



**POWER CHUCKS  
ROTARY CYLINDERS  
CLAMPING SERIES**



# AEROVIEW OF AUTOGRIP COMPANY



## AUTOGRIP MACHINERY COMPANY

Autogrip machinery was established in 1989 in Taiwan. Our product lines focus on the power chucks, rotary cylinders and automatic clamping series. We provide the optimized solutions and services for our customers worldwide.

## AUTOGRIP'S BUSINESS PHILOSOPHY

With integrity and commitment, we provide the most professional products and services for the customers.



## LOCATION OF AUTOGRIP

Our factory locates in the middle part of Taiwan, the campus occupies 10,000 square meters.

Autogrip makes world-class high-quality products and services with high customer satisfaction.

## WE ARE FROM TAIWAN

All the products of Autogrip are designed and made in our hometown-Taiwan. You can find that our products have a strong Taiwan spirit-solid and durable, with high rigidity and high precision.

Our company has a good reputation in the industry. Autogrip is devoted to providing the optimized solutions and service for the workpiece clamping needs.



## AUTOGRIP MECHANICAL TESTING LAB.



Autogrip mechanical testing lab. continues to develop reliable test equipments and technique for controlling the product quality.

Before the new product is launched to the market, the products will go through a series of tests to ensure that the performance and accuracy meet the design specifications.

Products in the manufacturing process are also tested regularly to ensure the products are of good quality and consistent.

The Lab controls the quality for the customers and provides customers with the most satisfied experience when using the products.



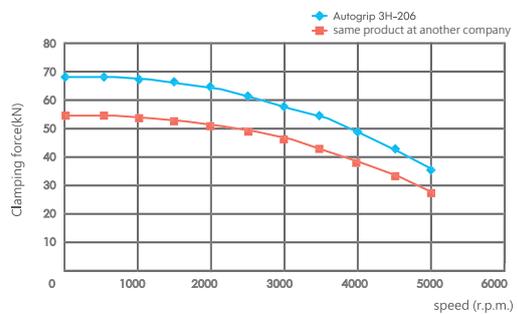


## DYNAMIC GRIPPING FORCE TEST

- The curve of gripping force against rotary speed is obtained via force sensor at a given test condition.

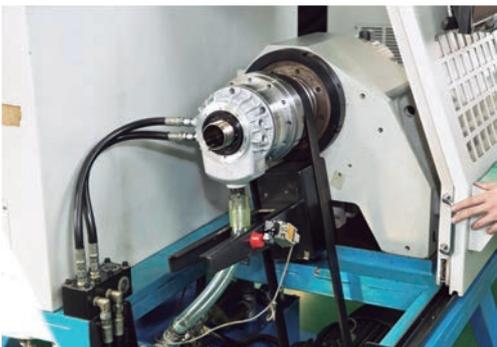


Gripping Force Graph

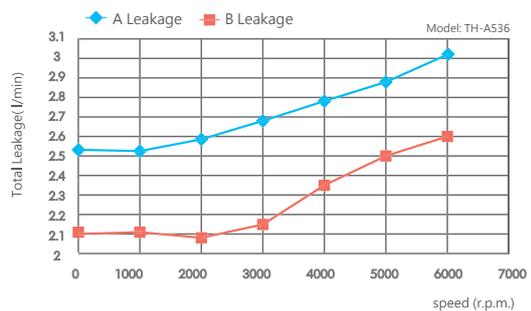


## DYNAMIC OIL LEAKING TEST

- The oil leaking of cylinder is measured at different rotary speed to ensure it is within engineering specification.



Total Leakage Characteristic Graph





Our product lines include a complete set of 79-inch and under series, and related products such as Power Chucks, Special Purpose Power Chucks, Collet Chucks, Stationary Chucks, Synchronous Clamps, Facing Heads, Rotary Cylinders, Rotary Valve/ Rotary Joint and Accessories.





# Why AUTOGRIP?

## 1. CUSTOM DESIGN SERVICE

Example: Workpiece seating confirmation for automation workholding, cylinder stroke modify, additional machining in body, special clamping requirement, Inch serration, special soft jaw demand.

## 2. VARIETY OF CHUCKS & CYLINDERS

Chuck: 1-jaw to 6-jaw chuck from 3" to 79", Extra long stroke, Pull back, Stationary chucks, Collet chucks and other clamping solution.

Cylinder: through-hole, Non-through hole, Stroke control, Coolant/air connection, Air cylinder, Double rod, Compact style.

## 3. FASTER DELIVERY AND SATISFIED SERVICE.



SPECIAL PURPOSE POWER CHUCK

QUICK JAW CHANGE CHUCK

AUTOGRIP



# 3Q

## QUICK JAW-CHANGE CHUCK

**QUICK JAW-CHANGE POWER CHUCKS SAVE YOUR TIME AND MAKE WORK FLOW EASIER AND EFFICIENTLY**

### FEATURES

- The shortest changes time for soft jaw, it is the high repeatability precision.
- Chuck of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.
- For safety system that master jaw will complete return when base jaw and serration match up properly.



### EASY TO CHANGE JAW IN 2 STEPS



1. Turn T-handle counter clockwise to release and move jaw forward to its position.



2. Turn T-handle clockwise to tighten and the jaw is locked.



POWER CHUCK

POWER CHUCK FOR VERTICAL LATHE



# 3V series

The maximum diameter is  
**2000mm (79")**

- It's a WEDGE-HOOK type 3-jaw high speed power chuck.
- With manual radial setting of master jaws for the workpieces centering.
- Sealed against swarf, chips and coolant, suitable for vertical lathe.



- Various Models / Size: Available in 3 , 4 and 6-jaw versions .
- with sizes 12 to 79 inch diameter.
- Rotary cylinder: RE series .

SPECIAL PURPOSE POWER CHUCK

LARGE THRU-HOLE AIR CHUCK

AUTOGRIP



**TAIWAN**  
EXCELLENCE 2018



# AP SERIES

## FEATURES :

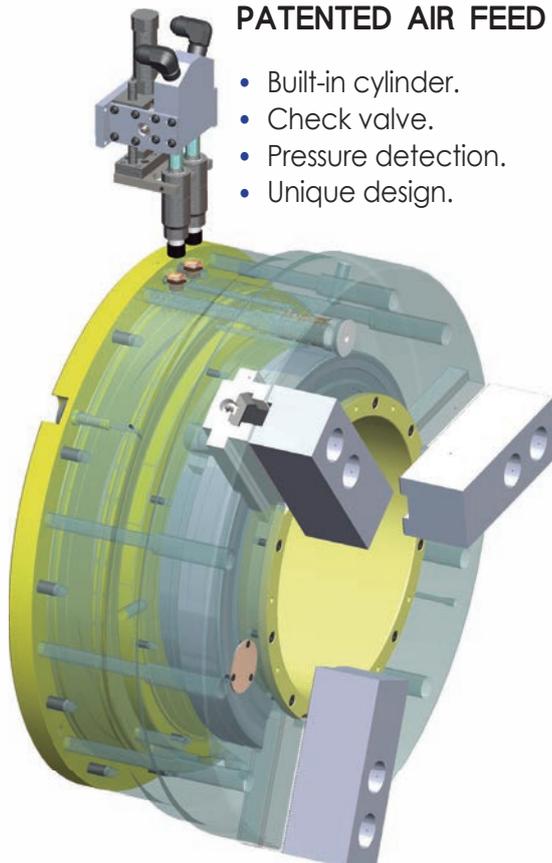
- Large thru-hole :  $\text{\O}52\text{mm}\sim\text{\O}375\text{mm}$ .
- No distributor ring needed.
- Easy to install.
- Less maintenance.

Product Patented

U.S.A US8770222 B2  
Taiwan M440159 / M415011  
Germany 20.2011.101.818.4 / 20.2012.102.498.5  
Japan 3169457 / 3178706  
EU EP 2517822 B1  
China ZL 2011 2 0141324.9 / ZL 2012 2 0274549.6

## PATENTED AIR FEED SYSTEM

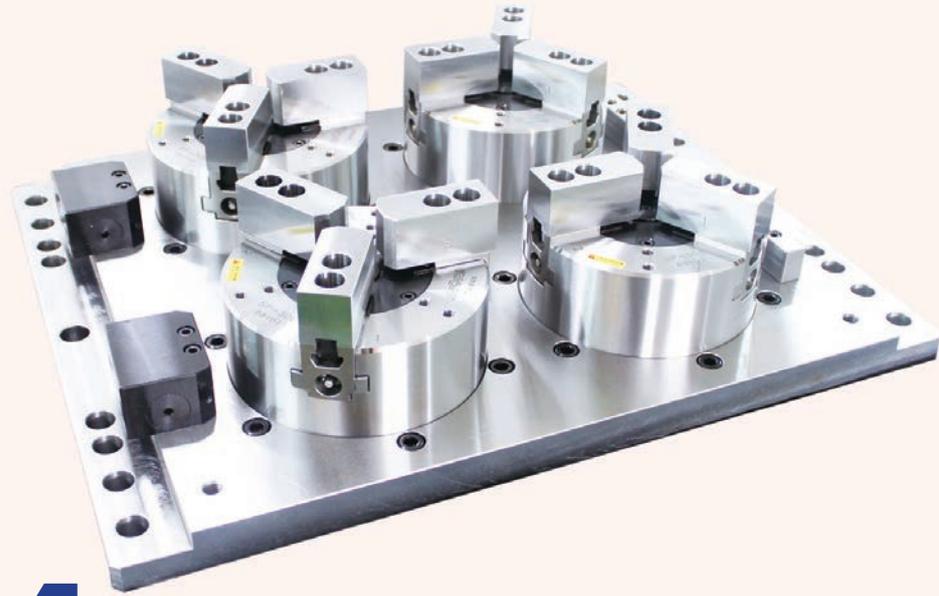
- Built-in cylinder.
- Check valve.
- Pressure detection.
- Unique design.



STATIONARY CHUCK

STATIONARY CHUCK BASE PLATE

AUTOGRIP



# MP4 MULTI-PLATE.4-PLATE

## FEATURES

- For milling machine / machine center.
- Allow simultaneous machining with up to 4 grippers. (Order can be customized for 2,3,6 grippers).
- Work with SP/SD/SU/SE vertical chuck.
- Driven by Hydraulic or Pneumatic.
- Individual circuit for each chuck.
- Special design and reduce the height of working surface.
- Lock valve unit (option).
- Air tight detection function(option).



## STATIONARY CHUCK SERIES



SP-STATIONARY CHUCK

- Wedge-hook type.



SD-STATIONARY PULL BACK CHUCK

- Pull back / Heavy duty machining / Air tight detection.



SU-STATIONARY PULL LOCK CHUCK

- Pull lock / Heavy duty machining / Air tight detection.



SE-STATIONARY PULL BACK CHUCK FOR INTERNAL GRIPPING

- Pull back / inner dia. clamping / Air tight detection.

COLLET CHUCK

RUBBER GRIP COLLET

AUTOGRIP

# RUBBER GRIP COLLET

Lathe



High gripping force / High accuracy / Quick jaw change

Milling machine



Grip Range:  $\pm 0.5\text{mm}$ . Accuracy: With customized rubber grip collet, the accuracy can reach  $\pm 10\mu\text{m}$ .

ACCESSORY

GRIPPING FORCE SENSOR

AUTOGRIP

# GFS-100

GRIPPING FORCE SENSOR

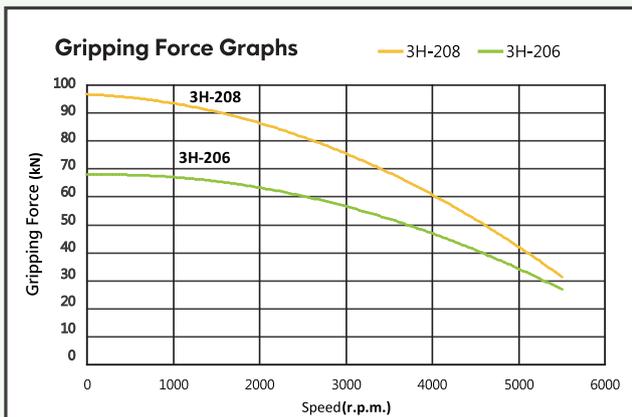


Can be configured for 2 or 3-Jaw operation

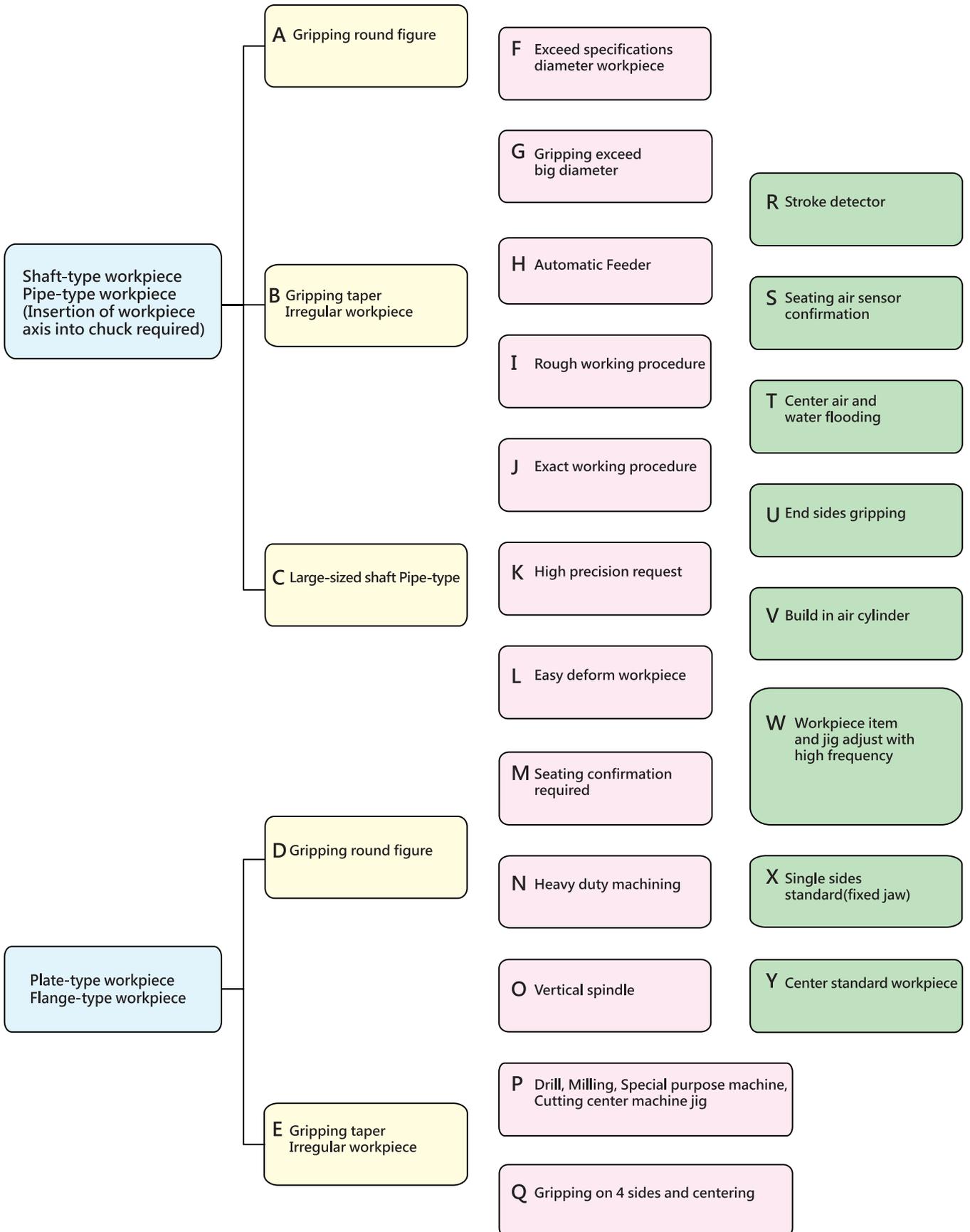
## FEATURES

- Measuring chuck clamping force dynamically.
- Wireless signal transmission.
- Data collected via the mobile device APP.

Model	Max. Load (1-Jaw)	Max. Speed	Gripping range	Accuracy
GFS-100	100 kN	6000 r.p.m.	76,90,110 mm	± 2%



## Chuck and Cylinder chooes propose list



Chuck choose	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Cylinder choose	
3H	•								•																		TK,TH
3H	•								•									•									TK,TH,CT
3H-B	•		•			•			•									•									TK,TH,CT
2H		•																•									TK,TH,CT
4H		•							•									•									TK,TH,CT
3P				•					•																		RK
3P				•					•									•									RS
3P				•					•											•							RL,RL-A
3P				•					•									•		•							RE-A,RE-L
2P					•													•									RS
3L	•								•									•									TK,TH,CT
2L		•							•									•									TK,TH,CT
1L					•																				•		RK
3M				•					•									•		•							RE-A,RE-L
2M					•				•									•		•							RE-A,RE-L
3V				•					•							•		•		•							RE-A,RE-L
4V		•			•				•							•		•		•							RE-A,RE-L
RAP	•			•												•							•				-
3E,3D	•								•	•			•						•								RK
2D		•							•	•			•						•								RK
3U	•								•	•	•		•	•													RK
3N				•						•			•						•								RK
3J				•	•							•	•					•	•	•	•					•	RK
2J				•		•						•	•					•	•	•	•					•	RK
3R				•					•	•		•														•	RK
3W				•	•	•			•						•											•	RK
3Q	•																	•						•			TK,TH,CT
4T		•			•												•										RD
AP	•		•			•			•									•					•				-
APS	•		•			•	•		•									•					•				-
IS					•				•																		-
CL	•	•							•	•																	TK,TH
CB	•	•							•	•	•	•															TK,TH
CBE	•	•							•	•	•	•															TK,TH
CBD	•	•							•	•	•	•															TK,TH
VH,VP,CP																•											-
SD	•								•	•			•				•										-
SU	•								•	•	•		•	•			•										-
SP				•					•	•							•										-
SE				•					•	•			•				•			•							-

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## POWER CHUCKS



**3H/3H-A**  
THROUGH-HOLE POWER CHUCK  
THRU-HOLE / 3-JAW

1



**3H-B/3H-BA**  
LARGE THRU-HOLE POWER CHUCK  
THRU-HOLE / 3-JAW

2



**2H/2H-A**  
THROUGH-HOLE POWER CHUCK  
THRU-HOLE / 2-JAW

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**4H/4H-A**  
THROUGH-HOLE POWER CHUCK  
THRU-HOLE / 4-JAW

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**3P/3P-A**  
POWER CHUCK  
NON-THRU-HOLE / 3-JAW

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**2P/2P-A**  
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**3L/3L-A**  
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**2L/2L-A**  
EXTRA LONG JAW STROKE POWER CHUCK  
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**3M**  
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**2M**  
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**3V-A**  
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**3Q**  
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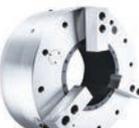
**4T**  
FOUR-JAW TWO MOTION TYPE POWER CHUCK  
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**AP**  
LARGE THRU-HOLE AIR CHUCK  
THRU-HOLE / 3-JAW

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**APS**  
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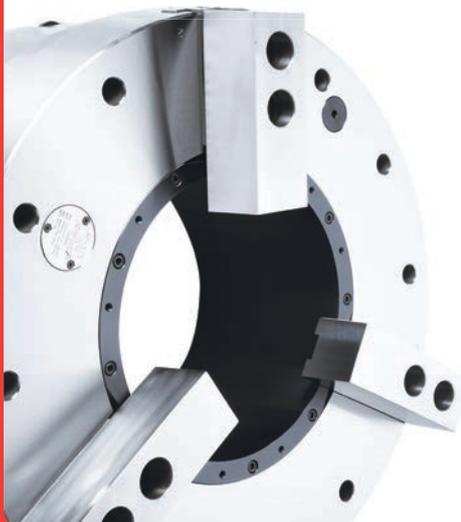
**DRAW TUBE**  
THE CALCULATION OF  
DRAW TUBE LENGTH  
DRAW TUBE 84

**DRAW BAR**  
THE CALCULATION OF  
DRAW BAR LENGTH  
DRAW BAR 85

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YouTube IN ENGLISH



You can download the outline drawing (in pdf or dwg format) and 3D step here. [www.autogrip.com.tw](http://www.autogrip.com.tw)

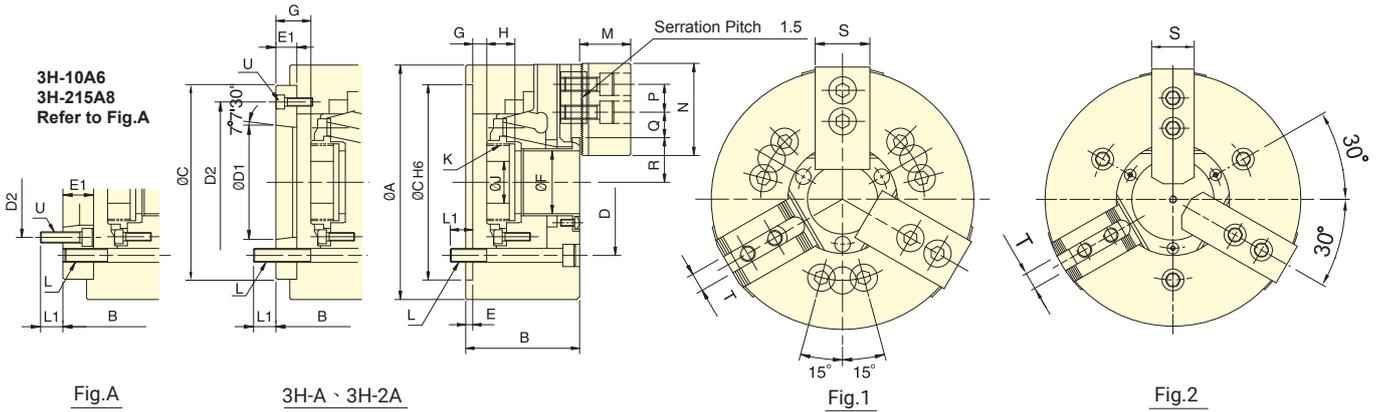
# 3H/3H-A THROUGH-HOLE POWER CHUCK

3-JAW / Thru-Hole

POWER CHUCKS



- It's a WEDGE-HOOK type 3-jaw with the large through-hole.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.
- J value is the hole diameter of blank draw nut, K is the maximum thread specification, and it could be customize.



Subject to technical changes

## SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I		Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )	Reference Drawing	
			Max. mm	Min. mm				Moment of inertia kg·m <sup>2</sup>						
3H-204	A4	13	5.5	118	7	13.7(1400)	29.6(3020)	8000	0.012	4.22	5.34	TK-C646	2.0(20)	Fig.2
3H-205	A4	13	5.5	138	10	17.2(1750)	48(4890)	7000	0.02	6.7	7.1	TK-C646	2.5(25)	Fig.2
3H-206	A5	14	6	170	13	23.3(2375)	66.8(6810)	6000	0.06	13.1	14.9	TK-C646	2.7(27)	Fig.2
3H-208	A6	18	7.6	210	17	31.9(3250)	107(10900)	5000	0.15	21.8	23.4	TK-A853	2.6(26)	Fig.1
3H-10	A6	19	8.8	254	25	42.6(4380)	110.7(11300)	4200	0.33	34.5	41.5	TK-A1075	2.8(28)	Fig.1
3H-10	A8	19	8.8	254	25	42.6(4380)	110.7(11300)	4200	0.33	34.5	40	TK-A1075	2.8(28)	Fig.1
3H-212	A11	25	10.6	315	43	58.8(6000)	157(16010)	3700	0.74	58.6	64.7	TK-A1291	2.8(28)	Fig.2
3H-215	A8	25	10.6	405	49	71(7240)	180(18350)	2500	2.8	127	149	TK-A1512	2.3(23)	Fig.1
3H-215	A11	25	10.6	405	49	71(7240)	180(18350)	2500	2.8	127	143.3	TK-A1512	2.3(23)	Fig.1
3H-215	A15	25	10.6	405	49	71(7240)	180(18350)	2500	2.8	127	135.6	TK-A1512	2.3(23)	Fig.1
3H-18	A11	23	10.6	450	50	71(7250)	179.8(18350)	2000	4.78	164	178	TK-A1512	2.3(23)	Fig.1

## DIMENSIONS

Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
3H-204	A4	113	59	83	85	70.6	63.51	82.6	4	28	32	3.5	31.5	-9.5	18.5	17.5	12
3H-205	A4	138	60	71	110	82.6	63.51	96	4	15	39	1	16	-12	3	20	12
3H-206	A5	170	81	91	140	104.8	82.56	116	5	15	53	13	28	-1	14	17.5	20
3H-208	A6	210	91	103	170	133.4	106.38	150	5	17	66	16.5	33.5	-1.5	15.5	20	30
3H-10	A6	254	100	120	220	171.4	106.38	133.4	5	25	75	8.5	33.5	-10.5	14.5	25	45
3H-10	A8	254	100	113	220	171.4	139.72	190	5	18	75	8.5	26.5	-10.5	7.5	25	45
3H-212	A11	315	110	126	300	235	196.87	260	6	22	106	10	32	-15	7	28	50
3H-215	A8	405	132	159	380	330.2	139.72	171.4	6	33	145	11	44	-14	19	39	60
3H-215	A11	405	132	166	380	330.2	196.87	235	6	40	145	11	51	-14	26	39	60
3H-215	A15	405	132	153	380	330.2	285.78	330.2	6	27	145	11	38	-14	13	39	60
3H-18	A11	450	133	149	300	235	196.87	260	6	22	120	11	33	-12	10	39	60

Model	K max.	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U		
3H-204	A4	M38x1.5	3~M10	16	15	24	52	14	12.75	6.75	25	22.25	23	10	3~M10
3H-205	A4	M45x1.5	3~M10	14.5	15	31	62	14	20.25	6.75	29.5	26.8	25	10	3~M6
3H-206	A5	M60x2	3~M10	16	11	37	73	20	21.25	9.25	36	33	31	12	3~M6
3H-208	A6	M75x2	6~M12	17	15	38	95	25	23.7	10.2	45.7	41.9	35	14	3~M6
3H-10	A6	M85x2	6~M16	22	18	43	110	30	33.8	14.3	51	46.6	40	16	6~M12
3H-10	A8	M85x2	6~M16	22	24	43	110	30	33.8	14.3	51	46.6	40	16	3~M8
3H-212	A11	M115x2	3~M20	30	28	51	130	30	44.75	14.75	67.8	62.5	50	21	3~M10
3H-215	A8	M155x3	6~M24	36	24	63	165	43	49.75	19.75	90	84.7	62	25.5	6~M16
3H-215	A11	M155x3	6~M24	36	31	63	165	43	49.75	19.75	90	84.7	62	25.5	6~M20
3H-215	A15	M155x3	6~M24	36	34	63	165	43	49.75	19.75	90	84.7	62	25.5	3~M12
3H-18	A11	M130x2	6~M20	30	28	63	165	43	83.5	20.5	80	74.7	62	25.5 or 22	3~M10

1. The dimensions and the specifications of 3H-A type are in red data.

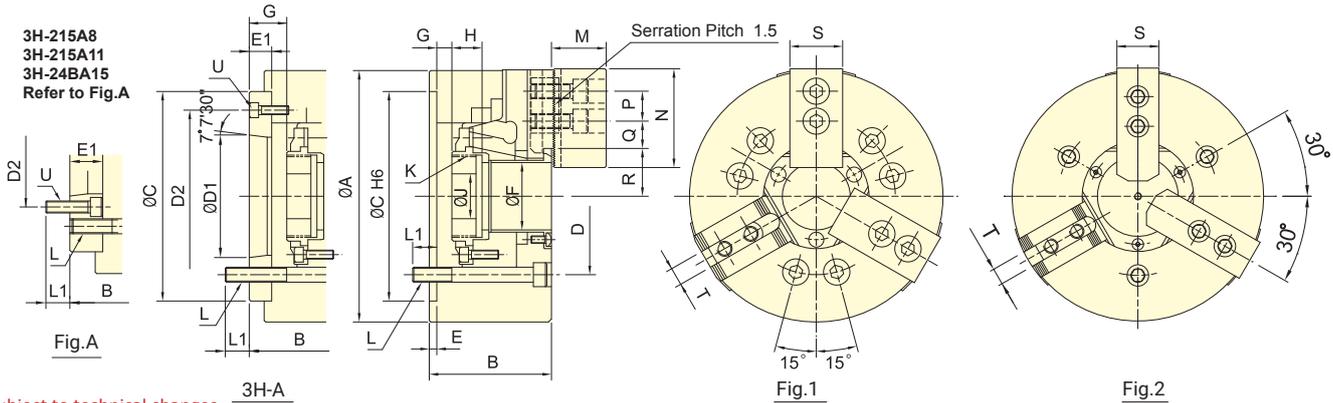
# 3H-B/3H-BA LARGE THRU-HOLE POWER CHUCK

3-JAW / Thru-Hole

POWER CHUCKS



- It's a WEDGE-HOOK type 3-jaw with the extra large through-hole.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.
- J value is the hole diameter of blank draw nut, K is the maximum thread specification, and it could be customize.



Subject to technical changes

## SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chucking Dia.		Max. D.B. pull	Max. Clamping force	Max. speed	I	Weight	Matching cyl.	Max. pressure	Reference Drawing		
			Max.	Min.										
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )			
3H-204	A4	13	5.5	118	7	13.7(1400)	29.6(3020)	8000	0.012	4.22	5.34	TK-C646	2.0(20)	Fig.2
3H-205	A4	13	5.5	138	10	17.2(1750)	48(4890)	7000	0.02	6.3	7.1	TK-C646	2.5(25)	Fig.2
3H-206	A5	14	6	170	13	23.3(2375)	66.8(6810)	6000	0.06	13.1	14.9	TK-A853	1.9(19)	Fig.2
3H-208	A6	18	7.6	210	17	31.9(3250)	107(10900)	5000	0.15	21.8	23.4	TK-1068	2.2(22)	Fig.1
3H-10B	A8	19	8.8	260	35	49.1(5010)	126.9(12950)	4500	0.32	33.2	38.7	TK-1287	2.3(23)	Fig.1
3H-212	A11	25	10.6	315	43	58.8(6000)	157(16010)	3700	0.74	58.6	64.7	TK-A1511	1.9(19)	Fig.2
3H-215	A8	25	10.6	405	49	71(7240)	180(18350)	2500	2.8	127	149	TK-2114	2.1(21)	Fig.1
3H-215	A11	25	10.6	405	49	71(7240)	180(18350)	2500	2.8	127	143.3	TK-2114	2.1(21)	Fig.1
3H-215	A15	25	10.6	405	49	71(7240)	180(18350)	2500	2.8	127	135.6	TK-2114	2.1(21)	Fig.1
3H-18B	A15	23	10.6	456	79	71(7240)	180(18350)	2000	4.8	162.4	173.4	TK-2416	1.9(19)	Fig.1
3H-21B	A15	23	10.6	530	127	89.9(9175)	233.8(23860)	1700	7.5	223	234	TK-2820	1.9(19)	Fig.1
3H-24B	A15	26	12	610	142	89.9(9175)	233.8(23860)	1400	14.8	270	315	TK-2820	1.9(19)	Fig.1
3H-24B	A20	26	12	610	142	89.9(9175)	233.8(23860)	1400	14.8	270	284	TK-2820	1.9(19)	Fig.1

## DIMENSIONS

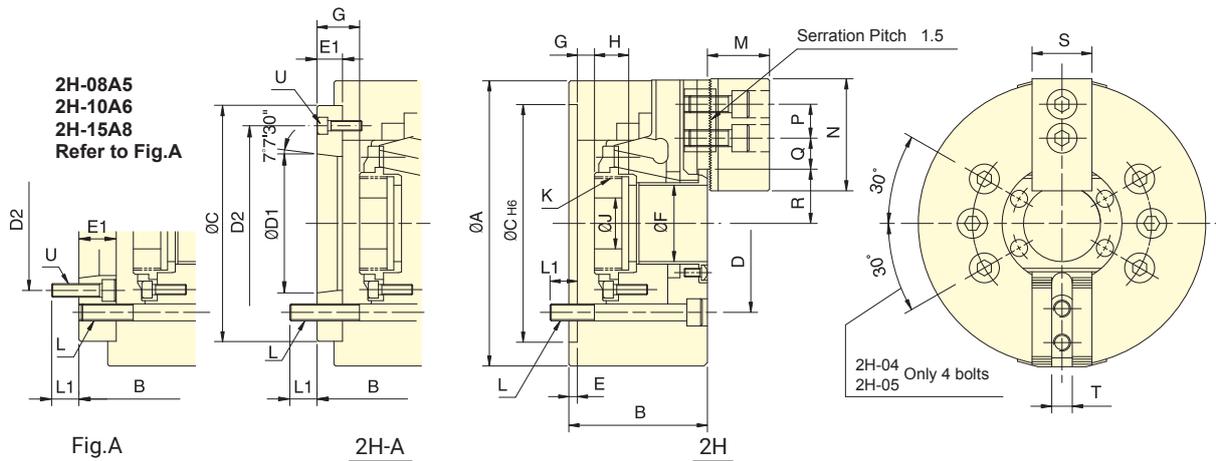
Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
3H-204	A4	113	59	83	85	70.6	63.51	82.6	4	28	32	3.5	31.5	-9.5	18.5	17.5	12
3H-205	A4	138	60	71	110	82.6	63.51	96	4	15	39	1	16	-12	3	20	12
3H-206	A5	170	81	91	140	104.8	82.56	116	5	15	53	13	28	-1	14	17.5	20
3H-208	A6	210	91	103	170	133.4	106.38	150	5	17	66	16.5	33.5	-1.5	15.5	20	30
3H-10B	A8	260	100	113	220	171.5	139.72	190	5	18	86	8.5	26.5	-10.5	7.5	25	45
3H-212	A11	315	110	126	300	235	196.87	260	6	22	106	10	32	-15	7	28	50
3H-215	A8	405	132	159	380	330.2	139.72	171.4	6	33	145	11	44	-14	19	39	60
3H-215	A11	405	132	166	380	330.2	196.87	235	6	40	145	11	51	-14	26	39	60
3H-215	A15	405	132	153	380	330.2	285.78	330.2	6	27	145	11	38	-14	13	39	60
3H-18B	A15	456	145	166	380	330.2	285.78	330.2	6	27	165	18	45	-5	22	40	60
3H-21B	A15	530	140	161	380	330.2	285.78	330.2	6	27	180	11	38	-12	15	39	80
3H-24B	A15	610	147	181	520	463.6	285.78	330.2	6	40	205	18	58	-8	32	40	120
3H-24B	A20	610	147	168	520	463.6	412.78	463.6	6	27	205	18	45	-8	19	40	120

Model	K max.	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U		
3H-204	A4	M38x1.5	3~M10	16	15	24	52	14	12.75	6.75	25	22.25	23	10	3~M10
3H-205	A4	M45x1.5	3~M10	14.5	15	31	62	14	20.25	6.75	29.5	26.8	25	10	3~M6
3H-206	A5	M60x2	3~M10	16	11	37	73	20	21.25	9.25	36	33	31	12	3~M6
3H-208	A6	M75x2	6~M12	17	15	38	95	25	23.7	10.2	45.7	41.9	35	14	3~M6
3H-10B	A8	M95x2	6~M16	22	24	43	110	30	35.2	12.7	56	51.6	40	16	3~M8
3H-212	A11	M115x2	3~M20	30	28	51	130	30	44.75	14.75	67.8	62.5	50	21	3~M10
3H-215	A8	M155x3	6~M24	36	24	63	165	43	49.75	19.75	90	84.7	62	25.5	6~M16
3H-215	A11	M155x3	6~M24	36	31	63	165	43	49.75	19.75	90	84.7	62	25.5	6~M20
3H-215	A15	M155x3	6~M24	36	34	63	165	43	49.75	19.75	90	84.7	62	25.5	3~M12
3H-18B	A15	M175x3	6~M24	38	36	63	165	43	64	20.5	102	96.7	62	25.5	3~M12
3H-21B	A15	M190x3	6~M24	35	38	73	180	60	69.4	27.4	114	108	65	25	3~M12
3H-24B	A15	M215x3	6~M24	35	35	73	180	60	96.5	24.5	126	120	65	25	6~M24
3H-24B	A20	M215x3	6~M24	35	38	73	180	60	96.5	24.5	126	120	65	25	3~M12

1. The dimensions and the specifications of 3H-BA type are in red data.



- It's a WEDGE-HOOK type 2-jaw with the large through-hole.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.
- J value is the hole diameter of blank draw nut, K is the maximum thread specification, and it could be customize.



Subject to technical changes

## SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chucking Dia.		Max. D.B. pull	Max. Clamping force	Max. speed	I	Weight	Matching cyl.	Max. pressure		
			Max.	Min.									
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )		
2H-04	10	5.4	110	7	9.2(940)	18.9(1930)	8000	0.01	3.8	-	TK-A533	1.3(13)	
2H-05	<b>A4</b>	10	5.4	135	12	11.7(1190)	23.9(2440)	7000	0.02	6.5	<b>7.3</b>	TK-A533	1.7(17)
2H-06	<b>A5</b>	12	5.5	168	15	14.4(1470)	37.9(3870)	6000	0.06	11.5	<b>13.3</b>	TK-C646	1.7(17)
2H-08	<b>A5</b>	16	7.4	210	13	23.1(2360)	57.2(5840)	5000	0.17	21.3	<b>24.2</b>	TK-A853	1.9(19)
2H-08	<b>A6</b>	16	7.4	210	13	23.1(2360)	57.2(5840)	5000	0.17	21.3	<b>22.4</b>	TK-A853	1.9(19)
2H-10	<b>A6</b>	19	8.8	254	25	28.4(2900)	73.9(7540)	4200	0.31	33.5	<b>40.5</b>	TK-A1075	1.9(19)
2H-10	<b>A8</b>	19	8.8	254	25	28.4(2900)	73.9(7540)	4200	0.31	33.5	<b>39.0</b>	TK-A1075	1.9(19)
2H-12	<b>A8</b>	23	10.6	304	34	36.7(3740)	95.8(9780)	3300	0.70	59.7	<b>62.7</b>	TK-A1291	1.7(17)
2H-15	<b>A8</b>	23	10.6	381	50	46.9(4790)	119.6(12200)	2500	2.42	115	<b>129</b>	TK-A1512	1.5(15)
2H-15	<b>A11</b>	23	10.6	381	50	46.9(4790)	119.6(12200)	2500	2.34	115	<b>122</b>	TK-A1512	1.5(15)

## DIMENSIONS

Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
2H-04	110	59	-	85	70.6	-	-	4	-	26	3.5	-	-6.5	-	17.5	12	
2H-05	<b>A4</b>	135	60	<b>71</b>	110	82.6	<b>63.51</b>	<b>96</b>	4	<b>15</b>	33	1	<b>16</b>	-9	<b>6</b>	20	12
2H-06	<b>A5</b>	168	81	<b>91</b>	140	104.8	<b>82.56</b>	<b>116</b>	5	<b>15</b>	45	11	<b>26</b>	-1	<b>14</b>	19	20
2H-08	<b>A5</b>	210	91	<b>109</b>	170	133.4	<b>82.56</b>	<b>104.8</b>	5	<b>23</b>	52	14.5	<b>37.5</b>	-1.5	<b>21.5</b>	20.5	30
2H-08	<b>A6</b>	210	91	<b>103</b>	170	133.4	<b>106.38</b>	<b>150</b>	5	<b>17</b>	52	14.5	<b>31.5</b>	-1.5	<b>15.5</b>	20.5	30
2H-10	<b>A6</b>	254	100	<b>120</b>	220	171.4	<b>106.38</b>	<b>133.4</b>	5	<b>25</b>	75	8.5	<b>33.5</b>	-10.5	<b>14.5</b>	25	45
2H-10	<b>A8</b>	254	100	<b>113</b>	220	171.4	<b>139.72</b>	<b>190</b>	5	<b>18</b>	75	8.5	<b>26.5</b>	-10.5	<b>7.5</b>	25	45
2H-12	<b>A8</b>	304	110	<b>122</b>	220	171.4	<b>139.72</b>	<b>190</b>	6	<b>18</b>	91	8	<b>26</b>	-15	<b>3</b>	28	50
2H-15	<b>A8</b>	381	133	<b>160</b>	300	235	<b>139.72</b>	<b>171.4</b>	6	<b>33</b>	120	11	<b>44</b>	-12	<b>21</b>	39	60
2H-15	<b>A11</b>	381	133	<b>149</b>	300	235	<b>196.87</b>	<b>260</b>	6	<b>22</b>	120	11	<b>33</b>	-12	<b>10</b>	39	60

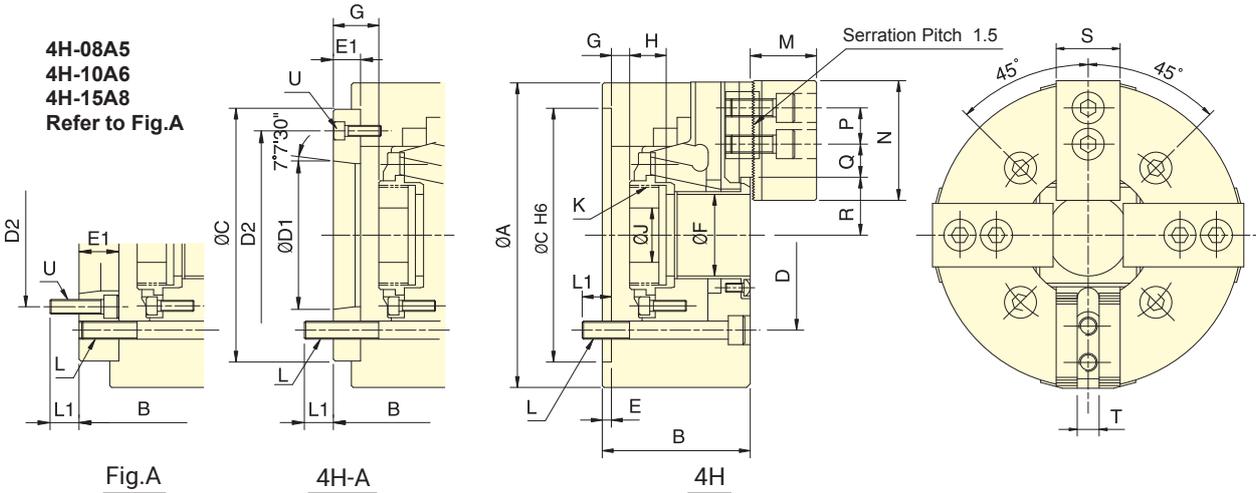
  

Model	K max.	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U		
2H-04	M32x1.5	4~M10	16	-	24	52	11.3	6.8	23	20.3	23	10	-		
2H-05	<b>A4</b>	M40x1.5	4~M10	15	<b>15</b>	31	62	14	19.8	7.8	26.5	23.8	25	10	<b>3~M6</b>
2H-06	<b>A5</b>	M55x2	6~M10	16	<b>16</b>	37	73	20	22.8	9.3	32	29.3	31	12	<b>3~M6</b>
2H-08	<b>A5</b>	M60x2	6~M12	20	<b>17</b>	38	95	25	29.8	14.8	38.7	35	35	14	<b>6~M10</b>
2H-08	<b>A6</b>	M60x2	6~M12	20	<b>18</b>	38	95	25	29.8	14.8	38.7	35	35	14	<b>3~M6</b>
2H-10	<b>A6</b>	M85x2	6~M16	22	<b>18</b>	43	110	30	33.8	14.3	51	46.6	40	16	<b>6~M12</b>
2H-10	<b>A8</b>	M85x2	6~M16	22	<b>24</b>	43	110	30	33.8	14.3	51	46.6	40	16	<b>3~M8</b>
2H-12	<b>A8</b>	M100x2	6~M16	23	<b>25</b>	51	130	30	45.8	15.8	61.3	56	50	21	<b>3~M8</b>
2H-15	<b>A8</b>	M130x2	6~M20	30	<b>24</b>	63	165	43	47.3	18.2	80	74.7	62	25.5 or 22	<b>6~M16</b>
2H-15	<b>A11</b>	M130x2	6~M20	30	<b>28</b>	63	165	43	47.3	18.2	80	74.7	62	25.5 or 22	<b>3~M10</b>

1. The dimensions and the specifications of 2H-A type are in red data.



- It's a WEDGE-HOOK type 4-jaw with the large through-hole.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.
- J value is the hole diameter of blank draw nut, K is the maximum thread specification, and it could be customize.



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chucking Dia.		Max. D.B. pull	Max. Clamping force	Max. speed	I	Weight	Matching cyl.	Max. pressure		
			Max.	Min.									
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )		
4H-06	A5	12	5.5	168	15	21.6(2200)	56.8(5600)	5000	0.07	12.5	14.3	TK-C646	2.5(25)
4H-08	A5	16	7.4	210	13	34.3(3500)	85.8(8750)	4200	0.19	23.5	25.4	TK-A853	2.8(28)
4H-08	A6	16	7.4	210	13	34.3(3500)	85.8(8750)	4200	0.19	23.5	24.3	TK-A853	2.8(28)
4H-10	A6	19	8.8	254	25	42.6(4380)	110.7(11300)	3400	0.34	36.3	41	TK-A1075	2.8(28)
4H-10	A8	19	8.8	254	25	42.6(4380)	110.7(11300)	3400	0.34	36.3	39.3	TK-A1075	2.8(28)
4H-12	A8	23	10.6	304	34	54.9(5600)	143.6(14650)	2700	0.79	62	65.7	TK-A1291	2.6(26)
4H-15	A8	23	10.6	381	50	71(7250)	179.8(18350)	2000	2.5	123.7	137.7	TK-A1512	2.3(23)
4H-15	A11	23	10.6	381	50	71(7250)	179.8(18350)	2000	2.42	123.7	130.7	TK-A1512	2.3(23)
4H-18	A11	23	10.6	450	50	71(7250)	179.8(18350)	1700	4.85	170	184	TK-A1512	2.3(23)

DIMENSIONS

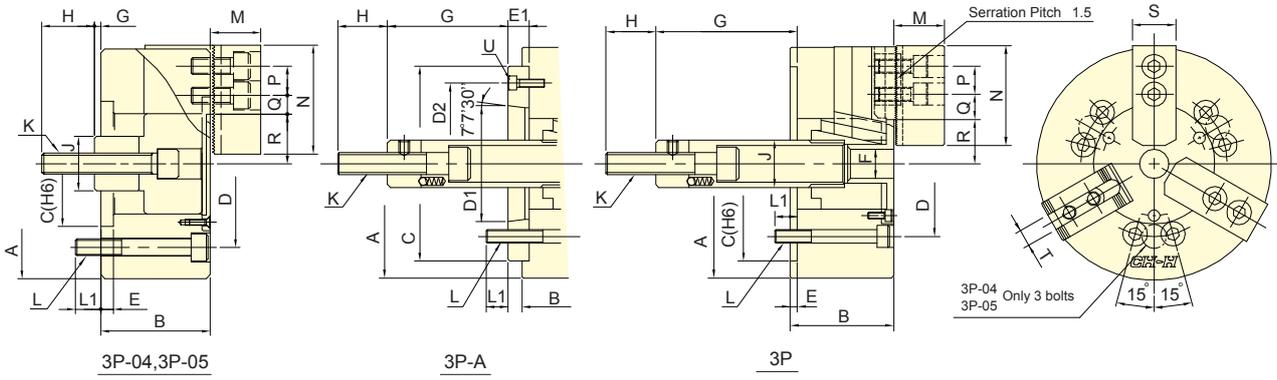
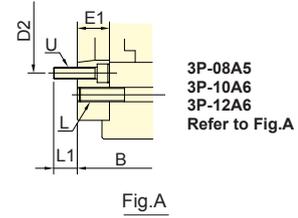
Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
4H-06	A5	168	81	91	140	104.8	82.56	116	5	15	45	11	26	-1	14	19	20
4H-08	A5	210	91	109	170	133.4	82.56	104.8	5	23	52	14.5	37.5	-1.5	21.5	20.5	30
4H-08	A6	210	91	103	170	133.4	106.38	150	5	17	52	14.5	31.5	-1.5	15.5	20.5	30
4H-10	A6	254	100	120	220	171.4	106.38	133.4	5	25	75	8.5	33.5	-10.5	14.5	25	45
4H-10	A8	254	100	113	220	171.4	139.72	190	5	18	75	8.5	26.5	-10.5	7.5	25	45
4H-12	A8	304	110	122	220	171.4	139.72	190	6	18	91	8	26	-15	3	28	50
4H-15	A8	381	133	160	300	235	139.72	171.4	6	33	120	11	44	-12	21	39	60
4H-15	A11	381	133	149	300	235	196.87	260	6	22	120	11	33	-12	10	39	60
4H-18	A11	450	133	149	300	235	196.87	260	6	22	120	11	33	-12	10	39	60

Model	K max.	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U		
4H-06	A5	M55x2	4~M10	16	16	37	73	20	22.8	9.3	32	29.3	31	12	3~M6
4H-08	A5	M60x2	4~M12	20	17	38	95	25	29.8	14.8	38.7	35	35	14	6~M10
4H-08	A6	M60x2	4~M12	20	18	38	95	25	29.8	14.8	38.7	35	35	14	3~M6
4H-10	A6	M85x2	4~M16	22	18	43	110	30	33.8	14.3	51	46.6	40	16	6~M12
4H-10	A8	M85x2	4~M16	22	24	43	110	30	33.8	14.3	51	46.6	40	16	3~M8
4H-12	A8	M100x2	4~M16	23	25	51	130	30	45.8	15.8	61.3	56	50	21	3~M8
4H-15	A8	M130x2	4~M20	30	24	63	165	43	47.5	20.5	80	74.7	62	25.5 or 22	6~M16
4H-15	A11	M130x2	4~M20	30	28	63	165	43	47.5	20.5	80	74.7	62	25.5 or 22	3~M10
4H-18	A11	M130x2	4~M20	30	28	63	165	43	83.5	20.5	80	74.7	62	25.5 or 22	3~M10

1. The dimensions and the specifications of 4H-A type are in red data.



- It's a WEDGE-HOOK type 3-jaw power chuck.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
			Max. mm	Min. mm							
3P-04	15	6.4	110	5	8.1(830)	22.5(2300)	6000	0.01	4.1	-	RK-75(N) RA-130 2.2(22) 0.6(6)
3P-05	15	6.4	135	14	8.1(830)	25(2550)	5500	0.02	6.2	-	RK-75(N) RA-130 2.2(22) 0.6(6)
3P-06	A5	20	165	16	17.9(1830)	52.4(5350)	5250	0.05	13	14	RK-100(N) RA-170 2.6(26) 0.6(6)
3P-08	A5	21	210	21	25(2550)	74.5(7600)	4750	0.14	24	28	RK-125(N) RA-220 2.3(23) 0.5(5)
3P-08	A6	21	210	21	25(2550)	74.5(7600)	4750	0.14	24	27	RK-125(N) RA-220 2.3(23) 0.5(5)
3P-10	A6	25	254	24	28.9(2950)	107.8(11000)	4000	0.3	35	42	RK-125(N) RA-220 2.6(26) 0.6(6)
3P-10	A8	25	254	24	28.9(2950)	107.8(11000)	4000	0.3	35	40	RK-125(N) RA-220 2.6(26) 0.6(6)
3P-12	A6	30	304	24	41(4180)	155.8(15900)	3360	0.73	59	65	RK-150(N) RA-270 2.6(26) 0.8(8)
3P-12	A8	30	304	24	41(4180)	155.8(15900)	3360	0.73	59	63	RK-150(N) RA-270 2.6(26) 0.8(8)

DIMENSIONS

Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J
3P-04	110	52	-	60	80	-	-	6	-	18	-	3	26
3P-05	135	55	-	80	100	-	-	7	-	9	-	-6	28
3P-06	A5	74	84	140	104.8	82.56	116	5	15	21	102.6	87.6	34
3P-08	A5	85	103	170	133.4	82.56	104.8	5	23	25	127	104	38
3P-08	A6	85	97	170	133.4	106.38	150	5	17	25	127	110	38
3P-10	A6	89	109	220	171.4	106.38	133.4	5	25	34	158	133	45
3P-10	A8	89	102	220	171.4	139.72	190	5	18	34	158	140	45
3P-12	A6	106	125	220	171.4	106.38	133.4	6	25	34	163	138	50
3P-12	A8	106	118	220	171.4	139.72	190	6	18	34	163	145	50

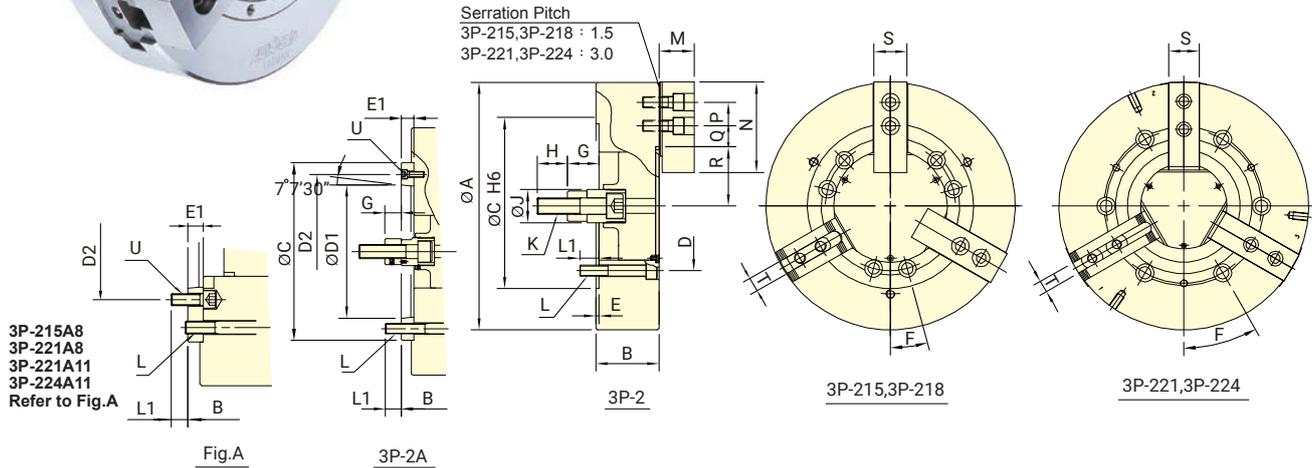
  

Model	K	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U	
3P-04	M10x1.5	3~M8	12	-	24	52	14	11.2	6.7	23.6	20.4	23	-	
3P-05	M12x1.75	3~M8	14	-	31	62	14	15.7	5.2	30.4	27.2	25	-	
3P-06	A5	M16x2	6~M10	14	14	37	73	20	18.25	9.25	38.25	33.75	31	3~M6
3P-08	A5	M20x2.5	6~M12	20	17	38	95	25	25.25	11.75	46.3	41.9	35	6~M10
3P-08	A6	M20x2.5	6~M12	20	18	38	95	25	25.25	11.75	46.3	41.9	35	3~M6
3P-10	A6	M20x2.5	6~M16	18	18	43	110	30	35.25	12.75	51.1	46.7	40	6~M12
3P-10	A8	M20x2.5	6~M16	18	25	43	110	30	35.25	12.75	51.1	46.7	40	3~M8
3P-12	A6	M20x2.5	6~M16	18	18	51	130	30	48.75	12.75	61	55.75	50	18 or 21
3P-12	A8	M20x2.5	6~M16	18	25	51	130	30	48.75	12.75	61	55.75	50	18 or 21

1. The dimensions and the specifications of 3P-A type are in red data.



- It's a WEDGE-HOOK type 3-jaw power chuck.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.



