

# **AUTOGRIP<sup>®</sup>**



**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

Every product from AUTOGRIP Machinery embodies the strong spirit of Taiwan - durable, highly rigid, and precise, delivering trusted quality.

With an excellent industry reputation, AUTOGRIP is committed to providing optimized workpiece clamping solutions and professional services to meet diverse manufacturing needs.



Yunlin CAPEL MACHINERY Factory

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# AUTOGRIP MECHANICAL TESTING LAB.

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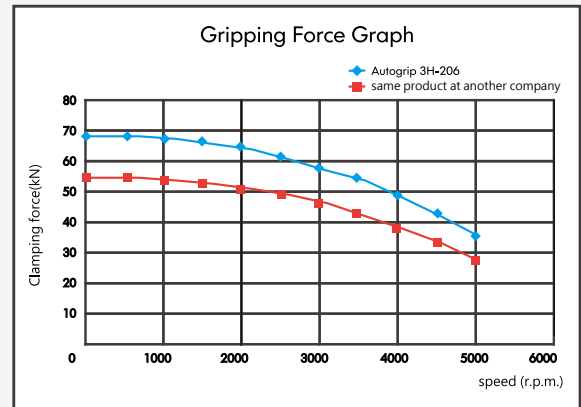
AUTOGRIP's mechanical testing laboratory is dedicated to the continuous development of reliable testing equipment and techniques to ensure exceptional product quality. Before any new product is introduced to the market, it undergoes a comprehensive series of tests to verify that its performance and precision 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.



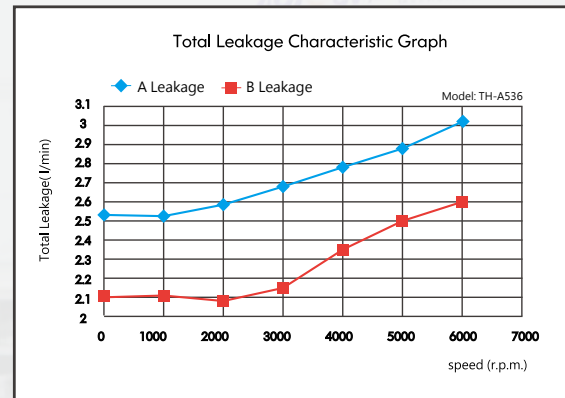
## DYNAMIC GRIPPING FORCE TEST

- 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.



# We Push the Boundaries of the Feasible

Your Trusted Partner in Workholding





# Why AUTOGRIP?

## 1. AVAILABLE FOR CUSTOMIZATION

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 SELECTION: 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

Customer satisfaction has been our highest priority.

We are dedicated to providing superior 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.

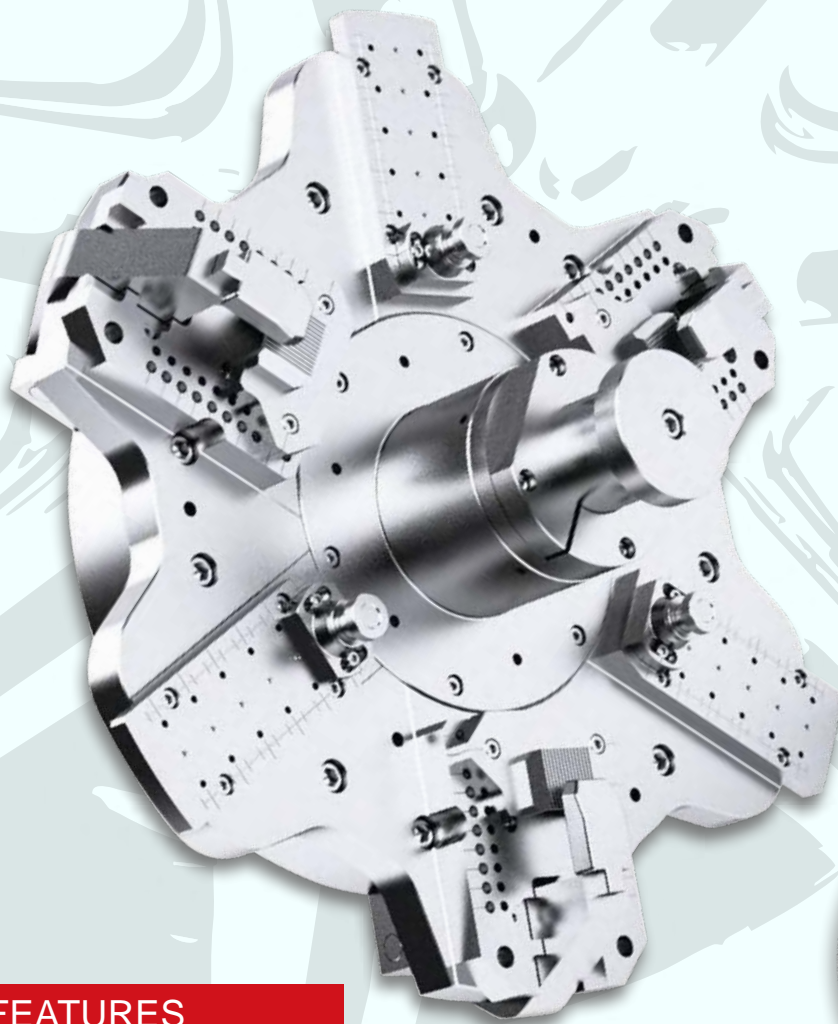


GFS-100 SPECIFICATIONS AND DIMENSIONS, PLEASE REFER TO ACCESSORIES PAGES.



# 3FW

ONE CHUCK. MULTIPLE SIZES.  
INFINITE POSSIBILITIES.



## FEATURES

- High rigidity and precision.
- Hardened and precision-ground slides for stability.
- For 13"–24" aluminum wheels .
- Adjustable supports with replaceable jaws and drive arms.
- For CNC lathes, wheel machines & MILL-TURN.



AUTOGRIP

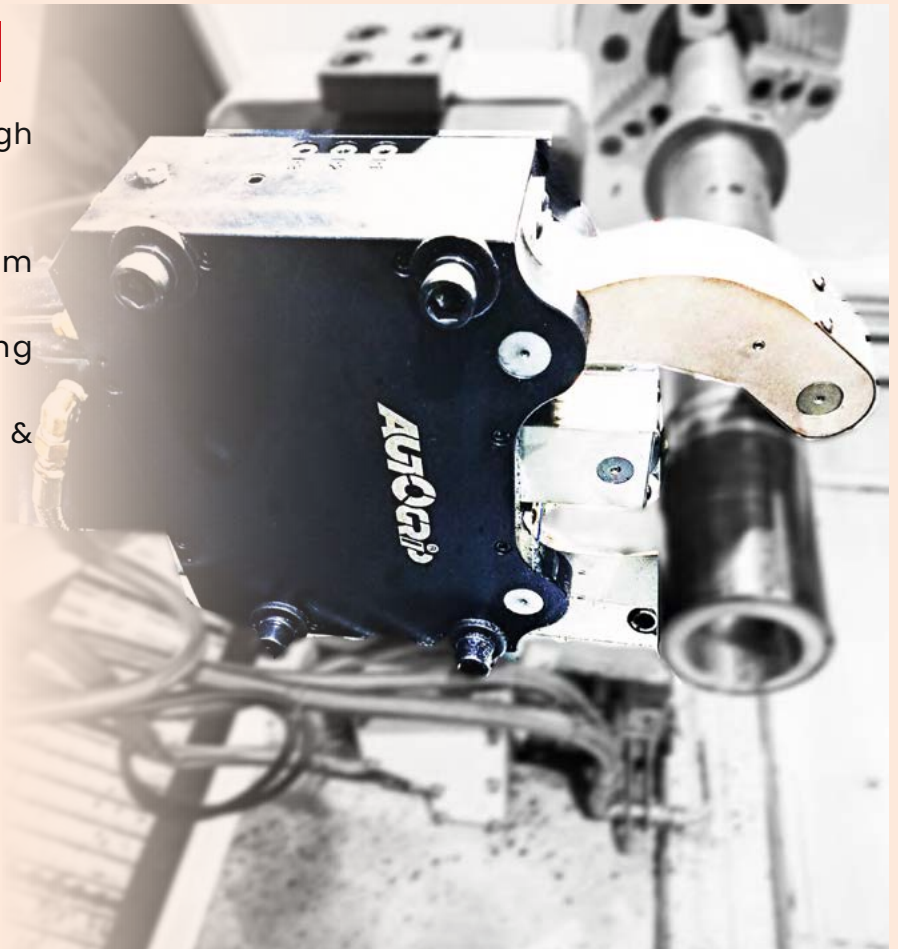
## SELF-CENTERING STEADY REST

# SELF-CENTERING STEADY REST

**High Rigidity. Precise Positioning. Reliable Clamping.**

### FEATURES

- High Clamping Force and High Concentricity.
- Enclosed Main Body Design.
- Central Lubrication System (Grease / Oil / Oil + Air).
- Built-in Check Valve Locking Mechanism.
- Compressed Air Waterproof & Chip-Resistant Design.
- Chip Guarding Device.



**SR /**  
Basic type



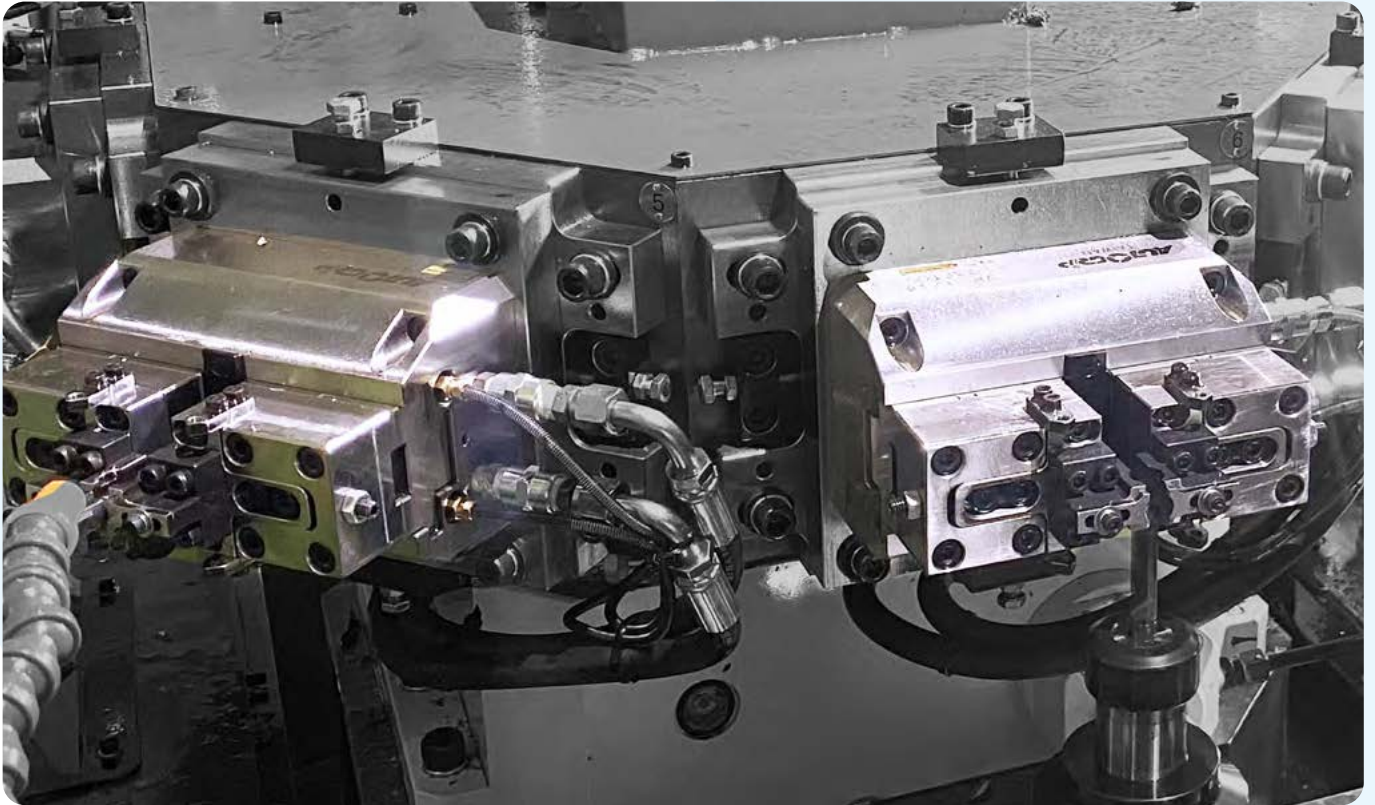
**SRR /**  
Advanced type



**SRB /**  
Side-Mounted type

## POWER CENTERING VISE

AUTOGRIP

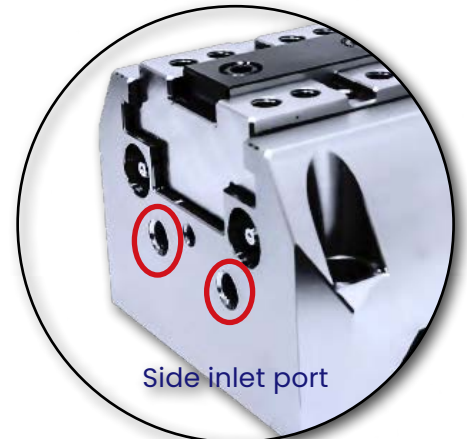


# VRA | VRH

## POWER CENTERING VISE

### FEATURES

- Slim and compact design maximizes machine workspace utilization.
- Oil ports are available on both side and bottom for flexible connection options.
- Suitable for milling machines and machining centers.



MODEL, SPECIFICATIONS, AND DIMENSIONS, PLEASE REFER TO THE POWER CENTERING VISE PAGE.

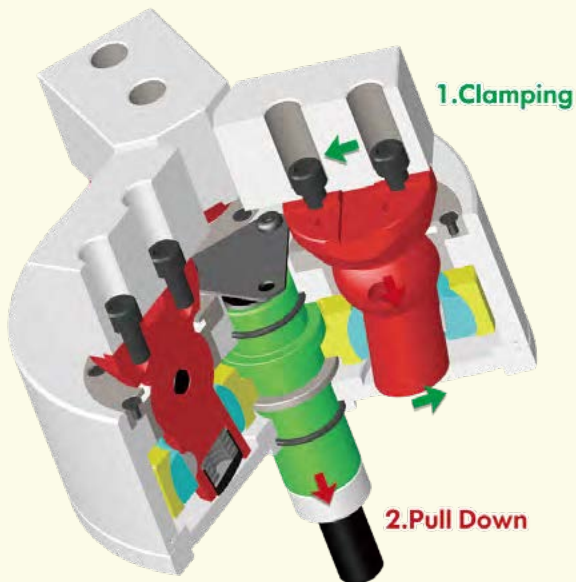


# 3W

## 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.

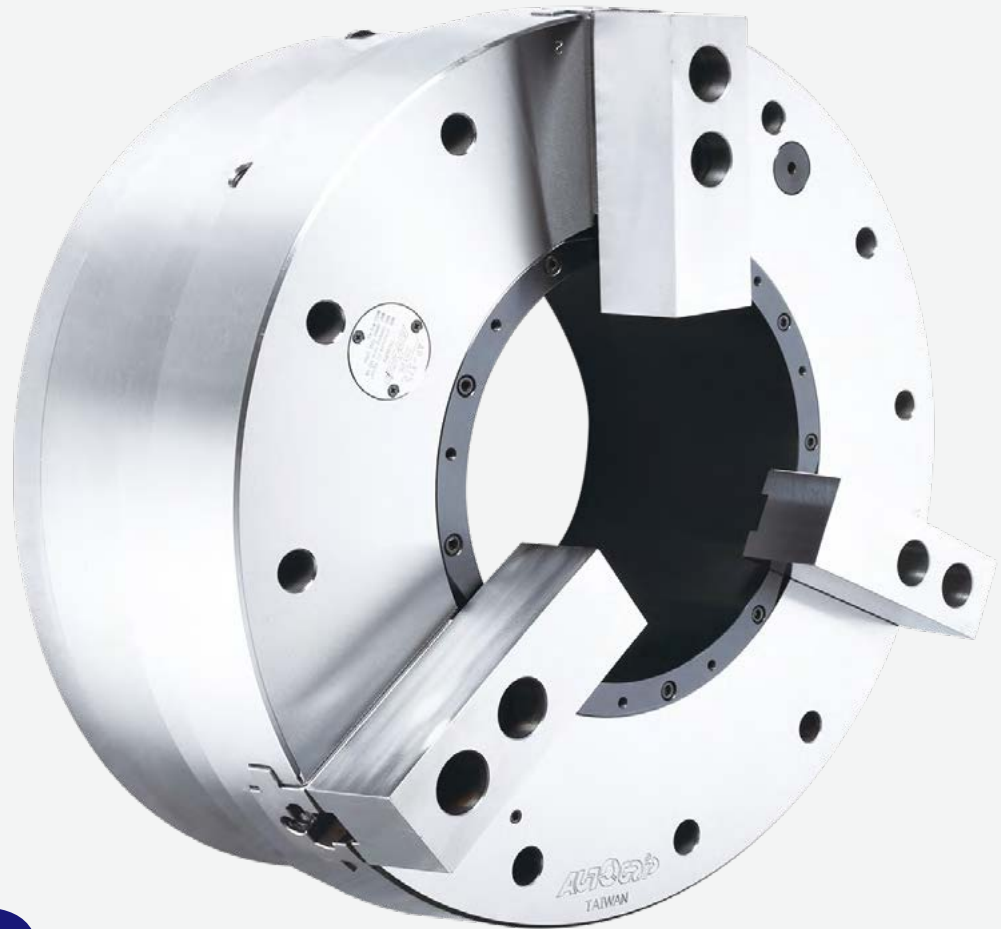


# LARGE THRU-HOLE AIR CHUCK

AUTOGRIP



**TAIWAN**  
EXCELLENCE 2018



# AP

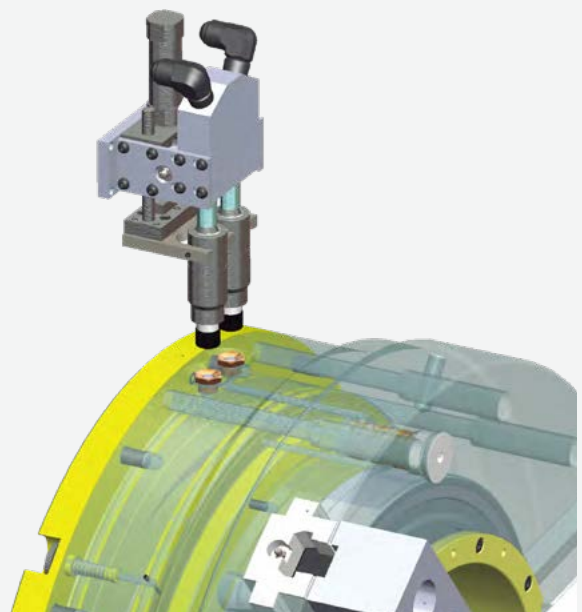
## 3-JAW THRU-HOLE

### FEATURES

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

### AIR FEED SYSTEM

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





# 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.



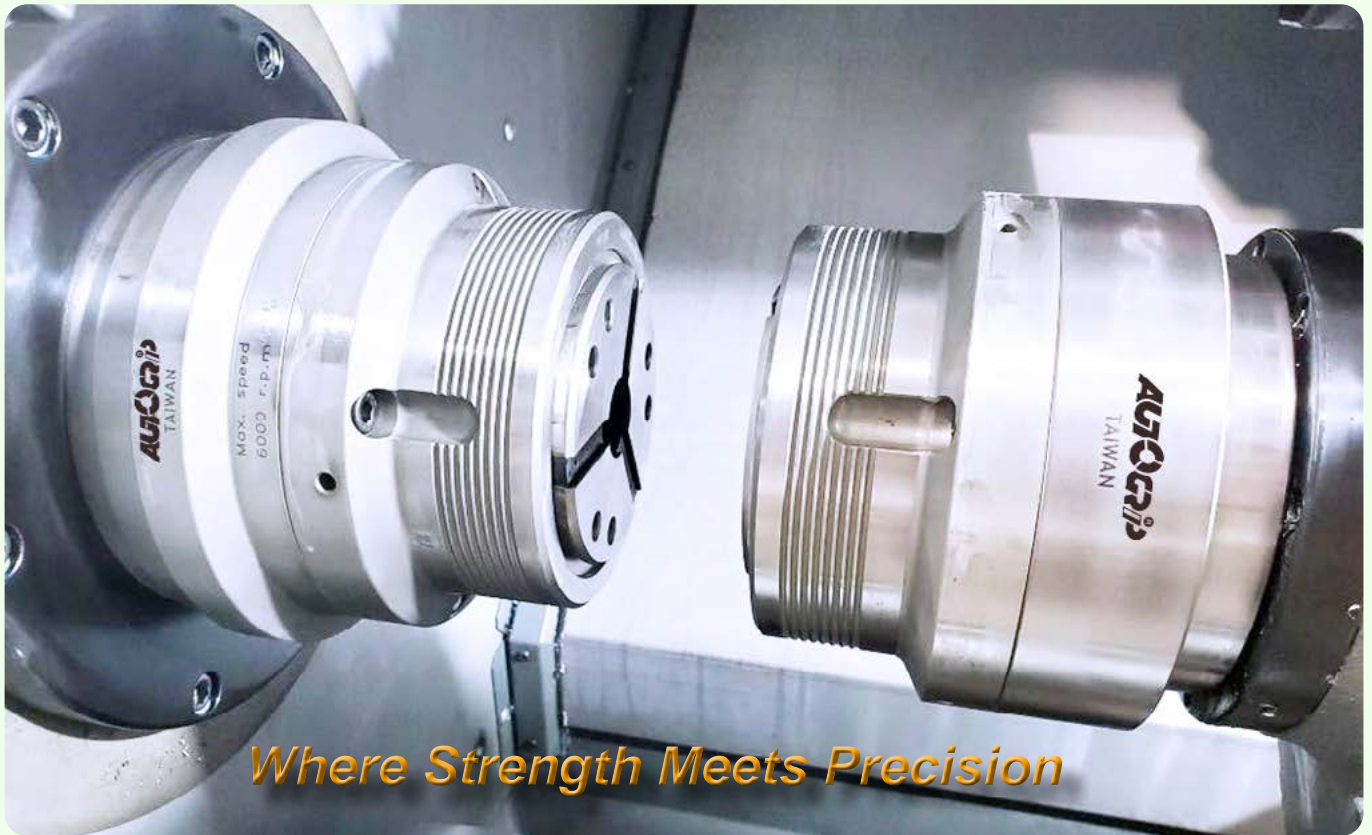
**SU-STATIONARY PULL LOCK CHUCK**  
• Pull lock / Heavy duty machining /  
Air tight detection.



**SE-STATIONARY EXPANSIBLE PULL LOCK CHUCK**  
• Pull lock / Inner dia. clamping / Air tight detection.

## COLLET CHUCKS

AUTOGRIP



*Where Strength Meets Precision*

# Rubber Grip Collet

## FEATURES

- **High Gripping Force** – Secure clamping for stable machining.
- **High Accuracy** – Consistent precision for every application.
- **Quick Jaw Change** – Fast setup for improved efficiency.
- **Dust-proof & Swarf-proof** – Reliable performance in harsh environments.
- **Grip Range  $\pm 0.5\text{mm}$**  – Flexible and versatile clamping solution.

lathe



Milling machine

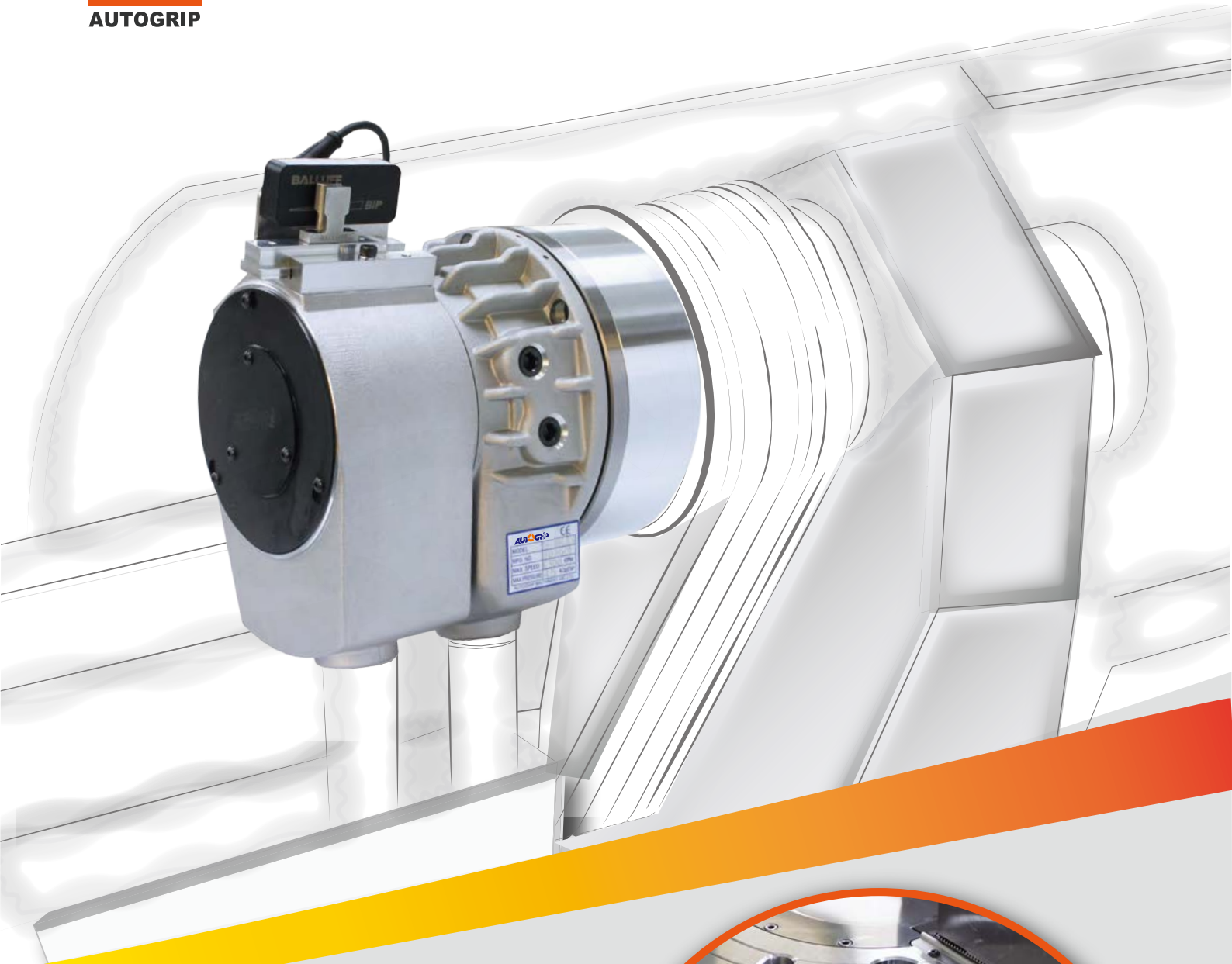


SCB



RG

## ROTARY CYLINDER & LINEAR POSITION SENSOR



### FEATURES

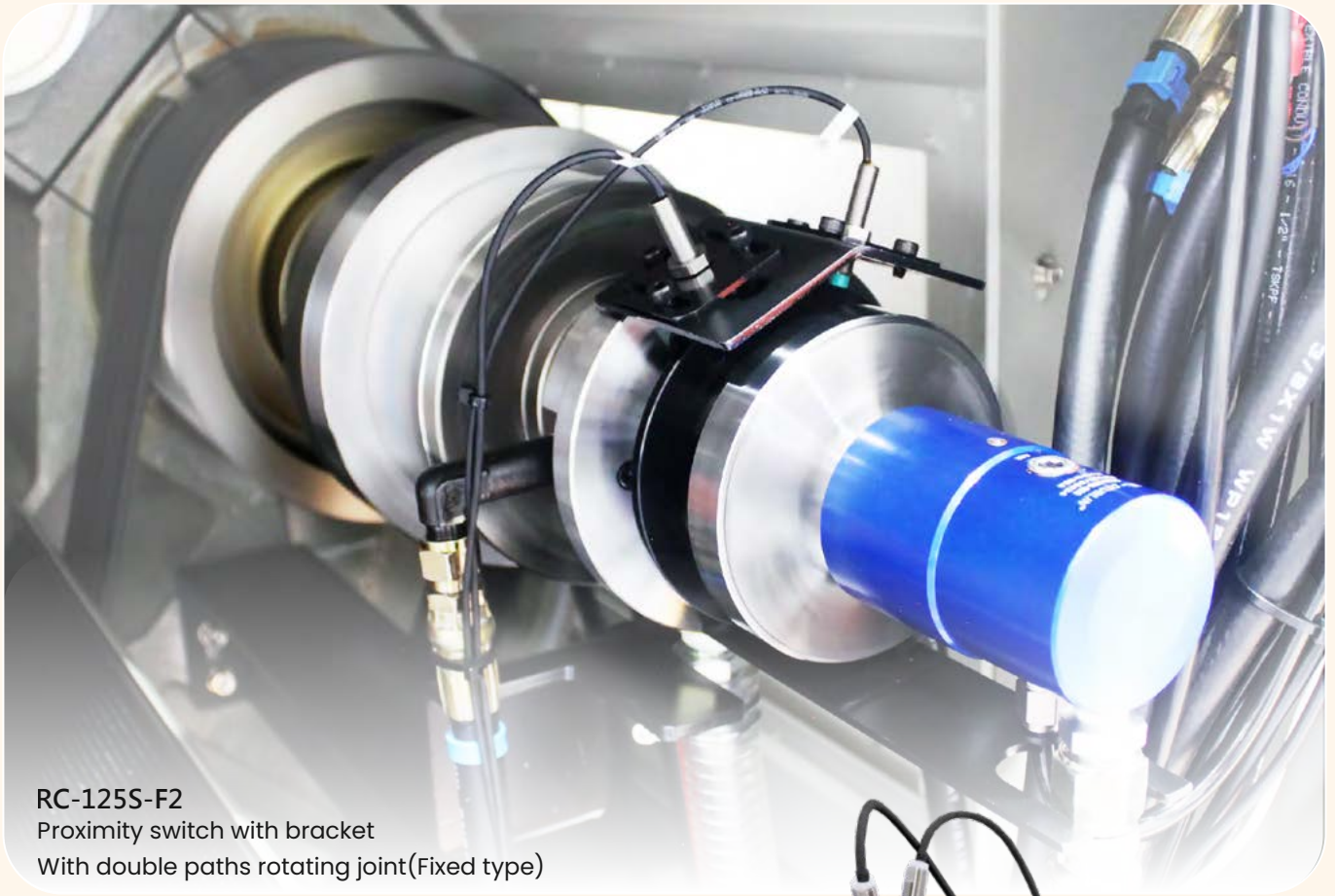
- Entire stroke range position monitoring.
- Position setup by teach-in function.
- Manual adjustment for proximity switch is unnecessary when changing workpiece.
- Suitable for sub-spindle or vertical lathes with limited space.
- Reduce idle time, increase throughput.



Vertical Lathe  
Hydraulic Cylinder

## HYDRAULIC CYLINDER WITH ROTATING JOINT

AUTOGRIP



RC-125S-F2  
Proximity switch with bracket  
With double paths rotating joint(Fixed type)

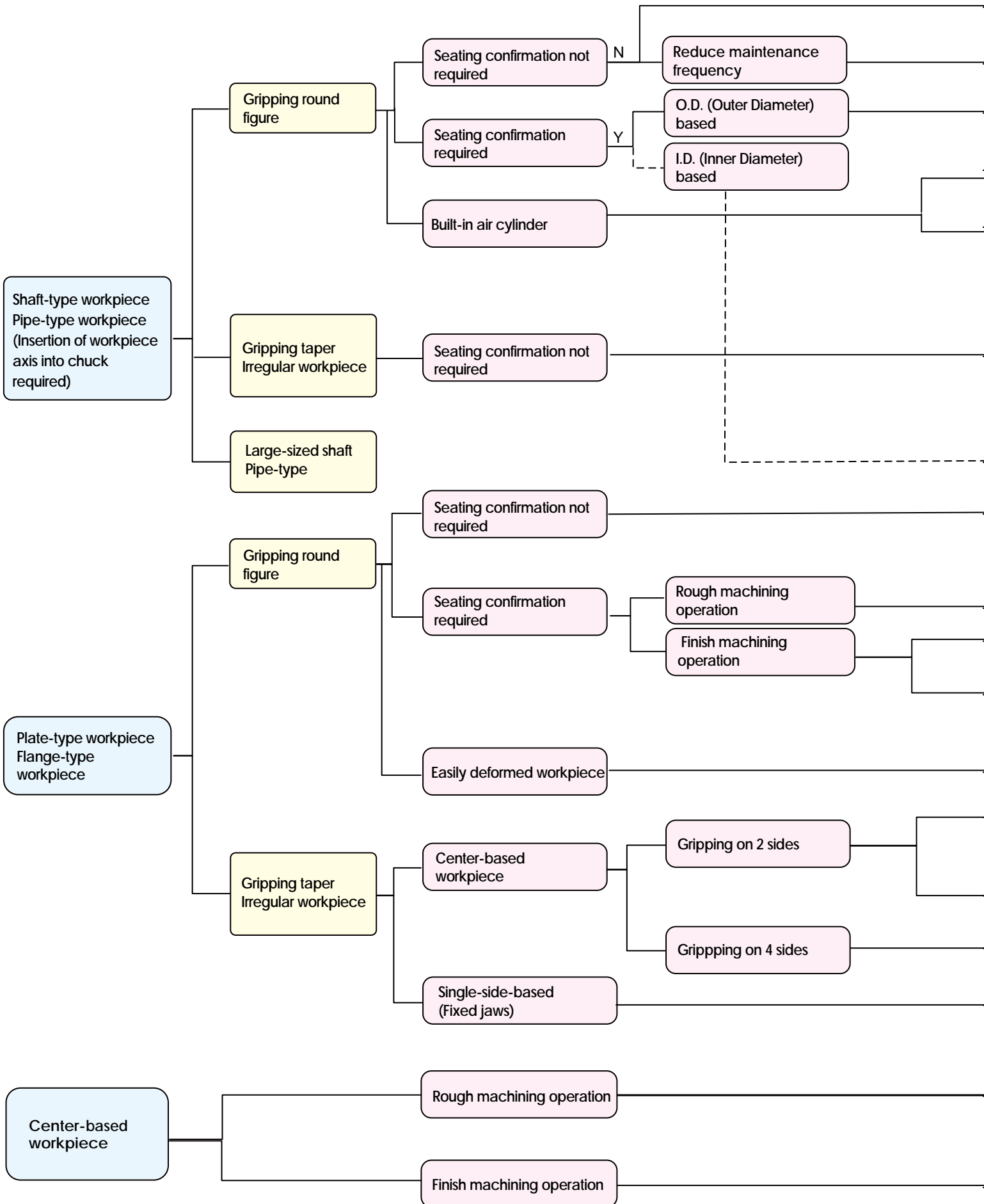
# RC series

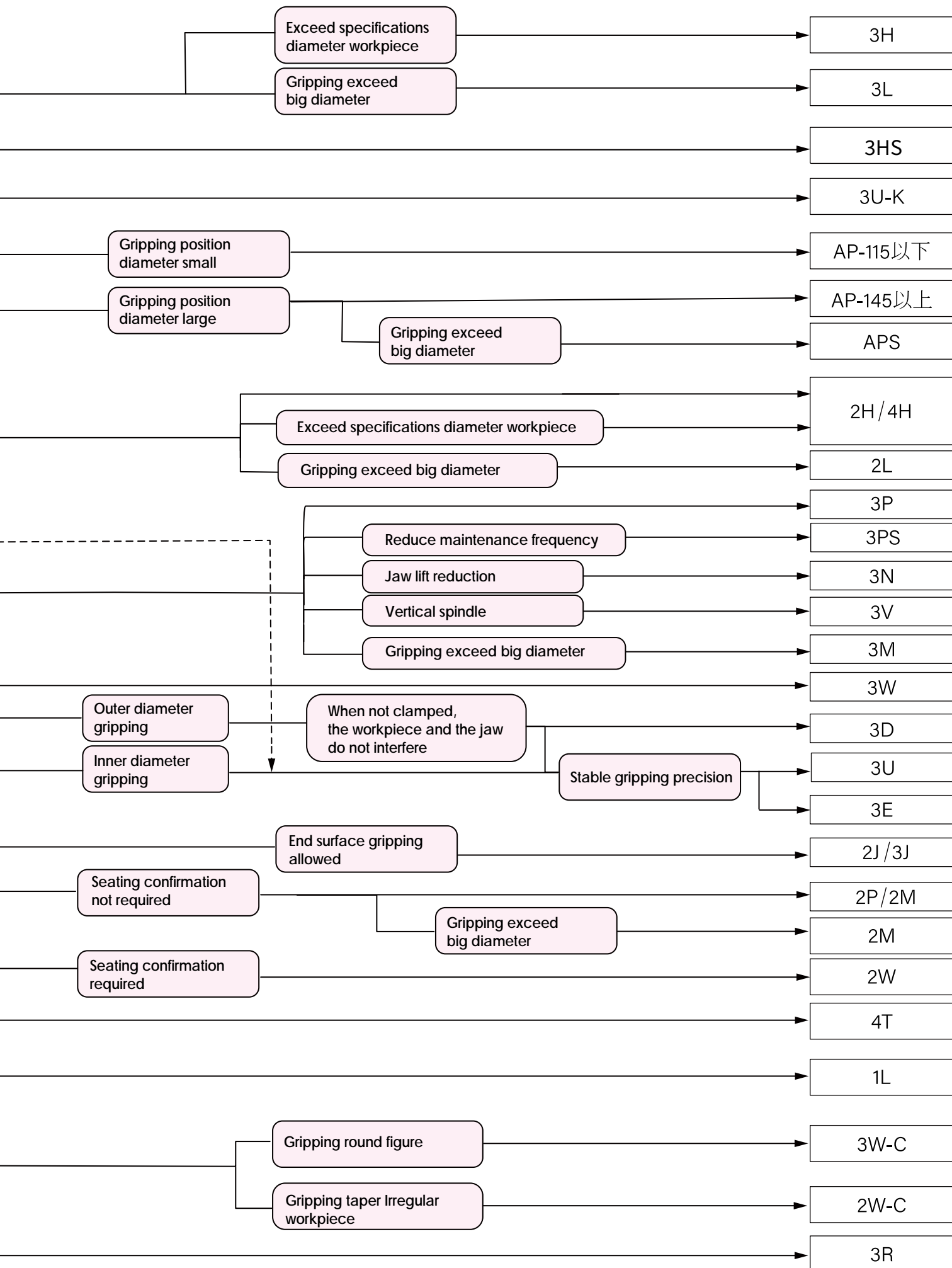


## HYDRAULIC CYLINDER WITH ROTATING JOINT

### 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

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

## Special Purpose Power Chucks

 <p><b>3N</b> INCLINED MASTER JAWS POWER CHUCK NON-THRU-HOLE / 3-JAW</p> <p>23</p>	 <p><b>3D</b> PULL DOWN POWER CHUCK NON-THRU-HOLE / 3-JAW</p> <p>24</p>	 <p><b>2D</b> PULL DOWN POWER CHUCK NON-THRU-HOLE / 2-JAW</p> <p>25</p>
 <p><b>3E</b> EXPANSIBLE PULL LOCK POWER CHUCK NON-THRU-HOLE / 3-JAW</p> <p>26</p>	 <p><b>3U</b> PULL LOCK POWER CHUCK THRU-HOLE / 3-JAW</p> <p>27</p>	 <p><b>3U-K</b> PULL LOCK POWER CHUCK NON-THRU-HOLE / 3-JAW</p> <p>28</p>
 <p><b>3W/3W-C</b> SWING TYPE 3-JAW POWER CHUCK SWING TYPE / 3-JAW</p> <p>29</p>	 <p><b>3RF</b> RETRACTABLE-JAW 3-JAW SHAFT CHUCK COMPENSATING TYPE 3-JAW</p> <p>31</p>	 <p><b>3R</b> SWING COMPENSATING TYPE 3-JAW POWER CHUCK COMPENSATING TYPE 3-JAW</p> <p>33</p>
 <p><b>4T</b> FOUR-JAW TWO MOTION TYPE POWER CHUCK NON-THRU-HOLE / 4-JAW</p> <p>34</p>	 <p><b>3J</b> FINGER POWER CHUCK NON-THRU-HOLE / 3-JAW</p> <p>35</p>	 <p><b>2J</b> FINGER POWER CHUCK NON-THRU-HOLE / 2-JAW</p> <p>36</p>
 <p><b>IS</b> POWER INDEXING CHUCK</p> <p>37</p>	 <p><b>APS</b> LARGE THRU-HOLE AIR CHUCK (DOUBLE SPEED JAW STROKE) THRU-HOLE / 3-JAW</p> <p>39</p>	 <p><b>AP</b> LARGE THRU-HOLE AIR CHUCK THRU-HOLE / 3-JAW</p> <p>40</p>
 <p><b>3FW</b> FINGER CHUCK FOR ALUMINUM WHEELS ALUMINUM ALLOY WHEELS PROCESSING</p> <p>43</p>		

## Collet Chucks



**CL**  
COLLET CHUCK  
THRU-HOLE

47



**CL-A**  
COLLET CHUCK  
THRU-HOLE

48



**DIN6343**  
STEEL COLLET  
STEEL COLLET

49



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

50



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

51



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

52



**CME**  
END STOP COLLET  
CHUCK  
PULL POSITIONING

53



**CMD**  
DEAD LENGTH COLLET  
CHUCK  
DEAD LENGTH

54



**SCB**  
STATIONARY DRAW  
COLLET CHUCK  
THRU-HOLE

55



**RG**  
RUBBER GRIP COLLET

56

## Stationary Chucks



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

57



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

58



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

59



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

61



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

62



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

63



**SE**  
STATIONARY  
EXPANSIVE  
PULL LOCK CHUCK  
NON-THRU-HOLE  
3-JAW

64



**MP4**  
STATIONARY CHUCK  
BASE PLATE

65



**VH-201**  
HAND OPERATED  
AIR VALVE  
ACCESSORIES

65

## Pneumatic Rotary Chuck



**RAP**  
PNEUMATIC ROTARY  
CHUCK  
PNEUMATIC ROTARY TYPE

66



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

67

## Vises



**VRA**  
POWER CENTERING VISE  
PNEUMATIC

68



**VRH**  
POWER CENTERING VISE  
HYDRAULIC

69



**MVSC**  
5-AXIS SELF CENTERING  
VISE  
5-AXIS

70



**MVRH**  
MC HDRAULIC VISE  
HYDRAULIC

71



**MVRE**  
MC POWER VISE  
POWER VISE

72

## Facing Heads



**FA**  
SINGLE-SLIDE FACING  
HEAD

SINGLE SLIDE

73



**FD**  
DOUBLE-SLIDE FACING  
HEAD

DOUBLE SLIDE

76

## Synchronous Clamp



**CP**  
SYNCHRONOUS CLAMP

CRANK TYPE

77



**CW**  
WEDGE-DRIVEN  
SYNCHRONOUS  
CLAMP

WEDGE-DRIVEN

78

## Rotary Cylinders



**TK**  
SHORT TYPE ROTATING  
HYDRAULIC CYLINDER  
WITH THRU-HOLE AND  
SAFETY DEVICE

THRU-HOLE / HYDRAULIC

79



**TS**  
SHORT TYPE ROTARY  
HYDRAULIC CYLINDER  
WITH BIG-BORE  
THRU-HOLE AND SAFETY  
DEVICE

THRU-HOLE / HYDRAULIC

83



**TH**  
ROTATING HYDRAULIC  
CYLINDER WITH  
THRU-HOLE AND SAFETY  
DEVICE

THRU-HOLE / HYDRAULIC

84



**TR**  
SMALL TYPE ROTARY  
HYDRAULIC CYLINDER  
WITH THRU-HOLE AND  
SAFETY DEVICE

THRU-HOLE / HYDRAULIC

85



**RA**  
ROTATING AIR  
CYLINDER

NON-THRU-HOLE  
AIR

86



**RH**  
ROTATING  
HYDRAULIC CYLINDER

NON-THRU-HOLE  
HYDRAULIC

87



**RK**  
ROTATING HYDRAULIC  
CYLINDER WITH SAFETY  
DEVICE

NON-THRU-HOLE  
HYDRAULIC

88



**RK-N**  
ROTATING HYDRAULIC  
CYLINDER

NON-THRU-HOLE  
HYDRAULIC

89



**RS**  
ROTATING HYDRAULIC  
CYLINDER WITH STROKE  
CONTROL AND SAFETY  
DEVICE

STROKE CONTROL / HYDRAULIC

90



**RS-N**  
ROTATING HYDRAULIC  
CYLINDER WITH  
STROKE CONTROL

STROKE CONTROL  
HYDRAULIC

91



**RL**  
ROTATING HYDRAULIC  
CYLINDER WITH  
COOLANT CONNECTION  
AND SAFETY DEVICE

COOLANT CONNECTION  
HYDRAULIC

92



**RL-N**  
ROTATING  
HYDRAULIC CYLINDER  
WITH COOLANT  
CONNECTION

COOLANT CONNECTION  
HYDRAULIC

93



**RL-AN**  
ROTATING HYDRAULIC  
CYLINDER WITH AIR  
CONNECTION

AIR CONNECTION  
HYDRAULIC

94



**RE**  
COMPACT STYLE  
HYDRAULIC CYLINDER  
WITH STROKE CONTROL  
AND SAFETY DEVICE

COMPACT STYLE  
HYDRAULIC

95



**RE-A**  
COMPACT STYLE  
HYDRAULIC CYLINDER  
WITH AIR CONNECTION  
AND SAFETY DEVICE

COMPACT STYLE / HYDRAULIC

97



**RE-L**  
COMPACT STYLE HYDRAULIC  
CYLINDER WITH COOLANT  
CONNECTION AND SAFETY  
DEVICE

COMPACT STYLE / HYDRAULIC

99



**RC**  
HYDRAULIC CYLINDER  
WITH  
ROTATING JOINT

ROTATING JOINT

101



**RD**  
DOUBLE ROD ROTATING  
CYLINDER WITH SAFETY  
DEVICE

DOUBLE-ROD  
HYDRAULIC

103



**RD-N**  
DOUBLE ROD ROTATING  
CYLINDER

DOUBLE-ROD  
HYDRAULIC

104



**RDL**  
DOUBLE ROD ROTATING  
CYLINDER WITH EXTERNAL  
ROTATING JOINT

DOUBLE-ROD  
HYDRAULIC

105

## Rotary Valves



**RV**  
HYDRAULIC ROTARY VALVE

OIL CIRCUIT DISTRIBUTOR

106



**RV-A**  
AIR ROTARY VALVE

AIR

106

## Rotary Joints



**RJ-52**  
SINGLE-PASSAGE ROTATING JOINT

SINGLE-PASSAGE

107



**RJ-80**  
COOLANT ROTATING JOINT

SINGLE-PASSAGE

107



**RJ-92**  
COOLANT ROTATING JOINT WITH AUTOMATIC ON/OFF SEAL

SINGLE-PASSAGE

108



**RJ-4E/RJ-5E**  
HYDRAULIC ROTATING JOINT

MULTI-PASSAGE, SINGLE MEDIUM

109



**RJ-A2E**  
AIR ROTATING JOINT

MULTI-PASSAGE, SINGLE MEDIUM

110



**RJ-22HA/RJ-41HA**  
COMBINED AIR AND HYDRAULIC ROTARY JOINT

MULTI-PASSAGE, DUAL MEDIUM

111



**RJ-52HV**  
COMBINED AIR AND HYDRAULIC ROTARY JOINT

MULTI-PASSAGE, DUAL MEDIUM

112

## Self-Centering Steady Rest



**SR**  
SELF-CENTERING STEADY REST

BASIC TYPE

113



**SRR**  
SELF-CENTERING STEADY REST

ADVANCED TYPE

114



**SRB**  
SELF-CENTERING STEADY REST

SIDE-MOUNTED TYPE

115

## Parts and Accessories



**GFS-100**  
GRIPPING FORCE SENSOR

116



**SJ**  
STANDARD SOFT BLANK JAW

STANDARD SOFT JAW

117



**HJ**  
STANDARD HARDENED JAW

STANDARD HARDENED JAW

121



**T-NUT**  
T-NUT

T-NUT

123



**FL**  
CHUCK ADAPTORS

ADAPTOR

124



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

COOLANT COLLECTOR

125



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

COOLANT COLLECTOR

126



**FV**  
STATIONARY CYLINDER LOCK VALVE

FOR AIR STATIONARY CHUCK ACCESSORIES

127

**DRAW TUBE**  
THE CALCULATION OF DRAW TUBE LENGTH

DRAW TUBE

128

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

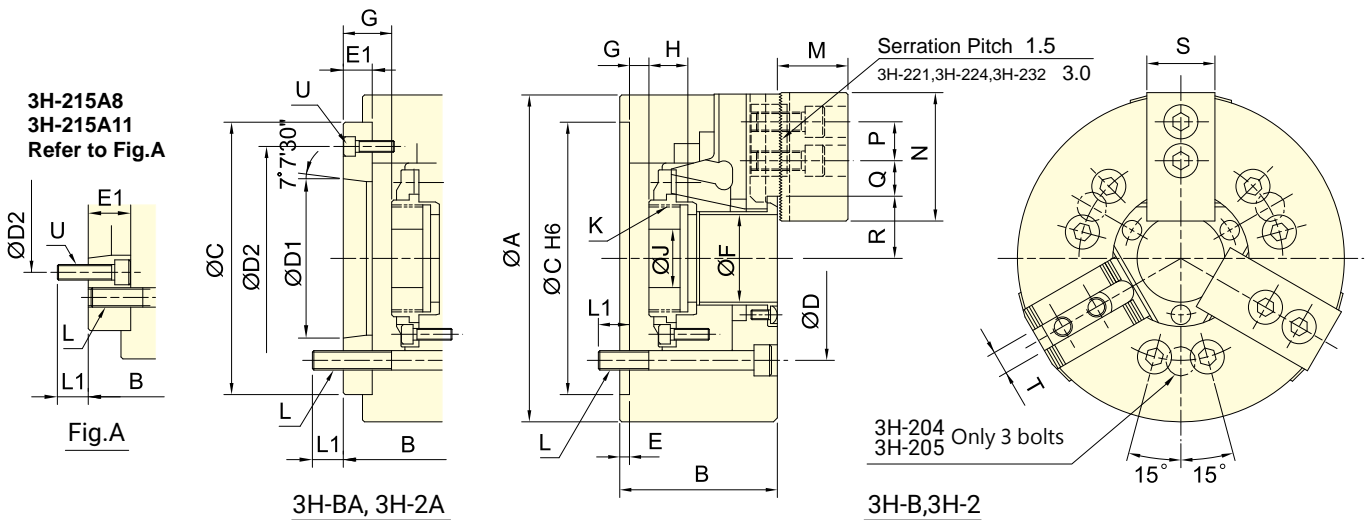
DRAW BAR

129



- 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.

POWER CHUCKS



Subject to technical changes

### SPECIFICATIONS

Model	Thru-hole (Dia.)	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
3H-204	A4	32	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	39	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	53	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	66	18	7.6	210	17	31.9(3250)	95.7(9760)	5000	0.15	21.8	23.4	TK-A853	2.6(26)
3H-210	A8	86	21	8.9	260	37	49.1(5010)	152(15500)	4500	0.32	37.5	43	TK-A1075	3.2(32)
3H-212	A11	106	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	145	25	10.6	405	49	71(7240)	180(18350)	2500	2.8	127	149	TK-2114	2.1(21)
3H-215	A11	145	25	10.6	405	49	71(7240)	180(18350)	2500	2.8	127	143.3	TK-2114	2.1(21)
3H-215	A15	145	25	10.6	405	49	71(7240)	180(18350)	2500	2.8	127	135.6	TK-2114	2.1(21)
3H-18B	A15	165	23	10.6	456	79	71(7240)	180(18350)	2000	4.8	162.4	173.4	TK-2416	1.9(19)
3H-221	A15	180	28	12.9	530	105	90(9175)	234(23860)	1800	7.5	223	234	TK-2416	2.4(24)
3H-224	A20	210	28	12.9	610	135	100(10200)	240(24500)	1500	15.8	270	284	TK-2820	2.1(21)
3H-232	A20	275	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	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	64	25	3~M12
3H-224	A20	M225x3	M225x3	6~M24	35.0	33	73	180	60	93.5	24.5	128	121.5	64	25	3~M12
3H-232	A20	M295x3	M295x3	6~M24	36.0	34	73	180	60	150.5	24.5	166	157	64	25	3~M12

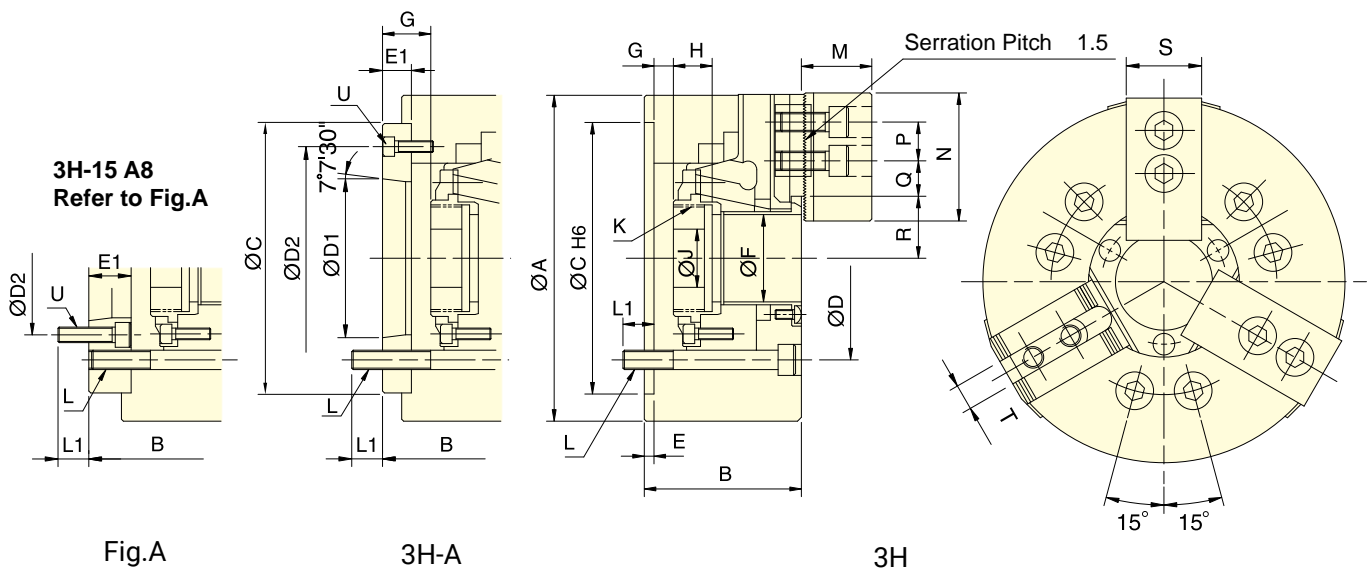
The dimensions and the specifications of 3H-2A,3H-BA type are in red data.

// 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.

POWER CHUCKS



Subject to technical changes

### SPECIFICATIONS

Model	Thru-hole (Dia.)	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
3H-12	A8	91	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	120	25	10.6	381	50	71 (7250)	179.8(18350)	2500	2.28	120	134	TK-A1512	2.3(23)
3H-15	A11	120	25	10.6	381	50	71 (7250)	179.8(18350)	2500	2.28	120	127	TK-A1512	2.3(23)
3H-18	A11	120	25	10.6	450	50	71(7250)	180.3(18400)	2000	4.46	160	174	TK-A1512	2.3(23)

### DIMENSIONS

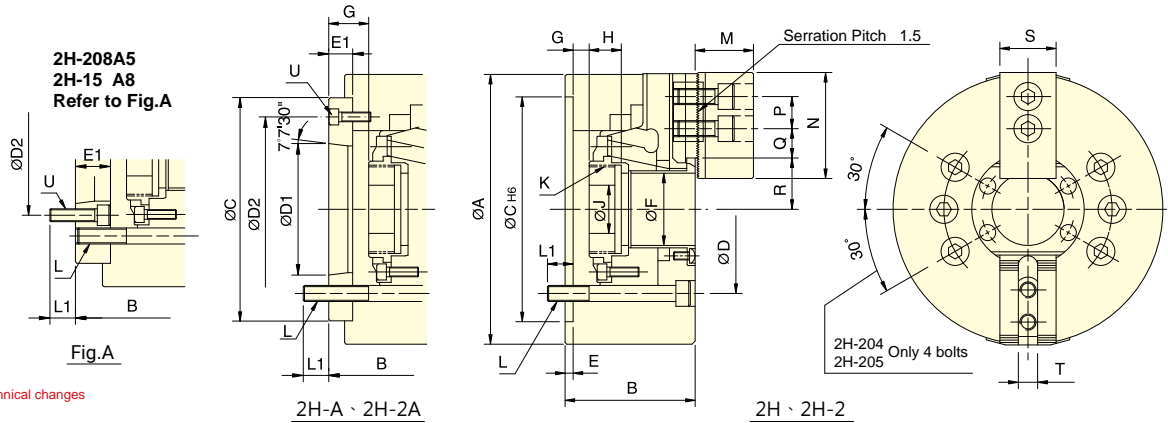
Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
3H-12	A8	304	110	122	220	171.4	139.72	190	6	18	91	10	28	-15	3	28	50
3H-15	A8	381	132	159	300	235	139.72	171.4	6	33	120	11	44	-14	19	39	60
3H-15	A11	381	132	148	300	235	196.87	260	6	22	120	11	33	-14	8	39	60
3H-18	A11	450	132	148	300	235	196.87	260	6	22	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	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	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	Thru-hole (Dia.)	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
2H-204	A4	32	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	39	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	53	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	66	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	66	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	86	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	91	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	120	25	10.6	381	50	46.9 (4790)	119.6 (12200)	2500	2.42	115	129	TK-A1512	1.5 (15)
2H-15	A11	120	25	10.6	381	50	46.9 (4790)	119.6 (12200)	2500	2.34	115	122	TK-A1512	1.5 (15)

## DIMENSIONS

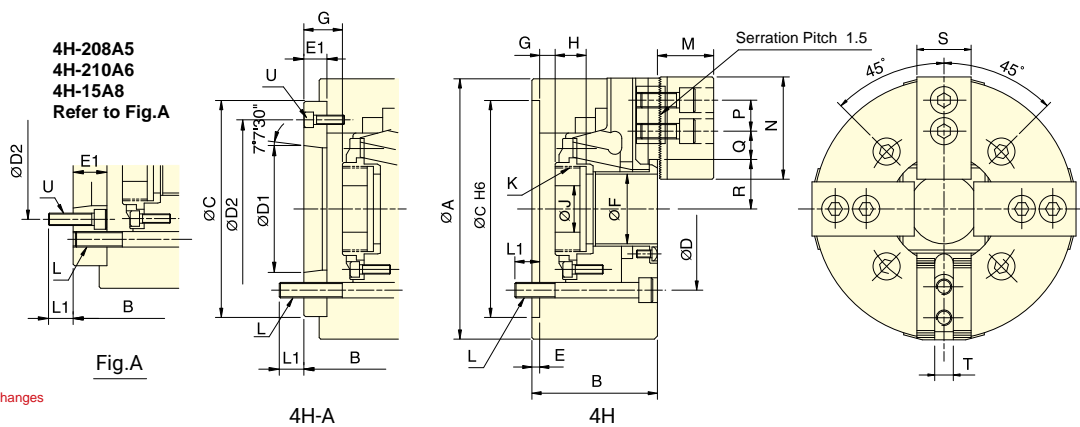
Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
2H-204	A4	113	59	83	85	70.6	63.51	82.6	4	28	32	3.5	31.5	-9.5	18.5	17.5	12
2H-205	A4	138	60	71	110	82.6	63.51	96	4	15	39	1	16	-12	3	20	12
2H-206	A5	170	81	91	140	104.8	82.56	116	5	15	53	13	28	-1	14	17.5	20
2H-208	A5	210	91	109	170	133.4	82.56	104.8	5	23	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	Thru-hole (Dia.)	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			kg
4H-206	A5	53	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	66	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	66	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	86	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	86	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	91	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	120	25	10.6	381	50	71(7250)	179.8(18350)	2000	2.31	117.6	130	TK-A1512	2.3(23)
4H-15	A11	120	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	120	25	10.6	450	50	71(7250)	179.8(18350)	1700	4.35	162.6	168.5	TK-A1512	2.3(23)

## DIMENSIONS

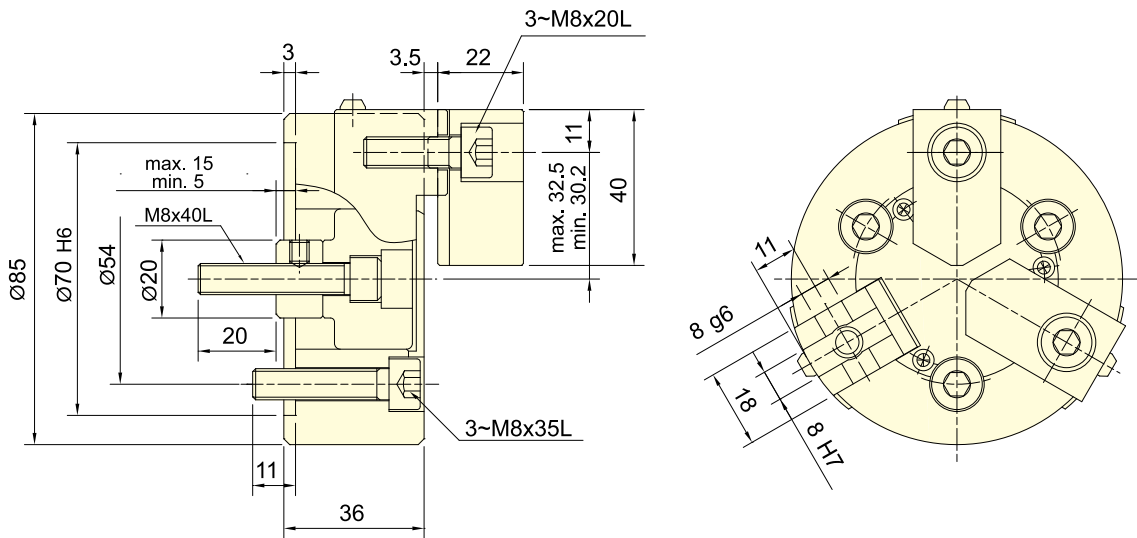
Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
4H-206	A5	170	81	91	140	104.8	82.56	116	5	15	53	13	28	-1	14	17.5	20
4H-208	A5	210	91	109	170	133.4	82.56	104.8	5	23	66	16.5	39.5	-1.5	21.5	20	30
4H-208	A6	210	91	103	170	133.4	106.38	150	5	17	66	16.5	33.5	-1.5	15.5	20	30
4H-210	A6	260	102	122	220	171.4	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	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	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.

