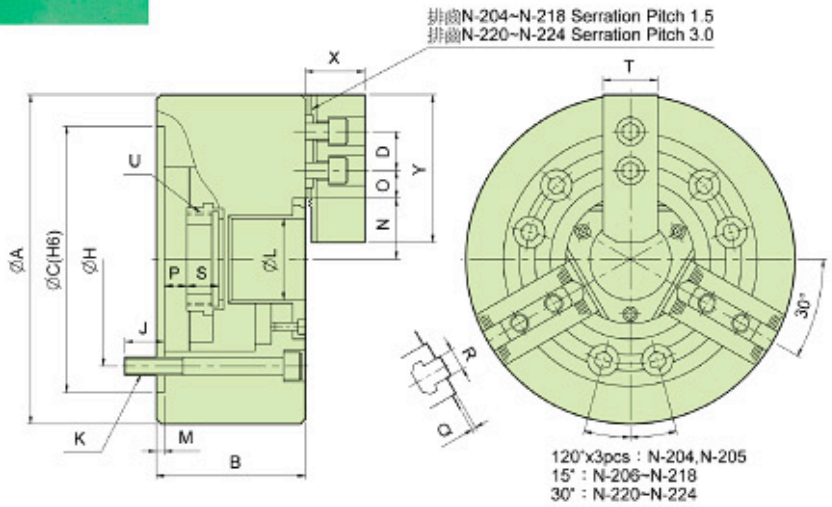

A STRONGHOLD BY PRECISION AND POWER.
AUTO
Strong
AUTO

N-200 SERIES

SPECIFICATIONS:

3-JAW WEDGE TYPE THROUGH-HOLE POWER CHUCK (WITHOUT ADAPTOR)

1.More large bore
2.Highest revolution

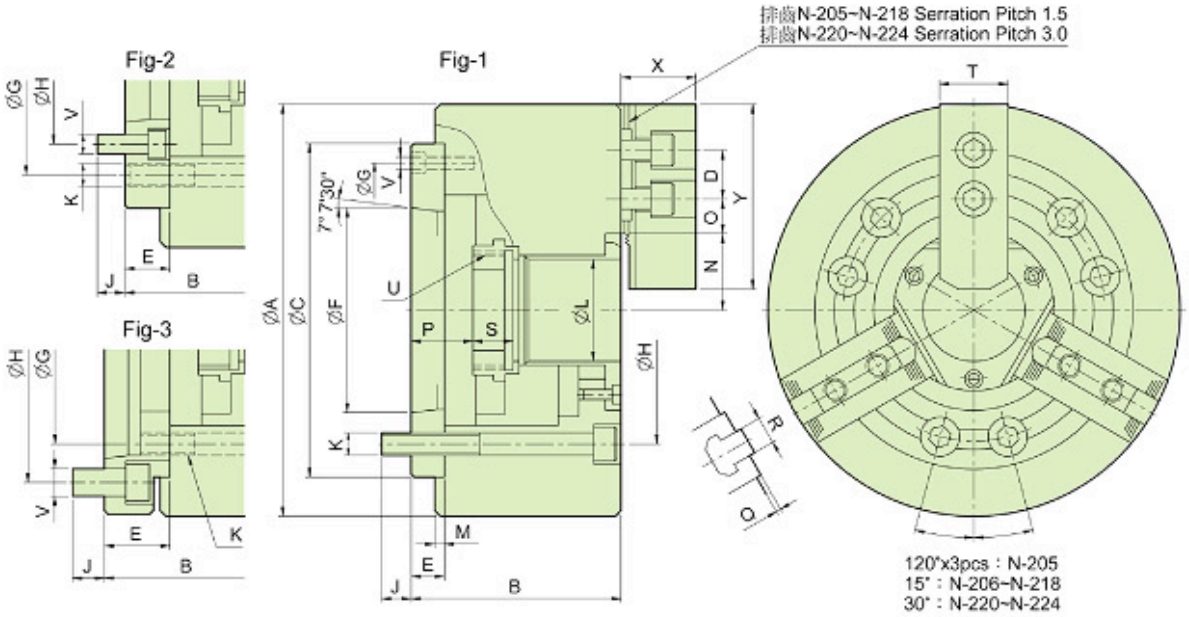


SPECIFICATIONS:

Model	Through-Hole (mm)	Plunger Stroke (mm)	Jaw Stroke (mm)	Max. Draw Bar Pull Force (kgf)	Max. Gripping Force (kgf)	Max. Operating Pressure (kgf/cm²)	Max. Speed (r.p.m.)	Weight (kg)	Moment of Inertial (kgf/m²)	Matching Cylinder	Matching Soft Jaw	Matching Hard Jaw	Gripping O.D Range (mm)
N-204	ø26	10	5.4	1428	2906	31.6	8000	4	0.007	M0928	HC04	HJ05	ø4~ ø110
N-205	ø33	10	5.4	1784	3671	29.6	7000	7	0.018	M1036	HC05	HJ05	ø6~ø135
N-206	ø45	12	5.5	2243	5812	28.5	6000	13.5	0.057	M1246	HC06	HJ06	ø15~ø169
N-208	ø52	16	7.4	3508	8973	26.5	4900	23	0.17	M1552	HC08	HJ08	ø20~ø210
N-210	ø75	19	8.8	4385	11319	27.5	4200	35	0.315	M1875	HC10	HJ10	ø25~ø254
N-212	ø91	23	10.6	5812	14990	27.5	3300	56.5	0.737	M2091	HC12	HJ12	ø30~ø304
N-215	ø117.5	23	10.6	7240	18355	23.5	2500	111	2.27	M2511	HC15	HJ15	ø60~ø381
N-218	ø117.5	23	10.6	7240	18355	23.5	2000	164	4.45	M2511	HC15	HJ15	ø60~ø450
N-220	ø180	23	10.6	9177	23861	30.5	1800	190	6.5	M2511	HC24-1	HJ24-1	ø120~ø510
N-224	ø205	26	12	9177	23861	30.5	1400	270	14.8	M2511	HC24-1	HJ24-1	ø150~ø610

DIMENSIONS:

Model	A	B	C (H6)	D	H	J	K	L	M	N max.	O max.	O min.	P max.	P min.	Q	R	S	T	U max.	W	X	Y
N-204	110	59	85	14	70.6	16	3-M10x60	26	4	23.2	13.75	6.75	3.5	-6.5	2	10	17.5	23	M32x1.5	38	24	49.5
N-205	135	60	110	14	82.55	15	3-M10x60	33	4	26.5	19.75	7.75	1	-9	2	10	20	25	M40x1.5	45	31	54
N-206	169	81	140	20	104.78	16	6 -M10x80	45	5	32	22.75	9.25	11	-1	2	12	19	31	M55x2	60	37	73
N-208	210	91	170	25	133.35	20	6-M12x90	52	5	38.7	29.75	14.75	14.5	-1.5	2	14	20.5	35	M60x2	66	38	95
N-210	254	100	220	30	171.45	22	6-M16x100	75	5	51	33.75	14.25	8.5	-10.5	2	16	25	40	M85x2	94	43	110
N-212	304	110	220	30	171.45	23	6-M16x110	91	6	61.3	45.75	15.75	8	-15	2	21	28	50	M100x2	108	51	130
N-215	381	133	300	43	235	35	6-M20x135	117.5	6	82	45.25	16.75	7	-16	5	22	43	62	M130x2	139	66	165
N-218	450	133	300	43	235	35	6-M20x135	117.5	6	82	79.75	16.75	7	-16	5	22	43	62	M130x2	139	66	165
N-220	510	134	380	60	330.2	35	6-M24x135	180	6	112.5	69	23	11	-12	5	25	38	65	M190x2	206	73	180
N-224	610	147	520	60	463.6	35	6-M24x150	205	6	139.9	87.5	24.5	16	-10	5	25	38	65	M215x3	230	73	180



DIMENSIONS:

Model	A	B	C	D	E	F	G	H	J	K	L	M	N max.	O max.	O min.	P max.	P min.	Q	R	S	T	U max.	V	W	X	Y	Reference
N-205A4	135	71	110	14	15	63.513	96	82.55	15.5	3-M10	33	4	26.5	19.75	7.75	16	6	2	10	20	25	M40x1.5	3-M6	45	31	54	Fig-1
N-205A5	135	88	110	14	32	82.563	82.55	104.78	14	3-M10	33	4	26.5	19.75	7.75	33	23	2	10	20	25	M40x1.5	6-M10	45	31	54	Fig-3
N-206A5	169	91	140	20	15	82.563	116	104.78	16	6-M10	45	5	32	22.75	9.25	26	14	2	12	19	31	M55x2	3-M6	60	37	73	Fig-1
N-206A6	169	111	140	20	35	106.375	104.78	133.35	16	6-M10	45	5	32	22.75	9.25	46	34	2	12	19	31	M55x2	6-M12	60	37	73	Fig-3
N-208A5	210	109	170	25	23	82.563	133.35	104.78	13	6-M12	52	5	38.7	29.75	14.75	37.5	21.5	2	14	20.5	35	M60x2	6-M10	66	38	95	Fig-2
N-208A6	210	103	170	25	17	106.375	150	133.35	18	6-M12	52	5	38.7	29.75	14.75	31.5	15.5	2	14	20.5	35	M60x2	3-M6	66	38	95	Fig-1
N-208A8	210	126	170	25	40	139.719	133.35	171.45	16	6-M12	52	5	38.7	29.75	14.75	54.5	38.5	2	14	20.5	35	M60x2	6-M16	66	38	95	Fig-3
N-210A6	254	120	220	30	25	106.375	171.45	133.35	18	6-M16	75	5	51	33.75	14.25	33.5	14.5	2	16	25	40	M85x2	6-M12	94	43	110	Fig-2
N-210A8	254	113	220	30	18	139.719	190	171.45	24	6-M16	75	5	51	33.75	14.25	26.5	7.5	2	16	25	40	M85x2	3-M8	94	43	110	Fig-1
N-210A11	254	145	220	30	50	196.869	171.45	235	22	6-M16	75	5	51	33.75	14.25	58.5	39.5	2	16	25	40	M85x2	6-M20	94	43	110	Fig-3
N-212A6	304	129	220	30	25	106.375	171.45	133.35	18	6-M16	91	6	61.3	45.75	15.75	33	10	2	21	28	50	M100x2	6-M12	108	51	130	Fig-2
N-212A8	304	122	220	30	18	139.719	190	171.45	25	6-M16	91	6	61.3	45.75	15.75	26	3	2	21	28	50	M100x2	3-M8	108	51	130	Fig-1
N-212A11	304	154	220	30	50	196.869	171.45	235	22	6-M16	91	6	61.3	45.75	15.75	58	35	2	21	28	50	M100x2	6-M20	108	51	130	Fig-3
N-215A8	381	160	300	43	33	139.719	235	171.45	24	6-M20	117.5	6	82	45.25	16.75	40	17	5	22	43	62	M130x2	6-M16	139	66	165	Fig-2
N-215A11	381	149	300	43	22	196.869	260	235	28	6-M20	117.5	6	82	45.25	16.75	29	6	5	22	43	62	M130x2	3-M10	139	66	165	Fig-1
N-215A15	381	184	300	43	57	285.775	235	330.2	24	6-M20	117.5	6	82	45.25	16.75	64	41	5	22	43	62	M130x2	6-M24	139	66	165	Fig-3
N-218A8	450	160	300	43	33	139.719	235	171.45	24	6-M20	117.5	6	82	79.75	16.75	40	6	5	22	43	62	M130x2	6-M16	139	66	165	Fig-2
N-218A11	450	149	300	43	22	196.869	260	235	28	6-M20	117.5	6	82	79.75	16.75	29	6	5	22	43	62	M130x2	3-M10	139	66	165	Fig-1
N-218A15	450	184	300	43	57	285.775	235	330.2	24	6-M20	117.5	6	82	79.75	16.75	64	41	5	22	43	62	M130x2	6-M24	139	66	165	Fig-3
N-220A11	510	169	380	60	41	196.869	330.2	235	30	6-M24	180	6	112.5	69	23	52	29	5	25	38	65	M190x2	6-M20	206	73	180	Fig-2
N-220A15	510	155	380	60	27	285.775	330.2	330.2	33	6-M24	180	6	112.5	69	23	38	15	5	25	38	65	M190x2	3-M12	206	73	180	Fig-1
N-224A11	610	186	520	60	45	196.869	463.6	235	28	6-M24	205	6	139.9	87.5	24.5	61	35	5	25	38	65	M215x3	6-M20	230	73	180	Fig-2
N-224A15	610	183	520	60	42	285.775	463.6	330.2	33	6-M24	205	6	139.9	87.5	24.5	58	32	5	25	38	65	M215x3	6-M24	230	73	180	Fig-2
N-224A20	610	166	520	60	25	412.775	463.6	463.6	35	6-M24	205	6	139.9	87.5	24.5	41	15	5	25	38	65	M215x3	3-M10	230	73	180	Fig-1

N-200A SERIES

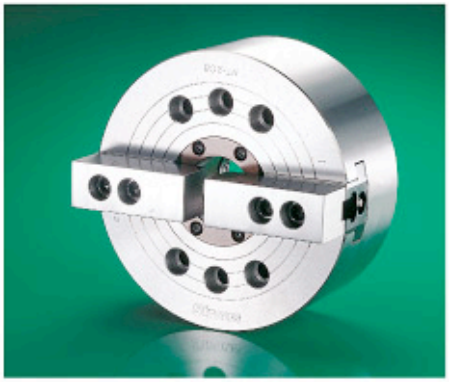
SPECIFICATIONS:

3-JAW WEDGE TYPE THROUGH-HOLE POWER CHUCK (WITH ADAPTOR)

1. More large bore: Having the largest bore in wede type power operated chucks.
2. Model N-200A chucks are assembled with adaptor for ASA B5.9 type A spindles.