Subject to technical changes

## SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight		Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
			Max. mm	Min. mm					kg	kg		
3P-215 <b>A8</b>	35	16	381	50	82(8360)	249(25390)	3000	1.8	109.9	<b>122.4</b>	RH-200or RK-200(N)	2.8(28)
3P-215 <b>A11</b>	35	16	381	50	82(8360)	249(25390)	3000	1.8	109.9	<b>116</b>	RH-200or RK-200(N)	2.8(28)
3P-218 <b>A11</b>	35	16	450	60	82(8360)	249(25400)	2800	2.32	124	<b>130</b>	RH-200or RK-200(N)	2.8(28)
3P-221 <b>A8</b>	35	16	530	59	82(8360)	272.6(27800)	1900	4.9	177	<b>200</b>	RH-200or RK-200(N)	2.8(28)
3P-221 <b>A11</b>	35	16	530	59	82(8360)	272.6(27800)	1900	4.9	177	<b>194</b>	RH-200or RK-200(N)	2.8(28)
3P-224 <b>A11</b>	35	16	610	152	82(8360)	272.6(27800)	1750	7	230	<b>246.28</b>	RH-200or RK-200(N)	2.8(28)
3P-224 <b>A15</b>	35	16	610	152	82(8360)	272.6(27800)	1750	7	230	<b>238.6</b>	RH-200or RK-200(N)	2.8(28)

## DIMENSIONS

Model	A	B	C	D	D1	D2	E	E1	F	G max.		G min.		H	J	
3P-215 <b>A8</b>	381	114	<b>141</b>	300	235	<b>139.72</b>	<b>171.4</b>	6	<b>33</b>	15°	104	<b>71</b>	69	<b>36</b>	55	60
3P-215 <b>A11</b>	381	114	<b>130</b>	300	235	<b>196.87</b>	<b>260</b>	6	<b>22</b>	15°	104	<b>82</b>	69	<b>47</b>	55	60
3P-218 <b>A11</b>	450	114	<b>130</b>	300	235	<b>196.87</b>	<b>260</b>	6	<b>22</b>	15°	92	<b>70</b>	57	<b>35</b>	55	60
3P-221 <b>A8</b>	530	125	<b>152</b>	380	330.2	<b>139.72</b>	<b>171.4</b>	6	<b>33</b>	30°	97	<b>64</b>	62	<b>29</b>	55	60
3P-221 <b>A11</b>	530	125	<b>146</b>	380	330.2	<b>196.87</b>	<b>235</b>	6	<b>27</b>	30°	97	<b>70</b>	62	<b>35</b>	55	60
3P-224 <b>A11</b>	610	125	<b>146</b>	380	330.2	<b>196.87</b>	<b>235</b>	6	<b>27</b>	30°	97	<b>70</b>	62	<b>35</b>	55	60
3P-224 <b>A15</b>	610	125	<b>146</b>	380	330.2	<b>285.78</b>	<b>330.2</b>	6	<b>27</b>	30°	97	<b>70</b>	62	<b>35</b>	55	60

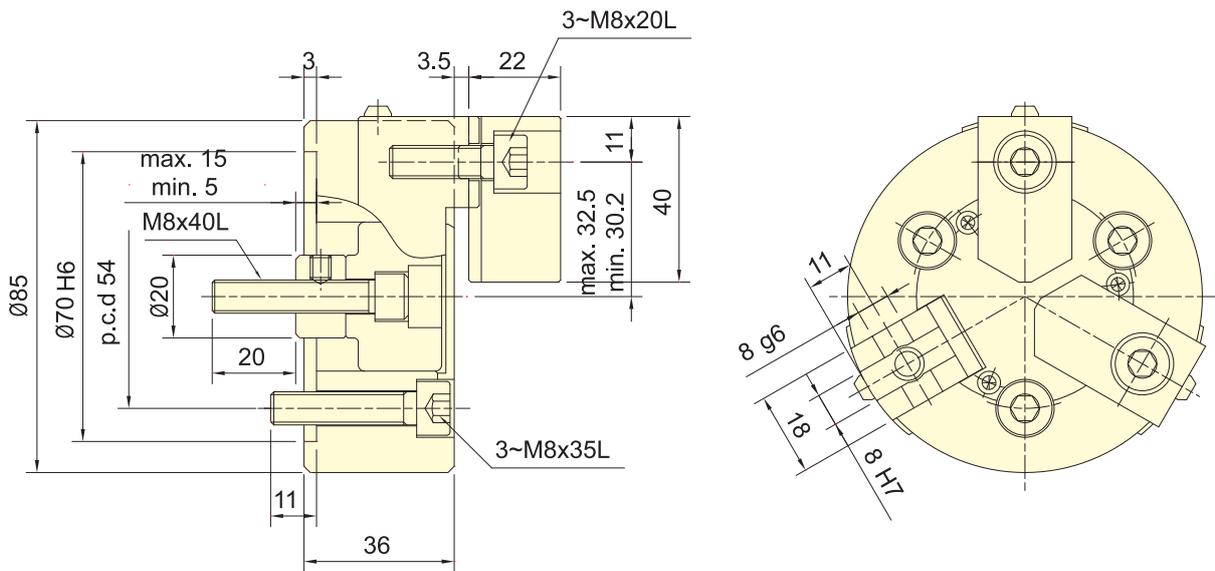
  

Model	K	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U	
3P-215 <b>A8</b>	M30x3.5	6~M20	30	<b>29</b>	63.3	165	43	51.25	18.25	77.5	69.5	62	25.5	<b>6~M16</b>
3P-215 <b>A11</b>	M30x3.5	6~M20	30	<b>33</b>	63.3	165	43	51.25	18.25	77.5	69.5	62	25.5	<b>3~M10</b>
3P-218 <b>A11</b>	M30x3.5	6~M20	35	<b>33</b>	63.3	165	43	52.75	18.25	108	100	62	25.5	<b>3~M10</b>
3P-221 <b>A8</b>	M30x3.5	6~M24	31	<b>24</b>	71	180	60	96.5	24.5	86	78	65	25	<b>6~M16</b>
3P-221 <b>A11</b>	M30x3.5	6~M24	31	<b>28</b>	71	180	60	96.5	24.5	86	78	65	25	<b>6~M20</b>
3P-224 <b>A11</b>	M30x3.5	6~M24	31	<b>28</b>	71	180	60	96.5	24.5	125	117	65	25	<b>6~M20</b>
3P-224 <b>A15</b>	M30x3.5	6~M24	31	<b>34</b>	71	180	60	96.5	24.5	125	117	65	25	<b>3~M12</b>

1. The dimensions and the specifications of 3P-A type are in red data.



- It's a WEDGE-HOOK type 3-jaw mini power chuck.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Suitable for bench lathe.

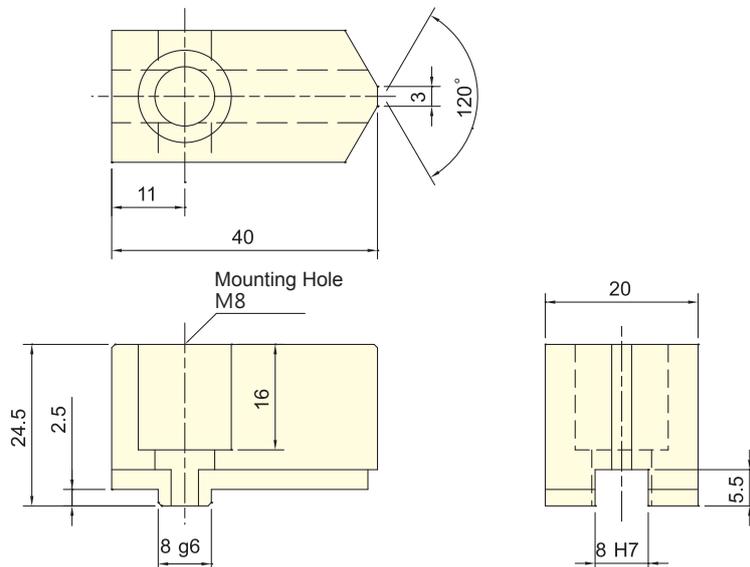


Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl. RK-75	Max. pressure MPa (kgf/cm <sup>2</sup> )
			Max. mm	Min. mm							
3P-03	10	4.6	85	3	4.5(460)	11.3(1150)	7000	0.004	1.8		1.2(12.4)

Standard Soft Jaw For 3P-03 Power Chuck  
SJ-K03





- It's a WEDGE-HOOK type 2-jaw power chuck.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.

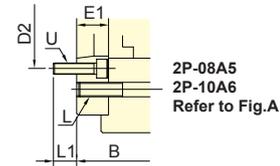
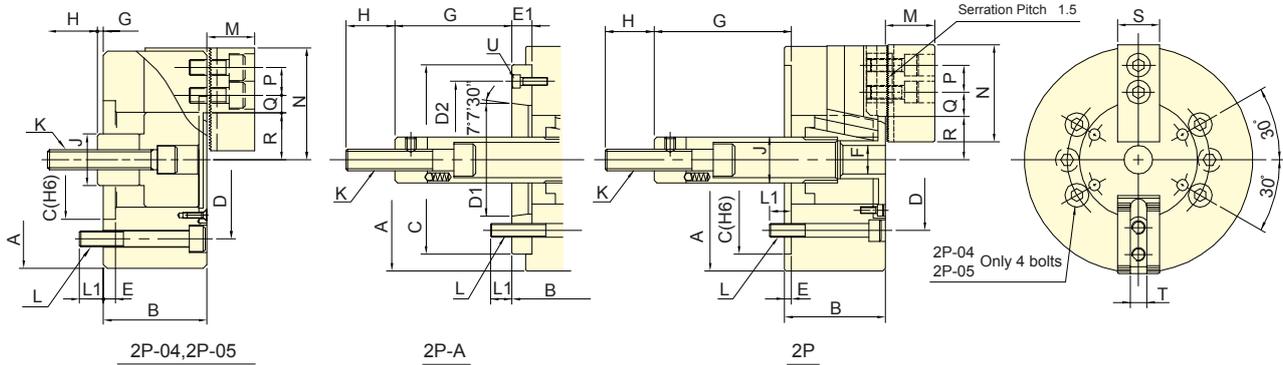


Fig.A



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight		Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )	
			Max. mm	Min. mm					kg	-			
2P-04	15	6.4	110	5	5.3(540)	14.7(1500)	6000	0.01	3.8	-	RK-75(N) RA-130	1.5(15) 0.4(4)	
2P-05	15	6.4	135	14	5.3(540)	16.7(1700)	5500	0.02	5.8	-	RK-75(N) RA-130	1.5(15) 0.4(4)	
2P-06	<b>A5</b>	20	8.5	165	14	12(1220)	35(3570)	5250	0.04	12	13	RK-100(N) RA-170	1.7(17) 0.4(4)
2P-08	<b>A5</b>	21	8.8	210	17	16.5(1680)	50(5100)	4750	0.13	22	26	RK-125(N) RA-220	1.5(15) 0.4(4)
2P-08	<b>A6</b>	21	8.8	210	17	16.5(1680)	50(5100)	4750	0.13	22	25	RK-125(N) RA-220	1.5(15) 0.4(4)
2P-10	<b>A6</b>	25	8.8	254	22	19.4(1980)	71.5(7300)	4000	0.29	33	42	RK-125(N) RA-220	1.8(18) 0.4(4)
2P-10	<b>A8</b>	25	8.8	254	22	19.4(1980)	71.5(7300)	4000	0.29	33	40	RK-125(N) RA-220	1.8(18) 0.4(4)
2P-12	<b>A8</b>	30	10.5	304	22	27.4(2800)	103.9(10600)	3360	0.70	57	61	RK-150(N)	1.7(17)
2P-15	<b>A11</b>	35	16	381	50	54.9(5600)	164.6(16800)	3000	1.70	96	103	RK-200(N)	1.9(19)

DIMENSIONS

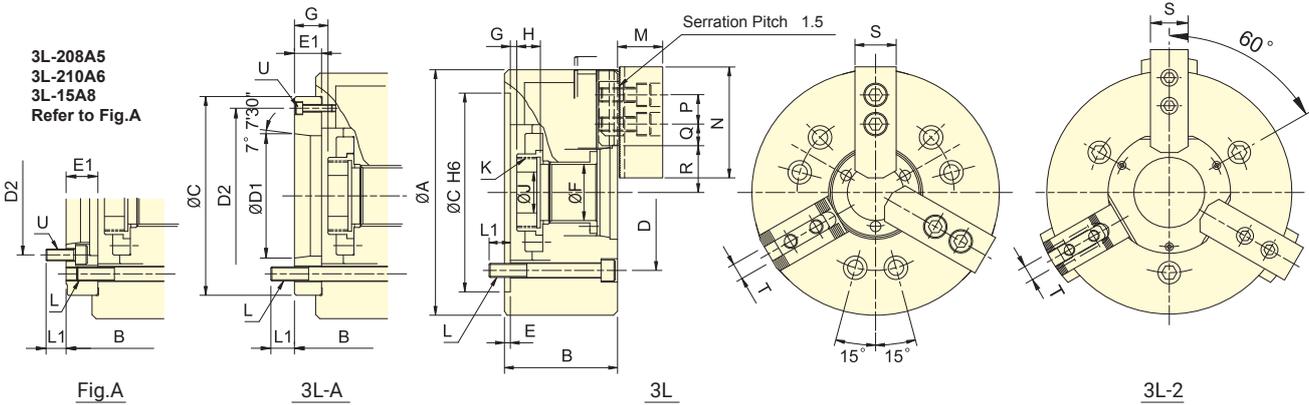
Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J
2P-04	110	52	-	60	80	-	6	-	-	18	-	3	25
2P-05	135	55	-	80	100	-	7	-	-	9	-	6	35
2P-06	<b>A5</b>	165	84	140	104.8	<b>82.56</b>	<b>116</b>	5	<b>15</b>	21	102.6	<b>87.6</b>	82.6
2P-08	<b>A5</b>	210	85	170	133.4	<b>82.56</b>	<b>104.8</b>	5	<b>23</b>	25	127	<b>104</b>	106
2P-08	<b>A6</b>	210	85	170	133.4	<b>106.38</b>	<b>150</b>	5	<b>17</b>	25	127	<b>110</b>	106
2P-10	<b>A6</b>	254	89	220	171.4	<b>106.38</b>	<b>133.4</b>	5	<b>25</b>	34	158	<b>133</b>	133
2P-10	<b>A8</b>	254	89	220	171.4	<b>139.72</b>	<b>190</b>	5	<b>18</b>	34	158	<b>140</b>	133
2P-12	<b>A8</b>	304	106	220	171.4	<b>139.72</b>	<b>190</b>	6	<b>18</b>	34	163	<b>145</b>	133
2P-15	<b>A11</b>	381	114	300	235	<b>196.87</b>	<b>260</b>	6	<b>22</b>	-	104	<b>82</b>	69

Model	K	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U
2P-04	M10x1.5	4~M8	12	-	24	52	11.3	8.3	23.3	20.1	23	10	-
2P-05	M12x1.75	4~M8	14	-	31	62	14	6	30.4	27.2	25	10	-
2P-06	<b>A5</b>	M16x2	6~M10	14	<b>14</b>	37	20	18.25	9.25	38.25	34	31	12
2P-08	<b>A5</b>	M20x2.5	6~M12	20	<b>17</b>	38	25	22.3	11.8	46.3	41.9	35	14
2P-08	<b>A6</b>	M20x2.5	6~M12	20	<b>18</b>	38	25	22.3	11.8	46.3	41.9	35	14
2P-10	<b>A6</b>	M20x2.5	6~M16	18	<b>18</b>	43	30	30.8	11.3	51.1	46.7	40	16
2P-10	<b>A8</b>	M20x2.5	6~M16	18	<b>25</b>	43	30	30.8	11.3	51.1	46.7	40	16
2P-12	<b>A8</b>	M20x2.5	6~M16	18	<b>25</b>	51	30	48.5	12.5	-	-	50	18 or 21
2P-15	<b>A11</b>	M30x3.5	6~M20	30	<b>33</b>	63	43	48.8	23.3	77.5	69.5	62	25.5

1. The dimensions and the specifications of 2P-A type are in red data.



- It's a CRANK type 3-jaw with the large through-hole, and extra long jaw stroke.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.
- J value is the hole diameter of blank draw nut, K is the maximum thread specification, and it could be customize.
- Patent numbers :  
Taiwan : PAT.207282 / China : PAT.ZL02284637.9



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chucking Dia.		Max. D.B. pull	Max. Clamping force	Max. speed	I	Weight	Matching cyl.	Max. pressure		
			Max.	Min.									
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )		
3L-205	A4	12	18	138	6	15.6(1590)	17.2(1750)	4200	0.019	7.2	8	TK-A533	2.3(23)
3L-206	A5	15	24	170	18	23.5(2400)	26.0(2650)	3600	0.063	14.7	15.9	TK-C646	2.7(27)
3L-208	A5	20	32	215	25	34.3(3500)	35.0(3570)	3000	0.18	23	25.7	TK-A853	2.8(28)
3L-208	A6	20	32	215	25	34.3(3500)	35.0(3570)	3000	0.18	23	24.6	TK-A853	2.8(28)
3L-210	A6	25	37.5	260	47	47.7(4870)	48.0(4895)	2400	0.35	39.5	46.5	TK-A1075	3.1(31)
3L-210	A8	25	37.5	260	47	47.7(4870)	48.0(4895)	2400	0.35	39.5	45	TK-A1075	3.1(31)
3L-212	A8	30	45	315	54	64.7(6600)	61.0(6220)	2100	0.827	67.3	70.5	TK-A1291	3.0(30)
3L-15	A8	35	52	385	50	84.3(8600)	68.0(6930)	1600	2.58	136	150	TK-A1512	2.7(27)
3L-15	A11	35	52	385	50	84.3(8600)	68.0(6930)	1600	2.58	136	143	TK-A1512	2.7(27)

DIMENSIONS

Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
3L-205	A4	138	65	76	110	82.6	63.51	96	4	15	32	1	15	-11	3	20	12
3L-206	A5	170	84	97	140	104.8	82.56	116	5	18	45	6.5	24.5	-8.5	9.5	19	20
3L-208	A5	215	96	114	170	133.4	82.56	104.8	5	23	52	7	30	-13	10	20	30
3L-208	A6	215	96	114	170	133.4	106.38	150	5	23	52	7	30	-13	10	20	30
3L-210	A6	260	108	128	220	171.4	106.38	133.4	5	25	75	8.5	33	-16.5	8	25	45
3L-210	A8	260	108	121	220	171.4	139.72	190	5	18	75	8.5	26.5	-16.5	1.5	25	45
3L-212	A8	315	125	138	220	171.4	139.72	190	5	18	91	15	33	-15	3	30	50
3L-15	A8	385	150	177	300	235	139.72	171.4	6	33	120	12.5	45.5	-22.5	10.5	39	60
3L-15	A11	385	150	166	300	235	196.87	260	6	22	120	12.5	34.5	-22.5	-0.5	39	60

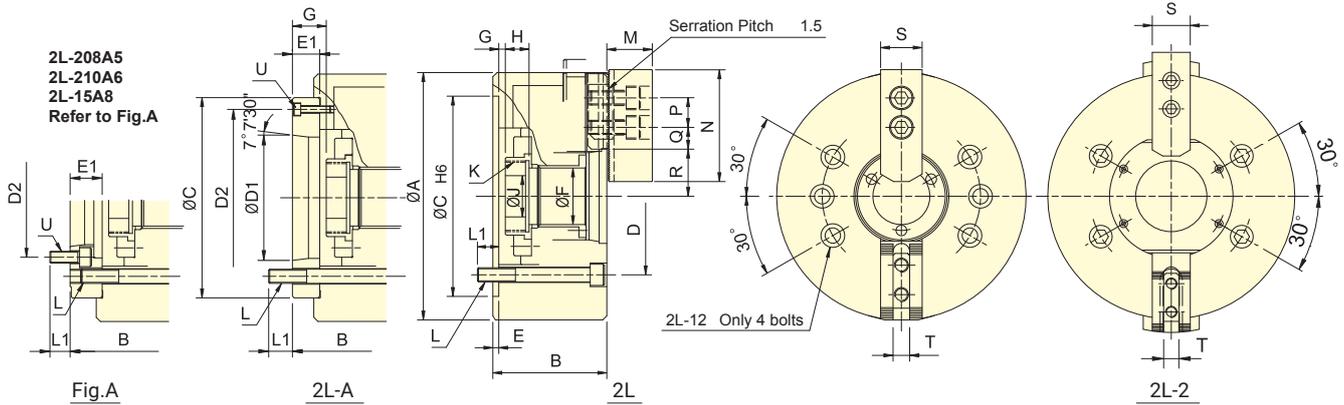
  

Model	K max.	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U		
3L-205	A4	M40x1.5	3~M10	15	15	31	62	14	15.75	5.25	38.5	29.5	25	10	3~M6
3L-206	A5	M55x2	3~M10	18	15	37	73	20	15.25	7.75	51	39	31	12	3~M6
3L-208	A5	M60x2	3~M12	18	19	38	95	25	19.25	10.25	63.5	47.5	35	14	6~M10
3L-208	A6	M60x2	3~M12	18	20	38	95	25	19.25	10.25	63.5	47.5	35	14	3~M6
3L-210	A6	M85x2	3~M16	24	20	43	110	30	24.75	11.25	80	61.25	40	16	3~M12
3L-210	A8	M85x2	3~M16	24	21	43	110	30	24.75	11.25	80	61.25	40	16	3~M8
3L-212	A8	M100x2	3~M16	24	21	51	130	30	29.75	13.25	96.5	74	50	21	3~M8
3L-15	A8	M130x2	6~M20	33	31	63	165	43	51.25	27.25	94.25	68.25	62	25.5	6~M16
3L-15	A11	M130x2	6~M20	33	31	63	165	43	51.25	27.25	94.25	68.25	62	25.5	3~M10

1. The dimensions and the specifications of 3L-A type are in red data.



- It's a CRANK type 2-jaw with the large through-hole, and extra long jaw stroke.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.
- J value is the hole diameter of blank draw nut, K is the maximum thread specification, and it could be customize.
- Patent numbers :  
Taiwan : PAT.207282 / China : PAT.ZL02284637.9



Subject to technical changes

### SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chucking Dia.		Max. D.B. pull	Max. Clamping force	Max. speed	I	Weight	Matching cyl.	Max. pressure		
			Max.	Min.									
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )		
2L-205	A4	12	18	138	6	10.4(1060)	11.4(1170)	4200	0.018	6.9	7.7	TK-A533	1.5(15)
2L-206	A5	15	24	170	18	15.7(1600)	17.3(1760)	3600	0.063	14.4	15.6	TK-C646	1.8(18)
2L-208	A5	20	32	215	25	22.9(2330)	27.1(2760)	3000	0.173	22	26	TK-A853	1.9(19)
2L-208	A6	20	32	215	25	22.9(2330)	27.1(2760)	3000	0.173	22	24.2	TK-A853	1.9(19)
2L-210	A6	25	37.5	260	47	31.8(3250)	37.3(3800)	2400	0.33	40	45.5	TK-A1075	2.1(21)
2L-210	A8	25	37.5	260	47	31.8(3250)	37.3(3800)	2400	0.33	40	44	TK-A1075	2.1(21)
2L-12	A8	30	45	304	30	43.1(4400)	50.0(5100)	2100	0.8	60	65.5	TK-A1291	2.0(20)
2L-15	A8	35	52	385	50	56.2(5730)	53.0(5400)	1600	2.52	133	147	TK-A1512	1.8(18)
2L-15	A11	35	52	385	50	56.2(5730)	53.0(5400)	1600	2.52	133	140	TK-A1512	1.8(18)

### DIMENSIONS

Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
2L-205	A4	138	65	76	110	82.6	63.51	96	4	15	32	1	15	-11	3	20	12
2L-206	A5	170	84	97	140	104.8	82.56	116	5	18	45	6.5	24.5	-8.5	9.5	19	20
2L-208	A5	215	96	114	170	133.4	82.56	104.8	5	23	52	7	30	-13	10	20	30
2L-208	A6	215	96	114	170	133.4	106.38	150	5	23	52	7	30	-13	10	20	30
2L-210	A6	260	108	128	220	171.4	106.38	133.4	5	25	75	8.5	33	-16.5	8	25	45
2L-210	A8	260	108	121	220	171.4	139.72	190	5	18	75	8.5	26.5	-16.5	1.5	25	45
2L-12	A8	304	127	140	220	171.4	139.72	190	5	18	91	15	33	-15	3	28	50
2L-15	A8	385	150	177	300	235	139.72	171.4	6	33	120	12.5	45.5	-22.5	10.5	39	60
2L-15	A11	385	150	166	300	235	196.87	260	6	22	120	12.5	34.5	-22.5	-0.5	39	60

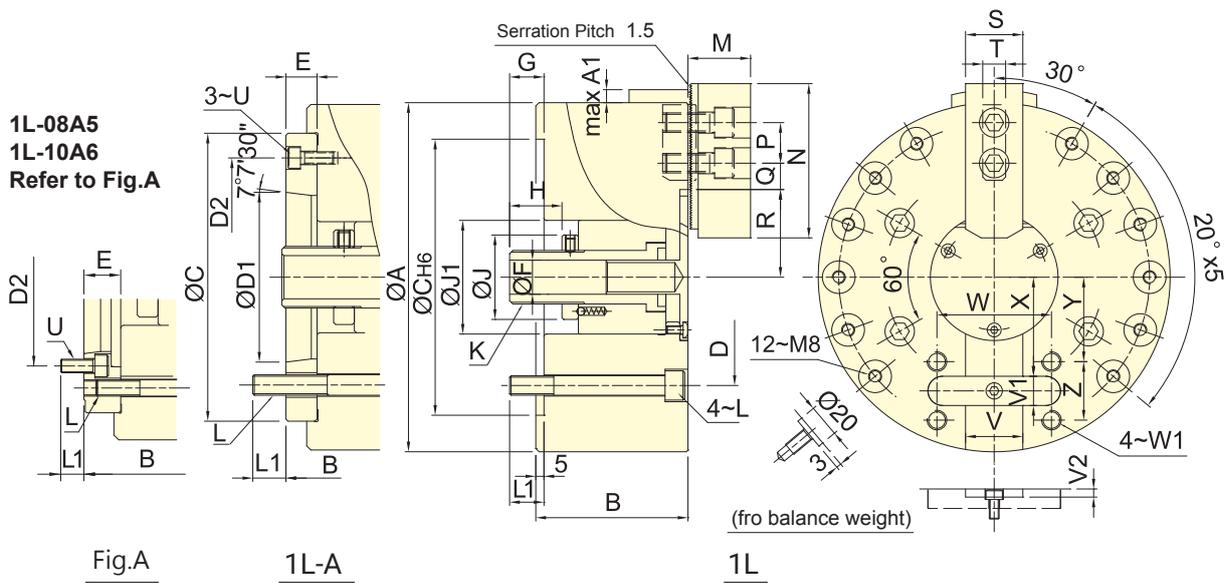
  

Model	K max.	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U		
2L-205	A4	M40x1.5	4~M10	15	15	31	62	14	15.75	5.25	38.5	29.5	25	10	3~M6
2L-206	A5	M55x2	4~M10	18	15	37	73	20	15.25	7.75	51	39	31	12	3~M6
2L-208	A5	M60x2	4~M12	18	19	38	95	25	19.25	10.25	63.5	47.5	35	14	6~M10
2L-208	A6	M60x2	4~M12	18	20	38	95	25	19.25	10.25	63.5	47.5	35	14	3~M6
2L-210	A6	M85x2	4~M16	24	20	43	110	30	24.75	11.25	80	61.25	40	16	6~M12
2L-210	A8	M85x2	4~M16	24	21	43	110	30	24.75	11.25	80	61.25	40	16	3~M8
2L-12	A8	M100x2	4~M16	22	19	51	130	30	46.25	19.25	77	54.5	50	21	3~M8
2L-15	A8	M130x2	6~M20	33	27.5	63	165	43	51.25	27.25	94.25	68.25	62	25.5	6~M16
2L-15	A11	M130x2	6~M20	33	31	63	165	43	51.25	27.25	94.25	68.25	62	25.5	3~M10

1.The dimensions and the specifications of 2L-A type are in red data.



- It's a CRANK type single-jaw with the large through-hole, and extra long jaw stroke.
- Suitable for clamping the jig or irregular work piece.
- Construction of high rigidity and high clamping accuracy.



Subject to technical changes

**SPECIFICATIONS**

Model	Plunger stroke	Jaw stroke (Dia.)	Chucking Dia.		Max. D.B. pull	Max. Clamping force	Max. speed	I	Weight	Matching cyl.	Max. pressure		
			Max.	Min.									
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )		
1L-06	<b>A5</b>	20	16	168	17	12.3(1250)	27.3(2780)	3800	0.05	12.5	<b>14.3</b>	RK-100	1.7(17.5)
1L-08	<b>A5</b>	25	20	215	20	15.7(1600)	37.2(3800)	3000	0.15	24.2	<b>27.1</b>	RK-125	1.4(14.3)
1L-08	<b>A6</b>	25	20	215	20	15.7(1600)	37.2(3800)	3000	0.15	24.2	<b>25.3</b>	RK-125	1.4(14.3)
1L-10	<b>A6</b>	30	24	254	25	21.6(2200)	48.5(4950)	2400	0.28	38.8	<b>46</b>	RK-125	1.9(19.5)
1L-10	<b>A8</b>	30	24	254	25	21.6(2200)	48.5(4950)	2400	0.28	38.8	<b>44.3</b>	RK-125	1.9(19.5)

**DIMENSIONS**

Model	A	A1	B	C	D	D1	D2	E	F	G max.	G min.	H	J	J1	K max.	L	L1			
1L-06	<b>A5</b>	168	9.5	80	<b>90</b>	140	104.8	<b>82.56</b>	<b>116</b>	15	21	37	17	25	46	54	M30x1.5	M10	16	<b>16</b>
1L-08	<b>A5</b>	215	8	93	<b>111</b>	170	133.4	<b>82.56</b>	<b>104.8</b>	23	21	46	21	32	52	70	M33x1.5	M12	21	<b>19</b>
1L-08	<b>A6</b>	215	8	93	<b>105</b>	170	133.4	<b>106.38</b>	<b>150</b>	17	21	46	21	32	52	70	M33x1.5	M12	21	<b>20</b>
1L-10	<b>A6</b>	254	13.5	108	<b>128</b>	220	171.4	<b>106.38</b>	<b>133.4</b>	25	30	47	17	30	62	90	M45x1.5	M16	25	<b>20</b>
1L-10	<b>A8</b>	254	13.5	108	<b>121</b>	220	171.4	<b>139.72</b>	<b>190</b>	18	30	47	17	30	62	90	M45x1.5	M16	25	<b>27</b>

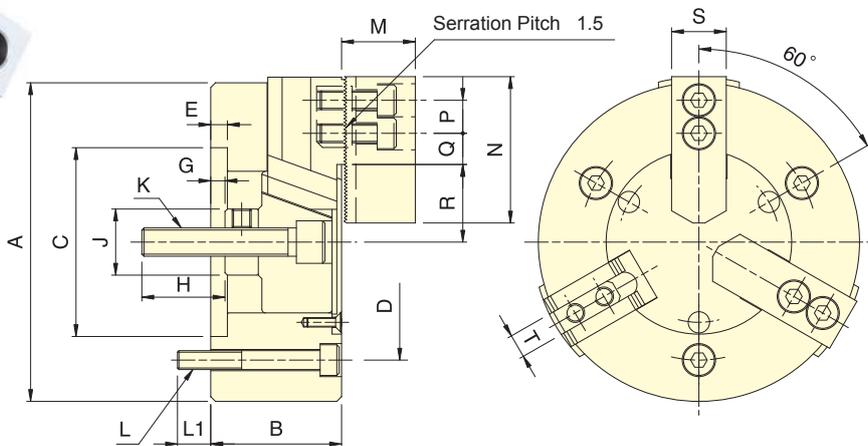
  

Model	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U	V(H6)	V1(h9)	V2	W	W1	X	Y	Z	
1L-06	<b>A5</b>	37	73	20	19.75	7.75	46	30	31	12	M6	30	15	4.5	64	M10	44.5	36	30
1L-08	<b>A5</b>	38	95	25	25.25	10.25	54	34	35	14	M6	35	18	4.5	70	M12	61	52	36
1L-08	<b>A6</b>	38	95	25	25.25	10.25	54	34	35	14	M6	35	18	4.5	70	M12	61	52	36
1L-10	<b>A6</b>	43	110	30	33.75	11.25	67	43	40	16	M8	40	20	5	90	M12	71	58.5	45
1L-10	<b>A8</b>	43	110	30	33.75	11.25	67	43	40	16	M8	40	20	5	90	M12	71	58.5	45

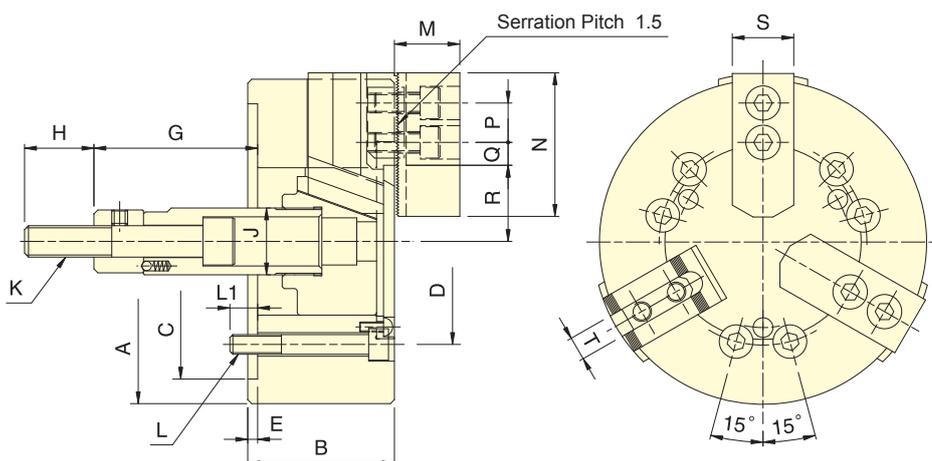
1. The dimensions and the specifications of 1L-A type are in red data.



- It's a WEDGE-HOOK type 3-jaw power chuck, and extra long jaw stroke.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.



3M-05



3M-06~3M-12

Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
			Max.	Min.							
3M-05	15	10.9	135	14	9.8(1000)	16.4(1670)	4500	0.02	6.0	RK-75(N)	2.7(27)
3M-06	20	14.5	165	14	21.6(2200)	36(3680)	4000	0.04	12.2	RK-100(N)	3.0(30)
3M-08	23	16.7	210	17	29.4(3000)	54.9(5600)	3500	0.13	23.0	RK-125(N)	2.9(29)
3M-10	27	19.6	254	22	39.2(4000)	74(7550)	3000	0.3	34.3	RK-150(N)	2.8(28)
3M-12	30	21.8	304	26	54(5500)	99(10100)	2500	0.71	59.4	RK-150(N)	3.6(36)

DIMENSIONS

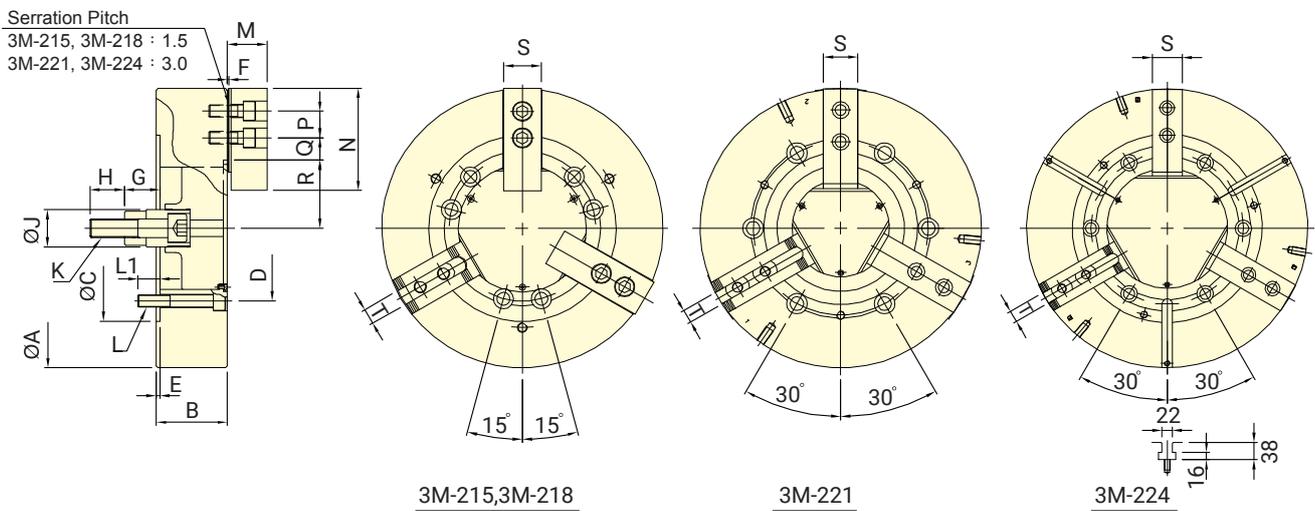
Model	A	B	C(H6)	D	E	G max.	G min.	H	J	K
3M-05	135	55	80	100	7	6	-9	35	28	M12x1.75
3M-06	165	74	140	104.8	5	101.6	81.6	36	34	M16x2
3M-08	210	85	170	133.4	5	129	106	36	38	M20x2.5
3M-10	254	89	220	171.4	5	160	133	36	45	M20x2.5
3M-12	304	106	220	171.4	6	70	40	46	50	M24x3

Model	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T
3M-05	3~M8	14	31	62	14	15.5	5	32.9	27.45	25	10
3M-06	6~M10	14	37	73	20	17	8	38.7	31.45	31	12
3M-08	6~M12	20	38	95	25	22.3	8.8	47.5	39.15	35	14
3M-10	6~M16	18	43	110	30	32.3	12.8	53.9	44.1	40	16
3M-12	6~M16	18	51	130	30	47.8	13.3	62.5	51.6	50	21



- It's a WEDGE-HOOK type 3-jaw power chuck, and extra long jaw stroke.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.



Subject to technical changes

## SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
			Max. mm	Min. mm							
* 3M-215	35	25.4	381	20	91.0(9280)	158.9(16200)	2300	1.8	96	RK-200(N)	3.0(30)
* 3M-218	35	25.4	450	51	91.0(9280)	158.9(16200)	2000	2.32	124	RK-200(N)	3.0(30)
* 3M-221	35	25.4	530	53	91.0(9280)	158.9(16200)	1350	4.9	175	RK-200(N)	3.0(30)
* 3M-224	35	25.4	610	160	91.0(9280)	158.9(16200)	1250	7.2	225	RK-200(N)	3.0(30)

## DIMENSIONS

Model	A	B	C(H6)	D	E	F	G max.	G min.	H	J
* 3M-215	381	114	300	235	6	2	104	69	55	60
* 3M-218	450	114	300	235	6	2	92	57	55	60
* 3M-221	530	125	380	330.2	6	3	97	62	55	60
* 3M-224	610	125	380	330.2	6	3	97	62	55	60

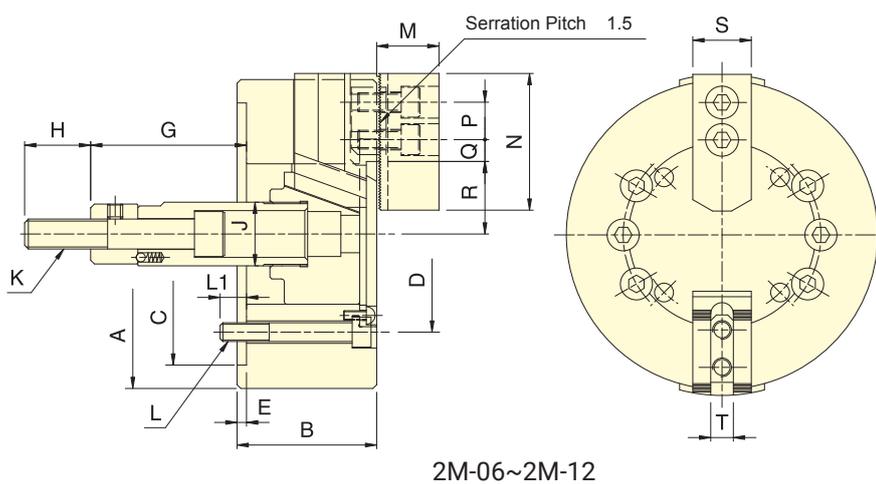
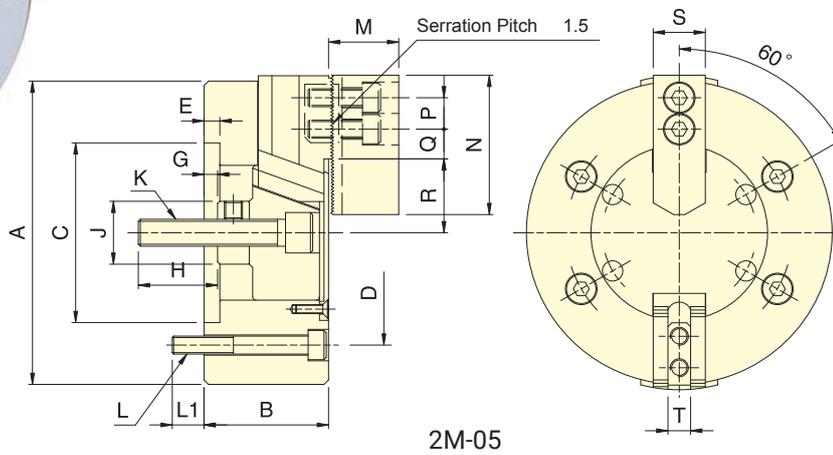
  

Model	K	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T
* 3M-215	M30x3.5	6~M20	30	63.3	165	43	49.75	18.25	79	66.3	62	25.5
* 3M-218	M30x3.5	6~M20	35	63.3	165	43	51.25	18.25	109.5	96.8	62	25.5
* 3M-221	M30x3.5	6~M24	31	71	180	60	90.5	24.5	92	79.3	65	25
* 3M-224	M30x3.5	6~M24	31	71	180	60	90	24	131	118.3	65	25

1. Models with "\*" mark are produced only by order.



- It's a WEDGE-HOOK type 2-jaw power chuck, and extra long jaw stroke.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.



Subject to technical changes

### SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
			Max. mm	Min. mm							
<b>2M-05</b>	15	10.9	135	14	6.5(660)	11(1120)	4500	0.02	6.0	RK-75(N)	1.8(18)
<b>2M-06</b>	20	14.5	165	14	14.3(1460)	24(2450)	4000	0.04	12.2	RK-100(N)	2.0(20)
<b>2M-08</b>	23	16.7	210	17	19.6(2000)	36.6(3730)	3500	0.13	23.0	RK-125(N)	1.9(19.3)
<b>2M-10</b>	27	19.6	254	22	26.1(2660)	49.3(5030)	3000	0.30	34.3	RK-150(N)	1.8(18.6)
<b>2M-12</b>	30	21.8	304	26	36(3670)	66(6730)	2500	0.71	59.1	RK-150(N)	2.4(24)

### DIMENSIONS

Model	A	B	C(H6)	D	E	G max.	G min.	H	J
<b>2M-05</b>	135	55	80	100	7	6	-9	35	28
<b>2M-06</b>	165	74	140	104.8	5	101.6	81.6	36	34
<b>2M-08</b>	210	85	170	133.4	5	129	106	36	38
<b>2M-10</b>	254	89	220	171.4	5	160	133	36	45
<b>2M-12</b>	304	106	220	171.4	6	70	40	46	50

Model	K	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T
<b>2M-05</b>	M12x1.75	4~M8	14	31	62	14	15.5	5	32.9	27.45	25	10
<b>2M-06</b>	M16x2	6~M10	14	37	73	20	17	8	38.7	31.45	31	12
<b>2M-08</b>	M20x2.5	6~M12	20	38	95	25	22.3	8.8	47.5	39.15	35	14
<b>2M-10</b>	M20x2.5	6~M16	18	43	110	30	32.3	12.8	53.9	44.1	40	16
<b>2M-12</b>	M24x3	6~M16	18	51	130	30	47.8	13.3	62.5	51.6	50	21



- It's a WEDGE-HOOK type 3-jaw high speed power chuck.
- Sealed against swarf, chips and coolant, suitable for vertical lathe.

