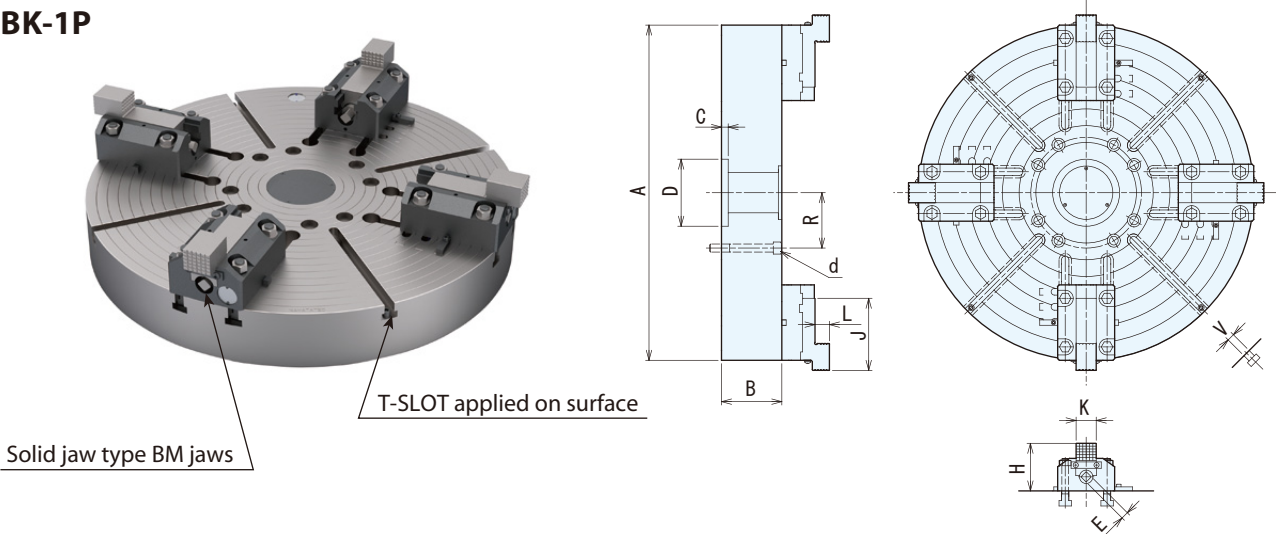
● Design and manufacture of special boring mill jaws are also available at your request.

- Cast iron body
- There are 2 types of solid and 2-piece jaw for boring mill jaws.

Lineup

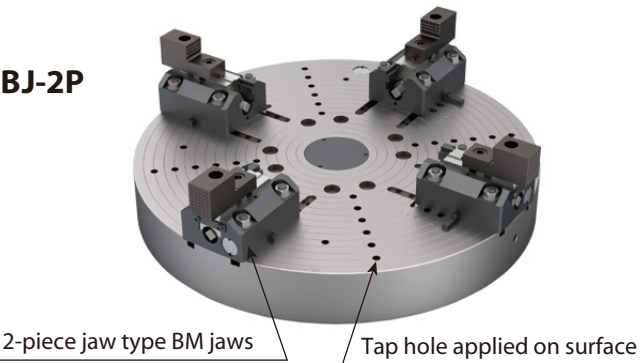
- FBK-1P : T-SLOT・SOLID JAW TYPE BM JAWS
- FBK-2P : T-SLOT・2-PIECE JAW TYPE BM JAWS
- FBJ-1P : TAP HOLE・SOLID JAW TYPE BM JAWS
- FBJ-2P : TAP HOLE・2-PIECE JAW TYPE BM JAWS

FBK-1P



		Unit (mm)					
Specification	Model	FBK 800 ST 1P	FBK 1000 ST 1P	FBK 1250 ST 1P	FBK 1400 ST 1P	FBK 1600 ST 1P	FBK 2000 ST 1P
	A	800	1000	1250	1400	1600	2000
	B	100	140	180	180	180	200
	C	20	20	20	25	25	25
	D	200	200	200	400	500	700
	E	□15	□22	□22	□22	□22	Hex. 26
	H	135	142	142	142	142	195
	J	140	215	215	215	215	220
	K	50	60	60	60	60	80
	L	43	43	43	43	43	60
	R	117.5	165.1	165.1	231.8	290	400
	d	8-M20	8-M24	8-M24	8-M24	8-M24	8-M30
	V	22	22	22	22	22	28
Static gripping force per one jaw	kN	29	39.2	39.2	39.2	39.2	68
Max. handle torque	N・m	392	441	441	441	441	735
Gripping range MIN ~ MAX	Outside Φmm	270 ~ 690	320 ~ 890	390 ~ 1140	360 ~ 1290	470 ~ 1490	570 ~ 1820
	Inside Φmm	360 ~ 625	480 ~ 735	550 ~ 985	520 ~ 1135	630 ~ 1335	755 ~ 1730
Max. speed	min ⁻¹	650	500	350	290	230	150
Chuck weight including BM jaws	kg	360	600	920	1130	1400	2550
Weight of per one BM jaw	kg	19	26	26	26	26	55
Model of boring mill jaw		BM3T	BM4T	BM4T	BM4T	BM4T	BM7T

FBJ-2P



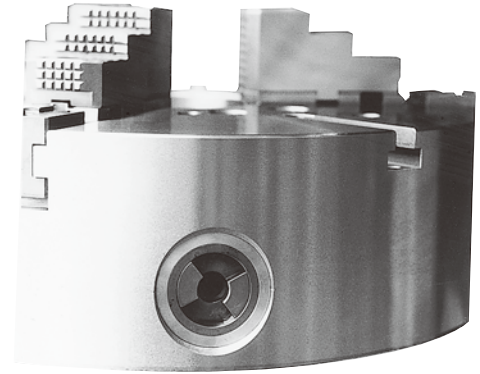
※Values of Max. speed , gripping range and weight differ in FBK-1P, FBK-2P, FBJ-1P and FBJ-2P.
For the specifications of models other than those above, please contact us.

NOBEL

POWER WRENCH / POWER CHUCK / AIR CHUCK

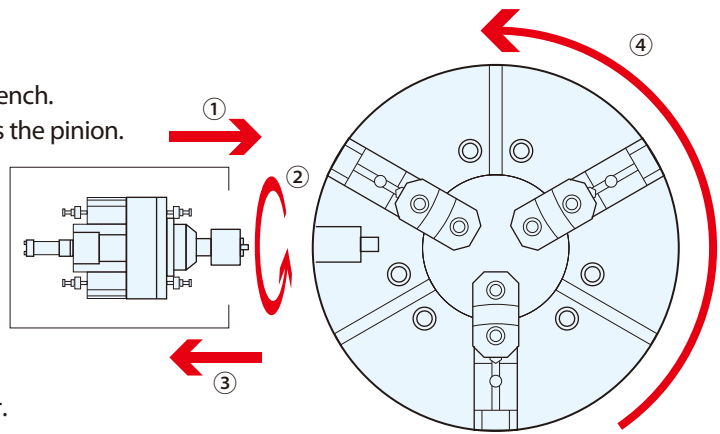
P.30		POWER WRENCH AND POWER WRENCH CHUCK
P.32	CVH SERIES	3/6-JAW POWER CHUCK FOR LARGE
P.34	CVB SERIES	POWER CHUCK WITH BORING MILL JAWS
P.35	CV SERIES	3-JAW POWER CHUCK
P.36	GRH SERIES	3-JAW POWER CHUCK
P.37	CLK SERIES	POWER CHUCK WITH LONG STROKE
P.38	CLS SERIES	POWER CHUCK WITH LONG STROKE
P.39	CVF(3+3) SERIES	6-JAW(3+3) POWER CHUCK
		POWER CHUCK CYLINDER BUILT-IN TYPE
P.40	CVA SERIES	4-JAW COMBINATION CHUCK
P.41	4HA(2+2) SERIES	4-JAW(2+2) POWER CHUCK
P.42	FLC/FCH SERIES	6-JAW FLOATING CHUCK
P.44	NHR SERIES	POWER CHUCK WITH EXTRA LARGE BORE THROUGH HOLE
P.45	ASM SERIES	STATIONARY AIR CHUCK
P.46	HS SERIES	COMPACT SIZED HYDRAULIC CYLINDER
	HW SERIES	DOUBLE ROTARY CYLINDER

- This device is a system to tighten the pinions of scroll chucks not manually but automatically.
- This can be added to any of our scroll chucks as a special specification.



METHODS OF OPERATION

- ① Moving forward while rotating the end of the power wrench.
- ② The wrench interlocks with the chuck pinion and rotates the pinion.
- ③ After the jaws move, the wrench moves backward.
- ④ The chucks start to rotate.



- The power wrench is powered by two hydraulic systems.
(Wrench forward and backward / Wrench forward and reverses rotation)
- The wrench rotation is powered by a hydraulic motor.
※ Since the hydraulic source and software for the wrench movement are not included, they need to be prepared by user.

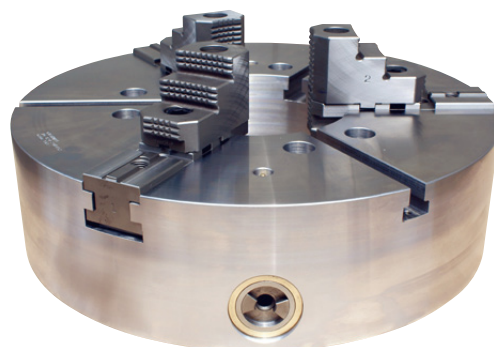
EFFECTIVE USAGE

- For the machine of pallet changer specification or 5-axis machine which are not easily able to attain a hydraulic power source.
- For the machine required for machining workpiece with extra large thru-hole.
- For the automation system which is not able to use a power chuck because of requirement for long jaw stroke.

Cautions before use

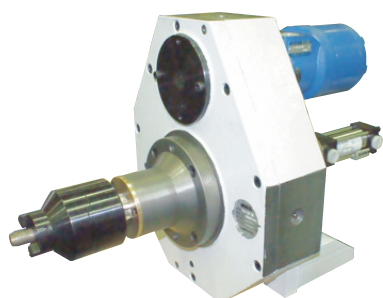
- Software for the hydraulic source and wrench operations are not included. Please prepare at your work site.
- The following automatic operation conditions are required to be carried out.
 - A : Spindle position stop ($\pm 0.5\text{mm}$ on the outer circumference)
 - B : Installation of limit SW for confirmation of chuck jaw retraction
 - C : Hydraulic equipment for wrench operation
 - D : Sequence circuit for control of the wrench (Please contact us for the reference flowchart.)

- This chuck was designed to be moved by a power wrench.
- Our other scroll chucks can be converted to power wrench specification.
 - ※ The shape of some chucks may be modified by converting.

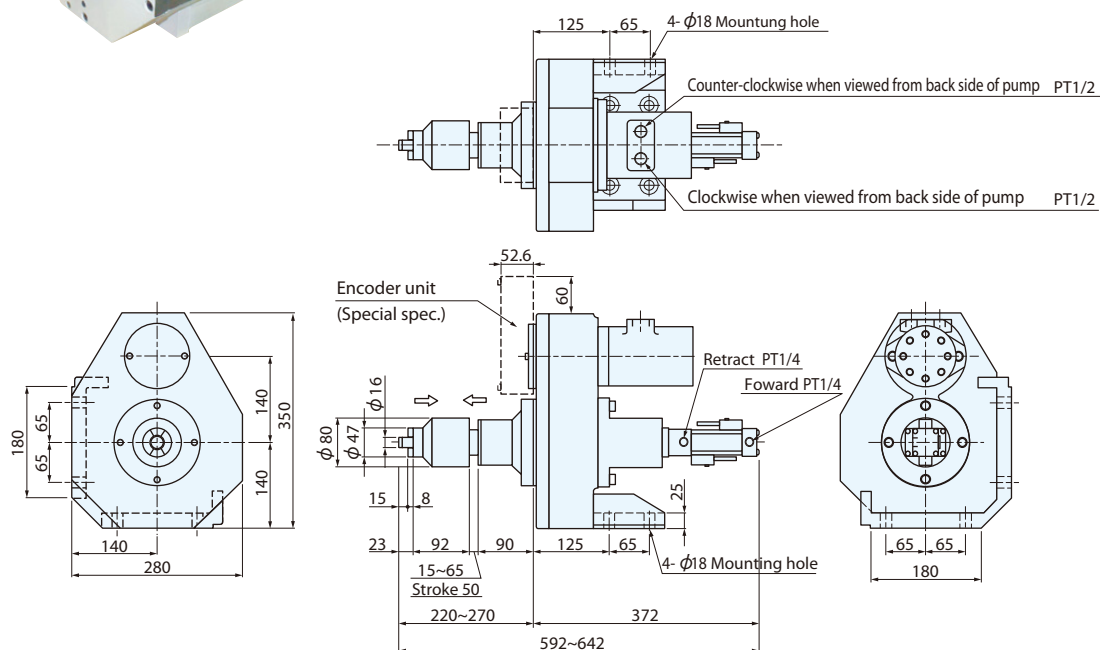


POWER WRENCHES

PW SERIES



- Jaw thrust force for tightening is optional according to operating pressure.
- Jaw travel speed can be changed according to the oil flow rate.
- The power wrench is compact, and can be installed from above, below or at the side.
 - ※ Air blow or encoder specification is also available as a special power wrench.



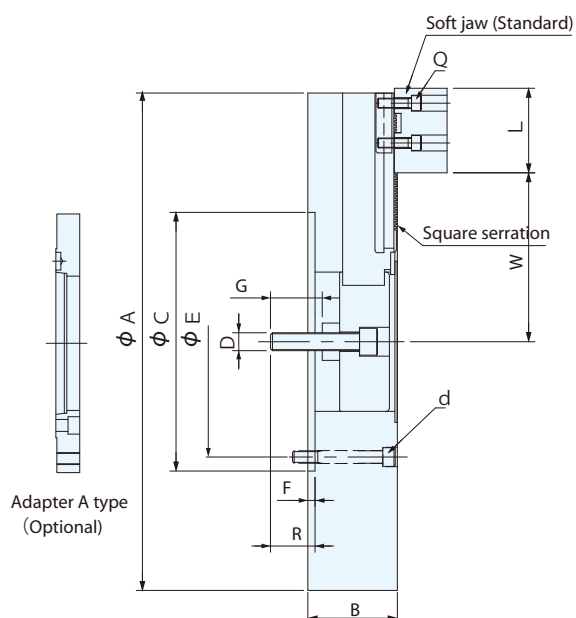
Model	PW H16 50	PW H19 50	PW H24 50	PW H38 50
Wrench torque at 7.0 MPa of hydraulic pressure	372 N·m (38 kgf·m)	441 N·m (45 kgf·m)	510 N·m (52 kgf·m)	764 N·m (78 kgf·m)
Rotation speed	57 min ⁻¹ (at 25L/min of flow)	50 min ⁻¹ (at 25L/min of flow)	31 min ⁻¹ (at 25L/min of flow)	27 min ⁻¹ (at 25L/min of flow)
Stroke of wrench forward and backward	50 mm	50 mm	50 mm	50 mm
Wrench rotation operating pressure at tightening chuck	2.0~7.0 MPa (20~70 kgf/cm ²)	2.0~7.0 MPa (20~70 kgf/cm ²)	2.0~7.0 MPa (20~70 kgf/cm ²)	2.0~7.0 MPa (20~70 kgf/cm ²)
Operating pressure of wrench forward and backward	1.5~2.5 MPa (15~20 kgf/cm ²)	1.5~2.5 MPa (15~20 kgf/cm ²)	1.5~2.5 MPa (15~20 kgf/cm ²)	1.5~2.5 MPa (15~20 kgf/cm ²)
Weight	75 kg	75 kg	75 kg	75 kg

- With chip covers for vertical use
- Jaw stroke : 30 mm(DIA)
- This chuck can be mounted on machine spindle (JIS/ASA) by installing optional adapter.
- Standard jaw : Soft jaw