SPECIFICATIONS:

Model	Through-Hole (mm)	Plunger Stroke (mm)	Jaw Stroke (in dia) (mm)	Max. Pull Force (kgf)	Max. Gripping Force (kgf)	Max. Operating Pressure (kgf/cm²)	Max. Speed (r.p.m.)	Weight (kg)	Moment of Inertia I (kgf.m²)	Matching Cylinder	Matching Hard Jaw	Matching Soft Jaw	Gripping O.D. Range (mm)
N-205A4	ø33	10	5.4	1784	3571	29.6	7000	7.8	0.020	M1036	HJ05	HC05	ø6~ø135
N-205A5	ø33	10	5.4	1784	3571	29.6	7000	9	0.023	M1036	HJ05	HC05	ø6~ø135
N-206A5	ø45	12	5.5	2243	5812	28.5	6000	14.7	0.062	M1246	HJ06	HC06	ø15~ø169
N-206A6	ø45	12	5.5	2243	5812	28.5	6000	17.3	0.073	M1246	HJ06	HC06	ø15~ø169
N-208A5	ø52	16	7.4	3508	8973	26.5	4900	25.8	0.190	M1552	HJ08	HC08	ø20~ø210
N-208A6	ø52	16	7.4	3508	8973	26.5	4900	25	0.184	M1552	HJ08	HC08	ø20~ø210
N-208A8	ø52	16	7.4	3508	8973	26.5	4900	29.3	0.217	M1552	HJ08	HC08	ø20~ø210
N-210A6	ø75	19	8.8	4385	11319	27.5	4200	41	0.370	M1875	HJ10	HC10	ø25~ø254
N-210A8	ø75	19	8.8	4385	11319	27.5	4200	38	0.340	M1875	HJ10	HC10	ø25~ø254
N-210A11	ø75	19	8.8	4385	11319	27.5	4200	48.4	0.436	M1875	HJ10	HC10	ø25~ø254
N-212A6	ø91	23	10.6	5812	14990	27.5	3300	62.5	0.809	M2091	HJ12	HC12	ø30~ø304
N-212A8	ø91	23	10.6	5812	14990	27.5	3300	59.5	0.770	M2091	HJ12	HC12	ø30~ø304
N-212A11	ø91	23	10.6	5812	14990	27.5	3300	69.9	0.912	M2091	HJ12	HC12	ø30~ø304
N-215A8	ø117.5	23	10.6	7240	18355	23.5	2500	125	2.255	M2511	HJ15	HC15	ø60~ø381
N-215A11	ø117.5	23	10.6	7240	18355	23.5	2500	118	2.241	M2511	HJ15	HC15	ø60~ø381
N-215A15	ø117.5	23	10.6	7240	18355	23.5	2500	138	2.822	M2511	HJ15	HC15	ø60~ø381
N-218A8	ø117.5	23	10.6	7240	18355	23.5	2000	178	4.830	M2511	HJ15	HC15	ø60~ø450
N-218A11	ø117.5	23	10.6	7240	18355	23.5	2000	171	4.464	M2511	HJ15	HC15	ø60~ø450
N-218A15	ø117.5	23	10.6	7240	18355	23.5	2000	191	5.183	M2511	HJ15	HC15	ø60~ø450
N-220A11	ø180	23	10.6	9177	23861	30.5	1800	215	7.355	M2511	HJ24-1	HC24-1	ø120~ø510
N-220A15	ø180	23	10.6	9177	23861	30.5	1800	202	6.910	M2511	HJ24-1	HC24-1	ø120~ø510
N-224A11	ø205	26	12	9177	23861	30.5	1400	332	16.199	M2511	HJ24-1	HC24-1	ø150~ø610
N-224A15	ø205	26	12	9177	23861	30.5	1400	317	17.376	M2511	HJ24-1	HC24-1	ø150~ø610
N-224A20	ø205	26	12	9177	23861	30.5	1400	286	15.677	M2511	HJ24-1	HC24-1	ø150~ø610

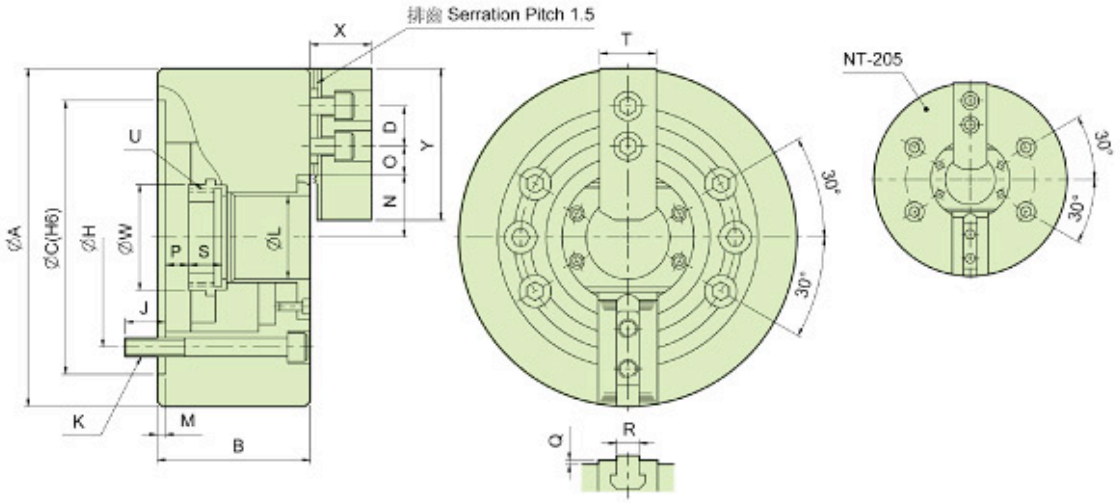


NT-200 SERIES

SPECIFICATIONS:

2-JAW WEDGE TYPE THROUGH-HOLE POWER CHUCK (WITHOUT ADAPTOR)

1.All sliding surfaces are hardened and ground for accurate actual running and long service repeatability. Lubrication nipple in each base jaw.
2.Base jaw:1.5mmx60° serrtion.
3.Mounting:Adaptor mounting to fit with DIN, ISO, BS, ASA B5.9 type A spindles.



SPECIFICATIONS:

Model / Dim	Through-Hole (mm)	Plunger Stroke (mm)	Jaw Stroke (in dia) (mm)	Max. Draw Bar Pull Force (kgf)	Max. Gripping Force (kgf)	Max. Operating Pressure (kgf/cm²)	Max. Speed (r.p.m.)	Weight (kg)	Moment of Inertia I (kgf/m²)	Matching Cylinder	Matching Hard Jaw	Matching Soft Jaw	Gripping O.D. Range (mm)
NT-205	ø 33	10	5.4	1189	2447	19.5	7000	6.8	0.017	M1036	HJ05	HC05	ø6~ø135
NT-206	ø 45	12	5.5	1400	3875	18.9	6000	12.8	0.054	M1246	HJ06	HC06	ø15~ø169
NT-208	ø 52	16	7.4	2200	5930	17.3	4900	22	0.163	M1552	HJ08	HC08	ø20~ø210
NT-210	ø 75	19	8.8	2900	7546	18.4	4200	34	0.306	M1875	HJ10	HC10	ø25~ø254
NT-212	ø 91	23	10.6	3700	9789	18.4	3300	55	0.717	M2091	HJ12	HC12	ø30~ø304
NT-215	ø 117.5	23	10.6	4793	12236	15.3	2500	106	2.17	M2511	HJ15	HC15	ø60~ø381

DIMENSIONS:

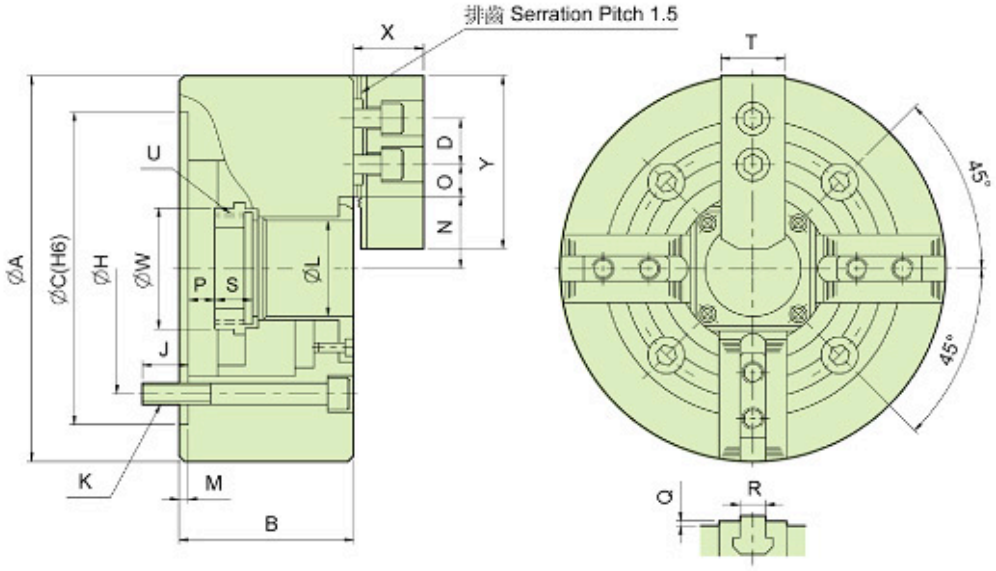
Model / Dim	A	B	C (H6)	D	H	J	K	L	M	N max.	O max.	O min.	P max.	P min.	Q	R	S	T	U max.	W	X	Y
NT-205	135	60	110	14	82.55	15	4-M10x60	33	4	26.5	19.75	7.75	1	-9	2	10	20	23	M40x1.5	45	31	54
NT-206	169	81	140	20	104.78	16	6-M10x80	45	5	32	22.75	9.25	11	-1	2	12	19	31	M55x2	60	37	73
NT-208	210	91	170	25	133.35	20	6-M12x90	52	5	38.7	29.75	14.75	14.5	-1.5	2	14	20.5	35	M60x2	66	38	95
NT-210	254	100	220	30	171.45	22	6-M16x100	75	5	51	33.75	14.25	8.5	-10.5	2	16	25	40	M85x2	94	43	110
NT-212	304	110	220	30	171.45	23	6-M16x110	91	6	61.3	45.75	15.75	8	-15	2	21	28	50	M100x2	108	51	130
NT-215	381	133	300	43	235	35	6-M20x135	117.5	6	82	45.25	16.75	7	-16	5	22	43	62	M130x2	139	66	165

NIT-200 SERIES

SPECIFICATIONS:

4-JAW WEDGE TYPE THROUGH HOLE POWER CHUCK (WITHOUT ADAPTOR)

1.All sliding surfaces are hardened and ground for accurate actual running and long service repeatability. Lubrication nipple in each master jaw.
2.Master jaw:1.5mmx60° serrtion.
3.Mounting:Adaptor mounting to fit with DIN, ISO, BS, ASA B5.9 type A spindles.



SPECIFICATIONS:

Model / Dim	Through-Hole (mm)	Plunger Stroke (mm)	Jaw Stroke (in dia) (mm)	Max. Draw Bar Pull Force (kgf)	Max. Gripping Force (kgf)	Max. Operating Pressure (kgf/cm²)	Max. Speed (r.p.m.)	Weight (kg)	Moment of Inertia (kgf/cm²)	Matching Cylinder	Matching Hard Jaw	Matching Soft Jaw	Gripping O.D. Range (mm)
NIT-208	Ø 52	16	7.4	3508	8973	26.5	3600	24	0.177	M1552	HJ08	HC08	ø20~ø210
NIT-210	Ø 75	19	8.8	4385	11319	27.5	3200	36	0.324	M1875	HJ10	HC10	ø25~ø254
NIT-212	Ø 91	23	10.6	5812	14990	27.5	2700	58.5	0.763	M2091	HJ12	HC12	ø30~ø304
NIT-215	Ø 117.5	23	10.6	7240	18355	23.5	1900	114	2.331	M2511	HJ15	HC15	ø60~ø381

DIMENSIONS:

Model / Dim	A	B	C (H6)	D	H	J	K	L	M	N max.	O max.	O min.	P max.	P min.	Q	R	S	T	U max.	W	X	Y
NIT-208	210	91	170	25	133.35	20	4-M12x90	52	5	38.7	29.75	14.75	14.5	-1.5	2	14	20.5	35	M60x2	66	38	95
NIT-210	254	100	220	30	171.45	22	4-M16x100	75	5	51	33.75	14.25	8.5	-10.5	2	16	25	40	M85x2	94	43	110
NIT-212	304	110	220	30	171.45	23	4-M16x110	91	6	61.3	45.75	15.75	8	-15	2	21	28	50	M100x2	108	51	130
NIT-215	381	133	300	43	235	35	4-M20x135	117.5	6	82	45.25	16.75	7	-16	5	22	43	62	M130x2	139	66	165

NHT SERIES

SPECIFICATIONS:

2 JAWS AND 3 JAWS THROUGH HOLE POWER CHUCKS (WITH ADAPTOR)

1.Gripping of round or irregular workpiece does not need to change the chuck.
2.The chucks are designed according to ASA B5.9 type A spindle.
3.The chucks are made from hight grade alloy steel. All siding surfaces are hardened and ground for increased running accuracy and longer service life.

Fig-1

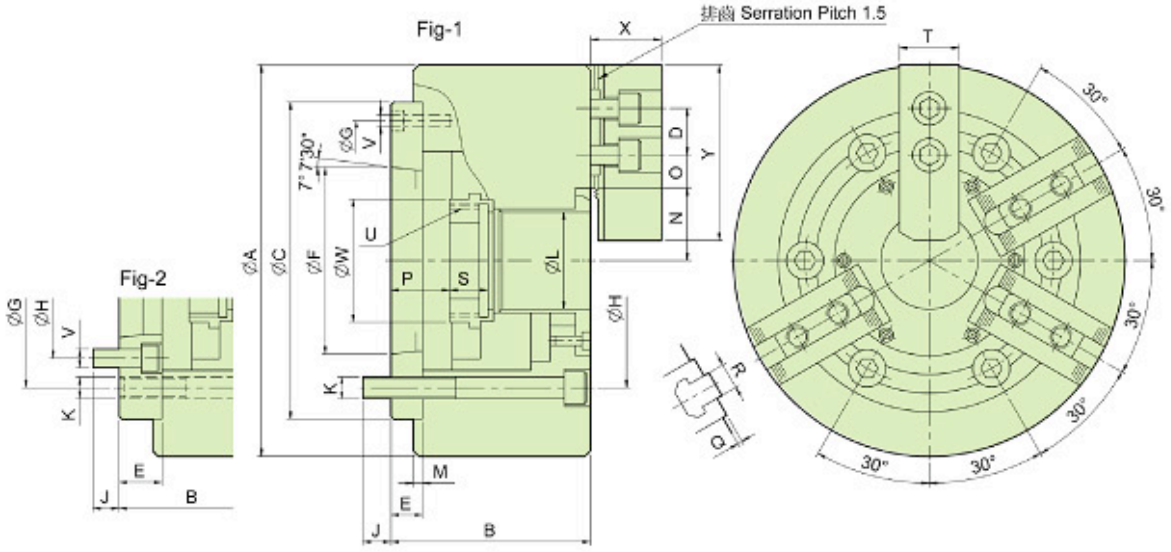


Fig-2

SPECIFICATIONS:

Model / Dim	Through-Hole (mm)	Plunger Stroke (mm)	Jaw Stroke (in dia) (mm)	Max. Draw Bar Pull Force (kgf)		Max. Gripping Force (kgf)		Max. Operating Pressure (kgf/cm²)		Max. Speed (r.p.m.)	Weight (kg)	Matching Cylinder	Matching Soft Jaw	Matching Hard Jaw
				3Jaw	2Jaw	3Jaw	2Jaw	3Jaw	2Jaw					
NHT208A5	52	16	7.4	2243	1495	5812	3875	17.2	12.1	3500	25.5	M1552	HC06	HJ06
NHT208A6	52	16	7.4	2243	1495	5812	3875	17.2	12.1	3500	24.7	M1552	HC06	HJ06

