

mmk

MATSUMOTO MACHINE KANAZAWA



Power chucks Cylinders



List of mmk SMED Chucks

- Single Minute Exchange of Device -

GH&GX

High Speed & High Accuracy

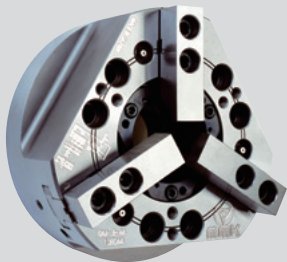
AJC&ACC

Auto Jaw Exchange Chucks

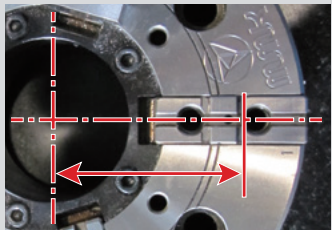
High Repeatability

Accurate jaw positioning

• Long life (Twice of MMK standard model) • High-accuracy	• 24 hours operation • Automatic operation and exchange by robot
• General workpieces	• General workpieces • Multi-product low-volume manufacturing workpieces
• 4" - 12"	• 8" - 18"
• Automobile parts • IT related parts • Aero space parts	• Construction machinery parts • General industrial machine parts • Multi-product low-volume manufacturing



Easy Positioning
Cross-Key Structure



AJC

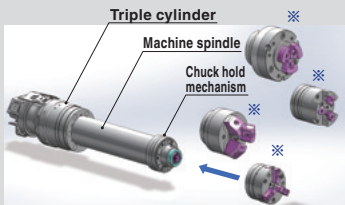


Simultaneous
jaw exchange



Enable irregular
shapeworkpieces

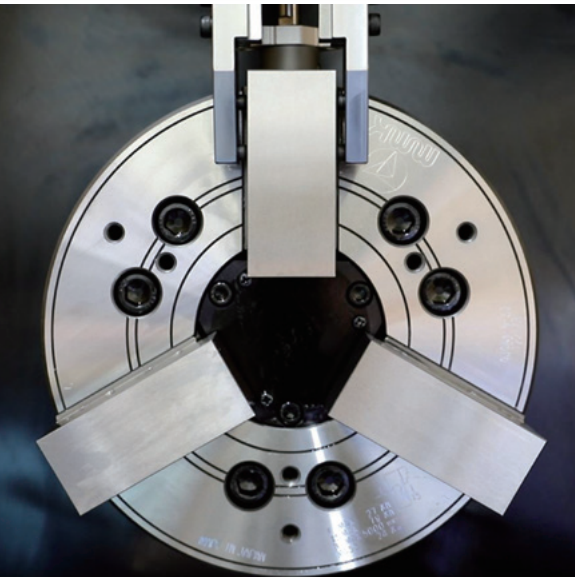
ACC



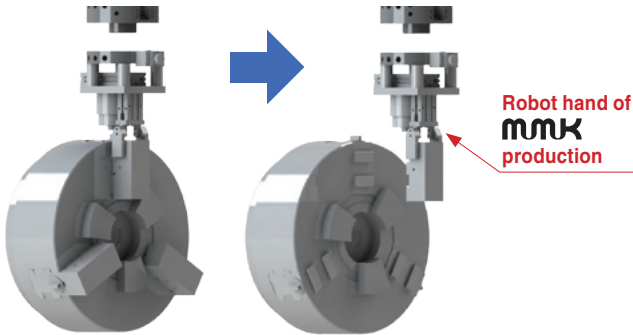
※ Various kind chuck hold

QJC (I) ROBO-QJC

Automatic jaw exchange system with robot



Achieve automation of multi objective
variable quantity production



Note : Refer to page 11 for the specification

GH & GX

High speed & High accuracy

Corresponding to many kinds of various needs by high speed

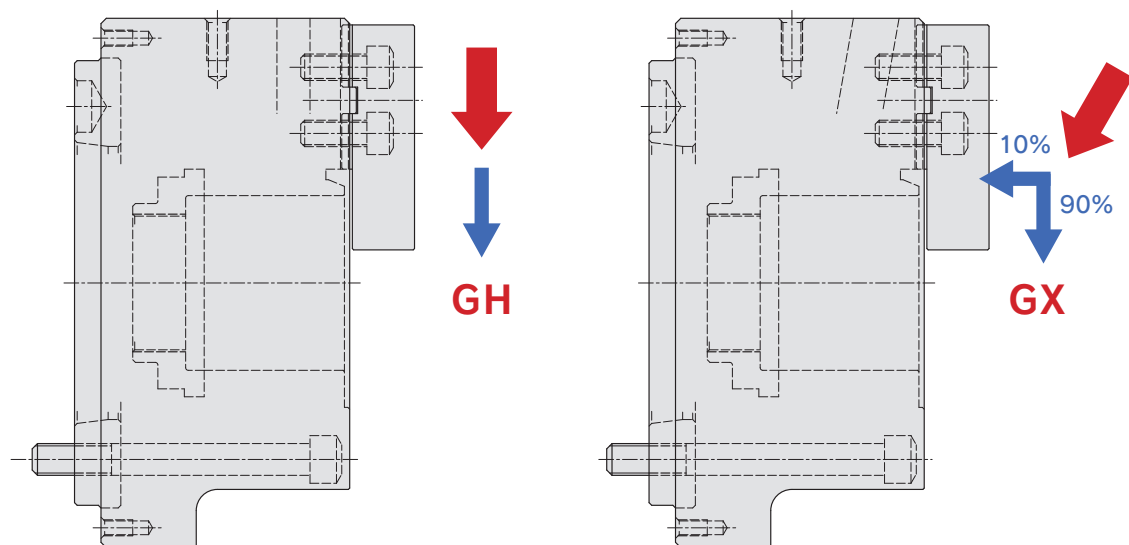
- 4": Maximum speed (R.P.M.) GH8,400 / GX8,600
- 6": Maximum speed (R.P.M.) GH8,000 / GX8,200
- 8": Maximum speed (R.P.M.) GH7,000 / GX7,200

High accuracy & High repeatability

- Repeatability ≤ 10 (μm / Tir) (Tir: Total indicator reading)
- Cross key structure provides high accuracy, easy, and reliable positioning.
- Please consult with **mmk** if you want higher accuracy.

The slant down mechanism of GX model reduce jaw rise up situation.

- 10% slant down force & 90% clamping force
- The slant down mechanism is **mmk** original design



The slant down chuck can be replaced with conventional power chuck

- Special actuator and special hydraulic control aren't necessary.

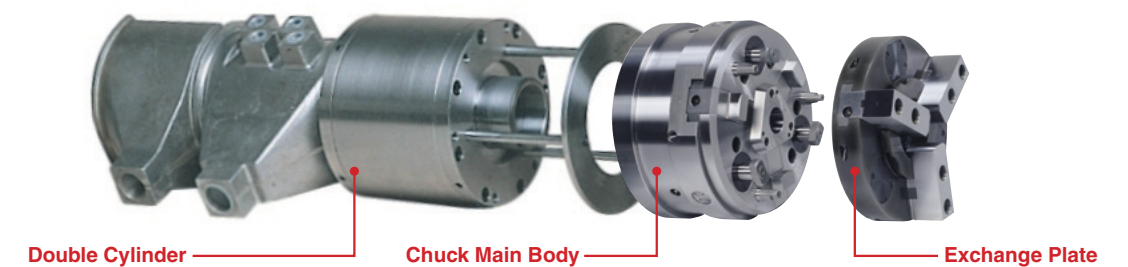
Note : Refer to page 10 for the specification



AJC

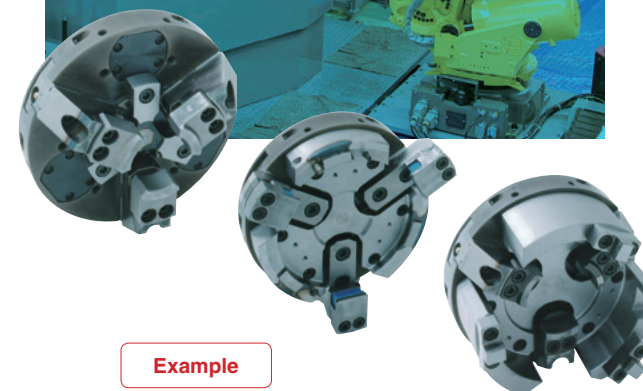
Auto jaw exchange chuck, Automatic set up

Enable irregular shapeworkpieces



Able to exchange instantly

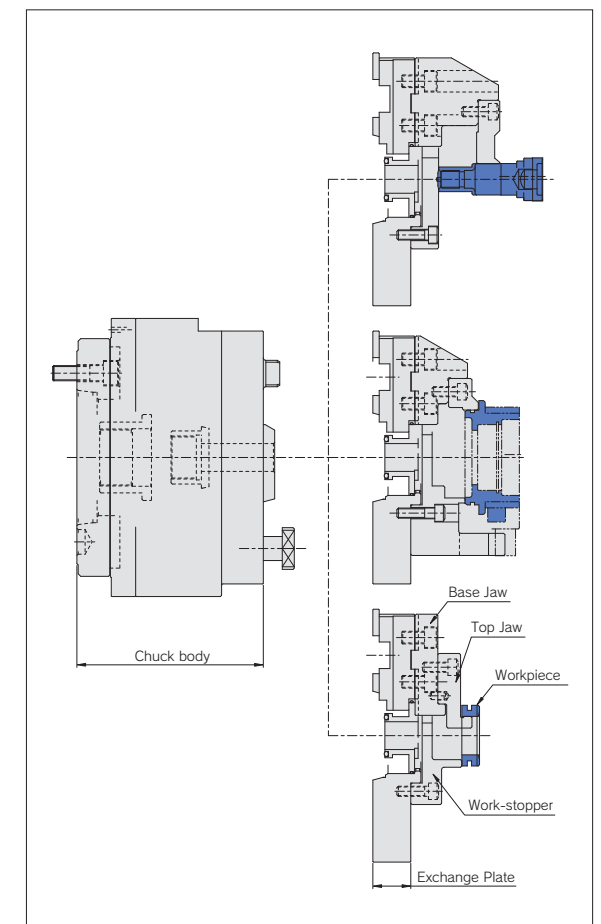
- Simultaneous jaw exchange.
Exchange plate positioning repeatability ≤ 0.01 (mm/Total indicator reading)
- Simultaneous work stopper and balance weight exchange.
- Achieve 24 hours automation with robot system



Example

High-accuracy

- The wedge shape clamping mechanism is adopted.