3V-15A8  
3V-15A15  
3V-18A8  
3V-18A15  
3V-21A11  
3V-24A11  
Refer to Fig.A

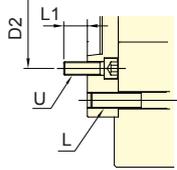
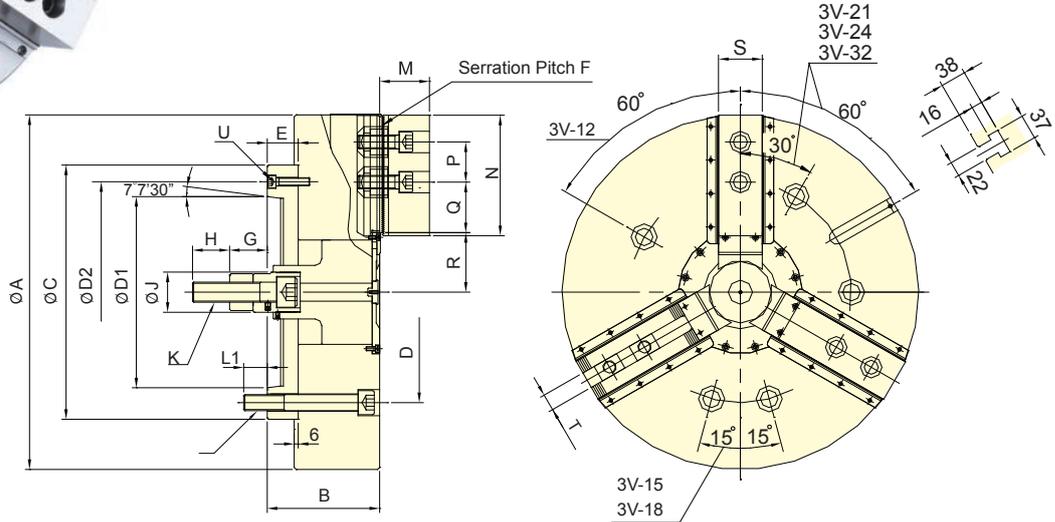


Fig.A



Subject to technical changes

### SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chucking Dia.		Max. D.B. pull	Max. Clamping force	Max. speed	I	Weight	Matching cyl.	Max. pressure	
			Max.	Min.								
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )	
3V-12	A8	30	12.7	304	22	41(4180)	156(15900)	3150	0.8	66	RK-150 RE-150	2.9(29)
3V-15	A8	35	16	381	30	81.9(8360)	245.1(125000)	2900	2.3	130		
3V-15	A11	35	16	381	30	81.9(8360)	245.1(125000)	2900	2.3	129		
3V-15	A15	35	16	381	30	81.9(8360)	245.1(125000)	2900	2.7	137		
3V-18	A8	35	16	450	80	81.9(8360)	245.1(125000)	2600	3.3	159		
3V-18	A11	35	16	450	80	81.9(8360)	245.1(125000)	2600	3.3	158		
3V-18	A15	35	16	450	80	81.9(8360)	245.1(125000)	2600	3.7	165	RK-200 RE-200K	3.2(32) 3.4(34)
3V-21	A11	35	16	530	62	81.9(8360)	271.6(27700)	1800	5.3	229		
3V-21	A15	35	16	530	62	81.9(8360)	271.6(27700)	1800	5.2	222		
3V-24	A11	35	16	610	136	81.9(8360)	271.6(27700)	1700	7.6	270		
3V-24	A15	35	16	610	136	81.9(8360)	271.6(27700)	1700	7.3	263		
3V-32	A15	35	16	800	136	81.9(8360)	271.6(27700)	1100	36.2	430		

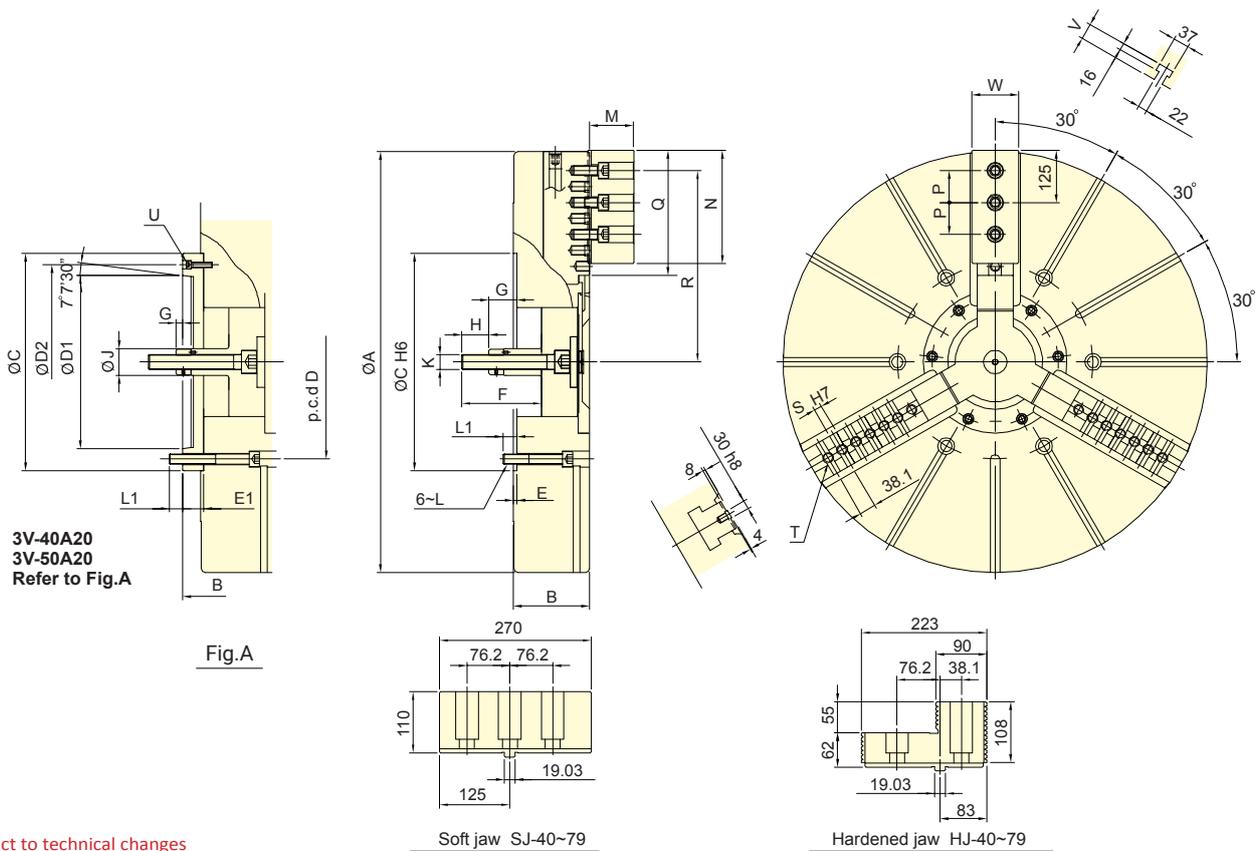
### DIMENSIONS

Model	A	B	C	D	D1	D2	E	F	G max.	G min.	H	J	K
3V-12	A8	304	141	220	171.4	139.72	190	40	1.5	73	43	36	50
3V-15	A8	381	164	300	235	139.72	171.4	54	1.5	99	64	55	60
3V-15	A11	381	168	300	235	196.87	260	58	1.5	95	60	55	60
3V-15	A15	381	172	380	235	285.78	330.2	62	1.5	91	56	55	60
3V-18	A8	450	164	300	235	139.72	171.4	54	1.5	99	64	55	60
3V-18	A11	450	168	300	235	196.87	260	58	1.5	95	60	55	60
3V-18	A15	450	172	380	235	285.78	330.2	62	1.5	91	56	55	60
3V-21	A11	530	167	380	330.2	196.87	235	46	3	91	56	55	60
3V-21	A15	530	167	380	330.2	285.78	330.2	46	3	91	56	55	60
3V-24	A11	610	167	380	330.2	196.87	235	46	3	91	56	55	60
3V-24	A15	610	167	380	330.2	285.78	330.2	46	3	91	56	55	60
3V-32	A15	800	167	380	330.2	285.78	330.2	46	3	91	56	55	60

Model	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U
3V-12	A8	3~M16	24	54	130	30	47.5	16	61	54.65	50	21
3V-15	A8	6~M20	24	66	165	43	51.25	18.25	77.5	69.5	62	25.5
3V-15	A11	6~M20	32	66	165	43	51.25	18.25	77.5	69.5	62	25.5
3V-15	A15	6~M20	26	66	165	43	51.25	18.25	77.5	69.5	62	25.5
3V-18	A8	6~M20	24	66	165	43	51.25	18.25	108	100	62	25.5
3V-18	A11	6~M20	32	66	165	43	51.25	18.25	108	100	62	25.5
3V-18	A15	6~M20	26	66	165	43	51.25	18.25	108	100	62	25.5
3V-21	A11	6~M24	35	74	180	60	93.5	24.5	89	81	65	25
3V-21	A15	6~M24	35	74	180	60	93.5	24.5	89	81	65	25
3V-24	A11	6~M24	35	74	180	60	93.5	24.5	128	120	65	25
3V-24	A15	6~M24	35	74	180	60	93.5	24.5	128	120	65	25
3V-32	A15	6~M24	35	74	180	60	189.5	24.5	128	120	65	25



- It's a WEDGE-HOOK type 3-jaw high speed power chuck.
- With manual radial setting of master jaws for the workpiece centering.
- Sealed against swarf, chips and coolant, suitable for vertical lathe.



Subject to technical changes

### SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chucking Dia.		Max. D.B. pull	Max. Clamping force	Max. speed	I		Weight		Matching cyl.	Max. pressure	
			Max.	Min.				Moment of inertia		kg				
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>					MPa (kgf/cm <sup>2</sup> )	
3V-40	<b>A20</b>	57	46+(60)	1005	380	180(18350)	320(32620)	630	68	<b>72</b>	780	<b>849</b>	RK-250	4.24(43.2)
3V-50	<b>A20</b>	57	46+(60)	1250	600	180(18350)	320(32620)	500	145	<b>148</b>	800	<b>869</b>	RE-250	4.24(43.2)
3V-63		60	48+(80)	1600	600	200(20390)	360(36700)	400	500	-	1600	-	RE-A250	4.76(46.7)
3V-79		60	48+(80)	2000	1000	200(20390)	360(36700)	320	1250	-	2500	-	RE-L250	4.76(46.7)

### DIMENSIONS

Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J	K				
3V-40	<b>A20</b>	1005	184	<b>226</b>	520	463.6	<b>412.78</b>	<b>463.6</b>	8	<b>50</b>	190	123	<b>73</b>	66	<b>16</b>	65	<b>65</b>	M36x4
3V-50	<b>A20</b>	1250	184	<b>226</b>	520	463.6	<b>412.78</b>	<b>463.6</b>	8	<b>50</b>	190	123	<b>73</b>	66	<b>16</b>	65	<b>65</b>	M36x4
3V-63		1600	222	-	720	647.6	-	-	8	-	218	131	-	71	-	65	<b>65</b>	M36x4
3V-79		2000	240	-	720	647.6	-	-	8	-	238	133	-	73	-	65	<b>65</b>	M36x4

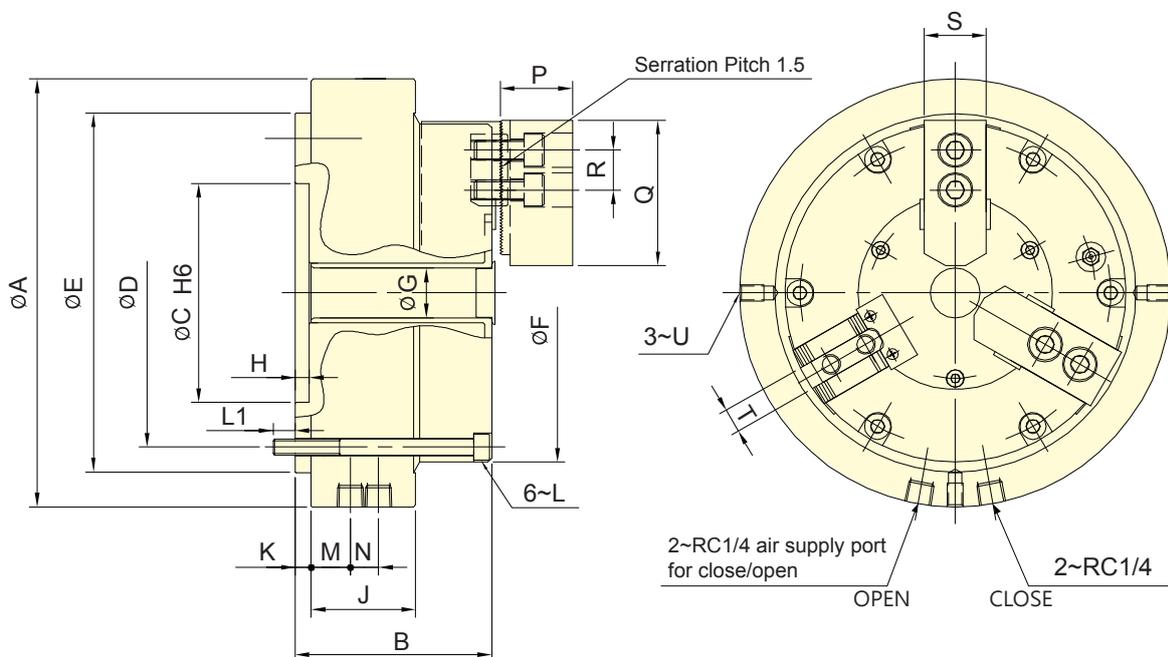
  

Model	L	L1	M	N	P	Q	R max.	R min.	S	T	U	V	W	
3V-40	<b>A20</b>	M24	37	110	270	76.2	295	457	404	6~19.03	7~M24	<b>3~M12</b>	42	84
3V-50	<b>A20</b>	M24	37	110	270	76.2	416	563	510	9~19.03	9~M24	<b>3~M12</b>	42	84
3V-63		M30	46	110	270	76.2	540	738	674	12~19.03	13~M24	-	42	110
3V-79		M30	48	110	270	76.2	740	914	850	16~19.03	17~M24	-	42	110

1. The dimensions and the specifications of 3V-A type are in red data.



- Rotary chuck with built-in pneumatic cylinder, compact design, suitable for light machining, compatible to standard soft jaw/hard jaw.
  - Can be installed on a rotary table for indexing machining.
  - Sealed against dust and cutting chips.
  - Matching surfaces of all parts hardened, ground and lubricated directly.
- Notice : To overcome friction force between distributor ring and chuck body, the rotating torque of rotary table must be higher than the requirement shown in the table.



Subject to technical changes

SPECIFICATIONS

Model	Jaw stroke (Dia.) mm	Chucking Dia.		Max. clamping force Pneumatic( at 6.0kgf/cm <sup>2</sup> ) kN (kgf)	Max. pressure (kgf/cm <sup>2</sup> )	Max. speed (r.p.m.)	Max Rotation resistance torque Nm	Air consumption (at 6.0 kgf/cm <sup>2</sup> ) lit (kgf/cm <sup>2</sup> )	Weight (kg)
		Max. mm	Min. mm						
<b>NEW</b> RAP-306	5.5	170	25	21(205.94)	7	72	40	3.1	16.2

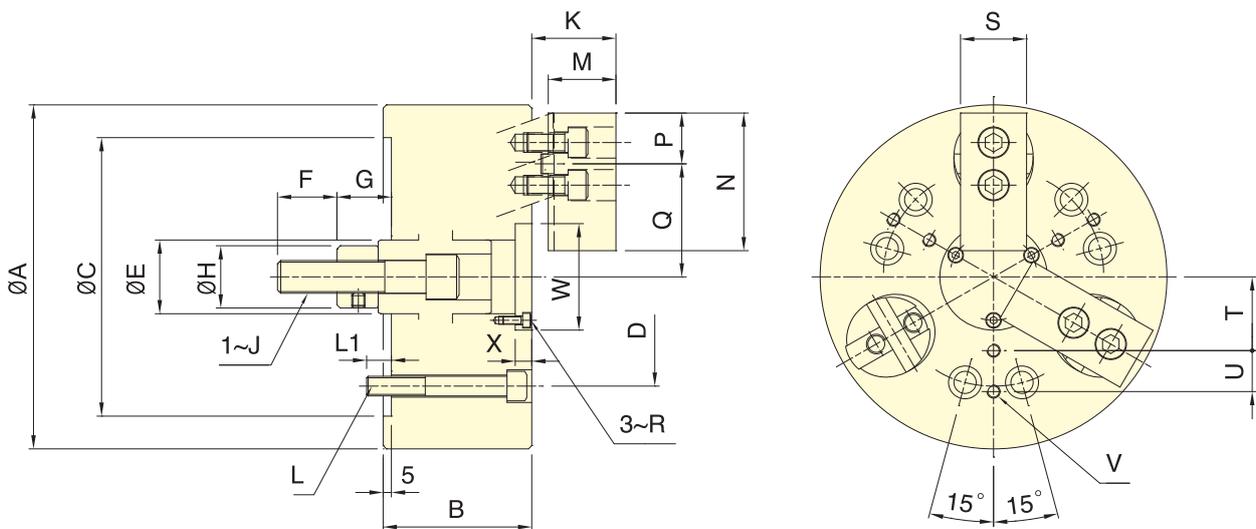
DIMENSIONS

Model	A	B	C ( H6)	D	E	F	G	H	J	K
<b>NEW</b> RAP-306	215	98	110	155	181	170	25	7	52	8
Model	L	L1	M	N	P	Q	R	S	T	U
<b>NEW</b> RAP-306	6~M8	11	19.5	14	36	73	20	31	12	3~M8



- Radial clamp and axial pull down at the same time, keep the workpiece attaching close to the base surface of the chuck.
- Almost no workpiece uplifting displacement.
- The body and the cylinder pull-down mechanism are heat-treated and fine boring, which guarantee the clamping precision and durability.
- Suitable for heavy duty machining.

SPECIAL PURPOSE POWER CHUCKS



Subject to technical changes

**SPECIFICATIONS**

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
			Max. mm	Min. mm							
* 3D-04	7	5	110	13	6.0(612)	10.5(1070)	3500	0.007	4.5	RK-75	1.6(16.5)
3D-05	7	5	135	21	10.0(1020)	17.0(1730)	3500	0.018	7.9	RK-75	2.7(27.5)
3D-06	10	7.2	165	22	15.0(1530)	25.0(2550)	3500	0.051	15	RK-100	2.1(21.4)
3D-08	10	7.2	210	28	25.0(2550)	45.0(4590)	3000	0.15	26	RK-125	2.2(22.5)
3D-10	15	10.8	254	35	35.0(3569)	60.0(6118)	2500	0.37	46	RK-125	3.1(31.6)
3D-12	15	10.8	304	50	45.0(4590)	75.0(7650)	2000	0.79	70	RK-150	2.8(28.5)
* 3D-15	20	14.5	381	60	53.9(5500)	90.0(9180)	1500	2.25	132	RK-150	3.4(34.2)

**DIMENSIONS**

Model	A	B	C	D	E	F	G max.	G min.	H	J	K max.	K min.	L
* 3D-04	110	60	85	70.6	25	20	22	15	25	M10	30	23	3~M10
3D-05	135	70	110	82.6	30	25	24	17	28	M12	35	28	3~M10
3D-06	165	85	140	104.8	35	36	37	27	32	M16	45	35	6~M10
3D-08	210	90	170	133.4	45	36	38	28	38	M20	56	46	6~M12
3D-10	254	110	220	171.5	55	46	47	32	50	M24	65	50	6~M16
3D-12	304	125	220	171.5	55	50	49.5	34.5	53	M27	65	50	6~M16
* 3D-15	381	140	300	235	70	55	61	41	55	M30	86	66	6~M20

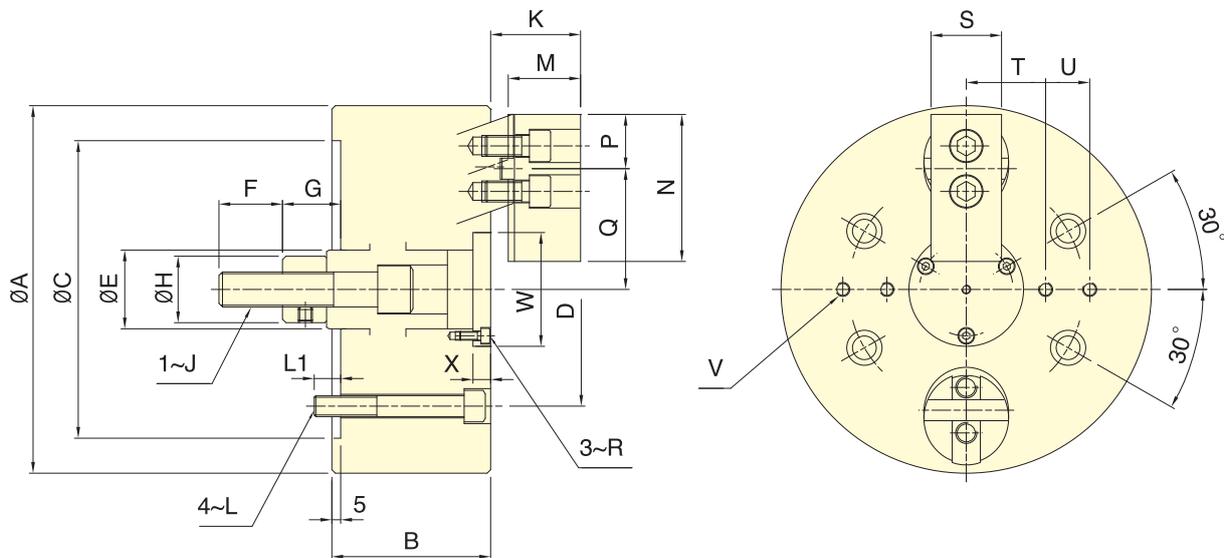
  

Model	L1	M	N	P	Q max.	Q min.	R	S	T	U	V	W	X
* 3D-04	15	19.5	50	22	37	34.5	M3	25	22.5	-	3~M6	35	2
3D-05	16	24.5	56	23	46	43.5	M3	30	27.5	-	3~M6	44	2
3D-06	16	31	70	27	57.7	54.3	M4	35	35	20	6~M6	52	7
3D-08	15	41	84	31	70.8	67.2	M5	40	45	25	6~M8	65	10
3D-10	24	46	100	38	85	79.6	M6	50	55	30	6~M8	75	12
3D-12	22	51	120	42	101.9	96.5	M6	60	70	35	6~M10	90	12
* 3D-15	30	60	165	60	135.6	128.3	M8	70	95	45	6~M12	120	13

1. Models with "\*" mark are produced only by order.



- Radial clamp and axial pull down at the same time, keep the workpiece attaching close to the base surface of the chuck.
- Almost no workpiece uplifting displacement.
- The body and the cylinder pull-down mechanism are heat-treated and fine boring, which guarantee the clamping precision and durability.
- Suitable for heavy duty machining.



Subject to technical changes

## SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
			Max. mm	Min. mm							
2D-06	10	7.2	165	22	10.0(1020)	16.7(1700)	3500	0.045	12	RK-100	1.4(14.3)
2D-08	10	7.2	210	28	16.7(1700)	30.0(3060)	3500	0.13	23	RK-125	1.5(15)
2D-10	15	10.8	254	35	23.3(2379)	40.0(4079)	2500	0.34	43	RK-125	2.1(21.1)

## DIMENSIONS

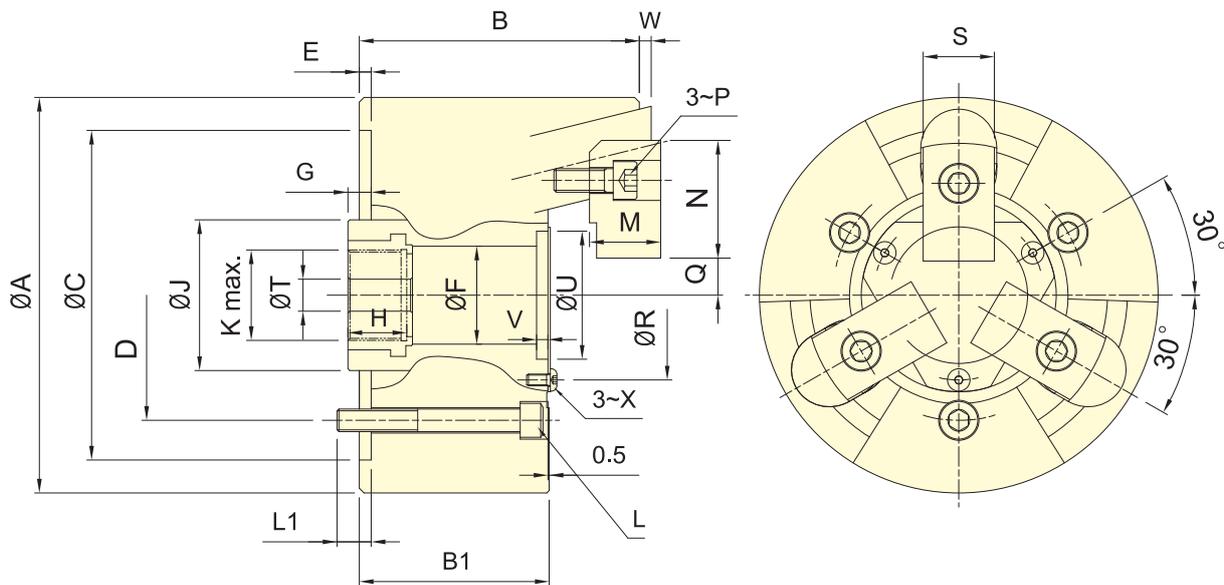
Model	A	B	C	D	E	F	G max.	G min.	H	J	K max.	K min.	L
2D-06	165	85	140	104.8	35	36	37	27	32	M16	45	35	M10
2D-08	210	90	170	133.4	45	36	38	28	38	M20	56	46	M12
2D-10	254	110	220	171.5	55	46	47	32	50	M24	65	50	M16

Model	L1	M	N	P	Q max.	Q min.	R	S	T	U	V	W	X
2D-06	16	31	70	27	57.7	54.3	M4	35	35	20	4~M6	52	7
2D-08	15	41	84	31	70.8	67.2	M5	40	45	25	4~M8	65	10
2D-10	24	46	100	38	85	79.6	M6	50	55	30	4~M8	75	12



- It's a Pin-Arbor Draw Down type 3-jaw thru-hole power chuck.
- High radial gripping force and high accuracy.
- Suitable for heavy machining.



Subject to technical changes

## SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg · m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
			Max. mm	Min. mm							
* 3U-203	4	2	42	14	5.8(590)	16.7(1700)	10000	0.001	1.8	RK-75(N)	1.6(16)
* 3U-204	6	3	60	10	10.0(1020)	28.4(2900)	8000	0.005	3.9	RK-75(N)	2.7(27)
3U-205	6	3	84	15	13.9(1420)	39.7(4050)	8000	0.012	6.8	RK-100(N)	2.0(20)
3U-206	10	5	105	24	17.9(1830)	57.8(5900)	7000	0.055	14.7	RK-100(N)	2.6(26)
3U-208	10	5	132	25	25.0(2550)	80.0(8150)	6000	0.14	25.5	RK-125(N)	2.2(22)
3U-210	10	5	163	34	31.0(3160)	100.0(10100)	4500	0.36	43.5	RK-125(N)	3.1(31)
3U-212	10	5	210	81	35.0(3570)	100.0(10100)	3600	0.68	63.0	RK-125(N)	3.1(31)

## DIMENSIONS

Model	A	B	B1	C(H6)	D	E	F	G max.	G min.	H	J	K	L	L1
* 3U-203	85	54.5	42	70	54	3.5	25	18	14	22	38	M20x1.5	3~M8	11
* 3U-204	110	72.5	55	85	70.6	4	30	16	10	24.5	42	M24x1.5	3~M10	12
3U-205	135	84.5	63	110	82.6	4	35	16	10	26	50	M28x1.5	3~M10	15
3U-206	168	118	80	140	104.8	5	45	20	10	31	60	M35x1.5	3~M10	16.5
3U-208	210	137	92	170	133.4	5	52	21	11	31	80	M48x2	3~M12	18
3U-210	254	152	102	220	171.4	5	75	25	15	37	105	M68x2	3~M16	23
3U-212	304	157	102	220	171.4	5	100	25	15	37	135	M92x2	3~M16	26

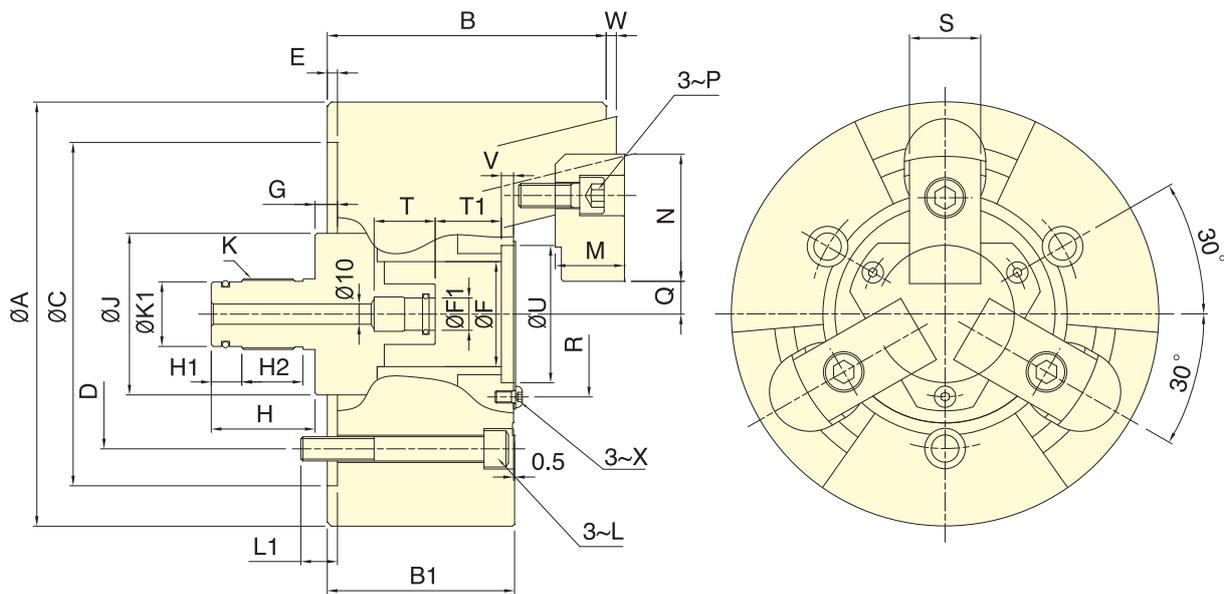
Model	M	N	P	Q max.	Q min.	R	S	T	U(H6)	V	W max.	W min.	X
* 3U-203	12	26	M5	7.5	6.5	38	15	10	32	3.5	2	-2	M3
* 3U-204	17	32	M6	10.75	9.25	46	20	10	38	4	3	-3	M4
3U-205	20	41.5	M8	13.25	11.75	55	24	10	45	5	3	-3	M5
3U-206	30	50	M10	15.75	13.25	72	30	17	58	6	5	-5	M5
3U-208	34	63	M12	16.25	13.75	82	35	17	68	6	5	-5	M6
3U-210	39	74	M14	20.75	18.25	107	40	17	93	6	5	-5	M8
3U-212	44	74	M14	44.25	41.75	130	40	17	114	6	5	-5	M10

1. Models with "\*" mark are produced only by order.



- It's a Pin-Arbor Draw Down type 3-jaw non-thru-hole power chuck.
- High radial gripping force and high accuracy.
- Suitable for heavy machining.
- Can work with the airtight detection device to perform axial position confirm, suitable for the precision of large length size process.

SPECIAL PURPOSE POWER CHUCKS



Subject to technical changes

### SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
			Max. mm	Min. mm							
3U-205K	6	3	84	15	13.9(1420)	39.7(4050)	8000	0.018	6.8	RL-100,RL-A100N	2.0(20)
3U-206K	10	5	105	24	17.9(1830)	57.8(5900)	7000	0.055	14.9	RL-100,RL-A100N	2.5(25)
3U-208K	10	5	132	25	25.0(2550)	80.0(8150)	6000	0.14	25.8	RL-125, RL-A125N	2.2(22)
3U-210K	10	5	163	34	31.0(3160)	100(10100)	4500	0.36	44.0	RL-125, RL-A125N	3.1(31)
3U-212K	10	5	210	81	35.0(3570)	100(10100)	3600	0.68	63.8	RL-125, RL-A125N	3.1(31)

### DIMENSIONS

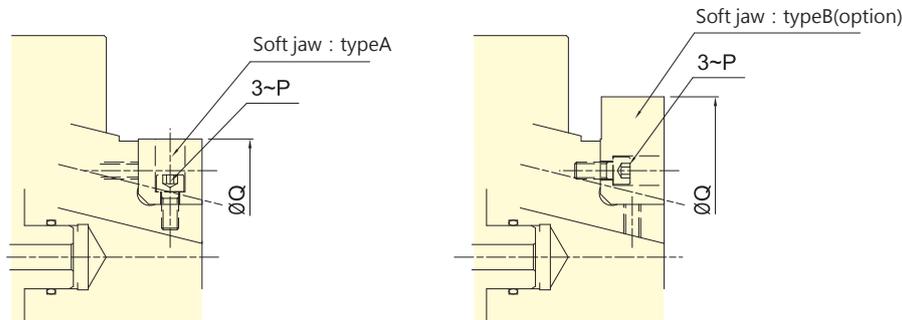
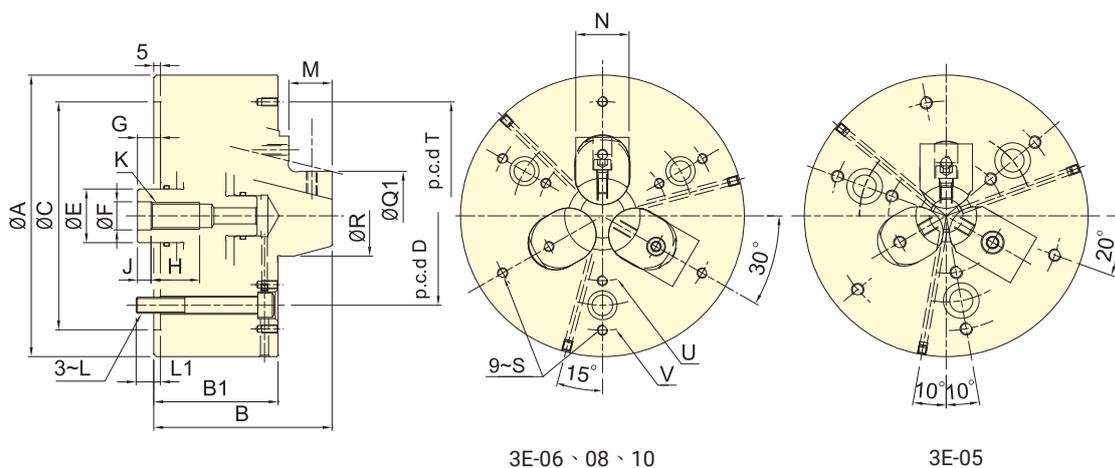
Model	A	B	B1	C(H6)	D	E	F	F1(H8)	G max.	G min.	H	H1	H2	J	K	K1	L
3U-205K	135	84.5	63	110	82.6	4	35	14	16	10	42	12	-	50	M25X1.5	22	M10
3U-206K	168	118	80	140	104.8	5	45	14	20	10	48	12	30	60	M28X1.5	24	M10
3U-208K	210	137	92	170	133.4	5	52	16	21	11	51	15	30	80	M35X1.5	30	M12
3U-210K	254	152	102	220	171.4	5	75	16	25	15	51	15	30	105	M38X1.5	34	M16
3U-212K	304	157	102	220	171.4	5	100	16	25	15	51	15	30	135	M45X1.5	40	M16

Model	L1	M	N	P	Q max.	Q min.	R	S	T	T1	U(H6)	V	W max.	W min.	X
3U-205K	15	20	41.5	M8	13.25	11.75	55	24	25	15.5	45	5	3	-3	M5
3U-206K	16.5	30	50	M10	15.75	13.25	72	30	30	26.5	58	6	5	-5	M5
3U-208K	18	34	63	M12	16.25	13.75	82	35	30	32.5	68	6	5	-5	M6
3U-210K	23	39	74	M14	20.75	18.25	107	40	30	36.5	93	6	5	-5	M8
3U-212K	26	44	74	M14	44.25	41.75	130	40	30	36.5	114	6	5	-5	M10



- Suitable for internal gripping
- Radial clamp and axial pull down at the same time, keep the workpiece attaching close to the base surface of the chuck.
- Almost no workpiece uplifting displacement.
- With high precision and stability that chuck suitable for end process.
- Air-tight pressure detect function is optional.



Subject to technical changes

## SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
			Max. mm	Min. mm							
3E-05	6	3	83	29	13.0(1325)	42.0(4280)	7000	0.018	7.5	RK-100	1.8(18.5)
3E-06	10	5	110	44	18.0(1835)	58.0(5910)	6000	0.042	13.6	RK-100	2.5(25.6)
3E-08	10	5	150	50	25.0(2530)	80.0(8150)	5000	0.14	26.5	RK-125	2.2(22.5)
3E-10	10	5	190	60	35.0(3570)	100.0(10200)	3600	0.31	39.5	RK-150	2.8(28.5)

## DIMENSIONS

Model	A	B	B1	C (H6)	D	E	F (H8)	G max.	G min.	H	J	K	L	L1
3E-06	165	112	80	140	104.8	35	18	22	12	30	8	M16	M10	16
3E-08	210	132	90	170	133.4	40	21	22	12	36	10	M20	M12	18
3E-10	254	152	102	220	171.4	50	25	25	15	48	10	M24	M16	23

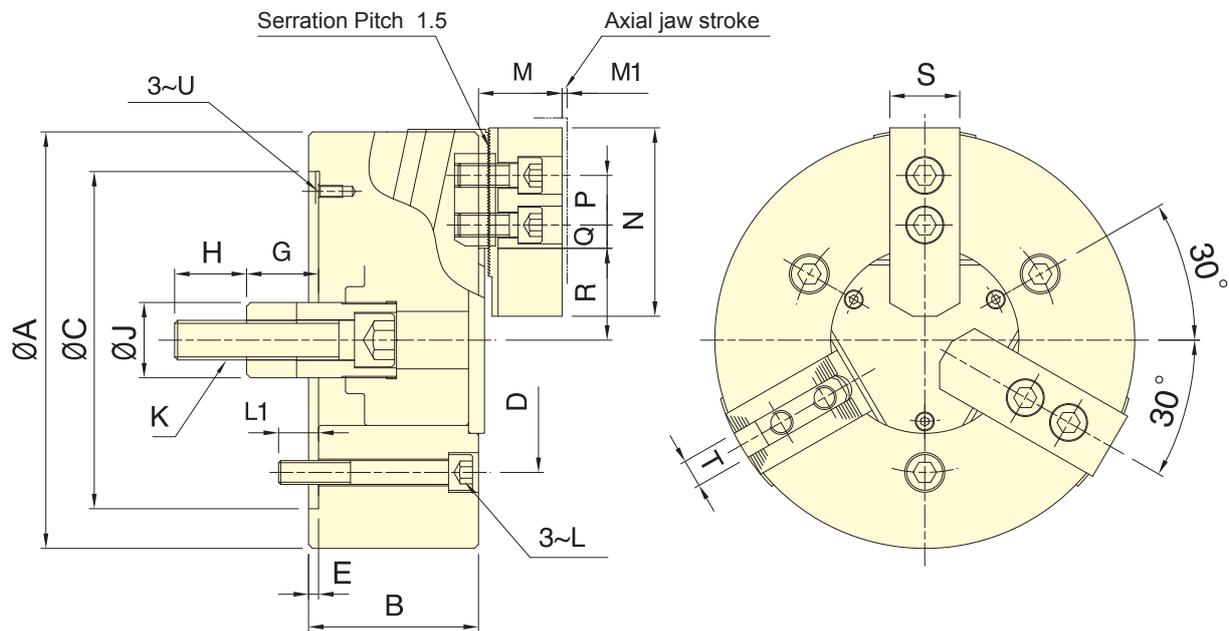
  

Model	M	N	P	type A		type B		Q1		R	S	T	U	V
				Q max.	Q min.	Q max.	Q min.	max.	min.					
3E-05	20	25	M6	68	50	83	67	50	29	25	M6X12	110	55	110
3E-06	23	31	M6	90	70	110	89	70	44	40	M6X12	130	76	134
3E-08	30	35	M8	110	90	150	108	90	50	49	M6X12	170	100	170
3E-10	35	40	M10	127	110	190	125	110	60	59	M8X16	210	120	210



- The surface of the center through cover is grinding treated, it can be the position base surface of the jig/workpiece.
- The slideway of main jaws is inclined. It improves the clamping force and reduces the upfloat situation of the workpiece.
- Work with standard top jaws.
- Air-tight pressure detect function is optional.
- External gripping only.

SPECIAL PURPOSE POWER CHUCKS



Subject to technical changes

**SPECIFICATIONS**

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
			Max. mm	Min. mm							
3N-06	20	8.1(Axial0.9)	165	14	18(1835)	61.5(6270)	5000	0.05	11.1	RK-100(N)	2.6(26)
3N-08	23	9.4(Axial1.0)	210	17	25(2540)	85.8(8750)	4500	0.14	24.5	RK-125(N)	2.2(22)
3N-10	25	10.2(Axial1.1)	254	22	29(2950)	108(11000)	4000	0.32	34.5	RK-150(N)	1.8(18)

**DIMENSIONS**

Model	A	B	C(H6)	D	E	G max.	G min.	H	J	K	L
3N-06	165	72	140	104.8	5	54.5	34.5	36	34	M16X2	M10
3N-08	210	85	170	133.4	5	59	36	36	38	M20X2.5	M12
3N-10	254	89	220	171.4	5	63	38	36	45	M20X2.5	M16

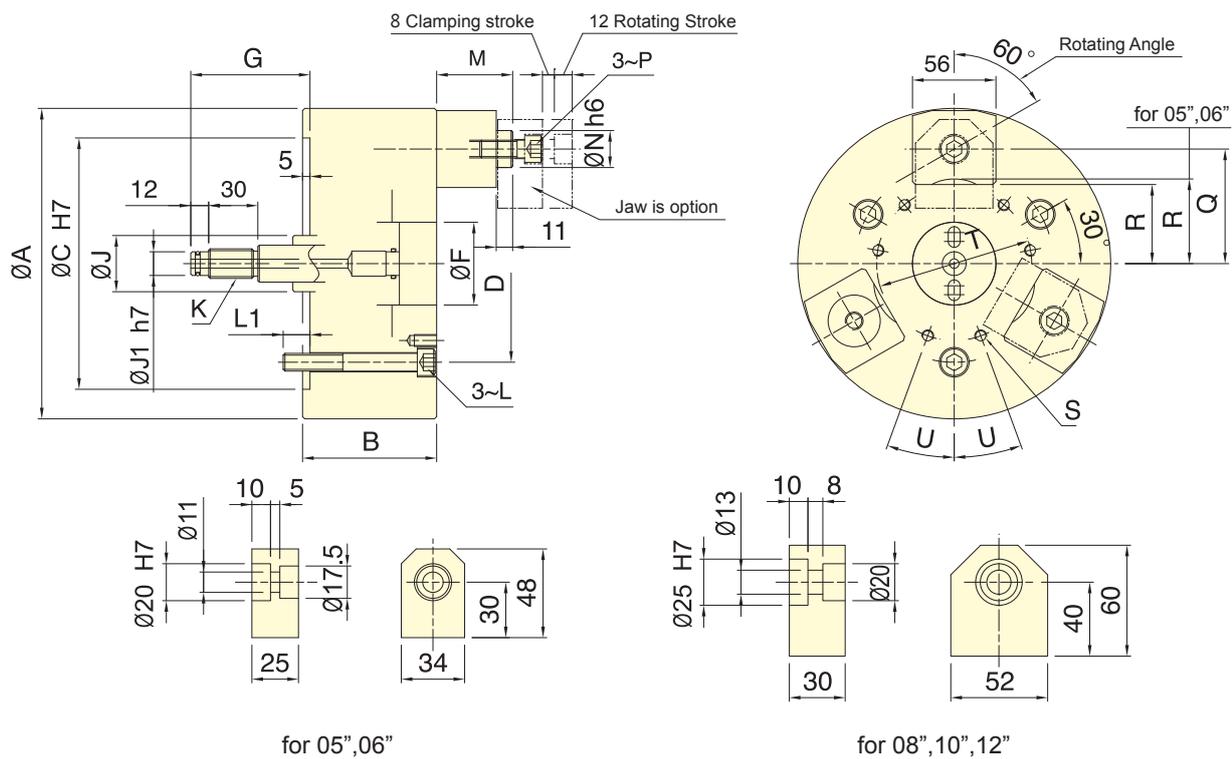
  

Model	L1	M	M1	N	P	Q max.	Q min.	R max.	R min.	S	T	U
3N-06	16	41	0.9	73	20	15.25	7.75	38.3	34.25	31	12	M6
3N-08	20	42	1.0	95	25	22.25	11.75	46.3	41.6	35	14	M6
3N-10	24	47	1.1	110	30	33.75	11.25	52.1	47	40	16	M8



- Gripping at the end face and preventing deformation of workpiece.
- Suitable for thin wall workpiece processing.
- The gripping compensating mechanism can grasp the irregular surface workpieces well.
- Air-tight pressure detect function is optional.

SPECIAL PURPOSE POWER CHUCKS



Subject to technical changes

**SPECIFICATIONS**

Model	Rotating stroke mm	Clamping stroke mm	Jaw's compensation mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
				Max. mm	Min. mm							
3J-05	12	8	2	53	25	7.5(765)	6.0(612)	4000	0.02	11.0	RK-100 OR RK-100(N)	1.0(10)
3J-06	12	8	2	79	55	9.0(918)	7.5(765)	4000	0.04	12.0	RK-100 OR RK-100(N)	1.2(12)
3J-08	12	8	2	106	75	18.0(1835)	16.5(1680)	3500	0.13	23.0	RK-100 OR RK-100(N)	2.5(25)
3J-10	12	8	2.5	150	119	18.0(1835)	16.5(1680)	3500	0.30	33.0	RK-100 OR RK-100(N)	2.5(25)
* 3J-12	12	8	2.5	200	169	18.0(1835)	16.5(1680)	3000	0.56	44.0	RK-100 OR RK-100(N)	2.5(25)

**DIMENSIONS**

Model	A	B	C	D	F	G max.	G min.	J	J1	K
3J-05	135	86	110	82.6	40	75	55	25	9	M12X1.75
3J-06	165	86	140	104.8	45	75	55	28	12	M16X2
3J-08	210	90	170	133.4	56	80	60	38	16	M20X2.5
3J-10	254	95	220	171.4	56	75	55	38	16	M20X2.5
* 3J-12	304	95	220	171.4	56	75	55	38	16	M20X2.5

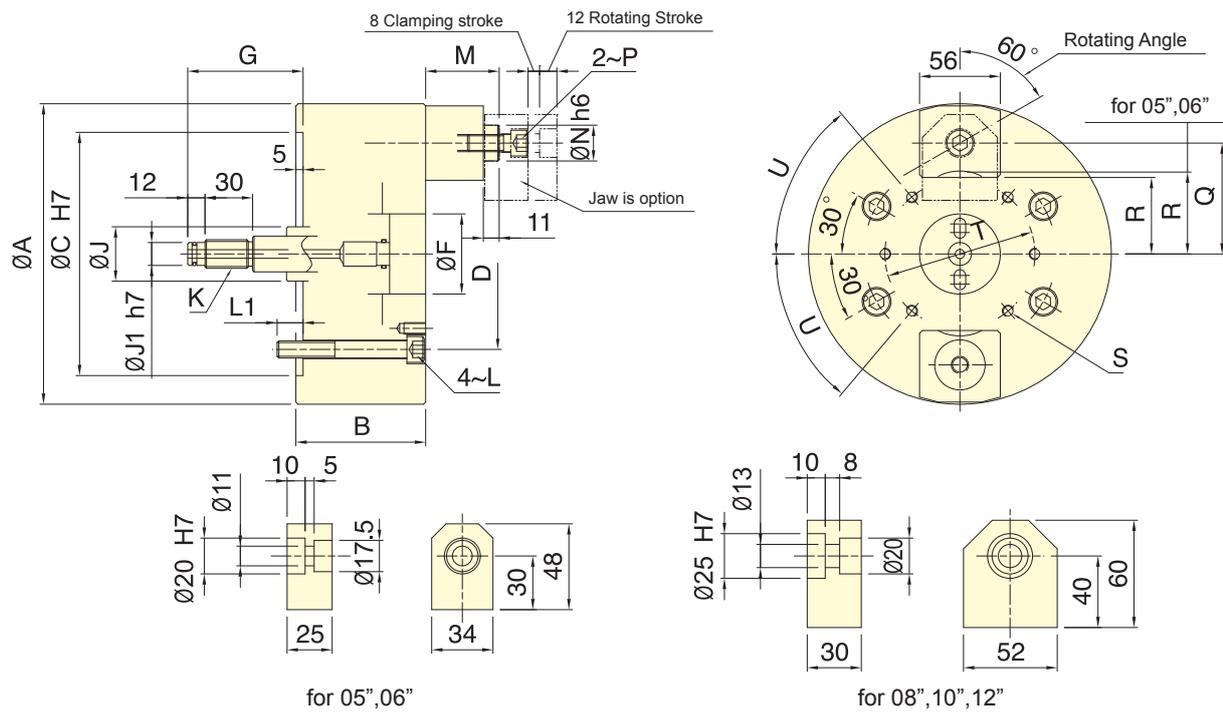
Model	L	L1	M max.	M min.	N	P	Q	R	S	T	U
3J-05	M10	15	56	36	20	M10	42.5	27	3~M6	50	-
3J-06	M10	15	56	36	20	M10	57.5	40	3~M8	64	-
3J-08	M12	18	71	51	25	M12	77.5	53.5	6~M8	104	20°
3J-10	M16	24	71	51	25	M12	99.5	75.5	6~M8	140	20°
* 3J-12	M16	24	71	51	25	M12	124.5	100.5	6~M8	190	20°

1. Models with "\*" mark are produced only by order.



- Gripping at the end face and preventing deformation of workpiece.
- Suitable for thin wall workpiece processing.
- The gripping compensating mechanism can grasp the irregular surface workpieces well.
- Air-tight pressure detect function is optional.

SPECIAL PURPOSE POWER CHUCKS



Subject to technical changes

**SPECIFICATIONS**

Model	Rotating stroke mm	Clamping stroke mm	Jaw's compensation mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
				Max. mm	Min. mm							
2J-05	12	8	2	53	25	5.0(510)	4.0(408)	4000	0.015	9.0	RK-100 OR RK-100(N)	0.7(7)
2J-06	12	8	2	79	55	6.0(612)	5.0(510)	4000	0.035	9.8	RK-100 OR RK-100(N)	0.8(8)
2J-08	12	8	2	106	75	12.0(1224)	11.0(1122)	3500	0.12	20.3	RK-100 OR RK-100(N)	1.7(17)
2J-10	12	8	2.5	150	119	12.0(1224)	11.0(1122)	3500	0.28	30.7	RK-100 OR RK-100(N)	1.7(17)
* 2J-12	12	8	2.5	200	169	12.0(1224)	11.0(1122)	3000	0.52	41.2	RK-100 OR RK-100(N)	1.7(17)

**DIMENSIONS**

Model	A	B	C	D	F	G max.	G min.	J	J1	K
2J-05	135	86	110	82.6	40	75	55	25	9	M12X1.75
2J-06	165	86	140	104.8	45	75	55	28	12	M16X2
2J-08	210	90	170	133.4	56	80	60	38	16	M20X2.5
2J-10	254	95	220	171.4	56	75	55	38	16	M20X2.5
* 2J-12	304	95	220	171.4	56	75	55	38	16	M20X2.5

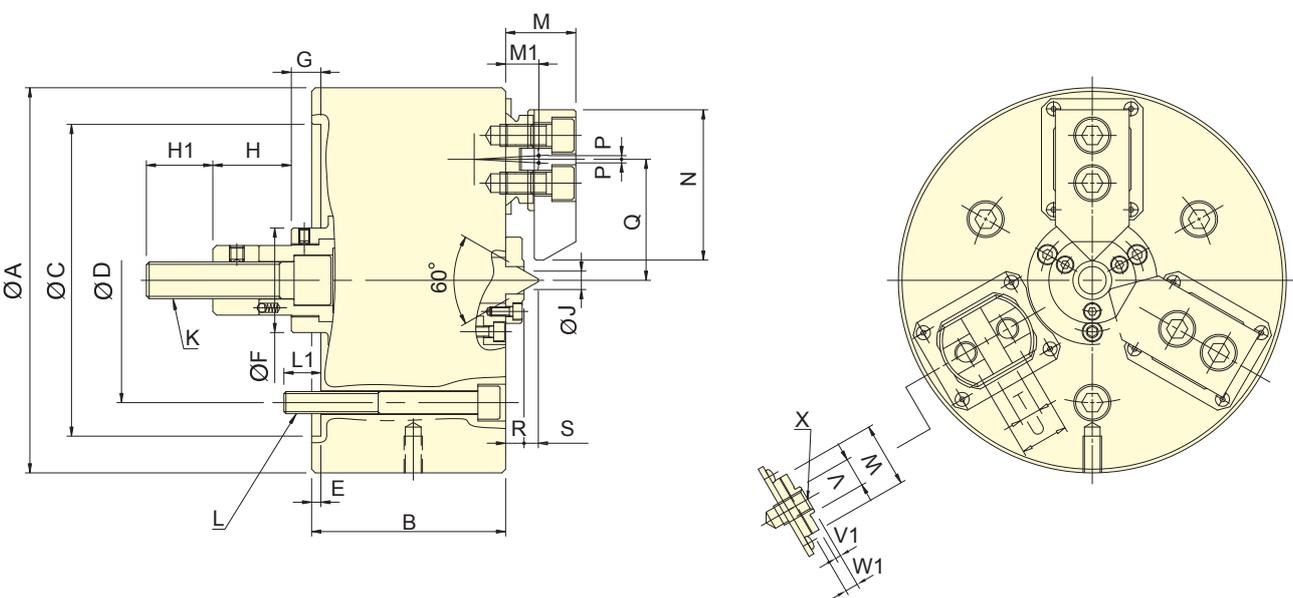
  

Model	L	L1	M max.	M min.	N	P	Q	R	S	T	U
2J-05	M10	15	56	36	20	M10	42.5	27	4~M6	50	30°
2J-06	M10	15	56	36	20	M10	57.5	40	4~M8	64	30°
2J-08	M12	18	71	51	25	M12	77.5	53.5	6~M8	104	50°
2J-10	M16	24	71	51	25	M12	99.5	75.5	6~M8	140	50°
* 2J-12	M16	24	71	51	25	M12	124.5	100.5	6~M8	190	50°

1. Models with "\*" mark are produced only by order.



- The workpieces compensation of eccentric is 2 mm, fixed position for the center thimble, swing and grasp the workpiece to three jaw.
- Suitable for such materials as the casting and forging to process.
- Special seal proof for dust and cutting fluid, it is more convenient when maintenance.
- Swing parts are to heat treatment hardened and ground for steel, in order to improve products service life.