DIMENSIONS:

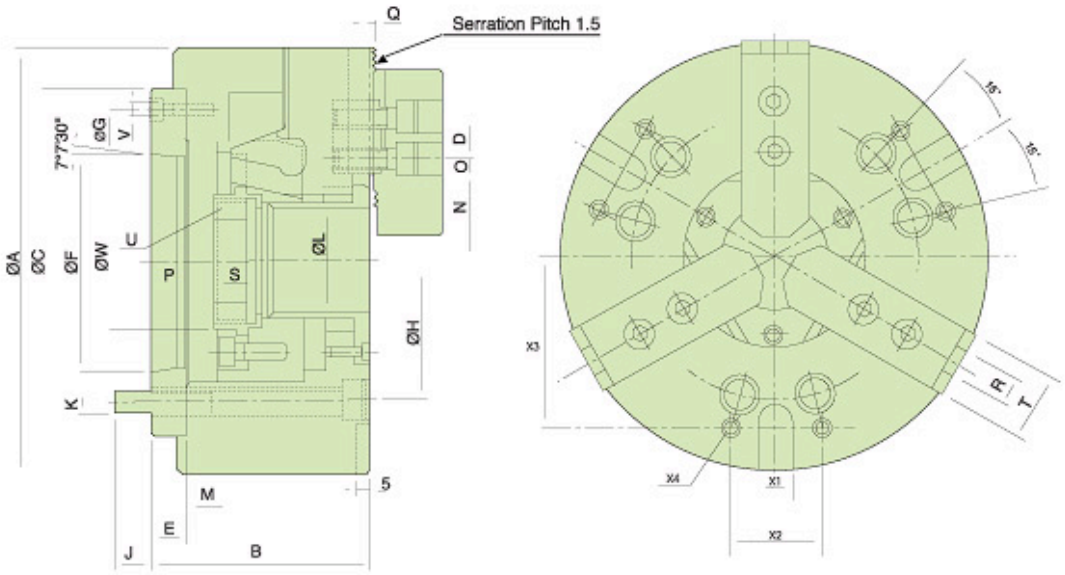
Model / Dim	A	B	C	D	E	F	G	H	J	K	L	M	N max.	O max.	O min.	P max.	P min.	Q	R	S	T	U max.	V	W	X	Y	Reference
NHT-208A5	210	113	170	20	23	82.563	133.5	104.78	13	6xM12	52	5	41.8	34	7.5	37.5	21.5	2	12	20.5	32	M60xP2.0	6xM10	66	37	73	Fig-2
NHT-208A6	210	107	170	20	17	106.375	150	133.35	17	6xM12	52	5	41.8	34	7.5	31.5	15.5	2	12	20.5	32	M60xP2.0	3xM6	66	37	73	Fig-1

NB-200A SERIES

SPECIFICATIONS:

3-JAW WEDGE TYPE EXTRA LARGE THROUGH-HOLE POWER CHUCK (WITH ADAPTOR)

1.More large bore:Having the largest bore in wede type power operated chucks.
2.20% large bore:Approximately 20% higher speed, higher gripping force and larger bore comparedwith usual chucks.
3.Model N-200A chucks are assembled with adaptor for ASA B5.9 type A spindles.
4.Model N-200A chucks are manufactured form high grade alloy steel, All slidingsurfaces are hardened and ground for accurate actu al running and long service repeatability.



SPECIFICATIONS:

Model / Dim	Through -Hole (mm)	Plunger Stroke (mm)	Jaw Stroke (mm)	Max. Draw Bar Pull Force (kgf)	Max. Gripping Force (kgf)	Max. Operating Pressure (kgf/cm²)	Max. Speed (r.p.m.)	Weight (kg)	Moment of Inertia I (kgf · m²)	Matching Cylinder	Matching Soft Jaw	Matching Hard Jaw
NB-306A5	ø52	12	5.4	2200	5700	18.4	6000	14	0.06	M1552	HC06	HJ06
NB-208A6	ø66	16	7.4	3500	8973	20.5	4600	24	0.14	M1868	HC08	HJ08
NB-210A8	ø78	19	8.8	4300	11000	27.5	4200	37.4	0.4	M1878	HC10	HJ10
NB-212A11	ø122	23	10.6	5800	15000	20	3200	65	0.95	M2511	HC12	HJ12

DIMENSIONS:

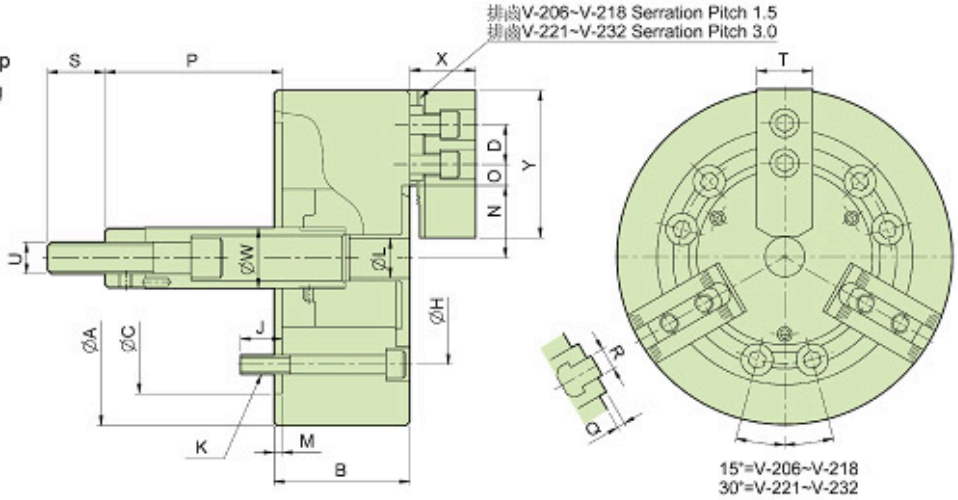
Model / Dim	A	B	C (H6)	D	E	F	G	H	J	K	L	M	N min	O max	O min	P max	P min	Q	R	S	T	U max	V	W	X1 (H12)	X2	X3	X4
NB-306A5	170	91	140	20	15	82.563	116	104.78	14.5	6xM10	52	5	34.3	18.25	9.25	26	14	2	12	20	32	M60x2.0	3xM6	65	16	36	65	M8
NB-208A6	210	103	170	25	17	106.375	150	133.35	19.5	6xM12	66	5	42	23.75	11.75	31.5	15.5	2	14	20	37	M74x2.0	3xM6	80	16	45	80	M8
NB-210A8	254	113	220	30	18	139.719	190	171.45	24	6xM16	78	5	48.6	33.75	14.25	26.5	7.5	2	16	25	42	M87x2.0	6xM8	94	16	60	102	M10
NB-212A11	315	134	300	30	22	196.869	260	235	28	6xM20	122	6	79.5	36.25	12.75	42	19	2	21	28	52	M135x2.0	3xM10	143	20	60	138	M10

V SERIES

SPECIFICATIONS:

3-JAW WEDGE TYPE NON THROUGH HOLE POWER CHUCK (WITHOUT ADAPTOR)

1. High performance:Similar high performance to N serles.
2. Chuck mounting screws: Metric or UNC socket head cap screws are supplied for bolting the chuck to the spindle.
3. Alternative spindle adaptors: ASA or DIN adaptors can be suppiled to fit machine spindle.



SPECIFICATIONS:

Model	Jaw Stroke (in dia) (mm)	Plunger Stroke (mm)	Max. Pull Force (kgf)	Max. Gripping Force (kgf)	Max. Operating Pressure (kgf/cm²)	Max. Speed (r.p.m.)	Weight (kg)	Moment of Inertia I (kgf.m²)	Matching Cylinder	Matching Hard Jaw	Matching Soft Jaw	Gripping O.D. Range (mm)
V-206	9.2	20	1835	5353	26.5	5200	12	0.045	MS105C	HJ06	HC06	ø18~ø165
V-208	9.7	21	2549	7648	25.5	4500	23	0.137	MS125C	HJ08	HC08	ø26~ø210
V-210	8.8	25	2957	11013	28.6	4000	34.5	0.3	MS125C	HJ10	HC10	ø26~ø254
V-212	10.5	30	4181	15907	27.5	3300	59.5	0.725	MS150C	HJ12-1	HC12-1	ø26~ø304
V-215	16	35	8362	25391	32.6	3000	101	1.8	MS200C	HJ15-1	HC15-1	ø68~ø381
V-218	16	35	8362	25391	32.6	2700	116	2.9	MS200C	HJ15-1	HC15-1	ø130~ø450
V-221	16	35	8362	27838	32.6	1940	181	6.2	MS200C	HJ24-1	HC24-1	ø65~ø530
V-224	16	35	8362	27838	32.6	1760	220	7	MS200C	HJ24-1	HC24-1	ø152~ø610
V-232	18.6	35	8362	27838	32.6	600	365	27.3	MS200C	HJ24-1	HC32-1	ø100~ø810

DIMENSIONS:

Model	A	B	C	D	H	J	K	L	M	N max.	O max.	O min.	P max.	P min.	Q	R	S	T	U	W	X	Y
V-206	165	74	140	20	104.78	14	6-M10x70	21	5	38.7	15.25	9.25	104.6	84.6	4	12	36	31	M16x2.0	34	39	73
V-208	210	85	170	25	133.35	20	6-M12x85	25	5	46.85	22.25	11.75	132	111	5	14	36	35	M20x2.5	38	41	95
V-210	254	89	220	30	171.45	23	6-M16x85	34	5	51.1	30.75	11.25	158	133	5	16	36	40	M20x2.5	45	46	110
V-212	304	106	220	30	171.45	23	6-M16x105	34	6	61	48.75	12.75	163	133	5	18	36	50	M20x2.5	50	54	130
V-215	381	114	300	43	235	29	6-M20x115	-	6	77.5	50.25	23.25	104	69	2	25.5	55	50	M30x3.5	60	63	165
V-218	450	114	300	43	235	29	6-M20x115	-	6	108	50.25	23.25	92	57	2	25.5	55	50	M30x3.5	60	63	165
V-221	530	125	380	60	330.2	31	6-M24x115	-	6	86	93.5	24.5	97	62	7.5	25	55	65	M30x3.5	60	76	180
V-224	610	125	380	60	330.2	31	6-M24x115	-	6	125	93.5	24.5	97	62	7.5	25	55	65	M30x3.5	60	76	180
V-232	810	135	380	80	235	26	6-M24x115	-	6	104.9	196.5	25.5	74	39	9	25	60	74	M30x3.5	60	97	210

VA SERIES

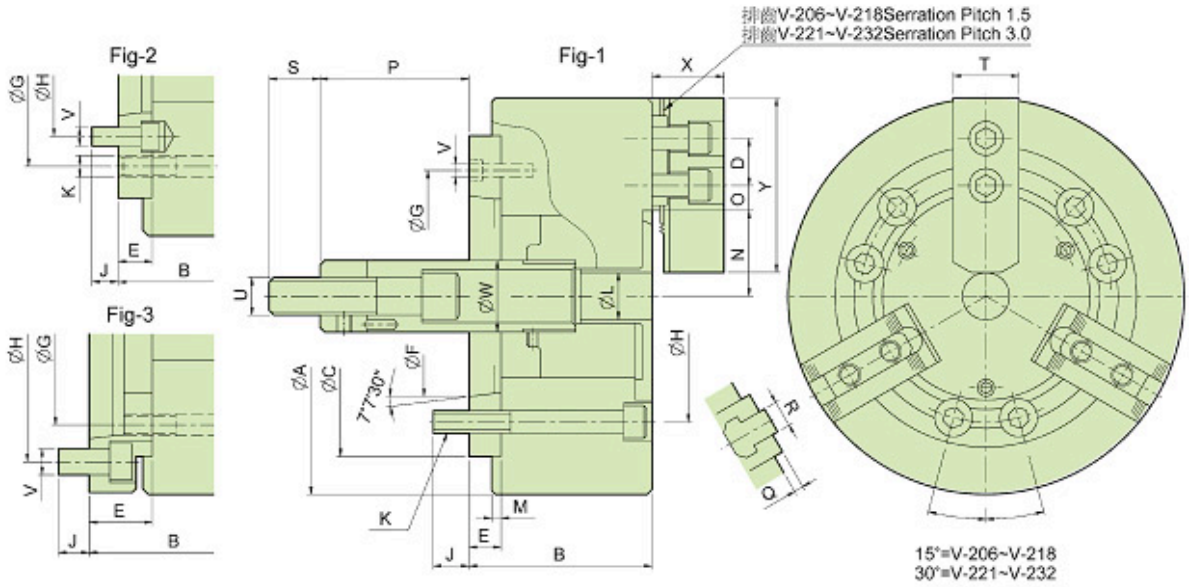
SPECIFICATIONS:

3-JAW WEDGE TYPE NON THROUGH HOLE POWER CHUCK (WITH ADAPTOR)

Alternative spindle adaptors:
ASA or DIN adaptors can be supplied to fit machine spindle.