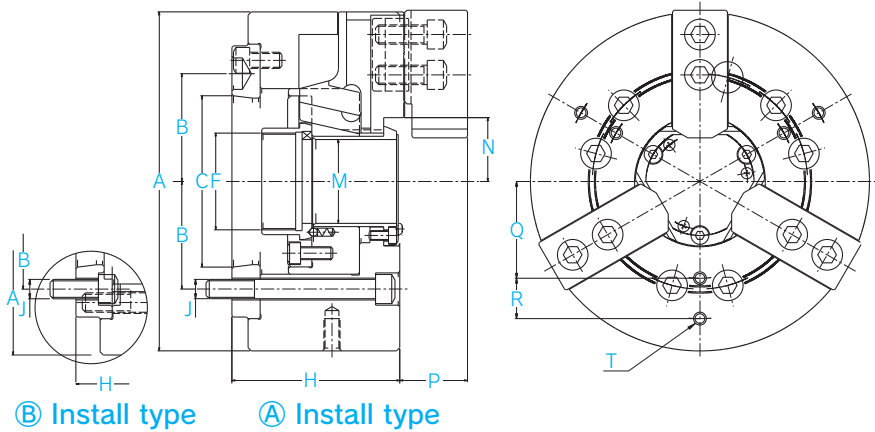
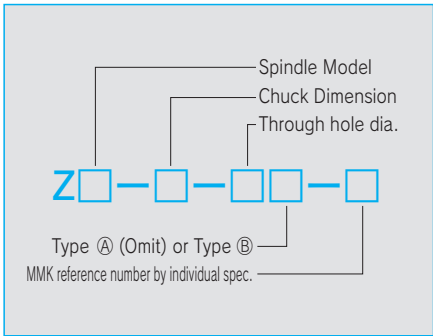
Note : Refer to page 17 for the specification

Z

Through hole 3 jaw power operated chuck



The Z chuck, equipped with a large Through hole and high speed capabilities, is extremely versatile for general machining applications. The matching cylinder is ZKP series.



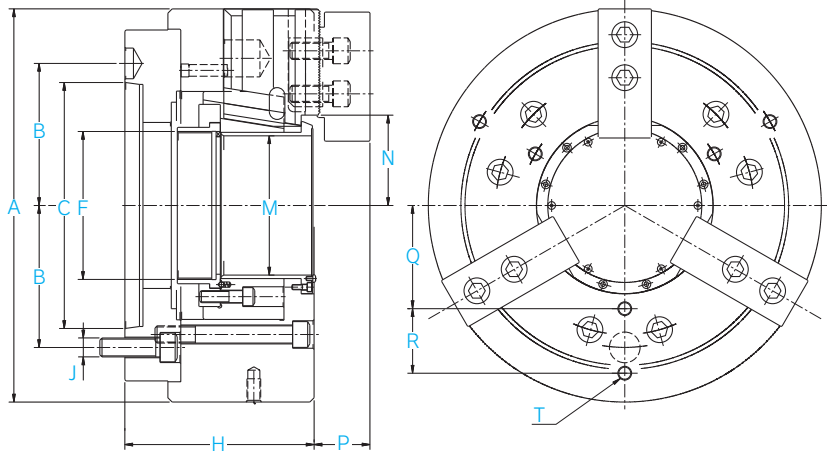
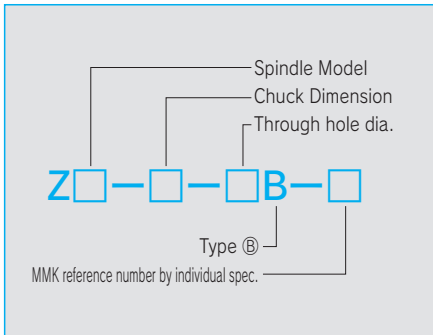
Specification		Unit	Z-4-21	ZA5-5-34	ZA5-6-46	ZA6-8-52	ZA6-10-75B	ZA8-10-75	ZA8-12-85B	ZA8-15-120B	ZA11-15-120B
Chuck diameter		in.	4	5	6	8	10	10	12	15	15
Max. speed		min ⁻¹	7,200	7,000	6,000	5,000	4,000	4,000	3,200	2,500	2,500
Jaw stroke		mm	φ 5.4	φ 5.4	φ 5.8	φ 7.6	φ 9	φ 9	φ 9	φ 11.3	φ 11.3
Sifter stroke		mm	10	10	13	17	20	20	20	25	25
Workpiece diameter	Max.	mm	φ 99	φ 121.5	φ 148.5	φ 189	φ 228.6	φ 228.6	φ 274.5	φ 342.9	φ 342.9
	Min.	mm	φ 3	φ 23	φ 12	φ 21	φ 26.5	φ 26.5	φ 50	φ 75	φ 75
Max. clamping force		KN	23.5	29.4	47	78.4	107.8	107.8	137.2	176.4	176.4
Max. draw pull		KN	11.9	14.7	22.1	27	42.6	42.6	50	68.6	68.6
Weight		kg	4.1	6.1	13	23.5	38.5	38.5	70	132	124
Applicable cylinder			ZKP100/24-10	ZKP100/34-10	ZKP125/46-13	ZKP150/52-17	ZKP170/75-20	ZKP200/85-20	ZKP230/120-30		

Dimension		Unit	Z-4-21	ZA5-5-34	ZA5-6-46	ZA6-8-52	ZA6-10-75B	ZA8-10-75	ZA8-12-85B	ZA8-15-120B	ZA11-15-120B
A		mm	φ 110	φ 135	φ 165	φ 210	φ 254	φ 254	φ 305	φ 381	φ 381
B		mm	R35.3	R52.4	R52.4	R66.7	R66.7	R85.7	R85.7	R85.7	R117.5
C*			φ 85H6	A2-#5	A2-#5	A2-#6	A2-#6	A2-#8	A2-#8	A2-#8	A2-#11
F			M25xP1.5	M40xP1.5	M55xP1.5	M60xP1.5	M85xP2.0	M85xP2.0	M93xP2.0	M130xP2.0	M130xP2.0
H		mm	54	70	90	104	128.5	123	135	190	165
J			3-M10	3-M10	6-M10	6-M12	6-M12	6-M16	6-M16	6-M16	6-M20
M		mm	φ 21	φ 34	φ 46	φ 52	φ 75	φ 75	φ 85	φ 120	φ 120
N	Max.	mm	21.26	28.76	32.5	39.5	52	52	60	79.5	79.5
	Min.	mm	18.56	26.06	29.6	35.7	47.5	47.5	55.5	73.85	73.85
P		mm	32	32	32	42	44	44	54	65	65
Q		mm	-	-	45	60	80	80	85	100	100
R		mm	-	-	25	25	30	30	45	60	60
T			-	-	6-M8Depth12	6-M8Depth15	6-M12Depth18	6-M16Depth20	6-M16Depth25		

You can choose sort taper type (JIS B 6109) or straight pilot type by the spindle nose shape of the install machine. The draw screw size is selectable other than the list shown above. Please confirm details to MATSUMOTO. Please consult with MMK for long stroke specification.

Z

Big bore through hole 3 jaw power operated chuck



Specification		Unit	ZA5-6-53B	ZA6-8-66B	ZA8-10-82B	ZA8-12-93B	ZA11-18-165B	ZA15-18-165B
Chuck diameter		in.	6	8	10	12	18	18
Max. speed		min ⁻¹	6,000	4,400	4,200	3,400	2,000	2,000
Jaw stroke		mm	φ 5.8	φ 7.6	φ 9	φ 9	φ 11.3	φ 11.3
Sifter stroke		mm	13	17	20	20	25	25
Workpiece diameter	Max.	mm	φ 154.8	φ 193.5	φ 228.6	φ 274.5	φ 411.3	φ 411.3
	Min.	mm	φ 20	φ 36	φ 68.5	φ 43	φ 123	φ 123
Max. clamping force		KN	47	78.4	107.8	137.2	176.4	176.4
Max. draw pull		KN	22.1	30.4	42.6	59.8	68.6	68.6
Weight		kg	14	25.3	39	64.7	180	180
Applicable cylinder			ZKP150/52-17	ZKP150/66-17	ZKP170/82-20	ZKP195/93-20	ZKP280/165-30	

Dimension		Unit	ZA5-6-53B	ZA6-8-66B	ZA8-10-82B	ZA8-12-93B	ZA11-18-165B	ZA15-18-165B
A		mm	φ 172	φ 215	φ 254	φ 305	φ 457	φ 457
B		mm	R52.4	R66.7	R85.7	R85.7	R117.5	R165.1
C*			A2-#5	A2-#6	A2-#8	A2-#8	A2-#11	A2-#15
F			M60xP1.5	M72xP1.5	M90xP2.0	M103xP2.0	M175xP3.0	M175xP3.0
H		mm	90	107	125	124	177	190
J			6-M10	6-M12	6-M16	6-M16	6-M20	6-M22
M		mm	φ 53	φ 66	φ 82	φ 93	φ 165	φ 165
N	Max.	mm	37	46.5	54.5	65	102	102
	Min.	mm	34.1	42.7	50	60.5	96.35	96.35
P		mm	32	42	44	54	65	65
Q		mm	45	60	80	85	120	120
R		mm	25	25	30	45	75	75
T			6-M8Depth12	6-M8Depth15	6-M12Depth18	6-M16Depth18	6-M16Depth25	

You can choose sort taper type (JIS B 6109) or straight pilot type by the spindle nose shape of the install machine. The draw screw size is selectable other than the list shown above. Please confirm details to MATSUMOTO.