Subject to technical changes

## SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Compensation mm
			Max. mm	Min. mm							
<b>NEW</b> 3R-08	20	8	65	18	19.6(2000)	53.0(5404)	2800	0.15	27	RK-100N	2
<b>NEW</b> 3R-10	25	10	90	22	29.4(3000)	67.7(6901)	2500	0.38	45	RK-125N	2

## DIMENSIONS

Model	A	B	C (H6)	D	E	F	G max.	G min.	H	H1	J	K	L	L1
<b>NEW</b> 3R-08	210	105	170	133.4	5	57	26	6	42.5	36	10.4	M20x2.5	3~M12	20
<b>NEW</b> 3R-10	254	115	220	171.4	5.5	64	36.5	11.5	25	39	15	M20x2.5	3~M16	22.5

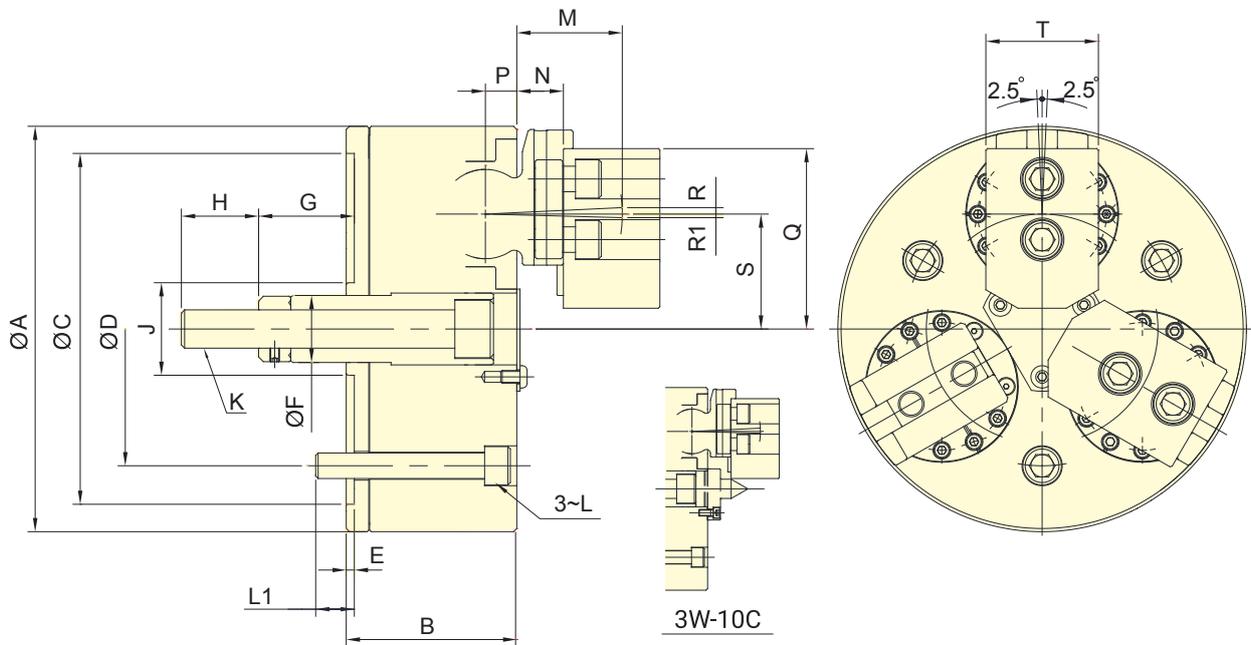
  

Model	M	M1	N	P	Q max.	Q min.	R	S	T (H7)	U	V	V1	W	W1	X
<b>NEW</b> 3R-08	38	18	82	2	68	64	10	7.7	12	26	16	3	35	7	M12
<b>NEW</b> 3R-10	40	19	102	2.6	82	78	10	11.3	15	32	18	3	40	7	M14



- Swing and grasp the workpiece to three jaw. (3W is automatically positioned to the center type.)
- Suitable for such materials as the casting and forging to process.
- Seal proof for dust and cutting fluid, it is more convenient when maintenance.
- Swing parts are to heat treatment hardened and ground for steel, in order to improve products service life.
- Swing and grasp the workpiece to three jaw.(3W-C is center compensation type.)
- The workpieces compensation of eccentric is 2 mm, fixed position for the center thimble.

SPECIAL PURPOSE POWER CHUCKS



Subject to technical changes

**SPECIFICATIONS**

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia.		Max. D.B. pull kN (kgf)	Max. clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Compensation mm
			Max. mm	Min. mm							
<b>NEW</b> 3W-10	17.5	12.5	205/235	50/85	35.3(3600)	105.9(10800)	2500	0.37	48.6	RK-125(N)	-
<b>NEW</b> 3W-10C	17.5	12.5	205/235	50/85	35.3(3600)	105.9(10800)	2500	0.37	48.6	RK-125(N)	2

**DIMENSIONS**

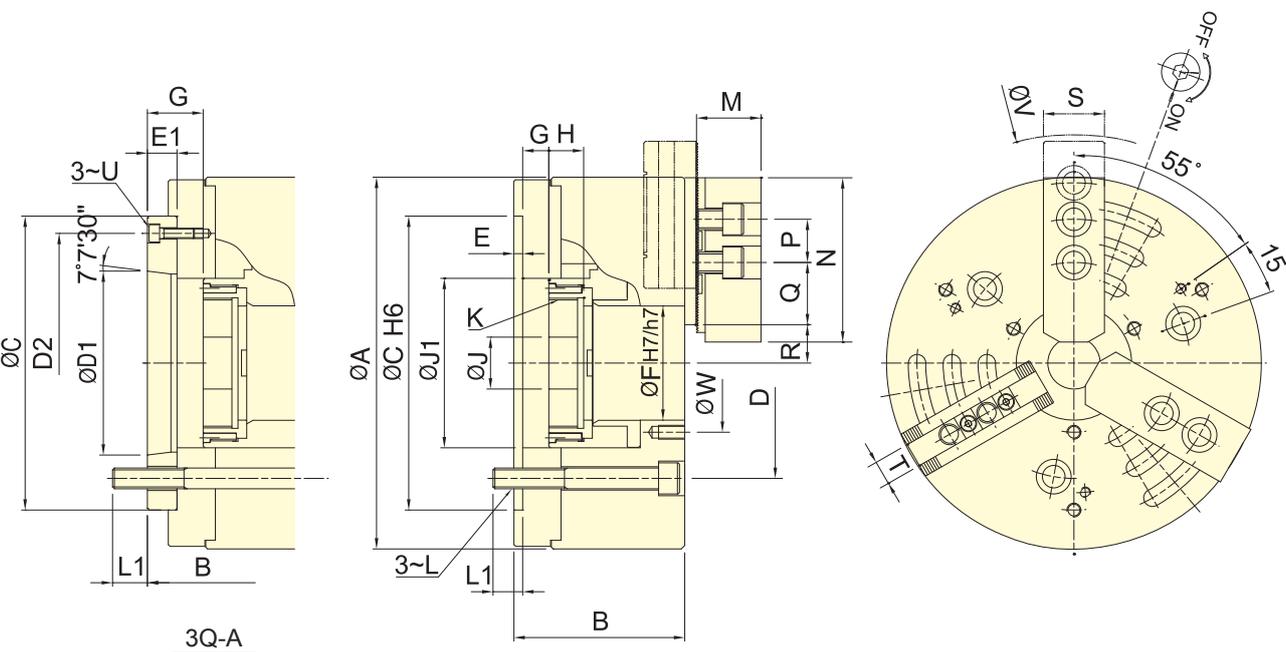
Model	A	B	C(H7)	D	E	F	G max.	G min.	H	J
<b>NEW</b> 3W-10	254	106	220	171.4	5	42	67.5	50	48	58
<b>NEW</b> 3W-10C	254	106	220	171.4	5	42	67.5	50	48	58

Model	K	L	L1	M	N	P	Q	R	R1	S	T
<b>NEW</b> 3W-10	M24x3	M16	24	65.6	29	19.5	113	4.03	2.26	72	70
<b>NEW</b> 3W-10C	M24x3	M16	24	65.6	29	19.5	113	4.03	2.26	72	70



- The shortest changes time for soft jaw, it is the high repeatability precision.
- Chuck of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.
- For safety system that master jaw will complete return when base jaw and serration match up properly.



Subject to technical changes

## SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chucking Dia.		Max. D.B. pull	Max. Clamping force	Max. speed	I	Weight	Matching cyl.	Max. pressure		
			Max.	Min.									
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )		
3Q-08	<b>A6</b>	16	7.5	210	23	45.0(4590)	100.0(10200)	5000	0.15	24.5	<b>26.0</b>	TK-1068	3.1(31)
* 3Q-10	<b>A8</b>	19	8.8	254	41	60.0(6118)	135.0(13765)	4500	0.41	44.0	<b>46.0</b>	TK-1287	2.8(28)
* 3Q-12	<b>A8</b>	23	10.6	315	47	81.0(8259)	180.0(18354)	3500	0.96	73.0	<b>75.0</b>	TK-A1511	2.4(25)

## DIMENSIONS

Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
3Q-08	<b>A6</b>	215	98	<b>110</b>	170	133.4	<b>106.38</b>	<b>150</b>	5	<b>17</b>	66	14.5	<b>32</b>	-1.5	<b>15.5</b>	20	30
* 3Q-10	<b>A8</b>	254	119	<b>132</b>	220	171.4	<b>139.72</b>	<b>190</b>	5	<b>18</b>	81	8.5	<b>26.5</b>	-10.5	<b>7.5</b>	39	45
* 3Q-12	<b>A8</b>	315	133	<b>145</b>	220	171.4	<b>139.72</b>	<b>190</b>	6	<b>18</b>	106	8.5	<b>26.5</b>	-14.5	<b>3.5</b>	42	50

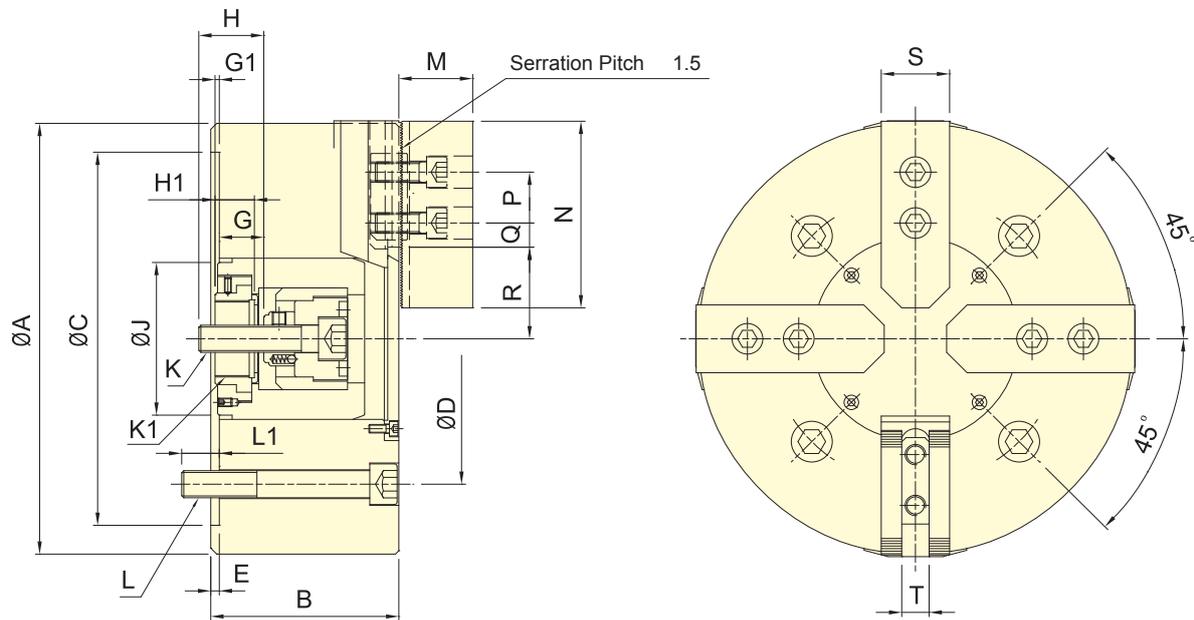
Model	J1	K max.	L	L1	M	N	P	Q	R max.	R min.	S	T	U	V	W		
3Q-08	<b>A6</b>	98	M75x2	M12	17	<b>20</b>	37	95	25	36	20.8~44.8	17.1~41.1	35	14	<b>M6</b>	264	80
* 3Q-10	<b>A8</b>	115	M90x2	M16	23	<b>25</b>	42	110	30	40.5	21.1~52.8	16.7~48.2	40	16	<b>M8</b>	312	100
* 3Q-12	<b>A8</b>	140	M115x2	M16	22	<b>24</b>	50	111	30	57	34.1~70.1	28.8~64.8	50	21	<b>M8</b>	360	130

1. The dimensions and the specifications of 3Q-A type are in red data.  
 2. Models with "\*" mark are produced only by order.



- It's a CRANK type with two pairs of 2 jaws self center independent of each other.
- The 4T series is suitable for square bar and other nonuniform shaped workpieces.
- Patent numbers :  
Taiwan : PAT.M359385 / China : PAT.ZL2009.2.0009309.1

SPECIAL PURPOSE POWER CHUCKS



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Range		Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
			Max. mm	Min. mm							
4T-08	17	13.6	210	24	16.0(1630)	54.3(5540)	3000	0.15	23.2	RD-120(N)	1.7(17)
4T-10	20	16	254	50	21.6(2200)	79.4(8100)	2100	0.35	44.3	RD-125(N)	2.2(22)
4T-12	20	16	304	50	21.6(2200)	79.4(8100)	1500	0.66	57.6	RD-125(N)	2.2(22)
4T-15	25	19.6	381	60	27.2(2780)	105.3(10750)	1200	2.25	118.3	RD-125(N)	2.7(27)

DIMENSIONS

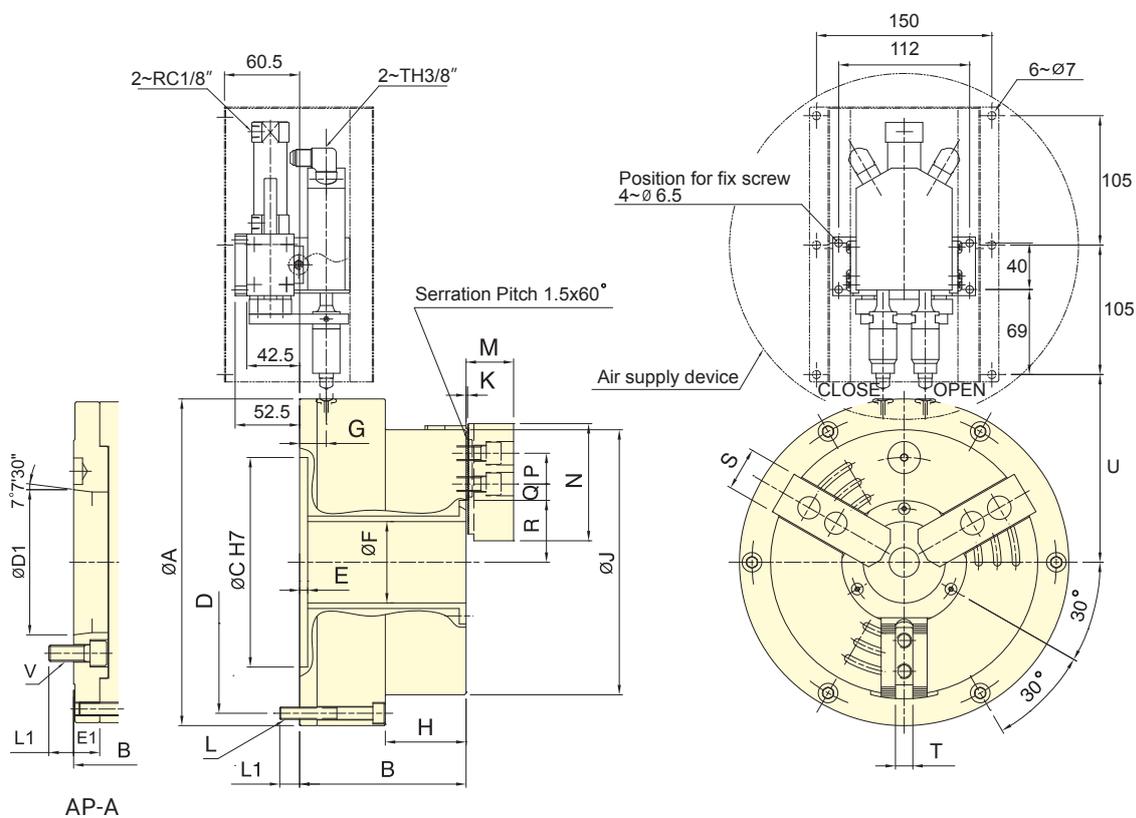
Model	A	B	C(H6)	D	E	G max.	G min.	G1 max.	G1 min.	H	H1	J	K
4T-08	210	91	170	133.4	5	32	15	2.5	-14.5	29	20	61	M14x2
4T-10	254	110	220	171.4	5	36.5	16.5	10	-10	36	23	90	M16x2
4T-12	304	110	220	171.4	5	36.5	16.5	10	-10	36	23	90	M16x2
4T-15	381	135	300	235	6	44.5	19.5	5	-20	45	28	125	M20x2.5

Model	K1	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T
4T-08	M34x1.5	4~M2	20	38	95	25	25.25	13.25	46.1	39.3	35	14
4T-10	M45x1.5	4~M16	25	43	110	30	32.25	12.75	59	51	40	16
4T-12	M45x1.5	4~M16	25	43	110	30	54.75	15.75	59	51	40	16
4T-15	M55x2	4~M20	30	51	130	30	66.5	12.5	78.9	69.1	50	21



- Large through-hole 3-jaw power chuck with built in air cylinder.
- Patented air supply system, it is easy to install and maintain. No abrasion issue of traditional sealed ring. Maintenance cost and time can be saved.
- Patent numbers :
  - Germany : 20.2011.101.818.4 / 20.2012.102.498.5
  - Japan : 3169457 / 3178706 / EU : EP 2517822 B1
  - China : ZL 2011 2 0141324.9 / ZL 2012 2 0274549.6
  - Taiwan : M440159 / M415011 / U.S.A. : US8770222 B2



AP-A

Subject to technical changes

**SPECIFICATIONS**

Model	Thru-hole Dia.	Jaw stroke (Dia.)	Chucking Dia.		Max. pressure	Max. Clamping force	Max. speed	I	Weight	Air Consumption		
			Max.	Min.								
	mm	mm	mm	mm	MPa (kgf/cm <sup>2</sup> )	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg	lit (at 6kgf/cm <sup>2</sup> )		
AP-52	<b>A6</b>	52	5.9	170	15	0.6(6.1)	40.4(4118)	4200	0.2	26	<b>27</b>	3.1
AP-66	<b>A6</b>	66	7.6	215	24	0.6(6.1)	51.0(5185)	3500	0.4	38	<b>39</b>	5.1
AP-86	<b>A8</b>	86	8.9	268	43	0.6(6.1)	76.0(7723)	3200	0.7	58	<b>60</b>	8.7
AP-115	<b>A8</b>	115	10.6	330	55	0.6(6.1)	80.0(8155)	3000	1.7	92	<b>95</b>	12

**DIMENSIONS**

Model	A	B	C	D	D1	E	E1	F	G	H	J	K	L		
AP-52	<b>A6</b>	235	121	<b>140</b>	170	215	<b>106.38</b>	6.5	<b>19</b>	52	21.5	58.5	170	2	6~M10
AP-66	<b>A6</b>	265	134	<b>153</b>	170	245	<b>106.38</b>	6.5	<b>19</b>	66	21.5	65	215	2	6~M10
AP-86	<b>A8</b>	315	142	<b>169</b>	220	295	<b>139.72</b>	6.5	<b>27</b>	86	21.5	67	268	2	6~M10
AP-115	<b>A8</b>	370	154	<b>181</b>	220	350	<b>139.72</b>	6.5	<b>27</b>	115	21.5	69	330	2	6~M10

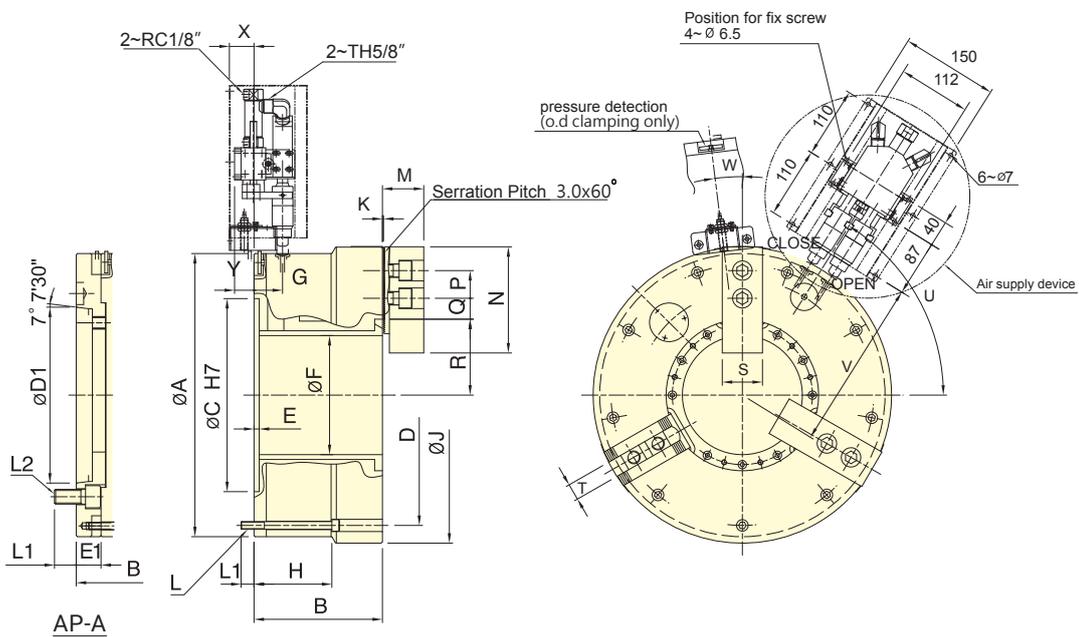
Model	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U	V		
AP-52	<b>A6</b>	15	<b>18</b>	37	73	20	21.2	9.2	38	35.1	31	12	145.5	<b>6~M12</b>
AP-66	<b>A6</b>	16	<b>18</b>	38	95	25	23.7	8.7	50.2	46.4	35	14	159.5	<b>6~M12</b>
AP-86	<b>A8</b>	16	<b>24</b>	43	110	30	32.2	12.7	62.2	57.8	40	16	184.5	<b>6~M16</b>
AP-115	<b>A8</b>	16	<b>24</b>	51	130	30	44.7	14.7	77	71.7	50	21	212	<b>6~M16</b>

1. The dimensions and the specifications of AP-A type are in red data.



- Large through-hole 3-jaw power chuck with build in air cylinder.
  - With build-in "pressure detection" device in chuck which can check the pressure is lowered rapidly within the chuck, guarantee to the security of operating.
  - Patented air supply system, it is easy to install and maintain. No abrasion issue of traditional sealed ring. Maintenance cost and time can be saved.
- Patent numbers :
- Germany : 20.2011.101.818,4 / 20.2012.102.498.5  
 Japan : 3169457 / 3178706 / EU : EP 2517822 B1  
 China : ZL 2011 2 0141324.9 / ZL 2012 2 0274549.6  
 Taiwan : M440159 / M415011 / U.S.A. : US8770222 B2

SPECIAL PURPOSE POWER CHUCKS



Subject to technical changes

**SPECIFICATIONS**

Model	Thru-hole Dia.	Jaw stroke (Dia.)	Chucking Dia.		Max. pressure	Max. Clamping force	Max. speed	I	Weight	Air Consumption
			Max.	Min.						
	mm	mm	mm	mm	MPa (kgf/cm <sup>2</sup> )	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg	lit(at 6kgf/cm <sup>2</sup> )
AP-145 <b>A11</b>	145	14	420	62	0.6(6.1)	85.0(8667)	1700	3.8	156 <b>182</b>	17.8
AP-185 <b>A15</b>	185	14	460	100	0.6(6.1)	110.0(11216)	1300	6.0	188 <b>223</b>	22
AP-230 <b>A15</b>	230	17	535	170	0.6(6.1)	125.0(12742)	1300	11.1	265 <b>310</b>	34
AP-275 <b>A20</b>	275	17	580	200	0.6(6.1)	140.0(14271)	1100	15.5	301 <b>346</b>	39
AP-320 <b>A20</b>	320	17	658	200	0.6(6.1)	184.0(18762)	1000	27.2	415 <b>505</b>	45
AP-375 <b>A20</b>	375	24	738	260	0.6(6.1)	188.0(19115)	850	44.2	530 <b>545</b>	55

**DIMENSIONS**

Model	A	B	C	D	D1	E	E1	F	G	H	J	K	L	L1
AP-145 <b>A11</b>	400	198	<b>231</b>	300	365	<b>196.87</b>	8	<b>33</b>	145	34	120	420	3.5	9~M12 20 <b>31</b>
AP-185 <b>A15</b>	460	198	<b>238</b>	300	405	<b>285.78</b>	8	<b>40</b>	185	44	120	460	3.5	9~M12 20 <b>35</b>
AP-230 <b>A15</b>	515	226	<b>266</b>	380	483	<b>285.78</b>	8	<b>40</b>	230	49	145	535	3.5	6~M16 24 <b>35</b>
AP-275 <b>A20</b>	560	232	<b>272</b>	380	528	<b>412.78</b>	8	<b>40</b>	275	52	152	580	3.5	6~M16 24 <b>35</b>
AP-320 <b>A20</b>	615	256	<b>306</b>	520	580	<b>412.78</b>	8	<b>50</b>	320	55	116.5	658	3.5	9~M16 25 <b>33</b>
AP-375 <b>A20</b>	690	272	<b>322</b>	520	650	<b>412.78</b>	8	<b>50</b>	375	55	127	738	3.5	9~M16 28 <b>33</b>

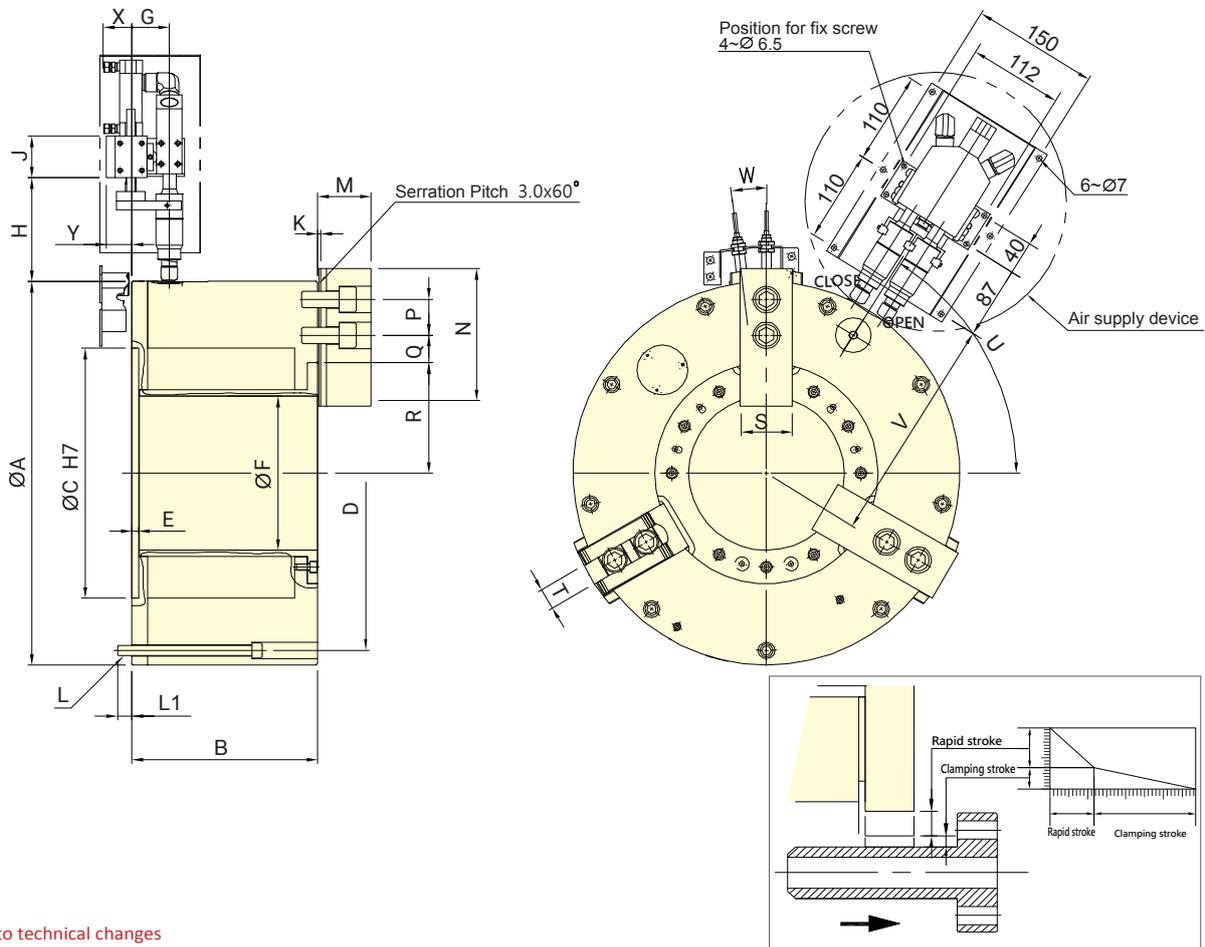
  

Model	L2	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U	V	W	X	Y
AP-145 <b>A11</b>	6~M20	63.7	165	43	53.5	23.5	98	91	62	25.5	57°	242	0°	38	20
AP-185 <b>A15</b>	6~M24	63.7	165	43	53.5	23.5	118	111	62	25.5	58°	272	7°	38	20
AP-230 <b>A15</b>	6~M24	71.7	180	60	48.5	18.5	145	136.5	64	25.5	30°	300	7°	33	15
AP-275 <b>A20</b>	6~M24	71.7	180	60	48.5	18.5	167.5	159	64	25.5	30°	322	7°	30	12
AP-320 <b>A20</b>	6~M24	81.5	210	60	60.5	24.5	190	181.5	74	30	52°	350	7°	27	9
AP-375 <b>A20</b>	6~M24	81.5	210	60	66.5	24.5	223.5	211.5	74	30	52°	387	7°	27	9

1. The dimensions and the specifications of AP-A type are in red data.



- Large through-hole 3-jaw power chuck with build in air cylinder.
  - With build-in "pressure detection" device which can check the rapidly decreasing pressure within the chuck, guarantee to the security when operating.
  - Patented air supply system, it is easy to install and maintain. No abrasion issue of traditional sealed ring. Maintenance cost and time can be saved.
  - The build-in "clamping detection" device can avoid jaws clamping the workpiece during the rapid stroke stage. This mechanism can also prevent causing the damage of the internal parts or flying out of workpiece.(only for external clamping)
  - Extended jaw stroke design can shorten the processing time when gripping.
- Notice : No clamping in rapid stroke period.



Subject to technical changes

SPECIFICATIONS

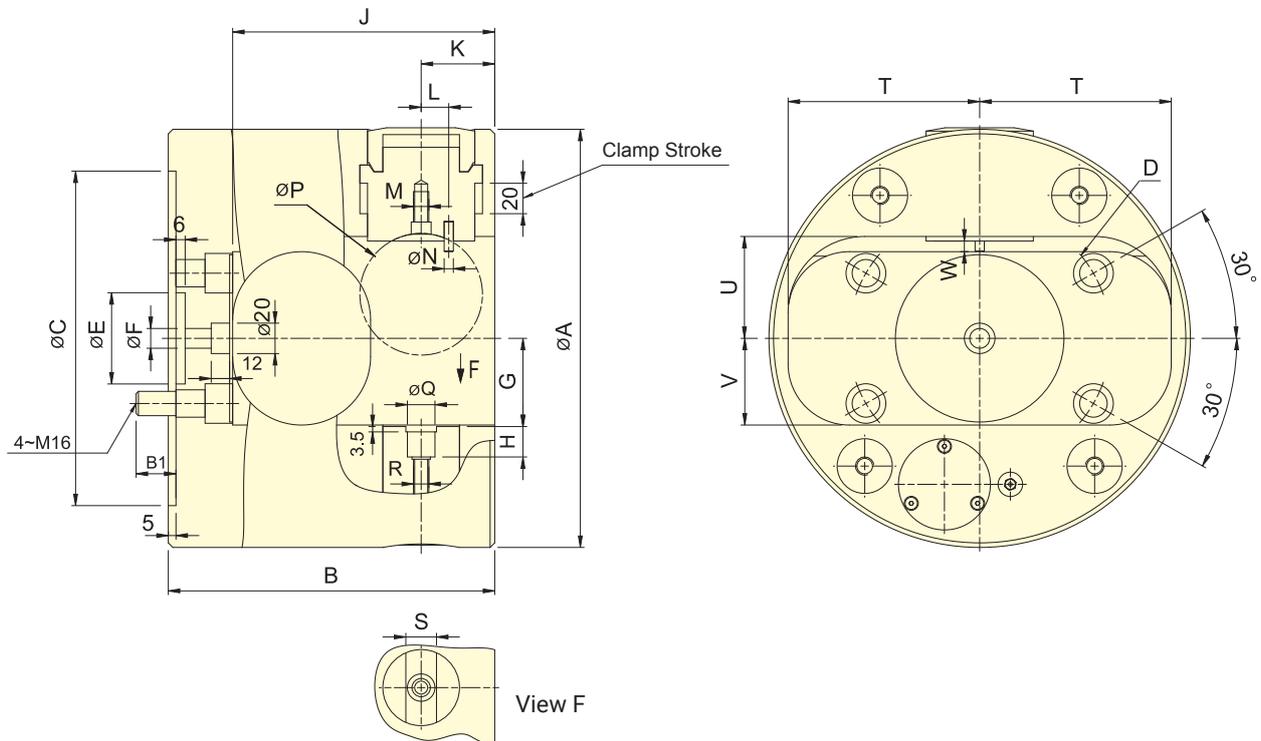
Model	Thru-hole Dia. mm	Jaw stroke (Dia.) mm		Chucking Dia. mm		Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Air Consumption lit(at 6kgf/cm <sup>2</sup> )
				Max.	Min.					
<b>NEW</b> APS-185	185	26	14	460	127	110(11216)	1300	6.45	198	22

DIMENSIONS

Model	A	B	C	D	E	F	G	H	J	K	L	L1	M
<b>NEW</b> APS-185	460	221	300	425	8	185	45	124	50	3.5	9~M12	17	63.7
Model	N	P	Q max.	Q min.	R max.	R min.	S	T	U	V	W	X	Y
<b>NEW</b> APS-185	165	43	37	17	145	125	62	25.5	58	272	7°	38	30



- Indexing operates during the spindle rotation, can perform a quick change between multiple working axes.
- Chuck of all parts hardened, ground and lubricated directly.
- Sealed against swarf, chips and coolant.
- Construction of high rigidity and high repeatability precision.
- Unique indexing system and of hydraulic system, with pressure detection device in chuck, high reliability.



Subject to technical changes

### SPECIFICATIONS

Model	Index Angle Deg	Jaw stroke (Dia.) mm	Chucking Area		Max. pressure kgf/cm <sup>2</sup>	Max. Clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight kg	ROTATING JOINT	Main Spindle Bore mm
			Dia Max. mm	Len Max. mm							
IS-254	8x45,4x90	20	65	160	45	19.5(1990)	2400	0.41	41	IS-315	86+0.1
IS-275	8x45,4x90	20	80	220	45	25.4(2590)	2100	0.61	52	IS-315	86+0.1
IS-315	8x45,4x90	20	100	230	45	25.0(2550)	1800	1.13	76	IS-315	86+0.1

### DIMENSIONS

Model	A	B	B1	C(H6)	D	E	F	G	H	J	K
IS-254	254	190	23	220	171.4	60	13	47.5	18	155	48
IS-275	275	213	26	220	171.4	60	13	58	20	171	48
IS-315	315	232	22	220	171.4	60	13	71	18.5	187	50

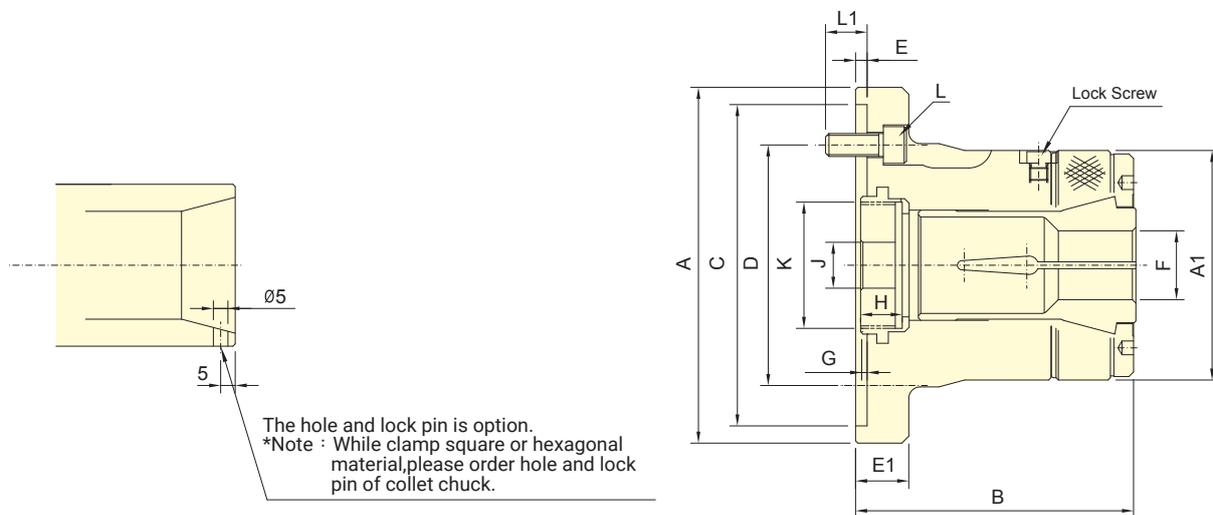
  

Model	L	M	N	P	Q(H7)	R	S(H7)	T	U	V	W
IS-254	13	M8	5	48	18	M10	20	106	57	46.5	5.5
IS-275	18	M10	6	80	18	M10	20	125	67	57	7
IS-315	18	M10	6	75	24	M12	25	125	85	70	7.5



- It's a PUSH type collet used mainly on turning, CNC, special purpose machines, ect.
- High clamping accuracy, high speed and construction of high rigidity.
- The installation is the same as "Thru-hole power chuck" and they are replaceable with each other. No need to change the "Draw tube".
- Sealed against swarf, chips and coolant.
- The collet used must accord with DIN 6343.
- Patent numbers :  
 Taiwan : PAT.M272602 / PAT.M380842  
 China : PAT.ZL2010.2.011376.2

COLLET CHUCKS



Subject to technical changes

SPECIFICATIONS

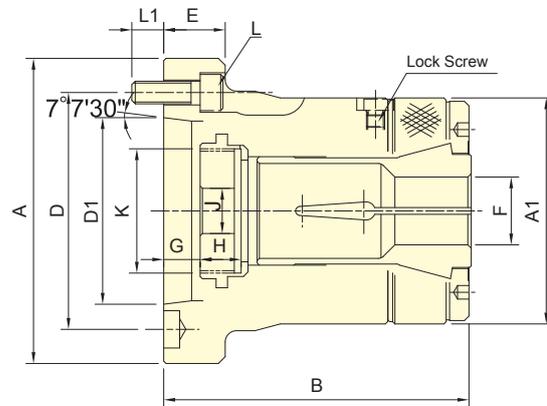
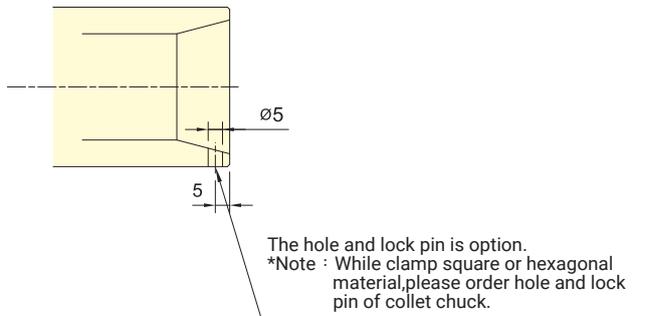
Model	Plunger stroke mm	Max. Chucking Capacity			Max. D.B. pull kN (kgf)	Max. clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	I Moment of inertia kg·m <sup>2</sup>	Weight (kg)	Matching steel collet	Matching Cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
		Round mm	Hex. mm	Square mm								
CL-26	4.5	3~26	4~22	4~18	17.6(1800)	37.9(3870)	8000	0.040	4.3	161E	TK-A533	2.4(24)
CL-30	4.5	3~30	4~26	4~20	19.6(2000)	42.1(4300)	8000	0.038	4.2	163E	TK-A533	2.7(27)
CL-36	6	3~36	6~32	6~26	22.5(2300)	48.5(4950)	6000	0.062	7.0	171E	TK-C643	2.3(23)
CL-42	6	3~42	6~36	6~29	24.5(2500)	52.9(5400)	6000	0.060	6.9	173E	TK-C643	2.5(25)
CL-52	6	5~52	8~45	7~36	27.4(2800)	59.0(6020)	6000	0.101	14.3	177E	TK-A853	2.0(20)
CL-6017	6	5~60	8~52	7~42	29.4(3000)	63.7(6500)	5000	0.098	14.1	185E	TK-1068	1.8(18)
CL-6022	6	5~60	8~52	7~42	29.4(3000)	63.7(6500)	5000	0.126	16.3	185E	TK-1068	1.8(18)
CL-80	6	20~80	18~69	15~56	34.3(3500)	71.5(7300)	4000	0.108	17.8	193E	TK-1287	1.5(15)

DIMENSIONS

Model	A	A1	B	C(H6)	D	E	E1	F max.	F min.	G max.	G min.	H	J	K max.	L	L1
CL-26	120	85	100	110	82.6	4	23	26	3	7	2.5	15	12	M40x1.5	3~M10x25	16
CL-30	120	85	100	110	82.6	4	23	30	3	7	2.5	15	12	M40x1.5	3~M10x25	16
CL-36	155	100	120	140	104.8	5	23	36	3	7	1	17.5	20	M55x2	3~M10x25	18
CL-42	155	100	120	140	104.8	5	23	42	3	7	1	17.5	20	M55x2	3~M10x25	18
CL-52	185	130	145.5	170	133.4	5	27	52	5	9	3	24	45	M60x2	6~M12x30	20
CL-6017	185	130	145.5	170	133.4	5	27	60	5	9	3	24	45	M75x2	6~M12x30	20
CL-6022	234	130	142	220	171.5	5	32	60	5	13	7	24	45	M85x2	6~M16x30	20
CL-80	234	156	163	220	171.5	5	32	80	20	15.5	9.5	22	45	M100x2	6~M16x30	20



- It's a PUSH type collet used mainly on turning, CNC, special purpose machines, ect.
- High clamping accuracy, high speed and construction of high rigidity.
- The installation is the same as "Thru-hole power chuck" and they are replaceable with each other. No need to change the "Draw tube".
- Sealed against swarf, chips and coolant.
- The collet used must accord with DIN 6343.
- Patent numbers :  
Taiwan : PAT.M272602 / PAT.M380842



Subject to technical changes

### SPECIFICATIONS

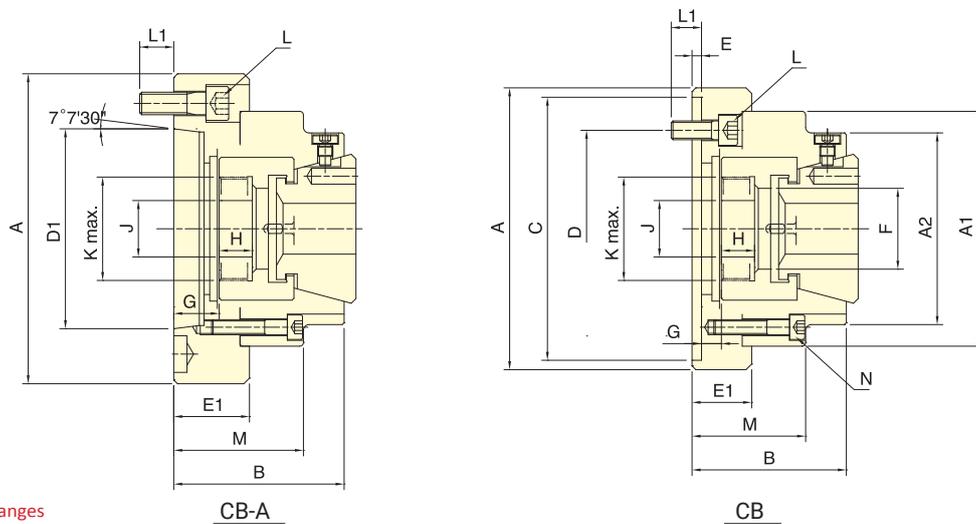
Model	Plunger stroke	Max. Chucking Capacity			Max. D.B. pull	Max. clamping force	Max. speed	I	Weight	Matching steel collet	Matching Cyl.	Max. pressure	
		Round	Hex.	Square									
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	(kg)			MPa (kgf/cm <sup>2</sup> )	
CL-26	A4	4.5	3~26	4~22	4~18	17.6(1800)	37.9(3870)	8000	0.040	4.2	161E	TK-A533	2.4(24)
CL-30	A4	4.5	3~30	4~26	4~20	19.6(2000)	42.1(4300)	8000	0.038	4.1	163E	TK-A533	2.7(27)
CL-36	A5	6	3~36	6~32	6~26	22.5(2300)	48.5(4950)	6000	0.058	6.3	171E	TK-C643	2.3(23)
CL-42	A5	6	3~42	6~36	6~29	24.5(2500)	52.9(5400)	6000	0.057	6.1	173E	TK-C643	2.5(25)
CL-42	A6	6	3~42	6~36	6~29	24.5(2500)	52.9(5400)	6000	0.061	7.5	173E	TK-C643	2.5(25)
CL-52	A6	6	5~52	8~45	7~36	27.4(2800)	59.0(6020)	6000	0.093	13.8	177E	TK-A853	2.0(20)
CL-60	A6	6	5~60	8~52	7~42	29.4(3000)	63.7(6500)	5000	0.091	13.5	185E	TK-1068	1.8(18)
CL-60	A8	6	5~60	8~52	7~42	29.4(3000)	63.7(6500)	5000	0.104	14.5	185E	TK-1068	1.8(18)
CL-80	A8	6	20~80	18~69	15~56	34.3(3500)	71.5(7300)	4000	0.120	19.8	193E	TK-1287	1.5(15)

### DIMENSIONS

Model	A	A1	B	D	D1	E	F max.	F min.	G max.	G min.	H	J	K max.	L	L1	
CL-26	A4	110	85	108	82.6	63.51	25	26	3	9.5	5	15	12	M40x1.5	3~M10x30	15
CL-30	A4	110	85	108	82.6	63.51	25	30	3	9.5	5	15	12	M40x1.5	3~M10x30	15
CL-36	A5	135	100	130	104.8	82.56	27	36	3	14	8	17.5	20	M55x2	4~M10x30	14
CL-42	A5	135	100	130	104.8	82.56	27	42	3	14	8	17.5	20	M55x2	4~M10x30	14
CL-42	A6	165	100	130	133.4	106.38	32	42	3	17	11	17.5	20	M60x2	4~M12x35	16
CL-52	A6	170	130	154	133.4	106.38	27	52	5	10.5	4.5	24	45	M60x2	4~M12x35	20
CL-60	A6	170	130	154	133.4	106.38	27	60	5	10.5	4.5	24	45	M75x2	4~M12x35	20
CL-60	A8	210	130	147.5	171.5	139.72	35	60	5	3.5	-2.5	24	45	M85x2	4~M16x40	22
CL-80	A8	210	156	175	171.5	139.72	35	80	20	7.5	1.5	22	45	M100x2	6~M16x40	22



- It's a DRAW type collet used mainly on turning, CNC, special purpose machines, ect.
- High clamping accuracy, high speed and construction of high rigidity.
- The installation is the same as "Thru-hole power chuck" and they are replaceable with each other, no need to change the "Draw tube".
- This is a completely sealed design, which prevents coolant and chips from entering the spindle.
- J vale is the hole diameter of blank draw nut, K is the maximum thread specification, and it could be customize.



