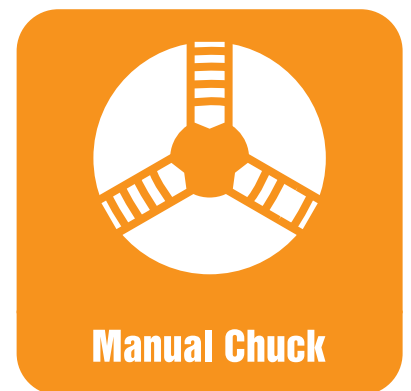


MANUAL CHUCKS



Solid Jaw

SC	SC (Standard Scroll Chuck [Hard-Jaws])	56.
	FSC (Front-Mounting Scroll Chuck [Hard-Jaws])	58.
	SF (4-Jaw Scroll Chuck [Hard-Jaws])	59.

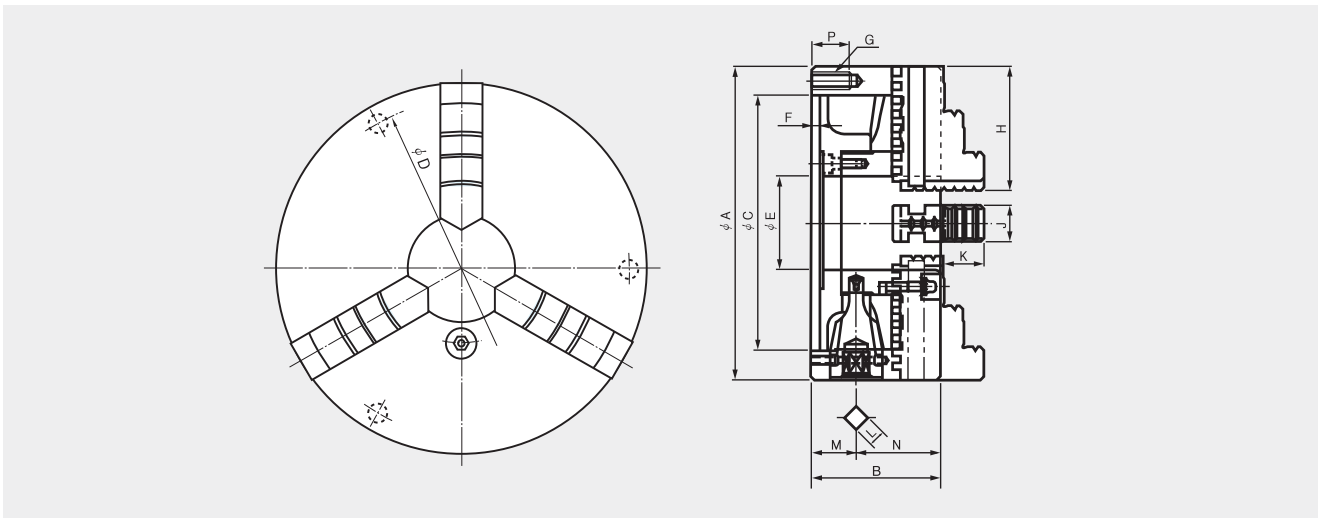
2-Piece Jaw

TC	TC (Standard Scroll Chuck [Soft and Hard top Jaws])	60.
	FTC (Front-Mounting Scroll Chuck [Soft and Hard top Jaws])	61.
	ST (2-Jaw Scroll Chuck [Soft top Jaws])	62.
	SL (Standard Slotter Chuck [Hard Jaws])	63.
	IC (Independent Chuck (Hard-Jaws))	64.



- Standard solid jaw scroll chuck
(incl. internal and external hard jaws)

SCROLL CHUCK



Dimensions

	A	B	C(H6)	D	E	F	G	H	J	K	L	M	N	P
SC-85(3")	85	45	60	73	16	3.5	3-M6	35	11	15.5	7	17	27.1	13
SC-110(4")	110	58	80	95	24	4.5	3-M8	44	14	20.0	8	24.5	32.35	16
SC-130(5")	130	60	100	115	34	4.5	3-M8	50	16	20.1	8	22.5	37	16
SC-165(6")	167	65	130	147	45	5	3-M10	65	19	25.07	10	24	41	20
SC-190(7")	192	75	155	172	57	5	3-M10	75	22	30.06	11	27.5	47.5	20