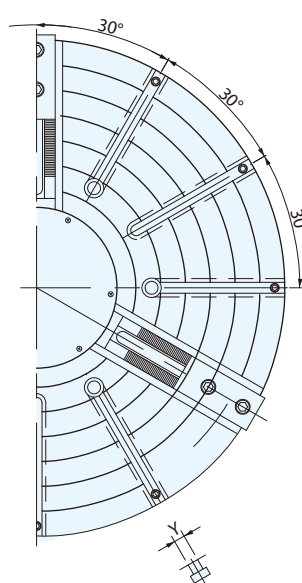
Lineup

CVH-3J : 3 JAW TYPE

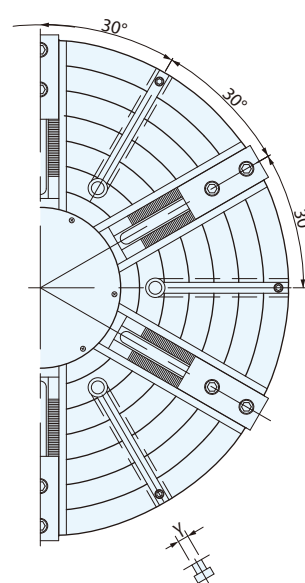
CVH-6J : 6 JAW TYPE



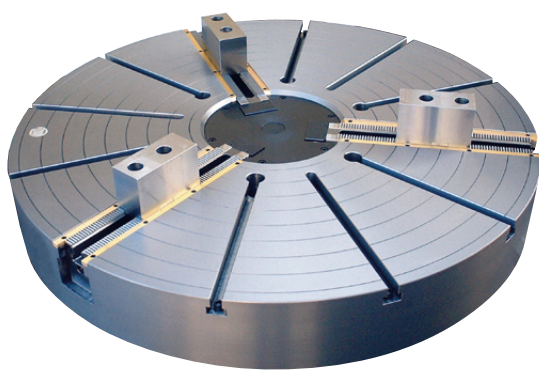
3 JAW



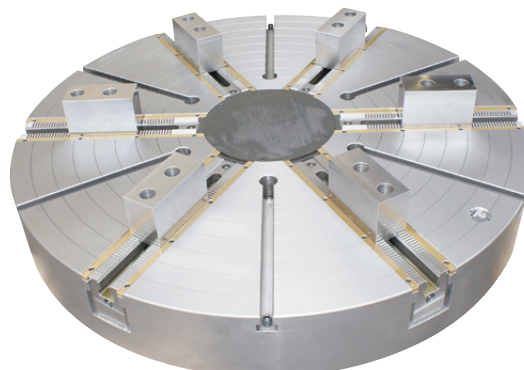
6 JAW



Standard spec. with soft jaw (Hard top jaw is optional)



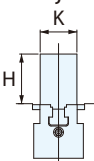
Standard spec. with soft jaw (Hard top jaw is optional)



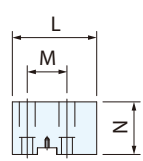
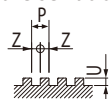
Standard Soft jaws



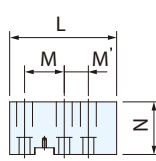
Soft jaw



Square serration

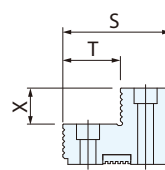


CVH700~2000



CVH2500

Optional Hard top jaws

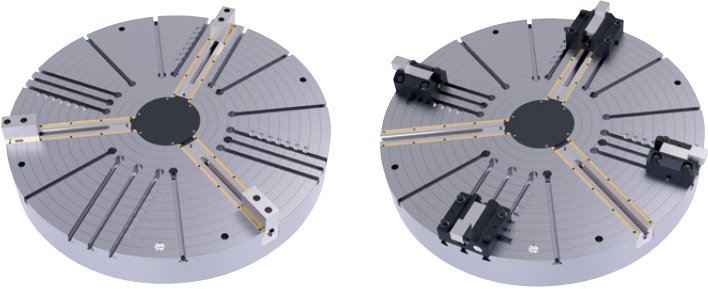


Unit (mm)

Model	CVH 700	CVH 800	CVH 1000	CVH 1250	CVH 1400	CVH 1600	CVH 2000	CVH 2500
A	700	800	1000	1250	1400	1600	2000	2500
B	170	170	180	180	200	220	250	300
C (H6)	380	380	520	520	520	720	720	900
E	330.2	330.2	463.6	463.6	463.6	647.6	647.6	800
F	8	8	8	8	8	8	8	20
G	60	60	65	65	65	65	75	85
H	80	80	100	100	100	100	120	150
K	69	69	74	74	74	74	99	124
D (Pitch)	M30 (3.5)	M30 (3.5)	M36 (4)	M36 (4)	M36 (4)	M36 (4)	M42 (4.5)	M48 (5)
R	40~90	40~90	44~94	44~94	24~74	4~54	19~69	26~76
Q	M20	M20	M20	M20	M20	M20	M24	M24 (3pcs)
S	120	120	150	150	150	150	180	250
T	50	50	70	70	70	70	85	100
X	40	40	50	50	50	50	60	80
L	150	150	170	170	170	170	200	260
M(M')	70	70	80	80	80	80	100	M=115,M'=55
N	86	86	106	106	106	106	127	159
P	7	7	7	7	7	7	7	10
Z	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5
U	3	3	3	3	3	3	3	4.5
Y	22	22	22	22	22	22	28	28
d	6-M24	6-M24	6-M24	6-M24	6-M24	6-M30	6-M30	6-M42
W	MAX	213	264	339	457	532	632	810
	MIN	129	130	171	191	224	247	348
Jaw stroke (DIA)	30	30	30	30	30	30	30	30
Cylinder stroke	50	50	50	50	50	50	50	50
Allowable cylinder force kN	64	64	82	82	82	82	98	196
Max. static gripping force kN	118	118	152	152	152	152	186	323
Weight kg	3-JAW	350	420	670	960	1230	1780	5370
	6-JAW	400	490	760	1080	1370	1800	5860
Max. speed min ⁻¹	3-JAW	750	650	480	360	300	240	150
	6-JAW	550	450	340	270	240	200	150
Soft jaw	SJV150	SJV150	SJV170	SJV170	SJV170	SJV170	SJV200	SJV260
Optional cylinder	HS2050	HS2050	HS2050	HS2050	HS2050	HS2050	HS2050	HS2250

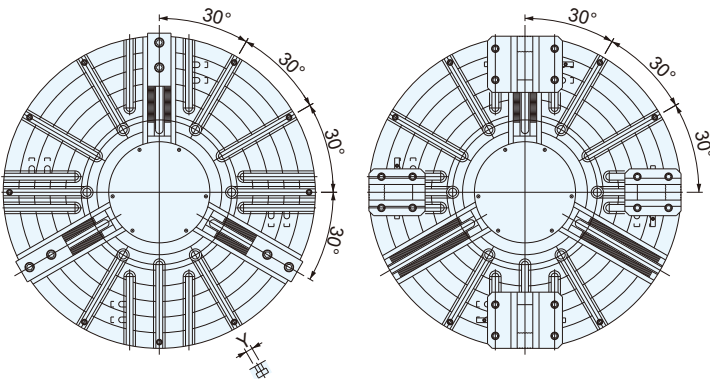
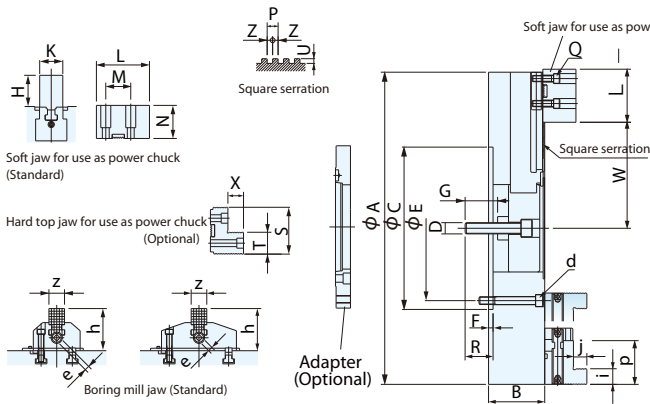
POWER CHUCKS WITH BORING MILL JAWS CVB SERIES

- Cast iron body
- With chip covers for vertical use
- Jaw stroke : 30 mm (DIA)
- Standard accessory : Soft jaws for power chuck and hard jaws for boring mill jaws (CVB-1P type) (CVB-2P is also available. -2P means that BM jaws are 2-piece type)



Use as 3 Jaw power chuck

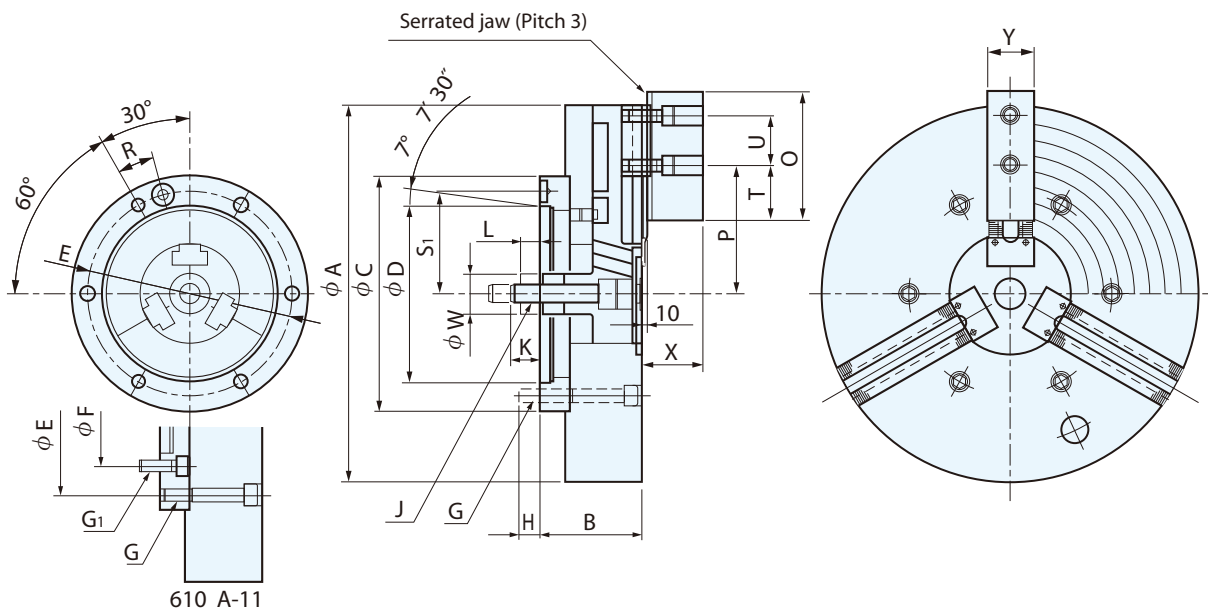
Use as independent chuck with boring mill jaws



Unit (mm)

Model		CVB 1000 1P	CVB 1250 1P	CVB 1400 1P	CVB 1600 1P	CVB 2000 1P
A		1000	1250	1400	1600	2000
B		180	180	200	220	250
C(H6)		520	520	520	720	720
E		463.6	463.6	463.6	647.6	647.6
F		8	8	8	8	8
G		65	65	65	65	75
H		100	100	100	100	120
K		74	74	74	74	99
D (Pitch)		M36(4)	M36(4)	M36(4)	M36(4)	M42(4.5)
R		44 ~ 94	44 ~ 94	24 ~ 74	4 ~ 54	19 ~ 69
Q		M20	M20	M20	M20	M24
S		150	150	150	150	180
T		70	70	70	70	85
X		50	50	50	50	60
L		170	170	170	170	200
M		80	80	80	80	100
N		106	106	106	106	127
P		7	7	7	7	7
Z		3.5	3.5	3.5	3.5	3.5
U		3	3	3	3	3
Y		22	22	22	22	28
d		6-M24	6-M24	6-M24	6-M30	6-M30
W	MAX	339	457	532	632	810
	MIN	171	191	224	247	348
h		135	142	142	142	195
i		50	80	80	80	95
j		43	43	43	43	60
p		140	215	215	215	220
z		50	60	60	60	80
e		15	22	22	22	Hex. 26
Use as power chuck	Power chuck jaw stroke (DIA)	mm	30	30	30	30
	Cylinder stroke	mm	50	50	50	50
	Allowable cylinder force	kN	82	82	82	98
	Static gripping force per 3 jaws	kN	152	152	152	186
	Soft jaw		SJV170	SJV170	SJV170	SJV200
Independent chuck with BM jaws	Weight (not including BM jaws)	kg	710	1150	1430	1950
	Static gripping force per one jaw	kN	29.4	39.2	39.2	68
	Allowable input torque	N · m	392	441	441	735
	Gripping diameter of boring mill jaw	mm	MAX 890	1140	1290	1490
		MIN	550	480	540	560
	Weight of BM jaws (4pcs.)	kg	90	125	125	125
	Boring mill jaw		BM3T	BM4T	BM4T	BM4T
Max speed		min ⁻¹	470	350	290	230
Optional cylinder			HS2050	HS2050	HS2050	HS2050

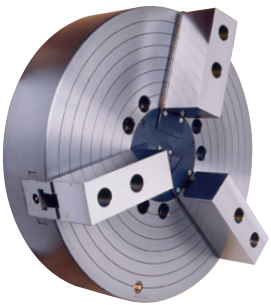
- With chip covers for vertical use
- Jaw stroke : 18.6 mm(DIA)
- For adapter mounting (Optional)
- Standard accessory : Soft jaw



Unit (mm)			
Model	CV 530	CV 610	
Spindle	A1 . A2 - 11	A1 . A2 - 11	A1 . A2 - 15
A	530	610	
B	165	175	
C	300	380	
D	196.869		285.775
E	235	330.2	
F	—	235	—
G	M20	M22	
G ₁	—	M20	—
H	30	33.5	33.5
J	M30 P3.5		
K	40~80	35~70	
L	-5~30	-15~20	
O	180	210	
U	60	80	
T	80	90	
P	MAX	193.5	207.5
	MIN	109.5	111.5
R	30°		15°
S ₁	117.5		165.1
W	65		
X	78	98	
Y	64	74	
Weight kg	200	280	265
Optinal adapter	CV530-BP-A11	CV610-BP-A11	CV610-BP-A15

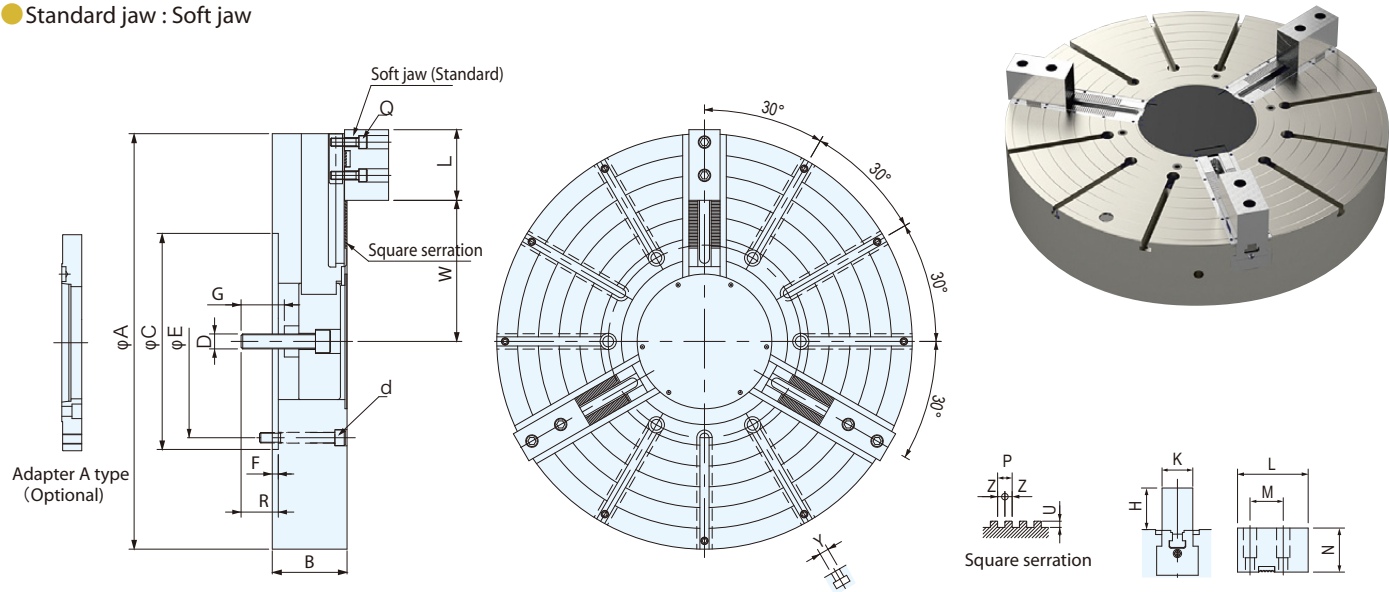
Model		CV 530	CV 610
Jaw stroke (DIA)	mm	18.6	
Cylinder stroke	mm	35	
※ Gripping DIA	MAX	490	560
	mm	MIN	70
Max speed	(min ⁻¹)	1000	850
Allowable cylinder force	(kN)	49	
Gripping force	(kN)	108	
G D ²	(kgf · m ²)	28	46.5
Soft jaw		SHJ18	SHJ24
Cylinder spec.		φ 150× 35L	

※The gripping diameter is reference value when soft jaws are bored.