Through hole (through hole slant) 3 jaw power operated chuck

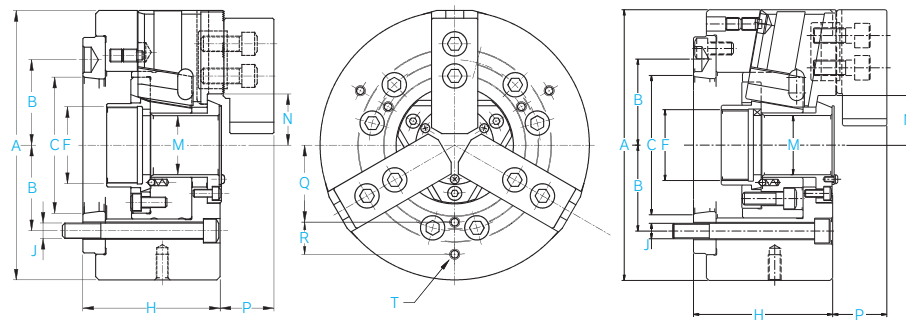
The diagram illustrates the naming convention for two types of models: **He** and **HeX**.

He Model Naming:

- He**: The base model name.
- Spindle Model**: Indicated by the first square box.
- Chuck Dimension**: Indicated by the second square box.
- Through hole dia.**: Indicated by the third square box.
- MMK reference number by individual spec.**: Indicated by the fourth square box.

HeX Model Naming:

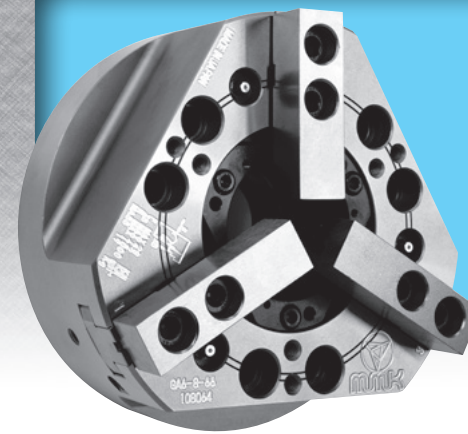
- HeX**: The base model name.
- Slant Type**: Indicated by the first square box.
- Spindle Model**: Indicated by the second square box.
- Chuck Dimension**: Indicated by the third square box.
- Through hole dia.**: Indicated by the fourth square box.
- MMK reference number by individual spec.**: Indicated by the fifth square box.



HeX

Dimension		Unit	HeA5-6-35	HeA6-8-46	HeA8-10-66	HeA8-12-67	HeA11-15-103	HeA15-18-165B	HeA15-21-184B	HeXA6-8-46	HeXA8-10-67	HeXA8-12-78B
A		mm	φ 168	φ 210	φ 254	φ 305	φ 381	φ 457	φ 533	φ 210	φ 254	φ 312
B		mm	R52.4	R66.7	R85.7	R85.7	R117.5	R165.1	R165.1	R66.7	R85.7	R85.7
C*			A2-#5	A2-#6	A2-#8	A2-#8	A2-#11	A2-#15	A2-#15	A2-#6	A2-#8	A2-#8
F			M52xP1.5	M60xP1.5	M80xP2.0	M100xP2.0	M130xP2.0	M175xP3.0	M195xP3.0	M60xP1.5	M76xP1.5	M100xP2.0
H		mm	92	107	123	140	165	220	210	107	123	149.5
J			6-M10	6-M12	6-M16	6-M16	6-M20	6-M22	6-M22	6-M12	6-M16	6-M16
M		mm	φ 35	φ 46	φ 66	φ 67	φ 103	φ 165	φ 184	φ 46	φ 67	φ 78
N	Max.	mm	31	40	50	54	72	105	114.5	40	50	57.5
	Min.	mm	28.65	36.8	46	50	67.3	100.3	109.75	36.9	46.1	53.6
P		mm	36	42	52	54	65	65	80.5	42	52	54
Q		mm	-	60	80	85	100	120	157	60	80	85
R		mm	-	25	30	45	60	75	75	25	30	45
T			-	6-M8Depth12	6-M12Depth20	6-M16Depth30	6-M16Depth25	6-M16Depth20	6-M16Depth30	6-M8Depth12	6-M12Depth20	6-M16Depth18

The draw screw size is selectable other than the list shown above. Please confirm details to MATSUMOTO.



Through hole 3 jaw power operated chuck (High speed & High accuracy)

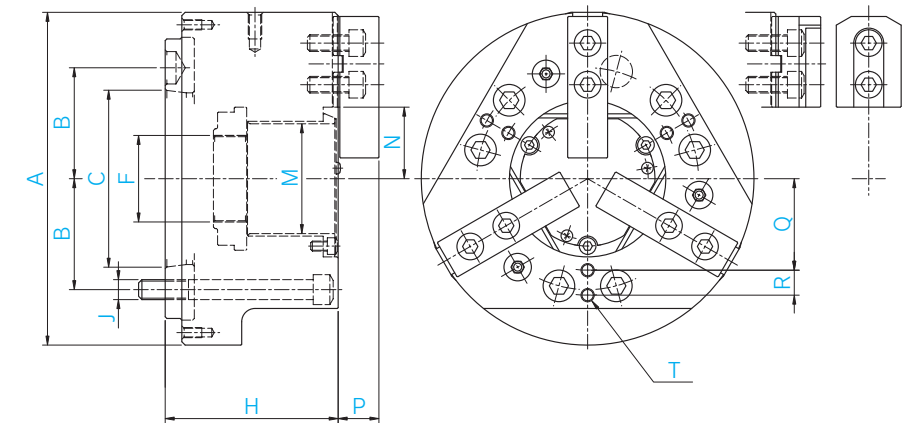
The diagram illustrates the structure of GH and GX codes. Each code consists of a base letter (GH or GX) followed by four square boxes representing individual fields, separated by hyphens. Labels with leader lines point to these fields for both codes.

GH Code Structure:

- Field 1: Spindle Model
- Field 2: Chuck Dimension
- Field 3: Through hole dia.
- Field 4: MMK reference number by individual spec.

GX Code Structure:

- Field 1: Slant Type
- Field 2: Spindle Model
- Field 3: Chuck Dimension
- Field 4: Through hole dia.
- Field 5: MMK reference number by individual spec.

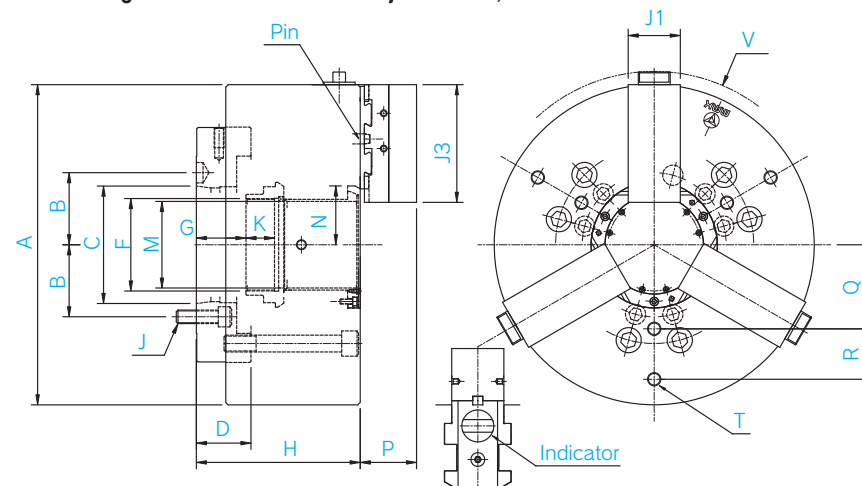


Dimension		Unit	GH-4	GX-4	GHA5-6-53B	GXA5-6-53B	GHA6-8-66	GXA6-8-66	GXA8-10-75	GXA8-12-75
A		mm	φ 116	φ 116	φ 172	φ 172	φ 200	φ 200	φ 254	φ 305
B		mm	R35.3	R35.3	R52.4	R52.4	R66.7	R66.7	R85.7	R85.7
C*			φ 85H6	φ 85H6	A2-#5	A2-#5	A2-#6	A2-#6	A2-#8	A2-#8
F			M25×P1.5	M25×P1.5	M60×P1.5	M60×P1.5	M72×P1.5	M72×P1.5	M85×P2.0	M80×P1.5
H		mm	54	54	88	88	104	104	123	135
J			3-M10	3-M10	6-M10	6-M10	6-M12	6-M12	6-M16	6-M16
M		mm	φ 21	φ 21	φ 53	φ 53	φ 66	φ 66	φ 75	φ 75
N	Max.	mm	22	22	36	36	43	43	52	52
	Min.	mm	19.8	19.8	33.1	33.2	40.1	40.2	48.3	48.3
P		mm	25	25	26.5 (Max.) 24.5 (Min.)			27 (Max.) 25 (Min.)	34	48
Q		mm	-	-	48	48	55	55	65	65
R		mm	-	-	15	15	15	15	25	25
T			-	-	6-M8Depth15				6-M12Depth18	6-M12Depth24

The draw screw size is selectable other than the list shown above. Please confirm details to MATSUMOTO.



Jaws are possible to exchange without tools and so quickly. The jaw is positioned with high repeatability by taper pin and dovetail structure. Jaws are mounted and dis-mounted on the edge face direction. There is 2 jaws model, too. Please consult with MATSUMOTO.

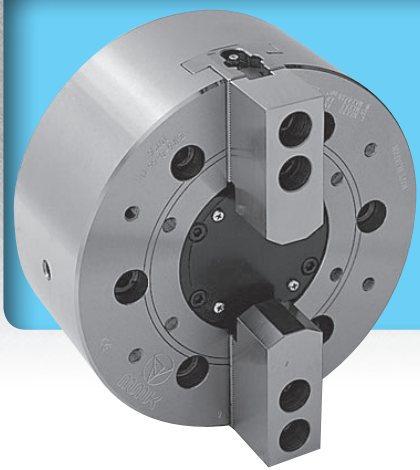


- QJC chuck uses anti clamping force which are occurred by workpiece or jaw forming ring clamp force, and jaw is fixed.
- There is no anti clamping force under non clamping, the fixation of jaw is incomplete.
- It is in danger that jaw might be scattered away by centrifugal force more than 100 (r.p.m.).
- Please do not rotate more than 100 (r.p.m.) under non clamping.
- In addition, please set up the interlock to installation machine by the situation.