Specifications

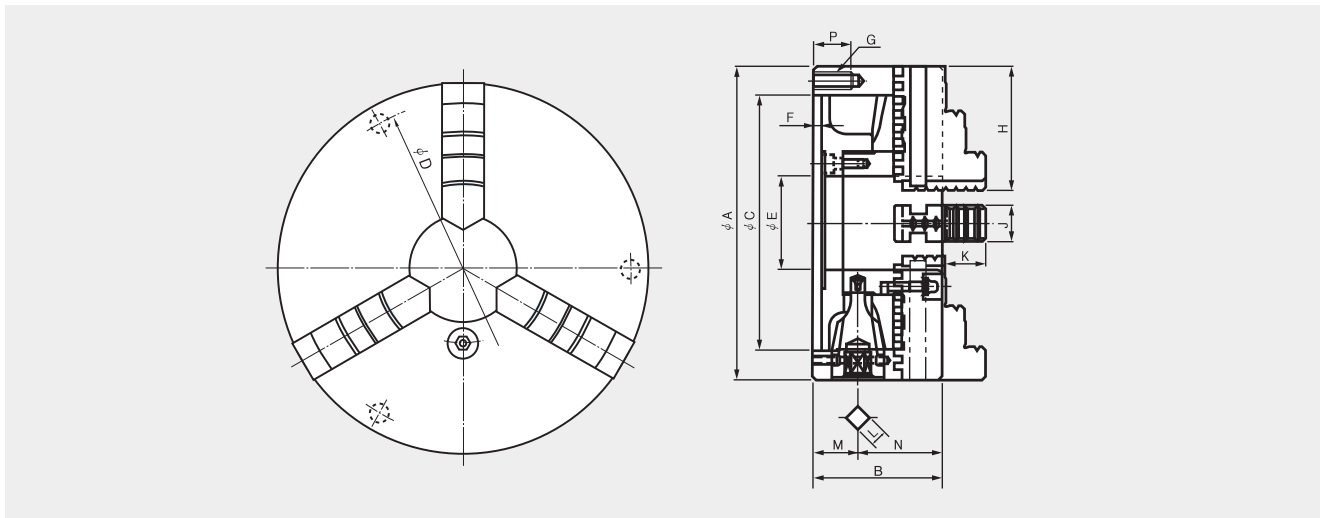
	Max. Static Gripping dia. KN(kgf)	Max. r.p.m min ⁻¹ (r.p.m)	weight kgf	GD ² N·m ² (kgf·m ²)	(Gripping diameter)		Handle Torque N·m(kgf·m)
					(External) φmm	(Internal) φmm	
SC-85(3")	9 (918)	2500	1.5	0.05 (0.005)	2~70	24~64	29.4 (3.0)
SC-110(4")	12 (1224)	2500	3.1	0.17 (0.017)	3~95	29~84	44.1 (4.5)
SC-130(5")	15 (1530)	2500	4.4	0.35 (0.036)	3~110	33~100	63.7 (6.5)
SC-165(6")	31 (3161)	4000	11.4	1.18 (0.12)	3~160	48~150	88.3 (9.0)
SC-190(7")	31 (3161)	3500	12.2	2.35 (0.24)	4~180	56~170	107.9 (11.0)

※Specifications are subject to change without notice.



- Standard solid jaw scroll chuck
(incl. internal and external hard jaws)

SCROLL CHUCK



Dimensions

	A	B	C(H6)	D	E	F	G	H	J	K	L	M	N	P
SC-230(9")	232	84	190	210	75	6	3-M12	87	24	35.04	12	29.5	54.5	25
SC-273(10")	273	86	230	250	89	6	3-M12	98	28	40.02	12	31.5	54.5	25
SC-310(12")	310	96	260	285	100	7	3-M12	110	30	45.08	14	31.5	64.5	25
SC-355(14")	355	110	300	328	105	8	6-M12	133	35	62.98	14	42.4	67.6	36
SC-405(16")	405	114.5	345	375	130	8	6-M12	133	35	63	15	43	71.5	36

Specifications

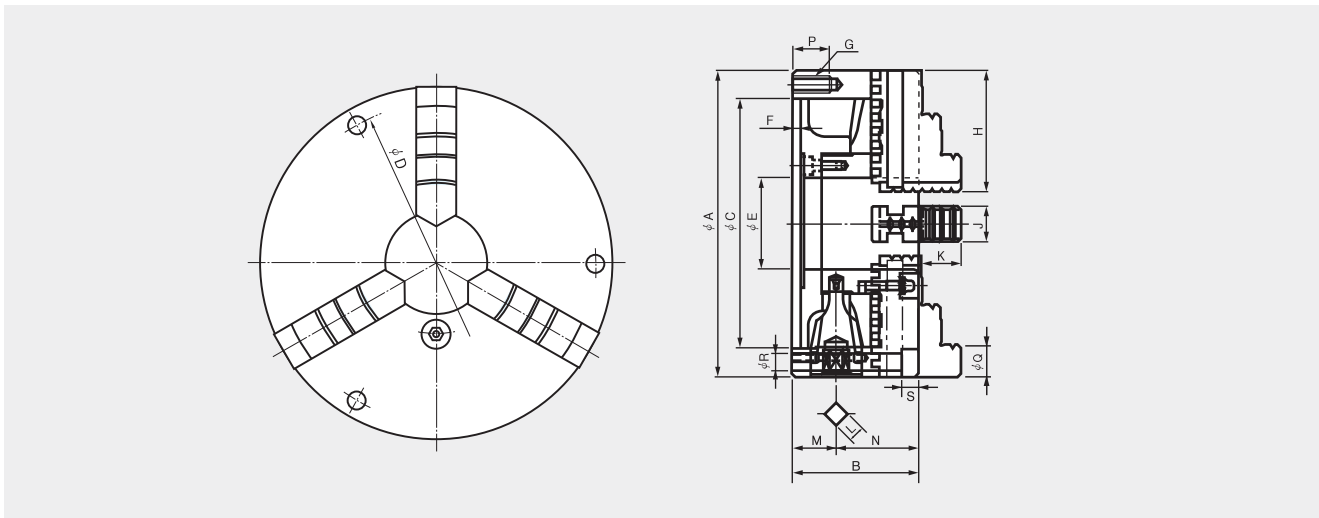
	Max. Static Gripping dia. KN(kgf)	Max. r.p.m min ⁻¹ (r.p.m)	weight kgf	GD ² N·m ² (kgf·m ²)	(Gripping diameter)		Handle Torque N·m(kgf·m)
					(External) φmm	(Internal) φmm	
SC-230(9")	37 (3773)	2900	21.2	6.27 (0.64)	5~220	62~210	147 (15.0)
SC-273(10")	46 (4691)	2500	28	9.90 (1.01)	5~260	70~250	176.5 (18.0)
SC-310(12")	55 (5608)	2200	41	23.0 (2.35)	10~300	86~290	206 (21.0)
SC-355(14")	40.5 (4130)	1500	54	37.2 (3.8)	25~315	107~290	225.6 (23.0)
SC-405(16")	45 (4589)	1500	74	67.6 (6.9)	25~346	113~324	245 (25.0)