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke mm	Max. Chucking Capacity			Max. D.B. pull kN (kgf)	Max. clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	Weight (kg)	Matching steel collet	Matching Cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
		Round mm	Hex. mm	Square mm							
CB-42	4.5	4~42	7~36	7~30	34.3(3500)	78.4(8000)	7000	6.5	RG-42	TK-B846	2.8(28)
CB-42 A5	4.5	4~42	7~36	7~30	34.3(3500)	78.4(8000)	7000	6.2	RG-42	TK-B846	2.8(28)
CB-42 A6	4.5	4~42	7~36	7~30	34.3(3500)	78.4(8000)	7000	7.4	RG-42	TK-B846	2.8(28)
CB-52	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	6	RG-52	TK-A853	3.2(32)
CB-5217	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	9.6	RG-52	TK-A853	3.2(32)
CB-52 A5	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	6.5	RG-52	TK-A853	3.2(32)
CB-52 A6	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	7.8	RG-52	TK-A853	3.2(32)
CB-65	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	5500	15	RG-65	TK-1068	3.0(30)
CB-65 A6	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	5500	13.6	RG-65	TK-1068	3.0(30)
CB-65 A8	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	5500	17.6	RG-65	TK-1068	3.0(30)
CB-80	6	5~80	8~68	8~56	50.0(5100)	115(11730)	5500	19	RG-80	TK-1287	2.3(23)
CB-80 A8	6	5~80	8~68	8~56	50.0(5100)	115(11730)	5500	19	RG-80	TK-1287	2.3(23)

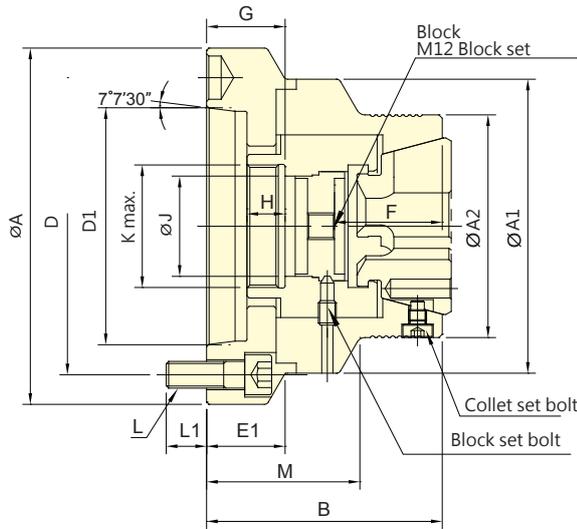
DIMENSIONS

Model	A	A1	A2	B	C(H6)	D	D1	E	E1	F	G max.	G min.	H	J	K max.	L	L1	M	N
CB-42	150	125	102	81.5	140	104.8	-	5	31	43	10.5	6	17.5	30	M55x2	3~M10x25	11	60	4~M8
CB-42 A5	140	125	102	91.5	-	104.8	82.56	-	41.5	43	25.5	21	17.5	30	M55x2	4~M10x25	12	70	4~M8
CB-42 A6	165	125	102	91.5	-	133.4	106.38	-	45	43	29	24.5	17.5	30	M55x2	4~M12x35	18	73.5	4~M8
CB-52	150	125	102	83.5	140	104.8	-	5	31.5	53	11	6.5	17.5	30	M60x2	4~M10x25	16	62.5	4~M8
CB-5217	180	125	102	87	170	133.4	-	5	35	53	14.5	10	17.5	30	M60x2	4~M12x30	18	66	4~M8
CB-52 A5	140	125	102	93.5	-	104.8	82.56	-	41.5	53	26	21.5	17.5	30	M60x2	4~M10x30	16	72.5	4~M8
CB-52 A6	165	125	102	99	-	133.4	106.38	-	47	53	31.5	27	17.5	30	M60x2	6~M12x35	18	78	4~M8
CB-65	185	145	120	100	170	133.4	-	6	50	66	13.5	9	21.5	32	M75x2	6~M12x40	20	73.5	4~M8
CB-65 A6	165	145	120	111	-	133.4	106.38	-	61	66	30.5	26	21.5	32	M75x2	4~M12x40	20	84.5	4~M8
CB-65 A8	207	145	120	107	-	171.4	139.72	-	57	66	26.5	22	21.5	32	M75x2	4~M18x40	24	80.5	4~M8
CB-80	235	175	150	112	220	171.4	-	5	37	82.5	14	8	25	32	M85x2	6~M16x30	22	87	6~M10
CB-80 A8	210	175	150	125	-	171.4	139.72	-	50	82.5	27	21	25	32	M85x2	6~M16x50	24	100	6~M10

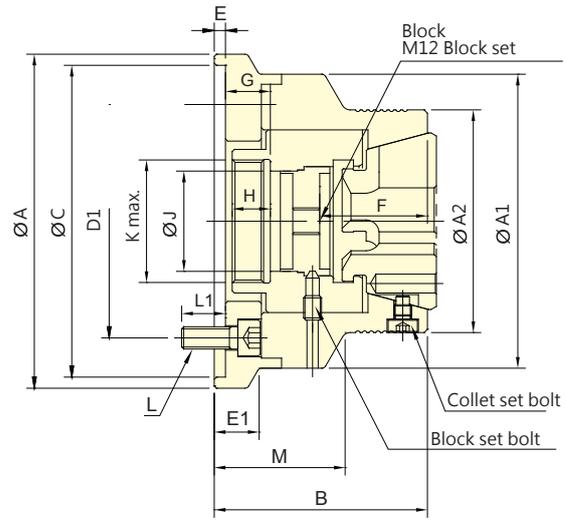


- End stop clamping.
- With backgauge block mechanism, positioning and the length control of the workpiece can be more precise.
- Backgauge block and cover are interchangeable. The chip-proof function can also be achieved.

COLLET CHUCKS



CBE-A



CBE

Subject to technical changes

SPECIFICATIONS

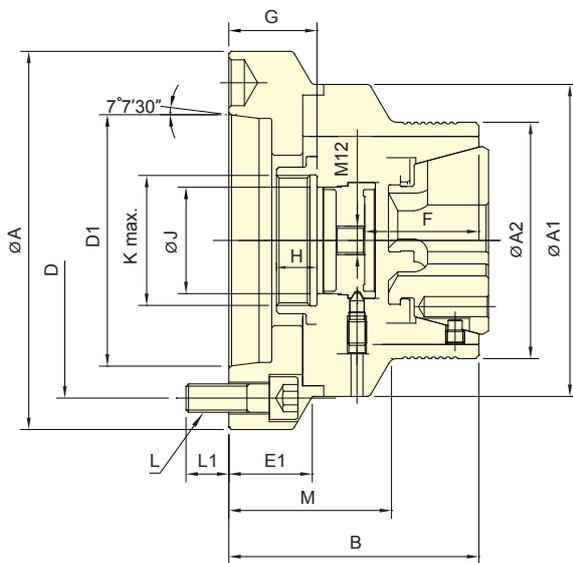
Model	Plunger stroke	Max. Chucking Capacity			Max. D.B. pull	Max. clamping force	Max. speed	Weight	Matching steel collet	Matching Cyl.	Max. pressure
		Round	Hex.	Square							
CBE-42	4.5	4~42	7~36	7~30	34.3(3500)	78.4(8000)	7000	6	RG-42	TK-B846	2.8(28)
CBE-4212	4.5	4~42	7~36	7~30	34.3(3500)	78.4(8000)	7000	6	RG-42	TK-B846	2.8(28)
CBE-42 A5	4.5	4~42	7~36	7~30	34.3(3500)	78.4(8000)	7000	6.3	RG-42	TK-B846	2.8(28)
CBE-42 A6	4.5	4~42	7~36	7~30	34.3(3500)	78.4(8000)	7000	7.4	RG-42	TK-B846	2.8(28)
CBE-65	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.3	RG-65	TK-1068	3.0(30)
CBE-6517	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	8.6	RG-65	TK-1068	3.0(30)
CBE-65 A5	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	10.8	RG-65	TK-1068	3.0(30)
CBE-65 A6	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.5	RG-65	TK-1068	3.0(30)
CBE-65 A8	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.5	RG-65	TK-1068	3.0(30)

DIMENSIONS

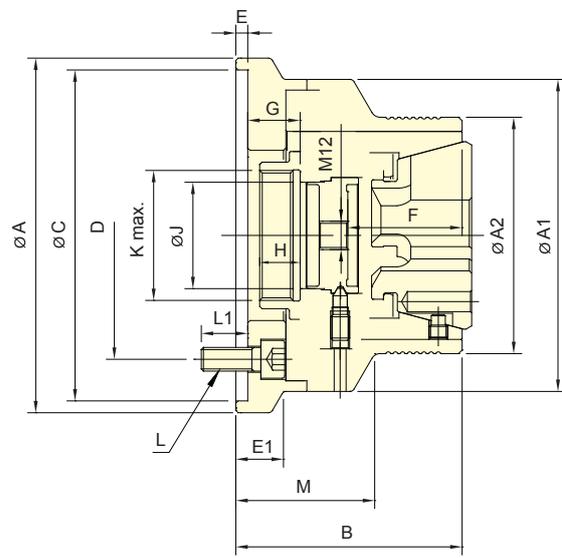
Model	A	A1	A2	B	C(H6)	D	D1	E	E1	F	G max.	G min.	H	J	K max.	L	L1	M
CBE-42	150	132	100	95	140	104.8	-	5	20	48	27.5	23	17	45	M55x2	4~M10x25	19.5	58
CBE-4212	132	132	100	95	120	100	-	5	-	48	27.5	23	17	45	M55x2	4~M10x25	19.5	58
CBE-42 A5	132	132	100	105	-	104.8	82.56	-	-	48	37.5	33	17	45	M55x2	4~M10x30	16	68
CBE-42 A6	160	132	100	105	-	133.4	106.38	-	35	48	37.5	33	17	45	M55x2	4~M12x35	18	68
CBE-65	157	157	122	116	140	104.8	-	6	-	56	40.5	36	17.5	68	M75x2	4~M10x30	18	74
CBE-6517	180	157	122	114	170	133.4	-	6	24	56	40.5	36	17.5	68	M75x2	4~M12x30	18	72
CBE-65 A5	157	157	122	114	-	104.8	82.56	-	-	56	38.5	34	17.5	68	M75x2	4~M10x25	16	72
CBE-65 A6	157	157	122	112	-	133.4	106.38	-	-	56	36.5	32	17.5	68	M75x2	4~M12x35	18.5	70
CBE-65 A8	202	157	122	116	-	171.4	139.72	-	38	56	36.5	32	17.5	68	M75x2	4~M16x35	24	74



- Clamping push with the backgauge block mechanism, collet will not be pushed, can precise positioning for workpiece length, make the precision of the length control more precise.
- Match Autogrip Rubber collet, clamping direction perpendicular to axis, never occur that situation of collet push workpiece.
- Backgauge block and cover able to interchangeable use, as well as application and chip-proof function.



CBD-A



CBD

Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Max. Chucking Capacity			Max. D.B. pull	Max. clamping force	Max. speed	Weight	Matching steel collet	Matching Cyl.	Max. pressure
		Round	Hex.	Square							
CBD-65	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.3	RG-65	TK-1068	2.7(27)
CBD-6517	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	8.6	RG-65	TK-1068	2.7(27)
CBD-65 A5	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	10.8	RG-65	TK-1068	2.7(27)
CBD-65 A6	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.5	RG-65	TK-1068	2.7(27)
CBD-65 A8	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.5	RG-65	TK-1068	2.7(27)

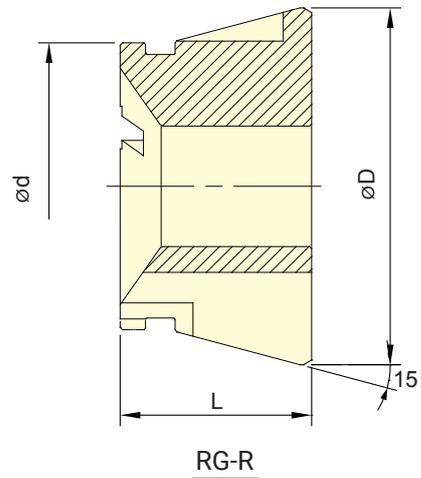
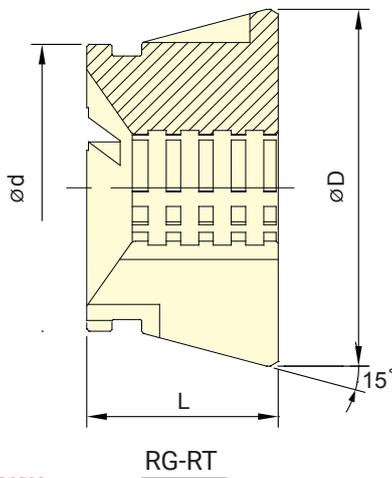
DIMENSIONS

Model	A	A1	A2	B	C(H6)	D	D1	E	E1	F	G max.	G min.	H	J	K max.	L	L1	M
CBD-65	157	157	122	114	140	104.8	-	6	-	54	35	30.5	17.5	68	M75x2	4~M10x30	18	72
CBD-6517	180	157	122	112	170	133.4	-	6	24	54	33	28.5	17.5	68	M75x2	4~M12x30	18	70
CBD-65 A5	157	157	122	112	-	104.8	82.56	-	-	54	39	34.5	17.5	68	M75x2	4~M10x25	16	70
CBD-65 A6	157	157	122	110	-	133.4	106.38	-	-	54	37	32.5	17.5	68	M75x2	4~M12x35	18.5	68
CBD-65 A8	202	157	122	114	-	171.4	139.72	-	38	54	41	36.5	17.5	68	M75x2	4~M16x35	24	72



- It is a rubber grip collet for push type or draw type collet chucks.
- Full gripping area: high rigidity, more gripping force. Gripping smoothly: prevent to damage the workpiece.
- More accurate than standard spring collets. Accuracy: With customized rubber grip collet, the accuracy can reach  $\pm 10\mu\text{m}$ .
- Grip Range:  $\pm 0.5\text{mm}$ .
- Quick change and easy.
- Dust-proof and swarf-proof design.

COLLET CHUCKS

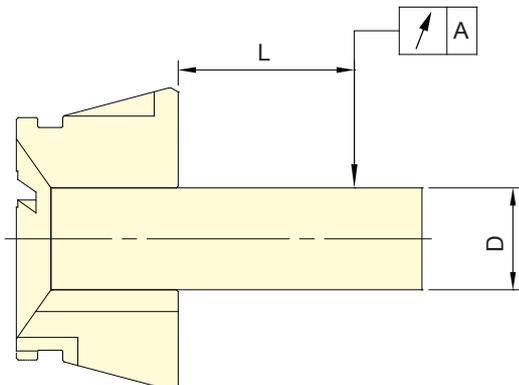


Subject to technical changes

**SPECIFICATIONS**

Model	Max. Chucking Capacity	d	D	L	Matching Collect Chuck
	Round mm				
RG-42R	4~42	54	79.3	42	CB-42,CBE-42
* RG-42RT	4~42	54	79.3	42	CB-42,CBE-42
RG-52R	4~52	66	79.3	46	CB-52,CBD-52,CBE-52
* RG-52RT	4~52	66	79.3	46	CB-52,CBD-52,CBE-52
RG-65R	4~65	80	99.5	53	CB-65,CBD-65,CBE-65
* RG-65RT	4~65	80	99.5	53	CB-65,CBD-65,CBE-65

Note: Square and hex collets are made to order.

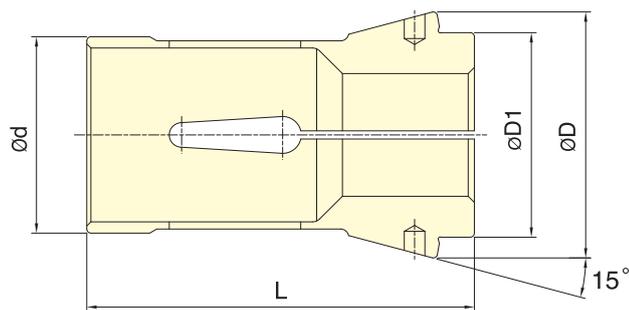


Test Bar D(S,H)	L mm	A DIN	
		Class1	Class2
3.0~6.0	16	0.015	0.020
6.0~10	25	0.015	0.020
10.0~18.0	40	0.020	0.030
18.0~24.0	50	0.020	0.030
24.0~30.0	60	0.020	0.030
30.0~50.0	80	0.030	0.040
50.0~60.0	100	0.030	0.040

Note1 : Collets chuck are conformed to DIN 6343 Class2.

Note2 : AUTOGRIP's rubber grip collets are conformed to DIN 6343 Class1.

1. Models with "\*" mark are produced only by order.



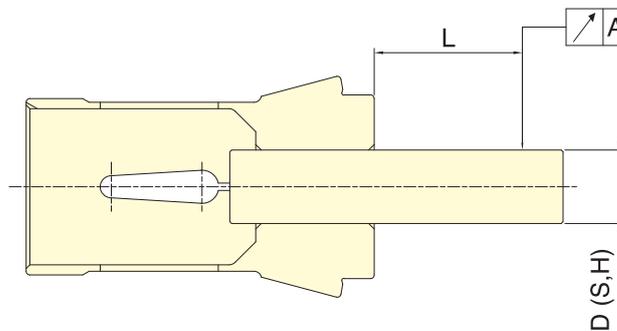
DIN 6343 Collet standard

Subject to technical changes

**DIMENSIONS**

Collet	Max. Chucking Capacity (mm)			d	D	D1	L	Matching Collet Chuck
	Round	Hexagom	Square					
161E	3~26	4~22	4~18	32	45	34	75	CL-26, CL-26A4
163E	3~30	4~26	4~20	35	48	38	80	CL-30, CL-30A4
171E	3~36	6~32	6~26	42	55	42	94	CL-36, CL-36A5
173E	3~42	6~36	6~29	48	60	50	94	CL-42, CL-42A5, CL-42A6
177E	5~52	8~45	7~36	58	70	60	94	CL-52, CL-52A6
185E	5~60	8~52	7~42	66	84	73	110	CL-6017, CL-6022, CL-60A6, CL-60A8
193E	20~80	18~69	15~56	90	107	92	130	CL-80, CL-80A8

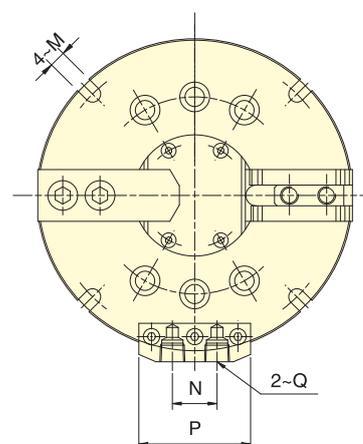
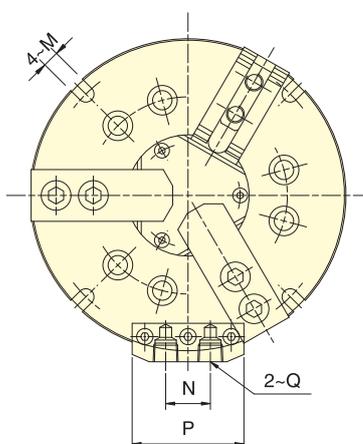
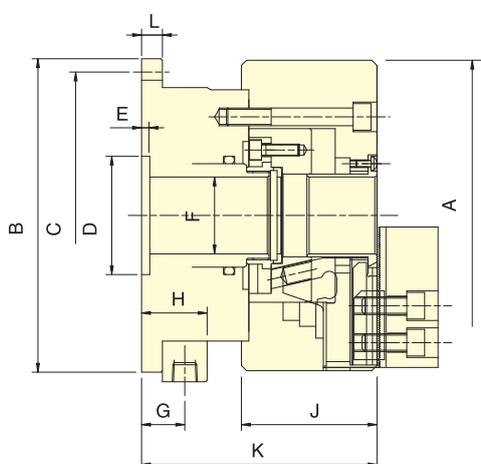
Test Bar D(S,H)	L mm	A DIN	
		Class 1	Class 2
0.5~1.0	3	0.015	0.015
1.0~1.6	6	0.015	0.020
1.6~3.0	10	0.015	0.020
3.0~6.0	16	0.015	0.020
6.0~10.0	25	0.015	0.020
10.0~18.0	40	0.020	0.030
18.0~24.0	50	0.020	0.030
24.0~30.0	60	0.020	0.030
30.0~50.0	80	0.030	0.040
50.0~60.0	100	0.030	0.040



Note: DIN with 2 collet accuracy



- It's a STATIONARY CHUCK with two or three jaws for drilling, milling and other machines.
- Specification and size of matching chuck for model VH-200 is the same as model 2H.
- Specification and size of matching chuck for model VH-300 is the same as model 3H.



Subject to technical changes

## SPECIFICATIONS

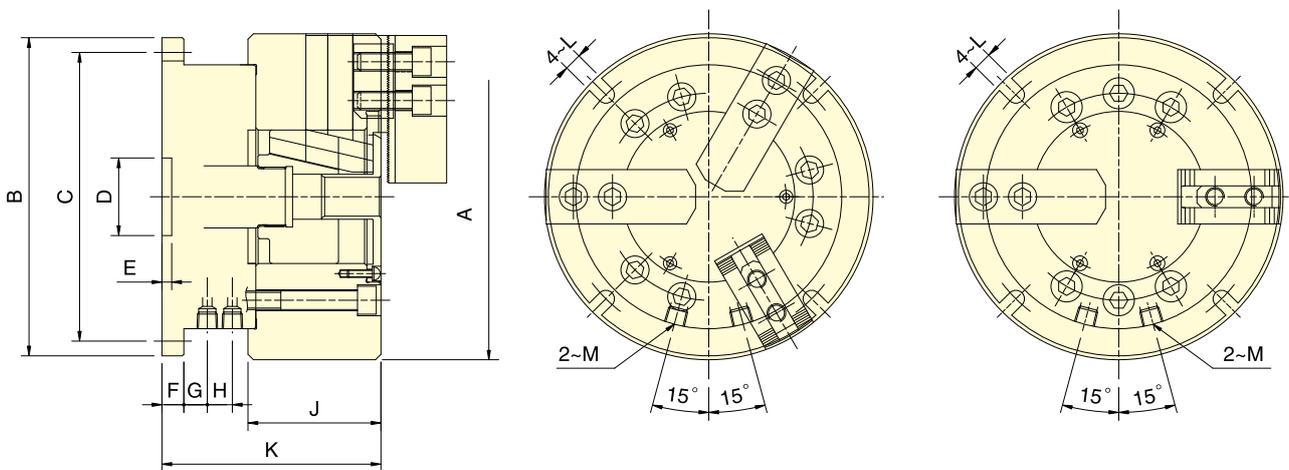
Model	Eff. Piston area		Jaw stroke(Dia.)	Max. pressure	Weight
	Extend	Retract			
	cm <sup>2</sup>	cm <sup>2</sup>			
VH-204	49.7	46.5	5.4	2.0(20)	7.9
VH-304	49.7	46.5	5.4	3.0(30)	8.1
VH-205	66.0	58.9	5.4	2.0(20)	11.7
VH-305	66.0	58.9	5.4	3.0(30)	11.9
VH-206	103.1	94.4	5.5	1.6(16)	19.8
VH-306	103.1	94.4	5.5	2.3(23)	20.2
VH-208	125.7	115.4	7.4	2.0(20)	32.3
VH-308	125.7	115.4	7.4	3.0(30)	33.6
VH-210	202.6	189.3	8.8	1.5(15)	55.5
VH-310	202.6	189.3	8.8	2.3(23)	56.5

## DIMENSIONS

Model	A	B	C	D(H8)	E	F	G	H	J	K	L	M	N	P	Q
VH-204	110	150	132	50	5	23	23	34	59	106.5	12	9	26	62	RC1/4
VH-304	110	150	132	50	5	23	23	34	59	106.5	12	9	26	62	RC1/4
VH-205	135	168	150	60	5	30	23	34	60	111	12	9	26	62	RC1/4
VH-305	135	168	150	60	5	30	23	34	60	111	12	9	26	62	RC1/4
VH-206	169	194	176	80	5	40	25	36	81	141	14	11	26	62	RC1/4
VH-306	169	194	176	80	5	40	25	36	81	141	14	11	26	62	RC1/4
VH-208	210	212	190	80	5	45	29	44	91	158	14	13.5	30	75	RC3/8
VH-308	210	212	190	80	5	45	29	44	91	158	14	13.5	30	75	RC3/8
VH-210	254	266	246	90	6	70	32	47	100	190	17	13	30	75	RC3/8
VH-310	254	266	246	90	6	70	32	47	100	190	17	13	30	75	RC3/8



- It's a STATIONARY CHUCK with two or three jaws for drilling, milling and other machines.
- Specification and size of matching chuck for model VP-200 is the same as model 2P.
- Specification and size of matching chuck for model VP-300 is the same as model 3P.



STATIONARY CHUCKS

Subject to technical changes

### SPECIFICATIONS

Model	Eff. Piston area		Jaw stroke(Dia.)	Max. pressure	Weight
	Extend	Retract			
	cm <sup>2</sup>	cm <sup>2</sup>	mm	MPa(kgf/cm <sup>2</sup> )	kg
VP-204	28.0	24.9	6.4	2.1(21)	7.1
VP-304	28.0	24.9	6.4	3.2(32)	7.4
VP-205	28.0	24.9	6.4	2.2(22)	10.2
VP-305	28.0	24.9	6.4	3.3(33)	10.6
VP-206	63.1	53.5	8.5	2.3(23)	18.3
VP-306	63.1	53.5	8.5	3.4(34)	19.8
VP-208	103.4	90.8	8.8	1.9(19)	31.6
VP-308	103.4	90.8	8.8	2.8(28)	33.6
VP-210	153.1	133.5	8.8	1.5(15)	52.8
VP-310	153.1	133.5	8.8	2.2(22)	54.5

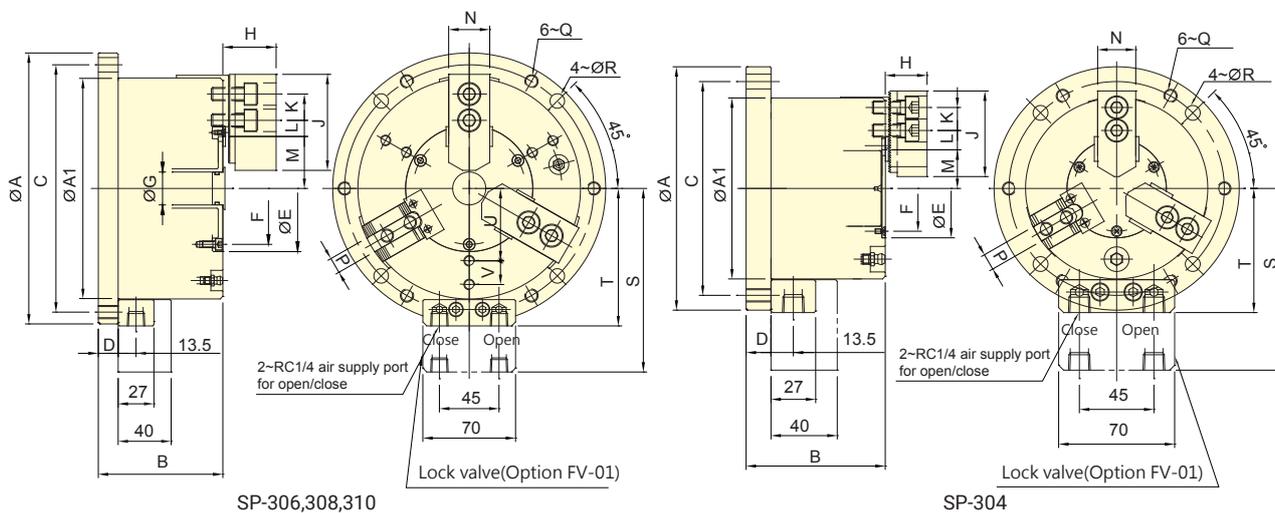
### DIMENSIONS

Model	A	B	C	D(H8)	E	F	G	H	J	K	L	M
VP-204	110	146	130	30	4.5	12	18	2	52	92	9	RC1/4
VP-304	110	146	130	30	4.5	12	18	2	52	92	9	RC1/4
VP-205	135	146	130	30	4.5	12	18	2	55	95	9	RC1/4
VP-305	135	146	130	30	4.5	12	18	2	55	95	9	RC1/4
VP-206	165	178	160	40	5	12	14.5	12.5	74	125	11	RC1/4
VP-306	165	178	160	40	5	12	14.5	12.5	74	125	11	RC1/4
VP-208	210	205	186	40	5	14	15	16	85	140	11	RC1/4
VP-308	210	205	186	40	5	14	15	16	85	140	11	RC1/4
VP-210	254	248	225	50	6	17	20	18	89	176	13	RC3/8
VP-310	254	248	225	50	6	17	20	18	89	176	13	RC3/8



- Build-in hydraulic cylinder; it can also work with lock valve and be driven by air pressure.
- With small thru-hole and suits for long bar workpiece processing.
- Easy to install. Installing the tubes and then operating.
- Thin and compact design. Use standard soft jaws or standard hard jaws.
- Can work together with multi-plate.

STATIONARY CHUCKS



Subject to technical changes

SPECIFICATIONS

Model	Jaw stroke (Dia.) mm	Chucking Dia.		Max. clamping force		Max. pressure		Min. pressure kgf/cm <sup>2</sup>	Air consumption lit (at 6.0 kgf/cm <sup>2</sup> )	Weight kg
		Max.	Min.	Pneumatic	Hydraulic	Pneumatic	Hydraulic			
		mm	mm	kN(kgf)	kN(kgf)	MPa(kgf/cm <sup>2</sup> )	MPa(kgf/cm <sup>2</sup> )			
SP-304	5.1	110	10	7.5(765)	22.0(2243)	0.6(6)	1.3(13)	2	0.5	7
SP-306	5.5	168	30	21.0(2142)	52.0(5303)	0.6(6)	1.3(13)	2	1.4	16.5
SP-308	6.8	210	42	33.0(3365)	74.0(7546)	0.6(6)	1.3(13)	2	2.5	28.7
SP-310	7	254	52	48.0(4895)	107.0(10911)	0.6(6)	1.3(13)	2	4.2	42

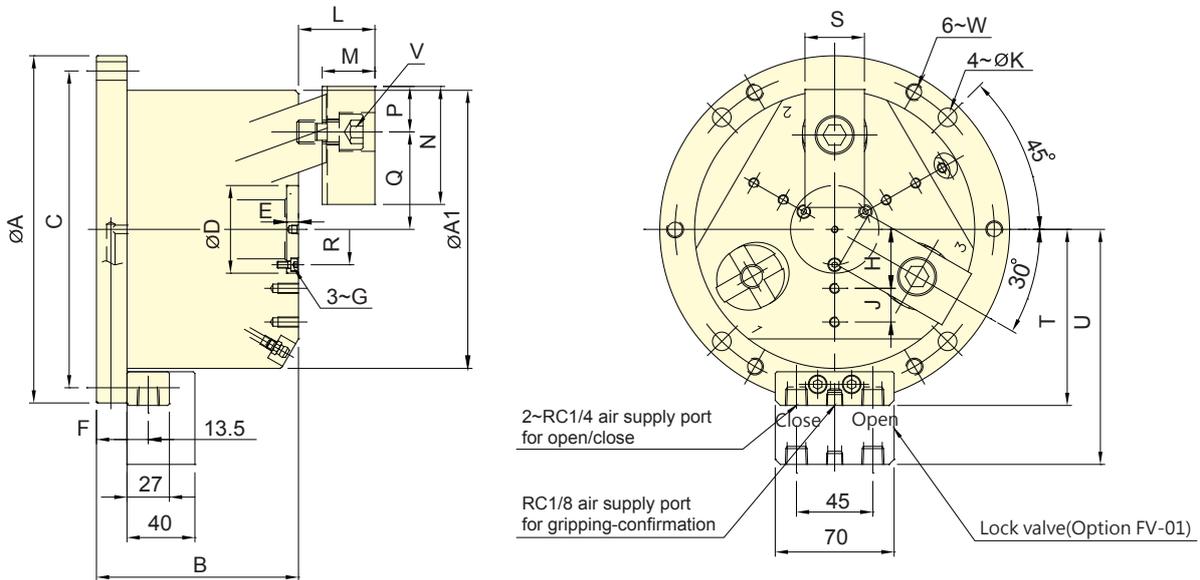
DIMENSIONS

Model	A(h7)	A1	B	C	D	E(H7/h7)	F	G	H	J	K	L max.	L min.
SP-304	148	110	84	130	15	60	52	-	25.25	52	14	14.75	11.75
SP-306	206	168	94	188	15	96	85	25	40.25	73	20	18.25	12.25
SP-308	248	210	108	230	15	113	102	32	41.25	95	25	20.75	16.25
SP-310	300	254	112	280	16	138	127	54	46.25	110	30	29.25	20.25

Model	M max.	M min.	N	P	Q	R	S	T	U	V
SP-304	23.5	20.95	23	10	M8X1.25	9	110.5	75.5	-	-
SP-306	39.5	36.75	31	12	M10X1.5	11	139.5	104.5	55	18
SP-308	49.5	46.1	35	14	M10X1.5	11	160.5	125.5	68	25
SP-310	57	53.5	40	16	M12X1.75	13	182.5	147.5	85	30



- Build-in hydraulic cylinder; it can also work with lock valve and be driven by air pressure.
- Radial clamp and axial pull down at the same time, keep the workpiece attaching close to the base surface of the chuck.
- Almost no workpiece uplifting displacement.
- The body with heat treatment and the organization of cylinder pull-down, and fine boring, which guarantee to the high clamping precision and durability, it's suitable for heavy duty machining.
- Can work together with multi-plate.
- Air-tight pressure detect function is optional.



Subject to technical changes

### SPECIFICATIONS

Model	Jaw stroke (Dia.) mm	Chucking Dia.		Max. clamping force		Max. pressure		Min. pressure kgf/cm <sup>2</sup>	Air consumption lit (at 6.0 kgf/cm <sup>2</sup> )	Weight kg
		Max. mm	Min. mm	Pneumatic kN(kgf)	Hydraulic kN(kgf)	Pneumatic MPa(kgf/cm <sup>2</sup> )	Hydraulic MPa(kgf/cm <sup>2</sup> )			
* SD-304	5	110	18	5.0(510)	10.9(1112)	0.6(6)	1.3(13)	2	0.26	8.1
SD-306	7.2	165	35	11.5(1173)	25.0(2550)	0.6(6)	1.3(13)	2	0.58	20.6
SD-308	7.2	210	28	21.7(2213)	47.0(4793)	0.6(6)	1.3(13)	2	1.02	34.1

### DIMENSIONS

Model	A(h7)	A1	B	C	D(H7/h7)	E	F	G	H	J	K	L max.	L min.
* SD-304	148	110	93.5	130	35	2	15	M3	22.5	10	9	30	23
SD-306	206	165	116	188	52	7	18	M4	35	20	11	45	35
SD-308	248	210	122	230	65	10	18	M5	45	25	11	56	46

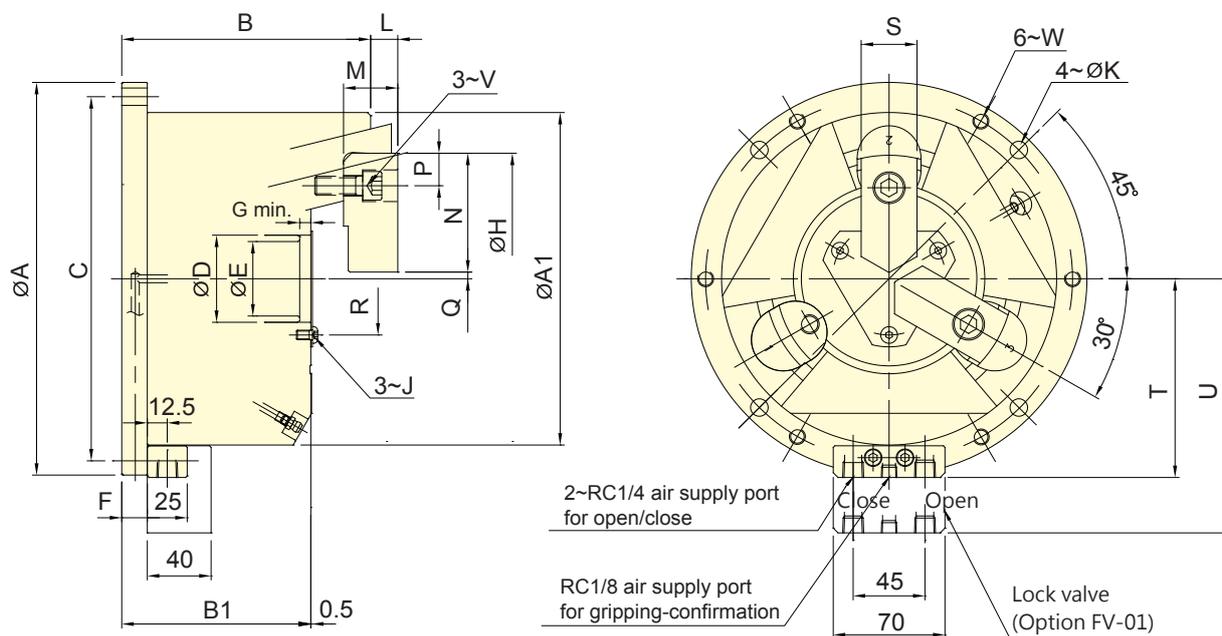
  

Model	M	N	P	Q max.	Q min.	R	S	T	U	V	W
* SD-304	19.5	52	19	37	34.5	27	25	75.5	110.5	3~M10	M8x1.25
SD-306	31	70	27	57.8	54.2	42	35	104.5	139.5	3~M14	M10x1.5
SD-308	41	84	31	70.8	67.2	53	40	125.5	160.5	6~M12	M10x1.5

1. Models with "\*" mark are produced only by order.



- Build-in hydraulic cylinder; it can also work with lock valve and be driven by air pressure.
  - Radial clamp and axial pull down at the same time, keep the workpiece attaching close to the base surface of the chuck.
  - Almost no workpiece uplifting displacement.
  - Suitable for drilling, milling and other machines.
  - The body with heat treatment and the organization of cylinder pull-down, and fine boring, which guarantee to the high clamping precision and durability, it's suitable for heavy duty machining.
  - Can work together with multi-plate.
- Air-tight pressure detect function is optional.



Subject to technical changes

## SPECIFICATIONS

Model	Jaw stroke (Dia.) mm	Chucking Dia.		Max. clamping force		Max. pressure		Min. pressure kgf/cm <sup>2</sup>	Air consumption lit (at 6.0 kgf/cm <sup>2</sup> )	Weight kg
		Max. mm	Min. mm	Pneumatic kN(kgf)	Hydraulic kN(kgf)	Pneumatic MPa(kgf/cm <sup>2</sup> )	Hydraulic MPa(kgf/cm <sup>2</sup> )			
* SU-304	3	60	5	6.7(683)	16.0(1632)	0.6(6)	1.3(13)	2	0.26	7.4
SU-306	5	105	31	18.5(1886)	40.0(4079)	0.6(6)	1.3(13)	2	0.58	18.0
SU-308	5	132	32	37.0(3773)	80.0(8158)	0.6(6)	1.3(13)	2	1.02	31.5

## DIMENSIONS

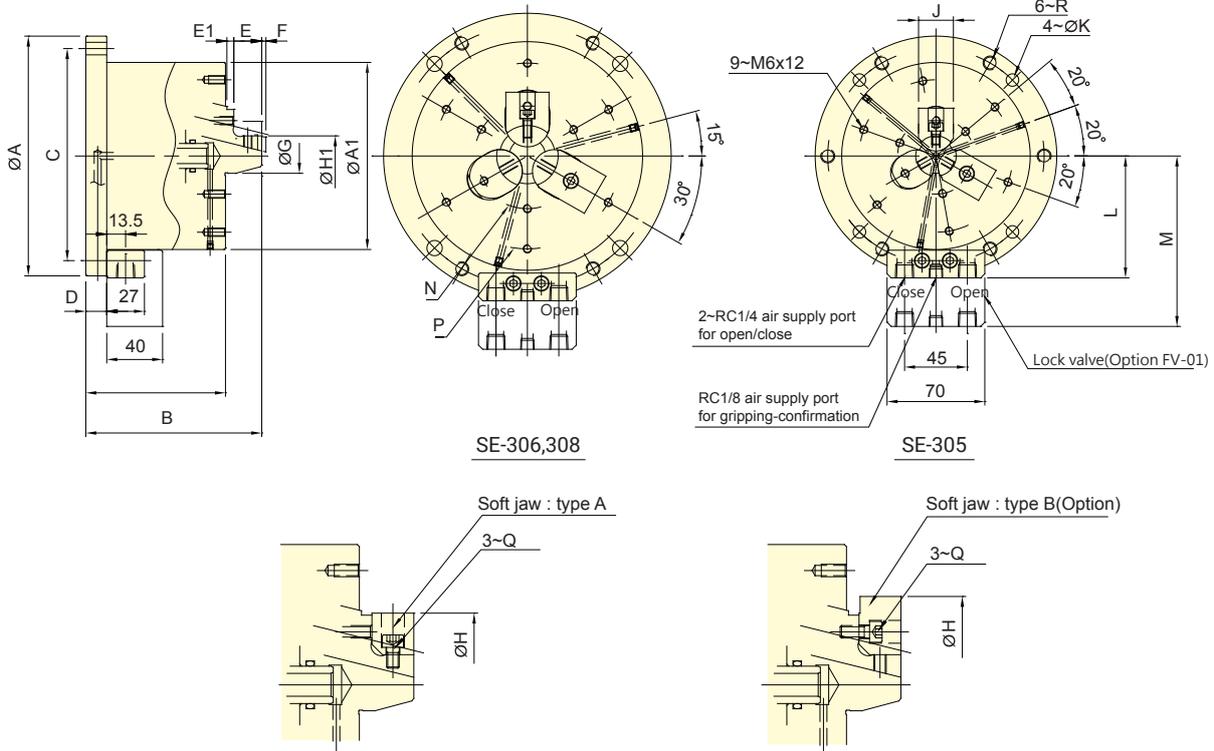
Model	A(h7)	A1	B	B1	C	D(H6)	E	F	G	H(H6)	J	K
* SU-304	148	110	101.5	83.5	130	32	24	15	4.5	84	M5	9
SU-306	206	168	136.5	104	188	35	25	18	6	129	M5	11
SU-308	248	210	152	115	230	55	45	18	7	156	M6	11

Model	L max.	L min.	M	N	P	Q max.	Q min.	R	S	T	U	V	W
* SU-304	7	1	17	40	9.5	2.75	1.25	42	20	75.5	110.5	M6	M8x1.25
SU-306	15	5	30	50	17	15.75	13.25	49	30	104.5	139.5	M10	M10x1.5
SU-308	17	7	34	63	20.5	16.25	13.75	71	35	125.5	160.5	M12	M10x1.5

1. Models with "\*" mark are produced only by order.



- Build-in hydraulic cylinder; it can also work with lock valve and be driven by air pressure.
- For internal gripping.
- With high precision and stability.
- Suitable for the precision large length size process.
- Suitable for end process.
- Can work together with multi-plate.
- Air-tight pressure detect function is optional.



STATIONARY CHUCKS

Subject to technical changes

**SPECIFICATIONS**

Model	Jaw stroke (Dia.) mm	Chucking Dia.		Max. clamping force		Max. pressure		Min. pressure kgf/cm <sup>2</sup>	Air consumption lit (at 6.0 kgf/cm <sup>2</sup> )	Weight kg
		Max.	Min.	Pneumatic	Hydraulic	Pneumatic	Hydraulic			
		mm	mm	kN(kgf)	kN(kgf)	MPa(kgf/cm <sup>2</sup> )	MPa(kgf/cm <sup>2</sup> )			
* SE-305	3	83	29	14.3(1459)	41.0(4181)	0.7(7)	1.3(13)	2	0.46	14.6
SE-306	5	110	44	20.0(2040)	57.0(5812)	0.7(7)	1.3(13)	2	0.58	20
SE-308	5	150	50	32.0(3263)	78.0(7954)	0.7(7)	1.3(13)	2	1.02	33

**DIMENSIONS**

Model	A(h7)	A1	B	B1	C	D	E	E1	F max.	F min.	G	type A		type B	
												H max.	H min.	H max.	H min.
* SE-305	173	135	126	100	155	15	20	5	3	-3	25	68	50	83	67
SE-306	206	168	140	108	188	18	23	7	5	-5	40	90	70	110	89
SE-308	248	210	164	119	230	18	30	9	5	-5	49	110	90	150	108

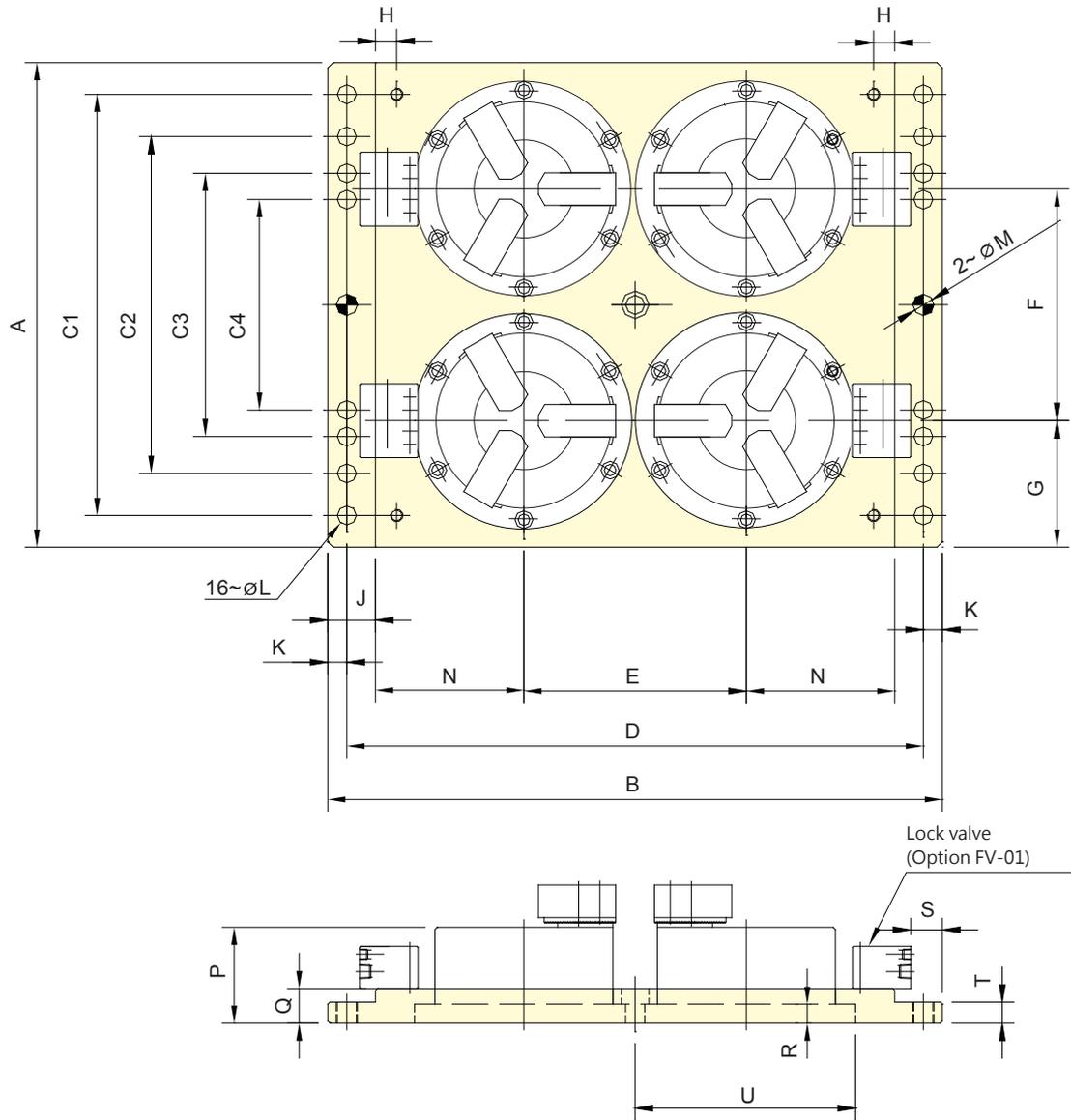
Model	H1		J	K	L	M	N	P	Q	R
	max.	min.								
* SE-305	50	29	25	9	88	123	55	110	3~M6	M8x1.25
SE-306	70	44	31	11	104.5	139.5	76	134	3~M8	M10x1.5
SE-308	90	50	35	11	125.5	160.5	100	170	3~M8	M10x1.5

1. Models with "\*" mark are produced only by order.



- Use for milling machine or machining center to achieve simultaneous processing of multiple workpieces.
- Stationary cylinder lock valve (option) can be mounted.
- Plate for 2,3,6 stationary chucks is an option.

STATIONARY CHUCKS



Subject to technical changes

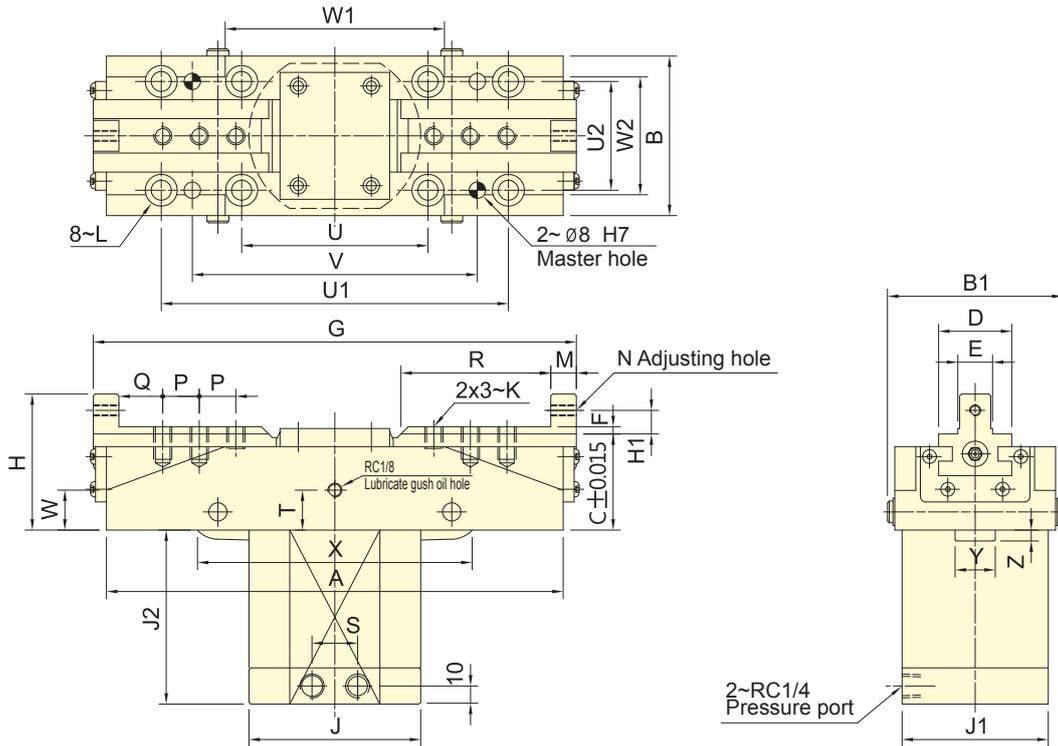
### DIMENSIONS

Model	A	B	C1	C2	C3	C4	D	E	F	G		
MP4-06206	460	580	400	320	250	200	544	210	220	120		
Model	H	J	K	L	M	N	P	Q	R	S	T	U
MP4-06206	20	45	18	17	20	140	*B	33	18	20	20	206

The dimension \*B: Please refer to the dimension B of the chuck model assembled.



- It's a CRANK type 2-jaw synchronous clamp with long jaw stroke.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- Construction of high rigidity and high clamping accuracy.