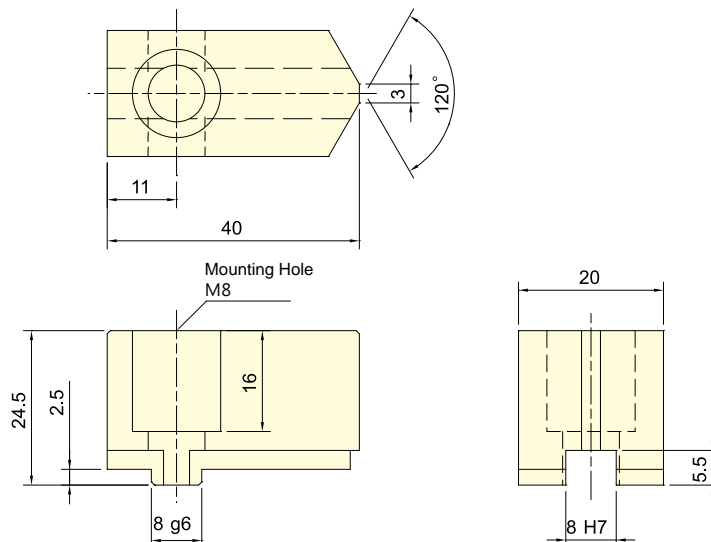


Subject to technical changes

### SPECIFICATIONS

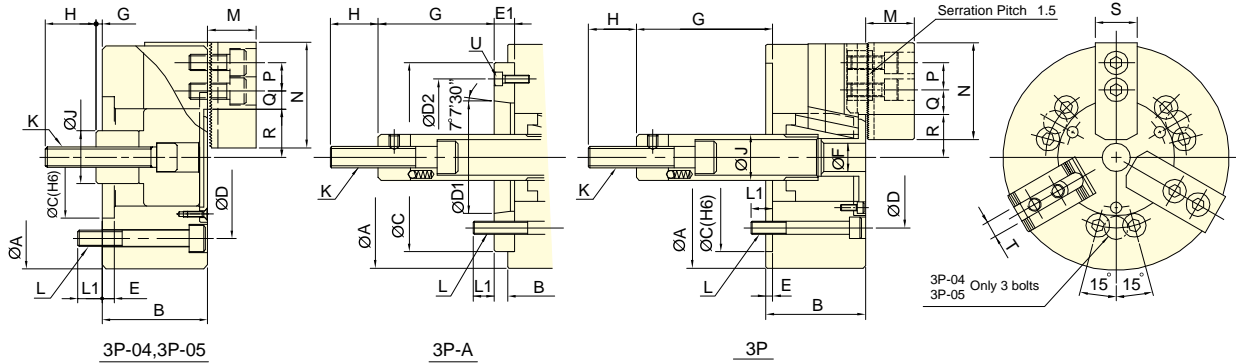
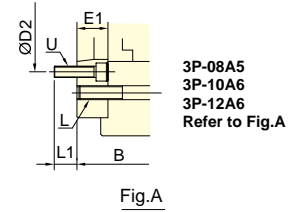
Model	Plunger stroke	Jaw stroke (Dia.)	Chucking Dia. Max.	Chucking Dia. Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Max. pressure
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )
<b>3P-03</b>	10	4.6	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.



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
3P-04	15	6.9	110	5	8.1(830)	22.5(2300)	6000	0.01	4.1	-	RK-75(N) RA-130 0.6(6)	2.2(22) 0.6(6)	
3P-05	15	6.9	135	14	8.1(830)	25(2550)	5500	0.02	6.2	-	RK-75(N) RA-130 0.6(6)	2.2(22) 0.6(6)	
3P-06	A5	20	9.2	165	16	17.9(1830)	52.4(5350)	5250	0.05	13	14	RK-100(N) RA-170 0.6(6)	2.6(26) 0.6(6)
3P-08	A5	21	9.7	210	21	25(2550)	74.5(7600)	4750	0.14	24	28	RK-125(N) RA-220 0.5(5)	2.3(23) 0.5(5)
3P-08	A6	21	9.7	210	21	25(2550)	74.5(7600)	4750	0.14	24	27	RK-125(N) RA-220 0.5(5)	2.3(23) 0.5(5)
3P-10	A6	25	8.8	254	24	28.9(2950)	107.8(11000)	4000	0.3	35	42	RK-125(N) RA-220 0.6(6)	2.6(26) 0.6(6)
3P-10	A8	25	8.8	254	24	28.9(2950)	107.8(11000)	4000	0.3	35	40	RK-125(N) RA-220 0.6(6)	2.6(26) 0.6(6)
3P-12	A6	30	10.5	304	24	41(4180)	155.8(15900)	3360	0.73	59	65	RK-150(N) RA-270 0.8(8)	2.6(26) 0.8(8)
3P-12	A8	30	10.5	304	24	41(4180)	155.8(15900)	3360	0.73	59	63	RK-150(N) RA-270 0.8(8)	2.6(26) 0.8(8)

### DIMENSIONS

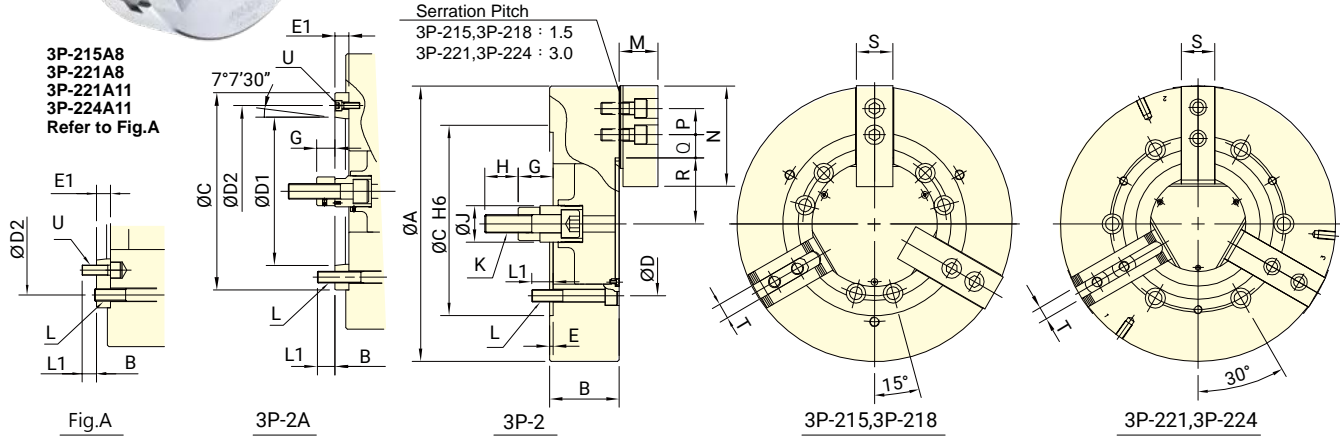
Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J			
3P-04	110	52	-	60	80	-	6	-	-	18	-	25	26			
3P-05	135	55	-	80	100	-	7	-	-	9	-	35	28			
3P-06	A5	165	84	140	104.8	82.56	116	5	15	21	102.5	87.5	82.5	67.5	35	34
3P-08	A5	210	103	170	133.4	82.56	104.8	5	23	25	126.6	103.6	105.6	82.6	36	38
3P-08	A6	210	97	170	133.4	106.38	150	5	17	25	126.6	109.6	105.6	88.6	36	38
3P-10	A6	254	109	220	171.4	106.38	133.4	5	25	34	157	132	132	107	36	45
3P-10	A8	254	102	220	171.4	139.72	190	5	18	34	157	139	132	114	36	45
3P-12	A6	304	125	220	171.4	106.38	133.4	6	25	34	163	138	133	108	36	50
3P-12	A8	304	118	220	171.4	139.72	190	6	18	34	163	145	133	115	36	50

Model	K	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U		
3P-04	M10x1.5	3~M8	12	-	24	52	14	11.2	6.7	23.6	20.15	23	10	-	
3P-05	M12x1.75	3~M8	14	-	31	62	14	15.75	6.75	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	12	3~M6
3P-08	A5	M20x2.5	6~M12	20	17	38	95	25	25.25	11.75	46.3	41.45	35	14	6~M10
3P-08	A6	M20x2.5	6~M12	20	18	38	95	25	25.25	11.75	46.3	41.45	35	14	3~M6
3P-10	A6	M20x2.5	6~M16	18	18	43	110	30	35.25	12.75	51.1	46.7	40	16	6~M12
3P-10	A8	M20x2.5	6~M16	18	25	43	110	30	35.25	12.75	51.1	46.7	40	16	3~M8
3P-12	A6	M20x2.5	6~M16	18	18	51	130	30	49.25	13.25	61	55.75	50	18 or 21	6~M12
3P-12	A8	M20x2.5	6~M16	18	25	51	130	30	49.25	13.25	61	55.75	50	18 or 21	3~M8

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.)	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
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

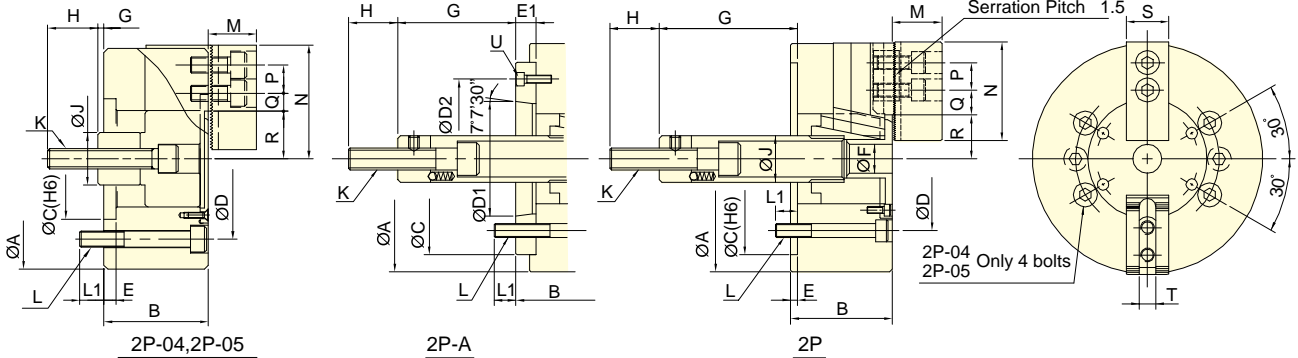
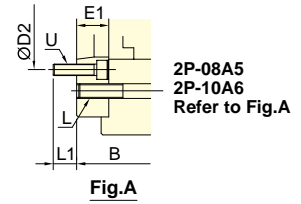
Model	A	B	C	D	D1	D2	E	E1	G max.	G min.	H	J	K			
3P-215 A8	381	114	141	300	235	139.72	171.4	6	33	104	71	69	36	55	60	M30x3.5
3P-215 A11	381	114	130	300	235	196.87	260	6	22	104	82	69	47	55	60	M30x3.5
3P-218 A11	450	114	130	300	235	196.87	260	6	22	92	70	57	35	55	60	M30x3.5
3P-221 A8	530	125	152	380	330.2	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	64	25	6-M16
3P-221 A11	6-M24	31	28	71	180	60	96.5	24.5	86	78	64	25	6-M20
3P-224 A11	6-M24	31	28	71	180	60	96.5	24.5	125	117	64	25	6-M20
3P-224 A15	6-M24	31	34	71	180	60	96.5	24.5	125	117	64	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.)	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 <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )	
2P-04	15	6.9	110	5	5.3(540)	14.7(1500)	6000	0.01	3.8	-	1.5(15) 0.4(4)	
2P-05	15	6.9	135	14	5.3(540)	16.7(1700)	5500	0.02	5.8	-	1.5(15) 0.4(4)	
2P-06	A5	20	9.2	165	14	12(1220)	35(3570)	5250	0.04	12	13	1.7(17) 0.4(4)
2P-08	A5	21	9.7	210	17	16.5(1680)	50(5100)	4750	0.13	22	26	1.5(15) 0.4(4)
2P-08	A6	21	9.7	210	17	16.5(1680)	50(5100)	4750	0.13	22	25	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	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	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	1.7(17)
2P-15	A11	35	16	381	50	54.9(5600)	164.6(16800)	3000	1.70	96	103	1.9(19)

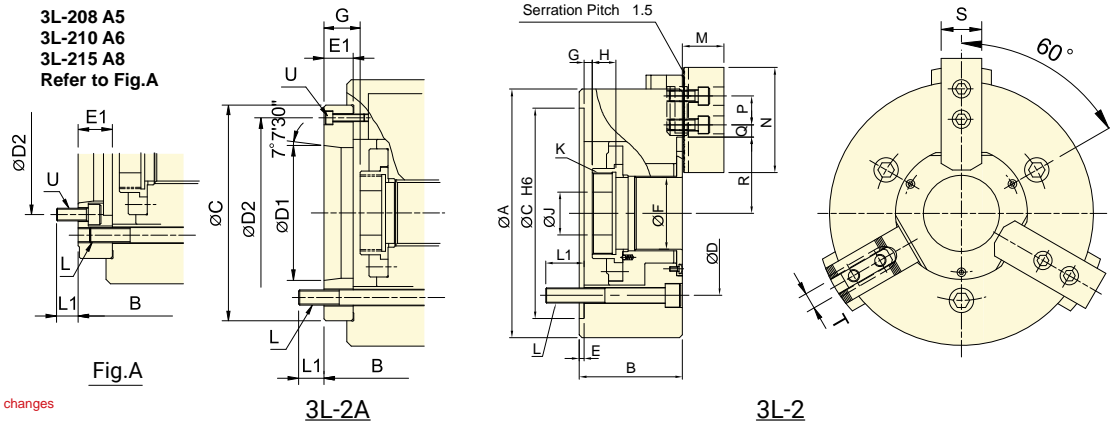
### DIMENSIONS

Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
2P-04	110	52	-	60	80	-	-	6	-	18	-	25	26				
2P-05	135	55	-	80	100	-	-	7	-	9	-	35	28				
2P-06	A5	165	74	84	140	104.8	82.56	116	5	15	21	102.5	87.5	82.5	67.5	35	34
2P-08	A5	210	85	103	170	133.4	82.56	104.8	5	23	25	126.6	103.6	105.6	82.6	36	38
2P-08	A6	210	85	97	170	133.4	106.38	150	5	17	25	126.6	109.6	105.6	88.6	36	38
2P-10	A6	254	89	109	220	171.4	106.38	133.4	5	25	34	157	132	132	107	36	45
2P-10	A8	254	89	102	220	171.4	139.72	190	5	18	34	157	139	132	114	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	11.2	6.7	23.3	20.15	23	10	-
2P-05	M12x1.75	4-M8	14	-	31	62	15.75	6.75	30.4	26.95	25	10	-
2P-06	A5	M16x2	6-M10	14	14	37	18.25	9.25	38.25	33.65	31	12	3~M6
2P-08	A5	M20x2.5	6-M12	20	17	38	25.25	11.75	46.3	41.45	35	14	6-M10
2P-08	A6	M20x2.5	6-M12	20	18	38	25.25	11.75	46.3	41.45	35	14	3~M6
2P-10	A6	M20x2.5	6-M16	18	18	43	35.25	12.75	51.1	46.7	40	16	6-M12
2P-10	A8	M20x2.5	6-M16	18	25	43	35.25	12.75	51.1	46.7	40	16	6-M8
2P-12	A8	M20x2.5	6-M16	18	25	51	49.25	13.25	61	55.75	50	18 or 21	6-M8
2P-15	A11	M30x3.5	6-M20	30	33	63	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	Thru-hole (Dia.)	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
3L-205	A4	32	12	18	138	6	15.6(1590)	17.2(1750)	4200	0.019	7.2	8	TK-A533	2.3(23)
3L-206	A5	45	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	52	20	32	215	30	34.3(3500)	35.0(3570)	3000	0.18	23	25.7	TK-A853	2.8(28)
3L-208	A6	52	20	32	215	30	34.3(3500)	35.0(3570)	3000	0.18	23	24.6	TK-A853	2.8(28)
3L-210	A6	75	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	75	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	91	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	120	35	52	405	52	84.3(8600)	85.0(8665)	1600	2.58	139	152	TK-A1512-35	2.7(27)
3L-215	A11	120	35	52	405	52	84.3(8600)	85.0(8665)	1600	2.58	139	145	TK-A1512-35	2.7(27)

### DIMENSIONS

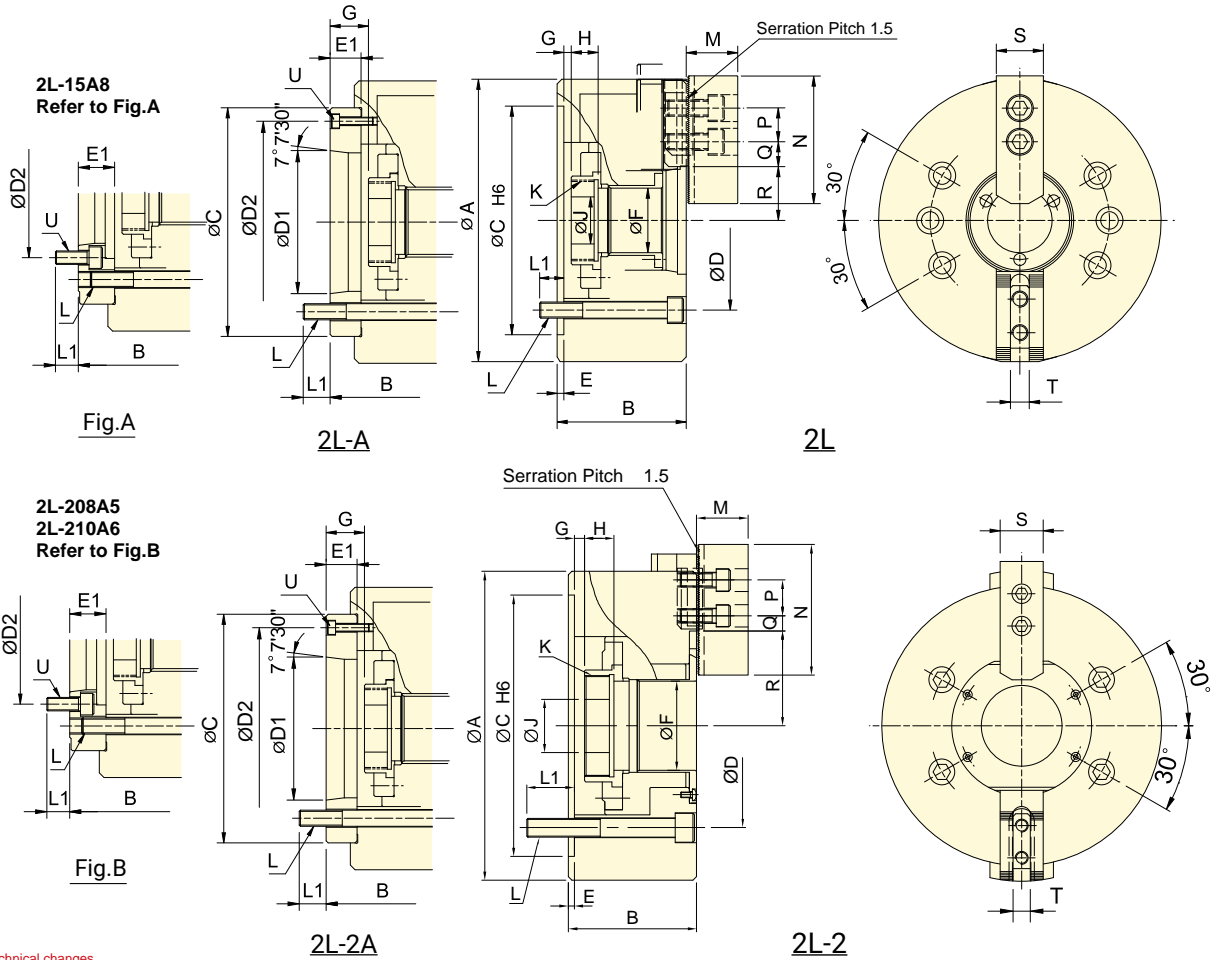
Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
3L-205	A4	138	65	76	110	82.6	63.51	96	4	15	32	1	15	-11	3	20	12
3L-206	A5	170	84	97	140	104.8	82.56	116	5	18	45	6.5	24.5	-8.5	9.5	19	20
3L-208	A5	215	96	114	170	133.4	82.56	104.8	5	23	52	7	30	-13	10	20	30
3L-208	A6	215	96	114	170	133.4	106.38	150	5	23	52	7	30	-13	10	20	30
3L-210	A6	260	108	128	220	171.4	106.38	133.4	5	25	75	8.5	33	-16.5	8	25	45
3L-210	A8	260	108	121	220	171.4	139.72	190	5	18	75	8.5	26.5	-16.5	1.5	25	45
3L-212	A8	315	125	138	220	171.4	139.72	190	5	18	91	15	33	-15	3	30	50
3L-215	A8	405	150	177	300	235	139.72	171.4	6	33	120	12.5	45.5	-22.5	10.5	39	60
3L-215	A11	405	150	166	300	235	196.87	260	6	22	120	12.5	34.5	-22.5	-0.5	39	60

Model	K max.	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U			
3L-205	A4	M40x1.5	3~M10	15	15	31	62	14	15.75	5.25	38.5	29.5	25	10	3~M6	
3L-206	A5	M55x2	3~M10	18	15	37	73	20	15.25	7.75	51	39	31	12	3~M6	
3L-208	A5	M60x2	3~M12	18	19	38	95	25	19.25	10.25	63.5	47.5	35	14	6~M10	
3L-208	A6	M60x2	3~M12	18	20	38	95	25	19.25	10.25	63.5	47.5	35	14	3~M6	
3L-210	A6	M85x2	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	Thru-hole (Dia.) mm	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 <sup>-1</sup> (r.p.m.)	Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure		
												MPa (kgf/cm <sup>2</sup> )		
2L-205	A4	32	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	45	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	52	20	32	215	30	22.9(2330)	27.1(2760)	3000	0.173	22	26	TK-A853	1.9(19)
2L-208	A6	52	20	32	215	30	22.9(2330)	27.1(2760)	3000	0.173	22	24.2	TK-A853	1.9(19)
2L-210	A6	75	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	75	25	37.5	260	53	31.8(3250)	37.3(3800)	2400	0.33	40	44	TK-A1075	2.1(21)
2L-12	A8	91	30	45	304	30	43.1(4400)	50.0(5100)	2100	0.8	60	65.5	TK-A1291	2.0(20)
2L-15	A8	120	35	52	385	26	56.2(5730)	53.0(5400)	1600	2.52	133	147	TK-A1512-35	1.8(18)
2L-15	A11	120	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**

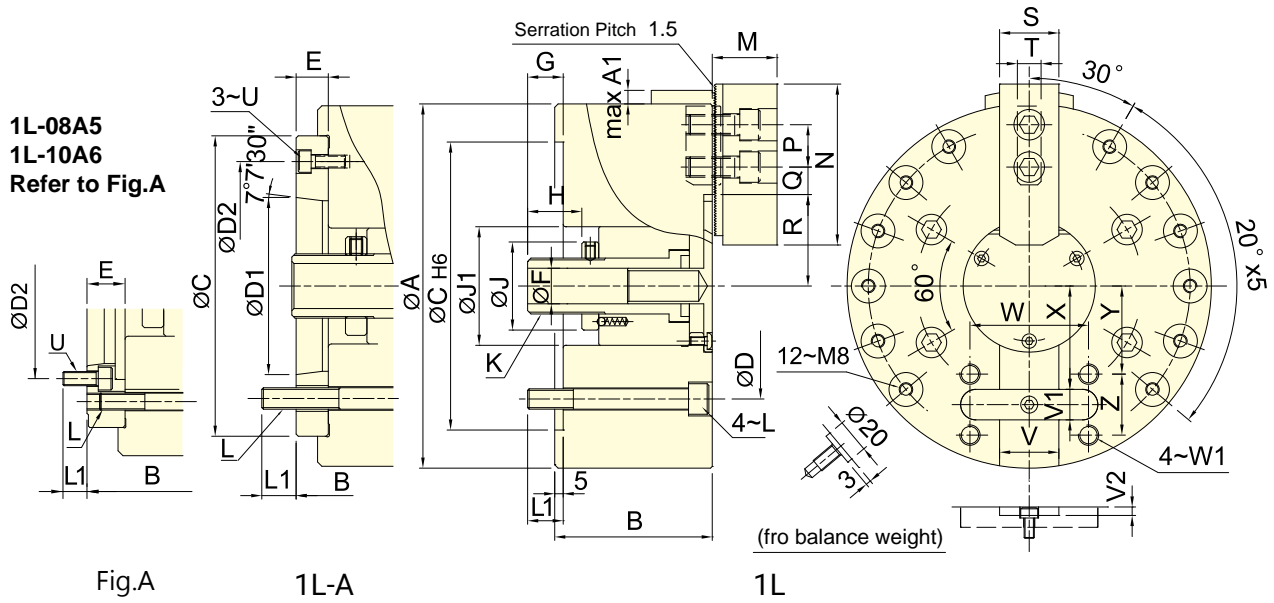
Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
<b>2L-205</b>	<b>A4</b>	138	65	<b>76</b>	110	82.6	<b>63.51</b>	<b>96</b>	4	<b>15</b>	32	1	<b>15</b>	-11	<b>3</b>	20	12
<b>2L-206</b>	<b>A5</b>	170	84	<b>97</b>	140	104.8	<b>82.56</b>	<b>116</b>	5	<b>18</b>	45	6.5	<b>24.5</b>	-8.5	<b>9.5</b>	19	20
<b>2L-208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

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



- 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.

1L-08A5  
1L-10A6  
Refer to Fig.A



Subject to technical changes

### SPECIFICATIONS

Model	Plunger stroke	Jaw stroke	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
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

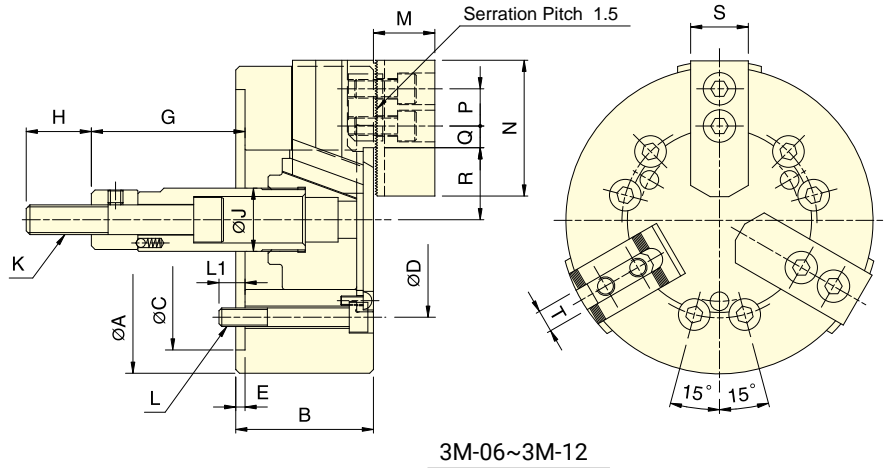
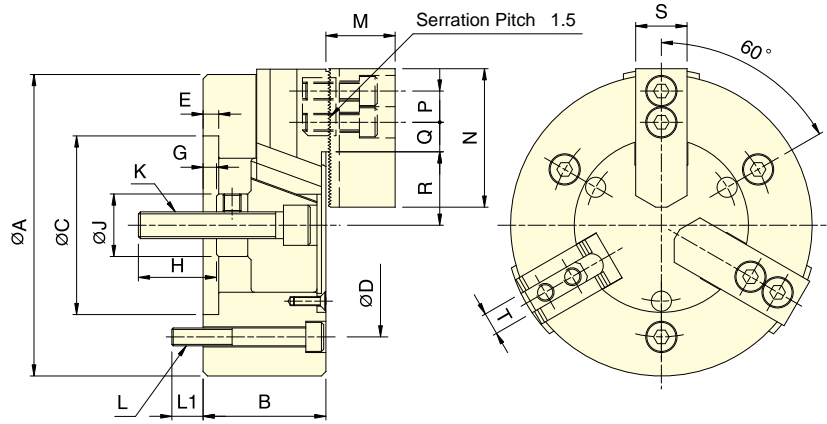
Model	A	A1	B	C	D	D1	D2	E	F	G max.	G min.	H	J	J1	K max.	L	L1			
1L-06	A5	168	9.5	80	90	140	104.8	82.56	116	15	21	37	17	25	46	54	M30x1.5	M10	16	16
1L-08	A5	215	8	93	111	170	133.4	82.56	104.8	23	21	46	21	32	52	70	M33x1.5	M12	21	19
1L-08	A6	215	8	93	105	170	133.4	106.38	150	17	21	46	21	32	52	70	M33x1.5	M12	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 <sup>-1</sup> (r.p.m.)	Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching cyl.	Max. pressure
											MPa (kgf/cm <sup>2</sup> )
<b>3M-05</b>	15	10.9	135	14	9.8 (1000)	23 (2350)	4500	0.02	6.0	RK-75(N)	2.7(27)
<b>3M-06</b>	20	14.5	165	14	21.6 (2200)	50 (5100)	4000	0.04	12.2	RK-100(N)	3.0(30)
<b>3M-08</b>	23	16.7	210	17	29.4 (3000)	72 (7340)	3500	0.13	23.0	RK-125(N)	2.9(29)
<b>3M-10</b>	27	19.6	254	22	39.2 (4000)	102 (10400)	3000	0.3	34.3	RK-150(N)	2.8(28)
<b>3M-12</b>	30	21.8	304	26	54.0 (5500)	150 (15300)	2500	0.71	59.4	RK-150(N)	3.6(36)

## DIMENSIONS

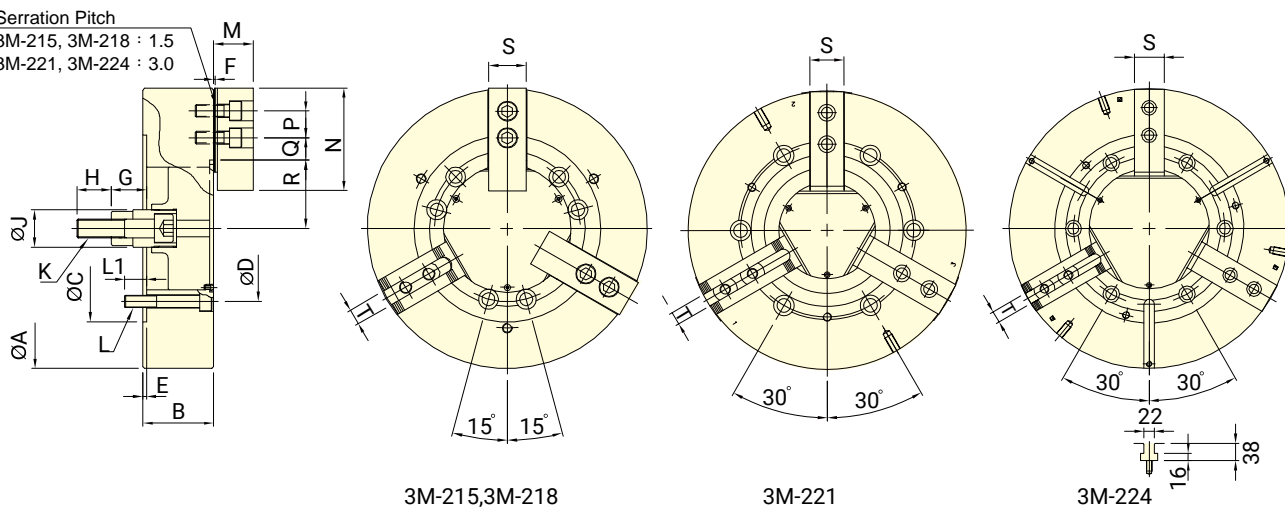
Model	A	B	C(H6)	D	E	G max.	G min.	H	J	K
<b>3M-05</b>	135	55	80	100	7	6	-9	35	28	M12x1.75
<b>3M-06</b>	165	74	140	104.8	5	101.6	81.6	36	34	M16x2
<b>3M-08</b>	210	85	170	133.4	5	129	106	36	38	M20x2.5
<b>3M-10</b>	254	89	220	171.4	5	160	133	36	45	M20x2.5
<b>3M-12</b>	304	106	220	171.4	6	70	40	46	50	M24x3

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



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 <sup>-1</sup> (r.p.m.)	kg-m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )
<b>3M-215</b>	35	25.4	381	20	91.0 (9280)	158.9 (16200)	2300	1.8	96	RK-200(N)	3.0(30)
<b>3M-218</b>	35	25.4	450	51	91.0 (9280)	158.9 (16200)	2000	2.32	124	RK-200(N)	3.0(30)
<b>3M-221</b>	35	25.4	530	53	91.0 (9280)	158.9 (16200)	1350	4.9	175	RK-200(N)	3.0(30)
<b>3M-224</b>	35	25.4	610	160	91.0 (9280)	158.9 (16200)	1250	7.2	225	RK-200(N)	3.0(30)

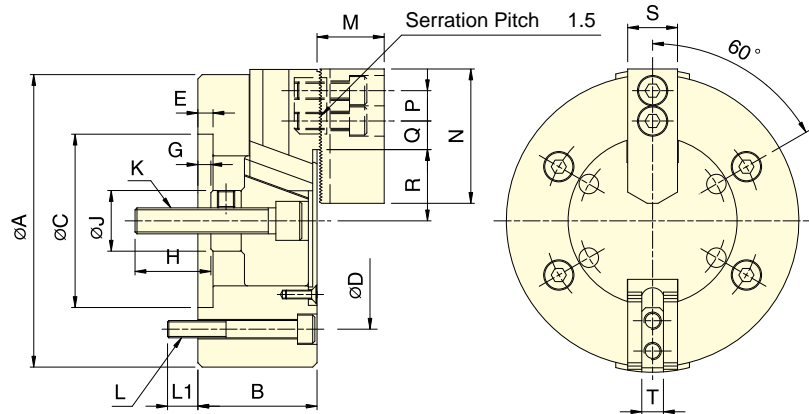
## DIMENSIONS

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

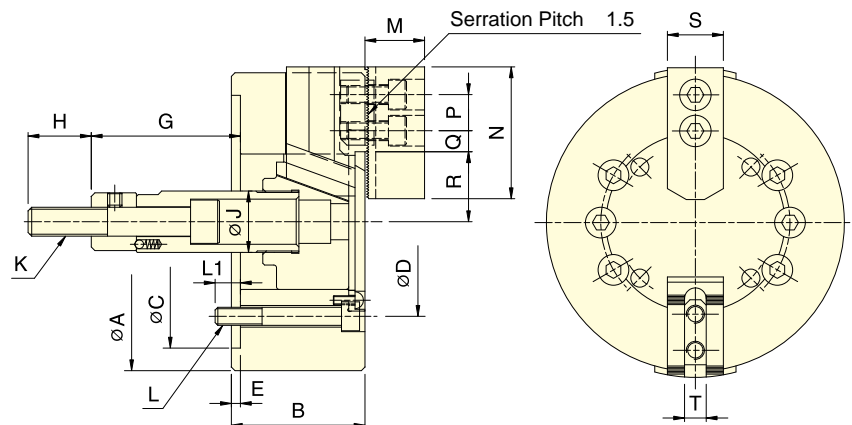
Model	K	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T
<b>3M-215</b>	M30x3.5	6-M20	30	63.3	165	43	49.75	18.25	79	66.3	62	25.5
<b>3M-218</b>	M30x3.5	6-M20	35	63.3	165	43	51.25	18.25	109.5	96.8	62	25.5
<b>3M-221</b>	M30x3.5	6-M24	31	71	180	60	90.5	24.5	92	79.3	64	25
<b>3M-224</b>	M30x3.5	6-M24	31	71	180	60	90	24	131	118.3	64	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	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 <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>			
<b>2M-05</b>	15	10.9	135	14	6.5(660)	11(1120)	4500	0.02	6.0	RK-75(N)	1.8(18)
<b>2M-06</b>	20	14.5	165	14	14.3(1460)	24(2450)	4000	0.04	12.2	RK-100(N)	2.0(20)
<b>2M-08</b>	23	16.7	210	17	19.6(2000)	36.6(3730)	3500	0.13	23.0	RK-125(N)	1.9(19.3)
<b>2M-10</b>	27	19.6	254	22	26.1(2660)	49.3(5030)	3000	0.30	34.3	RK-150(N)	1.8(18.6)
<b>2M-12</b>	30	21.8	304	26	36(3670)	66(6730)	2500	0.71	59.1	RK-150(N)	2.4(24)

## DIMENSIONS

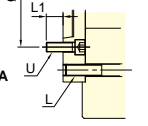
Model	A	B	C(H6)	D	E	G max.	G min.	H	J
<b>2M-05</b>	135	55	80	100	7	6	-9	35	28
<b>2M-06</b>	165	74	140	104.8	5	101.6	81.6	36	34
<b>2M-08</b>	210	85	170	133.4	5	129	106	36	38
<b>2M-10</b>	254	89	220	171.4	5	160	133	36	45
<b>2M-12</b>	304	106	220	171.4	6	70	40	46	50

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

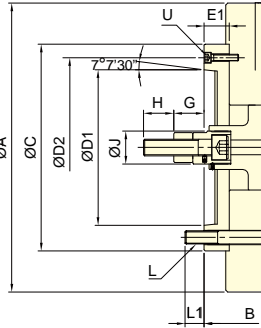
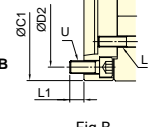


- WEDGE-HOOK type 3-jaw high speed power chuck.
- Sealed against swarf, chips and coolant, suitable for vertical lathe.

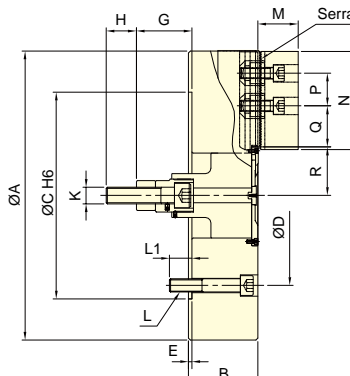
3V-15A8  
3V-18A8  
3V-21A11  
3V-24A11  
Refer to Fig.A



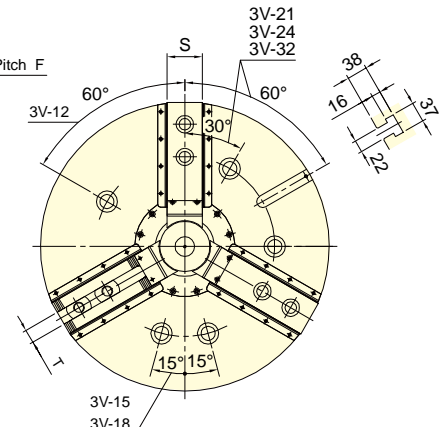
3V-15A15  
3V-18A15  
Refer to Fig.B



3V-A



3V



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 <sup>-1</sup> (r.p.m.)	Moment of inertia kg·m <sup>2</sup>	Weight kg		Matching cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )		
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

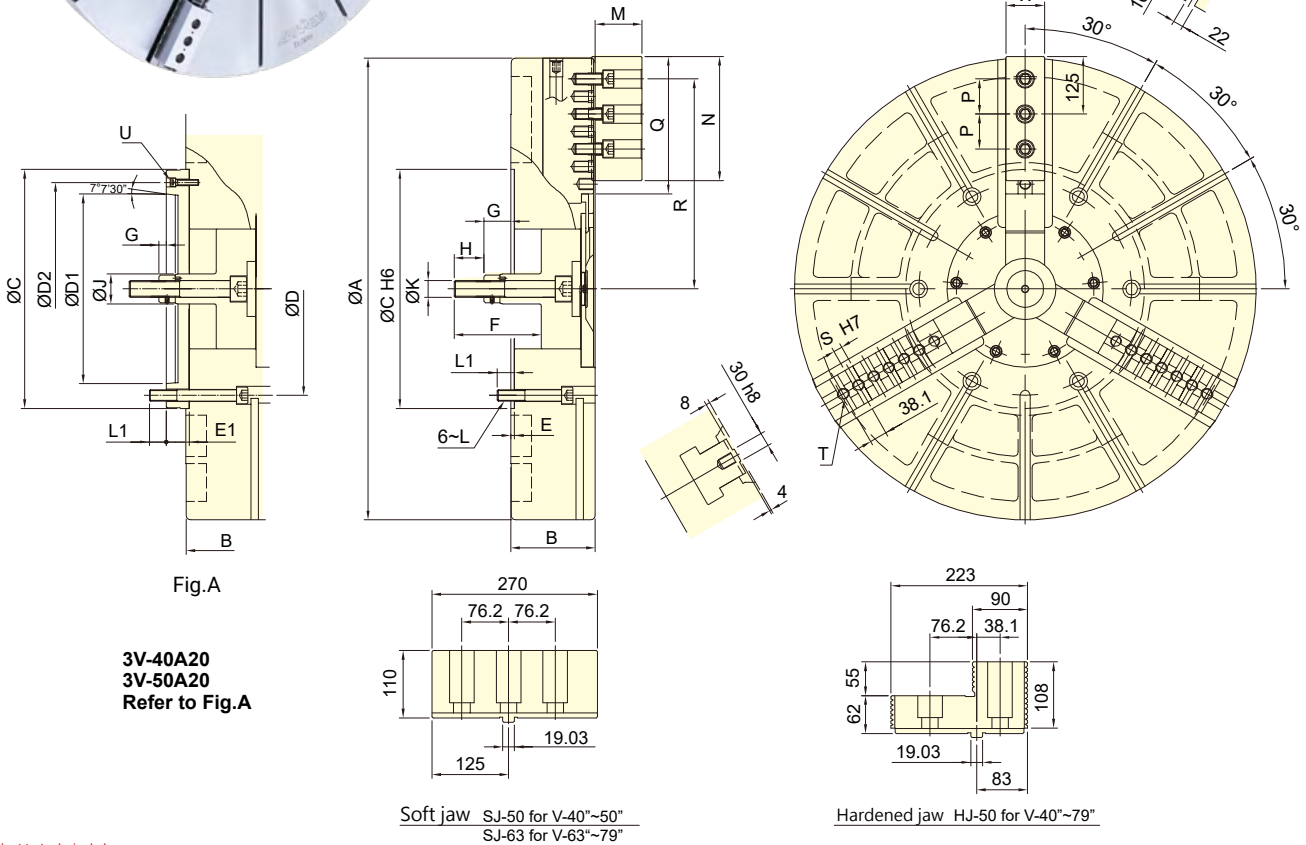
Model	A	B	C	C1	D	D1	D2	E	E1	F	G max.	G min.	H	J				
3V-12	A8	304	107	141	220	-	171.4	139.72	190	6	40	1.5	113	73	83	43	36	50
3V-15	A8	381	116	164	300	-	235	139.72	171.4	6	54	1.5	153	99	118	64	55	60
3V-15	A11	381	116	168	300	-	235	196.87	260	6	58	1.5	153	95	118	60	55	60
3V-15	A15	381	116	172	-	380	235	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	64	25	6-M20
3V-21	A15	M30x3.5	6-M24	41	35	74	180	60	93.5	24.5	89	81	64	25	3-M12
3V-24	A11	M30x3.5	6-M24	41	35	74	180	60	93.5	24.5	128	120	64	25	6-M20
3V-24	A15	M30x3.5	6-M24	41	35	74	180	60	93.5	24.5	128	120	64	25	3-M12
3V-32	A15	M30x3.5	6-M24	41	35	74	180	60	189.5	24.5	128	120	64	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.
- The jaws can be manually adjusted individually to help center the workpiece.
- Sealed against swarf, chips and coolant, suitable for vertical lathe.
- Features weight reduction holes on the rear. For any other custom requirements, please consult with us prior to ordering.



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	
								kg·m <sup>2</sup>	kg·m <sup>2</sup>	kg	kg			
<b>3V-40</b>	<b>A20</b>	57	46+(60)	1005	310	180(18350)	320(32620)	630	68	<b>72</b>	780	<b>849</b>	RK-250 RE-250 RE-A250 RE-L250	4.2(42)
<b>3V-50</b>	<b>A20</b>	57	46+(60)	1250	290	180(18350)	320(32620)	500	145	<b>148</b>	1000	<b>1050</b>		4.2(42)
<b>3V-63</b>		60	48+(80)	1600	390	200(20390)	360(36700)	400	500	-	1900	-		4.6(46)
<b>3V-79</b>		60	48+(80)	2000	440	200(20390)	360(36700)	320	1250	-	2800	-		4.6(46)

### DIMENSIONS

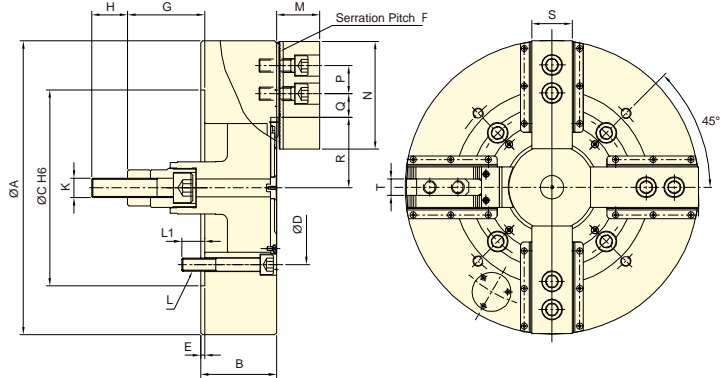
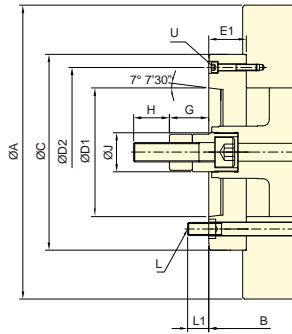
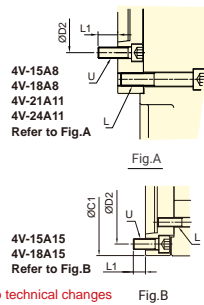
Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J	K				
<b>3V-40</b>	<b>A20</b>	1005	184	<b>226</b>	520	463.6	<b>412.78</b>	<b>463.6</b>	8	<b>50</b>	190	123	<b>73</b>	66	<b>16</b>	65	<b>65</b>	M36x4
<b>3V-50</b>	<b>A20</b>	1250	184	<b>226</b>	520	463.6	<b>412.78</b>	<b>463.6</b>	8	<b>50</b>	190	123	<b>73</b>	66	<b>16</b>	65	<b>65</b>	M36x4
<b>3V-63</b>		1600	222	-	720	647.6	-	-	8	-	218	131	-	71	-	65	-	M36x4
<b>3V-79</b>		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	
<b>3V-40</b>	<b>A20</b>	M24	37	102	270	76.2	295	457	404	6~19.03	7~M24	<b>3~M12</b>	42	84
<b>3V-50</b>	<b>A20</b>	M24	37	102	270	76.2	416	563	510	9~19.03	9~M24	<b>3~M12</b>	42	84
<b>3V-63</b>		M30	46	102.5	270	76.2	540	738	674	12~19.03	13~M24	-	42	110
<b>3V-79</b>		M30	48	102.5	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.



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

**DIMENSIONS**

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

Model	K	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U		
<b>4V-12</b>	<b>A8</b>	M20x2.5	3~M16	24	<b>24</b>	42	110	30	51.75	15.75	61.3	54.9	40	16	<b>4~M8</b>
<b>4V-15</b>	<b>A8</b>	M30x3.5	6~M20	35	<b>24</b>	66	165	43	40.75	18.25	87.5	79.4	62	25.5	<b>6~M16</b>
<b>4V-15</b>	<b>A11</b>	M30x3.5	6~M20	35	<b>32</b>	66	165	43	40.75	18.25	87.5	79.4	62	25.5	<b>4~M10</b>
<b>4V-15</b>	<b>A15</b>	M30x3.5	6~M20	35	<b>26</b>	66	165	43	40.75	18.25	87.5	79.4	62	25.5	<b>6~M24</b>
<b>4V-18</b>	<b>A8</b>	M30x3.5	6~M20	35	<b>24</b>	66	165	43	51.22	18.22	108	100	62	25.5	<b>6~M16</b>
<b>4V-18</b>	<b>A11</b>	M30x3.5	6~M20	35	<b>32</b>	66	165	43	51.22	18.22	108	100	62	25.5	<b>4~M10</b>
<b>4V-18</b>	<b>A15</b>	M30x3.5	6~M20	35	<b>26</b>	66	165	43	51.22	18.22	108	100	62	25.5	<b>6~M24</b>
<b>4V-21</b>	<b>A11</b>	M30x3.5	6~M24	41	<b>35</b>	74	180	60	72.5	24.5	89	81	64	25	<b>6~M20</b>
<b>4V-21</b>	<b>A15</b>	M30x3.5	6~M24	41	<b>35</b>	74	180	60	72.5	24.5	89	81	64	25	<b>3~M12</b>
<b>4V-24</b>	<b>A11</b>	M30x3.5	6~M24	41	<b>35</b>	74	180	60	93.5	24.5	128	120	64	25	<b>6~M20</b>
<b>4V-24</b>	<b>A15</b>	M30x3.5	6~M24	41	<b>35</b>	74	180	60	93.5	24.5	128	120	64	25	<b>3~M12</b>
<b>4V-32</b>	<b>A15</b>	M30x3.5	6~M24	36	<b>35</b>	74	180	60	189.5	24.5	128	120	64	25	<b>3~M12</b>

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



- WEDGE-HOOK type 4-jaw high speed power chuck.
- The jaws can be manually adjusted individually to help center the workpiece.
- Sealed against swarf, chips and coolant, suitable for vertical lathe.
- Features weight reduction holes on the rear. For any other custom requirements, please consult with us prior to ordering.

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

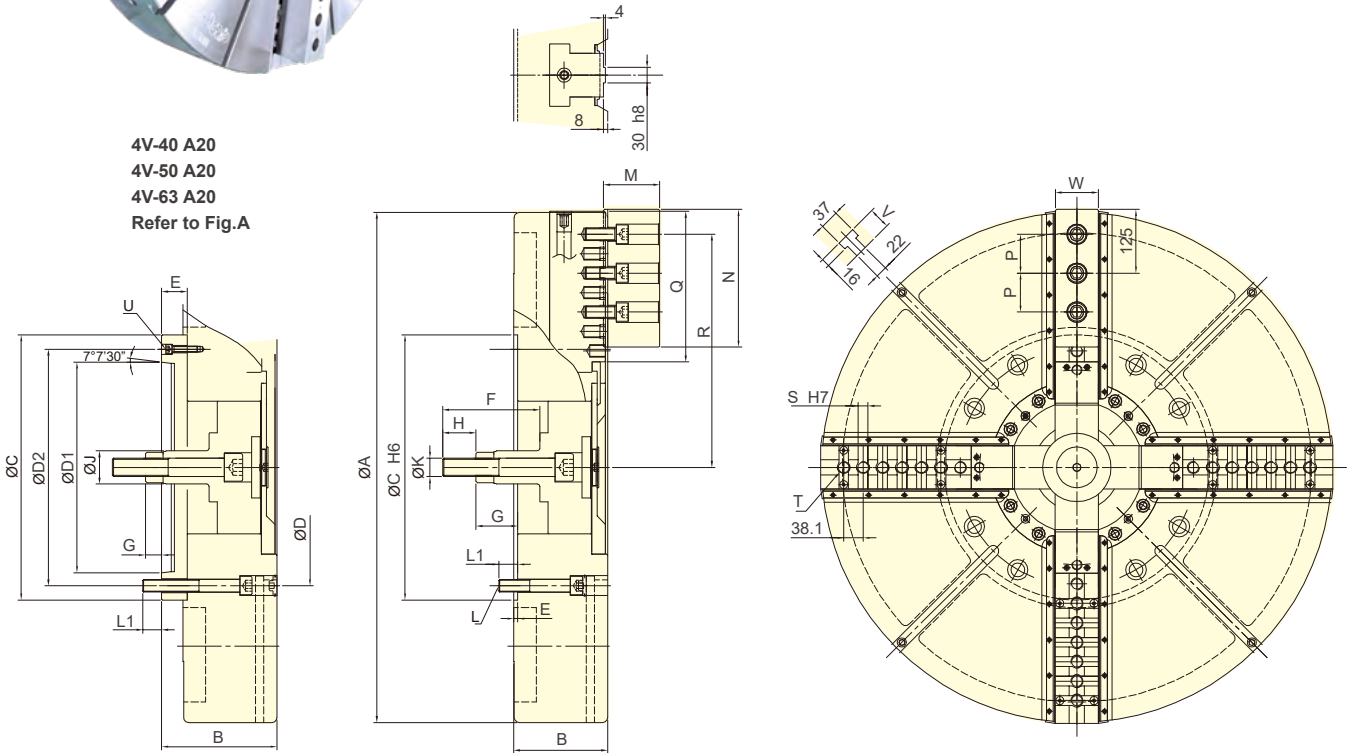


Fig.A

Subject to technical changes

### SPECIFICATIONS

Model	Plunger stroke	Jaw stroke (Dia.)	Chucking Dia.Max.	Chucking Dia.Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia		Weight		Matching cyl.	Max. pressure	
								kg-m <sup>2</sup>	kg	kg	kg			MPa (kgf/cm <sup>2</sup> )
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

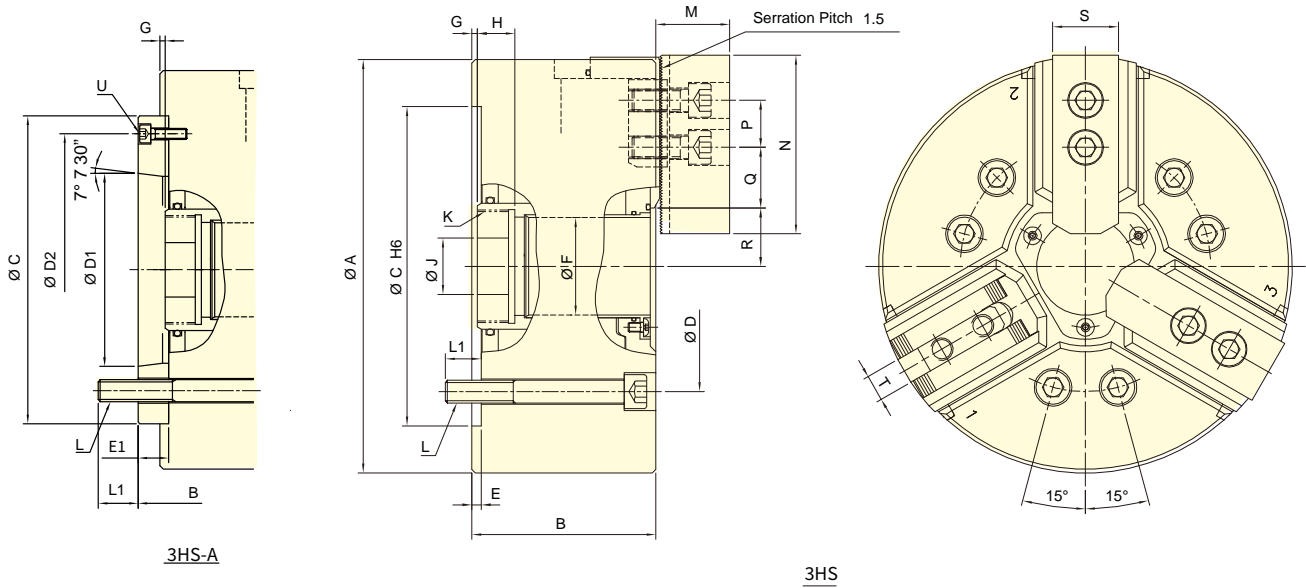
Model	L	L1	M	N	P	Q	R max.	R min.	S	T	U	V	W	
4V-40	A20	M24	37	102	270	76.2	295	457	404	6~19.03	7~M24	3~M12	42	84
4V-50	A20	M24	38	102	270	76.2	416	563	510	9~19.03	9~M24	3~M12	42	84
4V-63		M30	46	102.5	270	76.2	540	738	674	12~19.03	13~M24	-	42	110

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)

POWER CHUCKS



Subject to technical changes

## SPECIFICATIONS

Model	Thru-hole (Dia.)	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
<b>3HS-08</b>	<b>A6</b>	52	18	7.6	220	22	31.9(3250)	92(9380)	5000	0.18	27.4	<b>29</b>	TK-A853	2.6(26)
<b>3HS-10</b>	<b>A8</b>	75	21	8.9	268	31	50(5100)	132(13460)	4500	0.46	45.4	<b>48.4</b>	TK-A1075	3.2(32)
<b>3HS-12</b>	<b>A11</b>	91	25	10.6	315	48	58.8(6000)	154(15600)	3500	0.83	65	<b>71.2</b>	TK-A1512	1.9(19)

## DIMENSIONS

Model	A	B	C	D	D1	D2	E	E1	F	G max.	G min.	H	J				
<b>3HS-08</b>	<b>A6</b>	220	98	<b>110</b>	170	133.4	<b>106.38</b>	<b>150</b>	5	<b>17</b>	52	20	<b>15</b>	2	<b>-3</b>	20	30
<b>3HS-10</b>	<b>A8</b>	268	112	<b>125</b>	220	171.4	<b>139.72</b>	<b>190</b>	5	<b>18</b>	75	24	<b>15</b>	3	<b>-6</b>	25	35
<b>3HS-12</b>	<b>A11</b>	315	118	<b>134</b>	300	235	<b>196.87</b>	<b>260</b>	6	<b>22</b>	91	32.5	<b>14.5</b>	7.5	<b>-10.5</b>	28	50

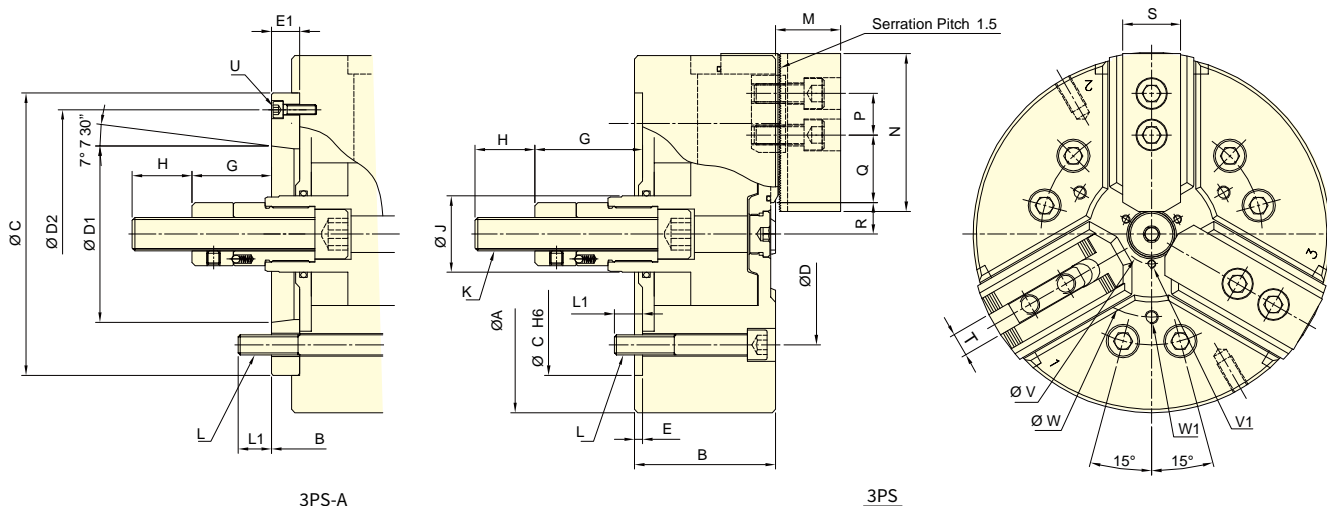
Model	K max.	K Default	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U		
<b>3HS-08</b>	<b>A6</b>	M60x2	M55x2	6~M12	19	<b>17</b>	39	95	25	47.75	29.75	29	25.2	35	14	<b>3~M6</b>
<b>3HS-10</b>	<b>A8</b>	M85x2	M70x2	6~M16	24	<b>26</b>	44	110	30	54.25	33.25	41.5	37.05	40	16	<b>3~M8</b>
<b>3HS-12</b>	<b>A11</b>	M100x2	M85x2	6~M20	32	<b>25</b>	52	130	30	65.25	36.75	49.5	44.2	50	21	<b>3~M10</b>