- Gripping force is larger and rotation speed is higher than CVH series.
- This chuck can be mounted on machine spindle (JIS/ASA) by installing optional adapter.
- With chip covers for vertical use
- Standard jaw : Soft jaw

POWER CHUCK



Unit (mm)

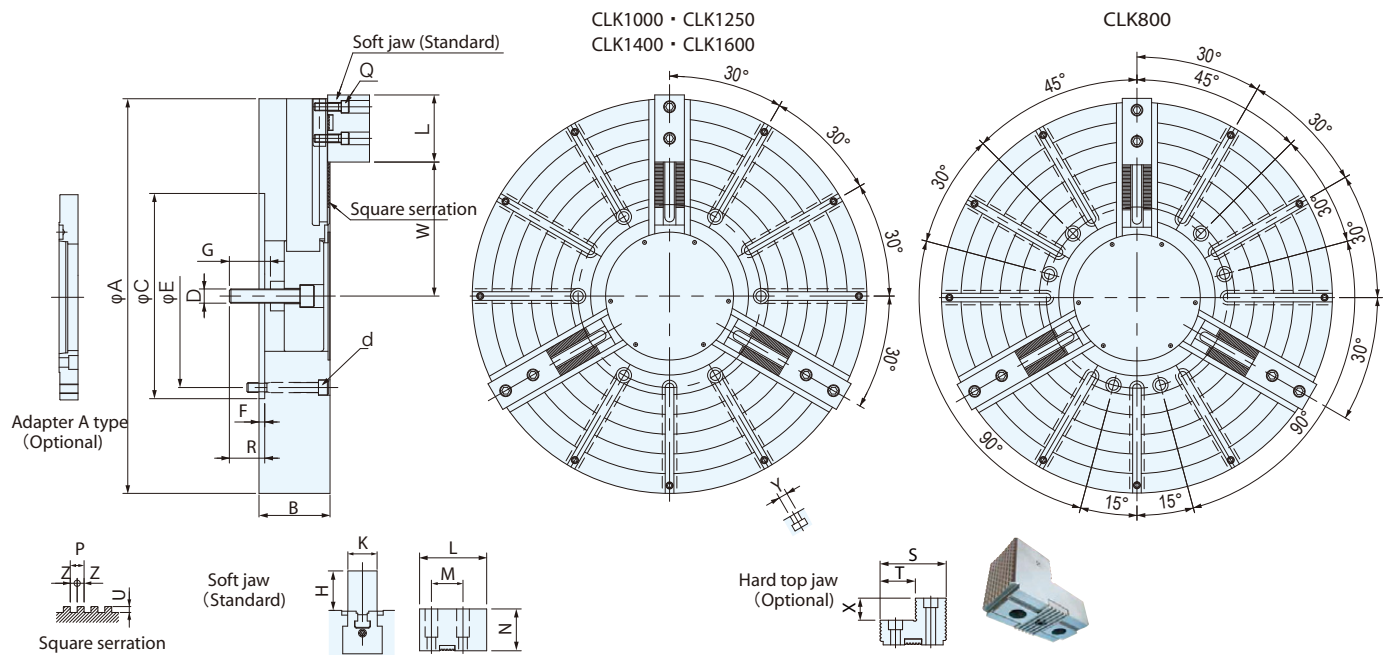
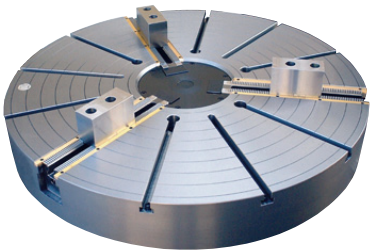
Model	GRH 700	GRH 800	GRH 1000	GRH 1250	GRH 1400	GRH 1600
A	700	800	1000	1250	1400	1600
B	170	170	180	180	200	220
C (H6)	380	380	520	520	520	720
E	330.2	330.2	463.6	463.6	463.6	647.6
F	5	5	5	5	5	5
G	70	70	70	70	70	70
H	100	100	110	110	110	110
K	74	74	84	84	84	84
D (Pitch)	M42 (4.5)	M42 (4.5)	M42 (4.5)	M42 (4.5)	M42 (4.5)	M42 (4.5)
R	62.5~112.5	62.5~112.5	52.5~102.5	52.5~102.5	32.5~82.5	12.5~62.5
Q	M20	M20	M24	M24	M24	M24
L	170	170	190	190	190	190
M	80	80	100	100	100	100
N	106	106	117	117	117	117
P	7	7	7	7	7	7
Z	3.5	3.5	3.5	3.5	3.5	3.5
U	3	3	3	3	3	3
Y	22	22	22	22	22	22
d	6-M24	6-M24	6-M24	6-M24	6-M24	6-M30
W	MAX	189	239	319	444	519
	MIN	128	129	167	173	178
Jaw stroke (DIA)	mm	26	26	26	26	26
Cylinder stroke	mm	50	50	50	50	50
Allowable cylinder force	kN	147	147	172	172	172
Max. static gripping force	kN	353	353	402	402	402
Weight	kg	370	450	790	1020	1310
Max. speed	min ⁻¹	1140	970	700	520	440
Soft jaw	SJV170	SJV170	SJV190	SJV190	SJV190	SJV190
Optional cylinder	HS2250	HS2250	HS2250	HS2250	HS2250	HS2250

3-JAW POWER CHUCKS

CLK SERIES

LONG JAW STROKE

- With chip covers for vertical use
- Jaw stroke : 30 mm(DIA)
- This chuck can be mounted on machine spindle (JIS/ASA) by installing optional adapter.
- Standard jaw : Soft jaw



Unit (mm)

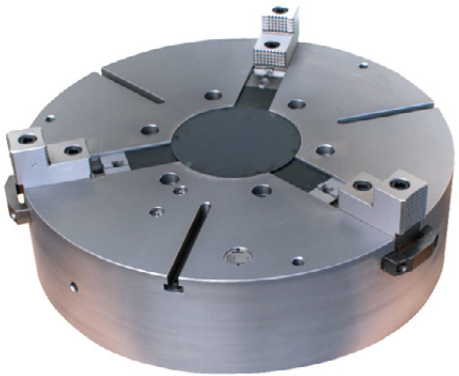
Model	CLK 800	CLK 1000	CLK 1250	CLK 1400	CLK 1600
A	800	1000	1250	1400	1600
B	220	235	235	235	250
C (H6)	380	520	520	520	720
E	330.2	463.6	463.6	463.6	647.6
F	5	5	5	5	5
G	60	65	65	65	65
H	80	100	100	100	100
K	69	74	74	74	74
D (Pitch)	M30 (3.5)	M36 (4)	M36 (4)	M36 (4)	M36 (4)
R	40~90	44~94	44~94	44~94	29~79
Q	M20	M20	M20	M20	M20
S	120	150	150	150	150
T	50	70	70	70	70
X	40	50	50	50	50
L	150	170	170	170	170
M	70	80	80	80	80
N	86	106	106	106	106
P	7	7	7	7	7
Z	3.5	3.5	3.5	3.5	3.5
U	3	3	3	3	3
Y	22	22	22	22	22
d	6-M24	6-M24	6-M24	6-M24	6-M30
W	MAX	339	457	532	632
	MIN	135	174	179	188
Jaw stroke (DIA)	50	50	50	50	50
Cylinder stroke	50	50	50	50	50
Allowable cylinder force kN	98	123	123	123	123
Max. static gripping force kN	118	152	152	152	152
Weight kg	570	950	1370	1580	2100
Max. speed min ⁻¹	970	700	520	440	350
Soft jaw	SJV150	SJV170	SJV170	SJV170	SJV170
Optional cylinder	HS2050	HS2250	HS2250	HS2250	HS2250

POWER CHUCK

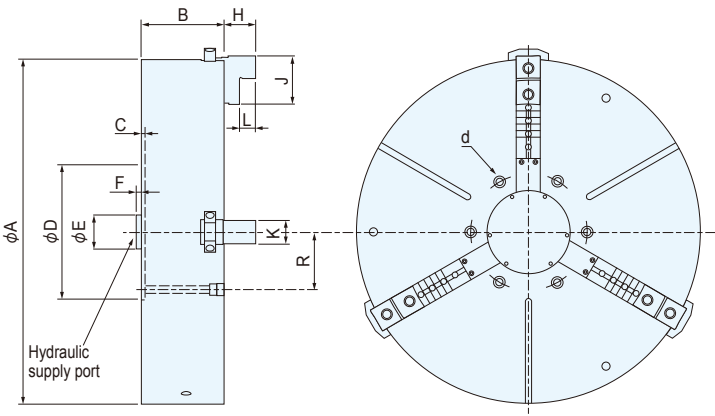
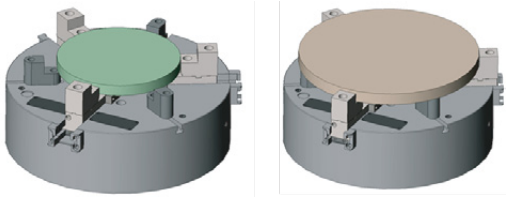
3-JAW POWER CHUCKS

CLS SERIES

- Long stroke
- Jaw is operated by a built-in hydraulic motor in chuck. A large gripping range is provided without setup of jaws exchange.
- With chip cover for vertical use
- Additional seals are applied to the inside of chuck to prevent invasion of chips and cutting oil to the motor drive.
- The valve is built-in which enables switching of high speed/low speed to shorten a cycle time.



Clamp the workpiece whose diameter is small and large without setup of jaws change



■ Reference (Detailed dimensions are decided after discussion.)

Model	Unit (mm)											
	A	B	C	D(H7)	E	F	H	J	L	K	R	d
CLS 800	800	230	10	395	98	25	91.8	140	46	69	167.5	6-M20
CLS 1000	1000	240	10	395	98	15	91.8	140	46	69	167.5	6-M20
CLS 1250	1250	290	20	520	140	-2	100.5	170	50	79	231.8	6-M24
CLS 1400	1400	300	20	520	140	-12	100.5	170	50	79	231.8	9-M24
CLS 1600	1600	300	20	720	140	-12	100.5	170	50	79	323.8	9-M24

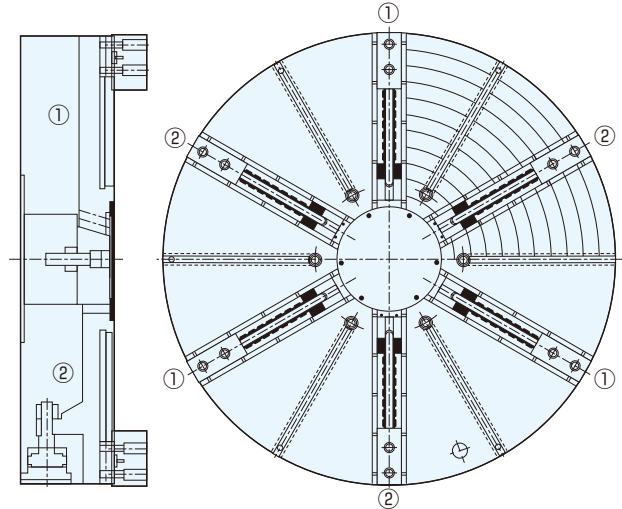
Model	Max.static gripping force (at hydraulic pressure of 5.5Mpa) kN(kgf)	Gripping range		ϕ mm		Allowable Max. speed min ⁻¹	Jaw stroke (DIA) mm	Weight kg
		Outside	Inside	MIN	MAX			
CLS 800	88(9000)	265	695	400	670	650	140	650
CLS 1000	88(9000)	300	880	440	850	470	150	1100
CLS 1250	98(10000)	335	1090	490	1055	350	210	1900
CLS 1400	98(10000)	335	1240	490	1210	290	210	2600
CLS 1600	98(10000)	405	1435	565	1405	230	260	3500

6-JAW (3+3) POWER CHUCKS

CVF(3+3) SERIES

- With cover for vertical use
- Three jaws (①) move centripetally and the remaining three jaws (②) move individually to grip thin irregular shaped workpiece powerfully.
- Example : CVF1400-ST

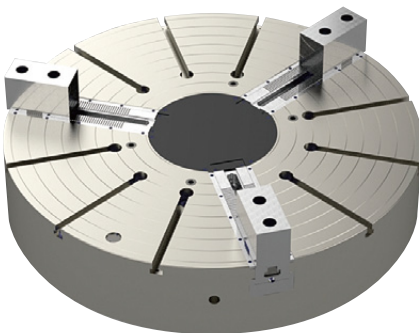
- ①Jaw Jaw stroke (Radius) : 15 mm
Max. gripping force (Per 3 jaws) : 152 kN
- ②Jaw Jaw stroke (Radius) : 20 mm
Max. gripping force (Per one jaw) : 39 kN



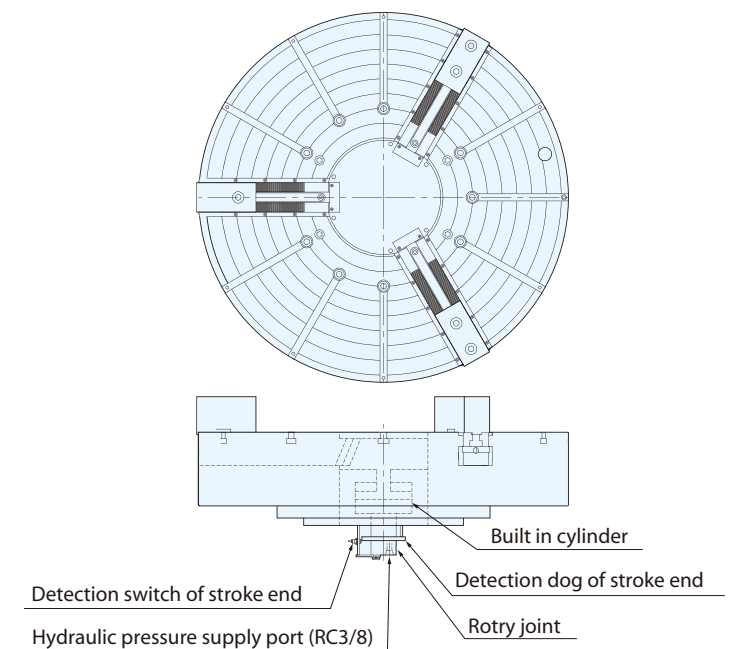
POWER CHUCK

POWER CHUCKS BUILT-IN CYLINDER

■ CYLINDER BUILT-IN TYPE

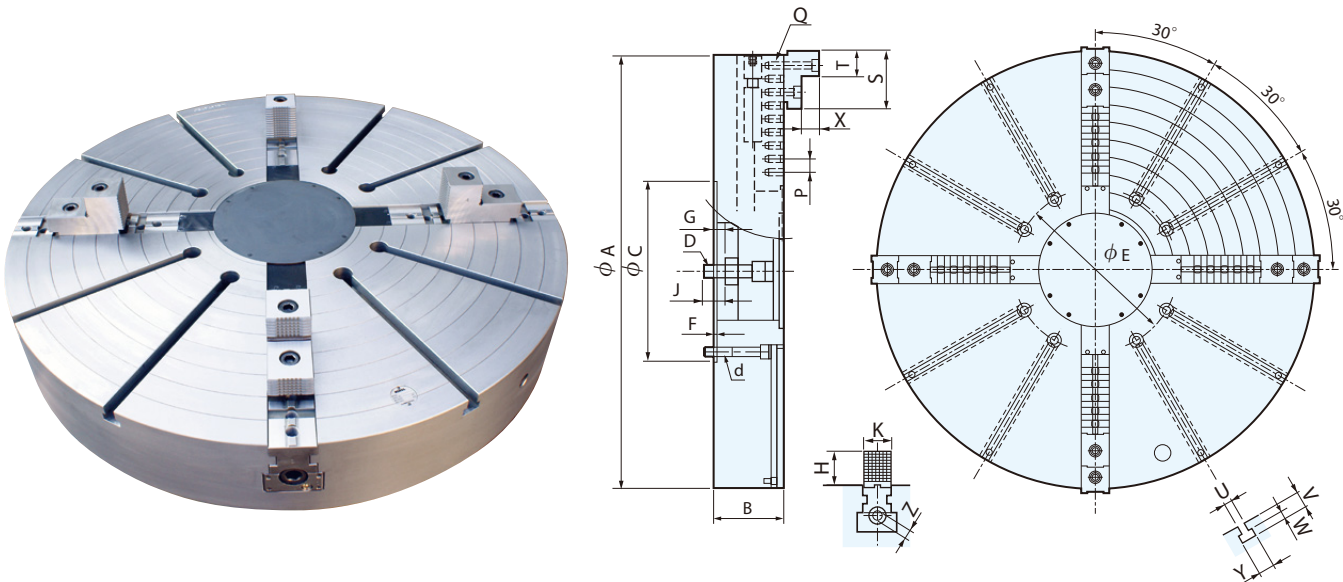


- Cylinder is not necessary to prepare since it is built in.
- Combination chuck of 4 jaws (2+2) or 6 jaws (3+3) type is also available. Specification details are decided in consideration with customer.
- Check valve and relief valve are provided.