SPECIFICATIONS:

Model	Plunger Stroke (mm)	Jaw Stroke (in dia) (mm)	Max. Pull Force (kgf)	Max. Gripping Force (kgf)	Max. Operating Pressure (kgf/cm²)	Max. Speed (r.p.m.)	Weight (kg)	Moment of Inertia I (kgf.m²)	Matching Cylinder	Matching Hard Jaw	Matching Soft Jaw	Gripping O.D. Range (mm)
V-206A5	20	9.2	1835	5253	26.5	5200	13.2	0.05	MS105C	HJ06	HC06	ø18~ø165
V-206A6	20	9.2	1835	5253	26.5	5200	15.8	0.059	MS105C	HJ06	HC06	ø18~ø165
V-208A5	21	9.7	2549	7648	25.5	4500	25.8	0.154	MS125C	HJ08	HC08	ø26~ø210
V-208A6	21	9.7	2549	7648	25.5	4500	25	0.149	MS125C	HJ08	HC08	ø26~ø210
V-208A8	21	9.7	2549	7648	25.5	4500	29.3	0.175	MS125C	HJ08	HC08	ø26~ø210
V-210A6	25	8.8	2957	11013	28.6	4000	40.5	0.35	MS125C	HJ10	HC10	ø26~ø254
V-210A8	25	8.8	2957	11013	28.6	4000	37.5	0.33	MS125C	HJ10	HC10	ø26~ø254
V-210A11	25	8.8	2957	11013	28.6	4000	47.9	0.417	MS125C	HJ10	HC10	ø26~ø254
V-212A6	30	10.5	4181	15907	27.5	3300	65.5	0.798	MS150C	HJ12-1	HC12-1	ø26~ø304
V-212A8	30	10.5	4181	15907	27.5	3300	62.5	0.762	MS150C	HJ12-1	HC12-1	ø26~ø304
V-212A11	30	10.5	4181	15907	27.5	3300	72.9	0.888	MS150C	HJ12-1	HC12-1	ø26~ø304
V-215A8	35	16	8362	25391	32.6	3000	115	2.05	MS200C	HJ15-1	HC15-1	ø68~ø381
V-215A11	35	16	8362	25391	32.6	3000	108	1.92	MS200C	HJ15-1	HC15-1	ø68~ø381
V-215A15	35	16	8362	25391	32.6	3000	128	2.281	MS200C	HJ15-1	HC15-1	ø68~ø381
V-218A8	35	16	8362	25391	32.6	2700	134	3.35	MS200C	HJ15-1	HC15-1	ø130~ø450
V-218A11	35	16	8362	25391	32.6	2700	122	3.05	MS200C	HJ15-1	HC15-1	ø130~ø450
V-218A15	35	16	8362	25391	32.6	2700	143	3.575	MS200C	HJ15-1	HC15-1	ø130~ø450
V-221A11	35	16	8362	27838	32.6	1940	200	6.58	MS200C	HJ24-1	HC24-1	ø65~ø530
V-221A15	35	16	8362	27838	32.6	1940	193	6.37	MS200C	HJ24-1	HC24-1	ø65~ø530
V-224A11	35	16	8362	27838	32.6	1760	239	7.6	MS200C	HJ24-1	HC24-1	ø152~ø610
V-224A15	35	16	8362	27838	32.6	1760	232	7.38	MS200C	HJ24-1	HC24-1	ø152~ø610
V-232A11	35	18.6	8362	27838	32.6	600	382	30	MS200C	HJ32-1	HC32-1	ø100~ø810
V-232A15	35	18.6	8362	27838	32.6	600	375	28	MS200C	HJ32-1	HC32-1	ø100~ø810



DIMENSIONS:

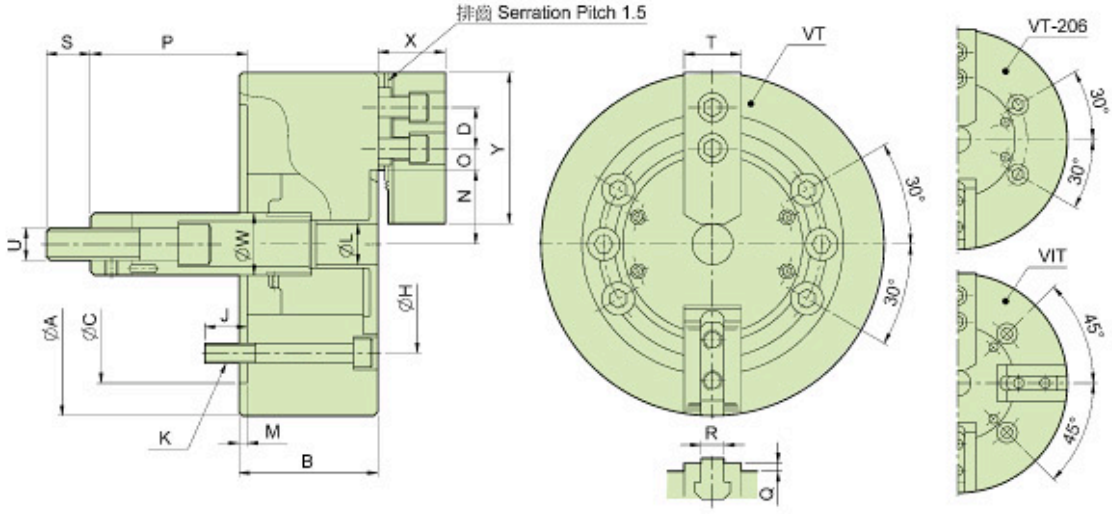
Model	A	B	C	D	E	F	G	H	J	K	L	M	N max.	O max.	O min.	P max.	P min.	Q	R	S	T	U	V	W	X	Y	Reference
V-206A5	165	84	140	20	15	82.563	116	104.78	14	6-M10	21	5	38.7	15.25	9.25	89.6	69.6	4	12	36	31	M16x2.0	3-M6	34	39	73	Fig1
V-206A6	165	104	140	20	35	106.375	104.78	133.35	16	6-M10	21	5	38.7	15.25	9.25	69.6	49.6	4	12	36	31	M16x2.0	6-M12	34	39	73	Fig3
V-208A5	210	103	170	25	23	82.563	133.35	104.78	13	6-M12	25	5	46.85	22.25	11.75	109	88	5	14	36	35	M20x2.5	6-M10	38	41	95	Fig2
V-208A6	210	97	170	25	17	106.375	150	133.35	18	6-M12	25	5	46.85	22.25	11.75	115	94	5	14	36	35	M20x2.5	3-M6	38	41	95	Fig1
V-208A8	210	120	170	25	40	139.719	133.35	171.45	16	6-M12	25	5	46.85	22.25	11.75	92	71	5	14	36	35	M20x2.5	6-M16	38	41	95	Fig3
V-210A6	254	109	220	30	25	106.375	171.45	133.35	18	6-M16	34	5	51.1	30.75	11.25	133	108	5	16	36	40	M20x2.5	6-M12	45	46	110	Fig2
V-210A8	254	102	220	30	18	139.719	190	171.45	25	6-M16	34	5	51.1	30.75	11.25	140	115	5	16	36	40	M20x2.5	3-M8	45	46	110	Fig1
V-210A11	254	134	220	30	50	196.869	171.45	235	22	6-M16	34	5	51.1	30.75	11.25	108	83	5	16	36	40	M20x2.5	6-M20	45	46	110	Fig3
V-212A6	304	125	220	30	25	106.375	171.45	133.35	18	6-M16	34	6	61	48.75	12.75	138	108	5	18	36	50	M20x2.5	6-M12	50	54	130	Fig2
V-212A8	304	118	220	30	18	139.719	190	171.45	25	6-M16	34	6	61	48.75	12.75	145	115	5	18	36	50	M20x2.5	3-M8	50	54	130	Fig1
V-212A11	304	150	220	30	50	196.869	171.45	235	22	6-M16	34	6	61	48.75	12.75	113	83	5	18	36	50	M20x2.5	6-M20	50	54	130	Fig3
V-215A8	381	141	300	43	33	139.719	235	171.45	24	6-M20	-	6	77.5	50.25	23.25	71	36	2	25.5	55	62	M30x3.5	6-M16	60	63	165	Fig2
V-215A11	381	130	300	43	22	196.869	260	235	28	6-M20	-	6	77.5	50.25	23.25	82	47	2	25.5	55	62	M30x3.5	3-M10	60	63	165	Fig1
V-215A15	381	165	300	43	57	285.775	235	330.2	24	6-M20	-	6	77.5	50.25	23.25	47	12	2	25.5	55	62	M30x3.5	6-M24	60	63	165	Fig3
V-218A8	450	141	300	43	33	139..719	235	171.45	24	6-M20	-	6	108	50.25	23.25	59	24	2	25.5	55	62	M30x3.5	6-M16	60	63	165	Fig2
V-218A11	450	130	300	43	22	196.869	260	235	28	6-M20	-	6	108	50.25	23.25	70	35	2	25.5	55	62	M30x3.5	3-M10	60	63	165	Fig1
V-218A15	450	165	300	43	57	285.775	235	330.2	24	6-M20	-	6	108	50.25	23.25	105	70	2	25.5	55	62	M30x3.5	6-M24	60	63	165	Fig3
V-221A11	530	146	380	60	27	196.869	330.2	235	30	6-M24	-	6	85	93.5	24.5	70	35	8	25	55	65	M30x3.5	6-M20	60	76	180	Fig2
V-221A15	530	146	380	60	27	285.775	330.2	330.2	34	6-M24	-	6	85	93.5	24.5	70	35	8	25	55	65	M30x3.5	3-M12	60	76	180	Fig1
V-224A11	610	146	380	60	27	196.869	330.2	235	30	6-M24	-	6	125	93.5	24.5	70	35	8	25	55	65	M30x3.5	6-M20	60	76	180	Fig2
V-224A15	610	146	380	60	27	285.775	330.2	330.2	34	6-M24	-	6	125	93.5	24.5	70	35	8	25	55	65	M30x3.5	3-M12	60	76	180	Fig1
V-232A11	810	156	380	80	27	196.869	330.2	235	30	6-M24	-	6	104.8	196.5	25.5	47	12	9	25	60	74	M30x3.5	6-M20	60	97	210	Fig2
V-232A15	810	156	380	80	27	285.775	330.2	330.2	34	6-M24	-	6	104.8	196.5	25.5	47	12	9	25	60	74	M30x3.5	3-M12	60	97	210	Fig1

VT&VIT SERIES

SPECIFICATIONS:

2-JAW AND 4-JAW WEDGE TYPE NON THROUGH HOLE POWER CHUCK
(WITHOUT ADAPTOR)

1.Suitable for special applications:
Used to hold special shape work pieces such as square bar or flanges which is not possible with 3 jaw chucks.
2.Interchangable with V or VA series.
3.Basic dimensions are the same as V type.
4.High performance as V type.

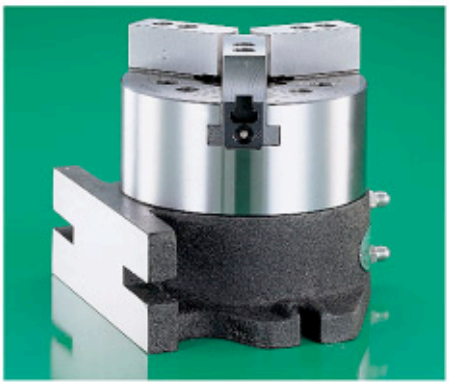


SPECIFICATIONS:

Model / Dim	Plunger Stroke (mm)	Jaw Stroke (in dia) (mm)	Max. Pull Force (kgf)	Max. Gripping Force (kgf)	Max. Operating Pressure (kgf/cm²)	Max. Speed (r.p.m.)	Weight (kg)	Moment of Inertia I (kgf.m²)	Matching Cylinder	Matching Hard Jaw	Matching Soft Jaw	Gripping O.D Range (mm)
VT-206	20	9.2	1224	3569	17.3	5200	12	0.045	MS105C MH100	HJ06	HC06	ø18~ø165
VT-208	21	9.7	1683	5098	16.3	4500	22	0.13	MS125C MH125	HJ08	HC08	ø28~ø210
VT-210	25	8.8	1988	7342	19.4	4000	33.5	0.29	MS125C MH125	HJ10	HC10	ø24~ø254
VT-212	30	10.5	2804	10605	18.4	3300	58	0.7	MS150C MH150	HJ12-1	HC12-1	ø18~ø304
VIT-212	30	10.5	4181	15907	27.5	2800	64	0.78	MS150C MH150	HJ12-1	HC12-1	ø18~ø304
VT-215	35	16	5557	16927	21.7	3000	100.6	1.7	MS200C	HJ15-1	HC15-1	ø68~ø381
VIT-218	35	16	8362	25391	32.6	2300	119	2.975	MS200C	HJ15-1	HC15-1	ø130~ø450

DIMENSIONS:

Model / Dim	A	B	C	D	H	J	K	L	M	N max.	O max.	O min.	P max.	P min.	Q	R	S	T	U	W	X	Y
VT-206	165	74	140	20	104.78	14	4-M10x70	21	5	38.7	15.25	9.25	104.6	84.6	4	12	36	31	M16x2.0	34	39	73
VT-208	210	85	170	25	133.35	20	6-M12x85	25	5	46.85	22.25	11.75	132	111	5	14	36	35	M20x2.5	38	41	95
VT-210	254	89	220	30	171.45	23	6-M16x85	34	5	51.1	30.75	11.25	158	133	5	16	36	40	M20x2.5	45	46	110
VT-212	304	106	220	30	171.45	23	6-M16x105	34	6	61	48.75	12.75	163	133	5	18	36	50	M20x2.5	50	54	130
VIT-212	304	106	220	30	171.45	23	6-M16x105	34	6	61	48.75	12.75	163	133	5	18	36	50	M20x2.5	50	54	130
VT-215	381	114	300	43	235	29	6-M20x115	-	6	77.5	50.25	23.25	104	69	2	25.5	55	50	M30x3.5	60	63	165
VIT-218	450	114	300	43	235	29	6-M20x115	-	6	108	50.25	23.25	92	57	2	25.5	55	50	M30x3.5	60	63	165

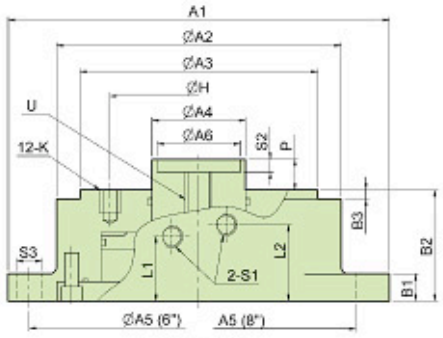


DOV / DON SERIES

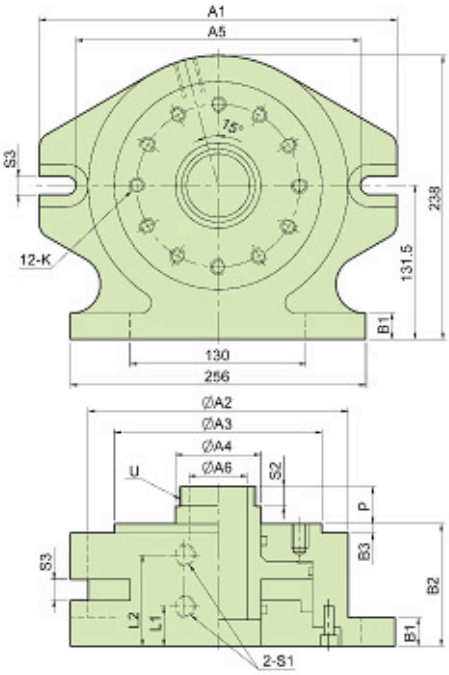
SPECIFICATIONS:

VERTICAL AND VERTICAL / HORIZONTAL STATIONARY POWER CHUCKS

1.Suitable for vertical milling and dritting operations.
2.With large through-hole, Vertical/horizontal power chucks not only can glip the long workpiece bat also can do horizontal holding.