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)

POWER CHUCKS



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
<b>3PS-08</b>	<b>A6</b>	22	9.3	215	21	30(3060)	82(8360)	4800	0.15	24.7	<b>26.3</b>	RK-125(N)	2.7(27)
<b>3PS-10</b>	<b>A8</b>	24	10.2	260	24	36(3670)	107(10910)	4000	0.32	38.1	<b>40.8</b>	RK-150(N)	3.1(31.7)
<b>3PS-12</b>	<b>A8</b>	30	12.7	315	30	60(6100)	165(16900)	3200	0.75	66.3	<b>69.3</b>	RK-150(N)	3.7(37.9)

## DIMENSIONS

Model	A	B	C	D	D1	D2	E	E1	G max.	G min.	H	J	K				
<b>3PS-08</b>	<b>A6</b>	215	85	<b>97</b>	170	133.4	<b>106.38</b>	<b>150</b>	5	<b>17</b>	87	<b>70</b>	65	<b>48</b>	36	46	M20x2.5
<b>3PS-10</b>	<b>A8</b>	260	92	<b>105</b>	220	171.4	<b>139.72</b>	<b>190</b>	5	<b>18</b>	86	<b>68</b>	62	<b>44</b>	36	56	M20x2.5
<b>3PS-12</b>	<b>A8</b>	315	106	<b>118</b>	220	171.4	<b>139.72</b>	<b>190</b>	6	<b>18</b>	96	<b>78</b>	66	<b>48</b>	36	67	M20x2.5

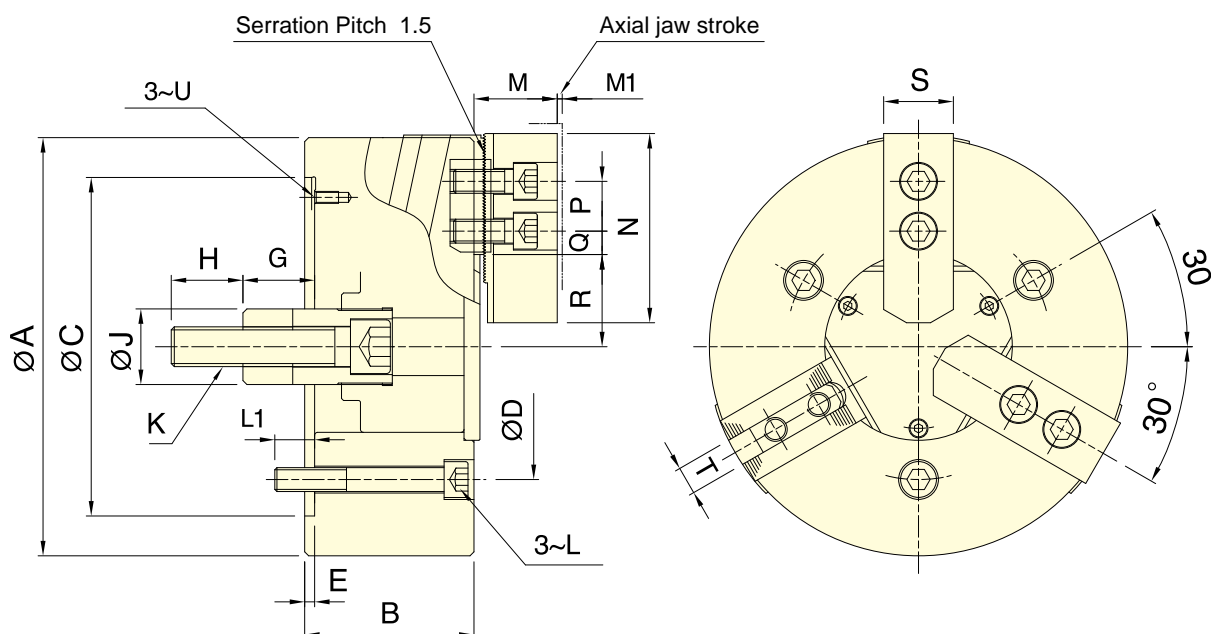
  

Model	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U	V	V1	W	W1		
<b>3PS-08</b>	<b>A6</b>	6~M12	17	<b>20</b>	39	95	25	54.25	36.25	18.5	13.85	35	14	<b>3~M6</b>	36	3~M5	100	3~M8
<b>3PS-10</b>	<b>A8</b>	6~M16	20	<b>22</b>	44	110	30	69.25	39.25	22.5	17.4	40	16	<b>3~M8</b>	45	3~M6	110	3~M8
<b>3PS-12</b>	<b>A8</b>	6~M16	22	<b>24</b>	52	130	30	86.75	46.25	27	20.65	50	21	<b>3~M8</b>	56	3~M6	220	3~M12

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



- 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.)	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 <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )
<b>3N-06</b>	20	8.1 (axial 0.9)	165	14	18 (1835)	61.5 (6270)	5000	0.05	11.1	RK-100(N)	2.6 (26)
<b>3N-08</b>	23	9.4 (axial 1.0)	210	17	25 (2540)	85.8 (8750)	4500	0.14	24.5	RK-125(N)	2.2 (22)
<b>3N-10</b>	25	10.2 (axial 1.1)	254	22	29 (2950)	108 (11000)	4000	0.32	34.5	RK-150(N)	1.8 (18)

## DIMENSIONS

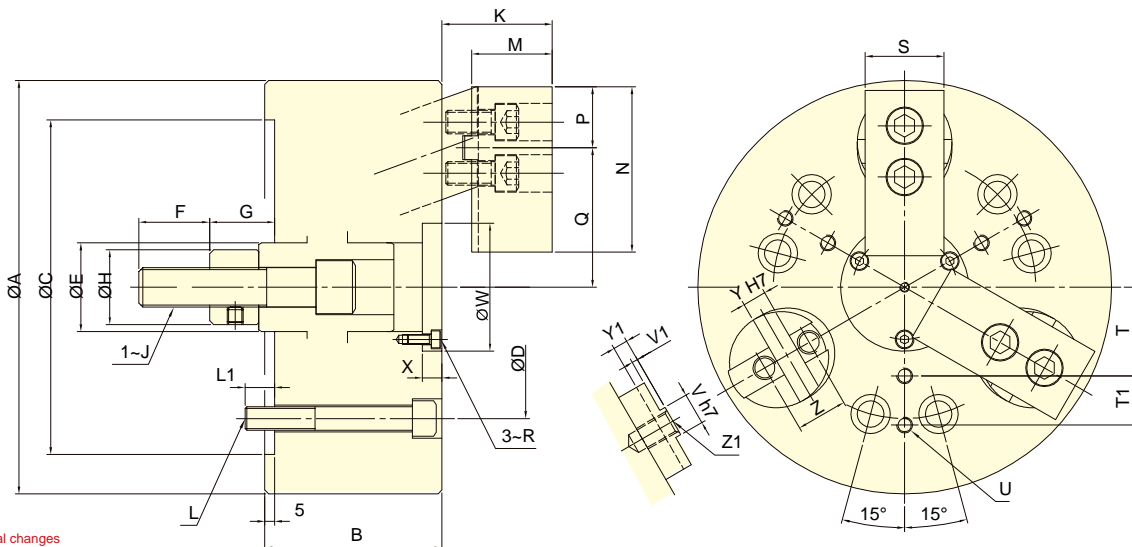
Model	A	B	C(H6)	D	E	G max.	G min.	H	J	K	L
<b>3N-06</b>	165	72	140	104.8	5	54.5	34.5	36	34	M16x2	M10
<b>3N-08</b>	210	85	170	133.4	5	59	36	36	38	M20x2.5	M12
<b>3N-10</b>	254	89	220	171.4	5	63	38	36	45	M20x2.5	M16

Model	L1	M	M1	N	P	Q max.	Q min.	R max.	R min.	S	T	U
<b>3N-06</b>	16	41	0.9	73	20	15.25	7.75	38.3	34.25	31	12	M6
<b>3N-08</b>	20	42	1.0	95	25	22.25	11.75	46.3	41.6	35	14	M6
<b>3N-10</b>	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.)	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 <sup>-1</sup> (r.p.m.)	kg-m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )
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)

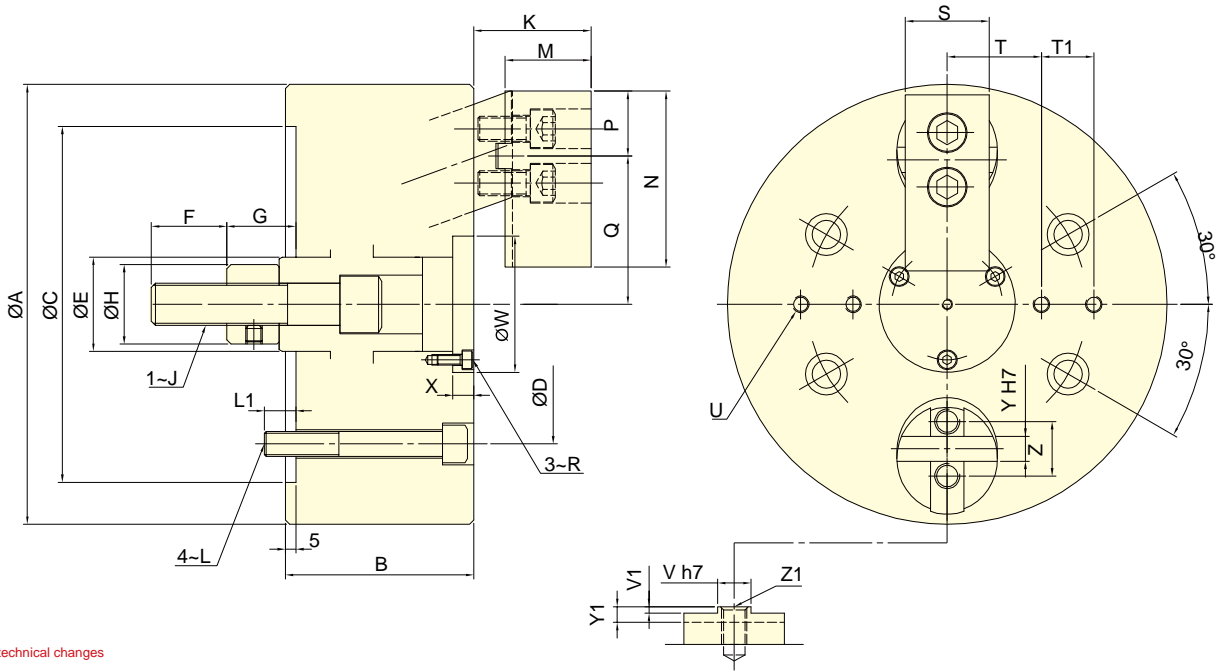
## DIMENSIONS

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	4.5	8	6	-	M10
3D-05	46	43.5	M3	30	27.5	-	3-M6	8	2.5	44	4.5	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	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 <sup>-1</sup> (r.p.m.)	kg-m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )
<b>2D-05</b>	7	5	135	21	6.6(680)	11.0(1150)	3500	0.018	7.7	RK-75	1.8(18.3)
<b>2D-06</b>	10	7.2	165	22	10.0 (1020)	16.7 (1700)	3500	0.045	12	RK-100	1.4 (14.3)
<b>2D-08</b>	10	7.2	210	28	16.7 (1700)	30.0 (3060)	3000	0.13	23	RK-125	1.5 (15)
<b>2D-10</b>	15	10.8	254	35	23.3 (2379)	40.0 (4079)	2500	0.34	43	RK-125	2.1 (21.1)
<b>2D-12</b>	15	10.8	304	50	30.0(3060)	50.0(5100)	2000	0.73	71	RK-150	1.9(19.0)

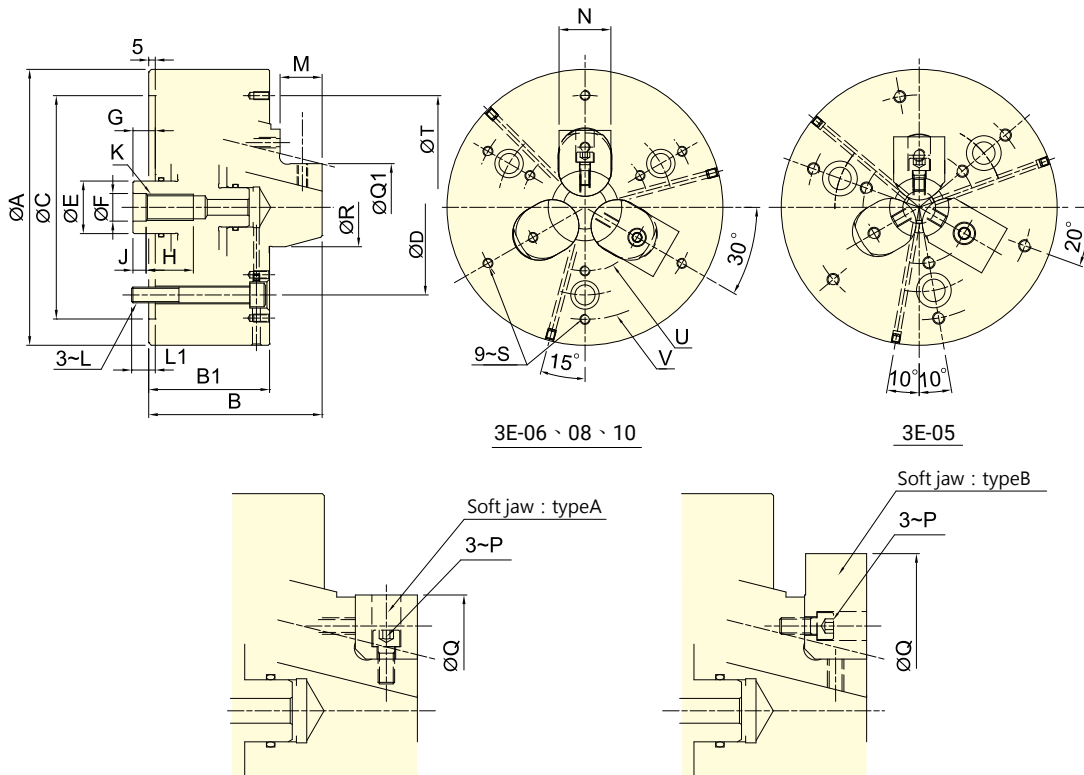
### DIMENSIONS

Model	A	B	C (H6)	D	E	F	G max.	G min.	H	J	K max.	K min.	L	L 1	M	N	P
<b>2D-05</b>	135	70	110	82.6	30	25	24	17	28	M12	35	28	M10	16	24.5	56	23
<b>2D-06</b>	165	85	140	104.8	35	36	37	27	32	M16	45	35	M10	16	31	70	27
<b>2D-08</b>	210	90	170	133.4	45	36	38	28	38	M20	56	46	M12	15	41	84	31
<b>2D-10</b>	254	110	220	171.4	55	46	47	32	50	M24	65	50	M16	24	46	100	38
<b>2D-12</b>	304	125	220	171.4	55	50	49.5	34.5	53	M27	70	55	M16	22	51	120	42

Model	Q max.	Q min.	R	S	T	T1	U	V (h7)	V 1	W	X	Y (H7)	Y1	Z	Z1
<b>2D-05</b>	46	43.5	M3	30	27.5	-	2-M6	8	2.5	44	4.5	8	6	-	M12
<b>2D-06</b>	57.7	54.3	M4	35	35	20	4-M6	10	2.5	52	7	10	6.5	-	M14
<b>2D-08</b>	70.8	67.2	M5	40	45	25	4-M8	16	3	65	10	12	7.5	26	M12
<b>2D-10</b>	85	79.6	M6	50	55	30	4-M8	18	3	75	12	15	7.5	32	M14
<b>2D-12</b>	101.9	96.5	M6	60	70	35	4-M10	20	3	90	12	17	7.5	36	M16



- 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

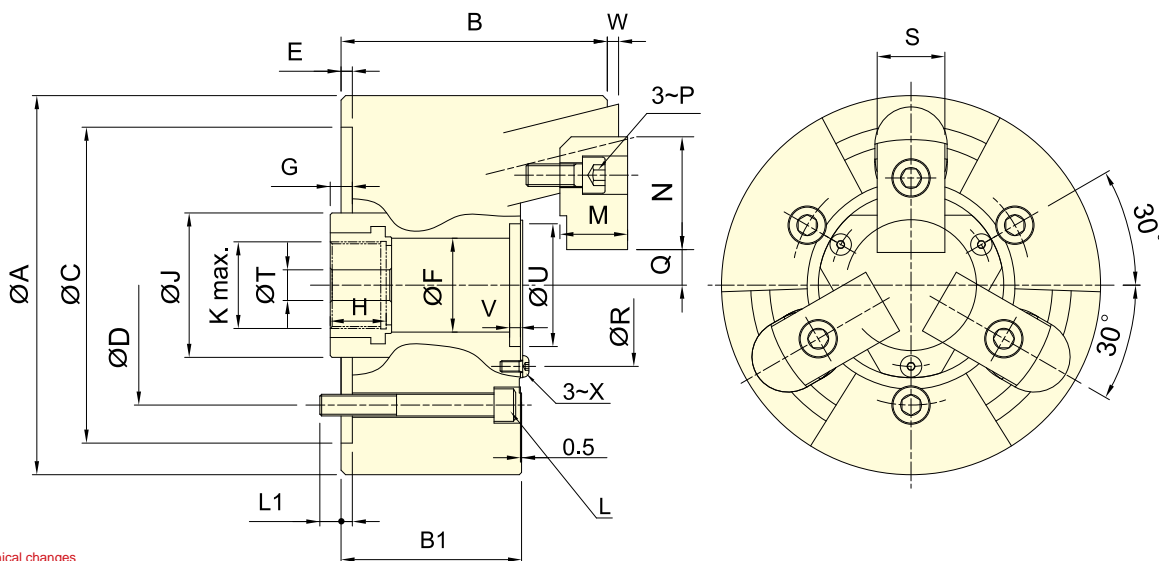
Model	Plunger stroke	Jaw stroke (Dia.)	Chucking Dia.Max.	Chucking Dia.Min.	Max. D.B. pull	Max. Clamping force	Max. speed	Moment of inertia	Weight	Matching cyl.	Max. pressure
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg-m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )
<b>3E-05</b>	6	3	83	29	13.0(1325)	42.0(4280)	7000	0.018	7.5	RK-100	1.8(18.5)
<b>3E-06</b>	10	5	110	44	18.0(1835)	58.0(5910)	6000	0.042	13.6	RK-100	2.5(25.6)
<b>3E-08</b>	10	5	150	50	25.0(2530)	80.0(8150)	5000	0.14	26.5	RK-125	2.2(22.5)
<b>3E-10</b>	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
Model	M	N	P	Q max.	Q min.	Q max.	Q min.	max.	min.	R	S	T	U (p.c.d)	V (p.c.d)
<b>3E-05</b>	20	25	M6	68	50	83	67	50	29	25	M6x12	110	55	110
<b>3E-06</b>	23	31	M6	90	70	110	89	70	44	40	M6x12	130	76	134
<b>3E-08</b>	30	35	M8	110	90	150	108	90	50	49	M6x12	170	100	170
<b>3E-10</b>	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.)	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 <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )
<b>3U-203</b>	4	2	42	14	5.8(590)	16.7(1700)	10000	0.001	1.8	RK-75(N)	1.6(16)
<b>3U-204</b>	6	3	60	10	10.0(1020)	28.4(2900)	8000	0.005	3.9	RK-75(N)	2.7(27)
<b>3U-205</b>	6	3	84	15	13.9(1420)	39.7(4050)	8000	0.012	6.8	RK-100(N)	2.0(20)
<b>3U-206</b>	10	5	105	24	17.9(1830)	57.8(5900)	7000	0.055	14.7	RK-100(N)	2.6(26)
<b>3U-208</b>	12	6	132	25	25.0(2550)	80.0(8150)	6000	0.14	25.5	RK-125(N)	2.2(22)
<b>3U-210</b>	10	5	163	34	31.0(3160)	100.0(10100)	4500	0.36	43.5	RK-125(N)	3.1(31)
<b>3U-212</b>	10	5	210	81	35.0(3570)	100.0(10100)	3600	0.68	63.0	RK-125(N)	3.1(31)

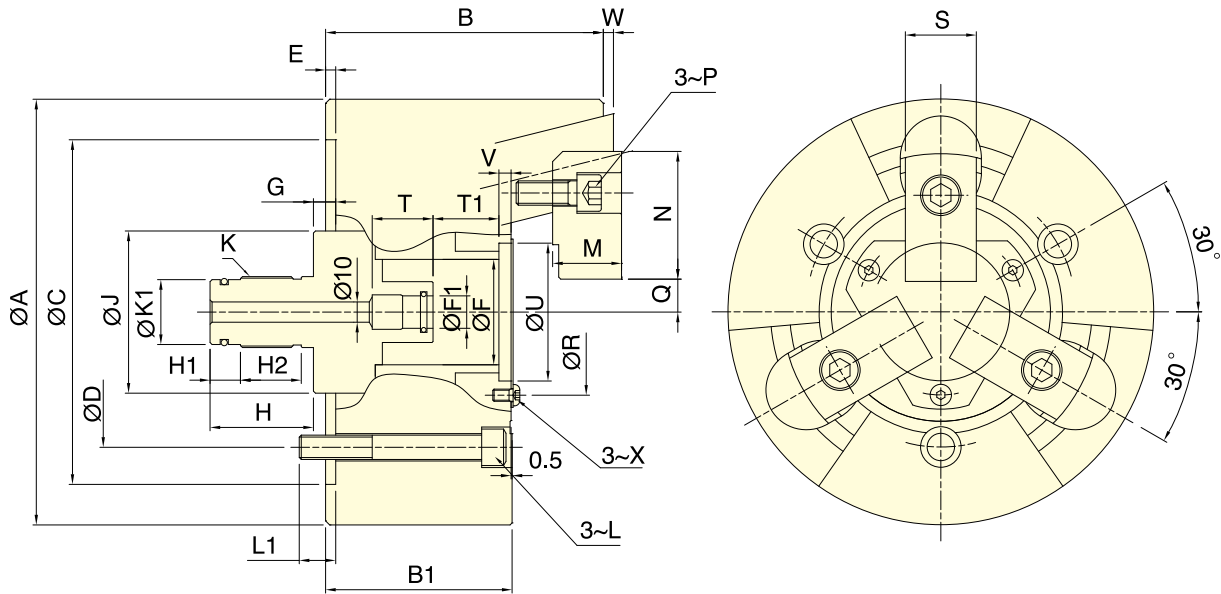
## DIMENSIONS

Model	A	B	B1	C(H6)	D	E	F	G max.	G min.	H	J	K	L	L1
<b>3U-203</b>	85	54.5	42	70	54	3.5	25	18	14	22	38	M20x1.5	3-M8	11
<b>3U-204</b>	110	72.5	55	85	70.6	4	30	16	10	24.5	42	M24x1.5	3-M10	12
<b>3U-205</b>	135	84.5	63	110	82.6	4	35	16	10	26	50	M28x1.5	3-M10	15
<b>3U-206</b>	168	118	80	140	104.8	5	45	20	10	31	60	M38x1.5	3-M10	16.5
<b>3U-208</b>	210	137	92	170	133.4	5	52	23	11	31	80	M48x2	3-M12	18
<b>3U-210</b>	254	152	102	220	171.4	5	75	25	15	37	105	M68x2	3-M16	23
<b>3U-212</b>	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
<b>3U-203</b>	12	26	M5	7.5	6.5	38	15	10	32	3.5	2	-2	M3
<b>3U-204</b>	17	40	M6	10.75	9.25	46	20	10	38	4	3	-3	M4
<b>3U-205</b>	20	41.5	M8	13.25	11.75	55	24	10	45	5	3	-3	M5
<b>3U-206</b>	30	50	M10	15.75	13.25	72	30	17	58	6	5	-5	M5
<b>3U-208</b>	34	63	M12	16.25	13.25	82	35	17	68	6	5	-7	M6
<b>3U-210</b>	39	74	M14	20.75	18.25	107	40	17	93	6	5	-5	M8
<b>3U-212</b>	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.)	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 <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )
<b>3U-205K</b>	6	3	84	15	13.9(1420)	39.7(4050)	8000	0.018	6.8	RL-100, RL-A100N	2.0(20)
<b>3U-206K</b>	10	5	105	24	17.9(1830)	57.8(5900)	7000	0.055	14.9	RL-100, RL-A100N	2.5(25)
<b>3U-208K</b>	12	6	132	25	25.0(2550)	80.0(8150)	6000	0.14	25.8	RL-125, RL-A125N	2.2(22)
<b>3U-210K</b>	10	5	163	34	31.0(3160)	100(10100)	4500	0.36	44.0	RL-125, RL-A125N	3.1(31)
<b>3U-212K</b>	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
<b>3U-205K</b>	135	84.5	63	110	82.6	4	35	14	16	10	42	12	-	50	M25x1.5	22	M10
<b>3U-206K</b>	168	118	80	140	104.8	5	45	14	20	10	48	12	30	60	M28x1.5	24	M10
<b>3U-208K</b>	210	137	92	170	133.4	5	52	16	23	11	51	15	30	80	M35x1.5	30	M12
<b>3U-210K</b>	254	152	102	220	171.4	5	75	16	25	15	51	15	30	105	M38x1.5	34	M16
<b>3U-212K</b>	304	157	102	220	171.4	5	100	16	25	15	51	15	30	135	M45x1.5	40	M16

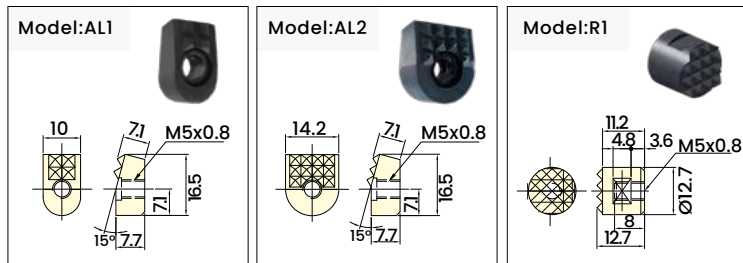
Model	L1	M	N	P	Q max.	Q min.	R	S	T	T1	U(H6)	V	W max.	W min.	X
<b>3U-205K</b>	15	20	41.5	M8	13.25	11.75	55	24	25	15.5	45	5	3	-3	M5
<b>3U-206K</b>	16.5	30	50	M10	15.75	13.25	72	30	30	26.5	58	6	5	-5	M5
<b>3U-208K</b>	18	34	63	M12	16.25	13.25	82	35	30	32.5	68	6	5	-7	M6
<b>3U-210K</b>	23	39	74	M14	20.75	18.25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



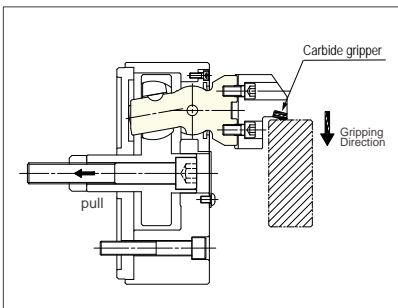
SPECIAL PURPOSE POWER CHUCKS

- 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.

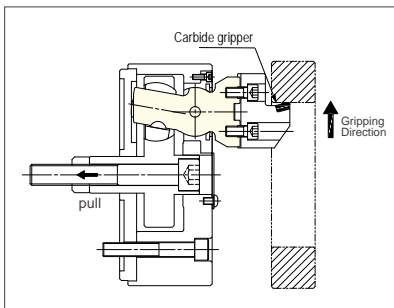
### Type of the Carbide gripper



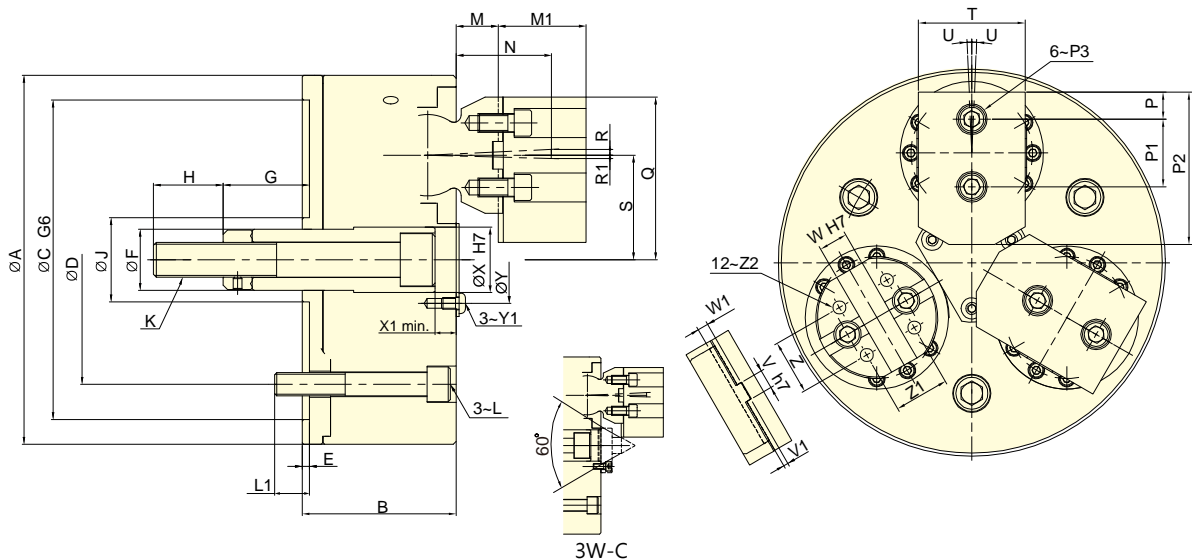
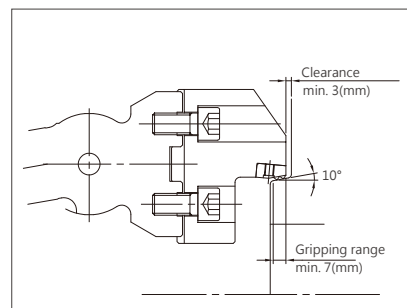
### O.D. Gripping



### 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 <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		mm
<b>3W-08</b>	14.4	9.8	16~150	76~203	25(2550)	85.0(8670)	3700	0.12	23	RK-100(N)	-
<b>3W-C08</b>	14.4	9.8	16~150	76~203	25(2550)	85.0(8670)	3700	0.12	23	RK-100(N)	2
<b>3W-10</b>	17.5	12.5	50~205	85~235	35.3(3600)	105.9(10800)	2500	0.37	48.6	RK-125(N)	-
<b>3W-C10</b>	17.5	12.5	50~205	85~235	35.3(3600)	105.9(10800)	2500	0.37	48.6	RK-125(N)	2
<b>3W-12</b>	17.5	12.5	63~240	127~305	35.3(3600)	105.9(10800)	2400	0.73	65	RK-125(N)	-
<b>3W-C12</b>	17.5	12.5	63~240	127~305	35.3(3600)	105.9(10800)	2400	0.73	65	RK-125(N)	2
<b>3W-15</b>	22.5	15.9	76~317	165~381	56(5600)	168.2(16800)	2000	1.81	97	RK-150(N)	-
<b>3W-C15</b>	22.5	15.9	76~317	165~381	56(5600)	168.2(16800)	2000	1.81	97	RK-150(N)	3

**DIMENSIONS**

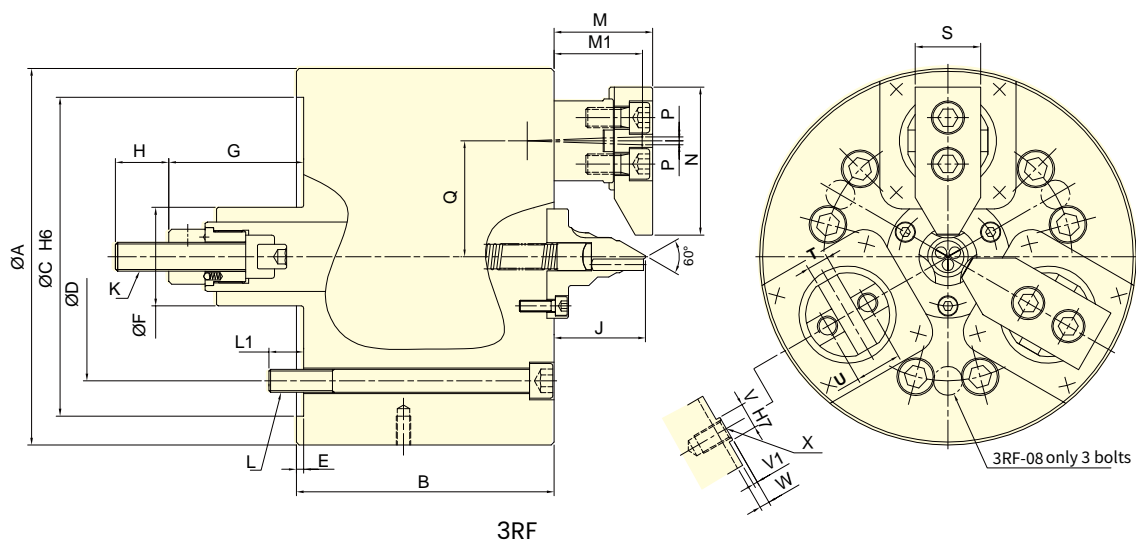
Model	A	B	C (G6)	D	E	F	G max.	G min.	H	J	K	L	L1	M	M1	N	P	P1	P2
<b>3W-08</b>	210	89	170	133.4	5	34	51.9	37.5	40	50	M18x2.5	M12	19	19.3	56.5	52.7	16	38	80
<b>3W-C08</b>	210	89	170	133.4	5	34	51.9	37.5	40	50	M18x2.5	M12	19	19.3	56.5	52.7	16	38	80
<b>3W-10</b>	254	106	220	171.4	5	42	67.5	50	48	58	M24x3	M16	24	29	60.5	65.6	17.8	44.4	100
<b>3W-C10</b>	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
<b>3W-12</b>	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
<b>3W-C12</b>	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
<b>3W-15</b>	381	120	300	235	5	55	62.5	40	46	80	M27x3	M20	30	32.4	72	74.3	19	63.5	140
<b>3W-C15</b>	381	120	300	235	5	55	62.5	40	46	80	M27x3	M20	30	32.4	72	74.3	19	63.5	140

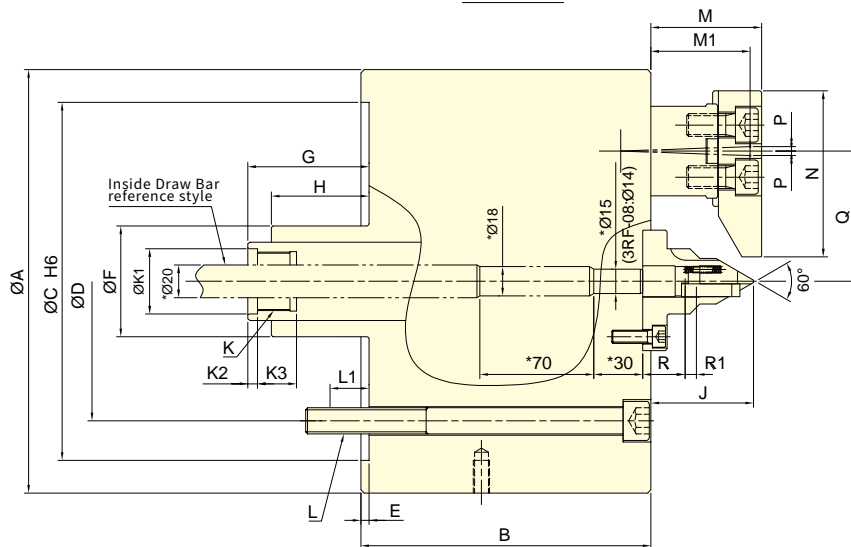
Model	P3	Q	R	R1	S	T	U	V (h7)	V1	W (H7)	W1	X(H7)	X1	Y	Y1	Z	Z1	Z2
<b>3W-08</b>	M12	95	2.69	2.24	60	57	2	7.94	3	12.68	7	34	3.5	46	M6	32	32	M10
<b>3W-C08</b>	M12	95	2.69	2.24	60	57	2	7.94	3	12.68	7	34	3.5	46	M6	32	32	M10
<b>3W-10</b>	M12	112	4.03	2.26	72	70	2.5	12.7	3	19.03	7	45	5	60	M8	36	36	M10
<b>3W-C10</b>	M12	112	4.03	2.26	72	70	2.5	12.7	3	19.03	7	45	5	60	M8	36	36	M10
<b>3W-12</b>	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
<b>3W-C12</b>	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
<b>3W-15</b>	M12	172	5.14	2.83	121	80	2	12.7	3	19.03	7	56	3	90	M8	36	36	M10
<b>3W-C15</b>	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 <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		
<b>3RF-08</b>	43.5	9.4	70	18	39.2 (4000)	39.2 (4000)	4000	0.15	39.4	RS-1250	1
<b>3RF-08D</b>	43.5	9.4	70	18	39.2 (4000)	39.2 (4000)	4000	0.15	38.6	RDL-160S	1

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 <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		mm
<b>3RF-10</b>	50	11	85	25	44.1(4500)	67.4(6873)	3500	0.56	68.3	RS-1550	1
<b>3RF-10D</b>	50	11	85	25	44.1(4500)	67.4(6873)	3500	0.56	67.5	RDL-160S	1
<b>3RF-12</b>	52	11.2	110	25	78.4(8000)	99(10000)	2500	0.56	109	RS-2060	1
<b>3RF-12D</b>	52	11.2	110	25	78.4(8000)	99(10000)	2500	0.56	107.7	RDL-160S	1

## DIMENSIONS

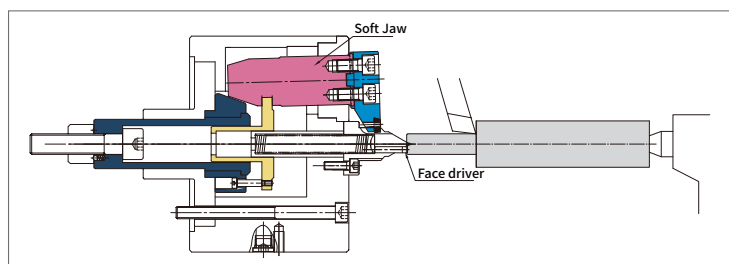
Model	A	B	C (H6)	D	E	F	G max.	G min.	H	J	K	K1 (H7)	K2	K3	L	L1
<b>3RF-08</b>	210	155	170	133.4	5	68	123	79.5	37	58	M20x2.5	-	-	-	3-M12	18
<b>3RF-08D</b>	210	155	170	133.4	5	68	98	54.5	50	58	M36x1.5	40.5	6	24	3-M12	18
<b>3RF-10</b>	260	178	220	171.4	5	68	143	93	37	63	M20x2.5	-	-	-	6-M16	24
<b>3RF-10D</b>	260	178	220	171.4	5	68	116.5	66.5	60	63	M36x1.5	40.5	6	24	6-M16	26
<b>3RF-12</b>	315	190	220	171.4	5	76	167	115	46	70	M24x3	-	-	-	6-M16	24
<b>3RF-12D</b>	315	190	220	171.4	5	76	135	83	75	70	M40x1.5	44.5	6	28	6-M16	24

Model	M max.	M min.	M1	N	P	Q	R	R1 max.	R1 min.	S	T(H7)	U	V	V1	W	X
<b>3RF-08</b>	62	31	58	78	2.35	62	-	-	-	40	12	26	16	3	7	M12
<b>3RF-08D</b>	62	31	58	78	2.35	62	25.5	7	0	40	12	26	16	3	7	M12
<b>3RF-10</b>	68	35.5	61	102	2.75	80	-	-	-	45	15	32	18	3	7	M14
<b>3RF-10D</b>	68	35.5	61	102	2.75	80	28	7	0	45	15	32	18	3	7	M14
<b>3RF-12</b>	76	43	63	125	2.8	100	-	-	-	50	17	36	20	3	7	M16
<b>3RF-12D</b>	76	43	63	125	2.8	100	28	7	0	50	17	36	20	3	7	M16

## APPLICATION NOTES

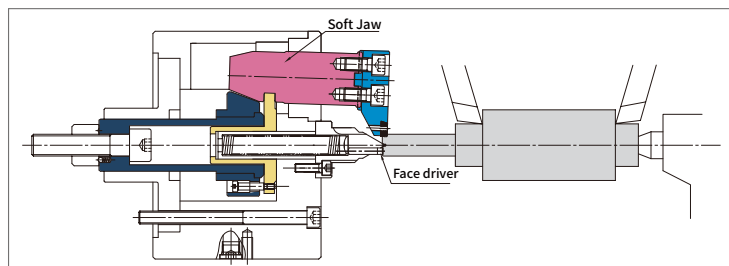
### 1. Clamping diameter machining

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



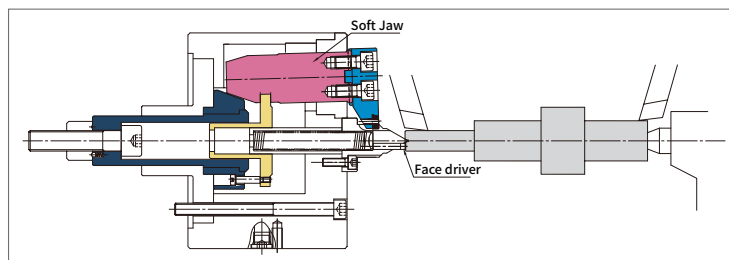
### 2. Rough machining

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



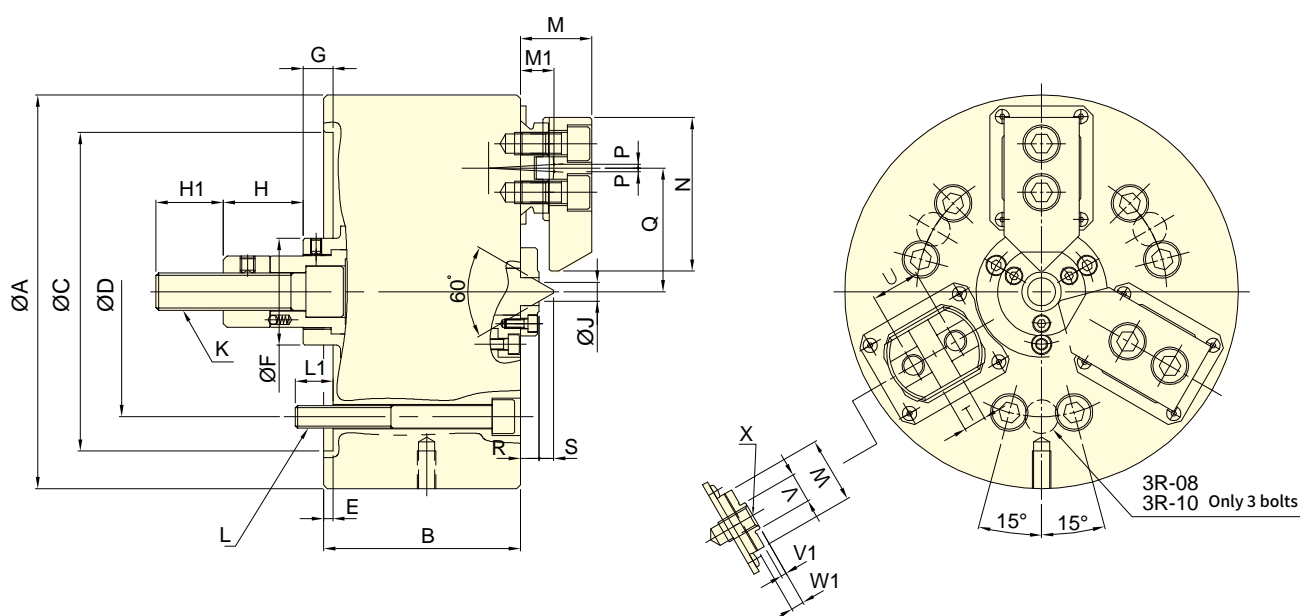
### 3. Finish machining

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.	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 <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		
<b>3R-08</b>	20	8	65	18	19.6(2000)	53.0(5404)	2800	0.15	27	RK-100N	2
<b>3R-10</b>	25	10	90	22	29.4(3000)	67.7(6901)	2500	0.38	45	RK-125N	2
<b>3R-12</b>	25	10.2	110	22	39.4(4000)	88.4(9010)	2000	0.75	72	RK-150N	2

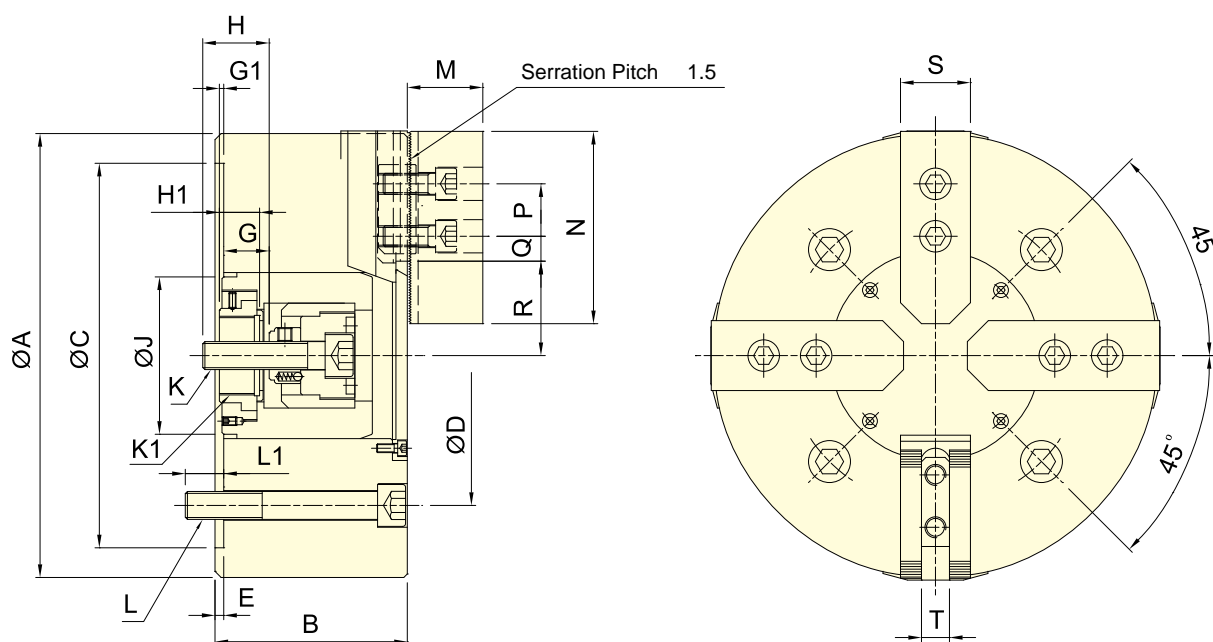
## DIMENSIONS

Model	A	B	C (H6)	D	E	F	G max.	G min.	H	H1	J	K	L	L1
<b>3R-08</b>	210	105	170	133.4	5	57	26	6	42.5	36	10.4	M20x2.5	3~M12	20
<b>3R-10</b>	254	115	220	171.4	5.5	64	36.5	11.5	25	39	15	M20x2.5	3~M16	22.5
<b>3R-12</b>	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
<b>3R-08</b>	38	18	82	2	68	64	10	7.7	12	26	16	3	35	7	M12
<b>3R-10</b>	40	19	102	2.6	82	78	10	11.3	15	32	18	3	40	7	M14
<b>3R-12</b>	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.



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 <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )
<b>4T-08</b>	17	13.6	210	24	16.0 (1630)	54.3 (5540)	3000	0.15	23.2	RD-120(N)	1.7(17)
<b>4T-10</b>	20	16	254	50	21.6 (2200)	79.4 (8100)	2100	0.35	44.3	RD-125(N)	2.2(22)
<b>4T-12</b>	20	16	304	50	21.6 (2200)	79.4 (8100)	1500	0.66	57.6	RD-125(N)	2.2(22)
<b>4T-15</b>	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
<b>4T-08</b>	210	91	170	133.4	5	32	15	2.5	-14.5	29	20	61	M14x2
<b>4T-10</b>	254	110	220	171.4	5	36.5	16.5	10	-10	36	23	90	M16x2
<b>4T-12</b>	304	110	220	171.4	5	36.5	16.5	10	-10	36	23	90	M16x2
<b>4T-15</b>	381	135	300	235	6	44.5	19.5	5	-20	45	28	110	M20x2.5

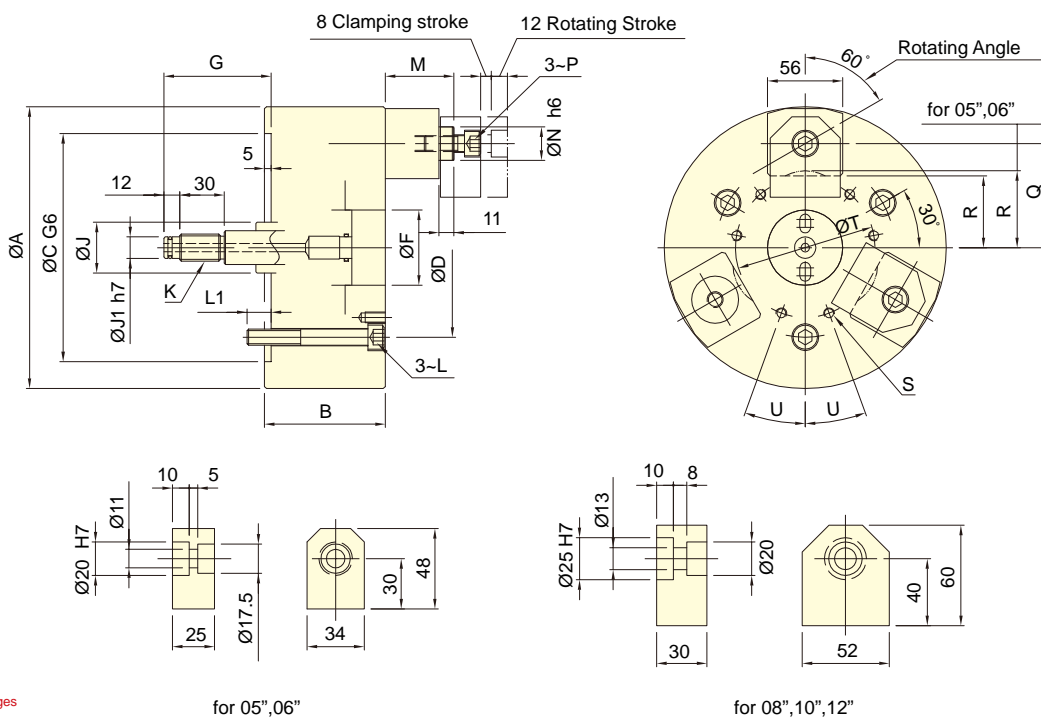
  

Model	K1	L	L1	M	N	P	Q max.	Q min.	R max.	R min.	S	T
<b>4T-08</b>	M34x1.5	4-M2	20	38	95	25	25.25	13.25	46.1	39.3	35	14
<b>4T-10</b>	M45x1.5	4-M16	25	43	110	30	32.25	12.75	59	51	40	16
<b>4T-12</b>	M45x1.5	4-M16	25	43	110	30	54.75	15.75	59	51	40	16
<b>4T-15</b>	M55x2	4-M20	30	51	130	30	66.5	12.5	78.9	69.1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

SPECIAL PURPOSE POWER CHUCKS



Subject to technical changes

### SPECIFICATIONS

Model	Rotating stroke	Clamping 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 <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )
<b>3J-05</b>	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)
<b>3J-06</b>	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)
<b>3J-08</b>	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)
<b>3J-10</b>	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)
<b>3J-12</b>	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

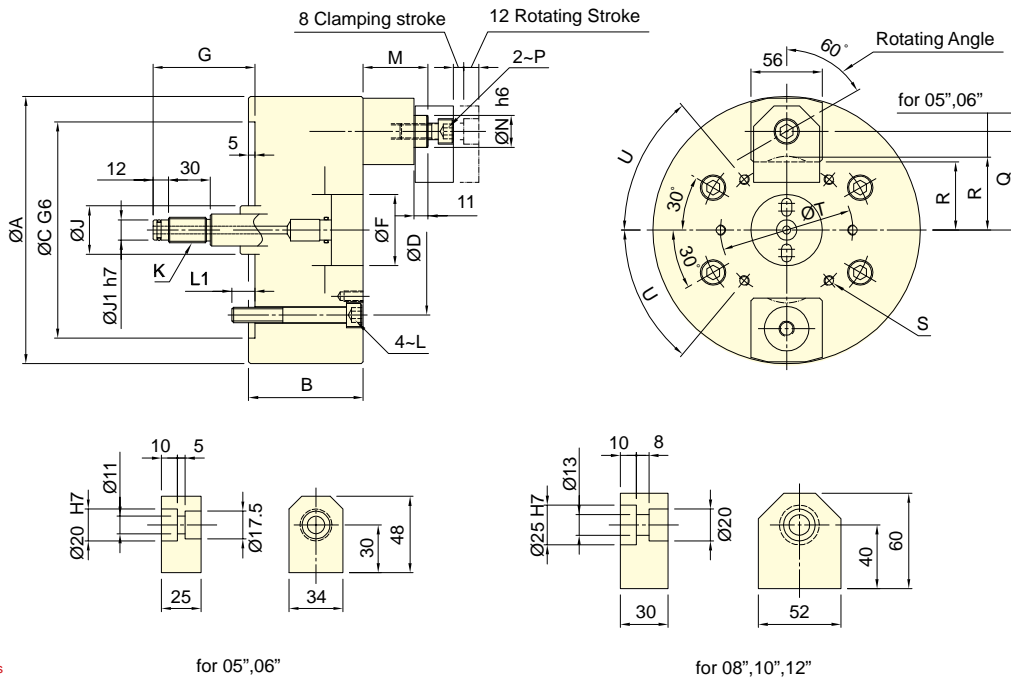
Model	A	B	C	D	F	G max.	G min.	J	J1	K
<b>3J-05</b>	135	86	110	82.6	40	75	55	25	9	M12x1.75
<b>3J-06</b>	165	86	140	104.8	45	75	55	28	12	M16x2
<b>3J-08</b>	210	90	170	133.4	56	80	60	38	16	M20x2.5
<b>3J-10</b>	254	95	220	171.4	56	75	55	38	16	M20x2.5
<b>3J-12</b>	304	95	220	171.4	56	75	55	38	16	M20x2.5

Model	L	L1	M max.	M min.	N	P	Q	R	S	T	U
<b>3J-05</b>	M10	15	56	36	20	M10	42.5	27	3-M6	50	-
<b>3J-06</b>	M10	15	56	36	20	M10	57.5	40	3-M8	64	-
<b>3J-08</b>	M12	18	71	51	25	M12	77.5	53.5	6-M8	104	20°
<b>3J-10</b>	M16	24	71	51	25	M12	99.5	75.5	6-M8	140	20°
<b>3J-12</b>	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	Clamping 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 <sup>-1</sup> (r.p.m.)	kg-m <sup>2</sup>	kg		MPa (kgf/cm <sup>2</sup> )
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)

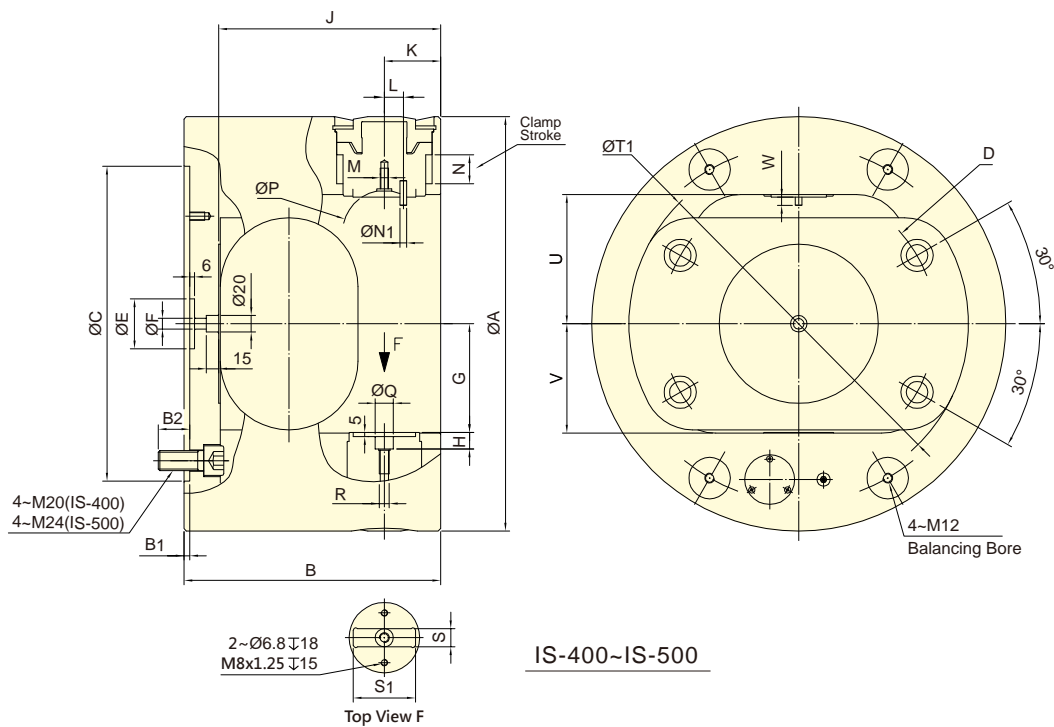
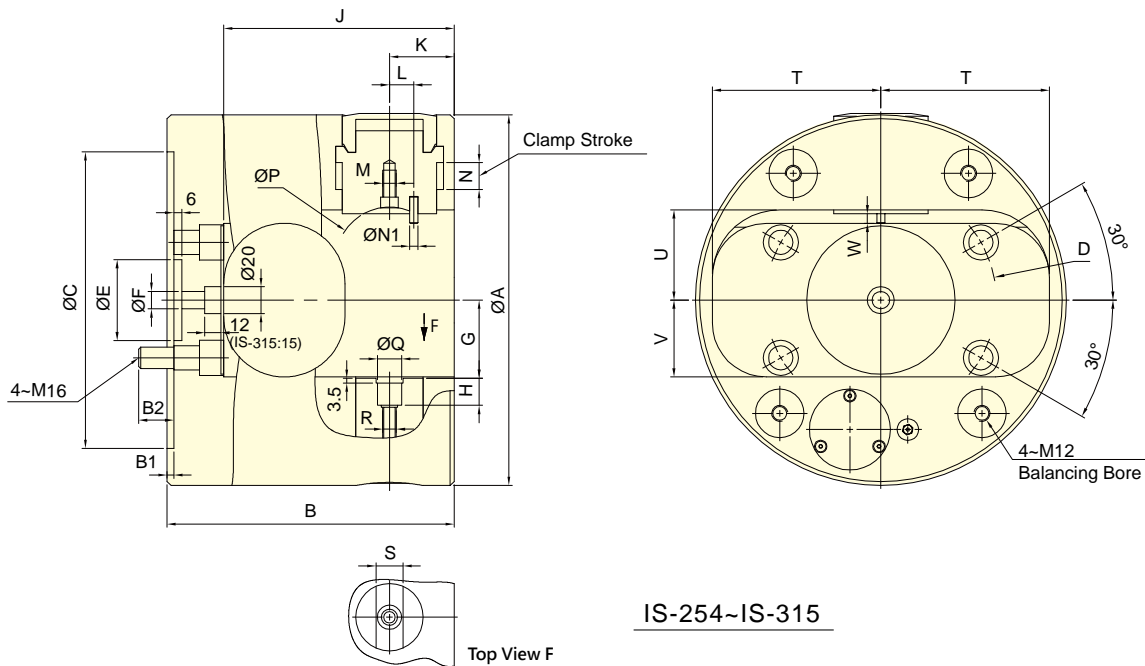
### DIMENSIONS

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	Chucking Area Dia Max.	Chucking 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 <sup>2</sup>	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg-m <sup>2</sup>	kg		mm	kg
<b>IS-254</b>	4x90°	20	65	160	45	19.5(1990)	3100	0.41	41	IRJ-5E1	<sup>61</sup> and above	0.6
<b>IS-275</b>	4x90°	20	80	220	45	25.4(2590)	2500	0.61	52	IRJ-5E1	<sup>61</sup> and above	1.2
<b>IS-315</b>	4x90°	20	100	230	45	25.0(2550)	1200	1.13	76	IRJ-5E1	<sup>61</sup> and above	1.8
<b>*IS-400</b>	4x90°	30	170	260	45	34.5(3510)	1000	3.4	125	IRJ-5E1	<sup>61</sup> and above	4.0
<b>*IS-500</b>	4x90°	35	220	310	45	45.7(4660)	1000	9.4	220	IRJ-5E1	<sup>61</sup> and above	6.0

## DIMENSIONS

Model	A	B	B1	B2	C(H6)	D	E	F	G	H	J	K
<b>IS-254</b>	254	190	5	23	220	171.4	60	13	47.5	18	155	48
<b>IS-275</b>	275	213	5	26	220	171.4	60	13	58	20	171	48
<b>IS-315</b>	315	232	5	22	220	171.4	60	13	71	18.5	187	50
<b>*IS-400</b>	400	260	6	30	300	235	60	13	99	21	220	60
<b>*IS-500</b>	500	308	6	38	380	330.2	60	13	131	21	266	68

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



\*Index Angle 8x45° or Specific Angle, Please contact AUTOGRIP for more detailed information. Thanks.