Specification		Unit	QJCA5-6-42	QJCA6-8-52	QJCA8-10-66	QJCA8-12-67	QJCA11-15-103	QJCA15-18-165B
Chuck diameter		in.	6	8	10	12	15	18
Max. speed		min ⁻¹	6,000	5,000	3,600	2,500	1,800	1,200
Jaw stroke		mm	φ 5.8	φ 7.6	φ 8.0	φ 8.0	φ 9.5	11.3
Sifter stroke		mm	13	17	25	25	30	25
Workpiece diameter	Max.	mm	φ 148.5	φ 189	φ 228.6	φ 274.5	φ 342.9	φ 411
	Min.	mm	φ 39.5	φ 52	φ 59.6	φ 65	φ 101	φ 178.4
Max. clamping force		KN	47	78.4	94.1	114.7	147	176.4
Max. draw pull		KN	22.5	27	36.9	42.9	51.9	68.6
Weight		kg	13.5	23.5	40	75	137	210
Applicable cylinder			ZKP125/46-13	ZKP150/52-17	ZKP170/66-25	ZKP200/78-25	ZKP230/120-30	ZKP280/165-30

Dimension		Unit	QJCA5-6-42	QJCA6-8-52	QJCA8-10-66	QJCA8-12-67	QJCA11-15-103	QJCA15-18-165B
A		mm	φ 165	φ 210	φ 254	φ 305	φ 381	φ 457
B		mm	52.4	66.7	85.7	85.7	117.5	165.1
C			A5	A6	A8	A8	A11	A15
F			M50×P1.5	M58×P1.5	M76×P1.5	M62×P1.5	M112×P2.0外	M175×P3.0
G	Max.	mm	20	18.5	11	18	8	44.5
	Min.	mm	7	1.5	-14	-7	-22	19.5
H		mm	90	104	123	140	165	195
J			6-M10	6-M12	6-M16	6-M16	6-M20	6-M22
K		mm	15	21	32	33.5	36	40
M		mm	42	52	66	67	103	165
N	Max.	mm	28.5	35	44.8	48.5	72	108.7
	Min.	mm	25.6	31.15	40.8	44.5	67.15	103.05
P		mm	32	42	52	54	67	67
Q		mm	45	60	80	85	100	120
R		mm	25	25	30	45	60	75
T			6-M8Depth12	6-M8Depth16	6-M2Depth20	6-M16Depth30	6-M16Depth25	6-M16Depth20
V		mm	φ 184	φ 228	φ 269	φ 338	φ 413	φ 490
J1		mm	27	34	40	50	62	62
J3		mm	63	79	96	120	140	140

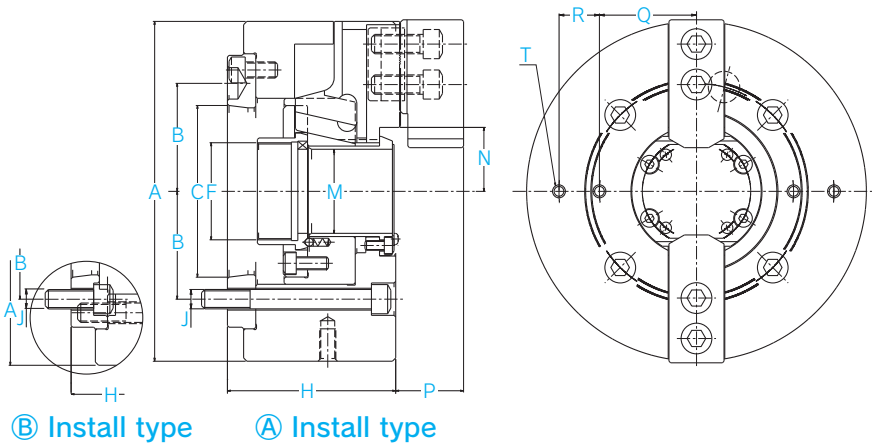
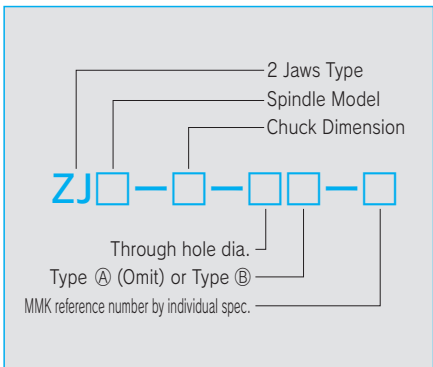
The draw screw size is selectable other than the list shown above. Please confirm details to MATSUMOTO.



ZJ

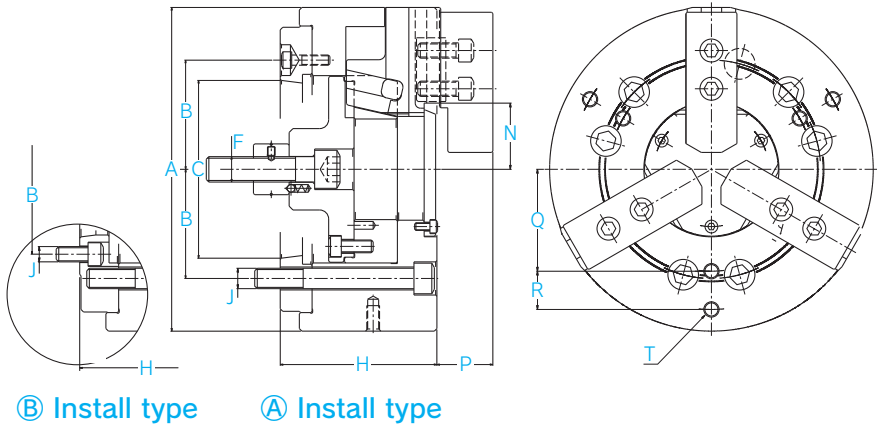
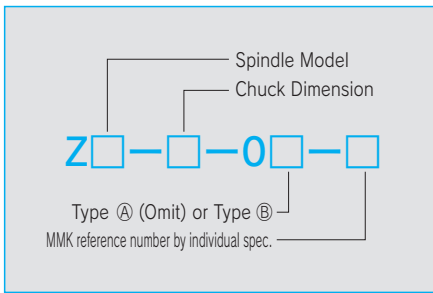
Through hole (big bore through hole) 2 jaw power operated chuck

This model is suitable for chucking of square bars and peculiar shaped workpieces that are difficult to chuck with 3 jaws, such as valves etc.



Z-0

Closed center 3 jaw power operated chuck



Specification		Unit	ZJA5-6-46	ZJA6-8-52	ZJA6-10-75B	ZJA8-10-75	ZJA8-12-85B	ZJA6-8-66B	ZJA8-10-78B	ZJA8-12-93B
Chuck diameter	in.		6	8	10	10	12	8	10	12
Max. speed	min ⁻¹		6,000	5,000	4,000	4,000	3,200	4,400	4,000	3,400
Jaw stroke	mm		φ 5.8	φ 7.6	φ 9	φ 9	φ 9	φ 7.6	φ 9	φ 9
Sifter stroke	mm		13	17	20	20	20	17	20	20
Workpiece diameter	Max.	mm	φ 148.5	φ 189	φ 228.6	φ 228.6	φ 274.5	φ 193.5	φ 228.6	φ 274.5
	Min.	mm	φ 12	φ 21	φ 26.5	φ 26.5	φ 50	φ 36	φ 29.5	φ 43
Max. clamping force	KN		31.4	52.2	71.5	71.5	91.1	52.2	71.5	91.1
Max. draw pull	KN		14.7	17.9	28.4	28.4	33.3	20.3	28.4	39.9
Weight	kg		13	23.5	38.5	38.5	70	25.3	39	64.7
Applicable cylinder			ZKP125/46-13	ZKP150/52-17	ZKP170/75-20		ZKP195/93-20	ZKP150/66-17	ZKP170/78-20	ZKP195/93-20

Dimension		Unit	ZJA5-6-46	ZJA6-8-52	ZJA6-10-75B	ZJA8-10-75	ZJA8-12-85B	ZJA6-8-66B	ZJA8-10-78B	ZJA8-12-93B
A	mm		φ 165	φ 210	φ 254	φ 254	φ 305	φ 215	φ 254	φ 305
B	mm		R52.4	R66.7	R66.7	R85.7	R85.7	R66.7	R85.7	R85.7
C*			A2-#5	A2-#6	A2-#6	A2-#8	A2-#8	A2-#6	A2-#8	A2-#8
F			M55xP1.5	M60xP1.5	M85xP2.0	M85xP2.0	M93xP2.0	M72xP1.5	M87xP2.0	M103xP2.0
H	mm		90	104	128.5	123	135	107	125	124
J			4-M10	4-M12	6-M12	8-M16	6-M16	4-M12	6-M16	6-M16
M	mm		φ 46	φ 52	φ 75	φ 75	φ 85	φ 66	φ 78	φ 93
N	Max.	mm	32.5	39.5	52	52	60	46.5	53.5	65
	Min.	mm	29.6	35.7	47.5	47.5	55.5	42.7	49	60.5
P	mm		32	42	44	44	54	42	44	54
Q	mm		45	60	80	80	85	60	80	85
R	mm		25	25	30	30	45	25	30	45
T			4-M8Depth12	4-M8Depth15	4-M12Depth18		4-M16Depth20	4-M8Depth15	4-M12Depth18	4-M16Depth18

You can choose sort taper type (JIS B 6109) or straight pilot type by the spindle nose shape of the install machine.
The draw screw size is selectable other than the list shown above. Please confirm details to MATSUMOTO.