※Specifications are subject to change without notice.



- Front-mounting solid jaw scroll chuck
(incl. internal and external hard jaws)

SCROLL CHUCK



Dimensions

	A	B	C(H6)	D	E	F	G	H	J	K	L	M	N	P	Mounting Bolt			
															Q	R	S Bolt	
FSC-165(6")	167	65	130	147	45	5	3-M10	65	19	25.07	10	24	41	20	17.5	11	10.5	3-M10
FSC-190(7")	192	75	155	172	57	5	3-M10	75	22	30.06	11	27.5	47.5	20	17.5	11	10.5	3-M10
FSC-230(9")	232	84	190	210	75	6	3-M12	87	24	35.04	12	29.5	54.5	25	20	14	12.5	3-M12
FSC-273(10")	273	86	230	250	89	6	3-M12	98	28	40.02	12	31.5	54.5	25	20	14	12.5	3-M12
FSC-310(12")	310	96	260	285	100	7	3-M12	110	30	45.08	14	31.5	64.5	25	20	14	12.5	3-M12

Specifications

	Max. Static Gripping dia. KN(kgf)	Max. r.p.m min ⁻¹ (r.p.m)	weight kgf	GD ² N·m ² (kgf·m ²)	(Gripping diameter)		Handle Torque N·m(kgf·m)
					(External) φmm	(Internal) φmm	
FSC-165(6")	31 (3161)	4000	11.4	1.18 (0.12)	3~160	48~150	88.3 (9.0)
FSC-190(7")	31 (3161)	3500	12.2	2.35 (0.24)	4~180	56~170	107.9 (11.0)
FSC-230(9")	37 (3773)	2900	21.2	6.27 (0.64)	5~220	62~210	147 (15.0)
FSC-273(10")	46 (4691)	2500	28	9.90 (1.01)	5~260	70~250	176.5 (18.0)
FSC-310(12")	55 (5608)	2200	41	23.0 (2.35)	10~300	86~290	206 (21.0)

※Specifications are subject to change without notice.

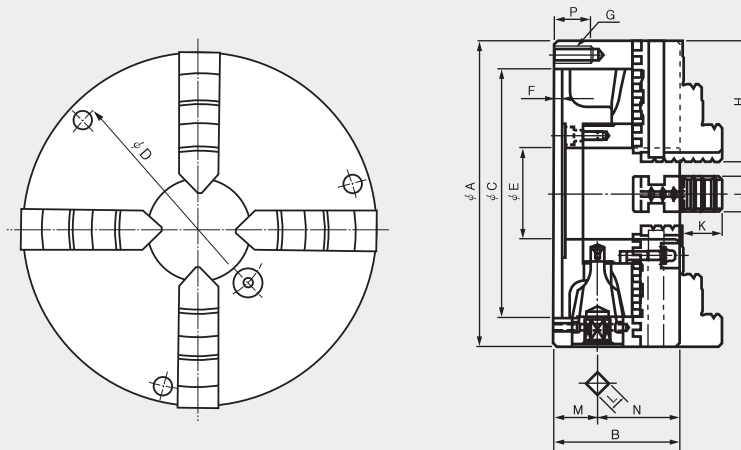
SF

4-Jaw Scroll Chuck (Hard-Jaws)



- Four-jaw scroll chuck with solid jaws (incl. internal and external hard jaws)