4-JAW COMBINATION CHUCKS

- It is structured so that respective jaws can be individually operated and irregular shaped objects can be gripped powerfully.
- With chip cover for vertical use
- One set of hard top jaws are included (Soft jaws not included)



Model	CVA 800	CVA 1000	CVA 1250	CVA 1400	CVA 1600	CVA 1800	CVA 2000
A	800	1000	1250	1400	1600	1800	2000
B	180	200	200	200	220	250	250
C (H6)	380 ^{+0.036} ₀	520 ^{+0.044} ₀	520 ^{+0.044} ₀	520 ^{+0.044} ₀	720 ^{+0.05} ₀	720 ^{+0.05} ₀	720 ^{+0.05} ₀
E	330.2	463.6	463.6	463.6	647.6	647.6	647.6
F	8	8	8	8	8	10	10
D (Pitch)	M30 (3.5)	M36 (4)	M36 (4)	M36 (4)	M36 (4)	M42 (4.5)	M42 (4.5)
G	28	34	34	34	54	54	54
J	60	65	65	65	65	75	75
H	92	100	100	100	100	115	115
K	69	79	79	79	79	99	99
P	38.1	38.1	38.1	38.1	38.1	76.2	76.2
Q	M 20	M 22	M 22	M 22	M 22	M 24	M 24
S	140	170	170	170	170	180	180
T	65	75	75	75	75	85	85
X	46	50	50	50	50	60	60
Z	□19	Hex.26	Hex.26	Hex.26	Hex.26	Hex.26	Hex.26
U	22	22	22	22	22	28	28
V	38	38	38	38	38	48	48
W	16	16	16	16	16	20	20
Y	37	37	37	37	37	48	48
d	8-M22	8-M24	8-M24	8-M24	8-M24	8-M30	8-M30

Model	CVA 800	CVA 1000	CVA 1250	CVA 1400	CVA 1600	CVA 1800	CVA 2000
Individual jaw stroke (One side)	42.5	45	45	45	45	85	85
Auto jaw stroke (DIA)	30	30	30	30	30	30	30
Cylinder stroke	50	50	50	50	50	50	50
Gripping DIA	Outside	ϕ 300~ϕ 680	ϕ 380~ϕ 870	ϕ 400~ϕ 1120	ϕ 410~ϕ 1270	ϕ 450~ϕ 1465	ϕ 545~ϕ 1640
	Inside	ϕ 410~ϕ 640	ϕ 515~ϕ 830	ϕ 535~ϕ 1080	ϕ 535~ϕ 1230	ϕ 580~ϕ 1430	ϕ 700~ϕ 1620
Allowable cylinder force kN(kgf)	64 (6500)	82 (8400)	82 (8400)	82 (8400)	82 (8400)	98 (10000)	98 (10000)
Max. gripping force kN(kgf)	118 (12000)	152 (15500)	152 (15500)	152 (15500)	152 (15500)	186 (19000)	186 (19000)
Max. speed min ⁻¹	450	360	300	260	230	190	150
GD ² kN · m ² (kgf · m ²)	1.6 (163)	3.9 (395)	9.6 (976)	14 (1421)	25 (2560)	43.7 (4455)	61.7 (6300)
Weight kg	510	790	1250	1450	2000	2750	3150
Optional soft jaw	SJ160	SJ170	SJ170	SJ170	SJ170	SJ210	SJ210

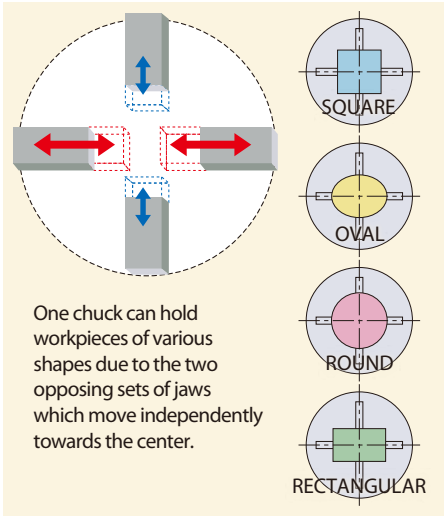
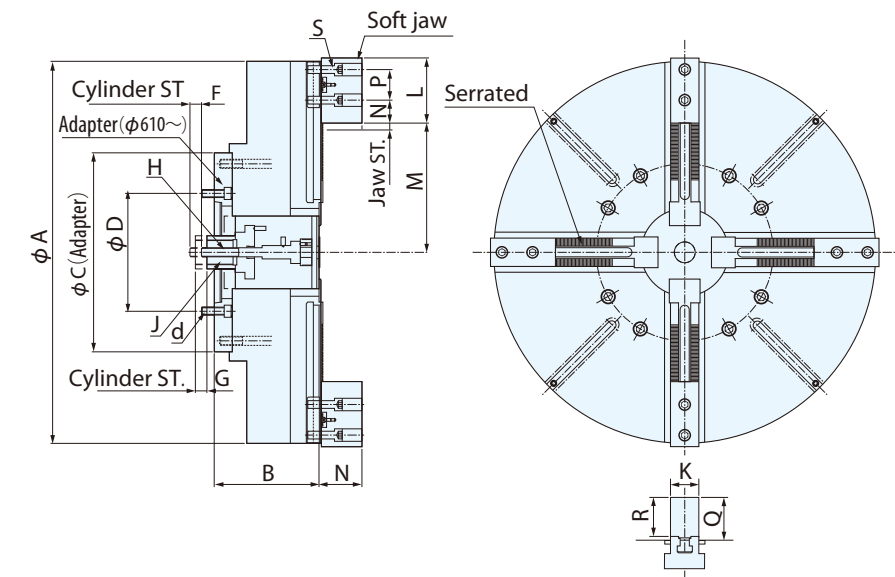
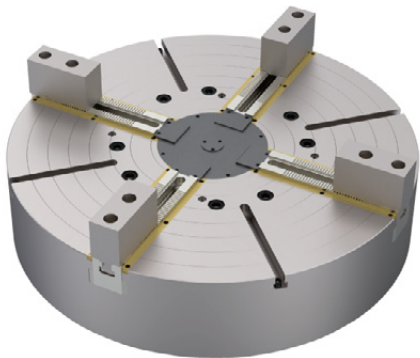
※Mnufacture of 3-jaw and 6-jaw chucks is available at your request.

4-JAW (2+2) POWER CHUCKS

4HA(2+2) SERIES

4-JAW (2+2) POWER CHUCK

- Irregularly shaped parts (e.g. those which are almost but not exactly round, square, oval, etc.) can be gripped securely due to the centripetal action of the two parts of jaws which are mounted crosswise.
- With chip covers for vertical use
- Long jaw stroke, Large gripping range
- One set of soft jaws included (Hard top jaws not included)



POWER CHUCK

Reference (Detailed dimensions are decided after discussion.)

Unit (mm)

MODEL	4HA 18	4HA 21	4HA 24	4HA 28	4HA 32	4HA 40	4HA 50	4HA 55	4HA 63	4HA 71	4HA 79
A	460	530	610	710	810	1000	1250	1400	1600	1800	2000
B	A2-11		275	275	275	275					
	A2-15	210	210	280	280	280	325	325	325	385	385
	A2-20			-	-	-					
C	(direct mount)	(direct mount)	520	520	520	520	520	520	520	720	720
D	A2-11	235	235	235	235	235	-	-	-	-	-
	A2-15	-	-	330.2	330.2	330.2	330.2	330.2	330.2	330.2	330.2
	A2-20	-	-	-	-	463.6	463.6	463.6	463.6	463.6	463.6
d	A2-11	4-M20 (divided equally)	4-M20 (divided equally)	8-M20	8-M20	8-M20	8-M20	-	-	-	-
	A2-15	-	-	8-M24	8-M24	8-M24	8-M24	8-M24	8-M24	8-M24	8-M24
	A2-20	-	-	-	-	8-M24	8-M24	8-M24	8-M24	8-M24	8-M24
H (pitch)	M24 (3.0)	M24 (3.0)	M24 (3.0)	M24 (3.0)	M24 (3.0)	M24 (3.0)	M30 (3.5)	M30 (3.5)	M30 (3.5)	M42 (4.5)	M42 (4.5)
J (pitch)	M55 (1.5)	M55 (1.5)	M55 (1.5)	M55 (1.5)	M55 (1.5)	M55 (1.5)	M75 (2.0)	M75 (2.0)	M75 (2.0)	M100 (3.0)	M100 (3.0)
K	62	62	69	69	69	74	74	74	74	99	99
L	165	165	150	150	150	170	170	170	170	200	200
M	MIN	61	61	109	110	113	114	129	131	157	146
	MAX	103	138	172	222	260	338	460	535	635	810
N	75	75	55	55	55	60	60	60	60	60	60
P	43	43	70	70	70	80	80	80	80	100	100
Q	75.2	75.2	92	92	92	112	112	112	112	132	132
R	65.2	65.2	82	82	82	102	102	102	102	122	122
S	M20	M20	M20	M20	M20	M20	M20	M20	M20	M24	M24
Jaw Stroke (Radius)	10	10	14	14	14	14	15	15	15	20	20
Cylinder ST.	25	25	30	30	30	30	30	30	30	40	40
Serration pitch	1.5	1.5	7	7	7	7	7	7	7	7	7
Allowable Cyl. Force kN	27	27	43	43	43	43	64	64	64	88	88
Gripping Force (4pcs. jaw) kN	92	92	125	125	125	125	153	153	153	200	200
Max. Rotation Speed min ⁻¹	950	840	770	660	610	450	350	290	230	190	150
Soft Jaw	HO15	HO15	SJV150	SJV150	SJV150	SJV170	SJV170	SJV170	SJV170	SJV200	SJV200
Cylinder	HW1325	HW1325	HW1530	HW1530	HW1530	HW1530	HW1830	HW1830	HW1830	HW2040	HW2040

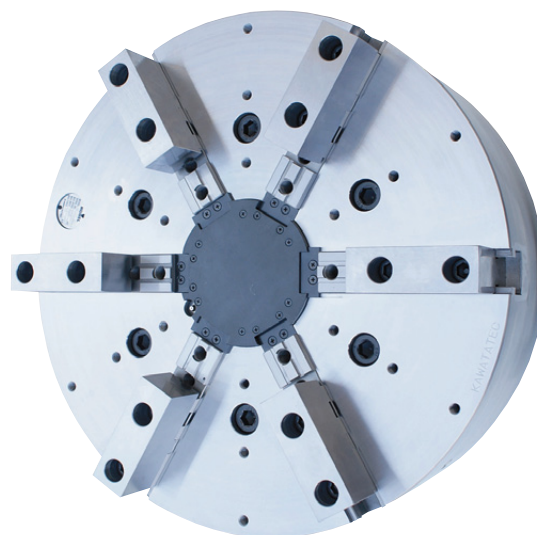
Solutions for ring machining

■ FLC series

- Long jaw stroke 86mm (DIA)
- Centrifugal force compensation
- With chip cover for vertical use

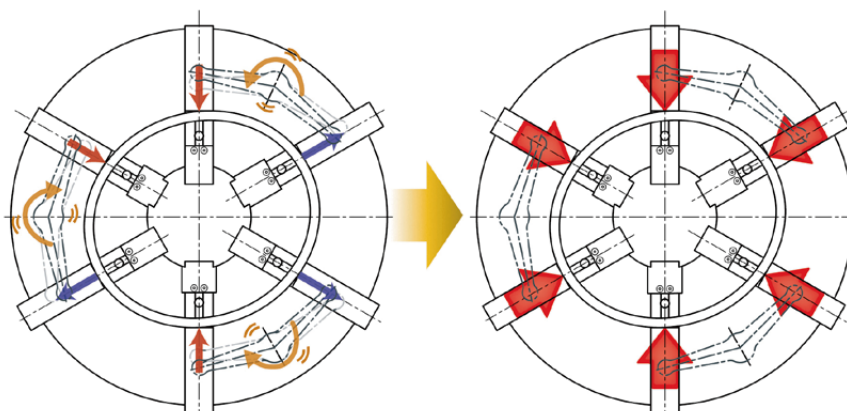
■ FCH series

- Jaw stroke 28.6mm (DIA)
- Pitch 7mm square serration
- With chip cover for vertical use



Floating function

- Floating function included inside the chuck.
- Allows for equal clamping at 6 points in the first process of ring materials with low circularity. (*Our experimental data reveals that circularity is improved on average by four times with respect to general 6-jaw chucks.)

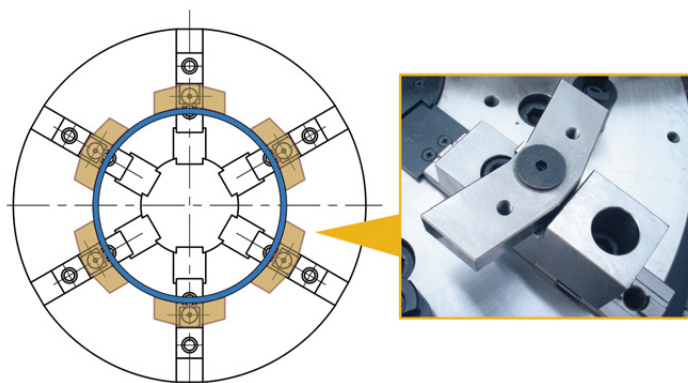


Adjacent jaws are equalized in accordance with the shape of a workpiece.

Six jaws clamp a workpiece with equal force.

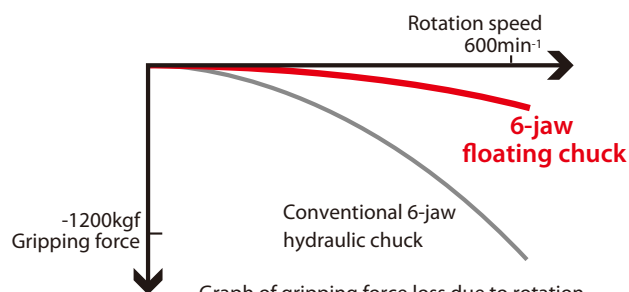
12-jaw floating spec with pendulum jaw

- Each floating jaw is attached with a pendulum jaw and clamped equally at 12 points to realize greater improvement in circularity. (*Our experimental data reveals that circularity is improved on average by 6.5 times with respect to general 6-jaw chucks.)

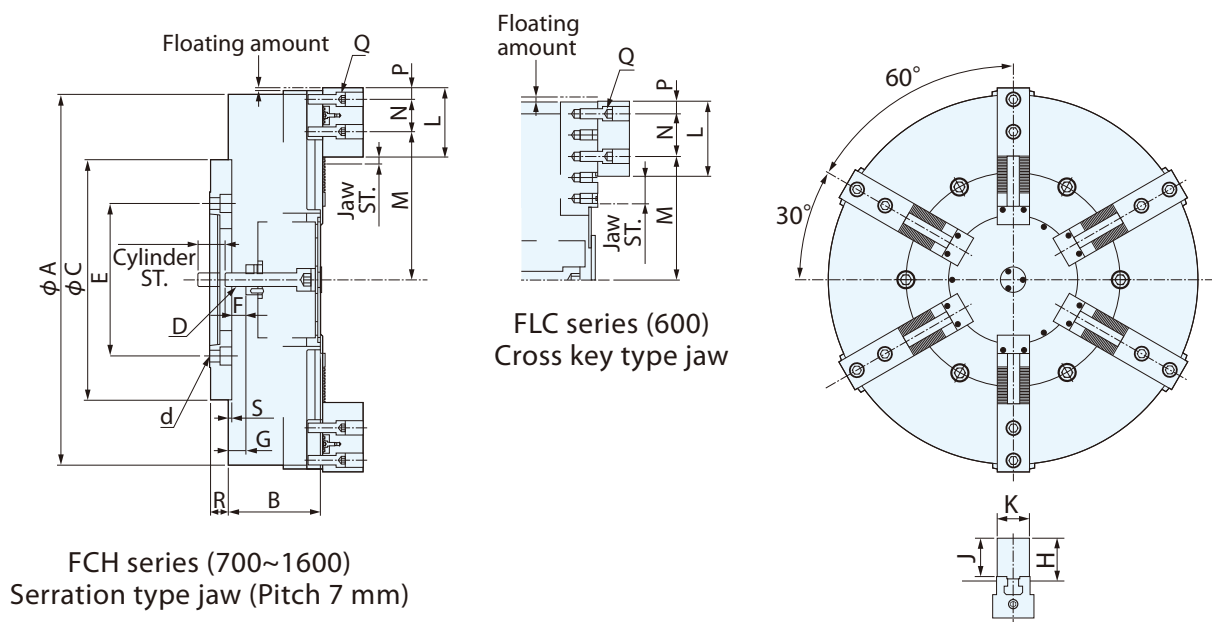


Centrifugal force compensation function (FLC Series)

- Decrease in gripping force due to rotation is approximately one-fifth of that of conventional hydraulic chucks. If a thin workpiece is chucked loosely due to concerns about deformation, there are no concerns about a flying out workpiece.



*At maximum gripping position / When soft jaw used



Reference (Detailed dimensions are decided after discussion.)