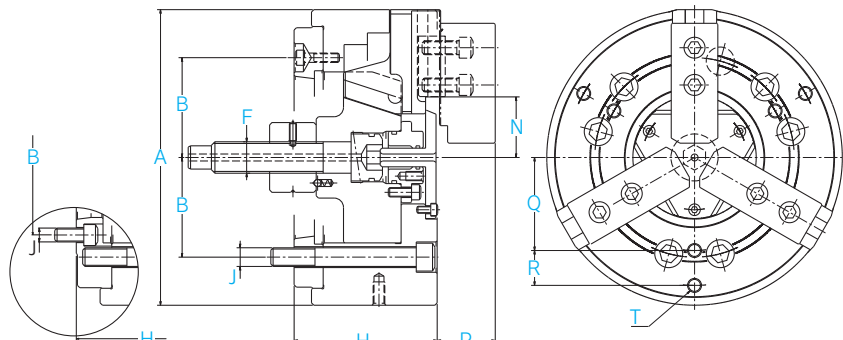
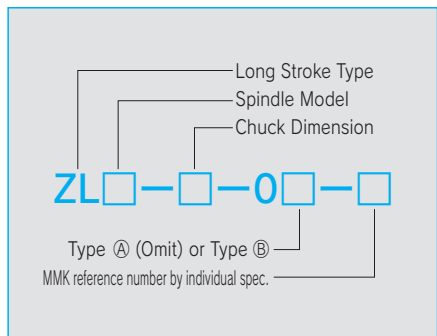
Specification		Unit	ZA5-6-0	ZA6-8-0	ZA6-10-0B	ZA8-10-0	ZA8-12-0B	ZA8-15-0B	ZA11-15-0B	ZA15-18-0B
Chuck diameter	in.		6	8	10	10	12	15	15	18
Max. speed	min ⁻¹		6,000	5,000	4,000	4,000	3,400	2,500	2,500	2,000
Jaw stroke	mm		φ 5.8	φ 7.6	φ 9	φ 9	φ 9	φ 11.3	φ 11.3	φ 11.3
Sifter stroke	mm		13	17	20	20	20	25	25	25
Workpiece diameter	Max.	mm	φ 148.5	φ 189	φ 228.6	φ 228.6	φ 274.5	φ 342.9	φ 342.9	φ 411.3
	Min.	mm	φ 12	φ 21	φ 26.5	φ 26.5	φ 43	φ 75	φ 75	φ 123
Max. clamping force	KN		47	78.4	107.8	107.8	137.2	176.4	176.4	176.4
Max. draw pull	KN		22.1	27	42.6	42.6	59.8	68.6	68.6	68.6
Weight	kg		13	24	38.5	38.5	64.7	132	124	180
Applicable cylinder			RNKP105-15	RNKP120-20	RNKP135-20		RNKP200-35			

Dimension		Unit	ZA5-6-0	ZA6-8-0	ZA6-10-0B	ZA8-10-0	ZA8-12-0B	ZA8-15-0B	ZA11-15-0B	ZA15-18-0B
A	mm		φ 165	φ 210	φ 254	φ 254	φ 305	φ 381	φ 381	φ 457
B	mm		R52.4	R66.7	R66.7	R85.7	R85.7	R85.7	R117.5	R165.1
C*			A2-#5	A2-#6	A2-#6	A2-#8	A2-#8	A2-#8	A2-#11	A2-#15
F			M20xP2.5	M20xP2.5	M20xP2.5	M20xP2.5	M27xP3.0	M27xP3.0	M27xP3.0	M27xP3.0
H	mm		82.5	104	128.5	123	124	190	165	190
J			6-M10	6-M12	6-M12	6-M16	6-M16	6-M16	6-M20	6-M22
N	Max.	mm	32.5	39.5	52	52	65	79.5	79.5	102
	Min.	mm	29.6	35.7	47.5	47.5	60.5	73.85	73.85	96.35
P	mm		32	42	44	44	54	65	65	65
Q	mm		45	60	80	80	85	100	100	120
R	mm		25	25	30	30	45	60	60	75
T			6-M8Depth12	6-M8Depth15	6-M12Depth18		6-M16Depth18	6-M16Depth25		

You can choose sort taper type (JIS B 6109) or straight pilot type by the spindle nose shape of the install machine.
The draw screw size is selectable other than the list shown above. Please confirm details to MATSUMOTO.

ZL-0

Closed center long stroke 3 jaw power operated chuck



② Install type ① Install type

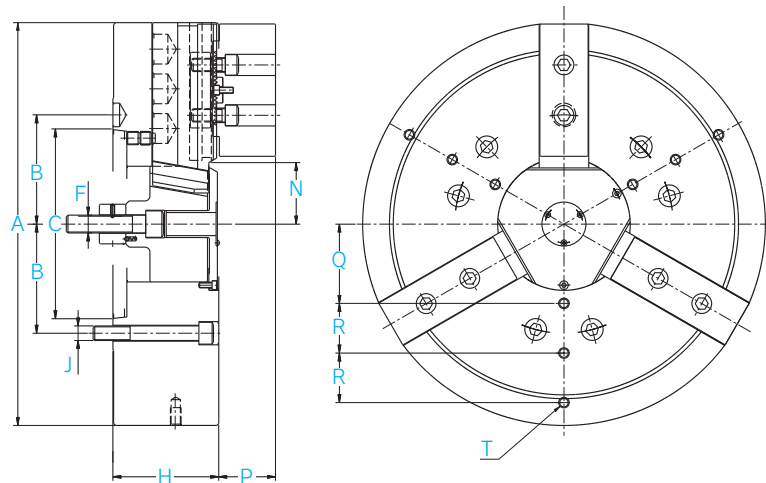
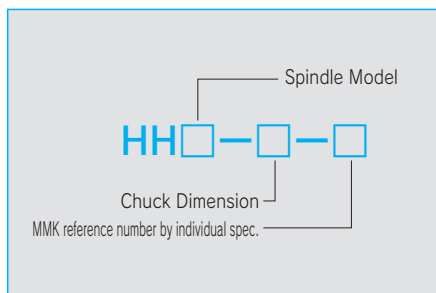
Specification		Unit	ZLA6-8-0	ZLA8-10-0	ZLA8-12-0B	ZLA11-15-0B
Chuck diameter	in.		8	10	12	15
Max. speed	min ⁻¹		3,600	2,800	3,200	2,500
Jaw stroke	mm		φ 16.5	φ 20.5	φ 18.2	φ 23.4
Sifter stroke	mm		27	25	28	36
Workpiece diameter	Max.	mm	φ 189	φ 228.6	φ 274.5	φ 342.9
	Min.	mm	φ 21	φ 24.6	φ 50	φ 75
Max. clamping force	KN		45.1	65.7	137.2	176.4
Max. draw pull	KN		29.4	42.8	74.5	96
Weight	kg		23.5	38.5	70	124
Applicable cylinder			RNKP120-25	RNKP165-25	RNKP200-35	RNKP200-50

Dimension		Unit	ZLA6-8-0	ZLA8-10-0	ZLA8-12-0B	ZLA11-15-0B
A	mm		φ 210	φ 254	φ 305	φ 381
B	mm		R66.7	R85.7	R85.7	R117.5
C*			A2-#6	A2-#8	A2-#8	A2-#11
F			M20xP2.5	M27xP3.0	M27xP3.0	M36xP4.0
H	mm		104	123	135	165
J			6-M12	6-M16	6-M16	6-M20
N	Max.	mm	39.5	52	60	79.5
	Min.	mm	31.25	41.75	50.9	67.8
P	mm		42	44	54	65
Q	mm		60	80	85	100
R	mm		25	30	45	60
T			6-M8Depth15	6-M12Depth18	6-M16Depth20	6-M16Depth25

You can choose sort taper type (JIS B 6109) or straight pilot type by the spindle nose shape of the install machine.
The draw screw size is selectable other than the list shown above. Please confirm details to MATSUMOTO.

HH

Closed center 3 jaw power operated chuck



Specification		Unit	HHA11-21	HHA15-21	HHA11-24	HHA15-24	HHA20-24B	HHA11-28	HHA15-28	HHA20-28	HHA11-32	HHA15-32	HHA20-32	HHA15-36	HHA20-36	HHA15-40	HHA20-40
Chuck diameter	in.		21	21	24	24	24	28	28	28	32	32	32	36	36	40	40
Max. speed	min ⁻¹		1,250	1,250	1,100	1,100	1,200	1,075	1,075	1,075	940	940	940	830	830	750	750
Jaw stroke	mm		φ 12	φ 12	φ 12	φ 12	φ 12	φ 17.5	φ 17.5	φ 17.5	φ 17.5	φ 17.5	φ 17.5	φ 17.5	φ 17.5	φ 17.5	φ 17.5
Sifter stroke	mm		35	35	35	35	35	50	50	50	50	50	50	50	50	50	50
Workpiece diameter	Max.	mm	φ 479.7	φ 479.7	φ 548.1	φ 548.1	φ 548.1	φ 639.9	φ 639.9	φ 639.9	φ 731.7	φ 731.7	φ 731.7	φ 822.6	φ 822.6	φ 914.4	φ 914.4
	Min.	mm	φ 133	φ 133	φ 133	φ 133.4	φ 133.4	φ 134.8	φ 134.8	φ 134.8	φ 134.8	φ 134.8	φ 134.8	φ 134.8	φ 134.8	φ 134.8	φ 134.8
Max. clamping force	KN		196	196	196	196	196	245	245	245	245	245	245	245	245	245	245
Max. draw pull	KN		71.2	71.2	71.2	71.2	71.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2
Weight	kg		275	275	350	350	435	443	443	543	440	440	440	650	650	845	845
Applicable cylinder			RNKP200-35					RNKP200-50									

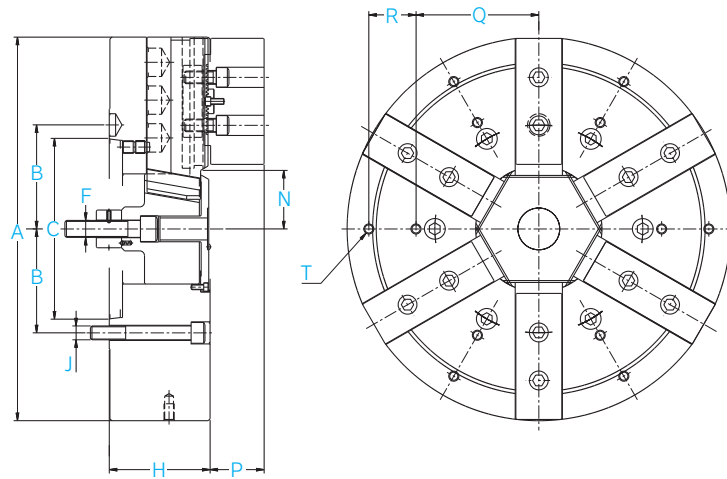
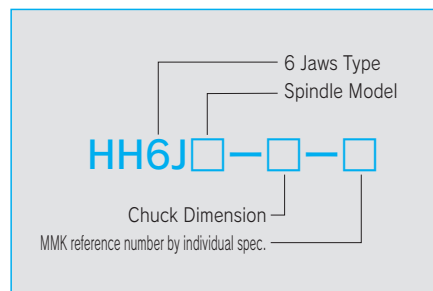
Dimension		Unit	HHA11-21	HHA15-21	HHA11-24	HHA15-24	HHA20-24B	HHA11-28	HHA15-28	HHA20-28	HHA11-32	HHA15-32	HHA20-32	HHA15-36	HHA20-36	HHA15-40	HHA20-40
A	mm		φ 533	φ 533	φ 609	φ 609	φ 609	φ 711	φ 711	φ 711	φ 813	φ 813	φ 813	φ 914	φ 914	φ 1016	φ 1016
B	mm		R117.5	R161.5	R117.5	R161.5	R231.8	R117.5	R165.1	R231.8	R117.5	R165.1	R231.8	R165.1	R231.8	R165.1	R231.8
C*			A2-#11	A2-#15	A2-#11	A2-#15	A2-#20	A2-#11	A2-#15	A2-#20	A2-#11	A2-#15	A2-#20	A2-#15	A2-#20	A2-#15	A2-#20
F			M27xP3.0					M30xP3.5									
H	mm		160	160	160	160	235.5	200	200	200	200	200	200	200	200	200	200
J			6-M20	6-M22	6-M20	6-M22	6-M24	6-M20	6-M22	6-M24	6-M20	6-M22	6-M24	6-M22	6-M24	6-M22	6-M24
N	Max.	mm	93	93	93	93	91.8	97	97	97	97	97	97	97	97	97	97
	Min.	mm	87	87	87	87	85.8	88.25	88.25	88.25	88.25	88.25	88.25	88.25	88.25	88.25	88.25
P	mm		85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8
Q	mm		120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
R	mm		75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
T			6-M16Depth25			9-M16Depth25					12-M16Depth25			15-M16Depth25			