SCROLL CHUCK



Dimensions

	A	B	C(H6)	D	E	F	G	H	J	K	L	M	N	P
SF-190(7")	192	75	155	172	57	5	3-M10	75	22	30.06	11	27.5	47.5	20
SF-230(9")	232	84	190	210	75	6	3-M12	85	24	35.04	12	29.5	54.5	25
SF-273(10")	273	86	230	250	89	6	3-M12	98	28	40.02	12	31.5	54.5	25
SF-310(12")	310	96	260	285	100	7	3-M12	110	30	45.08	14	31.5	64.5	25

Specifications

	Max. Static Gripping dia. KN(kgf)	Max. rp.m min ⁻¹ (rpm)	weight kgf	GD ² N·m ² (kgf·m ²)	(Gripping diameter)		Handle Torque N·m(kgf·m)
					(External) φmm	(Internal) φmm	
SF-190(7")	31 (3161)	3500	12.5	2.45 (0.25)	4~180	56~170	107.9 (11.0)
SF-230(9")	37 (3773)	2900	21.5	6.37 (0.65)	5~220	62~210	147 (15.0)
SF-273(10")	46 (4691)	2500	28	9.90 (1.01)	5~260	70~250	176.5 (18.0)
SF-310(12")	55 (5608)	2200	41	23.0 (2.35)	10~300	86~290	206 (21.0)

* Specifications are subject to change without notice.

Application Chuck

Power Chuck

Manual Chuck

Rotary Cylinder

Steady Rest

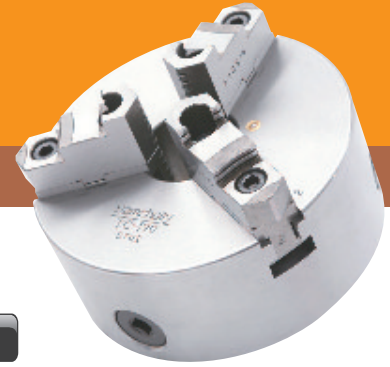
NC Rotary Table

Vise

Replacement Accessories

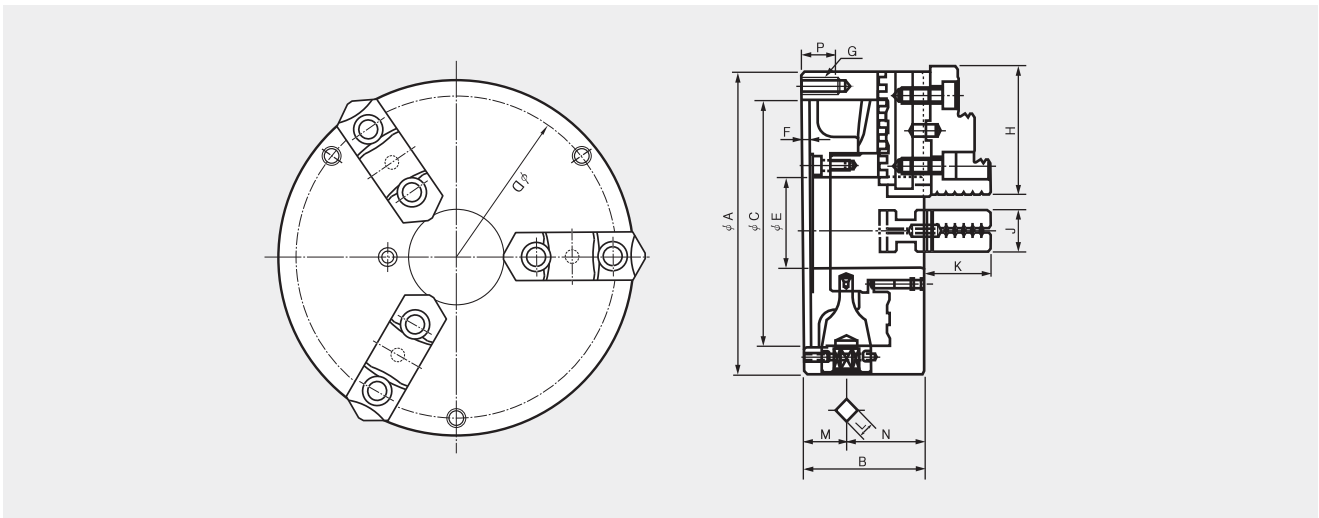
TC

Standard Scroll Chuck (Soft and Hard top Jaws)



- Standard 2-piece jaw scroll chuck
(incl. soft and hard top jaws)

SCROLL CHUCK



Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Mounting Bolt
TC-190(7")	192	78.7	155	172	57	5	3-M10	80.5	28	42.8	11	27.5	51.2	20	3-M10
TC-230(9")	232	83.7	190	210	75	6	3-M12	90.5	32	53.8	12	29.5	54.2	25	3-M12
TC-273(10")	273	88	230	250	89	6	3-M12	103.5	35	57.82	12	31.5	56.5	25	3-M12
TC-310(12")	310	96	260	285	100	7	3-M12	115.5	40	56.08	14	31.5	64.5	25	3-M12

