



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.

LOCATION OF AUTOGRIP

AUTOGRIP Machinery's main factory is located in Puxin, Changhua, Taiwan, covering an area of 13,223 square meters. It is equipped with advanced production equipment and serves as the company's R&D center, focusing on the production of small-volume, customized parts and new product development. We adhere to world-class standards to meet customer needs and ensure high customer satisfaction.

The second factory, located in Yunlin Technology Industrial Park, is an automated production line specializing in standard products. It mainly produces 6", 8", and 10" hollow power chucks and rotary hydraulic cylinders. With a focus on mass production, it meets the market demand for quick delivery.

AUTOGRIP'S BUSINESS PHILOSOPHY

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



AUTOGRIP Changhua Headquarters

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.



Yunlin CAPEL MACHINERY Factory

AUTOGRIP MECHANICAL TESTING LAB.



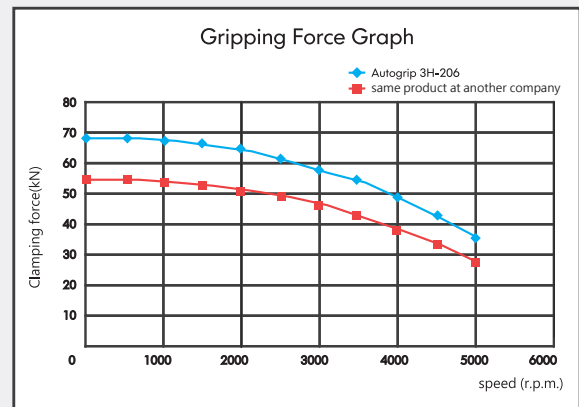
AUTOGRIP's mechanical testing laboratory is dedicated to the continuous development of reliable testing equipment and techniques to ensure exceptional product quality. Before any new product is introduced to the market, it undergoes a comprehensive series of tests to verify that its performance and precision meet design specifications. During production, products are also subjected to regular quality checks to maintain consistency and high standards.

The laboratory plays a crucial role in safeguarding quality for customers, delivering products that inspire confidence and provide a satisfying user experience.



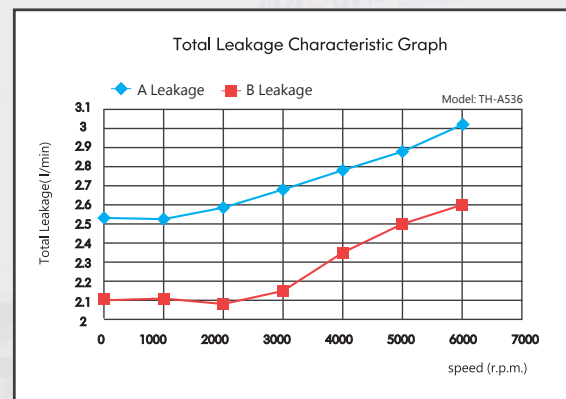
DYNAMIC GRIPPING FORCE TEST

- Under specified test conditions, the curve of gripping force versus spindle speed is measured using a force sensor.

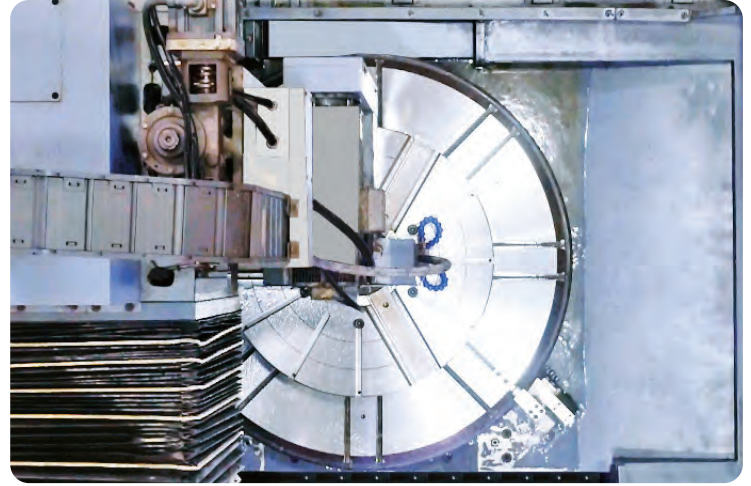


DYNAMIC OIL LEAKING TEST

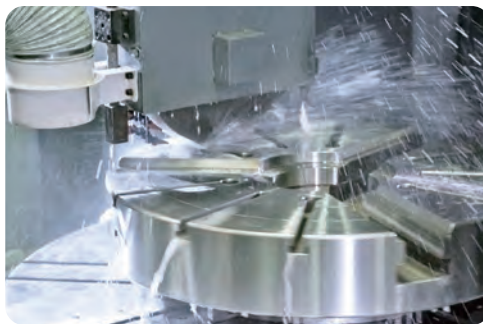
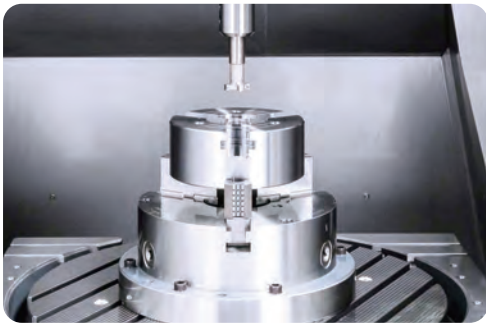
- The oil leaking of cylinder is measured at different rotary speed to ensure it is within engineering specification.

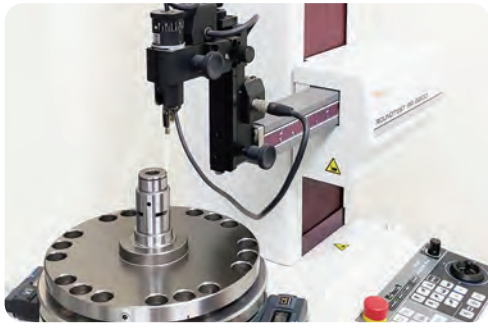


*AUTOGrip Mechanical Testing Lab. is the only one holding ISO/IEC 17025 accreditation – M 999 Gripping Force Test . Include:Dynamic Gripping Force Test and Pneumatic chuck Test.



YOUR TRUSTED PARTNER ON **WORKHOLDING**





Why Choose AUTOGRIP?

1. CUSTOM DESIGN SERVICES

We provide tailor-made workholding solutions to meet your specific needs:

- Automatic clamping systems.
- Workpiece seating confirmation.
- Customized air/hydraulic cylinders.
- Rotary valves & joints.
- Special soft & hard jaws.

2. EXTENSIVE RANGE OF CHUCKS & CYLINDERS

Chucks

1-jaw to 6-jaw (3"–79"), including:

- Extra-long stroke
- Pull-back
- Stationary
- Collet chucks

Cylinders

- Through-hole / Non-through hole
- Stroke control
- Coolant / Air connection
- Air cylinders
- Double rod / Compact type

3. FAST DELIVERY & RELIABLE SERVICE.

Since day one, customer satisfaction has been our top priority.

We ensure high-quality products, on-time delivery, and responsive service — every time.



GFS-100

GRIPPING FORCE SENSOR

FEATURES

- Stable Bluetooth 5.0 Transmission.
- Convenient Type-C Charging.
- High-Performance Lithium Battery.
- Supports Android and iOS.
- Configurable for 2-Jaw or 3-Jaw Operation.



GFS-100 SPECIFICATIONS AND DIMENSIONS, PLEASE REFER TO ACCESSORIES PAGES.

POWER CENTERING VISE



VR

POWER CENTERING VISE

FEATURES

- Slim and short profile for improved workspace utilization.
- Built-in hydraulic cylinder operable by either pneumatic or hydraulic pressure.
- Input ports available on both the side and bottom for flexible connection options.
- Suitable for milling machines and machining centers.





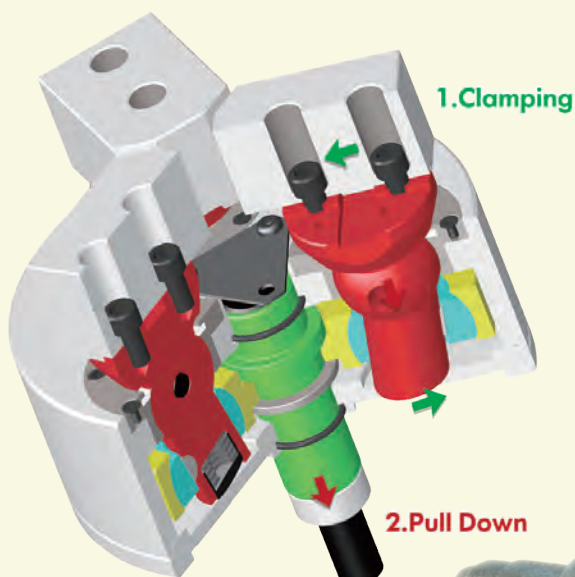
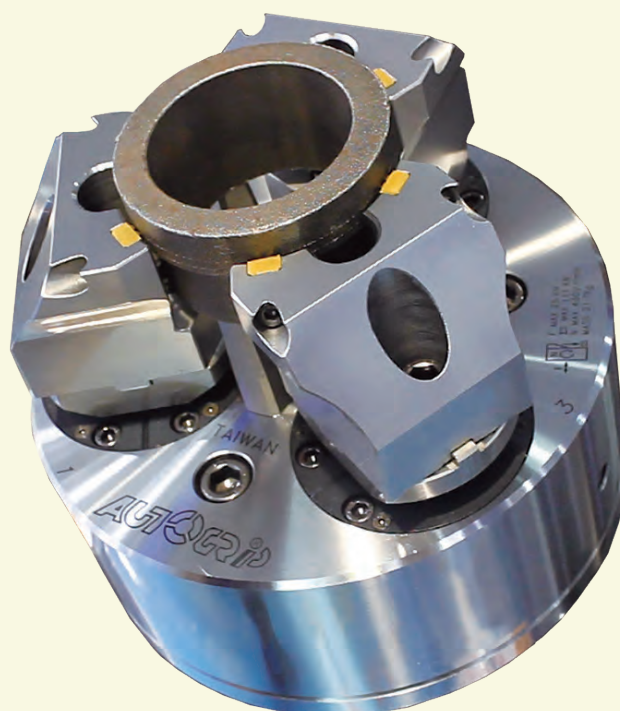
TAIWAN
EXCELLENCE 2020

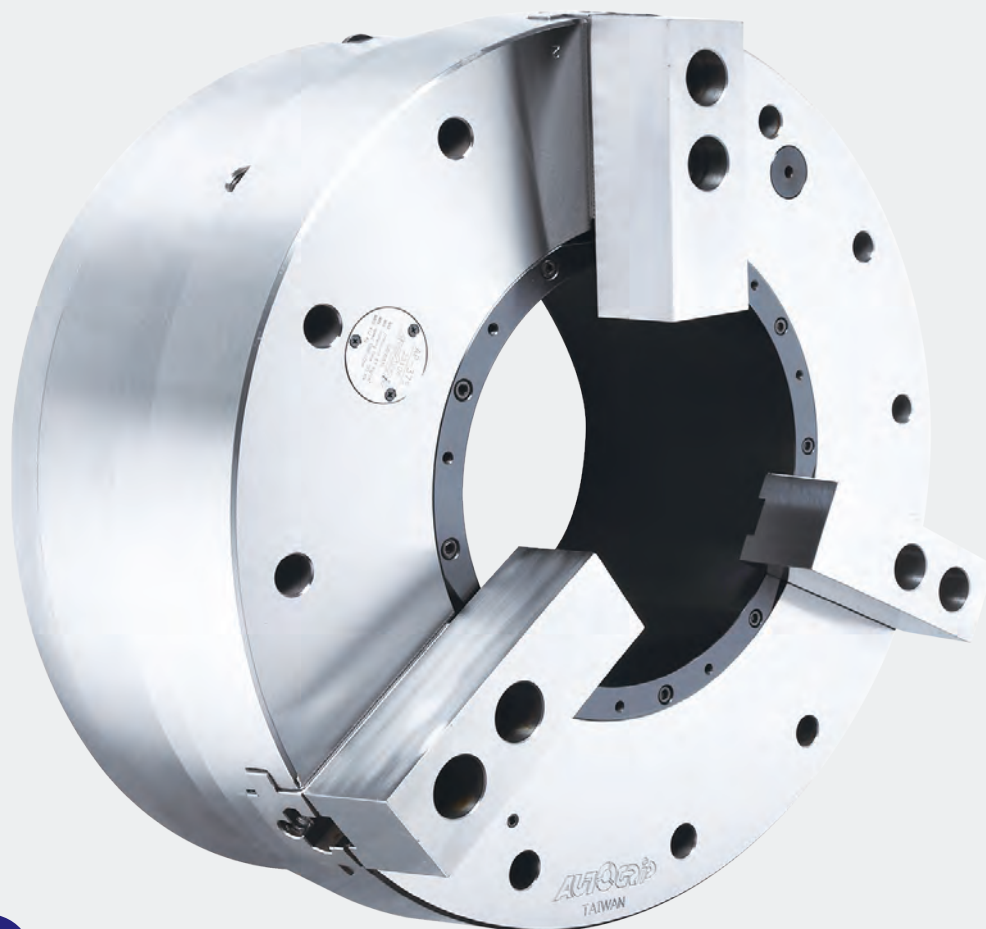
3W

SWING TYPE THREE-JAW POWER CHUCK

FEATURES

- Grip the work piece in radial direction and then pull down.
- Gripping on forging or casting part with taper up to 20°
- Jaw equalizing: 5°Max.
- Anti-dust and Seal proof for cutting fluid, easy to maintain.





AP

3-JAW THRU-HOLE

FEATURES

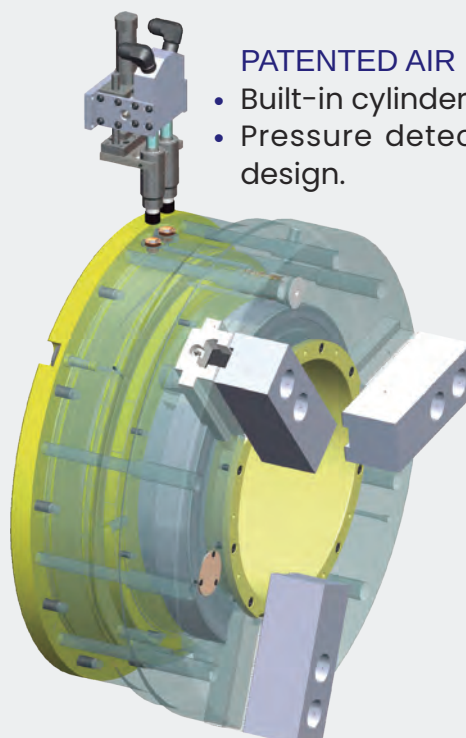
- Large thru-hole : Ø52mm~Ø375mm.
- No distributor ring needed.
- Easy to install.
- Less maintenance.

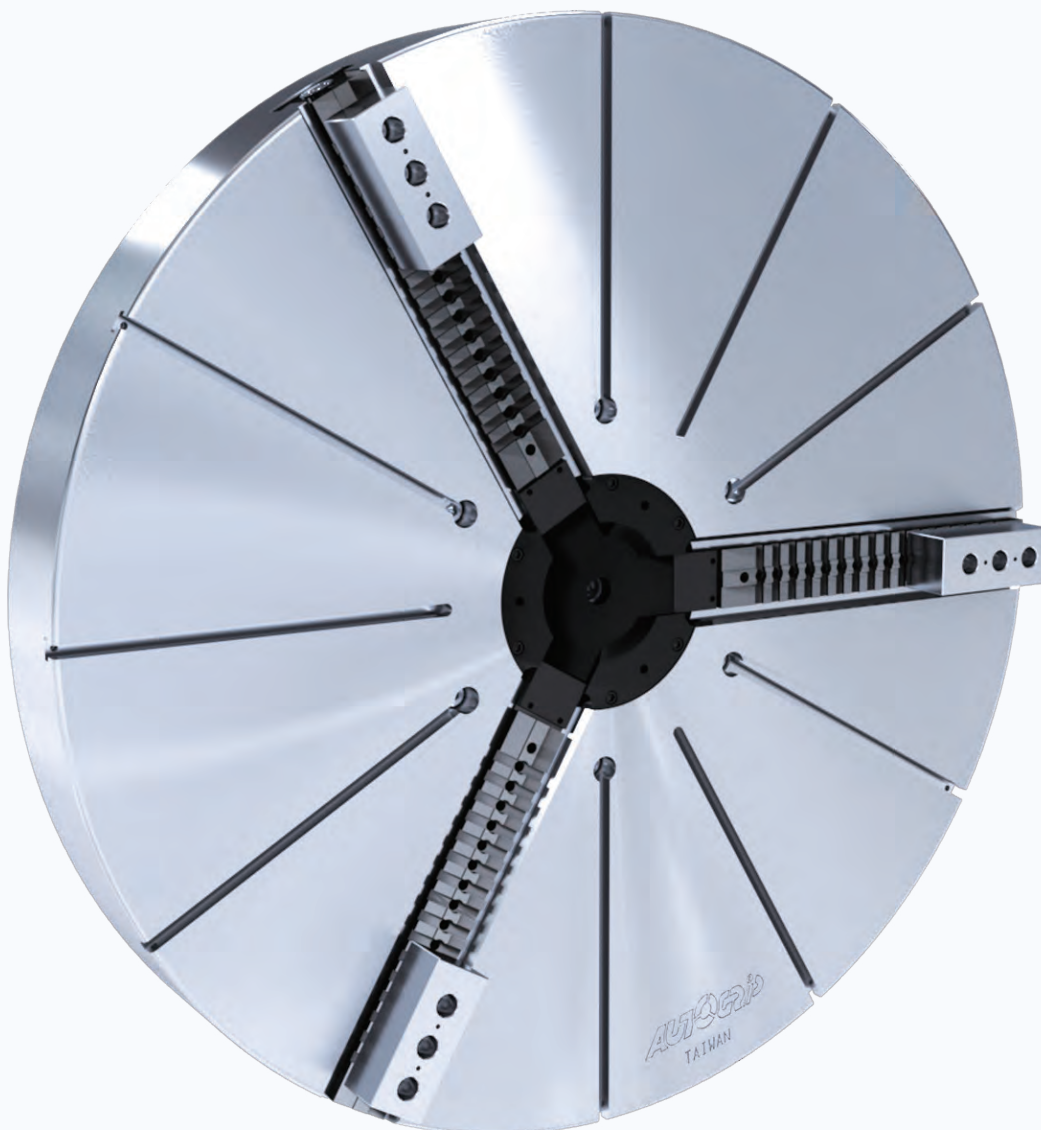
PRODUCT PATENTED

US8770222 B2(U.S.A.)
M440159 / M415011 (Taiwan)
20.2011.101.818.4/20.2012.102.498.5(Germany)
3169457 / 3178706(Japan)
EP 2517822 B1(EU)
ZL 2011 2 0141324.9/ZL 2012 2 0274549.6(China)
0000278076(Italy)

PATENTED AIR FEED SYSTEM

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





3V series

The maximum diameter is

2000mm (79")

FEATURES

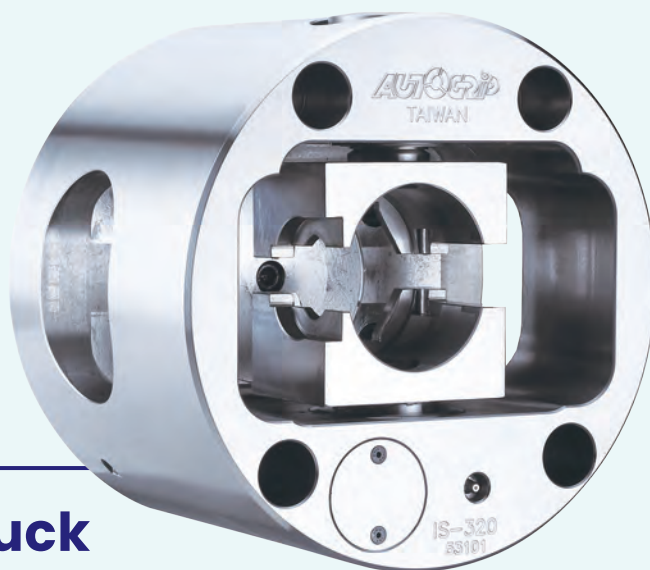
- It's a WEDGE-HOOK type 3-jaw high speed power chuck.
- With manual radial setting of master jaws for the workpieces centering.
- Sealed against swarf, chips and coolant, suitable for vertical lathe.



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

IS

Power Indexing Chuck

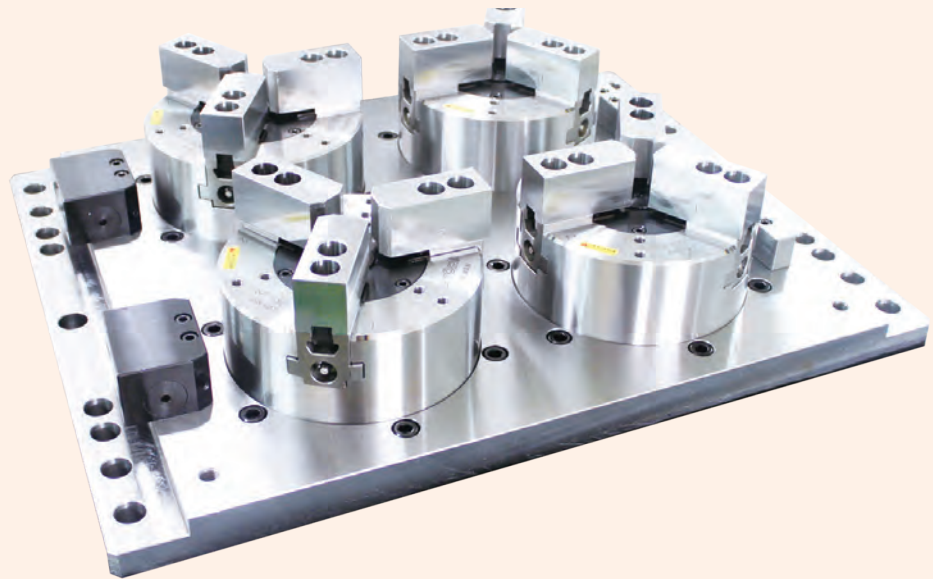


FEATURES

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



STATIONARY CHUCK BASE PLATE



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 SM/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 (optional).
- Air tight detection function(optional).



STATIONARY CHUCK SERIES



SM-LONG JAW STROKE STATIONARY CHUCK

- Long jaw stroke.



SP-STATIONARY CHUCK

- Wedge-hook type.



SD-STATIONARY PULL DOWN CHUCK

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



SU-STATIONARY PULL LOCK CHUCK

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



SE-STATIONARY EXPANSIBLE PULL LOCK CHUCK

- Pull lock / Inner dia. clamping / Air tight detection.

Recommended for you

Rubber Grip Collet

Lathe



CBD



RG

High gripping force / High accuracy / Quick jaw change

Quick change and easy. Dust-proof and swarf-proof design. Grip Range: $\pm 0.5\text{mm}$

Milling machine

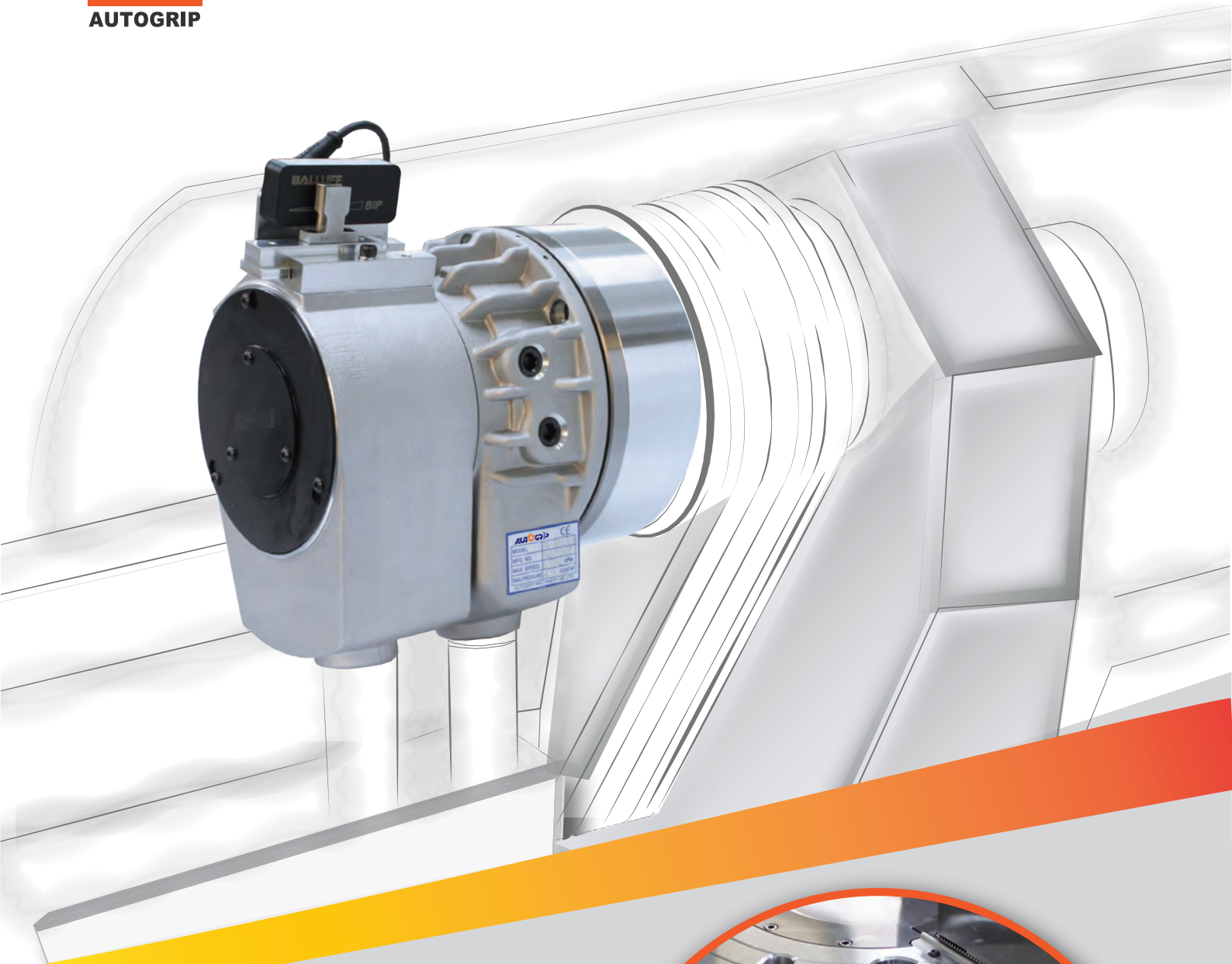


SCB



RG

ROTARY CYLINDER & LINEAR POSITION SENSOR

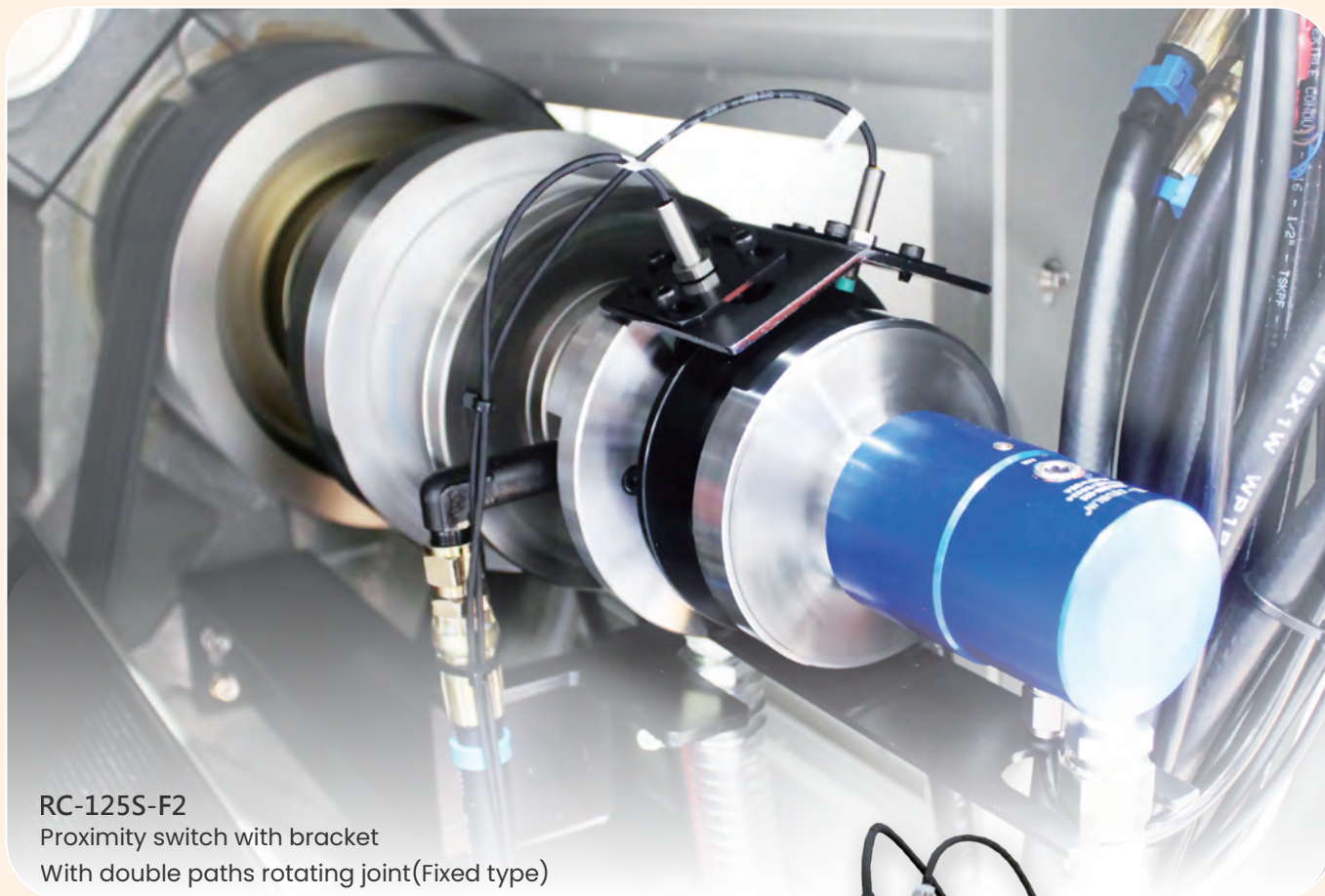


FEATURES

- Entire stroke range position monitoring.
- Position setup by teach-in function.
- Manual adjustment for proximity switch is unnecessary when changing workpiece.
- Suitable for sub-spindle or vertical lathes with limited space.
- Reduce idle time, increase throughput.



HYDRAULIC CYLINDER WITH ROTATING JOINT



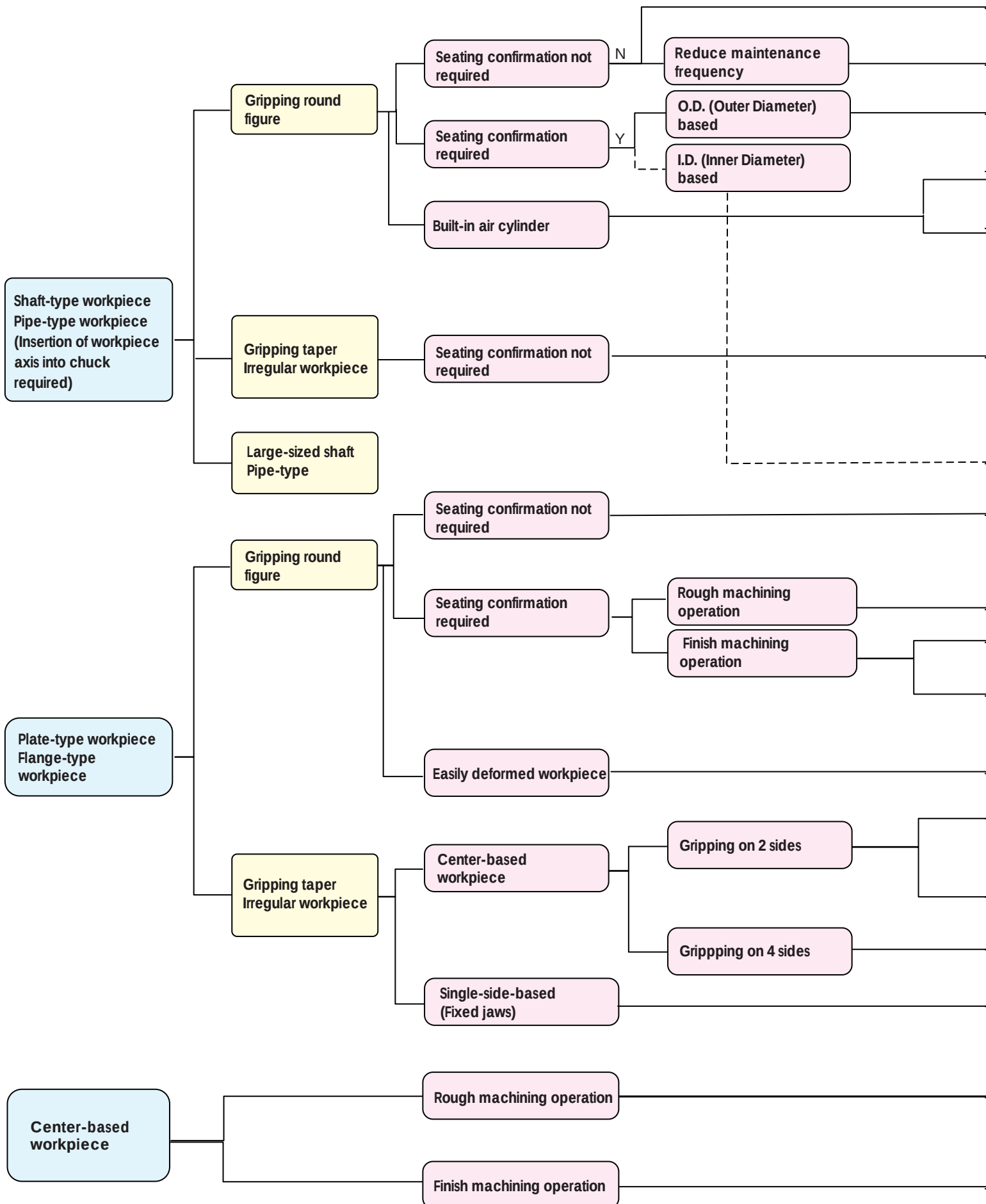
RC series

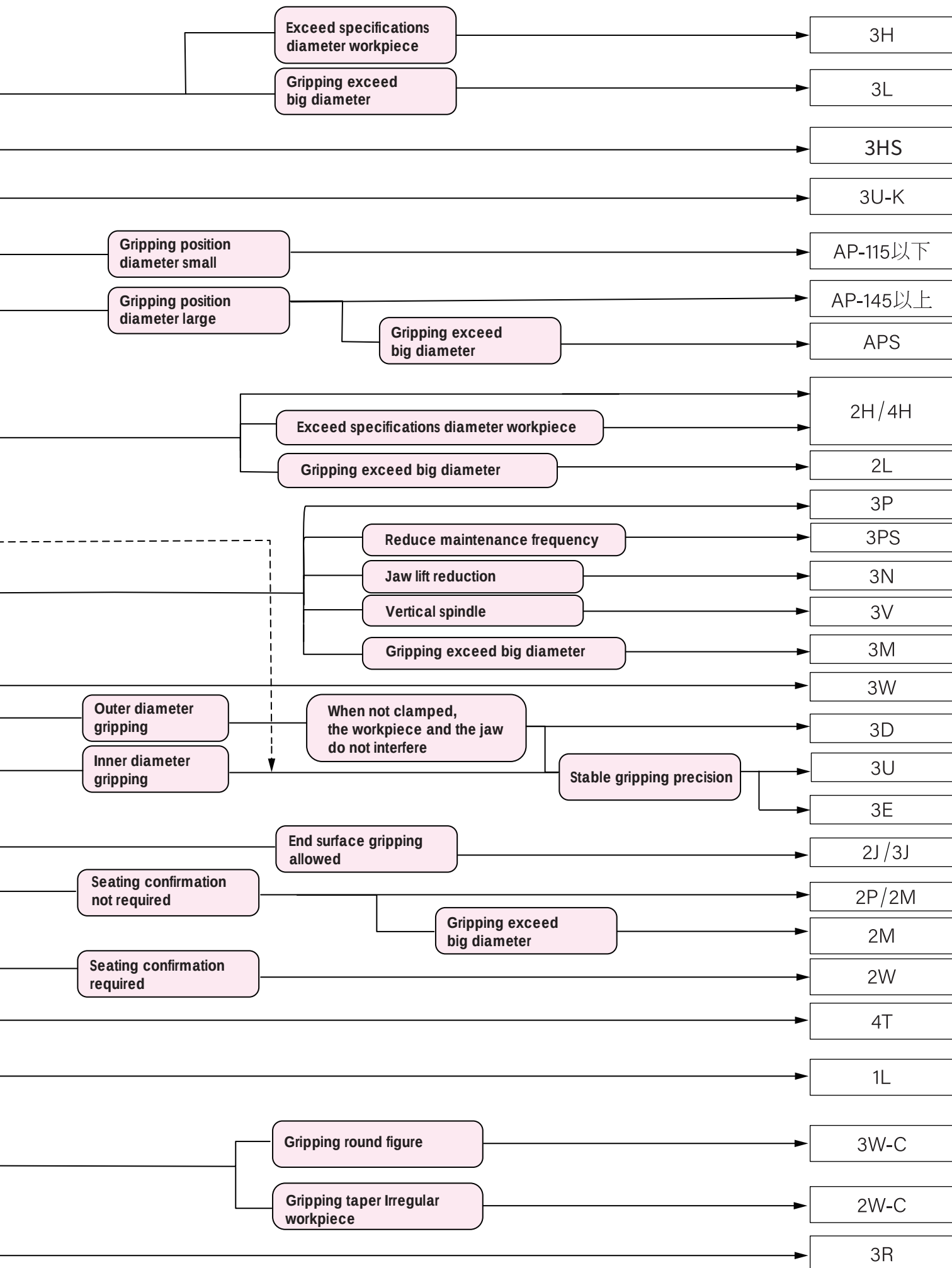


HYDRAULIC CYLINDER WITH ROTATING JOINT

FEATURES

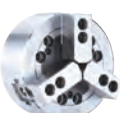
- Medium and solid hydraulic cylinder with channel.
- Can choose an external rotary joint with either single or double paths.
- It meets the demand for coolant through spindle and airtight pressure detect function.
- Has a built-in check valve for safety.
- The proximity switch and single or double paths rotating joint are optional.
- Stroke control via proximity switch or linear positioning system.





*The contents in this chart are subject to change without notice for further improvement, etc.

Power Chucks

 3H-2/3H-2A LARGE THRU-HOLE POWER CHUCK THRU-HOLE 3-JAW 1	 3H/3H-A THRU-HOLE POWER CHUCK THRU-HOLE 3-JAW 3	 2H/2H-A THRU-HOLE POWER CHUCK THRU-HOLE 2-JAW 4
 4H/4H-A THRU-HOLE POWER CHUCK THRU-HOLE 4-JAW 5	 3P/3P-A POWER CHUCK NON-THRU-HOLE 3-JAW 6	 2P/2P-A POWER CHUCK NON-THRU-HOLE 2-JAW 9
 3L/3L-A EXTRA LONG JAW STROKE POWER CHUCK THRU-HOLE / 3-JAW 10	 2L/2L-A EXTRA LONG JAW STROKE POWER CHUCK THRU-HOLE 2-JAW 11	 1L EXTRA LONG JAW STROKE POWER CHUCK NON-THRU-HOLE / 1-JAW 13
 3M LONG JAW STROKE POWER CHUCK NON-THRU-HOLE 3-JAW 14	 2M LONG JAW STROKE POWER CHUCK NON-THRU-HOLE 2-JAW 16	 3V-A POWER CHUCK FOR VERTICAL LATHE NON-THRU-HOLE 3-JAW 17
 4V-A POWER CHUCK FOR VERTICAL LATHE NON-THRU-HOLE 4-JAW 19	 3HS THRU-HOLE FULLY SEALED TYPE POWER CHUCK FULLY SEALED TYPE 3-JAW 21	 3PS FULLY SEALED TYPE POWER CHUCK FULLY SEALED TYPE 3-JAW 22

Special Purpose Power Chucks

 3N INCLINED MASTER JAWS POWER CHUCK NON-THRU-HOLE / 3-JAW 23	 3D PULL DOWN POWER CHUCK NON-THRU-HOLE / 3-JAW 24	 2D PULL DOWN POWER CHUCK NON-THRU-HOLE / 2-JAW 25
 3E EXPANSIBLE PULL LOCK POWER CHUCK NON-THRU-HOLE / 3-JAW 26	 3U PULL LOCK POWER CHUCK THRU-HOLE / 3-JAW 27	 3U-K PULL LOCK POWER CHUCK NON-THRU-HOLE / 3-JAW 28
 3W/3W-C SWING TYPE 3-JAW POWER CHUCK SWING TYPE / 3-JAW 29	 3RF RETRACTABLE-JAW 3-JAW SHAFT CHUCK COMPENSATING TYPE 3-JAW 31	 3R SWING COMPENSATING TYPE 3-JAW POWER CHUCK COMPENSATING TYPE 3-JAW 33
 4T FOUR-JAW TWO MOTION TYPE POWER CHUCK NON-THRU-HOLE / 4-JAW 34	 3J FINGER POWER CHUCK NON-THRU-HOLE / 3-JAW 35	 2J FINGER POWER CHUCK NON-THRU-HOLE / 2-JAW 36
 IS POWER INDEXING CHUCK 37	 AP LARGE THRU-HOLE AIR CHUCK THRU-HOLE / 3-JAW 39	 APS LARGE THRU-HOLE AIR CHUCK (DOUBLE SPEED JAW STROKE) THRU-HOLE / 3-JAW 41

Collet Chucks



CL
COLLET CHUCK
THRU-HOLE

42



CL-A
COLLET CHUCK
THRU-HOLE

43



DIN6343
STEEL COLLET
STEEL COLLET

44



CB/CB-A
DRAW BACK COLLET
CHUCK
THRU-HOLE

45



CBE/CBE-A
END STOP COLLET
CHUCK
THRU-HOLE

46



CBD/CBD-A
DEAD LENGTH COLLET
CHUCK
THRU-HOLE

47



SCB
STATIONARY DRAW
COLLET CHUCK
THRU-HOLE

48



RG
RUBBER GRIP COLLET

49

Stationary Chucks



VH
STATIONARY CHUCK
WITH THRU-HOLE
THRU-HOLE STATIONARY
2/3-JAW

50



VP
STATIONARY CHUCK
NON-THRU-HOLE STATIONARY
2/3-JAW

51



SM
LONG JAW STROKE
STATIONARY CHUCK
NON-THRU-HOLE
2/3-JAW

52



SP
STATIONARY CHUCK
NON-THRU-HOLE STATIONARY
THRU-HOLE STATIONARY
2/3-JAW

53



SD
STATIONARY PULL
DOWN CHUCK
NON-THRU-HOLE
3-JAW

55



SU
STATIONARY PULL
LOCK CHUCK
NON-THRU-HOLE
3-JAW

56



SE
STATIONARY
EXPANSIBLE
PULL LOCK CHUCK
NON-THRU-HOLE
3-JAW

57



MP4
STATIONARY CHUCK
BASE PLATE

58



VH-201
HAND OPERATED
AIR VALVE
ACCESSORIES

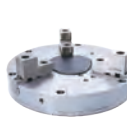
58

Pneumatic Rotary Chuck



RAP
PNEUMATIC ROTARY
CHUCK
PNEUMATIC ROTARY TYPE

59



3MF
SELF-CENTERING
3-JAW
MANUAL CHUCK
NON-THRU-HOLE / 3-JAW

60



VR
POWER CENTERING VISE
WEDGE TYPE

61

Manual Chuck

Power Centering Vise

Facing Heads



FA
SINGLE-SLIDE FACING
HEAD
SINGLE SLIDE

62



FD
DOUBLE-SLIDE FACING
HEAD
DOUBLE SLIDE

64

Synchronous Clamp



65



66

Rotary Cylinders



67



71



72



73



74



75



76



77



78



79



80



81



82



83



85



87



89



91



92

Rotary Valves



93



93

Rotary Joints



94



94

Self-Centering Steady Rest



SR
SELF-CENTERING
STEADY REST
BASIC TYPE

95



SRR
SELF-CENTERING
STEADY REST
ADVANCED TYPE

97



SRB
SELF-CENTERING
STEADY REST
SIDE-MOUNTED TYPE

98

Parts and Accessories



GFS-100
GRIPPING FORCE
SENSOR

99



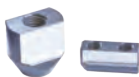
SJ
STANDARD SOFT
BLANK JAW
STANDARD SOFT JAW

100



HJ
STANDARD
HARDENED JAW
STANDARD HARDENED JAW

104



T-NUT
T-NUT
T-NUT

106



FL
CHUCK ADAPTORS
ADAPTOR

107



CT/CT-S
COOLANT COLLECTOR
WITH STROKE
CONTROL
COOLANT COLLECTOR

108



CT-SB/CT-SBS
COOLANT COLLECTOR
WITH STROKE CONTROL
COOLANT COLLECTOR

109



FV
STATIONARY
CYLINDER LOCK VALVE
FOR AIR STATIONARY CHUCK
ACCESSORIES

110

DRAW TUBE
THE CALCULATION OF DRAW TUBE
LENGTH
DRAW TUBE

111

DRAW BAR
THE CALCULATION OF DRAW BAR
LENGTH
DRAW BAR

112

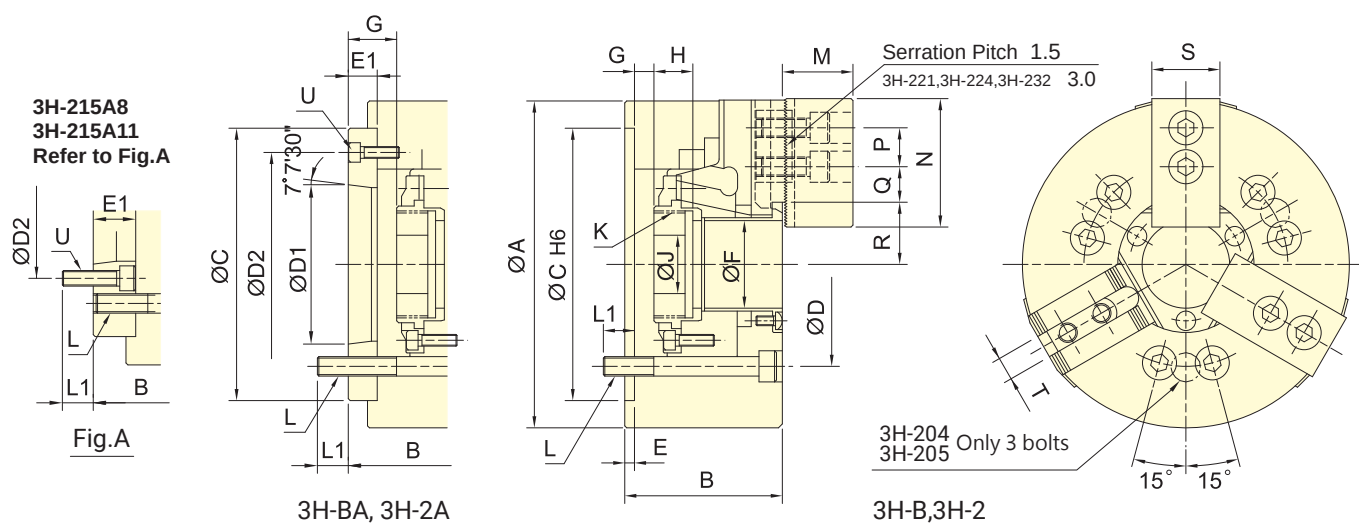
FOLLOW AUTOGRIP AND STAY UPDATED WITH THE LATEST NEWS!



*You can download the outline drawing (in pdf or dwg format) and 3D step at AUTOGRIP WEB.



- WEDGE-HOOK type 3-jaw with the extra large through-hole.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- High rigidity and high clamping accuracy.
- J is the hole diameter of blank draw nut.
If not notified, AUTOGRIP will adopt the K Default as K value.
K is the maximum thread specification and it could be customize.



Subject to technical changes

SPECIFICATIONS

Model		Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight		Matching cyl.	Max. pressure
		mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg • m ²	kg	MPa (kgf/cm ²)		
3H-204	A4	13	5.5	113	7	13.7(1400)	36.0(3670)	8000	0.012	4.22	5.34	TK-A528	2.0(20)
3H-205	A4	13	5.5	138	10	17.2(1750)	48(4890)	7000	0.02	6.3	7.1	TK-A533	2.5(25)
3H-206	A5	14	6	170	13	23.3(2375)	66.8(6810)	6000	0.06	13.1	14.9	TK-A646	2.5(25)
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)
3H-210	A8	21	8.9	260	37	49.1(5010)	152(15500)	4500	0.32	37.5	43	TK-A1075	3.2(32)
3H-212	A11	25	10.6	315	43	58.8(6000)	157(16010)	3700	0.74	58.6	64.7	TK-A1512	1.9(19)
3H-215	A8	25	10.6	405	49	71(7240)	180(18350)	2500	2.8	127	149	TK-2114	2.1(21)
3H-215	A11	25	10.6	405	49	71(7240)	180(18350)	2500	2.8	127	143.3	TK-2114	2.1(21)
3H-215	A15	25	10.6	405	49	71(7240)	180(18350)	2500	2.8	127	135.6	TK-2114	2.1(21)
3H-18B	A15	23	10.6	456	79	71(7240)	180(18350)	2000	4.8	162.4	173.4	TK-2416	1.9(19)
3H-221	A15	28	12.9	530	105	90(9175)	234(23860)	1800	7.5	223	234	TK-2416	2.4(24)
3H-224	A20	28	12.9	610	135	100(10200)	240(24500)	1500	15.8	270	284	TK-2820	2.1(21)
3H-232	A20	34	18	800	205	100(10200)	240(24500)	1200	47	546	560	TK-2820	2.1(21)

The dimensions and the specifications of 3H-2A, 3H-BA type are in red data.

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-210	A8	260	102	115	220	171.4	139.72	190	5	18	86	10.5	28.5	-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-221	A15	530	140	161	380	330.2	285.78	330.2	6	27	180	15	42	-13	14	40	80
3H-224	A20	610	145	166	520	463.6	412.78	463.6	6	27	210	15	42	-13	14	41	80
3H-232	A20	800	150	170	520	463.6	412.78	463.6	6	27	275	24	51	-10	17	42	100

Model		K max.		K Default		L	L1		M	N	P	Q max.	Q min.	R max.	R min.	S	T	U
3H-204	A4	M38x1.5		M32x1.5		3~M10	16.0	15	24	52	14	12.75	6.75	25	22.25	23	10	3~M10
3H-205	A4	M45x1.5		M40x1.5		3~M10	14.5	14.5	31	62	14	20.25	6.75	29.5	26.8	25	10	3~M6
3H-206	A5	M60x2		M55x2		6~M10	16.0	16	37	73	20	21.25	9.25	36	33	31	12	3~M6
3H-208	A6	M75x2		M60x2		6~M12	17.0	15	38	95	25	23.7	10.2	45.7	41.9	35	14	3~M6
3H-210	A8	M95x2		M85x2		6~M16	20.0	22	43	110	30	32.2	12.7	56.5	52.05	40	16	3~M8
3H-212	A11	M115x2		M115x2		6~M20	30.0	28	51	130	30	44.75	14.75	67.8	62.5	50	21	3~M10
3H-215	A8	M155x3	M115x2	M155x3	M100x2	6~M24	36.0	24	63	165	43	49.75	19.75	90	84.7	62	25.5	6~M16
3H-215	A11	M155x3		M155x3		6~M24	36.0	31	63	165	43	49.75	19.75	90	84.7	62	25.5	6~M20
3H-215	A15	M155x3		M155x3		6~M24	36.0	34	63	165	43	49.75	19.75	90	84.7	62	25.5	3~M12
3H-18B	A15	M175x3		M175x3		6~M24	38.0	36	63	165	43	64	20.5	102	96.7	62	25.5	3~M12
3H-221	A15	M190x3		M190x3		6~M24	33.0	36	73	180	60	69.5	24.5	113.5	107.1	65	25	3~M12
3H-224	A20	M225x3		M225x3		6~M24	35.0	33	73	180	60	93.5	24.5	128	121.5	65	25	3~M12
3H-232	A20	M295x3		M295x3		6~M24	36.0	34	73	180	60	150.5	24.5	166	157	65	25	3~M12

The dimensions and the specifications of 3H-2A,3H-BA type are in red data.



The 3H-2 series are power chucks with extra large thru-hole design.

The rotary cylinders are recommended based on power chucks that from 4"~10" are common used in the industry.

If you find that you need different bore size or installation interface, please just contact us. We have many standard and customized rotary cylinders for option and meet your needs.

Please contact AUTOGRIP for more detailed information. Thanks.



- WEDGE-HOOK type 3-jaw with the large through-hole.
 - Matching surfaces of all parts hardened, ground and lubricated directly.
 - High rigidity and high clamping accuracy.
- J is the hole diameter of blank draw nut.
If not notified, AUTOGRIP will adopt the K Default as K value.
K is the maximum thread specification and it could be customize.