You can choose sort taper type (JIS B 6109) or straight pilot type by the spindle nose shape of the install machine.
The draw screw size is selectable other than the list shown above. Please confirm details to MATSUMOTO.

HH6J

Closed center 6 jaw hydraulic chuck

Radiat jaw chuck™ restrains the chucking distortion of workpiece.



Specification		Unit	HH6JLA8-9	HH6JLA8-11	HH6JA11-24	HH6JA20-24	HH6JA11-32	HH6JA15-36	HH6JA20-50
Chuck diameter	in.		9	11	24	24	32	36	50
Max. speed	min ⁻¹		2,500	2,000	955	955	940	720	450
Jaw stroke	mm		φ 20.7	φ 16	φ 12	φ 12	φ 17.5	φ 17.5	φ 17.6
Sifter stroke	mm		25	25	35	35	50	50	50
Workpiece diameter	Max.	mm	φ 207	φ 252	φ 540	φ 540	φ 731.7	φ 822.6	φ 1143
	Min.	mm	φ 40.6	φ 53	φ 76	φ 76	φ 76	φ 76	φ 214
Max. clamping force	KN		35.3	39.2	147	147	196	196	196
Max. draw pull	KN		33.3	26.1	53.4	53.4	73.5	73.5	73.5
Weight	kg		33	49	355	365	455	710	1,700
Applicable cylinder			RNKP120-25	RNKP120-25	RNKP200-35		RNKP200-50	RNKP200-35	RNKP200-50

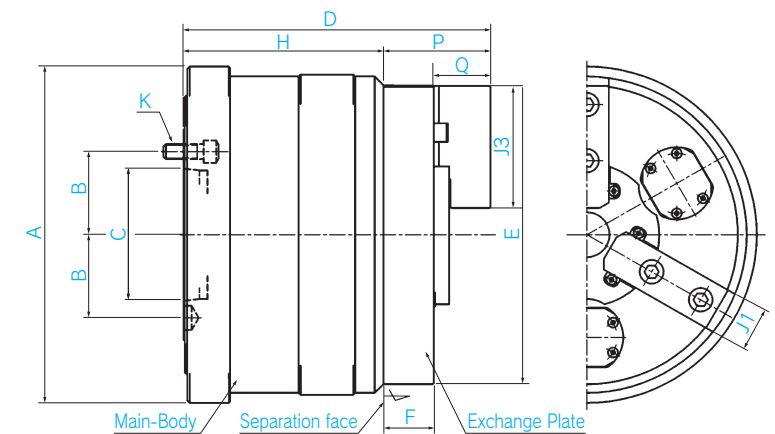
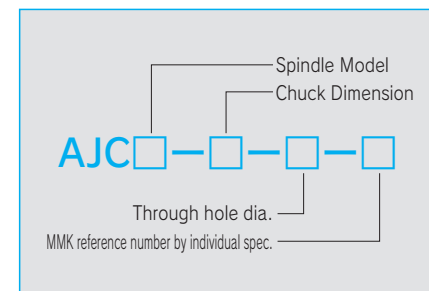
Dimension		Unit	HH6JLA8-9	HH6JLA8-11	HH6JA11-24	HH6JA20-24	HH6JA11-32	HH6JA15-36	HH6JA20-50
A	mm		φ 230	φ 280	φ 600	φ 600	φ 813	φ 914	φ 1,270
B	mm		R85.7	R85.7	R117.5	R231.8	R117.5	R165.1	R231.8
C*			A2-#8	A2-#8	A2-#11	A2-#20	A2-#11	A2-#15	A2-#20
F			M16xP2.0	M16xP2.0	M27xP3.0	M27xP3.0	M27xP3.0	M30xP3.5	M30xP3.5
H	mm		106.5	105	160	160	180	180	200
J			6-M16	6-M16	6-M20	6-M24	6-M20	6-M20	6-M24
N	Max.	mm	50.8	57	95	95	95	95	132
	Min.	mm	40.45	49	89	89	86.25	86.25	123.2
P	mm		36	38	69.5	69.5	69.5	69.5	85.8
Q	mm		-	-	150	150	150	150	195
R	mm		-	-	100	45	150	150	75
T			-	-	12-M16Depth30				18-M16Depth30

You can choose sort taper type (JIS B 6109) or straight pilot type by the spindle nose shape of the install machine. Note : 7 or 9 jaws specifications are also possible. The draw screw size is selectable other than the list shown above. Please confirm details to MATSUMOTO.

AJC

Closed center 3 jaw power operated chuck (auto jaw exchange chuck)

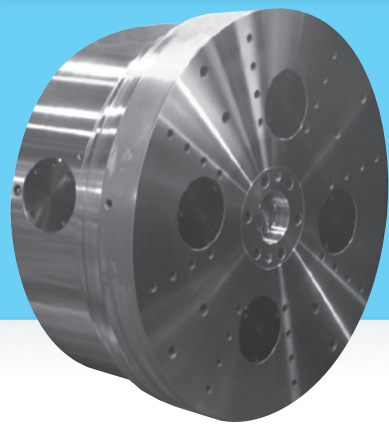
The AJC chuck is designed for automating the exchange of all jaws at once with the use of exchange plates. This chuck is suitable for small to medium volume production & is capable of providing complete automation with robotic integration.



Specification		Unit	AJCA6-8-17	AJCA8-10-35	AJCA8-12-46	AJCA11-15-72	AJCA11-18-72
Chuck diameter	in.		8	10	12	15	18
Max. speed	min ⁻¹		3,600	3,500	2,500	1,250	900
Jaw stroke	mm		φ 10.7	φ 9	φ 9	φ 13.3	φ 13.3
Sifter stroke	mm		20	20	20	30	30
Workpiece diameter	Max.	mm	φ 180	φ 216	φ 261	φ 342.9	φ 411.3
	Min.	mm	φ 27.8	φ 42.9	φ 34	φ 67	φ 126
Max. clamping force	KN		58.8	85.3	94.1	114.7	147
Max. draw pull	KN		31.9	37.2	41.2	47.5	60.8
Chuck weight	kg		32.2	55	100	181	230
Exchange plate weight	kg		7.8	17	27	52	75
Weight	kg		40	72	127	233	305
Exchange plate clamp stroke	mm		30	31	32	37	37
Exchange plate clamping force	KN		29.4	42.6	42.6	52.9	52.9
Applicable cylinder			RNW155-20-02			RNW215-30-01	

Dimension		Unit	AJCA6-8-17	AJCA8-10-35	AJCA8-12-46	AJCA11-15-72	AJCA11-18-72
A	mm		φ 220	φ 254	φ 305	φ 381	φ 457
B	mm		R66.7	R85.7	R85.7	R117.5	R117.5
C			A2-#6	A2-#8	A2-#8	A2-#11	A2-#11
D	mm		210.9	244	275	346	346
E	mm		φ 200	φ 240	φ 290	φ 381	φ 457
F	mm		33	40	46	60	60
H	mm		147.5	159	183	220	220
P	mm		63.4	85	92	126	126
J1	mm		30	35	40	60	60
J3	mm		85	98	125	165	165
K	mm		6-M12	6-M16	6-M16	6-M20	6-M20
Q	mm		30.4	45	46	66	66

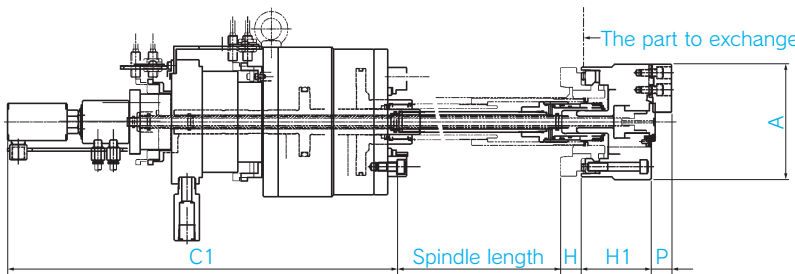
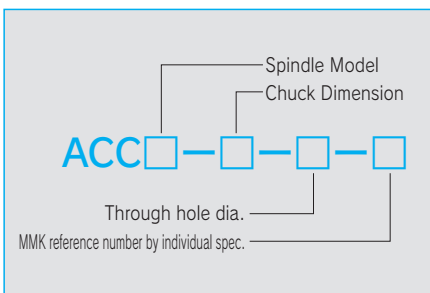
You can choose sort taper type (JIS B 6109) or straight pilot type by the spindle nose shape of the install machine. The draw screw size is selectable other than the list shown above. Please confirm details to MATSUMOTO.