Specifications

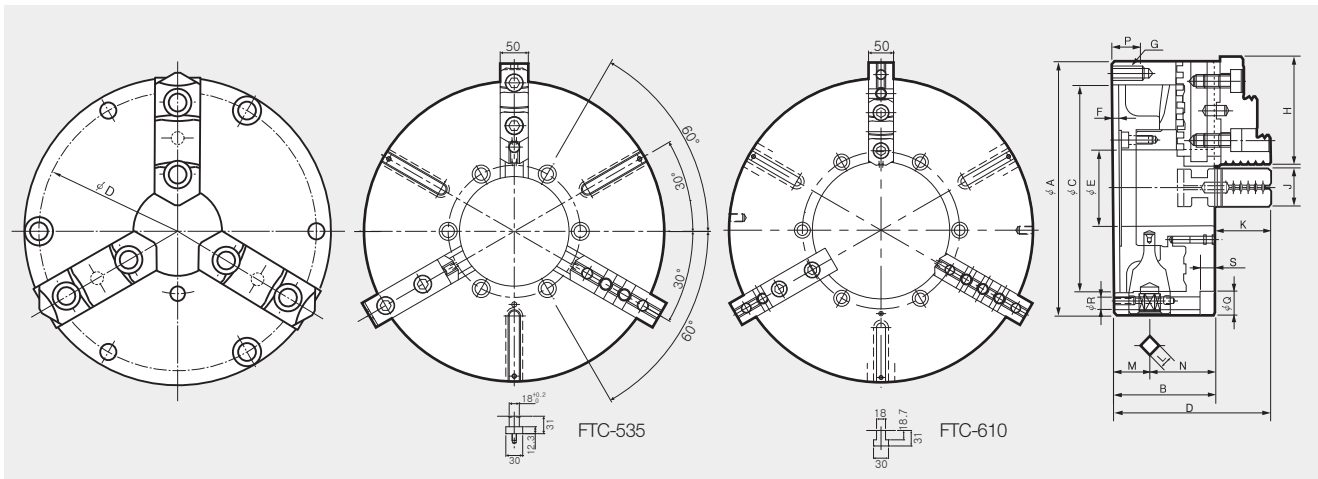
	Max. Static Gripping dia. KN(kgf)	Max. r.p.m min ⁻¹ (r.p.m)	weight kgf	GD ² N·m ² (kgf·m ²)	(Gripping diameter)		Handle Torque N·m(kgf·m)
					(External) φmm	(Internal) φmm	
TC-190(7")	31 (3161)	3500	12.2	2.35 (0.24)	4~180	56~170	107.9 (11.0)
TC-230(9")	37 (3773)	2900	21.2	6.27 (0.64)	5~220	62~210	147 (15.0)
TC-273(10")	46 (4691)	2500	28	9.90 (1.01)	5~260	70~250	176.5 (18.0)
TC-310(12")	55 (5608)	2200	41	23.0 (2.35)	10~300	86~290	206 (21.0)

※Specifications are subject to change without notice.



- Front-mounting 2-piece jaw scroll chuck (incl. soft and hard top jaws)

SCROLL CHUCK



Dimensions

	A	B	C(H6)	D	E	F	G	H	J	K	L	M	N	P	Mounting Bolt			
															Q	R	S	Bolt
FTC-190(7")	192	78.7	155	172	57	5	3-M10	80.5	28	42.8	11	27.5	51.2	20	16.5	10.5	10.5	M10
FTC-230(9")	232	83.7	190	210	75	6	3-M12	90.5	32	53.8	12	29.5	54.2	25	20	13	12.5	M12
FTC-273(10")	273	88	230	250	89	6	3-M12	103.5	35	57.82	12	31.5	56.5	25	20	13	12.5	M12
FTC-310(12")	310	96	260	285	100	7	3-M12	115.5	40	56.08	14	31.5	64.5	25	20	13	12.5	M12
FTC-460(18")	460	114	400	425	190	8	-	140(130)	50	80	17	38.2	76	-	26	18	18	6-M16X125
FTC-535(21")	535	143	270	235	195	12	-	150(130)	50	82	22	57.5	85.5	-	32	22	22	6-M20X140
FTC-610B(24")	610	143	380	315	216	14	-	150(130)	50	82	22	57.5	85.5	-	32	21	22	6-M20X140
FTC-610HA(24")	610	143	380	315	275	14	-	130	50	82	22	57.5	85.5	-	32	22	21	6-M20X140

Specifications

	Max. Static Gripping dia. KN(kgf)	Max. r.p.m min ⁻¹ (r.p.m)	weight kgf	GD ² N·m ² (kgf·m ²)	(Gripping diameter)		Handle Torque N·m(kgf·m)
					(External) φmm	(Internal) φmm	
FTC-190(7")	31 (3161)	3500	12.2	2.35 (0.24)	4~180	56~170	107.9 (11.0)
FTC-230(9")	37 (3773)	2900	21.2	6.27 (0.64)	5~220	62~210	147 (15.0)
FTC-273(10")	46 (4691)	2500	28	9.90 (1.01)	5~260	70~250	176.5 (18.0)
FTC-310(12")	55 (5608)	2200	41	23.0 (2.35)	10~300	86~290	206 (21.0)
FTC-460(18")	65 (6650)	870	106	124 (12.6)	40~410	152~436	255.0 (26)
FTC-535(21")	73 (7400)	950	182	287 (29.3)	45~481	155~499	313.9 (32)
FTC-610B(24")	80 (8200)	850	238	488 (49.8)	50~576	160~592	372.7 (38)
FTC-610HA(24")	80 (8200)	850	238	488 (49.8)	130~576	235~592	372.7 (38)

※Specifications are subject to change without notice.