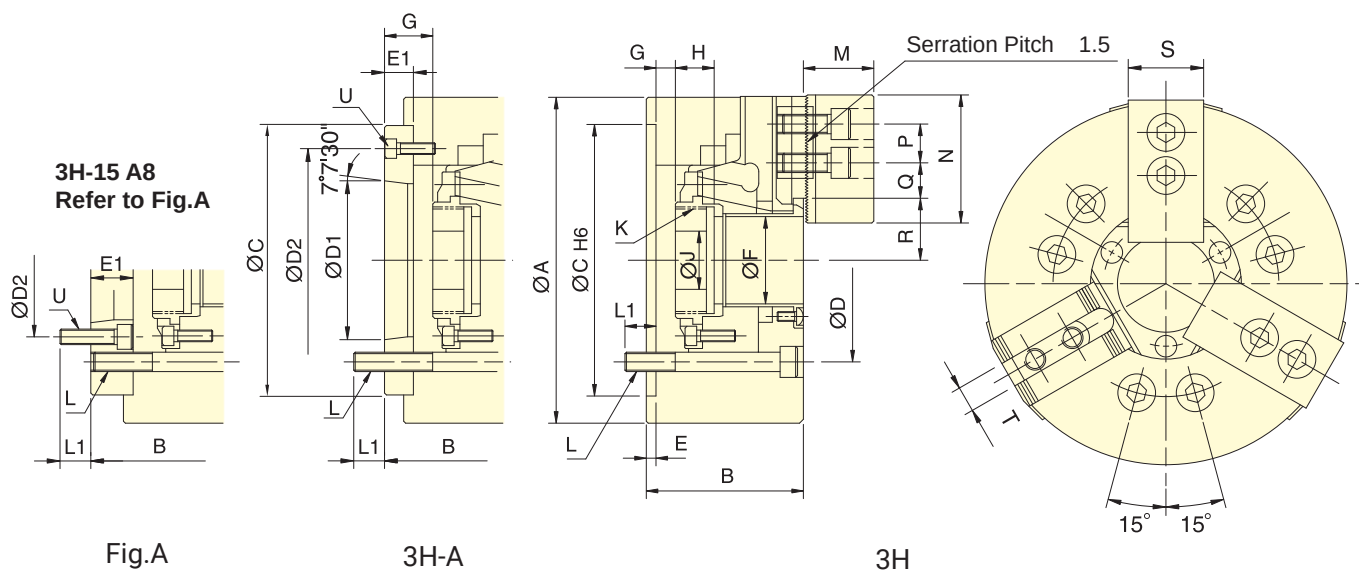


Fig.A

3H-A

3H

Subject to technical changes

SPECIFICATIONS

Model		Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight		Matching cyl.	Max. pressure
		mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg • m ²	kg	MPa (kgf/cm ²)		
3H-12	A8	25	10.6	304	34	54.9 (5600)	143.7(14650)	3300	0.77	56.6	59.3	TK-A1291	2.5(25)
3H-15	A8	25	10.6	381	50	71 (7250)	179.8(18350)	2500	2.28	120	134	TK-A1512	2.3(23)
3H-15	A11	25	10.6	381	50	71 (7250)	179.8(18350)	2500	2.28	120	127	TK-A1512	2.3(23)
3H-18	A11	25	10.6	450	50	71(7250)	180.3(18400)	2000	4.46	160	174	TK-A1512	2.3(23)

DIMENSIONS

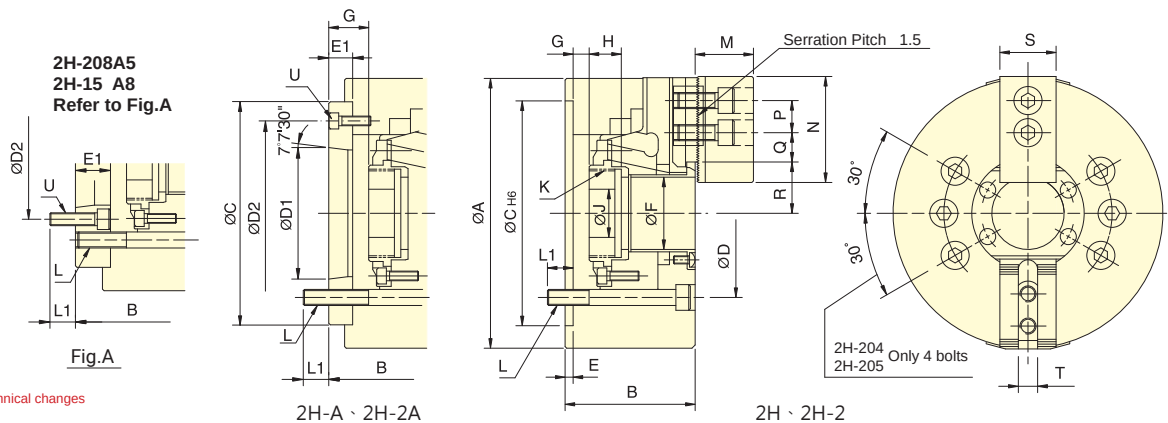
Model		A	B		C	D	D1	D2	E	E1	F	G max.		G min.		H	J
3H-12	A8	304	110	122	220	171.4	139.72	190	6	18	91	10	28	-15	3	28	50
3H-15	A8	381	132	159	300	235	139.72	171.4	6	33	120	11	44	-14	19	39	60
3H-15	A11	381	132	148	300	235	196.87	260	6	22	120	11	33	-14	8	39	60
3H-18	A11	450	132	148	300	235	196.87	260	6	22	120	11	33	-14	8	39	60

Model		K max.		K Default		L	L1		M	N	P	Q max.	Q min.	R max.	R min.	S	T	U
3H-12	A8	M100x2		M100x2		6~M16	23	25	51.3	130	30	44.75	14.75	61.3	56	50	21	3~M8
3H-15	A8	M130x2	M115x2	M130x2	M100x2	6~M20	30	24	63	165	43	49.75	19.75	77.5	72.2	62	25.5 or 22	6~M16
3H-15	A11	M130x2		M130x2		6~M20	30	28	63	165	43	49.75	19.75	77.5	72.2	62	25.5 or 22	3~M10
3H-18	A11	M130x2		M130x2		6~M20	31	29	63	165	43	82.75	21.25	77.5	72.2	62	25.5 or 22	3~M10

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



- WEDGE-HOOK type 2-jaw with the large through-hole.
 - Matching surfaces of all parts hardened, ground and lubricated directly.
 - High rigidity and high clamping accuracy.
- J is the hole diameter of blank draw nut.
If not notified, AUTOGRIP will adopt the K Default as K value.
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.	Chucking Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight		Matching cyl.	Max. pressure
		mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg	MPa (kgf/cm ²)		
2H-204	A4	13	5.5	113	7	9.2 (940)	19.4 (1980)	8000	0.012	4.2	4.8	TK-A528	1.3 (13)
2H-205	A4	13	5.5	138	10	11.4 (1167)	32 (3260)	7000	0.02	6.8	7.6	TK-A533	1.6 (16)
2H-206	A5	14	6	170	13	15.5 (1580)	44.4 (4530)	6000	0.06	13.1	14.9	TK-A646	1.6 (16)
2H-208	A5	18	7.6	210	17	23.1 (2360)	57.3 (5840)	5000	0.17	21.3	24.2	TK-A853	1.8 (18)
2H-208	A6	18	7.6	210	17	23.1 (2360)	57.3 (5840)	5000	0.17	21.3	22.4	TK-A853	1.8 (18)
2H-210	A8	21	8.9	260	37	32.9 (3355)	101.9 (10385)	4500	0.31	33.5	36.2	TK-A1075	2.2 (22)
2H-12	A8	25	10.6	304	34	36.7 (3740)	95.8 (9780)	3300	0.70	59.7	62.7	TK-A1291	1.7 (17)
2H-15	A8	25	10.6	381	50	46.9 (4790)	119.6 (12200)	2500	2.42	115	129	TK-A1512	1.5 (15)
2H-15	A11	25	10.6	381	50	46.9 (4790)	119.6 (12200)	2500	2.34	115	122	TK-A1512	1.5 (15)

DIMENSIONS

Model		A	B		C	D	D1	D2	E	E1	F	G max.		G min.		H	J
2H-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
2H-205	A4	138	60	71	110	82.6	63.51	96	4	15	39	1	16	-12	3	20	12
2H-206	A5	170	81	91	140	104.8	82.56	116	5	15	53	13	28	-1	14	17.5	20
2H-208	A5	210	91	109	170	133.4	82.56	104.8	5	23	66	16.5	39.5	-1.5	21.5	20	30
2H-208	A6	210	91	103	170	133.4	106.38	150	5	17	66	16.5	33.5	-1.5	15.5	20	30
2H-210	A8	260	102	115	220	171.4	139.72	190	5	18	86	10.5	28.5	-10.5	7.5	25	45
2H-12	A8	304	110	122	220	171.4	139.72	190	6	18	91	10	28	-15	3	28	50
2H-15	A8	381	133	160	300	235	139.72	171.4	6	33	120	11	44	-14	19	39	60
2H-15	A11	381	133	149	300	235	196.87	260	6	22	120	11	33	-14	8	39	60

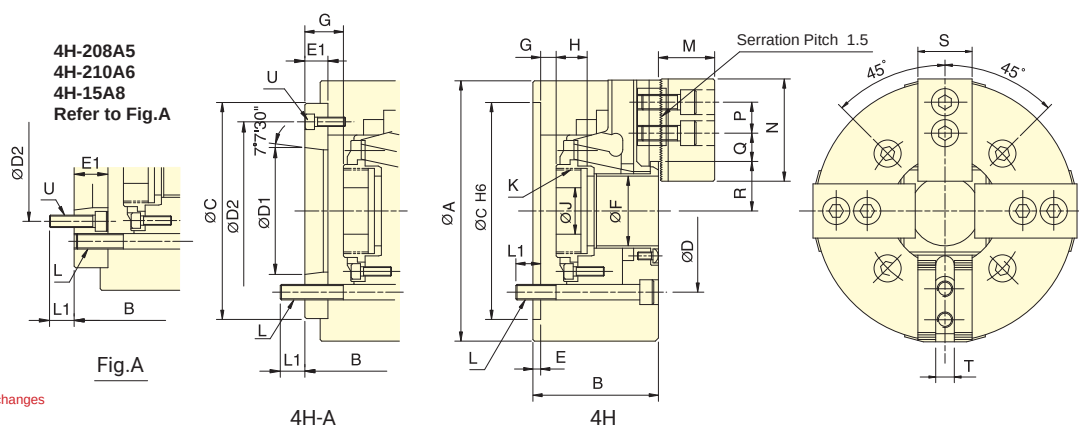
Model		K max.		K Default		L	L1		M	N	P	Q max.	Q min.	R max.	R min.	S	T	U
2H-204	A4	M38x1.5		M32x1.5		4~M10	16	15	24	52	14	12.75	6.75	25	22.25	23	10	3~M10
2H-205	A4	M45x1.5		M40x1.5		4~M10	14.5	14.5	31	62	14	20.25	6.75	29.5	26.75	25	10	3~M6
2H-206	A5	M60x2		M55x2		6~M10	16	16	37	73	20	22.75	9.25	36	33	31	12	3~M6
2H-208	A5	M75x2		M60x2		6~M12	17	18	38	95	25	23.7	10.2	45.7	41.9	35	14	6~M10
2H-208	A6	M75x2		M60x2		6~M12	17	15	38	95	25	23.7	10.2	45.7	41.9	35	14	3~M6
2H-210	A8	M95x2		M85x2		6~M16	20	22	43	110	30	32.2	12.7	56.5	52.05	40	16	3~M8
2H-12	A8	M100x2		M100x2		6~M16	23	25	51	130	30	44.75	14.75	61.3	56	50	21	3~M8
2H-15	A8	M130x2	M115x2	M130x2	M100x2	6~M20	30	24	63	165	43	49.75	19.75	77.5	72.2	62	25.5 or 22	6~M16
2H-15	A11	M130x2		M130x2		6~M20	30	28	63	165	43	49.75	19.75	77.5	72.2	62	25.5 or 22	3~M10

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



- WEDGE-HOOK type 4-jaw with the large through-hole.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- High rigidity and high clamping accuracy.

■ J is the hole diameter of blank draw nut.
If not notified, AUTOGRIP will adopt the K Default as K value.
K is the maximum thread specification and it could be customize.



Subject to technical changes

SPECIFICATIONS

Model		Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight		Matching cyl.	Max. pressure
		mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg	kg		MPa (kgf/cm ²)
4H-206	A5	14	6.0	170	13	23.2(2375)	66.7(6810)	5000	0.06	12.5	16.7	TK-C646	2.5(25)
4H-208	A5	18	7.6	210	17	34.3(3500)	85.8(8750)	4200	0.19	23.5	25.4	TK-A853	2.8(28)
4H-208	A6	18	7.6	210	17	34.3(3500)	85.8(8750)	4200	0.19	23.5	24.3	TK-A853	2.8(28)
4H-210	A6	21	8.9	260	37	49.1(5010)	152.0(15500)	3800	0.4	38.7	44	TK-A1075	3.2(32)
4H-210	A8	21	8.9	260	37	49.1(5010)	152.0(15500)	3800	0.4	38.7	42.3	TK-A1075	3.2(32)
4H-12	A8	25	10.6	304	34	54.9(5600)	143.6(14650)	2700	0.77	62	65.7	TK-A1291	2.5(25)
4H-15	A8	25	10.6	381	50	71(7250)	179.8(18350)	2000	2.31	117.6	130	TK-A1512	2.3(23)
4H-15	A11	25	10.6	381	50	71(7250)	179.8(18350)	2000	2.31	117.6	123.5	TK-A1512	2.3(23)
4H-18	A11	25	10.6	450	50	71(7250)	179.8(18350)	1700	4.35	162.6	168.5	TK-A1512	2.3(23)

DIMENSIONS

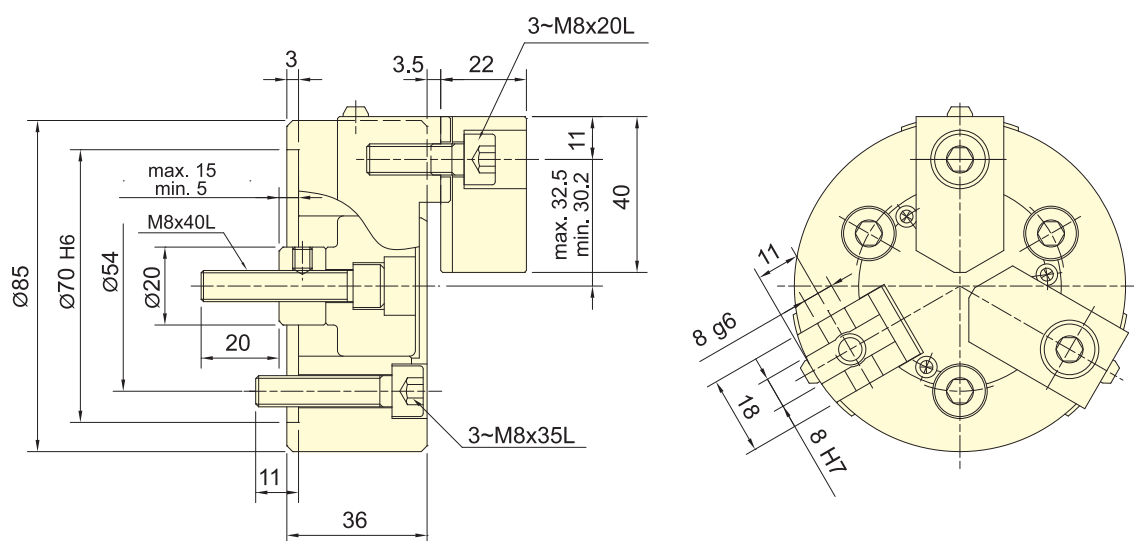
Model		A	B		C	D	D1	D2	E	E1	F	G max.		G min.		H	J
4H-206	A5	170	81	91	140	104.8	82.56	116	5	15	53	13	28	-1	14	17.5	20
4H-208	A5	210	91	109	170	133.4	82.56	104.8	5	23	66	16.5	39.5	-1.5	21.5	20.5	30
4H-208	A6	210	91	103	170	133.4	106.38	150	5	17	66	16.5	33.5	-1.5	15.5	20.5	30
4H-210	A6	260	102	122	220	171.4	106.38	133.4	5	25	86	10.5	35.5	-10.5	14.5	25	45
4H-210	A8	260	102	115	220	171.4	139.72	190	5	18	86	10.5	28.5	-10.5	7.5	25	45
4H-12	A8	304	110	122	220	171.4	139.72	190	6	18	91	10	28	-15	3	28	50
4H-15	A8	381	132	159	300	235	139.72	171.4	6	33	120	11	44	-14	19	39	60
4H-15	A11	381	132	148	300	235	196.87	260	6	22	120	11	33	-14	8	39	60
4H-18	A11	450	132	148	300	235	196.87	260	6	22	120	11	33	-14	8	39	60

Model		K max.		K Default		L	L1		M	N	P	Q max.	Q min.	R max.	R min.	S	T	U
4H-206	A5	M60x2		M55x2		4~M10	16	16	37	73	20	21.25	9.25	36	33	31	12	3~M6
4H-208	A5	M75x2		M60x2		4~M12	17	18	38	95	25	23.7	10.2	45.7	41.9	35	14	6~M10
4H-208	A6	M75x2		M60x2		4~M12	17	15	38	95	25	23.7	10.2	45.7	41.9	35	14	3~M6
4H-210	A6	M95x2		M85x2		4~M16	20	18	43	110	30	32.2	12.7	56.5	52.05	40	16	6~M12
4H-210	A8	M95x2		M85x2		4~M16	20	22	43	110	30	32.2	12.7	56.5	52.05	40	16	3~M8
4H-12	A8	M100x2		M100x2		4~M16	23	25	51.3	130	30	44.75	14.75	61.3	56	50	21	3~M8
4H-15	A8	M130x2	M115x2	M130x2	M100x2	4~M20	30	24	63	165	43	49.75	19.75	77.5	72.2	62	25.5 or 22	6~M16
4H-15	A11	M130x2		M130x2		4~M20	31	28	63	165	43	49.75	19.75	77.5	72.2	62	25.5 or 22	3~M10
4H-18	A11	M130x2		M130x2		4~M20	31	29	63	165	43	82.75	21.25	77.5	72.2	62	25.5 or 22	3~M10

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



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

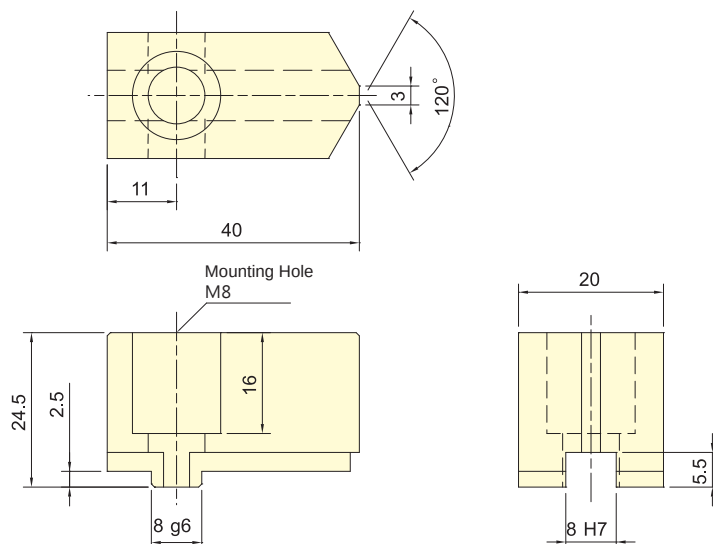


Subject to technical changes

SPECIFICATIONS

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

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





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

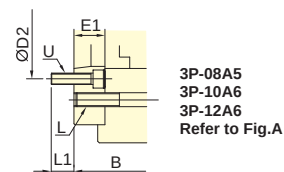
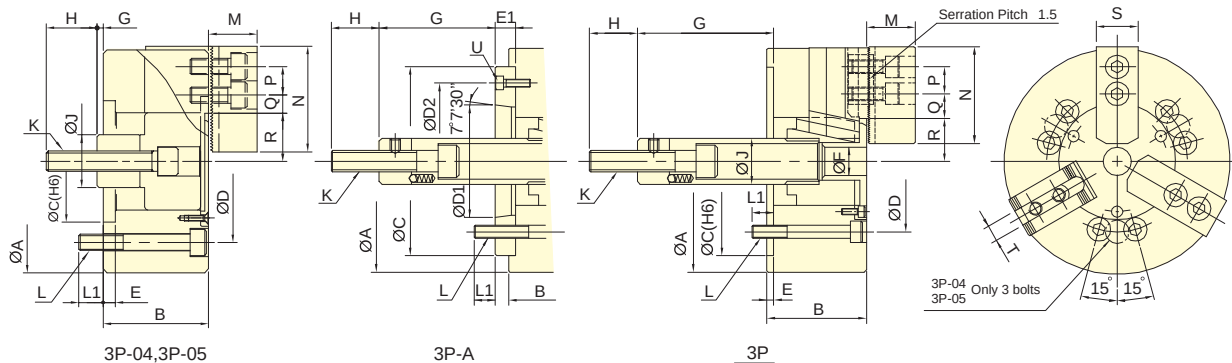


Fig.A



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Max. pressure
3P-04	15	6.9	110	5	8.1(830)	22.5(2300)	6000	0.01	4.1	-	2.2(22)
3P-05	15	6.9	135	14	8.1(830)	25(2550)	5500	0.02	6.2	-	0.6(6)
3P-06	A5	20	9.2	165	16	17.9(1830)	52.4(5350)	5250	0.05	13	2.6(26)
3P-08	A5	21	9.7	210	21	25(2550)	74.5(7600)	4750	0.14	24	0.6(6)
3P-08	A6	21	9.7	210	21	25(2550)	74.5(7600)	4750	0.14	24	2.3(23)
3P-10	A6	25	8.8	254	24	28.9(2950)	107.8(11000)	4000	0.3	35	0.5(5)
3P-10	A8	25	8.8	254	24	28.9(2950)	107.8(11000)	4000	0.3	35	2.6(26)
3P-12	A6	30	10.5	304	24	41(4180)	155.8(15900)	3360	0.73	59	0.6(6)
3P-12	A8	30	10.5	304	24	41(4180)	155.8(15900)	3360	0.73	59	0.8(8)

DIMENSIONS

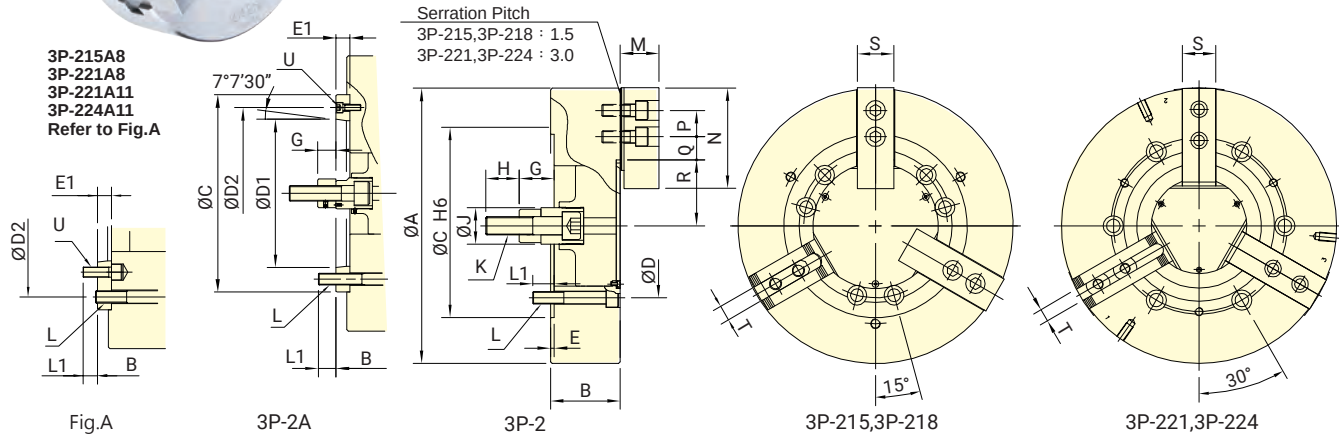
Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J
3P-04	110	52	-	60	80	-	6	-	-	18	-	25	26
3P-05	135	55	-	80	100	-	7	-	-	9	-	35	28
3P-06	A5	165	74	84	140	104.8	82.56	116	5	15	21	102.6	87.6
3P-08	A5	210	85	103	170	133.4	82.56	104.8	5	23	25	127	104
3P-08	A6	210	85	97	170	133.4	106.38	150	5	17	25	127	110
3P-10	A6	254	89	109	220	171.4	106.38	133.4	5	25	34	158	133
3P-10	A8	254	89	102	220	171.4	139.72	190	5	18	34	158	140
3P-12	A6	304	106	125	220	171.4	106.38	133.4	6	25	34	163	138
3P-12	A8	304	106	118	220	171.4	139.72	190	6	18	34	163	145

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	11.2	6.7	23.6	20.15	23	10	-
3P-05	M12x1.75	3-M8	14	-	31	62	15.7	5.2	30.4	26.95	25	10	-
3P-06	A5	M16x2	6-M10	14	14	37	73	20	18.25	9.25	38.25	33.65	31
3P-08	A5	M20x2.5	6-M12	20	17	38	95	25	25.25	11.75	46.3	41.45	35
3P-08	A6	M20x2.5	6-M12	20	18	38	95	25	25.25	11.75	46.3	41.45	35
3P-10	A6	M20x2.5	6-M16	18	18	43	110	30	35.25	12.75	51.1	46.7	40
3P-10	A8	M20x2.5	6-M16	18	25	43	110	30	35.25	12.75	51.1	46.7	40
3P-12	A6	M20x2.5	6-M16	18	18	51	130	30	48.75	12.75	61	55.75	50
3P-12	A8	M20x2.5	6-M16	18	25	51	130	30	48.75	12.75	61	55.75	50

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



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



Subject to technical changes

SPECIFICATIONS

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

DIMENSIONS

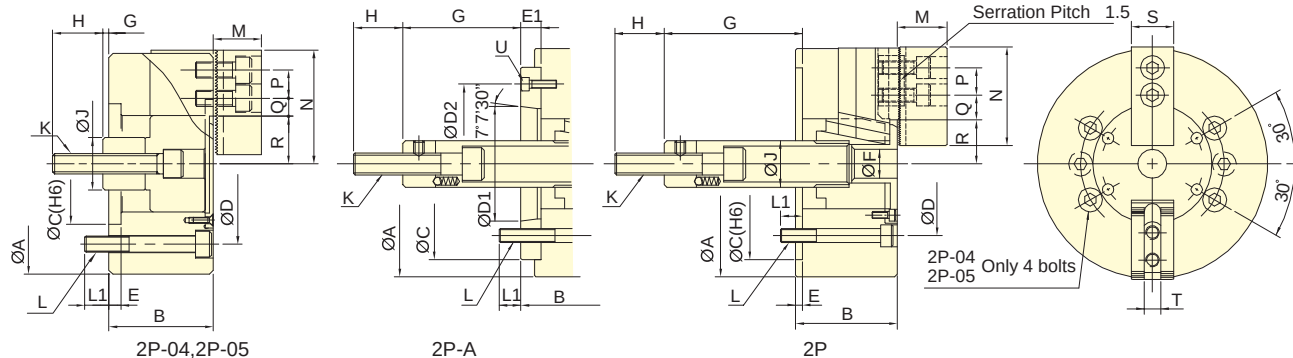
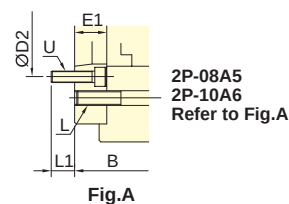
Model		A	B		C	D	D1	D2	E	E1	G max.		G min.		H	J	K
3P-215	A8	381	114	141	300	235	139.72	171.4	6	33	104	71	69	36	55	60	M30x3.5
3P-215	A11	381	114	130	300	235	196.87	260	6	22	104	82	69	47	55	60	M30x3.5
3P-218	A11	450	114	130	300	235	196.87	260	6	22	92	70	57	35	55	60	M30x3.5
3P-221	A8	530	125	152	380	330.2	139.72	171.4	6	33	97	64	62	29	55	60	M30x3.5
3P-221	A11	530	125	146	380	330.2	196.87	235	6	27	97	70	62	35	55	60	M30x3.5
3P-224	A11	610	125	146	380	330.2	196.87	235	6	27	97	70	62	35	55	60	M30x3.5
3P-224	A15	610	125	146	380	330.2	285.78	330.2	6	27	97	70	62	35	55	60	M30x3.5

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

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



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



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Max. pressure
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg		MPa (kgf/cm ²)
2P-04	15	6.9	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	6.9	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	A5	20	9.2	165	14	12(1220)	35(3570)	5250	0.04	12	13 RK-100(N) RA-170 1.7(17) 0.4(4)
2P-08	A5	21	9.7	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	A6	21	9.7	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	A6	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	A8	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	A8	30	10.5	304	22	27.4(2800)	103.9(10600)	3360	0.70	57	61 RK-150(N) 1.7(17)
2P-15	A11	35	16	381	50	54.9(5600)	164.6(16800)	3000	1.70	96	103 RK-200(N) 1.9(19)

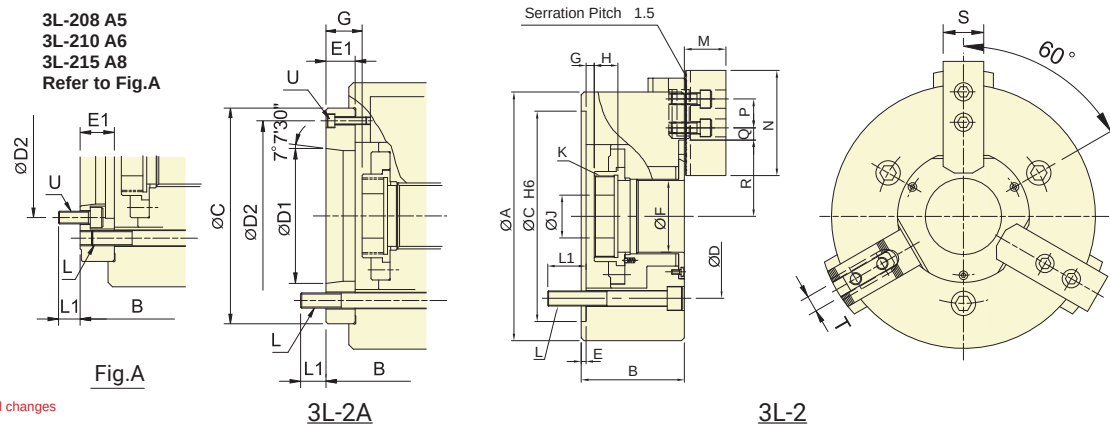
DIMENSIONS

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	26
2P-05		135	55	-	80	100	-	-	7	-	-	9	-	6	-	35	28
2P-06	A5	165	74	84	140	104.8	82.56	116	5	15	21	102.6	87.6	82.6	67.6	35	34
2P-08	A5	210	85	103	170	133.4	82.56	104.8	5	23	25	127	104	106	83	36	38
2P-08	A6	210	85	97	170	133.4	106.38	150	5	17	25	127	110	106	89	36	38
2P-10	A6	254	89	109	220	171.4	106.38	133.4	5	25	34	158	133	133	108	36	45
2P-10	A8	254	89	102	220	171.4	139.72	190	5	18	34	158	140	133	115	36	45
2P-12	A8	304	106	118	220	171.4	139.72	190	6	18	34	163	145	133	115	36	50
2P-15	A11	381	114	130	300	235	196.87	260	6	22	-	104	82	69	47	55	60

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	14	11.3	8.3	23.3	20.15	23	10	-
2P-05		M12x1.75	4~M8	14	-	31	62	14	13.5	6	30.4	26.95	25	10	-
2P-06	A5	M16x2	6~M10	14	14	37	73	20	18.25	9.25	38.25	33.65	31	12	3~M6
2P-08	A5	M20x2.5	6~M12	20	17	38	95	25	22.3	11.8	46.3	41.45	35	14	6~M10
2P-08	A6	M20x2.5	6~M12	20	18	38	95	25	22.3	11.8	46.3	41.45	35	14	3~M6
2P-10	A6	M20x2.5	6~M16	18	18	43	110	30	30.8	11.3	51.1	46.7	40	16	6~M12
2P-10	A8	M20x2.5	6~M16	18	25	43	110	30	30.8	11.3	51.1	46.7	40	16	6~M8
2P-12	A8	M20x2.5	6~M16	18	25	51	130	30	48.5	12.5	-	-	50	18 or 21	6~M8
2P-15	A11	M30x3.5	6~M20	30	33	63	165	43	48.8	23.3	77.5	69.5	62	25.5	3~M10



- CRANK type 3-jaw with the large through-hole and extra long jaw stroke.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- High rigidity and high clamping accuracy.
- J 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.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight		Matching cyl.	Max. pressure
		mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg	kg		MPa (kgf/cm ²)
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	24	23.5(2400)	26.0(2650)	3600	0.063	14.7	15.9	TK-C646	2.7(27)
3L-208	A5	20	32	215	30	34.3(3500)	35.0(3570)	3000	0.18	23	25.7	TK-A853	2.8(28)
3L-208	A6	20	32	215	30	34.3(3500)	35.0(3570)	3000	0.18	23	24.6	TK-A853	2.8(28)
3L-210	A6	25	37.5	260	53	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	53	47.7(4870)	48.0(4895)	2400	0.35	39.5	45	TK-A1075	3.1(31)
3L-212	A8	30	45	315	61	64.7(6600)	61.0(6220)	2100	0.827	67.3	70.5	TK-A1291	3.0(30)
3L-215	A8	35	52	405	52	84.3(8600)	85.0(8665)	1600	2.58	139	152	TK-A1512-35	2.7(27)
3L-215	A11	35	52	405	52	84.3(8600)	85.0(8665)	1600	2.58	139	145	TK-A1512-35	2.7(27)

DIMENSIONS

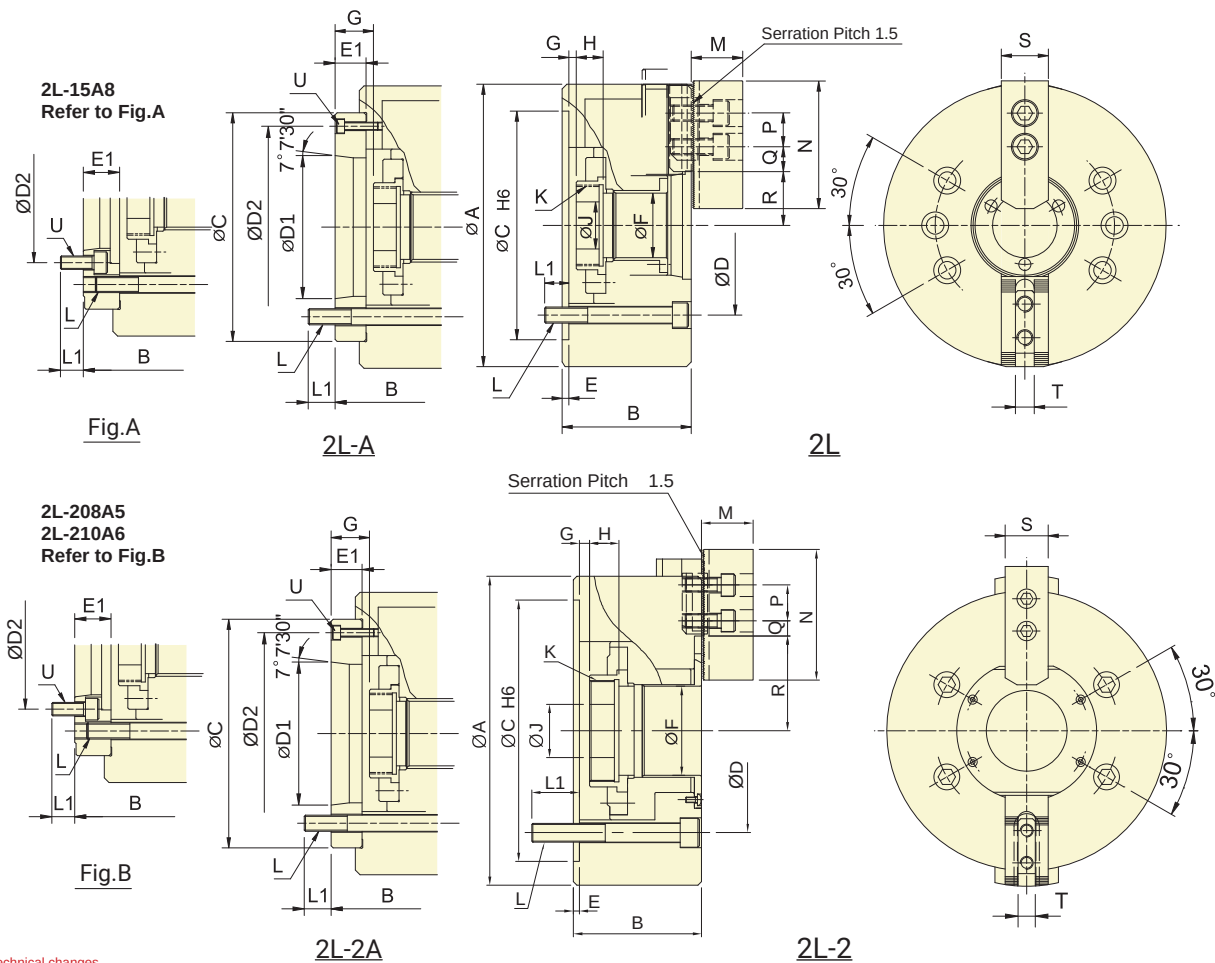
Model		A	B	C	D	D1	D2	E	E1	F	G max.		G min.		H	J
3L-205	A4	138	65	76	110	82.6	96	4	15	32	1	15	-11	3	20	12
3L-206	A5	170	84	97	140	104.8	116	5	18	45	6.5	24.5	-8.5	9.5	19	20
3L-208	A5	215	96	114	170	133.4	104.8	5	23	52	7	30	-13	10	20	30
3L-208	A6	215	96	114	170	133.4	106.38	5	23	52	7	30	-13	10	20	30
3L-210	A6	260	108	128	220	171.4	106.38	5	25	75	8.5	33	-16.5	8	25	45
3L-210	A8	260	108	121	220	171.4	139.72	5	18	75	8.5	26.5	-16.5	1.5	25	45
3L-212	A8	315	125	138	220	171.4	139.72	5	18	91	15	33	-15	3	30	50
3L-215	A8	405	150	177	300	235	139.72	6	33	120	12.5	45.5	-22.5	10.5	39	60
3L-215	A11	405	150	166	300	235	196.87	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	M60x2	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-215	A8	M130x2		6~M20		33	27.5	63	165	43	34.75	13.75	119	93	62	25.5	6~M16
3L-215	A11	M130x2		6~M20		33	31	63	165	43	34.75	13.75	119	93	62	25.5	3~M10

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



- CRANK type 2-jaw with the large through-hole and extra long jaw stroke.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- High rigidity and high clamping accuracy.
- J 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.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight		Matching cyl.	Max. pressure
		mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg	MPa (kgf/cm ²)		
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	24	15.7(1600)	17.3(1760)	3600	0.063	14.4	15.6	TK-C646	1.8(18)
2L-208	A5	20	32	215	30	22.9(2330)	27.1(2760)	3000	0.173	22	26	TK-A853	1.9(19)
2L-208	A6	20	32	215	30	22.9(2330)	27.1(2760)	3000	0.173	22	24.2	TK-A853	1.9(19)
2L-210	A6	25	37.5	260	53	31.8(3250)	37.3(3800)	2400	0.33	40	45.5	TK-A1075	2.1(21)
2L-210	A8	25	37.5	260	53	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	26	56.2(5730)	53.0(5400)	1600	2.52	133	147	TK-A1512-35	1.8(18)
2L-15	A11	35	52	385	26	56.2(5730)	53.0(5400)	1600	2.52	133	140	TK-A1512-35	1.8(18)

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

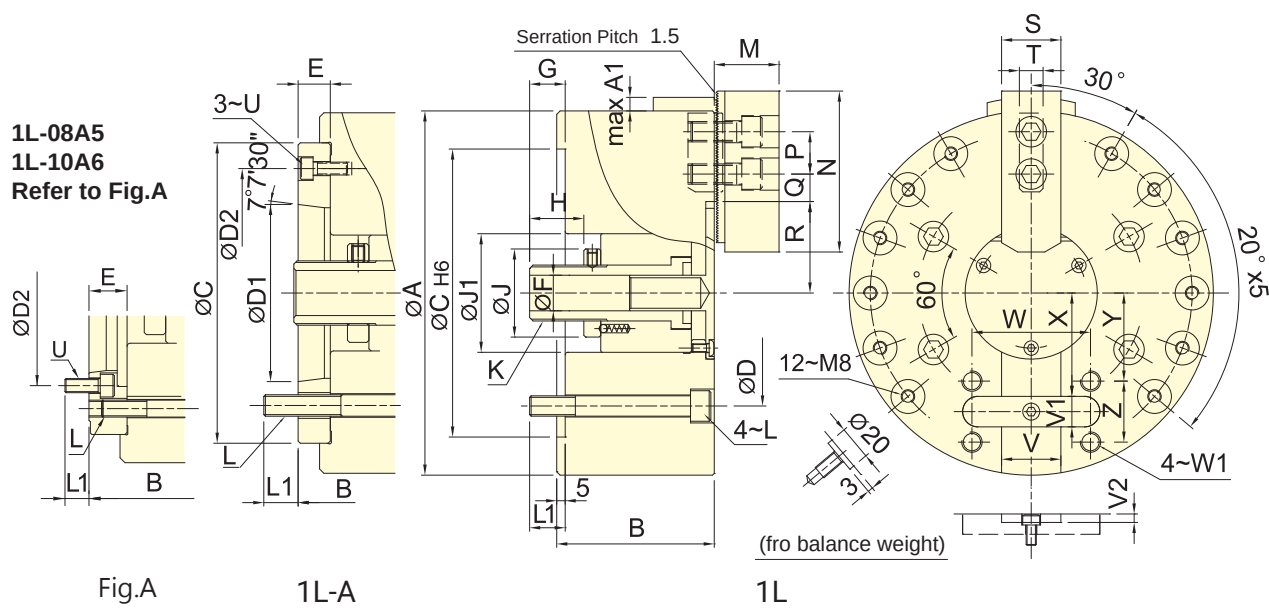
DIMENSIONS

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	M60x2	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		6~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



- CRANK type single-jaw with the large through-hole and extra long jaw stroke.
- Suitable for clamping the jig or irregular work piece.
- High rigidity and high clamping accuracy.



Subject to technical changes

SPECIFICATIONS

Model		Plunger stroke	Jaw stroke	Chucking Dia. Max.	Chucking Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight		Matching cyl.	Max. pressure
		mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg • m ²	kg	MPa (kgf/cm ²)		
1L-06	A5	20	16	168	5	12.3(1250)	27.3(2780)	3800	0.05	12.5	14.3	RK-100	1.7(17.5)
1L-08	A5	25	20	215	7	15.7(1600)	37.2(3800)	3000	0.15	24.2	27.1	RK-125	1.4(14.3)
1L-08	A6	25	20	215	7	15.7(1600)	37.2(3800)	3000	0.15	24.2	25.3	RK-125	1.4(14.3)
1L-10	A6	30	24	254	17	21.6(2200)	48.5(4950)	2400	0.28	38.8	46	RK-150	1.3(13.7)
1L-10	A8	30	24	254	17	21.6(2200)	48.5(4950)	2400	0.28	38.8	44.3	RK-150	1.3(13.7)

DIMENSIONS

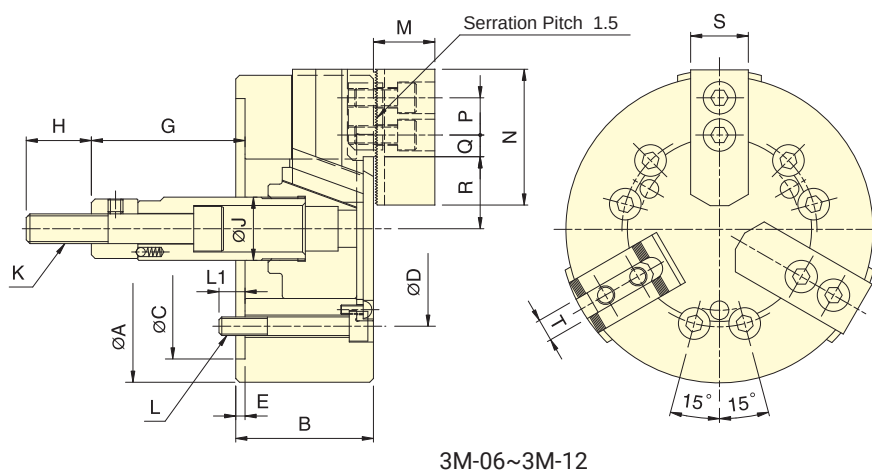
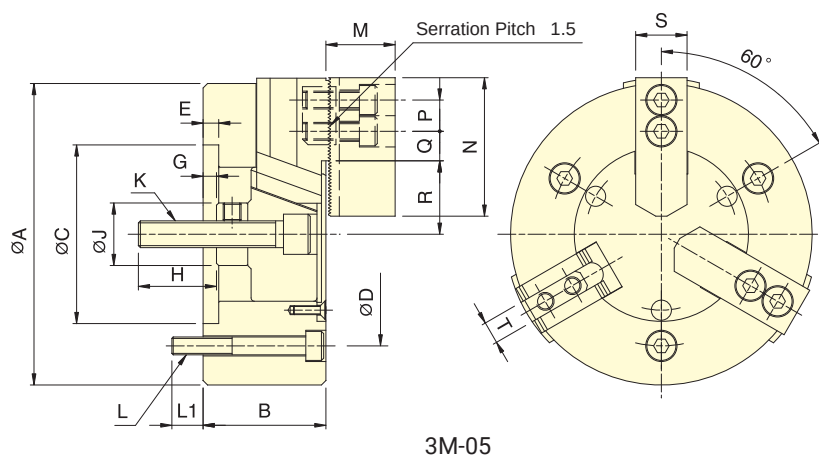
Model		A	A1	B		C	D	D1	D2	E	F	G max.	G min.	H	J	J1	K max.	L	L1	
1L-06	A5	168	9.5	80	90	140	104.8	82.56	116	15	21	37	17	25	46	54	M30x1.5	M10	16	16
1L-08	A5	215	8	93	111	170	133.4	82.56	104.8	23	21	46	21	32	52	70	M33x1.5	M12	21	19
1L-08	A6	215	8	93	105	170	133.4	106.38	150	17	21	46	21	32	52	70	M33x1.5	M12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

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	A5	37	73	20	19.75	7.75	46	30	31	12	M6	30	15	4.5	64	M10	44.5	36	30
1L-08	A5	38	95	25	25.25	10.25	54	34	35	14	M10	35	18	4.5	70	M12	61	52	36
1L-08	A6	38	95	25	25.25	10.25	54	34	35	14	M6	35	18	4.5	70	M12	61	52	36
1L-10	A6	43	110	30	33.75	11.25	67	43	40	16	M8	40	20	5	90	M14	71	58.5	45
1L-10	A8	43	110	30	33.75	11.25	67	43	40	16	M8	40	20	5	90	M14	71	58.5	45

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



- WEDGE-HOOK type 3-jaw power chuck and long jaw stroke.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- High rigidity and high clamping accuracy.



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chucking Dia. Max. mm	Chucking Dia. Min. mm	Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min ⁻¹ (r.p.m.)	Moment of inertia kg · m ²	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm ²)
3M-05	15	10.9	135	14	9.8 (1000)	23 (2350)	4500	0.02	6.0	RK-75(N)	2.7(27)
3M-06	20	14.5	165	14	21.6 (2200)	50 (3680)	4000	0.04	12.2	RK-100(N)	3.0(30)
3M-08	23	16.7	210	17	29.4 (3000)	72 (7340)	3500	0.13	23.0	RK-125(N)	2.9(29)
3M-10	27	19.6	254	22	39.2 (4000)	102 (10400)	3000	0.3	34.3	RK-150(N)	2.8(28)
3M-12	30	21.8	304	26	54.0 (5500)	150 (15300)	2500	0.71	59.4	RK-150(N)	3.6(36)

DIMENSIONS

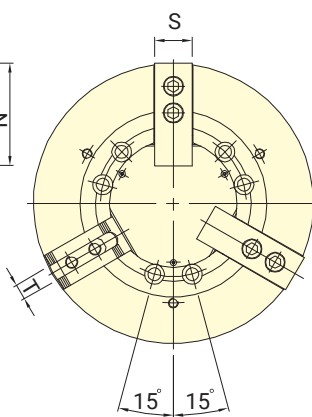
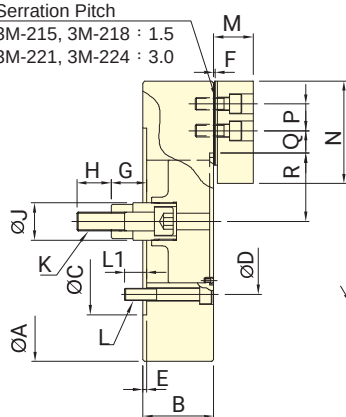
Model	A	B	C(H6)	D	E	G max.	G min.	H	J	K
3M-05	135	55	80	100	7	6	-9	35	28	M12x1.75
3M-06	165	74	140	104.8	5	101.6	81.6	36	34	M16x2
3M-08	210	85	170	133.4	5	129	106	36	38	M20x2.5
3M-10	254	89	220	171.4	5	160	133	36	45	M20x2.5
3M-12	304	106	220	171.4	6	70	40	46	50	M24x3

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

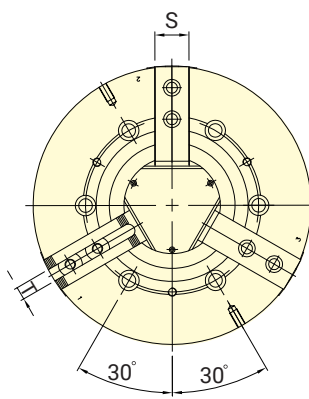


- WEDGE-HOOK type 3-jaw power chuck and long jaw stroke.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- High rigidity and high clamping accuracy.

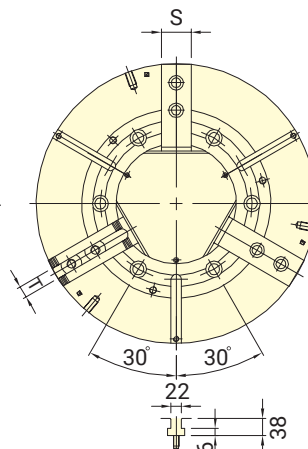
Serration Pitch
3M-215, 3M-218 : 1.5
3M-221, 3M-224 : 3.0



3M-215,3M-218



3M-221



3M-224

Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Max. pressure
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg		MPa (kgf/cm ²)
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)

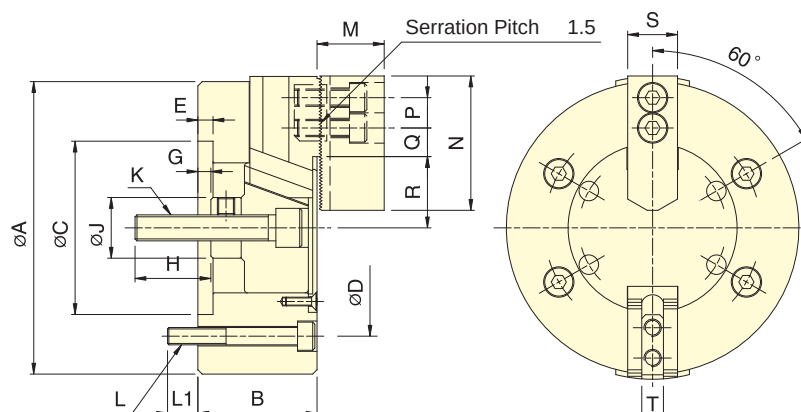
DIMENSIONS

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

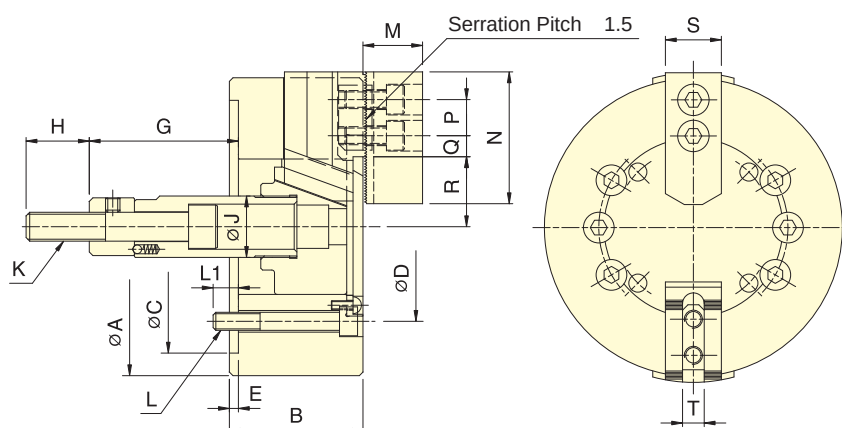
Model	K	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T
3M-215	M30x3.5	6~M20	30	63.3	165	43	49.75	18.25	79	66.3	62	25.5
3M-218	M30x3.5	6~M20	35	63.3	165	43	51.25	18.25	109.5	96.8	62	25.5
3M-221	M30x3.5	6~M24	31	71	180	60	90.5	24.5	92	79.3	65	25
3M-224	M30x3.5	6~M24	31	71	180	60	90	24	131	118.3	65	25



- WEDGE-HOOK type 2-jaw power chuck and long jaw stroke.
- Matching surfaces of all parts hardened, ground and lubricated directly.
- High rigidity and high clamping accuracy.



2M-05



2M-06~2M-12

Subject to technical changes

SPECIFICATIONS

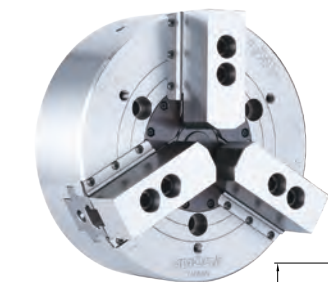
Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chuck Dia. Max. mm	Chuck Dia. Min. mm	Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min ⁻¹ (r.p.m.)	Moment of inertia kg · m ²	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm ²)
2M-05	15	10.9	135	14	6.5(660)	11(1120)	4500	0.02	6.0	RK-75(N)	1.8(18)
2M-06	20	14.5	165	14	14.3(1460)	24(2450)	4000	0.04	12.2	RK-100(N)	2.0(20)
2M-08	23	16.7	210	17	19.6(2000)	36.6(3730)	3500	0.13	23.0	RK-125(N)	1.9(19.3)
2M-10	27	19.6	254	22	26.1(2660)	49.3(5030)	3000	0.30	34.3	RK-150(N)	1.8(18.6)
2M-12	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
2M-05	135	55	80	100	7	6	-9	35	28
2M-06	165	74	140	104.8	5	101.6	81.6	36	34
2M-08	210	85	170	133.4	5	129	106	36	38
2M-10	254	89	220	171.4	5	160	133	36	45
2M-12	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
2M-05	M12x1.75	4~M8	14	31	62	14	15.5	5	32.9	27.45	25	10
2M-06	M16x2	6~M10	14	37	73	20	17	8	38.7	31.45	31	12
2M-08	M20x2.5	6~M12	20	38	95	25	22.3	8.8	47.5	39.15	35	14
2M-10	M20x2.5	6~M16	18	43	110	30	32.3	12.8	53.9	44.1	40	16
2M-12	M24x3	6~M16	18	51	130	30	47.8	13.3	62.5	51.6	50	21

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



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

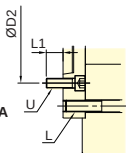


Fig.A

3V-15A15
3V-18A15
Refer to Fig.B

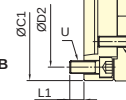
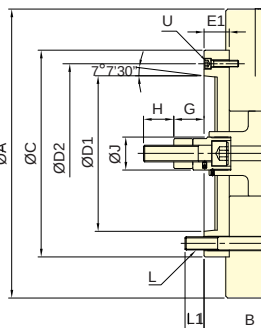
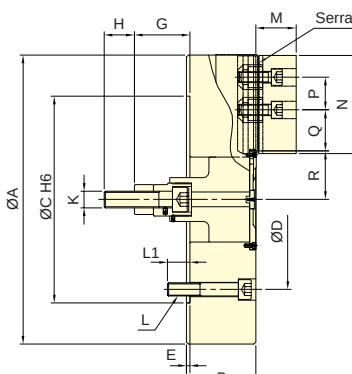


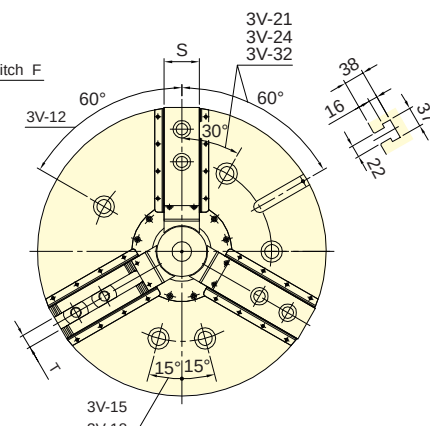
Fig.B



3V-A



3V



Subject to technical changes

SPECIFICATIONS

Model		Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia		Weight		Matching cyl.	Max. pressure
		mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²		kg			MPa (kgf/cm ²)
3V-12	A8	30	12.7	304	30	41(4180)	156(15900)	3150	0.73	0.79	62.9	68.7	RK-150 RE-150	2.6(26)
3V-15	A8	35	16	381	30	81.9(8360)	245.1(25000)	2900	1.97	2.27	105.5	128.5	RK-200 RE-200K	2.8(28) 3.0(30)
3V-15	A11	35	16	381	30	81.9(8360)	245.1(25000)	2900	1.97	2.27	105.5	127		
3V-15	A15	35	16	381	30	81.9(8360)	245.1(25000)	2900	3.33	2.67	105.5	142		
3V-18	A8	35	16	450	80	81.9(8360)	245.1(25000)	2600	3.33	3.62	132.7	155.5		
3V-18	A11	35	16	450	80	81.9(8360)	245.1(25000)	2600	3.33	3.63	132.7	154.5		
3V-18	A15	35	16	450	80	81.9(8360)	245.1(25000)	2600	6.83	4.02	132.7	165		
3V-21	A11	35	16	530	62	81.9(8360)	271.6(27700)	1800	6.83	7.46	196.5	227		
3V-21	A15	35	16	530	62	81.9(8360)	271.6(27700)	1800	6.83	7.37	196.5	221		
3V-24	A11	35	16	610	136	81.9(8360)	271.6(27700)	1700	11.19	11.83	241.7	272.8		
3V-24	A15	35	16	610	136	81.9(8360)	271.6(27700)	1700	11.19	11.73	241.7	266		
3V-32	A15	35	16	800	136	81.9(8360)	271.6(27700)	1100	28.97	29.51	353.6	378		

DIMENSIONS

Model		A	B	C	C1	D	D1	D2	E	E1	F	G max.		G min.		H	J	
3V-12	A8	304	107	141	220	-	171.4	139.72	190	6	40	1.5	113	73	83	43	36	50
3V-15	A8	381	116	164	300	-	235	139.72	171.4	6	54	1.5	153	99	118	64	55	60
3V-15	A11	381	116	168	300	-	235	196.87	260	6	58	1.5	153	95	118	60	55	60
3V-15	A15	381	116	172	-	380	235	285.78	330.2	6	62	1.5	153	91	118	56	55	60
3V-18	A8	450	116	164	300	-	235	139.72	171.4	6	54	1.5	153	99	118	64	55	60
3V-18	A11	450	116	168	300	-	235	196.87	260	6	58	1.5	153	95	118	60	55	60
3V-18	A15	450	116	172	-	380	235	285.78	330.2	6	62	1.5	153	91	118	56	55	60
3V-21	A11	530	127	167	380	-	330.2	196.87	235	6	46	3	137	91	102	56	55	60
3V-21	A15	530	127	167	380	-	330.2	285.78	330.2	6	46	3	137	91	102	56	55	60
3V-24	A11	610	127	167	380	-	330.2	196.87	235	6	46	3	137	91	102	56	55	60
3V-24	A15	610	127	167	380	-	330.2	285.78	330.2	6	46	3	137	91	102	56	55	60
3V-32	A15	800	127	167	380	-	330.2	285.78	330.2	6	46	3	137	91	102	56	55	60

Model	K	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U		
3V-12	A8	M20x2.5	3~M16	24	24	54	130	30	47.5	16	61	54.65	50	21	3~M8
3V-15	A8	M30x3.5	6~M20	35	24	66	165	43	51.25	18.25	77.5	69.5	62	25.5	6~M16
3V-15	A11	M30x3.5	6~M20	35	32	66	165	43	51.25	18.25	77.5	69.5	62	25.5	3~M10
3V-15	A15	M30x3.5	6~M20	35	26	66	165	43	51.25	18.25	77.5	69.5	62	25.5	6~M24
3V-18	A8	M30x3.5	6~M20	35	24	66	165	43	51.25	18.25	108	100	62	25.5	6~M16
3V-18	A11	M30x3.5	6~M20	35	32	66	165	43	51.25	18.25	108	100	62	25.5	3~M10
3V-18	A15	M30x3.5	6~M20	35	26	66	165	43	51.25	18.25	108	100	62	25.5	6~M24
3V-21	A11	M30x3.5	6~M24	41	35	74	180	60	93.5	24.5	89	81	65	25	6~M20
3V-21	A15	M30x3.5	6~M24	41	35	74	180	60	93.5	24.5	89	81	65	25	3~M12
3V-24	A11	M30x3.5	6~M24	41	35	74	180	60	93.5	24.5	128	120	65	25	6~M20
3V-24	A15	M30x3.5	6~M24	41	35	74	180	60	93.5	24.5	128	120	65	25	3~M12
3V-32	A15	M30x3.5	6~M24	41	35	74	180	60	189.5	24.5	128	120	65	25	3~M12

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

- 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.