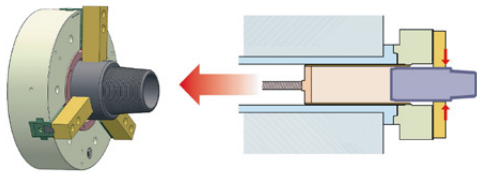
Unit (mm)

MODEL	FLC 600	FCH 700	FCH 800	FCH 1000	FCH 1250	FCH 1400	FCH 1600
A	600	700	800	1000	1250	1400	1600
B	200	200	200	200	210	210	220
C	380	520	520	520	520	520	520
E	A2-11	235	235	235	235	235	235
	A2-15	330.2	330.2	330.2	330.2	330.2	330.2
	A2-20	-	463.6	463.6	463.6	463.6	463.6
d	A2-11	6-M20	8-M20	8-M20	8-M20	8-M20	8-M20
	A2-15	6-M24	8-M24	8-M24	8-M24	8-M24	8-M24
	A2-20	-	8-M24	8-M24	8-M24	8-M24	8-M24
D (Pitch)	M30 (3.5)	M30 (3.5)	M30 (3.5)	M36 (4)	M36 (4)	M36 (4)	M36 (4)
F	50	60	60	65	65	65	65
G	24	39	39	39	49	49	59
H	68	92	92	112	112	112	112
J	60	82	82	102	102	102	102
K	45	69	69	74	74	74	74
L	135	150	150	170	170	170	170
M	MIN	113	175	176	198	204	239
	MAX	213	260	310	389	514	689
N	76.2	70	70	80	80	80	80
P	22.39	25	25	30	30	30	30
Q	M16	M20	M20	M20	M20	M20	M20
R	40	40	40	40	40	40	40
S	8	8	8	8	8	8	8
Jaw Stroke (Radius)	43	14	14	14	14	14	14
Cylinder ST.	50	50	50	50	50	50	50
Floating amount	±2	±1.5	±1.5	±2	±2	±2	±2
Allowable Cyl. Force kN	108	64	64	82	82	82	82
Gripping Force kN	68	127	127	166	166	166	166
Max. Speed min ⁻¹	850	560	500	430	350	290	230
Weight kg	ST	360	-	-	-	-	-
	A2-11	397	545	665	915	1315	1965
	A2-15	391	530	650	900	1300	1950
	A2-20	-	510	630	880	1280	1930
Soft Jaw	SJ135	SJV150	SJV150	SJV170	SJV170	SJV170	SJV170
Cylinder	HS2050	HS2050	HS2050	HS2050	HS2050	HS2050	HS2050

POWER CHUCK WITH EXTRA LARGE BORE THROUGH HOLE

NHR SERIES

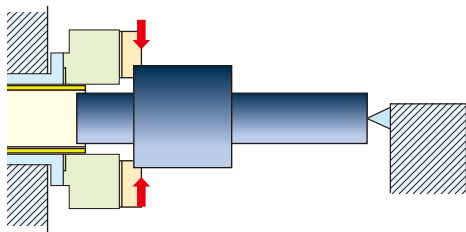
Optimal for short-length shaft machining



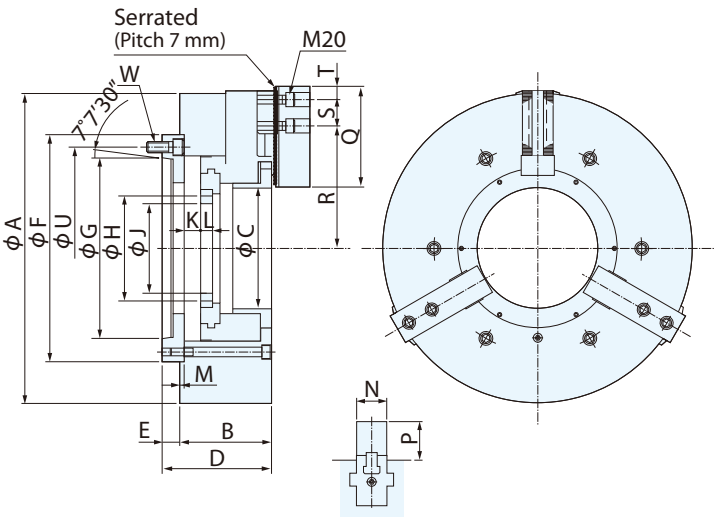
The workpiece is partially stored in the spindle, and the nearby part to be machined is held firmly.



※For NHR 650, 760 and 810, the upper surface is not provided with T-slot, but TAP hole is adopted.



The end part of workpiece is stored in the chuck, and large diameter part is clamped so as to allow for stable machining. In addition, long shape workpiece can be machined with smaller machine.



Unit (mm)

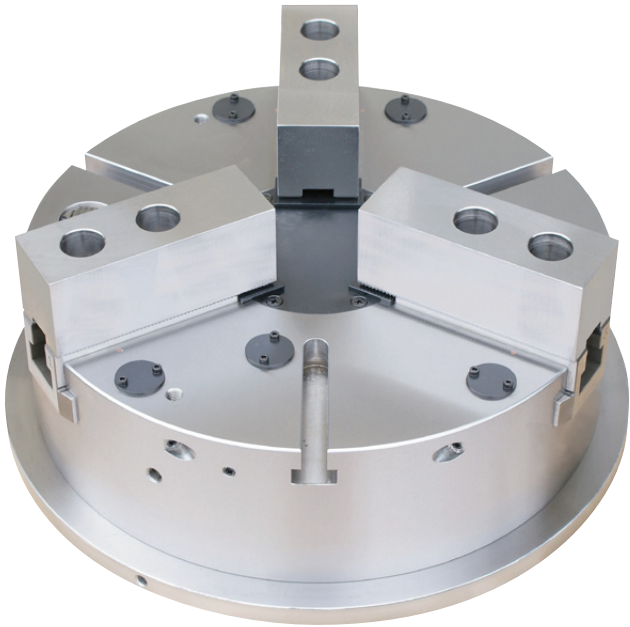
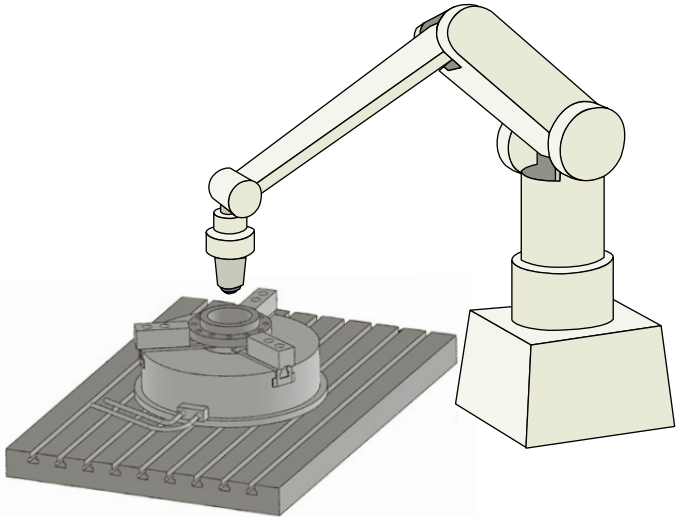
MODEL	A	B	C	H MAX.	D	E	F	G		J	K	L	M	N	P	Q	R min.-max.	S
								A2-15	A2-20									
NHR 610×230	610	210	230※	M220	250	40	520	285.775	412.775	180	38	27	10	69	88	230	215-233	60
NHR 650×266	650	185	266	M270	227	42	520	285.775	412.775	165	40	35	8	69	88	230	217-255	60
NHR 710×277	710	210	277※	M270	250	40	520	285.775	412.775	206	38	27	10	69	88	230	239-280	60
NHR 760×266	760	185	266	M270	227	42	520	285.775	412.775	165	40	35	8	69	88	230	217-300	60
NHR 810×266	810	185	266	M270	227	42	520	285.775	412.775	165	40	35	8	69	88	230	218-325	60

MODEL	T	U		W		Jaw stroke (radius)	Cylinder stroke	Allowable CYD. Force kN	Max Gripping Force kN	Max. Rotation Speed min ⁻¹	Weight kg	
		A2-15	A2-20	A2-15	A2-20						A2-15	A2-20
NHR 610×230	30	330.2	463.6	Divided equally into 6 portions - M24		9.3	35	63.7	118	850	510	495
NHR 650×266	30	330.2	463.6			9.3	35	88.2	196	1020	430	415
NHR 710×277	30	330.2	463.6			9.3	35	88.2	196	890	615	600
NHR 760×266	30	330.2	463.6			9.3	35	88.2	196	870	600	585
NHR 810×266	30	330.2	463.6			9.3	35	88.2	196	820	680	665

※ Caution for chucking workpiece by using thru-hole
Regarding NHR610-230 and NHR710-277, dimension C (Hole diameter at side of machine spindle) is smaller than dimension H (Hole diameter at side of workpiece chucking surface).
Depth of dimension C : NHR610-230... φ 135 mm NHR710-277... φ 117.5 mm

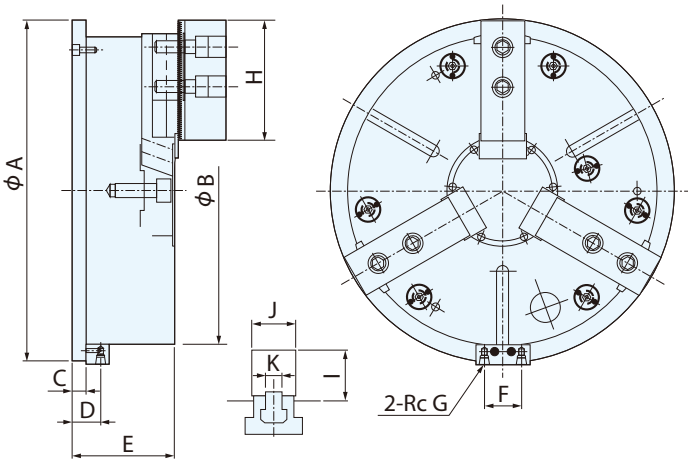
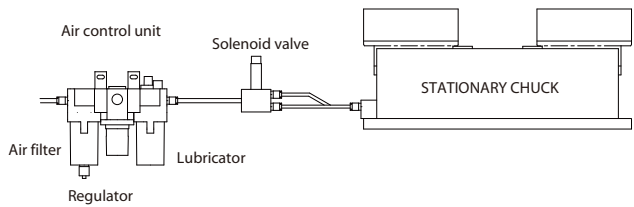
Optimal for machining of flange with vertical machining center

- Equipped with a built-in air cylinder
- Low profile
- One set of soft jaws included



POWER CHUCK

Supply air to chuck through filter, regulator and lubricator.



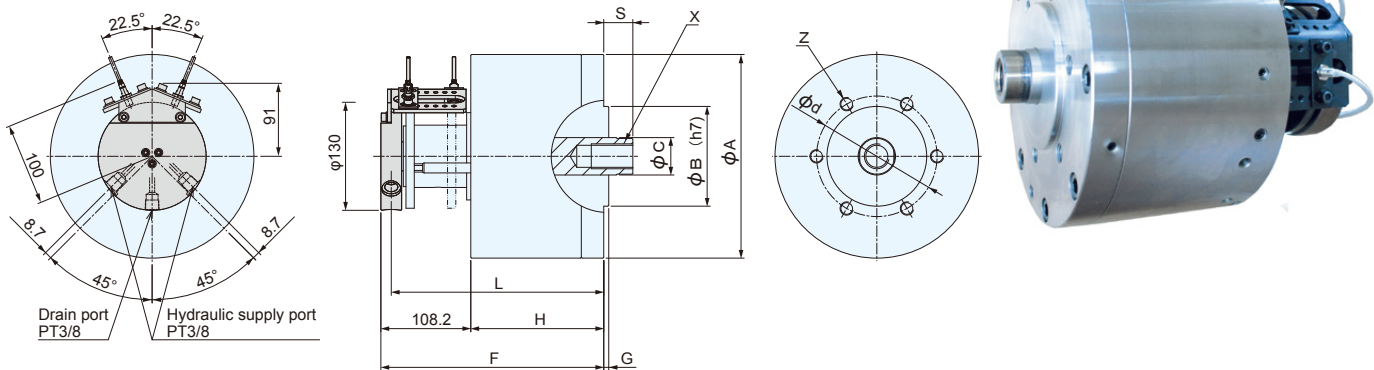
MODEL	A	B	C	D	E	F	G	H	I	J	K	Jaw stroke (DIA)	Gripping DIA (outside)		Max Operating pressure MPa	Gripping Force kN
													Max.	Min.		
ASM 460	510	460	20	42.5	153	55	3/8	180	75.5	64	25	14.5	460	100	0.5	68
ASM 500	550	500	22	44.5	157	55	3/8	180	77	64	25	14.5	500	110	0.5	70
ASM 600	650	600	24	46.5	176	60	1/2	180	77	64	25	16	600	130	0.5	125

MODEL	Piston area cm ²		Piston Stroke (Max.)	Weight kg	Soft jaw
	Extend	Retract			
ASM 460	1074	931	20	185	SHJ18
ASM 500	1256	1079	20	210	SHJ18
ASM 600	1962	1761	22	330	SHJ18

COMPACT SIZED HYDRAULIC CYLINDER

HS SERIES

- Applicable to CVH, GRH, CVB, CVA, CLK, FLC, FOH series
- Compact form is suitable for use on vertical lathe
- Standard equipment with check valves, relief valves and detection switches of stroke end



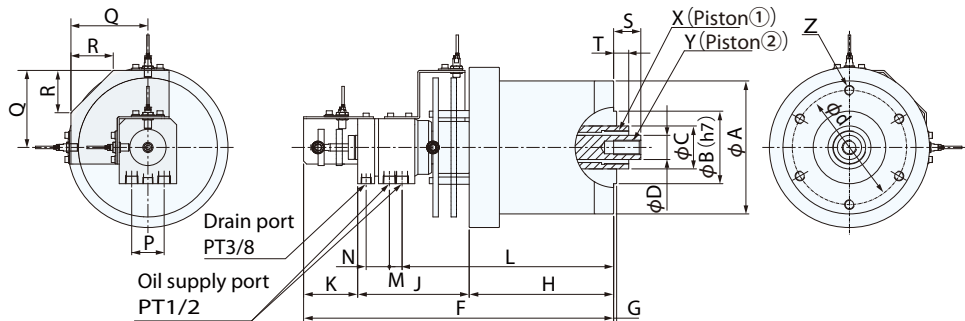
Model	A	B	C	F	G	H	L	S	X	Z	d
HS1250SCR	160	110	35	255.2	5	147	242.7	25~75	M20(P2.5)×40	6-M12×20	130
HS2050SCR	245	120	45	268.2	6	160	255.7	35~85	M30(P3.5)×50	6-M16×28	145
HS2250SCR	280	140	90	288.2	6	180	275.7	35~85	M48(P5.0)×75	6-M20×35	180

Model	Max. hydraulic pressure (MPa)	Piston stroke (mm)	Max. speed (min ⁻¹)	Weight (kg)	Piston area (cm ²)		Piston thrust force (kN)	
					Retract	Extend	Retract	Extend
HS1250SCR	3.5	50	1500	22	111	118	38	40
HS2050SCR	3.5	50	1500	50	298	314	102	107
HS2250SCR	7.0	50	1300	80	314	375	215	257

DOUBLE ROTARY CYLINDER

HW SERIES

- Standard equipment with check valves, relief valves and detection switches of stroke end
- Applicable to 4HA series.