Application Chuck

Power Chuck

Manual Chuck

Rotary Cylinder

Steady Rest

NC Rotary Table

Vise

Replacement Accessories

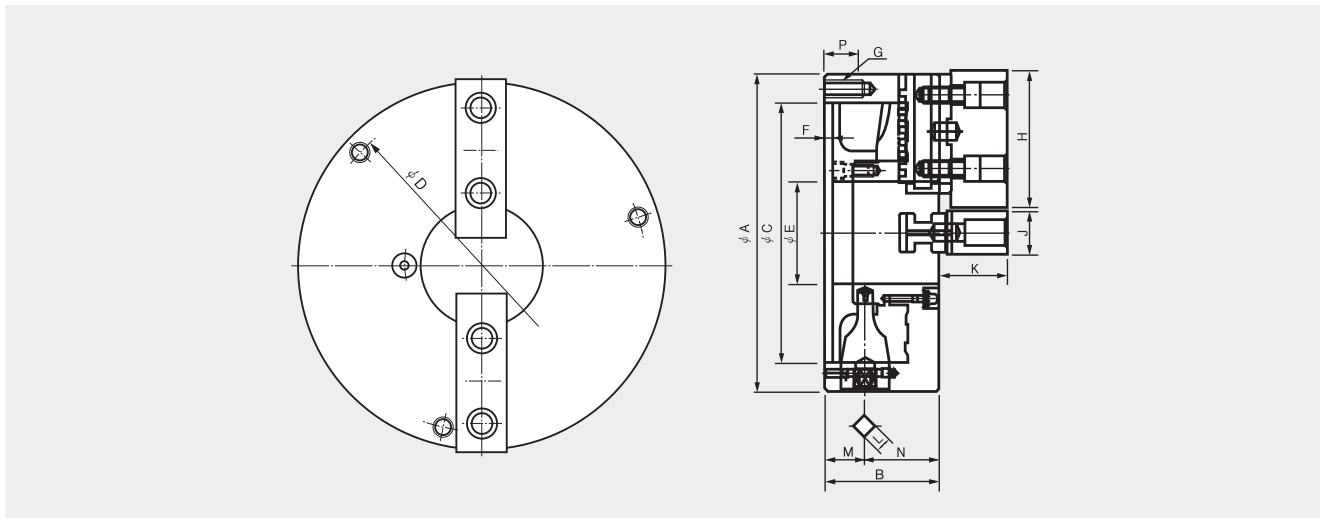
ST

2-Jaw Scroll Chuck (Soft top Jaws)



- Two-jaw scroll chuck with 2-piece jaw (incl. soft top jaws)

SCROLL CHUCK



Dimensions

	A	B	C(H6)	D	E	F	G	H	J	K	L	M	N	P
ST-190(7")	192	78.7	155	172	57	5	3-M10	88	32	44.8	11	27.5	51.2	20
ST-230(9")	232	83.7	190	210	75	6	3-M12	100	32	49.8	12	29.5	54.2	25
ST-273(10")	273	88	230	250	89	6	3-M12	110	35	54.32	12	31.5	56.5	25
ST-310(12")	310	96	260	285	100	7	3-M12	125	40	50.58	14	31.5	64.5	25

Specifications

	Max. Static Gripping dia. KN(kgf)	Max. r.p.m min ⁻¹ (r.p.m)	weight kgf	GD ² N·m ² (kgf·m ²)	(Gripping diameter)		Handle Torque N·m(kgf·m)
					(External) φmm	(Internal) φmm	
ST-190(7")	20.7 (2110)	3500	12.6	2.55 (0.26)	4~180	62~170	73.5 (7.5)
ST-230(9")	24.7 (2518)	2900	21.4	6.27 (0.64)	5~220	70~210	98 (10.0)
ST-273(10")	46 (4691)	2500	28	9.90 (1.01)	5~260	70~250	176.5 (18.0)
ST-310(12")	55 (5608)	2200	41	23.0 (2.35)	10~300	86~290	206 (21.0)

※Specifications are subject to change without notice.