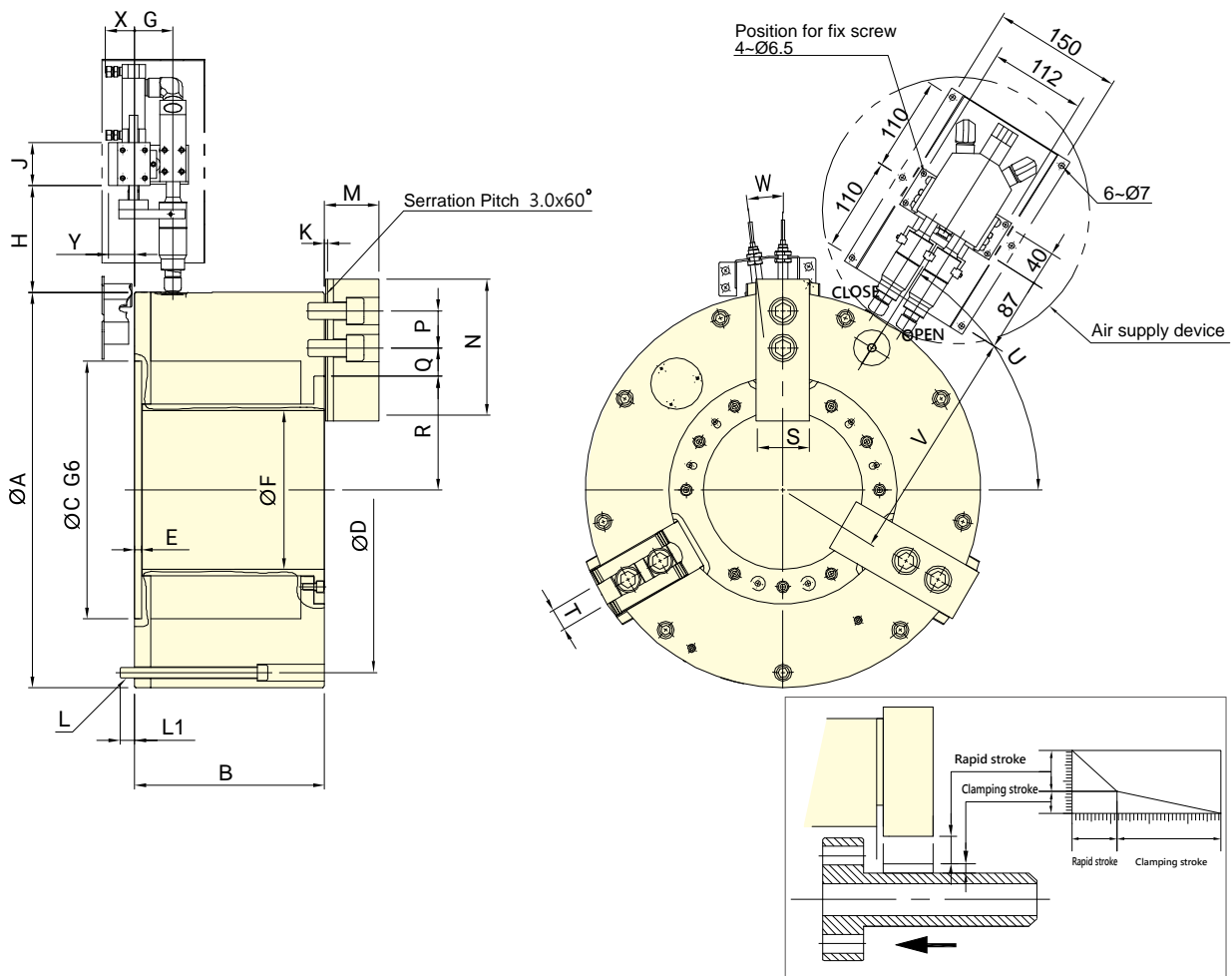
The maximum rotational speed can only be achieved when the hydraulic pressure is at its maximum. Additionally, the operating pressure and the weight of the clamping fixture must not exceed the values shown in the table above.

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.
- With build-in "pressure detection" device which can check the rapidly decreasing pressure within the chuck, guarantee to the security when operating.
- Features an 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. clamping)
- Extended jaw stroke design can shorten the processing time when gripping.
- Notice:No clamping in rapid stroke period.



Subject to technical changes

## SPECIFICATIONS

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

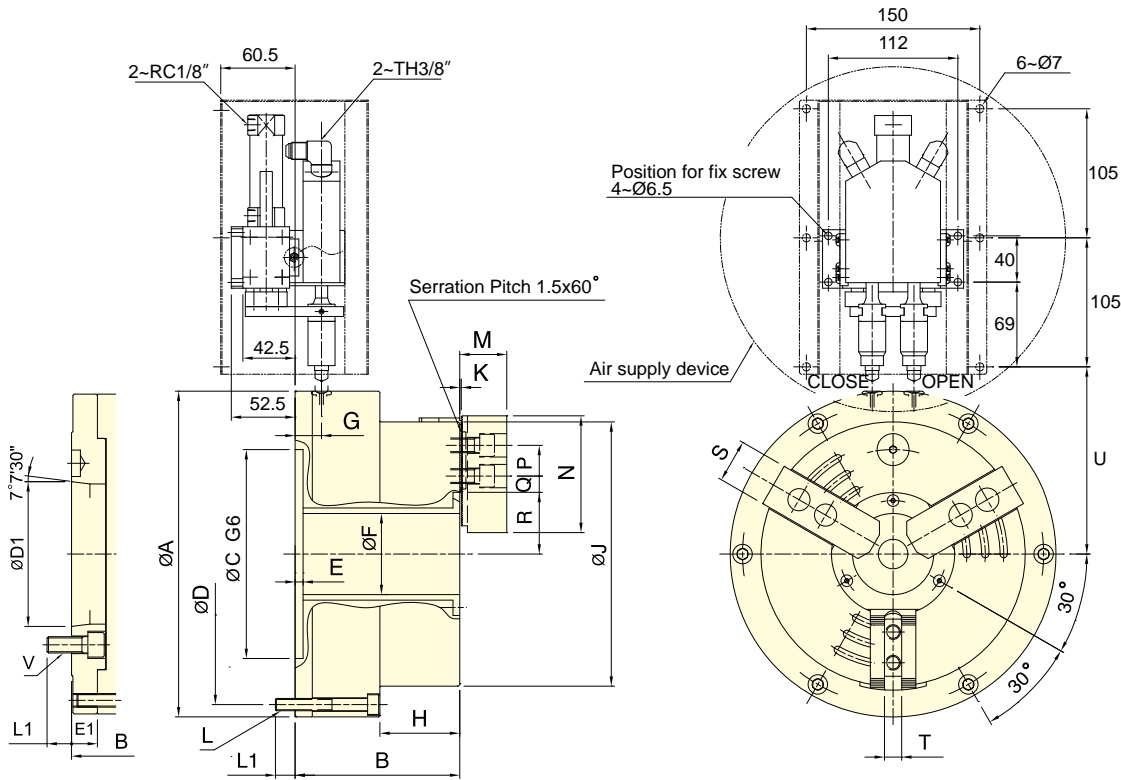
## DIMENSIONS

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



- Large through-hole 3-jaw pneumatic power chuck with a built-in air cylinder, ideal for pipe and tube machining.
- Equipped with an integrated pressure detection mechanism that monitors sudden pressure drops inside the chuck, ensuring safe operation (Applicable to O.D. gripping only).
- Features an air supply system that allows quick installation and easy maintenance, eliminating wear issues associated with traditional air sealing rings.
- Reduces installation and maintenance costs while minimizing downtime.

SPECIAL PURPOSE POWER CHUCKS



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 <sup>2</sup> )	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg-m <sup>2</sup>	kg	lit (at 6kgf/cm <sup>2</sup> )		
AP-52	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.

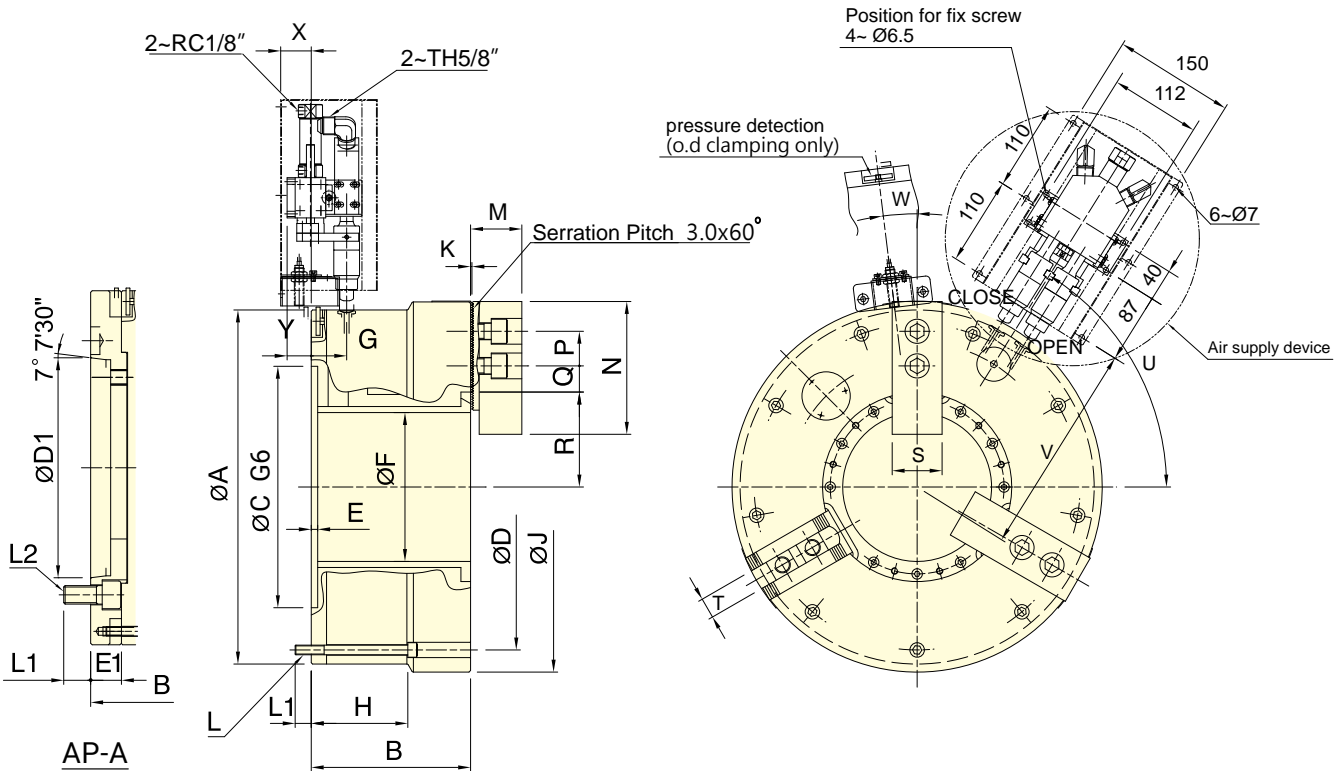


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- Large through-hole 3-jaw pneumatic power chuck with a built-in air cylinder, ideal for pipe and tube machining.
- Equipped with an integrated pressure detection mechanism that monitors sudden pressure drops inside the chuck, ensuring safe operation (Applicable to O.D. gripping only).
- Features an air supply system that allows quick installation and easy maintenance, eliminating wear issues associated with traditional air sealing rings.
- Reduces installation and maintenance costs while minimizing downtime.

SPECIAL PURPOSE POWER CHUCKS



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
AP-145	A11	145	14	420	62	0.6(6.1)	110(11213)	1500	3.8	156	<b>182</b>	17.8
AP-185	A15	185	14	460	100	0.6(6.1)	160(16310)	1700	6.0	188	<b>223</b>	22
AP-230	A15	230	17	535	170	0.6(6.1)	150(15290)	1300	11.1	265	<b>310</b>	34
AP-275	A20	275	17	580	200	0.6(6.1)	160(16310)	1100	15.5	301	<b>346</b>	39
AP-320	A20	320	17	658	200	0.6(6.1)	180(18348)	1000	27.2	415	<b>505</b>	45
AP-375	A20	375	24	738	260	0.6(6.1)	210(21406)	900	44.2	530	<b>545</b>	55

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

## DIMENSIONS

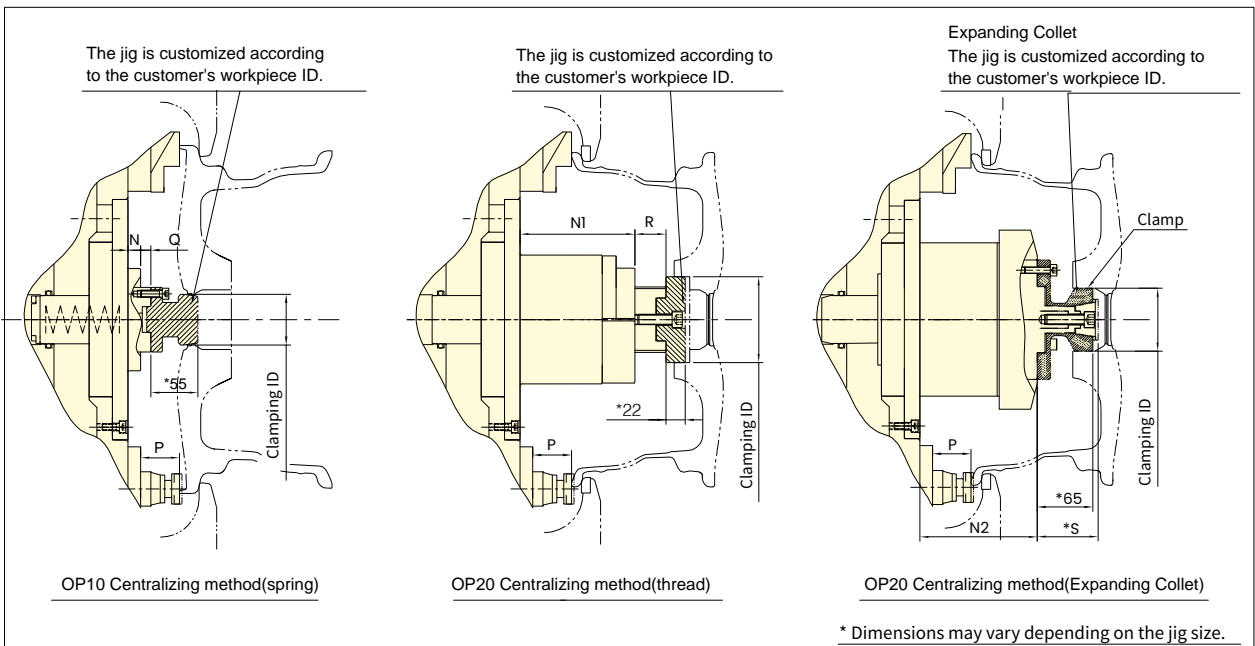
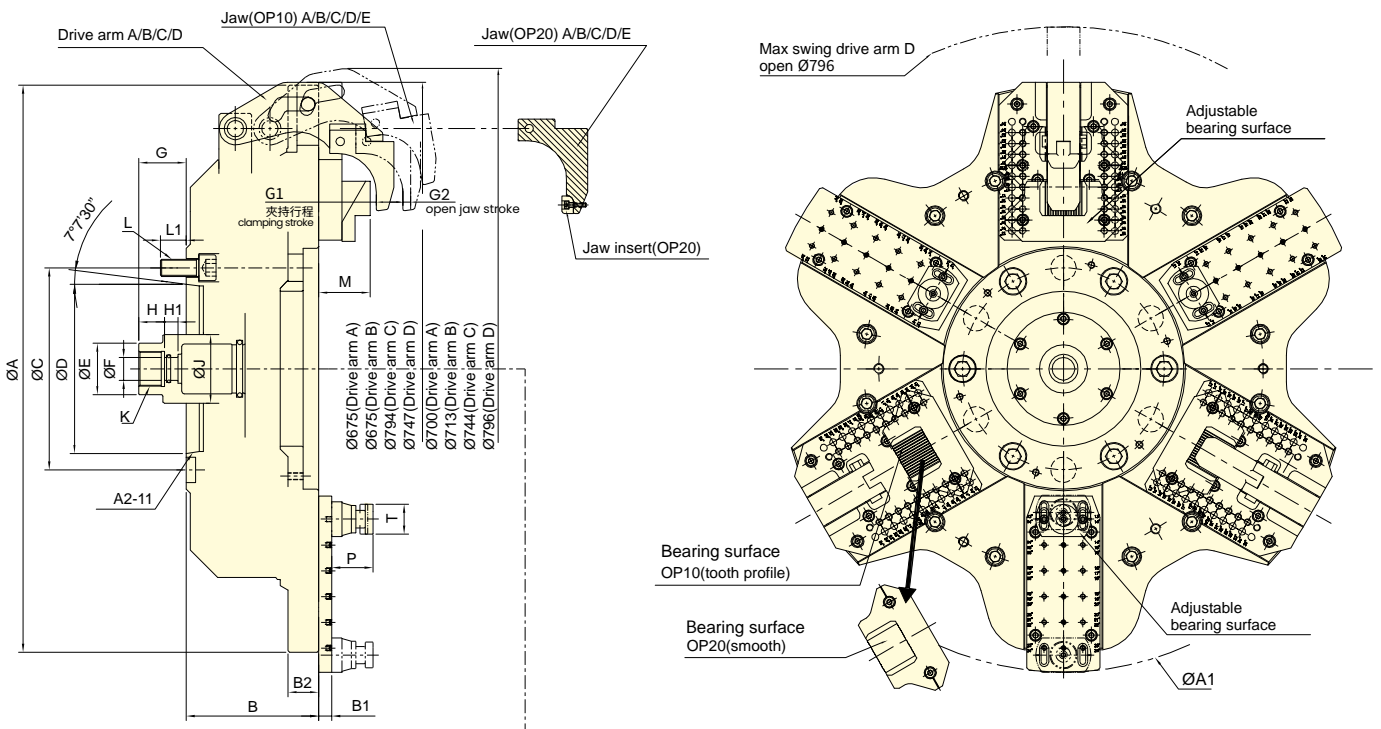
Model	A	B	C	D	D1	E	E1	F	G	H	J	K	L	L1			
<b>AP-145</b>	<b>A11</b>	400	198	<b>231</b>	300	365	<b>196.87</b>	8	<b>33</b>	145	34	120	420	3.5	9-M12	20	<b>31</b>
<b>AP-185</b>	<b>A15</b>	460	198	<b>238</b>	300	405	<b>285.78</b>	8	<b>40</b>	185	44	120	460	3.5	9-M12	20	<b>35</b>
<b>AP-230</b>	<b>A15</b>	515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

Model	L2	M	N	P	Q max.	Q min.	R max.	R min.	S	T	U	V	W	X	Y	
<b>AP-145</b>	<b>A11</b>	<b>6~M20</b>	63.7	165	43	53.5	23.5	98	91	62	25.5	57°	242	0°	38	20
<b>AP-185</b>	<b>A15</b>	<b>6~M24</b>	63.7	165	43	53.5	23.5	118	111	62	25.5	58°	272	7°	38	20
<b>AP-230</b>	<b>A15</b>	<b>6~M24</b>	71.7	180	60	48.5	18.5	145	136.5	64	25.5	30°	300	7°	33	15
<b>AP-275</b>	<b>A20</b>	<b>6~M24</b>	71.7	180	60	48.5	18.5	167.5	159	64	25.5	30°	322	7°	30	12
<b>AP-320</b>	<b>A20</b>	<b>6~M24</b>	81.5	210	60	60.5	24.5	190	181.5	75	30	52°	350	7°	27	9
<b>AP-375</b>	<b>A20</b>	<b>6~M24</b>	81.5	210	60	66.5	24.5	223.5	211.5	75	30	52°	387	7°	27	9



- Made of high-grade alloy steel. All sliding surfaces are surface-hardened and precision-ground to ensure durability and operational stability.
- Designed for rough and finish machining of aluminum alloy wheels for passenger vehicles.
- Accommodates wheel sizes ranging from 13" to 24" by adjusting the support and sealing surfaces, and replacing the drive arms and jaws.
- Changeable fixtures allow adaptation to various centering methods required in different machining processes, enhancing precision and production flexibility.
- Compatible with CNC lathes, dedicated wheel machining machines, and mill-turn centers.
- Optional matching jaws and drive arms available.



\* Dimensions may vary depending on the jig size.

## SPECIFICATIONS

Model		Total axial stroke	Open jaw stroke	Clamping stroke	Max. clamping size of the Wheel	Min. clamping size of the Wheel	Max. D.B. pull	Max. clamping force
		mm	mm	mm	inch	inch	kN (kgf)	kN (kgf)
<b>3FW-26</b>	<b>A11</b>	40	9	31	24"	13"	34.3(3500)	30.9(3150)

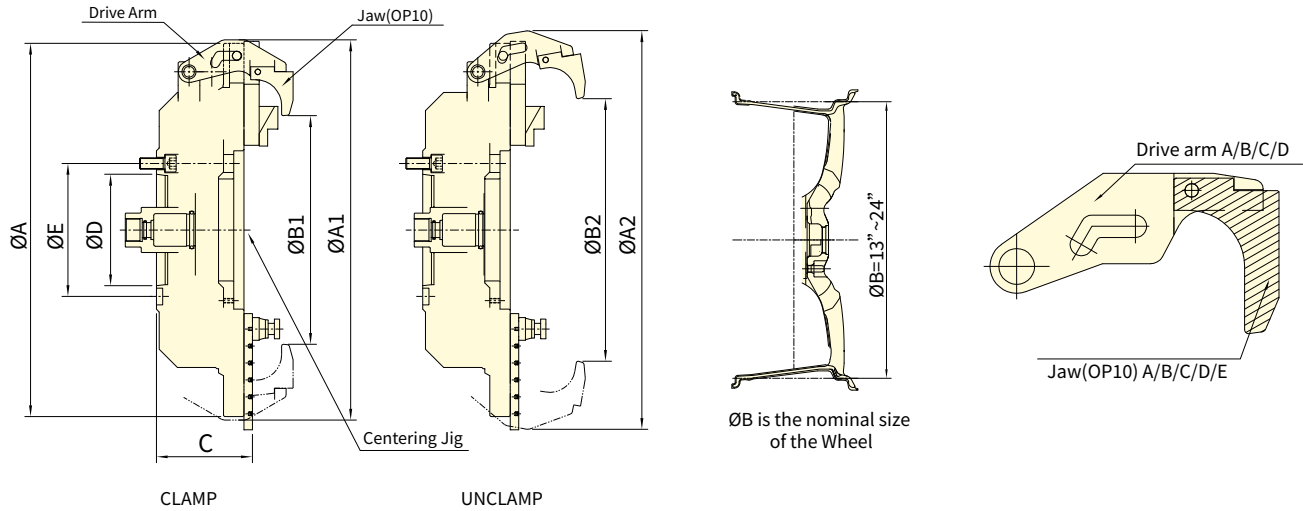
Model		Max. speed	Moment of inertia	Weight (Jig not included)	Weight (OP10 jig included)	Weight (OP20 jig included)	Matching cyl.	Max. pressure
		min <sup>-1</sup> (r.p.m.)	kg·m <sup>2</sup>	kg	kg	kg		MPa kgf/cm <sup>2</sup>
<b>3FW-26</b>	<b>A11</b>	2200	7.3	160	180	190~200	RE-A1340 RC-1240	3.2(33)

## DIMENSIONS

Model		A	A1	B	B1	B2	C	D	E	F	G max.	G min.	G1	G2	H	H1	J
<b>3FW-26</b>	<b>A11</b>	660	706	154.5	15	36	235	196.87	60	26.5	55	15	31	9	30	15.5	80

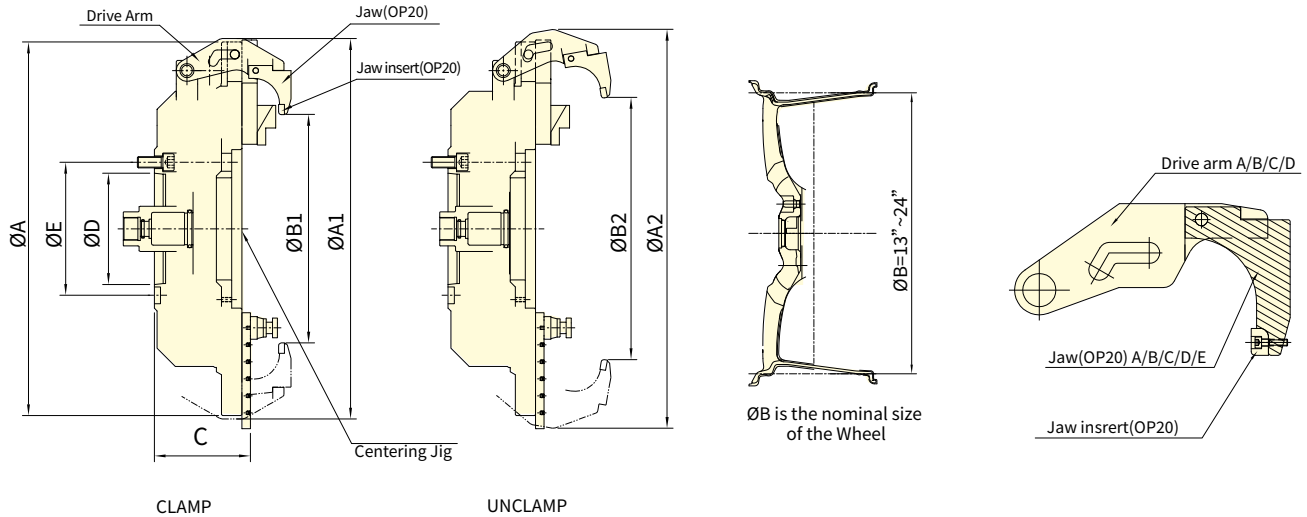
Model		K	L	L1	M	N	N1	N2 max.	N2 min.	P max.	P min.	Q max.	Q min.	R max.	R min.	S max.	S min.	T
<b>3FW-26</b>	<b>A11</b>	M40x1.5	6~M20	30	60	15	134	220	38	48	42	15	0	106	32	71.5	66.5	35



Subject to technical changes

Wheel size \ Drive Arm	Drive Arm A		Drive Arm B		Drive Arm C		Drive Arm D	
	Min. ID ØB1	Max. ID ØB2	Min. ID ØB1	Max. ID ØB2	Min. ID ØB1	Max. ID ØB2	Min. ID ØB1	Max. ID ØB2
13"	Jaw A							
	339	400						
14"	Jaw B							
	364	425						
15"	Jaw C							
	392	453						
16"	Jaw D		Jaw A					
	421	482	419	480				
17"	Jaw E		Jaw B					
	445	506	444	505				
18"			Jaw C		Jaw A			
			472	533	477	538		
19"			Jaw D		Jaw B			
			501	502	502	563		
20"			Jaw E		Jaw C		Jaw A	
			525	586	530	591	530	591
21"					Jaw D		Jaw B	
					559	620	555	616
22"					Jaw E		Jaw C	
					583	644	583	644
23"							Jaw D	
							607	668
24"							Jaw E	
							633	694
Max. chuck diameter ØA	Ø660							
Max. OD when CLAMP ØA1	Ø675		Ø675		Ø694		Ø747	
Max. OD when UNCLAMP ØA2	Ø700		Ø713		Ø744		Ø796	
Wheel size ØB	13"-17"		16"-20"		18"-22"		20"-24"	
C	169.5							
ØD	196.87							
ØE	235							

Blocks in the same color indicate that different combinations of drive arms and jaws can be used to clamp wheels of the same size. The selection depends on the available space of the machine.  
 For example: Drive Arm A + Jaw D = clamping a 16" wheel, and Drive Arm B + Jaw A can also clamp a 16" wheel.



SPECIAL PURPOSE POWER CHUCKS

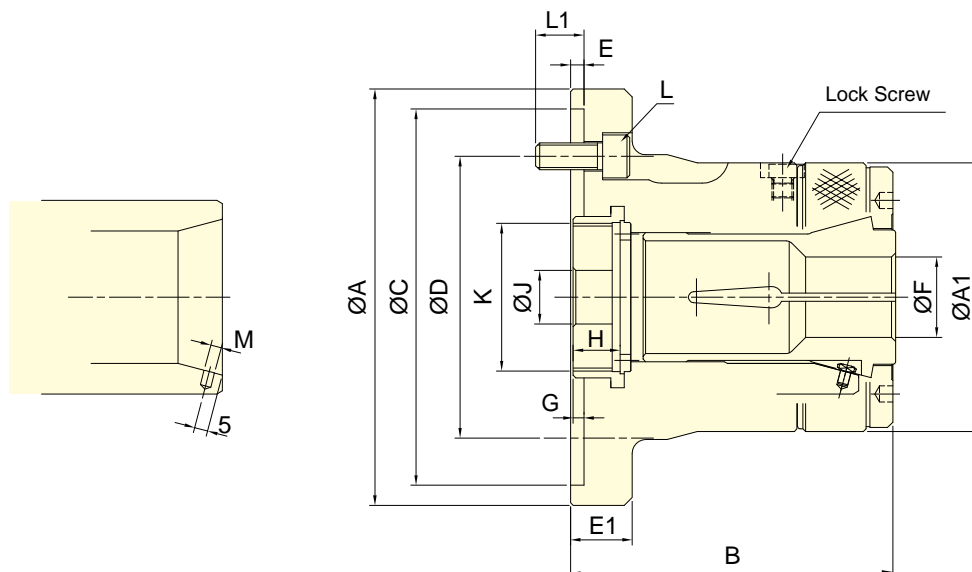
Subject to technical changes

Wheel size \ Drive Arm	Drive Arm A		Drive Arm B		Drive Arm C		Drive Arm D	
	Min. ID ØB1	Max. ID ØB2	Min. ID ØB1	Max. ID ØB2	Min. ID ØB1	Max. ID ØB2	Min. ID ØB1	Max. ID ØB2
13"	Jaw A 335    396							
14"	Jaw B 362    423							
15"	Jaw C 392    453							
16"	Jaw D 417    478		Jaw A 415    476					
	Jaw E 445    506		Jaw B 442    503					
18"			Jaw C 472    553		Jaw A 473    534			
			Jaw D 497    558		Jaw B 500    561			
20"			Jaw E 525    586		Jaw C 530    591		Jaw A 526    587	
					Jaw D 555    616		Jaw B 553    614	
22"					Jaw E 583    644		Jaw C 583    644	
23"							Jaw D 603    664	
24"							Jaw E 633    694	
Max. chuck diameter ØA	Ø660							
Max. OD when CLAMP ØA1	Ø675		Ø675		Ø694		Ø747	
Max. OD when UNCLAMP ØA2	Ø700		Ø713		Ø744		Ø796	
Wheel size ØB	13"~17"		16"~20"		18"~22"		20"~24"	
C	169.5							
ØD	196.87							
ØE	235							

Blocks in the same color indicate that different combinations of drive arms and jaws can be used to clamp wheels of the same size. The selection depends on the available space of the machine.  
 For example: Drive Arm A + Jaw D = clamping a 16" wheel, and Drive Arm B + Jaw A can also clamp a 16" wheel.



- 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.



Subject to technical changes

## SPECIFICATIONS

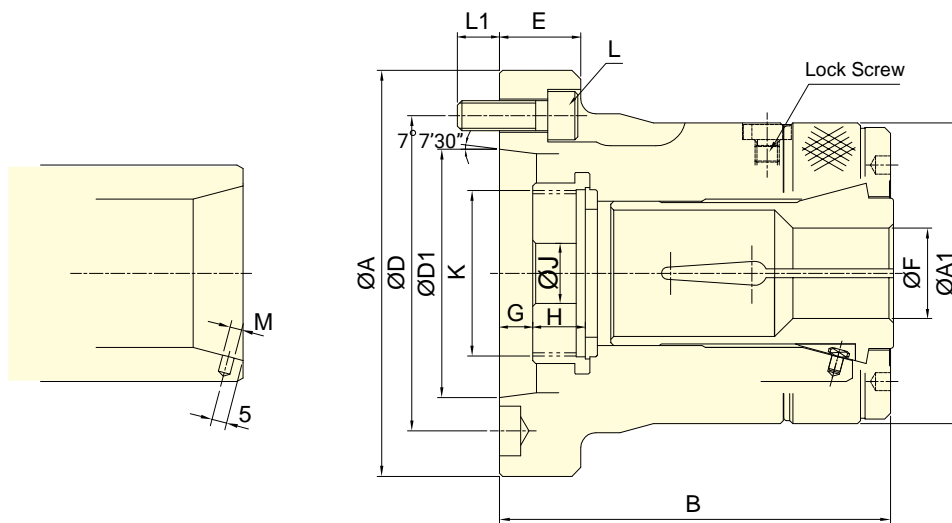
Model	Plunger stroke mm	Max. Chucking Capacity			Max. D.B. pull kN (kgf)	Max. clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	Moment of inertia kg·m <sup>2</sup>	Weight kg	Matching steel collet	Matching Cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
		Round mm	Hexagom mm	Square mm								
CL-26	4.5	26	22	18	17.6(1800)	37.9(3870)	8000	0.040	4.3	161E	TK-A533	2.4(24)
CL-30	4.5	30	26	21	19.6(2000)	42.1(4300)	8000	0.038	4.2	163E	TK-A533	2.7(27)
CL-36	6	36	31	25	22.5(2300)	48.5(4950)	6000	0.062	7.0	171E	TK-C643	2.3(23)
CL-42	6	42	36	29	24.5(2500)	52.9(5400)	6000	0.060	6.9	173E	TK-C643	2.5(25)
CL-52	6	52	45	36	27.4(2800)	59.0(6020)	6000	0.101	14.3	177E	TK-A853	2.0(20)
CL-6017	6	60	51	42	29.4(3000)	63.7(6500)	5000	0.098	14.1	185E	TS-866	1.8(18)
CL-6022	6	60	51	42	29.4(3000)	63.7(6500)	5000	0.126	16.3	185E	TS-866	1.8(18)
CL-80	6	80	69	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.



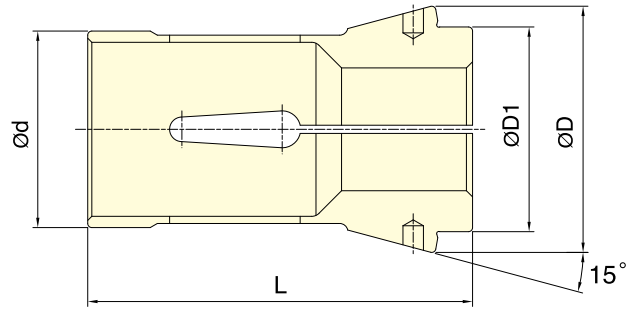
Subject to technical changes

## 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									mm
CL-26	A4	4.5	26	22	18	17.6(1800)	37.9(3870)	8000	0.040	4.2	161E	TK-A533	2.4(24)
CL-30	A4	4.5	30	26	21	19.6(2000)	42.1(4300)	8000	0.038	4.1	163E	TK-A533	2.7(27)
CL-36	A5	6	36	31	25	22.5(2300)	48.5(4950)	6000	0.058	6.3	171E	TK-C643	2.3(23)
CL-42	A5	6	42	36	29	24.5(2500)	52.9(5400)	6000	0.057	6.1	173E	TK-C643	2.5(25)
CL-42	A6	6	42	36	29	24.5(2500)	52.9(5400)	6000	0.061	7.5	173E	TK-C643	2.5(25)
CL-52	A6	6	52	45	36	27.4(2800)	59.0(6020)	6000	0.093	13.8	177E	TK-A853	2.0(20)
CL-60	A6	6	60	51	42	29.4(3000)	63.7(6500)	5000	0.091	13.5	185E	TS-866	1.8(18)
CL-60	A8	6	60	51	42	29.4(3000)	63.7(6500)	5000	0.104	14.5	185E	TS-866	1.8(18)
CL-80	A8	6	80	69	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



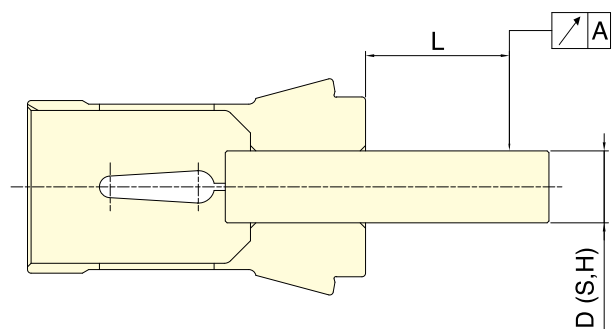
DIN 6343 Collet standard

Subject to technical changes

**DIMENSIONS**

Collet	Max. Chucking Capacity (mm)			d	D	D1	L	Matching Collet Chuck
	Round	Hexagom	Square					
<b>161E</b>	26	22	18	32	45	34	75	CL-26, CL-26A4
<b>163E</b>	30	26	21	35	48	38	80	CL-30, CL-30A4
<b>171E</b>	36	31	25	42	55	42	94	CL-36, CL-36A5
<b>173E</b>	42	36	29	48	60	50	94	CL-42, CL-42A5, CL-42A6
<b>177E</b>	52	45	36	58	70	60	94	CL-52, CL-52A6
<b>185E</b>	60	51	42	66	84	73	110	CL-6017, CL-6022, CL-60A6, CL-60A8
<b>193E</b>	80	69	56	90	107	92	130	CL-80, CL-80A8

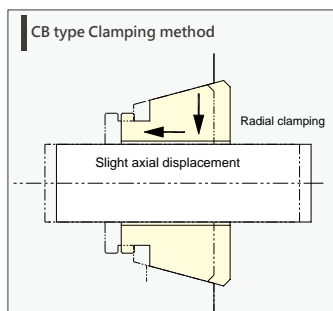
Test Bar D(S,H)	L mm	A DIN	
		Class 1	Class 2
0.5~1.0	3	0.015	0.015
1.0~1.6	6	0.015	0.020
1.6~3.0	10	0.015	0.020
3.0~6.0	16	0.015	0.020
6.0~10.0	25	0.015	0.020
10.0~18.0	40	0.020	0.030
18.0~24.0	50	0.020	0.030
24.0~30.0	60	0.020	0.030
30.0~50.0	80	0.030	0.040
50.0~60.0	100	0.030	0.040



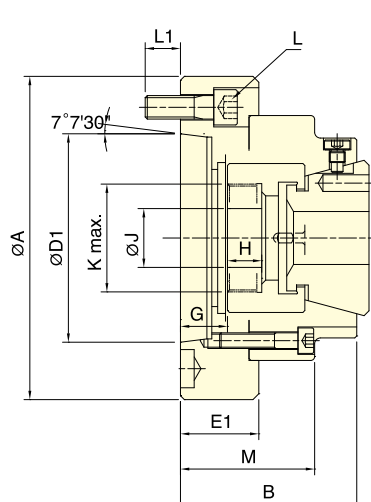
Note: Collets chuck are conformed to DIN 6343 Class2.



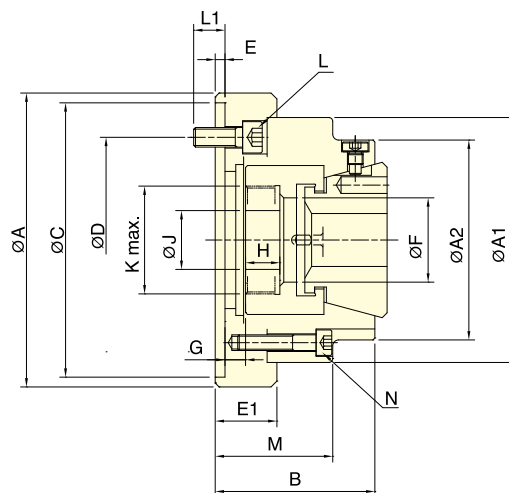
- Suitable for CNC lathes, dedicated machines, or other turning machinery for bar or shaft processing.
- Draw-back clamping with radial clamping and axial fine-tuning torque, featuring through-hole.
- High precision, high speed, and high rigidity structure.
- Comprehensive waterproof design to prevent 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	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 <sup>-1</sup> (r.p.m.)	kg			MPa (kgf/cm <sup>2</sup> )
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)

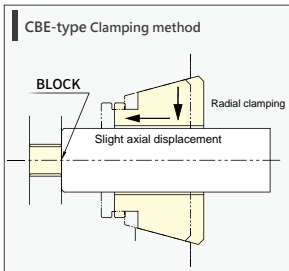
### DIMENSIONS

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

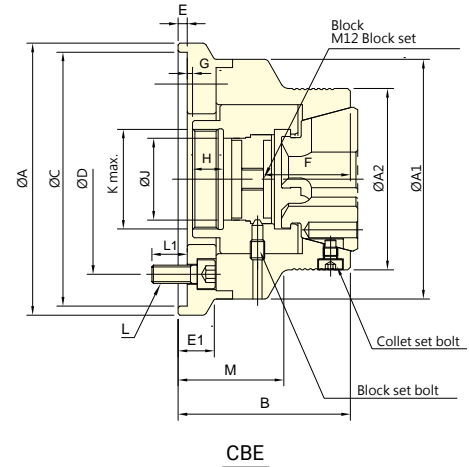
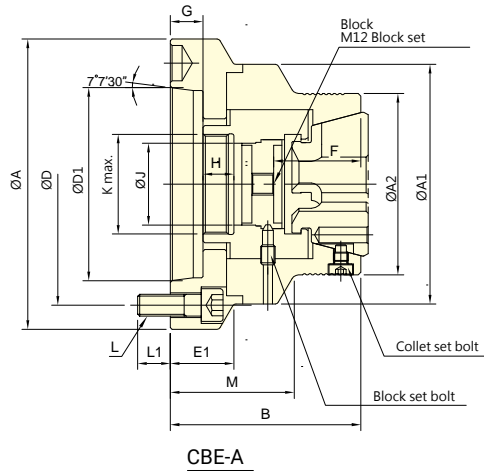


- The pull-back positioning clamping, combined with the workpiece stop block mechanism, features radial clamping and axial fine-tuning torque, enabling precise positioning of the workpiece feeding length for enhanced length accuracy control.
- The material stopper and dust cover can be interchanged for 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.

COLLET CHUCKS



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.



Subject to technical changes

## SPECIFICATIONS

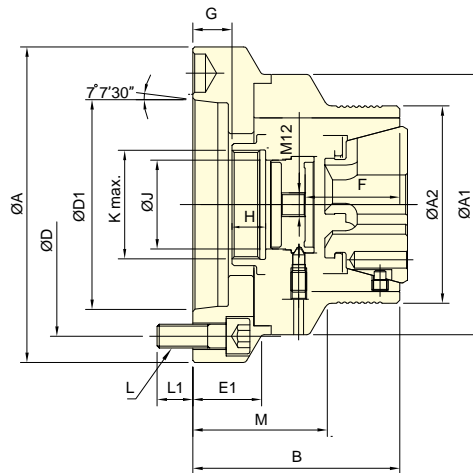
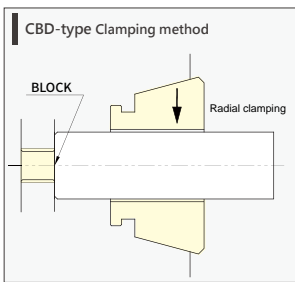
Model	Plunger stroke mm	Max. Chucking Capacity			Max. D.B. pull kN (kgf)	Max. clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	Weight kg	Matching steel collet	Matching Cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
		Round mm	Hexagom mm	Square mm							
<b>CBE-42</b>	4.5	4~42	7~36	7~30	34.3(3500)	78.4(8000)	7000	6	RG-42	TK-B846	2.8(28)
<b>CBE-4212</b>	4.5	4~42	7~36	7~30	34.3(3500)	78.4(8000)	7000	6	RG-42	TK-B846	2.8(28)
<b>CBE-42 A5</b>	4.5	4~42	7~36	7~30	34.3(3500)	78.4(8000)	7000	6.3	RG-42	TK-B846	2.8(28)
<b>CBE-42 A6</b>	4.5	4~42	7~36	7~30	34.3(3500)	78.4(8000)	7000	7.4	RG-42	TK-B846	2.8(28)
<b>CBE-52</b>	4.5	4~52	7~36	7~30	39.2(4000)	92.1(9400)	7000	6.9	RG-52	TK-A853	3.2(32)
<b>CBE-5212</b>	4.5	4~52	7~36	7~30	39.2(4000)	92.1(9400)	7000	6.7	RG-52	TK-A853	3.2(32)
<b>CBE-5217</b>	4.5	4~52	7~36	7~30	39.2(4000)	92.1(9400)	7000	8.9	RG-52	TK-A853	3.2(32)
<b>CBE-52 A5</b>	4.5	4~52	7~36	7~30	39.2(4000)	92.1(9400)	7000	7.8	RG-52	TK-A853	3.2(32)
<b>CBE-52 A6</b>	4.5	4~52	7~36	7~30	39.2(4000)	92.1(9400)	7000	8.3	RG-52	TK-A853	3.2(32)
<b>CBE-65</b>	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	8.6	RG-65	TS-866	3.0(30)
<b>CBE-6514</b>	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.3	RG-65	TS-866	3.0(30)
<b>CBE-65 A5</b>	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	10.8	RG-65	TS-866	3.0(30)
<b>CBE-65 A6</b>	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.5	RG-65	TS-866	3.0(30)
<b>CBE-65 A8</b>	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.5	RG-65	TS-866	3.0(30)

## DIMENSIONS

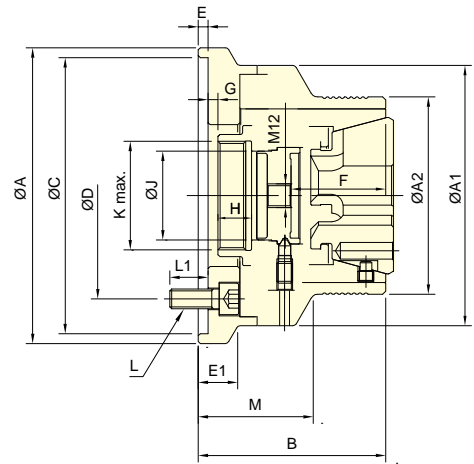
Model	A	A1	A2	B	C (H6)	D	D1	E	E1	F	G max.	G min.	H	J	K max.	L	L1	M
<b>CBE-42</b>	150	132	100	95	140	104.8	-	5	20	48	5.5	1	17	45	M55x2	4~M10x25	19.5	58
<b>CBE-4212</b>	132	132	100	95	120	100	-	5	-	48	5.5	1	17	45	M55x2	4~M10x25	19.5	58
<b>CBE-42 A5</b>	132	132	100	105	-	104.8	82.56	-	-	48	20.5	16	17	45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

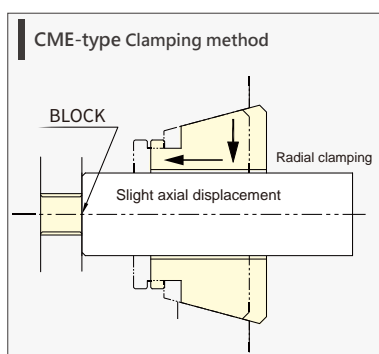
Model	Plunger stroke	Max. Chucking Capacity			Max. D.B. pull	Max. clamping force	Max. speed	Weight	Matching steel collet	Matching Cyl.	Max. pressure
		Round	Hexagom	Square							
	mm	mm	mm	mm	kN (kgf)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg			MPa (kgf/cm <sup>2</sup> )
<b>CBD-52</b>	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	7.3	RG-52	TK-A853	3.0(30)
<b>CBD-5212</b>	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	7.1	RG-52	TK-A853	3.0(30)
<b>CBD-5217</b>	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	10.9	RG-52	TK-A853	3.0(30)
<b>CBD-52 A5</b>	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	7.8	RG-52	TK-A853	3.0(30)
<b>CBD-52 A6</b>	4.5	4~52	7~36	7~45	39.2(4000)	92.1(9400)	7000	9.1	RG-52	TK-A853	3.0(30)
<b>CBD-65</b>	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	8.6	RG-65	TS-866	2.7(27)
<b>CBD-6514</b>	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.3	RG-65	TS-866	2.7(27)
<b>CBD-65 A5</b>	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	10.8	RG-65	TS-866	2.7(27)
<b>CBD-65 A6</b>	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.5	RG-65	TS-866	2.7(27)
<b>CBD-65 A8</b>	4.5	4~65	8~56	8~46	44.1(4500)	103(10500)	6000	9.5	RG-65	TS-866	2.7(27)

## DIMENSIONS

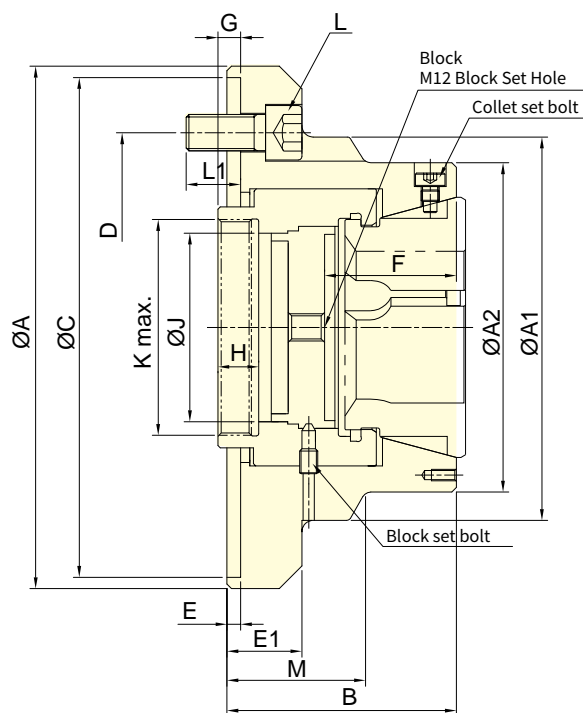
Model	A	A1	A2	B	C (H6)	D	D1	E	E1	F	G max.	G min.	H	J	K max.	L	L1	M
<b>CBD-52</b>	150	140	116	99	140	104.8	-	5	-	52	7	2.5	17	56	M60x2	4~M10x20	14.5	57
<b>CBD-5212</b>	140	140	116	99	120	100	-	5	-	52	7	2.5	17	56	M60x2	4~M10x20	14.5	57
<b>CBD-5217</b>	180	140	116	109	170	133.4	-	6	-	52	16	11.5	17	56	M60x2	4~M12x30	18	67
<b>CBD-52 A5</b>	140	140	116	109	-	104.8	82.56	-	-	52	22	17.5	17	56	M60x2	4~M10x30	16	67
<b>CBD-52 A6</b>	160	140	116	109	-	133.4	106.38	-	-	52	22	17.5	17	56	M60x2	4~M12x35	18	67
<b>CBD-65</b>	180	157	132	112	170	133.4	-	6	24	54	15.5	11	17.5	68	M75x2	4~M12x30	18	70
<b>CBD-6514</b>	157	157	132	114	140	104.8	-	6	-	54	17.5	13	17.5	68	M75x2	4~M10x30	18	72
<b>CBD-65 A5</b>	157	157	132	112	-	104.8	82.56	-	-	54	21.5	17	17.5	68	M75x2	4~M10x25	16	70
<b>CBD-65 A6</b>	157	157	132	110	-	133.4	106.38	-	-	54	19.5	15	17.5	68	M75x2	4~M12x35	18.5	68
<b>CBD-65 A8</b>	202	157	132	114	-	171.4	139.72	-	38	54	23.5	19	17.5	68	M75x2	4~M16x35	24	72



- Simple, concise, and lightweight design.
- Rear pull positioning clamping, with a stopper block mechanism. Equipped with radial clamping and axial fine-tuning torque, it can precisely position the workpiece's material entry length, ensuring more accurate length control.
- The stopper block and dust cover can be interchanged, allowing for through-hole applications and dustproof 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.



Subject to technical changes

## SPECIFICATIONS

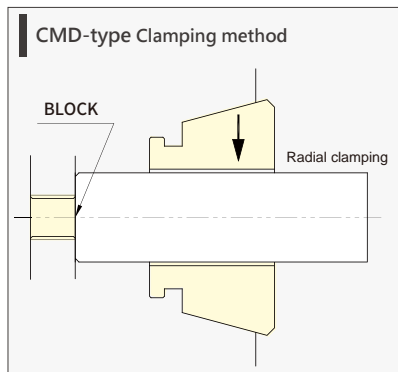
Model	Plunger stroke mm	Max. Chucking Capacity			Max. D.B. pull kN (kgf)	Max. clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	Weight kg	Matching steel collet	Matching Cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
		Round mm	Hexagom mm	Square mm							
<b>CME-80</b>	4.5	5-50	6-68	8-56	50.0(5100)	115(11730)	6500	13.6	RG-80	TK-A1287	2.3 (23)

## DIMENSIONS

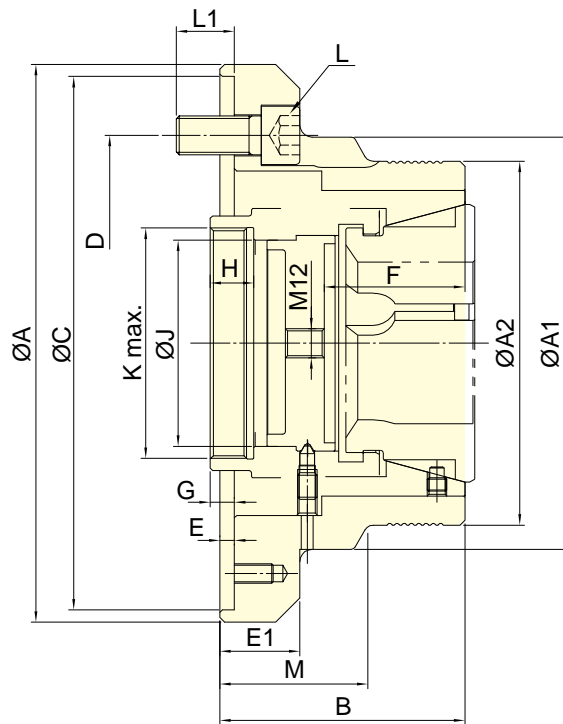
Model	A	A1	A2	B	C(H6)	D	E	E1	F	G max.	G min.	H	J	K max.	L	L1	M
<b>CME-80</b>	230	170	145	101	220	171.4	6	33	58	12	7.5	18	83	M95x2	3-M16x35	24	61



- Compact and lightweight design with simplified structure.
  - Dead length clamping with a built-in work stop ensures zero axial movement for precise workpiece positioning.
  - Compatible with AUTOGRIP rubber collets to prevent forward push and protect the workpiece surface.
  - Interchangeable work stop and dust cover for through-hole machining and chip protection. Ideal for sub-spindle clamping with reduced axial clamping force.
- J is the hole diameter of blank draw nut.
  - K is the maximum thread specification and it could be customize.



When clamping, the workpiece does not shift forward.