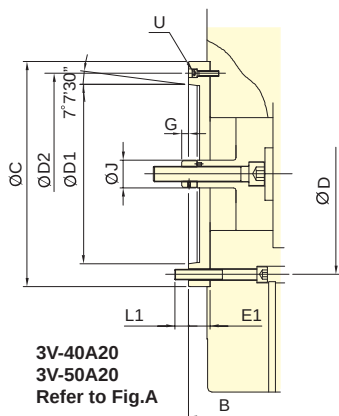
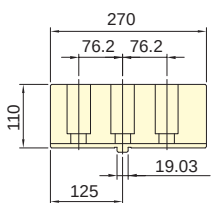
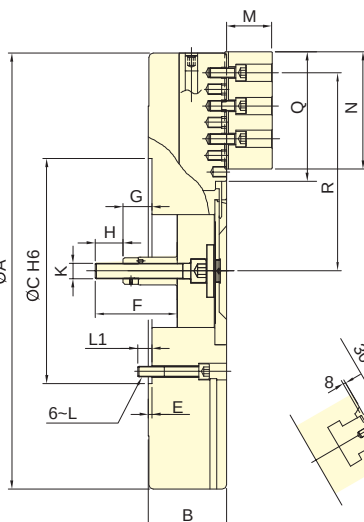
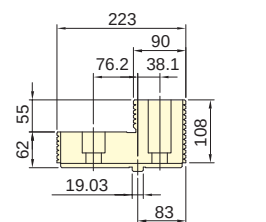
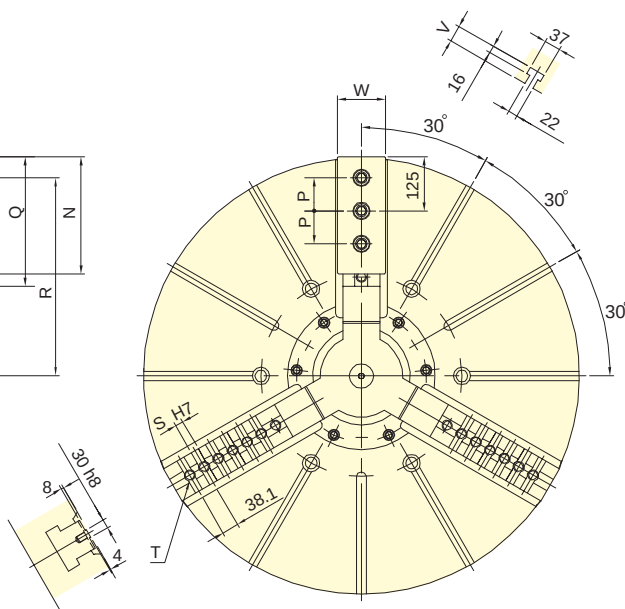


Fig.A



Soft jaw SJ-50 for V-40"-50"
SJ-63 for V-63"-79"



Hardened jaw HJ-50 for V-40"-79"

Subject to technical changes

SPECIFICATIONS

Model		Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia		Weight	Matching cyl.	Max. pressure
		mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg	kg		MPa (kgf/cm ²)
3V-40	A20	57	46+(60)	1005	310	180(18350)	320(32620)	630	68	72	780	RK-250 RE-250 RE-A250 RE-L250	4.2(42)
3V-50	A20	57	46+(60)	1250	290	180(18350)	320(32620)	500	145	148	1000		4.2(42)
3V-63		60	48+(80)	1600	390	200(20390)	360(36700)	400	500	-	1900		4.6(46)
3V-79		60	48+(80)	2000	440	200(20390)	360(36700)	320	1250	-	2800		4.6(46)

DIMENSIONS

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

Model		L	L1	M	N	P	Q	R max.	R min.	S	T	U	V	W
3V-40	A20	M24	37	110	270	76.2	295	457	404	6~19.03	7~M24	3~M12	42	84
3V-50	A20	M24	37	110	270	76.2	416	563	510	9~19.03	9~M24	3~M12	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

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



- WEDGE-HOOK type 4-jaw high speed power chuck.
- Sealed against swarf, chips and coolant, suitable for vertical lathe.

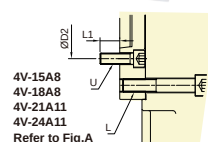


Fig. A

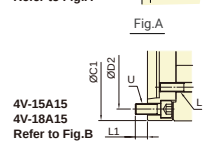
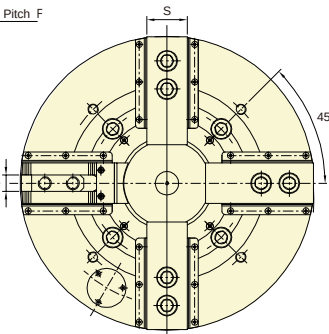
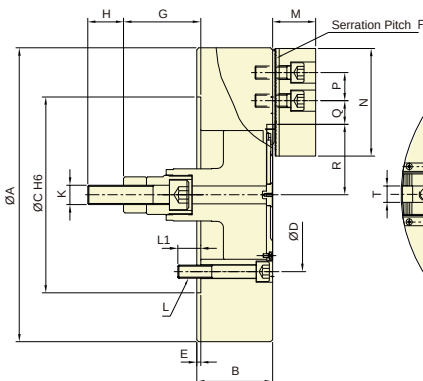
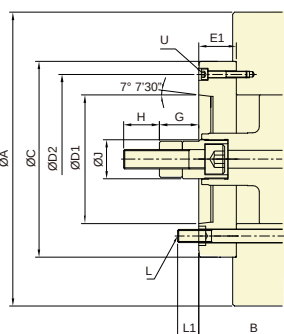


Fig. B

Subject to technical changes
SPECIFICATIONS



Model		Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia		Weight		Matching cyl.	Max. pressure
		mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg • m ²		kg			MPa (kgf/cm ²)
4V-12	A8	30	12.7	304	48	41(4180)	156(15900)	2520	0.72	0.79	59	67	RK-150 RE-150	2.6(26)
4V-15	A8	35	16	381	36	81.9(8360)	245.1(25000)	2300	2.10	2.39	108	131	RK-200 RE-200K	2.8(28) 3.0(30)
4V-15	A11	35	16	381	36	81.9(8360)	245.1(25000)	2300	2.10	2.39	108	130		
4V-15	A15	35	16	381	36	81.9(8360)	245.1(25000)	2300	2.10	2.79	108	139		
4V-18	A8	35	16	450	60	81.9(8360)	245.1(25000)	2050	3.51	3.80	139.3	162		
4V-18	A11	35	16	450	60	81.9(8360)	245.1(25000)	2050	3.51	3.80	139.3	160.9		
4V-18	A15	35	16	450	60	81.9(8360)	245.1(25000)	2050	3.51	4.20	139.3	172		
4V-21	A11	35	16	530	62	81.9(8360)	271.6(27700)	1450	6.98	7.62	199	230		
4V-21	A15	35	16	530	62	81.9(8360)	271.6(27700)	1450	6.98	7.53	199	223.7		
4V-24	A11	35	16	610	152	81.9(8360)	271.6(27700)	1350	11.34	11.98	243.8	275		
4V-24	A15	35	16	610	152	81.9(8360)	271.6(27700)	1350	11.34	11.88	243.8	268.3		
4V-32	A15	35	16	800	152	81.9(8360)	271.6(27700)	880	32.58	33.13	396	419.9		

DIMENSIONS

Model		A	B		C	C1	D	D1	D2	E	E1	F	G max.		G min.		H	J
4V-12	A8	304	107	141	220	-	171.4	139.72	190	6	40	1.5	113	73	83	43	36	50
4V-15	A8	381	116	164	300	-	235	139.72	171.4	6	54	1.5	153	99	118	64	55	60
4V-15	A11	381	116	168	300	-	235	196.87	260	6	58	1.5	153	95	118	60	55	60
4V-15	A15	381	116	172	-	380	235	285.78	330.2	6	62	1.5	153	91	118	56	55	60
4V-18	A8	450	116	164	300	-	235	139.72	171.4	6	54	1.5	153	99	118	64	55	60
4V-18	A11	450	116	168	300	-	235	196.87	260	6	58	1.5	153	95	118	60	55	60
4V-18	A15	450	116	172	-	380	235	285.78	330.2	6	62	1.5	153	91	118	56	55	60
4V-21	A11	530	127	167	380	-	330.2	196.87	235	6	46	3	137	91	102	56	55	60
4V-21	A15	530	127	167	380	-	330.2	285.78	330.2	6	46	3	137	91	102	56	55	60
4V-24	A11	610	127	167	380	-	330.2	196.87	235	6	46	3	137	91	102	56	55	60
4V-24	A15	610	127	167	380	-	330.2	285.78	330.2	6	46	3	137	91	102	56	55	60
4V-32	A15	800	147	187	380	-	330.2	285.78	330.2	6	46	3	137	91	102	56	55	60

Model		K	L	L1		M	N	P	Q max.	Q min.	R max.	R min.	S	T	U
4V-12	A8	M20x2.5	3~M16	24	24	42	110	30	51.75	15.75	61.3	54.9	40	16	4~M8
4V-15	A8	M30x3.5	6~M20	35	24	66	165	43	40.75	18.25	87.5	79.4	62	25.5	6~M16
4V-15	A11	M30x3.5	6~M20	35	32	66	165	43	40.75	18.25	87.5	79.4	62	25.5	4~M10
4V-15	A15	M30x3.5	6~M20	35	26	66	165	43	40.75	18.25	87.5	79.4	62	25.5	6~M24
4V-18	A8	M30x3.5	6~M20	35	24	66	165	43	51.22	18.22	108	100	62	25.5	6~M16
4V-18	A11	M30x3.5	6~M20	35	32	66	165	43	51.22	18.22	108	100	62	25.5	4~M10
4V-18	A15	M30x3.5	6~M20	35	26	66	165	43	51.22	18.22	108	100	62	25.5	6~M24
4V-21	A11	M30x3.5	6~M24	41	35	74	180	60	72.5	24.5	89	81	65	25	6~M20
4V-21	A15	M30x3.5	6~M24	41	35	74	180	60	72.5	24.5	89	81	65	25	3~M12
4V-24	A11	M30x3.5	6~M24	41	35	74	180	60	93.5	24.5	128	120	65	25	6~M20
4V-24	A15	M30x3.5	6~M24	41	35	74	180	60	93.5	24.5	128	120	65	25	3~M12
4V-32	A15	M30x3.5	6~M24	36	35	74	180	60	189.5	24.5	128	120	65	25	3~M12

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



- WEDGE-HOOK type 4-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.

4V-40 A20
4V-50 A20
4V-63 A20
Refer to Fig.A

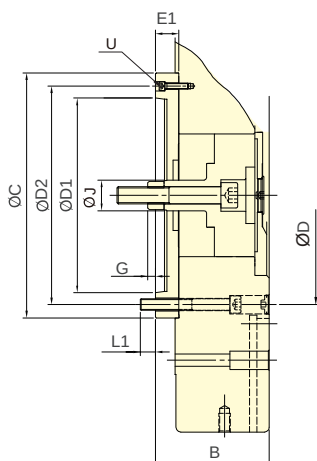
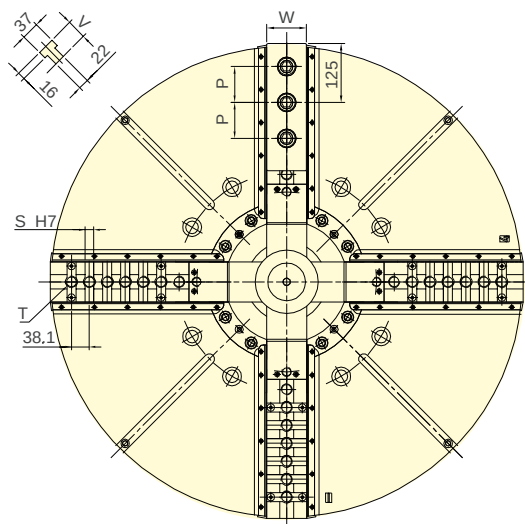
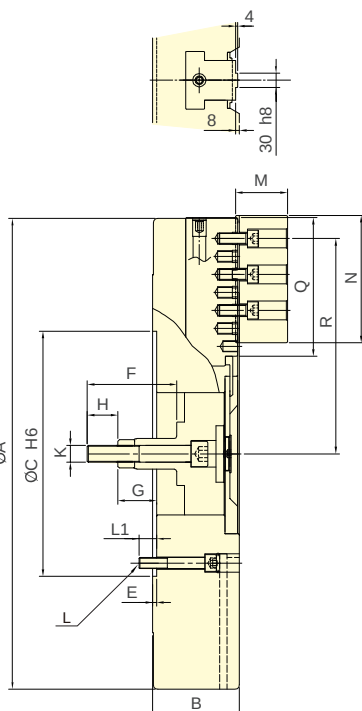


Fig.A



Subject to technical changes

SPECIFICATIONS

Model		Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia		Weight		Matching cyl.	Max. pressure
		mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg	kg	kg		MPa (kgf/cm ²)
4V-40	A20	57	46+(60)	1000	310	180(18350)	320(32620)	500	70	94	740	790	RK-250 RE-250 RE-A250 RE-L250	4.2(42)
4V-50	A20	57	46+(60)	1250	290	180(18350)	320(32620)	450	222	224	1130	1180		4.2(42)
4V-63		60	48+(80)	1600	390	200(20390)	360(36700)	340	565		2000			4.6(46)

DIMENSIONS

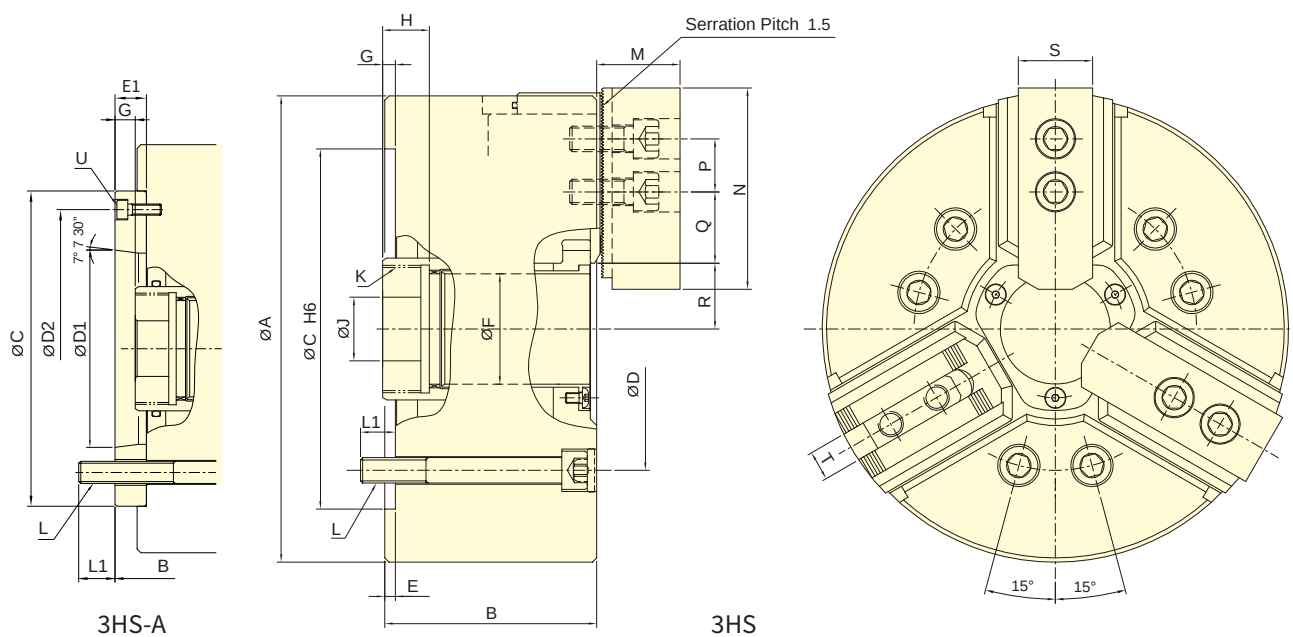
Model		A	B		C	D	D1	D2	E	E1	F	G max.		G min.		H	J	K
4V-40	A20	1000	184	226	520	463.6	412.78	463.6	8	50	190	123	73	66	16	65	65	M36x4
4V-50	A20	1250	200	242	520	463.6	412.78	463.6	8	50	190	123	73	66	16	65	65	M36x4
4V-63		1600	240	-	720	647.6	-	-	8	-	214	131		71		65	-	M36x4

Model		L	L1	M	N	P	Q	R max.	R min.	S	T	U	V	W
4V-40	A20	M24	37	110	270	76.2	295	457	404	6~19.03	7~M24	3~M12	42	84
4V-50	A20	M24	38	110	270	76.2	416	563	510	9~19.03	9~M24	3~M12	42	84
4V-63		M30	46	110	270	76.2	540	738	674	12~19.03	13~M24	-	42	110

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



- Fully sealed design extends maintenance intervals, improving production efficiency.
- Sealed design ensures constant lubrication and protects against the ingress of coolant and chips, which guarantees clamping precision and durability.
- Suitable for lights-out manufacturing; dry machining of castings and forgings; or when high-pressure coolant is utilized. Especially ideal for vertical lathes.
- Media fed through central bore - available for coolant or air. (optional)



Subject to technical changes

SPECIFICATIONS

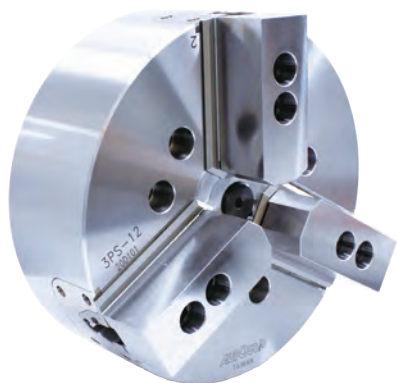
Model		Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight		Matching cyl.	Max. pressure
		mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg			MPa (kgf/cm ²)
3HS-08	A6	18	7.6	220	22	31.9(3250)	92(9380)	5000	0.18	26.5	28.1	TK-A853	2.6(26)

DIMENSIONS

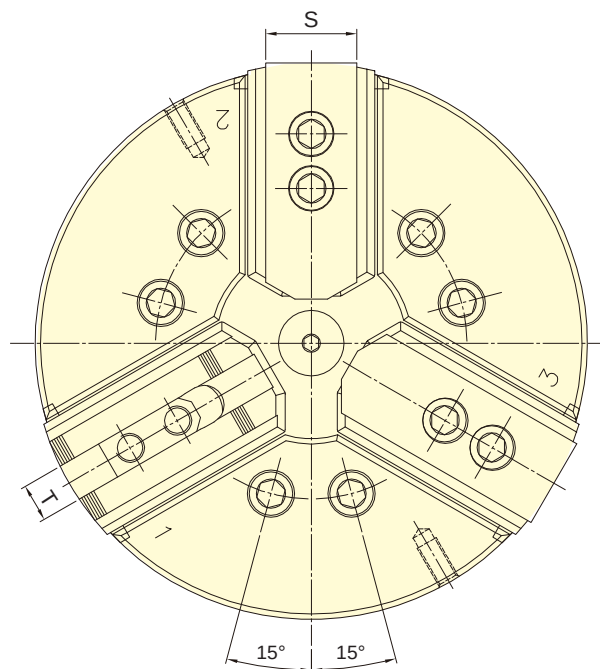
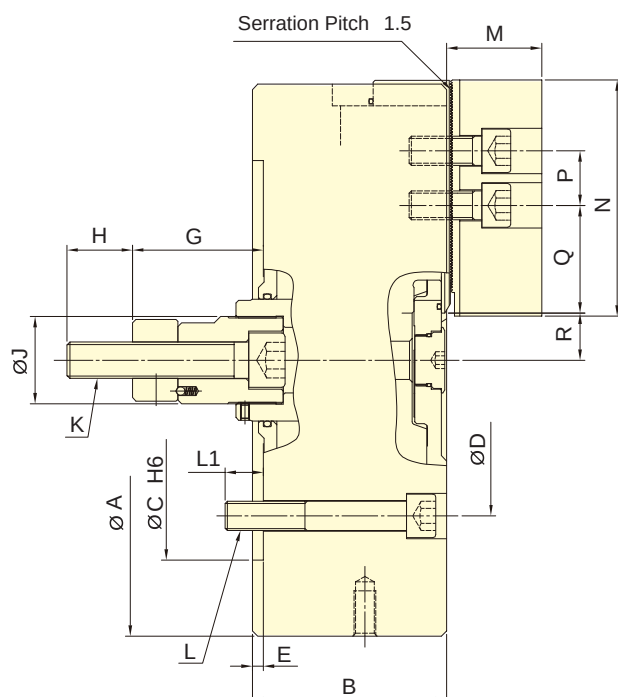
Model		A	B		C	D	D1	D2	E	E1	F	G max.		G min.		H	J
3HS-08	A6	220	98	110	170	133.4	106.38	150	5	52	24	20	15	2	-3	20	20

Model		K max.	K Default	L	L1		M	N	P	Q max.	Q min.	R max.	R min.	S	T	U
3HS-08	A6	M60x2	M55x2	6~M12	19	17	39	95	25	47.75	29.75	29	25.2	35	14	3~M6

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



- Fully sealed design extends maintenance intervals, improving production efficiency.
- Sealed design ensures constant lubrication and protects against the ingress of coolant and chips, which guarantees clamping precision and durability.
- Suitable for lights-out manufacturing; dry machining of castings and forgings; or when high-pressure coolant is utilized. Especially ideal for vertical lathes.
- Media fed through central bore - available for coolant or air. (optional)



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. clamping force	Max. speed	I	Weight	Matching cyl.	Max. pressure
	mm	mm	mm	mm	kN(kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg		MPa (kgf/cm ²)
3PS-12	30	12.7	315	22	38.5(3926)	160(16315)	3360	0.84	67	RK-150(N) RA-270	2.4(24.4) 0.7(7.4)

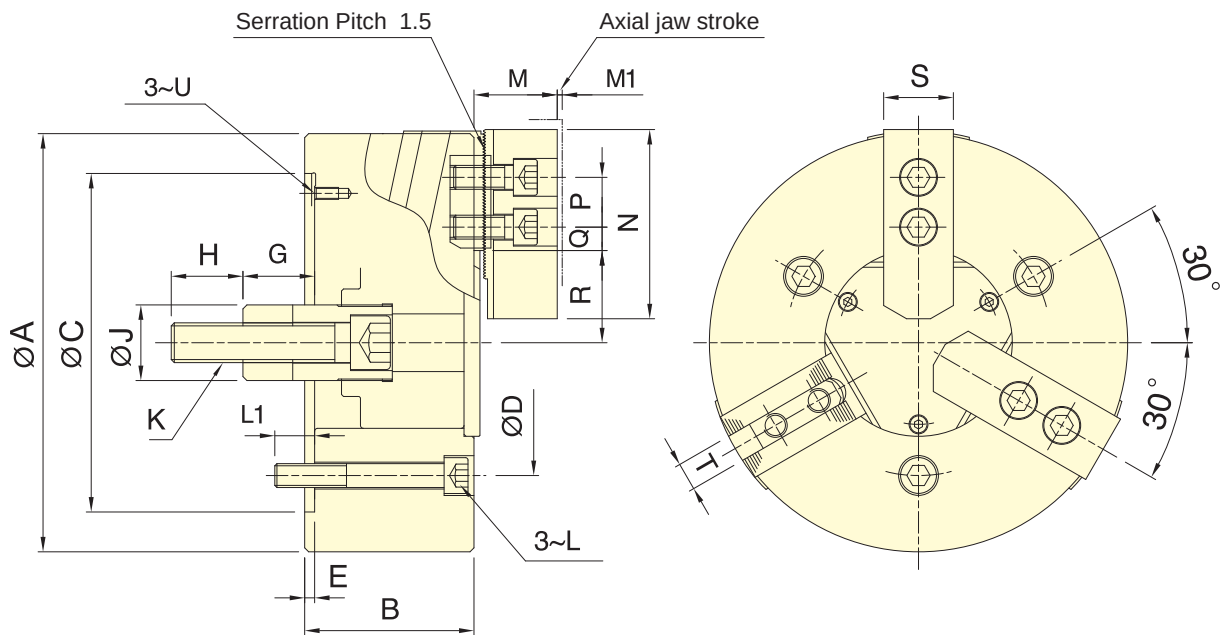
DIMENSIONS

Model	A	B	C	D	E	G max.	G min.	H	J	K
3PS-12	315	106	220	171.4	6	102	72	39	48	M20x2.5

Model	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T
3PS-12	6-M16	22	52	130	30	87.25	46.75	27	20.65	50	21



- 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.
- Airtight pressure detect function is optional.
- External gripping only.



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Max. pressure
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg		MPa (kgf/cm ²)
3N-06	20	8.1 (axial 0.9)	165	14	18 (1835)	61.5 (6270)	5000	0.05	11.1	RK-100(N)	2.6 (26)
3N-08	23	9.4 (axial 1.0)	210	17	25 (2540)	85.8 (8750)	4500	0.14	24.5	RK-125(N)	2.2 (22)
3N-10	25	10.2 (axial 1.1)	254	22	29 (2950)	108 (11000)	4000	0.32	34.5	RK-150(N)	1.8 (18)

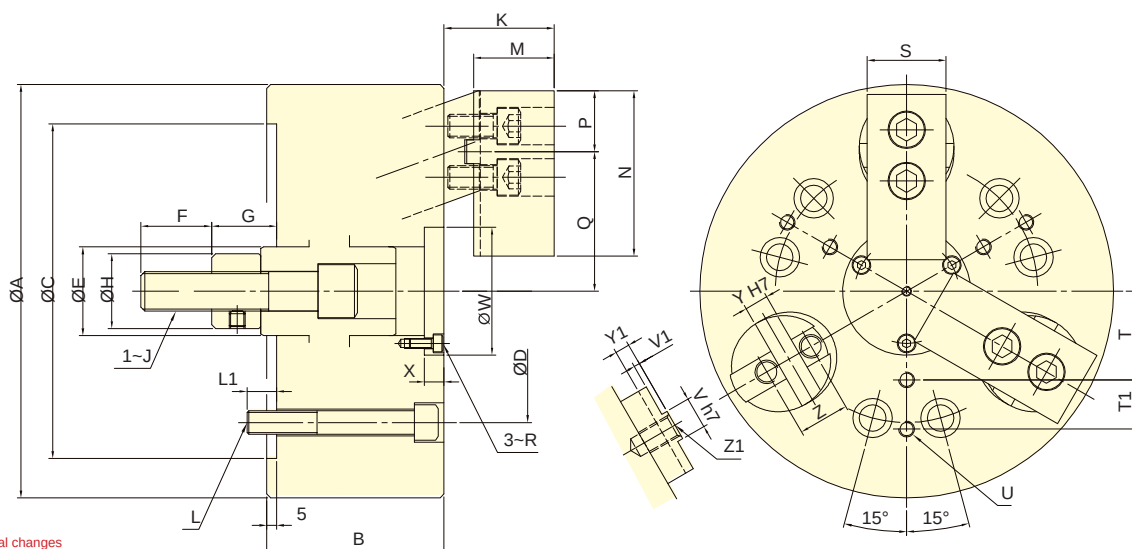
DIMENSIONS

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



- 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.
- Airtight pressure detect function is optional.



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Max. pressure
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg		MPa (kgf/cm ²)
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)

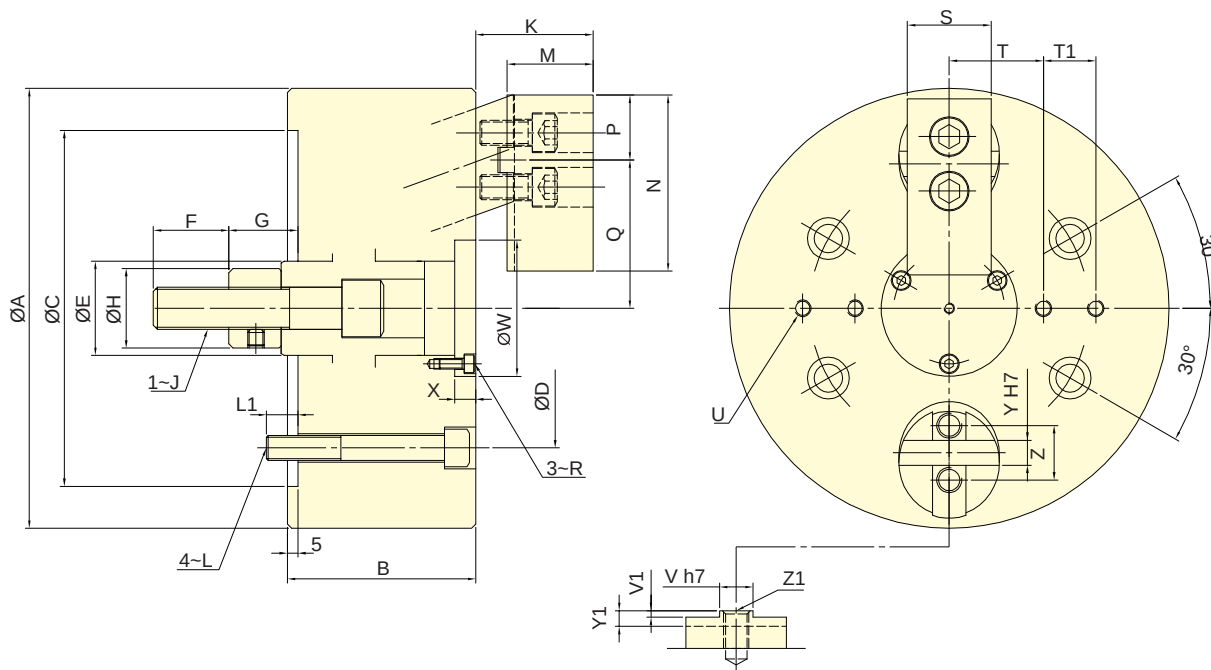
DIMENSIONS

Model	A	B	C (H6)	D	E	F	G max.	G min.	H	J	K max.	K min.	L	L1	M	N	P
3D-04	110	60	85	70.6	25	20	22	15	25	M10	30	23	3-M10	15	19.5	50	22
3D-05	135	70	110	82.6	30	25	24	17	28	M12	35	28	3-M10	16	24.5	56	23
3D-06	165	85	140	104.8	35	36	37	27	32	M16	45	35	6-M10	16	31	70	27
3D-08	210	90	170	133.4	45	36	38	28	38	M20	56	46	6-M12	15	41	84	31
3D-10	254	110	220	171.4	55	46	47	32	50	M24	65	50	6-M16	24	46	100	38
3D-12	304	125	220	171.4	55	50	49.5	34.5	53	M27	70	55	6-M16	22	51	120	42
3D-15	381	140	300	235	70	55	61	41	55	M30	86	66	6-M20	30	60	165	60

Model	Q max.	Q min.	R	S	T	T 1	U	V (h7)	V 1	W	X	Y(H7)	Y1	Z	Z1
3D-04	37	34.5	M3	25	22.5	-	3-M6	8	2.5	35	2	8	6	-	M10
3D-05	46	43.5	M3	30	27.5	-	3-M6	8	2.5	44	2	8	6	-	M12
3D-06	57.7	54.3	M4	35	35	20	6-M6	10	2.5	52	7	10	6.5	-	M14
3D-08	70.8	67.2	M5	40	45	25	6-M8	16	3	65	10	12	7.5	26	M12
3D-10	85	79.6	M6	50	55	30	6-M8	18	3	75	12	15	7.5	32	M14
3D-12	101.9	96.5	M6	60	70	35	6-M10	20	3	90	12	17	7.5	36	M16
3D-15	135.6	128.3	M8	70	95	45	6-M12	24	4	120	13	20	6	40	M16



- 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.
- Airtight pressure detect function is optional.



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chuck Dia. Max. mm	Chuck Dia. Min. mm	Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min ⁻¹ (r.p.m.)	Moment of inertia kg · m ²	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm ²)
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)

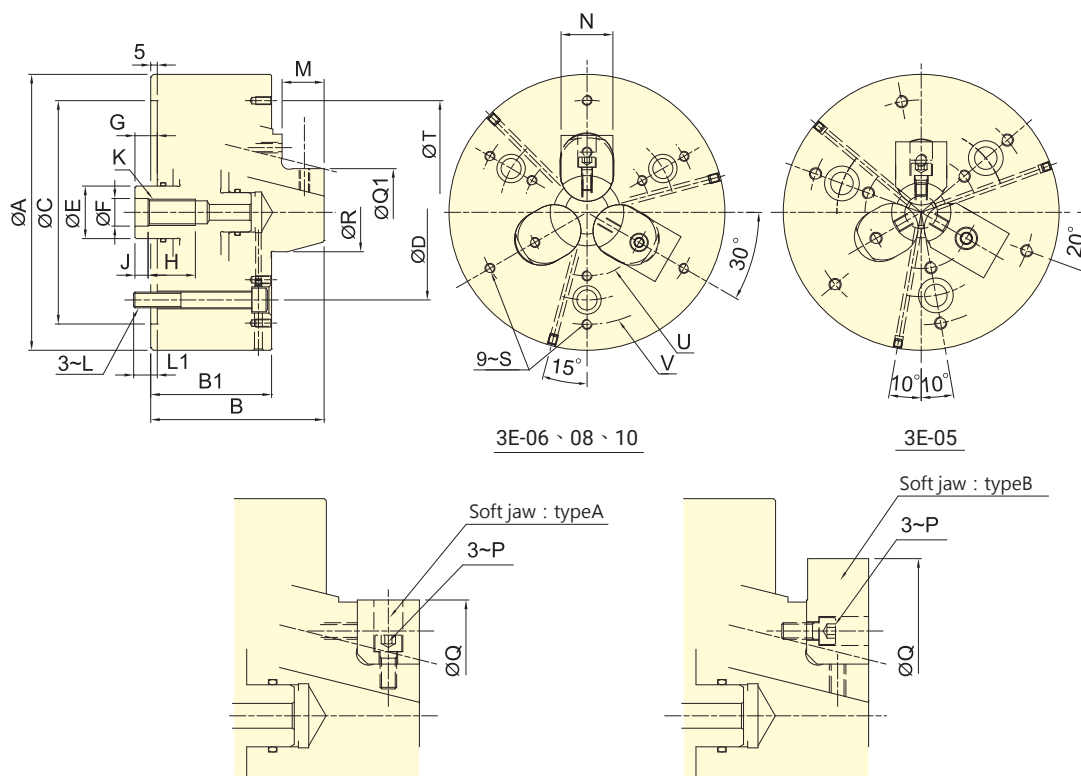
DIMENSIONS

Model	A	B	C (H6)	D	E	F	G max.	G min.	H	J	K max.	K min.	L	L 1	M	N	P
2D-06	165	85	140	104.8	35	36	37	27	32	M16	45	35	M10	16	31	70	27
2D-08	210	90	170	133.4	45	36	38	28	38	M20	56	46	M12	15	41	84	31
2D-10	254	110	220	171.4	55	46	47	32	50	M24	65	50	M16	24	46	100	38

Model	Q max.	Q min.	R	S	T	T1	U	V (h7)	V 1	W	X	Y (H7)	Y1	Z	Z1
2D-06	57.7	54.3	M4	35	35	20	4-M6	10	2.5	52	7	10	6.5	-	M14
2D-08	70.8	67.2	M5	40	45	25	4-M8	16	3	65	10	12	7.5	26	M12
2D-10	85	79.6	M6	50	55	30	4-M8	18	3	75	12	15	7.5	32	M14



- 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.
- Airtight pressure detect function is optional.



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Max. pressure
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg		MPa (kgf/cm ²)
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)

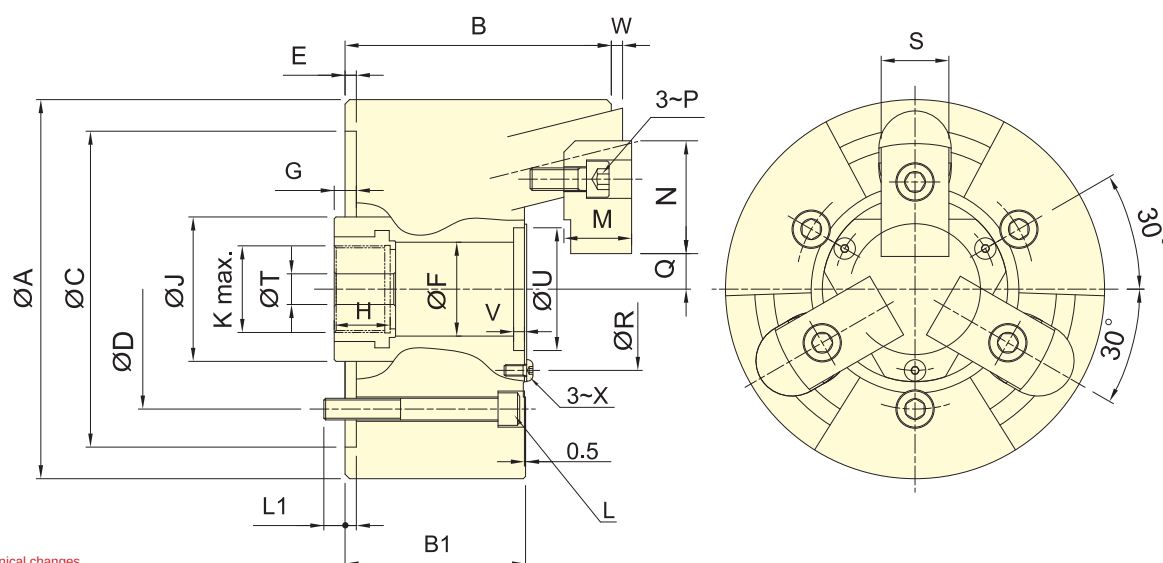
DIMENSIONS

Model	A	B	B1	C (H6)	D	E	F (H8)	G max.	G min.	H	J	K	L	L1
3E-05	135	98	72	110	82.6	25	18	18	12	25	8	M16	M10	15
3E-06	165	112	80	140	104.8	35	18	22	12	30	8	M16	M10	16
3E-08	210	135	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 (p.c.d)	V (p.c.d)
				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



- 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	Jaw stroke (Dia.)	Chuck-ing Dia.Max.	Chuck-ing Dia.Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Max. pressure
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg • m ²	kg		MPa (kgf/cm ²)
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	12	6	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)

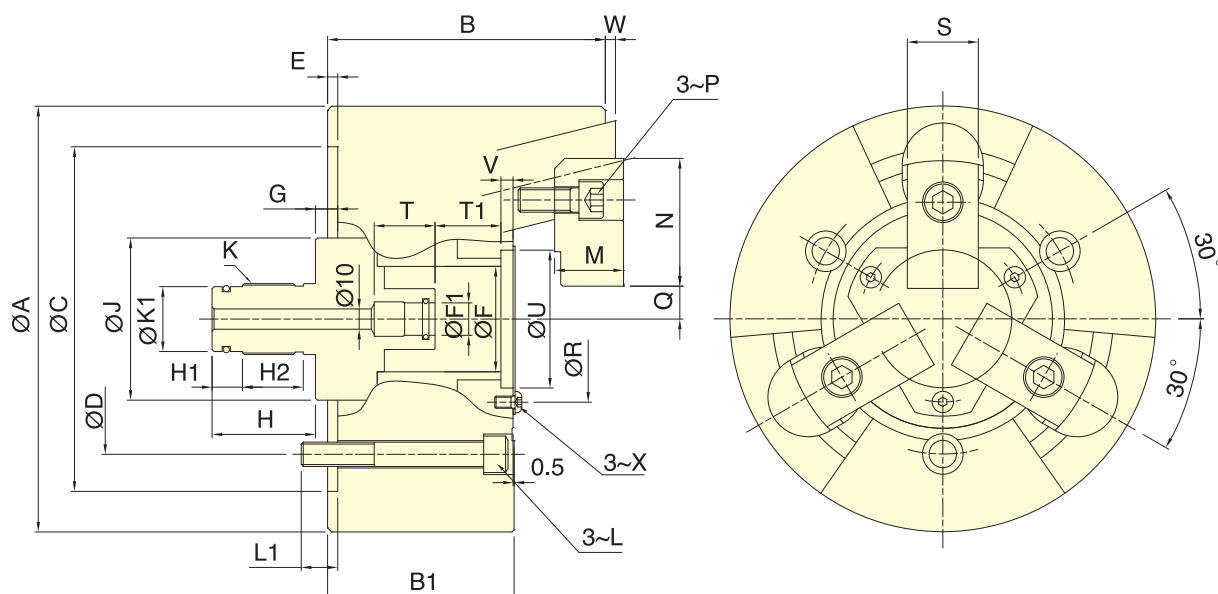
DIMENSIONS

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	M38x1.5	3~M10	16.5
3U-208	210	137	92	170	133.4	5	52	23	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	40	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	13.25	82	35	17	68	6	5	-7	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



- 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.



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Max. pressure
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg		MPa (kgf/cm ²)
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	12	6	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	23	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

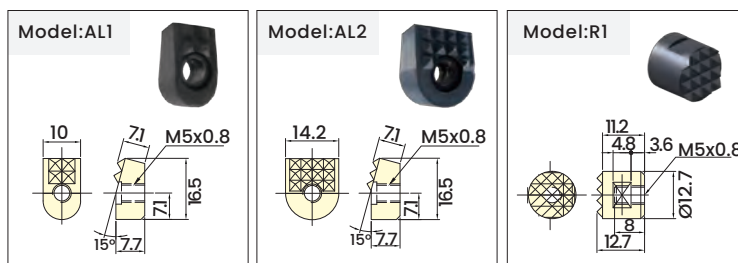
Model	L1	M	N	P	Q max.	Q min.	R	S	T	T1	U(H6)	V	W max.	W min.	X
3U-205K	15	20	41.5	M8	13.25	11.75	55	24	25	15.5	45	5	3	-3	M5
3U-206K	16.5	30	50	M10	15.75	13.25	72	30	30	26.5	58	6	5	-5	M5
3U-208K	18	34	63	M12	16.25	13.25	82	35	30	32.5	68	6	5	-7	M6
3U-210K	23	39	74	M14	20.75	18.25	107	40	30	36.5	93	6	5	-5	M8
3U-212K	26	44	74	M14	44.25	41.75	130	40	30	36.5	114	6	5	-5	M10



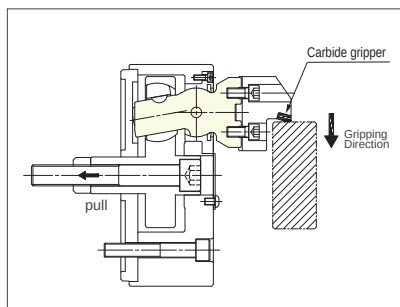
SPECIAL PURPOSE POWER CHUCKS

- 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.
 - Suitable for heavy machining.
 - 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.
- Carbide gripper is optional. * The type of the carbide gripper is selected according to the work-piece conditions.
- According to different processing requirements, O.D. Gripping and I.D. Gripping can be interchanged.

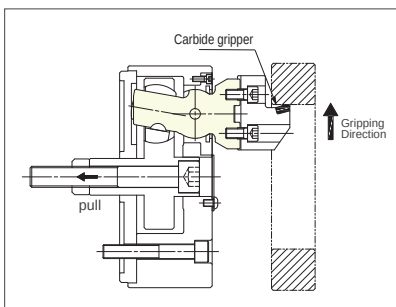
Type of the Carbide gripper



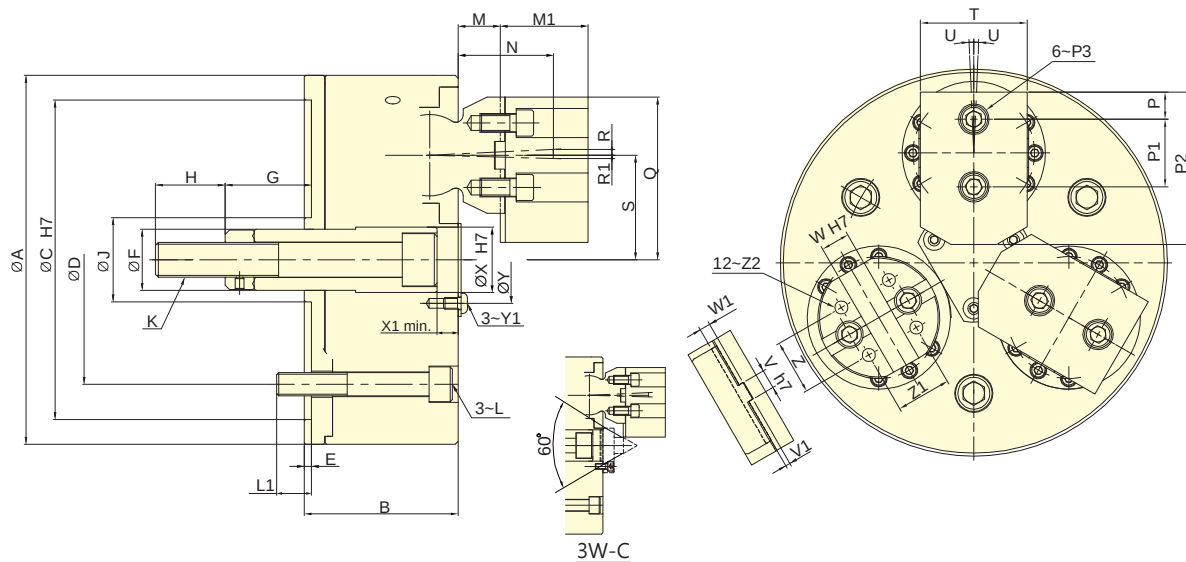
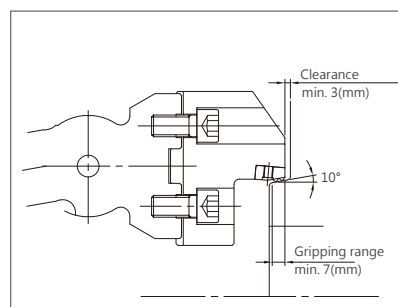
O.D. Gripping



I.D. Gripping



Min. Gripping range



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chucking O.D. Min.-Max.	Chucking I.D. Min.-Max.	Max. D.B. pull	Max. clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Compensation
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg • m ²	kg		mm
3W-08	14.4	9.8	16~150	76~203	25(2550)	85.0(8670)	3700	0.12	23	RK-100(N)	-
3W-C08	14.4	9.8	16~150	76~203	25(2550)	85.0(8670)	3700	0.12	23	RK-100(N)	2
3W-10	17.5	12.5	50~205	85~235	35.3(3600)	105.9(10800)	2500	0.37	48.6	RK-125(N)	-
3W-C10	17.5	12.5	50~205	85~235	35.3(3600)	105.9(10800)	2500	0.37	48.6	RK-125(N)	2
3W-12	17.5	12.5	63~240	127~305	35.3(3600)	105.9(10800)	2400	0.73	65	RK-125(N)	-
3W-C12	17.5	12.5	63~240	127~305	35.3(3600)	105.9(10800)	2400	0.73	65	RK-125(N)	2
3W-15	22.5	15.9	76~317	165~381	56(5600)	168.2(16800)	2000	1.81	97	RK-150(N)	-
3W-C15	22.5	15.9	76~317	165~381	56(5600)	168.2(16800)	2000	1.81	97	RK-150(N)	3

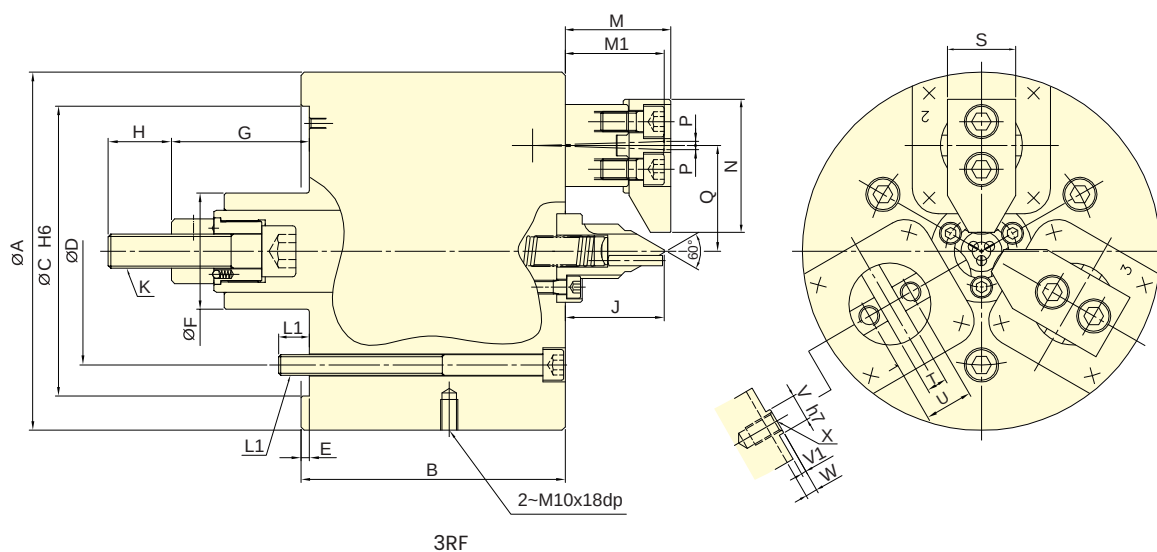
DIMENSIONS

Model	A	B	C (H7)	D	E	F	G max.	G min.	H	J	K	L	L1	M	M1	N	P	P1	P2
3W-08	210	89	170	133.4	5	34	51.9	37.5	40	50	M18x2.5	M12	19	19.3	56.5	52.7	16	38	80
3W-C08	210	89	170	133.4	5	34	51.9	37.5	40	50	M18x2.5	M12	19	19.3	56.5	52.7	16	38	80
3W-10	254	106	220	171.4	5	42	67.5	50	48	58	M24x3	M16	24	29	60.5	65.6	17.8	44.4	100
3W-C10	254	106	220	171.4	5	42	67.5	50	48	58	M24x3	M16	24	29	60.5	65.6	17.8	44.4	100
3W-12	304	106	220	171.4	5	42	67.5	50	48	58	M24x3	M16	24	29	60.5	65.6	17.8	44.4	100
3W-C12	304	106	220	171.4	5	42	67.5	50	48	58	M24x3	M16	24	29	60.5	65.6	17.8	44.4	100
3W-15	381	120	300	235	5	55	62.5	40	46	80	M27x3	M20	30	32.4	72	74.3	19	63.5	140
3W-C15	381	120	300	235	5	55	62.5	40	46	80	M27x3	M20	30	32.4	72	74.3	19	63.5	140

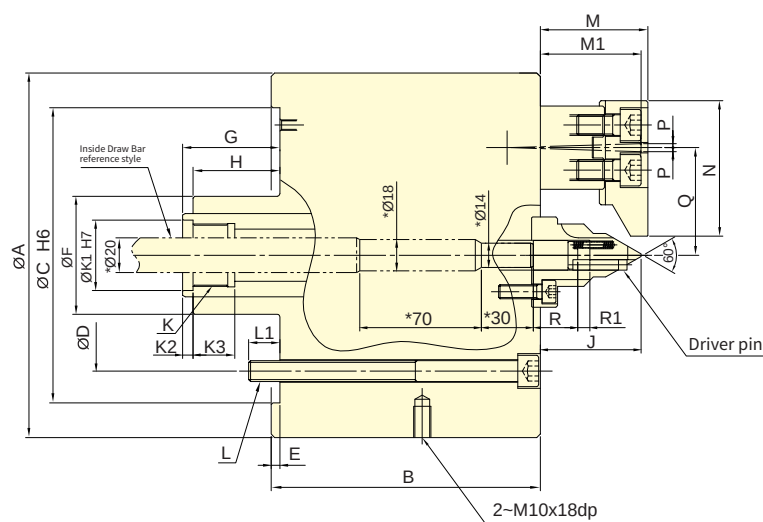
Model	P3	Q	R	R1	S	T	U	V (h7)	V1	W (H7)	W1	X(H7)	X1	Y	Y1	Z	Z1	Z2
3W-08	M12	95	2.69	2.24	60	57	2	7.94	3	12.68	7	34	3.5	46	M6	32	32	M10
3W-C08	M12	95	2.69	2.24	60	57	2	7.94	3	12.68	7	34	3.5	46	M6	32	32	M10
3W-10	M12	112	4.03	2.26	72	70	2.5	12.7	3	19.03	7	45	5	60	M8	36	36	M10
3W-C10	M12	112	4.03	2.26	72	70	2.5	12.7	3	19.03	7	45	5	60	M8	36	36	M10
3W-12	M12	132.5	4.03	2.26	92.5	70	2.5	12.7	3	19.03	7	45	5	60	M8	36	36	M10
3W-C12	M12	132.5	4.03	2.26	92.5	70	2.5	12.7	3	19.03	7	45	5	60	M8	36	36	M10
3W-15	M12	172	5.14	2.83	121	80	2	12.7	3	19.03	7	56	3	90	M8	36	36	M10
3W-C15	M12	172	5.14	2.83	121	80	2	12.7	3	19.03	7	56	3	90	M8	36	36	M10



- The workpiece compensation of eccentric is 1mm, fixed position for the center, swing and grasp the workpiece to three jaw.
- Second machining can be performed without reversing the workpiece, thus significantly reducing setup time.
- With compensating jaws clamping, the Rough and precision machining can be carried out.
- With sealed design, the maintenance costs can be reduced.
- Can be paired with double-rod rotary cylinder (3RF-D type).
- The driver pin thrust can be controlled by the pressure of the rotary cylinder (3RF-D type).



3RF



3RF-D

Note: The dimensions marked [*] are the dimensions of the inside Draw Bar , Please don't change it.

Subject to technical changes

SPECIFICATIONS

Model	Chucking Dia.	Jaw stroke (Dia.)	Chucking Dia. Max.	Chucking Dia. Min.	Max. D.B. pull	Max. clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Compensation
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg		mm
3RF-08	43.5	9.4	70	18	39.2 (4000)	39.2 (4000)	4000	0.15	30	RS-1250	1
3RF-08D	43.5	9.4	70	18	39.2 (4000)	39.2 (4000)	4000	0.15	30	RDL-160S	1

DIMENSIONS

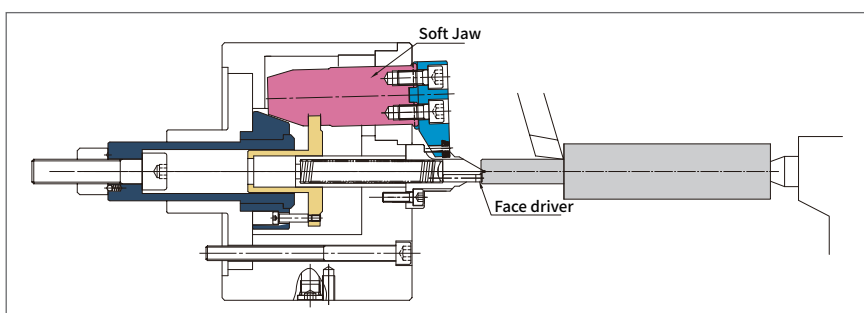
Model	A	B	C (H6)	D	E	F	G max.	G min.	H	J	K	K1 (H7)	K2	K3	L	L1
3RF-08	210	155	170	133.4	5	68	123	79.5	37	58	M20x2.5	-	-	-	3~M12	18
3RF-08D	210	155	170	133.4	5	68	98	54.5	50	58	M36x1.5	40.5	6	24	3~M12	18

Model	M	M1	N	P	Q	R	R1 max.	R1 min.	S	T(H7)	U	V	V1	W	X
3RF-08	62	58	78	2.35	62	-	-	-	40	12	28	16	3	7	M12
3RF-08D	62	58	78	2.35	62	25.5	7	0	40	12	28	16	3	7	M12

APPLICATION NOTES

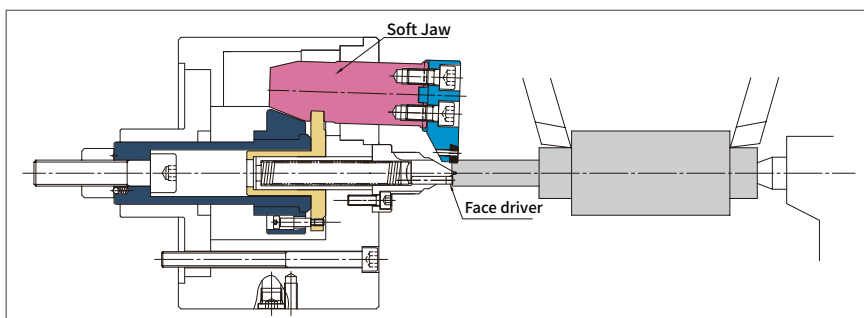
1.Clamping diameter machining

The compensating jaws are retracted. The workpiece is clamped between chuck center and tailstock center. Additionally, it is driven by the face driver.



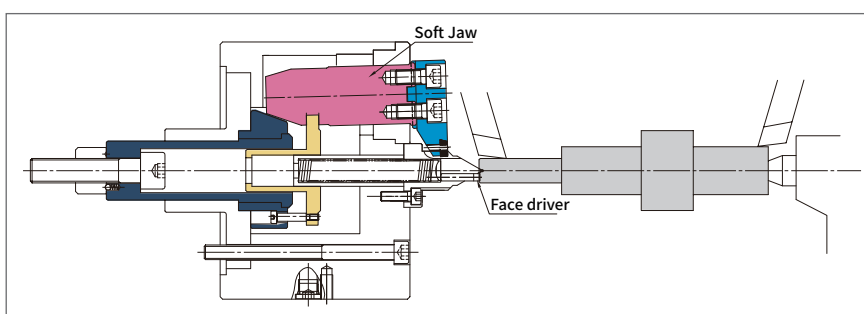
2.Rough machining

With compensating jaws clamping, the rough machining can be carried out.



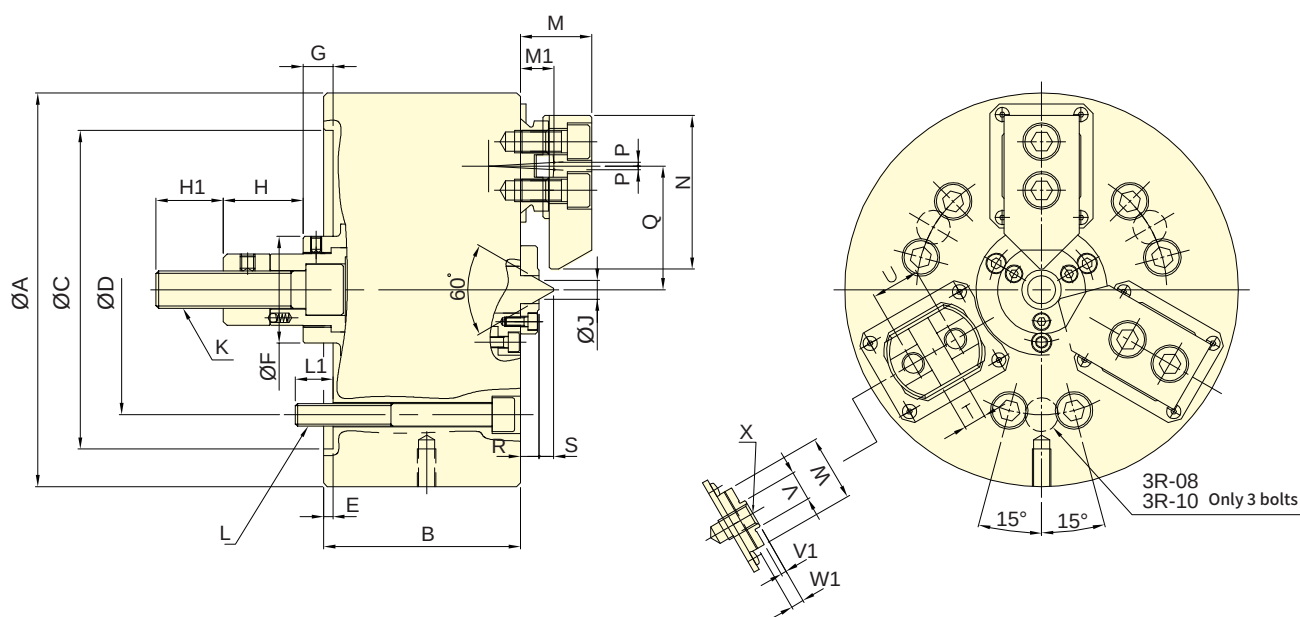
3.Finish machining

Additionally, it is driven by the face driver. The entire workpiece can be machined with precise concentricity.