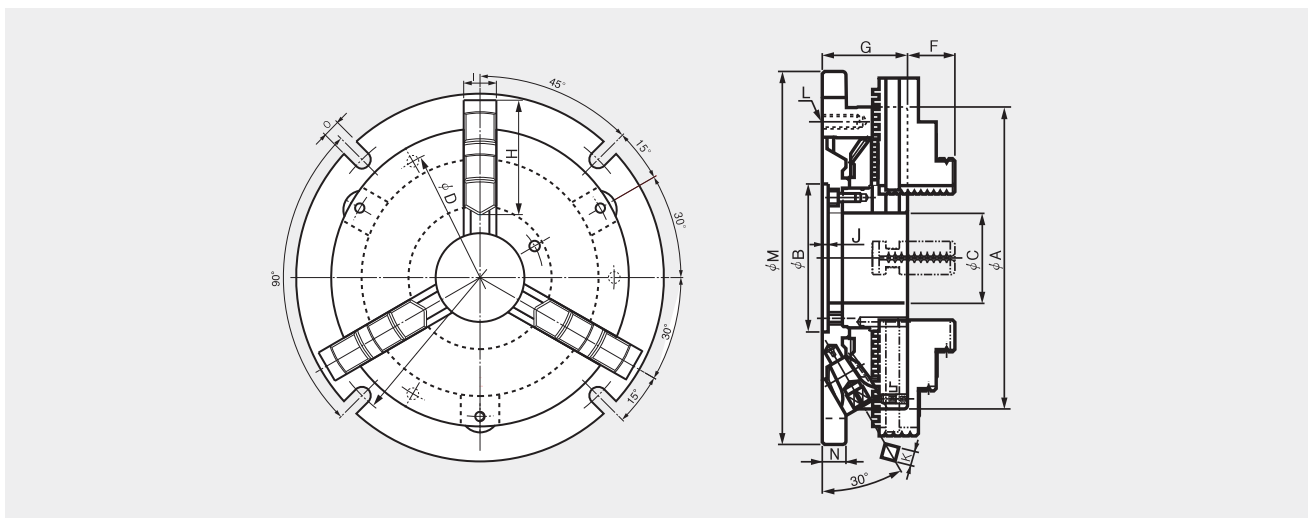
SL

Standard Slotter Chuck (Hard Jaws)



- Standard slotter chuck with solid jaw (incl. internal and external hard jaws)

SLOTTER CHUCK



Dimensions

	A	B(H6)	C	V	E	F	G	H	I	J	K	L	M	N	O
SL-08	215	110	60	190.5	240	35.04	64	80	25	4	11	M10	266	17	13
SL-10	255	125	76	230	286	40.02	72	98	28	4.5	12	M12	315	20	15
SL-12	305	160	100	280	340	45.08	76	110	30	5	14	M12	370	22	17

Specifications

	Max. Static Gripping dia. KN(kgf)	weight kgf	(Gripping diameter)		Handle Torque N·m(kgf·m)
			(External) φmm	(Internal) φmm	
SL-08	37 (3,800)	17.6	58~174	4~182	117.7 (13)
SL-10	46 (4,700)	27.7	68~212	4~220	176.5 (18)
SL-12	55 (5,620)	40.0	80~263	5~266	196.2 (20)

* Specifications are subject to change without notice.

Application Chuck

Power Chuck

Manual Chuck

Rotary Cylinder

Steady Rest

NC Rotary Table

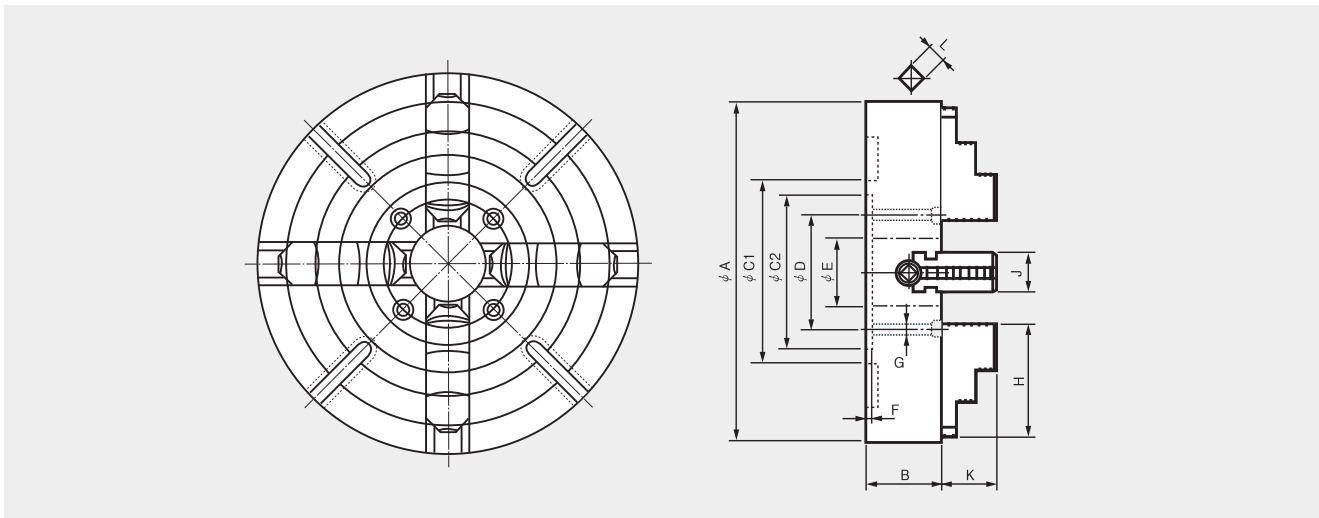
Vise

Replacement Accessories



- 4-jaw Independent chuck (incl. reversible hard jaws)