Subject to technical changes

SPECIFICATIONS

Model	Eff. Piston area		Jaw stroke(Dia.)	Clamping capacity	Max. clamping force	Max. pressure	Weight
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>					
CP-20	28.27	25.13	20	150	16.2(1650)	3.5(35)	9.5
CP-30A	28.27	25.13	30	180	17.7(1800)	3.5(35)	11
CP-30	28.27	25.13	30	210	17.7(1800)	3.5(35)	12
CP-40	28.27	25.13	40	200	14.7(1500)	3.5(35)	12
CP-50	38.48	33.57	50	215	20.3(2070)	3.5(35)	18.5
* CP-70	50.26	45.35	70	235	26.9(2742)	3.5(35)	30

DIMENSIONS

Model	A	B	B1	C	D	E(h6)	F	G max.	Gmin	H	H1	J	J1	J2	K	L	M
CP-20	215	88	96	53	40	18	4	249	229	75	13	94	76	83.5	M10x1.5	M10	12
CP-30A	250	88	96	53	40	18	4	295	265	75	13	94	76	96	M10x1.5	M10	14
CP-30	280	88	96	53	40	22	4	327	297	75	13	94	76	96	M12x1.75	M10	14
CP-40	270	88	96	53	40	22	4	331	291	75	13	94	76	110	M12x1.75	M10	14
CP-50	300	110	115	65	50	28	5	369	319	90	15	105	105	120	M12x1.75	M10	16
* CP-70	346	120	126	89	55	32	5	430	360	114	15	115	115	146	M14x2	M12	16

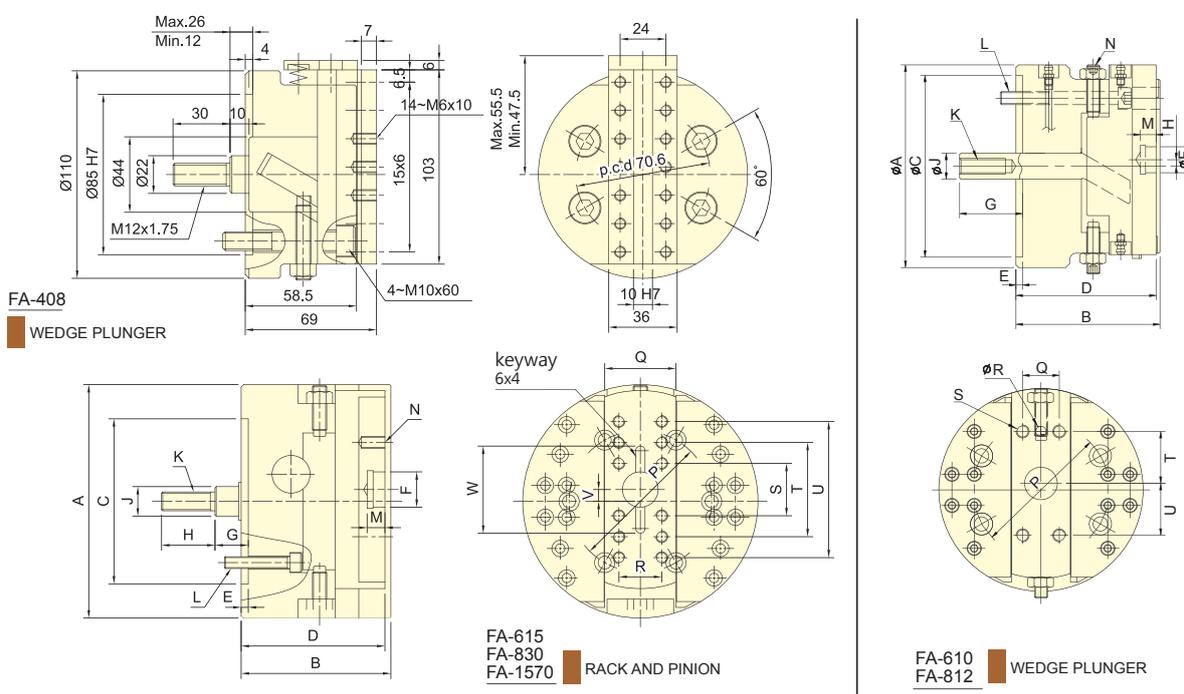
  

Model	N	P	Q	R	S	T	U	U1	U2	V	W	W1	W2	X	Y	Z
CP-20	M6x1	18	20	66	24	22	102	190	60	156	32	110	65	150	22	4
CP-30A	M6x1	20	24	96	24	22	102	190	60	156	20	120	65	156	22	6
CP-30	M6x1	20	24	98	24	22	102	190	60	156	23	110	65	156	22	6
CP-40	M6x1	20	24	98	24	22	102	190	60	156	25	110	65	150	22	10.5
CP-50	M8x1.25	21	28	102	30	32	105	230	85	195	29	140	80	180	30	10
* CP-70	M8x1.25	23	28	112	30	52	120	275	95	240	42	155	90	210	34	23.5

1. Models with "\*" mark are produced only by order.



- Feed mechanism is transmitted by Rack and Pinion or Wedge Plunger, with steady feed speed. Simple adjustment for feed speed and stroke.
- Matching surfaces of all parts hardened, grinding and lubricated directly. With rigidity and durability.
- Stopper accuracy:  $\pm 0.03\text{mm}$ .
- Suitable for using with RS type cylinder.
- For precision processes, Wedge Plunger type facing heads are suitable for using with electro servo and ball screw mechanism.



Subject to technical changes

**SPECIFICATIONS**

Model	Plunger stroke(Dia.)	Slider stroke(Dia.)	Max. speed	Max. feed speed	Weight	Matching cylinder	Max. pressure
	mm	mm	$\text{min}^{-1}(\text{r.p.m.})$	mm/min.			MPa(kgf/cm <sup>2</sup> )
FA-408	14	8	1600	400	4.2	RS-6520N	1.0(10)
FA-615	15	15	1200	300	11.9	RS-6520N	1.2(12)
FA-830	30	30	800	240	23.9	RS-6530N	1.8(18)
FA-1570	70	70	500	120	167	RS-1080N	2.6(26)

Model	Plunger stroke(Dia.)	Slider stroke(Dia.)	Max. speed	Max. D.B. PULL	I	Weight	Matching cylinder
					Moment of inertia		
	mm	mm	$\text{min}^{-1}(\text{r.p.m.})$	kgf	kg-m <sup>2</sup>	kg	
* FA-610	18	10	1200	280	0.04	14.5	RS-6520N
* FA-812	21	12	800	450	0.14	28.5	RS-6530N

**DIMENSIONS**

Model	A	B	C H7	D	E	F H7	G max.	G min.	H	J	K	L	M	N	P	Q	R	S	T	U	V	W
FA-615	150	107	110	102	5	25	40	25	35	20	M12x1.75	3-M10x40	12	8-M8x16	82.6	50	32	32	68	-	$\pm 7.5$	56
FA-830	198	126	140	121	6	30	54	24	45	25	M16x2	6-M10x55	15	12-M10x20	120	60	36	40	80	120	$\pm 15$	66
FA-1570	400	200	300	192	6	60	110	40	75	50	M30x3.5	6-M20x90	15	8-M16x20	235	120	80	130	260	-	$\pm 17.5$	-

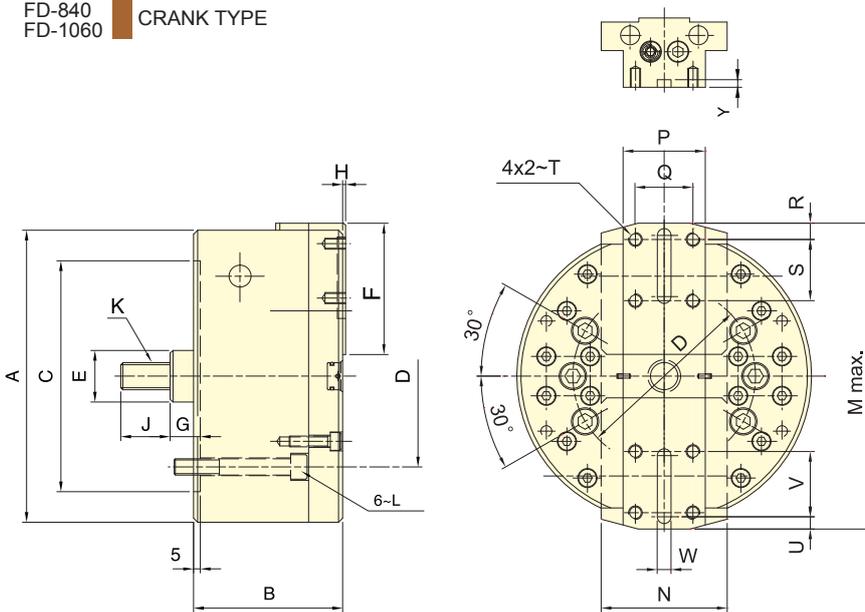
Model	A	B	C H7	D	E	F H7	G max.	G min.	H	J	K	L	M	N	P	Q	R H8	S	T	U
* FA-610	156	110	140	107	5	20	66	48	$\pm 5$	20	M12x1.75	4-M10x90	12	2-M10x45	104.8	28	8	4-M10x16	40	40
* FA-812	198	130	170	127	5	25	84	63	$\pm 6$	25	M16x2.0	4-M12x105	12	2-M12x60	133.4	32	10	4-M10x16	50	50

1. Models with "\*" mark are produced only by order.

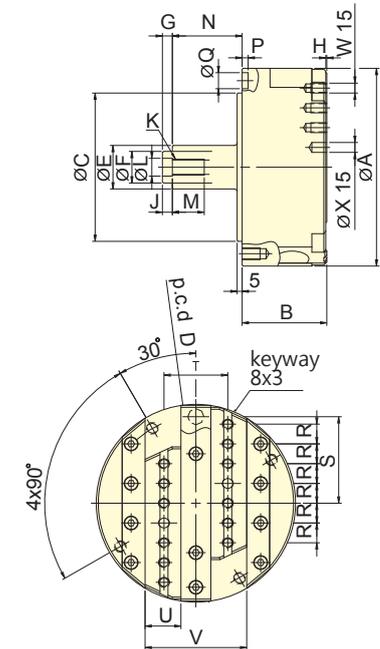


- Feed mechanism is transmitted by Crank or Helical Gear Rack, with steady feed speed. Simple adjustment for feed speed and stroke.
- Matching surfaces of all parts hardened, grinding and lubricated directly. With rigidity and durability.
- Stopper accuracy:  $\pm 0.03\text{mm}$ .
- Suitable for using with RS type cylinder.
- For precision processes, Helical Gear Rack type facing heads are suitable for using with electro servo and ball screw mechanism.

FD-632  
FD-840  
FD-1060 **CRANK TYPE**



FD-880 **HELICAL GEAR RACK TYPE**



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke(Dia.)	Slider stroke(Dia.)	Max. speed	Max. feed speed	Weight	Matching cylinder	Max. pressure
	mm	mm	min <sup>-1</sup> (r.p.m.)	mm/min.	kN (kgf)		MPa(kgf/cm <sup>2</sup> )
FD-632	20	32	3200	300	13.6	RS-1030N	2.4(24)
FD-840	25	40	2500	240	30.0	RS-1030N	3.0(30)
FD-1060	35	60	1800	200	41.5	RS-1040N	3.0(30)

Model	Plunger stroke(Dia.)	Slider stroke(Dia.)	Max. speed	Max. D.B. PULL	I		Weight	Matching cylinder
					Moment of inertia	kg·m <sup>2</sup>		
FD-880	48	80	2500	1050	0.081	17	RS-1080N	

DIMENSIONS

Model	A	B	C(H7)	D	E	F	G max.	G Min.	H	J	K
FD-632	168	93	140	104.8	32	76	31	11	2	36	M16x2.0
FD-840	215	109	170	133.4	38	96.5	32.5	7.5	2	36	M20x2.5
FD-1060	254	123	220	171.4	38	110.5	32.5	-2.5	4	36	M20x2.5

Model	L	M	N	P	Q	R	S	T	U	V	W(H8)	Y
FD-632	6~M10x75	188	70	40	25	10	32	M8x15	10	32	6	4
FD-840	6~M12x85	238	92	60	42	12	45	M10x15	12	45	10	6
FD-1060	6~M16x125	286	90	65	46	15	50	M10x15	12	50	10	6

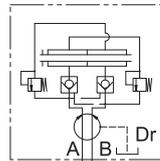
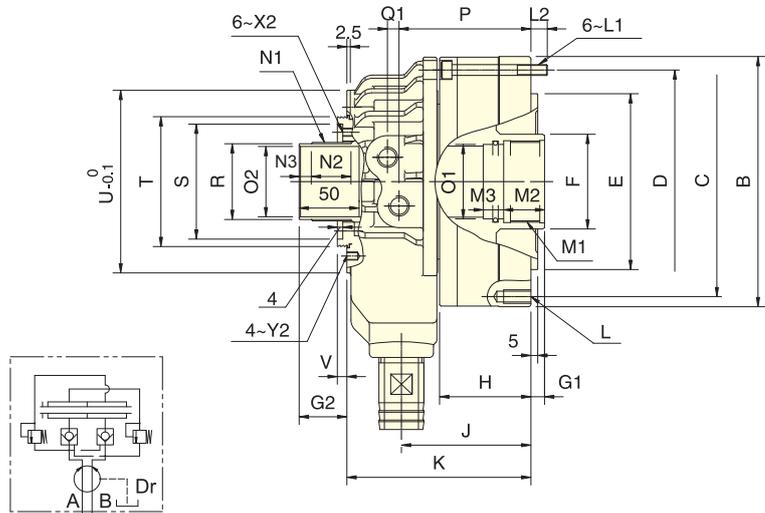
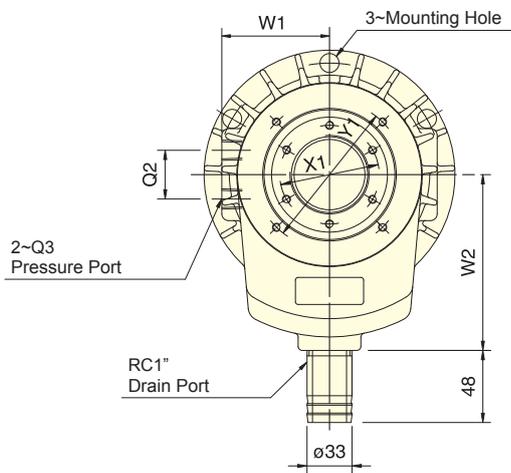
Model	A	B	C(H6)	D	E	F	G max.	G min.	H	J	K
FD-880	200	85	150	175	44	32	58	10	1	10	M16x1.5

Model	L(H7)	M	N	P	Q	R	S	T	U	V	W	X(H7)
FD-880	18	32	70	6	16.2	20	87.5	64	36	102	12~M10	10



- Super short form, light weight large Through-Hole, just as 2/3 of typical model length.
- Built-in safety check valves and pressure relief valves.
- Can screw it from the rear end of the cylinder when mounting.
- Patent numbers :  
 Taiwan : PAT.199970  
 China : PAT.ZL01.2.08005.5  
 U.S.A. : PAT.US6640686B2



Subject to technical changes

SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I Moment of inertia	Weight	Total oil leakage
	Extend	Retract						
	cm <sup>2</sup>	cm <sup>2</sup>	mm	min <sup>-1</sup> (r.p.m.)	MPa(kgf/cm <sup>2</sup> )	kg·m <sup>2</sup>	kg	lit. / min.
TK-A528	73.0	69.7	12	8000	4.5 (45)	0.012	6.2	3.0
TK-A533	73.0	69.7	12	8000	4.5 (45)	0.012	6.0	3.0
TK-C643	99.1	88.0	15	7000	4.5 (45)	0.018	7.5	3.0
TK-A646	105.0	93.9	15	7000	4.5 (45)	0.018	7.3	3.0
TK-B646	105.0	93.9	15	7000	4.5 (45)	0.018	8.6	3.0
TK-C646	99.1	88.0	15	7000	4.5 (45)	0.018	7.5	3.0
TK-646A	105.0	93.9	15	7000	4.5 (45)	0.019	9.2	3.0
TK-B846	135.3	125.0	20	6300	4.5 (45)	0.032	12.4	3.9
TK-A853	135.3	125.0	20	6300	4.5 (45)	0.032	11.8	3.9
TK-B853	135.3	125.0	20	6300	4.5(45)	0.032	11.7	3.9
TK-1068	165.9	149.9	25	5500	4.5 (45)	0.065	17.8	4.2
TK-A1075	170.0	155.0	25	5500	4.5(45)	0.065	18.8	4.2
TK-1078	165.9	149.9	25	5500	4.5 (45)	0.065	16.5	4.2



# SHORT TYPE ROTATING HYDRAULIC CYLINDER WITH THROUGH-HOLE AND SAFETY DEVICE(I)

Thru-Hole / Hydraulic

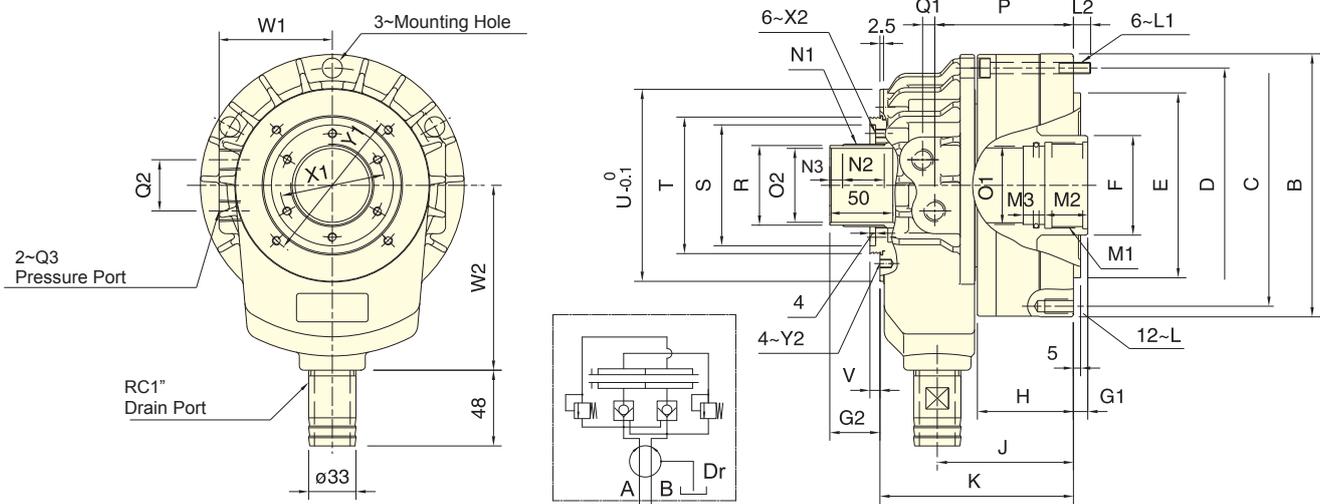
## DIMENSIONS

Model	A	B	C	D	E	F	G1		G2		H	J	K	L	L1	L2	M1	M2	M3
	I.D.				h7		max.	min.	max.	min.									
TK-A528	105	141	125	125	110	45	12	0	32	20	49	77.5	123	6~M8x20	M8x55	14	M38x1.5	25	13
TK-A533	105	141	125	125	110	45	12	0	32	20	49	77.5	123	6~M8x20	M8x55	14	M38x1.5	25	13
TK-C643	128	156	140	140	120	65	15	0	44	29	56	85	125	12~M10x20	M8x60	12	M50x2	25	13
TK-A646	128	162	147	147	130	65	15	0	44	29	56	85	125	12~M10x20	M8x60	12	M55x2	25	13
TK-B646	128	162	130	147	100	65	15	0	44	29	66	95	135	12~M10x20	M8x70	12	M55x2	25	13
TK-C646	125	156	140	140	120	65	15	0	44	29	56	85	125	12~M10x20	M8x60	12	M55x2	25	13
TK-646A	128	162	147	147	130	65	15	0	40	29	57	85	126	12~M10x20	M8x65	15	M55x2	25	13
TK-B846	145	185	170	165	130	70	20	0	48	28	66	95	135	12~M10x20	M8x70	12	M55x2	30	15
TK-A853	145	185	170	165	140	70	20	0	48	28	66	95	135	12~M10x20	M8x70	12	M60x2	30	15
TK-B853	145	185	170	165	130	70	20	0	48	28	66	95	135	12~M10x20	M8x70	12	M60x2	30	15
TK-1068	170	212	190	190	160	98	25	0	50	25	73	107	157	12~M10x20	M10x80	17	M75x2	35	15
TK-A1075	170	212	190	190	160	95	25	0	50	25	74	108	158	M10x20	M10x80	16	M85x2	35	15
TK-1078	170	212	190	190	160	98	25	0	50	25	73	107	157	12~M10x20	M10x80	17	M87x2	35	15

Model	N1	N2	N3	O1	O2	P	Q1	Q2	Q3	R	S	T	U	V	W1	W2	X1	X2	Y1	Y2
				H8	H8					g7	H7									
TK-A528	M39x1.5	25	8	35	28	79	8.5	30	RC1/4	37	62	70	98	6	62	110	49	M6x6	83	M5x6
TK-A533	M39x1.5	25	8	35	33	79	8.5	30	RC1/4	37	62	70	98	6	62	110	49	M6x6	83	M5x6
TK-C643	M52x1.5	29	9	45	43	87	8.5	36	RC3/8	50	76	85	116	6	74	120	64	M6x6	98	M5x6
TK-A646	M52x1.5	29	9	50	46	87	8.5	36	RC3/8	50	76	85	116	6	74	120	64	M6x6	98	M5x6
TK-B646	M52x1.5	29	9	50	46	97	8.5	36	RC3/8	50	76	85	116	6	74	120	64	M6x6	98	M5x6
TK-C646	M52x1.5	29	9	50	46	87	8.5	36	RC3/8	50	76	85	116	6	74	120	64	M6x6	98	M5x6
TK-646A	M52x1.5	29	9	50	46	88	8.5	36	RC3/8	50	76	85	116	6	74	120	64	M6x6	98	M5x6
TK-B846	M58x1.5	30	8	50	46	97	8.5	36	RC3/8	56	85	96	128	7	79	130	73	M6x7	110	M6x6
TK-A853	M58x1.5	30	8	55	53	97	8.5	36	RC3/8	56	85	96	128	7	79	130	73	M6x7	110	M6x6
TK-B853	M58x1.5	30	8	55	53	97	8.5	36	RC3/8	56	85	96	128	7	79	130	73	M6x7	110	M6x6
TK-1068	M84x2	33	9	70	68	109	12	40	RC1/2	81	108	121	164	7	98	160	98	M6x8	155	M6x8
TK-A1075	M84x2	33	9	80	75	110	12	40	RC1/2	81	108	121	164	7	98	160	98	M6x8	155	M6x8
TK-1078	M86x2	33	9	83	78	109	12	40	RC1/2	83	108	121	164	7	98	160	98	M6x8	155	M6x8



- Super short form, light weight large Through-Hole, just as 2/3 of typical model length.
- Built-in safety check valves and pressure relief valves.
- Can screw it from the rear end of the cylinder when mounting.
- Patent numbers :  
 Taiwan : PAT.199970  
 China : PAT.ZL01.2.08005.5  
 U.S.A. : PAT.US6640686B2



Subject to technical changes

## SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I	Weight	Total oil leakage
	Extend	Retract						
	cm <sup>2</sup>	cm <sup>2</sup>						
TK-1287	234.0	217.5	30	3800	4.0 (40)	0.092	26.5	4.5
TK-A1291	234.0	217.5	30	3800	4.0 (40)	0.092	24.8	4.5
TK-A1511	336.4	315.2	30	3000	3.5(35)	0.38	57.9	7.0
TK-A1512	336.4	315.2	30	3000	3.5(35)	0.38	53.8	7.0
TK-2114	373.2	336.1	35	2500	3.0 (30)	0.54	58.2	8.0

## DIMENSIONS

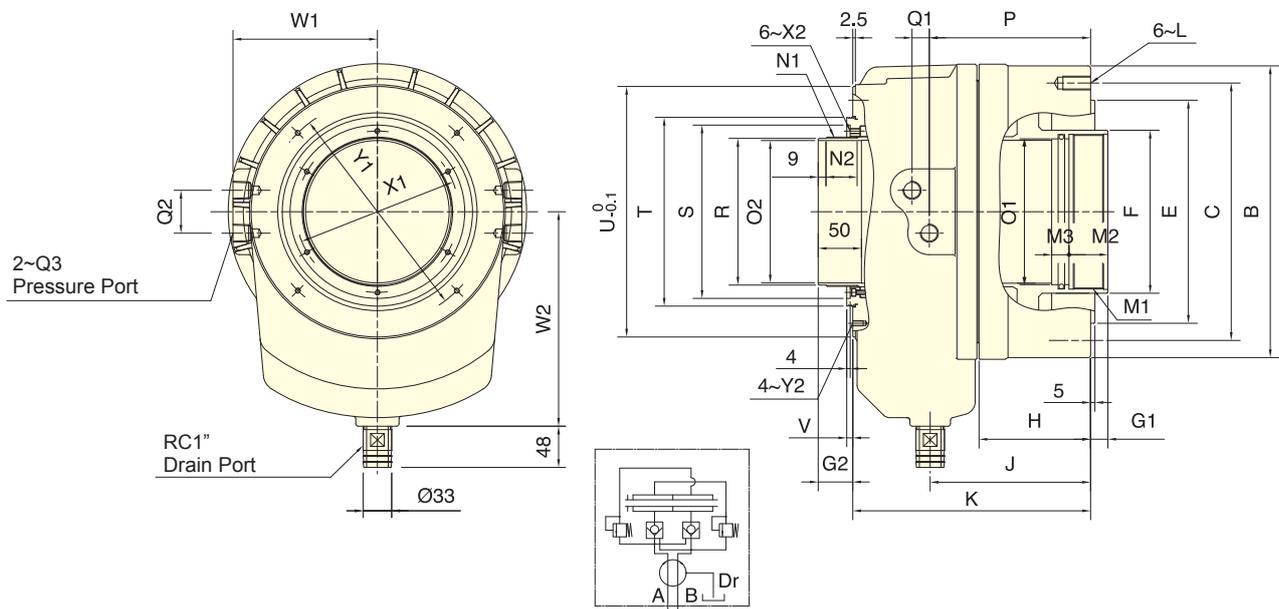
Model	A	B	C	D	E	F	G1		G2		H	J	K	L	L1	L2	M1	M2	M3
	I.D.				h7		max.	min.	max.	min.									
TK-1287	200	245	215	225	180	110	30	0	55	25	87	127	185	12~M12x24	M10x95	18.5	M95x2	35	15
TK-A1291	200	245	215	225	180	110	30	0	59	29	86	126	184	12~M12x24	M10x90	14.5	M100x2	35	15
TK-A1511	250	300	275	275	230	140	30	0	58	28	102	156	226	12~M16x36	M12x110	21	M120x2	45	15
TK-A1512	250	300	275	275	230	140	30	0	58	28	102	156	226	12~M16x36	M12x110	21	M130x2	45	15
TK-2114	265	320	295	295	240	165	35	0	60	25	115	173.5	247.5	12~M16x32	M12x120	17.5	M155x2	45	20

Model	N1	N2	N3	O1	O2	P	Q1	Q2	Q3	R	S	T	U	V	W1	W2	X1	X2	Y1	Y2
				H8	H8					g7	H7									
TK-1287	M99x2	38	9	90	87	128.5	15	45	RC1/2	96	120	138	180	7	110	185	108	M6x10	165	M6x10
TK-A1291	M99x2	38	9	95	91	127.5	15	45	RC1/2	96	120	138	180	7	110	185	108	M6x10	165	M6x10
TK-A1511	M129x2	38	9	115	110	153.75	17	50	RC1/2	126	150	170	227	7	134	210	138	M6x10	210	M6x9
TK-A1512	M129x2	38	9	125	120	153.75	17	50	RC1/2	126	150	170	227	7	134	210	138	M6x10	210	M6x9
TK-2114	M149x2	38	9	145	140	170	17	50	RC1/2	146	170	190	250	7	145	210	160	M6x10	230	M6x10



- New design, short form, light weight large through-hole.
- Built-in safety check valves and pressure relief valves.
- Patent numbers :  
 Taiwan : PAT.199970  
 China : PAT.ZL01.2.08005.5  
 U.S.A. : PAT.US6640686B2



Subject to technical changes

SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I Moment of inertia	Weight	Total oil leakage
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>						
TK-2416	418.4	375.4	35	2000	3.0 (30)	1.12	78.0	9.0
TK-2416L	418.4	375.4	51	2000	3.0 (30)	1.31	79.2	9.0
TK-2820	526.2	472.6	51	1600	3.0 (30)	2.4	134.0	10.0

DIMENSIONS

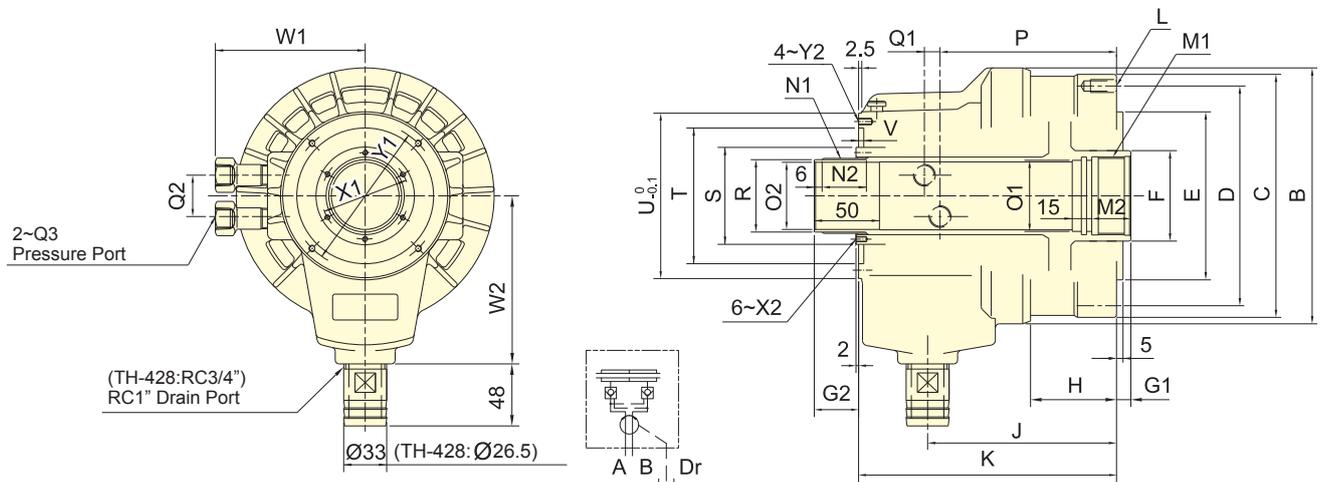
Model	A	B	C	E	F	G1		G2		H	J	K	L	M1	M2	M3
	I.D.			h7		max.	min.	max.	min.							
TK-2416	290	340	300	260	190	35	0	60	25	129	185.5	275	M16x32	M180x3	45	20
TK-2416L	290	340	300	260	190	51	0	76	25	145	201.5	291	M16x32	M180x3	45	20
TK-2820	340	395	360	320	235	51	0	76	25	152	212.5	316	M20x40	M220x3	45	20

Model	N1	N2	O1	O2	P	Q1	Q2	Q3	R	S	T	U	V	W1	W2	X1	X2	Y1	Y2
			H8	H8					g7	H7									
TK-2416	M174x2	38	170	166	186.5	20	50	RC1/2	171	202	220	292	7	167	250	188	M6x11	260	M6x12
TK-2416L	M174x2	52	170	166	202.5	20	50	RC1/2	171	202	220	292	7	167	250	188	M6x11	260	M6x12
TK-2820	M218x2	52	210	205	216	21	50	RC1/2	215	262	285	360	7	202.5	300	240	M6x12	320	M6x12



- Super high speed, light weight large Through-Hole.
- Built-in check valve which prevents the internal pressure from sudden declining so that the workpiece will not fly out and cause a serious accident.



Subject to technical changes

### SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I Moment of inertia	Weight	Total oil leakage
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>						
TH-428	53.2	50.5	10	8000	4.0(40)	0.008	5.8	3.0
TH-A536	69.8	67.5	15	8000	4.0(40)	0.05	8.3	3.0

### DIMENSIONS

Model	A I.D.	B	C	D	E (h7)	F	G1 max.	G1 min.	G2 max.	G2 min.	H	J	K	L	M1	M2	N1	N2
TH-428	90	130	120	100	80	40	10	0	35	25	45	127.5	155	6-M8x15	M33x1.5	25	M34x1.5	26
TH-A536	105	150	135	115	100	48	15	0	40	25	40	118	166	6-M10x20	M42x1.5	25	M44x1.5	28

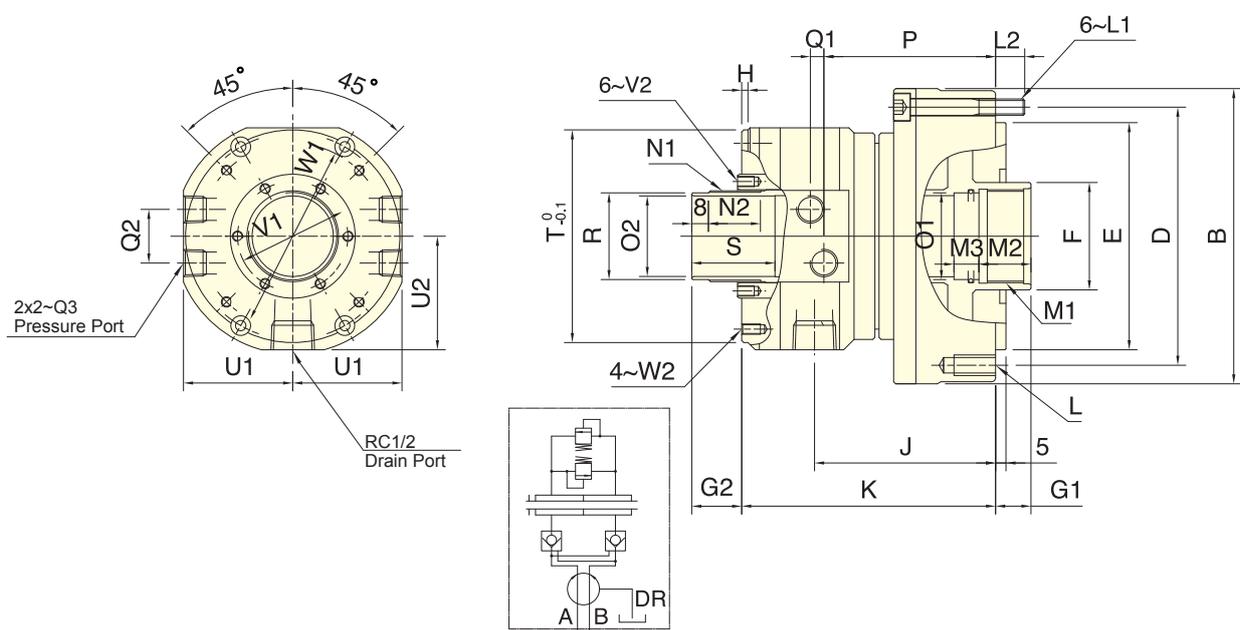
Model	O1 (H8)	O2 (H8)	P	Q1	Q2	Q3	R (g7)	S	T	U	V	W1	W2	X1	X2	Y1	Y2
TH-428	30	28	101.5	11	24	RC1/4	32	45	65	86	4	72	105	-	-	76	M4x7
TH-A536	38	36	111.5	10	24	RC1/4	42	55	73	98	4	80	110	-	-	83	M5x10

ROTARY CYLINDERS



- This is a compact, short form, light weight through-hole rotary cylinder.
- With patented build-in safety check valves and pressure relief valves.
- Large feed port and drain port, large input and keep drain smoothly.
- Can be screwed from the front end or rear end of cylinder when mounting.
- For use with vertical or horizontal spindles.

■ Patent numbers :  
 Taiwan : PAT.199970(Taiwan)  
 China : PAT.ZL01.2.08005.5(China)  
 U.S.A.: PAT.US6640686B2()



Subject to technical changes

### SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I Moment of inertia	Weight	Total oil leakage
	Extend	Retract						
	cm <sup>2</sup>	cm <sup>2</sup>	mm	min <sup>-1</sup> (r.p.m.)	MPa(kgf/cm <sup>2</sup> )	kg·m <sup>2</sup>	kg	lit. / min.
TR-539	72.4	67.1	12	8000	4.0(40)	0.010	6.8	3.0
TR-646	105.0	93.9	15	7000	4.0(40)	0.015	9.5	3.0

### DIMENSIONS

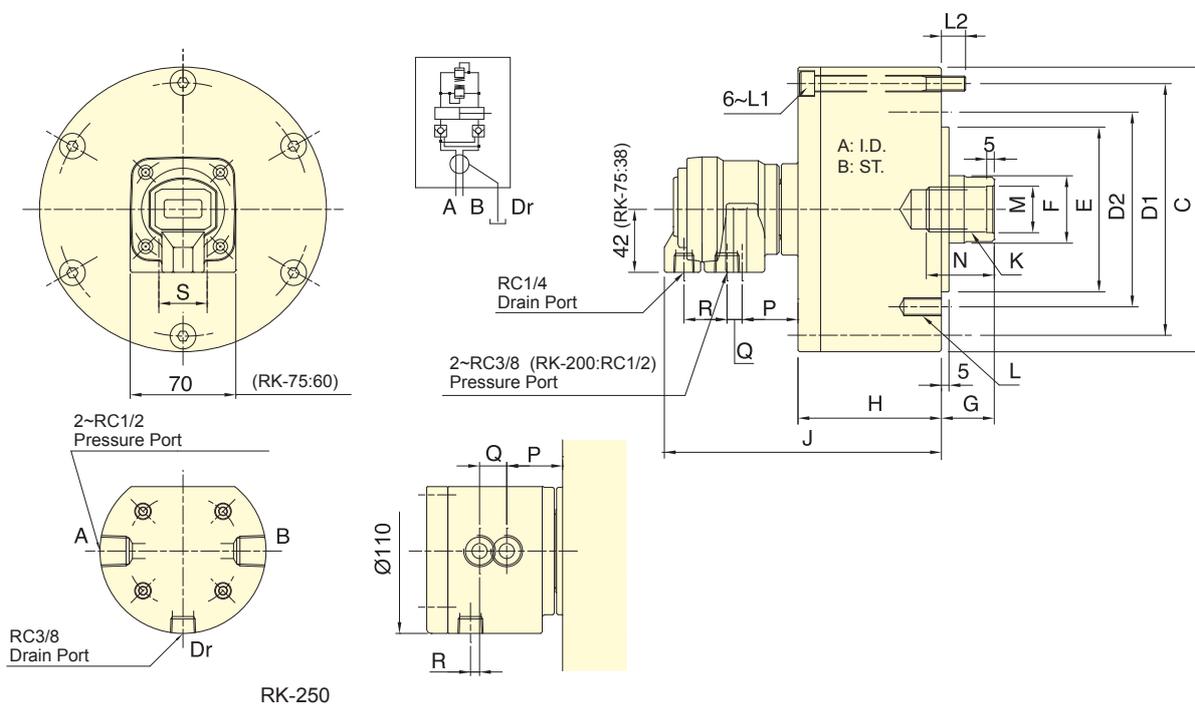
Model	A	B	C	D	E	F	G1		G2		H	J	K	L	L1	L2	M1	M2
	I.D.				h7		max.	min.	max.	min.								
TR-539	107	143	125	125	110	52	17	5	36	24	3	87	126	6-M10x20	M8x55	14	M45x1.5	25
TR-646	128	165	147	147	130	65	15	0	34	19	3.5	97	135	12-M10x20	M8x60	11.5	M55x2	25

Model	M3	N1	N2	O1	O2	P	Q1	Q2	Q3	R	S	T	U1	U2	V1	V2	W1	W2
				H8	H8													
TR-539	12	M44x1.5	25	42	39	85.5	6.5	26	RC1/4	42	40	103	59	55	53	M5x8	90	M5x9
TR-646	13	M52x1.5	25	50	46	93	6.5	32	RC3/8	50	50	116	52.5	62	61.5	M5x9	98	M5x9



- For short form, light weight and high speed rotary cylinder.
- Built-in safety check valves and pressure relief valves.
- Can screw it from the rear end of the cylinder when mounting.
- The drain port should be independently connected to oil tank to avoid back pressure.



Subject to technical changes

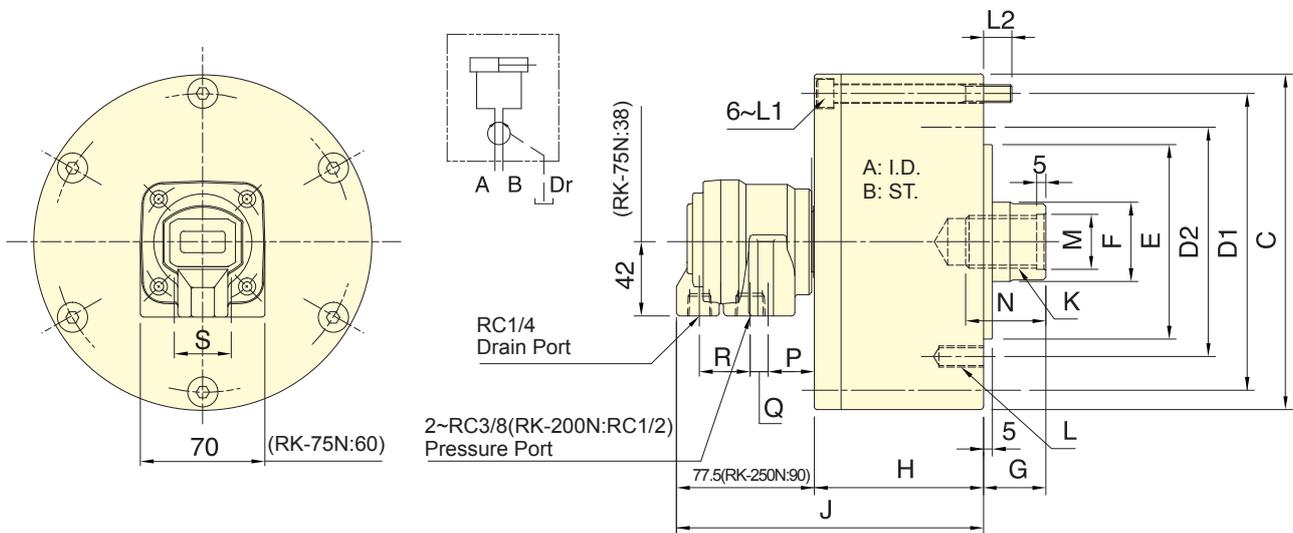
## SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I		Weight
	Extend	Retract				Moment of inertia	kg·m <sup>2</sup>	
	cm <sup>2</sup>	cm <sup>2</sup>						
RK-75	44.2	37.1	15	6000	4.0 (40)	0.01	2.9	
RK-100	78.5	71.5	20	6000	4.0 (40)	0.03	4.4	
RK-125	122.7	113.1	25	6000	4.0 (40)	0.05	6.9	
RK-150	176.7	160.8	30	5500	4.0 (40)	0.09	9.5	
RK-200	314.1	290.4	35	5500	4.0 (40)	0.28	15.4	
RK-250	469.1	436.0	60	2000	5.0(50)	0.40	45.2	

## DIMENSIONS

Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	J	K	L	L1	L2	M (H8)	N	P	Q	R	S
RK-75	75	15	107	90	90	65	30	45	30	57	148	M20x2.5	6-M8x16	M8x60	12	21	35	41.5	10	27.5	26
RK-100	100	20	132	115	100	80	30	45	25	72	163	M20x2.5	6-M10x20	M8x75	12	21	35	39.5	10	28.5	32
RK-125	125	25	160	140	130	110	35	50	25	82	172	M24x3.0	6-M12x20	M8x85	12	25	45	38.5	10	28.5	32
RK-150	150	30	190	170	130	110	45	55	25	95	184	M30x3.5	12-M12x24	M10x100	16	32	45	37	10	28.5	32
RK-200	200	35	245	220	145	120	55	70	35	115	201	M36x4.0	12-M16x30	M10x125	21	38	60	38	6	28.5	28
RK-250	245	60	307	275	220	160	65	85	25	165	255	M42x3.0	12-M20x35	M16x175	28	45	65	33	18	6	-

- For short form, light weight and high speed rotary cylinder.
- Can screw it from the rear end of the cylinder when mounting.
- The drain port should be independently connected to oil tank to avoid back pressure.



Subject to technical changes

### SPECIFICATIONS

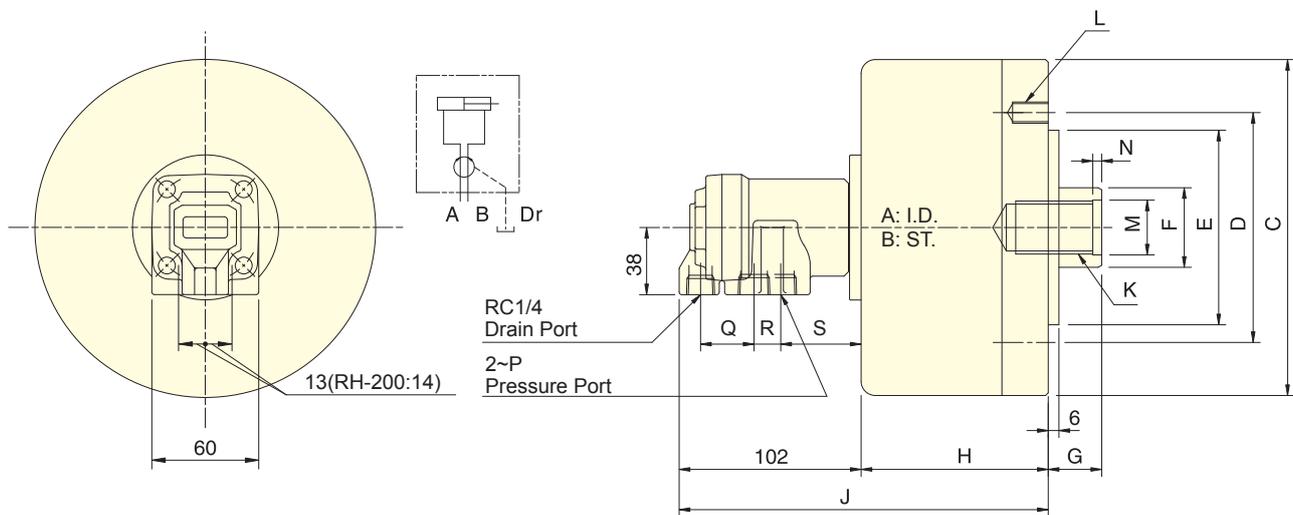
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I	Weight
	Extend	Retract					
	cm <sup>2</sup>	cm <sup>2</sup>				mm	
RK-75N	44.2	37.1	15	6000	4.0(40)	0.01	2.8
RK-100N	78.5	71.5	20	6000	4.0(40)	0.03	4.3
RK-125N	122.7	113.1	25	6000	4.0(40)	0.05	6.8
RK-150N	176.7	160.8	30	5500	4.0(40)	0.09	9.4
RK-200N	314.1	290.4	35	5500	4.0(40)	0.28	15.3
RK-250N	469.1	436.0	60	2000	5.0(50)	0.40	45.2

### DIMENSIONS

Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	J	K	L	L1	L2	M (H8)	N	P	Q	R	S
RK-75N	75	15	107	90	90	65	30	45	30	57	134.5	M20x2.5	6~M8x16	M8x60	12	21	35	28	10	27.5	26
RK-100N	100	20	132	115	100	80	30	45	25	72	149.5	M20x2.5	6~M10x20	M8x75	12	21	35	26	10	28.5	32
RK-125N	125	25	160	140	130	110	35	50	25	82	159.5	M24x3.0	6~M12x20	M8x85	12	25	45	26	10	28.5	32
RK-150N	150	30	190	170	130	110	45	55	25	95	172.5	M30x3.5	12~M12x24	M10x100	16	32	45	26	10	28.5	32
RK-200N	200	35	245	220	145	120	55	70	35	115	192.5	M36x4.0	12~M16x30	M10x125	21	38	60	30	6	28.5	28
RK-250N	245	60	307	275	220	160	65	85	25	165	255	M42x3.0	6~M20x2.5	M16x175	28	45	65	37	18	6	-



- The rotary valve and cylinder body, all made of special light alloy, light-weight.
- Through unique design, the rotary valve enables the inside bearing to get sufficient lubricating and cooling and endure high-speed rotary for longer service life.
- The drain port should be independently connected to oil tank to avoid back pressure.



Subject to technical changes

## SPECIFICATIONS

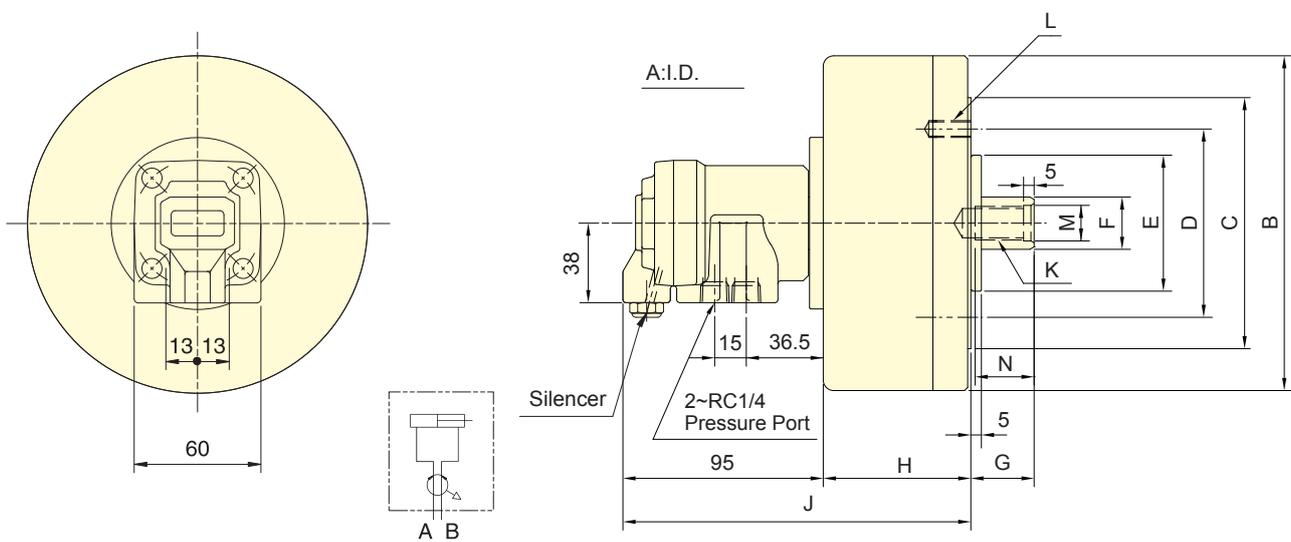
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I	Weight
	Extend	Retract					
	cm <sup>2</sup>	cm <sup>2</sup>	mm	min <sup>-1</sup> (r.p.m.)	MPa(kgf/cm <sup>2</sup> )	kg·m <sup>2</sup>	kg
RH-65	31.0	27.9	15	6000	3.5(35)	0.01	2.9
RH-80	47.7	42.8	15	6000	3.5(35)	0.01	3.4
RH-100	75.4	70.5	20	5500	3.5(35)	0.04	4.9
RH-125	119.6	112.5	25	5500	3.5(35)	0.08	6.8
RH-200	310.0	286.3	35	4000	4.0(40)	0.38	20.4

## DIMENSIONS

Model	A	B	C	D	E (h7)	F	G max.	G min.	H	J	K	L	M (H8)	N	P	Q	R	S
RH-65	65	15	98	80	60	22	45	30	73	175	M12x1.75x30	6~M8x16	14	4	RC3/8	30	15	45
RH-80	80	15	112	90	65	25	45	30	74	176	M16x2.0x30	6~M8x16	17	4	RC3/8	30	15	45
RH-100	100	20	135	100	80	25	45	25	88.5	190.5	M16x2.0x30	6~M10x20	17	4	RC3/8	30	15	45
RH-125	125	25	160	130	110	30	50	25	95.5	197.5	M20x2.5x35	6~M12x20	21	4	RC3/8	30	15	45
RH-200	200	35	245	145	120	55	70	35	130	232	M36X4	12~M16X30	38	5	RC1/2	31	16	43



- The rotary valve and cylinder body, all made of special light alloy, are light-weight.
- Through unique design, the rotary valve can considerably reduce the waste in compressing air and efficiently increase its utilization.
- When used, a little oil mist should be contained.