- The workpieces compensation of eccentric is 2 mm, fixed position for the center thimble, swing and grasp the workpiece to three jaw.
- 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	Chucking Dia. mm	Jaw stroke (Dia.) mm	Chucking Dia. Max. mm	Chucking Dia. Min. mm	Max. D.B. pull kN (kgf)	Max. clamping force kN (kgf)	Max. speed min ⁻¹ (r.p.m.)	Moment of inertia kg · m ²	Weight kg	Matching cyl.	Compensation mm
3R-08	20	8	65	18	19.6(2000)	53.0(5404)	2800	0.15	27	RK-100N	2
3R-10	25	10	90	22	29.4(3000)	67.7(6901)	2500	0.38	45	RK-125N	2
3R-12	25	10.2	110	22	39.4(4000)	88.4(9010)	2000	0.75	72	RK-150N	2

DIMENSIONS

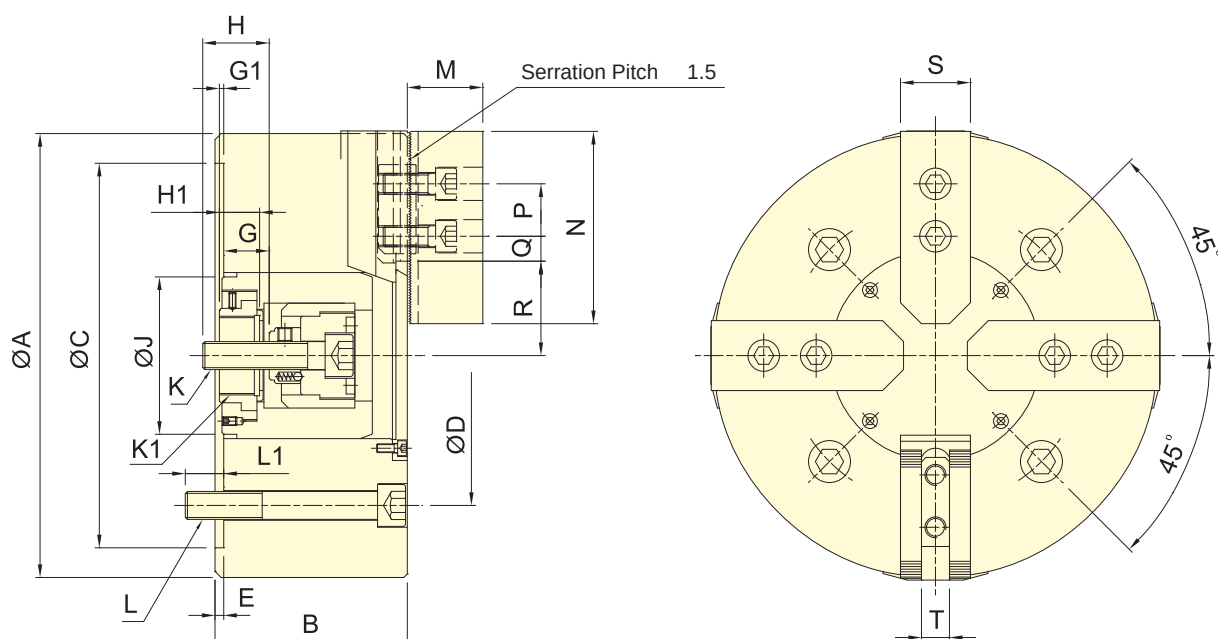
Model	A	B	C (H6)	D	E	F	G max.	G min.	H	H1	J	K	L	L1
3R-08	210	105	170	133.4	5	57	26	6	42.5	36	10.4	M20x2.5	3~M12	20
3R-10	254	115	220	171.4	5.5	64	36.5	11.5	25	39	15	M20x2.5	3~M16	22.5
3R-12	304	130	220	171.4	5	70	25	0	33	45.5	15	M24x3	3~M16	22

Model	M	M1	N	P	Q max.	Q min.	R	S	T (H7)	U	V	V1	W	W1	X
3R-08	38	18	82	2	68	64	10	7.7	12	26	16	3	35	7	M12
3R-10	40	19	102	2.6	82	78	10	11.3	15	32	18	3	40	7	M14
3R-12	51	24	125	2.5	102.5	97.5	10	11.3	17	36	20	3	50	7	M16



- 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 :
PAT.NO.M359385 (Taiwan)
PAT.NO.ZL200920009309.1(China)



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke mm	Jaw stroke (Dia.) mm	Chuck Dia. Max. mm	Chuck Dia. Min. mm	Max. D.B. pull kN (kgf)	Max. Clamping force kN (kgf)	Max. speed min ⁻¹ (r.p.m.)	Moment of inertia kg · m ²	Weight kg	Matching cyl.	Max. pressure MPa (kgf/cm ²)
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)

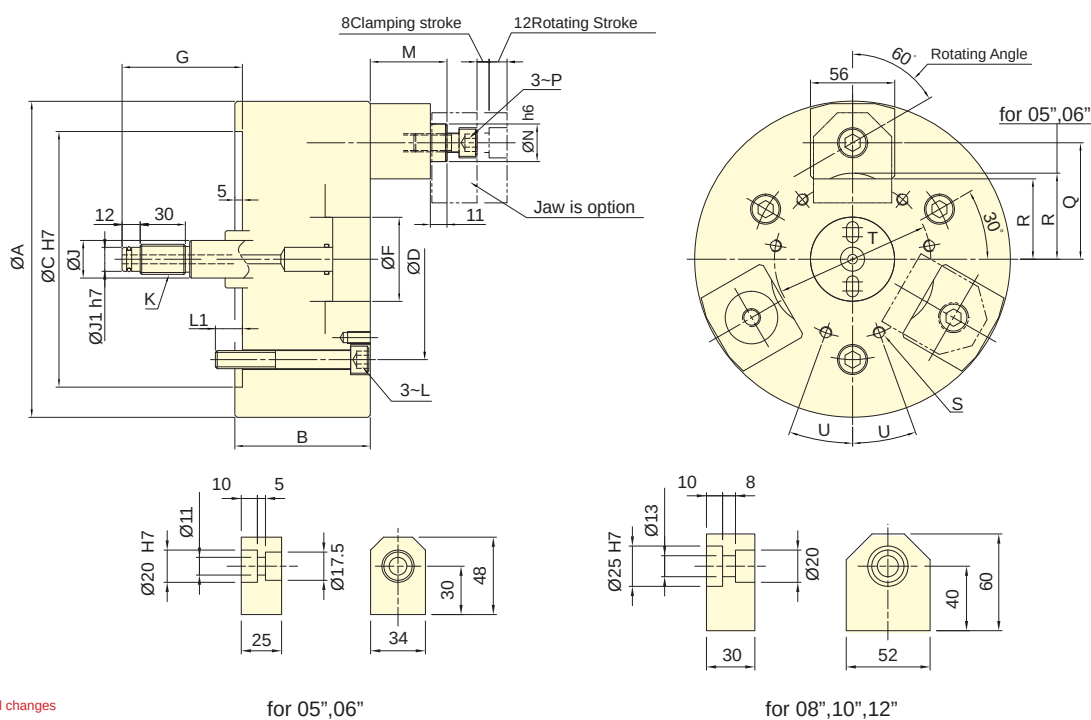
DIMENSIONS

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	110	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



- 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.
- Airtight pressure detect function is optional.



Subject to technical changes

for 05",06"

for 08",10",12"

SPECIFICATIONS

Model	Rotating stroke	Clamping stroke	Jaw's compensation	Chuck Dia. Max.	Chuck Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Max. pressure
	mm	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg		MPa (kgf/cm ²)
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)

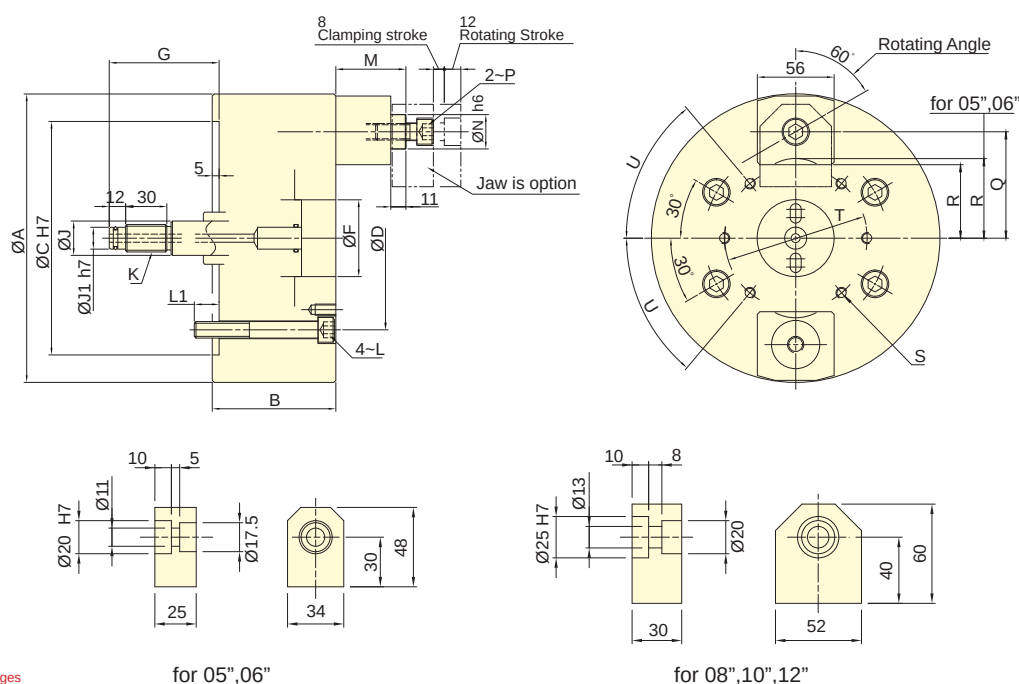
DIMENSIONS

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°



- 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.
- Airtight pressure detect function is optional.



Subject to technical changes

SPECIFICATIONS

Model	Rotating stroke	Claming stroke	Jaw's compensation	Chucking Dia. Max.	Chucking Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Max. pressure
	mm	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg • m ²	kg		MPa (kgf/cm ²)
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)

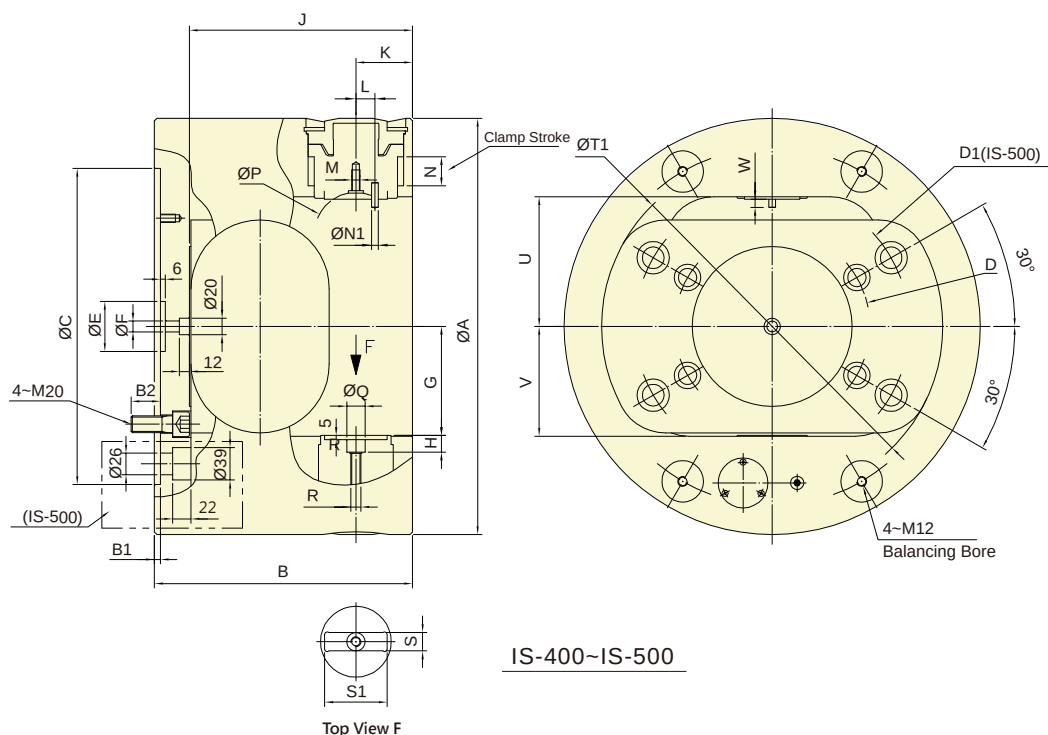
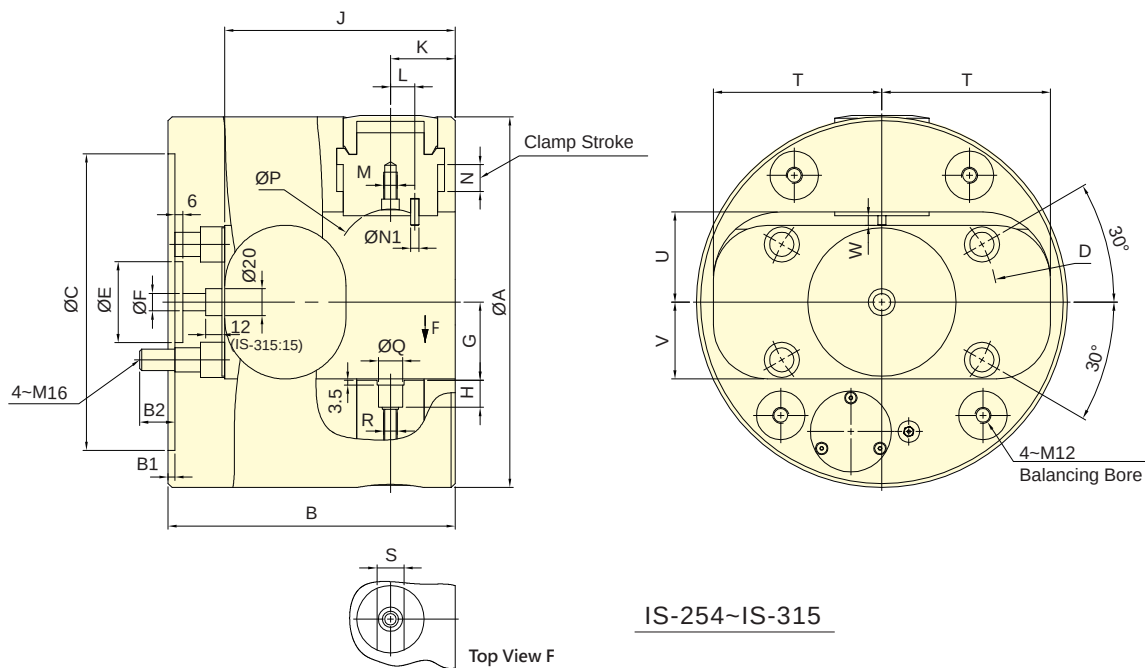
DIMENSIONS

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°



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



Subject to technical changes

SPECIFICATIONS

Model	Index Angle	Jaw stroke	Chuck Area Dia Max.	Chuck Area Len Max.	Max. pressure	Max. Clamping force	Max. speed	Moment of inertia	Weight	ROTATING JOINT	Main Spindle Bore	Clamp Jaw Weight
	Deg	mm	mm	mm	kgf/cm ²	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg		mm	kg
IS-254	4x90°	20	65	160	45	19.5(1990)	3100	0.41	41	IRJ-5E1	61 and above	0.6
IS-275	4x90°	20	80	220	45	25.4(2590)	2500	0.61	52	IRJ-5E1	61 and above	1.2
IS-315	4x90°	20	100	230	45	25.0(2550)	1200	1.13	76	IRJ-5E1	61 and above	1.8
*IS-400	4x90°	30	170	260	45	34.5(3510)	1000	15.0	145	IRJ-5E1	61 and above	4.0
*IS-500	4x90°	35	220	310	45	45.7(4660)	1000	25.4	230	IRJ-5E1	61 and above	6.0

DIMENSIONS

Model	A	B	B1	B2	C(H6)	D	D1	E	F	G	H	J	K
IS-254	254	190	5	23	220	171.4	-	60	13	47.5	18	155	48
IS-275	275	213	5	26	220	171.4	-	60	13	58	20	171	48
IS-315	315	232	5	22	220	171.4	-	60	13	71	18.5	187	50
*IS-400	400	260	6	30	300	235	-	60	13	99	20	220	60
*IS-500	500	310	7	35	380	235	330.2	60	13	131	20	268	68

Model	L	M	N	N1	P	Q(H7)	R	S(H7)	S1	T	T1	U	V	W
IS-254	13	M8	20	5	40	18	M10	20	-	106	-	57	46.5	5.5
IS-275	18	M10	20	6	80	18	M10	20	-	125	-	67	57	7
IS-315	18	M10	20	6	75	24	M12	25	-	136	-	85	70	7.5
*IS-400	23	M10	30	8	100	22	M12	22	60	-	330	112	100	10
*IS-500	23	M10	35	8	100	22	M12	22	75	-	410	156	132	10



*Index Angle 8x45o or Specific Angle, Please contact AUTOGRIP for more detailed information. Thanks.

The maximum rotational speed can only be achieved when the hydraulic pressure is at its maximum. Additionally, the operating pressure and the weight of the clamping fixture must not exceed the values shown in the table above.

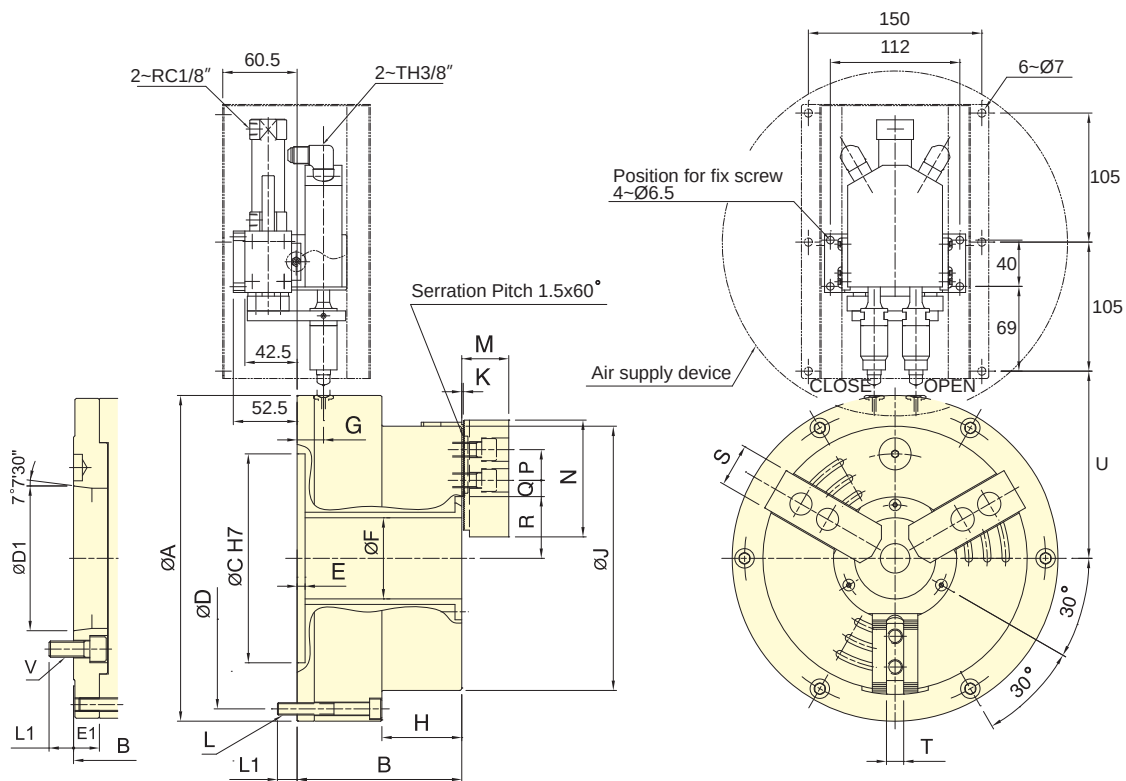
Indexing can be performed while the spindle is rotating. However, when indexing at high rotational speeds, it is recommended to reduce the speed by 50% to avoid vibration caused by imbalance when the workpiece is in an intermediate position. Furthermore, depending on the shape of the workpiece, indexing during spindle rotation may not be possible.

The "*" model is produced upon order, with no stock available.



- Large through-hole 3-jaw power chuck with build 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 :
 20.2011.101.818.4 / 20.2012.102.498.5(Germany)
 3169457 / 3178706 (Japan) / EP 2517822 B1 (EU)
 ZL 2011 2 0141324.9 / ZL 2012 2 0274549.6 (China)
 M440159 / M415011 (Taiwan) / US8770222 B2 (U.S.A.)
 0000278076(Italy)



AP-A

Subject to technical changes

SPECIFICATIONS

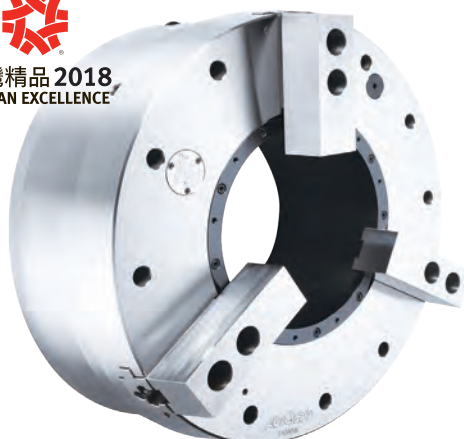
Model		Thru-hole Dia.	Jaw stroke (Dia.)	Chucking Dia. Max.	Chucking Dia. Min.	Max. pressure	Max. Clamping force	Max. speed	Moment of inertia	Weight		Air Consumption
		mm	mm	mm	mm	MPa (kgf/cm ²)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg	lit (at 6kgf/cm ²)	
AP-52	A6	52	5.9	170	15	0.6(6.1)	40.5(4128)	3900	0.2	26	30	3.1
AP-66	A6	66	7.6	215	24	0.6(6.1)	50(5097)	3000	0.4	38	45	5.1
AP-86	A8	86	8.9	268	43	0.6(6.1)	80(8156)	2800	0.7	58	72	8.7
AP-115	A8	115	10.6	330	55	0.6(6.1)	90(9174)	2000	1.7	92	112	12

DIMENSIONS

Model		A	B		C	D	D1	E	E1	F	G	H	J	K	L
AP-52	A6	235	121	140	170	215	106.38	6.5	19	52	21.5	58.5	170	2	6~M10
AP-66	A6	265	134	153	170	245	106.38	6.5	19	66	21.5	65	215	2	6~M10
AP-86	A8	315	142	169	220	295	139.72	6.5	27	86	21.5	67	268	2	6~M10
AP-115	A8	370	154	181	220	350	139.72	6.5	27	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	A6	15	18	37	73	20	21.2	9.2	38	35.1	31	12	145.5	6~M12
AP-66	A6	16	18	38	95	25	23.7	8.7	50.2	46.4	35	14	159.5	6~M12
AP-86	A8	16	24	43	110	30	32.2	12.7	62.2	57.8	40	16	184.5	6~M16
AP-115	A8	16	24	51	130	30	44.7	14.7	77	71.7	50	21	212	6~M16

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.(only for O.D. gripping)
- 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 :

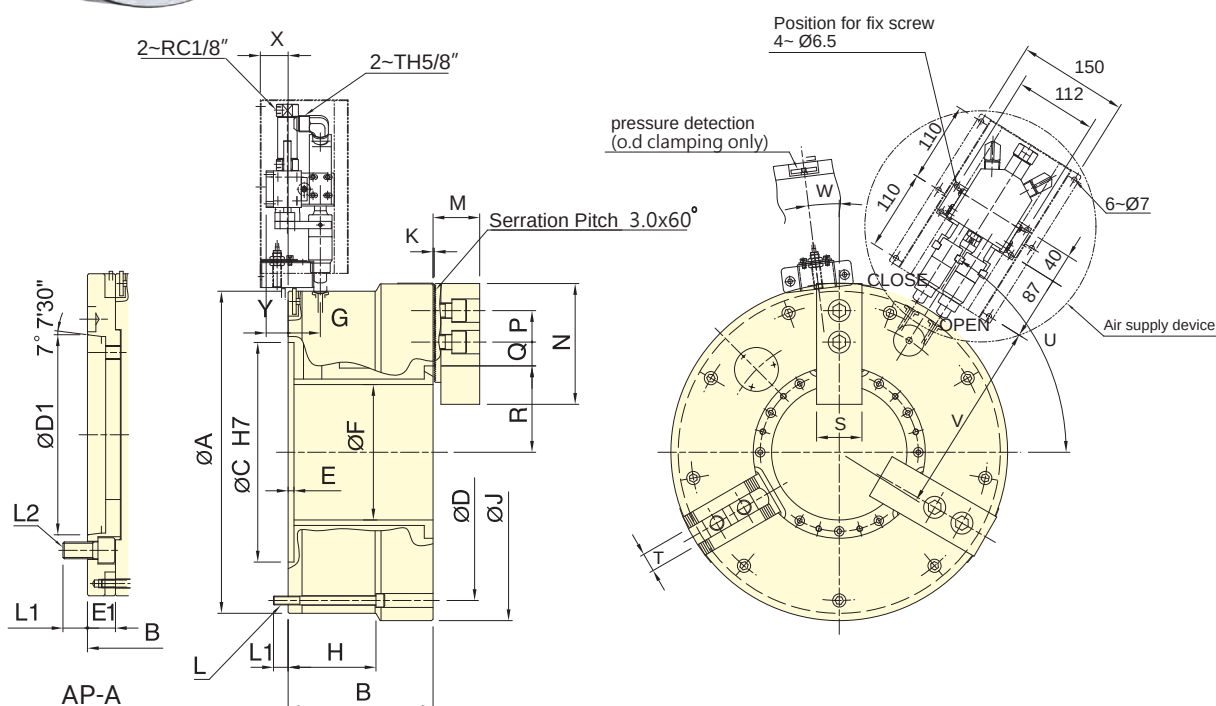
20.2011.101.818.4 /20.2012.102.498.5(Germany)

3169457 / 3178706 (Japan) / EP 2517822 B1 (EU)

ZL 2011 2 0141324.9 / ZL 2012 2 0274549.6 (China)

M440159 / M415011 (Taiwan) / US8770222 B2 (U.S.A.)

0000278076(Italy)



Subject to technical changes

SPECIFICATIONS

Model		Thru-hole Dia.	Jaw stroke (Dia.)	Chucking Dia.Max.	Chucking Dia.Min.	Max. pressure	Max. Clamping force	Max. speed	Moment of inertia	Weight		Air Consumption
		mm	mm	mm	mm	MPa (kgf/cm²)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m²	kg	lit(at 6kgf/cm²)	
AP-145	A11	145	14	420	62	0.6(6.1)	110(11213)	1500	3.8	156	182	17.8
AP-185	A15	185	14	460	100	0.6(6.1)	160(16310)	1700	6.0	188	223	22
AP-230	A15	230	17	535	170	0.6(6.1)	150(15290)	1300	11.1	265	310	34
AP-275	A20	275	17	580	200	0.6(6.1)	160(16310)	1100	15.5	301	346	39
AP-320	A20	320	17	658	200	0.6(6.1)	180(18348)	1000	27.2	415	505	45
AP-375	A20	375	24	738	260	0.6(6.1)	210(21406)	900	44.2	530	545	55

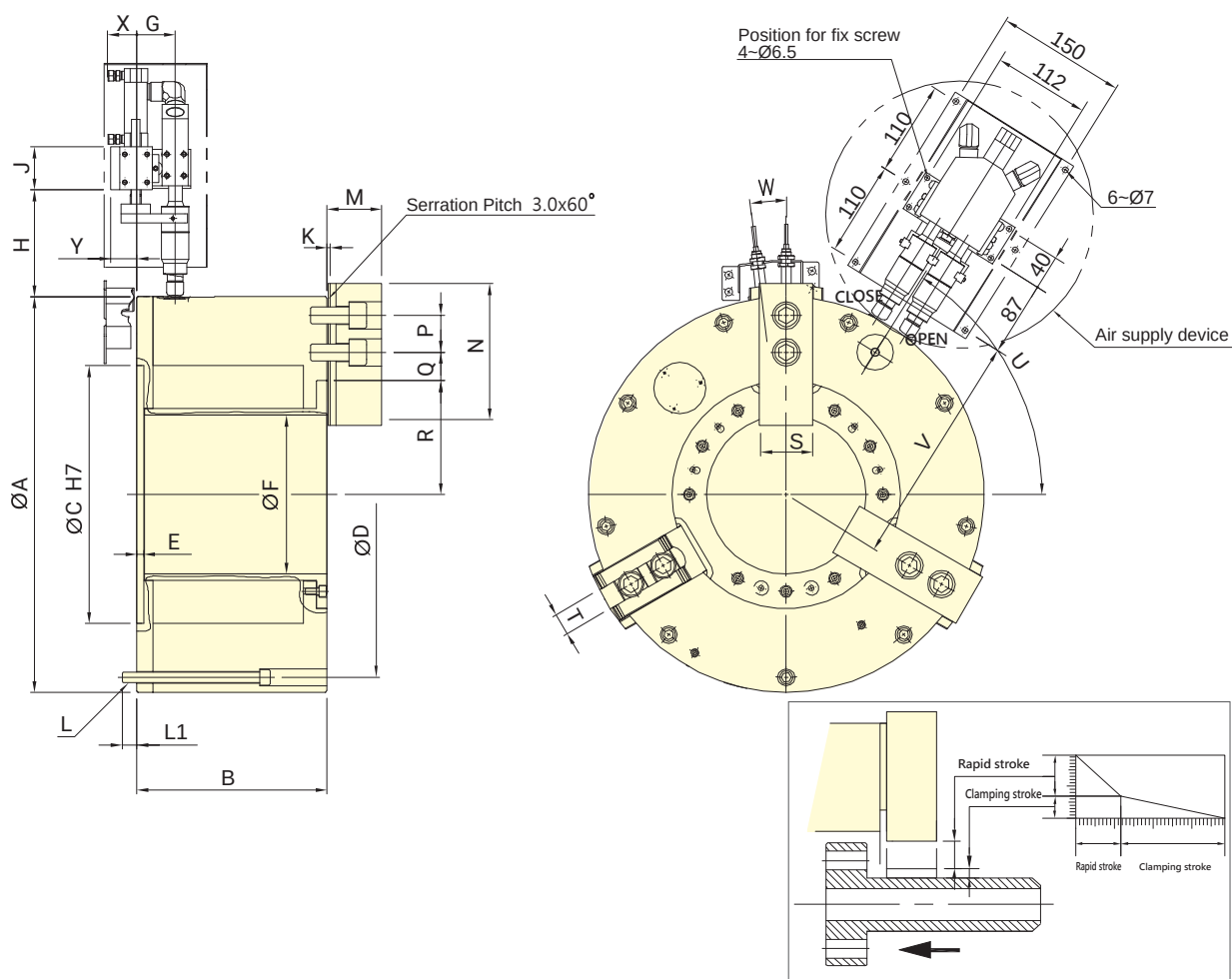
DIMENSIONS

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

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

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 O.D. gripping)
 - Extended jaw stroke design can shorten the processing time when gripping.
- Notice: No clamping in rapid stroke period.



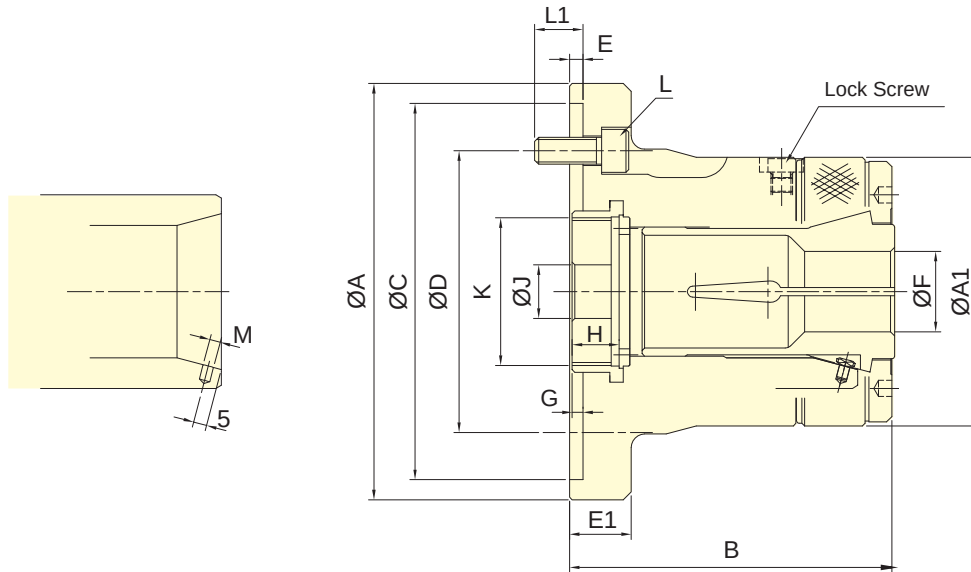
SPECIFICATIONS

DIMENSIONS

Model	A	B	C	D	E	F	G	H	J	K	L	L1	M
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
APS-185	165	43	37	17	145	125	62	25.5	58	272	7°	38	30



- PUSH type collet used mainly on turning, CNC, special purpose machines , ect.
- High clamping accuracy, high speed and high rigidity.
- Sealed against swarf, chips and coolant.
- The collet used must accord with DIN 6343.
- Patent numbers :
PAT.NO.M380842(Taiwan)
PAT.NO.ZL201020113762.X(China)



Subject to technical changes

SPECIFICATIONS

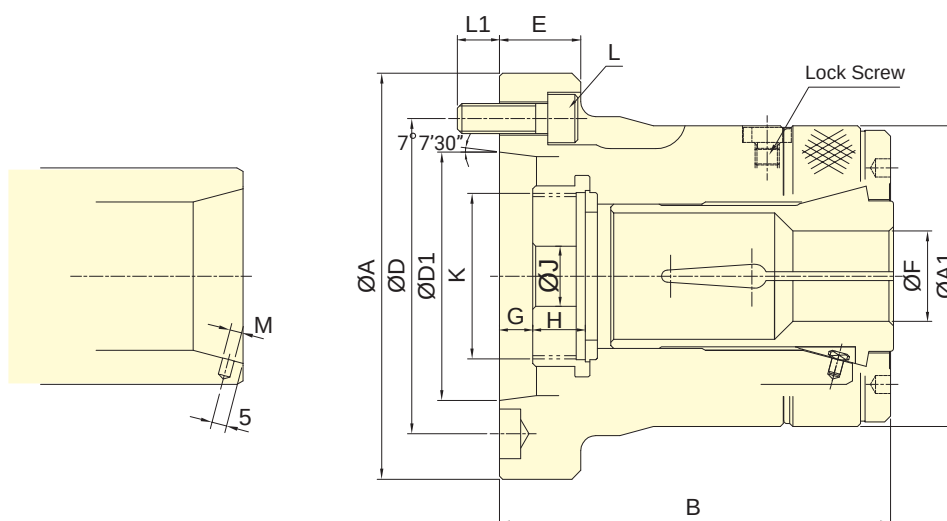
Model	Plunger stroke mm	Max. Chucking Capacity			Max. D.B. pull kN (kgf)	Max. clamping force kN (kgf)	Max. speed min ⁻¹ (r.p.m.)	Moment of inertia kg · m ²	Weight kg	Matching steel collet	Matching Cyl.	Max. pressure MPa (kgf/cm ²)
		Round mm	Hexagom mm	Square mm								
CL-26	4.5	3~26	4~22	4~18	17.6(1800)	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	TS-866	1.8(18)
CL-6022	6	5~60	8~52	7~42	29.4(3000)	63.7(6500)	5000	0.126	16.3	185E	TS-866	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-A1287	1.6(16)

DIMENSIONS

Model	A	A1	B	C(H6)	D	E	E1	F max.	F min.	G max.	G min.	H	J	K max.	L	L1	M
CL-26	120	85	100	110	82.6	4	23	26	3	7	2.5	15	12	M40x1.5	3~M10x25	16	4
CL-30	120	85	100	110	82.6	4	23	30	3	7	2.5	15	12	M40x1.5	3~M10x25	16	4
CL-36	155	100	120	140	104.8	5	23	36	3	7	1	17.5	20	M55x2	3~M10x25	18	4
CL-42	155	100	120	140	104.8	5	23	42	3	7	1	17.5	20	M55x2	3~M10x25	18	4
CL-52	185	130	145.5	170	133.4	5	27	52	5	9	3	24	30	M60x2	6~M12x30	20	5
CL-6017	185	130	145.5	170	133.4	5	27	60	5	9	3	24	45	M75x2	6~M12x30	20	5
CL-6022	234	130	142	220	171.4	5	32	60	5	13	7	24	45	M85x2	6~M16x30	20	5
CL-80	234	156	163	220	171.4	5	32	80	20	15.5	9.5	22	45	M100x2	6~M16x30	20	5



- PUSH type collet used mainly on turning, CNC, special purpose machines , ect.
- High clamping accuracy, high speed and high rigidity.
- Sealed against swarf, chips and coolant.
- The collet used must accord with DIN 6343.
- Patent numbers :
PAT.NO.M380842(Taiwan)
PAT.NO.ZL201020113762.X(China)



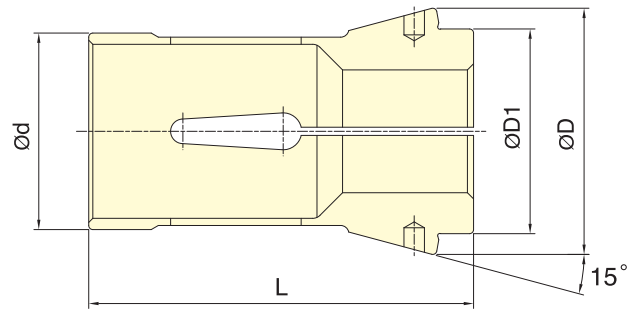
Subject to technical changes

SPECIFICATIONS

Model		Plunger stroke	Max. Chucking Capacity			Max. D.B. pull	Max. clamping force	Max. speed	Moment of inertia	Weight	Matching steel collet	Matching Cyl.	Max. pressure
			Round	Hexagom	Square								MPa (kgf/cm ²)
		mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg · m ²	kg			
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	TS-866	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	TS-866	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-A1287	1.6(16)

DIMENSIONS

Model		A	A1	B	D	D1	E	F max.	F min.	G max.	G min.	H	J	K max.	L	L1	M
CL-26	A4	110	85	108	82.6	63.51	25	26	3	9.5	5	15	12	M40x1.5	3~M10x30	15	4
CL-30	A4	110	85	108	82.6	63.51	25	30	3	9.5	5	15	12	M40x1.5	3~M10x30	15	4
CL-36	A5	135	100	130	104.8	82.56	27	36	3	14	8	17.5	20	M55x2	4~M10x30	14	4
CL-42	A5	135	100	130	104.8	82.56	27	42	3	14	8	17.5	20	M55x2	4~M10x30	14	4
CL-42	A6	165	100	130	133.4	106.38	32	42	3	15	9	17.5	20	M60x2	4~M12x35	16	4
CL-52	A6	170	130	154	133.4	106.38	27	52	5	10.5	4.5	24	45	M60x2	4~M12x35	20	5
CL-60	A6	170	130	154	133.4	106.38	27	60	5	10.5	4.5	24	45	M75x2	4~M12x35	20	5
CL-60	A8	210	130	147.5	171.4	139.72	35	60	5	3.5	-2.5	24	45	M85x2	4~M16x40	22	5
CL-80	A8	210	156	175	171.4	139.72	35	80	20	7.5	1.5	22	45	M100x2	6~M16x40	22	5



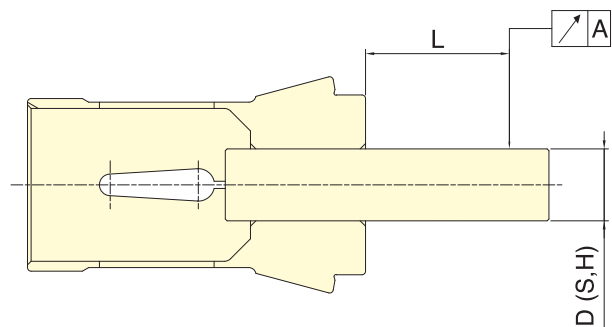
DIN 6343 Collet standard

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

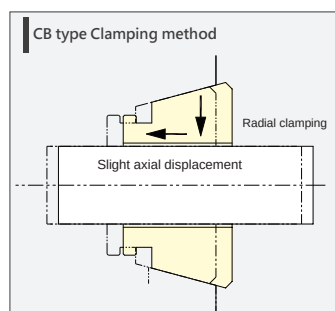
Test Bar D(S,H)	L mm	A DIN	
		Class 1	Class 2
0.5~1.0	3	0.015	0.015
1.0~1.6	6	0.015	0.020
1.6~3.0	10	0.015	0.020
3.0~6.0	16	0.015	0.020
6.0~10.0	25	0.015	0.020
10.0~18.0	40	0.020	0.030
18.0~24.0	50	0.020	0.030
24.0~30.0	60	0.020	0.030
30.0~50.0	80	0.030	0.040
50.0~60.0	100	0.030	0.040



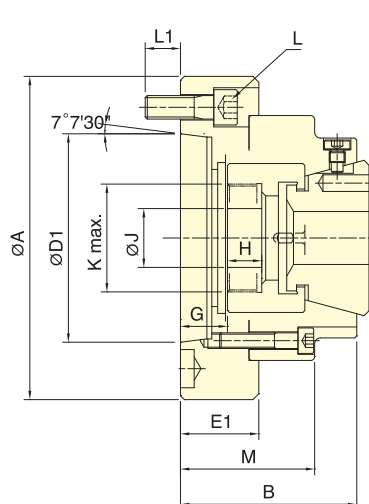
Note: Collets chuck are conformed to DIN 6343 Class2.



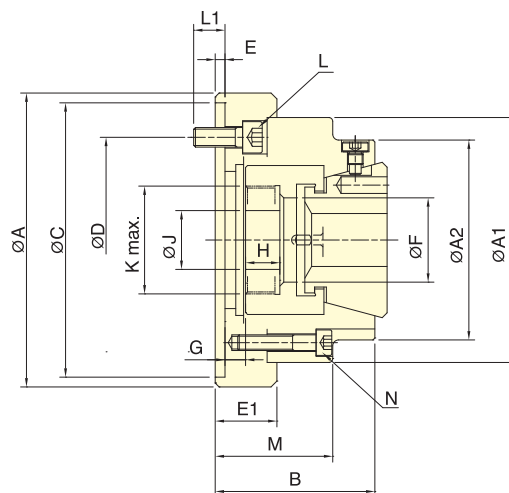
- Suitable for CNC lathes, dedicated machines, or other turning machinery for bar or shaft processing.
 - Draw-back clamping with radial clamping and axial fine-tuning torque, featuring through-hole.
 - High precision, high speed, and high rigidity structure.
 - Comprehensive waterproof design to prevent cutting water from entering the spindle through holes.
- J is the hole diameter of blank draw nut.
K is the maximum thread specification and it could be customize.



During clamping, the workpiece shifts slightly backward along with the collet.



CB-A



CB

Subject to technical changes

SPECIFICATIONS

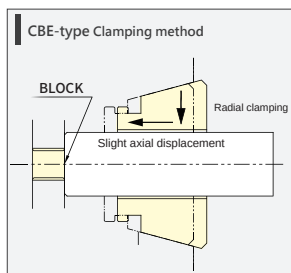
Model	Plunger stroke mm	Max. Chucking Capacity			Max. D.B. pull kN (kgf)	Max. clamping force kN (kgf)	Max. speed min ⁻¹ (r.p.m.)	Weight kg	Matching steel collet	Matching Cyl.	Max. pressure MPa (kgf/cm ²)
		Round mm	Hexagom mm	Square mm							
CB-42	4.5	4~42	7~36	7~30	34.3(3500)	78.4(8000)	7000	6.5	RG-42	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	TS-866	3.0(30)
CB-65 A6	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	5500	13.6	RG-65	TS-866	3.0(30)
CB-65 A8	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	5500	17.6	RG-65	TS-866	3.0(30)
CB-80	4.5	5~80	8~68	8~56	50.0(5100)	115(11730)	5500	19	RG-80	TK-A1287	2.3(23)
CB-80 A8	4.5	5~80	8~68	8~56	50.0(5100)	115(11730)	5500	19	RG-80	TK-A1287	2.3(23)

DIMENSIONS

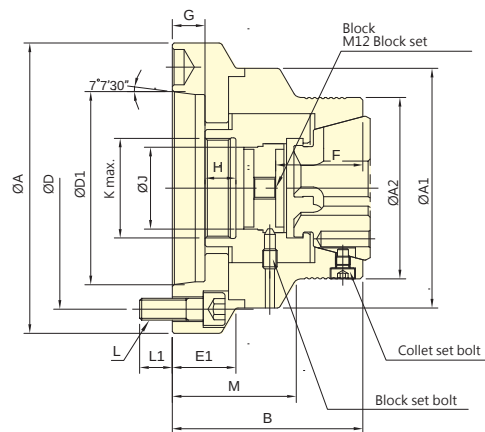
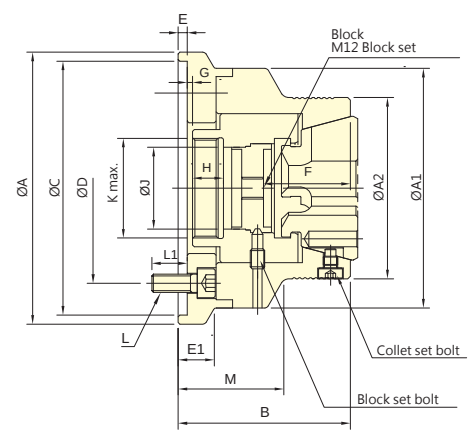
Model	A	A1	A2	B	C(H6)	D	D1	E	E1	F	G max.	G min.	H	J	K max.	L	L1	M	N
CB-42	150	125	102	81.5	140	104.8	-	5	31	43	10.5	6	17.5	30	M55x2	3~M10x25	11	60	4~M8
CB-42 A5	140	125	102	91.5	-	104.8	82.56	-	41.5	43	25.5	21	17.5	30	M55x2	4~M10x25	12	70	4~M8
CB-42 A6	165	125	102	91.5	-	133.4	106.38	-	45	43	29	24.5	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~M16x40	24	80.5	4~M8
CB-80	235	175	150	112	220	171.4	-	5	37	82.5	13.5	8	25	45	M85x2	6~M16x30	22	87	6~M10
CB-80 A8	210	175	150	125	-	171.4	139.72	-	50	82.5	26.5	21	25	45	M85x2	6~M16x50	24	100	6~M10



- The pull-back positioning clamping, combined with the workpiece stop block mechanism, features radial clamping and axial fine-tuning torque, enabling precise positioning of the workpiece feeding length for enhanced length accuracy control.
- The material stopper and dust cover can be interchanged for combined use, providing chip prevention functionality.
- J is the hole diameter of blank draw nut.
K is the maximum thread specification and it could be customize.



With the material stop mechanism in place, the workpiece does not shift backward during clamping, although there may be slight scuff marks on the surface.


CBE-A

CBE

Subject to technical changes

SPECIFICATIONS

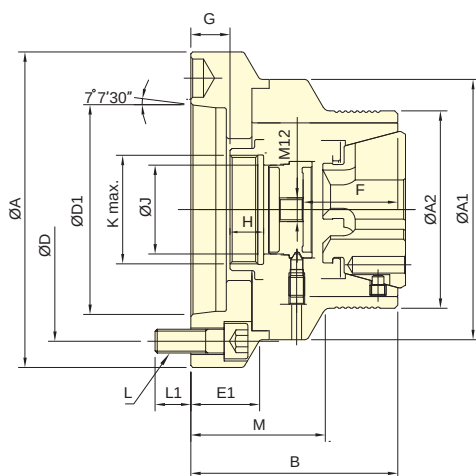
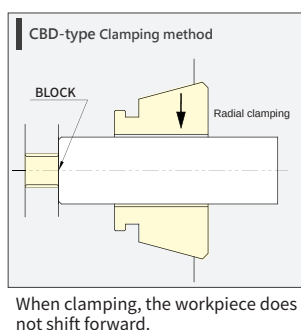
Model	Plunger stroke mm	Max. Chucking Capacity			Max. D.B. pull kN (kgf)	Max. clamping force kN (kgf)	Max. speed min ⁻¹ (r.p.m.)	Weight kg	Matching steel collet	Matching Cyl.	Max. pressure MPa (kgf/cm ²)
		Round mm	Hexagom mm	Square mm							
CBE-42	4.5	4~42	7~36	7~30	34.3(3500)	78.4(8000)	7000	6	RG-42	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-52	4.5	4~52	7~36	7~30	39.2(4000)	92.1(9400)	7000	6.9	RG-52	TK-A853	3.2(32)
CBE-5212	4.5	4~52	7~36	7~30	39.2(4000)	92.1(9400)	7000	6.7	RG-52	TK-A853	3.2(32)
CBE-5217	4.5	4~52	7~36	7~30	39.2(4000)	92.1(9400)	7000	8.9	RG-52	TK-A853	3.2(32)
CBE-52 A5	4.5	4~52	7~36	7~30	39.2(4000)	92.1(9400)	7000	7.8	RG-52	TK-A853	3.2(32)
CBE-52 A6	4.5	4~52	7~36	7~30	39.2(4000)	92.1(9400)	7000	8.3	RG-52	TK-A853	3.2(32)
CBE-65	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	8.6	RG-65	TS-866	3.0(30)
CBE-6514	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.3	RG-65	TS-866	3.0(30)
CBE-65 A5	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	10.8	RG-65	TS-866	3.0(30)
CBE-65 A6	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.5	RG-65	TS-866	3.0(30)
CBE-65 A8	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.5	RG-65	TS-866	3.0(30)

DIMENSIONS

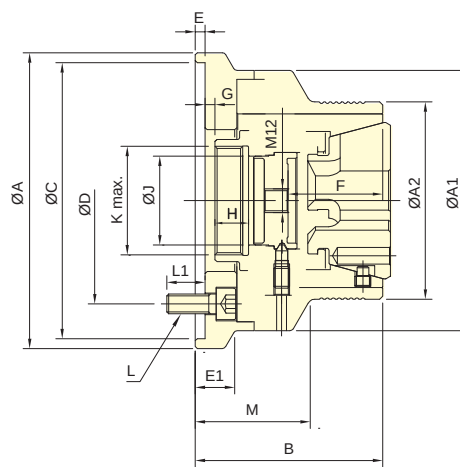
Model	A	A1	A2	B	C (H6)	D	D1	E	E1	F	G max.	G min.	H	J	K max.	L	L1	M
CBE-42	150	132	100	95	140	104.8	-	5	20	48	5.5	1	17	45	M55x2	4~M10x25	19.5	58
CBE-4212	132	132	100	95	120	100	-	5	-	48	5.5	1	17	45	M55x2	4~M10x25	19.5	58
CBE-42 A5	132	132	100	105	-	104.8	82.56	-	-	48	20.5	16	17	45	M55x2	4~M10x30	16	68
CBE-42 A6	160	132	100	105	-	133.4	106.38	-	35	48	20.5	16	17	45	M55x2	4~M12x35	18	68
CBE-52	150	140	107	99	140	104.8	-	5	-	52	5.5	1	17	56	M60x2	4~M10x20	14.5	60
CBE-5212	140	140	107	99	120	100	-	5	-	52	5.5	1	17	56	M60x2	4~M10x20	14.5	60
CBE-5217	180	140	107	109	170	133.4	-	6	-	52	14.5	10	17	56	M60x2	4~M12x30	18	70
CBE-52 A5	140	140	107	109	-	104.8	82.56	-	-	52	20.5	16	17	56	M60x2	4~M10x30	16	70
CBE-52 A6	160	140	107	109	-	133.4	106.37	-	-	52	20.5	16	17	56	M60x2	4~M12x35	18	70
CBE-65	180	157	122	114	170	133.4	-	6	24	56	15	10.5	17.5	68	M75x2	4~M12x30	18	72
CBE-6514	157	157	122	116	140	104.8	-	6	-	56	17	12.5	17.5	68	M75x2	4~M10x30	18	74
CBE-65 A5	157	157	122	114	-	104.8	82.56	-	-	56	21	16.5	17.5	68	M75x2	4~M10x25	16	72
CBE-65 A6	157	157	122	112	-	133.4	106.38	-	-	56	19	14.5	17.5	68	M75x2	4~M12x35	18.5	70
CBE-65 A8	202	157	122	116	-	171.4	139.72	-	38	56	23	18.5	17.5	68	M75x2	4~M16x35	24	74



- The push-forward clamping, combined with a stop block mechanism, features radial clamping with zero radial displacement, enabling precise positioning of the workpiece feeding length for improved length accuracy control.
- Combined with AUTOGRIP rubber collets, it prevents the typical forward pushing of elastic collets, preserving the integrity of the workpiece surface.
- The material stopper and dust cover can be interchanged for combined use, balancing through-hole applications and chip prevention functionality, suitable for sub-spindle clamping to reduce clamping pressure effects.
- J is the hole diameter of blank draw nut.
K is the maximum thread specification and it could be customize.



CBD-A



CBD

Subject to technical changes

SPECIFICATIONS

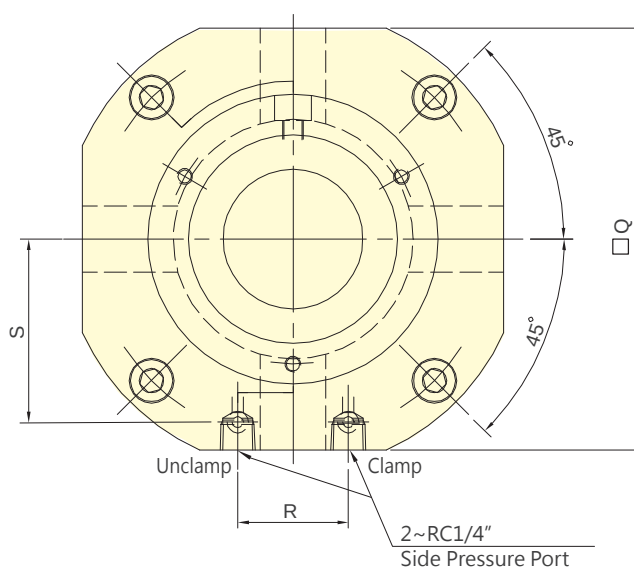
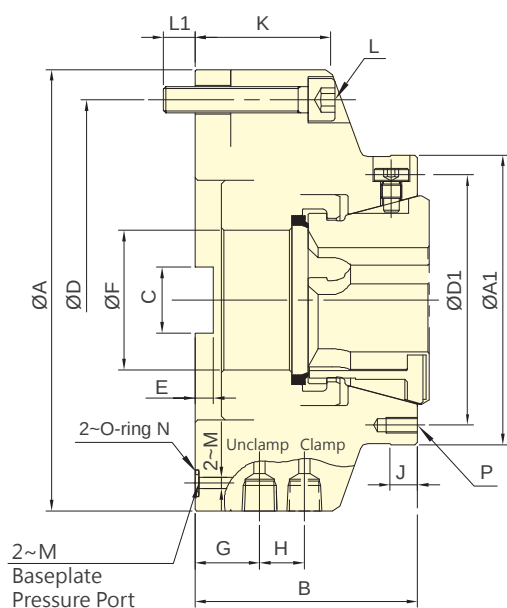
Model	Plunger stroke	Max. Chucking Capacity			Max. D.B. pull	Max. clamping force	Max. speed	Weight	Matching steel collet	Matching Cyl.	Max. pressure
		Round	Hexagom	Square							
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min ⁻¹ (r.p.m.)	kg			MPa (kgf/cm ²)
CBD-52	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	7.3	RG-52	TK-A853	3.0(30)
CBD-5212	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	7.1	RG-52	TK-A853	3.0(30)
CBD-5217	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	10.9	RG-52	TK-A853	3.0(30)
CBD-52 A5	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	7.8	RG-52	TK-A853	3.0(30)
CBD-52 A6	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	9.1	RG-52	TK-A853	3.0(30)
CBD-65	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	8.6	RG-65	TS-866	2.7(27)
CBD-6514	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.3	RG-65	TS-866	2.7(27)
CBD-65 A5	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	10.8	RG-65	TS-866	2.7(27)
CBD-65 A6	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.5	RG-65	TS-866	2.7(27)
CBD-65 A8	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.5	RG-65	TS-866	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-52	150	140	116	99	140	104.8	-	5	-	52	7	2.5	17	56	M60x2	4~M10x20	14.5	57
CBD-5212	140	140	116	99	120	100	-	5	-	52	7	2.5	17	56	M60x2	4~M10x20	14.5	57
CBD-5217	180	140	116	109	170	133.4	-	6	-	52	16	11.5	17	56	M60x2	4~M12x30	18	67
CBD-52 A5	140	140	116	109	-	104.8	82.56	-	-	52	22	17.5	17	56	M60x2	4~M10x30	16	67
CBD-52 A6	160	140	116	109	-	133.4	106.38	-	-	52	22	17.5	17	56	M60x2	4~M12x35	18	67
CBD-65	180	157	132	112	170	133.4	-	6	24	54	15.5	11	17.5	68	M75x2	4~M12x30	18	70
CBD-6514	157	157	132	114	140	104.8	-	6	-	54	17.5	13	17.5	68	M75x2	4~M10x30	18	72
CBD-65 A5	157	157	132	112	-	104.8	82.56	-	-	54	21.5	17	17.5	68	M75x2	4~M10x25	16	70
CBD-65 A6	157	157	132	110	-	133.4	106.38	-	-	54	19.5	15	17.5	68	M75x2	4~M12x35	18.5	68
CBD-65 A8	202	157	132	114	-	171.4	139.72	-	38	54	23.5	19	17.5	68	M75x2	4~M16x35	24	72



- Build-in cylinder, ideal for drilling machines, milling machines and machining centers
- Work with AUTOGRIP's rubber collet(RG series), quick change and saving runtime.
- Two modes for the media supply: side-supply mode or baseplate-supply mode.