Unit (mm)																			
MODEL	A	B	C	D	F	G	H	J	K	L	M	N	P	Q	R	S	T	X	Y
HW1325 SCR	185	110	70	40	476	5	218	174.5	83.5	319	21	38.5	55	127.4	70	45~70	25~50	M55(P1.5)×35	M24(P3)×50
HW1530 SCR	265	120	71	40	513	5	249	174.5	89.5	350	21	38.5	55	127.4	70	45~75	25~55	M55(P1.5)×40	M24(P3)×50
HW1830 SCR	320	150	100	50	529	8	265	174.5	89.5	366	21	38.5	55	142.4	70	50~80	20~50	M75(P2.0)×55	M30(P3.5)×60
HW2040 SCR	360	200	125	70	579	8	305	174.5	99.5	406	21	38.5	55	157.4	70	75~115	35~75	M100(P3)×60	M42(P4.5)×84

MODEL	Z (equally divided)	d	Max. operation pressure	Piston stroke	Max. speed min ⁻¹	Weight kg	Piston area cm ²		Piston thrust force (kN)					
							Piston① Retract	Piston① Extend	Piston② Retract	Piston② Extend	Piston① Retract	Piston① Extend	Piston② Retract	Piston② Extend
HW1325 SCR	6-M12×24	155	2.5MPa	25	1200	60	115.5	117.9	127.9	129.3	28.3	28.9	31.3	31.7
HW1530 SCR	6-M16×32	230	3.0MPa	30	800	80	161.5	175	161.9	173.3	47.5	51.5	47.6	51
HW1830 SCR	6-M20×35	280	3.5MPa	30	600	110	235.6	255.2	232.6	251.1	80.8	87.5	79.8	86.1
HW2040 SCR	6-M24×35	320	4.0MPa	40	400	150	274.9	308.8	273.4	310.8	107.8	121	107.2	121.8

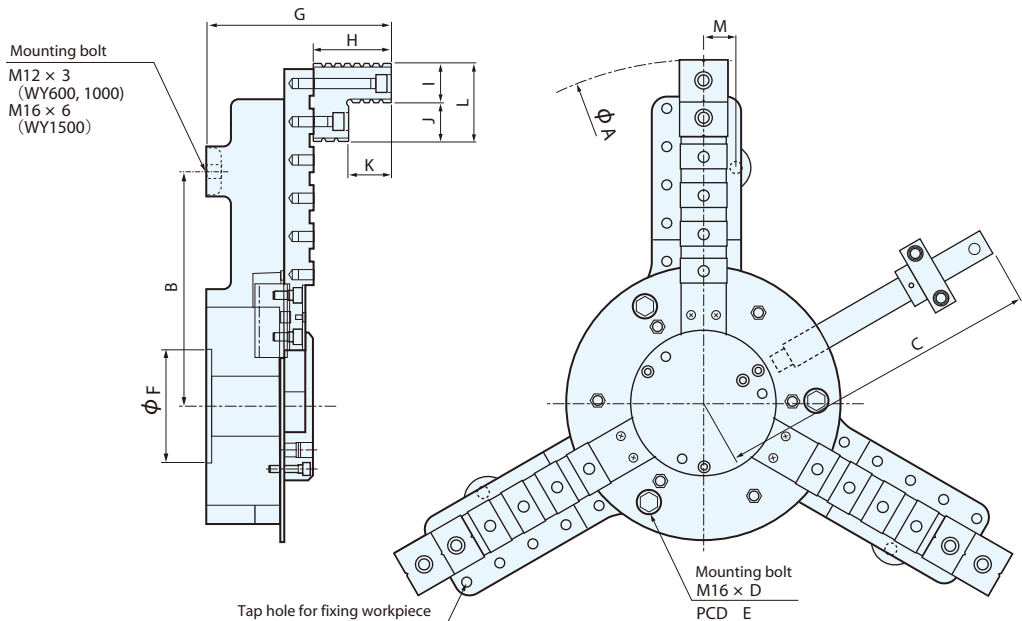
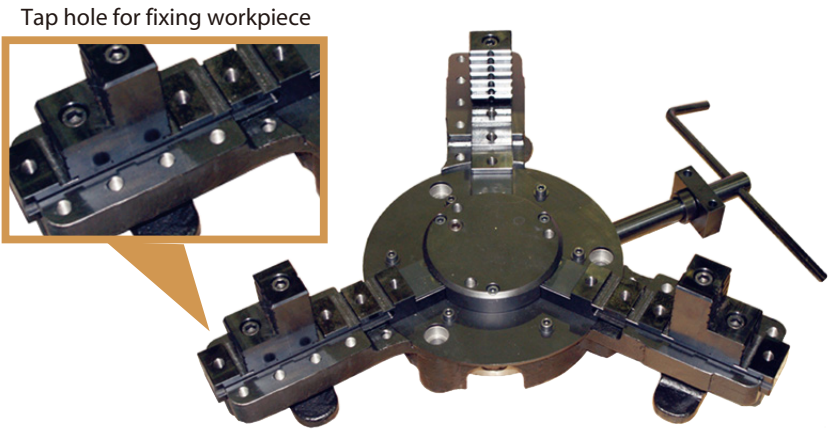
NOBEL

WELDING CHUCK / VALVE CHUCK / SPECIAL CHUCK/ PALLET / OTHER PRODUCTS

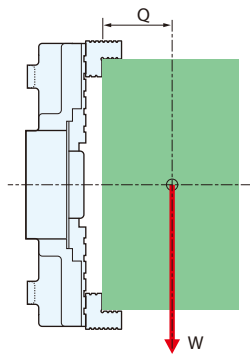
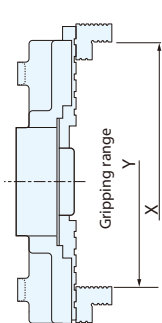
P.48	WY SERIES	WELDING POSITIONER CHUCK
P.49	WPS SERIES	WELDING POSITIONER CHUCK
P.49	WP SERIES	WELDING POSITIONER CHUCK
P.50	PC SERIES	AUTOMATIC OPERATED PIPE CATCHER
P.51		CENTER DRILL MACHINE
P.52	VH SERIES	2-JAW INDEX CHUCK FOR SMALL VALVE
P.52	VL SERIES	2-JAW INDEX CHUCK FOR LARGE VALVE
P.53	VA SERIES	2-JAW POWER INDEX CHUCK FOR SMALL VALVE
P.53	VX SERIES	2-JAW POWER INDEX CHUCK FOR LARGE VALVE
P.54	GP SERIES	3-JAW SELF -CENTERING CHUCK
	PLB SERIES	DRAW-IN CHUCK
		HYDRAULIC INDEPENDENT CHUCK FOR CRANK SHAFT
P.55		SPECIAL CHUCK
P.57		MACHINING CENTER ACCESSORY
P.57		PALLET CHANGER / TOOL CHANGER

3-JAW SELF-CENTERING CHUCKS FOR WELDING POSITIONER

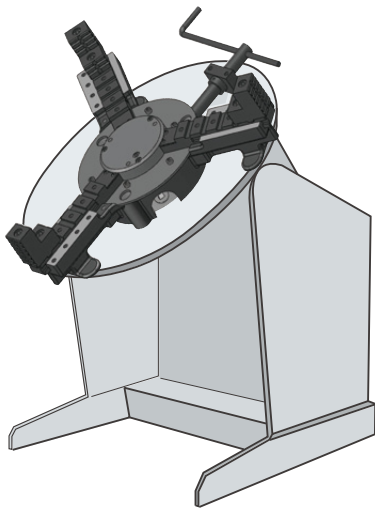
- Strong gripping
- Tap holes to prevent positional shift of workpiece are provided on the side of jaw.
- Main body is low profile and light weight, and this chuck is utilized on machine such as positioners.
- Superior in safety and measure taken against intrusion of chip



Unit (mm)												
Model	A	B	C	D	E	F	G	H	I	J	K	L
WY 600	726	250	340	3	241.3	120	190.7	80	40	40	45	80
WY 1000	1126	430	545	3	241.3	120	190.7	80	40	40	45	80
WY 1500	1640	530	692	6	340.4	260	244.5	95	50	50	48	100



Model	Gripping range		Gripping force	Q×W	Load capacity	Weight
	Y(mm)	X(mm)	kN (kgf)		kg	kg
WY 600	160~560	240~640	20 (2000)	100mm×400kg	600	58
WY 1000	160~960	240~1040	20 (2000)	100mm×400kg	600	90
WY 1500	235~1435	335~1535	29 (3000)	100mm×700kg	1200	250



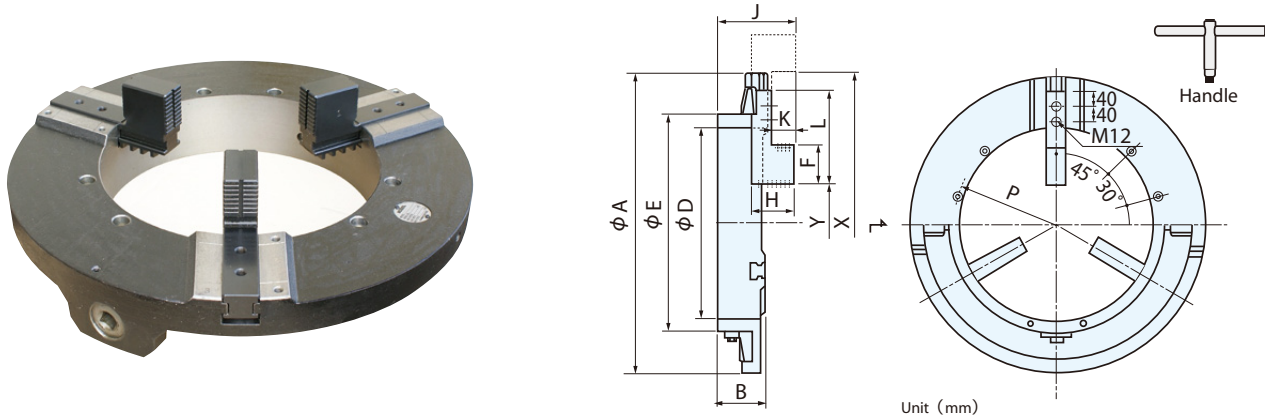
Application example

WELDING POSITIONER CHUCKS

WPS SERIES

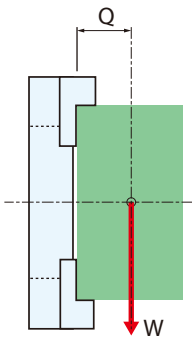
3-JAW SELF-CENTERING CHUCKS FOR WELDING POSITIONER

- This is designed to be lightweight, low profile, low center of gravity so as to be optimal for use on positioner, etc.
- Large gripping range enables easily attach/detach of a workpiece.



Model	A	B	D	E	F	H	J	K	L	φ P	Mounting bolt
WPS 500	500	105	270	330	70	100	170	60	200	300	6-M12× 100
WPS 600	600	105	365	425	70	100	170	60	200	400	6-M12× 100
WPS 800	800	120	540	600	100	115	195	65	250	575	6-M16× 130
WPS 1000	1000	135	700	760	100	115	210	65	250	735	6-M16× 130
WPS 1200	1200	145	830	900	100	115	220	65	250	865	6-M16× 140

Model	Gripping range		Gripping force		Q×W	Load capacity	Weight
	Y	X	kN (kgf)				
WPS 500	50~330	330~540	20 (2000)		100mm× 600kg	800	65
WPS 600	150~400	400~620	20 (2000)		150mm× 600kg	1000	87
WPS 800	250~550	550~830	29 (3000)		200mm× 600kg	1500	135
WPS 1000	450~750	750~1050	29 (3000)		250mm× 600kg	1500	220
WPS 1200	600~900	900~1150	29 (3000)		300mm× 600kg	2000	320



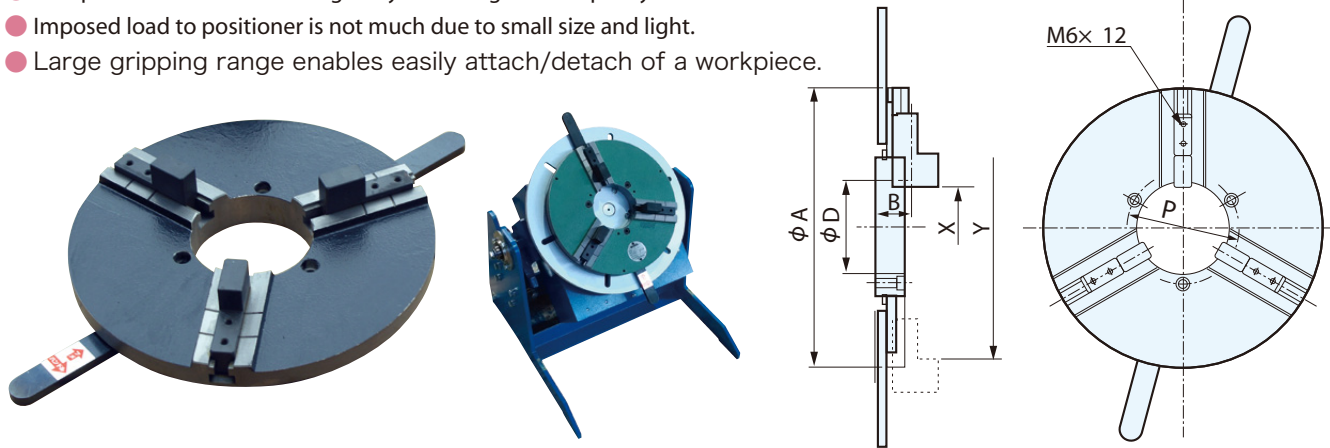
SPECIAL CHUCK
/OTHERS

WELDING POSITIONER CHUCKS

WP SERIES

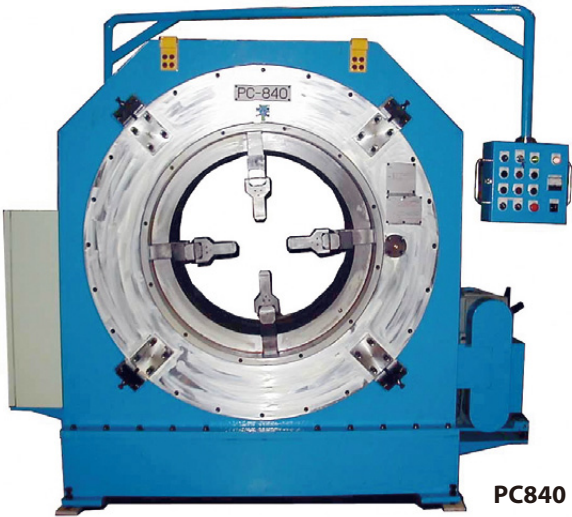
3-JAW SELF-CENTERING CHUCKS FOR WELDING POSITIONER

- Low profile and low center of gravity allow large load capacity.
- Imposed load to positioner is not much due to small size and light.
- Large gripping range enables easily attach/detach of a workpiece.

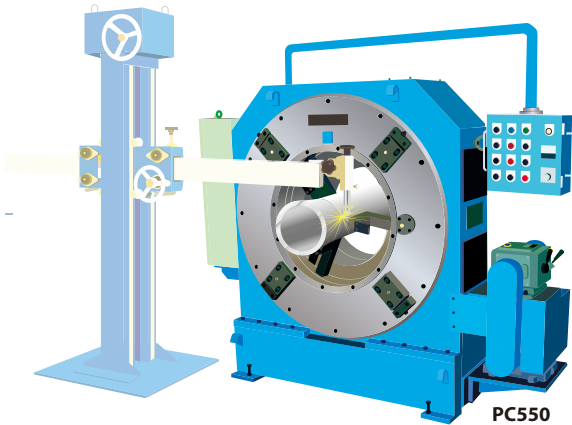


Model	A	B	D	φ P	Mounting bolt	Gripping range		Gripping force	Weight
						X	Y	kN (kgf)	
WP 200	200	39	80	100	M8× 40	20~130	110~210	2 (200)	6
WP 300	300	39	100	120	M8× 45	80~190	170~280	2.5 (250)	12
WP 400	400	45	170	220	M10× 55	120~250	250~380	3.5 (350)	24

PC550 PC840



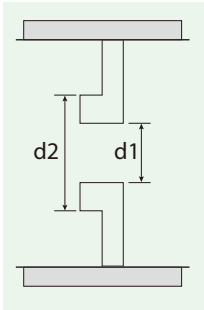
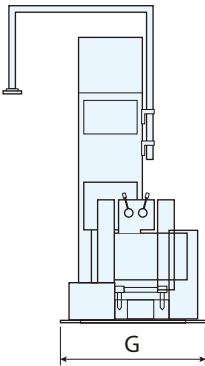
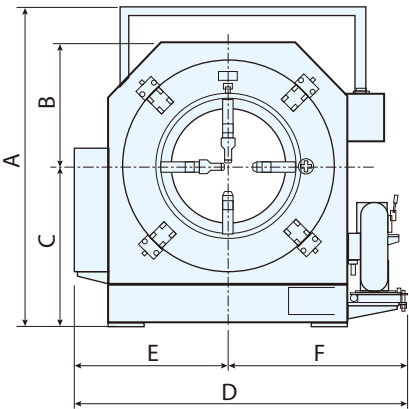
PC840



PC550

APPLICATION EXAMPLE

- Jaw opening/closing and jaw rotation can be easily operated by a handy button switch
- Rotation speed can be adjusted with the volume dial
- Number of jaws PC550 : 3 jaws, PC840 : 4 jaws (PC840 can grip pipes of more than ϕ 60mm by attaching an auxiliary jaw)
- A foot switch is included and pipe rotation is enabled while holding a torch