DOV Fig-1



DON Fig-2

SPECIFICATIONS:

Dim \ Model	Piston Dia (mm)	Piston Area		Piston Stroke (mm)	Max. Draw Bar Pull		Weight (kg)	Max. Operating Pressure (kgf/cm²)	Matching Chuck
		Push Side(cm²)	Pull Side(cm²)		Push Side(kgf)	Pull Side (kgf)			
6" DOV	ø115	104	78.5	20	1900	1400	12	20	V-206
8" DOV	ø155	187	148.6	17	3600	2800	21	20	V-208 V-210 V-212
8" DON	ø155	148.6	148.6	17	2800	2800	26.5	20	N-208

DIMENSIONS:

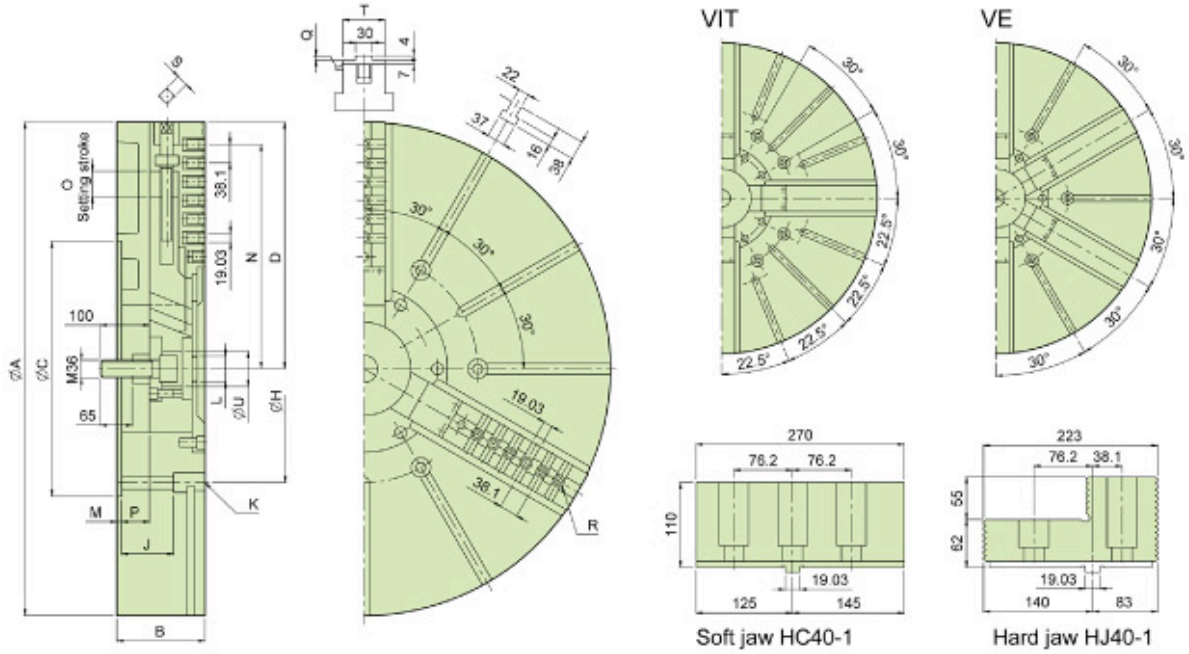
Model	A1	A2	A3	A4	A5	A6	B1	B2	B3	L1	L2	H	K	P Max.	P Min.	S1	S2	S3	U	Reference
6" DOV	Ø220	168	140	55	Ø200	49	16	65.5	5.5	38	45	104.78	12-M10X16L	18	-2	PT 1/4"	7.6	2-Ø15	M16XP2.0	Fig-1
8" DOV	290	210	170	70	242	58	24	86	5.5	23	65	133.35	12-M12X18L	19	2	PT 1/4"	5.5	2-16	M16XP2.0	Fig-1
8" DON	293	213	170	70	242	52	24	100	5.5	32.5	74.5	133.35	12-M12X18L	30.4	13.4	PT 1/4"	16	4-17	M60XP2.0	Fig-2

V(40"-63") SERIES

SPECIFICATIONS:

3-JAW WEDGE TYPE NON THROUGH HOLE POWER CHUCK (WITHOUT ADAPTOR)

1.Chucking operations of very large components external or internal clamping.
2.Suitable for vertical machines thanks to the front protection of the slide ways.
3.Chuck with manual radial setting of master jaw for the workpiece.



SPECIFICATIONS:

Model		Jaws	Plunger Stroke (mm)	Radial Jaw Stroke +(Manual setting)	Max. Pull Force (KN)	Max. Gripping Force (KN)	Max. Operating Pressure (kgf/cm²)	Max. Speed (r.p.m.)	Weight (kg)	Moment of Inertia I (kgf · m²)	Matching Cylinder	Matching Hard Jaw	Matching Soft Jaw
40"	V-240	3	57	23 + (30)	180	320	42.8	630	645	82	MS250C	HJ40-1	HC40-1
	VIT-240	4						550	700	89			
50"	V-250	3	57	23 + (30)	180	320	42.8	500	890	168	MS250C	HJ40-1	HC40-1
	VIT-250	4						400	940	177			
63"	VIT-263	4	60	24 + (40)	200	360	46.9	300	1700	518	MS250C	HJ40-1	HC40-1
	VE-263	6						280	1800	548			

DIMENSIONS:

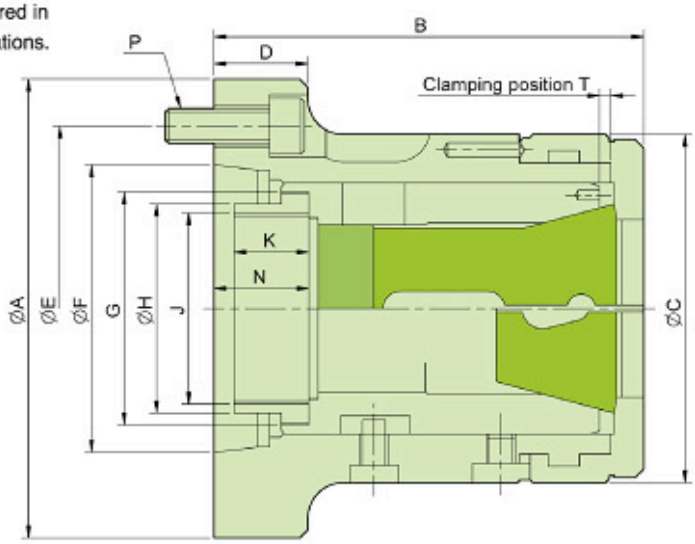
Model		A	B	C	D max.	H	J	K	L	M	N max.	O	P max.	P min.	Q	R	S	T	U
40"	V-240	1005	180	520	502	463.6	108	M24	M52x1.5	8	457	30	59	2	4	7-M24	19	85	72
	VIT-240																		
50"	V-250	1250	180	520	623	463.6	108	M24	M52x1.5	8	563	30	59	2	4	10-M24	19	85	72
	VIT-250																		
63"	VIT-263	1600	220	720	796	647.6	144	M30	M52x1.5	8	738	40	82	22	6	13-M24	22	110	72
	VE-263																		

CR SERIES

SPECIFICATIONS:

COLLET CHUCKS

High concentric accuracy and compact design. Offered in various sizes for main spindle or sub-spindle applications.
1.Hardened and Ground Alloy Steel Design.
2.Part Stop / Ejectors Optionally Available.



SPECIFICATIONS:

UNIT:mm

Model \ Dim	Matching Spindle	Bar Capacity (mm)	Sleeve Stroke (mm)	Weight (kg)	Max. operating force KN (kgf)	Max. gripping force KN (kgf)	Max. speed (r.p.m.)
CR30A4	A2-4	30	5	4.1	20(2039)	44(4486)	7,000
CR42A5	A2-5	42	7	6.2	25(2549)	55(5608)	6,000
CR42A6	A2-6	42	7	8.2	25(2549)	55(5608)	6,000
CR60A6	A2-6	60	7	13	30(3059)	65(6628)	5,000
CR80A8	A2-8	80	7	21	35(3568)	73(7443)	4,000

DIMENSION:

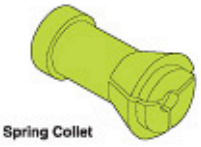
Model \ Dim	A	B	C	D	E	F	G	H	J max.	K	N	P	T
CR30A4	112	103	85	30	82.55	63.513	M50xP1.5	45	M40x1.5	15	21.7	3-M10	2.3
CR42A5	135	124	100	27	104.78	82.563	M66xP1.5	60	M55xP2.0	25	27.4	4-M10	3.1
CR42A6	170	124	100	32	133.35	106.375	M66xP1.5	66	M60xP2.0	25	27.4	4-M12	3.1
CR60A6	170	145	130	27	133.35	106.375	M90xP1.5	82	M74xP2.0	30	29.9	4-M12	3.1
CR80A8	220	170	156	35	171.45	139.719	M114xP2.0	99	M90xP2.0	27.5	34.9	6-M16	6.1

CAPACITIES:

CHUCK	MULTIBORE				SPRING COLLET			
NO.	CAT.NO.	○	○	□	CAT.NO.	○	○	□
CR30	M-669	30	26	21	163E/4249	30	26	21
CR42	M-673	42	36	30	173E/4728	42	36	30
CR60	M-677	60	52	42	185E/4291	60	52	42
CR80	J-660	80	69	56	193E/H-47	80	69	56

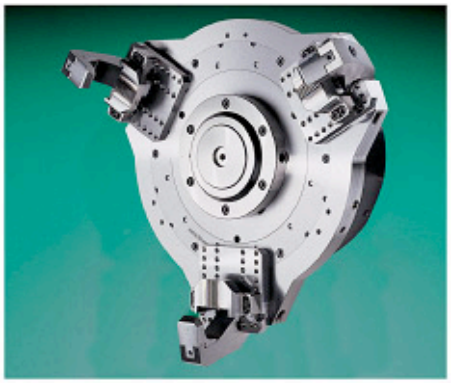
Uses the collet to DIN 6343 specification

Collet Drawings:



Spring Collet

Multi-Bore Collet



F52 SERIES

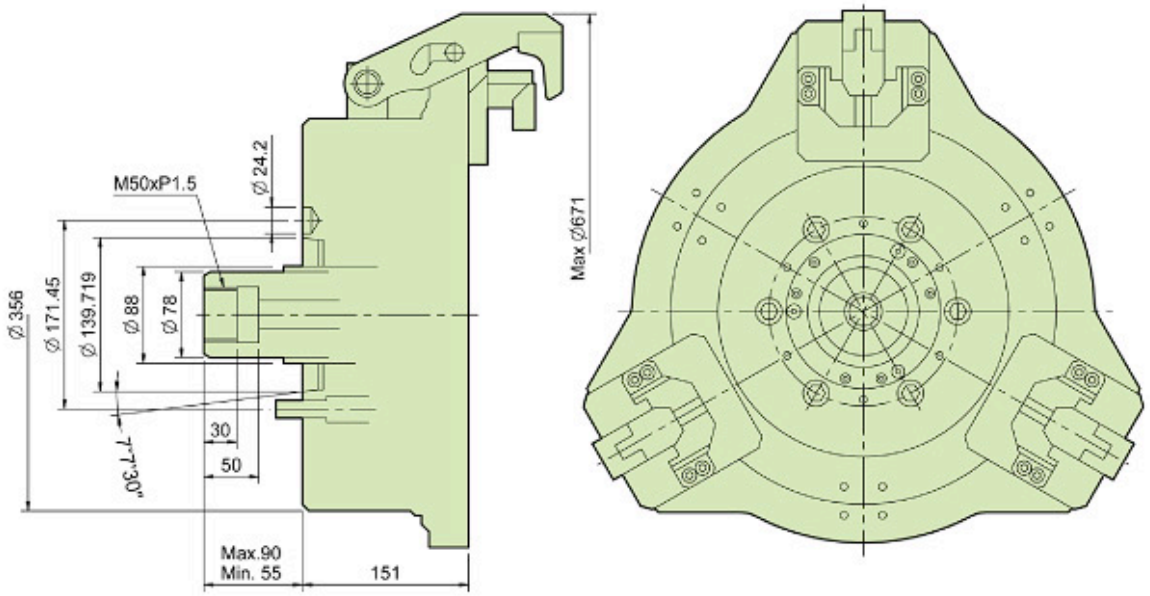
SPECIFICATIONS:

HIGH SPEED AND LIGHT WEIGHT TYPE STRONG FINGER CHUCK FOR ALUMINUM WHEELS

1.All sliding surfaces are hardened and ground and ground for accurate actual running and long service repeatability.

2.Mounting:

Adaptor mounting to fit with DIN, ISO, BS, ASA, B5-9 typa A spindles.



SPECIFICATIONS:

Dim / Model	Applicable Wheel Size	Out Dai Of Chuck (mm)	Available Spindle Nose	Gripping Force (kgf)	Max. Speed (r.p.m)	Weight (Without Jigs)(kg)	Matching Cylinder
F52A8	12"~18"	521	A2-8	3300	2800(18"2200)	98	MS200C

F61 SERIES

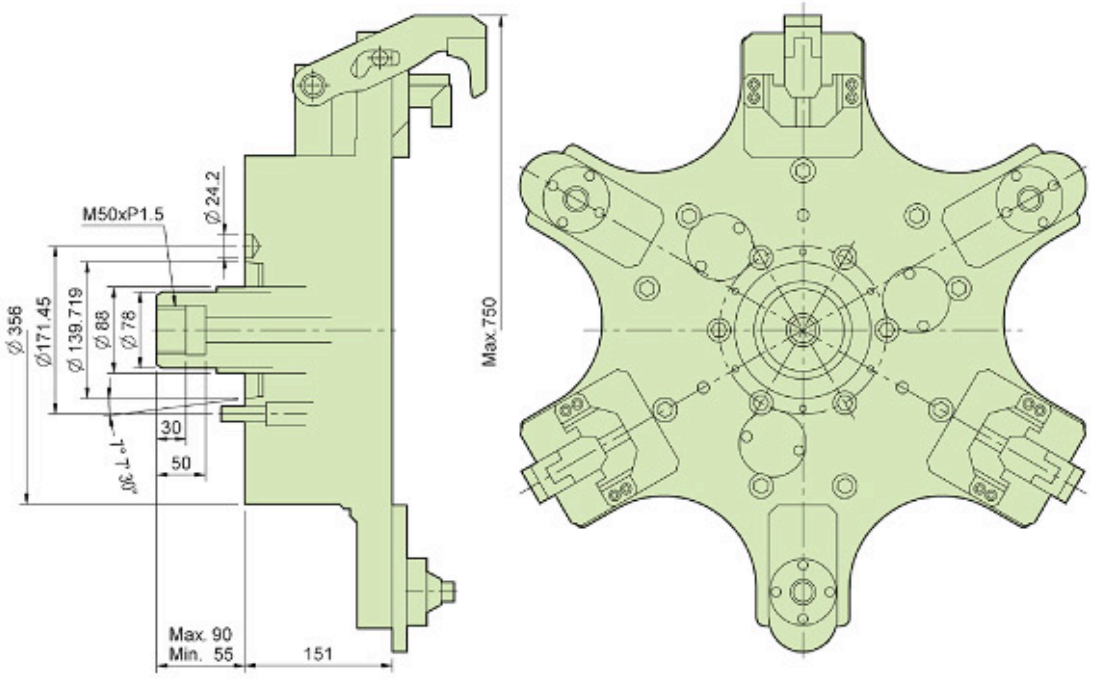
SPECIFICATIONS:

HIGH SPEED AND LIGHT WEIGHT TYPE STRONG FINGER CHUCK FOR ALUMINUM WHEELS

1.All sliding surfaces are hardened and ground and ground for accurate actual running and long service repeatability.