Subject to technical changes

SPECIFICATIONS

Model	Jaw stroke (Dia.) mm	Max. Chucking Capacity			Max. clamping force Pneumatic kN (kgf)	Max. clamping force Hydraulic kN (kgf)	Max. pressure Pneumatic MPa (kgf/cm ²)	Max. pressure Hydraulic MPa (kgf/cm ²)	Weight kg	Matching steel collet
		Round	Hexagom	Square						
SCB-52	± 0.5	4~52	7~45	7~36	8.2(837)	101(10300)	0.6(6)	4.0(40)	8.6	RG-52
SCB-65	± 0.5	4~65	8~56	8~46	10(1020)	105(10700)	0.6(6)	4.2(42)	10.2	RG-65

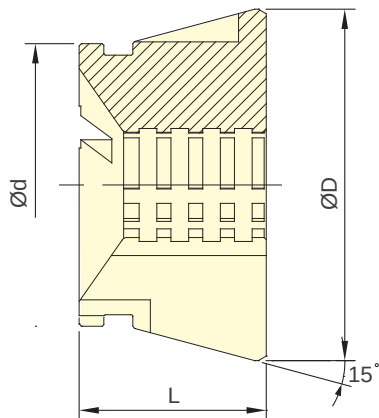
DIMENSIONS

Model	A (g6)	A1	B	C	D	D1	E	F	G	H
SCB-52	175	110	84.5	25	152	95	7	53	24.5	17
SCB-65	192	130	94	30	169	114	9	66	26.5	20

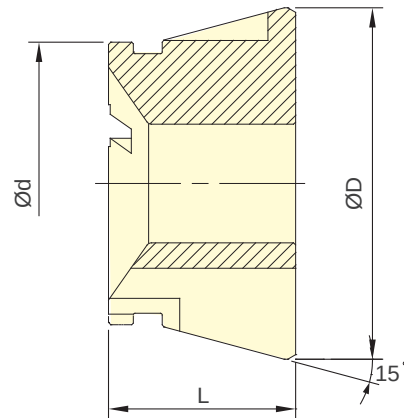
Model	J	K	L	L1	M	N	P	Q	R	S
SCB-52	10	51.5	4~M10	12	4.2	P7	3~M6x12	160	42	69.5
SCB-65	10	61.5	4~M10	12.5	4.2	P7	3~M6x12	175	50	77



- 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.
- Grip Range: $\pm 0.5\text{mm}$.
- Quick change and easy.
- Dust-proof and swarf-proof design.



RG-RT

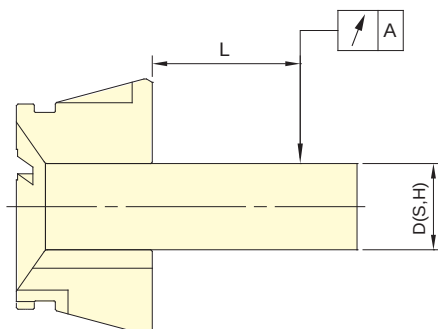


RG-R

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	11~42	54	79.3	42	CB-42, CBE-42
RG-52R	4~52	66	79.3	46	CB-52, CBD-52, CBE-52, SCB-52
RG-52RT	11~52	66	79.3	46	CB-52, CBD-52, CBE-52, SCB-52
RG-65R	4~65	80	99.5	53	CB-65, CBD-65, CBE-65, SCB-65
RG-65RT	11~65	80	99.5	53	CB-65, CBD-65, CBE-65, SCB-65



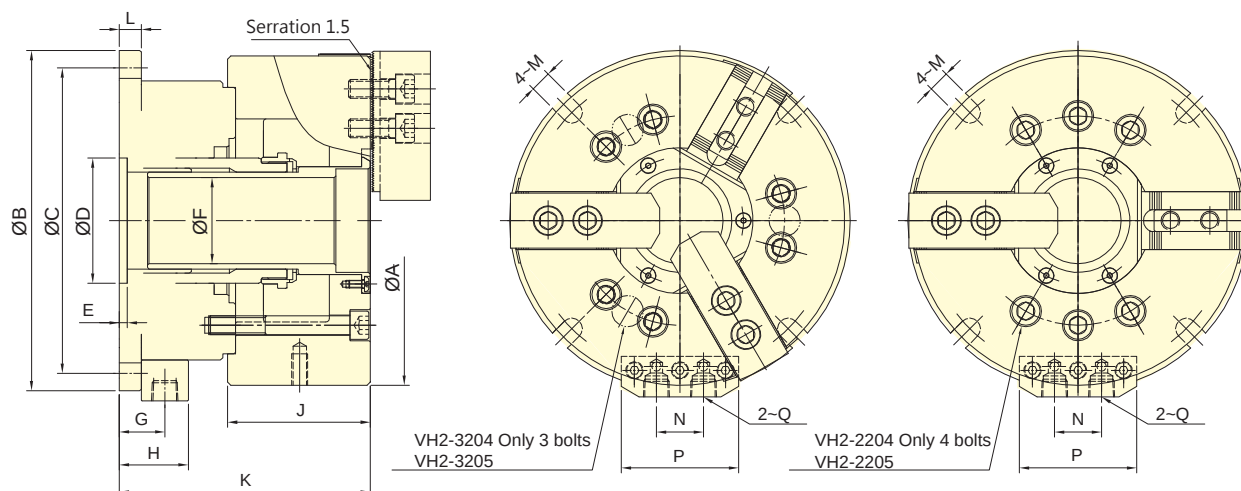
Test Bar D(S,H)	L	A DIN	
	mm	Class1	Class2
3.0~6.0	16	0.015	0.020
6.0~10.0	25	0.015	0.020
10.0~18.0	40	0.020	0.030
18.0~24.0	50	0.020	0.030
24.0~30.0	60	0.020	0.030
30.0~50.0	80	0.030	0.040
50.0~60.0	100	0.030	0.040

Note1 : Collets chuck are conformed to DIN 6343 Class2.

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



- Stationary Chuck with two or three jaws for drilling, milling and other machines.
- Specification and size of matching chuck for model VH2-2200 is the same as model 2H-2.
- Specification and size of matching chuck for model VH2-3200 is the same as model 3H-2.



Subject to technical changes

SPECIFICATIONS

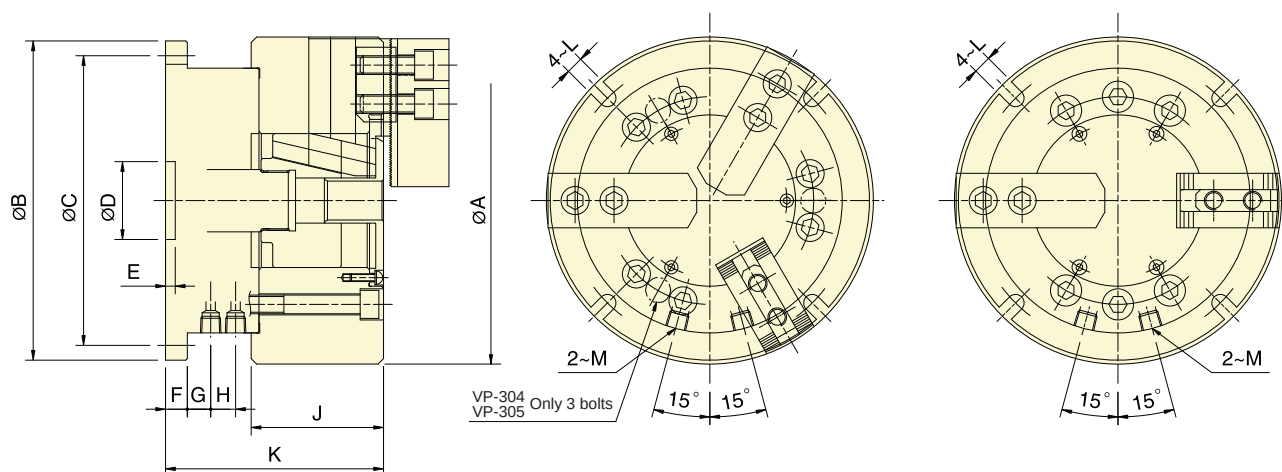
Model	Eff. Piston area		Jaw stroke(Dia.)	Max. pressure	Weight
	Extend cm ²	Retract cm ²			
VH2-2204	52.4	46.7	5.5	2.0 (20)	9.5
VH2-3204	52.4	46.7	5.5	3.0 (30)	9.5
VH2-2205	63.7	57.9	5.5	2.0 (20)	13.1
VH2-3205	63.7	57.9	5.5	3.0 (30)	12.6
VH2-2206	97.1	88.5	6.0	1.8 (17.9)	21.5
VH2-3206	97.1	88.5	6.0	2.7 (26.8)	21.5
VH2-2208	128.9	113.6	7.6	2.1 (20.7)	32.9
VH2-3208	128.9	113.6	7.6	2.9 (28.6)	33.4
VH2-2210	189.2	174.3	8.9	1.9 (19.2)	55
VH2-3210	189.2	174.3	8.9	2.9 (28.7)	59

DIMENSIONS

Model	A	B	C	D(H7)	E	F	G	H	J	K	L	M	N	P	Q
VH2-2204	113	155	137	50	5	27	23	34	59	122.5	12	9	26	62	RC1/4
VH2-3204	113	155	137	50	5	27	23	34	59	122.5	12	9	26	62	RC1/4
VH2-2205	138	168	150	60	5	32	23	34	60	125	12	9	26	62	RC1/4
VH2-3205	138	168	150	60	5	32	23	34	60	125	12	9	26	62	RC1/4
VH2-2206	170	194	176	80	5	45	25	36	81	143	14	11	26	62	RC1/4
VH2-3206	170	194	176	80	5	45	25	36	81	143	14	11	26	62	RC1/4
VH2-2208	210	217	195	80	5	55	29	44	91	160	14	13.5	30	75	RC3/8
VH2-3208	210	217	195	80	5	55	29	44	91	160	14	13.5	30	75	RC3/8
VH2-2210	260	266	246	100	6	76	32	47	102	192	17	13.5	30	75	RC3/8
VH2-3210	260	266	246	100	6	76	32	47	102	192	17	13.5	30	75	RC3/8



- 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.



Subject to technical changes

SPECIFICATIONS

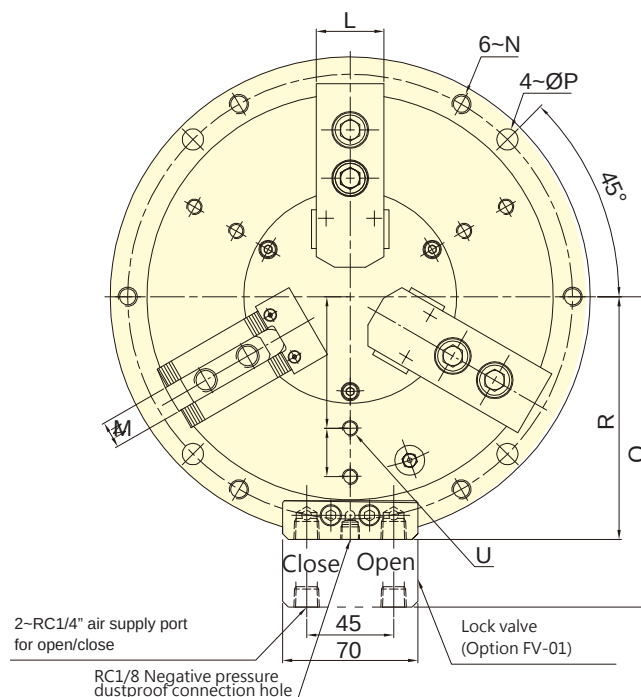
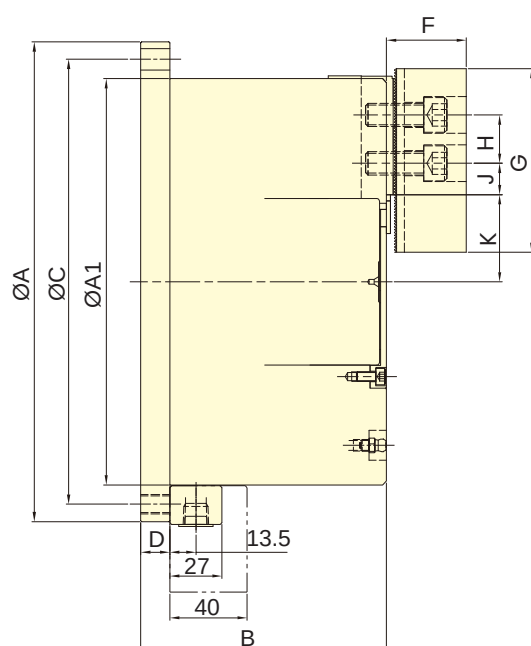
Model	Eff. Piston area		Jaw stroke(Dia.)	Max. pressure	Weight
	Extend cm ²	Retract cm ²			
VP-204	28.0	24.9	6.4	2.1(21)	7.1
VP-304	28.0	24.9	6.4	3.2(32)	7.4
VP-205	28.0	24.9	6.4	2.2(22)	10.2
VP-305	28.0	24.9	6.4	3.3(33)	10.6
VP-206	63.1	53.5	8.5	2.3(23)	18.3
VP-306	63.1	53.5	8.5	3.4(34)	19.8
VP-208	103.4	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



- WEDGE-HOOK type power chuck, and long jaw stroke.
- Build-in hydraulic cylinder; it can also work with lock valve and be driven by air pressure.
- Easy to install. Installing the tubes and then operating.
- Thin and compact design. Use standard soft jaws or standard hard jaws.
- Equipped with Airtight pressure detection function.



Subject to technical changes

SPECIFICATIONS

Model	Jaw stroke (Dia.)	Chucking Dia.		Max. clamping force		Max. pressure		Min. pressure	Air consumption	Weight
		Max.	Min.	Pneumatic	Hydraulic	Pneumatic	Hydraulic			
		mm	mm	kN(kgf)	kN(kgf)	MPa(kgf/cm ²)	MPa(kgf/cm ²)			
SM-306	13.1	168	14	18.0(1830)	32.2(3280)	0.7(7)	1.2(12)	2	1.5	18.7
SM-308	16	210	18	26.2(2670)	45.0(4590)	0.7(7)	1.2(12)	2	2.7	32.5
SM-310	19.6	254	20	37.0(3772)	63.0(6422)	0.7(7)	1.2(12)	2	4.6	53.6

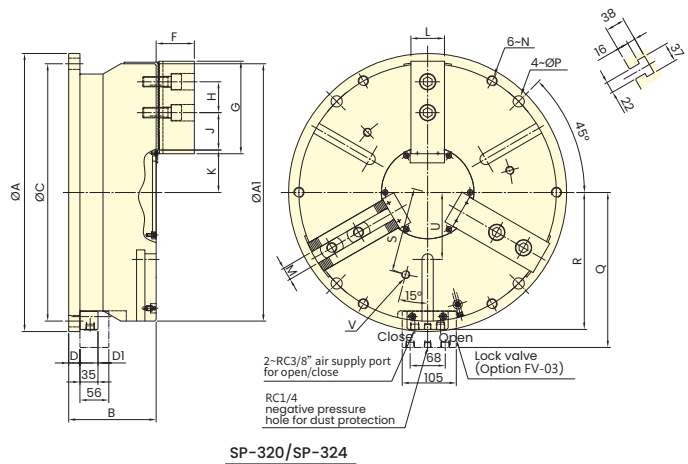
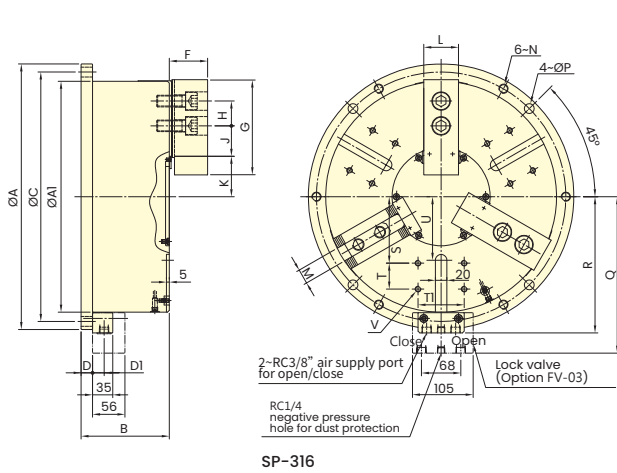
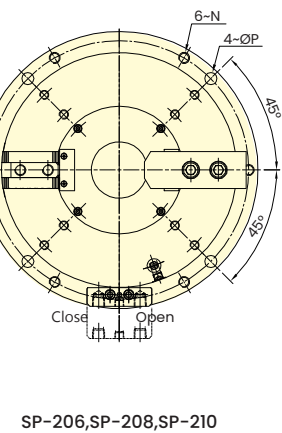
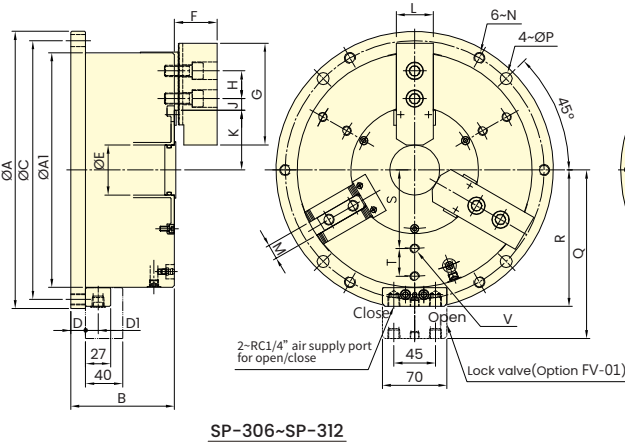
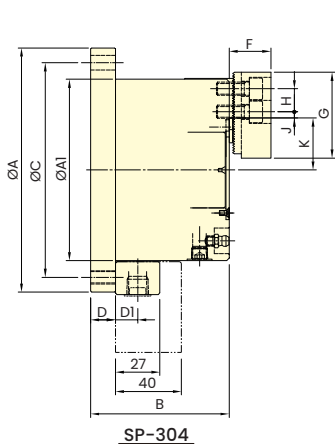
DIMENSIONS

Model	A(h7)	A1	B	C	D	F	G	H	J max.	J min.
SM-306	206	168	110	188	15	40	73	20	16.75	4.75
SM-308	248	210	127	230	15	41	95	25	23.75	8.75
SM-310	300	254	145	280	16	46	110	30	36.75	14.25

Model	K max.	K min.	L	M	N	P	Q	R	S	T
SM-306	39	32.45	31	12	M10x1.5	11	139.5	104.5	55	18
SM-308	45	37	35	14	M10x1.5	11	160.5	125.5	68	25
SM-310	50	40.2	40	16	M12x1.75	13	182.5	147.5	85	30



- Stationary Chucks – Non-Thru-Hole and Thru-Hole Types.
- Available in two jaw configurations: 2-jaw and 3-jaw.
- Equipped with a built-in hydraulic cylinder; compatible with lock valves and can also be operated using air pressure.
- Features a small thru-hole, making it ideal for machining long bar workpieces.
- Side and bottom air/hydraulic inlets available; either can be used for operation.
- Slim and compact design. Compatible with standard soft jaws or hard jaws.
- Suitable for rotary machining and can be installed on mill-turn machines.
- Can be integrated with multi-plate setups for enhanced versatility.



Subject to technical changes

SPECIFICATIONS

Model	Jaw stroke (Dia.)	Chuck Dia.		Max. clamping force		Max. pressure		Min. pressure	Air consumption	Weight
		Max.	Min.	Pneumatic	Hydraulic	Pneumatic	Hydraulic			
	mm	mm	mm	kN(kgf)	kN(kgf)	MPa(kgf/cm ²)	MPa(kgf/cm ²)	kgf/cm ²	lit (at 6.0 kgf/cm ²)	kg
SP-304	5.1	110	10	7.5(765)	22.0(2243)	0.7(7)	1.2(12)	2	0.5	7
SP-206	5.5	168	30	34.1(3477)	46.1(4752)	0.7(7)	1.2(12)	2	1.4	16
SP-306	5.5	168	30	35.5(3620)	60.0(5252)	0.7(7)	1.2(12)	2	1.4	16.5
SP-208	6.8	210	42	43.2(4405)	74.0(7545)	0.7(7)	1.2(12)	2	2.5	27.7
SP-308	6.8	210	42	51.5(5251)	88.3(9004)	0.7(7)	1.2(12)	2	2.5	28.7
SP-210	7	254	52	60.5(6169)	94.5(9636)	0.7(7)	1.2(12)	2	4.2	41.8
SP-310	7	254	52	68.2(6955)	118.7(12104)	0.7(7)	1.2(12)	2	4.2	42

Model	Jaw stroke (Dia.)	Chucking Dia.		Max. clamping force		Max. pressure		Min. pressure	Air consumption	Weight
		Max.	Min.	Pneumatic	Hydraulic	Pneumatic	Hydraulic			
	mm	mm	mm	kN(kgf)	kN(kgf)	MPa(kgf/cm ²)	MPa(kgf/cm ²)	kgf/cm ²	lit (at 6.0 kgf/cm ²)	kg
SP-312	9.3	304	60	75.8(7729)	148 (15091)	0.7(7)	1.2(12)	2	6.4	71.3
SP-316	14.5	400	30	120.7(12305)	120.7(12305)	0.7(7)	0.7(7)	2	10.6	147.8
SP-320	16	500	45	155.6(15865)	155.6(15865)	0.7(7)	0.7(7)	2	15	232.7
SP-324	16	600	140	215.9(22015)	215.9(22015)	0.7(7)	0.7(7)	2	22	338.7

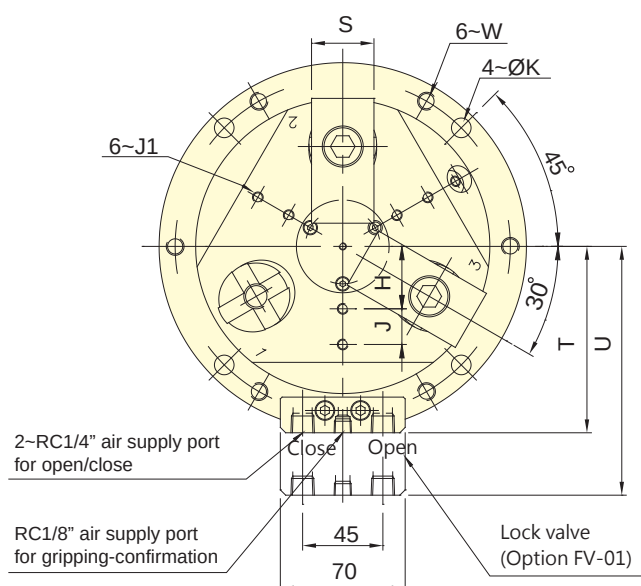
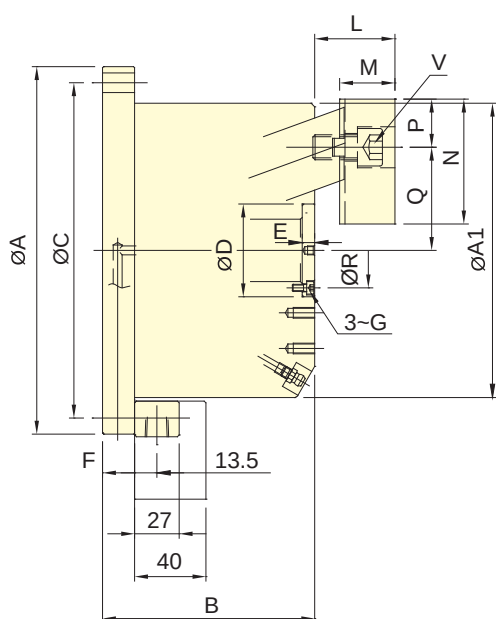
DIMENSIONS

Model	A(h7)	A1	B	C	D	D1	E	F	G	H	J max.	J min.
SP-304	148	110	84	130	15	13.5	-	25	52	14	3.75	0.75
SP-206	206	168	94	188	15	13.5	25	40	73	20	10.75	4.75
SP-306	206	168	94	188	15	13.5	25	40	73	20	10.75	4.75
SP-208	248	210	108	230	15	13.5	32	41	95	25	12.25	8.75
SP-308	248	210	108	230	15	13.5	32	41	95	25	12.25	8.75
SP-210	300	254	112	280	16	13.5	54	46	110	30	23.25	12.75
SP-310	300	254	112	280	16	13.5	54	46	110	30	23.25	12.75
SP-312	350	304	130	330	18	13.5	65	54	130	30	30.75	12.75
SP-316	460	400	153	432	20	20	-	66	165	43	67.75	18.25
SP-320	540	500	170	500	22	20	-	74	180	60	87.5	24.5
SP-324	640	600	175	600	24	20	-	74	180	60	87.5	24.5

Model	K max.	K min.	L	M	N	P	Q	R	S	T	T1	U	V
SP-304	31.5	28.95	23	10	M8x1.25	9	110.5	75.5	-	-	-	-	-
SP-206	47	44.25	31	12	M10x1.5	11	139.5	104.5	55	18	-	-	6~M8x1.25
SP-306	47	44.25	31	12	M10x1.5	11	139.5	104.5	55	18	-	-	6~M8x1.25
SP-208	57	53.6	35	14	M10x1.5	11	160.5	125.5	68	25	-	-	6~M8x1.25
SP-308	57	53.6	35	14	M10x1.5	11	160.5	125.5	68	25	-	-	6~M8x1.25
SP-210	64.5	61	40	16	M12x1.75	13	182.5	147.5	85	30	-	-	6~M10x1.5
SP-310	64.5	61	40	16	M12x1.75	13	182.5	147.5	85	30	-	-	6~M10x1.5
SP-312	77.5	72.85	50	21	M12x1.75	13	207.5	172.5	100	35	-	-	6~M10x1.5
SP-316	70	62.75	60	25.5	M16x2.0	17.5	271	236	115	45	80	110	12~M10x1.5
SP-320	82.5	74.5	65	25	M20x2.5	22	301	266	165	-	-	130	3~M16x2.0
SP-324	129.5	121.5	65	25	M20x2.5	22	351	316	200	-	-	180	3~M16x2.0



- 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.
- Equipped with Airtight pressure detection function.



Subject to technical changes

SPECIFICATIONS

Model	Jaw stroke (Dia.)	Chucking Dia.		Max. clamping force		Max. pressure		Min. pressure	Air consumption	Weight
		Max.	Min.	Pneumatic	Hydraulic	Pneumatic	Hydraulic			
	mm	mm	mm	kN(kgf)	kN(kgf)	MPa(kgf/cm ²)	MPa(kgf/cm ²)	kgf/cm ²	lit (at 6.0 kgf/cm ²)	kg
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
SD-310	10.8	254	40	36.0(3680)	60.0(6118)	0.6 (6)	1.0 (10)	2	2.05	55

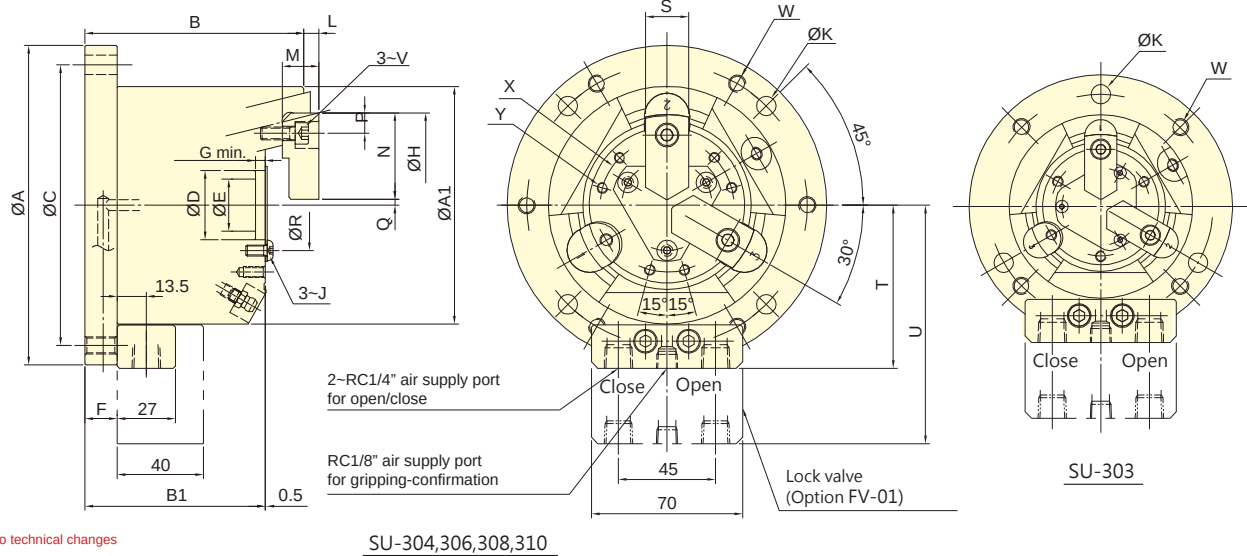
DIMENSIONS

Model	A(h7)	A1	B	C	D(H7/h7)	E	F	G	H	J	J1	K	L max.	L min.
SD-304	148	110	93.5	130	35	2	15	M3	22.5	10	M5x0.8	9	30	23
SD-306	206	165	116	188	52	7	18	M4	35	20	M6x1	11	45	35
SD-308	248	210	122	230	65	10	18	M5	45	25	M8x1.2	11	56	46
SD-310	300	254	151	280	75	12	20	M6	55	30	M8x1.2	13	65	50

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
SD-310	46	100	38	85	79.6	62	50	147.5	182.5	6~M14	M12x1.75



- 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.
- Equipped with Airtight pressure detection function.



Subject to technical changes

SU-304,306,308,310

SPECIFICATIONS

Model	Jaw stroke (Dia.) mm	Chucking Dia.		Max. clamping force		Max. pressure		Min. pressure kgf/cm ²	Air consumption lit (at 6.0 kgf/cm ²)	Weight kg
		Max. mm	Min. mm	Pneumatic kN(kgf)	Hydraulic kN(kgf)	Pneumatic MPa(kgf/cm ²)	Hydraulic MPa(kgf/cm ²)			
SU-303	2	42	4	5.2(530)	12.8(1305)	0.6(6)	1.3(13)	2	0.16	5.7
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
SU-308	5	132	32	37.0 (3773)	80.0 (8158)	0.6 (6)	1.3 (13)	2	1.02	31.5
SU-310	5	163	44	46.2(4710)	100.0(10100)	0.6(6)	1.3(13)	2	2.11	53

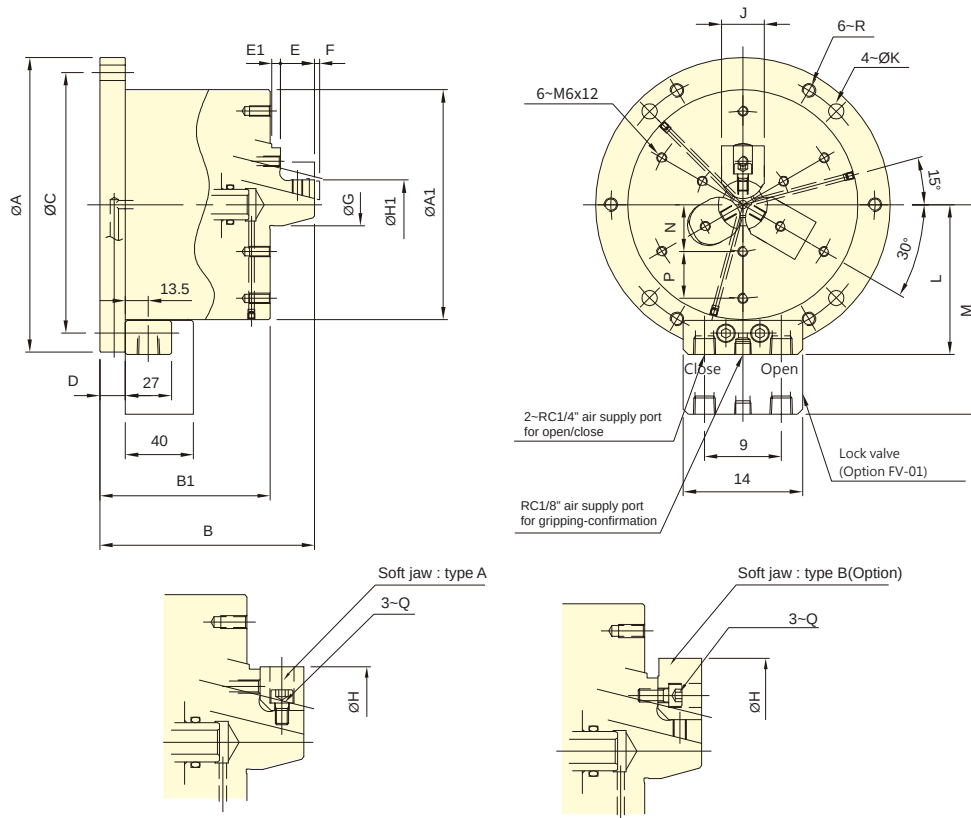
DIMENSIONS

Model	A(h7)	A1	B	B1	C	D(H6)	E	F	G	H(H6)	J	K	L max.	L min.
SU-303	122	85	80.5	68	104	28	22	12	3.5	66	M3	3~9	5	1
SU-304	148	110	101.5	83.5	130	32	24	15	4.5	84	M5	4~9	7	1
SU-306	206	168	136.5	104	188	35	25	18	6	129	M5	4~11	15	5
SU-308	248	210	152	115	230	55	45	18	7	156	M6	4~11	17	7
SU-310	300	254	181	131	280	65	53	20	7	187	M8	4~13	9	-1

Model	M	N	P	Q max.	Q min.	R	S	T	U	V	W	X (p.c.d)	Y
SU-303	12	30	7	3.5	2.5	36	15	63	98	M5	4~M8x1.25	46	3~M5x10
SU-304	17	40	9.5	2.75	1.25	42	20	75.5	110.5	M6	6~M8x1.25	62	6~M5x10
SU-306	30	50	17	15.75	13.25	49	30	104.5	139.5	M10	6~M10x1.5	72	6~M6x12
SU-308	34	63	20.5	16.25	13.75	71	35	125.5	160.5	M12	6~M10x1.5	95	6~M6x12
SU-310	39	74	23	20.75	18.25	85	40	147.5	182.5	M14	6~M12x1.75	115	6~M6x12



- 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.
- Airtight 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 ²	Air consumption lit (at 6.0 kgf/cm ²)	Weight kg
		Max. mm	Min. mm	Pneumatic kN(kgf)	Hydraulic kN(kgf)	Pneumatic MPa(kgf/cm ²)	Hydraulic MPa(kgf/cm ²)			
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

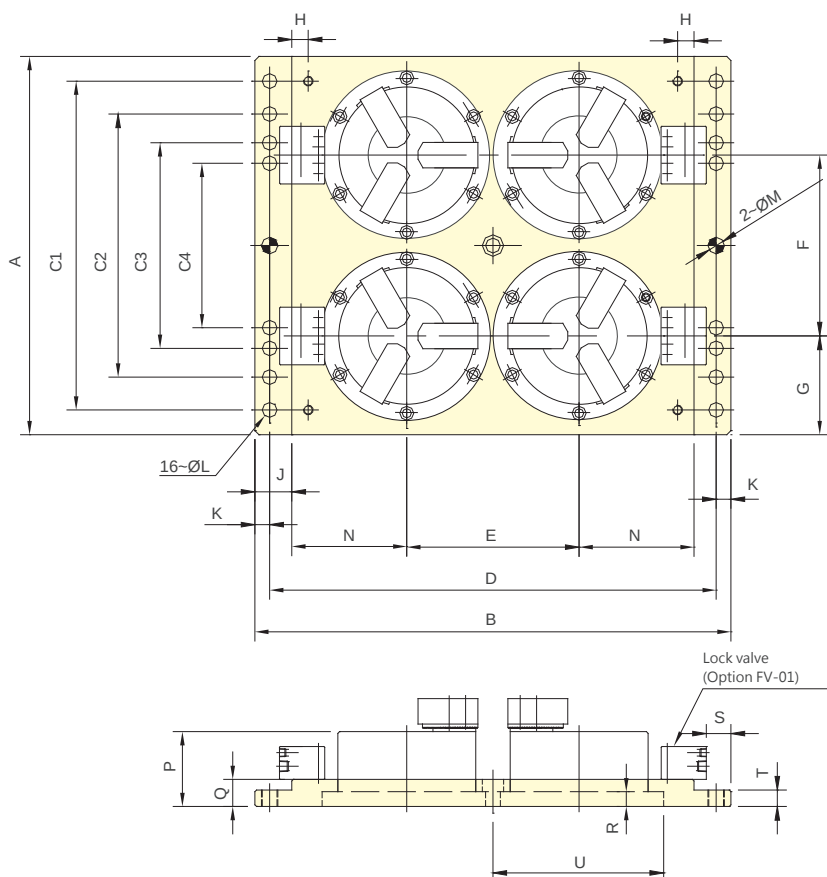
DIMENSIONS

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	27.5	27.5	3~M6	M8x1.25
SE-306	70	44	31	11	104.5	139.5	38	29	3~M6	M10x1.5
SE-308	90	50	35	11	125.5	160.5	50	35	3~M8	M10x1.5



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



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.

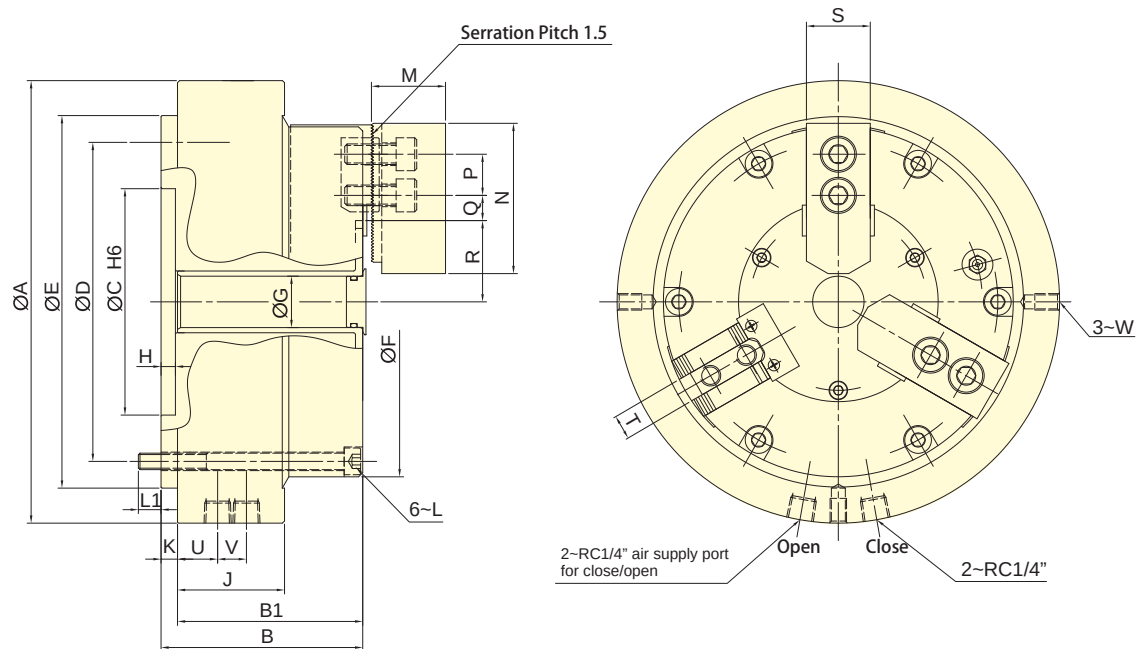


Subject to technical changes

Max. pressure MPa(kgf/cm ²)	Operating angle	Port size
1.0 (10)	90°	Rc1/4



- 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.
- Note: 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

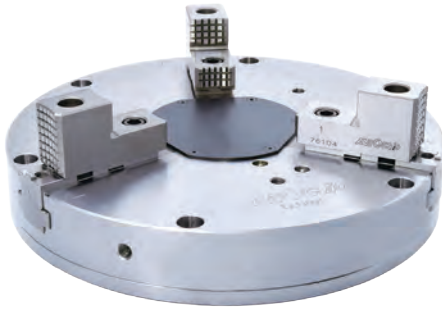
SPECIFICATIONS

Model	Jaw stroke (Dia.) mm	Chucking Dia. Max. mm	Chucking Dia. Min. mm	Max. clamping force Pneumatic(at 6.0kgf/cm²) kN (kgf)	Max. pressure (kgf/cm²)	Max. speed (r.p.m.)	Max Rotation resistance torque Nm	Air consumption (at 6.0 kgf/cm²) lit (kgf/cm²)	Weight kg
RAP-306	5.5	170	25	21.0(2141.4)	7	72	40	3.1	16.2
RAP-308	6.8	215	37	34.2(3487.4)	7	60	60	3.1	30.6
RAP-310	7	254	53	48.0(4894.7)	7	53	85	4.2	42.4

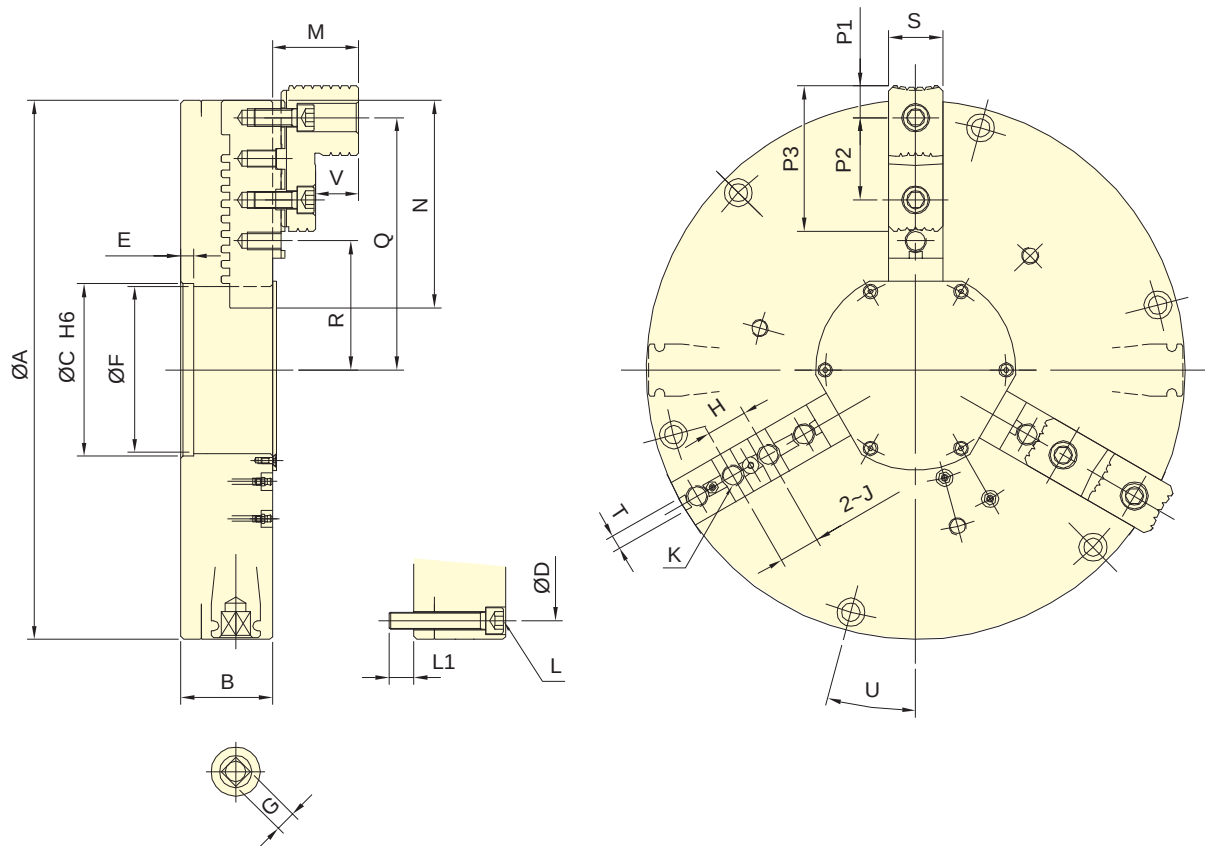
DIMENSIONS

Model	A	B	B1	C (H6)	D	E	F	G	H	J	K
RAP-306	215	98	90	110	155	181	170	25	7	52	8
RAP-308	260	113	104	110	200	226	215	32	8	52	9
RAP-310	300	117	52	140	235	261	254	54	8	52	10

Model	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U	V	W
RAP-306	6-M8	11	36	73	20	10.75	6.25	47	44.25	31	12	19.5	14	3-M8
RAP-308	6-M8	16	37	95	25	13.25	8.75	57	53.6	35	14	19.5	14	3-M8
RAP-310	6-M8	14	42	110	30	23.25	12.75	64.5	61	40	16	19.5	14	3-M8



- Thin and lightweight design and increase the z-axis machining range.
- With the center hole cover and dustproof design for the accuracy and service life of the chuck.
- For 5-axis indexing plates and milling machines.
- 3MF series are not designed for the vertical or horizontal lathes, unless there is a rigid plate and providing adequate support rigidity and strength.



Subject to technical changes

SPECIFICATIONS

Model	Jaw stroke (Dia.)	Chuck Dia. Max.	Chuck Dia. Min.	Max. allowable torque	Max. clamping force	Max. speed	Weight
	mm	mm	mm	N. m (kgf. m)	kN (kgf)	min ⁻¹ (r.p.m.)	kg
3MF-16	60	350	95	175 (17.8)	59 (6000)	1450	66.9
3MF-20	80	450	135	170 (17.3)	71.2 (7300)	1150	121

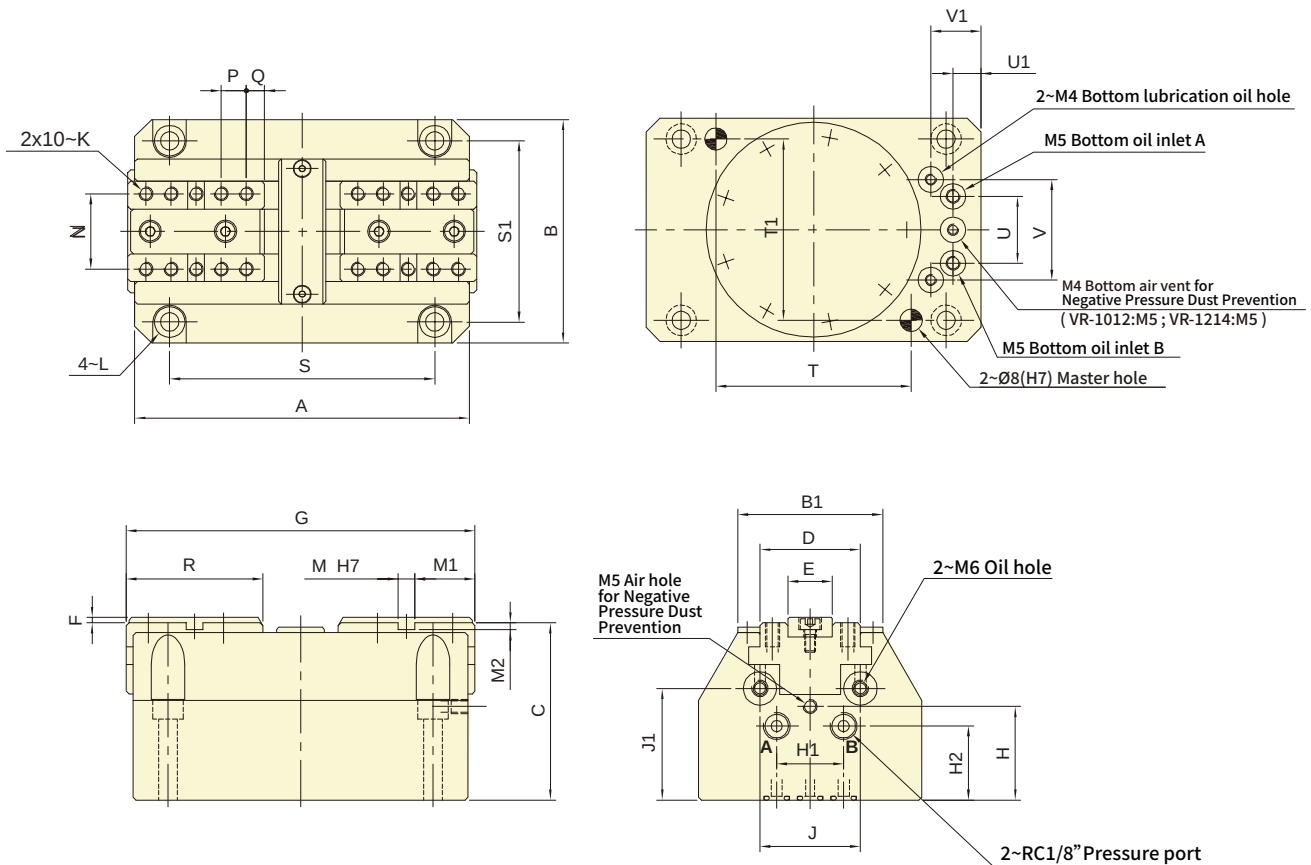
DIMENSIONS

Model	A	B	C (H6)	D	E	F	G	H	J (H7)	K	L	L1	M
3MF-16	400	80	140	375	10	135	□ 14	27	19.03	4~M12	6~M12	23	60
3MF-20	500	85	170	465	12	160	□ 19	38.1	19.03	4~M16	6~M16	23	80

Model	N	P1	P2	P3	Q max.	Q min.	R max.	R min.	S	T (h8)	U	V
3MF-16	148.5	27.16	54	112.5	184.5	164	103	62	40	12.7	15°	28
3MF-20	192.5	29.5	76.2	135	254	214	139.7	99.7	50	12.7	15°	40



- Slim and compact profile enhances workspace efficiency.
- Equipped with a built-in hydraulic cylinder, operable via pneumatic or hydraulic pressure.
- Side and bottom input ports offer flexible connection options.
- Suitable for milling machines and machining centers.



Subject to technical changes

SPECIFICATIONS

Model	Jaw stroke(Dia.)	Max.Chucking (Dia.)	Max. clamping force Pneumatic	Max. clamping force Hydraulic	Max. pressure Pneumatic	Max. pressure Hydraulic	Max. Jaw Height	Weight
	mm	mm	kN (kgf)	kN (kgf)	MPa(kgf/cm ²)	MPa(kgf/cm ²)	mm	kg
VR-808	8	100	2.0(200)	7.7(785)	0.9(9)	2.1(21)	60	3.55
VR-1012	12	120	4.4(448)	12.2(1244)	0.9(9)	2.1(21)	60	7
VR-1214	14	160	8.6(876)	31.1(3171)	0.9(9)	2.1(21)	60	12

DIMENSIONS

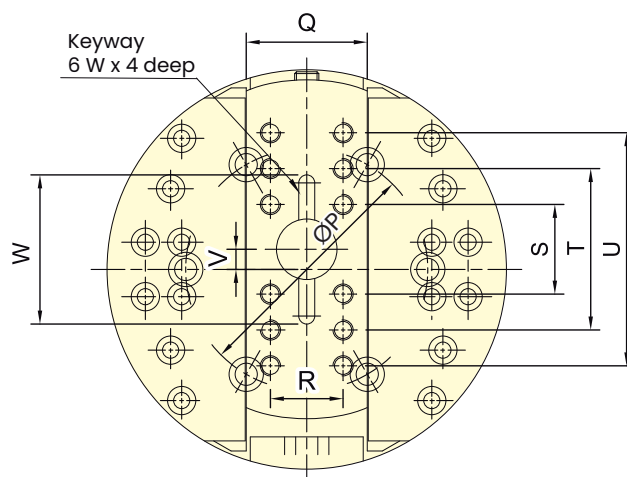
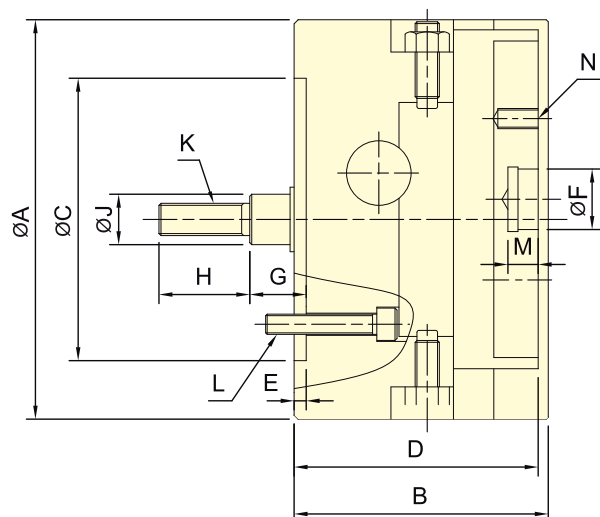
Model	A	B	B1	C	D	E(h6)	F	Gmax	Gmin	H	H1	H2	J	J1	K
VR-808	120	80	52	63.5	36	16	2	125	117	33.5	24	26.5	36	40	M5x0.8
VR-1012	150	100	64	76	45	20	2	158	146	39	30	32	46	48	M6x1
VR-1214	188	125	82	82.5	60	24	2.5	196	182	41.5	44	34.5	57	51	M8x1.25

Model	L	M(H7)	M1	M2	N	P	Q	R	S	S1	T	T1	U	U1	V	V1
VR-808	M6	6	21.5	2.5	27	9	6.5	49	95	65	70	65	24	10	36	18
VR-1012	M8	8	27	2.5	32	12	8	63	120	80	90	80	30	12	46	20
VR-1214	M8	8	30	3	43	12	10	80	158	100	128	100	44	16	57	25



- Feed mechanism is transmitted by Rack and Pinion 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: $\pm 0.03\text{mm}$, work with stopper screw.
- Suitable for using with RS type cylinder.

RACK AND PINION
FA-615 FA-830 FA-1570



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Slider stroke	Max. speed	Max. D.B. PULL	Weight	Matching cylinder	Max. pressure
	mm	mm	min ⁻¹ (r.p.m.)	kN(kgf)	kg		MPa(kgf/cm ²)
FA-615	15	15	1200	3.3 (340)	11.9	RS-6520N	1.2(12)
FA-830	30	30	800	5.0 (510)	23.9	RS-6530N	1.8(18)
FA-1570	70	70	500	18.2 (1855)	167	RS-1080N	2.6(26)

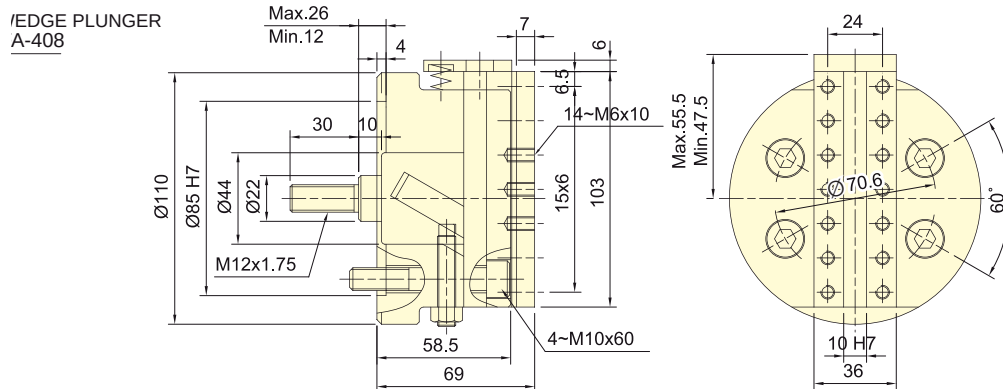
DIMENSIONS

Model	A	B	C (H7)	D	E	F (H7)	G max.	G min.	H	J	K
FA-615	150	107	110	102	5	25	43	28	35	20	M12x1.75
FA-830	198	126	140	121	6	30	55	25	45	25	M16x2
FA-1570	400	200	300	192	6	60	110	40	75	50	M30x3.5

Model	L	M	N	P	Q	R	S	T	U	V	W
FA-615	3-M10x40	12	8-M8x16	82.6	50	32	32	68	-	± 7.5	56
FA-830	6-M10x55	15	12-M10x20	120	60	36	40	80	120	± 15	66
FA-1570	6-M20x90	15	8-M16x20	235	120	80	130	260	-	± 17.5	-



- Feed mechanism is 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: $\pm 0.03\text{mm}$.