Subject to technical changes

## SPECIFICATIONS

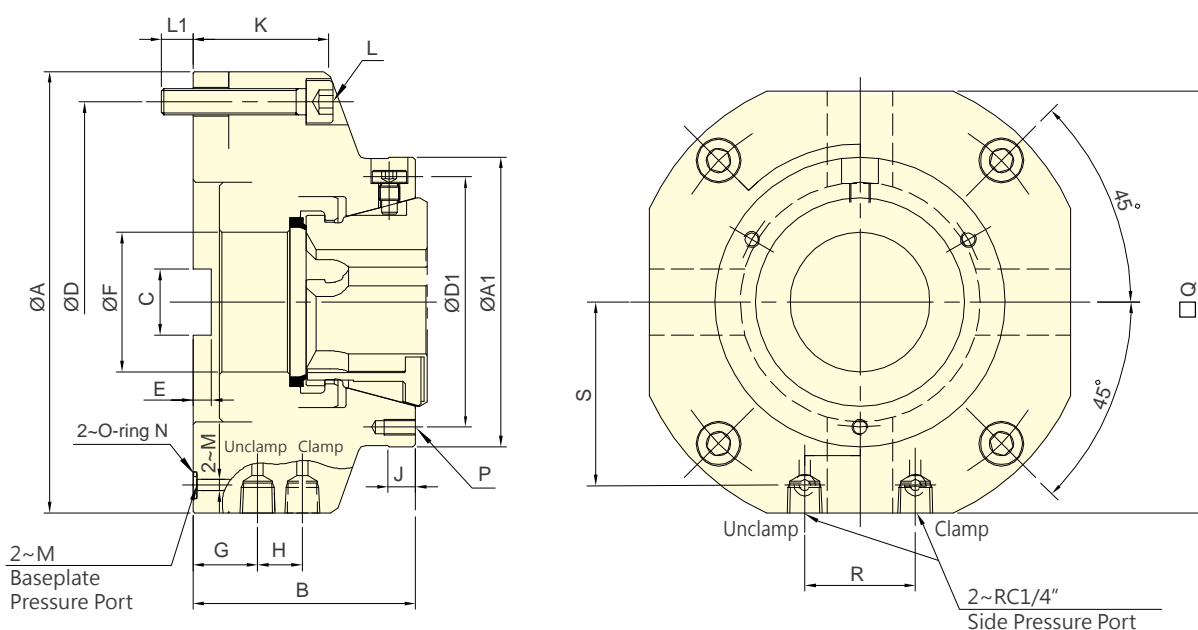
Model	Plunger stroke mm	Max. Chucking Capacity			Max. D.B. pull kN (kgf)	Max. clamping force kN (kgf)	Max. speed min <sup>-1</sup> (r.p.m.)	Weight kg	Matching steel collet	Matching Cyl.	Max. pressure MPa (kgf/cm <sup>2</sup> )
		Round mm	Hexagom mm	Square mm							
<b>CMD-80</b>	4.5	5~80	8~68	8~56	50.0(5100)	115(11730)	6500	13.6	RG-80	TK-A1287	2.3(23)

## DIMENSIONS

Model	A	A1	A2	B	C(H6)	D	E	E1	F	G max.	G min.	H	J	K max.	L	L1	M
<b>CMD-80</b>	230	170	150	101	220	171.4	6	33	58	12.5	8	18	85	M95x2	3~M16x35	24	61



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

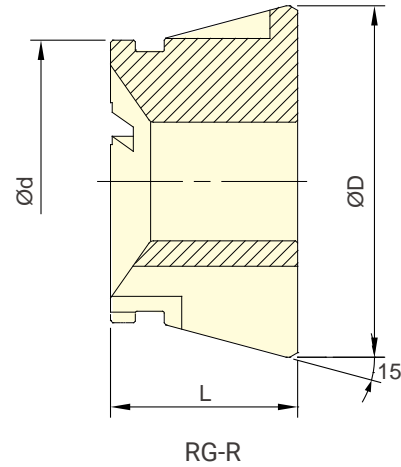
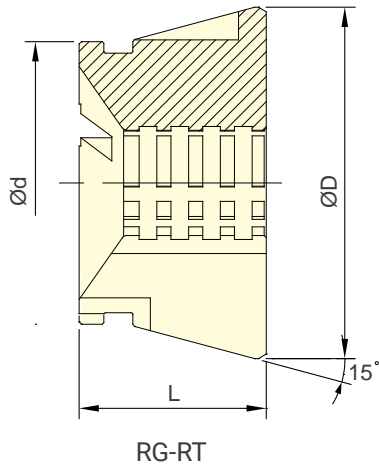
## DIMENSIONS

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

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



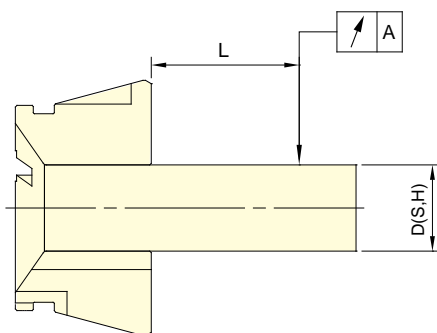
- Rubber grip collet for push type or draw type collet chucks.
- Full gripping area: high rigidity, more gripping force.  
Gripping smoothly: prevent to damage the workpiece.
- More accurate than standard spring collets.  
Accuracy: With customized rubber grip collet.
- Grip Range:  $\pm 0.5\text{mm}$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



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
RG-80	5~80		95	114.5	53	CB-80, CMD-80, CME-80



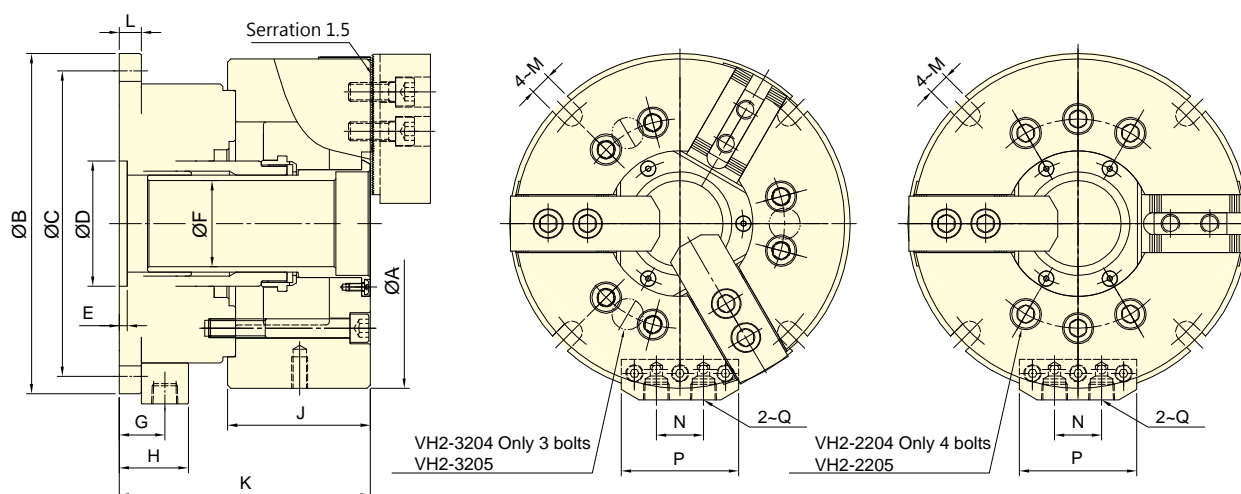
Test Bar D(S,H)	L	A DIN	
	mm	Class1	Class2
3.0~6.0	16	0.015	0.020
6.0~10.0	25	0.015	0.020
10.0~18.0	40	0.020	0.030
18.0~24.0	50	0.020	0.030
24.0~30.0	60	0.020	0.030
30.0~50.0	80	0.030	0.040
50.0~60.0	100	0.030	0.040

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

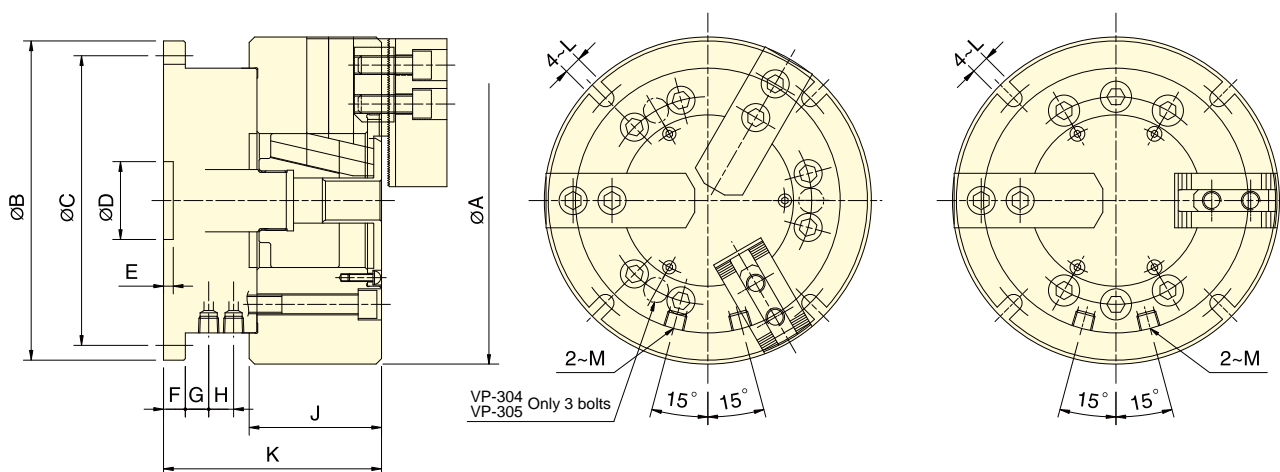
Model	Eff. Piston area		Jaw stroke(Dia.) mm	Max. pressure MPa(kgf/cm <sup>2</sup> )	Weight kg
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>			
VH2-2204	52.4	46.7	5.5	2.0 (20)	9.5
VH2-3204	52.4	46.7	5.5	3.0 (30)	9.5
VH2-2205	63.7	57.9	5.5	2.0 (20)	13.1
VH2-3205	63.7	57.9	5.5	3.0 (30)	12.6
VH2-2206	97.1	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.) mm	Max. pressure MPa(kgf/cm <sup>2</sup> )	Weight kg
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>			
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

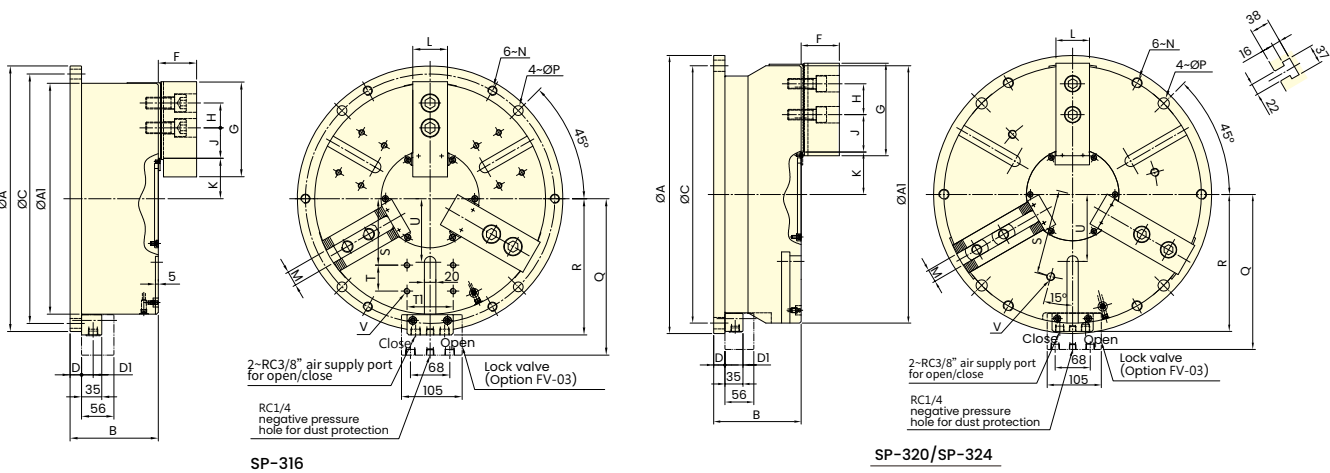
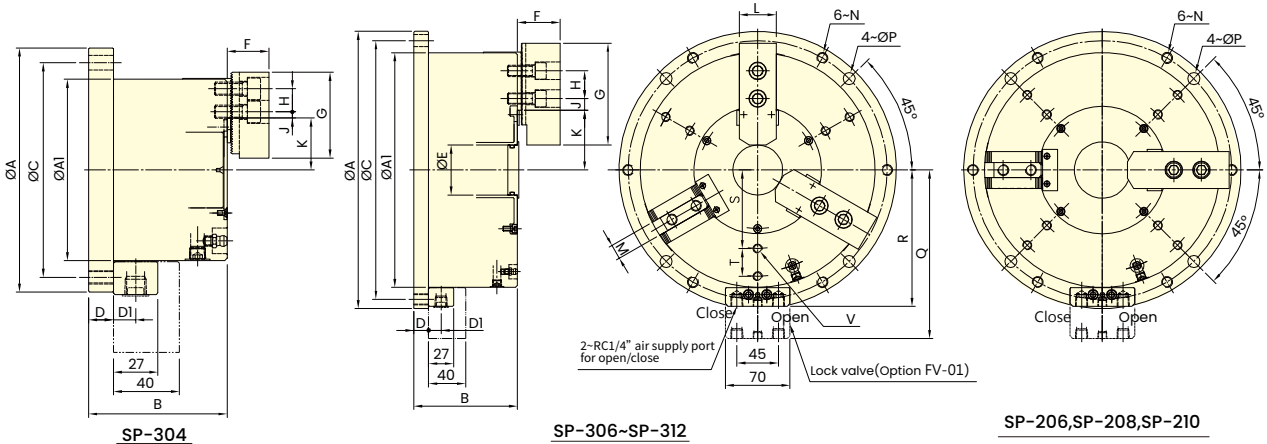
## DIMENSIONS

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



- 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.

STATIONARY CHUCKS



Subject to technical changes

## SPECIFICATIONS

Model	Jaw stroke (Dia.) mm	Chucking Dia.		Max. clamping force		Max. pressure		Min. pressure kgf/cm <sup>2</sup>	Air consumption lit (at 6.0 kgf/cm <sup>2</sup> )	Weight kg
		Max. mm	Min. mm	Pneumatic kN(kgf)	Hydraulic kN(kgf)	Pneumatic MPa(kgf/cm <sup>2</sup> )	Hydraulic MPa(kgf/cm <sup>2</sup> )			
SP-304	5.1	110	10	11.0(1120)	20.0(2040)	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 <sup>2</sup> )	MPa(kgf/cm <sup>2</sup> )	kgf/cm <sup>2</sup>	lit (at 6.0 kgf/cm <sup>2</sup> )	kg
<b>SP-312</b>	9.3	304	60	75.8(7729)	148 (15091)	0.7(7)	1.2(12)	2	6.4	71.3
<b>SP-316</b>	14.5	400	30	120.7(12305)	120.7(12305)	0.7(7)	0.7(7)	2	10.6	147.8
<b>SP-320</b>	16	500	45	155.6(15865)	155.6(15865)	0.7(7)	0.7(7)	2	15	232.7
<b>SP-324</b>	16	600	140	215.9(22015)	215.9(22015)	0.7(7)	0.7(7)	2	22	338.7

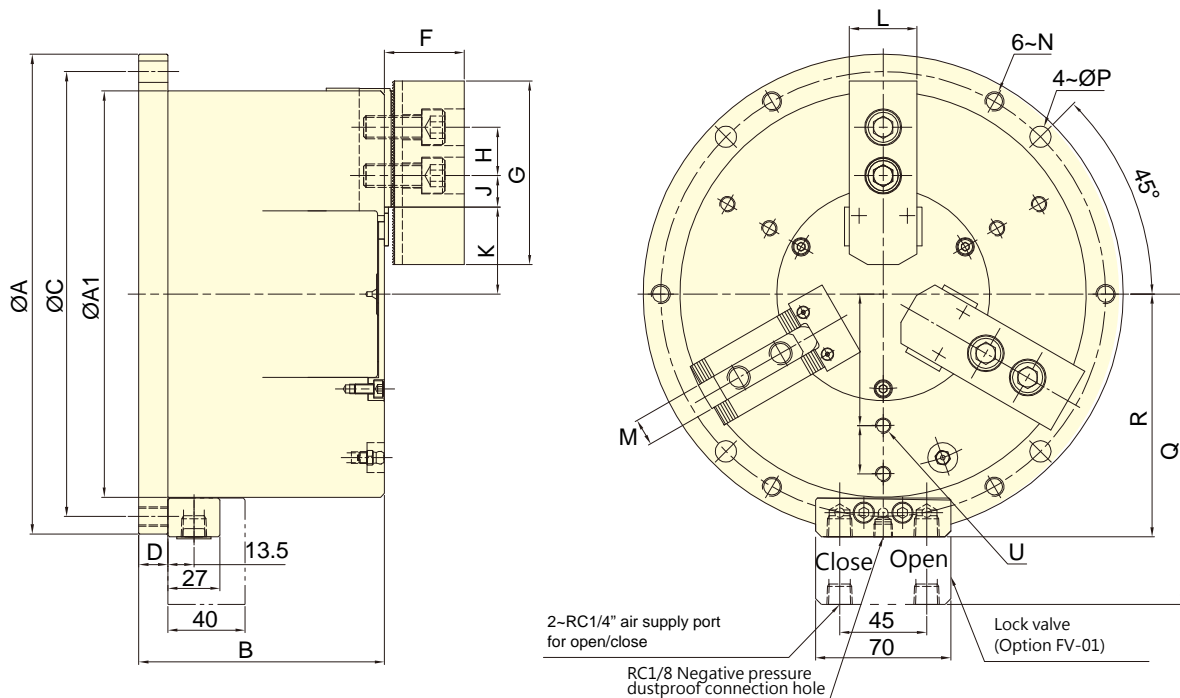
## DIMENSIONS

Model	A(h7)	A1	B	C	D	D1	E	F	G	H	J max.	J min.
<b>SP-304</b>	148	110	84	130	15	13.5	-	25	52	14	3.75	0.75
<b>SP-206</b>	206	168	94	188	15	13.5	25	40	73	20	10.75	4.75
<b>SP-306</b>	206	168	94	188	15	13.5	25	40	73	20	10.75	4.75
<b>SP-208</b>	248	210	108	230	15	13.5	32	41	95	25	16.25	8.75
<b>SP-308</b>	248	210	108	230	15	13.5	32	41	95	25	16.25	8.75
<b>SP-210</b>	300	254	112	280	16	13.5	54	46	110	30	23.25	12.75
<b>SP-310</b>	300	254	112	280	16	13.5	54	46	110	30	23.25	12.75
<b>SP-312</b>	350	304	130	330	18	13.5	65	54	130	30	30.75	12.75
<b>SP-316</b>	460	400	153	432	20	20	-	66	165	43	67.75	18.25
<b>SP-320</b>	540	500	170	500	22	20	-	74	180	60	87.5	24.5
<b>SP-324</b>	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
<b>SP-304</b>	31.5	28.95	23	10	M8x1.25	9	110.5	75.5	-	-	-	-	-
<b>SP-206</b>	47	44.25	31	12	M10x1.5	11	139.5	104.5	55	18	-	-	6~M8x1.25
<b>SP-306</b>	47	44.25	31	12	M10x1.5	11	139.5	104.5	55	18	-	-	6~M8x1.25
<b>SP-208</b>	53	49.6	35	14	M10x1.5	11	160.5	125.5	68	25	-	-	6~M8x1.25
<b>SP-308</b>	53	49.6	35	14	M10x1.5	11	160.5	125.5	68	25	-	-	6~M8x1.25
<b>SP-210</b>	64.5	61	40	16	M12x1.75	13	182.5	147.5	85	30	-	-	6~M10x1.5
<b>SP-310</b>	64.5	61	40	16	M12x1.75	13	182.5	147.5	85	30	-	-	6~M10x1.5
<b>SP-312</b>	77.5	72.85	50	21	M12x1.75	13	207.5	172.5	100	35	-	-	6~M10x1.5
<b>SP-316</b>	70	62.75	60	25.5	M16x2.0	17.5	271	236	115	45	80	110	12~M10x1.5
<b>SP-320</b>	82.5	74.5	64	25	M20x2.5	22	301	266	165	-	-	130	3~M16x2.0
<b>SP-324</b>	129.5	121.5	64	25	M20x2.5	22	351	316	200	-	-	180	3~M16x2.0



- Wedge-hook type solid power chuck with long jaw stroke.
- Equipped with a built-in hydraulic cylinder. When using air pressure as the power source, an optional pressure-holding valve can be installed.
- Easy installation — simply connect the piping and start machining.
- Thin and lightweight design, compatible with standard soft jaws or standard hard jaws.
- Features a single lubrication port for centralized lubrication.



Subject to technical changes

## SPECIFICATIONS

Model	Jaw stroke (Dia.) mm	Chucking Dia.		Max. clamping force		Max. pressure		Min. pressure kgf/cm <sup>2</sup>	Air consumption lit (at 6.0 kgf/cm <sup>2</sup> )	Weight kg
		Max.	Min.	Pneumatic	Hydraulic	Pneumatic	Hydraulic			
		mm	mm	kN(kgf)	kN(kgf)	MPa(kgf/cm <sup>2</sup> )	MPa(kgf/cm <sup>2</sup> )			
<b>SM-306</b>	13.1	168	14	18.0(1830)	32.2(3280)	0.7(7)	1.2(12)	2	1.5	18.7
<b>SM-308</b>	16	210	18	26.2(2670)	45.0(4590)	0.7(7)	1.2(12)	2	2.7	32.5
<b>SM-310</b>	19.6	254	20	37.0(3772)	63.0(6422)	0.7(7)	1.2(12)	2	4.6	53.6

## DIMENSIONS

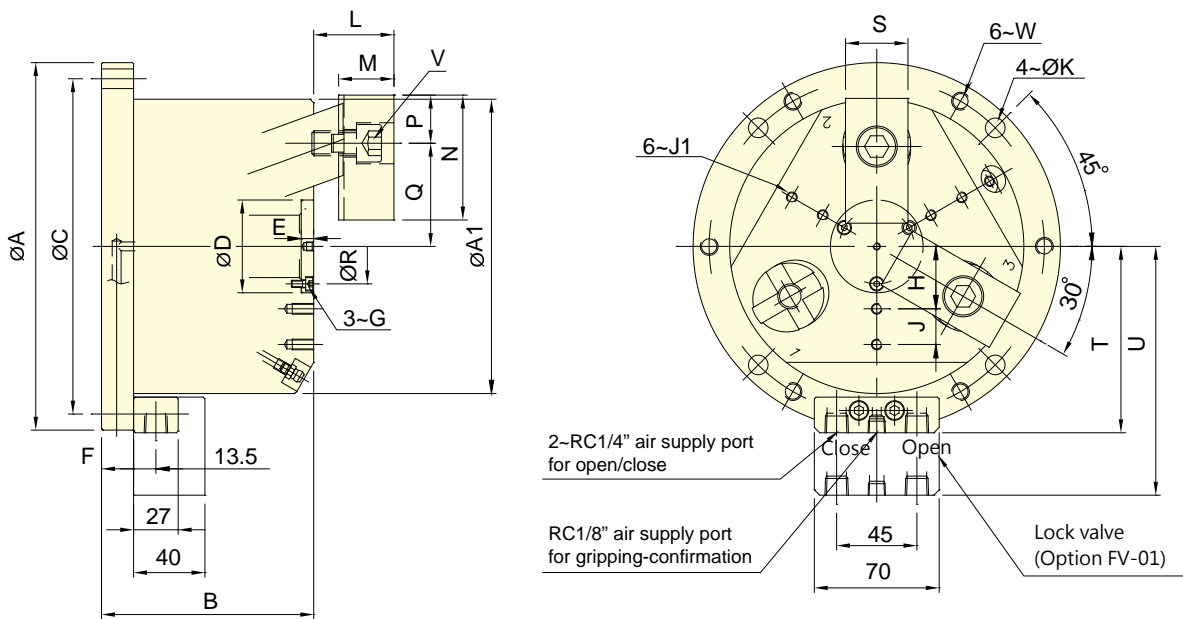
Model	A(h7)	A1	B	C	D	F	G	H	J max.	J min.
<b>SM-306</b>	206	168	110	188	15	40	73	20	16.75	4.75
<b>SM-308</b>	248	210	127	230	15	41	95	25	23.75	8.75
<b>SM-310</b>	300	254	145	280	16	46	110	30	36.75	14.25

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



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



Subject to technical changes

## SPECIFICATIONS

Model	Jaw stroke (Dia.) mm	Chucking Dia.		Max. clamping force		Max. pressure		Min. pressure kgf/cm <sup>2</sup>	Air consumption lit (at 6.0 kgf/cm <sup>2</sup> )	Weight kg
		Max. mm	Min. mm	Pneumatic kN(kgf)	Hydraulic kN(kgf)	Pneumatic MPa(kgf/cm <sup>2</sup> )	Hydraulic MPa(kgf/cm <sup>2</sup> )			
<b>SD-304</b>	5	110	18	5.0 (510)	10.9 (1112)	0.6 (6)	1.3 (13)	2	0.26	8.1
<b>SD-306</b>	7.2	165	35	11.5 (1173)	25.0 (2550)	0.6 (6)	1.3 (13)	2	0.58	20.6
<b>SD-308</b>	7.2	210	28	21.7 (2213)	47.0 (4793)	0.6 (6)	1.3 (13)	2	1.02	34.1
<b>SD-310</b>	10.8	254	40	36.0(3680)	60.0(6118)	0.6 (6)	1.0 (10)	2	2.05	55

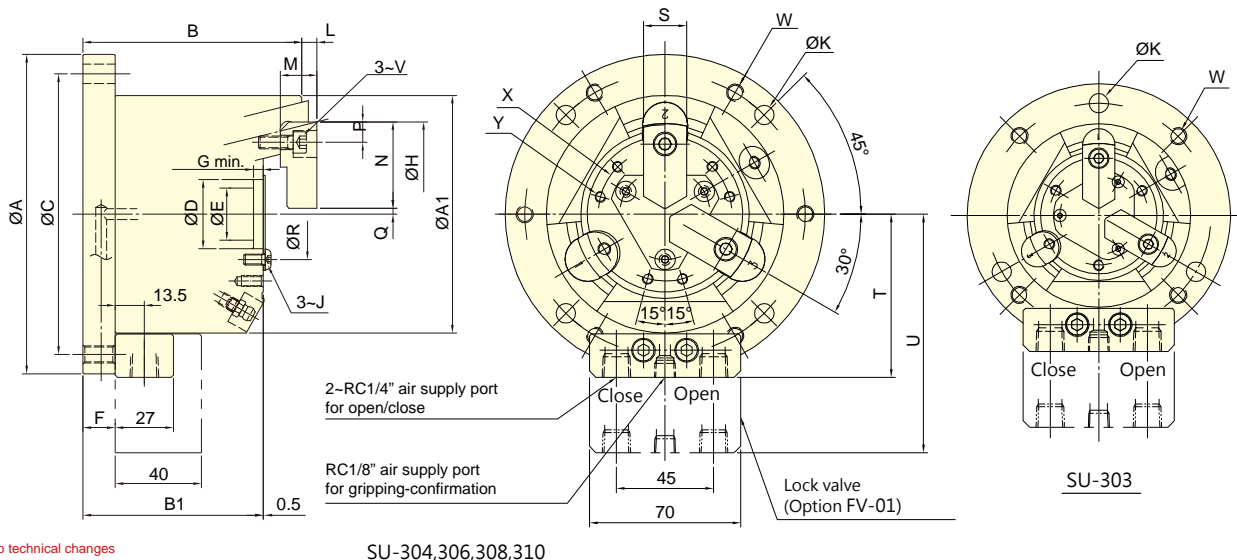
## DIMENSIONS

Model	A(h7)	A1	B	C	D(H7/h7)	E	F	G	H	J	J1	K	L max.	L min.
<b>SD-304</b>	148	110	93.5	130	35	2	15	M3	22.5	10	M5x0.8	9	30	23
<b>SD-306</b>	206	165	116	188	52	7	18	M4	35	20	M6x1	11	45	35
<b>SD-308</b>	248	210	122	230	65	10	18	M5	45	25	M8x1.2	11	56	46
<b>SD-310</b>	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
<b>SD-304</b>	19.5	52	19	37	34.5	27	25	75.5	110.5	3~M10	M8x1.25
<b>SD-306</b>	31	70	27	57.8	54.2	42	35	104.5	139.5	3~M14	M10x1.5
<b>SD-308</b>	41	84	31	70.8	67.2	53	40	125.5	160.5	6~M12	M10x1.5
<b>SD-310</b>	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 <sup>2</sup>	Air consumption lit (at 6.0 kgf/cm <sup>2</sup> )	Weight kg
		Max. mm	Min. mm	Pneumatic kN(kgf)	Hydraulic kN(kgf)	Pneumatic MPa(kgf/cm <sup>2</sup> )	Hydraulic MPa(kgf/cm <sup>2</sup> )			
<b>SU-303</b>	2	42	4	5.2(530)	12.8(1305)	0.6(6)	1.3(13)	2	0.16	5.7
<b>SU-304</b>	3	60	5	6.7 (683)	16.0 (1632)	0.6 (6)	1.3 (13)	2	0.26	7.4
<b>SU-306</b>	5	105	31	18.5 (1886)	40.0 (4079)	0.6 (6)	1.3 (13)	2	0.58	18
<b>SU-308</b>	5	132	32	37.0 (3773)	80.0 (8158)	0.6 (6)	1.3 (13)	2	1.02	31.5
<b>SU-310</b>	5	163	44	46.2(4710)	100.0(10100)	0.6(6)	1.3(13)	2	2.11	53

## DIMENSIONS

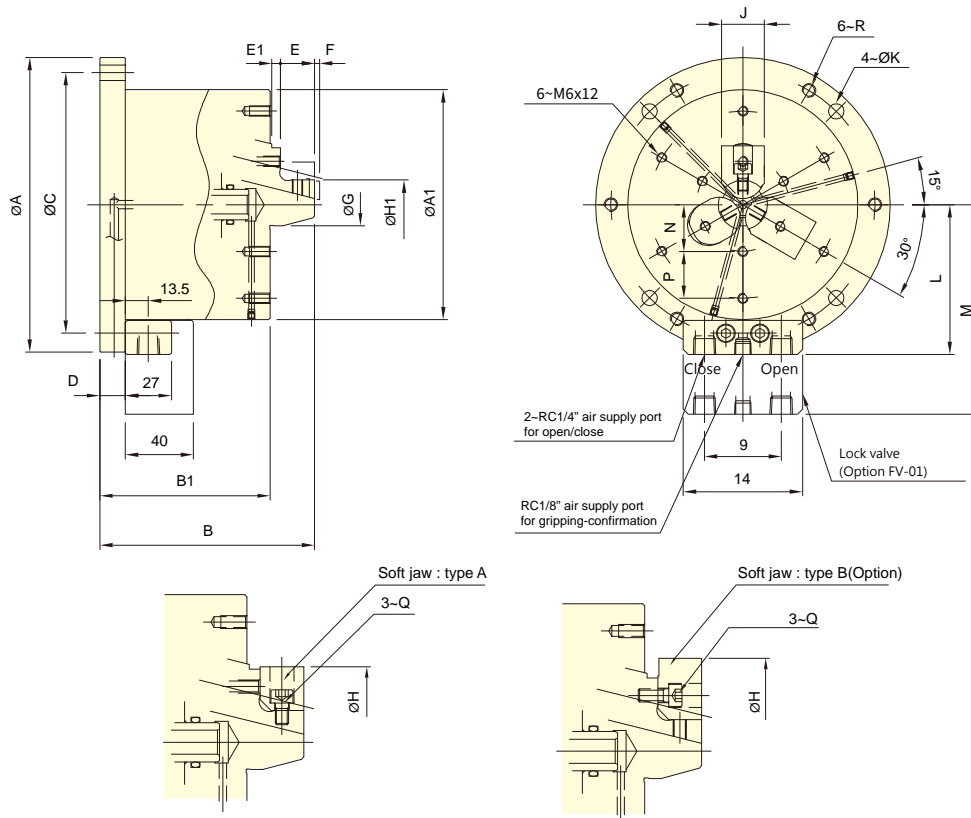
Model	A(h7)	A1	B	B1	C	D(H6)	E	F	G	H(H6)	J	K	L max.	L min.
<b>SU-303</b>	122	85	80.5	68	104	28	22	12	3.5	66	M3	3~9	5	1
<b>SU-304</b>	148	110	101.5	83.5	130	32	24	15	4.5	84	M5	4~9	7	1
<b>SU-306</b>	206	168	136.5	104	188	35	25	18	6	129	M5	4~11	15	5
<b>SU-308</b>	248	210	152	115	230	55	45	18	7	156	M6	4~11	17	7
<b>SU-310</b>	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
<b>SU-303</b>	12	30	7	3.5	2.5	36	15	63	98	M5	4~M8x1.25	46	3~M5x10
<b>SU-304</b>	17	40	9.5	2.75	1.25	42	20	75.5	110.5	M6	6~M8x1.25	62	6~M5x10
<b>SU-306</b>	30	50	17	15.75	13.25	49	30	104.5	139.5	M10	6~M10x1.5	72	6~M6x12
<b>SU-308</b>	34	63	20.5	16.25	13.75	71	35	125.5	160.5	M12	6~M10x1.5	95	6~M6x12
<b>SU-310</b>	39	74	23	20.75	18.25	85	40	147.5	182.5	M14	6~M12x1.75	115	6~M6x12

## STATIONARY EXPANSIBLE PULL BACK CHUCK



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

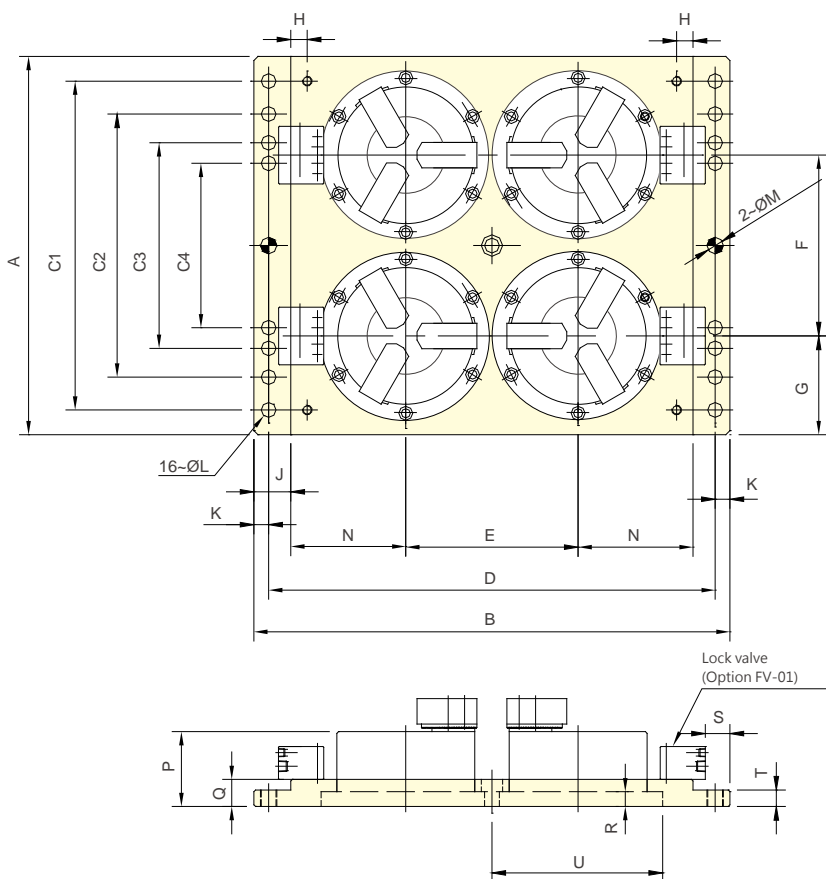
### DIMENSIONS

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
<b>MP4-06206</b>	460	580	400	320	250	200	544	210	220	120

Model	H	J	K	L	M	N	P	Q	R	S	T	U
<b>MP4-06206</b>	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.

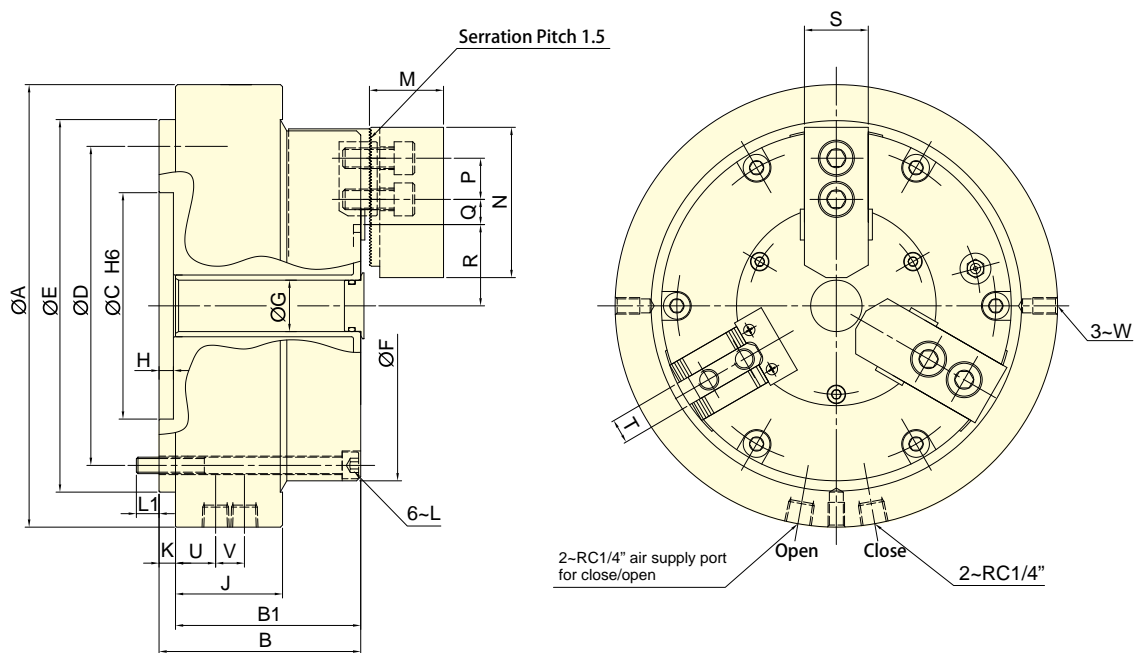


Subject to technical changes

Max. pressure MPa(kgf/cm <sup>2</sup> )	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 high than the requirement shown in the table.



Subject to technical changes

## SPECIFICATIONS

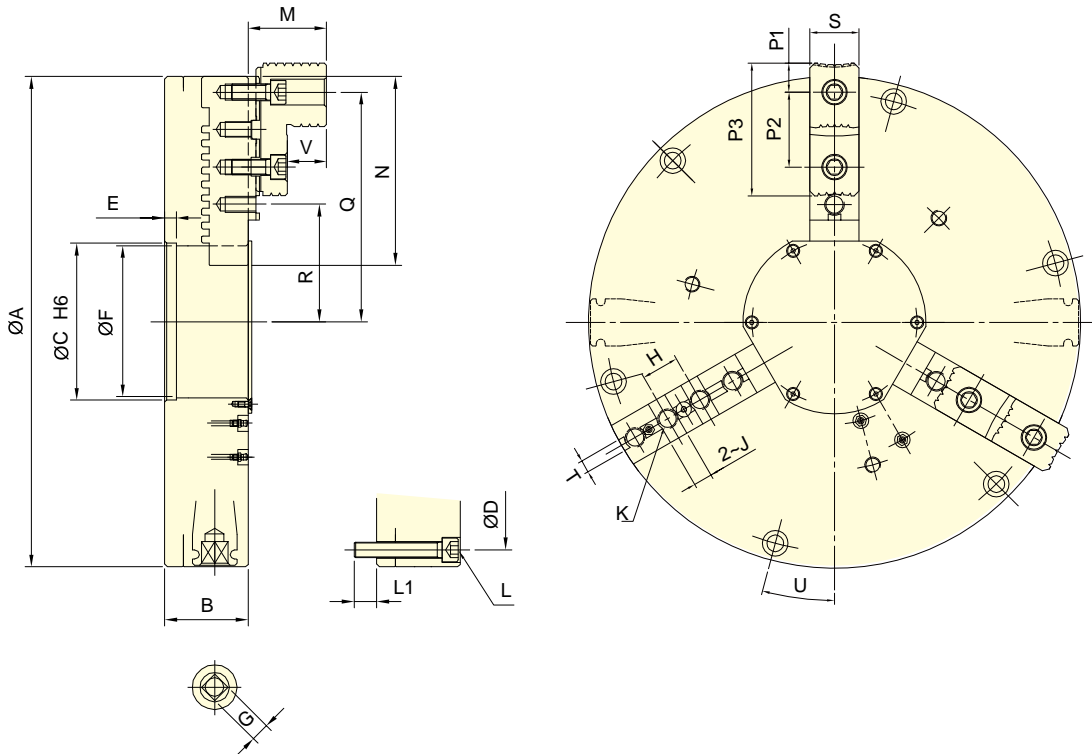
Model	Jaw stroke (Dia.)	Chucking Dia. Max.	Chucking Dia. Min.	Max. clamping force Pneumatic( at 6.0kgf/cm <sup>2</sup> )	Max. pressure (kgf/cm <sup>2</sup> )	Max. speed (r.p.m.)	Max Rotation resistance torque Nm	Air consumption (at 6.0 kgf/cm <sup>2</sup> ) lit (kgf/cm <sup>2</sup> )	Weight kg
	mm								
<b>RAP-306</b>	5.5	170	25	21.0(2141.4)	7	72	40	3.1	16.2
<b>RAP-308</b>	6.8	215	37	34.2(3487.4)	7	60	60	3.1	30.6
<b>RAP-310</b>	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
<b>RAP-306</b>	215	98	90	110	155	181	170	25	7	52	8
<b>RAP-308</b>	260	113	104	110	200	226	215	32	8	52	9
<b>RAP-310</b>	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
<b>RAP-306</b>	6-M8	11	36	73	20	10.75	6.25	47	44.25	31	12	19.5	14	3-M8
<b>RAP-308</b>	6-M8	16	37	95	25	13.25	8.75	57	53.6	35	14	19.5	14	3-M8
<b>RAP-310</b>	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.)	Chucking Dia. Max.	Chucking Dia. Min.	Max. allowable torque	Max. clamping force	Max. speed	Weight
	mm	mm	mm	N · m (kgf · m)	kN (kgf)	min <sup>-1</sup> (r.p.m.)	kg
<b>3MF-16</b>	60	350	95	175 (17.8)	59 (6000)	1450	66.9
<b>3MF-20</b>	80	450	135	170 (17.3)	71.2 (7300)	1150	121
<b>3MF-24</b>	96	520	220	170 (17.3)	71.2 (7300)	950	165

## DIMENSIONS

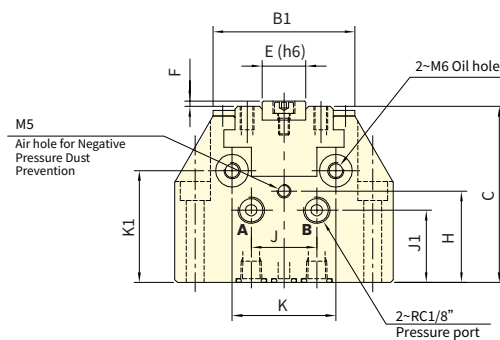
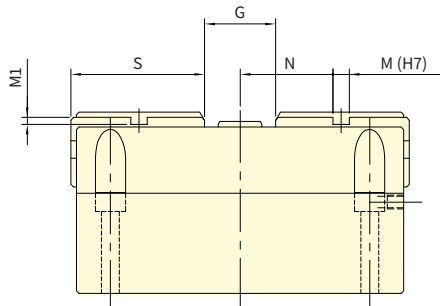
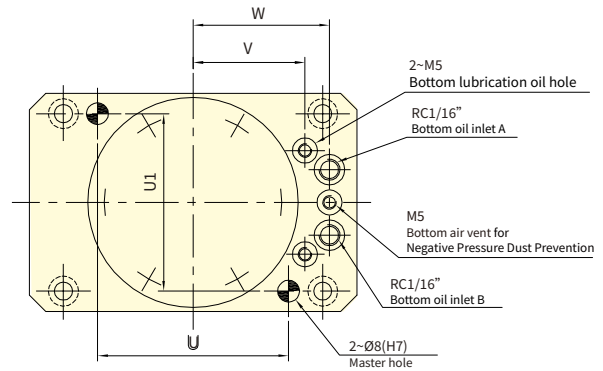
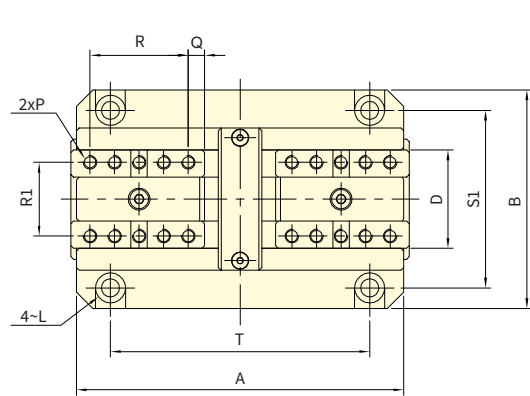
Model	A	B	C (H6)	D	E	F	G	H	J (H7)	K	L	L1	M
<b>3MF-16</b>	400	80	140	375	10	135	□ 14	27	19.03	4~M12	6~M12	23	60
<b>3MF-20</b>	500	85	170	465	12	160	□ 19	38.1	19.03	4~M16	6~M16	23	80
<b>3MF-24</b>	600	84	220	560	10	210	□ 19	38.1	19.03	4~M16	6~M16	23	79

Model	N	P1	P2	P3	Q max.	Q min.	R max.	R min.	S	T (h8)	U	V
<b>3MF-16</b>	148.5	27.16	54	112.5	184.5	164	103	62	40	12.7	15°	28
<b>3MF-20</b>	192.5	29.5	76.2	135	254	214	139.7	99.7	50	12.7	15°	40
<b>3MF-24</b>	215	29.5	76.2	135	298	250	183.7	135.7	50	12.7	15°	40



- Pneumatic actuation enables rapid clamping and unclamping, enhancing machining cycle efficiency.
- Slim and compact body design optimizes machine workspace utilization.
- Oil ports are available on both side and bottom, allowing flexible installation and hydraulic connection.
- Suitable for clamping applications on milling machines and machining centers.
- Hydraulic actuation is also supported; however, clamping and unclamping speed will be comparatively slower.



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							
<b>VRA-808</b>	8.8	100	2.2(224)	8.1(830)	0.9(9)	2.1(21)	60	3.8
<b>VRA-1012</b>	12	120	4.4(450)	13.4(1370)	0.9(9)	2.1(21)	60	7
<b>VRA-1214</b>	14	160	15.0(1530)	31.1(3171)	0.9(9)	2.1(21)	60	12

## DIMENSIONS

Model	A	B	B1	C	D	E(h6)	F	G max	G min	H	J	J1	K	K1	L
<b>VRA-808</b>	120	80	52	64.5	36	16	2	26	17.2	33.5	24	26.5	38	41	M6
<b>VRA-1012</b>	150	100	64	76	45	20	2	32	20	39	30	32	45	49	M8
<b>VRA-1214</b>	188	125	82	82.5	60	24	2.5	36	22	41.5	36	34.5	58	51	M8

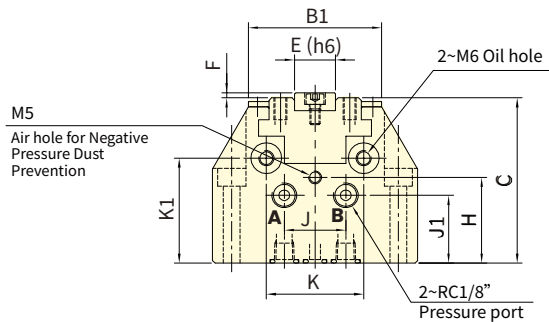
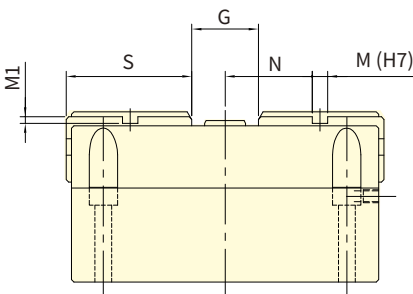
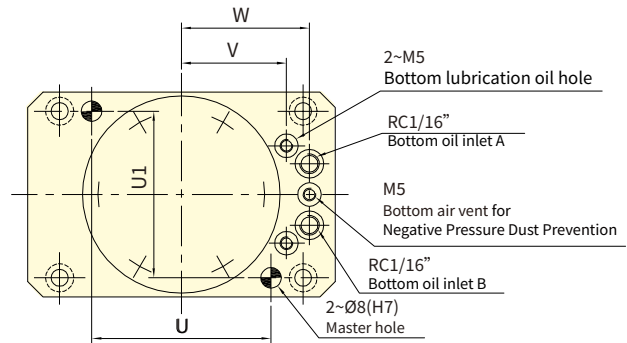
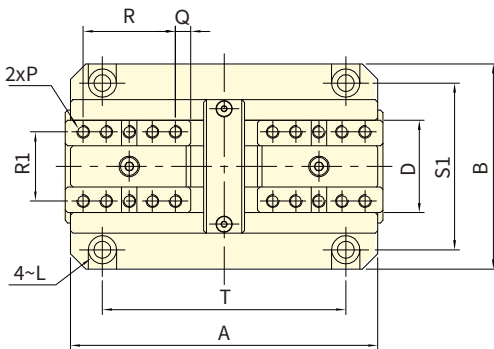
  

Model	M(H7)	M1	N max	N min	P	Q	R	R1	S	T	T1	U	U1	V	W
<b>VRA-808</b>	6	2.5	34	29.6	10~M5x0.8	6	9x4	27	49	95	65	70	65	41	50
<b>VRA-1012</b>	8	2.5	44	38	10~M6x1	8	12x4	32	63	120	80	90	80	54	63
<b>VRA-1214</b>	8	3	60	53	12~M8x1.25	10	12x5	43	80	158	100	128	100	69	78

VISE



- Designed exclusively for hydraulic actuation, achieving faster clamping and unclamping speed without compromising maximum clamping force.
- Slim and compact body design optimizes machine workspace utilization.
- Oil ports are available on both side and bottom, allowing flexible installation and hydraulic connection.
- Suitable for clamping applications on 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							
<b>VRH-808</b>	8.8	100	7.8(795)	5.0(50)	60	3.9	60	3.8
<b>VRH-1012</b>	12	120	15.6(1590)	5.0(50)	60	7.2	60	7
<b>VRH-1214</b>	14	160	31.1(3171)	6.0(60)	60	12.1	60	12

## DIMENSIONS

Model	A	B	B1	C	D	E(h6)	F	G max	G min	H	J	J1	K	K1	L
<b>VRH-808</b>	120	80	52	64.5	36	16	2	26	17.2	33.5	24	26.5	38	41	M6
<b>VRH-1012</b>	150	100	64	76	45	20	2	32	20	39	30	32	45	49	M8
<b>VRH-1214</b>	188	125	82	82.5	60	24	2.5	36	22	41.5	36	34.5	58	51	M8

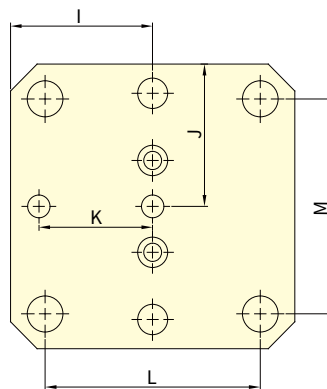
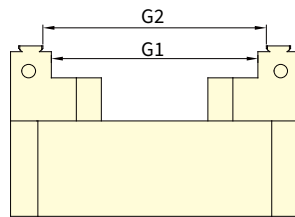
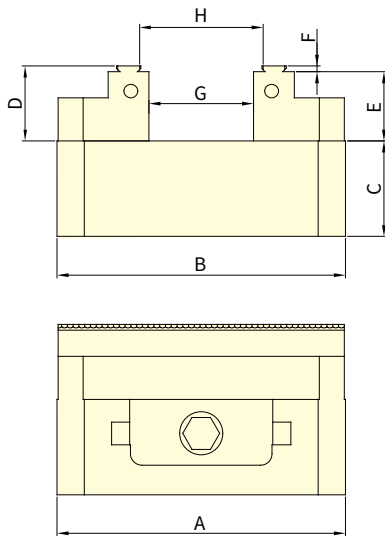
  

Model	M (H7)	M1	N max	N min	P	Q	R	R1	S	T	T1	U	U1	V	W
<b>VRH-808</b>	6	2.5	34	29.6	10~M5x0.8	6	9x4	27	49	95	65	70	65	41	50
<b>VRH-1012</b>	8	2.5	44	38	10~M6x1	8	12x4	32	63	120	80	90	80	54	63
<b>VRH-1214</b>	8	3	60	53	12~M8x1.25	10	12x5	43	80	158	100	128	100	69	78

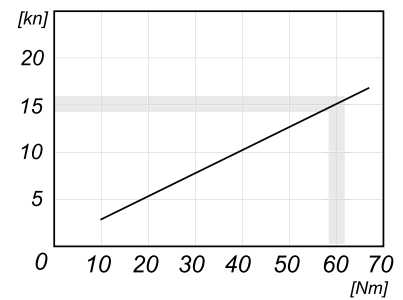


- Self-centering design ideal for 4-axis and 5-axis CNC rotary tables; compatible with horizontal and vertical machining.
- Centering repeatability of  $\pm 0.01$  mm ensures precise and stable workpiece positioning.
- Vise body made of high-grade alloy steel with hardened sliding surfaces (HRC 45+) for excellent wear resistance and rigidity.
- Jaws are made of fully hardened steel (HRC 55+), reversible and interchangeable for extended service life.
- Precision-built and easy to operate, ideal for demanding machining environments requiring high efficiency and accuracy.

VISE



Clamping curve



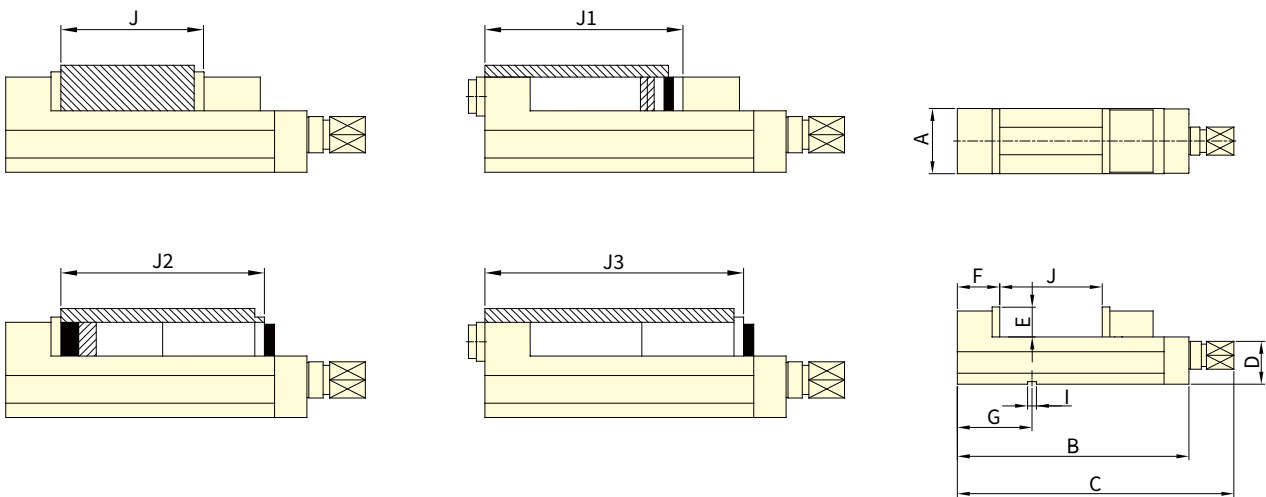
Subject to technical changes

## DIMENSIONS

Model	A	B	C	D	E	F	G	G1	G2	H	I	J	K	L	M	Weight (kg)
<b>MVSC-764</b>	76	102	35	21	18.5	2.5	45	78	82	49	51	38	30	52	52	2.02
<b>MVSC-1275</b>	127	127	42	33	30	2.5	47	91	96	52	63.5	63.5	50.8	96	96	5.71
<b>MVSC-1276</b>	127	153	42	33	30	2.5	73	117	122	78	76.5	63.5	50.8	96	96	6.64
<b>MVSC-1278</b>	127	210	42	33	30	2.5	130	167	172	135	105.5	63.5	50.8	96	96	8.26
<b>MVSC-12710</b>	127	255	42	33	30	2.5	175	219	226	180	127.5	63.5	50.8	96	96	9.5
<b>MVSC-15010</b>	150	255	57	37	34	2.5	143	207	212	148	127.5	75	100	96	96	15.54



- One-piece casting of the vise bed and movable jaw offers outstanding rigidity and stability, ideal for precision machining.
- The down-thrust spherical segment mechanism applies downward clamping force to eliminate jaw lifting and workpiece tilting, enhancing positioning accuracy and jaw longevity.
- The body is made of high-tensile ductile iron FCD60 (equivalent to GGG60), offering durability and strength for heavy-duty machining.
- Slideways are flame-hardened to HRC 45° for excellent wear resistance, maintaining long-term accuracy during extended use.

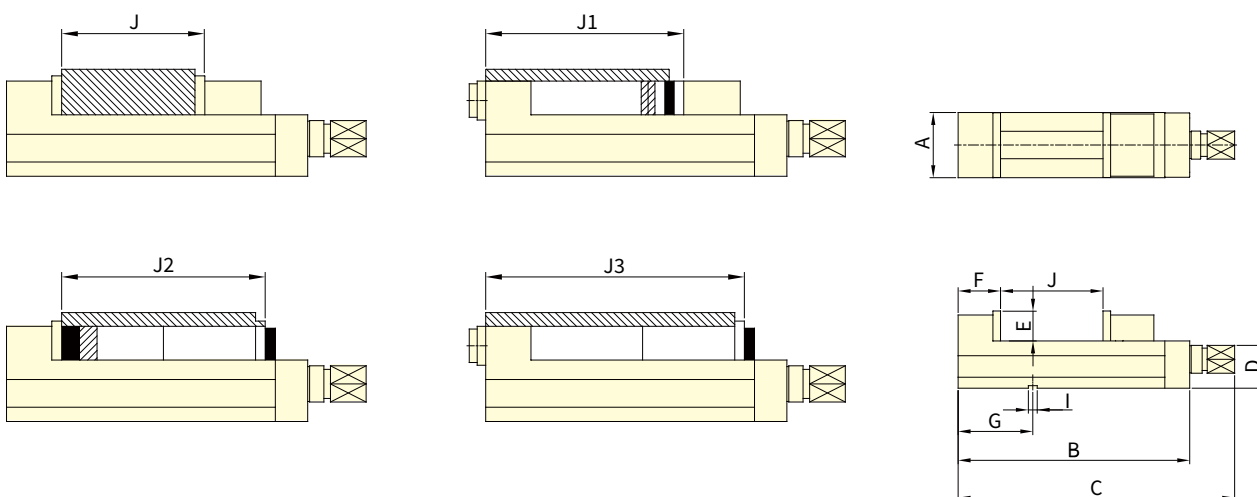


Subject to technical changes

### DIMENSIONS

MODEL	A	B	C	D	E	F	G	I	Jaw Opening(Max.)				Clamping Force (kgf)	Weight (kgs)
									J	J1	J2	J3		
<b>MVRH-100</b>	101	380	480	85	48	80	125	16	135	200	240	330	4000	26
<b>MVRH-130</b>	131	445	545	95	55	85	150	18	190	250	300	390	5000	40
<b>MVRH-160</b>	161	535	635	105	58	100	165	18	250	330	370	480	5500	61
<b>MVRH-160L</b>	161	585	685	105	58	100	165	18	300	380	420	530	5500	65
<b>MVRH-200</b>	201	610	710	110	63	108	190	18	300	370	430	550	6900	82

- One-piece casting of the vise bed and movable jaw ensures excellent rigidity, enhancing clamping stability and durability.
- The down-thrust spherical segment mechanism generates downward force during clamping, preventing jaw lifting and workpiece tilting—improving machining accuracy and jaw life.
- Constructed from high-tensile ductile iron (FCD60 / equivalent to GGG60) with a tensile strength of 60 kgf/mm<sup>2</sup> (approx. 80,000 psi), suitable for demanding machining conditions.
- Flame-hardened slideways (HRC 45°) provide superior wear resistance, maintaining consistent clamping performance even under prolonged use.



Subject to technical changes

## DIMENSIONS

MODEL	A	B	C	D	E	F	G	I	Jaw Opening(Max.)				Clamping Force (kgf)	Weight (kgs)
									J	J1	J2	J3		
<b>MVRE-100</b>	101	400	490	85	48	80	125	16	155	200	240	33	3000	27
<b>MVRE-130</b>	131	645	555	95	55	85	150	18	230	250	300	390	3500	41
<b>MVRE-160</b>	161	555	645	105	58	100	165	18	300	330	370	480	4000	61
<b>MVRE-160L</b>	161	615	705	105	58	100	165	18	350	380	420	530	4000	65
<b>MVRE-200</b>	201	630	720	110	63	108	190	18	340	370	430	550	4500	82

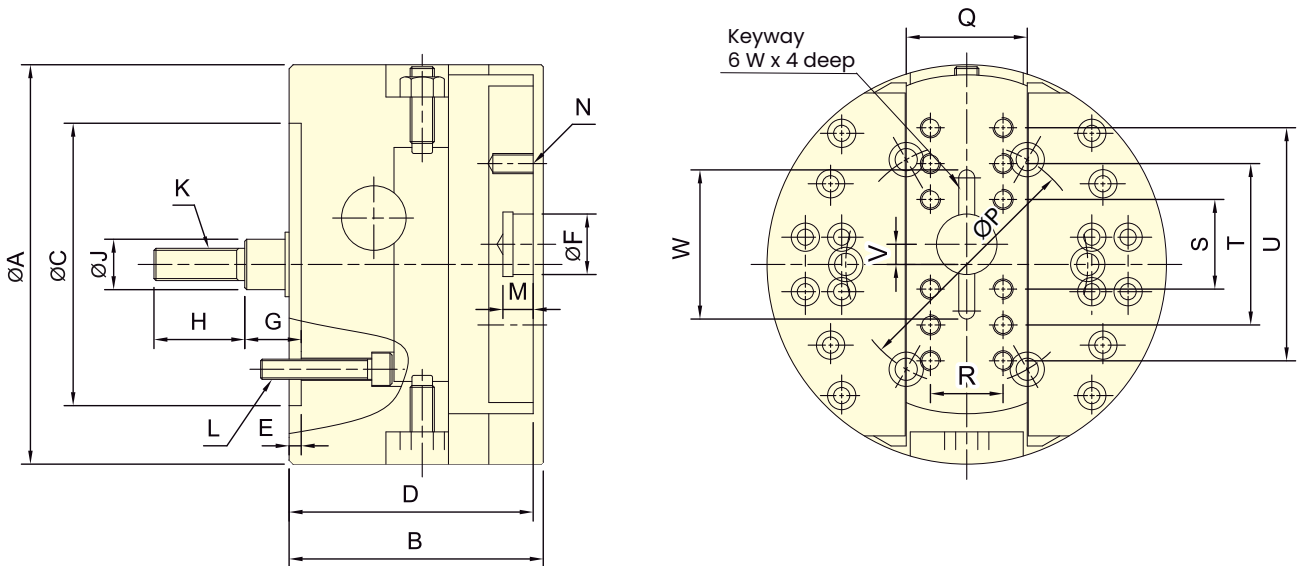
VISE



- 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.

FACING HEADS

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 <sup>-1</sup> (r.p.m.)	kN(kgf)	kg		MPa(kgf/cm <sup>2</sup> )
<b>FA-615</b>	15	15	1200	3.3 (340)	11.9	RS-6520N	1.2(12)
<b>FA-830</b>	30	30	800	5.0 (510)	23.9	RS-6530N	1.8(18)
<b>FA-1570</b>	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
<b>FA-615</b>	150	107	110	102	5	25	43	28	35	20	M12x1.75
<b>FA-830</b>	198	126	140	121	6	30	55	25	45	25	M16x2
<b>FA-1570</b>	400	200	300	192	6	60	110	40	75	50	M30x3.5

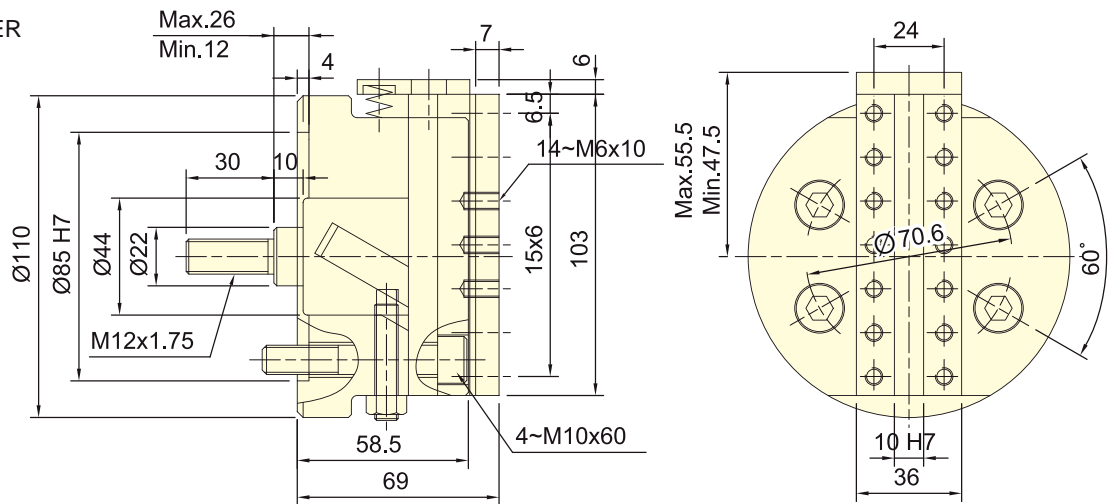
  

Model	L	M	N	P	Q	R	S	T	U	V	W
<b>FA-615</b>	3-M10x40	12	8-M8x16	82.6	50	32	32	68	-	$\pm 7.5$	56
<b>FA-830</b>	6-M10x55	15	12-M10x20	120	60	36	40	80	120	$\pm 15$	66
<b>FA-1570</b>	6-M20x90	15	8-M16x20	235	120	80	130	260	-	$\pm 17.5$	-



- 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:  $\pm 0.03\text{mm}$ .
- Suitable for using with RS type cylinder.
- For precision processes, Wedge Plunger type facing heads are suitable for using with electro servo and ball screw mechanism.