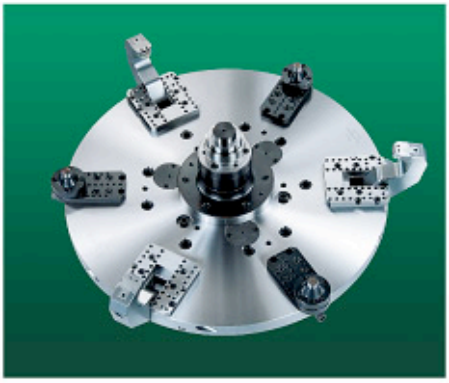
2.Mounting:

Adaptor mounting to fit with DIN, ISO, BS, ASA, B5-9 typa A spindles.



SPECIFICATIONS:

Model \ Dim	Applicable Wheel Size	Out Dai Of Chuck	Available Spindle Nose	Gripping Force (kgf)	Max Rpm Speed	Weight (Without Jigs)(kg)	Matching Cylinder
F61A8	13"~22"	610	A2-8	3300	1500	145	MS200C



F66 SERIES

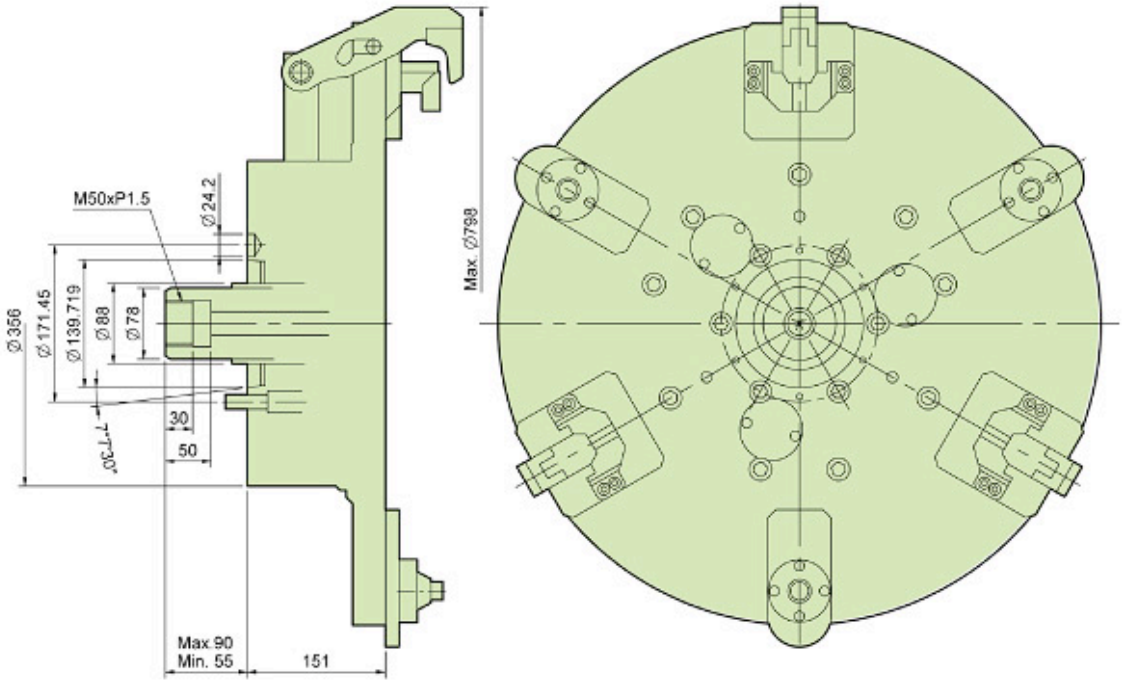
SPECIFICATIONS:

HIGH SPEED AND LIGHT WEIGHT TYPE STRONG FINGER CHUCK FOR ALUMINUM WHEELS

1.All sliding surfaces are hardened and ground for accurate actual running and long service repeatability.

2.Mounting:

Adaptor mounting to fit with DIN, ISO, BS, ASA, B5-9 typa A spindles.



SPECIFICATIONS:

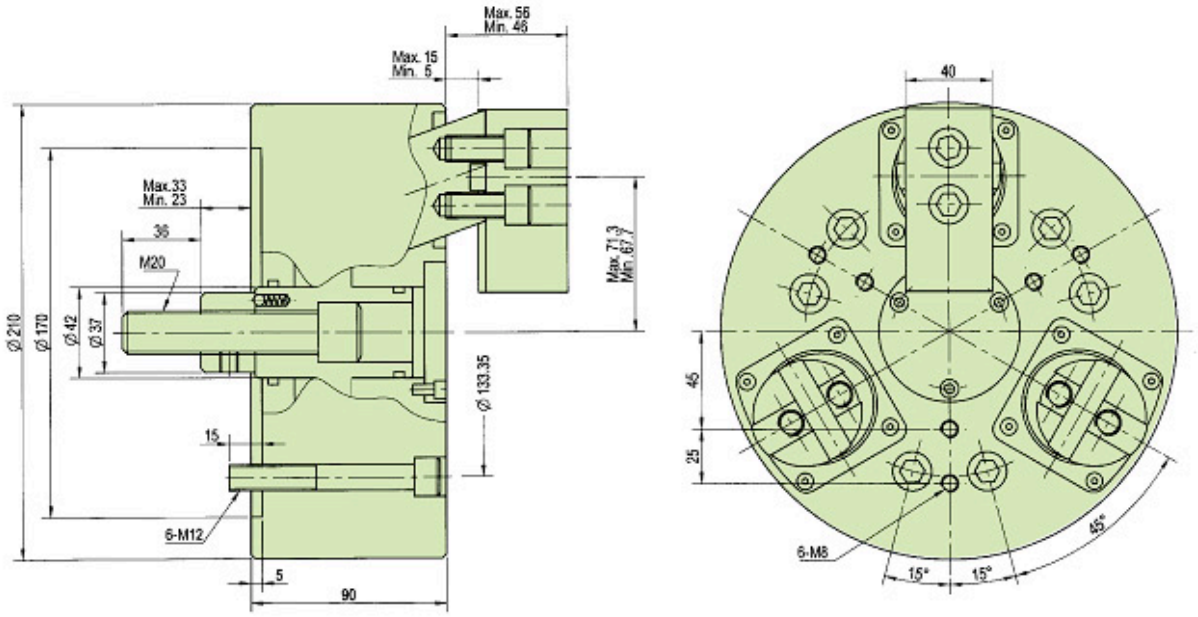
Model \ Dim	Applicable Wheel Size	Out Dai Of Chuck (mm)	Available Spindle Nose	Gripping Force (kgf)	Max Speed (r.p.m)	Weight (Without Jigs)(kg)	Matching Cylinder
F66A8	19"~24"	660	A2-8	3300	1500	182	MS200C

DR SERIES

SPECIFICATIONS:

3-JAW DRAW DOWN POWER CHUCK

Draw Down power chuck feature of radjal gripping will lead to almost no work piece uplifting displacement; for machining casting and forging parst:
1.For the gripped work piece is appressed to the surtace, chucks are suitable for heavy machining.
2.Chuck Actutors with cylindrical structure are durable and ensures high gripping repeatability.
3.Accurate self-centering and pull back features are adequate for precise length control machining requirements.



SPECIFICATIONS:

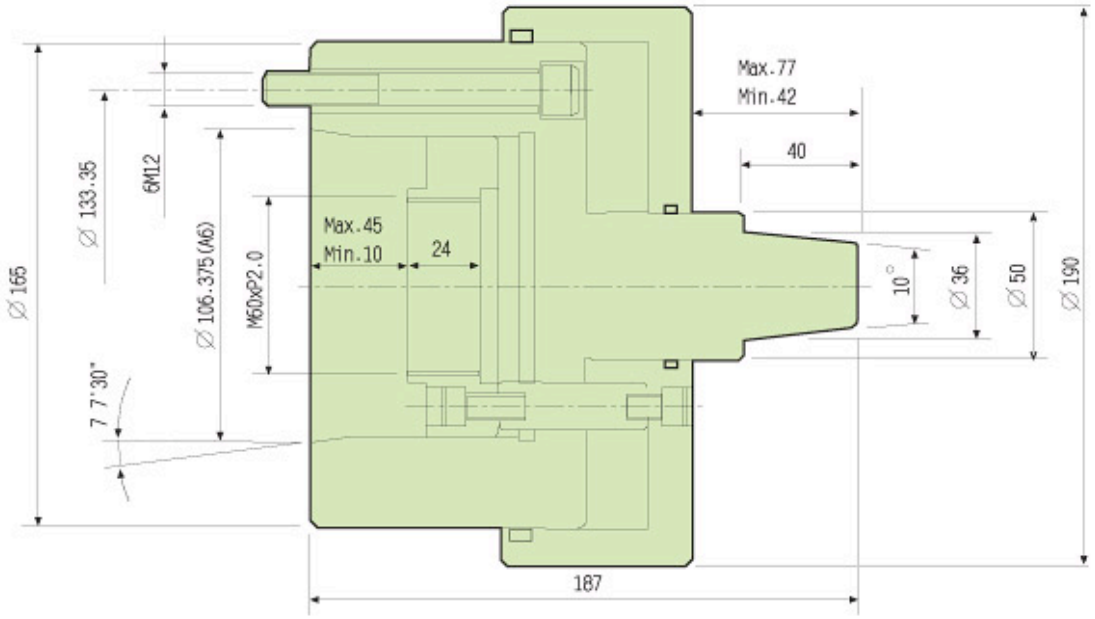
Model	Plunger Stroke (mm)	Jaw Stroke Diameter (mm)	Max. Draw Bar Pull Force KN (kgf)	Max. Gripping Force KN (kgf)	Max. Operating Pressure MPa (kgf/cm²)	Max. Speed (r.p.m.)	Weight (with jaw) (kg)	Moment of Inertia I (kgf/m²)	Matching Cylinder
DR-08	10	7.2	25.4(2593)	45.4(4630)	2.5(2.5)	3000	25	0.035	MS125C

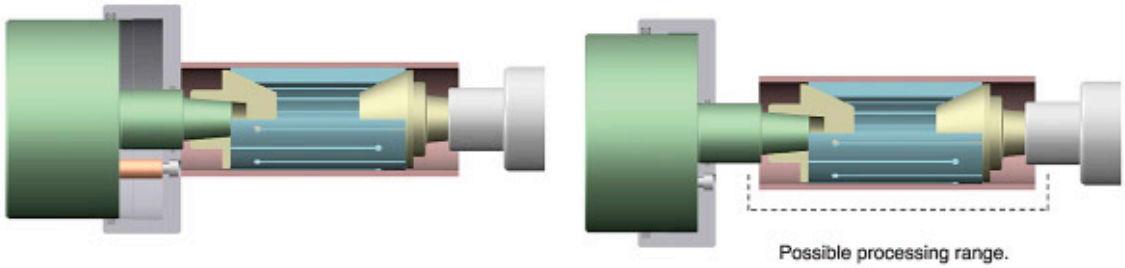
P165 SERIES

SPECIFICATIONS:

FLOATING PLATE CENTER CHUCK

Suitable for easy one step cutting of thin hores, plate and outside diameter.





Possible processing range.

SPECIFICATIONS:

Model	Floating Plate stroke (mm)	Max. Operating Pressure MPa (kgf/cm²)	Max. Speed (r.p.m.)	Weight (with jaw) (kg)	Moment of Inertia I (kgf/m²)	Matching Cylinder
P165	35	1.0(10)	6000	18.5	0.02	MF125C

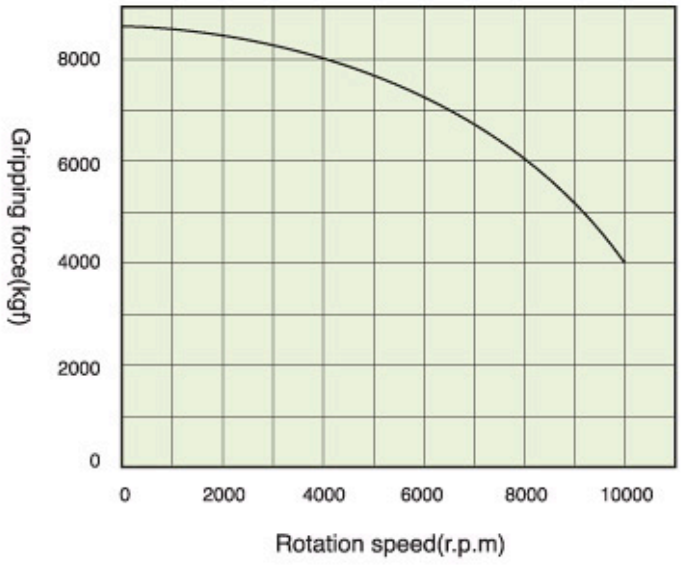
HN SERIES

SPECIFICATIONS:

3-JAW EXTRA HIGH SPEED THROUGH - HOLE POWER CHUCK (WITH ADAPTOR)

1.Possible 10,000 r.p.m.highest speed chuck.
2.Model HN chucks are assembled with adaptor for ASA B5.9 type A spindles.
3.Model HN chucks are manufactured form high grade alloy steel, All sliding surfaces are hardened and ground for accurate actual running and long service repeatability.