ACC

Closed center power operated chuck

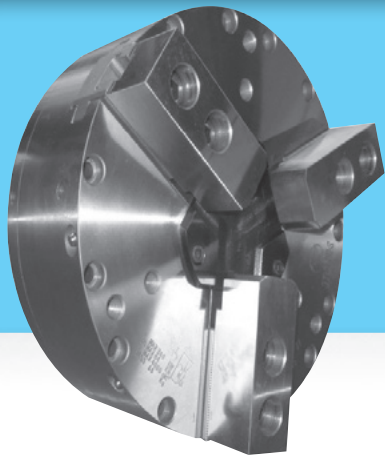
There are power chuck and scroll chuck. This chuck conforms to multi-product low-volume manufacturing, and automatic set up.



Specification	Unit	ACC-5-01	ACCA8-12	ACCA11-15	ACCA11-24
Chuck diameter	in.	5	12	15	24
Max. speed	min ⁻¹	6,000	2,500	1,500	1,300
Jaw stroke	mm	φ 4.4	-	-	-
Max. clamping force	KN	19.6	-	-	-
Weight	kg	6.5	100	166	595
Applicable cylinder		RNW81-16	RNKP200-35	RNKP150-35	RNKP200-50

Dimension	Unit	ACC-5-01	ACCA8-12	ACCA11-15	ACCA11-24
A	mm	135	254	400	609
Nose size		A2-#5	A2-#8	A2-#11	A2-#11
H	mm	26	183	175	235
H1	mm	85.5	129	147	105
P	mm	25	48.5	59.9	-
Chuck mounting bolt		6-M10	6-M16	6-M20	6-M20
C1	mm	430	325	180	340

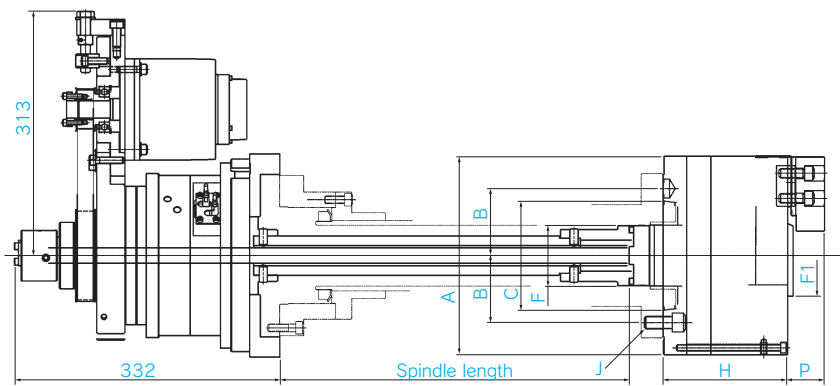
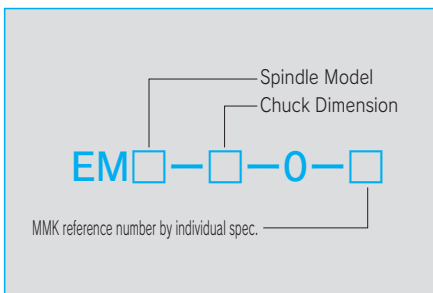
You can choose sort taper type (JIS B 6109) or straight pilot type by the spindle nose shape of the install machine.
The draw screw size is selectable other than the list shown above. Please confirm details to MATSUMOTO.



EM

Servo chuck

Chuck is operated by scroll gear and servomotor.



Specification	Unit	EMA6-8-0-01	EMA6-10-0-03	EMA8-12-0-01
Chuck diameter	in.	8	10	12
Max. speed	min ⁻¹	5,000	4,000	2,500
Jaw stroke	mm	φ 35	φ 40	φ 40
Workpiece diameter	Max.	mm	198	228.6
	Min.	mm	28	30.6
Max. clamping force	KN	68.6	83	94
Weight	kg	39	60	97

Dimension	Unit	EMA6-8-0-01	EMA6-10-0-03	EMA8-12-0-01
A	mm	220	254	(305)
B	mm	66.7	85.7	(85.7)
C		A2-#6	A2-#6	(A2-#8)
F1	mm	95	104	12 inch, under planning
F	mm	62	78	
H	mm	140	165	
P	mm	29.4	46.3	
J	mm	6-M12	6-M12	
Jaw width		35	37	

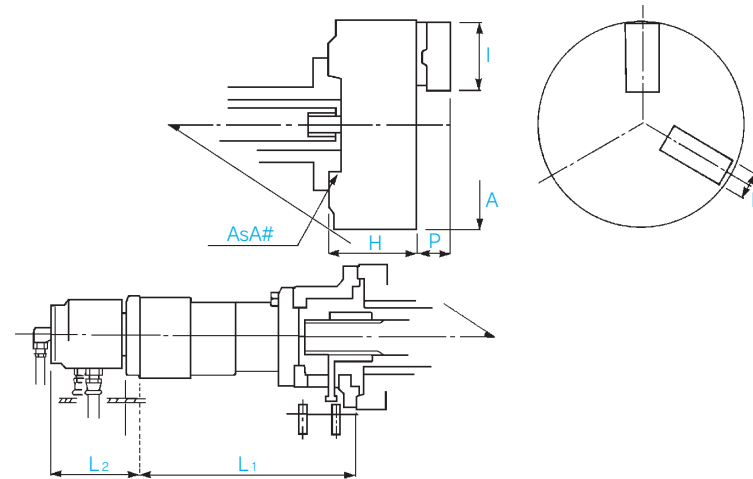
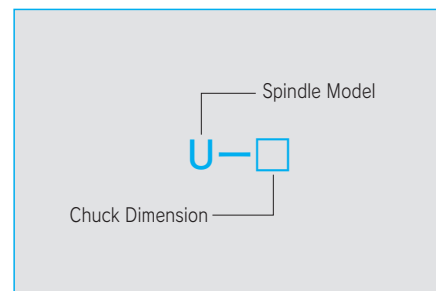
Ultra long stroke

U

Closed center 3 jaw power operated chuck

Chuck is operated by scroll gear and orbit (oil) motor.

* Above chuck picture is chucking workpiece.



Specification		Unit	UA6-8 • UA8-8	UA6-10 • UA8-10	UA6-12 • UA8-12	UA6-15 • UA8-15	UA11-18
Chuck diameter		in.	8	10	12	15	18
Max. speed		min ⁻¹	3,000	2,500	2,000	1,500	1,200
Jaw stroke		mm	φ 50	φ 60	φ 70	φ 100	φ 120
Workpiece diameter	Max.	mm	φ 200	φ 214	φ 280	φ 370	φ 411
	Min.	mm	φ 20	φ 36	φ 70	φ 110	φ 120
Max. clamping force		KN	41.2	49	68.6	68.6	68.6
Oil motor torque		N-m	156.8	156.8	156.8	156.8	156.8
Weight		kg	28	49.5	80	130	186

Dimension		Unit	UA6-8 • UA8-8	UA6-10 • UA8-10	UA6-12 • UA8-12	UA6-15 • UA8-15	UA11-18
A		mm	φ 210	φ 254	φ 305	φ 381	φ 457
H	A2-#6	mm	105	140	135	140	-
	A2-#8	mm	115	120	140	140	-
	A2-#11	mm	-	-	-	-	140
P		mm	48.2	57.1	61.9	71.5	71.5
I (in the case of Hard-Jaws)		mm	83.6	96.5	115.2	130	130
b		mm	32	38	44.4	55	55
L1		mm	285	285	285	285	285
L2		mm	122	122	122	122	122

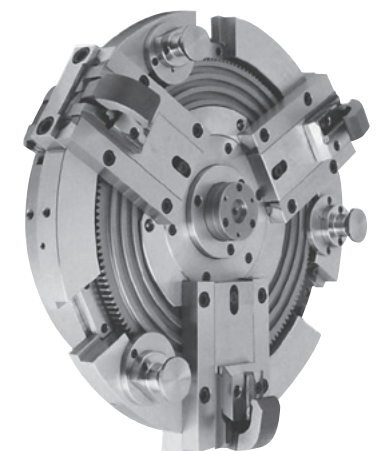
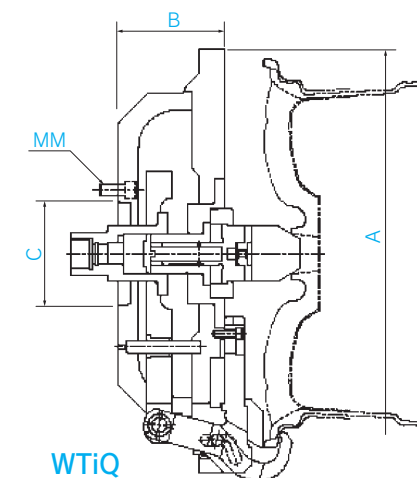
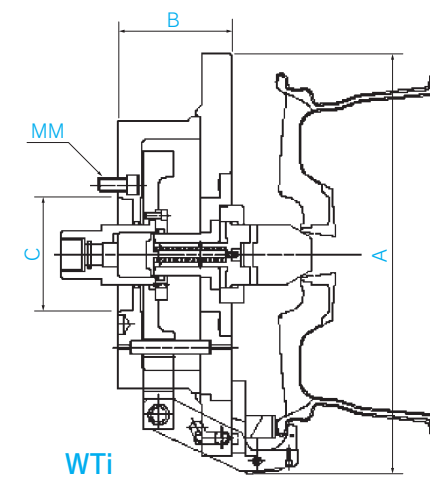
You can choose sort taper type (JIS B 6109) or straight pilot type by the spindle nose shape of the install machine.
The draw screw size is selectable other than the list shown above. Please confirm details to MATSUMOTO.

Passenger car wheel, Truck & bus wheel

WTi & WTiQ

Finger chuck for aluminum wheels

It is possible to clamp consecutive position between a minimum diameter and the maximum diameter. Clamping at the best position is given.