WEDGE PLUNGER  
FA-408



Subject to technical changes

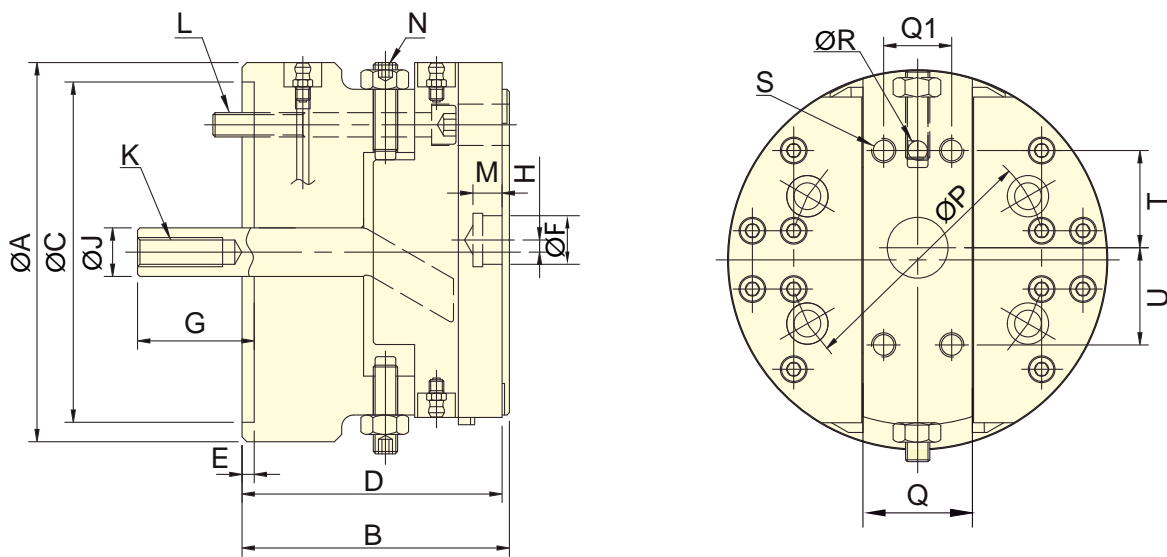
## SPECIFICATIONS

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



- 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:  $\pm 0.03\text{mm}$ .
- Suitable for using with RS type cylinder.
- For precision processes, Wedge Plunger type facing heads are suitable for using with electro servo and ball screw mechanism.

## 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	$\text{min}^{-1}(\text{r.p.m.})$	kN(kgf)	kg		MPa(kgf/cm <sup>2</sup> )
<b>FA-610</b>	18	10	1200	2.8 (280)	14.5	RS-6520N	1.0(10)
<b>FA-812</b>	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
<b>FA-610</b>	156	110	140	107	5	20	66	48	$\pm 5$	20	M12x1.75
<b>FA-812</b>	198	130	170	127	5	25	84	63	$\pm 6$	25	M16x2.0

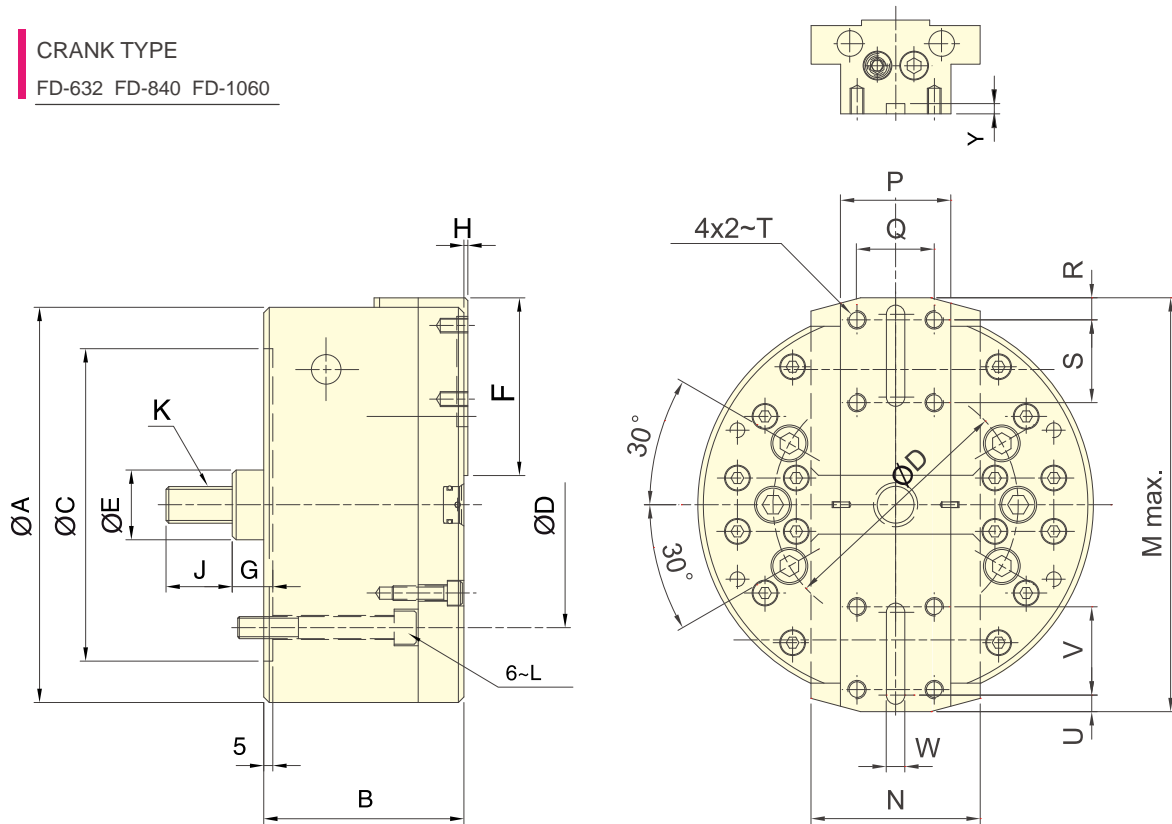
Model	L	M	N	P	Q	Q1	R (H8)	S	T	U
<b>FA-610</b>	4-M10x90	12	2-M10x45	104.8	45	28	8	4-M10x16	40	40
<b>FA-812</b>	4-M12x105	12	2-M12x60	133.4	54	32	10	4-M10x16	50	50



- 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	min <sup>-1</sup> (r.p.m.)	kN(kgf)	mm/min.	kg		MPa(kgf/cm <sup>2</sup> )
<b>FD-632</b>	20	32	3200	16.9 (1720)	300	13.6	RS-1030N	2.4(24)
<b>FD-840</b>	25	40	2500	20.6 (2100)	240	30.0	RS-1030N	3.0(30)
<b>FD-1060</b>	35	60	1800	20.6 (2100)	200	41.5	RS-1040N	3.0(30)

**DIMENSIONS**

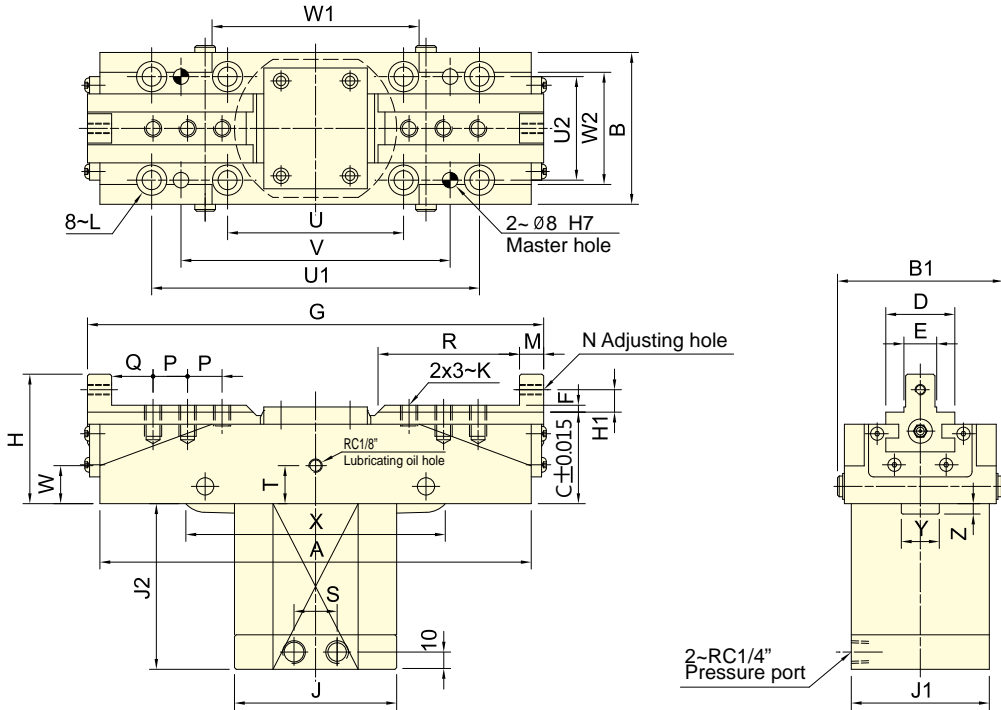
Model	A	B	C(H7)	D	E	F	G max.	G Min.	H	J	K
<b>FD-632</b>	168	93	140	104.8	32	76	31	11	2	36	M16x2.0
<b>FD-840</b>	215	109	170	133.4	38	96.5	32.5	7.5	2	36	M20x2.5
<b>FD-1060</b>	254	123	220	171.4	38	110.5	32.5	-2.5	4	36	M20x2.5

Model	L	M	N	P	Q	R	S	T	U	V	W(H8)	Y
<b>FD-632</b>	6~M10x75	188	70	40	25	10	32	M8x15	10	32	6	4
<b>FD-840</b>	6~M12x85	238	92	60	42	12	45	M10x15	12	45	10	6
<b>FD-1060</b>	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.) mm	Clamping capacity mm	Max. clamping force kN (kgf)	Max. pressure MPa(kgf/cm <sup>2</sup> )	Weight kg
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>					
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

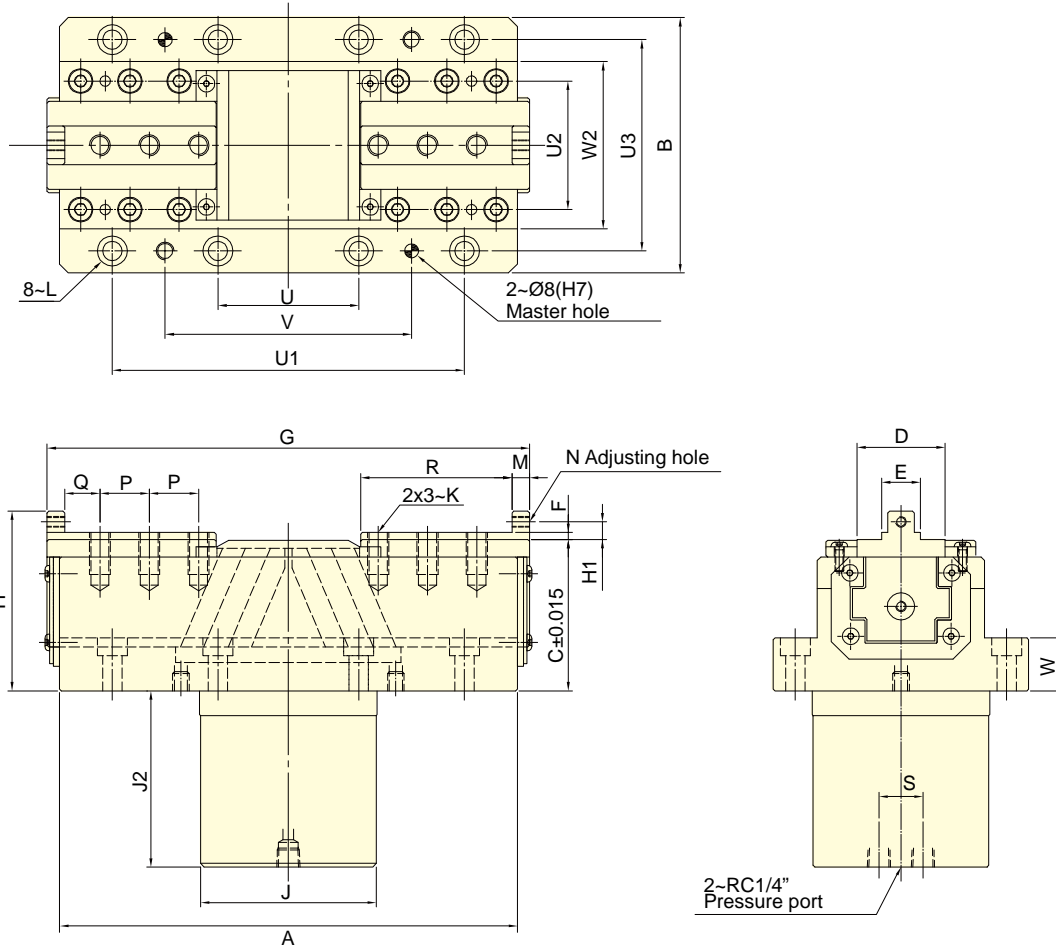
**DIMENSIONS**

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

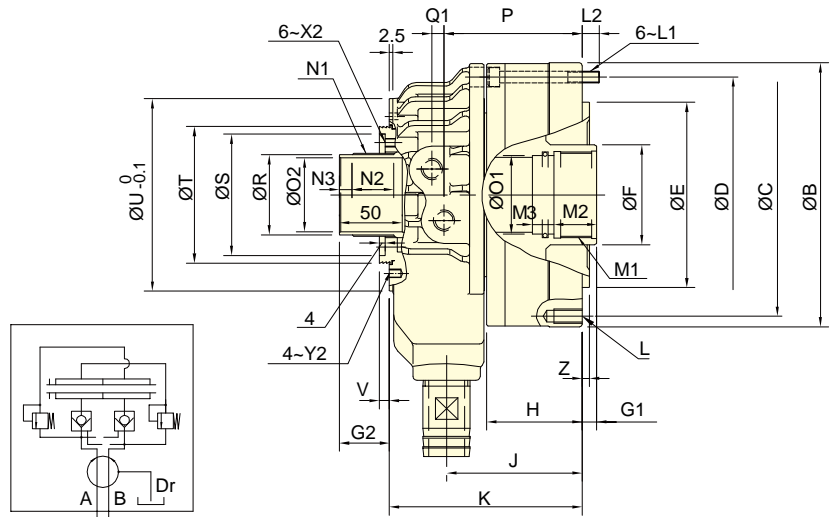
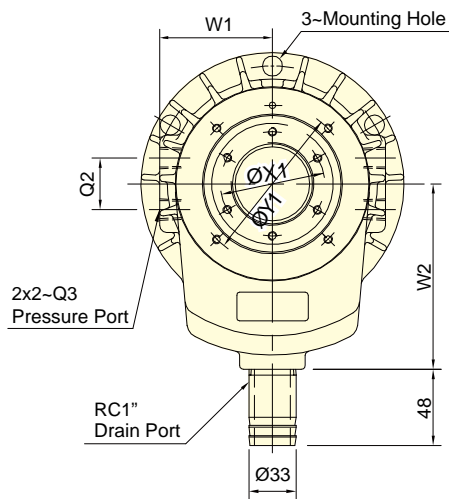
Model	Eff. Piston area		Jaw stroke(Dia.)	Clamping capacity	Max. clamping force	Max. pressure	Weight
	Extend	Retract					
	cm <sup>2</sup>	cm <sup>2</sup>	mm	mm	kN (kgf)	MPa(kgf/cm <sup>2</sup> )	kg
<b>CW-30</b>	31.10	24.10	30	150	34.3(3500)	7.0(70)	32

## DIMENSIONS

Model	A	B	C	D	E(h6)	F	Gmax	Gmin	H	H1	J	J2	K	L	M
<b>CW-30</b>	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			
<b>CW-30</b>	M6x1	28	20	86	25	80	200	120	73	140	30	30			



- 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)



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 <sup>2</sup>	cm <sup>2</sup>						
<b>TK-A528</b>	73.0	69.7	12	8000	4.5 (45)	0.012	6.2	3.0
<b>TK-A533</b>	73.0	69.7	12	8000	4.5 (45)	0.012	6.0	3.0
<b>TK-C643</b>	99.1	88.0	15	7000	4.5 (45)	0.018	7.5	3.0
<b>TK-A646</b>	105.0	93.9	15	7000	4.5 (45)	0.018	7.3	3.0
<b>TK-B646</b>	105.0	93.9	15	7000	4.5 (45)	0.018	8.6	3.0
<b>TK-C646</b>	99.1	88.0	15	7000	4.5 (45)	0.018	7.5	3.0
<b>TK-B846</b>	135.3	125.0	20	6300	4.5 (45)	0.032	12.4	3.9
<b>TK-A853</b>	135.3	125.0	20	6300	4.5 (45)	0.032	11.8	3.9
<b>TK-B853</b>	135.3	125.0	20	6300	4.5(45)	0.032	11.7	3.9
<b>TK-A1068</b>	170.1	155.3	25	5500	4.5 (45)	0.065	19.2	4.2
<b>TK-A1075</b>	170.1	155.3	25	5500	4.5(45)	0.065	18.8	4.2
<b>TK-A1078</b>	170.1	155.3	25	5500	4.5 (45)	0.065	17.4	4.2

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

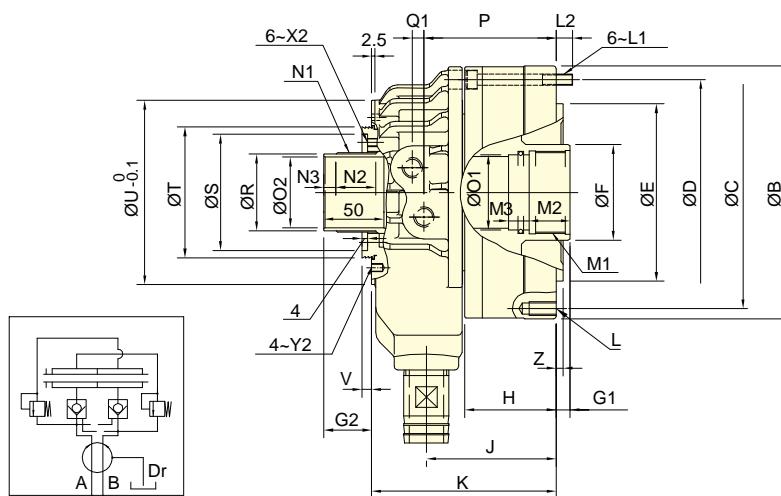
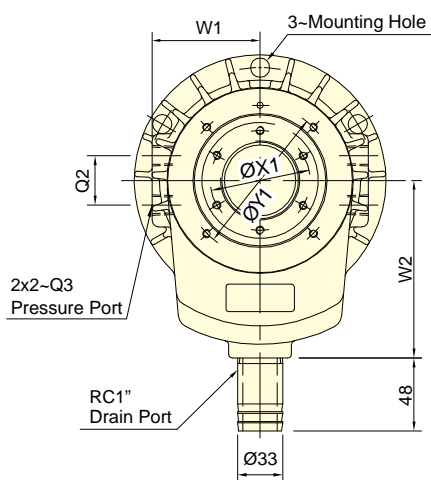
## DIMENSIONS

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.									
<b>TK-A528</b>	105	141	125	125	110	45	12	0	38	26	49	77.5	123	6~M10x20	M8x55	14	M38x1.5	25	13
<b>TK-A533</b>	105	141	125	125	110	45	12	0	38	26	49	77.5	123	6~M10x20	M8x55	14	M38x1.5	25	13
<b>TK-C643</b>	128	156	140	140	120	65	15	0	44	29	56	85	125	12~M10x20	M8x60	12	M50x2	25	13
<b>TK-A646</b>	128	162	147	147	130	65	15	0	44	29	56	85	125	12~M10x20	M8x60	12	M55x2	25	13
<b>TK-B646</b>	128	162	130	147	100	65	15	0	44	29	66	95	135	12~M10x20	M8x70	12	M55x2	30	15
<b>TK-C646</b>	125	156	140	140	120	65	15	0	44	29	56	85	125	12~M10x20	M8x60	12	M55x2	25	13
<b>TK-B846</b>	145	185	170	165	130	70	20	0	48	28	66	95	135	12~M10x20	M8x70	12	M55x2	30	15
<b>TK-A853</b>	145	185	170	165	140	70	20	0	48	28	66	95	135	12~M10x20	M8x70	12	M60x2	30	15
<b>TK-B853</b>	145	185	170	165	130	70	20	0	48	28	66	95	135	12~M10x20	M8x70	12	M60x2	30	15
<b>TK-A1068</b>	170	212	190	190	160	95	25	0	50	25	74	108	158	12~M10x20	M10x80	16	M75x2	35	15
<b>TK-A1075</b>	170	212	190	190	160	95	25	0	50	25	74	108	158	12~M10x20	M10x80	16	M85x2	35	15
<b>TK-A1078</b>	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										
<b>TK-A528</b>	M39x1.5	25	8	35	28	79	8.5	30	RC1/4	37	62	70	98	6	62	110	49	M6x6	83	M5x6	5
<b>TK-A533</b>	M39x1.5	25	8	35	33	79	8.5	30	RC1/4	37	62	70	98	6	62	110	49	M6x6	83	M5x6	5
<b>TK-C643</b>	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
<b>TK-A646</b>	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
<b>TK-B646</b>	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
<b>TK-C646</b>	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
<b>TK-B846</b>	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
<b>TK-A853</b>	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
<b>TK-B853</b>	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
<b>TK-A1068</b>	M84x2	34	9	70	68	110	12	40	RC1/2	81	108	121	164	10	98	160	98	M6x12	155	M6x8	5
<b>TK-A1075</b>	M84x2	34	9	80	75	110	12	40	RC1/2	81	108	121	164	10	98	160	98	M6x12	155	M6x8	5
<b>TK-A1078</b>	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)



Subject to technical changes

## SPECIFICATIONS

Model	Eff. piston area		Piston stroke mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	Moment of inertia kg·m <sup>2</sup>	Weight kg	Total oil leakage lit. / min.
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>						
<b>TK-A1287</b>	234.0	217.5	30	3800	4.0 (40)	0.092	24.8	4.5
<b>TK-A1291</b>	234.0	217.5	30	3800	4.0 (40)	0.092	24.8	4.5
<b>TK-A1511</b>	336.4	315.2	30	3000	3.5(35)	0.38	57.9	7.0
<b>TK-A1512</b>	336.4	315.2	30	3000	3.5(35)	0.38	53.8	7.0
<b>TK-A1512-35</b>	336.4	315.2	35	3000	3.5(35)	0.38	53.8	7.0
<b>TK-2114</b>	373.2	336.1	35	2500	3.0 (30)	0.54	58.2	8.0

## DIMENSIONS

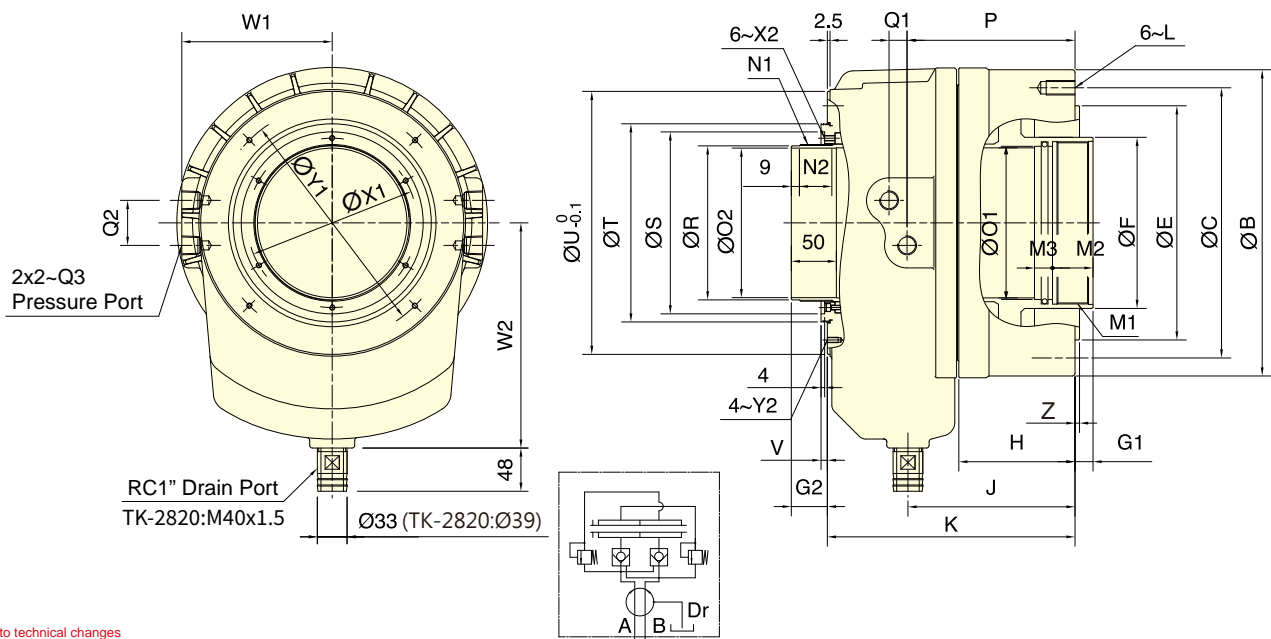
Model	A I.D.	B	C	D	E h7	F	G1		G2		H	J	K	L	L1	L2	M1	M2	M3	N1
							max.	min.	max.	min.										
<b>TK-A1287</b>	200	245	215	225	180	110	30	0	59	29	86	126	184	12-M12x24	M10x90	14.5	M95x2	35	15	M99x2
<b>TK-A1291</b>	200	245	215	225	180	110	30	0	59	29	86	126	184	12-M12x24	M10x90	14.5	M100x2	35	15	M99x2
<b>TK-A1511</b>	250	300	275	275	230	140	30	0	58	28	102	156	226	12-M16x36	M12x110	21	M120x2	45	15	M129x2
<b>TK-A1512</b>	250	300	275	275	230	140	30	0	58	28	102	156	226	12-M16x36	M12x110	21	M130x2	45	15	M129x2
<b>TK-A1512-35</b>	250	300	275	275	230	140	35	0	63	28	102	161	231	12-M16x36	M12x115	21	M130x2	45	15	M129x2
<b>TK-2114</b>	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 H8	O2 H8	P	Q1	Q2	Q3	R g7	S H7	T	U	V	W1	W2	X1	X2	Y1	Y2	Z
<b>TK-A1291</b>	38	9	95	91	127.5	15	45	RC1/2	96	120	138	180	7	110	185	108	M6x10	165	M6x10	5
<b>TK-A1511</b>	38	9	115	110	153.75	17	50	RC1/2	126	150	170	227	7	134	210	138	M6x10	210	M6x9	6
<b>TK-A1512</b>	38	9	125	120	153.75	17	50	RC1/2	126	150	170	227	7	134	210	138	M6x10	210	M6x9	6
<b>TK-A1512-35</b>	38	9	125	120	158.75	17	50	RC1/2	126	150	170	227	7	134	210	138	M6x10	210	M6x9	6
<b>TK-2114</b>	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)



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 <sup>2</sup>	cm <sup>2</sup>	mm	min <sup>-1</sup> (r.p.m.)	MPa(kgf/cm <sup>2</sup> )	kg·m <sup>2</sup>	kg	lit. / min.
<b>TK-2416</b>	418.4	375.4	35	2000	3.0 (30)	1.12	78.0	9.0
<b>TK-2416L</b>	418.4	375.4	51	2000	3.0 (30)	1.31	79.2	9.0
<b>TK-2820</b>	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.									
<b>TK-2416</b>	290	340	300	260	190	35	0	60	25	129	185.5	275	M16x32	M180x3	45	20	M174x2	38
<b>TK-2416L</b>	290	340	300	260	190	51	0	76	25	145	201.5	291	M16x32	M180x3	45	20	M174x2	52
<b>TK-2820</b>	340	395	360	320	235	51	0	76	25	152	212.5	316	M20x40	M220x3	45	20	M218x2	52

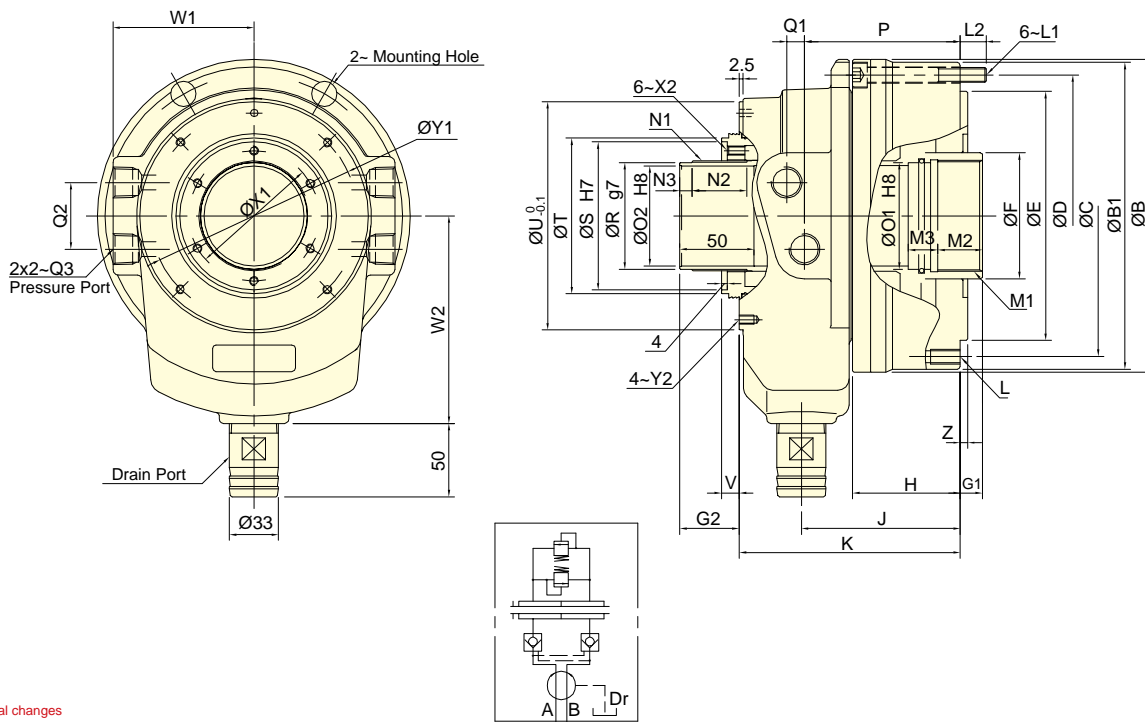
  

Model	O1	O2	P	Q1	Q2	Q3	R	S	T	U	V	W1	W2	X1	X2	Y1	Y2	Z
	H8	H8					g7	H7										
<b>TK-2416</b>	170	166	186.5	20	50	RC1/2	171	202	220	292	7	167	250	188	M6x11	260	M6x12	5
<b>TK-2416L</b>	170	166	202.5	20	50	RC1/2	171	202	220	292	7	167	250	188	M6x11	260	M6x12	6
<b>TK-2820</b>	210	205	216	21	50	RC1/2	215	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 :  $\varnothing 33$  ; optional :  $\varnothing 40, \varnothing 60$ .
- 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 <sup>2</sup>	cm <sup>2</sup>	mm	min <sup>-1</sup> (r.p.m.)	MPa(kgf/cm <sup>2</sup> )	kg·m <sup>2</sup>	kg	lit. / min.
<b>TS-539</b>	72.4	67.1	15	8000	4.5 (45)	0.012	6.9	3.0
<b>TS-866</b>	168.0	155.5	25	5600	4.5 (45)	0.056	16.3	4.0
<b>TS-1081</b>	189.2	174.3	25	4800	4.5 (45)	0.085	21.2	4.3
<b>TS-1012</b>	231.7	222.0	30	3500	3.5(35)	0.193	35.6	6.0

## DIMENSIONS

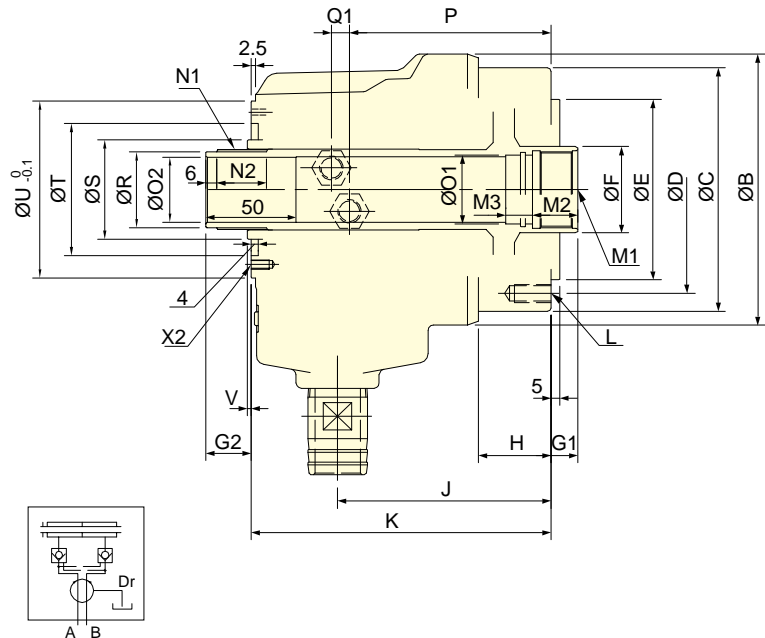
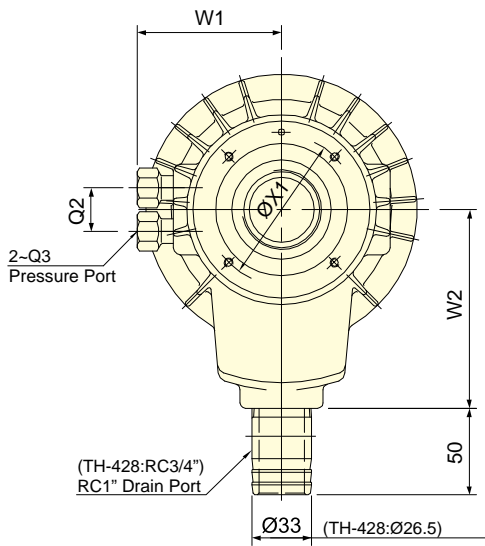
Model	A	B	B1	C	D	E	F	G1		G2		H	J	K	L	L1	L2	M1	M2	M3
	I.D.					h7		max.	min.	max.	min.									
<b>TS-539</b>	107	143	141	125	125	110	52	15	0	42.5	27.5	57	91	124	6~M10x20	M8x60	12	M45x1.5	25	12
<b>TS-866</b>	165	211	207	190	190	168	85	25	0	55	30	72.5	107	149	12~M10x20	M10x80	17.5	M75x2	35	15
<b>TS-1081</b>	180	226	222	205	205	168	100	25	0	58	33	74	115	166	12~M10x20	M10x90	18	M90x2	35	15
<b>TS-1012</b>	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	O2	P	Q1	Q2	Q3	R	S	T	U	V	W1	W2	X1	X2	Y1	Y2	Z
				(H8)	(H8)					(g7)	(H7)										
<b>TS-539</b>	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
<b>TS-866</b>	M74x1.5	37	8	72	66.5	105	12	45	RC1/2	72	100	111	154	12	95	140	88	M6x12	140	M6x10	5
<b>TS-1081</b>	M89x2.0	38	9	85	81	109	15	45	RC1/2	86	113	123	175	16	103	160	103	M6x12	160	M6x10	5
<b>TS-1012</b>	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 <sup>2</sup>	cm <sup>2</sup>						
<b>TH-428</b>	53.2	50.5	10	8000	4.0(40)	0.008	5.8	3.0
<b>TH-A536</b>	69.8	67.5	15	8000	4.0(40)	0.05	8.3	3.0

## DIMENSIONS

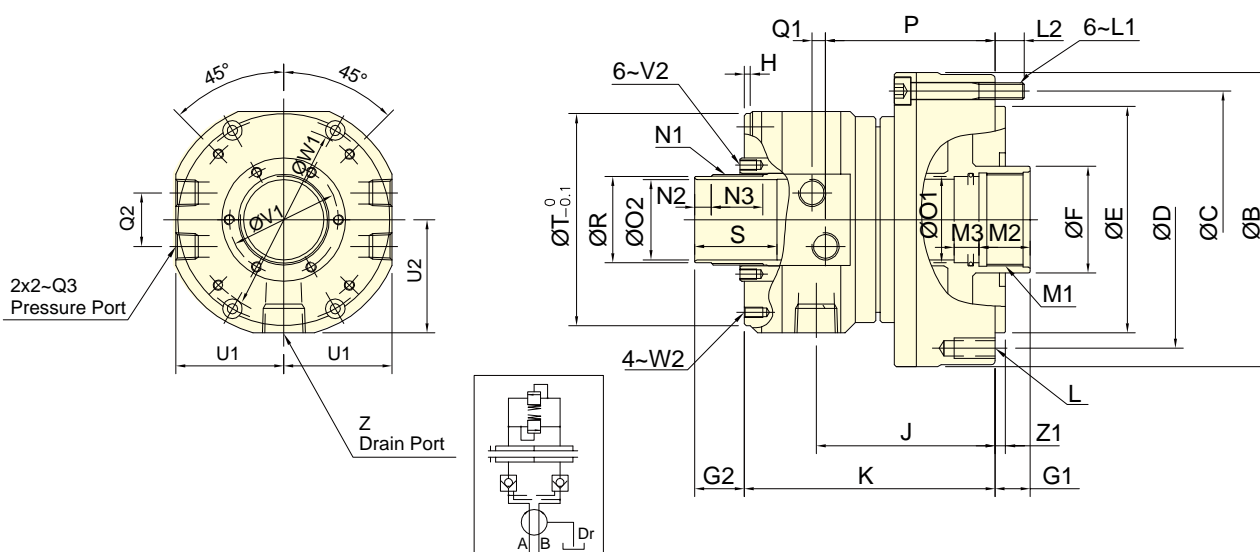
Model	A I.D.	B	C	D	E (h7)	F	G1 max.	G1 min.	G2 max.	G2 min.	H	J	K	L	M1	M2	M3
<b>TH-428</b>	90	130	120	100	80	40	10	0	35	25	45	127.5	155	6-M8x15	M33x1.5	25	12
<b>TH-A536</b>	105	150	135	115	100	48	15	0	40	25	40	118	166	6-M10x20	M42x1.5	25	15

Model	N1	N2	O1 (H8)	O2 (H8)	P	Q1	Q2	Q3	R (g7)	S	T	U	V	W1	W2	X1	X2
<b>TH-428</b>	M34x1.5	26	30	28	101.5	11	24	RC1/4	32	45	65	86	4	72	105	76	M4x7
<b>TH-A536</b>	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.



- Compact short-length design with lightweight construction for space-saving installation.
- Built-in check valve and pressure relief valve ensure enhanced operational safety.
- Large oil inlet and drain ports provide high oil flow and smooth drainage.
- Supports both front-end and rear-end mounting for flexible installation options.
- Suitable for use with both vertical and horizontal spindles.
- Linear sensor can be attached.(optional)



Subject to technical changes

## SPECIFICATIONS

Model	Eff. piston area		Piston stroke mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	Moment of inertia kg·m <sup>2</sup>	Weight kg	Total oil leakage lit. / min.
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>						
	<b>TR-433</b>	49.5						
<b>TR-536</b>	56.4	54.2	15	8000	4.0(40)	0.011	6.4	3.0
<b>TR-539</b>	72.4	67.1	15	8000	4.0(40)	0.010	6.8	3.0
<b>TR-A646</b>	105.0	93.9	15	7000	4.0(40)	0.015	9.5	3.0
<b>TR-B646</b>	105	93.9	15	7000	4.0(40)	0.015	10	3.0
<b>TR-853</b>	135.3	125	20	6300	4.0(40)	0.032	11.5	3.9
<b>TR-1075</b>	170	155	25	4500	4.0(40)	0.065	18	4.2
<b>TR-1291</b>	234	217.5	30	3500	4.0(40)	0.092	29.5	4.5

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

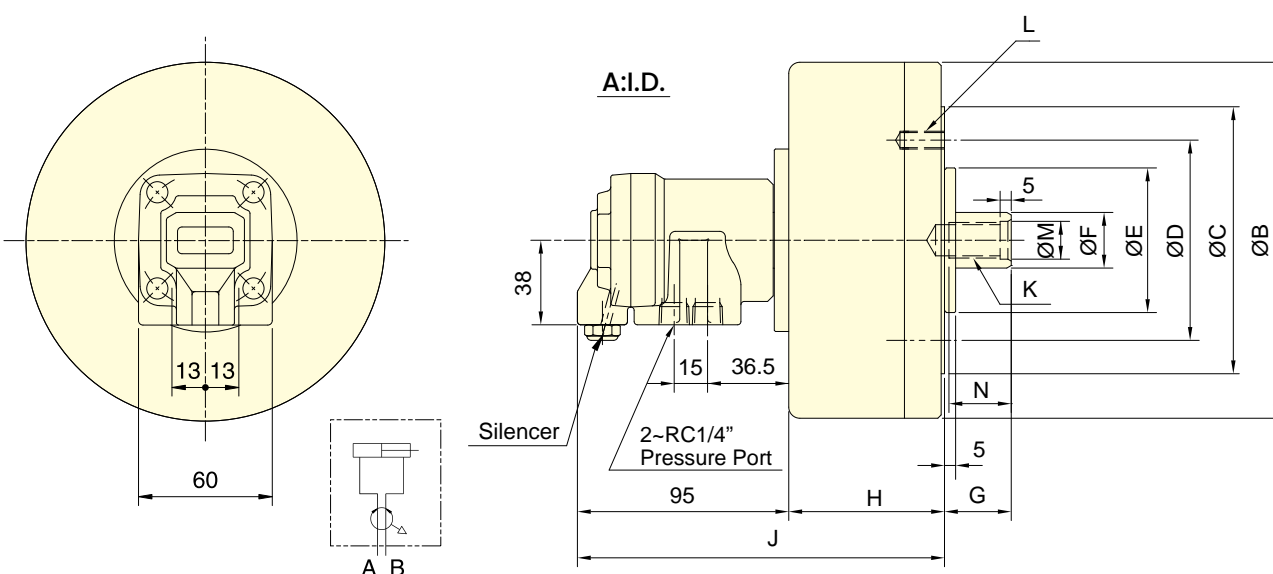
**DIMENSIONS**

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.									
<b>TR-433</b>	90	120	106	100	80	46	10	0	30	20	3.5	97	133	6-M8x15	M8x60	12	M40x1.5	25	10
<b>TR-536</b>	97	133	115	115	100	48	15	0	34	19	3.5	97	133	6-M10x20	M8x60	12	M42x1.5	25	15
<b>TR-539</b>	107	143	125	125	110	52	15	0	34	19	4	97	133	6-M10x20	M8x60	12	M45x1.5	25	12
<b>TR-A646</b>	128	165	147	147	130	65	15	0	34	19	3.5	97	135	12-M10x20	M8x60	11.5	M55x2	25	13
<b>TR-B646</b>	128	162	147	130	100	65	15	0	34	19	3.5	107.5	145	12-M10x20	M8x70	11.5	M55x2	30	15
<b>TR-853</b>	145	185	165	170	130	70	20	0	47	27	4.5	118.5	160	12-M10X20	M8x75	12	M60x2	30	15
<b>TR-1075</b>	170	212	190	190	160	95	25	0	52	27	4.5	129.5	181	12-M10x20	M10x1.5	16	M85x2	35	15
<b>TR-1291</b>	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										
<b>TR-433</b>	M39x1.5	8	25	36	33	92.5	6.5	26	RC1/4	37	40	98	52.5	55	50	M5x8	83	M5x9	RC1/2	5
<b>TR-536</b>	M44x1.5	6	28	38	36	92.5	6.5	26	RC1/4	42	43	98	52.5	55	53	M5x8	83	M5x7	RC1/2	5
<b>TR-539</b>	M44x1.5	8	25	42	39	92.5	6.5	26	RC1/4	42	40	103	52.5	55	53	M5x8	90	M5x9	RC1/2	5
<b>TR-A646</b>	M52x1.5	8	25	50	46	95	5	32	RC3/8	50	50	116	59	62	61.5	M5x9	98	M5x9	RC1/2	5
<b>TR-B646</b>	M52x1.5	8	30	50	46	105	5	32	RC3/8	50	50	116	59	62	61.5	M5x8	98	M5x9	RC1/2	5
<b>TR-853</b>	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
<b>TR-1075</b>	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
<b>TR-1291</b>	M99x2	9	38	95	91	139	14	45	RC1/2	96	50	180	91.5	93	110.5	M6x12	165	M6x12	RC3/4	5



- 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

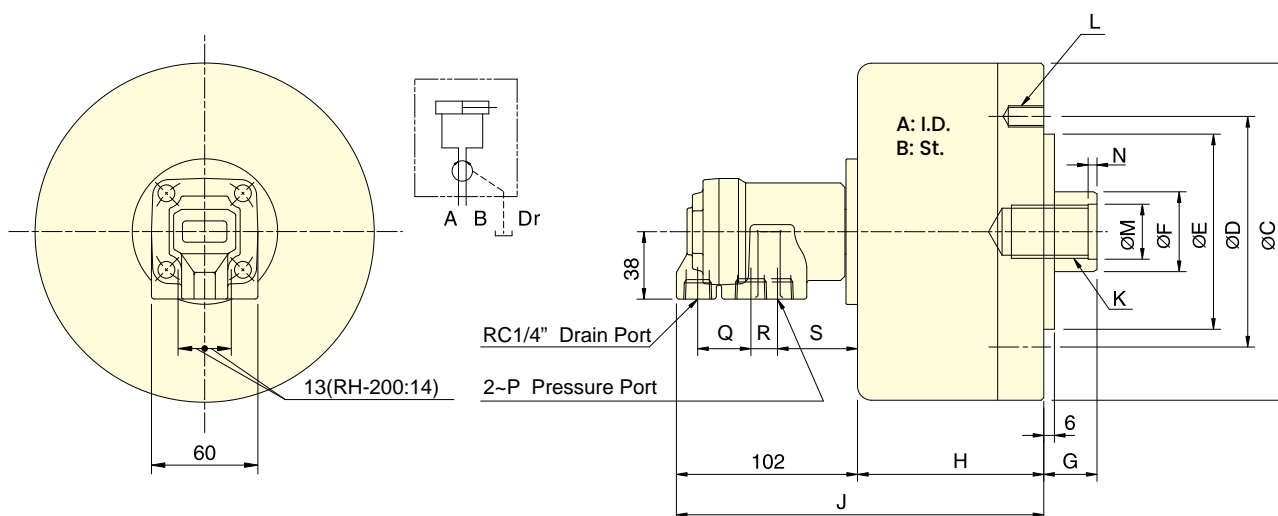
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight	Air Leakage (6kgf/cm <sup>2</sup> )
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>						
<b>RA-100</b>	77.0	74.4	15	6000	0.8(8)	0.03	3.9	400
<b>RA-130</b>	131.2	124.7	15	5000	0.8(8)	0.05	5.2	400
<b>RA-170</b>	225.4	219.0	20	5000	0.8(8)	0.18	8.5	400
<b>RA-220</b>	378.6	369.3	25	4000	0.8(8)	0.36	14.5	400
<b>RA-270</b>	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
<b>RA-100</b>	100	130	-	80	60	22	50	35	65	160	M12x1.75	6-M8x16	13	25
<b>RA-130</b>	130	160	120	90	65	25	45	30	70	165	M16x2.0	6-M8x16	17	30
<b>RA-170</b>	170	200	140	100	80	25	45	25	85	180	M16x2.0	6-M10x18	17	30
<b>RA-220</b>	220	255	170	130	110	30	50	25	91	186	M20x2.5	6-M12x20	21	35
<b>RA-270</b>	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

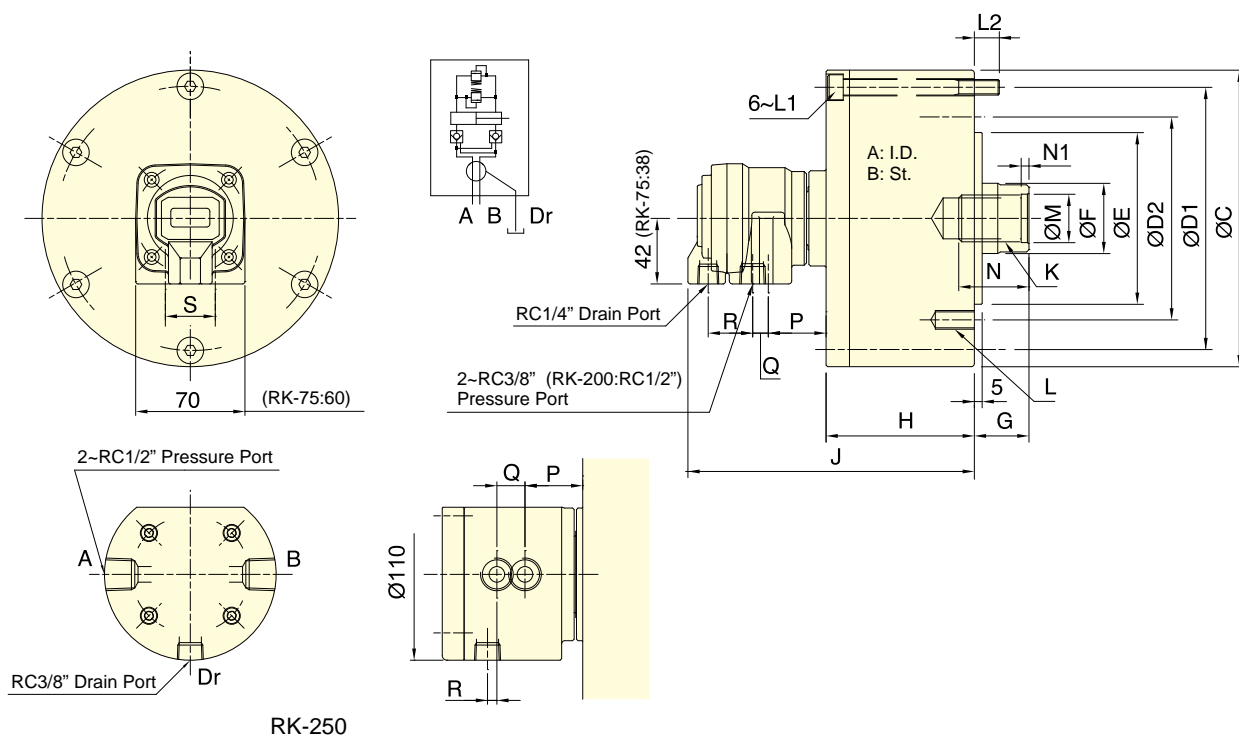
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight
	Extend	Retract					
	cm <sup>2</sup>	cm <sup>2</sup>					
<b>RH-65</b>	31.0	27.9	15	6000	3.5(35)	0.01	2.9
<b>RH-80</b>	47.7	42.8	15	6000	3.5(35)	0.01	3.4
<b>RH-100</b>	75.4	70.5	20	5500	3.5(35)	0.04	4.9
<b>RH-125</b>	119.6	112.5	25	5500	3.5(35)	0.08	6.8
<b>RH-200</b>	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
<b>RH-65</b>	65	15	98	80	60	22	45	30	73	175	M12x1.75x30	6-M8x16	14	4	RC3/8	30	15	45
<b>RH-80</b>	80	15	112	90	65	25	45	30	74	176	M16x2.0x30	6-M8x16	17	4	RC3/8	30	15	45
<b>RH-100</b>	100	20	135	100	80	25	45	25	88.5	190.5	M16x2.0x30	6-M10x20	17	4	RC3/8	30	15	45
<b>RH-125</b>	125	25	160	130	110	30	50	25	95.5	197.5	M20x2.5x35	6-M12x20	21	4	RC3/8	30	15	45
<b>RH-200</b>	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

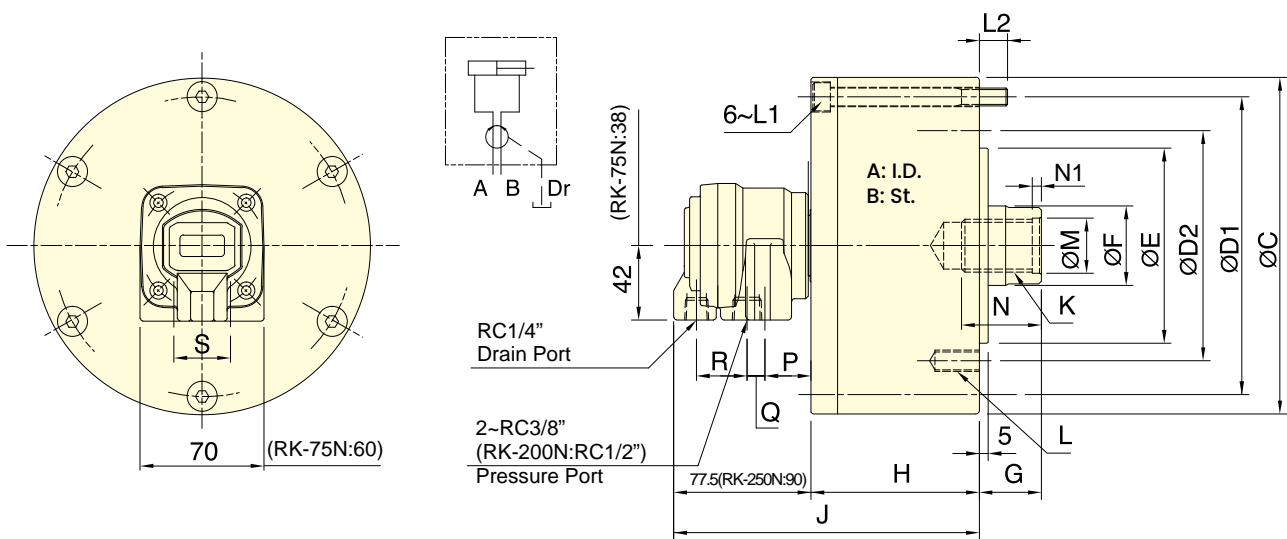
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight
	Extend	Retract					
	cm <sup>2</sup>	cm <sup>2</sup>	mm	min <sup>-1</sup> (r.p.m.)	MPa(kg/cm <sup>2</sup> )	kg·m <sup>2</sup>	kg
<b>RK-75</b>	44.2	37.1	15	6000	4.0 (40)	0.01	2.9
<b>RK-100</b>	78.5	71.5	20	6000	4.0 (40)	0.03	4.4
<b>RK-125</b>	122.7	113.1	25	6000	4.0 (40)	0.05	6.9
<b>RK-150</b>	176.7	160.8	30	5500	4.0 (40)	0.09	9.5
<b>RK-200</b>	314.1	290.4	35	5500	4.0 (40)	0.28	15.4
<b>RK-250</b>	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
<b>RK-75</b>	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
<b>RK-100</b>	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
<b>RK-125</b>	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
<b>RK-150</b>	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
<b>RK-200</b>	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
<b>RK-250</b>	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

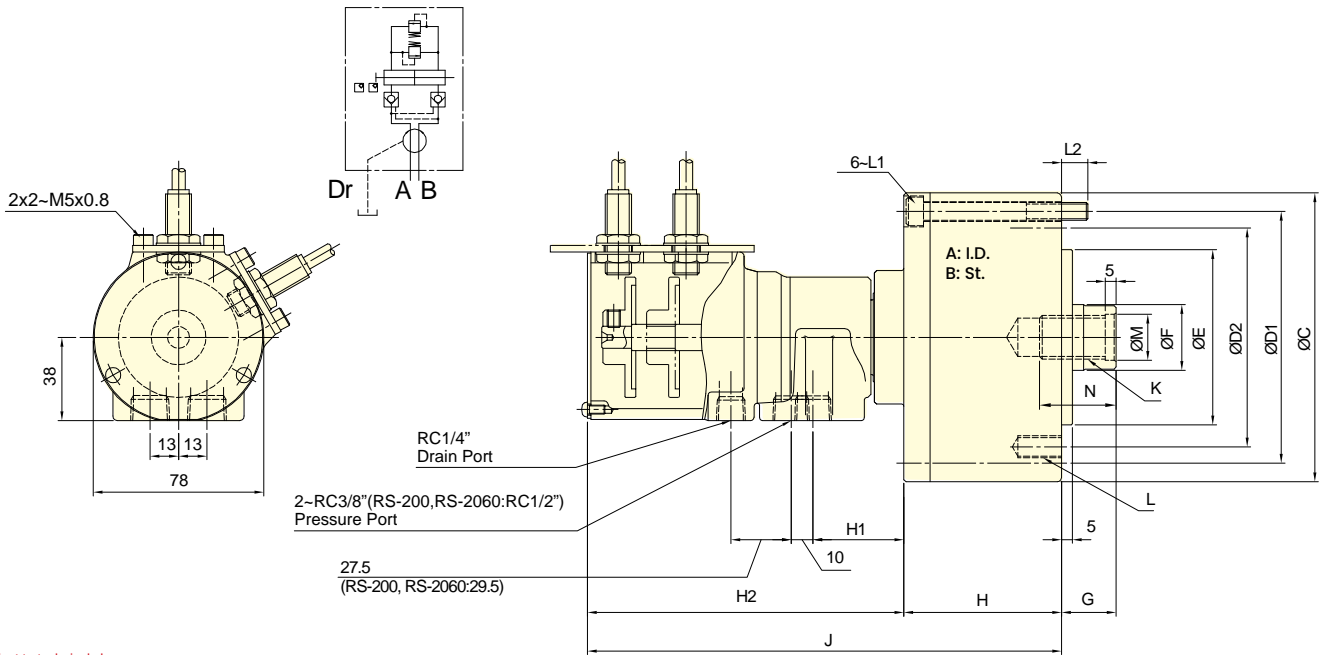
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight
	Extend	Retract					
	cm <sup>2</sup>	cm <sup>2</sup>					
<b>RK-75N</b>	44.2	37.1	15	6000	4.0(40)	0.01	2.8
<b>RK-100N</b>	78.5	71.5	20	6000	4.0(40)	0.03	4.3
<b>RK-125N</b>	122.7	113.1	25	6000	4.0(40)	0.05	6.8
<b>RK-150N</b>	176.7	160.8	30	5500	4.0(40)	0.09	9.4
<b>RK-200N</b>	314.1	290.4	35	5500	4.0(40)	0.28	15.3
<b>RK-250N</b>	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
<b>RK-75N</b>	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
<b>RK-100N</b>	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
<b>RK-125N</b>	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
<b>RK-150N</b>	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
<b>RK-200N</b>	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
<b>RK-250N</b>	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 Moment of inertia	Weight
	Extend	Retract					
	cm <sup>2</sup>	cm <sup>2</sup>					
<b>RS-75</b>	43.0	37.1	15	6000	4.0 (40)	0.01	3.4
<b>RS-100</b>	77.4	71.5	20	6000	4.0 (40)	0.04	4.9
<b>RS-125</b>	121.6	113.1	25	6000	4.0 (40)	0.05	7.4
<b>RS-1250</b>	121.6	113.1	50	6000	4.0 (40)	0.05	8.7
<b>RS-150</b>	175.6	160.8	30	5500	4.0 (40)	0.10	10.7
<b>RS-1550</b>	175.6	160.8	50	5500	4.0 (40)	0.10	11.5
<b>RS-200</b>	313.0	290.4	35	5500	4.0 (40)	0.29	15.9
<b>RS-2060</b>	313.0	290.4	60	5500	4.0 (40)	0.29	17.6

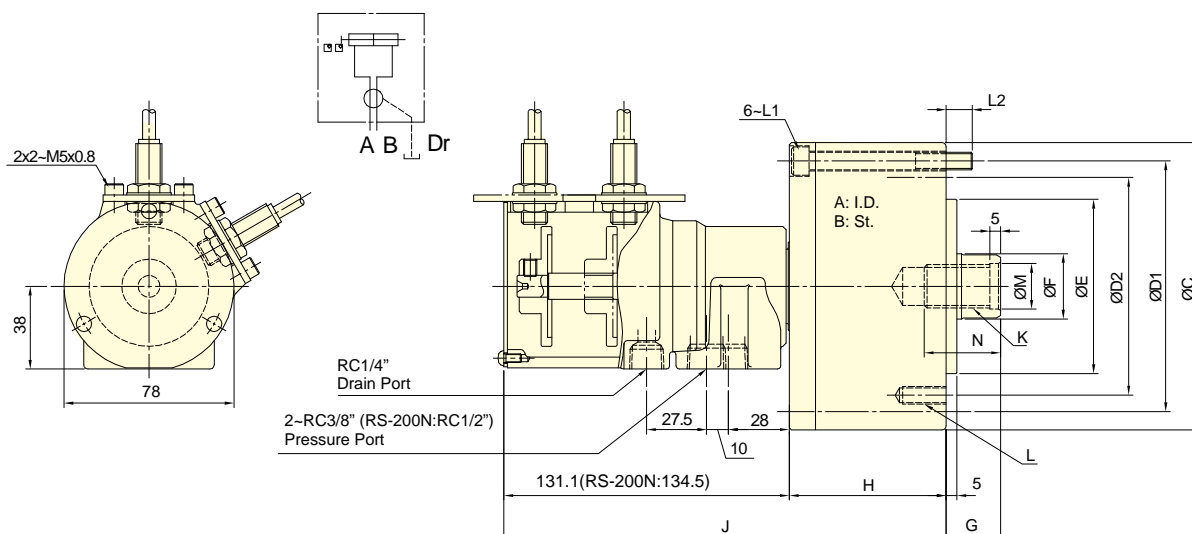
## DIMENSIONS

Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	H1	H2	J	K	L	L1	L2	M (H8)	N
<b>RS-75</b>	75	15	107	90	90	65	30	45	30	57	42	145	202	M20x2.5	6-M8x16	M8x60	12	21	35
<b>RS-100</b>	100	20	132	115	100	80	30	45	25	72	42	145	217	M20x2.5	6-M10x20	M8x75	12	21	35
<b>RS-125</b>	125	25	160	140	130	110	35	50	25	82	41	144	226	M24x3.0	6-M12x20	M8x85	12	25	45
<b>RS-1250</b>	125	50	160	140	130	110	35	75	25	107	41	174	281	M24x3.0	6-M12x20	M8x110	12	25	45
<b>RS-150</b>	150	30	190	170	130	110	45	55	25	95	39	142	237	M30x3.5	12-M12x24	M10x100	15.5	32	45
<b>RS-1550</b>	150	50	190	170	130	110	45	75	25	115	39	172	287	M30x3.5	12-M12x24	M10x120	15.5	31	45
<b>RS-200</b>	200	35	245	220	145	120	55	70	35	115	34	142.5	257.5	M36x4.0	12-M16x30	M10x125	21	38	60
<b>RS-2060</b>	200	60	245	220	145	120	55	95	35	140	34	169	309	M36x4.0	12-M16x30	M10x145	16	38	60