INDEPENDENT CHUCK



Dimensions

	A	B	C1	C2	D	E	F	G	H	J	K	L
IC-8	200	75	200	175	155	50	6	M12	75	30	30	10
IC-10	250	80	165	150	125	55	6	M12	90	30	35	10
IC-12	300	90	186	170	140	65	6	M12	100	35	40	12
IC-14	350	90	210	190	160	75	8	M12	110	35	45	12
IC-16	400	100	130	210	180	90	8	M16	120	40	50	14

Specifications

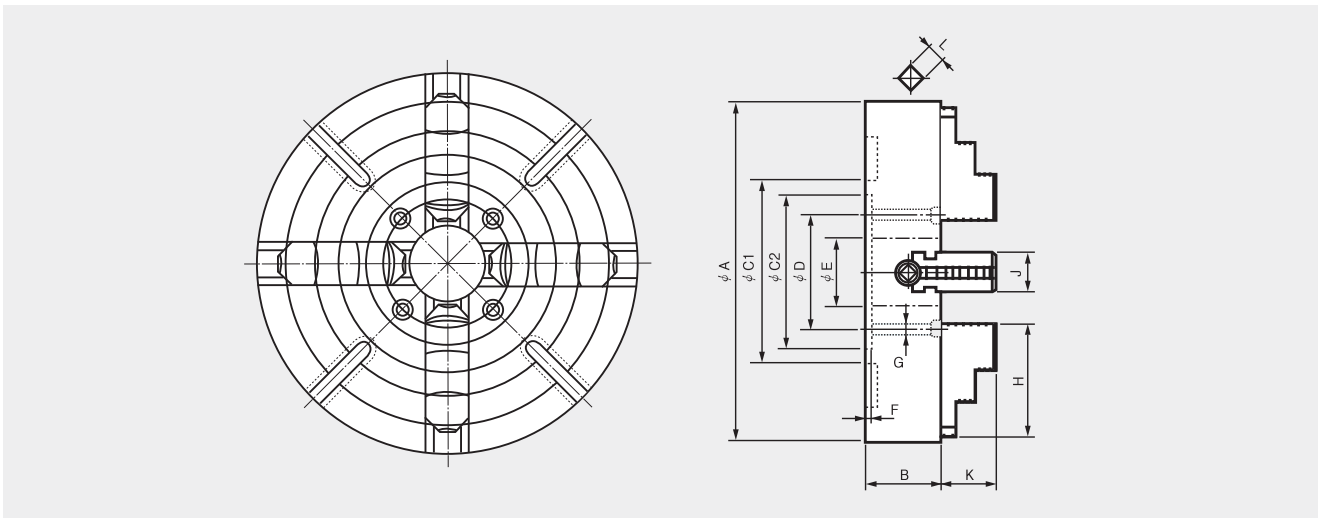
	Max. Static Gripping dia. KN(kgf)	Max. r.p.m min ⁻¹ (r.p.m)	weight kgf	GD ² N·m ² (kgf·m ²)	(Gripping diameter)	
					(External) φmm	(Internal) φmm
IC-8	1000	1600	14.8	0.3	75	185
IC-10	1400	1600	21	0.6	95	220
IC-12	1600	1400	29.5	1.4	125	265
IC-14	1700	1400	40	2.9	155	310
IC-16	2000	1200	56.5	4.5	190	360

※Specifications are subject to change without notice.



- 4-jaw Independent chuck (incl. reversible hard jaws)

INDEPENDENT CHUCK



Dimensions

	A	B	C1	C2	D	E	F	G	H	J	K	L
IC-18	450	105	230	230	200	100	8	M16	130	40	55	14
IC-20	500	110	272	250	220	110	8	M16	140	45	60	14
IC-24	600	120	330	300	260	120	10	M20	160	50	70	14
IC-28	710	120	382	350	300	130	12	M20	190	55	85	14
IC-32	813	120	440	400	350	140	12	M20	190	55	85	19

Specifications

	Max. Static Gripping dia. KN(kgf)	Max. r.p.m min ⁻¹ (r.p.m)	weight kgf	GD ² N·m ² (kgf·m ²)	(Gripping diameter)	
					(External) φmm	(Internal) φmm
IC-18	2000	1200	70	7.0	220	405
IC-20	2200	900	90	11.8	250	450
IC-24	2300	900	150	25.3	320	550
IC-28	2396	900	247	58	385	650
IC-32	2447	600	357	103	485	750

※Specifications are subject to change without notice.

Application Chuck

Power Chuck

Manual Chuck

Rotary Cylinder

Steady Rest

NC Rotary Table

Vise

Replacement Accessories