GRIPPING CHARACTERISTIC GRAPH



SPECIFICATIONS:

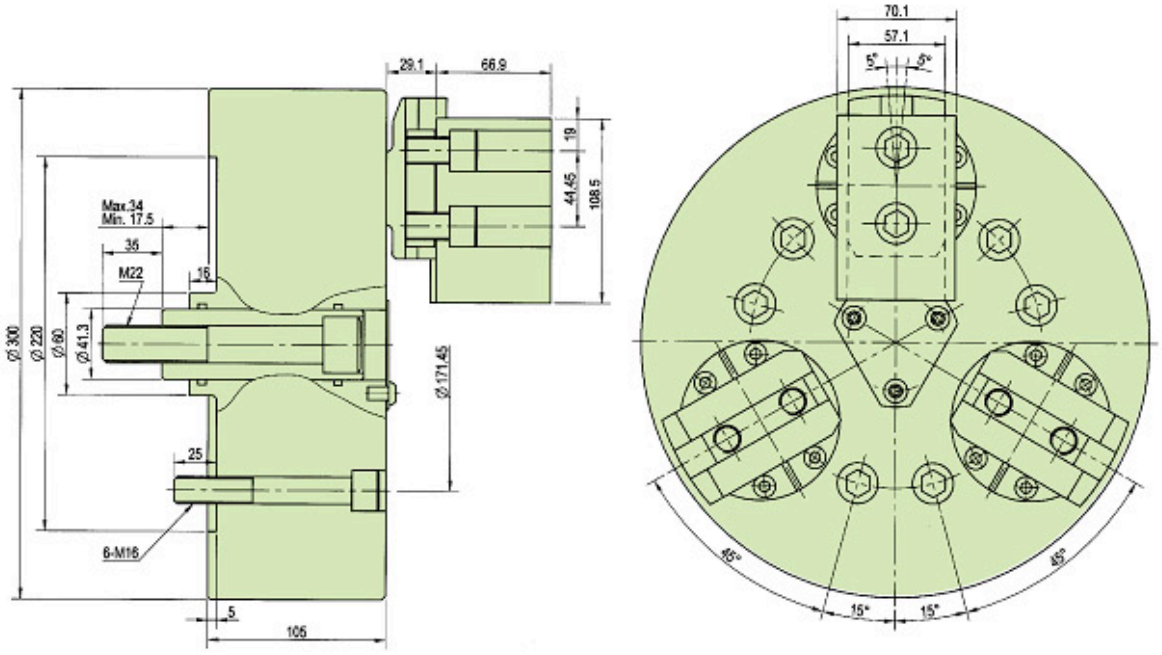
Model	Spindle Nose	Chuck Outer Dia (mm)	Through-Hole (mm)	Plunger Stoke (mm)	Jaw Stroke (dia.)(mm)	Height Of Standard Soft Jaw (mm)	Max. Speed (r.p.m.)	Max. Draw Bar Pull Force (kgf.)	Max. Gripping Force (kgf.)	Max. Oil Pressure (kgf/cm²)	Moment Inertia (kgf/m²)	Weight (kg)	Matching Cylinder
HN	A2-5	152	36	12	5.5	17.5	10000	3150	8700	30	0.14	11	MG-1336

BL SERIES

SPECIFICATIONS:

3-JAW BALL SWING LOCK CHUCK

1. The chuck can attract the work and hold it on.
   The jaw operates in two stages: fastening →drawing in, so it can hold the work exactly on the locator in front of the chuck, and make it under the stabile situation.
2. The chuck can grasp the work on both outside diameter and inside diameter.The chuck can switch between outside diameter mode and inside diameter mode by a simple operation.
3. The chuck can grasp the part of the taper.The chuck can exactly grasp the black surface of the cast irons, which has draft. So the discard process can be ignored on the chucking part of the work.(It can grasp up to a 20 degree taper when using a clipper.)
4. The jaw can equalize.The jaw can equalize on the outside diameter, so it can grasp the work steadily.(Jaw self-equalizing to max 5°)
5. Dustproof performance is excellent.It is different from a past general purpose chuck. It is structurally dustproof. Especially there is a dustproof seal in the part of lock arm to prevent the dust.



SPECIFICATIONS:

Model	Plunger Stroke (mm)	Jaw Stroke Diameter (mm)	Max. Draw Bar Pull Force KN (kgf)	Max. Gripping Force KN (kgf)	Max. Operating Pressure MPa (kgf/cm²)	Max. Speed (r.p.m.)	Weight (with jaw) (kg)	Moment of Inertia I (kgf/m²)	Matching Cylinder
BL-12	17.5	12.4	40.7(4152)	122(12440)	2.8(28.5)	2800	65	0.18	MS150C

M SERIES

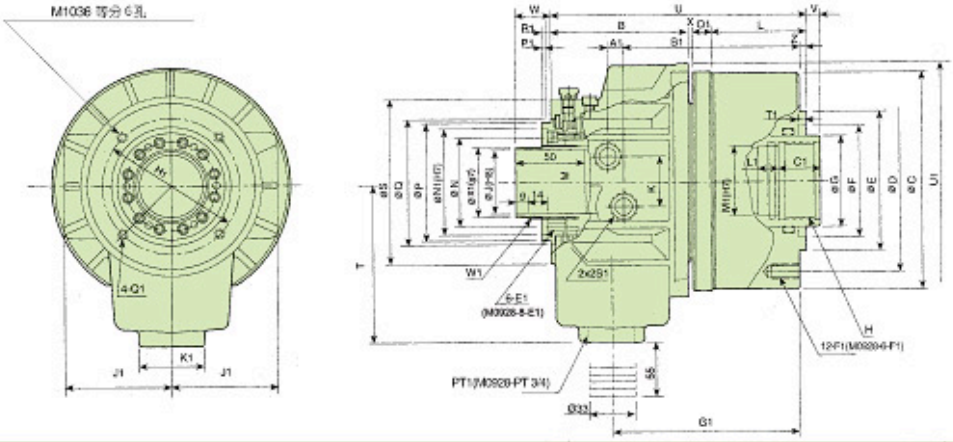
SPECIFICATIONS:

SUPER HIGH SPEED THROUGH HOLE ROTARY HYDRAULIC CYLINDER

1.Small-sized light weight:Comparing with the traditional product, it is small-sized (reduced to MAX 95mm)and a light weight (weighted MAX 4.5kg). Make its capacity more slable to reduce the burden of the machinery at high speed turning.

2.The most largest bore:Comparing with the old product, it has about 20% more bore full diameter forutilizing the capacity of machinery.

3.The safety mechansim: It can retain the gripping force with a check valve.



DIMENSIONS:

Dim / Model	C1	E1	F1	G1	H1	J1	K1	L1	M1	N1	O1	P1	Q1	R1	S1	T1	U1	W1	X1	B	C
M0928	25	M6x1.0	M8x1.25	110	76	58	44	15	34	53	14	4	M4x0.7	5	PT 1/4"	5	116	M34x1.5	32	85	120
M1036	25	M5x0.8	M10x1.5	126	88	68	53	15	38	64	14	4	M5x0.8	4	PT 3/8"	6	136	M44x1.5	42	101	136
M1236	25	M6x1.0	M10x1.5	135	98	76	47	15	38	76	14	4	M5x0.8	6	PT 1/2"	6	169	M52x1.5	50	99	154.5
M1246	30	M6x1.0	M10x1.5	135	98	76	47	15	50	76	14	4	M5x0.8	6	PT 1/2"	6	169	M52x1.5	50	99	154.5
M1546	30	M6x1.0	M10x1.5	145	110	86	47	15	50	85	14	4	M6x1.0	7	PT 1/2"	6	187.5	M58x1.5	56	103	190
M1552	30	M6x1.0	M10x1.5	145	110	86	47	15	55	85	14	4	M6x1.0	7	PT 1/2"	6	187.5	M58x1.5	56	103	190
M1868	35	M6x1.0	M10x1.5	166	155	101	47	15	70	108	16	4	M6x1.0	7.5	PT 1/2"	6	220	M84x2	81	126	215
M1870	35	M6x1.0	M10x1.5	166	155	101	47	15	75	108	16	4	M6x1.0	7.5	PT 1/2"	6	220	M84x2	81	126	215
M1875	35	M6x1.0	M10x1.5	166	155	101	47	15	80	108	16	4	M6x1.0	7.5	PT 1/2"	6	220	M84x2	81	126	215
M1878	35	M6x1.0	M10x1.5	166	155	101	47	20	82	108	16	4	M6x1.0	7.5	PT 1/2"	6	220	M84x2	81	126	215
M2085	35	M6x1.0	M12x1.75	182	165	110	47	20	89	120	16	4	M6x1.0	7	PT 1/2"	6	267	M99x2	96	141	240
M2091	35	M6x1.0	M12x1.75	182	165	110	47	15	95	120	16	4	M6x1.0	7	PT 1/2"	6	267	M99x2	96	141	240
M2511	45	M6x1.0	M18x2.0	197	206	129	55	20	123	160	18	5	M6x1.0	7	PT 1/2"	6	294		134.6	186	310

Dim / Model	D	E	F	G	H	J	K	L	N	P	Q	S	T	U	V max	V min	W max	W min	x	z	A1	B1
M0928	100	80	65	44	M38x1.5	28	25	54	44	59	65	90	105	156	9	-1	35	25	3	5	9	108
M1036	115	100	65	48	M42x1.5	36	32	62	54	73	80	104	115	179.5	10	-5	39	24	2.5	5	11	120.5
M1236	130	100	80	65	M42x1.5	36	36	67	64	85	90	118	114	184	10	-5	40	25	4	5	11	128.5
M1246	130	100	80	65	M55x2	46	36	67	64	85	90	118	114	184	10	-5	40	25	4	5	11	128.5
M1546	170	130	85	65	M55x2	46	36	75	73	96	102	137	130	196	17	-5	47	25	4	5	11	136
M1552	170	130	85	70	M60x2	52	36	75	73	96	102	137	130	196	17	-5	47	25	4	5	11	136
M1868	190	160	120	85	M75x2	68	36	84	98	121	131	166	160	230	20	-5	50	25	4	5	17.5	152.5
M1870	190	160	120	95	M78x2	70	36	84	98	121	131	166	160	230	20	-5	50	25	4	5	17.5	152.5
M1875	190	160	120	95	M85x2	75	36	84	98	121	131	166	160	230	20	-5	50	25	4	5	17.5	152.5
M1878	190	160	120	95	M87x2	78	36	84	98	121	131	166	160	230	20	-5	50	25	4	5	17.5	152.5
M2085	215	180	140	110	M93x2	85	36	93	108	138	148	182	185	253	25	-5	55	25	3	5	21	166.5
M2091	215	180	140	110	M100x2	91	36	93	108	138	148	182	185	253	25	-5	55	25	3	5	21	166.5
M2511	275	230	166	140	M130x2	117.5	36	89	148	178		232	215	296	18	-5	38	15	3	6	27	184.5

● M SERIES showing back continue.

SPECIFICATIONS:

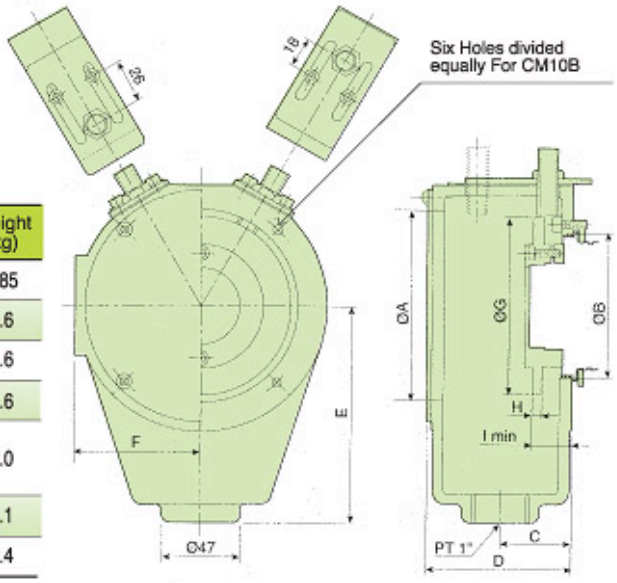
Dim / Model	Piston Dia. (mm)	Piston Area		Piston Stroke (mm)	Mar. Draw Bar Pull Force		Max. Operating Pressure (kgf/cm^2)	Max.Speed (r.p.m.)	Moment Inertia I ($kgf.m^2$)	Weight (kg)	Total Leakage (L/min)
		Push Side (cm^2)	Pull Side (cm^2)		Push Side KN(kgf)	Pull Side KN(kgf)					
M0928	90	53.2	48.3	10	19.9(2029)	18(1835)	40.8	8000	0.006	5.5	3.0
M1036	105	71	68.5	15	24.8(2529)	24(2447)	40.8	8000	0.011	8.6	3.0
M1236	125	100	89	15	38(3875)	33(3365)	40.8	7000	0.019	13.0	3.0
M1246	125	100	89	15	38(3875)	33(3365)	40.8	7000	0.019	12.0	3.0
M1546	155	161	155	22	60(6118)	56(5710)	40.8	6200	0.052	18	3.9
M1552	155	161	150	22	60(6118)	56(5710)	40.8	6200	0.052	16.8	3.9
M1868	180	198	197	25	74(7546)	73.5(7495)	40.8	4700	0.098	28.0	4.2
M1870	180	198	183	25	74(7546)	69(7036)	40.8	4700	0.095	26.5	4.2
M1875	180	198	183	25	74(7546)	69(7036)	40.8	4700	0.095	26.0	4.2
M1878	180	198	183	25	74(7546)	69(7036)	40.8	4700	0.095	25.5	4.2
M2085	205	252	234	30	94(9585)	88(8973)	40.8	3800	0.15	37.5	4.5
M2091	205	252	234	30	94(9585)	88(8973)	40.8	3800	0.15	37.0	4.5
M2511	250	348	336	23	124(12644)	120(12236)	40.8	2800	0.45	57	7.0

CM.B SERIES

SPECIFICATIONS:

HYDRAULIC CYLINDERS COOLANT COLLECTORS

1. Hydraulic Cylinders coolant collectors.
   Compact and light weight, they feature bore sizes up to 20% large than Conventional Cylinders. Precision finished piston bores and cool running rotary unions are included for years of trouble-free performance.
2. The sensors are extra ordered.



DIMENSIONS:

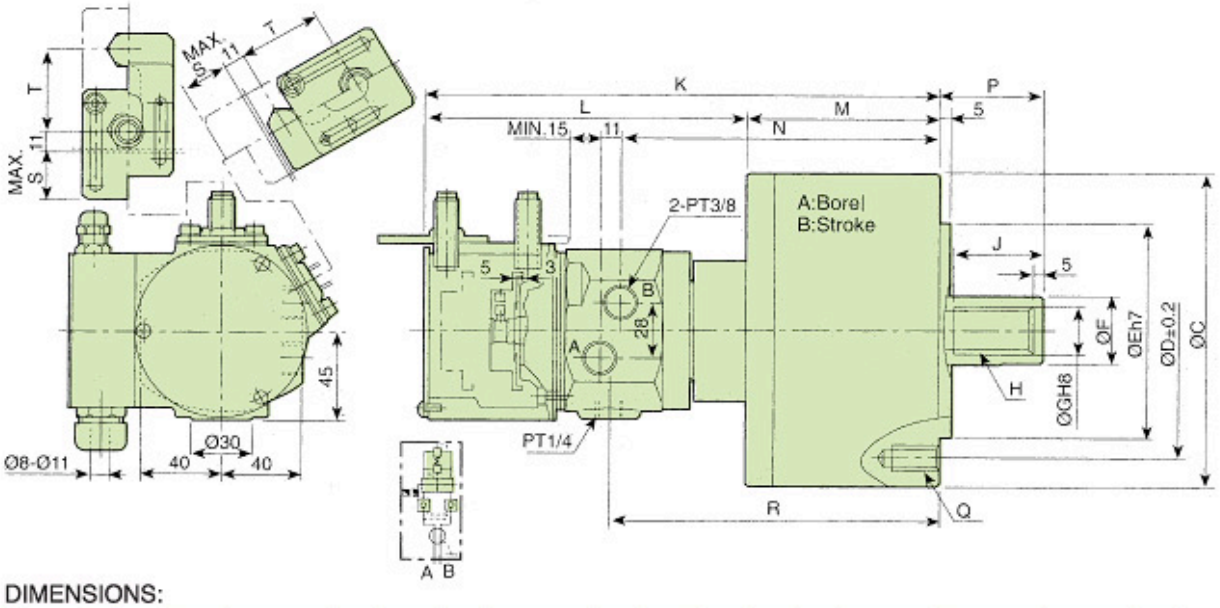
Dim / Model	A	B	C	D	E	F	G	H	lmin.	Matching cylinder	Weight (kg)
CM09B	85	67	33	70	105	55.5	77	5	24	M0928	0.85
CM10B	118	75	42	84	131	76	107	5	22	M1036	1.6
CM12B	118	87	42	84	131	76	107	5	23	M1236 M1246	1.6
CM15B8	118	98	42	84	131	76	107	5	25.5	M1546 M1552	1.6
CM18B	158	123	44	88.5	151	96	147	5	23	M1868 M1870 M1875 M1878	2.0
CM20B	158	140	44	88.5	151	96	147	5	23	M2085 M2091	2.1
CM25B	198	177	45	90	180	118	192	12	35	M2511	2.4

MF-C / MS-C SERIES

SPECIFICATIONS:

NON THROUGH HOLE ROTARY HYDRAULIC CYLINDER (WITH VALVES AND SWITCHES)

1.Built-in safty check valves.
2.Pressure relief valves and sensor switches.
3.The sensors are extra ordered.