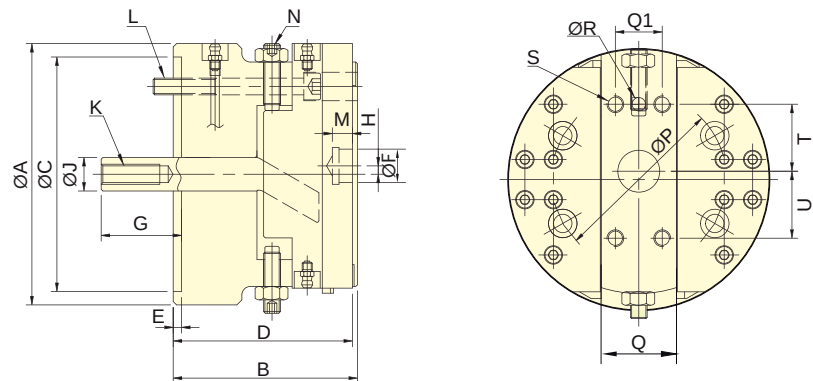


Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Slider stroke	Max. speed	Max. D.B. PULL	Weight	Matching cylinder	Max. pressure
	mm	mm	min ⁻¹ (r.p.m.)	kN(kgf)	kg		MPa(kgf/cm ²)
FA-408	14	8	1600	2.8 (280)	4.2	RS-6520N	1.0 (10)

WEDGE PLUNGER
FA-610 FA-812



Subject to technical changes

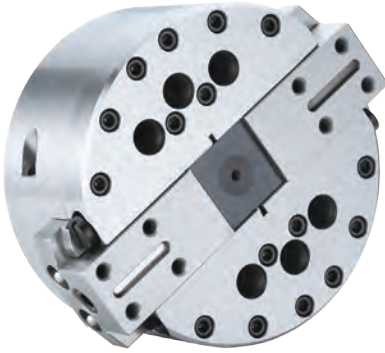
SPECIFICATIONS

Model	Plunger stroke	Slider stroke	Max. speed	Max. D.B. PULL	Weight	Matching cylinder	Max. pressure
	mm	mm	min ⁻¹ (r.p.m.)	kN(kgf)	kg		MPa(kgf/cm ²)
FA-610	18	10	1200	2.8 (280)	14.5	RS-6520N	1.0(10)
FA-812	21	12	800	4.4 (450)	28.5	RS-6530N	1.6(16)

DIMENSIONS

Model	A	B	C (H7)	D	E	F (H7)	G max.	G min.	H	J	K
FA-610	156	110	140	107	5	20	66	48	± 5	20	M12x1.75
FA-812	198	130	170	127	5	25	84	63	± 6	25	M16x2.0

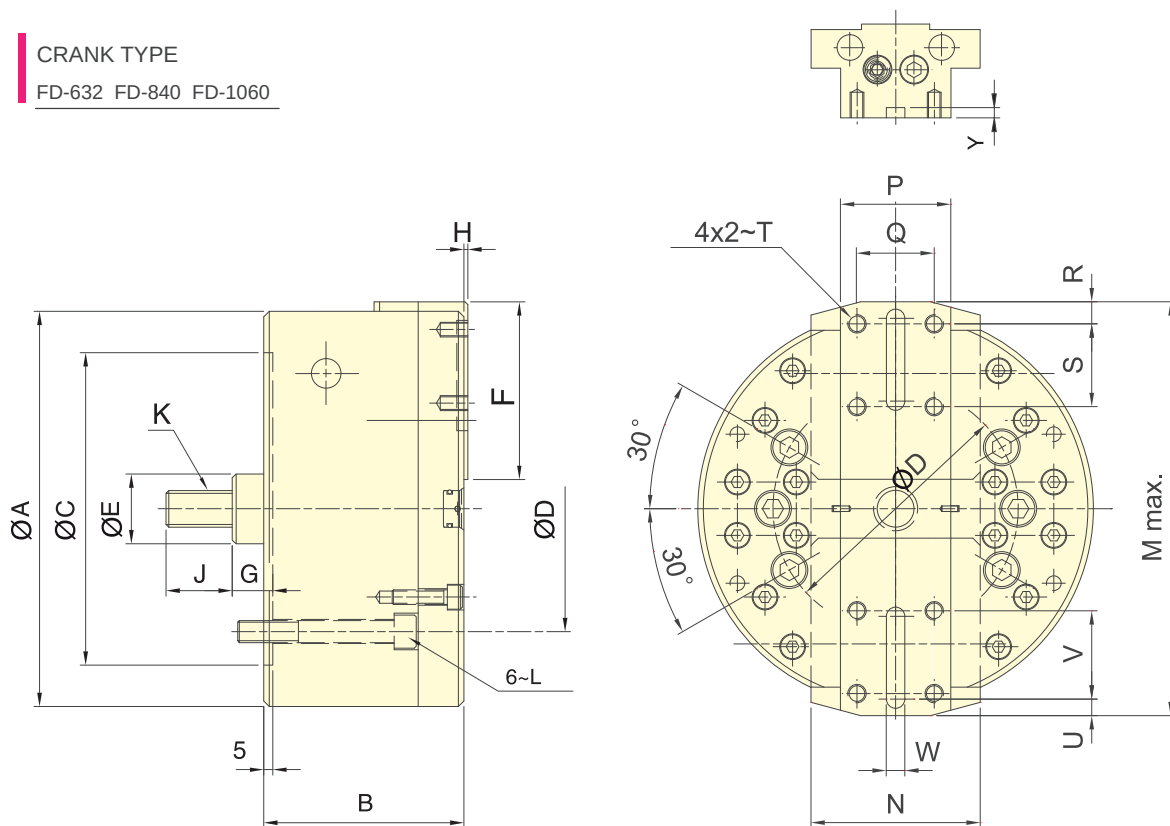
Model	L	M	N	P	Q	Q1	R (H8)	S	T	U
FA-610	4-M10x90	12	2-M10x45	104.8	45	28	8	4-M10x16	40	40
FA-812	4-M12x105	12	2-M12x60	133.4	54	32	10	4-M10x16	50	50



- Feed mechanism is transmitted by Crank 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: $\pm 0.03\text{mm}$, work with stoper screw.

CRANK TYPE

FD-632 FD-840 FD-1060



Subject to technical changes

SPECIFICATIONS

Model	Plunger stroke	Slider stroke(Dia.)	Max. speed	Max. D.B. PULL	Max. feed speed	Weight	Matching cylinder	Max. pressure
	mm	mm	$\text{min}^{-1}(\text{r.p.m.})$	kN(kgf)	mm/min.	kg		MPa(kgf/cm ²)
FD-632	20	32	3200	16.9 (1720)	300	13.6	RS-1030N	2.4(24)
FD-840	25	40	2500	20.6 (2100)	240	30.0	RS-1030N	3.0(30)
FD-1060	35	60	1800	20.6 (2100)	200	41.5	RS-1040N	3.0(30)

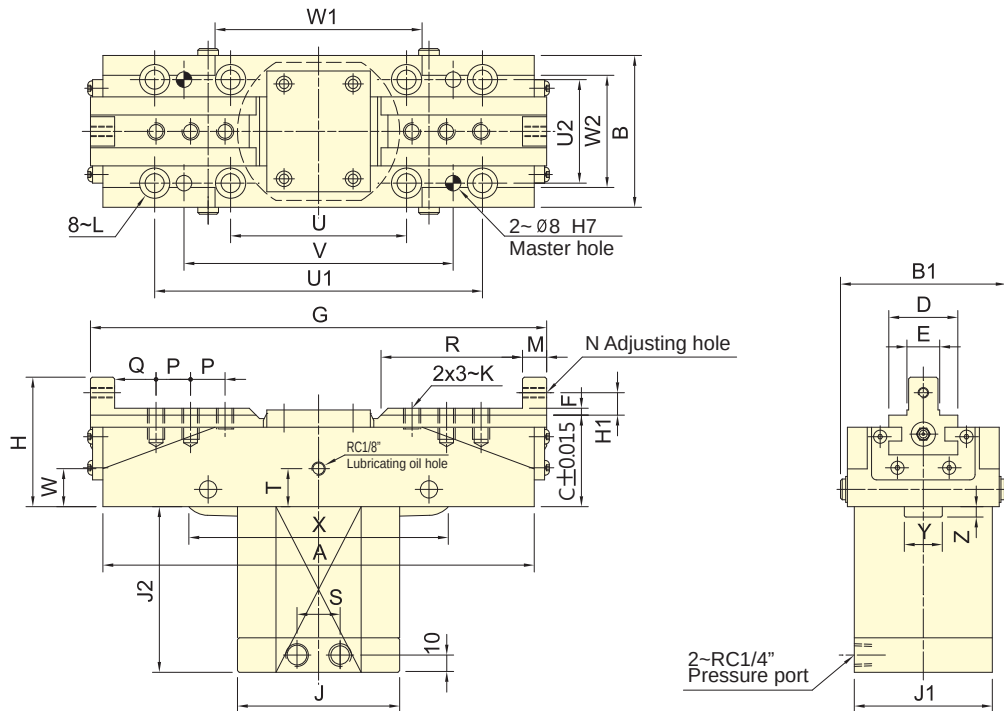
DIMENSIONS

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



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



Subject to technical changes

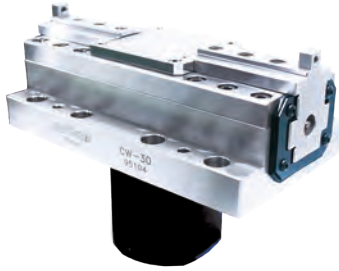
SPECIFICATIONS

Model	Eff. Piston area		Jaw stroke(Dia.)	Clamping capacity	Max. clamping force	Max. pressure	Weight
	Extend	Retract					
	cm ²	cm ²	mm	mm	kN (kgf)	MPa(kgf/cm ²)	kg
CP-20	28.27	25.13	20	150	14.4(1465)	3.5(35)	9.5
CP-30A	28.27	25.13	30	180	14.4(1465)	3.5(35)	11
CP-30	28.27	25.13	30	210	14.4(1465)	3.5(35)	12
CP-40	28.27	25.13	40	200	14.4(1465)	3.5(35)	12
CP-50	38.48	33.57	50	215	17.7(1812)	3.5(35)	18.5
CP-70	50.26	45.35	70	235	23.9(2434)	3.5(35)	30

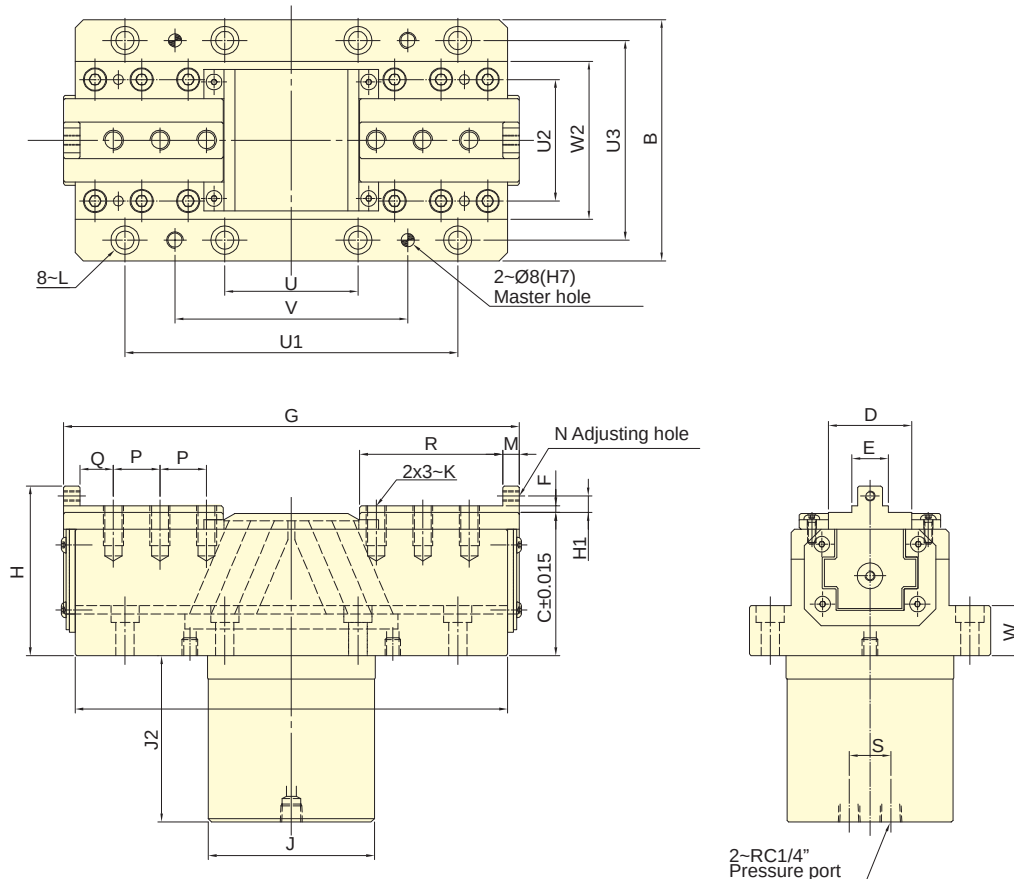
DIMENSIONS

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



- This wedge-driven synchronous clamp features a long jaw stroke, providing continuous high clamping force during the machining process.
- The sliding surfaces are hardened and precision ground, with direct lubrication to enhance performance.
- High clamping accuracy and excellent dust protection.



Subject to technical changes

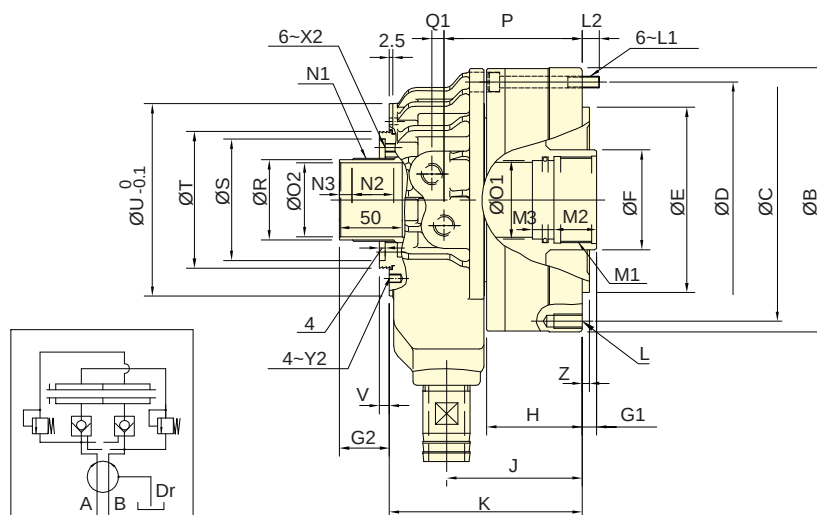
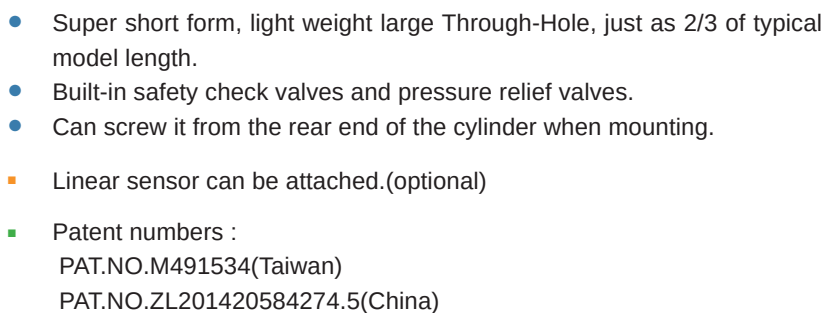
SPECIFICATIONS

Model	Eff. Piston area		Jaw stroke(Dia.)	Clamping capacity	Max. clamping force	Max. pressure	Weight
	Extend	Retract					
	cm ²	cm ²					
CW-30	31.10	24.10	30	150	34.3(3500)	7.0(70)	32

DIMENSIONS

Model	A	B	C	D	E(h6)	F	Gmax	Gmin	H	H1	J	J2	K	L	M
CW-30	260	145	86	50	22	4	304	274	102	10	100	100	M12x1.75	M10	10

Model	N	P	Q	R	S	U	U1	U2	U3	V	W	W2
CW-30	M6x1	28	20	86	25	80	200	120	73	140	30	30



SPECIFICATIONS

*Coolant Collector and Confirmation Device Please See Accessories pages.

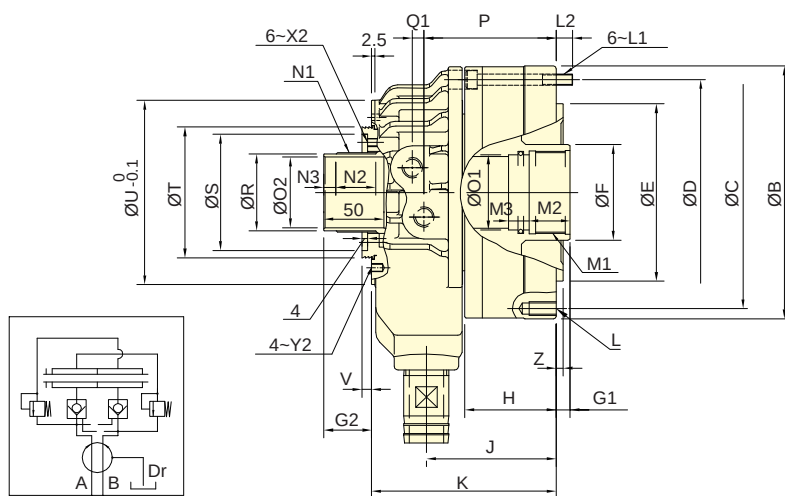
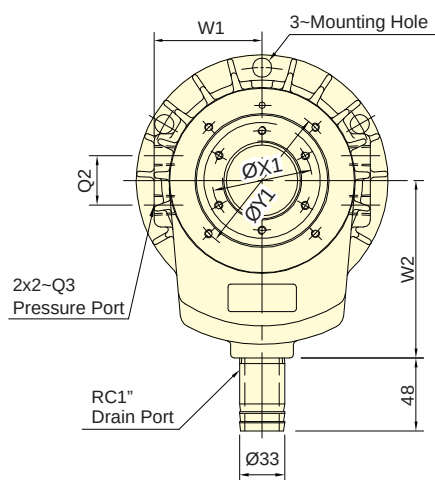
DIMENSIONS

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	38	26	49	77.5	123	6~M8x20	M8x55	14	M38x1.5	25	13
TK-A533	105	141	125	125	110	45	12	0	38	26	49	77.5	123	6~M10x20	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	30	15
TK-C646	125	156	140	140	120	65	15	0	44	29	56	85	125	12~M10x20	M8x60	12	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-A1068	170	212	190	190	160	95	25	0	50	25	74	108	158	12~M10x20	M10x80	16	M75x2	35	15
TK-A1075	170	212	190	190	160	95	25	0	50	25	74	108	158	12~M10x20	M10x80	16	M85x2	35	15
TK-A1078	170	212	190	190	160	95	25	0	50	25	74	108	158	12~M10x20	M10x80	16	M87x2	35	15

Model	N1	N2	N3	O1	O2	P	Q1	Q2	Q3	R	S	T	U	V	W1	W2	X1	X2	Y1	Y2	Z
				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	5
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	5
TK-C643	M52x1.5	29	9	45	43	87	8.5	36	RC3/8	50	76	85	116	9.5	74	120	64	M6x10	98	M5x6	5
TK-A646	M52x1.5	29	9	50	46	87	8.5	36	RC3/8	50	76	85	116	9.5	74	120	64	M6x10	98	M5x6	5
TK-B646	M52x1.5	29	9	50	46	97	8.5	36	RC3/8	50	76	85	116	9.5	74	120	64	M6x10	98	M5x6	5
TK-C646	M52x1.5	29	9	50	46	87	8.5	36	RC3/8	50	76	85	116	9.5	74	120	64	M6x10	98	M5x6	5
TK-B846	M58x1.5	30	8	50	46	97	8.5	36	RC3/8	56	85	96	128	11.5	79	130	73	M6x12	110	M6x6	5
TK-A853	M58x1.5	30	8	55	53	97	8.5	36	RC3/8	56	85	96	128	11.5	79	130	73	M6x12	110	M6x6	5
TK-B853	M58x1.5	30	8	55	53	97	8.5	36	RC3/8	56	85	96	128	11.5	79	130	73	M6x12	110	M6x6	5
TK-A1068	M84x2	34	9	70	68	110	12	40	RC1/2	81	108	121	164	10	98	160	98	M6x12	155	M6x8	5
TK-A1075	M84x2	34	9	80	75	110	12	40	RC1/2	81	108	121	164	10	98	160	98	M6x12	155	M6x8	5
TK-A1078	M84x2	34	9	82	78	110	12	40	RC1/2	81	108	121	164	10	98	160	98	M6x12	155	M6x8	5



- 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.
- Linear sensor can be attached.(optional)
- Patent numbers :
PAT.NO.M491534(Taiwan)
PAT.NO.ZL201420584274.5(China)



Subject to technical changes

SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight	Total oil leakage
	Extend cm ²	Retract cm ²						
TK-A1287	234.0	217.5	30	3800	4.0 (40)	0.092	24.8	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-A1512-35	336.4	315.2	35	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

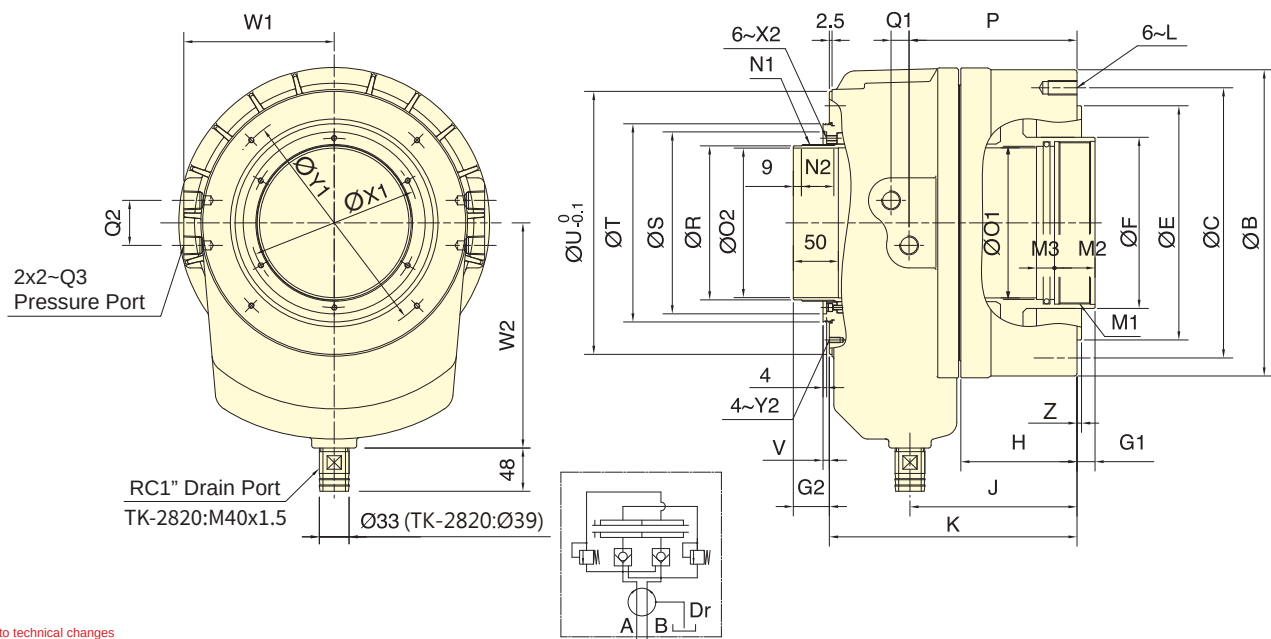
Model	A I.D.	B	C	D	E	F	G1		G2		H	J	K	L	L1	L2	M1	M2	M3	N1
	h7				max.		min.	max.	min.											
TK-A1287	200	245	215	225	180	110	30	0	59	29	86	126	184	12~M12x24	M10x90	14.5	M95x2	35	15	M99x2
TK-A1291	200	245	215	225	180	110	30	0	59	29	86	126	184	12~M12x24	M10x90	14.5	M100x2	35	15	M99x2
TK-A1511	250	300	275	275	230	140	30	0	58	28	102	156	226	12~M16x36	M12x110	21	M120x2	45	15	M129x2
TK-A1512	250	300	275	275	230	140	30	0	58	28	102	156	226	12~M16x36	M12x110	21	M130x2	45	15	M129x2
TK-A1512-35	250	300	275	275	230	140	35	0	63	28	102	161	231	12~M16x36	M12x115	21	M130x2	45	15	M129x2
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	M149x2

Model	N2	N3	O1	O2	P	Q1	Q2	Q3	R	S	T	U	V	W1	W2	X1	X2	Y1	Y2	Z
			H8	H8					g7	H7										
TK-A1287	38	9	90	87	127.5	15	45	RC1/2	96	120	138	180	7	110	185	108	M6x10	165	M6x10	5
TK-A1291	38	9	95	91	127.5	15	45	RC1/2	96	120	138	180	7	110	185	108	M6x10	165	M6x10	5
TK-A1511	38	9	115	110	153.75	17	50	RC1/2	126	150	170	227	7	134	210	138	M6x10	210	M6x9	6
TK-A1512	38	9	125	120	153.75	17	50	RC1/2	126	150	170	227	7	134	210	138	M6x10	210	M6x9	6
TK-A1512-35	38	9	125	120	158.75	17	50	RC1/2	126	150	170	227	7	134	210	138	M6x10	210	M6x9	6
TK-2114	38	9	145	140	170	17	50	RC1/2	146	170	190	250	7	145	210	160	M6x10	230	M6x10	6

*Coolant Collector and Confirmation Device Please See Accessories pages.



- New design, short form, light weight large through-hole.
- Built-in safety check valves and pressure relief valves.
- Linear sensor can be attached.(optional)
- Patent numbers :
PAT.NO.M491534(Taiwan)
PAT.NO.ZL201420584274.5(China)



Subject to technical changes

SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight	Total oil leakage
	Extend	Retract						
	cm ²	cm ²						
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

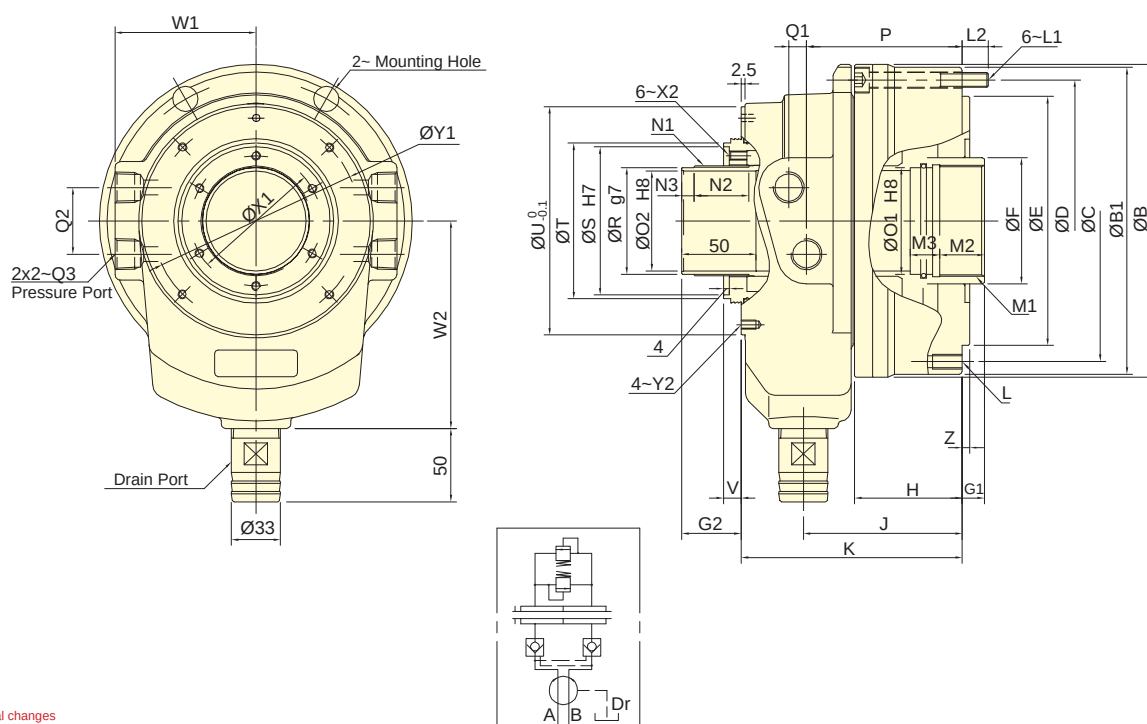
Model	A	B	C	E	F	G1		G2		H	J	K	L	M1	M2	M3	N1	N2
	I.D.			h7		max.	min.	max.	min.									
TK-2416	290	340	300	260	190	35	0	60	25	129	185.5	275	M16x32	M180x3	45	20	M174x2	38
TK-2416L	290	340	300	260	190	51	0	76	25	145	201.5	291	M16x32	M180x3	45	20	M174x2	52
TK-2820	340	395	360	320	235	51	0	76	25	152	212.5	316	M20x40	M220x3	45	20	M218x2	52

Model	O1	O2	P	Q1	Q2	Q3	R	S	T	U	V	W1	W2	X1	X2	Y1	Y2	Z
	H8	H8					g7	H7										
TK-2416	170	166	186.5	20	50	RC1/2	171	202	220	292	7	167	250	188	M6x11	260	M6x12	5
TK-2416L	170	166	202.5	20	50	RC1/2	171	202	220	292	7	167	250	188	M6x11	260	M6x12	6
TK-2820	210	205	216	21	50	RC1/2	215	262	285	360	7	202.5	300	240	M6x12	320	M6x12	6

*Coolant Collector and Confirmation Device Please See Accessories pages.



- Bigger bore through-hole design. Super short form, light weighted.
- Built-in safety check valves and pressure relief valves.
- Front/Rear end mounting.
- Diameter of coolant collector's drain port is optional.
Default : Ø33 ; optional : Ø40, Ø60.
- Linear sensor can be attached.(optional)
- Patent numbers :
PAT.NO.M491534(Taiwan)
PAT.NO.ZL201420584274.5(China)



Subject to technical changes

SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight	Total oil leakage
	Extend	Retract						
	cm ²	cm ²						
TS-539	72.4	67.1	15	8000	4.5 (45)	0.012	6.9	3.0
TS-866	168.0	155.5	25	5600	4.5 (45)	0.056	16.3	4.0
TS-1081	189.2	174.3	25	4800	4.5 (45)	0.085	21.2	4.3
TS-1012	231.7	222.0	30	3500	3.5(35)	0.193	35.6	6.0

DIMENSIONS

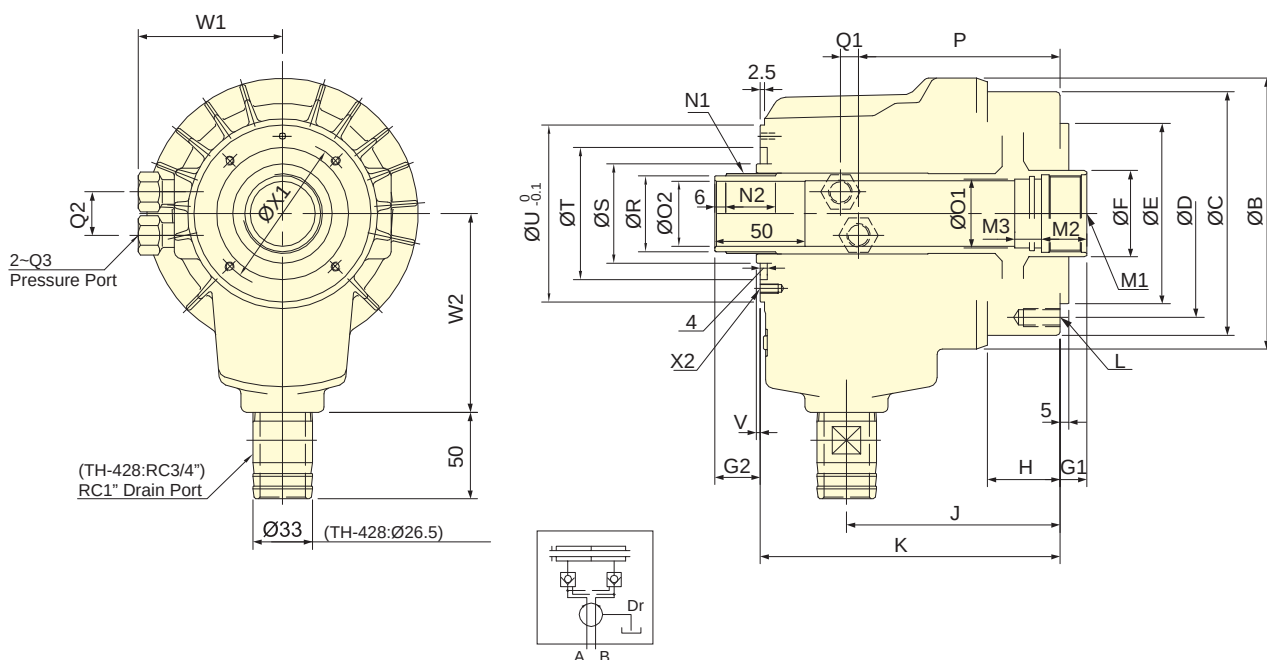
Model	A	B	B1	C	D	E	F	G1		G2		H	J	K	L	L1	L2	M1	M2	M3
	I.D.					h7		max.	min.	max.	min.									
TS-539	107	143	141	125	125	110	52	15	0	42.5	27.5	57	91	124	6~M10x20	M8x60	12	M45x1.5	25	12
TS-866	165	211	207	190	190	168	85	25	0	55	30	72.5	107	149	12~M10x20	M10x80	17.5	M75x2	35	15
TS-1081	180	226	222	205	205	168	100	25	0	58	33	74	115	166	12~M10x20	M10x80	16	M90x2	35	15
TS-1012	210	263	260	240	240	200	125	30	0	64	34	93.5	136.5	193.5	12~M10x20	M12x100	20	M115x2	35	15

Model	N1	N2	N3	O1 (H8)	O2 (H8)	P	Q1	Q2	Q3	R (g7)	S (H7)	T	U	V	W1	W2	X1	X2	Y1	Y2	Z
TS-539	M44x1.5	26	8	42	39	85	8.5	30	RC1/4	42	69	72	103	10	62.5	100	54	M6x10	90	M5x12	5
TS-866	M74x1.5	37	8	72	66.5	105	12	45	RC1/2	72	100	111	154	12	95	140	88	M6x12	140	M6x10	5
TS-1081	M89x2.0	38	9	85	81	109	15	45	RC1/2	86	113	123	175	16	103	160	103	M6x12	160	M6x10	5
TS-1012	M118x2.0	47	9	110	106	131	16	46	RC1/2	115	145	151	210	16	103	160	133	M6x12	195	M6x11	5

*Coolant Collector and Confirmation Device. Please See Accessories pages.



- 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.
- Linear sensor can be attached.(optional)



Subject to technical changes

SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight	Total oil leakage
	Extend	Retract						
	cm ²	cm ²						
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

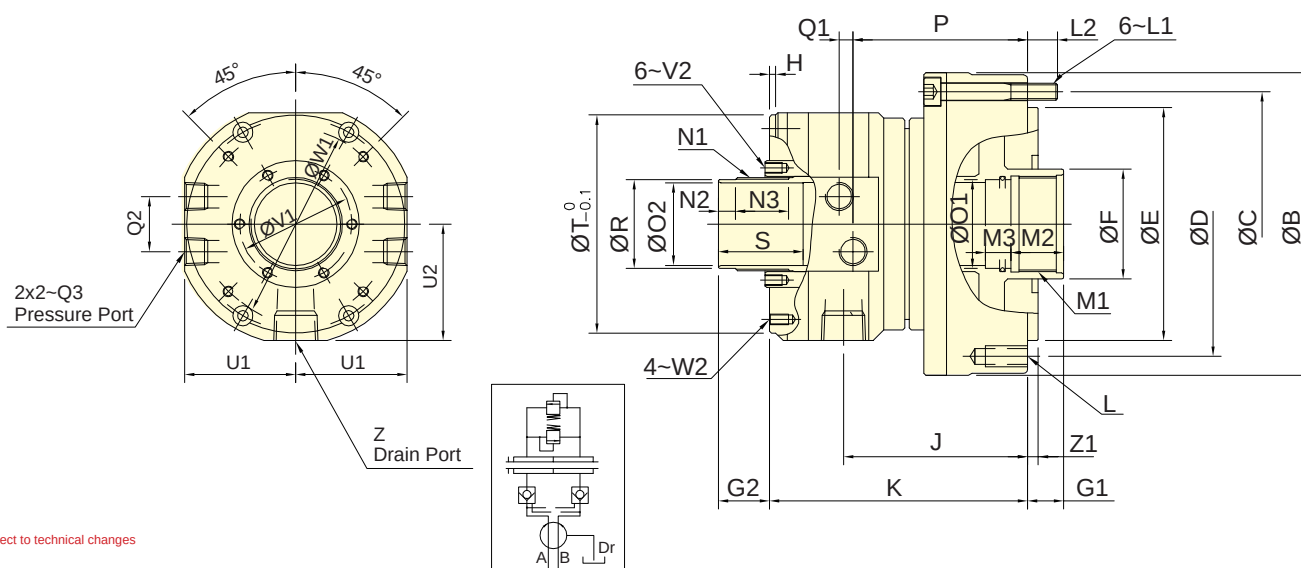
Model	A I.D.	B	C	D	E (h7)	F	G1 max.	G1 min.	G2 max.	G2 min.	H	J	K	L	M1	M2	M3
TH-428	90	130	120	100	80	40	10	0	35	25	45	127.5	155	6-M8x15	M33x1.5	25	12
TH-A536	105	150	135	115	100	48	15	0	40	25	40	118	166	6-M10x20	M42x1.5	25	15

Model	N1	N2	O1 (H8)	O2 (H8)	P	Q1	Q2	Q3	R (g7)	S	T	U	V	W1	W2	X1	X2
TH-428	M34x1.5	26	30	28	101.5	11	24	RC1/4	32	45	65	86	4	72	105	76	M4x7
TH-A536	M44x1.5	28	38	36	111.5	10	24	RC1/4	42	55	73	98	4	80	110	83	M5x10

*Coolant Collector and Confirmation Device Please See Accessories pages.



- 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.
- Linear sensor can be attached.(optional)
- Patent numbers :
PAT.NO.M491534(Taiwan)
PAT.NO.ZL201420584274.5(China)



Subject to technical changes

SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight	Total oil leakage
	Extend	Retract						
	cm ²	cm ²	mm	min ⁻¹ (r.p.m.)	MPa(kgf/cm ²)	kg · m ²	kg	lit. / min.
TR-539	72.4	67.1	15	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
TR-853	135.3	125	20	6300	4.0(40)	0.032	11.5	3.9
TR-1075	170	155	25	4500	4.0(40)	0.065	18	4.2
TR-1291	234	217.5	30	3500	4.0(40)	0.092	29.5	4.5

DIMENSIONS

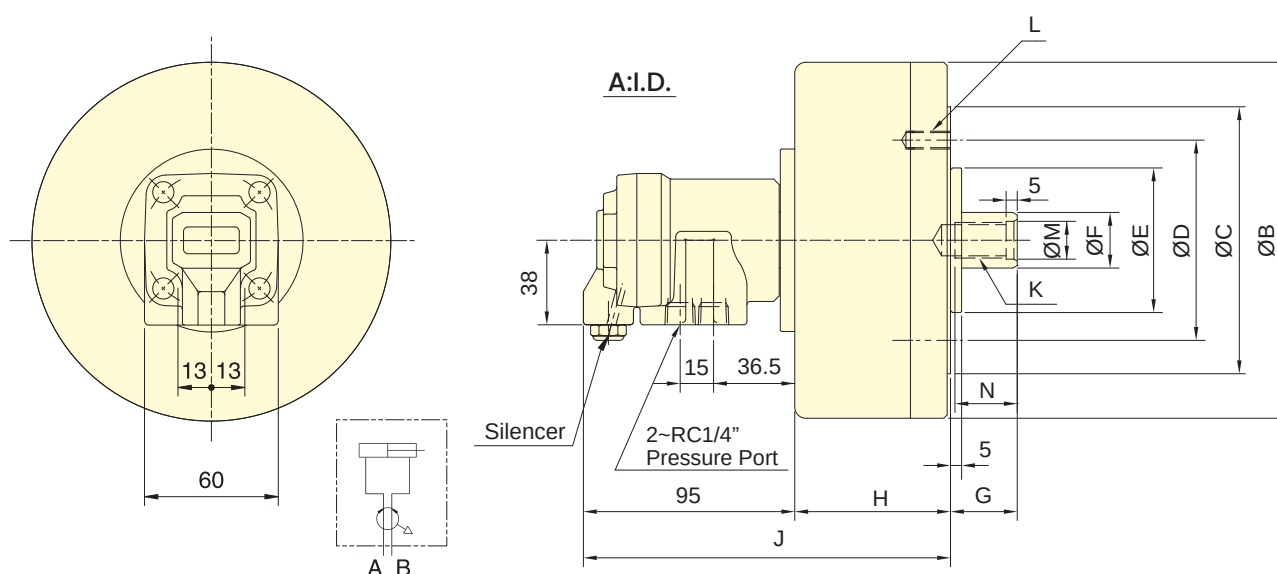
Model	A	B	C	D	E	F	G1		G2		H	J	K	L	L1	L2	M1	M2	M3
	I.D.				h7		max.	min.	max.	min.									
TR-539	107	143	125	125	110	52	15	0	34	19	4	97	133	6-M10x20	M8x60	12	M45x1.5	25	12
TR-646	128	165	147	147	130	65	15	0	34	19	3.5	97	135	12-M10x20	M8x60	11.5	M55x2	25	13
TR-853	145	185	165	170	130	70	20	0	47	27	4.5	118.5	160	12~M10x20	M8x75	12	M60x2	30	15
TR-1075	170	212	190	190	160	95	25	0	52	27	4.5	129.5	181	12~M10x20	M10x1.5	16	M85x2	35	15
TR-1291	200	248	225	215	180	110	30	0	59	29	5	146	240.5	12~M12x24	M10x95	16	M100x2	35	15

Model	N1	N2	N3	O1	O2	P	Q1	Q2	Q3	R	S	T	U1	U2	V1	V2	W1	W2	Z	Z1
				H8	H8					g7										
TR-539	M44x1.5	8	25	42	39	92.5	6.5	26	RC 1/4	42	40	103	52.5	55	53	M5x8	90	M5x9	RC 1/2	5
TR-646	M52x1.5	8	25	50	46	95	5	32	RC 3/8	50	50	116	59	62	61.5	M5x9	98	M5x9	RC 1/2	5
TR-853	M58x1.5	8	30	55	53	114	8	34	RC 3/8	56	50	128	65	67	70	M5x10	110	M6x11	RC 1/2	5
TR-1075	M84x2	9	33	80	75	123.5	12	40	RC 1/2	81	50	164	83	86	95	M5x10	155	M6x11	RC 3/4	5
TR-1291	M99x2	9	38	95	91	139	14	45	RC1/2	96	50	180	91.5	93	110.5	M6x12	165	M6x12	RC3/4	5

*Coolant Collector and Confirmation Device Please See Accessories pages.



- 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.



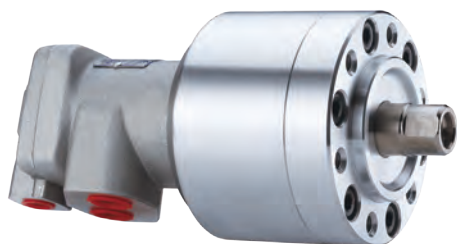
Subject to technical changes

SPECIFICATIONS

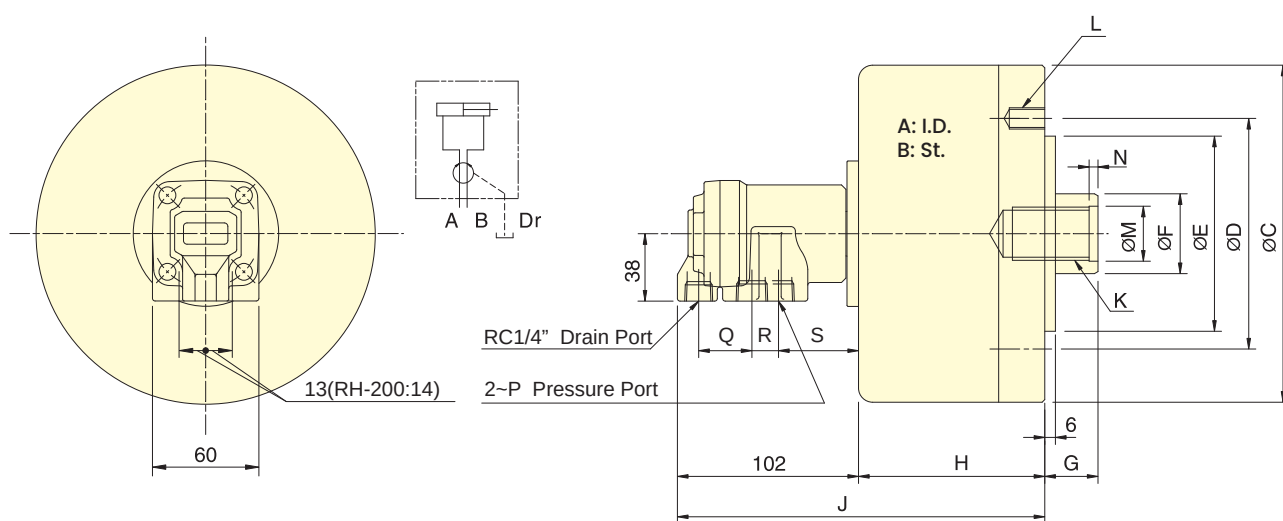
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight	Air Leakage (6kgf/cm ²)
	Extend	Retract						
	cm ²	cm ²						
RA-100	77.0	74.4	15	6000	0.8(8)	0.03	3.9	400
RA-130	131.2	124.7	15	5000	0.8(8)	0.05	5.2	400
RA-170	225.4	219.0	20	5000	0.8(8)	0.18	8.5	400
RA-220	378.6	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



- 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.



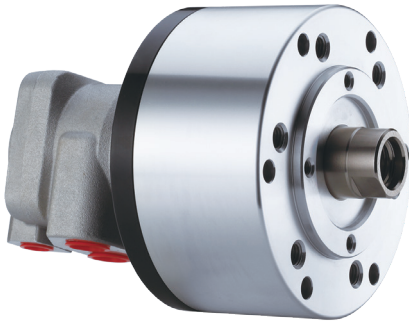
Subject to technical changes

SPECIFICATIONS

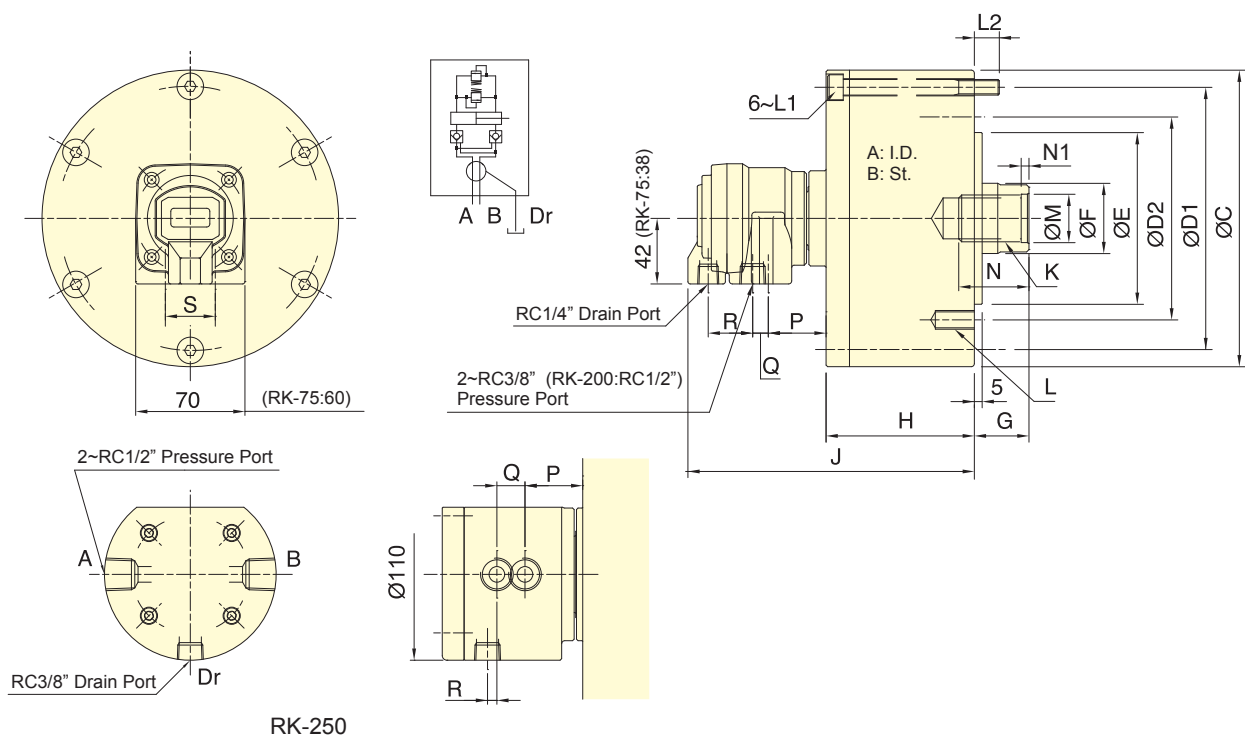
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight
	Extend	Retract					
	cm ²	cm ²					
RH-65	31.0	27.9	15	6000	3.5(35)	0.01	2.9
RH-80	47.7	42.8	15	6000	3.5(35)	0.01	3.4
RH-100	75.4	70.5	20	5500	3.5(35)	0.04	4.9
RH-125	119.6	112.5	25	5500	3.5(35)	0.08	6.8
RH-200	310.0	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



- 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.



RK-250

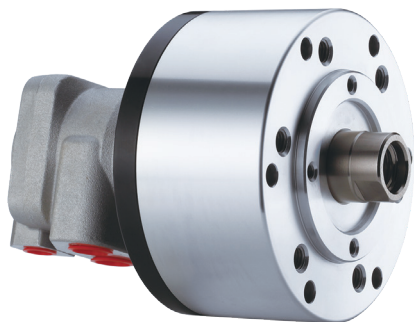
Subject to technical changes

SPECIFICATIONS

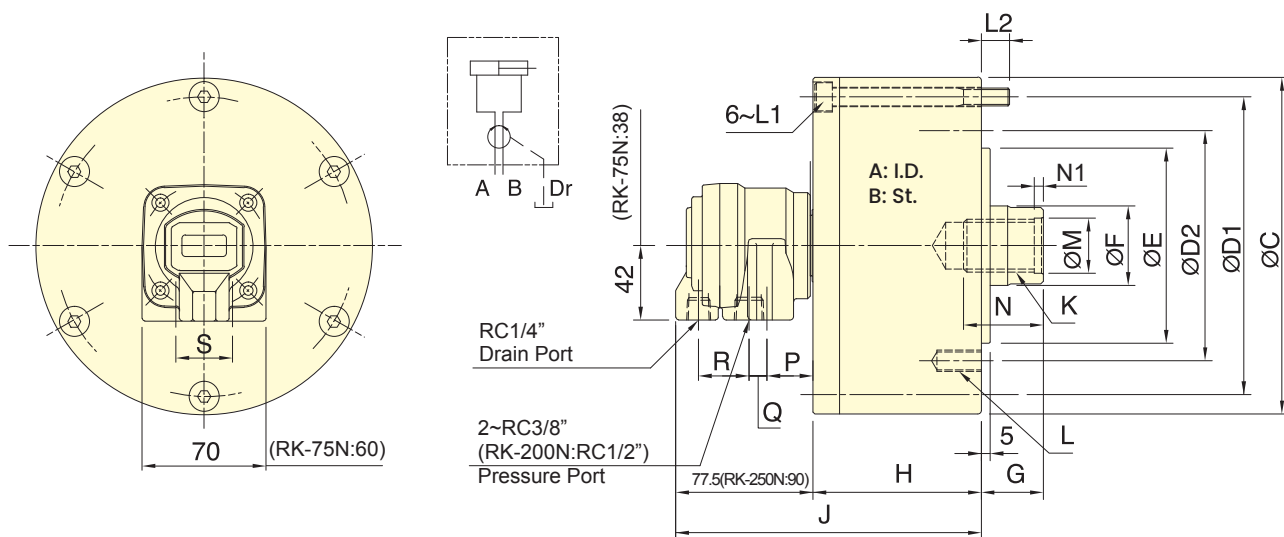
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight
	Extend	Retract					
	cm ²	cm ²	mm	min ⁻¹ (r.p.m.)	MPa(kgf/cm ²)	kg · m ²	kg
RK-75	44.2	37.1	15	6000	4.0 (40)	0.01	2.9
RK-100	78.5	71.5	20	6000	4.0 (40)	0.03	4.4
RK-125	122.7	113.1	25	6000	4.0 (40)	0.05	6.9
RK-150	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	N1	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	5	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	5	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	5	38.5	10	28.5	32
RK-150	150	30	190	170	130	110	45	55	25	95	184	M30x3.5	12-M12x24	M10x100	15.5	32	45	5	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	5	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	12	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.



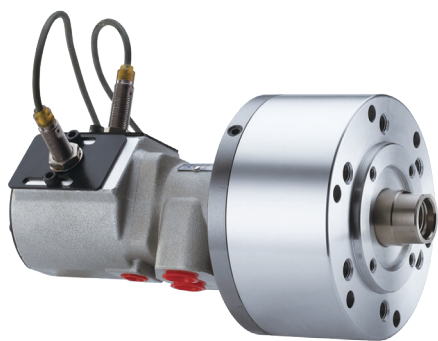
Subject to technical changes

SPECIFICATIONS

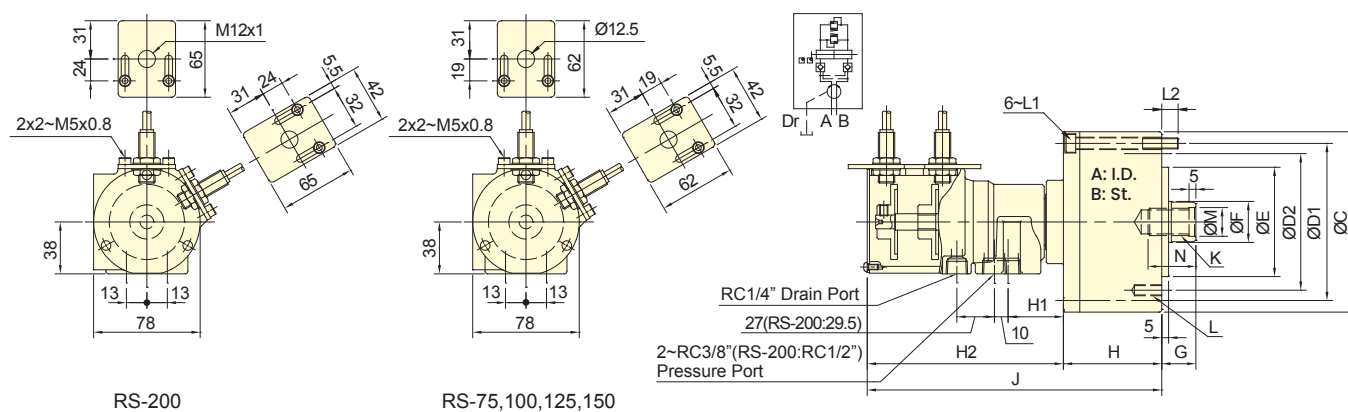
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight
	Extend	Retract					
	cm ²	cm ²					
RK-75N	44.2	37.1	15	6000	4.0(40)	0.01	2.8
RK-100N	78.5	71.5	20	6000	4.0(40)	0.03	4.3
RK-125N	122.7	113.1	25	6000	4.0(40)	0.05	6.8
RK-150N	176.7	160.8	30	5500	4.0(40)	0.09	9.4
RK-200N	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	N1	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	5	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	5	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	5	26	10	28.5	32
RK-150N	150	30	190	170	130	110	45	55	25	95	172.5	M30x3.5	12~M12x24	M10x100	15.5	32	45	5	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	5	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	12	37	18	6	-



- 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.
- Stroke Detection Type can be customized to Linear Positioning System.



Subject to technical changes

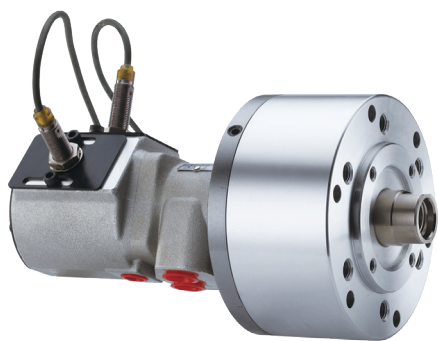
SPECIFICATIONS

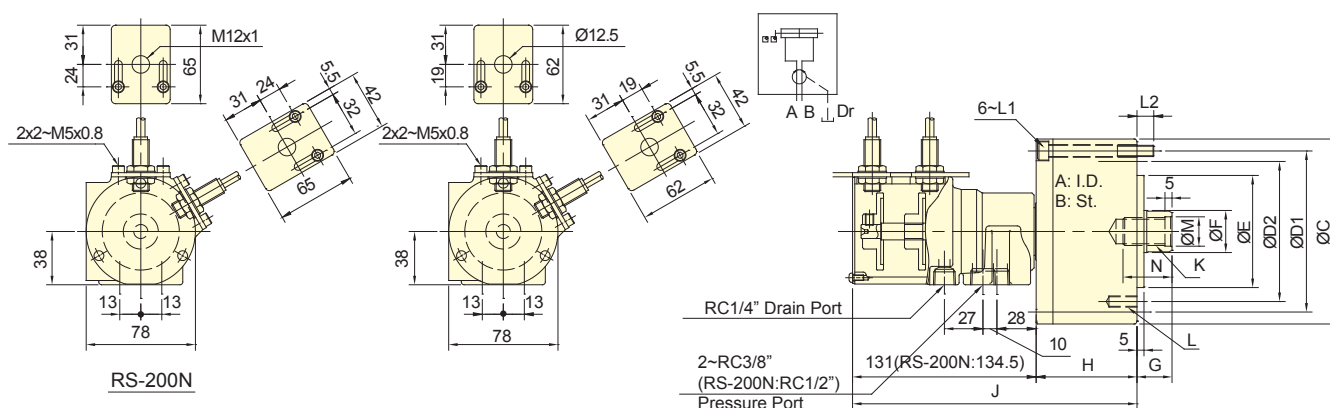
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I	Weight
	Extend	Retract					
	cm ²	cm ²				Moment of inertia kg · m ²	
RS-75	43.0	37.1	15	6000	4.0 (40)	0.01	3.4
RS-100	77.4	71.5	20	6000	4.0 (40)	0.04	4.9
RS-125	121.6	113.1	25	6000	4.0 (40)	0.05	7.4
RS-150	175.6	160.8	30	5500	4.0 (40)	0.10	10.7
RS-200	313.0	290.4	35	5500	4.0 (40)	0.29	15.9

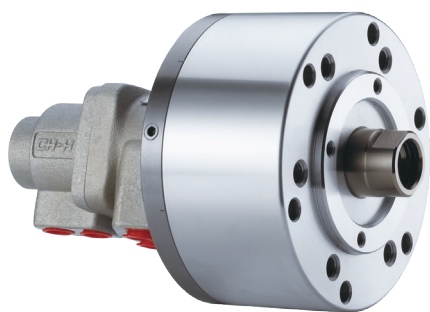
DIMENSIONS

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	15.5	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

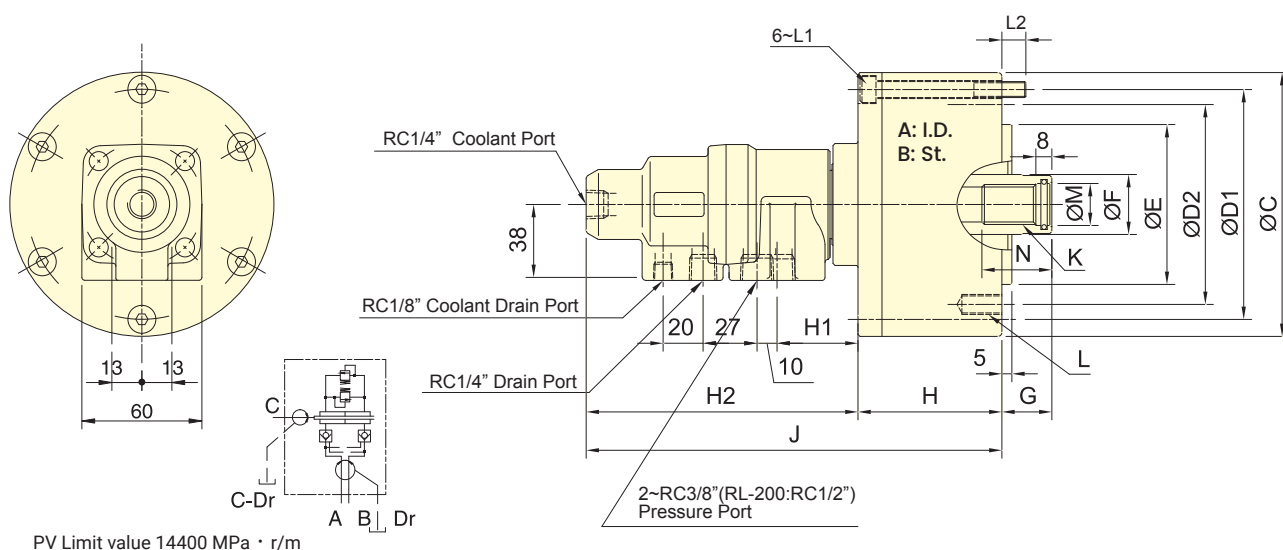
*Proximity sensor : DC 10-30V 100mA NPN.