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



- For short form, high speed and stroke control.
- With proximity sensor, the movement of the position is easy to adjust and confirm when operating.
- Can screw it from the rear end of the cylinder when mounting.
- The drain port should be independently connected to oil tank to avoid back pressure.
- 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 <sup>2</sup>	cm <sup>2</sup>				mm	
RS-6520N	32.0	28.3	20	6000	4.0(40)	0.01	3.2
RS-6530N	32.0	28.3	30	6000	4.0(40)	0.01	3.3
RS-75N	43.0	37.1	15	6000	4.0(40)	0.01	3.3
RS-7530N	43.0	37.1	30	6000	4.0(40)	0.013	3.7
RS-100N	77.4	71.5	20	6000	4.0(40)	0.04	4.8
RS-125N	121.6	113.1	25	6000	4.0(40)	0.05	7.3
RS-150N	175.6	160.8	30	5500	4.0(40)	0.16	10.6
RS-200N	313.0	290.4	35	5500	4.0(40)	0.29	15.9

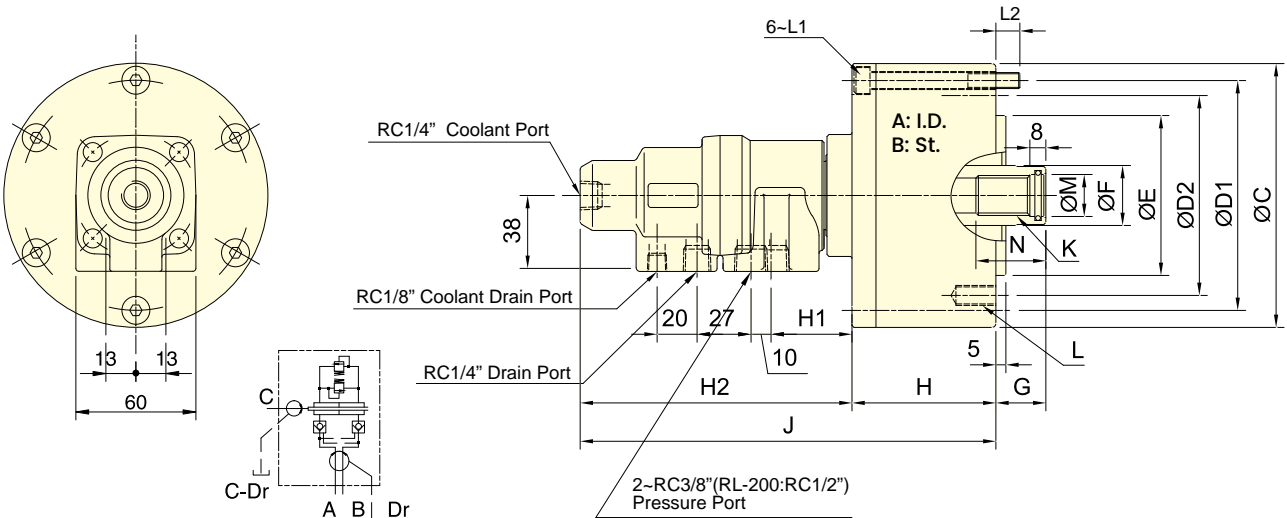
## DIMENSIONS

Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	J	K	L	L1	L2	M (H8)	N
RS-6520N	65	20	97	80	80	60	25	45	25	62	193	M16x2.0	6~M8x16	M6x70	14.5	17	30
RS-6530N	65	30	97	80	80	60	25	45	15	62	203	M16x2.0	6~M8x16	M6x80	14.5	17	30
RS-75N	75	15	107	90	90	65	30	45	30	57	188	M20x2.5	6~M8x16	M8x60	12	21	35
RS-7530N	75	30	107	90	90	65	30	45	15	72	203	M20x2.5	6~M8x16	M8x75	12	21	35
RS-100N	100	20	132	115	100	80	30	45	25	72	203	M20x2.5	6~M10x20	M8x75	12	21	35
RS-125N	125	25	160	140	130	110	35	50	25	82	213	M24x3.0	6~M12x20	M8x85	12	25	45
RS-150N	150	30	190	170	130	110	45	55	25	95	226	M30x3.5	12~M12x24	M10x100	15.5	32	45
RS-200N	200	35	245	220	145	120	55	70	35	115	249.5	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

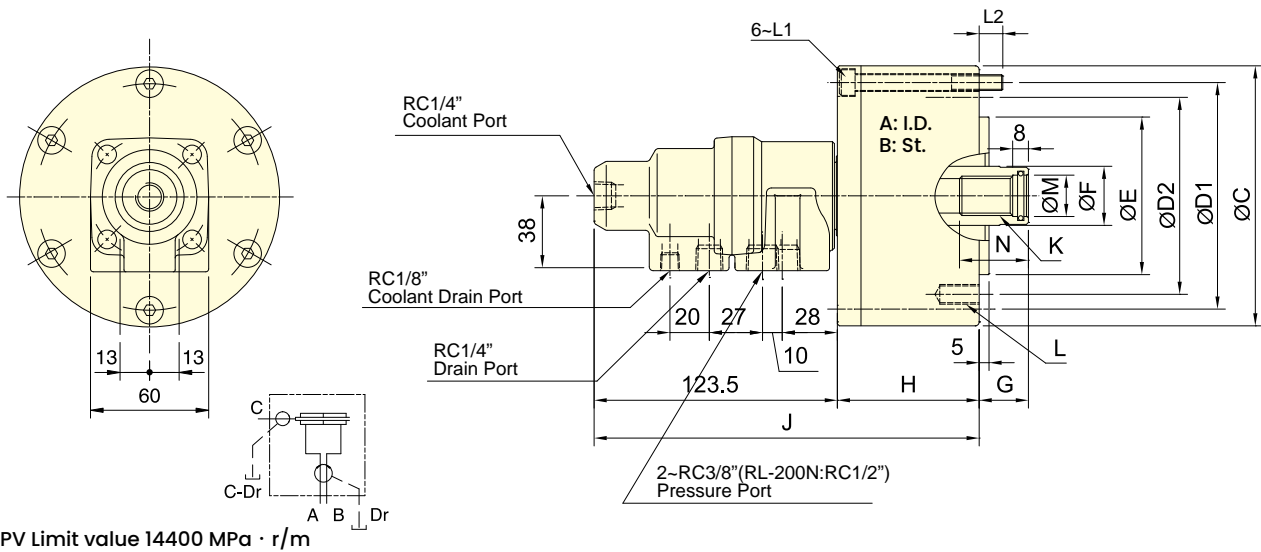
Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	Coolant connection Max. pressure	I	
	Extend	Retract					Moment of inertia	Weight
	cm <sup>2</sup>	cm <sup>2</sup>						
<b>RL-75</b>	42.6	37.1	15	6000	4.0(40)	3.5(35)	0.01	3.1
<b>RL-100</b>	77.0	71.5	20	6000	4.0(40)	3.5(35)	0.04	4.6
<b>RL-125</b>	121.2	113.1	25	6000	4.0(40)	3.5(35)	0.06	7.1
<b>RL-150</b>	175.2	160.8	30	5500	4.0(40)	3.5(35)	0.10	9.7
<b>RL-200</b>	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
<b>RL-75</b>	75	15	107	90	90	65	30	45	30	57	42	137	194	M20x2.5	6~M8x16	M8x60	12	21	35
<b>RL-100</b>	100	20	132	115	100	80	30	45	25	72	42	137	209	M20x2.5	6~M10x20	M8x75	12	21	35
<b>RL-125</b>	125	25	160	140	130	110	35	50	25	82	41	136	218	M24x3.0	6~M12x20	M8x85	12	25	45
<b>RL-150</b>	150	30	190	170	130	110	45	55	25	95	39	134	230	M30x3.5	12~M12x24	M10x100	15.5	32	45
<b>RL-200</b>	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

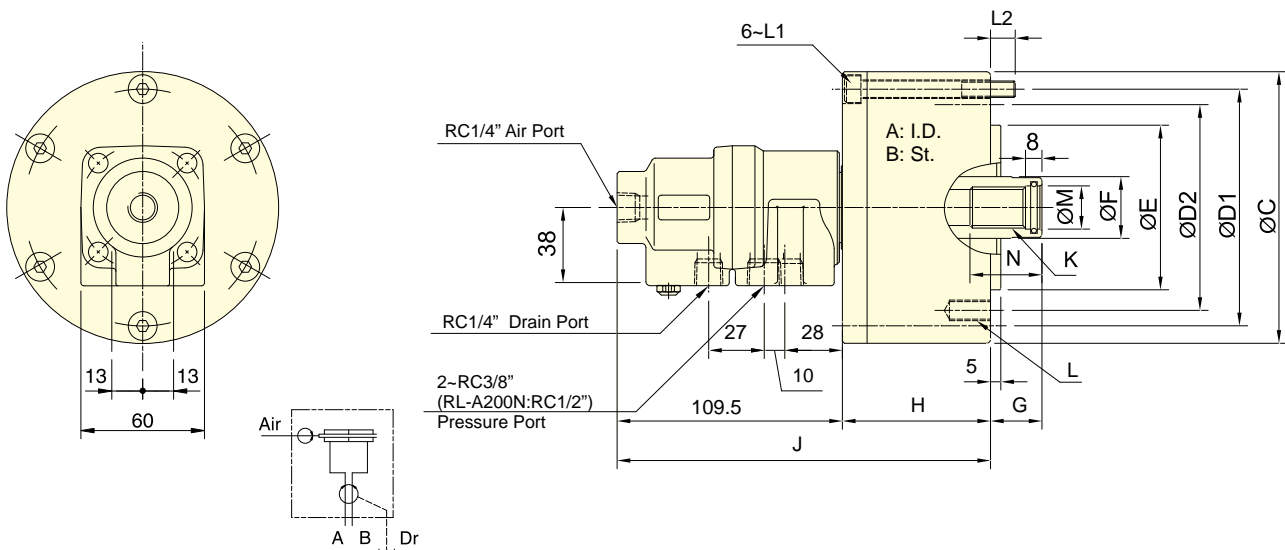
Model	Eff. piston area		Piston stroke mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	Coolant connection Max. pressure MPa (kgf/cm <sup>2</sup> )	I	
	Extend	Retract					Moment of inertia kg·m <sup>2</sup>	Weight kg
	cm <sup>2</sup>	cm <sup>2</sup>						
<b>RL-75N</b>	42.6	37.1	15	6000	4.0 (40)	3.5(35)	0.01	3.0
<b>RL-100N</b>	77.0	71.5	20	6000	4.0 (40)	3.5(35)	0.04	4.5
<b>RL-125N</b>	121.2	113.1	25	6000	4.0 (40)	3.5(35)	0.06	7.0
<b>RL-150N</b>	175.2	160.8	30	5500	4.0 (40)	3.5(35)	0.10	9.6
<b>RL-200N</b>	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
<b>RL-75N</b>	75	15	107	90	90	65	30	45	30	57	180	M20x2.5	6-M8x16	M8x60	12	21	35
<b>RL-100N</b>	100	20	132	115	100	80	30	45	25	72	195	M20x2.5	6-M10x20	M8x75	12	21	35
<b>RL-125N</b>	125	25	160	140	130	110	35	50	25	82	205	M24x3.0	6-M12x20	M8x85	12	25	45
<b>RL-150N</b>	150	30	190	170	130	110	45	55	25	95	218	M30x3.5	12-M12x24	M10x100	15.5	32	45
<b>RL-200N</b>	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 mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	Air connection Max. pressure MPa (kgf/cm <sup>2</sup> )	I	
	Extend	Retract					Moment of inertia kg·m <sup>2</sup>	Weight kg
	cm <sup>2</sup>	cm <sup>2</sup>						
<b>RL- A75N</b>	42.6	37.1	15	6000	4.0(40)	0.8(8)	0.01	3.0
<b>RL- A100N</b>	77.0	71.5	20	6000	4.0(40)	0.8(8)	0.04	4.5
<b>RL- A125N</b>	121.2	113.1	25	6000	4.0(40)	0.8(8)	0.06	7.0
<b>RL- A150N</b>	175.2	160.8	30	5500	4.0(40)	0.8(8)	0.10	9.6
<b>RL- A200N</b>	312.5	290.4	35	5500	4.0(40)	0.8(8)	0.29	15.5

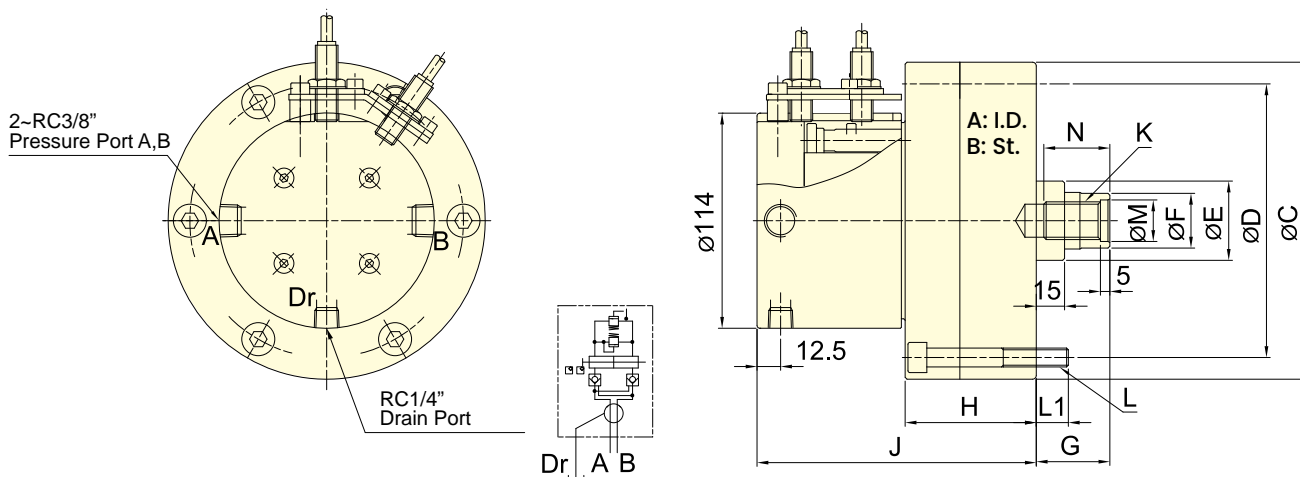
## DIMENSIONS

Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	J	K	L	L1	L2	M (H8)	N
<b>RL- A75N</b>	75	15	107	90	90	65	30	45	30	57	166	M20 x2.5	6~M8x 16	M8x60	12	21	35
<b>RL- A100N</b>	100	20	132	115	100	80	30	45	25	72	181	M20 x2.5	6~M10x20	M8x75	12	21	35
<b>RL- A125N</b>	125	25	160	140	130	110	35	50	25	82	191	M24x 3.0	6~M12x20	M8x85	12	25	45
<b>RL- A150N</b>	150	30	190	170	130	110	45	55	25	95	204	M30x3.5	12~M12x24	M10x100	15.5	32	45
<b>RL- A200N</b>	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.

ROTARY CYLINDERS



Subject to technical changes

## SPECIFICATIONS

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

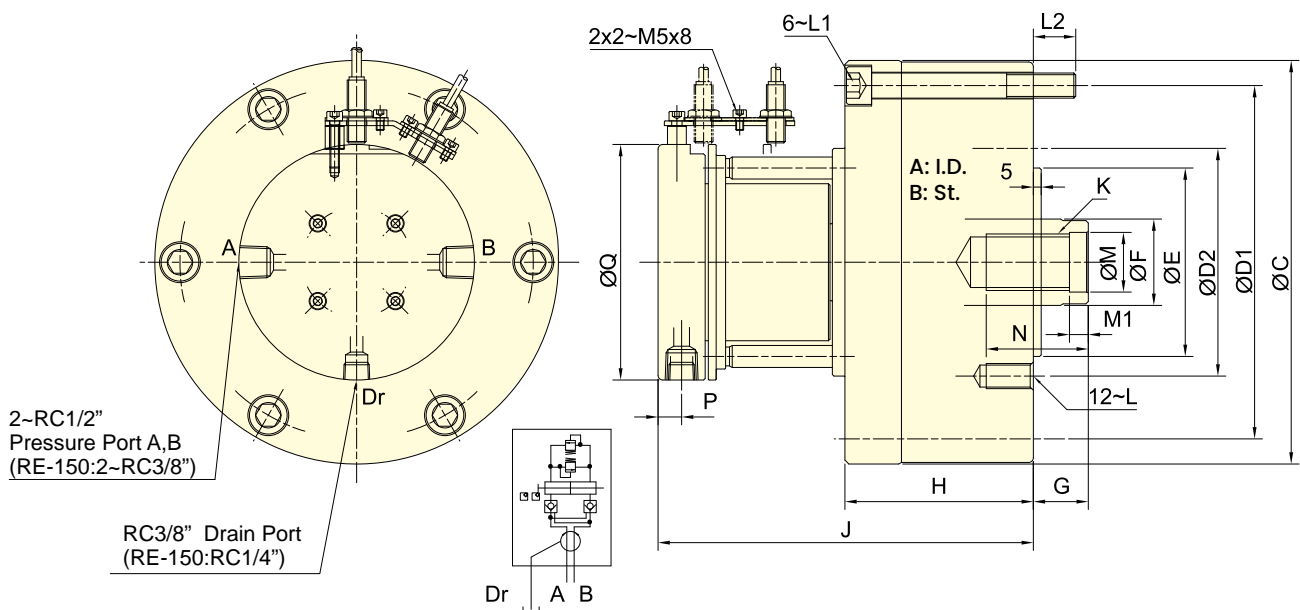
## DIMENSIONS

Model	A	B	C (h7)	D	E	F	G max.	G min.	H	J	K	L	L1	M (H8)	N
<b>RE-110</b>	110	20	145	128	42	29	60	40	66	146	M20x2.5	6~M8x70	12	22	35
<b>RE-120</b>	120	21	168	145	42	29	60	39	69.5	148	M20x2.5	6~M10x75	17	22	35
<b>RE-130</b>	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				Moment of inertia		
	cm <sup>2</sup>	cm <sup>2</sup>	mm	min <sup>-1</sup> (r.p.m.)	MPa(kgf/cm <sup>2</sup> )	kg·m <sup>2</sup>	kg	
<b>RE-150</b>	174.4	160.8	30	5500	4.0 (40)	0.06	14.9	
<b>RE-200K</b>	292.4	274.9	35	4000	4.0 (40)	0.19	29.1	
<b>RE-200L</b>	292.4	265.4	50	4000	5.0 (50)	0.21	30.4	
<b>RE-250</b>	465.2	438.2	60	2000	5.0 (50)	0.43	47.2	

## DIMENSIONS

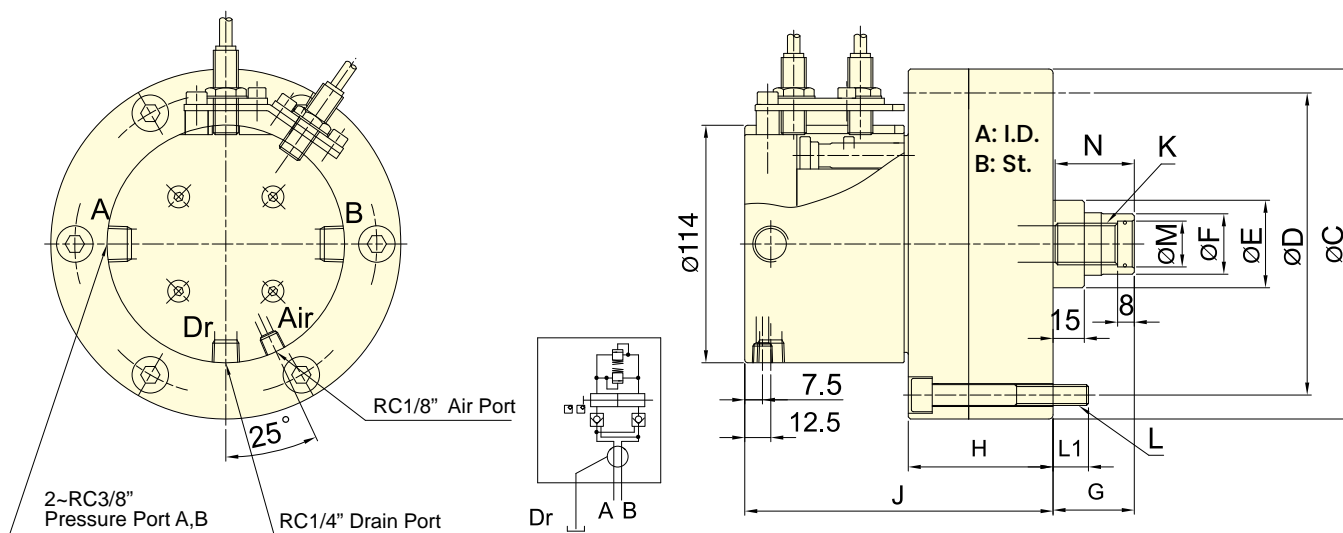
Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	J	K	L	L1	L2	M (H8)	M1	N	P	Q
<b>RE-150</b>	150	30	205	180	130	110	45	60	30	99	177.5	M30x3.5	M12x24	M12x105	18.5	32	10	50	12.5	114
<b>RE-200K</b>	195	35	257	225	145	120	55	73	38	120	239	M36x4.0	M16x30	M16x130	27	38	12	65	15	150
<b>RE-200L</b>	195	50	257	225	170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

ROTARY CYLINDERS



Subject to technical changes

### SPECIFICATIONS

Model	Eff. piston area		Piston stroke mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	Air connection Max. pressure MPa (kgf/cm <sup>2</sup> )	I		Weight kg
	Extend	Retract					Moment of inertia		
	cm <sup>2</sup>	cm <sup>2</sup>					kg·m <sup>2</sup>		
<b>RE-A110</b>	91.2	87.9	20	6000	4.0(40)	0.8(8)	0.02		6.9
<b>RE-A120</b>	109.3	106	21	6000	4.0(40)	0.8(8)	0.02		8.8
<b>RE-A130</b>	128.9	123.1	30	6000	4.0(40)	0.8(8)	0.03		9.1

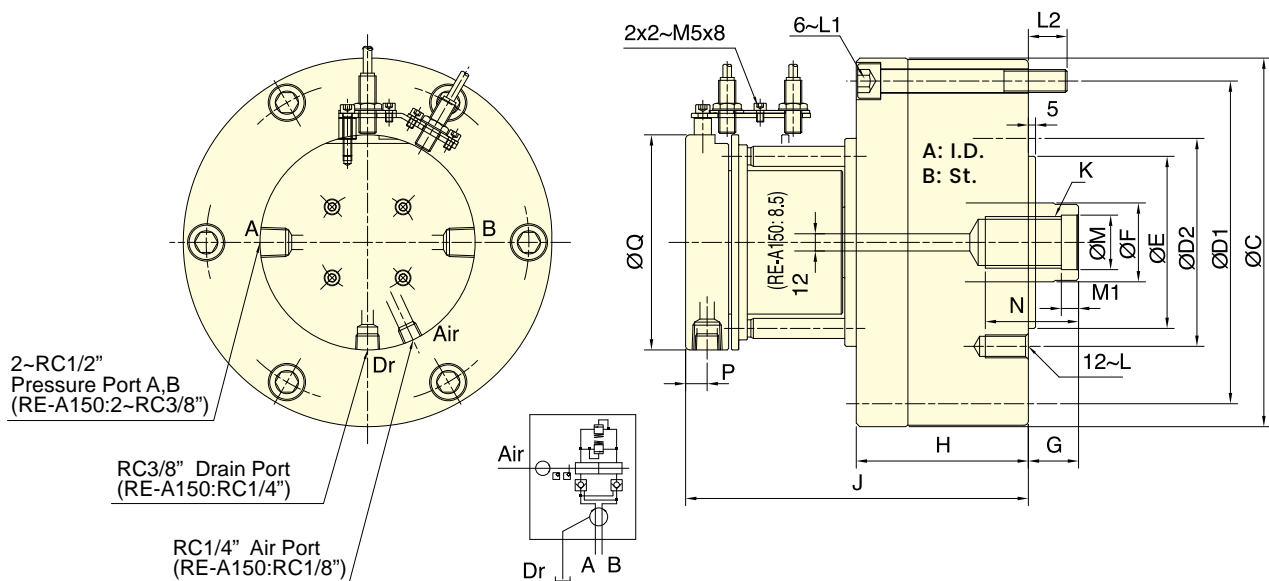
### DIMENSIONS

Model	A	B	C (h7)	D	E	F	G max.	G min.	H	J	K	L	L1	M (H8)	N
<b>RE-A110</b>	110	20	145	128	42	29	60	40	66	146	M20x2.5	6~M8x70	12	22	38
<b>RE-A120</b>	120	21	168	145	42	29	60	39	69.5	148	M20x2.5	6~M10x75	17	22	38
<b>RE-A130</b>	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 mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	Air connection Max. pressure MPa (kgf/cm <sup>2</sup> )	I		Weight kg
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>					Moment of inertia kg-m <sup>2</sup>		
RE-A150	174.4	160.8	30	5500	4.0(40)	0.8(8)	0.06		14.9
RE-A200K	292.4	274.9	35	4000	4.0(40)	0.8(8)	0.19		29.1
RE-A200L	292.4	265.4	50	4000	5.0(50)	0.8(8)	0.21		30.4
RE-A250	465.2	438.2	60	2000	5.0(50)	0.8(8)	0.43		47.2

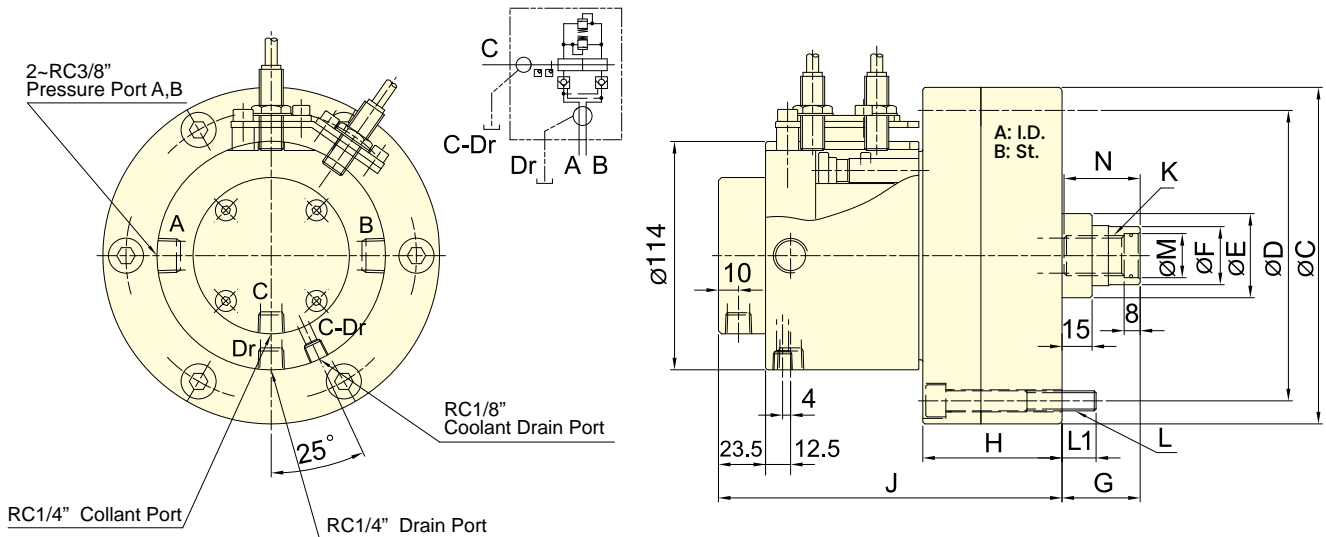
## DIMENSIONS

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

\*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 mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	Coolant connection Max. pressure MPa (kgf/cm <sup>2</sup> )	I		Weight kg
	Extend	Retract					Moment of inertia kg·m <sup>2</sup>	Weight kg	
	cm <sup>2</sup>	cm <sup>2</sup>							
<b>RE-L110</b>	92.7	87.9	20	6000	4.0(40)	1.5(15)	0.02	7.2	
<b>RE-L120</b>	109.3	106	21	6000	4.0(40)	1.5(15)	0.03	9.1	
<b>RE-L130</b>	128.9	123.1	30	6000	4.0(40)	1.5(15)	0.03	9.5	

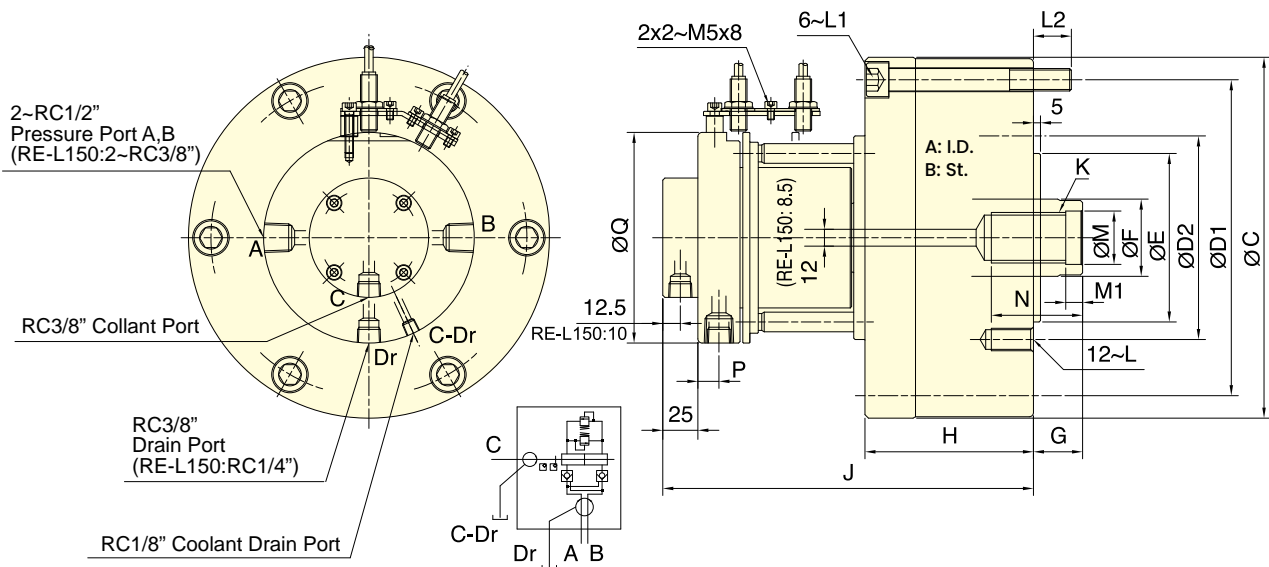
## DIMENSIONS

Model	A	B	C (h7)	D	E	F	G max.	G min.	H	J	K	L	L1	M (H8)	N
<b>RE-L110</b>	110	20	145	128	42	29	60	40	66	169.5	M20x2.5	6~M8x70	12	22	38
<b>RE-L120</b>	120	21	168	145	42	29	60	39	69.5	171.5	M20x2.5	6~M10x75	17	22	38
<b>RE-L130</b>	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 mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	Coolant connection Max. pressure MPa (kgf/cm <sup>2</sup> )	I		Weight kg
	Extend	Retract					Moment of inertia	kg-m <sup>2</sup>	
	cm <sup>2</sup>	cm <sup>2</sup>							
<b>RE-L150</b>	174.4	160.8	30	5500	4.0(40)	1.5(15)	0.06	15.2	
<b>RE-L200K</b>	292.4	274.9	35	4000	4.0(40)	1.5(15)	0.19	29.4	
<b>RE-L200L</b>	292.4	265.4	50	4000	5.0(50)	1.5(15)	0.21	30.7	
<b>RE-L250</b>	465.2	438.2	60	2000	5.0(50)	1.5(15)	0.43	47.5	

### DIMENSIONS

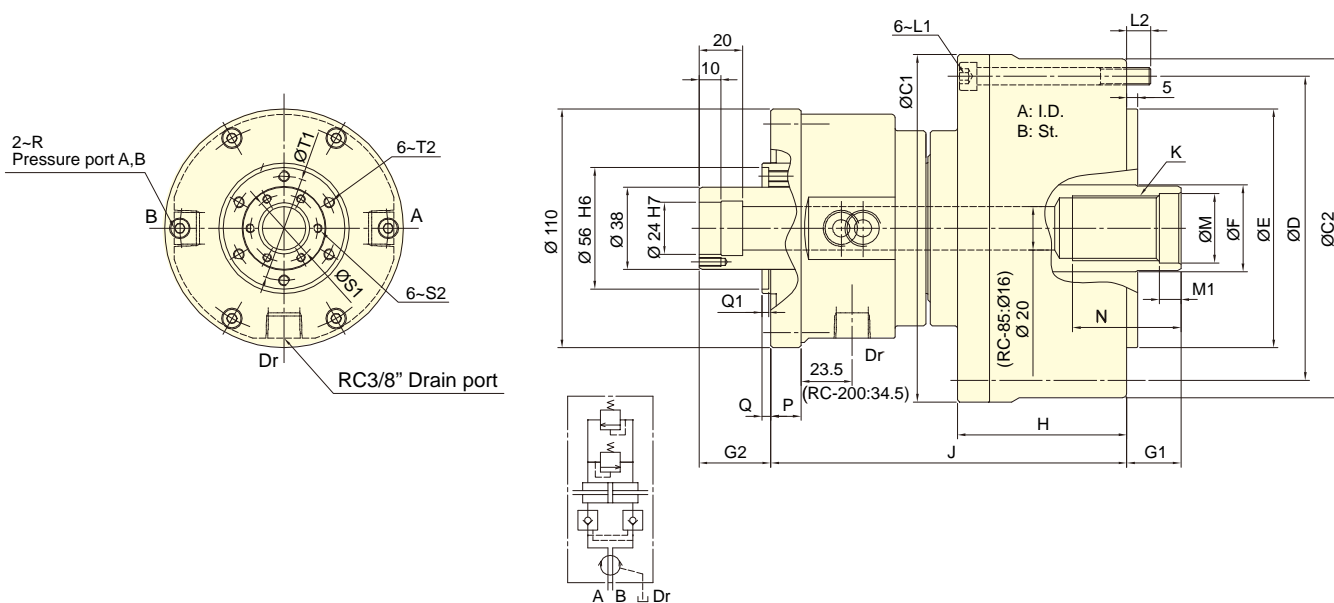
Model	A	B	C	D1	D2	E (h7)	F	G max.	G min.	H	J	K	L	L1	L2	M (H8)	M1	N	P	Q
<b>RE-L150</b>	150	30	205	180	130	110	45	60	30	99	201	M30x3.5	M12x24	M12x105	18.5	32	10	50	12.5	114
<b>RE-L200K</b>	195	35	257	225	145	120	55	73	38	120	264	M36x4.0	M16x30	M16x130	27	38	12	65	15	150
<b>RE-L200L</b>	195	50	257	225	170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

ROTARY CYLINDERS



Subject to technical changes

## SPECIFICATIONS

Model	Eff. piston area		Piston stroke	Max. speed	Max. pressure	I Moment of inertia	Weight
	Extend cm <sup>2</sup>	Retract cm <sup>2</sup>					
<b>RC-85</b>	43.8	48.1	20	5000	3.5(35)	0.01	6.8
<b>RC-100</b>	65.6	64.4	20	5000	3.5(35)	0.02	9.2
<b>RC-125</b>	109.8	108.5	25	5000	3.5(35)	0.03	11.1
<b>RC-145</b>	152.2	143.9	30	5000	3.5(35)	0.03	14.6
<b>RC-200</b>	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
<b>RC-85</b>	85	20	120	116	100	65	32	45	25	28	8	76.5	156.5	M24x1.5
<b>RC-100</b>	100	20	135	131	115	80	40	45	25	28	8	72	158.5	M30x1.5
<b>RC-125</b>	125	25	160	156	140	110	40	50	25	33	8	78	164	M30x1.5
<b>RC-145</b>	145	30	187	183	165	110	50	55	25	38	8	83	169.5	M40x1.5
<b>RC-200</b>	195	35	257	257	225	120	55	73	38	51.5	16.5	120.5	22.5	M36x4.0

Model	L1	L2	M(H8)	M1	N	P	Q	Q1	R	S1	S2	T1	T2
<b>RC-85</b>	6~M8x80	12.5	25.4	10	40	14	4	3	RC3/8	31	M4x10	48	M5x9
<b>RC-100</b>	6~M8x75	12.5	32	10	50	14	4	3	RC3/8	31	M4x10	48	M5x9
<b>RC-125</b>	6~M8x80	11	32	10	50	14	4	3	RC3/8	31	M4x10	48	M5x9
<b>RC-145</b>	6~M10x90	18	42	12	57	14	4	3	RC3/8	31	M4x10	48	M5x9
<b>RC-200</b>	6~M16x130	26	38	12	65	15	6.5	4	RC1/2	35	M4x10	60	M5x11

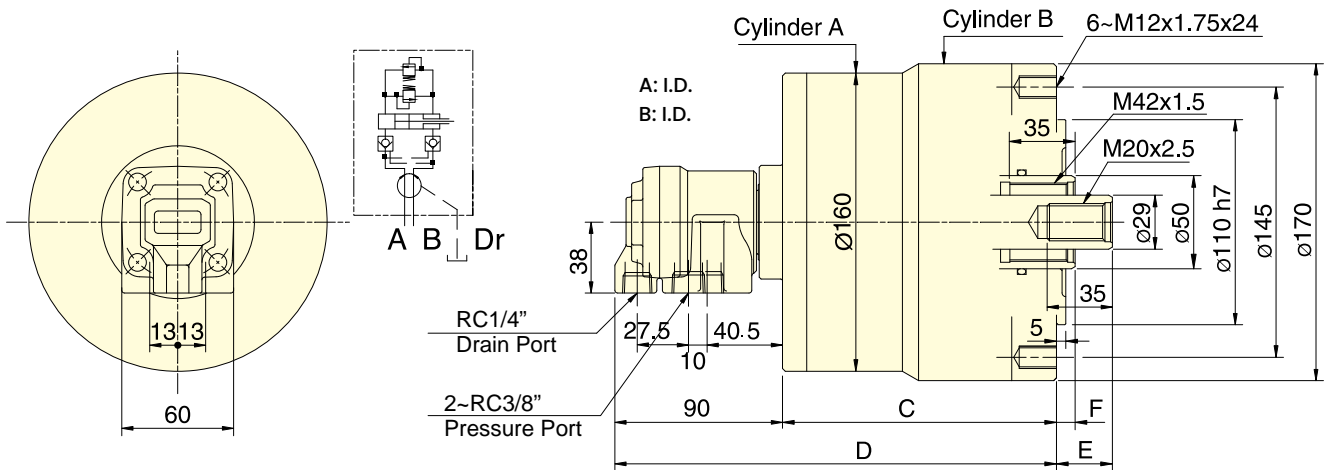
- Rotating joint and Proximity switch with bracket type.

<p><b>F1</b></p>	<p>With single path rotating joint (Fixed type)</p>	<p><b>F2</b></p>	<p>With double paths rotating joint(Fixed type)</p>
<p><b>M1</b></p>	<p>With single path rotating joint(Moving type)</p>	<p><b>M2</b></p>	<p>With double paths rotating joint(Moving type)</p>
<p><b>B</b></p>	<p>linear Sensor with bracket</p>	<p><b>S</b></p>	<p>Proximity switch with bracket</p>

- \* 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

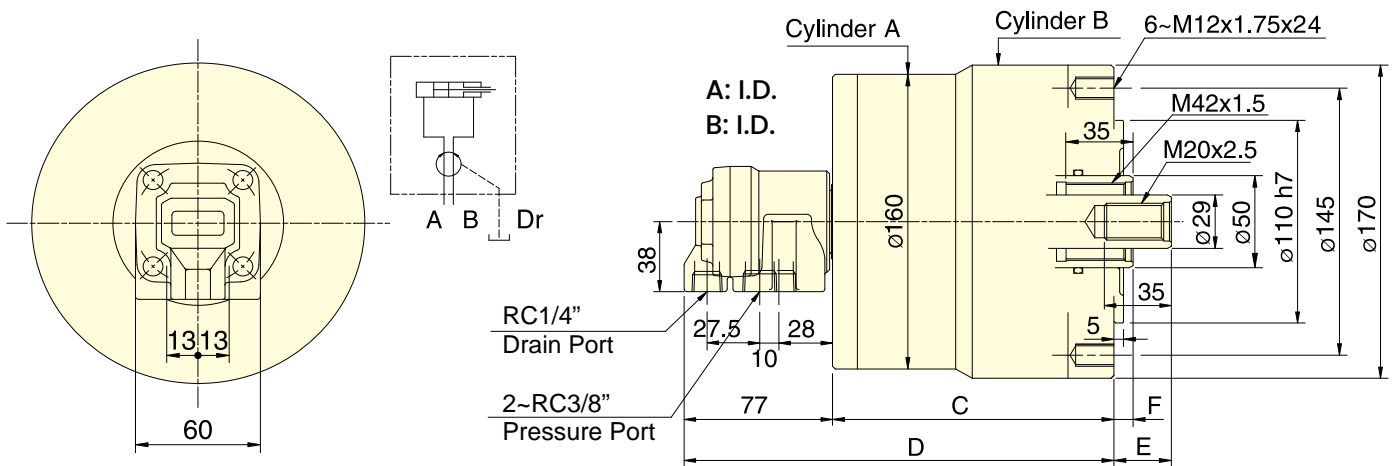
## SPECIFICATIONS

Model	Eff. piston area				Piston stroke mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	I kg·m <sup>2</sup>	Weight kg
	Extend		Retract						
	A cm <sup>2</sup>	B cm <sup>2</sup>	A cm <sup>2</sup>	B cm <sup>2</sup>					
<b>RD-120</b>	122.7	126.1	116.1	113.1	20	5000	3.0(30)	0.14	11.3
<b>RD-125</b>	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.
<b>RD-120</b>	125	130	137	227	60	40	35	15
<b>RD-125</b>	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

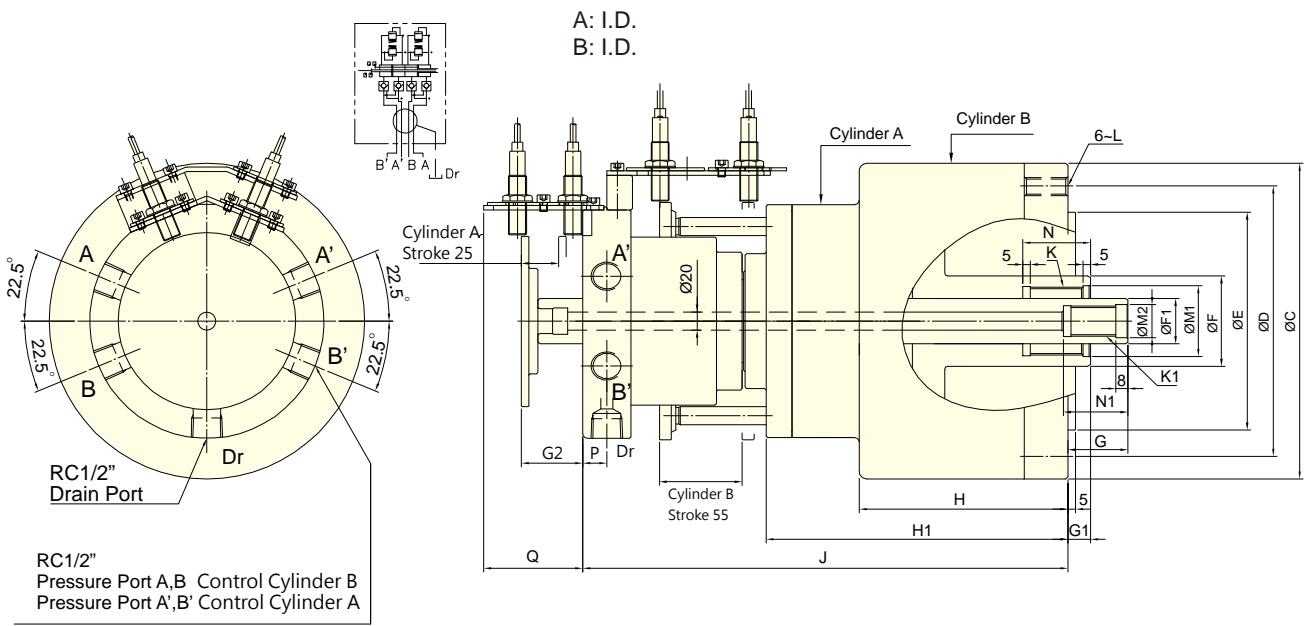
Model	Eff. piston area				Piston stroke mm	Max. speed min <sup>-1</sup> (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )	I Moment of inertia kg·m <sup>2</sup>	Weight kg
	Extend		Retract						
	A cm <sup>2</sup>	B cm <sup>2</sup>	A cm <sup>2</sup>	B cm <sup>2</sup>					
<b>RD-120N</b>	122.7	126.1	116.1	113.1	20	5000	3.0(30)	0.14	11.2
<b>RD-125N</b>	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.
<b>RD-120N</b>	125	130	137	214	60	40	35	15
<b>RD-125N</b>	125	130	147	224	55	30	35	10



- Short type, lightweight, dual-rod dual-circuit rotary hydraulic cylinder with external rotary joint.
- The internal tie rod can be applied to drive center ejection of parts or power chucks with axial telescopic positioning.
- The front and rear cylinders are controlled by separate circuits, each equipped with Built-in safety check valves .
- The central through-hole is used for the passage of coolant, oil, or air, and can be fitted with an external single-channel rotary joint.
- The rotary joint and support frame are optiona.



Subject to technical changes

### SPECIFICATIONS

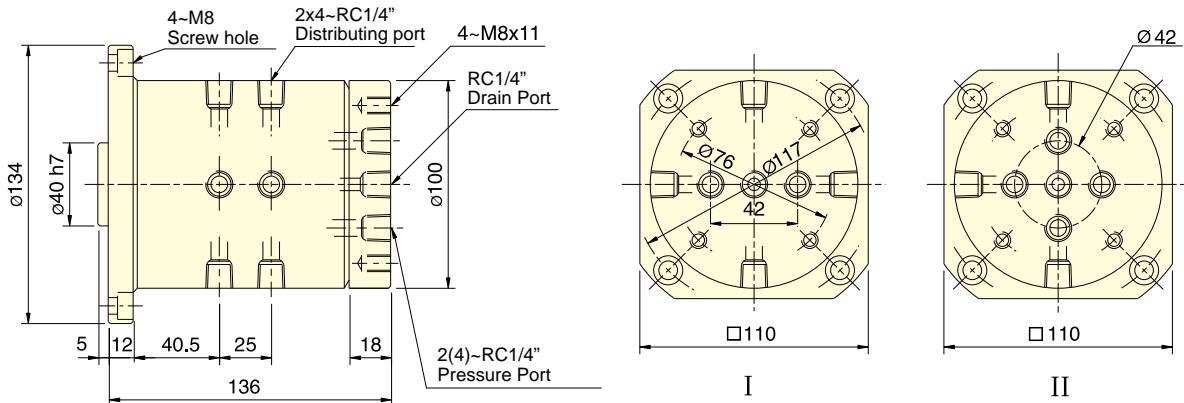
Model	Eff. piston area				Piston stroke	Max. speed	Max. pressure	Moment of inertia	Weight
	Extend		Retract						
	A	B	A	B					
	cm <sup>2</sup>	cm <sup>2</sup>	cm <sup>2</sup>	cm <sup>2</sup>	mm	min <sup>-1</sup> (r.p.m.)	MPa(kgf/cm <sup>2</sup> )	kg·m <sup>2</sup>	kg
<b>RDL-160S</b>	68.3	190.6	68.3	172.8	25/55	4000	5.0 (50)	0.025	26

### DIMENSIONS

Model	A	B	C	D	E(h7)	F	F1	G max.	G min.	G1 max.	G1 min.	G2 max.	G2 min.
<b>RDL-160S</b>	100	160	210	180	145	60	30	65	40	70	15	41	16
Model	H	H1	J	K	K1	L	M1(H8)	M2(h7)	N	N1	P	Q	
<b>RDL-160S</b>	139	201	323	M45x1.5	M20x2.5	M12x29	47	22	45	43	16	66	



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

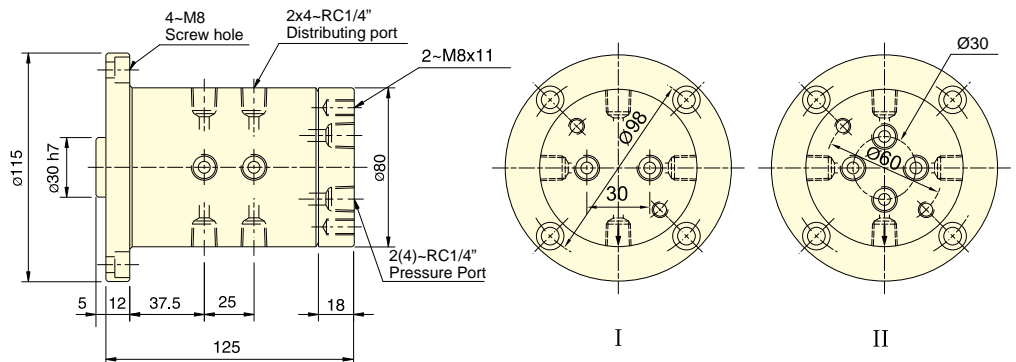


Subject to technical changes

### SPECIFICATIONS

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

Note:RV can be custom-made.



Subject to technical changes

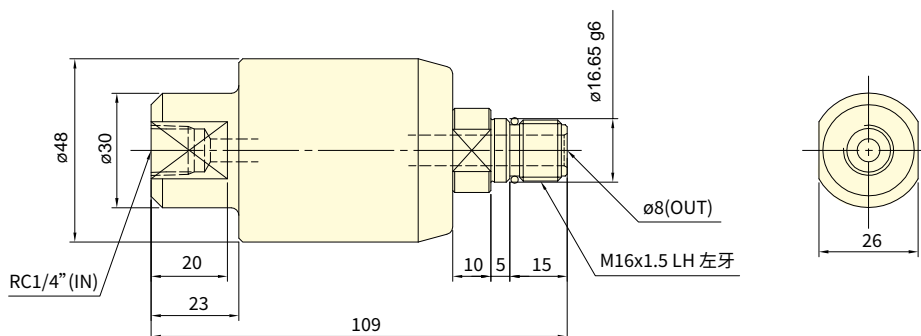
### SPECIFICATIONS

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

Note:RV-A can be custom-made.



- Single-passage design suitable for air or water fluid transmission.
- Compact structure and easy installation, ideal for various rotating equipment.
- Equipped with high-efficiency sealing technology to prevent leakage and ensure long service life.
- The joint should not run without liquid through coolant port.



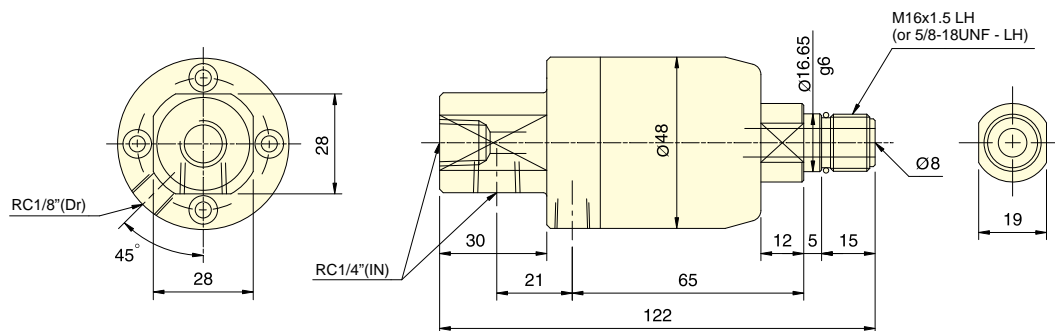
Subject to technical changes

### SPECIFICATIONS

Model	Coolant connection PV Limit value (MPa·r/m.)	Air connection PV Limit value (MPa·r/m.)	Delivery amount (at 50 kgf/cm <sup>2</sup> )	Max. speed (r.p.m.)	Coolant connection Max. pressure MPa(kgf/cm <sup>2</sup> )	Air connection Max. pressure MPa(kgf/cm <sup>2</sup> )	Weight (kg)
RJ-52	8000	3200	28l/min	3000	4.0(40)	0.8(8.0)	0.5



- 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.



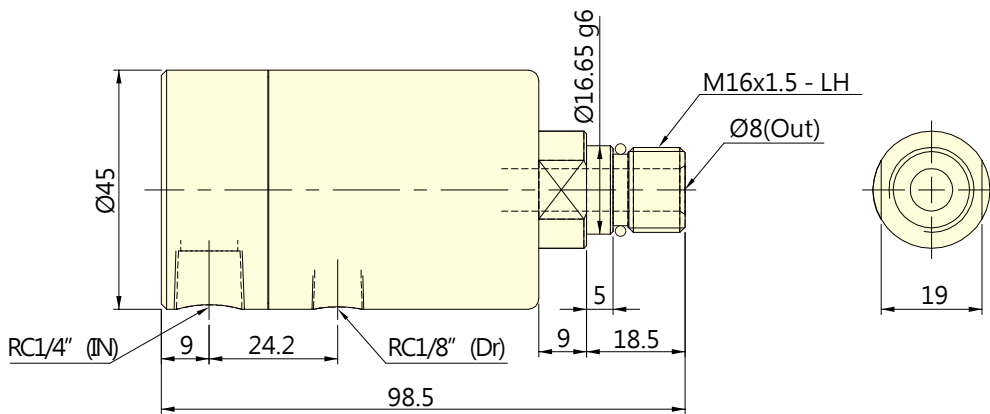
Subject to technical changes

### SPECIFICATIONS

Model	PV Limit value MPa· r/m	Max. pressure MPa(kgf/cm <sup>2</sup> )	Delivery amount (at 50 kgf/cm <sup>2</sup> )	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/cm<sup>2</sup>.



Subject to technical changes

### SPECIFICATIONS

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

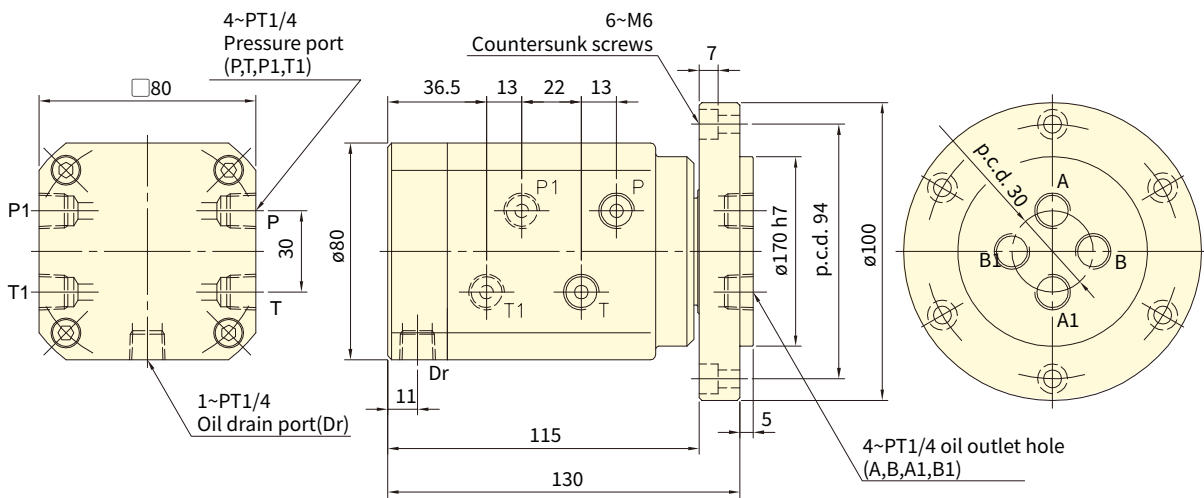
# RJ-4E/RJ-5E HYDRAULIC ROTARY JOINT

Multi-passage, single medium

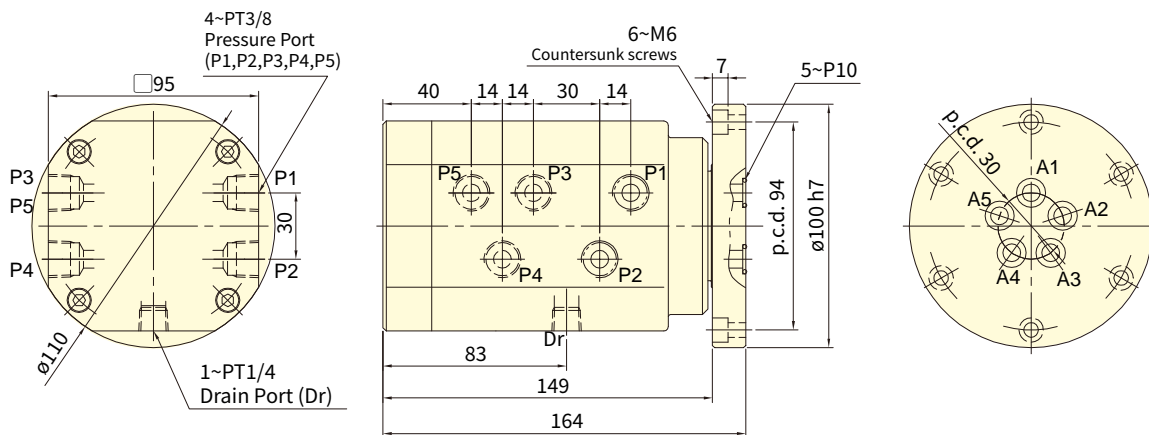


- Available in 4-port / 4-channel and 5-port / 5-channel configurations, with customizable multi-channel hydraulic options upon request.
- Designed for bidirectional hydraulic control such as clamping and unclamping, ensuring precise and reliable operation to enhance productivity.
- Each channel adopts a balanced mechanical seal structure.
- The hydraulic circuit layout, number of passages, and mounting interface can all be customized according to requirements.