DIMENSIONS:

Model \ Dim	A	B	C	D	E	F	G	H	J	K	L	M	N	P Max.	P Min.	Q	R	S	T
MS105C	105	20	135	100	80	30	21	M20x2.5	35	257	168	89	152	45	25	6-M10x20	158	23	41
MS125C	125	25	160	130	110	35	25	M24x3.0	44	265	168	97	160	51	26	6-M12x24	166	23	41
MF125C	125	35	160	130	110	35	25	M24x3.0	44	269	168	101	164	57	22	6-M12x24	170	23	46
MS150C	150	30	190	130	110	45	31	M30x3.5	45	274	168	106	169	56	26	12-M12x24	175	23	41
MS200C	200	35	245	145	120	55	37	M36x4.0	60	288	166	120	183	69	34	12-M16x30	189	28	46

SPECIFICATIONS:

Model \ Dim	Piston Area Push Side (cm²)	Piston Area Pull Side (cm²)	Mar. Draw Bar Pull Pull Side KN (kgf)	Piston Stroke (mm)	Max.Speed (r.p.m.)	Max. Operating Pressure (kgf/cm²)	Total Leakage (L/min)	Moment Inertia I (kgf.m²)	Weight (kg)
MS105C	84	79	29 (2957)	20	6000	4.0(40.8)	0.8	0.0125	7.6
MS125C	120	113	42 (4283)	25	6000	4.0(40.8)	0.8	0.022	10.5
MF125C	120	113	42 (4283)	35	6000	4.0(40.8)	0.8	0.022	10.5
MS150C	174	160	60 (6118)	30	5500	4.0(40.8)	0.8	0.047	14
MS200C	312	290	108 (11013)	35	5500	4.0(40.8)	0.8	0.097	22.5

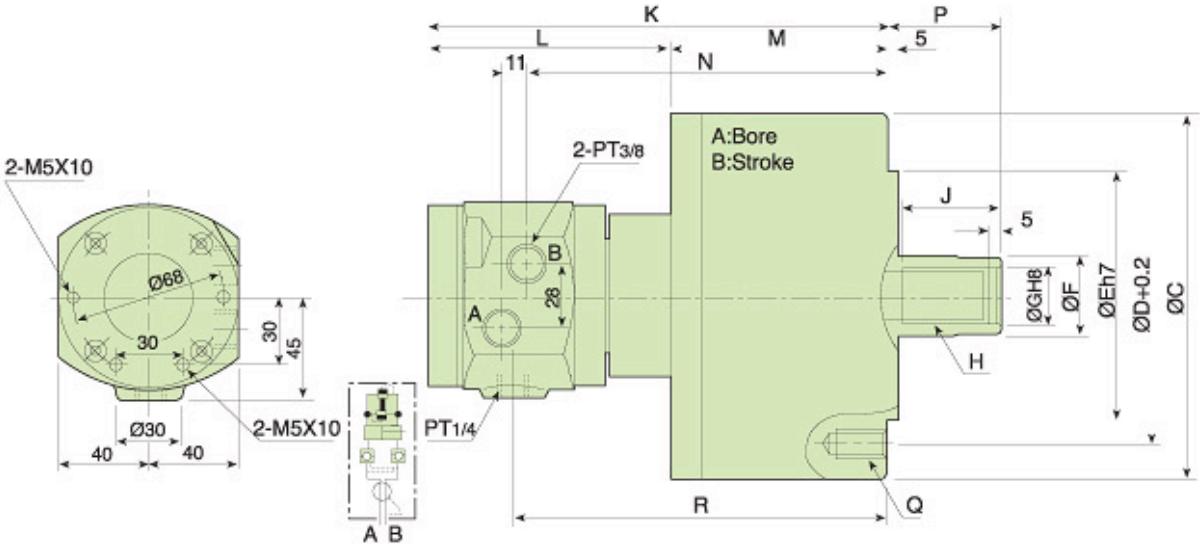
- Draw bar pull force: Pressure 4.0 MPa(40.8kgf / cm²)
- Total leakage: Pressure 3.0 Mpa (30.6 kgf /cm²) and oil temperature 50°C
- Proximity switch: Model BESS 16-329-E4-Y (BALLUFF) DC 12/24V 200mA NPN

MS SERIES

SPECIFICATIONS:

NON THROUGH HOLE ROTARY HYDRAULIC CYLINDER (WITH VALVES)

Built-in safty check valves.

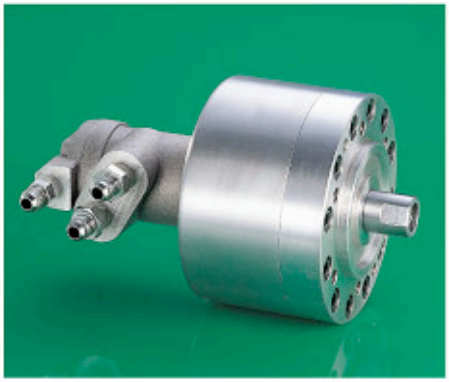


DIMENSIONS:

Dim / Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P Max.	P Min.	Q	R
MS105	105	20	135	100	80	30	21	M20x2.5	35	197	108	89	152	45	25	6-M10x20	158
MS125	125	25	160	130	110	35	25	M24x3.0	44	205	108	97	160	51	26	6-M12x24	166
MS150	150	30	190	130	110	45	31	M30x3.5	45	214	108	106	169	56	26	12-M12x24	175
MS200	200	35	245	145	120	55	37	M36x4.0	60	228	108	120	183	69	34	12-M16x30	189

SPECIFICATIONS:

Dim / Model	Piston Area		Mar. Draw Bar Pull Pull Side KN (kgf)	Piston Stroke (mm)	Max.Speed (r.p.m.)	Max. Operating Pressure (kgf/cm²)	Total Leakage (L/min)	Moment Inertia I (kgf.m²)	Weight (kg)
	Push Side (cm²)	Pull Side (cm²)							
MS105	86	79	29 (2957)	20	6000	4.0(40.8)	0.8	0.0125	7.1
MS125	122	113	42 (4283)	25	6000	4.0(40.8)	0.8	0.0225	10
MS150	176	160	60 (6118)	30	5500	4.0(40.8)	0.8	0.0475	13.5
MS200	314	290	106 (11013)	35	5500	4.0(40.8)	0.8	0.0975	22



MH SERIES

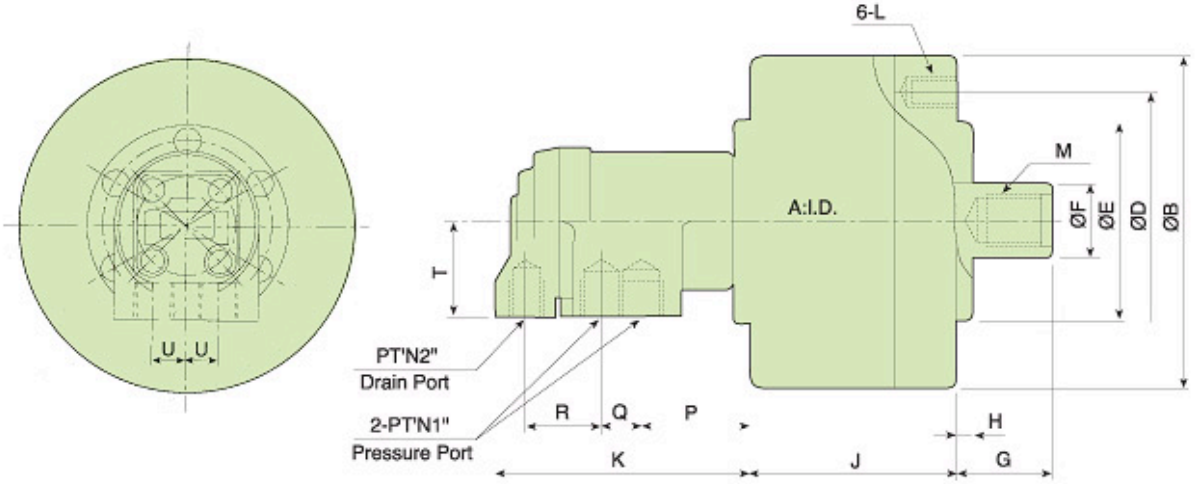
SPECIFICATIONS:

NON THROUGH HOLE ROTARY HYDRAULIC CYLINDER

1.Compact,low inertla,light weight cylinder:
Manufuctured aluminium alloy,this cylinder is lightweight design and reduce the weight on the machine spindle.

2.High speed:
This balanced design cylinder is light weight and compact and maintains outstanding stability during high speed operation.

3.Long life:
High quality cylinder seals and high accuracy surface finish on parts ensure the long life of these cylinders.



DIMENSIONS:

Dim / Model	A I.D.	B	D	E (H7)	F	G Max.	G Min.	H	J	K	L	M	N1	N2	P	Q	R	T	U
MH80	80	115	90	65	25	45	30	6	73.5	103	M8x1.25 16	M16x2.0 x32	3/8"	1/4"	45	15.5	30.5	38	13
MH100	100	135	100	80	25	45	25	6	88.5	103	M10x1.5 19	M16x2.0 x32	3/8"	1/4"	45	15.5	30.5	38	13
MH125	125	160	130	110	30	51	26	6	95.5	103	M12x1.75 18	M20x2.5 x32	3/8"	1/4"	45	15.5	30.5	38	13
MH150	150	190	130	110	45	50	20	6	107	103	M12x1.75 20	M30x3.5 x35	3/8"	1/4"	45	15.5	30.5	38	13

SPECIFICATIONS:

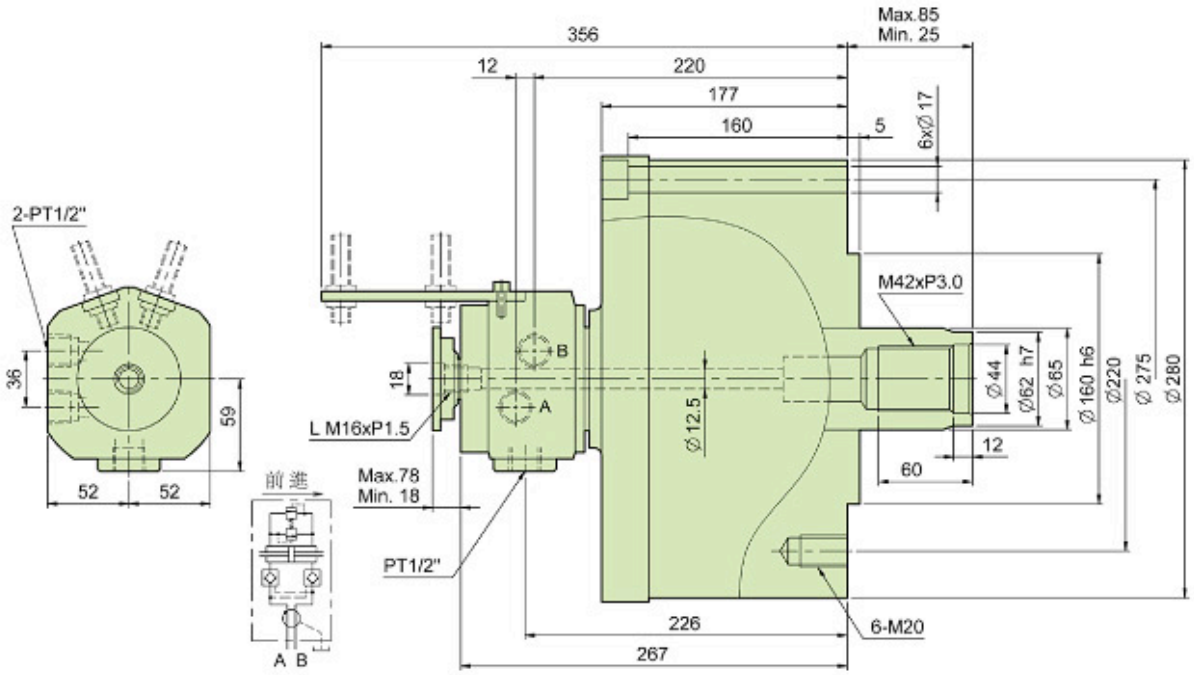
Dim / Model	Piston Area Push Side (cm²)	Piston Area Pull Side (cm²)	Mar. Draw Bar Pull Pull Side KN (kgf)	Piston Stroke (mm)	Max.Speed (r.p.m.)	Max. Operating Pressure (kgf/cm²)	Moment Inertia I (kgf.m²)	Weight (kg)
MH80	47.7	42.8	13.9 (1417)	15	6000	35	0.005	5.1
MH100	75.4	70.5	22.9 (2335)	20	5500	35	0.0125	6.6
MH125	121.1	114	37 (3773)	25	5500	35	0.02	8.4
MH150	176	160	60 (6118)	30	4000	40	0.047	10.4

MS250C SERIES

SPECIFICATIONS:

3-JAW BALL SWING LOCK CHUCK

1.Through-hole for coolant, oil or air with thread for rotary union.
2.Mounting from the rear or from the front side.
3.Built-in safety check valves and bracket for proximity switch.
(The proximity switches are extra ordered.)



SPECIFICATIONS:

Model	Piston Dia (mm)	Piston Area		Max. Draw Bar Pull		Piston Stroke (mm)	Max Speed (r.p.m.)	Max. Operating Pressure (kgf/cm²)	Total Leakage (L/min)	Moment of Inertia I (kgf/m²)	Weight (kg)
		Push Side(cm²)	Pull Side(cm²)	Push Side KN(kgf)	Pull Side KN(kgf)						
MS250C	250	481.5	453.6	227(23147)	214(21822)	60	2000	50	2	0.87	78