- 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.



PV Limit value 14400 MPa · r/m

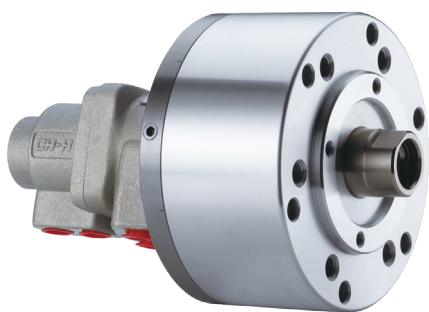
Subject to technical changes

SPECIFICATIONS

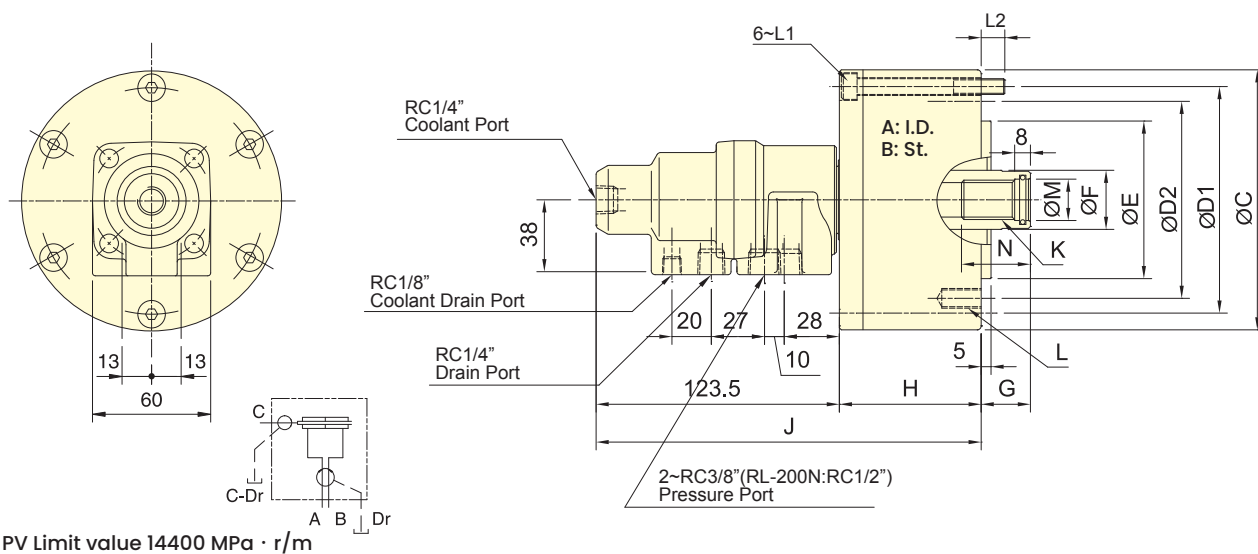
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Coolant connection Max. pressure	I	Weight
	Extend	Retract						
	cm ²	cm ²					Moment of inertia	
	cm ²	cm ²	mm	min ⁻¹ (r.p.m.)	MPa(kgf/cm ²)	MPa (kgf/cm ²)	kg · m ²	kg
RL-75	42.6	37.1	15	6000	4.0(40)	3.5(35)	0.01	3.1
RL-100	77.0	71.5	20	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	15.5	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.



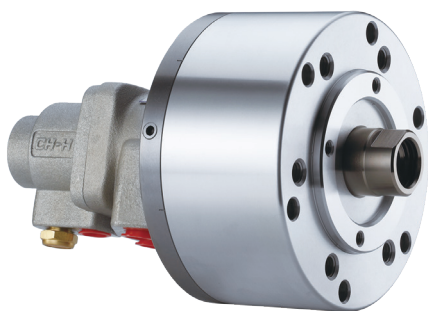
Subject to technical changes

SPECIFICATIONS

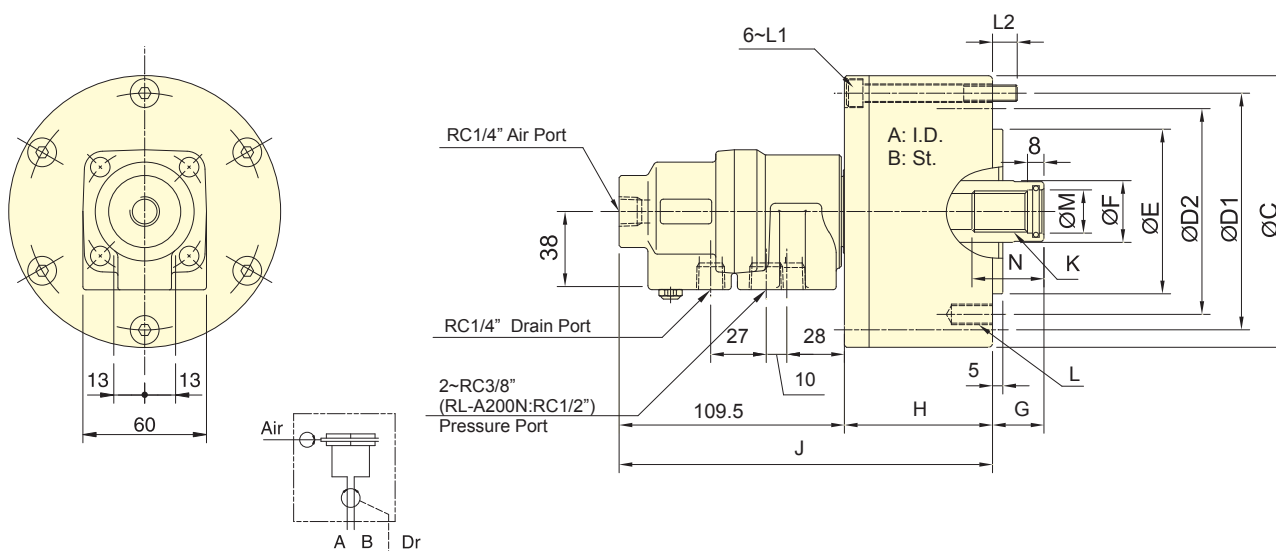
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Coolant connection Max. pressure	I Moment of inertia	Weight
	Extend	Retract						
	cm ²	cm ²						
RL-75N	42.6	37.1	15	6000	4.0 (40)	3.5(35)	0.01	3.0
RL-100N	77.0	71.5	20	6000	4.0 (40)	3.5(35)	0.04	4.5
RL-125N	121.2	113.1	25	6000	4.0 (40)	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	15.5	32	45
RL-200N	200	35	245	220	145	120	55	70	35	115	240	M36x4.0	12-M16x 30	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.
- The rotary cylinder should not run without air passing through the air port.



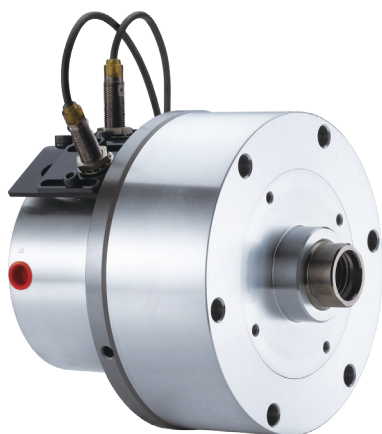
Subject to technical changes

SPECIFICATIONS

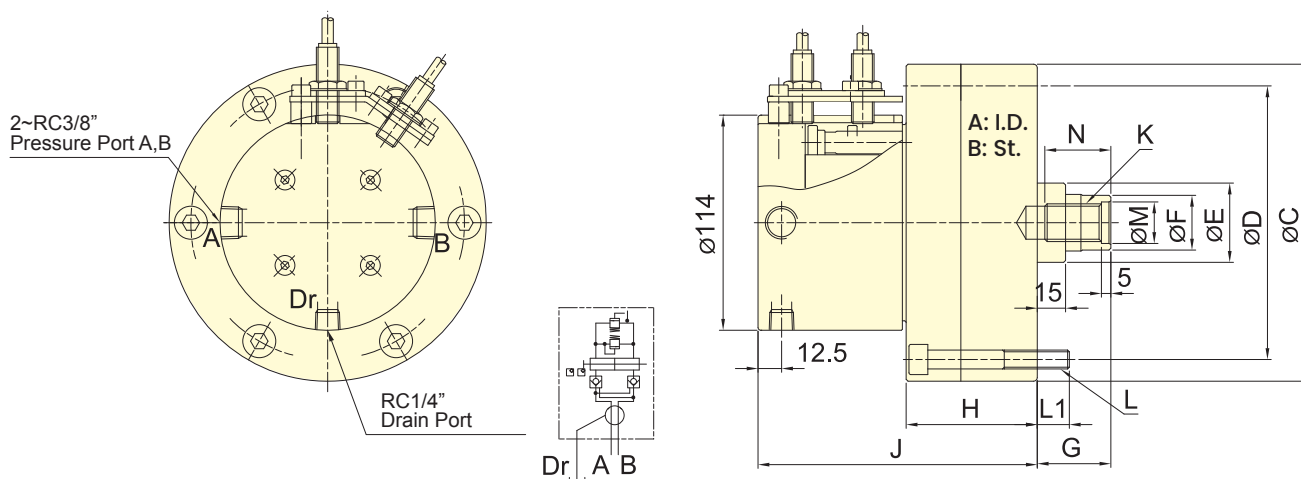
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Air connection Max. pressure	I	Weight
	Extend	Retract					Moment of inertia	
	cm ²	cm ²					mm	
RL- A75N	42.6	37.1	15	6000	4.0(40)	0.8(8)	0.01	3.0
RL- A100N	77.0	71.5	20	6000	4.0(40)	0.8(8)	0.04	4.5
RL- A125N	121.2	113.1	25	6000	4.0(40)	0.8(8)	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	15.5	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.
- Stroke Detection Type can be customized to Linear Positioning System.



Subject to technical changes

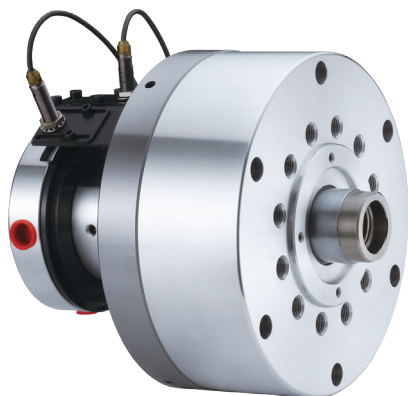
SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I	Weight
	Extend	Retract					
	cm ²	cm ²				Moment of inertia	
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

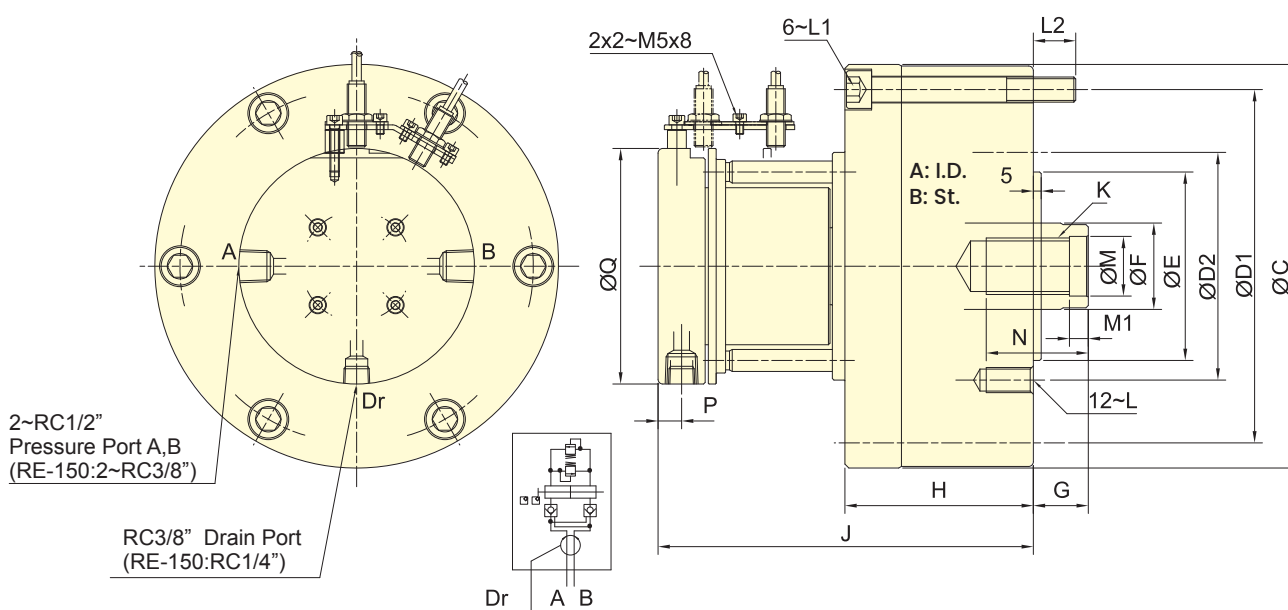
DIMENSIONS

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

*Proximity sensor : DC 10-30V 100mA NPN.



- 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.
- Stroke Detection Type can be customized to Linear Positioning System.



Subject to technical changes

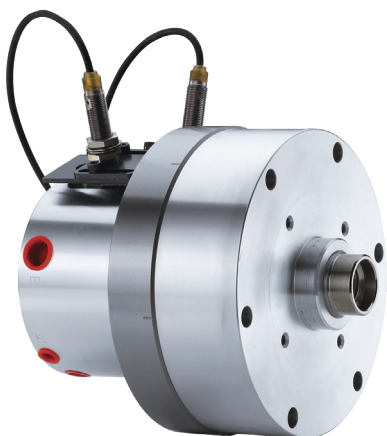
SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I	Weight
	Extend	Retract					
	cm ²	cm ²				Moment of inertia kg · m ²	
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

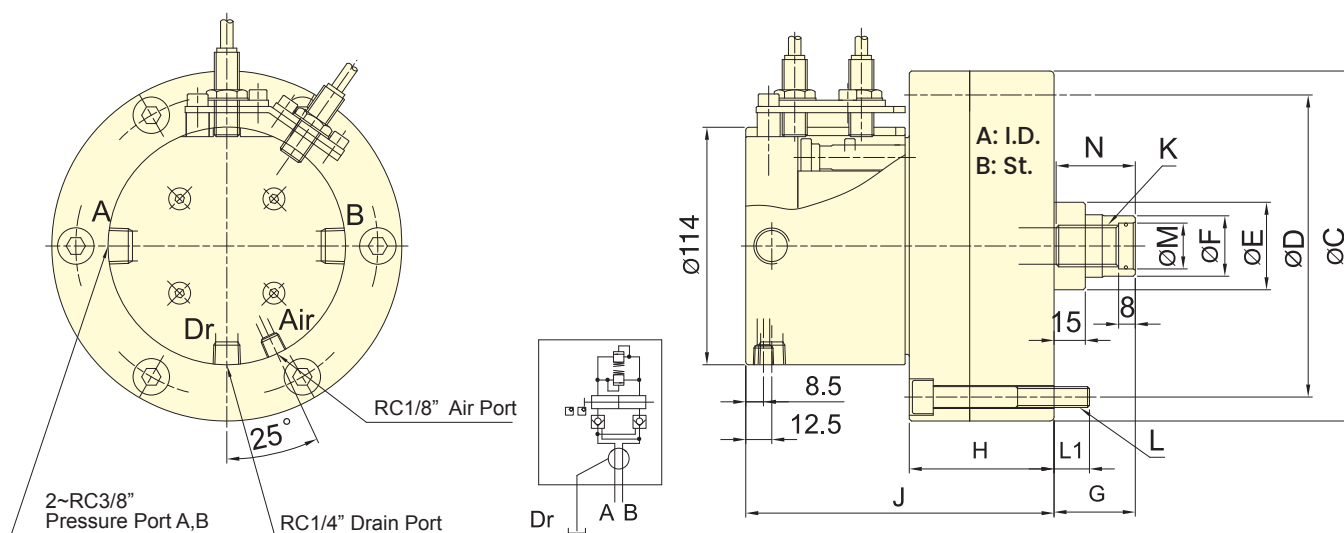
DIMENSIONS

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

*Proximity sensor : DC 10-30V 100mA NPN.



- 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.
 - The rotary cylinder should not run without air passing through the air port.
 - Stroke Detection Type can be customized to Linear Positioning System.



Subject to technical changes

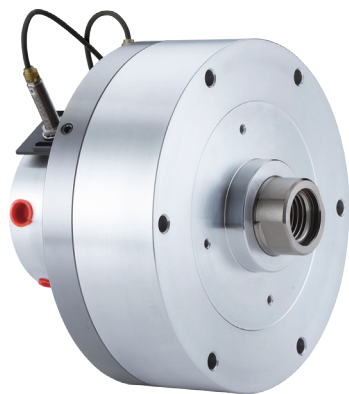
SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Air connection Max. pressure	I	Weight
	Extend	Retract					Moment of inertia	
	cm ²	cm ²					kg · m ²	kg
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

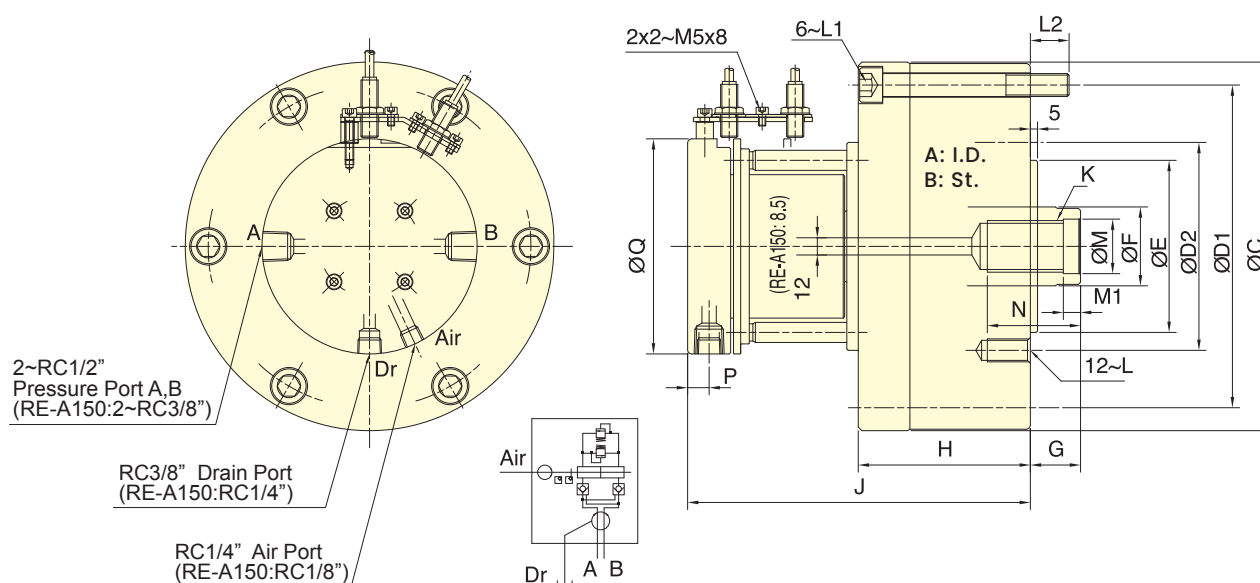
DIMENSIONS

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

*Proximity sensor : DC 10-30V 100mA NPN.



- 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.
- The rotary cylinder should not run without air passing through the air port.
- Stroke Detection Type can be customized to Linear Positioning System.



Subject to technical changes

SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Air connection Max. pressure	I Moment of inertia	Weight
	Extend	Retract						
	cm ²	cm ²					kg · m ²	
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

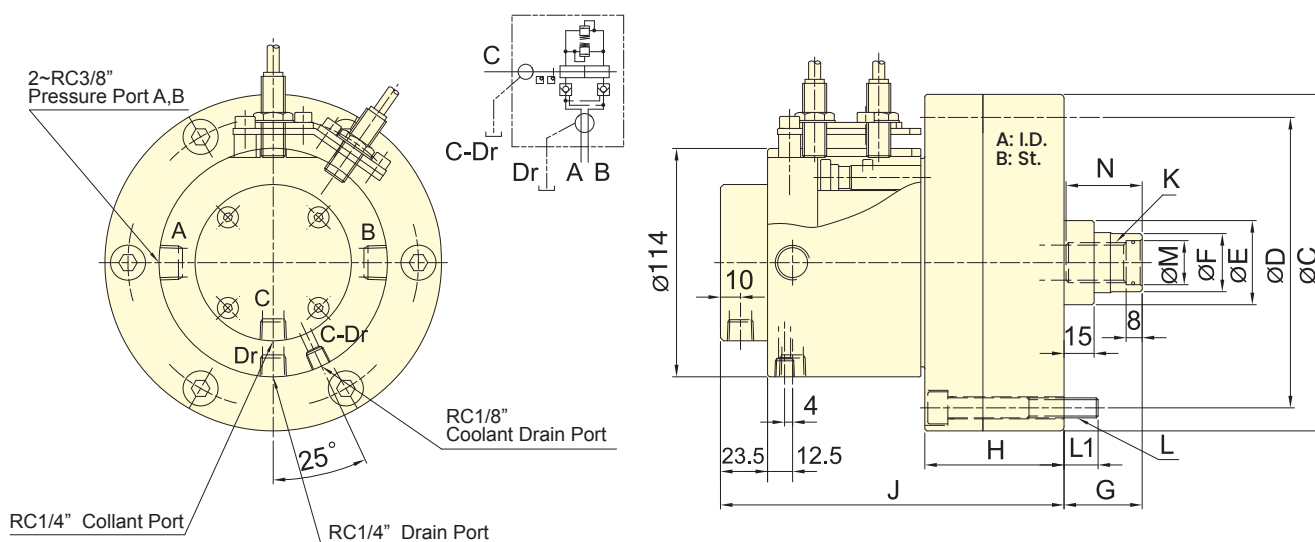
DIMENSIONS

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

*Proximity sensor : DC 10-30V 100mA NPN.



- 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.
- The rotary cylinder should not run without liquid through coolant port.
- Stroke Detection Type can be customized to Linear Positioning System.



Subject to technical changes

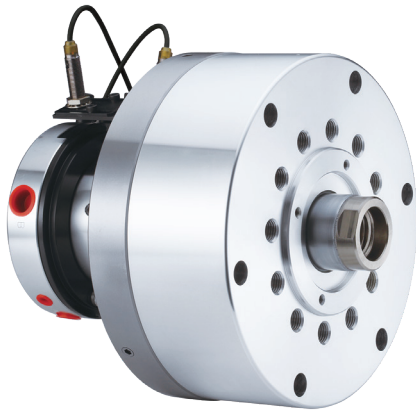
SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Coolant connection Max. pressure	I Moment of inertia	Weight
	Extend	Retract						
	cm ²	cm ²					kg · m ²	
RE-L110	92.7	87.9	20	6000	4.0(40)	1.5(15)	0.02	7.2
RE-L120	109.3	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

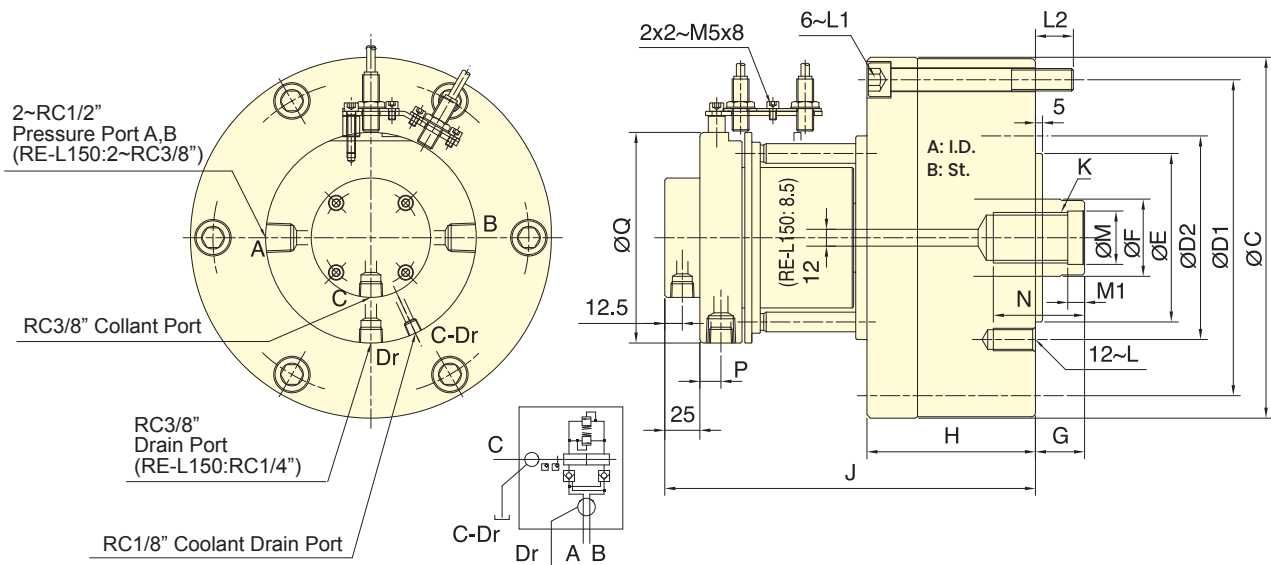
DIMENSIONS

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

*Proximity sensor : DC 10-30V 100mA NPN.



- 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.
- The rotary cylinder should not run without liquid through coolant port.
- Stroke Detection Type can be customized to Linear Positioning System.



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	Retract						
	cm ²	cm ²					kg · m ²	
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

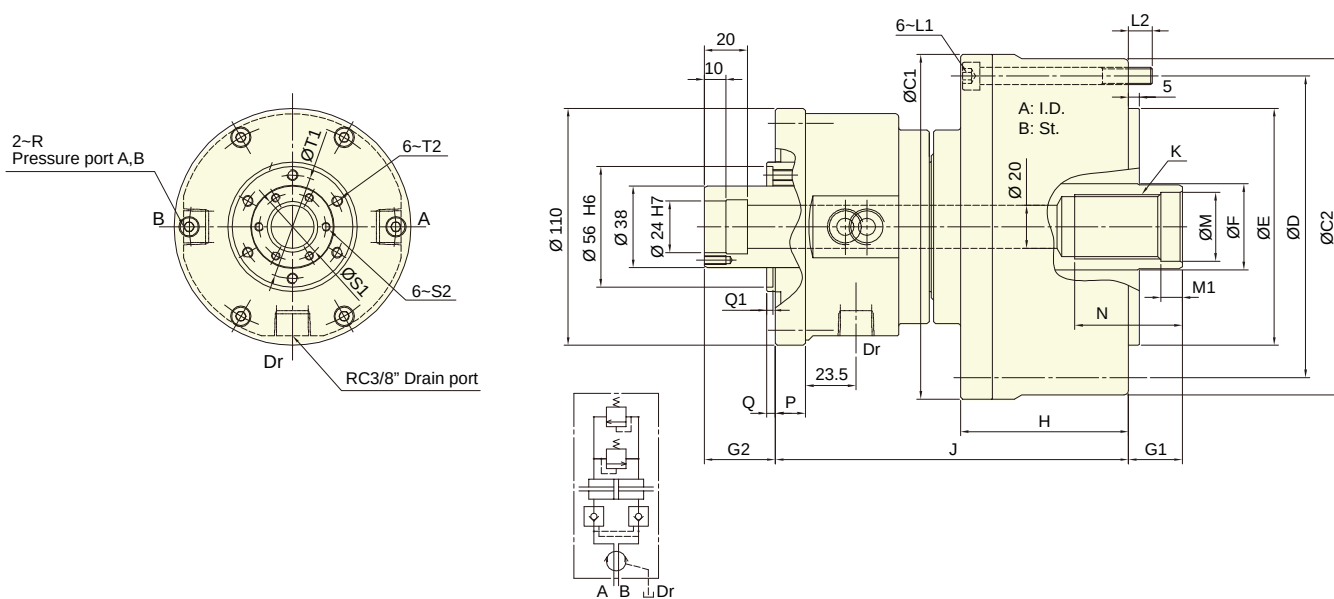
DIMENSIONS

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

*Proximity sensor : DC 10-30V 100mA NPN.



- Center through-hole hydraulic cylinder, suitable for horizontal CNC lathes.
- Can choose an external rotary joint with either single or double paths.
- It meets the demand for coolant through spindle and airtight pressure detect function.
- Has a built-in check valve for safety.
- Stroke control via proximity switch or linear positioning system.
- The proximity switch and single or double paths rotating joint are optional.



Subject to technical changes

SPECIFICATIONS

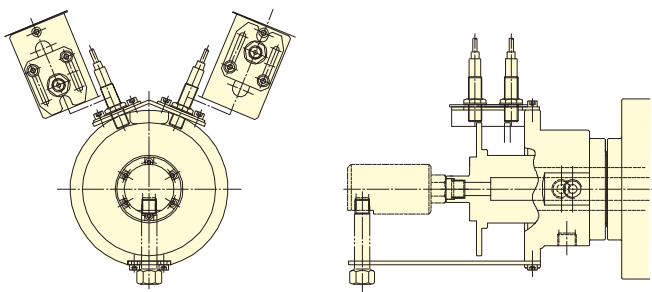
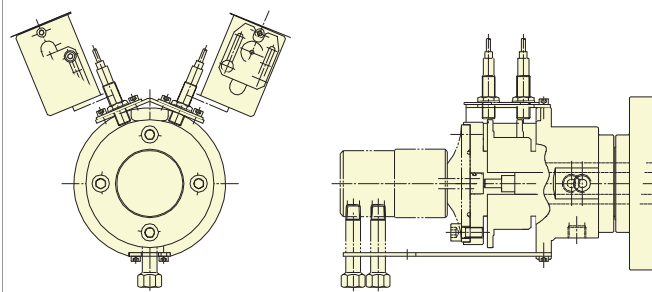
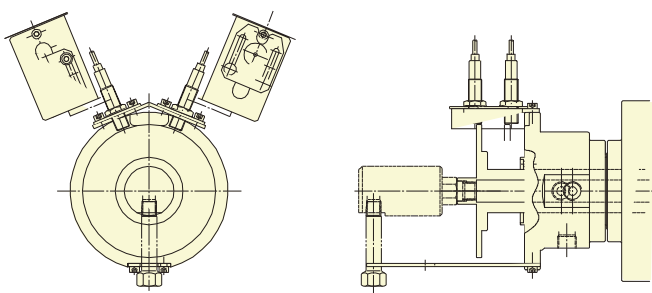
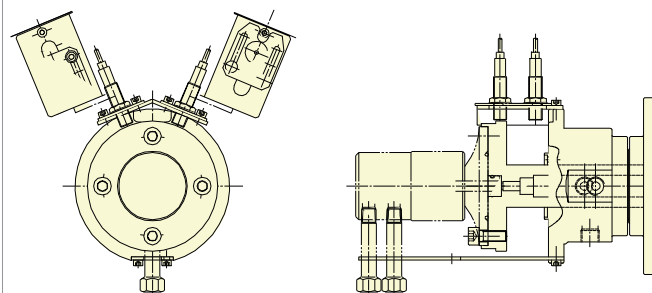
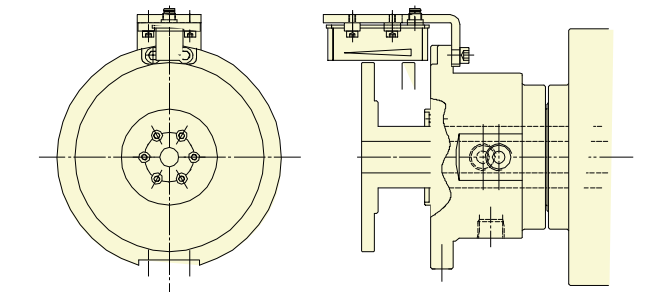
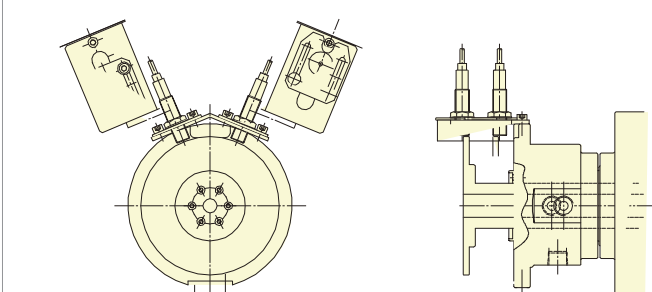
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I	Weight
	Extend	Retract					
	cm ²	cm ²				Moment of inertia kg · m ²	
RC-85	43.8	48.1	20	5000	3.5(35)	0.01	6.8
RC-100	65.6	64.4	20	5000	3.5(35)	0.02	9.2
RC-125	109.8	108.5	25	5000	3.5(35)	0.03	11.1
RC-145	152.2	143.9	30	5000	3.5(35)	0.03	14.6
RC-200	279.3	273.6	35	4000	4.0(40)	0.26	35.5

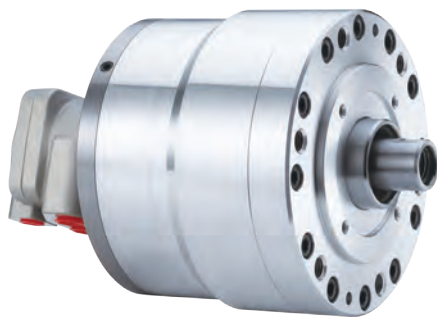
DIMENSIONS

Model	A	B	C1	C2	D	E (h7)	F	G1max.	G1min.	G2max.	G2min.	H	J	K
RC-85	85	20	120	116	100	65	30	45	25	28	8	70	150	M20x1.5
RC-100	100	20	135	131	115	80	40	45	25	28	8	72	158.5	M30x1.5
RC-125	125	25	160	156	140	110	40	50	25	33	8	78	164	M30x1.5
RC-145	145	30	187	183	165	110	50	55	25	38	8	89.5	169.5	M40x1.5
RC-200	195	35	257	257	225	120	55	73	38	51.5	16.5	120	22.5	M36x4.0

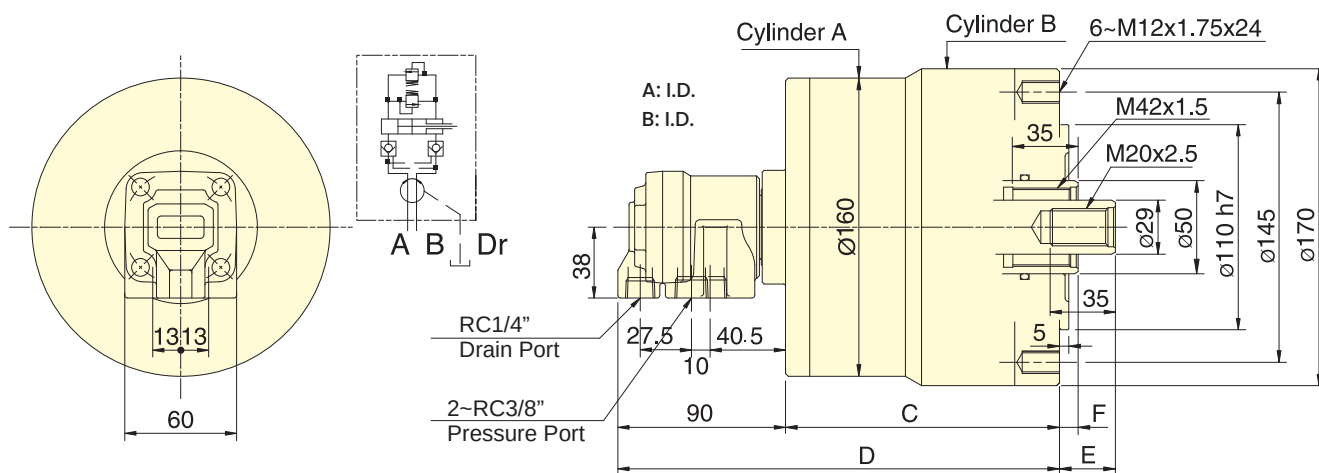
Model	L1	L2	M(H8)	M1	N	P	Q	Q1	R	S1	S2	T1	T2
RC-85	6~M8x75	12.5	20.5	10	40	14	4	3	RC3/8	31	M4x10	48	M5x9
RC-100	6~M8x75	12.5	32	10	50	14	4	3	RC3/8	31	M4x10	48	M5x9
RC-125	6~M8x80	11	32	10	50	14	4	3	RC3/8	31	M4x10	48	M5x9
RC-145	6~M10x90	18	42	12	57	14	4	3	RC3/8	31	M4x10	48	M5x9
RC-200	6~M16x130	26	38	12	65	15	6.5	4	RC1/2	35	M4x10	60	M5x11

- Rotating joint and Proximity switch with bracket type.

F1	With single path rotating joint (Fixed type)	F2	With double paths rotating joint(Fixed type)
			
M1	With single path rotating joint(Moving type)	M2	With double paths rotating joint(Moving type)
			
B	linear Sensor with bracket	S	Proximity switch with bracket
			
* The proximity switch and rotary joint are optional. * Choose and attach the appropriate type. * Please contact AUTOGRIP for more detailed drawing.			



- 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.



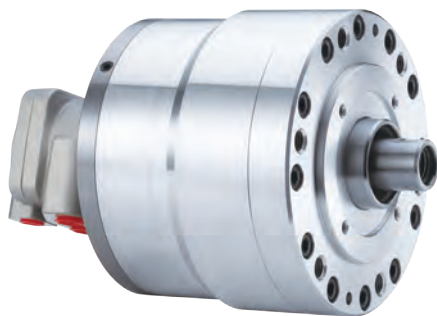
Subject to technical changes

SPECIFICATIONS

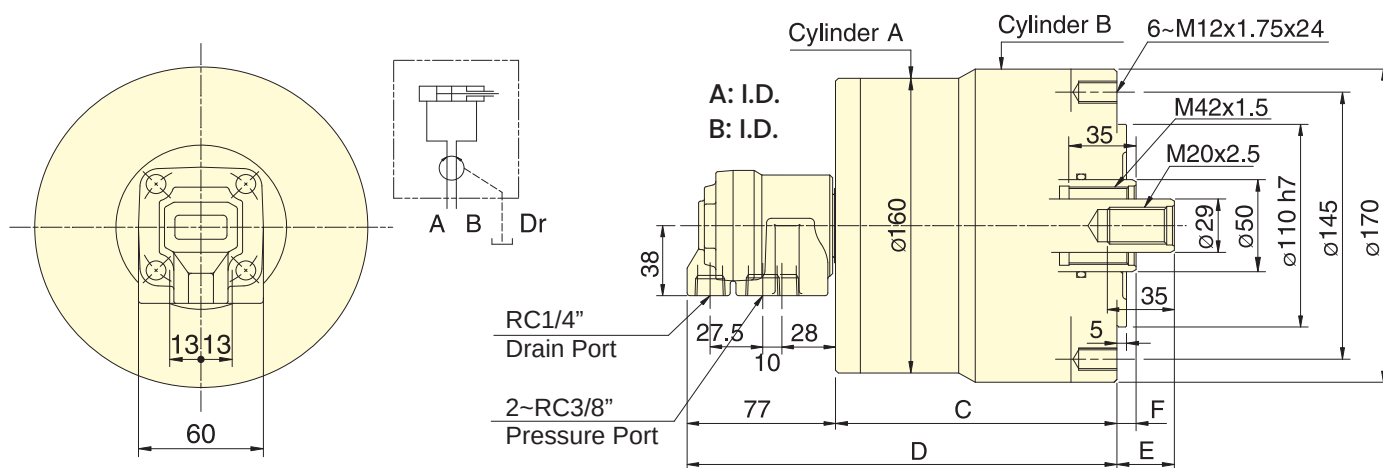
Model	Eff. piston area				Piston stroke	Max. speed	Max. pressure	I	Weight
	Extend		Retract						
	A	B	A	B					
	cm ²	cm ²	cm ²	cm ²					
					mm	min ⁻¹ (r.p.m.)	MPa(kgf/cm ²)	kg • m ²	kg
RD-120	122.7	126.1	116.1	113.1	20	5000	3.0(30)	0.14	11.3
RD-125	122.7	126.1	116.1	113.1	25	5000	3.0(30)	0.15	11.5

DIMENSIONS

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

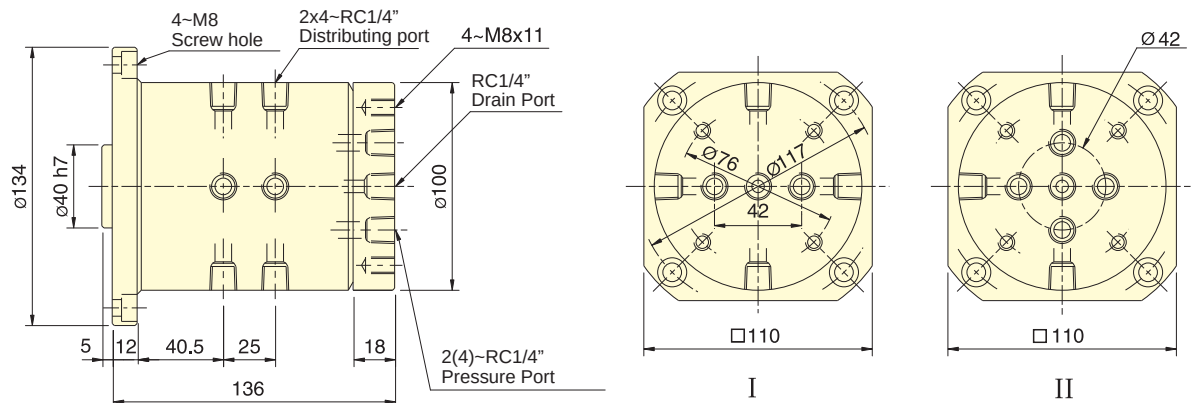
Model	Eff. piston area				Piston stroke	Max. speed	Max. pressure	I	Weight
	Extend		Retract					Moment of inertia	
	A	B	A	B					
	cm ²	cm ²	cm ²	cm ²					
RD-120N	122.7	126.1	116.1	113.1	20	5000	3.0(30)	0.14	11.2
RD-125N	122.7	126.1	116.1	113.1	25	5000	3.0(30)	0.15	11.4

DIMENSIONS

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

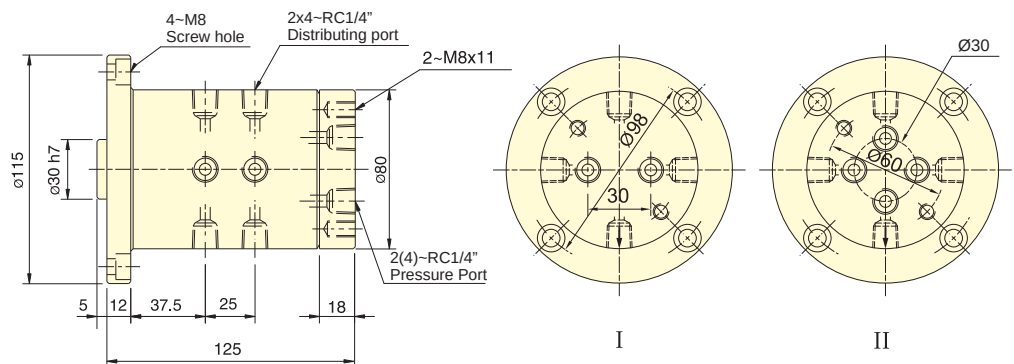


Subject to technical changes

SPECIFICATIONS

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

Note:RV can be custom-made.



Subject to technical changes

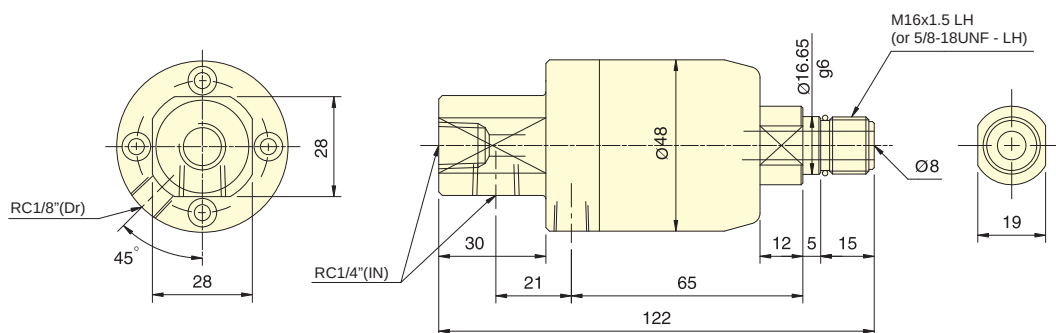
SPECIFICATIONS

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

Note:RV-A can be custom-made.



- 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.



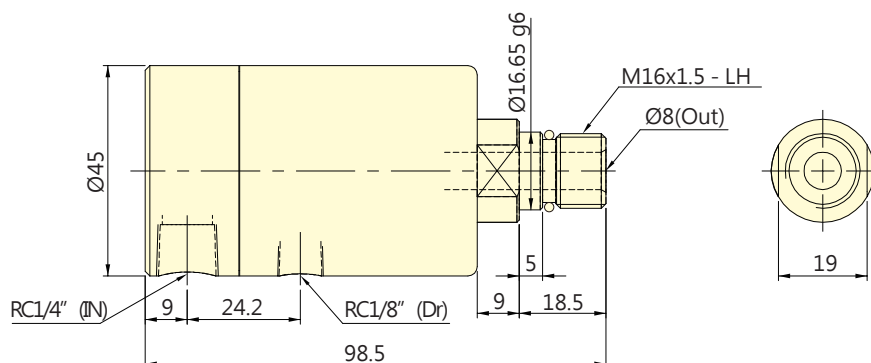
Subject to technical changes

SPECIFICATIONS

Model	PV Limit value MPa· r/m	Max. pressure MPa(kgf/cm ²)	Delivery amount (at 50 kgf/cm ²)	Max. speed (r.p.m.)	Weight (kg)
RJ-80	14400	6.0(60)	28 l/min	8000	0.5



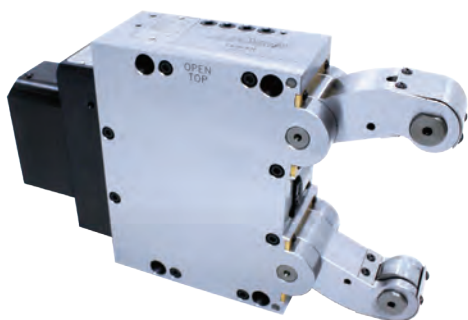
- Short form, light weight coolant rotating joint.
- Coolant joint for high speed, high pressure. Usable for oil and water-soluble coolant.
- Seal bushing inside is made of cemented carbide and ceramics, which provide higher wear-resistance.
- The seal will depart automatically if no liquid passes during operation, and will not be damaged due to dry touching.
- Min. pressure is 4kgf/cm².



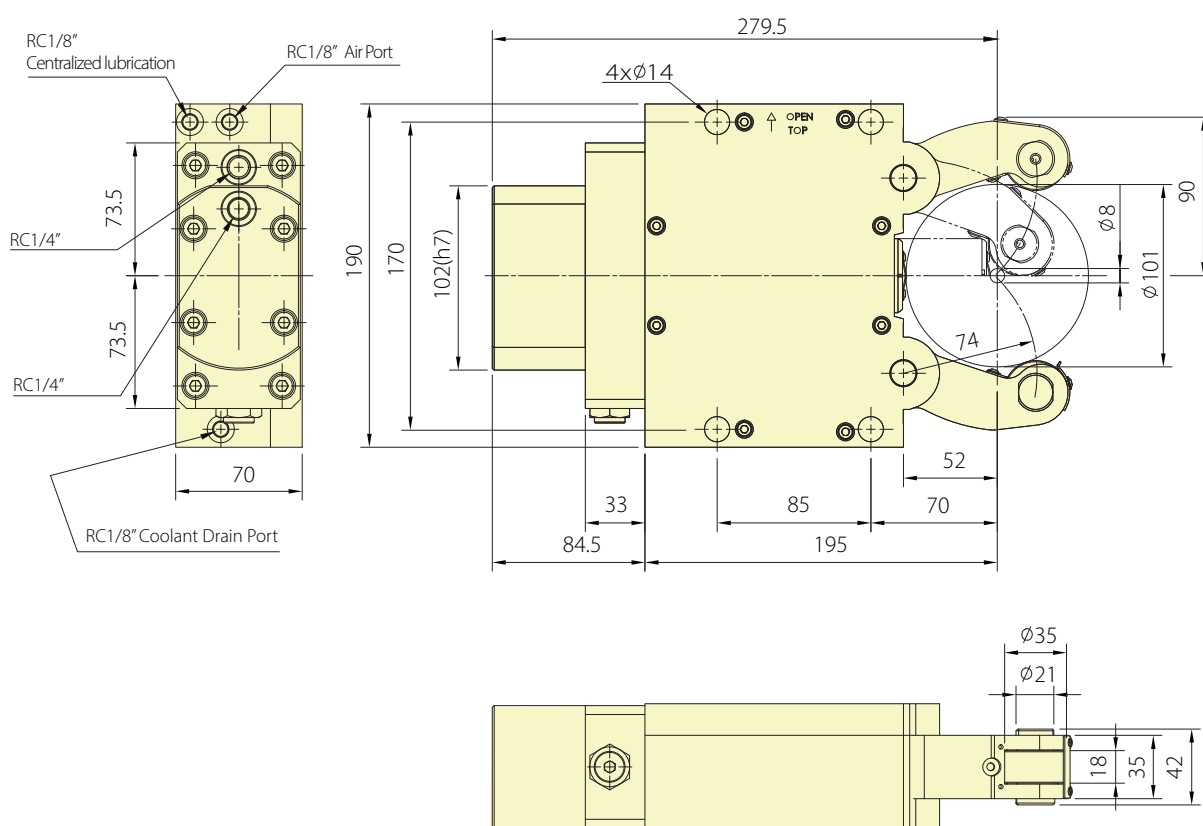
Subject to technical changes

SPECIFICATIONS

Model	PV Limit value MPa· r/m	Max. pressure MPa(kgf/cm ²)	Delivery amount (at 50 kgf/cm ²)	Max. speed (r.p.m.)	Min. pressure MPa(kgf/cm ²)	Weight (kg)
RJ-92	17500	7.0(70)	28 l/min	10000	0.4(4)	0.46



- High Clamping Force and High Concentricity.
- Enclosed Main Body Design.
- Central Lubrication: Grease/Oil/Oil + Air.
- Built-in Check Valve Locking Mechanism.
- Compressed Air Waterproof and Chip-Resistant Design: Prevents chips from entering the main body during machining.
- Chip Guarding Device.



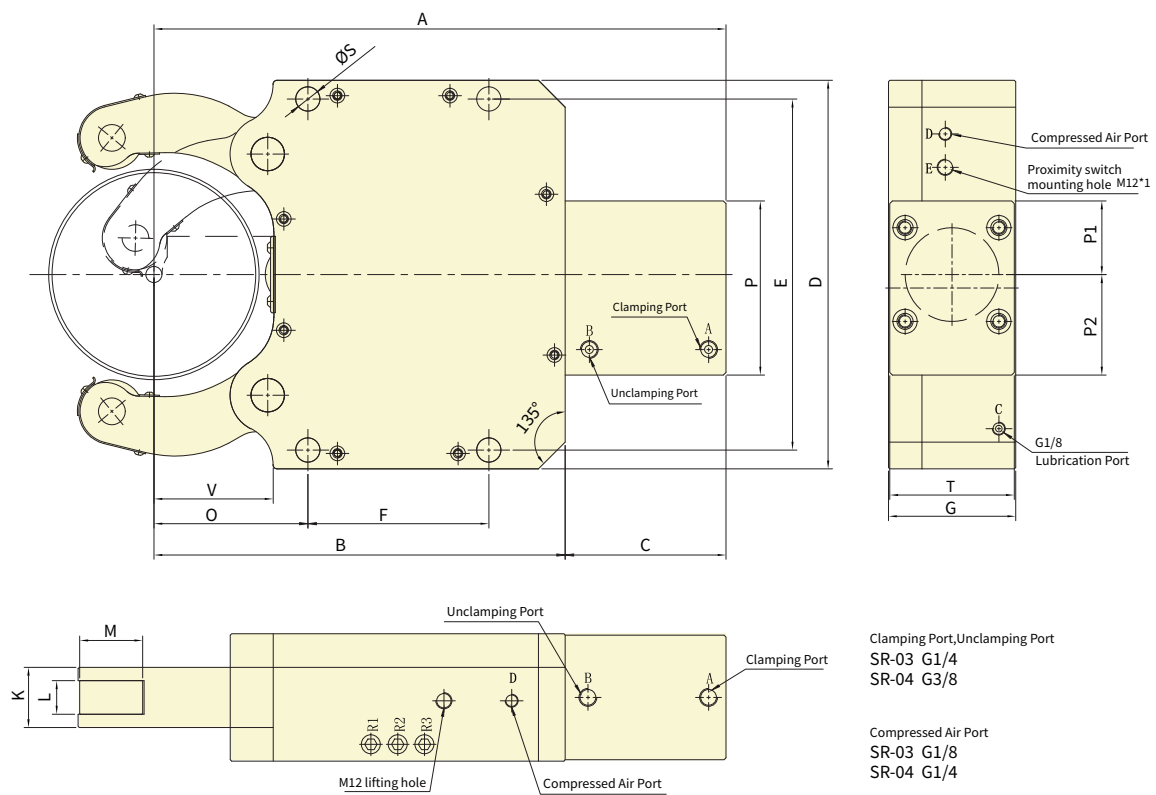
Subject to technical changes

SPECIFICATIONS

Model	Eff. piston area	Chuck Dia. Max.	Chuck Dia. Min.	Max. clamping force	Max. roller surface speed	Max. pressure	Clamping accuracy	Repeat accuracy	clamping weight	Weight
	cm ²	mm	mm	kN (kgf)	M/min.	bar	mm	mm	kg	kg
SR-02	19.6	101	8	4.5(459)	800	70	0.002	0.005	450	17.3



- High Clamping Force and High Concentricity.
- Enclosed Main Body Design.
- Central Lubrication: Grease/Oil/Oil + Air.
- Built-in Check Valve Locking Mechanism.
- Compressed Air Waterproof and Chip-Resistant Design: Prevents chips from entering the main body during machining.
- Chip Guarding Device.



Subject to technical changes

SPECIFICATIONS

Model	Eff. piston area cm ²	Chuck Dia. Max. mm	Chuck Dia. Min. mm	Max. clamping force kN (kgf)	Max. roller surface speed M/min.	Max. pressure bar	Clamping accuracy mm	Repeat accuracy mm	clamping weight kg	Weight kg
SR-02A	19.6	102	8	4.59(468)	900	30	0.02	0.005	459	19
SR-03	38.5	152	12	10.2(1040)	750	60	0.02	0.005	1000	39
SR-04	63.5	245	30	15(1529)	760	75	0.05	0.007	1500	98

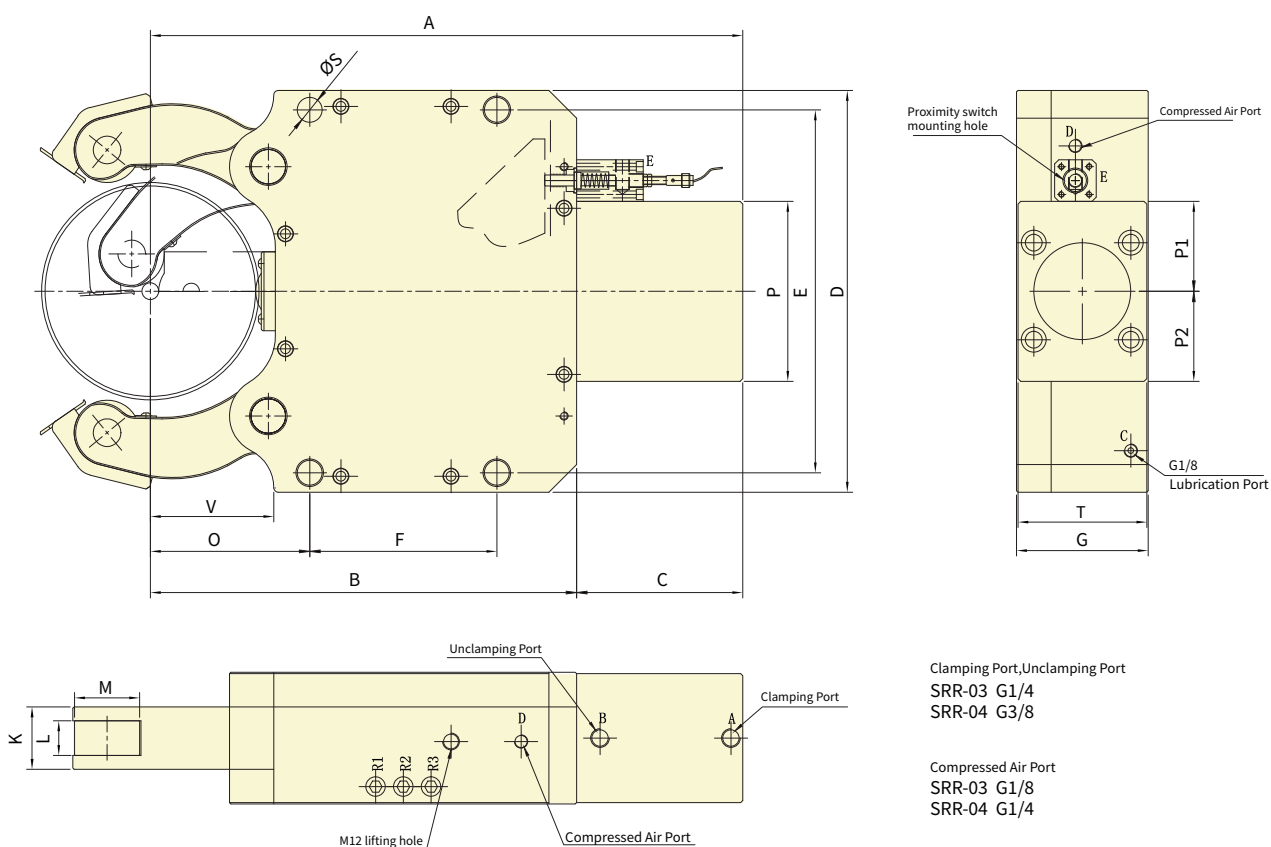
DIMENSIONS

Model	A	B	C	D	E	F	G	O
SR-02A	279	197	82	205	170	85	70	70
SR-03	427	307	120	290	262	135	95	115
SR-04	603	448	155	405	365	240	110	146

Model	K	L (Width of rollers)	M (Diameter of rollers)	P	P1	P2	S	T	V
SR-02A	35	19	35	102	51	51	14	68	54
SR-03	45	25	47	130	55	75	18	93	89
SR-04	60	25	52	150	75	75	23	105	128



- Precision Type.
- Sealed body design for low maintenance.
- Programmable, suitable for automated assembly lines.
- Equipped with water/air sprays for debris, coolant-proof, and chip-proof.
- Range: 12-245mm.