## Model:RJ-4E



## Model:RJ-5E



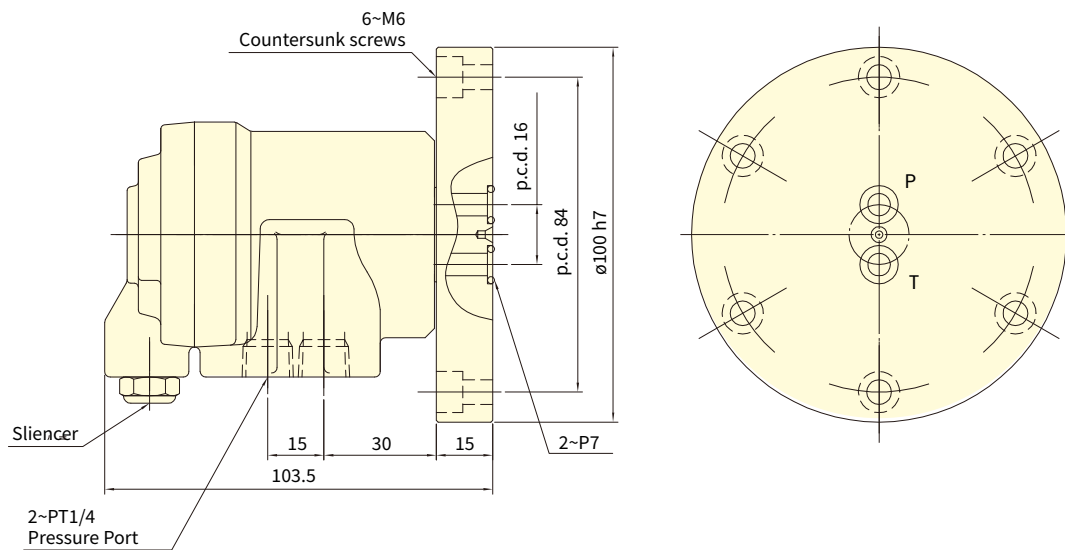
Subject to technical changes

## SPECIFICATIONS

Model	Distributing	Max. speed (r.p.m.)	Max. pressure (kgf/cm <sup>2</sup> )	Weight (kg)
<b>RJ-4E</b>	4 in / 4 out	3500	35	4.5
<b>RJ-5E</b>	5 in / 5 out	3500	35	7.5



- Provides 2 independent channels for compressed air transmission.
- Integrates multiple air lines into a single component, significantly simplifying piping layout and saving installation space.
- Minimal rotational resistance ensures smooth and stable operation, effectively saving energy.
- The air configuration, number of passages, and mounting interface can all be customized according to requirements



Subject to technical changes

### SPECIFICATIONS

Model	Distributing	Max. speed (r.p.m.)	Max. pressure (kgf/cm <sup>2</sup> )	Weight (kg)
RJ-A2E	2	3000	8	1.2

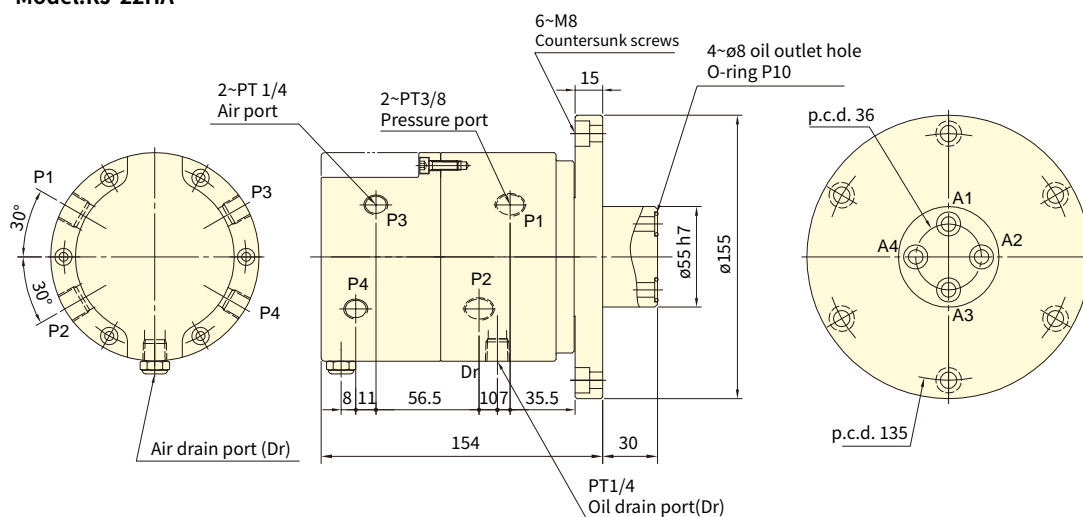
# RJ-22HA/RJ-41HA COMBINED AIR AND HYDRAULIC ROTARY JOINT

Multi-passage, dual medium

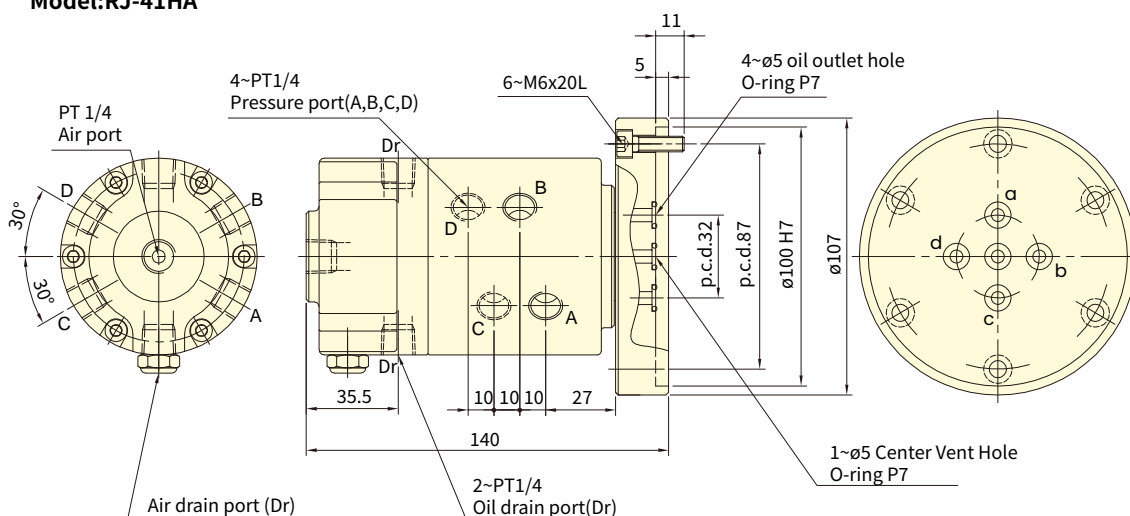


- Available Configurations: 4-Channel (2 Hydraulic + 2 Air) and 5-Channel (4 Hydraulic + 1 Air)
- Enables clamping and unclamping control; applicable to workpiece detection, tool air-blow cleaning, and similar automation functions.
- Ideal for rotary tables on mill-turn machines and multi-axis machining centers.
- Features high-performance sealing technology to prevent leakage of oil, ensuring long-term operational stability.
- Customizable Air and hydraulic configurations, number of passages, and mounting interface and supports dual media
- Optional integration with optical scales is available for enhanced precision and system synchronization.

**Model:RJ-22HA**



**Model:RJ-41HA**



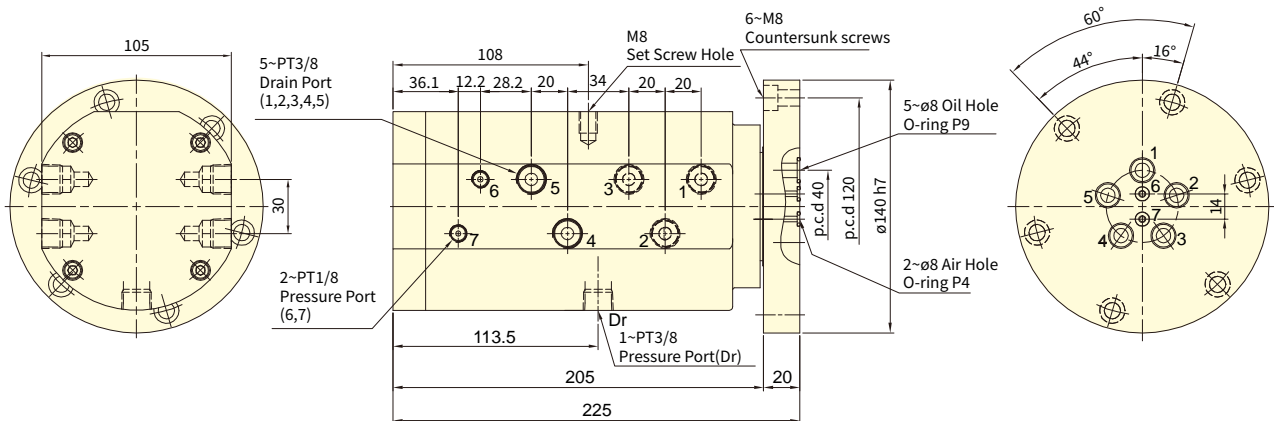
Subject to technical changes

## SPECIFICATIONS

Model	Distributing	Max. speed (r.p.m.)	Max. pressure MPa(kgf/cm <sup>2</sup> )		Weight (kg)
			Pneumatic	Hydraulic	
RJ-22HA	2 Hydraulic + 2 Air	1000	8	60	10.5
RJ-41HA	4 Hydraulic + 1 Air	3000	8	50	2.95



- 5 Hydraulic + 2 Air Channel Design.
- Supports multi-media transmission, ideal for simultaneous control of clamping and unclamping operations.
- The fully sealed air passage design ensures independent channels for stable pressure, with the air section also supporting vacuum applications.
- High-performance sealing structure prevents cross-leakage between oil and air, enhancing system reliability and machining accuracy.
- Supports medium to low-speed rotation, suitable for multi-axis workstations and compound machining centers.
- Customizable Air and hydraulic configurations, number of passages, and mounting interface and supports dual media
- Optional integration with optical scales is available for enhanced precision and system synchronization.

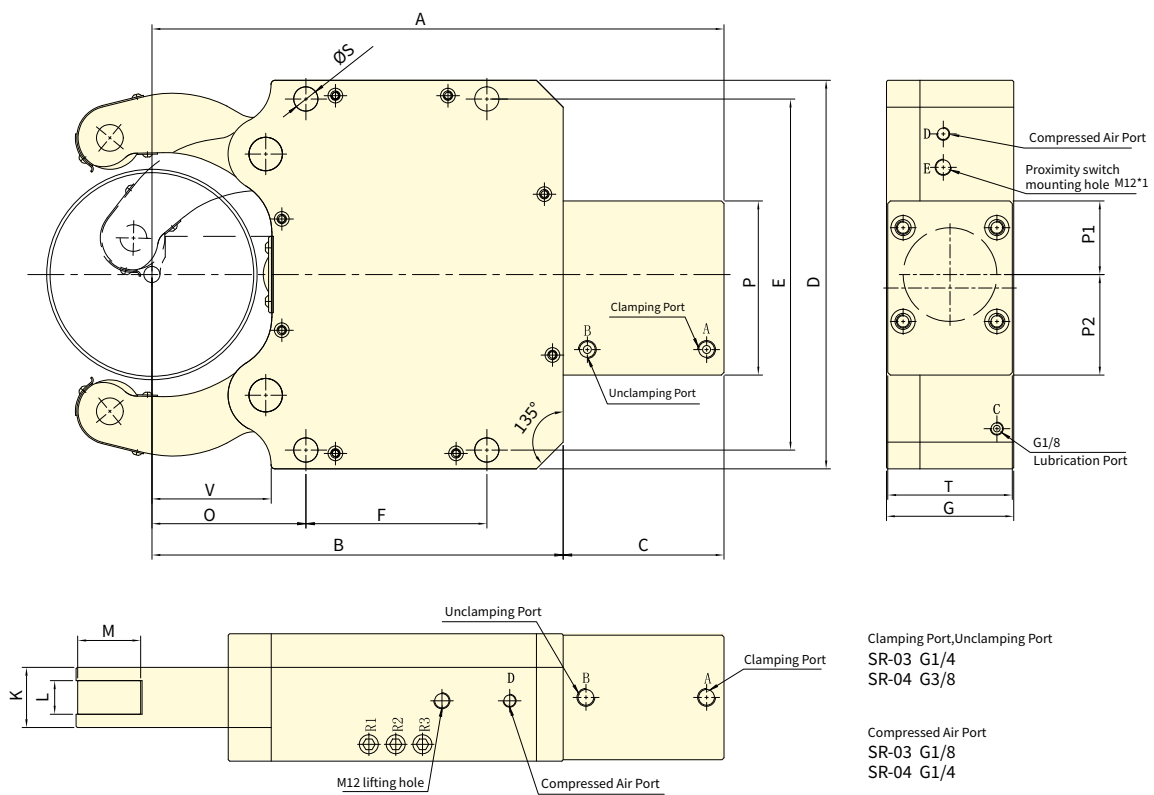


### SPECIFICATIONS

Model	Distributing	Max. speed (r.p.m.)	Max. pressure (kgf/cm <sup>2</sup> )		Weight (kg)
			Pneumatic	Hydraulic	
<b>RJ-52HV</b>	5 Hydraulic + 2 Air	1000	8	70	15.9



- 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 <sup>2</sup>	mm	mm	kN (kgf)	M/min.	bar	mm	mm	kg	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

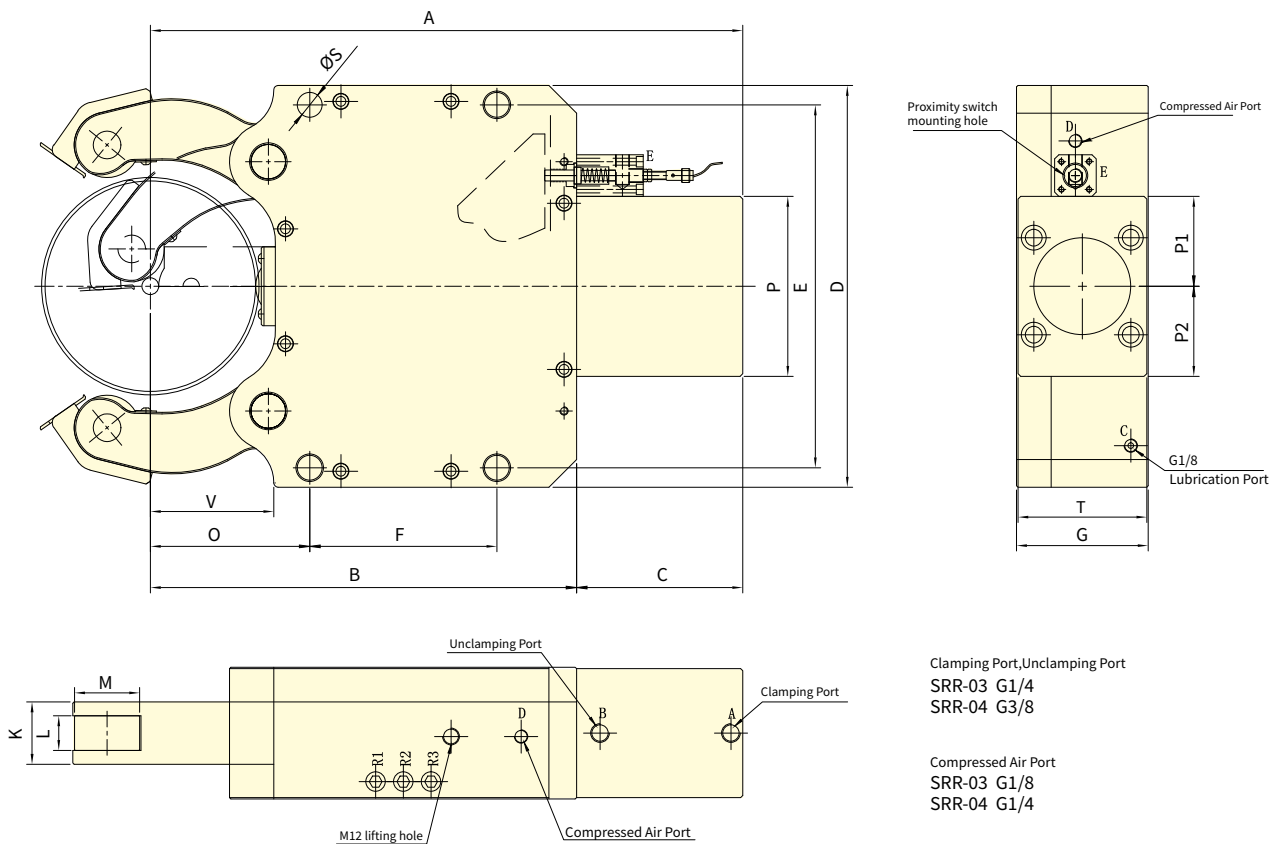
Model	A	B	C	D	E	F	G	O
SR-02A	279	197	82	205	170	85	70	70
SR-03	427	307	120	290	262	135	95	115
SR-04	603	448	155	405	365	240	110	146

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

## DIMENSIONS

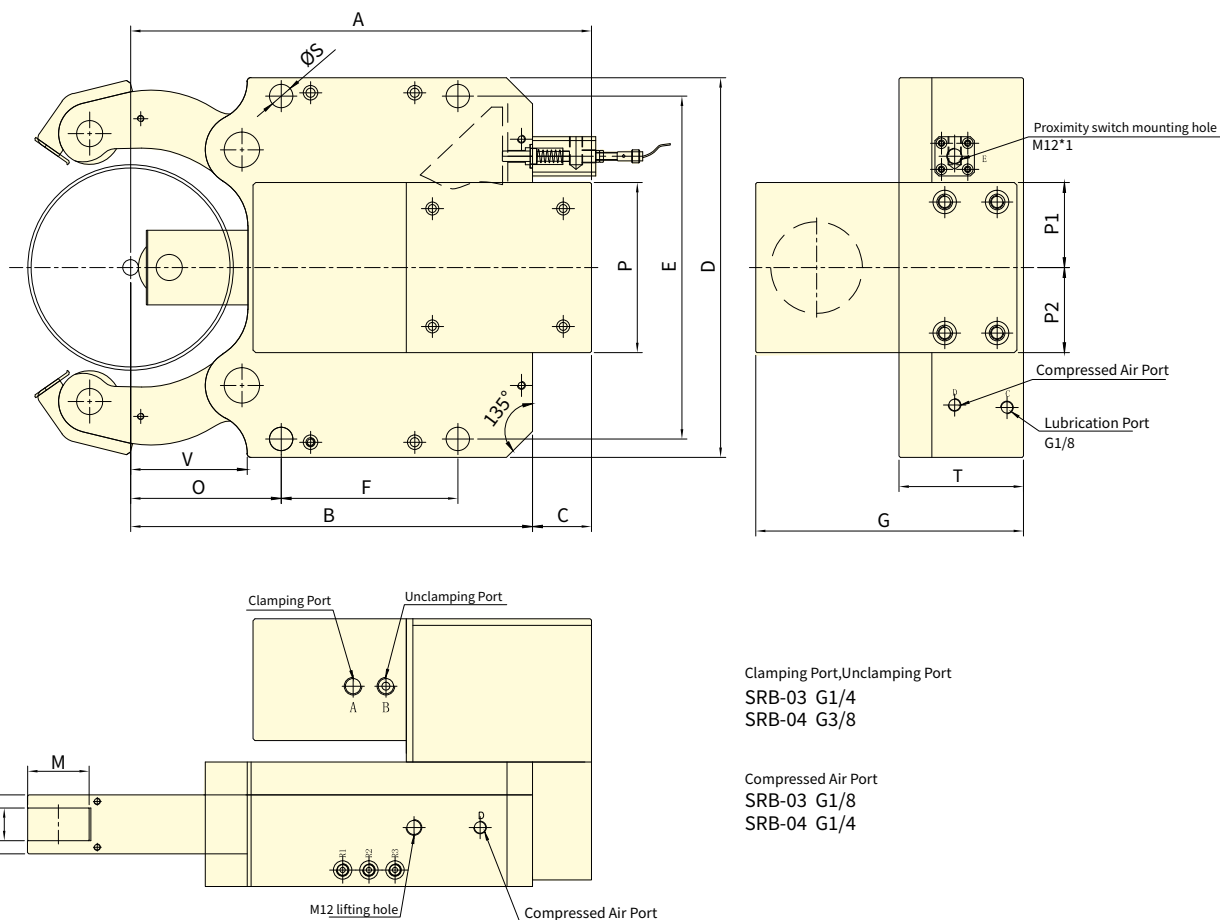
Model	A	B	C	D	E	F	G	O
<b>SRR-03</b>	427	307	120	290	262	135	95	115
<b>SRR-04</b>	603	448	155	405	365	240	110	146

Model	K	L (Width of rollers)	M (Diameter of rollers)	P	P1	P2	S	T	V
<b>SRR-03</b>	45	25	47	130	65	65	18	93	89
<b>SRR-04</b>	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	Chucking Dia. Max.	Chucking Dia. Min.	Max. clamping force	Max. roller surface speed	Max. pressure	Clamping accuracy	Repeat accuracy	clamping weight	Weight
	cm <sup>2</sup>	mm	mm	kN (kgf)	M/min.					
<b>SRB-03</b>	38.5	152	12	10(1019)	850	55	0.04	0.007	1000	44
<b>SRB-04</b>	63.5	245	30	15(1529)	750	75	0.05	0.007	1500	115

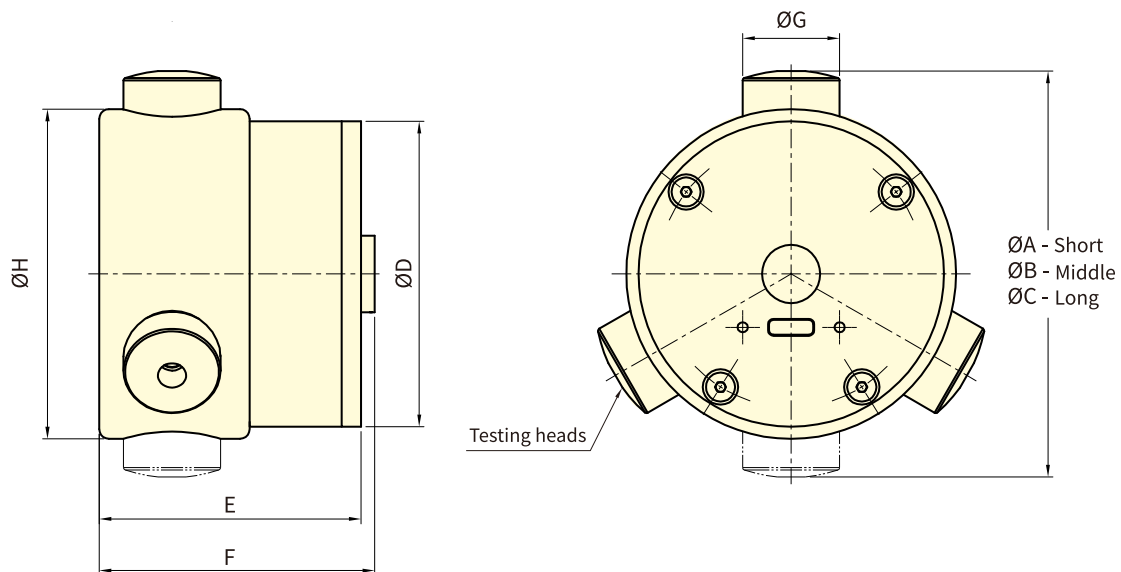
## DIMENSIONS

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

Model	K	L (Width of rollers)	M (Diameter of rollers)	P	P1	P2	S	T	V
<b>SRB-03</b>	45	25	47	130	65	65	18	95	89
<b>SRB-04</b>	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.



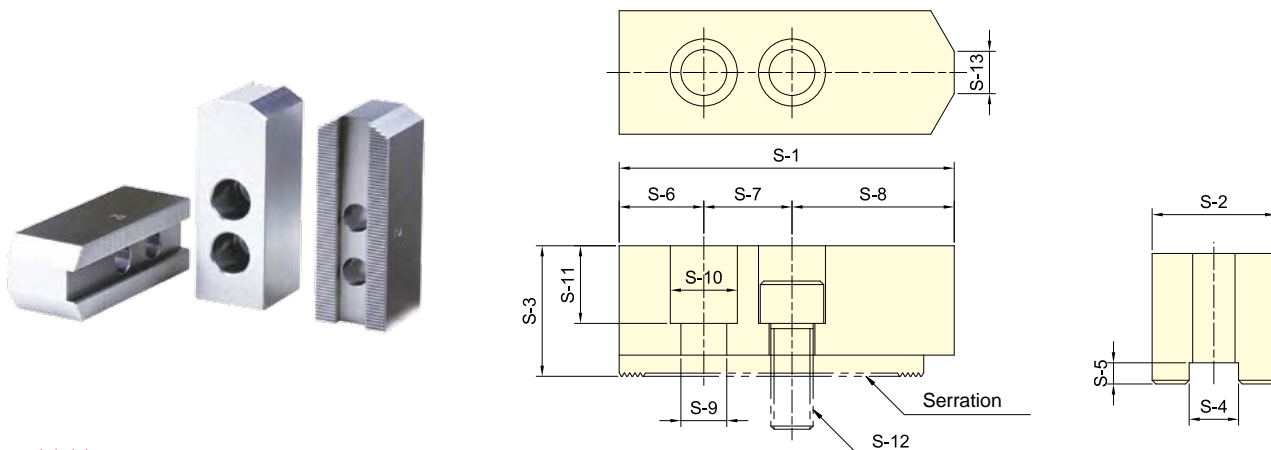
Subject to technical changes

### SPECIFICATIONS

Model	Range / Gripping Force	Max. Speed	Gripping range	Accuracy
	(kN)	(r.p.m.)	(mm)	
<b>GFS-100</b>	6 - 100	6000	70 , 84 , 104	±2%

### DIMENSIONS

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



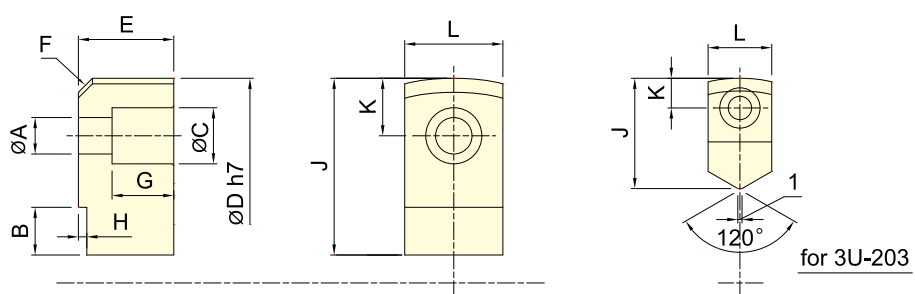
Subject to technical changes

## 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
<b>SJ-04</b>	52	23	23	10	5	10	14	28	9	14	13	M8	3	1.5×60°	3H-204, 3P-04	0.5
<b>SJ-05</b>	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
<b>SJ-06</b>	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
<b>SJ-08</b>	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
<b>SJ-10</b>	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
<b>*SJ-12H</b>	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
<b>SJ-12P</b>	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
<b>SJ-15H</b>	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
<b>*SJ-15P</b>	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
<b>SJ-21</b>	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, 3M-221, 3M-224, SP-320, SP-324	15.8

\* 12" Chucks are originally equipped with SJ-12H.  
 \* 15" Chucks are originally equipped with SJ-15P.

## STANDARD SOFT JAW FOR 3U CHUCK

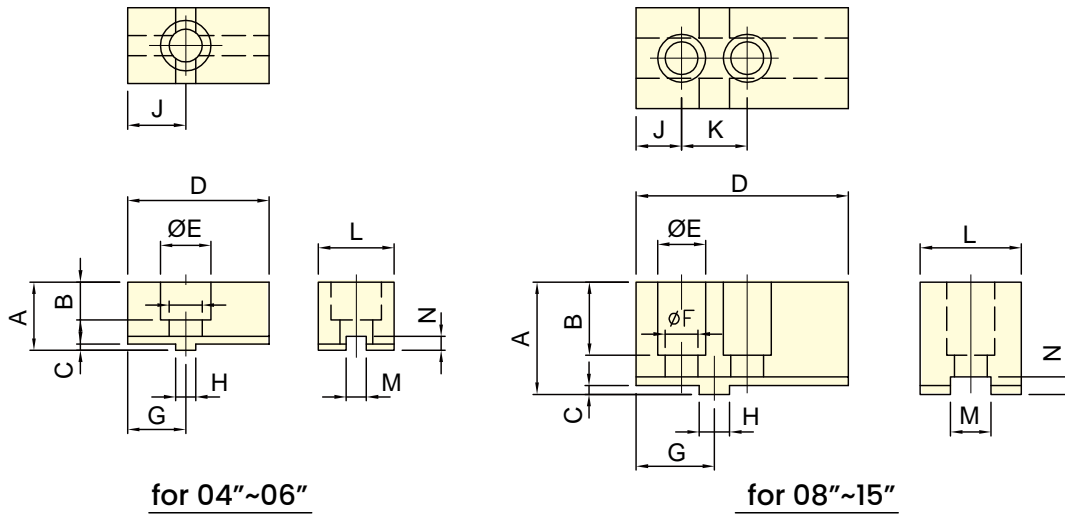


Subject to technical changes

## DIMENSIONS

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

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

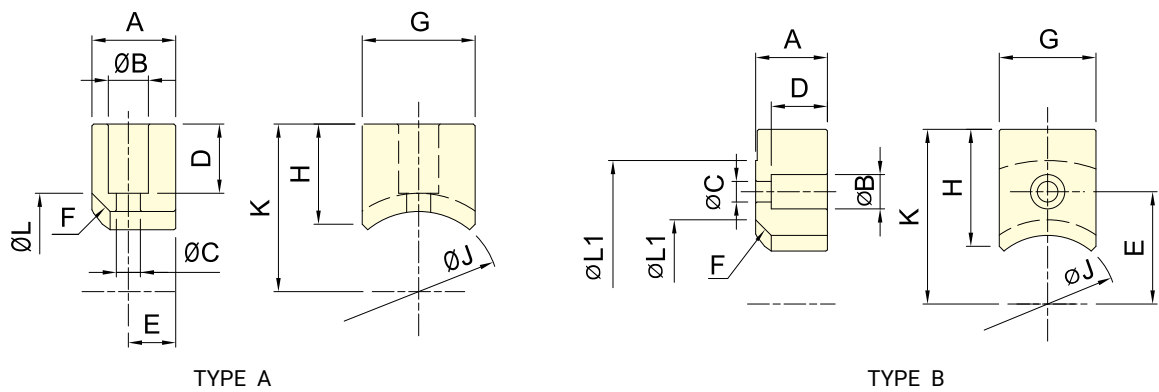


Subject to technical changes

### 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

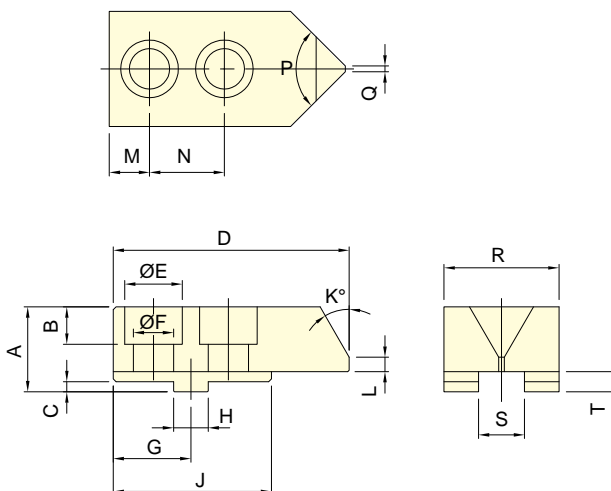


Subject to technical changes

### 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

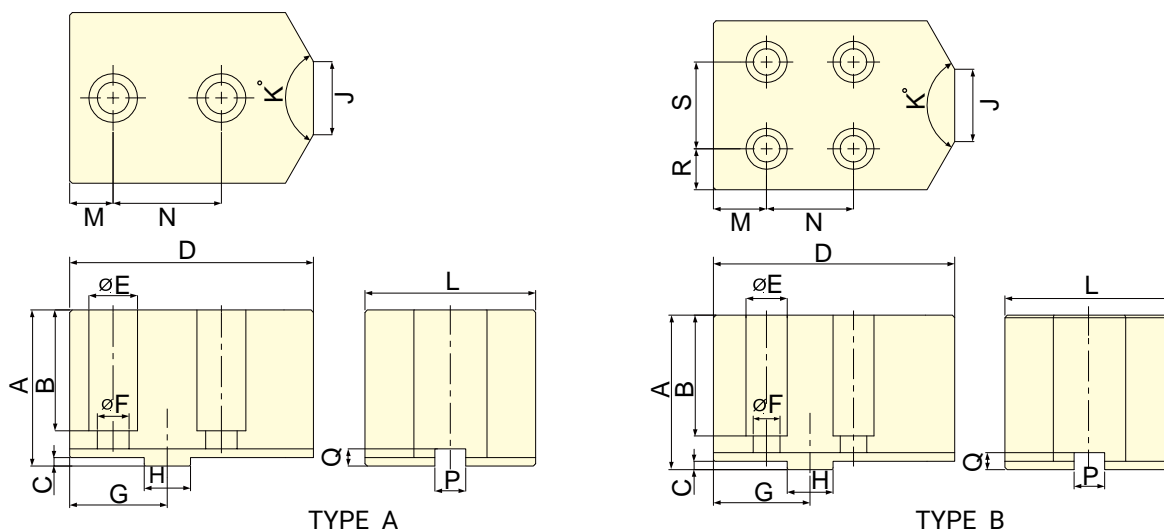


Subject to technical changes

### DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
<b>3R-08</b>	29.5	13	3.5	82	20	14	27	12	55	30	5	14	26	90	2	40	16	7
<b>3R-10</b>	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



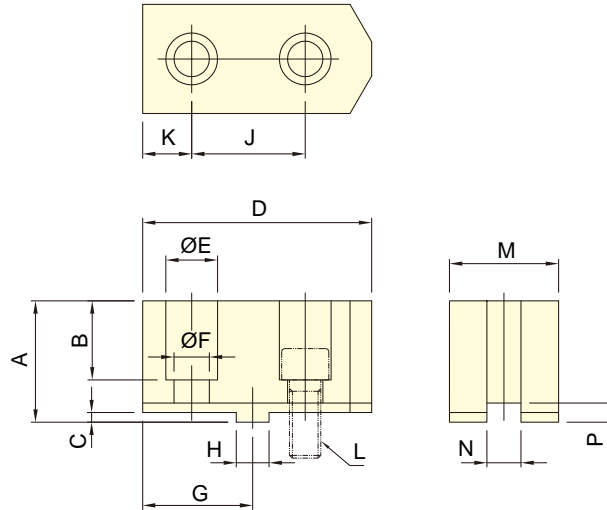
Subject to technical changes

### DIMENSIONS

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

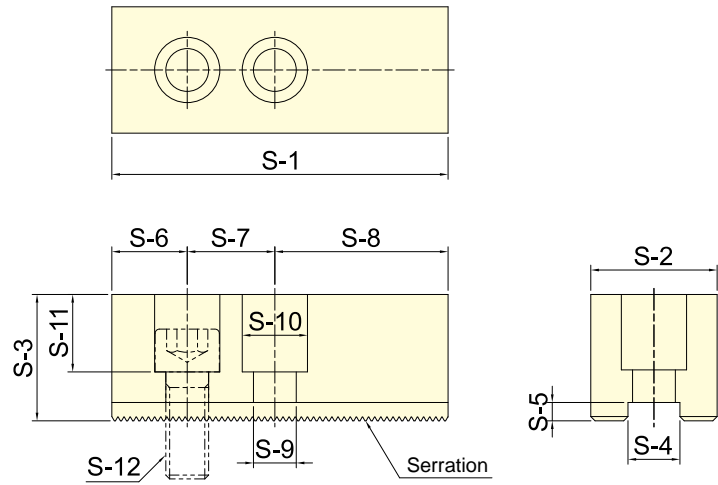


Subject to technical changes

### DIMENSIONS

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

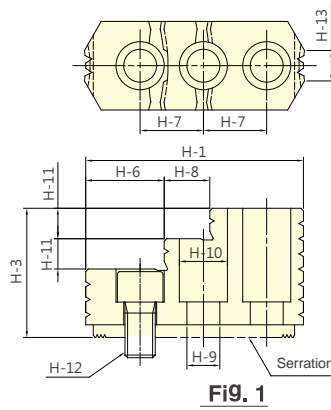
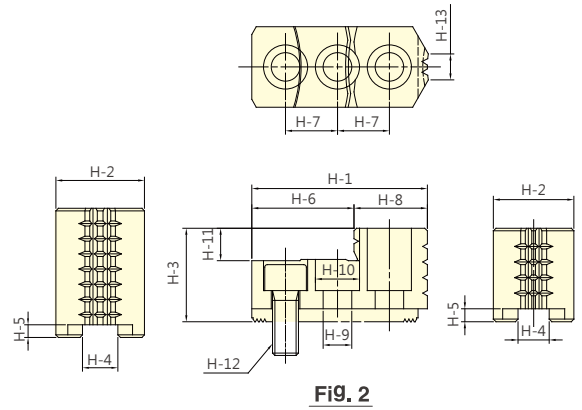
## STANDARD SOFT JAW FOR AP CHUCK



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)
<b>SJ-185</b>	165	62	62	25.5	9	37	43	85	21	32	38	M20	3.0×60°	AP-145, AP-185	12.2
<b>SJ-275</b>	180	64	70	25.5	9	40	60	80	21	32	45	M20	3.0×60°	AP-230, AP-275	16.1
<b>SJ-320</b>	210	75	80	30	9	40	60	110	26	38	55	M24	3.0×60°	AP-320, AP-375	24.7

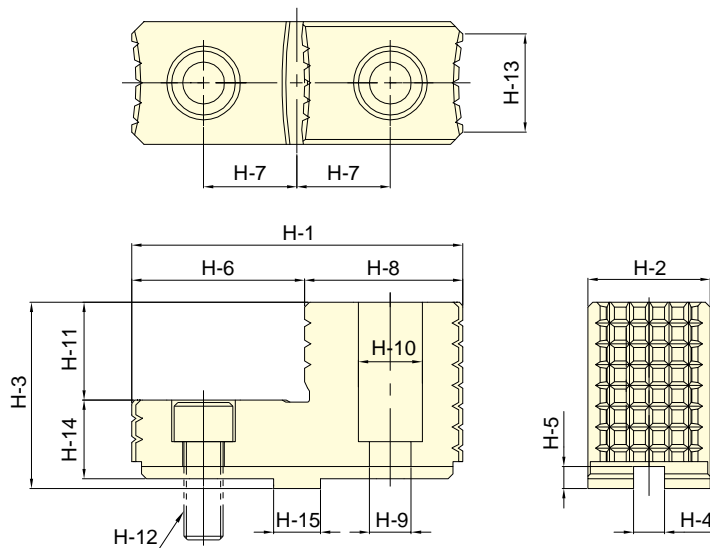

**Fig. 1**

**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
<b>HJ-05</b>	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
<b>HJ-06</b>	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
<b>HJ-08</b>	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
<b>HJ-10</b>	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
<b>* HJ-12H</b>	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
<b>* HJ-12P</b>	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
<b>* HJ-15H</b>	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
<b>* HJ-15P</b>	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
<b>HJ-21</b>	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.

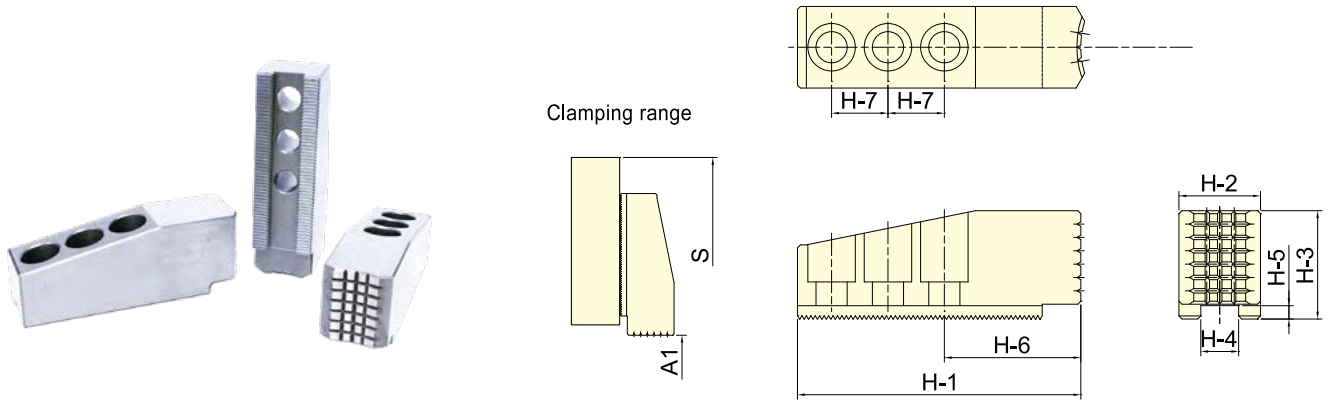
**STANDARD HARDEN JAW FOR 3MF CHUCK**


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
<b>3MF-20</b>	135	50	76	12.7	9	70	38.1	65	17	26	40	M16	40	32	19.03	3MF-20	6.7

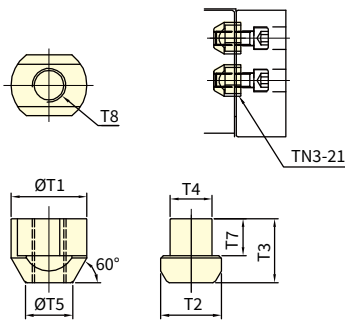
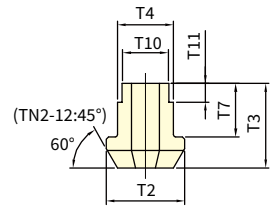
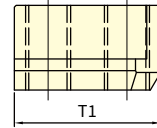
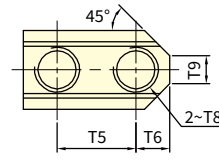
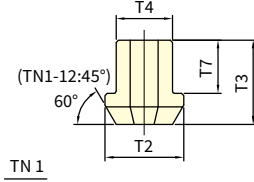
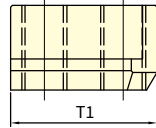
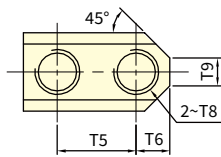
STANDARD HARDEN JAW FOR AP CHUCK



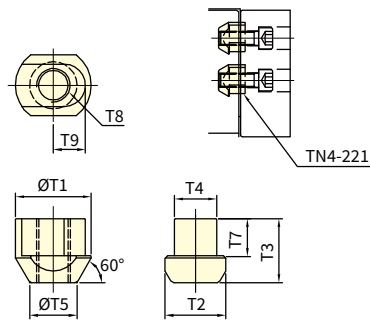
Subject to technical changes

DIMENSIONS

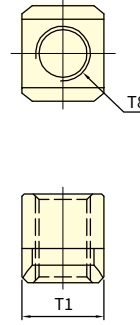
Model	H-1	H-2	H-3	H-4	H-5	H-6	H-7	A1	S	Serration Pitch	Matching Chuck	3 Jaw Weight (kg)
<b>HJ-145</b>	191	55	73	25.5	9	92	38	30-125	420	3.0×60°	AP-145	12.5
<b>HJ-145</b>	191	55	73	25.5	9	92	38	35-165	460	3.0×60°	AP-185	12.5
<b>HJ-145</b>	191	55	73	25.5	9	92	38	55-240	535	3.0×60°	AP-230	12.5
<b>HJ-145</b>	191	55	73	25.5	9	92	38	100-285	580	3.0×60°	AP-275	12.5
<b>HJ-320</b>	243	75	82	30	9	110	50	105-300	658	3.0×60°	AP-320	24.6
<b>HJ-320</b>	243	75	82	30	9	110	50	165-375	738	3.0×60°	AP-375	24.6



TN 3



TN 4



TN 5

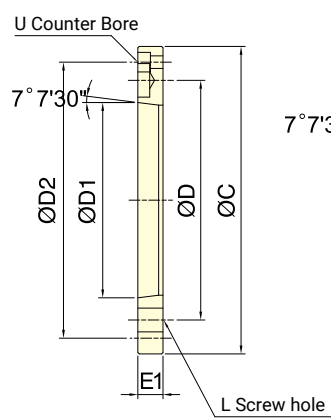
Subject to technical changes

### DIMENSIONS

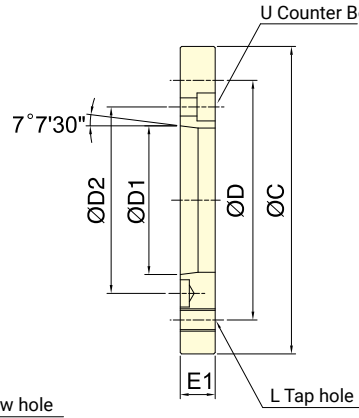
Model	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	Matching Chuck	3 Pcs Weight
													(kg)
<b>TN1-04</b>	26	14	15	10	14	6	9.5	M8	5	-	-	H-204, H-205, P-04, P-05, L-205, M-05, SP-304	0.06
<b>TN1-06</b>	36	17	18.5	12	20	8	11	M10	6	-	-	H-206, P-06, L-206, 1L-06, M-06, 3N-06, AP-52, RAP-306, SP-306	0.15
<b>TN1-08</b>	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
<b>TN1-10</b>	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
<b>* TN1-12</b>	55.5	29.5	28	21	30	12	16.5	M16	13	-	-	P-12, L-12, M-12	0.63
<b>TN2-12</b>	55.5	29.5	28	21	30	12	16.5	M14	13	18	4.5	P-12, L-12, M-12	0.63
<b>* TN1-15</b>	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
<b>TN2-15</b>	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
<b>* TN1-212</b>	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
<b>TN2-212</b>	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
<b>* TN1-215</b>	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
<b>TN2-215</b>	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
<b>TN3-21</b>	46	37.5	45	25	26	-	26	M20	-	-	-	P-221, P-224, M-221, M-224, V-21, V-24, V-32,	1.84
<b>TN4-221</b>	45	36	38	25	28	-	22	M20	19	-	-	H-221, H-224, H-232, SP-320, SP-324	0.63
<b>TN5-185</b>	32	35	30	25.5	-	-	19	M20	-	-	-	AP-145, AP-185, AP-230, AP-275	0.15
<b>TN5-320</b>	36	42	39	30	-	-	24	M24	-	-	-	AP-320, AP-375	0.24

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

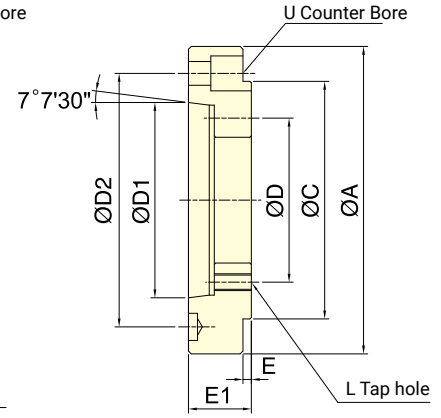
\* 15" Chucks are originally equipped with TN1-15 & TN1-215.



**FL1**



**FL2**



**FL3**

Subject to technical changes

## DIMENSIONS

Model	A	C	D	D1	D2	E	E1	L	U	Remark	Weight (kg)
<b>FL3-04A24</b>	110	85	70.6	63.513	82.6	8	28	M10	M10	3H-204, 2H-204	1.12
<b>FL3-04A25</b>	140	85	70.6	82.563	104.8	5.5	32	M10	M10	3H-204, 2H-204	2.28
<b>FL1-05A24</b>	-	110	82.6	63.513	96	-	15	M10	M6	3H-205, 2H-205, 3L-05, 2L-05, 3J-05, 2J-05	0.65
<b>FL3-05A25</b>	135	110	82.6	82.563	104.8	6	30	M10	M10	3H-205, 2H-205, 3L-05, 2L-05	1.99
<b>FL1-06A25</b>	-	140	104.8	82.563	116	-	15 *18	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 *3L-206, *2L-206	0.96
<b>FL3-06A26</b>	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
<b>FL2-08A25</b>	-	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 *3L-208, *2L-208,	2.7
<b>FL1-08A26</b>	-	170	133.4	106.375	150	-	17 *23	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 *3L-208, *2L-208	1.55
<b>FL2-10A26</b>	-	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
<b>FL1-10A28</b>	-	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
<b>FL2-15A28</b>	-	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
<b>FL1-15A211</b>	-	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
<b>FL2-21A28</b>	-	380	330.2	139.719	171.4	-	33	M24	M16	3H-215, 3P-221, 3P-224	22.05
<b>FL2-21A211</b>	-	380	330.2	196.869	235	-	40 *27	M24	M20	3H-215 *3P-221, *3P-224	16.28
<b>FL1-21A215</b>	-	380	330.2	285.775	330.2	-	27	M24	M12	3H-215, 3H-18B, 3H-221, 3P-221, 3P-224	8.6
<b>FL2-40A215</b>	-	520	463.6	285.775	330.2	-	40	M24	M24	3H-224	43.26
<b>FL1-40A220</b>	-	520	463.6	412.775	463.6	-	27	M24	M12	3H-224, 3H-232	13.55

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

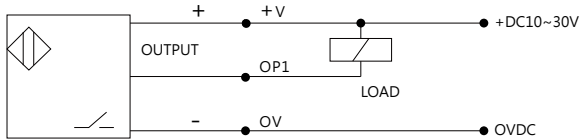


- The proximity switch and linear Sensor are optional.
- The proximity switch is optional.

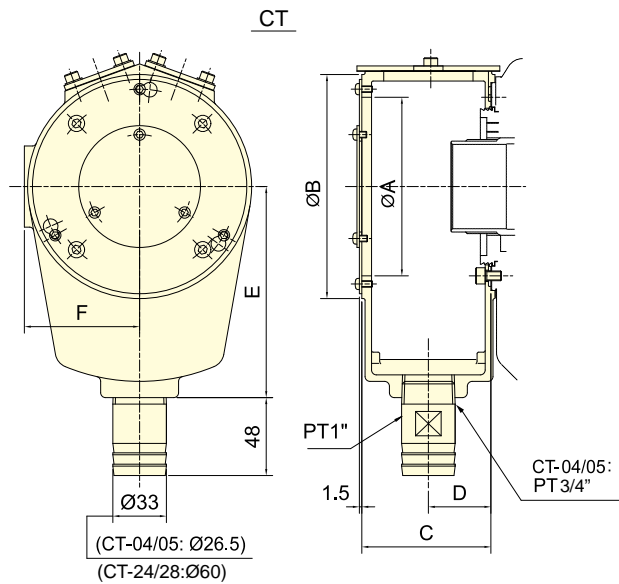
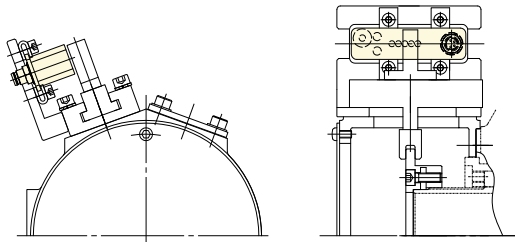
Power supply	Switching cap.	Output type
DC 10/30V	100mA	NPN

### Terminal Connections

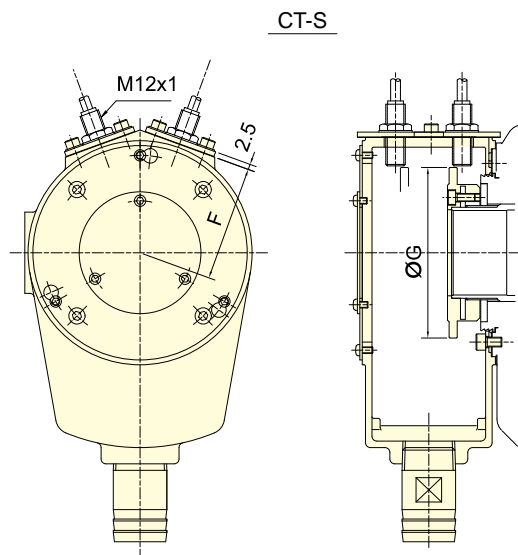
+V	OP1	OV
BROWN	BLACK	BLUE



### 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.

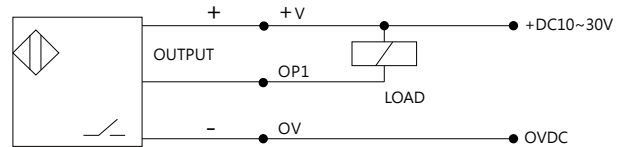
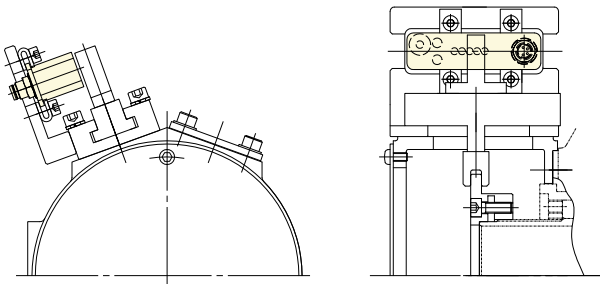
- The proximity switch is optional.

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

- Terminal Connections

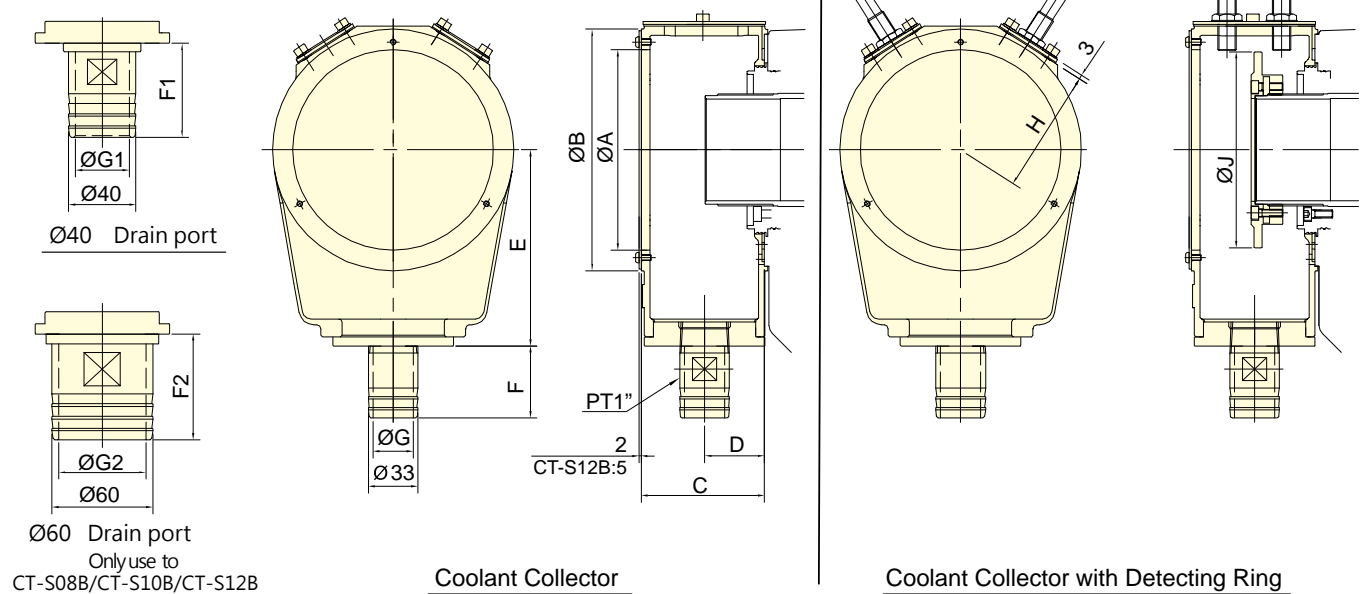
+V	OP1	OV
BROWN	BLACK	BLUE

- linear Sensor installation drawing



### CT-SB

### CT-SBS



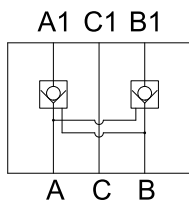
Subject to technical changes

### DIMENSIONS

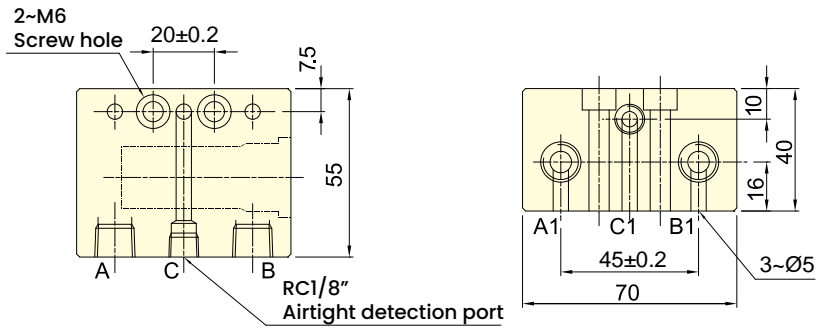
Model	A	B	C	D	E	F	F1	F2	G	G1	G2	H	J	Weight (kg)		Matching cyl.
														CT-SB	CT-SBS	
CT-S05B/CT-S05BS	97	120	68.3	33.3	96	49.6	56	-	25	32	-	62	86	1.1	1.6	TS-539, TR-539
CT-S08B/CT-S08BS	133	160	82	40	130	49.6	56	63	25	32	52	82	130	0.9	1.4	TS-866
CT-S10B/CT-S10BS	160	188	88	43	148	49.6	56	63	25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



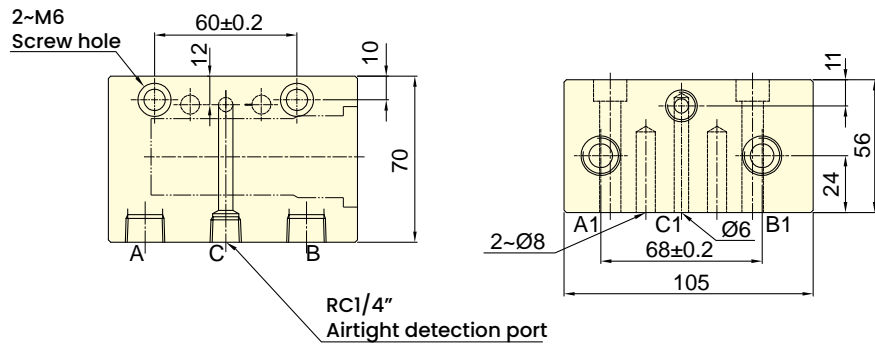
**Model:FV-01**



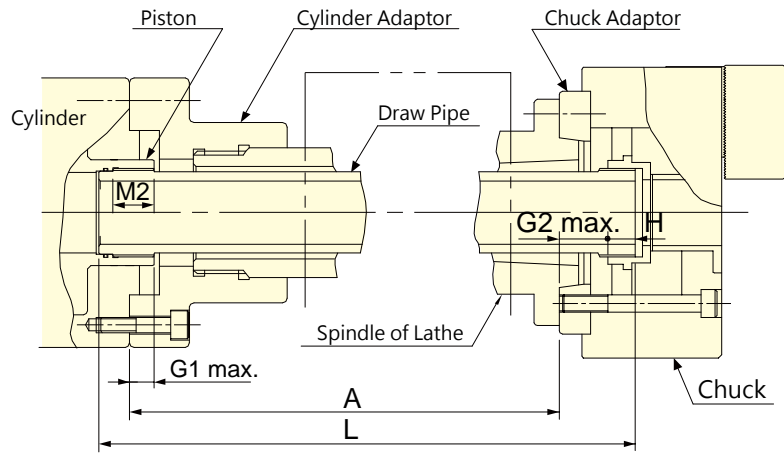
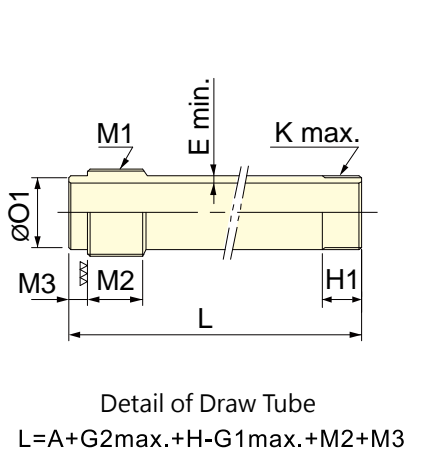
Circuit drawing



**Model:FV-03**



Subject to technical changes



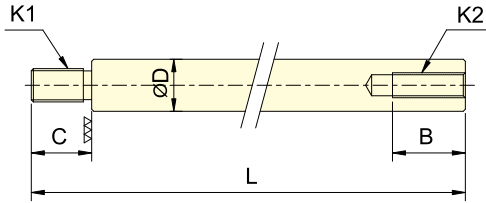
Subject to technical changes

### SPECIFICATIONS

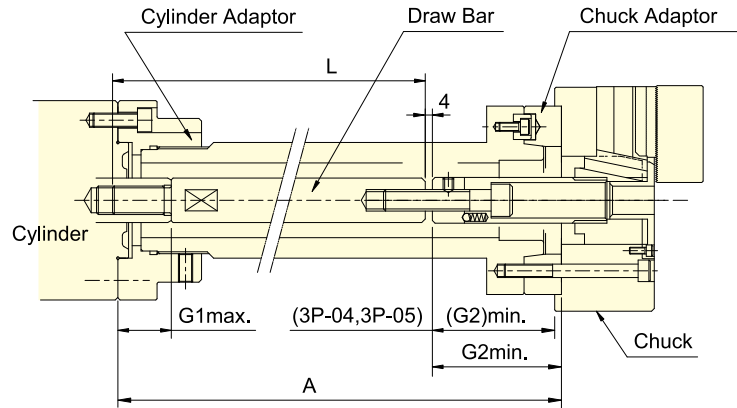
Chuck type	Cylinder type	G1	H	M3	M2	G2	M1	H1	O1		K	E	L	
		max.				max.			(f7)	max.				min.
3H-12	A8	TK-A1291	30	23	12	35	28	M100x2	35	95	-0.036 -0.071	M100x2	5	A+56+12
3H-15	A11	TK-A1512	30	33	12	45	33	M130x2	45	125	-0.043 -0.083	M130x2	5	A+81+12
3H-18	A11	TK-A1512	30	33	12	45	33	M130x2	45	125	-0.043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

Chuck type	Cylinder type	G1	H	M3	M2	G2	M1	H1	O1		K	E	L	
		max.				max.			(f7)	max.				min.
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.			
<b>3P-04</b>	RK-75(N)/RA-130	30	30/20	30/25	45	3	M20x2.5/M16x2	M10x1.5	A-22/A-32
<b>3P-05</b>	RK-75(N)/RA-130	40	30/20	30/25	45	-6	M20x2.5/M16x2	M12x1.75	A-13/A-23
<b>3P-06</b>	RK-100(N)/RA-170	40	30/25	30/25	45	81.5	M20x2.5/M16x2	M16x2	A-101/A-106
<b>3P-08</b>	RK-125(N)/RA-220	40	40/30	35/30	50	106	M24x3/M20x2.5	M20x2.5	A-120/A-130
<b>3P-10</b>	RK-125(N)/RA-220	40	40/30	35/30	50	133	M24x3/M20x2.5	M20x2.5	A-147/A-157
<b>3P-12</b>	RK-150(N)/RA-270	40	40/35	45/35	55	133	M30x3.5/M24x3	M20x2.5	A-152/A-157
<b>3P-215</b>	RK-200(N)/RH-200	60	55	55	70	69	M36x4	M30x3.5	A-88
<b>3P-218</b>	RK-200(N)/RH-200	60	55	55	70	57	M36x4	M30x3.5	A-76
<b>3P-221</b>	RK-200(N)/RH-200	60	55	55	70	62	M36x4	M30x3.5	A-81
<b>3P-224</b>	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.			
<b>3M-05</b>	RK-75(N)	40	30	30	45	-2	M20x2.5	M12x1.75	A-17
<b>3M-06</b>	RK-100(N)	40	30	30	45	81.5	M20x2.5	M16x2	A-101
<b>3M-08</b>	RK-125(N)	40	40	35	50	106	M24x3.0	M20x2.5	A-120
<b>3M-10</b>	RK-150(N)	40	40	35	50	135	M24x3.0	M20x2.5	A-148
<b>3M-12</b>	RK-150(N)	50	40	45	55	40	M30x3.5	M24x3	A-59

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





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