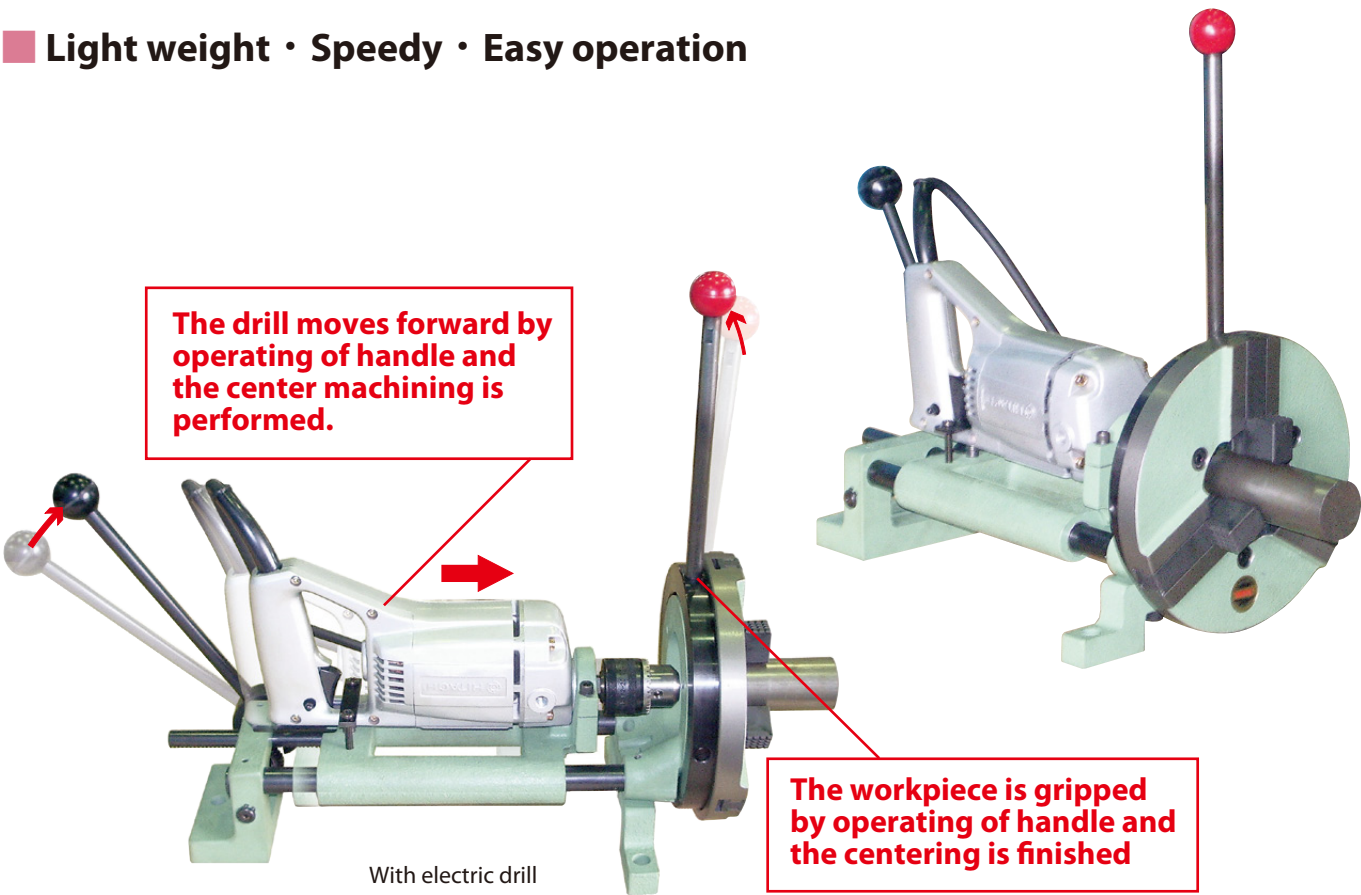
MODEL	Unit (mm)	
	PC550	PC840
Number of jaw	3	4
A	1980	2320
B	725	900
C	1000	1160
D	2080	2500
E	925	1160
F	1155	1340
G	880	1080
Gripping range d1	90~550	380~830
Gripping range d2	—	445~895
Gripping range in use of auxiliary jaw	—	60~360
Gripping force	15kN	19.5kN
Rotation speed	0.03~1.2min ⁻¹	0.05~3min ⁻¹
Jaw traveling speed	150mm/min	150mm/min

Manufacture of special products can be made.

NOBEL

CENTER DRILL MACHINE

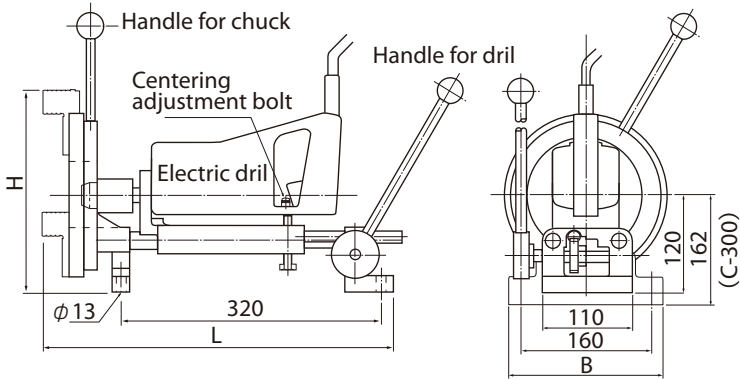
■ Light weight • Speedy • Easy operation



SPECIAL CHUCK
/ OTHERS

Unit (mm)		
MODEL	C200	C300
Code No.	720100	720200
L	433	442
H	250	342
B	200	300
Chuck diameter inside	82	100
Gripping range	φ15~φ200	φ50~φ300
Drill chuck	13	13
Max. speed	1100 r.p.m	1100 r.p.m
Power source	100 V (6.5A)	100 V (6.5A)
Length of cord	5 m	5 m
weight	15 kg	26 kg

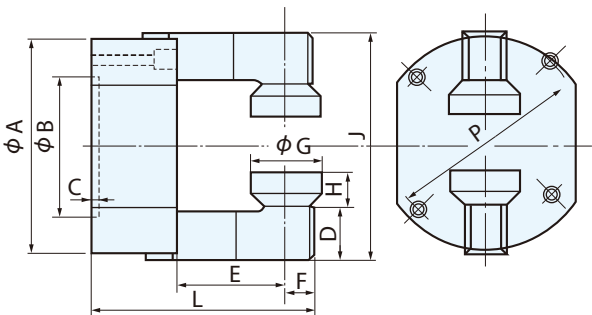
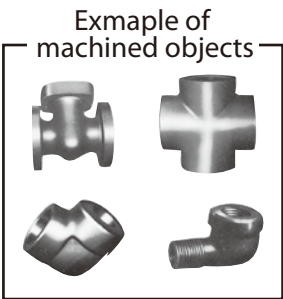
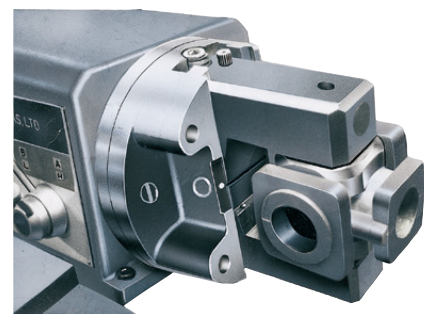
■ Machining of large workpiece



2-JAW INDEX CHUCKS

VH SERIES

FOR SMALL VALVES



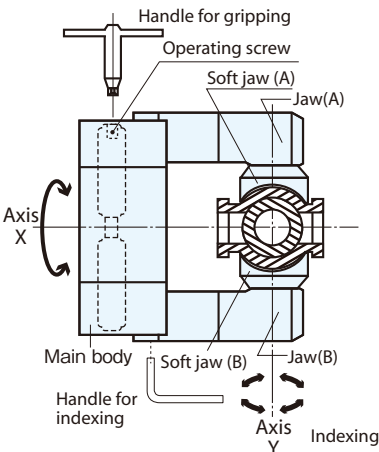
Unit (mm)

Model	A	B	C	D	E	F	G	H	J (MAX)	L
VH 6	170	110	5	62	55	30	80	30	210	165
VH 10	250	170	8	65	100	35	118	40	290	236
VH 12	320	200	8	78	125	50	158	70	370	290

Model	P	Gripping range	Mounting bolt	Max. speed min ⁻¹ (r.p.m)	Weight kg
VH 6	130	40 - 10	M12× 95	1500	20
VH 10	210	100 - 30	M12× 110	1100	40
VH 12	250	120 - 50	M16× 140	650	97

Standard indexing angle 45°

Accessories : T-handle, mounting bolts, eye bolt and soft jaws

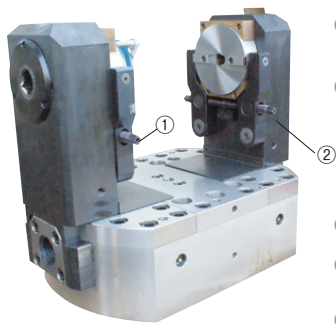


SPECIAL CHUCK / OTHERS

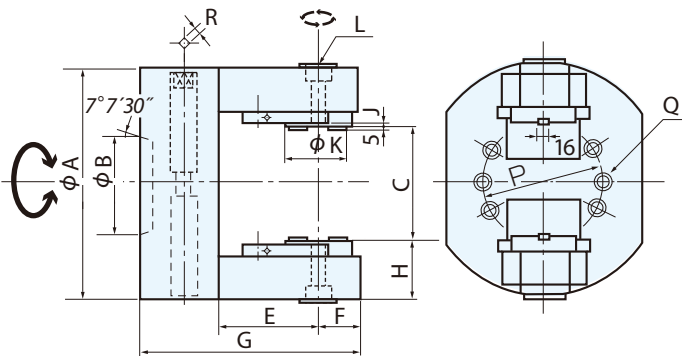
2-JAW INDEX CHUCKS

VL SERIES

FOR LARGE VALVES



- Mount a workpiece while tightening manually.
- Unlock the main axis by rotating handle ① and ② , and rotate the workpiece with the main axis manually. Then, lock the main axis by rotating handle.
- Standard indexing angle 45°
- Index can be done while gripping a workpiece.
- Direct mounting type

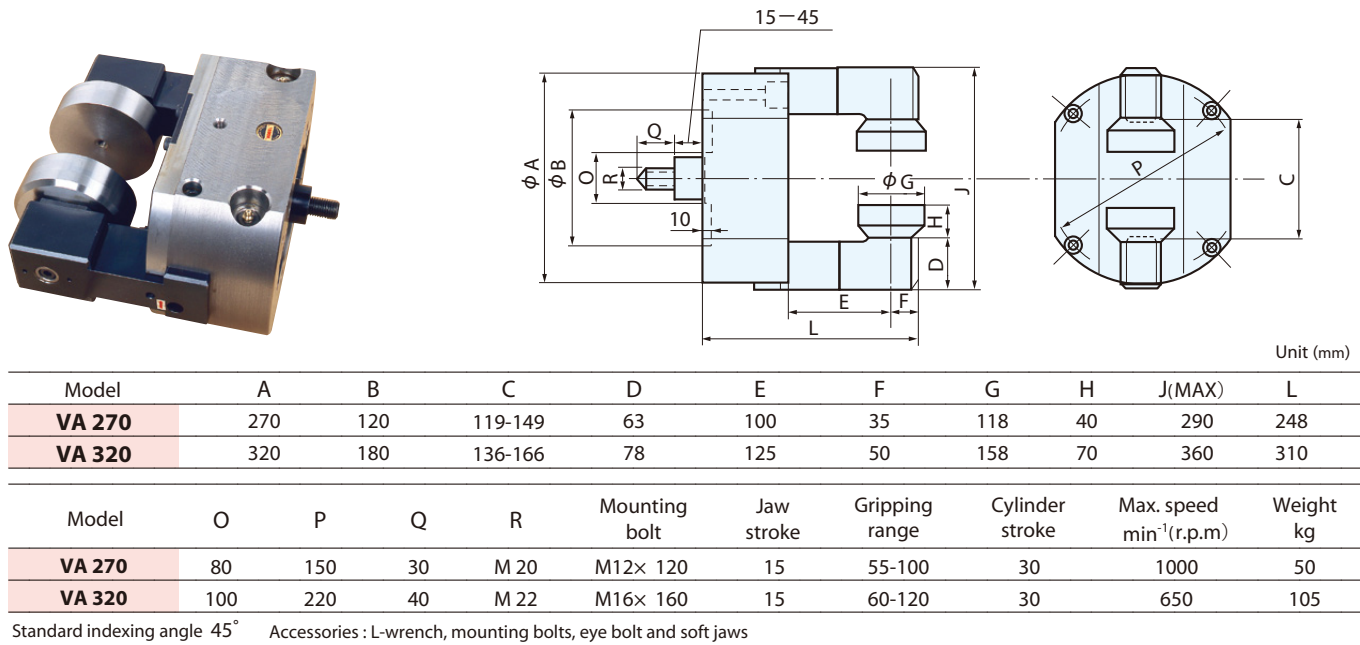


Unit (mm)

Model	VL12A8	VL15A8	VL18A11	VL21A11	VL24A15	VL28A15
A	320	381	460	533	610	710
B	139.719	139.719	196.869	196.869	285.775	285.775
C	Max.	163	210	260	320	460
	Min.	70	110	150	220	280
E	130	170	200	240	300	350
F	50	58	80	80	110	110
G	310	358	430	470	610	670
H	86	98	118	118	156	156
J	4	4	5	5	5	5
K	90	90	130	130	210	210
L	M 12	M 16	M 20	M 20	M 20	M 20
P	171.4	171.4	235	235	330.2	330.2
Q	6-M16× 135	4-M16× 140	6-M20× 160	6-M20× 160	6-M22× 210	6-M22× 220
R	16	16	22	22	22	22
Max speed	min ⁻¹ (r.p.m)	700	550	440	360	300
Weight	kg	120	150	210	300	420

2-JAW INDEX POWER CHUCKS

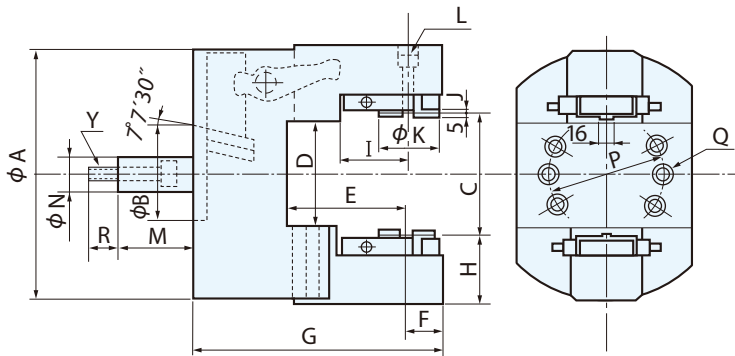
VA SERIES



2-JAW INDEX POWER CHUCKS

VX SERIES

- Grip and tighten a workpiece with hydraulic cylinder at the rear.
- Rotate a indexing handle as same procedure as VL series to index.
- Direct mounting type
- Suitable for heavy duty cutting.
- Standard indexing angle 45°



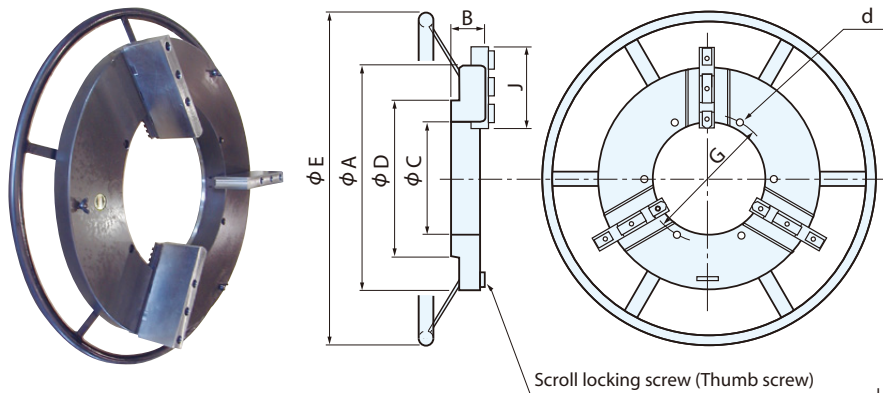
		Unit (mm)				
Model		VX12A8	VX15A8	VX18A11	VX21A11	VX24A15
C	A	320	381	460	533	610
	B	139.719	139.719	196.869	196.869	285.775
	Min.	128	165	180	242	278
	Max.	162	203	253	310	350
	D	130	160	200	240	260
M	E	130	178	200	240	300
	F	50	55	70	70	110
	G	325	378	420	475	575
	H	89	103	126	140	150
	I	106	106	145	140	193
	J	4	4	5	5	5
	K	90	90	130	130	210
	L	M 12	M 12	M 20	M 20	M 20
	Min.	92	92	0	0	0
	Max.	122	125	40	50	50
	N	52	52	65	75	75
	P	171.4	171.4	235	235	330.2
	Q	6-M16× 150	6-M16× 150	6-M20× 160	6-M20× 170	6-M22× 180
	R	46	46	55	60	60
	Y	M 24	M 24	M 30	M 36	M 36
	Allowable cylinder thrust force kN(kgf)	39 (4000)	39 (4000)	44 (4500)	49 (5000)	54 (5500)
	Cylinder stroke	30	33	40	50	50
	Jaw stroke	17	19	36	34	36
	Max. speed min ⁻¹ (r.p.m)	900	650	500	400	330
	Weight kg	110	140	200	340	480

SPECIAL CHUCK
/OTHERS

SPECIAL CHUCKS

3-JAW SELF-CENTRING CHUCKS GP SERIES

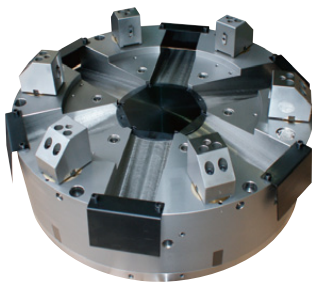
- Use for glass or woodworking machines



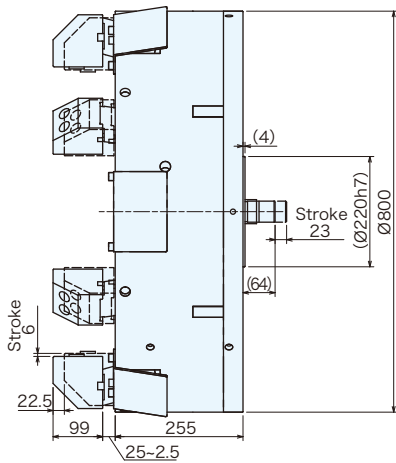
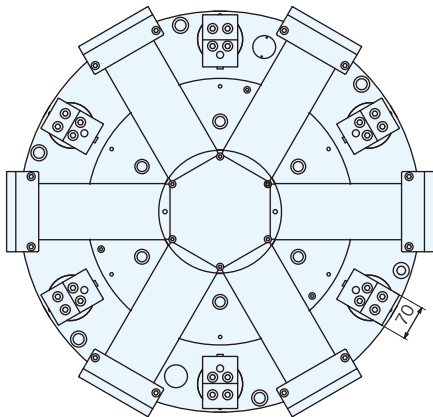
Reference									Unit (mm)
	A	B	C	D	E	G	J	d	Jaw stroke
GP 280× 100	280	43	100	150	400	120	120	6-M6	50
GP 400× 200	400	48	200	280	600	230	120	6-M8	50
GP 520× 300	520	55	300	360	720	325	170	6-M8	80
GP 565× 350	565	55	350	415	750	380	170	6-M8	80
GP 750× 400	750	83	400	510	1070	430	240	9-M8	95

DRAW-IN CHUCKS PLB SERIES

- Optimal for skiving / gear shaper machining
- Workpiece lift is prevented by drawing in workpiece to chuck surface when gripping.
- 6 jaws make deformation of workpiece less.
- PLBC series which is cylinder built-in type is also available.