Subject to technical changes

SPECIFICATIONS

Model	Eff. piston area		Piston stroke mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	I Moment of inertia kg·m <sup>2</sup>	Weight kg	Air Leakage( 6kgf/cm <sup>2</sup> ) cc/sec
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>						
	RA-100	77.0				74.4		
RA-130	131.2	124.7	15	5000	0.8(8)	0.05	5.2	400
RA-170	225.4	219.0	20	5000	0.8(8)	0.18	8.5	400
RA-220	378.6	369.3	25	4000	0.8(8)	0.36	14.5	400
RA-270	571.0	562.9	30	3000	0.8(8)	0.75	18.4	400

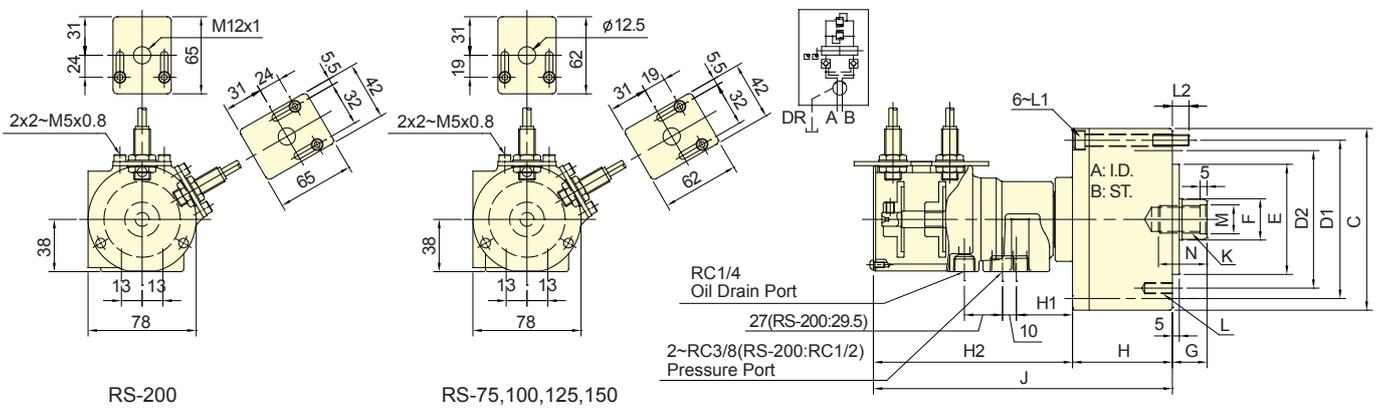
DIMENSIONS

Model	A	B	C	D	E (h7)	F	G max.	G min.	H	J	K	L	M (H8)	N
RA-100	100	130	-	80	60	22	50	35	65	160	M12x1.75	6-M8x16	13	25
RA-130	130	160	120	90	65	25	45	30	70	165	M16x2.0	6-M8x16	17	30
RA-170	170	200	140	100	80	25	45	25	85	180	M16x2.0	6-M10x18	17	30
RA-220	220	255	170	130	110	30	50	25	91	186	M20x2.5	6-M12x20	21	35
RA-270	270	305	190	130	110	35	55	25	105	200	M24x3.0	6-M12x20	25	40

ROTARY CYLINDERS



- For short form, high speed and stroke control.
- With proximity sensor, the movement of the position is easy to adjust and confirm when operating.
- Built-in safety check valves and pressure relief valves.
- Can screw it from the rear end of the cylinder when mounting.
- The drain port should be independently connected to oil tank to avoid back pressure.



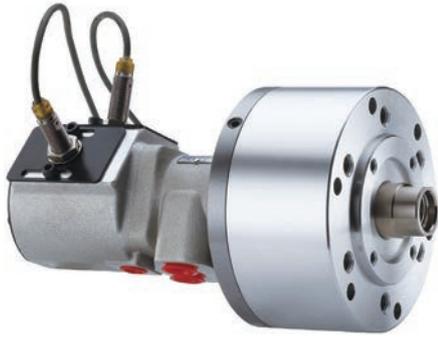
Subject to technical changes

## SPECIFICATIONS

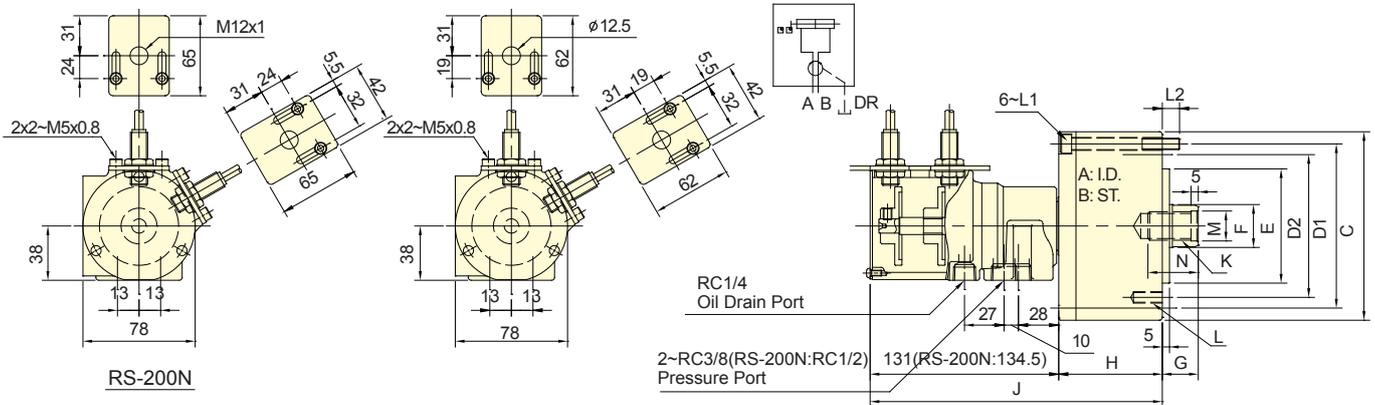
Model	Eff. piston area		Piston stroke mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	I Moment of inertia kg·m <sup>2</sup>	Weight kg
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>					
	RS-75	43.0				37.1	
RS-100	77.4	71.5	20	6000	4.0 (40)	0.04	4.9
RS-125	121.6	113.1	25	6000	4.0 (40)	0.05	7.4
RS-150	175.6	160.8	30	5500	4.0 (40)	0.10	10.7
RS-200	313.0	290.4	35	5500	4.0 (40)	0.29	15.9

## DIMENSIONS

Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	H1	H2	J	K	L	L1	L2	M (H8)	N
RS-75	75	15	107	90	90	65	30	45	30	57	42	145	202	M20x2.5	6~M8x16	M8x60	12	21	35
RS-100	100	20	132	115	100	80	30	45	25	72	42	145	217	M20x2.5	6~M10x20	M8x75	12	21	35
RS-125	125	25	160	140	130	110	35	50	25	82	41	144	226	M24x3.0	6~M12x20	M8x85	12	25	45
RS-150	150	30	190	170	130	110	45	55	25	95	39	142	237	M30x3.5	12~M12x24	M10x100	16	32	45
RS-200	200	35	245	220	145	120	55	70	35	115	34	142.5	257.5	M36x4.0	12~M16x30	M10x125	21	38	60



- For short form, high speed and stroke control.
- With proximity sensor, the movement of the position is easy to adjust and confirm when operating.
- Can screw it from the rear end of the cylinder when mounting.
- The drain port should be independently connected to oil tank to avoid back pressure.



Subject to technical changes

## SPECIFICATIONS

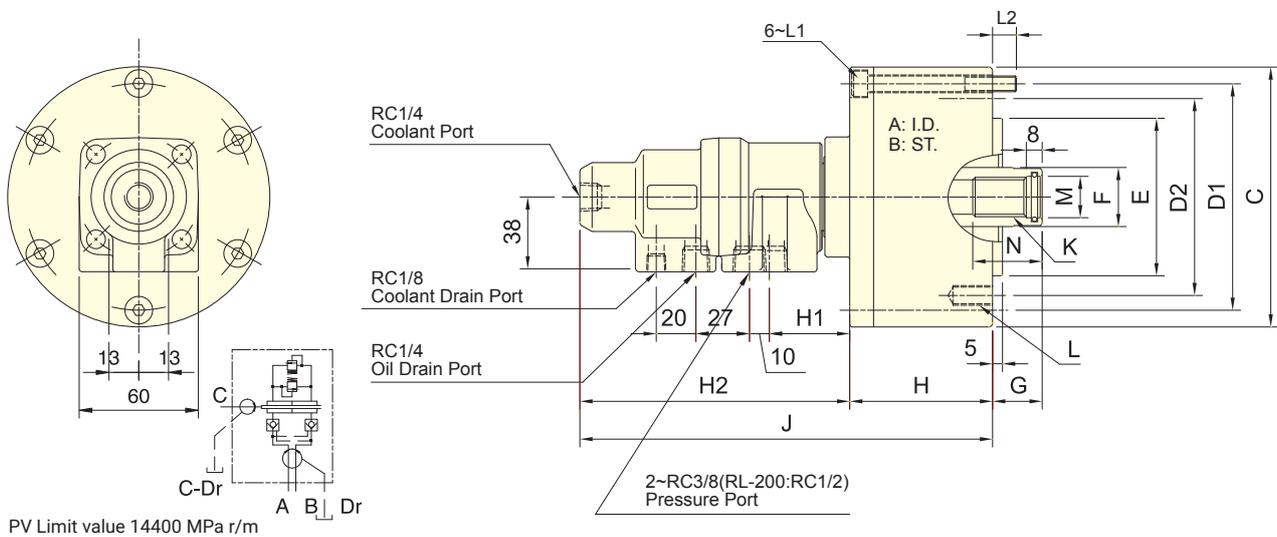
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I Moment of inertia	Weight
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>					
RS-6520N	32.0	28.3	20	6000	4.0(40)	0.01	3.2
RS-6530N	32.0	28.3	30	6000	4.0(40)	0.01	3.3
RS-75N	43.0	37.1	15	6000	4.0(40)	0.01	3.3
RS-7530N	43.0	37.1	30	6000	4.0(40)	0.013	3.7
RS-100N	77.4	71.5	20	6000	4.0(40)	0.04	4.8
RS-125N	121.6	113.1	25	6000	4.0(40)	0.05	7.3
RS-150N	175.6	160.8	30	5500	4.0(40)	0.16	10.6
RS-200N	313.0	290.4	35	5500	4.0(40)	0.29	15.9

## DIMENSIONS

Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	J	K	L	L1	L2	M (H8)	N
RS-6520N	65	20	97	80	80	60	25	45	25	62	193	M16x2.0	6~M8x16	M6x70	14.5	17	30
RS-6530N	65	30	97	80	80	60	25	45	15	62	203	M16x2.0	6~M8x16	M6x80	14.5	17	30
RS-75N	75	15	107	90	90	65	30	45	30	57	188	M20x2.5	6~M8x16	M8x60	12	21	35
RS-7530N	75	30	107	90	90	65	30	45	15	72	203	M20x2.5	6~M8x16	M8x75	12	21	35
RS-100N	100	20	132	115	100	80	30	45	25	72	203	M20x2.5	6~M10x20	M8x75	12	21	35
RS-125N	125	25	160	140	130	110	35	50	25	82	213	M24x3.0	6~M12x20	M8x85	12	25	45
RS-150N	150	30	190	170	130	110	45	55	25	95	226	M30x3.5	12~M12x24	M10x100	16	32	45
RS-200N	200	35	245	220	145	120	55	75	35	115	249.5	M36x4.0	12~M16x30	M10x125	21	38	60



- To allow coolant to be feed from the rear end of the distributor through the rotating union
- Built-in safety check valves and pressure relief valves.
- The drain port should be independently connected to oil tank to avoid back pressure.
- The rotary cylinder should not run without liquid through coolant port.



Subject to technical changes

## SPECIFICATIONS

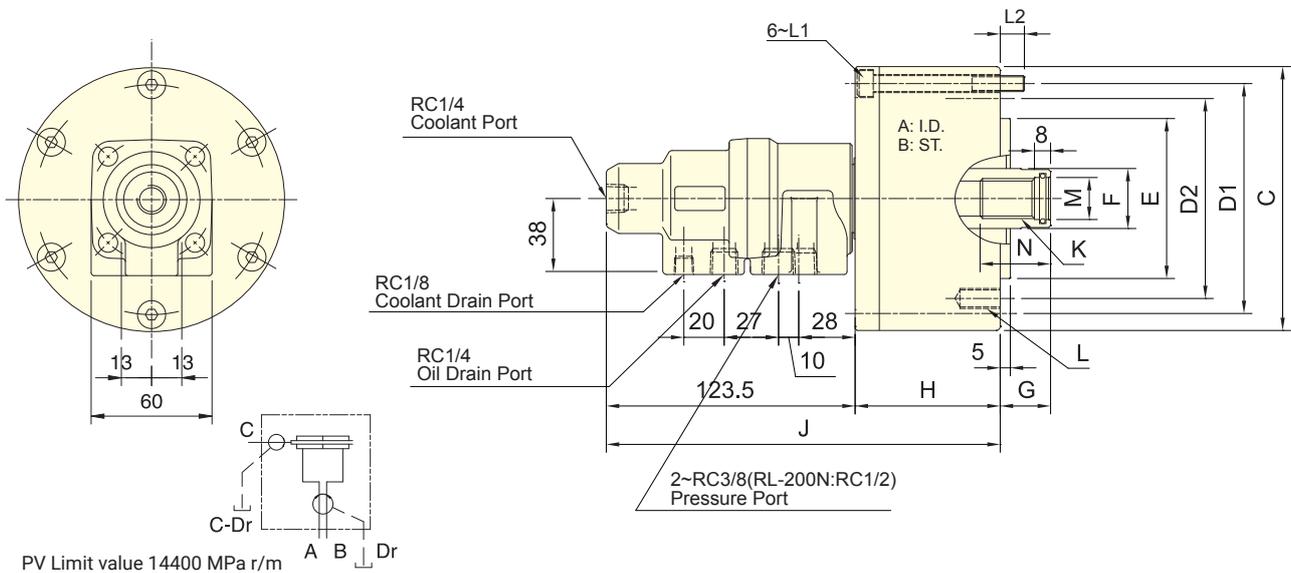
Model	Eff. piston area		Piston stroke mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	Coolant connection Max. pressure MPa (kgf/cm <sup>2</sup> )	I		Weight kg
	Extend	Retract					Moment of inertia kg·m <sup>2</sup>	Weight kg	
	cm <sup>2</sup>	cm <sup>2</sup>							
RL-75	42.6	37.1	15	6000	4.0(40)	3.5(35)	0.01	3.1	
RL-100	77.0	71.5	20	6000	4.0(40)	3.5(35)	0.04	4.6	
RL-125	121.2	113.1	25	6000	4.0(40)	3.5(35)	0.06	7.1	
RL-150	175.2	160.8	30	5500	4.0(40)	3.5(35)	0.10	9.7	
RL-200	312.5	290.4	35	5500	4.0(40)	3.5(35)	0.30	15.6	

## DIMENSIONS

Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	H1	H2	J	K	L	L1	L2	M (H8)	N
RL-75	75	15	107	90	90	65	30	45	30	57	42	137	194	M20x2.5	6~M8x16	M8x60	12	21	35
RL-100	100	20	132	115	100	80	30	45	25	72	42	137	209	M20x2.5	6~M10x20	M8x75	12	21	35
RL-125	125	25	160	140	130	110	35	50	25	82	41	136	218	M24x3.0	6~M12x20	M8x85	12	25	45
RL-150	150	30	190	170	130	110	45	55	25	95	39	134	230	M30x3.5	12~M12x24	M10x100	16	32	45
RL-200	200	35	245	220	145	120	55	70	35	115	36	132	248	M36x4.0	12~M16x30	M10x125	21	38	60



- To allow coolant to be feed from the rear end of the distributor through the rotating union.
- Can screw it from the rear end of the cylinder when mounting.
- The drain port should be independently connected to oil tank to avoid back pressure.
- The rotary cylinder should not run without liquid through coolant port.



Subject to technical changes

## SPECIFICATIONS

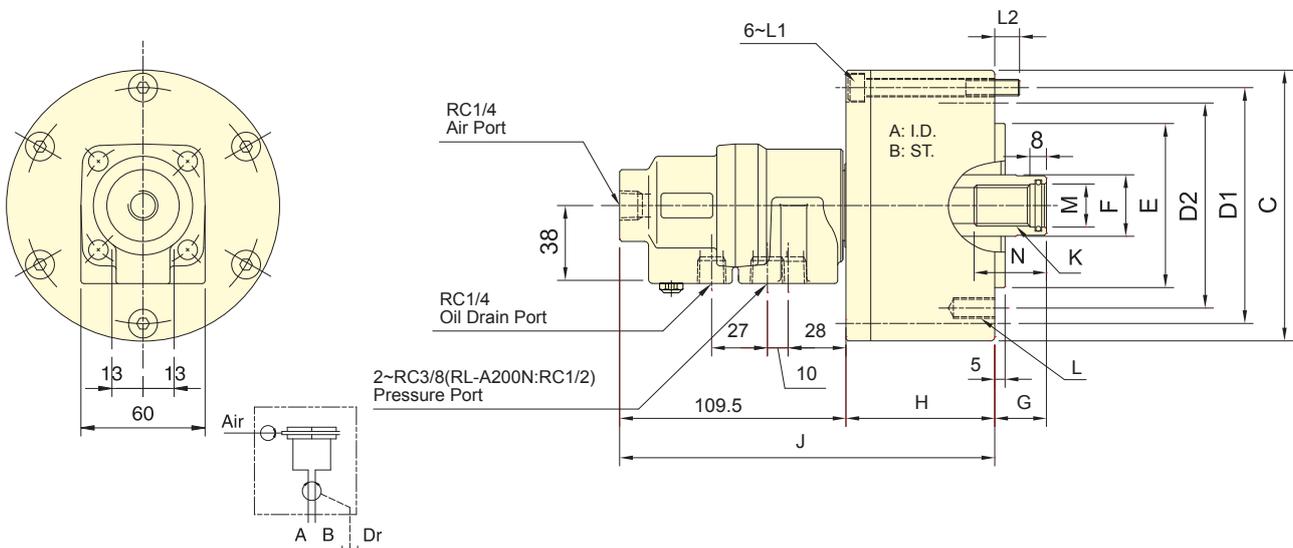
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Coolant connection Max. pressure	I	
	Extend	Retract					Moment of inertia	Weight
	cm <sup>2</sup>	cm <sup>2</sup>						
RL-75N	42.6	37.1	15	6000	4.0 (40)	3.5(35)	0.01	3.0
RL-100N	77.0	71.5	20	6000	4.0 (40)	3.5(35)	0.04	4.5
RL-125N	121.2	113.1	25	6000	4.0 (40)	3.5(35)	0.06	7.0
RL-150N	175.2	160.8	30	5500	4.0 (40)	3.5(35)	0.10	9.6
RL-200N	312.5	290.4	35	5500	4.0 (40)	3.5(35)	0.29	15.5

## DIMENSIONS

Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	J	K	L	L1	L2	M (H8)	N
RL-75N	75	15	107	90	90	65	30	45	30	57	180	M20x2.5	6-M8x16	M8x60	12	21	35
RL-100N	100	20	132	115	100	80	30	45	25	72	195	M20x2.5	6-M10x20	M8x75	12	21	35
RL-125N	125	25	160	140	130	110	35	50	25	82	205	M24x3.0	6-M12x20	M8x85	12	25	45
RL-150N	150	30	190	170	130	110	45	55	25	95	218	M30x3.5	12-M12x24	M10x100	16	32	45
RL-200N	200	35	245	220	145	120	55	70	35	115	240	M36x4.0	12-M16x30	M10x125	21	38	60



- To allow compressed air to be feed from the rear end of the distributor through the rotating union.
- Can screw it from the rear end of the cylinder when mounting.
- When used, a little oil mist should be contained.



Subject to technical changes

### SPECIFICATIONS

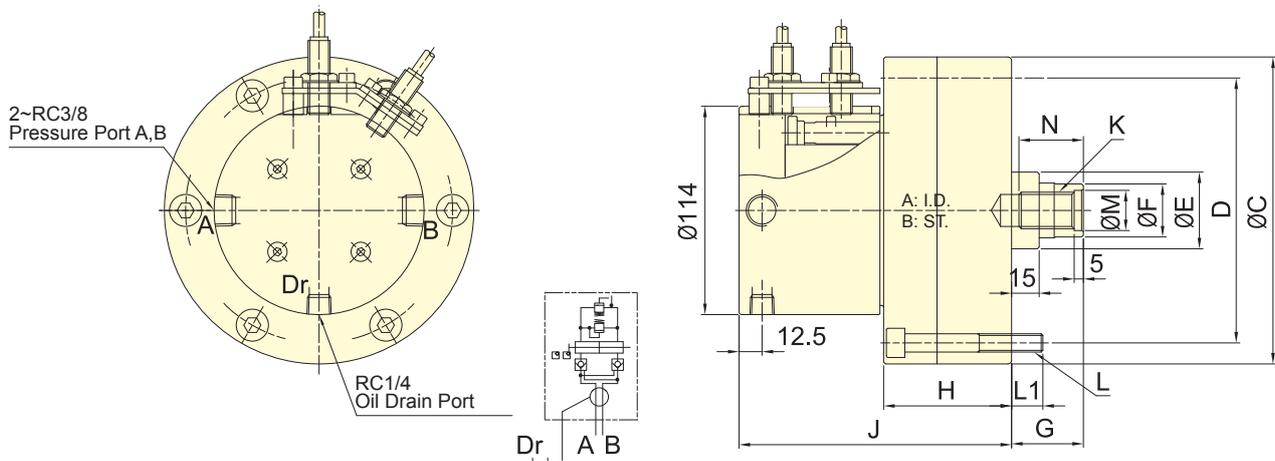
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Air connection Max. pressure	I		Weight
	Extend	Retract					Moment of inertia		
	cm <sup>2</sup>	cm <sup>2</sup>						kg·m <sup>2</sup>	
RL-A75N	42.6	37.1	15	6000	4.0(40)	0.8(8)	0.01	3.0	
RL-A100N	77.0	71.5	20	6000	4.0(40)	0.8(8)	0.04	4.5	
RL-A125N	121.2	113.1	25	6000	4.0(40)	0.8(8)	0.06	7.0	
RL-A150N	175.2	160.8	30	5500	4.0(40)	0.8(8)	0.10	9.6	
RL-A200N	312.5	290.4	35	5500	4.0(40)	0.8(8)	0.29	15.5	

### DIMENSIONS

Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	J	K	L	L1	L2	M (H8)	N
RL-A75N	75	15	107	90	90	65	30	45	30	57	166	M20 x2.5	6~M8x 16	M8x60	12	21	35
RL-A100N	100	20	132	115	100	80	30	45	25	72	181	M20 x2.5	6~M10x20	M8x75	12	21	35
RL-A125N	125	25	160	140	130	110	35	50	25	82	191	M24x 3.0	6~M12x20	M8x85	12	25	45
RL-A150N	150	30	190	170	130	110	45	55	25	95	204	M30x3.5	12~M12x24	M10x100	16	32	45
RL-A200N	200	35	245	220	145	120	55	70	35	115	225	M36 x4.0	12~M16x30	M10x125	21	38	60



- For short form, light weight and high speed rotary cylinder.
- Built-in safety check valves, pressure relief valves and proximity sensor.
- Can screw it from the rear end of the cylinder when mounting.
- The drain port should be independently connected to oil tank to avoid back pressure.



Subject to technical changes

## SPECIFICATIONS

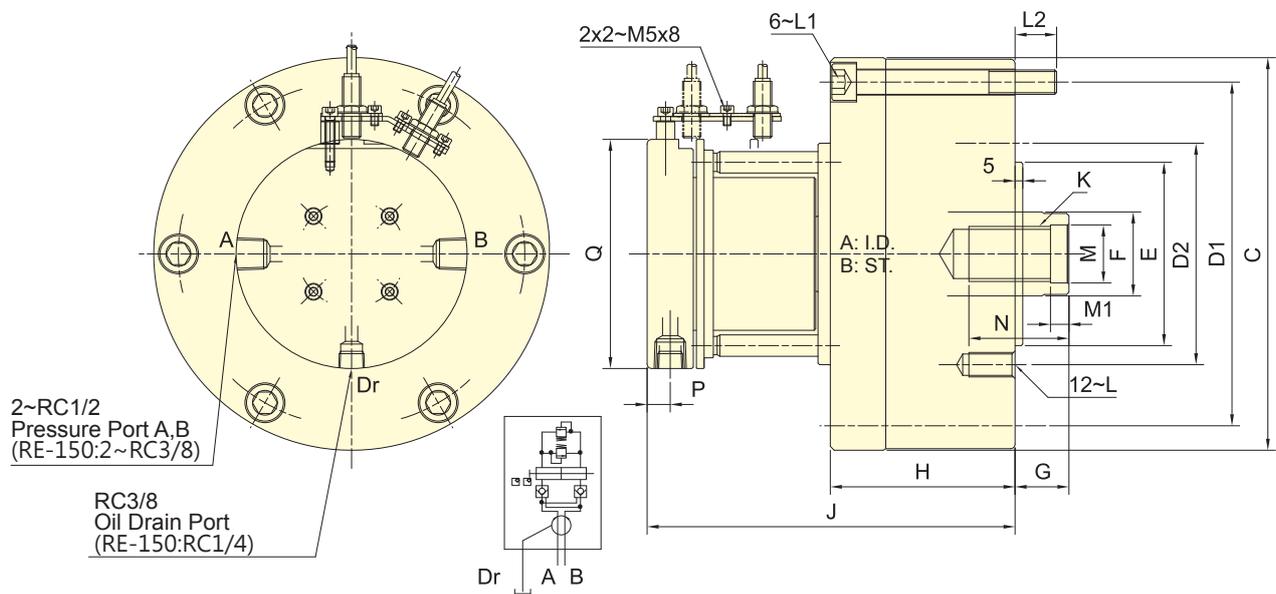
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I	Weight
	Extend	Retract					
	cm <sup>2</sup>	cm <sup>2</sup>				mm	
RE-110	92.7	87.9	20	6000	3.5(35)	0.02	6.9
RE-120	110.8	106	21	6000	4.0(40)	0.03	8.8
RE-130	130.4	123.1	30	6000	4.0(40)	0.03	9.1

## DIMENSIONS

Model	A	B	C(h7)	D	E	F	G max.	G min.	H	J	K	L	L1	M (H8)	N
RE-110	110	20	145	128	42	29	60	40	66	146	M20x2.5	6~M8x70	12	22	35
RE-120	120	21	168	145	42	29	60	39	69.5	148	M20x2.5	6~M10x75	17	22	35
RE-130	130	30	168	150	50	33	60	30	79.5	158	M24x3.0	6~M10x85	17	27	40



- For short form, light weight and high speed rotary cylinder, suitable for vertical lathe.
- Built-in safety check valves, pressure relief valves and proximity sensor.
- Can screw it from the rear end of the cylinder when mounting.
- The drain port should be independently connected to oil tank to avoid back pressure.



Subject to technical changes

### SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I		Weight
	Extend	Retract				Moment of inertia	kg·m <sup>2</sup>	
	cm <sup>2</sup>	cm <sup>2</sup>						
RE-150	174.4	160.8	30	5500	4.0 (40)	0.06	14.9	
RE-200K	292.4	274.9	35	4000	4.0 (40)	0.19	29.1	
RE-200L	292.4	265.4	50	4000	5.0 (50)	0.21	30.4	
RE-250	465.2	438.2	60	2000	5.0 (50)	0.43	47.2	

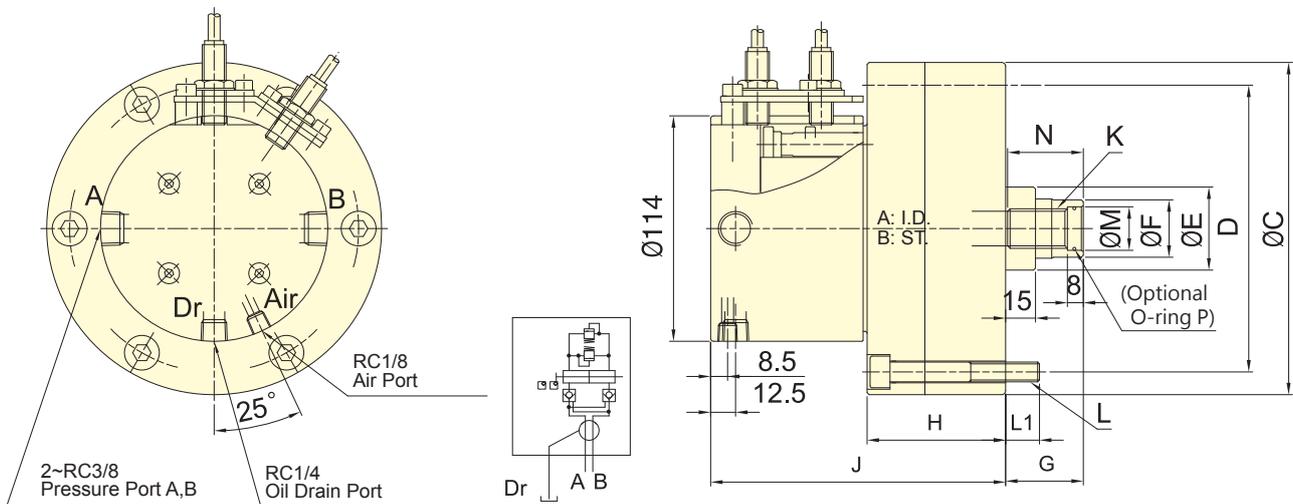
### DIMENSIONS

Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	J	K	L	L1	L2	M (H8)	M1	N	P	Q
RE-150	150	30	205	180	130	110	45	60	30	99	177.5	M30x3.5	M12x24	M12x105	18.5	32	10	50	12.5	114
RE-200K	195	35	257	225	145	120	55	73	38	120	239	M36x4.0	M16x30	M16x130	27	38	12	65	15	150
RE-200L	195	50	257	225	170	125	65	80	30	135	254	M42x3.0	M16x30	M16x145	27	45	12	65	15	150
RE-250	245	60	307	275	220	160	65	85	25	165	280	M42x3.0	M20x35	M16x175	28	45	12	65	15	150

ROTARY CYLINDERS



- For short form, light weight and high speed rotary cylinder. To allow compressed air to be feed from the rear end of the distributor through the rotating union.
- Built-in safety check valves, pressure relief valves and proximity sensor.
- Can screw it from the rear end of the cylinder when mounting.
- The drain port should be independently connected to oil tank to avoid back pressure.
- When used, a little oil mist should be contained.



Subject to technical changes

### SPECIFICATIONS

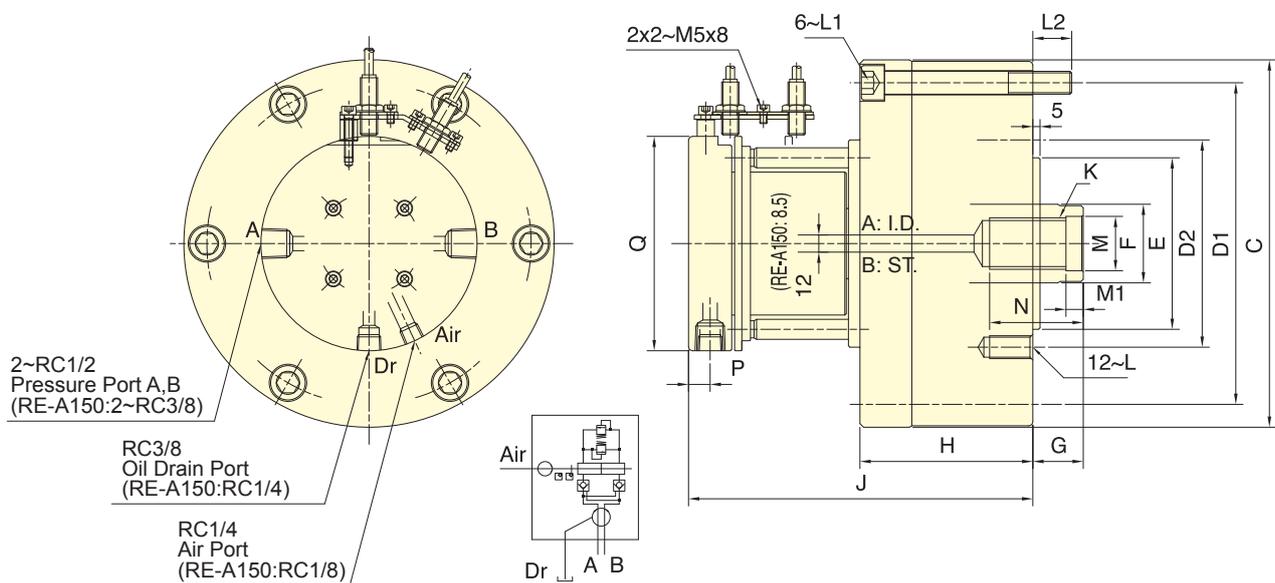
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Coolant connection Max. pressure	I Moment of inertia	Weight
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>						
RE-A110	91.2	87.9	20	6000	4.0(40)	0.8(8)	0.02	6.9
RE-A120	109.3	106	21	6000	4.0(40)	0.8(8)	0.02	8.8
RE-A130	128.9	123.1	30	6000	4.0(40)	0.8(8)	0.03	9.1

### DIMENSIONS

Model	A	B	C (h7)	D	E	F	G max.	G min.	H	J	K	L	L1	M (H8)	N	P
RE-A110	110	20	145	128	42	29	60	40	66	146	M20x2.5	6~M8x70	12	22	38	S20
RE-A120	120	21	168	145	42	29	60	39	69.5	148	M20x2.5	6~M10x75	17	22	38	S20
RE-A130	130	30	168	150	50	33	60	30	79.5	158	M24x3.0	6~M10x85	17	27	43	S24



- For short form, light weight and high speed rotary cylinder. To allow compressed air to be feed from the rear end of the distributor through the rotating union.
- Built-in safety check valves, pressure relief valves and proximity sensor.
- Can screw it from the rear end of the cylinder when mounting.
- The drain port should be independently connected to oil tank to avoid back pressure.
- When used, a little oil mist should be contained.



Subject to technical changes

## SPECIFICATIONS

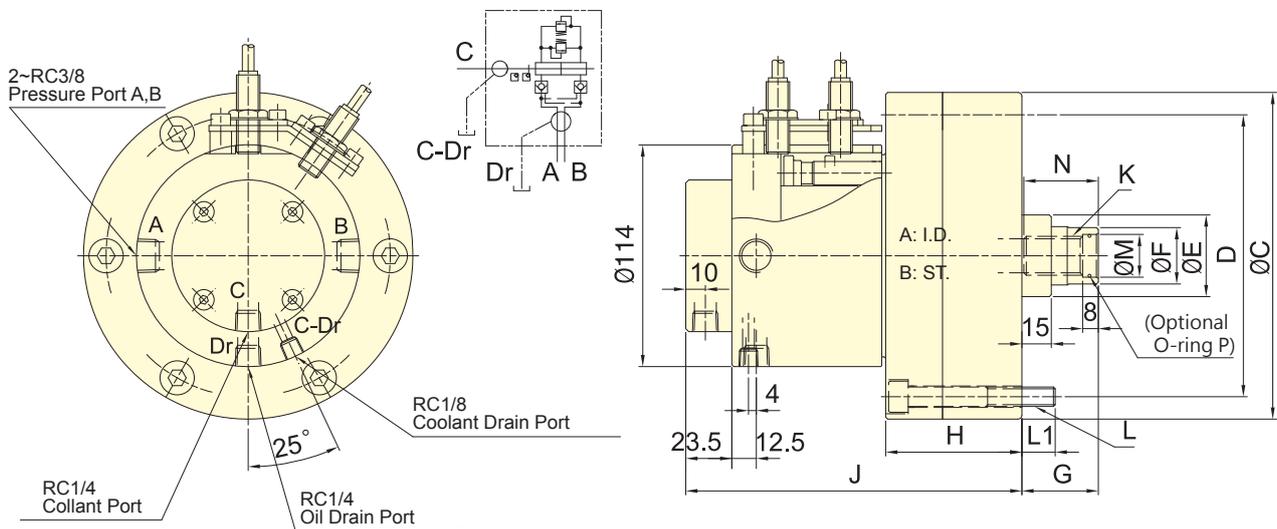
Model	Eff. piston area		Piston stroke mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	Coolant connection Max. pressure MPa (kgf/cm <sup>2</sup> )	I		Weight kg
	Extend	Retract					Moment of inertia		
	cm <sup>2</sup>	cm <sup>2</sup>							
RE-A150	174.4	160.8	30	5500	4.0(40)	0.8(8)	0.06	14.9	
RE-A200K	292.4	274.9	35	4000	4.0(40)	0.8(8)	0.19	29.1	
RE-A200L	292.4	265.4	50	4000	5.0(50)	0.8(8)	0.21	30.4	
RE-A250	465.2	438.2	60	2000	5.0(50)	0.8(8)	0.43	47.2	

## DIMENSIONS

Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	J	K	L	L1	L2	M (H8)	M1	N	P	Q
RE-A150	150	30	205	180	130	110	45	60	30	99	177.5	M30x3.5	M12x24	M12x105	18.5	32	10	50	12.5	114
RE-A200K	195	35	257	225	145	120	55	73	38	120	239	M36x4.0	M16x30	M16x130	27	38	12	65	15	150
RE-A200L	195	50	257	225	170	125	65	80	30	135	254	M42x3.0	M16x30	M16x145	27	45	12	65	15	150
RE-A250	245	60	307	275	220	160	65	85	25	165	280	M42x3.0	M20x35	M16x175	28	45	12	65	15	150



- For short form, light weight and high speed rotary cylinder. To allow coolant to be feed from the rear end of the distributor through the rotating union.
- Built-in safety check valves, pressure relief valves and proximity sensor.
- Can screw it from the rear end of the cylinder when mounting.
- The drain port should be independently connected to oil tank to avoid back pressure.



Subject to technical changes

### SPECIFICATIONS

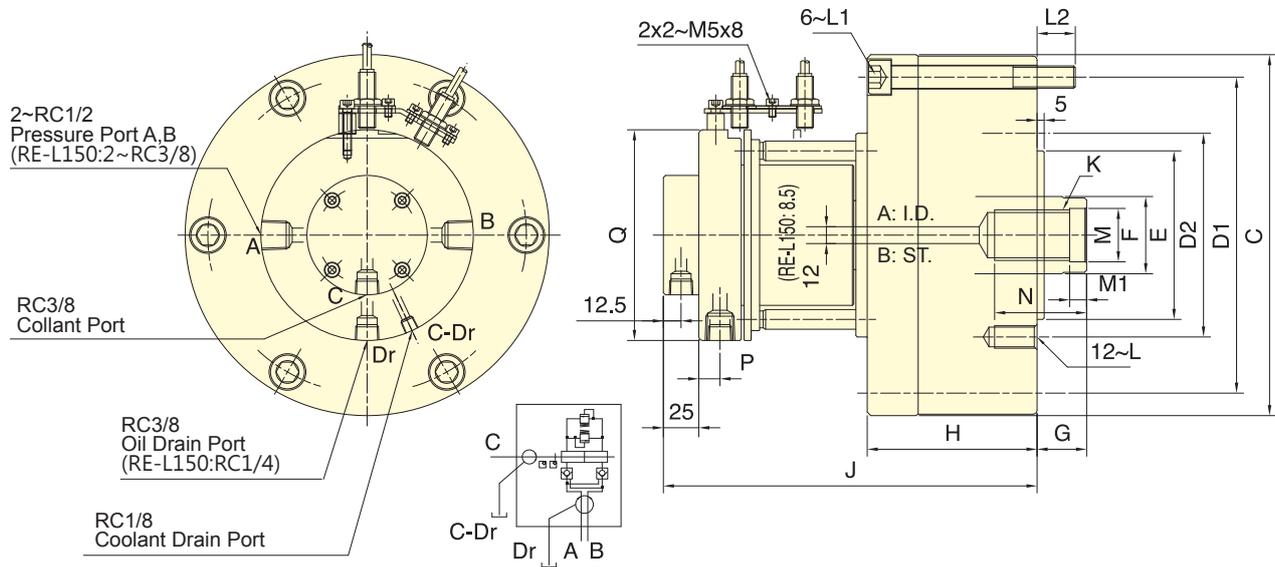
Model	Eff. piston area		Piston stroke mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	Coolant connection Max. pressure MPa (kgf/cm <sup>2</sup> )	I		Weight kg
	Extend	Retract					Moment of inertia kg.m <sup>2</sup>		
	cm <sup>2</sup>	cm <sup>2</sup>							
RE-L110	92.7	87.9	20	6000	4.0(40)	1.5(15)	0.02	7.2	
RE-L120	110.8	106	21	6000	4.0(40)	1.5(15)	0.03	9.1	
RE-L130	128.9	123.1	30	6000	4.0(40)	1.5(15)	0.03	9.5	

### DIMENSIONS

Model	A	B	C (h7)	D	E	F	G max.	G min.	H	J	K	L	L1	M (H8)	N	P
RE-L110	110	20	145	128	42	29	60	40	66	169.5	M20x2.5	6~M8x70	12	22	38	S20
RE-L120	120	21	168	145	42	29	60	39	69.5	171.5	M20x2.5	6~M10x75	17	22	38	S20
RE-L130	130	30	168	150	50	33	60	30	79.5	181.5	M24x3.0	6~M10x85	17	27	43	S24



- For short form, light weight and high speed rotary cylinder. To allow coolant to be feed from the rear end of the distributor through the rotating union, suitable for vertical lathe.
- Built-in safety check valves, pressure relief valves and proximity sensor.
- Can screw it from the rear end of the cylinder when mounting.
- The drain port should be independently connected to oil tank to avoid back pressure.



Subject to technical changes

## SPECIFICATIONS

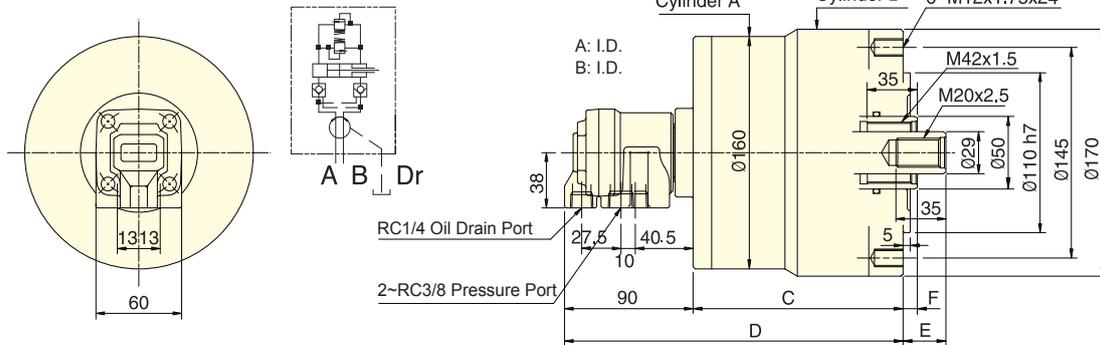
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Coolant connection Max. pressure	I		Weight
	Extend	Retract					Moment of inertia	kg·m <sup>2</sup>	
	cm <sup>2</sup>	cm <sup>2</sup>							
RE-L150	174.4	160.8	30	5500	4.0(40)	1.5(15)	0.06	15.2	
RE-L200K	292.4	274.9	35	4000	4.0(40)	1.5(15)	0.19	29.4	
RE-L200L	292.4	265.4	50	4000	5.0(50)	1.5(15)	0.21	30.7	
RE-L250	465.2	438.2	60	2000	5.0(50)	1.5(15)	0.43	47.5	

## DIMENSIONS

Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	J	K	L	L1	L2	M (H8)	M1	N	P	Q
RE-L150	150	30	205	180	130	110	45	60	30	99	201	M30x3.5	M12x24	M12x105	18.5	32	10	50	12.5	114
RE-L200K	195	35	257	225	145	120	55	73	38	120	264	M36x4.0	M16x30	M16x130	27	38	12	65	15	150
RE-L200L	195	50	257	225	170	125	65	80	30	135	279	M42x3.0	M16x30	M16x145	27	45	12	65	15	150
RE-L250	245	60	307	275	220	160	65	85	25	165	305	M42x3.0	M20x35	M16x175	28	45	12	65	15	150



- For short form, light weight, double rod rotary cylinder.
- Built-in safety check valves and pressure relief valves.
- The drain port should be independently connected to oil tank to avoid back pressure.



Subject to technical changes

### SPECIFICATIONS

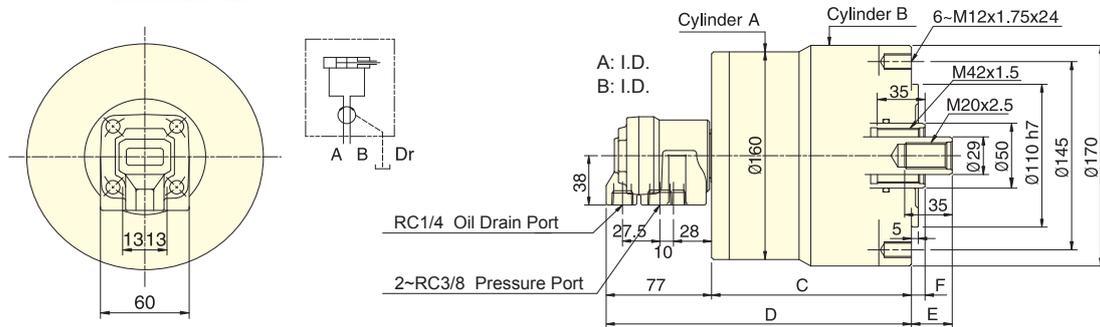
Model	Eff. piston area				Piston stroke mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	I Moment of inertia	Weight kg
	Extend		Retract						
	A cm <sup>2</sup>	B cm <sup>2</sup>	A cm <sup>2</sup>	B cm <sup>2</sup>					
RD-120	122.7	126.1	116.1	113.1	20	5000	3.0(30)	0.14	11.3
RD-125	122.7	126.1	116.1	113.1	25	5000	3.0(30)	0.15	11.5

### DIMENSIONS

Model	A	B	C	D	E max.	E min.	F max.	F min.
RD-120	130	125	137	227	60	40	35	15
RD-125	130	125	147	237	55	30	35	10



- For short form, light weight, double rod rotary cylinder.
- The drain port should be independently connected to oil tank to avoid back pressure.



Subject to technical changes

### SPECIFICATIONS

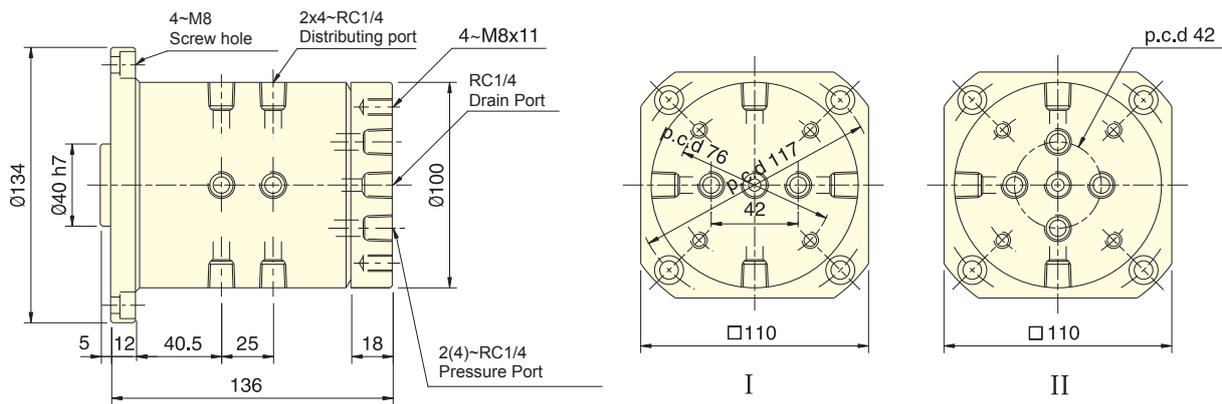
Model	Eff. piston area				Piston stroke mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	I Moment of inertia	Weight kg
	Extend		Retract						
	A cm <sup>2</sup>	B cm <sup>2</sup>	A cm <sup>2</sup>	B cm <sup>2</sup>					
RD-120N	122.7	126.1	116.1	113.1	20	5000	3.0(30)	0.14	11.2
RD-125N	122.7	126.1	116.1	113.1	25	5000	3.0(30)	0.15	11.4

### DIMENSIONS

Model	A	B	C	D	E max.	E min.	F max.	F min.
RD-120N	130	125	137	214	60	40	35	15
RD-125N	130	125	147	224	55	30	35	10



- Rotary valve is used for clamping cylinder on rotary table.
  - Through unique design, it can make the rotary housing be rotated light force, and is free from oil leaking.
  - I Type is a single circuit which controls the clamping.
  - II Type is a double circuit which separately controls the clamping.
- The drain port of RV type should be independently connected to oil tank to avoid back pressure.

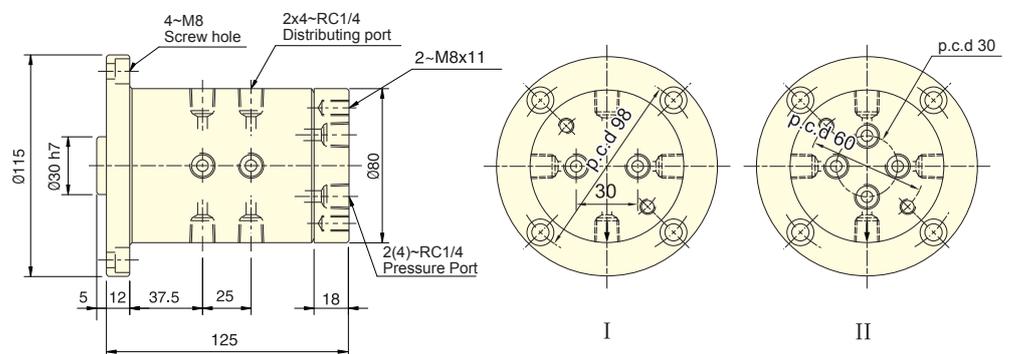


Subject to technical changes

SPECIFICATIONS

Model	Distributing	Max. pressure	Weight
		MPa(kgf/cm <sup>2</sup> )	kgs
RV-31H	4( by order)	40 kgf/cm <sup>2</sup> (4.0MPa)	7.4

Note: RV can be custom-made.