Subject to technical changes

SPECIFICATIONS

Model	Eff. piston area cm ²	Chuck Dia. Max. mm	Chuck Dia. Min. mm	Max. clamping force kN (kgf)	Max. roller surface speed M/min.	Max. pressure bar	Clamping accuracy mm	Repeat accuracy mm	clamping weight kg	Weight kg
SRR-03	38.5	152	12	10.2(1040)	750	65	0.04	0.007	1000	39
SRR-04	63.5	245	30	15(1529)	760	60	0.05	0.007	1500	98

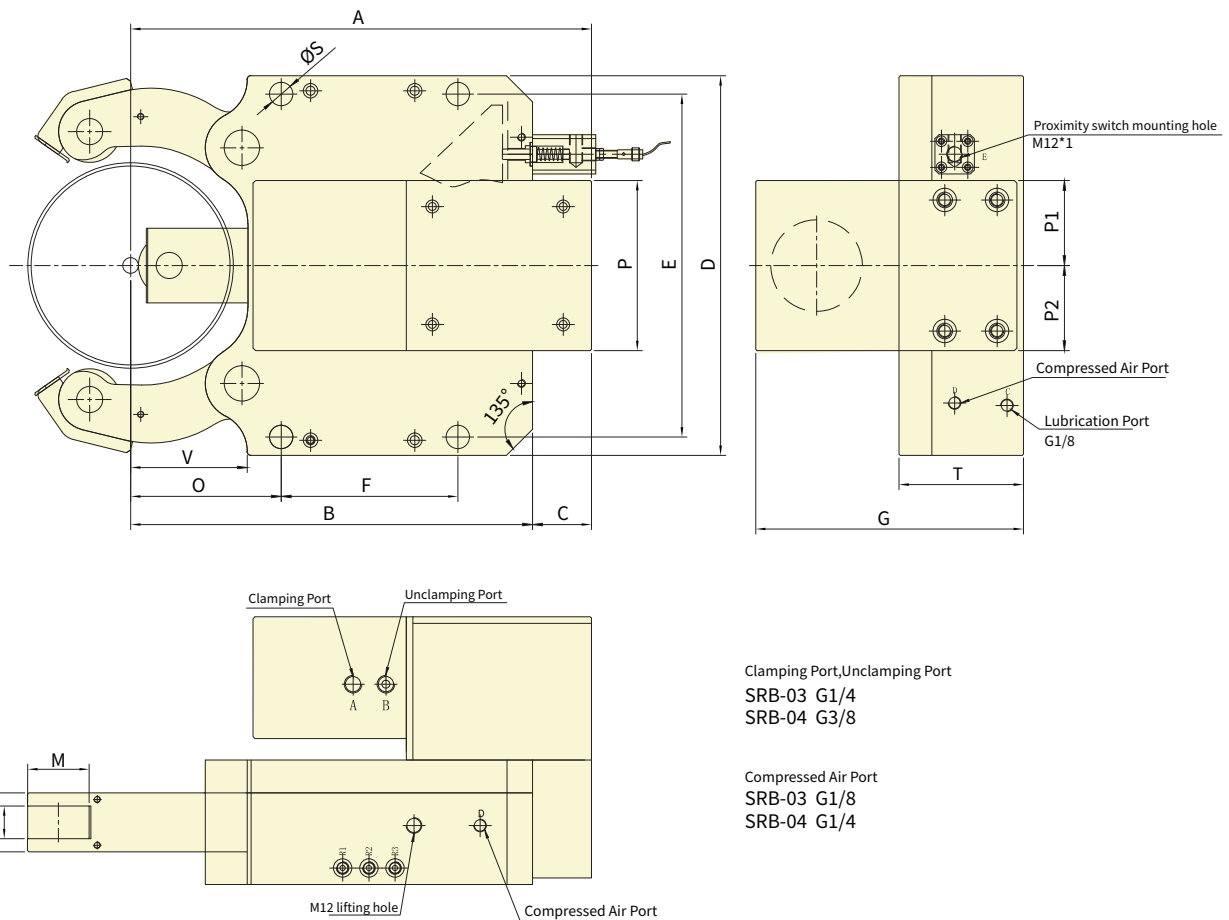
DIMENSIONS

Model	A	B	C	D	E	F	G	O	
SRR-03	427	307	120	290	262	135	95	115	
SRR-04	603	448	155	405	365	240	110	146	

Model	K	L (Width of rollers)	M (Diameter of rollers)	P	P1	P2	S	T	V
SRR-03	45	25	47	130	65	65	18	93	89
SRR-04	60	25	52	150	75	75	23	105	128



- Side-Mounted Hydraulic Cylinder Steady Rest.
- Fully Sealed Body, Low Maintenance.
- Optional Water/Air Jet for Chip Removal and Cooling Functionality.
- Compact Size and Structure.
- Range: 12-245 mm.



Subject to technical changes

SPECIFICATIONS

Model	Eff. piston area	Chuck. Dia. Max.	Chuck. Dia. Min.	Max. clamping force	Max. roller surface speed	Max. pressure	Clamping accuracy	Repeat accuracy	clamping weight	Weight
	cm ²	mm	mm	kN (kgf)	M/min.	bar	mm	mm	kg	kg
SRB-03	38.5	152	12	10(1019)	850	55	0.04	0.007	1000	44
SRB-04	63.5	245	30	15(1529)	750	75	0.05	0.007	1500	115

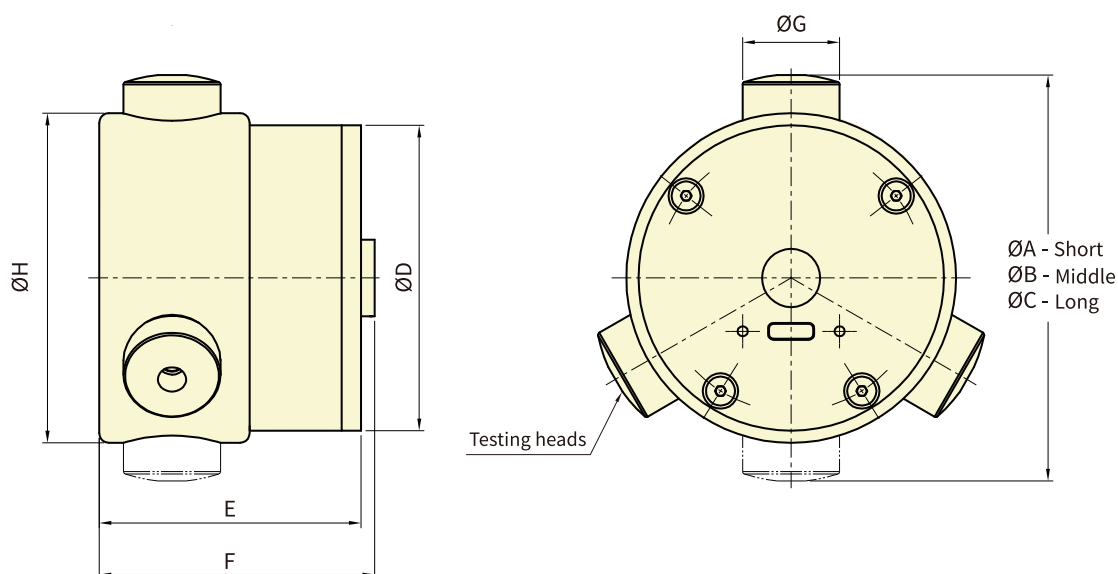
DIMENSIONS

Model	A	B	C	D	E	F	G	O
SRB-03	352	307	45	290	262	135	204.5	115
SRB-04	480	448	32	405	365	240	245	146

Model	K	L (Width of rollers)	M (Diameter of rollers)	P	P1	P2	S	T	V
SRB-03	45	25	47	130	65	65	18	95	89
SRB-04	60	25	52	150	75	75	23	110	128



- **Stable Bluetooth 5.0 Transmission:** Equipped with the latest Bluetooth 5.0 technology, ensuring stability in wireless connections.
- **Convenient Type-C Charging:** Supports Type-C charging for added convenience in recharging.
- **High-Performance Lithium Battery:** Provides a longer-lasting battery life, eliminating concerns about power during work.
- **Supports Android and iOS:** Whether you use Android or iOS systems, the GFS-100 is perfectly compatible, offering a seamless experience.
- **Configurable for 2-Jaw or 3-Jaw Operation:** Based on your specific needs, the GFS-100 can easily be configured for either 2-jaw or 3-jaw operation, providing greater flexibility.
- **Note:** The first-generation gripping force sensor (GFS-100) and the second-generation gripping force sensor (GFS-100) APP are not compatible and cannot be used interchangeably.
- **iOS System:** Apple iOS 16.1.2.
- **Android System:** Android version 12.



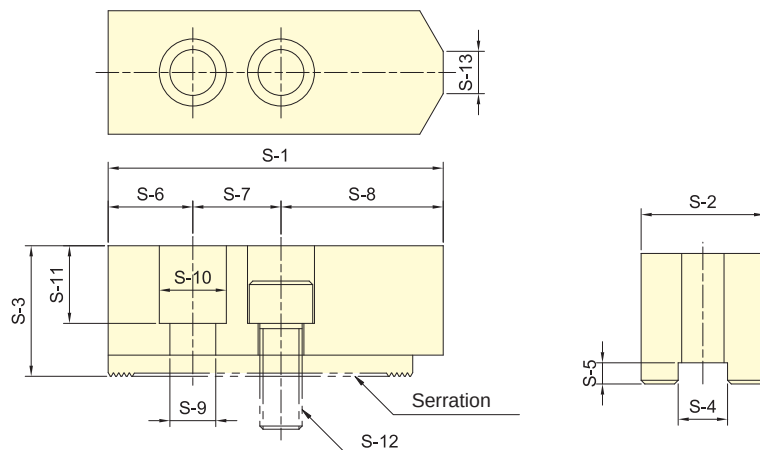
Subject to technical changes

SPECIFICATIONS

Model	Max. Load (1-jaw)	Max. Speed	Gripping range	Accuracy
	(kN)	(r.p.m.)	(mm)	
GFS-100	100	6000	70 , 84 , 104	± 2%

DIMENSIONS

Model	A	B	C	D	E	F	G	H
GFS-100	70	84	104	63	54	57	20	68



Subject to technical changes

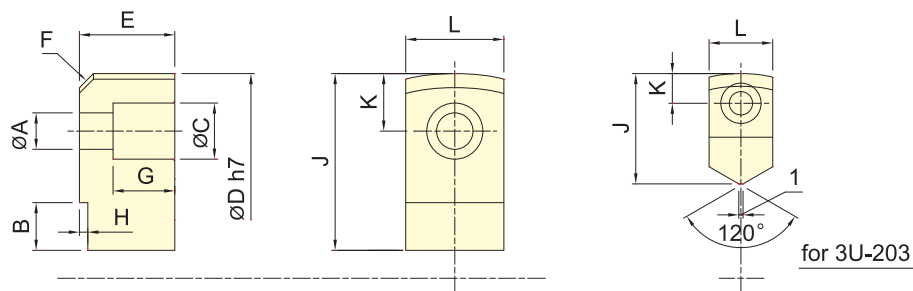
DIMENSIONS

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	20	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-210, 3L-210, 3P-10, 3M-10	3.7
*SJ-12H	130	50	50	21	5	40	30	60	17	25	30	M16	23	1.5 × 60°	3H-12, 3H-212, 3L-212, 3V-12, 3P-12, 3M-12	6.3
SJ-12P	130	50	50	18	5	40	30	60	16	23	30	M14	23	1.5 × 60°	3H-12, 3H-212, 3L-212, 3V-12, 3P-12, 3M-12	6.5
SJ-15H	165	62	62	22	8	37	43	85	21	32	37	M20	-	1.5 × 60°	3H-15, 3H-215, 3H-18, 3L-15, 3P-215, 3P-218, 3V-15, 3V-18	12.6
*SJ-15P	165	62	62	25.5	6	37	43	85	21	32	37	M20	-	1.5 × 60°	3H-15, 3H-215, 3H-18, 3L-15, 3P-215, 3P-218, 3V-15, 3V-18	12.5
SJ-21	180	64	70	25	9	40	60	80	21	32	45	M20	-	3.0 × 60°	3H-221, 3H-224, 3H-232, 3P-221, 3P-224, 3V-21, 3V-24, 3V-32	15.8

* 12" Chucks are originally equipped with SJ-12H.

* 15" Chucks are originally equipped with SJ-15P.

STANDARD SOFT JAW FOR 3U CHUCK

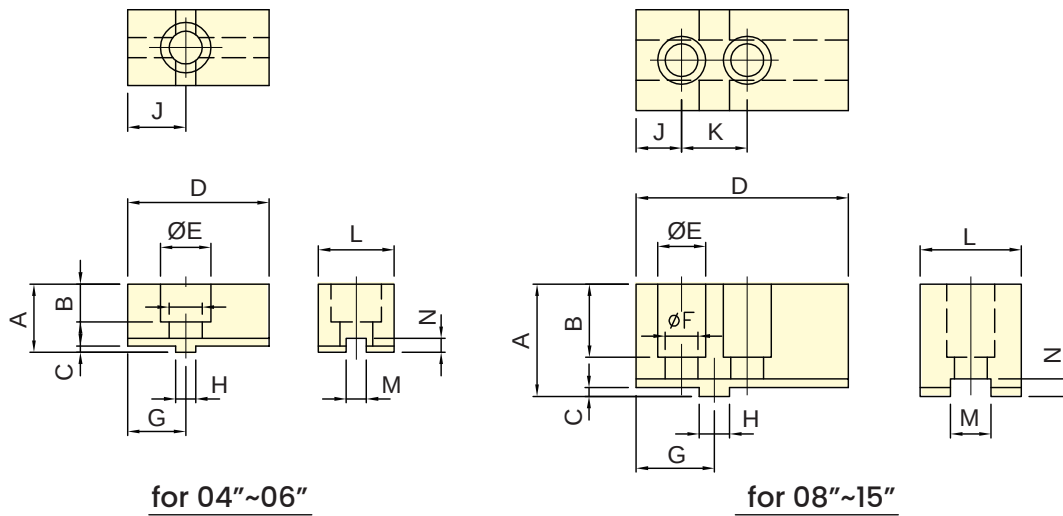


Subject to technical changes

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

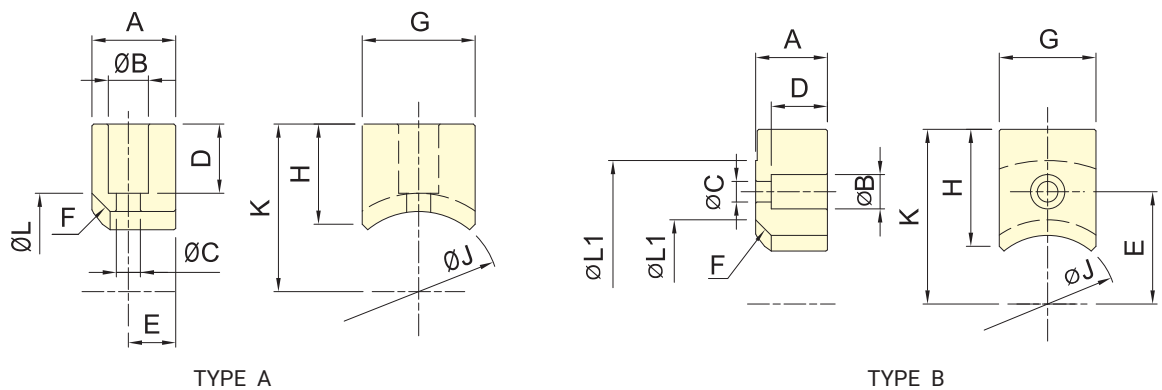


Subject to technical changes

DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N
3D-04	22	13	2.5	52	17.5	11	19	8	19	-	25	8	5.5
3D-05	27	15	2.5	56	20	13	23	8	23	-	30	8	5.5
3D-06	34	21	3	70	23	15.5	27	10	27	-	35	10	6
3D-08	44.5	29	3.5	84	19	13	31	12	18	26	40	16	7
3D-10	49.5	32	3.5	100	22	15	38	15	22	32	50	18	7
3D-12	54.5	36	3.5	120	26	18	42	17	24	36	60	20	7
3D-15	65	40	5	165	26	18	60	20	40	40	70	24	10

STANDARD SOFT JAW FOR 3E CHUCK

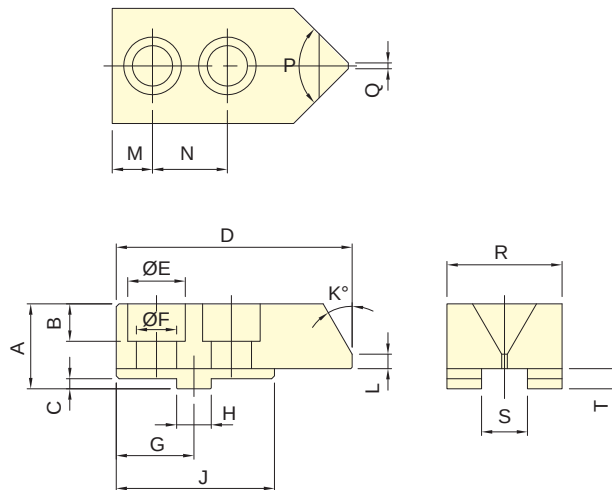


Subject to technical changes

DIMENSIONS

MODEL		A	B	C	D	E	F	G	H	J	K	L	L1
3E-05	A Type	20	11	6.6	16.5	10	C5	25	22	29	34.5	39	-
	B Type	20	11	6.6	15	25.5	C5	25	30	29	42.5	39	69
3E-06	A Type	23	11	7	19	13	C5	31	27.5	44	46	54	-
	B Type	23	11	6.6	18	36	C5	31	37.5	44	56	54	92
3E-08	A Type	30	14	9	25	15	C6	35	36	50	56	62	-
	B Type	30	14	9	24	41	C6	35	56	50	76	62	112
3E-10	A Type	35	17.5	11	26.5	17.5	C5	40	40	60	64.5	70	-
	B Type	35	17.5	11	26	47.5	C5	40	71.5	60	96	70	129

STANDARD SOFT JAW FOR 3R CHUCK

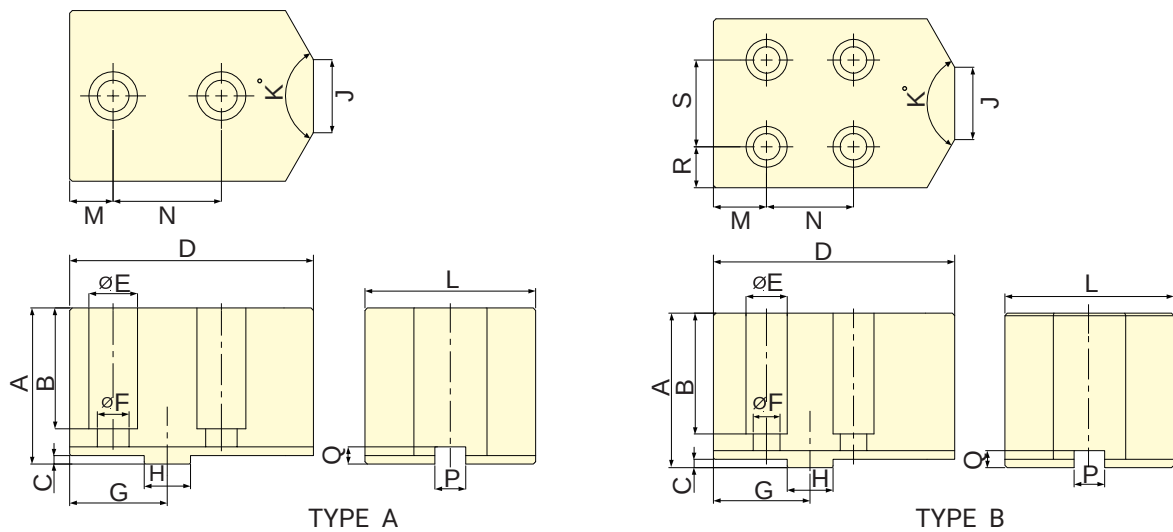


Subject to technical changes

DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
3R-08	29.5	13	3.5	82	20	14	27	12	55	30	5	14	26	90	2	40	16	7
3R-10	30.5	15	3.5	102	23	16	37	15	65	30	7	21	32	90	2	40	18	7

STANDARD SOFT JAW FOR 3W CHUCK



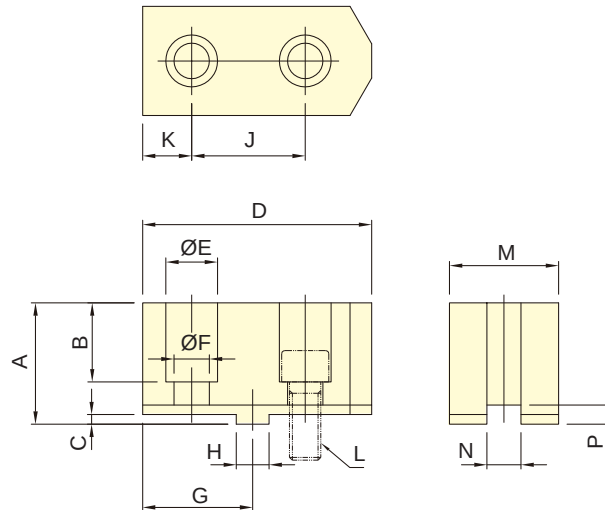
Subject to technical changes

DIMENSIONS

MODEL		A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
3W-08	A Type	60	44	3.5	80	20	13	35	12.68	30	120	57	16	38	7.94	7	-	-
	B Type	60	48	3.5	80	17	11	35	12.68	30	120	57	19	32	7.94	7	12.5	32
3W-10	A Type	64	49.5	3.5	100	20	13	40	19.03	30	120	70	17.8	44.4	12.7	7	-	-
	B Type	64	50	3.5	100	17	11	40	19.03	30	120	70	22	36	12.7	7	17	36
3W-12	A Type	64	49.5	3.5	100	20	13	40	19.03	30	120	70	17.8	44.4	12.7	7	-	-
	B Type	64	50	3.5	100	17	11	40	19.03	30	120	70	22	36	12.7	7	17	36

*3W series Carbide gripper is optional. * The type of the gripper is selected according to the work-piece conditions.

STANDARD SOFT JAW FOR 3MF CHUCK

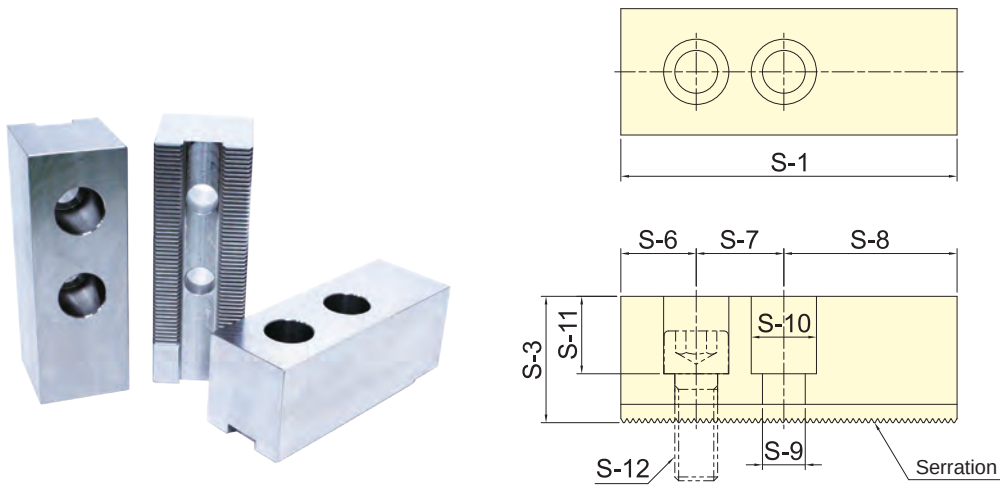


Subject to technical changes

DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	3 Jaw Weight (kg)
3MF-20	70	48	6	160	25	17	80	19.03	76.2	41.9	M16	50	12.7	11.5	10.4

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 (kg)
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-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

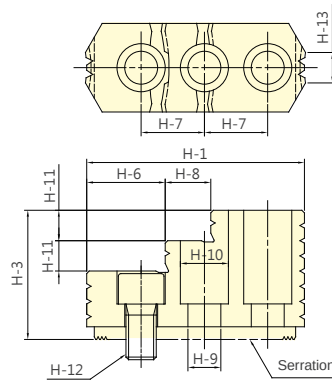
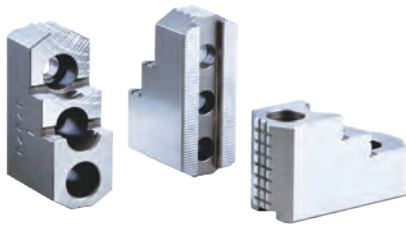


Fig. 1

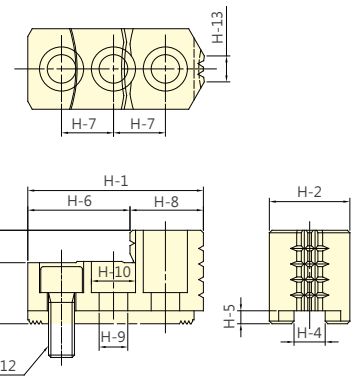


Fig. 2

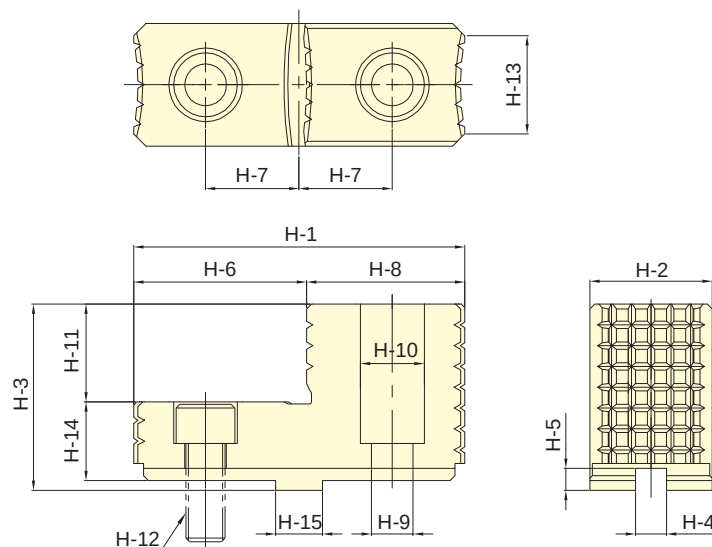
Subject to technical changes

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 (kg)	Reference Drawing
HJ-05	54.2	23	28	10	4	31.1	14	23.1	8.5	13.5	10	M8	3.6	1.5×60°	3H-204, 3H-205	1	Fig.2
HJ-06	67.6	31	36	12	5	40.2	20	27.4	11	17	12	M10	9.3	1.5×60°	3H-206, 3P-06	1.7	Fig.2
HJ-08	86.1	35	51	14	5	33.5	25	18.4	13	19	12	M12	14	1.5×60°	3H-208, 3P-08	2	Fig.1
HJ-10	100	40	54	16	5	39.5	30	22.5	13	19	13	M12	15	1.5×60°	3H-210, 3P-10	3	Fig.1
* HJ-12H	100.2	50	52	21	5	64.7	30	35.5	17	25	17	M16	31.5	1.5×60°	3H-12,3H-212, 3L-212, 3V-12,3P-12, 3M-12	3.5	Fig.2
* HJ-12P	100.2	50	52	18	5	64.7	30	35.5	15	23	17	M14	31.5	1.5×60°	3H-12,3H-212, 3L-212, 3V-12,3P-12, 3M-12	3.6	Fig.2
* HJ-15H	140.7	62	86	22	8	62.5	43	34	21	32	20	M20	43	1.5×60°	3H-15, 3H-215, 3H-18, 3L-15 3V-15, 3V-18,3P-215, 3P-218	9.6	Fig.1
* HJ-15P	140.7	62	86	25.5	6	62.5	43	34	21	32	20	M20	43	1.5×60°	3H-15, 3H-215, 3H-18, 3L-15 3V-15, 3V-18,3P-215, 3P-218	9.5	Fig.1
HJ-21	153.5	80	90	25	9	103.7	50	49.8	21	32	40	M20	56.5	3.0×60°	3H-221, 3H-224, 3H-232, 3P-221, 3P-224, 3V-21, 3V-24, 3V-32	14.3	Fig.2

* For HJ-12H, HJ-12P, HJ-15H, HJ-15P, please confirm the dimension of H-4 before placing the order.

STANDARD HARDEN JAW FOR 3MF CHUCK

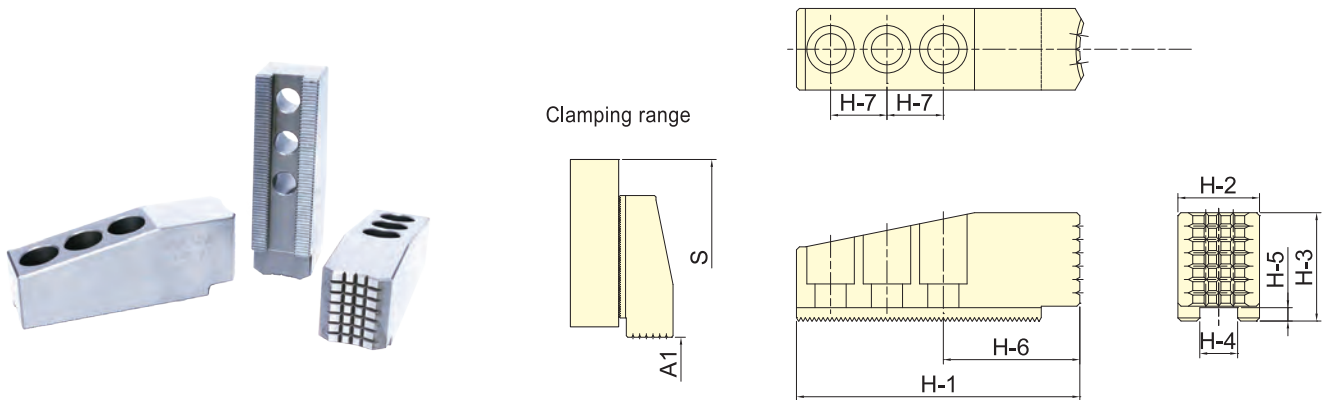


Subject to technical changes

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	H-14	H-15	Matching Chuck	3 Jaw Weight
3MF-20	135	50	76	12.7	9	70	38.1	65	17	26	40	M16	40	32	19.03	3MF-20	6.7

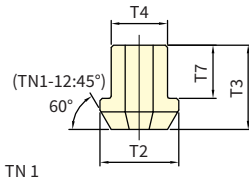
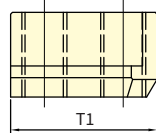
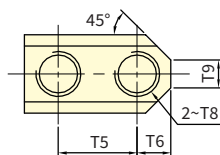
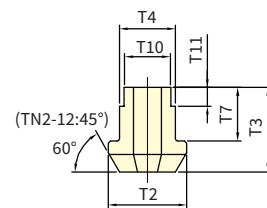
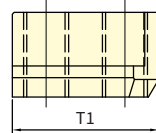
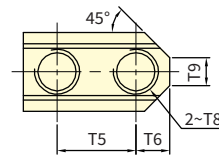
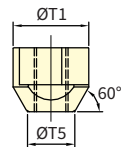
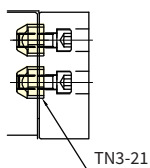
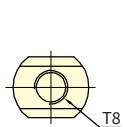
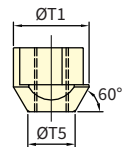
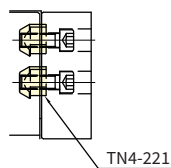
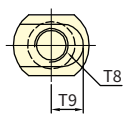
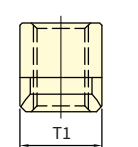
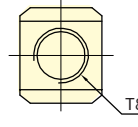
STANDARD HARDEN JAW FOR AP CHUCK



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	30-125	420	$3.0 \times 60^\circ$	AP-145	12.5
HJ-145	191	55	73	25.5	9	92	38	35-165	460	$3.0 \times 60^\circ$	AP-185	12.5
HJ-145	191	55	73	25.5	9	92	38	55-240	535	$3.0 \times 60^\circ$	AP-230	12.5
HJ-145	191	55	73	25.5	9	92	38	100-285	580	$3.0 \times 60^\circ$	AP-275	12.5
HJ-320	243	75	82	30	9	110	50	105-300	658	$3.0 \times 60^\circ$	AP-320	24.6
HJ-320	243	75	82	30	9	110	50	165-375	738	$3.0 \times 60^\circ$	AP-375	24.6


TN 1

TN 2

TN 3

TN 4

TN 5

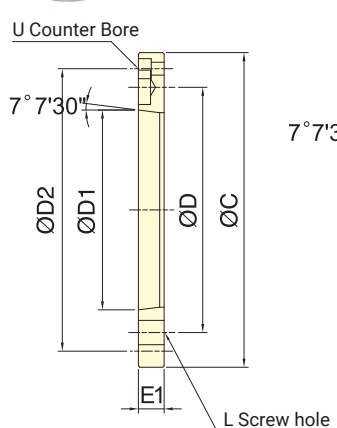
Subject to technical changes

DIMENSIONS

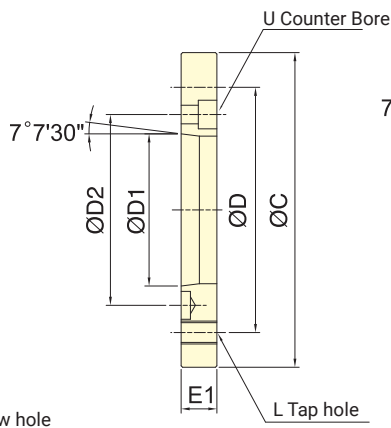
Model	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	Matching Chuck	3 Pcs Weight (kg)
TN1-04	26	14	15	10	14	6	9.5	M8	5	-	-	H-204, H-205, P-04, P-05, L-205, M-05, SP-304	0.06
TN1-06	36	17	18.5	12	20	8	11	M10	6	-	-	H-206, P-06, L-206, 1L-06, M-06, 3N-06, AP-52, RAP-306, SP-306	0.15
TN1-08	46.5	20	20.5	14	25	10.5	12	M12	10	-	-	H-208, P-08, L-208, 1L-08, M-08, 3N-08, 4T-08, AP-66, RAP-308, SP-308	0.27
TN1-10	51	22	21.5	16	30	11	13	M12	11	-	-	H-210, P-10, L-210, 1L-10, M-10, 3N-10, 4T-10, AP-86, RAP-310, SP-310	0.36
* TN1-12	55.5	29.5	28	21	30	12	16.7	M16	13	-	-	P-12, L-12, M-12	0.63
TN2-12	55.5	29.5	28	21	30	12	16.7	M14	13	18	4.5	P-12, L-12, M-12	0.63
* TN1-15	80	35	39.5	25.5	43	17	20.5	M20	14	-	-	2H-15, 3H-18B, P-15, P-215, P-218, L-15, M-215, M-218, V-15, V-18	1.53
TN2-15	80	35	39.5	25.5	43	17	20.5	M20	14	22	6	2H-15, 3H-18B, P-15, P-215, P-218, L-15, M-215, M-218, V-15, V-18	1.5
* TN1-212	56	29.5	23.5	21	30	12	12	M16	10	-	-	H-12, H-212, L-212, V-12, 4T-15, AP-115	0.63
TN2-212	56	29.5	23.5	21	30	12	12	M14	10	18	4	H-12, H-212, L-212, V-12, 4T-15, AP-115	0.63
* TN1-215	80	35	34	25.5	43	17	19	M20	14	-	-	3H-15, 4H-15, 3H-18, 4H-18, H-215, L-215, SP-316	1.32
TN2-215	80	35	34	25.5	43	17	19	M20	14	22	6	3H-15, 4H-15, 3H-18, 4H-18, H-215, L-215, SP-316	1.29
TN3-21	46	37.5	45	25	26	-	26	M20	-	-	-	P-221, P-224, M-221, M-224, V-21, V-24, V-32,	1.84
TN4-221	45	36	38	25	28	-	22	M20	19	-	-	H-221, H-224, H-232, SP-320, SP-324	0.63
TN5-185	32	35	30	25.5	-	-	19	M20	-	-	-	AP-145, AP-185, AP-230, AP-275	0.15
TN5-320	36	42	39	30	-	-	24	M24	-	-	-	AP-320, AP-375	0.24

* 12" Chucks are originally equipped with TN1-12 & TN1-212.

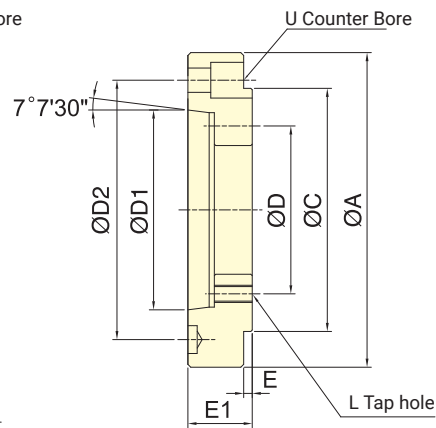
* 15" Chucks are originally equipped with TN1-15 & TN1-215.



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-204	1.12
FL3-04A25	140	85	70.6	82.563	104.8	5.5	32	M10	M10	3H-204, 2H-204	2.28
FL1-05A24	-	110	82.6	63.513	96	-	15	M10	M6	3H-205, 2H-205, 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-205, 3L-05, 2L-05	1.99
FL1-06A25	-	140	104.8	82.563	116	-	15	M10	M6	2H-206, 4H-206, 3H-206, 3P-06, 2P-06, 3M-06, 2M-06, 3E-06, 3D-06, 2D-06, 3N-06, 3J-06, 2J-06	0.96
							*18			*3L-206, *2L-206	
FL3-06A26	165	140	104.8	106.375	133.4	6	35	M10	M12	2H-206, 4H-206, 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-208, 4H-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, 3W-08, 3Q-08	2.7
										*3L-208, *2L-208,	
FL1-08A26	-	170	133.4	106.375	150	-	17	M12	M6	2H-208, 4H-208, 3H-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, 3W-08, 3Q-08	1.55
							*23			*3L-208, *2L-208	
FL2-10A26	-	220	171.4	106.375	133.4	-	25	M16	M12	4H-10, 3P-10, 2P-10, 3M-10, 2M-10, 3H-12, 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, 3W-12	5.02
FL1-10A28	-	220	171.4	139.719	190	-	18	M16	M8	2H-210, 4H-10, 3H-210, 3L-210, 2L-210, 3P-10, 2P-10, 3M-10, 2M-10, 3H-12, 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, 3W-12	2.73
FL2-15A28	-	300	235	139.719	171.4	-	33	M20	M16	3H-15, 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-15, 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	M24	M20	3H-215	16.28
							*27			*3P-221, *3P-224	
FL1-21A215	-	380	330.2	285.775	330.2	-	27	M24	M12	3H-215, 3H-18B, 3H-221, 3P-221, 3P-224	8.6
FL2-40A215	-	520	463.6	285.775	330.2	-	40	M24	M24	3H-224	43.26
FL1-40A220	-	520	463.6	412.775	463.6	-	27	M24	M12	3H-224, 3H-232	13.55

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



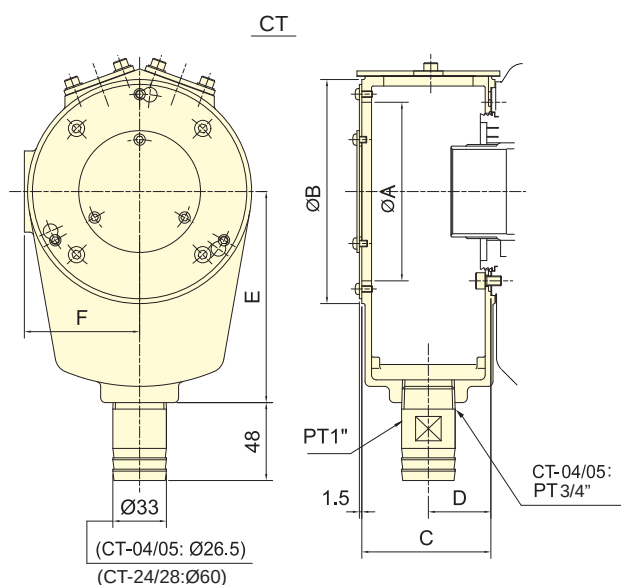
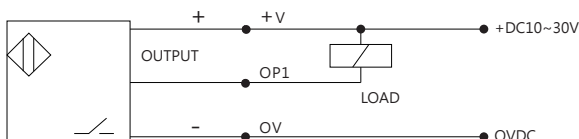
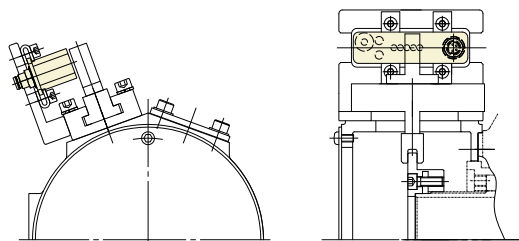
- The proximity switch and linear Sensor are optional.
- The proximity switch is optional.

Power supply	Switching cap.	Output type
DC 10/30V	100mA	NPN

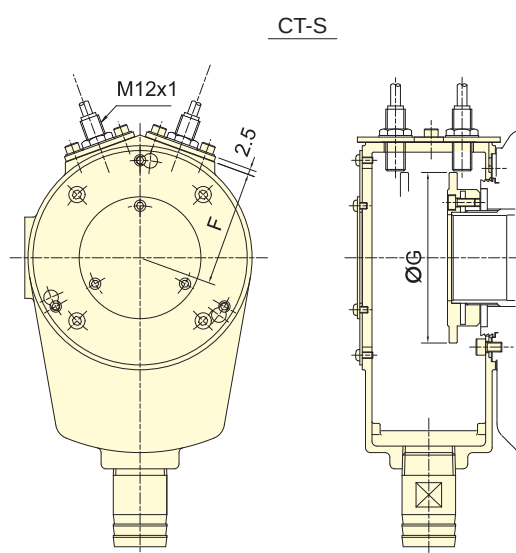
Terminal Connections

+V	OP1	OV
BROWN	BLACK	BLUE

linear Sensor installation drawing



Coolant Collector



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(TH)	87	110	60	29	110	57	84	0.9	1.1	TH-A536
CT-05/CT-05S(TK)	87	110	60	29	110	57	84	0.9	1.1	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, TR-646
CT-08/CT-08S	110	138	80	39	130	71	105	1.3	1.8	TK-B846, TK-A853, TK-B853, TR-853
CT-K10/CT-K10S	158	185	88	43	160	94.5	145	1.9	2.6	TK-A1068, TK-A1075, TK-A1078, TR-1075
CT-12/CT-12S	158	185	88	43	160	94.5	145	1.9	2.6	TK-A1287, TK-A1291, TR-1291
CT-15/CT-15S	206	235	100	50	210	121	190	3.1	4.3	TK-A1511, TK-A1512, TK-A1512-35
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



CT-SB/CT-SBS

COOLANT COLLECTOR WITH STROKE CONTROL



- The proximity switch and linear Sensor are optional.
- Drain port Ø40 and Ø60 are optional product.
- Drain port Ø60 only use to CT-S08B,CT-S10B,CT-S12B.

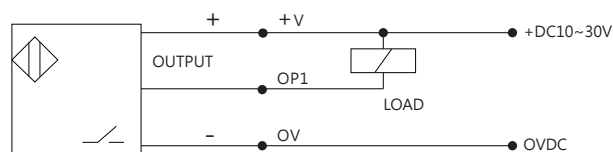
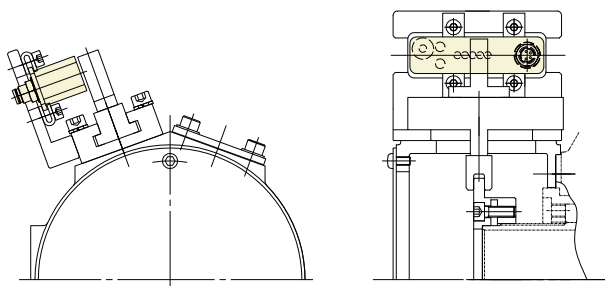
- The proximity switch is optional.

Power supply	Switching cap.	Output type
DC 10/30V	100mA	NPN

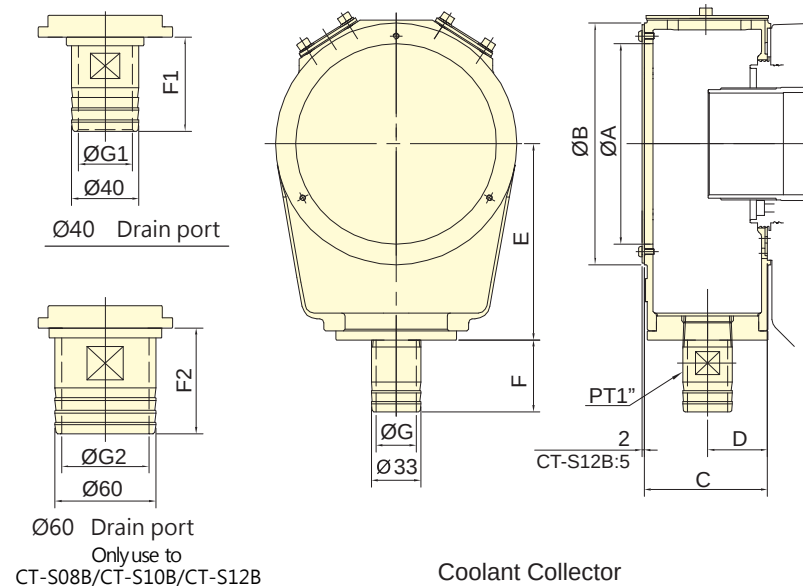
- Terminal Connections

+V	OP1	OV
BROWN	BLACK	BLUE

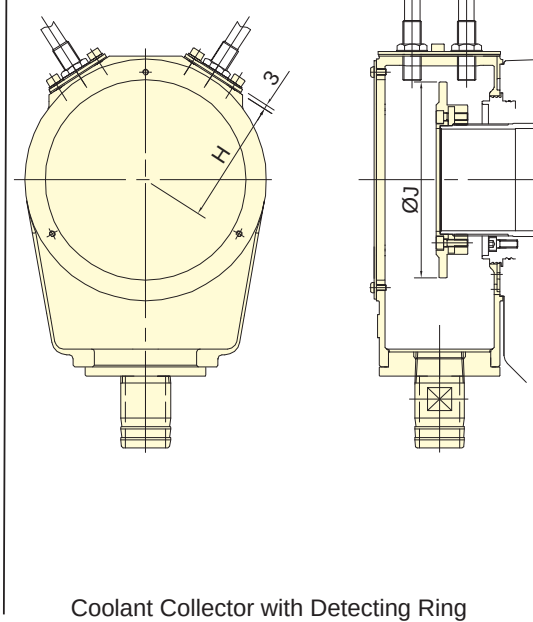
- linear Sensor installation drawing



CT-SB



CT-SBS



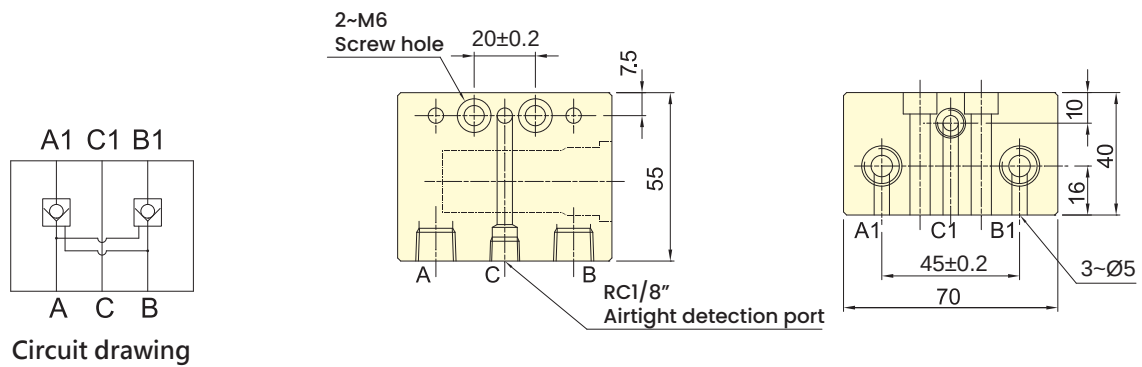
Subject to technical changes

DIMENSIONS

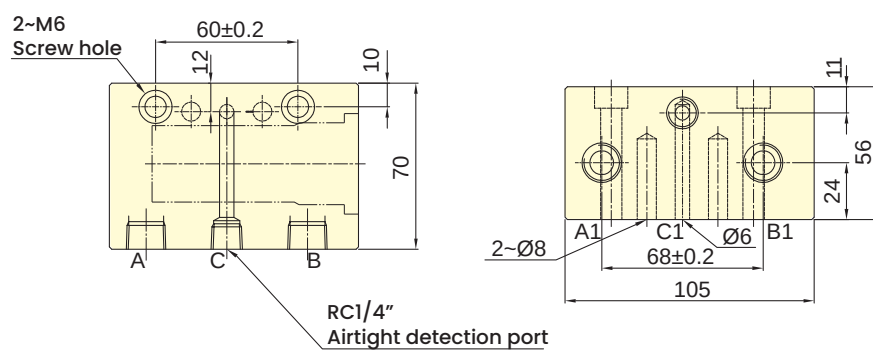
Model	A	B	C	D	E	F	F1	F2	G	G1	G2	H	J	Weight (kg)		Matching cyl.
														CT-SB	CT-SBS	
CT-S05B/CT-S05BS	97	120	68.3	33.3	96	49.6	56	-	25	32	-	62	86	1.1	1.6	TS-539, TR-539
CT-S08B/CT-S08BS	133	160	82	40	130	49.6	56	63	25	32	52	82	130	0.9	1.4	TS-866
CT-S10B/CT-S10BS	160	188	88	43	148	49.6	56	63	25	32	52	96	148	1.16	2.9	TS-1081
CT-S12B/CT-S12BS	205	234	87	43.5	171	49.6	56	63	25	32	52	121	190	4.3	5.6	TS-1210



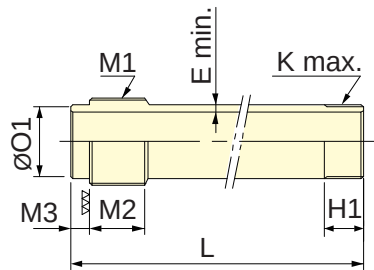
Model:FV-01



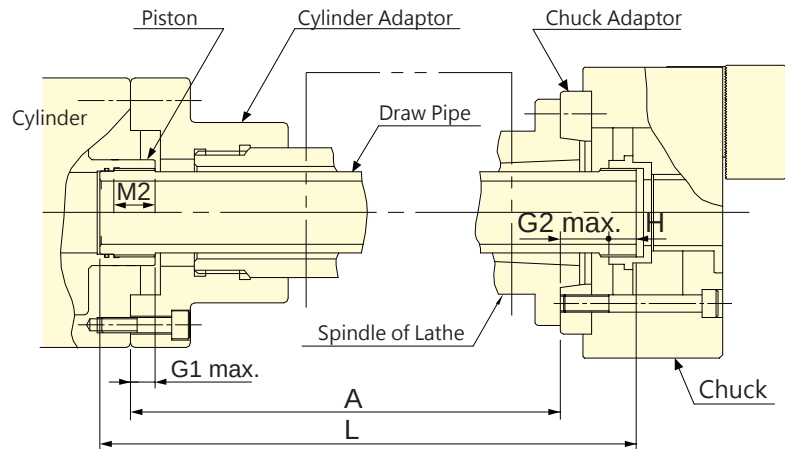
Model:FV-03



Subject to technical changes



Detail of Draw Tube
 $L = A + G2_{max.} + H - G1_{max.} + M2 + M3$



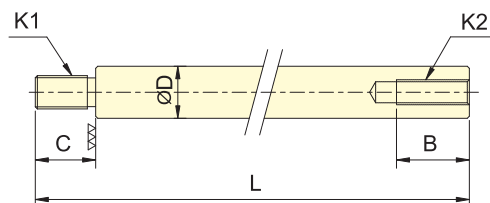
Subject to technical changes

SPECIFICATIONS

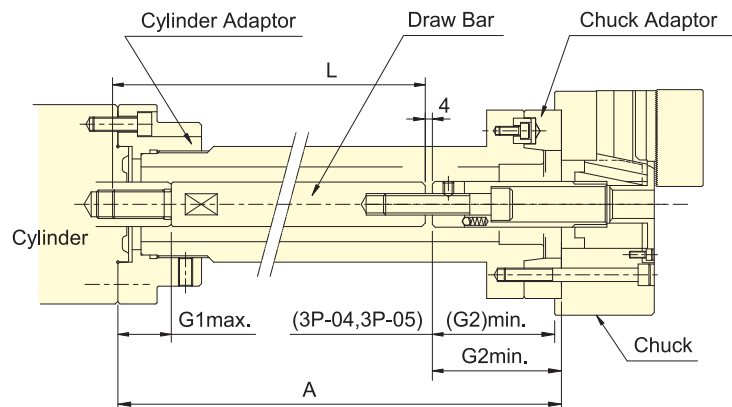
Chuck type		Cylinder type	G1 max.	H	M3	M2	G2 max.	M1	H1	O1 (f7)		K max.	E min.	L
3H-12	A8	TK-A1291	30	23	12	35	28	M100x2	35	95	-0.036 -0.071	M100x2	5	A+56+12
3H-15	A11	TK-A1512	30	33	12	45	33	M130x2	45	125	-0.043 -0.083	M130x2	5	A+81+12
3H-18	A11	TK-A1512	30	33	12	45	33	M130x2	45	125	-0.043 -0.083	M130x2	5	A+81+12

Chuck type		Cylinder type	G1 max.	H	M3	M2	G2 max.	M1	H1	O1 (f7)		K max.	E min.	L
3H-204	A4	TK-A528	12	14.5	10	25	31.5	M38x1.5	20	35	-0.025 -0.05	M38x1.5	5	A+59+10
3H-205	A4	TK-A533	12	17	10	25	16	M38x1.5	25	35	-0.025 -0.05	M45x1.5	5	A+46+10
3H-206	A5	TK-A646	15	14	10	25	28	M55x2	20	50	-0.025 -0.05	M60x2	5	A+52+10
3H-208	A6	TK-A853	20	16.5	12	30	33.5	M60x2	20	55	-0.03 -0.06	M75x2	5	A+60+12
3H-210	A8	TK-A1075	25	21	12	35	28.5	M85x2	25	80	-0.03 -0.06	M95x2	5	A+59.5+12
3H-212	A11	TK-A1512	30	23	12	45	32	M130x2	30	125	-0.043 -0.083	M115x2	5	A+70+12
3H-215	A8	TK-2114	35	33	17	45	44	M155x2	40	145	-0.043 -0.083	M115x2	5	A+87+17
3H-215	A11	TK-2114	35	33	17	45	51	M155x2	40	145	-0.043 -0.083	M155x3	5	A+93+17
3H-215	A15	TK-2114	35	33	17	45	38	M155x2	40	145	-0.043 -0.083	M155x3	5	A+81+17
3H-18B	A15	TK-2416	35	35	17	45	45	M180x3	40	170	-0.043 -0.083	M175x3	5	A+90+17
3H-221	A15	TK-2416	35	34	17	45	42	M180x3	40	170	-0.043 -0.083	M190x3	5	A+86+17
3H-224	A20	TK-2820	51	35	17	45	42	M220x3	40	210	-0.050 -0.096	M225x3	5	A+71+17
3H-232	A20	TK-2820	51	37	17	45	51	M220x3	45	230	-0.050 -0.096	M295x3	5	A+82+17

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



Detail of Draw Bar
 $L = A - G1_{max.} - G2_{min.} - 4 + C$



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.



NOTE





We reserve the right to modify the specifications without prior notice.



No. 229, Sec. 1, Mingsheng Rd., Puxin Township,
Changhua County 513006, Taiwan

T +886-4-822-8719 **F** +886-4-823-5719

E sales@autogrip.com.tw

www.autogrip.com.tw

V.2025.06E