Reference

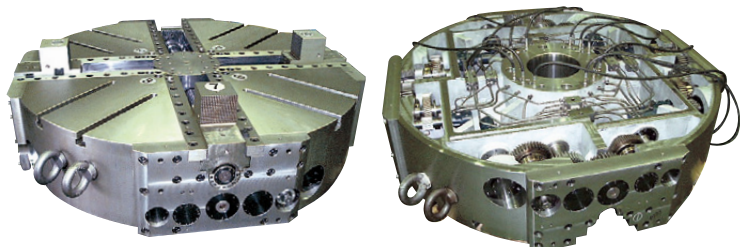


Model PLB800

Max. gripping force	109.7 kN
Allowable cylinder force	98 kN
Jaw stroke (DIA)	12 mm
Cylinder stroke	23 mm
Max. speed	400 min ⁻¹
Chuck weight	800 kg

HYDRAULIC INDEPENDENT CHUCK FOR CRANK SHAFT (φ 2500 φ 2800)

- Built-in hydraulic motor
- Jaw can be moved at slow or high speed.



Chuck weight 15t

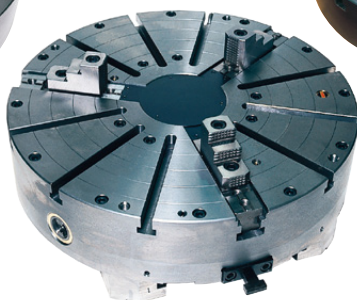
SPECIAL CHUCKS

CHUCK PALLET FOR MACHINING CENTER / VERTICAL LATHE

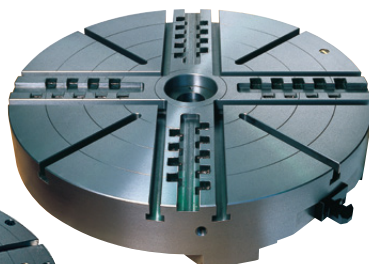
● 4-JAW INDEPENDENT



● 3-JAW SCROLL



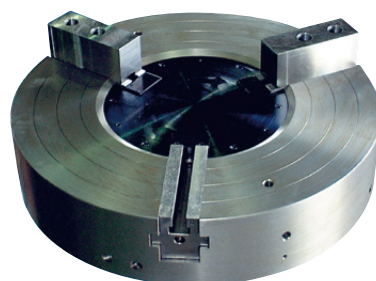
● BORING MILL JAW



POWER CHUCK PALLET

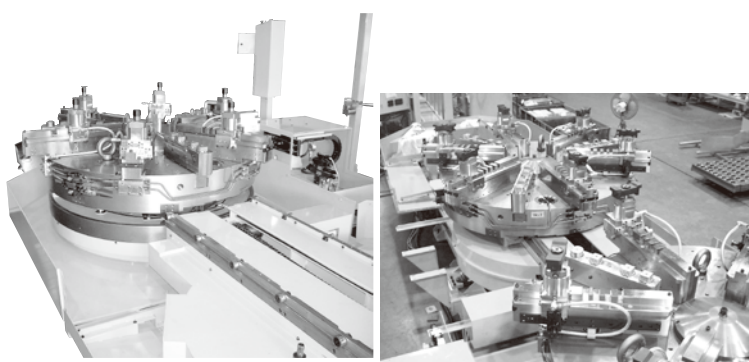
● HCP SERIES

● CLAMP/UNCLAMP CHECK DETECTION

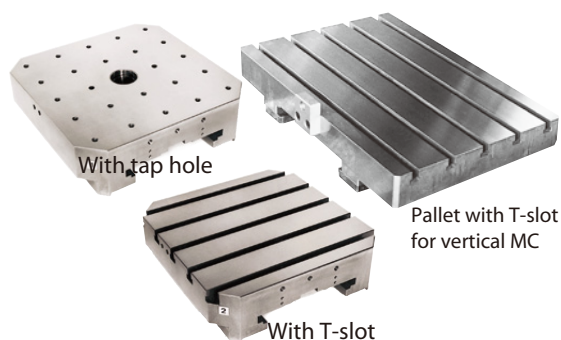


φ 1600 SPECIAL CHUCK PALLET

● For revolving wheel machining



PALLET □400~□800



SPECIAL CHUCK
/ OTHERS

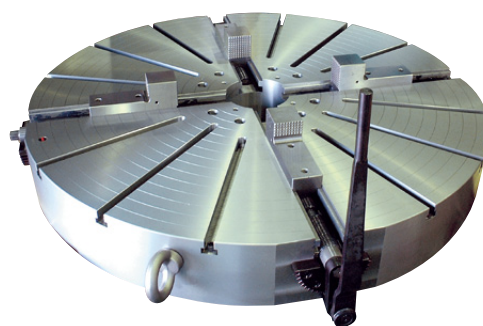
φ 3500 SPECIAL CHUCK

● For large revolving wheel machining



RETIGHTENING INDEPENDENT CHUCK

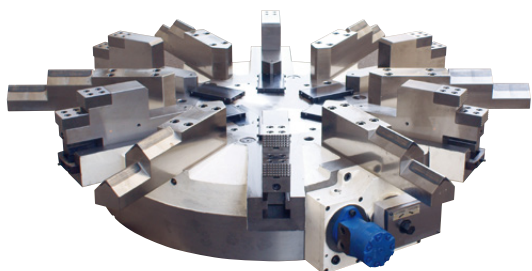
● φ 800~ φ 1800



SPECIAL CHUCKS

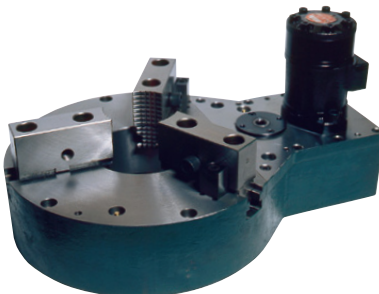
CHUCK WITH HYDRULIC MOTOR

φ 1350 ~ φ 1600

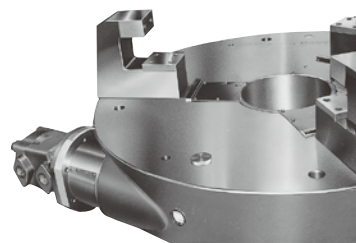


CHUCK WITH HYDRAULIC MOTOR

● Use for machining center

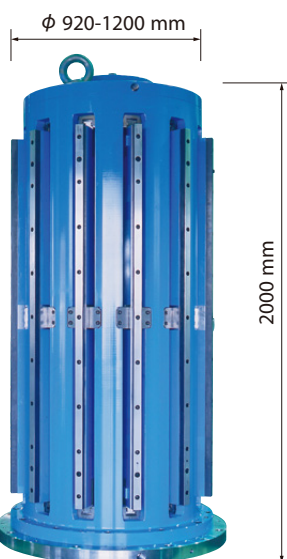


φ 1200 CHUCK WITH HYDRAULIC MOTOR



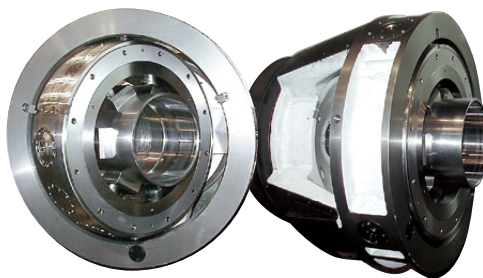
CORE CHUCK JIG FOR LARGE MOTOR

● 12-JAW

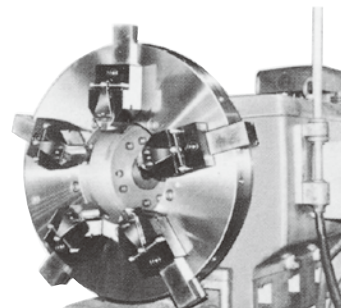


SPECIAL INDEX CHUCK

● For coupling machining
● Index angle 180° is available

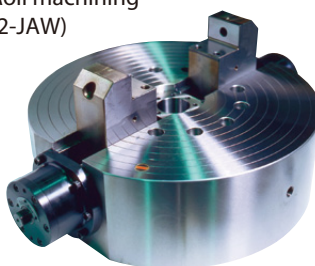


COUPLING CLAMP CHUCK FOR OIL WELL PIPE

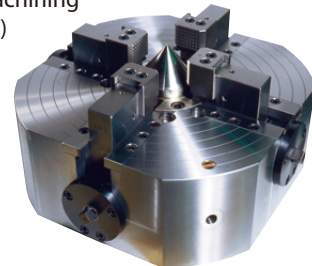


FLOATING CHUCK

● Roll machining (2-JAW)



● Roll machining (4-JAW)



CHUCK FOR VERTICAL GRINDER

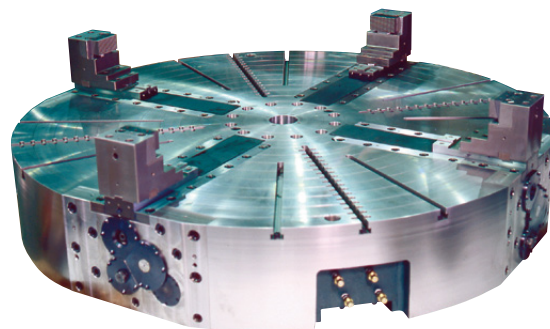
● Waterproof
● Fine adjustable jaw



DUSTPROOF



SPECIAL φ 2600 FINE ADJUSTABLE CHUCK



MACHINIG CENTER ACCESORY



Using the Z axis movement of the machining center, press the push bar with the tool.

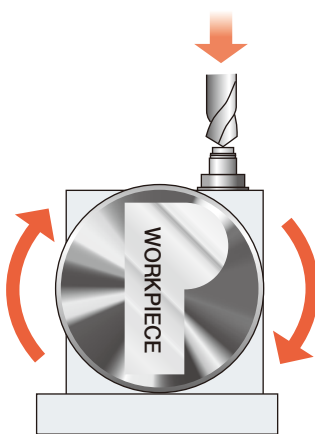
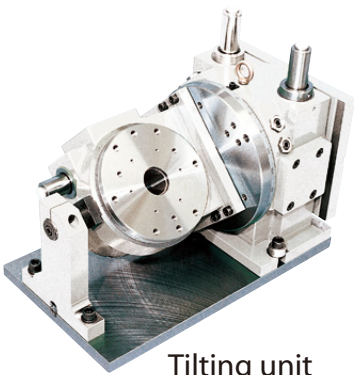


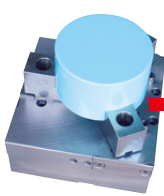
Table size ϕ 105- ϕ 450



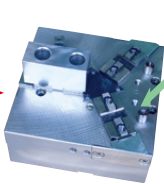
Tilting unit



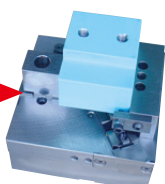
MACHINING CHUCK Y-SERIES
Size 120, 160, 200, 300



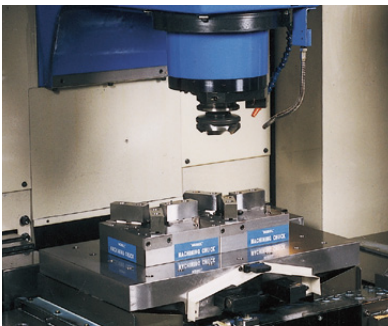
Secure a round workpiece by using 3 jaws



Install fixed jaw (optional accessory)



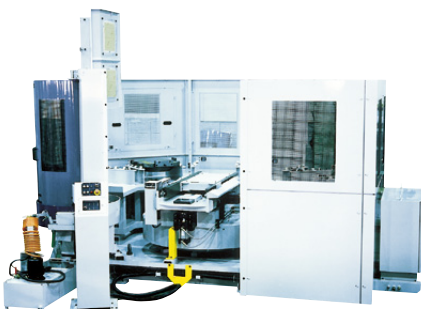
For use as VISE



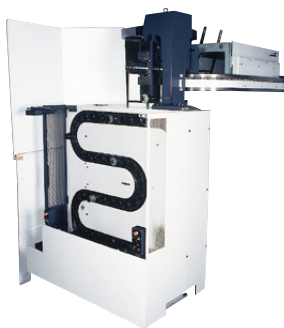
SPECIAL CHUCK
/ OTHERS

PALLET CHANGER & TOOL CHANGER

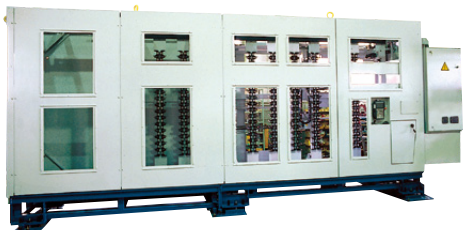
PALLET POOL



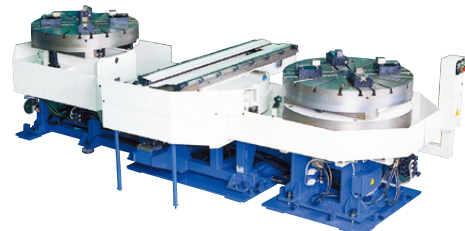
120-TOOL CHANGER



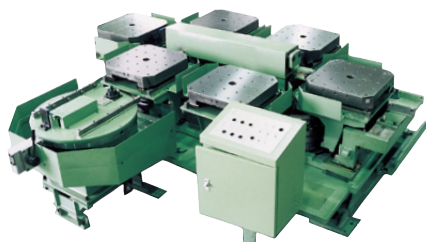
RACK MAGAZINE



PALLET CHANGER FOR VERTICAL LATHE



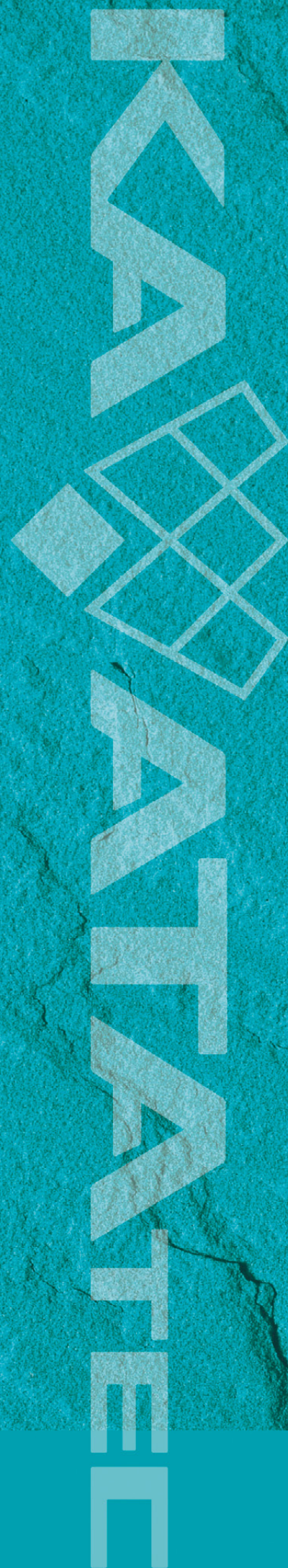
MULTI PALLET CHANGER



PALLET CHANGER FOR MACHINING CENTER



02102000



■ All specifications are subject to change without notice.

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