Subject to technical changes

SPECIFICATIONS

Model	Distributing	Max. pressure	Weight
		MPa(kgf/cm <sup>2</sup> )	kgs
RV-A31H	4( by order)	8 kgf/cm <sup>2</sup> (0.8MPa)	4.8

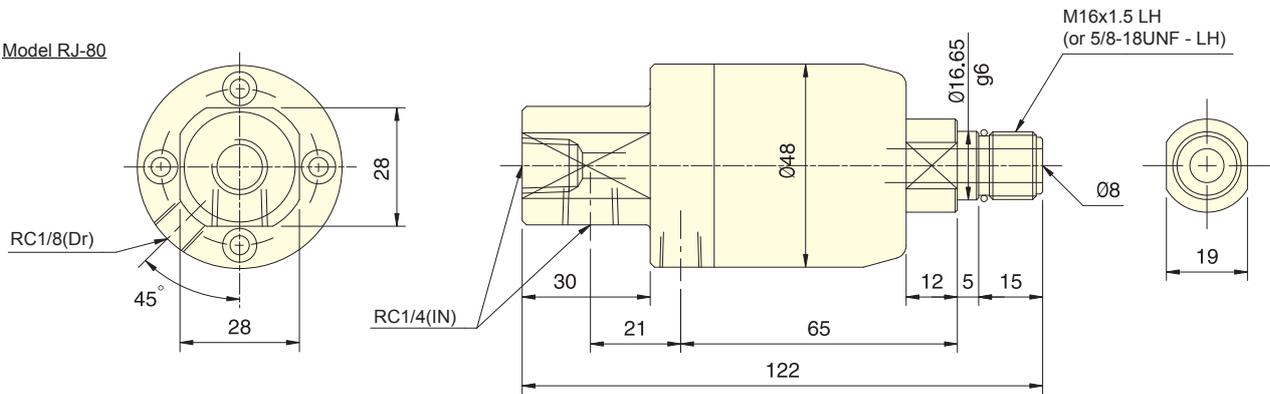
Note: RV-A can be custom-made.

ROTARY VALVES AND JOINTS



- Coolant joint for high speed, high pressure. Usable for oil and water-soluble coolant.
- Seal bushing inside is made of cemented carbide and ceramics, which provide higher wear-resistance.
- The joint should not run without liquid through coolant port.

Model RJ-80



PV Limit value 14400 MPa · r/m.

Subject to technical changes

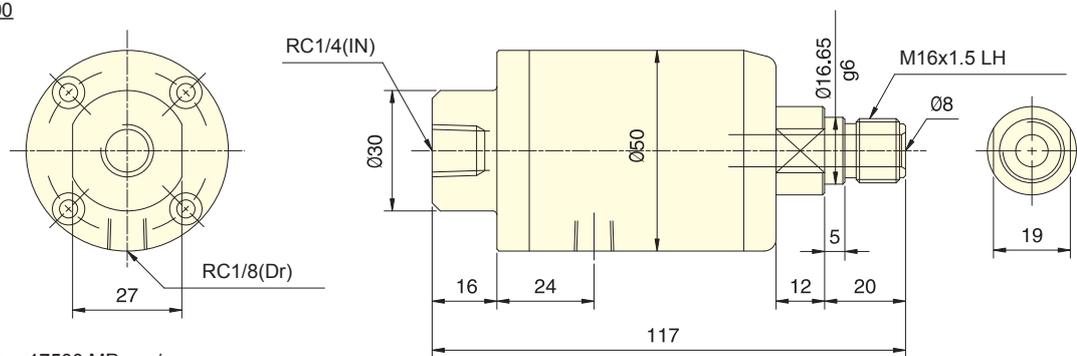
### SPECIFICATIONS

Model	Max. pressure	Delivery amount	Max. speed	Weight
RJ-80	60 kgf/cm <sup>2</sup> (6.0MPa)	28 l/min(at 50 kgf/cm <sup>2</sup> )	8000 r.p.m.	0.5 kg



- Coolant joint for high speed, high pressure. Usable for oil and water-soluble coolant.
- Seal bushing inside is made of cemented carbide and ceramics, which provide higher wear-resistance.
- The seal will depart automatically if no liquid passes during operation, and will not be damaged due to dry touching.
- Min. pressure is 4kgf/cm<sup>2</sup>.

Model RJ-90

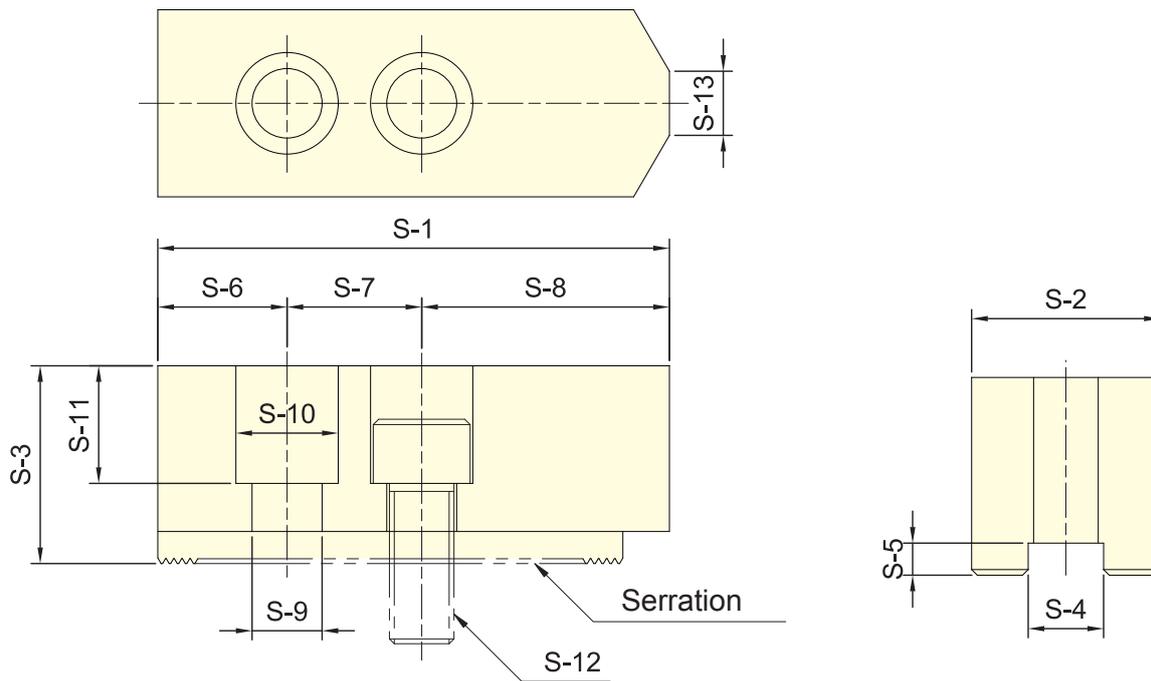


PV Limit value 17500 MPa · r/m.

Subject to technical changes

### SPECIFICATIONS

Model	Max. pressure	Delivery amount	Max. speed	Min. pressure	Weight
RJ-90	70 kgf/cm <sup>2</sup> (7.0MPa)	28 l/min(at 50 kgf/cm <sup>2</sup> )	10000 r.p.m.	4 kgf/cm <sup>2</sup> (0.4MPa)	0.5 kg

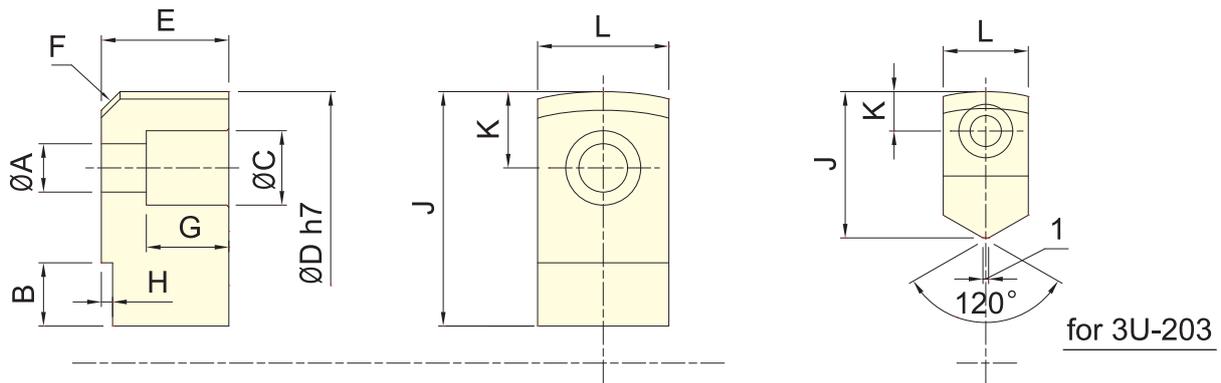


Subject to technical changes

## DIMENSIONS

MODEL	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10	S-11	S-12	S-13	Serration Pitch	Matching Chuck	3 Jaw Weight kg
SJ-04	52	23	23	10	5	10	14	28	9	14	13	M8	3	1.5×60°	3H-204, 3P-04	0.5
SJ-05	62	25	30	10	5	10	14	38	9	14	18	M8	3.5	1.5×60°	3H-205, 3L-205 3P-05, 3M-05	0.8
SJ-06	73	31	36	12	5	15	20	38	11	17	24	M10	14	1.5×60°	3H-206, 3L-206 3P-06, 3M-06	1.5
SJ-08	95	35	37	14	5	24	25	46	13	19	22	M12	16	1.5×60°	3H-208, 3L-208 3P-08, 3M-08	2.4
SJ-10	110	40	42	16	5	30	30	50	13	19	27	M12	18	1.5×60°	3H-10, 3L-210 3P-10, 3M-10	3.7
SJ-12H	130	50	50	21	5	40	30	60	18	26	33	M16	23	1.5×60°	3H-212, 3L-212, 3V-12, 3P-12, 3M-12	6.3
SJ-12P	130	50	50	18	5	40	30	60	16	23	33	M14	23	1.5×60°	3P-12	6.5
SJ-15H	165	62	62	22	8	37	43	85	21	32	38	M20	-	1.5×60°	3H-215, 3H-18	12.6
SJ-15P	165	62	62	25.5	8	37	43	85	21	32	38	M20	-	1.5×60°	3H-215, 3H-18, 3L-15, 3P-215, 3P-218, 3V-15, 3V-18	12.5
SJ-21	180	65	70	25	9	40	60	80	21	32	45	M20	-	3.0×60°	3H-21, 3H-24, 3P-221, 3P-224, 3V-21, 3V-24, 3V-32	15.8

## STANDARD SOFT JAW FOR 3U CHUCK

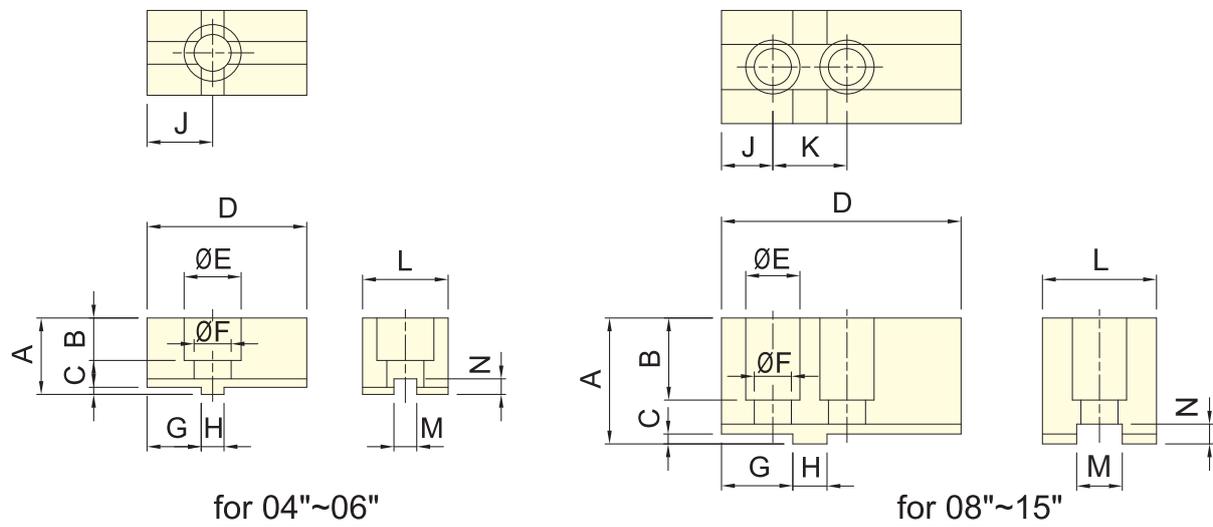


Subject to technical changes

### DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L
3U-203	5.5	11	9.5	66	12	C3	7	3	26	7	15
3U-204	6.6	11	11	84	17	C4	11	3	32	9.5	20
3U-205	9	13.5	14	108	20	C4	12	3	41.5	13	24
3U-206	11	15	17	129	30	C6	20	3	50	17	30
3U-208	13	17	20	156	34	C6	22	3	63	20.5	35
3U-210	15	20	22	187	39	C6	24	4	74	23	40
3U-212	15	18	22	234	44	C6	29	4	72	23	40

## STANDARD SOFT JAW FOR 2D/3D CHUCK

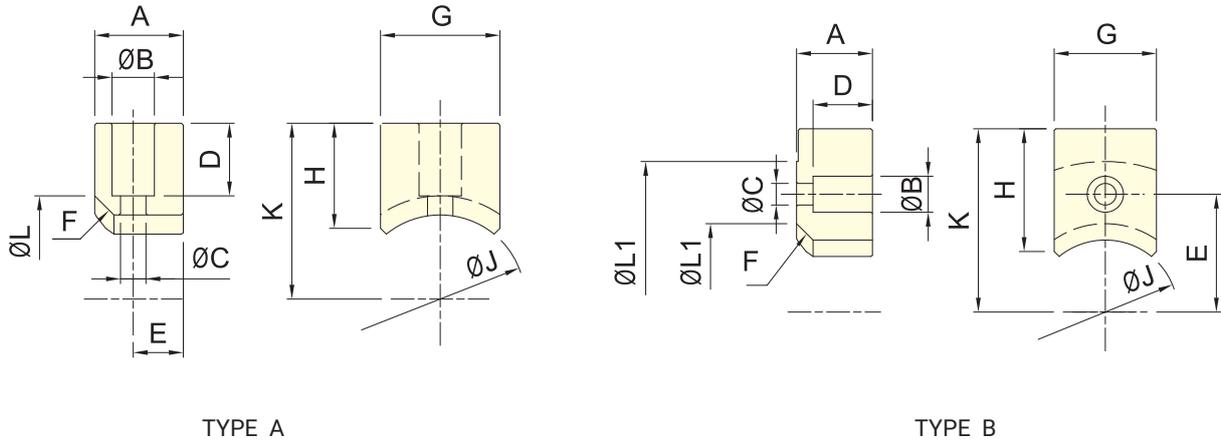


Subject to technical changes

### DIMENSIONS

型號 MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N
3D-04	22	13	2.5	52	17.5	11	15	8	19	-	25	8	5.5
3D-05	27	15	2.5	56	20	13	19	8	23	-	30	8	5.5
3D-06	34	21	3	70	23	15.5	22	10	27	-	35	10	6
3D-08	44.5	29	3.5	84	19	13	25	12	18	26	40	10	7
3D-10	49.5	32	3.5	100	22	15	30.5	15	22	32	50	18	7
3D-12	54.5	36	3.5	120	26	18	33.5	17	24	36	60	20	7
3D-15	65	40	5	165	26	18	50	20	40	40	70	24	10

## STANDARD SOFT JAW FOR 3E CHUCK

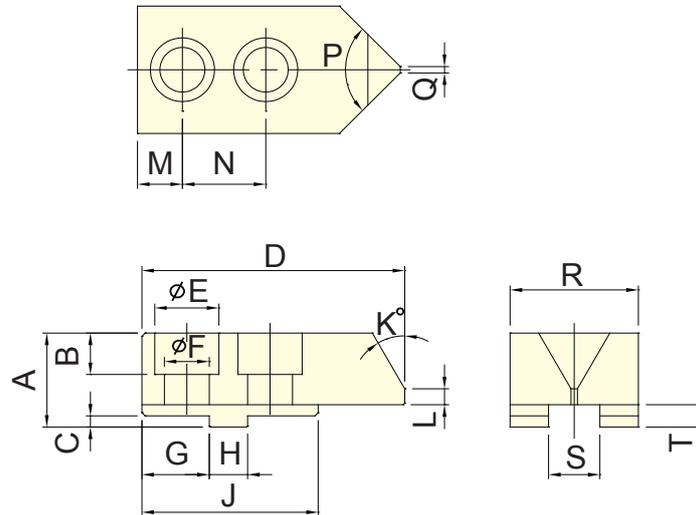


Subject to technical changes

### DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L	L1	
3E-05	TYPE A	20	11	6.6	16.5	10	C5	25	22	29	34.5	39	-
	TYPE B	20	11	6.6	15	25.5	C5	25	30	29	42.5	39	69
3E-06	TYPE A	23	11	6.6	19	13	C5	31	27.5	44	46	54	-
	TYPE B	23	11	6.6	18	36	C5	31	37.5	44	56	54	92
3E-08	TYPE A	30	14	9	25	15	C6	35	36	50	56	62	-
	TYPE B	30	14	9	24	41	C6	35	56	50	76	62	112
<b>NEW</b> 3E-10	TYPE A	35	17.5	11	26.5	17.5	C5	40	40	60	64.5	70	-
	TYPE B	35	17.5	11	26	47.5	C5	40	71.5	60	96	70	129

## STANDARD SOFT JAW FOR 3R CHUCK

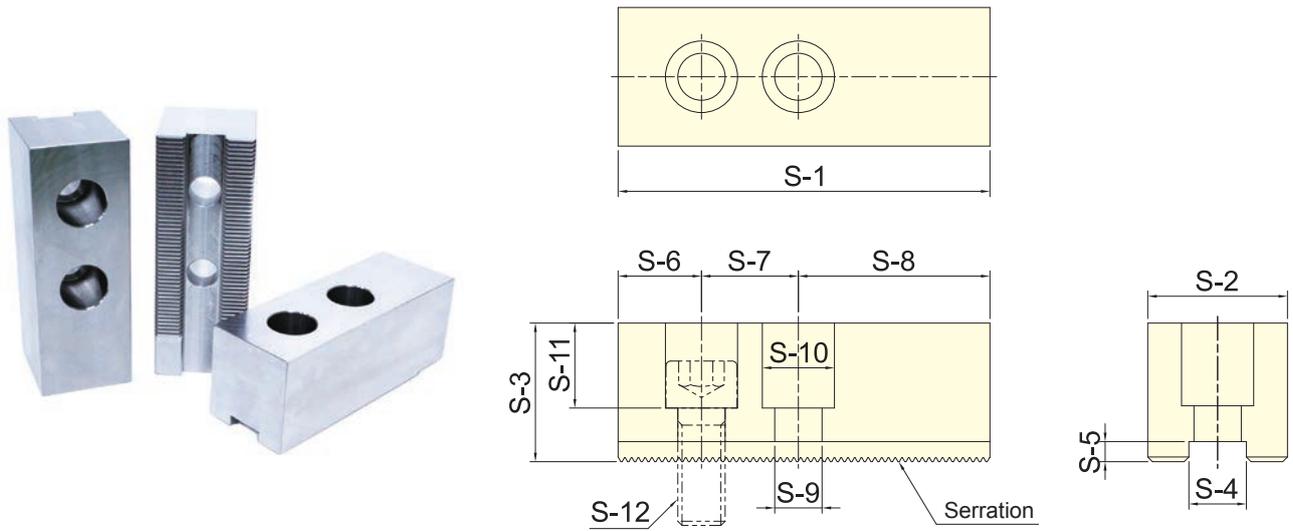


Subject to technical changes

### DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
<b>NEW</b> 3R-08	29.5	13	3.5	82	20	14	21	12	55	30	5	14	26	90	2	40	16	7
<b>NEW</b> 3R-10	30.5	15	3.5	102	23	16	29.5	15	65	30	7	21	32	90	2	40	18	7

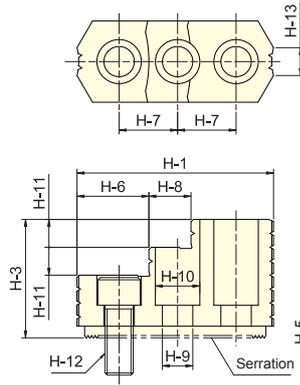
## STANDARD SOFT JAW FOR AP CHUCK



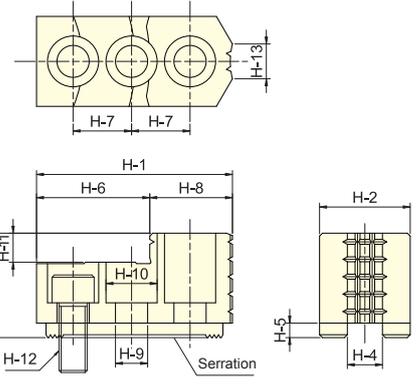
Subject to technical changes

### DIMENSIONS

MODEL	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10	S-11	S-12	Serration Pitch	Matching Chuck	3 Jaw Weight
SJ-145	165	62	62	25.5	9	37	43	85	21	32	38	M20	3.0×60°	AP-145, AP-185	12.2
SJ-185	165	62	62	25.5	9	37	43	85	21	32	38	M20	3.0×60°	AP-145, AP-185	12.2
SJ-230	180	64	70	25.5	9	40	60	80	21	32	45	M20	3.0×60°	AP-230, AP-275	16.1
SJ-275	180	64	70	25.5	9	40	60	80	21	32	45	M20	3.0×60°	AP-230, AP-275	16.1
SJ-320	210	75	80	30	9	40	60	110	26	38	55	M24	3.0×60°	AP-320, AP-375	24.7



**Fig. 1**



**Fig. 2**

Subject to technical changes

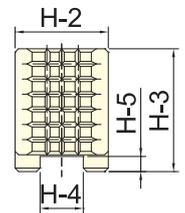
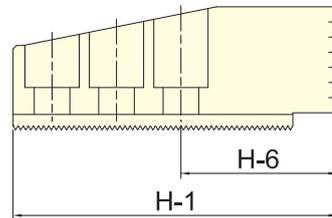
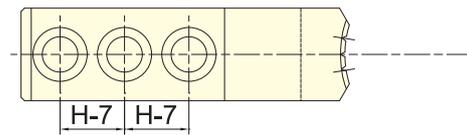
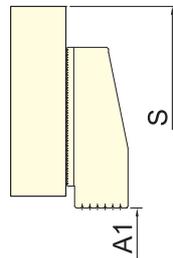
**DIMENSIONS**

MODEL	H-1	H-2	H-3	H-4	H-5	H-6	H-7	H-8	H-9	H-10	H-11	H-12	H-13	Serration Pitch	Matching Chuck	3 Jaw Weight	Reference Drawing
																kg	
HJ-05	53	23	28	10	4	30	14	23	8.5	13.5	10	M8	6	1.5×60°	3H-204, 3H-205	1	Fig.2
HJ-06	67	31	36	12	5	38.5	20	28.5	11	17	12	M10	10	1.5×60°	3H-206, 3P-06	1.7	Fig.2
HJ-08	87	35	51	14	5	32	25	18	13	19	12	M12	12	1.5×60°	3H-208, 3P-08	2	Fig.1
HJ-10	102	40	54	16	5	39	30	23	13	19	13	M12	16	1.5×60°	3H-10, 3P-10	3	Fig.1
HJ-12H	103	50	52	21	5	62.5	30	40.5	17	25	17	M16	30	1.5×60°	3H-212, 3P-12	3.5	Fig.2
HJ-12P	103	50	52	18	5	62.5	30	40.5	15	22	17	M14	30	1.5×60°	3P-12	3.6	Fig.2
HJ-15H	149	62	86	22	8	63	43	34	21	32	20	M20	43	1.5×60°	3H-215, 3H-18	9.6	Fig.1
HJ-15P	149	62	86	25.5	6	63	43	34	21	32	20	M20	43	1.5×60°	3H-215, 3H-18, 3P-215, 3P-218	9.5	Fig.1
HJ-21	159.5	80	90	25	9	104.5	50	55	21	32	40	M20	55	3.0×60°	3H-21, 3H-24, 3P-221, 3P-224, 3V-32	14.3	Fig.2

## STANDARD HARDEN JAW FOR AP CHUCK



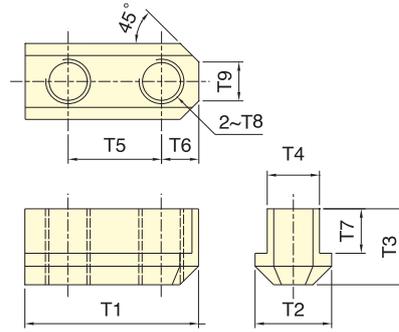
Clamping range



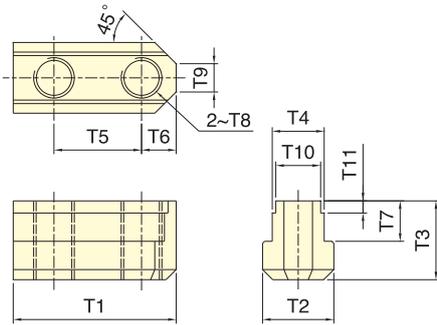
Subject to technical changes

**DIMENSIONS**

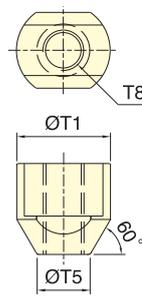
Model	H-1	H-2	H-3	H-4	H-5	H-6	H-7	A1	S	Serration Pitch	Matching Chuck	3 Jaw Weight (kg)
HJ-145	191	55	73	25.5	9	92	38	28-120	420	3.0×60°	AP-145	12.5
HJ-145	191	55	73	25.5	9	92	38	28-155	460	3.0×60°	AP-185	12.5
HJ-145	191	55	73	25.5	9	92	38	60-235	535	3.0×60°	AP-230	12.5
HJ-145	191	55	73	25.5	9	92	38	105-280	580	3.0×60°	AP-275	12.5
HJ-320	243	75	82	30	9	110	50	100-295	658	3.0×60°	AP-320	24.6
HJ-320	243	75	82	30	9	110	50	175-375	738	3.0×60°	AP-375	24.6



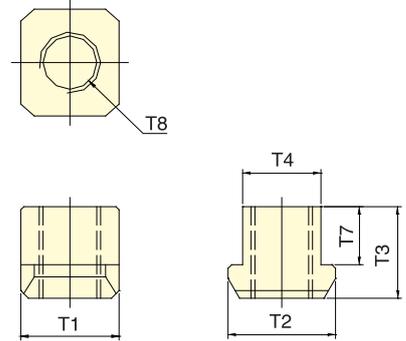
TN1



TN2



TN3

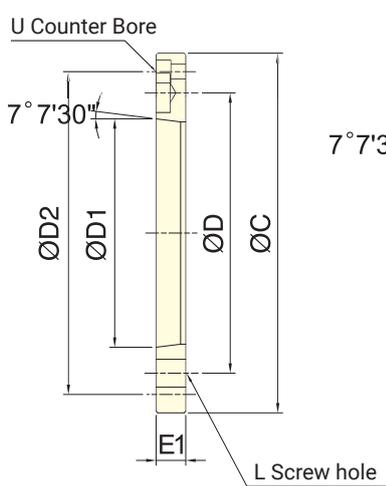


TN4

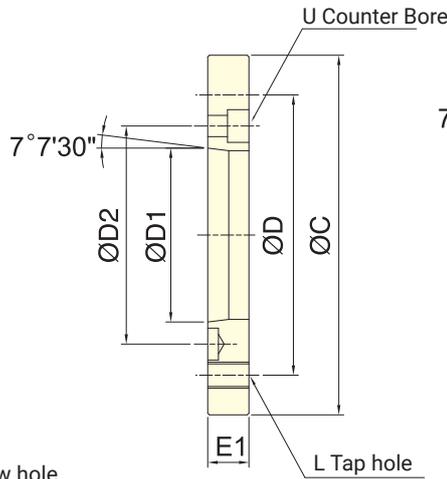
Subject to technical changes

DIMENSIONS

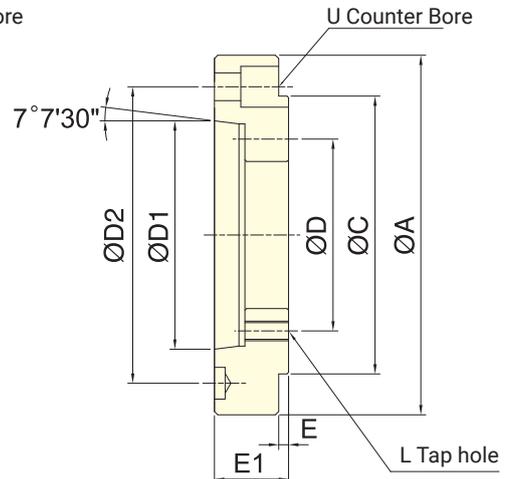
Model	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	Matching Chuck	3 Jaw Weight
													kg
TN1-04	26	14	15	10	14	6	9.5	M8	5	-	-	3H-204,3H-205,2H-04,2H-05, 3P-04,3P-05,2P-04,2P-05,3L-205,2L-205,3M-05, 2M-05,SP-304	0.06
TN1-06	36	17	18.5	12	20	8	11	M10	6	-	-	3H-206,2H-06,4H-06, 3P-06,2P-06,3L-206,2L-206,1L-06,3M-06,2M-06, 3N-06,SP-306, AP-52	0.15
TN1-08	46.5	20	20.5	14	25	10.5	12	M12	10	-	-	3H-208,2H-08,4H-08, 3P-08,2P-08,3L-208,2L-208,1L-08,3M-08,2M-08, 3N-08,4T-08,SP-308, AP-66	0.27
TN1-10	51	22	21.5	16	30	11	13	M12	11	-	-	3H-10,3H-210,3H-10B,2H-10,4H-10, 3P-10,2P-10,3L-210,2L-210,1L-10,3M-10,2M-10, 3N-10,4T-10,4T-12,SP-310, AP-86	0.36
TN1-12	56	29.5	23.5	21	30	12	12	M16	10	-	-	3H-212,4H-12, 3P-12,2P-12,3L-212,2L-12,3M-12,2M-12,3V-12, 4T-15, AP-115	0.63
TN2-12	56	29.5	23.5	21	30	12	12	M14	10	18	4	3H-212,4H-12,3P-12, 2P-12,3L-212,2L-12,3M-12,2M-12,3V-12,4T-15, AP-115	0.63
TN1-15	80	35	39	25.5	43	17	20	M20	14	-	-	3H-18,3H-18B,2H-15,4H-15,4H-18, 3P-215,3P-218,2P-15,3L-15,2L-15,3M-215,3M-218, 3V-15,3V-18,4T-15	1.53
TN2-15	80	35	39	25.5	43	17	20	M20	14	22	6	3H-18,3H-18B,2H-15,4H-15,4H-18, 3P-215,3P-218,2P-15,3L-15,2L-15,3M-215,3M-218, 3V-15,3V-18,4T-15	1.5
TN3-21	46	37.5	45	25	26	-	26	M20	-	-	-	3H-218,3H-248,3P-221,3P-224 3M-221,3M-224,3V-21,3V-24,3V-32	1.84
TN4-185	32	35	30	25.5	-	-	19	M20	-	-	-	AP-145,AP-185,AP-230,AP-275	0.15
TN4-320	36	42	39	30	-	-	24	M24	-	-	-	AP-320,AP-375	0.24



**FL1**



**FL2**



**FL3**

Subject to technical changes

**DIMENSIONS**

Model	A	C	D	D1	D2	E	E1	L	U	Remark	Weight (kg)
FL3-04A24	110	85	70.6	63.513	82.6	8	28	M10	M10	3H-204, 2H-04	1.12
FL3-04A25	140	85	70.6	82.563	104.8	5.5	32	M10	M10	3H-204, 2H-04	2.28
FL1-05A24	-	110	82.6	63.513	96	-	15	M10	M6	3H-205, 2H-05, 3L-05, 2L-05, 3J-05, 2J-05	0.65
FL3-05A25	135	110	82.6	82.563	104.8	6	30	M10	M10	3H-205, 2H-05, 3L-05, 2L-05	1.99
FL1-06A25	-	140	104.8	82.563	116	-	15/*18	M10	M6	2H-06, 4H-06, 3H-206, *3L-206, *2L-206, 3P-06, 2P-06, 3M-06, 2M-06, 3E-06, 3D-06, 2D-06, 3N-06, 3J-06, 2J-06	0.96
FL3-06A26	165	140	104.8	106.375	133.4	6	35	M10	M12	2H-06, 4H-06, 3H-206, 3L-206, 2L-206, 3P-06, 2P-06, 3M-06, 2M-06, 3E-06, 3D-06, 2D-06, 3N-06, 3J-06, 2J-06	3.12
FL2-08A25	-	170	133.4	82.563	104.8	-	23	M12	M10	3H-208, 2H-08, 4H-08, 3L-208, 2L-208, 3P-08, 2P-08, 3M-08, 2M-08, 4T-08, 3E-08, 3D-08, 2D-08, 3N-08, 3J-08, 2J-08, 3R-08, 3Q-08	2.7
FL1-08A26	-	170	133.4	106.375	150	-	17/*23	M12	M6	2H-08, 4H-08, 3H-208, *3L-208, *2L-208, 3P-08, 2P-08, 3M-08, 2M-08, 4T-08, 3E-08, 3D-08, 2D-08, 3N-08, 3J-08, 2J-08, 3R-08, 3Q-08	1.55
FL2-10A26	-	220	171.4	106.375	133.4	-	25	M16	M12	3H-10, 2H-10, 4H-10, 3L-210, 2L-210, 3P-10, 2P-10, 3M-10, 2M-10, 2H-12, 4H-12, 3L-212, 2L-12, 3P-12, 2P-12, 3M-12, 2M-12, 4T-10, 4T-12, 3E-10, 3D-10, 2D-10, 3N-10, 3J-10, 2J-10, 3R-10, 3Q-10, 3W-10	5.02
FL1-10A28	-	220	171.4	139.719	190	-	18	M16	M8	3H-10, 2H-10, 4H-10, 3H-10B, 3L-210, 2L-210, 3P-10, 2P-10, 3M-10, 2M-10, 2H-12, 4H-12, 3L-212, 2L-12, 3P-12, 2P-12, 3M-12, 2M-12, 4T-10, 4T-12, 3E-10, 3D-10, 2D-10, 3N-10, 3J-10, 2J-10, 3R-10, 3Q-10, 3Q-12, 3W-10	2.73
FL2-15A28	-	300	235	139.719	171.4	-	33	M20	M16	3H-212, 2H-15, 4H-15, 3L-15, 2L-15, 3P-215, 2P-15, 3M-15, 2M-15, 4T-15, 3H-18, 4H-18, 3P-218	12.52
FL1-15A211	-	300	235	196.869	260	-	22	M20	M10	3H-212, 2H-15, 4H-15, 3L-15, 2L-15, 3P-215, 2P-15, 3M-15, 2M-15, 4T-15, 3H-18, 4H-18, 3P-218	6.03
FL2-21A28	-	380	330.2	139.719	171.4	-	33	M24	M16	3H-215, 3P-221, 3P-224	22.05
FL2-21A211	-	380	330.2	196.869	235	-	40/*27	M24	M20	3H-215, *3P-221, *3P-224	16.28
FL1-21A215	-	380	330.2	285.775	330.2	-	27	M24	M12	3H-215, 3H-18B, 3H-21B, 3P-221, 3P-224	8.6
FL2-40A215	-	520	463.6	285.775	330.2	-	40	M24	M24	3H-24B	43.26
FL1-40A220	-	520	463.6	412.775	463.6	-	27	M24	M12	3H-24B	13.55

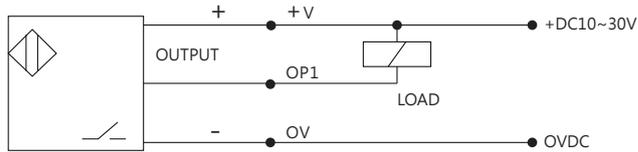


- The proximity switch and coolant collector with stroke control are optional.

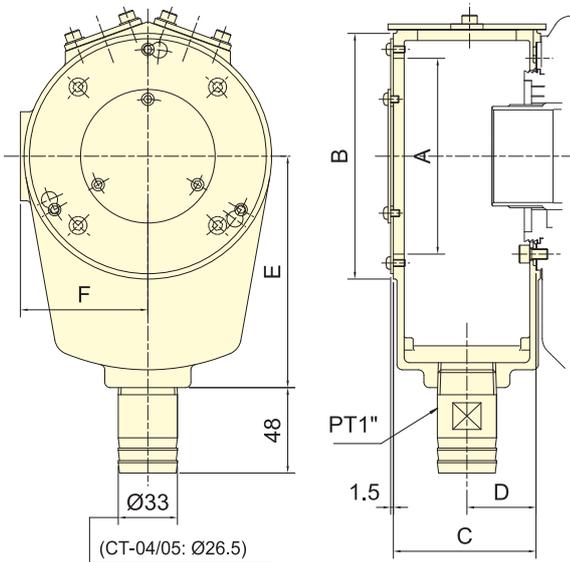
Model	Power supply	Switching cap.	Output type
IFS287 (IFM)	DC 10/30V	100mA	NPN

**Terminal Connections**

Model	+V	OP1	OV
IFS287 (IFM)	BROWN	BLACK	BLUE

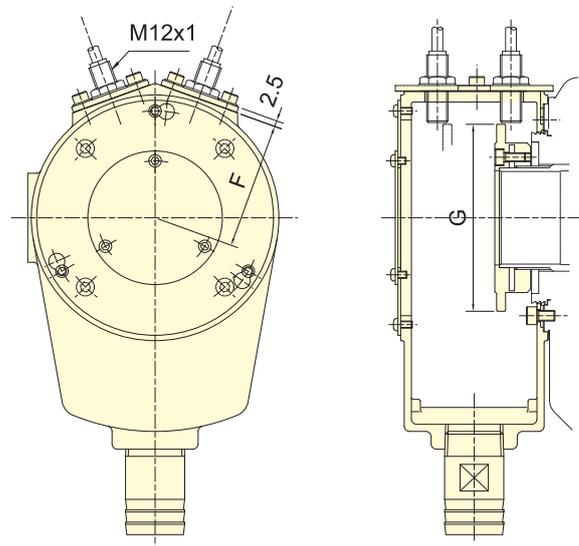


CT



Coolant Collector

CT-S

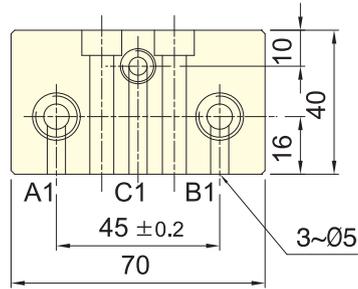
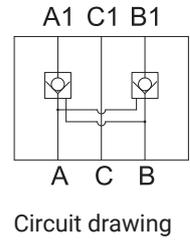
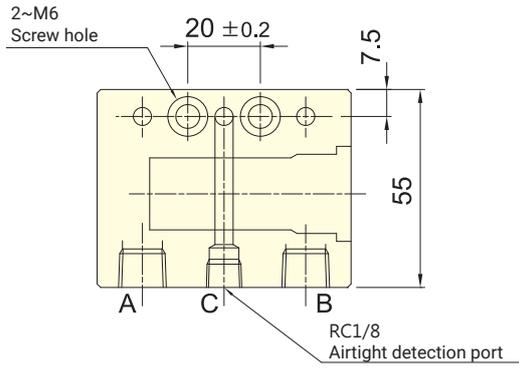


Coolant Collector with Detecting Ring

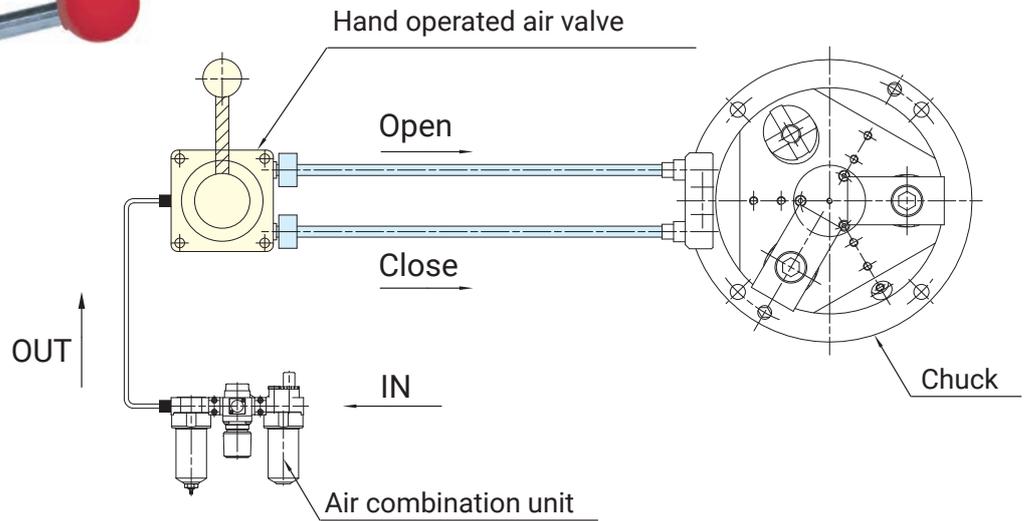
Subject to technical changes

**DIMENSIONS**

Model	A	B	C	D	E	F	G	Weight (kg)		Matching cyl.
								CT	CT-S	
CT-04/CT-04S	87	110	60	29	110	57	79	0.9	1.1	TH-428
CT-05/CT-05S	87	110	60	29	110	57	84	0.9	1.1	TH-A536, TK-A528, TK-A533
CT-06/CT-06S	100	125	74	36	120	64.5	94	1.2	1.6	TK-C643, TK-A646, TK-B646, TK-C646, TK-646A
CT-08/CT-08S	110	138	80	39	130	71	105	1.3	1.8	TK-B846, TK-A853, TK-B853
CT-K10/CT-K10S	158	185	88	43	160	94.5	145	1.9	2.6	TK-1068, TK-A1075
CT-K10/CT-K1078S	158	185	88	43	160	94.5	145	1.9	2.6	TK-1078
CT-12/CT-12S	158	185	88	43	160	94.5	145	1.9	2.6	TK-1287, TK-A1291
CT-15/CT-15S	206	235	100	50	210	121	196	3.1	4.3	TK-A1511, TK-A1512
CT-21/CT-21S	226	255	100	50	210	131	210	3.3	4.6	TK-2114
CT-24/CT-24S	250	270	100	50	230	154	248	3.5	5.5	TK-2416, TK-2416L
CT-28/CT-28S	310	330	100	50	260	181	305	4.3	7.2	TK-2820



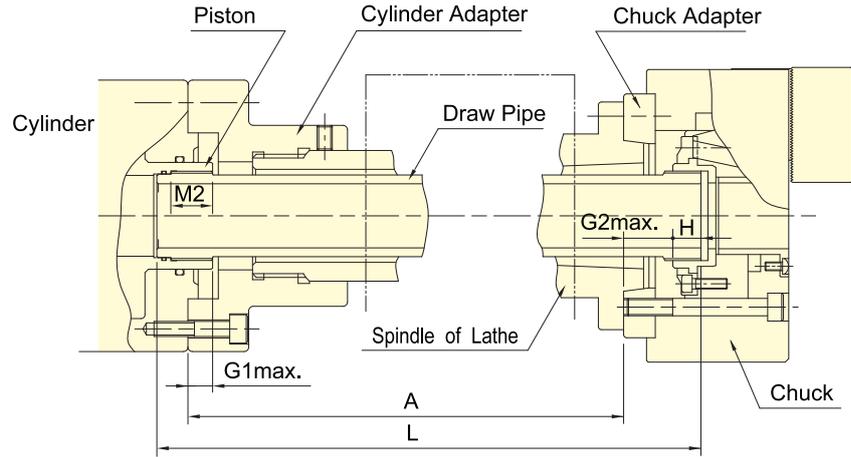
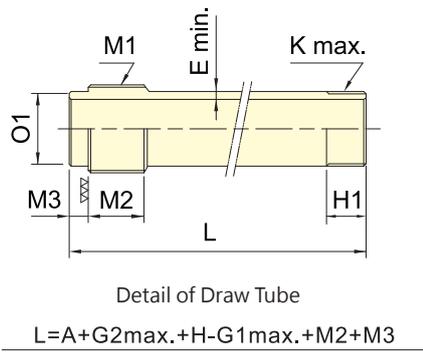
Subject to technical changes



Assembly drawing

Subject to technical changes

Max. pressure	Operating angle	Port size
1MPa(10kgf/cm <sup>2</sup> )	90°	Rc1/4



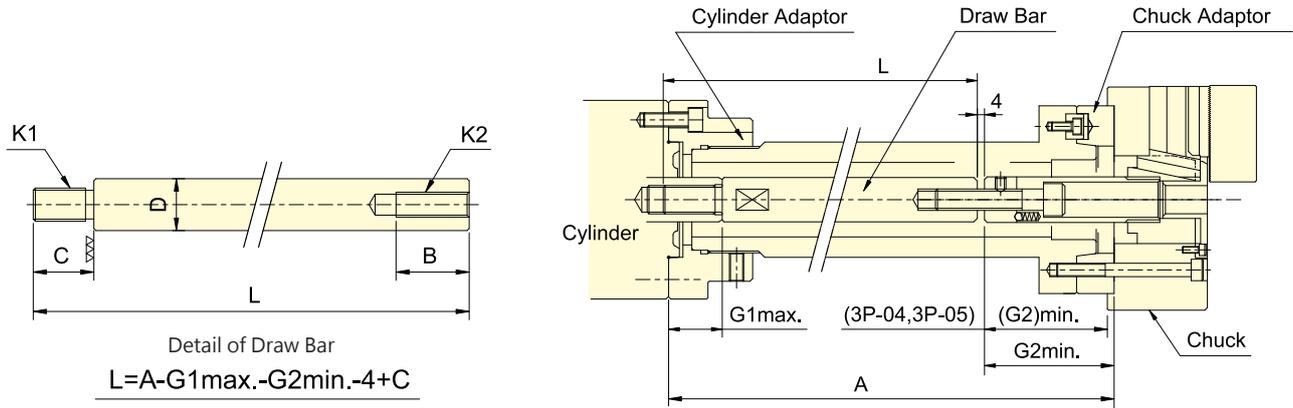
Subject to technical changes

SPECIFICATIONS

Chuck type	Cylinder type	G1 max.	H	M3	M2	G2 max.	M1	H1	O1 (f7)	K max.	E min.	L		
													3H-204	A4
3H-205	A4	TK-C646	15	17	13	25	16	M55x2	25	50	-0.025 -0.050	M40x1.5	5	A+43+13
3H-206	A5	TK-C646	15	14	13	25	28	M55x2	25	50	-0.025 -0.050	M55x2	5	A+52+13
3H-208	A6	TK-A853	20	16.5	15	35	33.5	M60x2	25	55	-0.030 -0.060	M60x2	5	A+60+15
3H-10	A6	TK-A1075	25	21	15	35	33.5	M85x2	30	80	-0.030 -0.060	M85x2	5	A+64.5+15
3H-10	A8	TK-A1075	25	21	15	35	26.5	M85x2	30	80	-0.030 -0.060	M85x2	5	A+57.5+15
3H-212	A11	TK-A1291	30	23	15	45	32	M100x2	35	95	-0.036 -0.071	M100x2	5	A+60+15
3H-215	A8	TK-A1512	30	33	15	45	44	M130x2	45	125	-0.043 -0.083	M130x2	5	A+92+15
3H-215	A11	TK-A1512	30	33	15	45	51	M130x2	45	125	-0.043 -0.083	M130x2	5	A+99+15
3H-215	A15	TK-A1512	30	33	15	45	38	M130x2	45	125	-0.043 -0.083	M130x2	5	A+86+15
3H-18	A11	TK-A1512	30	33	15	45	33	M130x2	45	125	-0.043 -0.083	M130x2	5	A+81+15

Chuck type	Cylinder type	G1 max.	H	M3	M2	G2 max.	M1	H1	O1 (f7)	K max.	E min.	L		
													3H-204	A4
3H-205	A4	TK-C646	15	17	13	25	16	M55x2	25	50	-0.025 -0.050	M40x1.5	5	A+43+13
3H-206	A5	TK-C646	15	14	13	25	28	M55x2	25	50	-0.025 -0.050	M55x2	5	A+52+13
3H-208	A6	TK-A853	20	16.5	15	35	33.5	M60x2	25	55	-0.030 -0.060	M60x2	5	A+60+15
3H-10B	A8	TK-1287	30	21	15	35	26.5	M95x2	30	90	-0.036 -0.071	M95x2	5	A+52.5+15
3H-212	A11	TK-A1511	30	23	15	45	32	M120x2	35	115	-0.036 -0.071	M115x2	5	A+70+15
3H-215	A8	TK-2114	35	33	20	45	44	M155x2	45	145	-0.043 -0.083	M155x3	5	A+87+20
3H-215	A11	TK-2114	35	33	20	45	51	M155x2	45	145	-0.043 -0.083	M155x3	5	A+94+20
3H-215	A15	TK-2114	35	33	20	45	38	M155x2	45	145	-0.043 -0.083	M155x3	5	A+81+20
3H-18B	A15	TK-2416	35	35	20	45	45	M180x3	45	170	-0.043 -0.083	M175x3	5	A+90+20
3H-21B	A15	TK-2820	51	33	20	45	38	M220x3	45	210	-0.050 -0.096	M190x3	5	A+65+20
3H-24B	A15	TK-2820	51	35	20	45	58	M220x3	45	210	-0.050 -0.096	M215x3	5	A+87+20
3H-24B	A20	TK-2820	51	35	20	45	45	M220x3	45	210	-0.050 -0.096	M215x3	5	A+74+20

Note: To calculate the draw-tube length of 2H,4H as 3H.



Subject to technical changes

### SPECIFICATIONS

Chuck type	Cylinder type	B	C	D	G1	G2	K1	K2	L
					max.	min.			
3P-04	RK-75(N)/RA-130	30	30/20	30/25	45	3	M20x2.5/M16x2	M10x1.5	A-22/A-32
3P-05	RK-75(N)/RA-130	40	30/20	30/25	45	-6	M20x2.5/M16x2	M12x1.75	A-13/A-23
3P-06	RK-100(N)/RA-170	40	30/25	30/25	45	81.5	M20x2.5/M16x2	M16x2	A-101/A-106
3P-08	RK-125(N)/RA-220	40	40/30	35/30	50	106	M24x3/M20x2.5	M20x2.5	A-120/A-130
3P-10	RK-125(N)/RA-220	40	40/30	35/30	50	133	M24x3/M20x2.5	M20x2.5	A-147/A-157
3P-12	RK-150(N)/RA-270	40	40/35	45/35	55	133	M30x3.5/M24x3	M20x2.5	A-152/A-157
3P-215	RK-200(N)/RH-200	60	55	55	70	69	M36x4	M30x3.5	A-88
3P-218	RK-200(N)/RH-200	60	55	55	70	57	M36x4	M30x3.5	A-76
3P-221	RK-200(N)/RH-200	60	55	55	70	62	M36x4	M30x3.5	A-81
3P-224	RK-200(N)/RH-200	60	55	55	70	62	M36x4	M30x3.5	A-81

Note: To calculate the draw-bar length of 2P as 3P.

Chuck type	Cylinder type	B	C	D	G1	G2	K1	K2	L
					max.	min.			
3M-05	RK-75(N)	40	30	30	45	-2	M20x2.5	M12x1.75	A-17
3M-06	RK-100(N)	40	30	30	45	81.5	M20x2.5	M16x2	A-101
3M-08	RK-125(N)	40	40	35	50	106	M24x3.0	M20x2.5	A-120
3M-10	RK-150(N)	40	40	35	50	135	M24x3.0	M20x2.5	A-148
3M-12	RK-150(N)	50	40	45	55	40	M30x3.5	M24x3	A-59

Note: To calculate the draw-bar length of 2M as 3M.









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