Dimension		Unit	WTi-300	WTi-310	WTi-321	WTi-322	WTi-323	WTiQ-300	WTiQ-323
A		mm	φ 495.3	φ 546.1	φ 640	φ 660.4	φ 685.8	φ 550	φ 677
B		mm	139.7	149.7	159.7	149.7	152.4	145	155
C			A2-#8	A2-#8	A2-#11	A2-#11	A2-#11	A2-#8	A2-#11
MM		mm	6-M16×P2	6-M16×P2	6-M16×P2	6-M20×P2.5	6-M20×P2.5	6-M16×P2	6-M20×P2.5
Weight		kg	100	120	220	230	220	143	270

Passenger car / Motorcycle / Light truck wheel (Quick-change model)

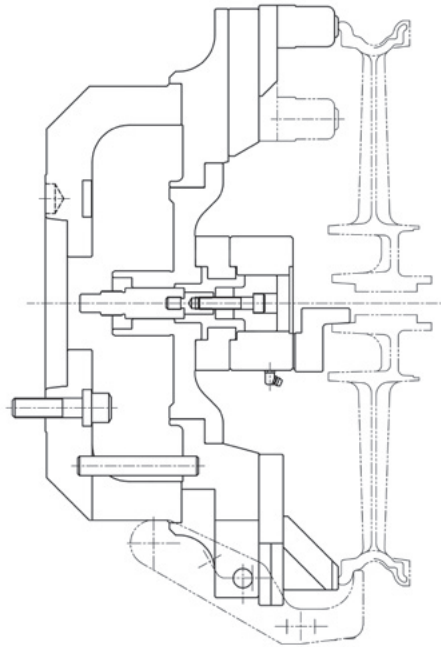
Position	Unit	WTiQ-300 Cam arm			WTiQ-323 Cam arm		
		T	R	V	T	R	V
Min.	in.	13	15	17	18	20	22
Max.	in.	16	18	20	21	23	25

WTiQ can clamp any position by the range of one cam arm.
The clamp diameter can be changed like the scroll chuck.

WWiL

Finger chuck for aluminum wheels

The composit structure chuck of steel and aluminum Super light weight!



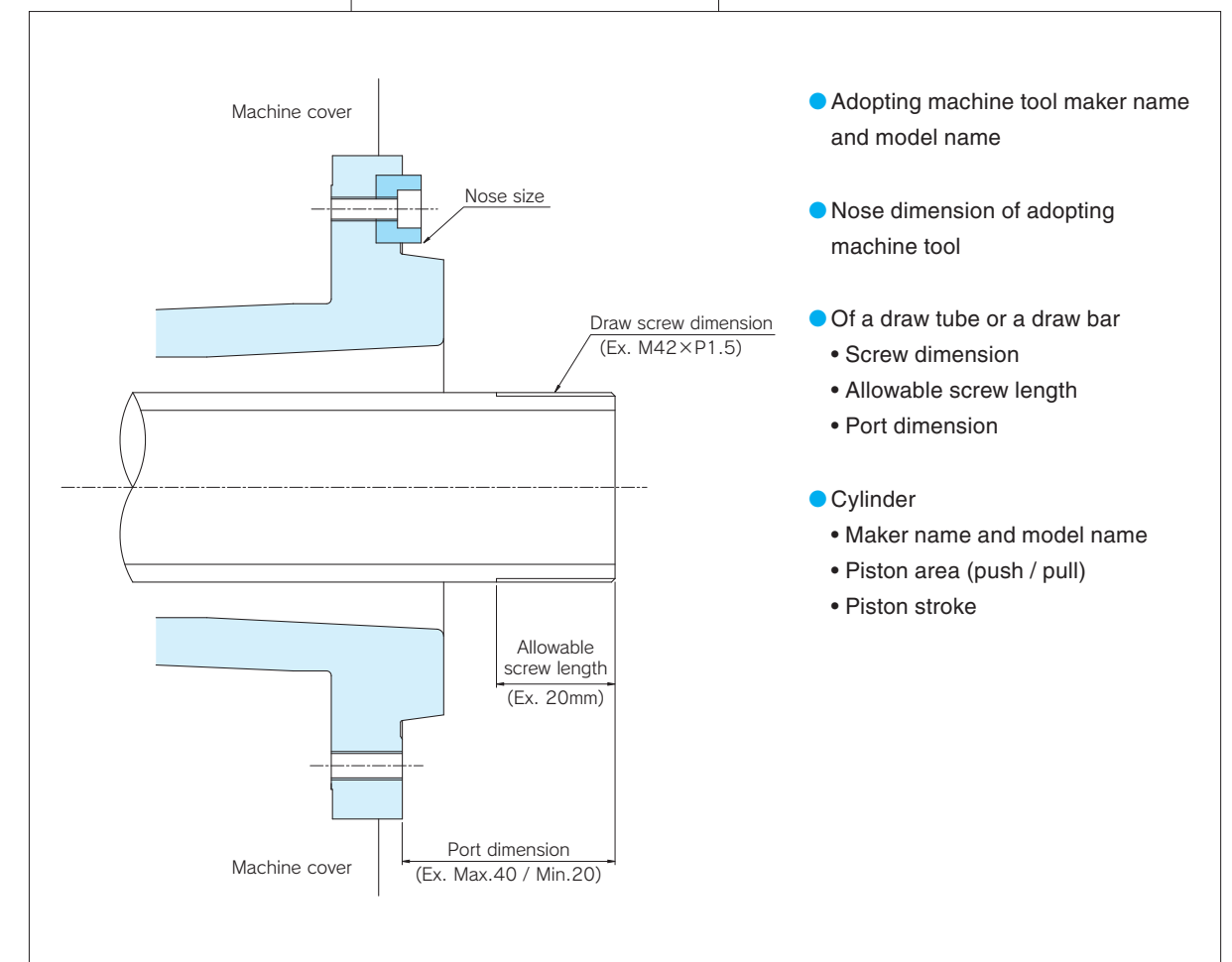
Specification (Our conventional model comparison)

	Unit	WWiL-280 (Ultra lightweight model)	WWi-300 (conventional)	Remarks
Work piece		Motorcycle aluminum wheel		
Workpiece diameter	inch	11 - 18	13 - 20	Miniaturized 2 inches
Face plate diameter	mm	φ 482.6 (19")	φ 546.1 (21.5")	Miniaturized 2.5 inches
From spindle to work piece	mm	240	257.5	17.5 (mm) dimension down
Weight	kg	90	116	22 (%) off
GD ² (Moment of inertia)	N·m ²	102.8	147	30 (%) reduction
	Kgf·m ²	10.5	15	
Maximum speed	R.P.M.	2,500	2,200	300 (R.P.M.) speed up
Permissible cylinder input	KN	34.32	24.52	
Clamping force	KN	30.89	22.07	
Unbalance	g	≤ 30	≤ 50	At face plate outer
Tools for clamp dia. change	tools	2	5	60 (%) reduction

Replacing from exist chuck to new chuck

When replacing one of your existing chucks with a newer model, please refer to the following table. Even if you are using a product from another OEM, the following information is required, as it may be necessary to make adjustments to your existing setup.

Status	Required informations	Examples & References
① In the case of using MMK power chucks	- Model name of existing chuck - Serial number of existing chuck - Adopting machine tool maker name and model name	⇒ Ex.) HA6-8-46-02 *1 ⇒ Ex.) 60888 (5-digit *2) or 100211 (6-digit *3) ⇒ Ex.) Hitachi Seiki / NK-20 Note : *1 *2 *3 are marking on chuck-surface.
② In the case of using a product from another OEM	- Model name of existing chuck - Drawing of existing chuck - Drawing of existing cylinder - Adopting machine tool maker name and model name	⇒ Model name of other maker ⇒ Necessary for adjusting connection screw sizes, installation dimensions, conformity of specification etc.
③ In the case of using a product from another OEM with no required informations.	Give us informations according to the sketch below	⇒ You can't see a section as below, because it's covered with a machine-cover.



Always use mmK jaws

■ For your safety

For your safety, always use **mmK** jaws on any type of **mmK** power chuck.

mmK cannot guarantee the safety of your power chuck if you are using jaws made by another OEM.

Importance of the grease feed

■ About Grease for mmK Power Chuck

The biggest factor that reduces the durability of the chuck is due to poor lubrication. To lubricate the chuck, inject 3 to 4 cc of the recommended grease in the table below for each grease nipple from the grease nipple on the outer circumference of each master jaw. Inject more frequently, especially when water-soluble cutting fluid is used.

Recommended grease

Grease manufacturer	Grease type	Lubrication frequency	NLGI.No
Rhenus Lub GmbH	Rhenus CAZ2	Once a week	2
Magna Industrial Co.,Ltd.	Omega 57	Once every 3 days	2
SUMICO LUBRICANT CO., LTD.	LG-S No.1	Once every 8 hours	1

Note : When the numeric of consistency is lower ,the grease is getting thick.
Rhenus CAZ2 is sealed and applied when shipped from our factory.

■ Grease Guns * Depending on the specifications, different grease maybe used.

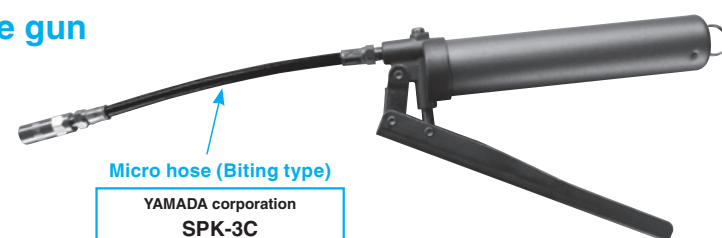
We recommend a lever-style with a chucking structure type. Those clearance gaps of **mmK** power chucks are small because of high-accuracy-structure, so that infusion pressure becomes high. Those grease guns with big-bore type have possibilities to interfere with the spot facings of grease nipples. It's better to use a small-bore type to prevent interference.

■ Mixing/Changing Grease

We don't recommend using the grease mixing different kinds. Grease includes some kind of additives, but it isn't shown for trade secrets of each grease makers. In the case of using the grease mixing different kinds, the phenomenon such as hardening may occur. When such a phenomenon occurs or when you change it for other kind of grease, disassemble the chuck and clean it, to fill whole quantity with new grease.

Recommended item Grease gun

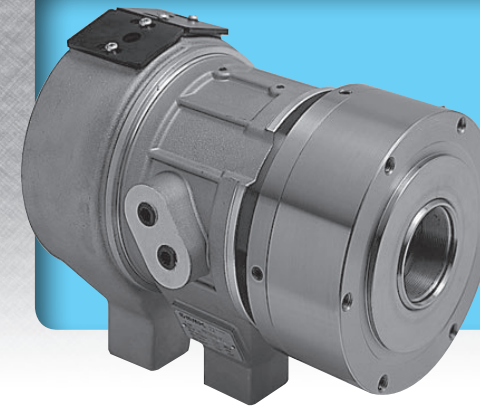
- Manufacturer
YAMADA corporation
- Model
KH-120



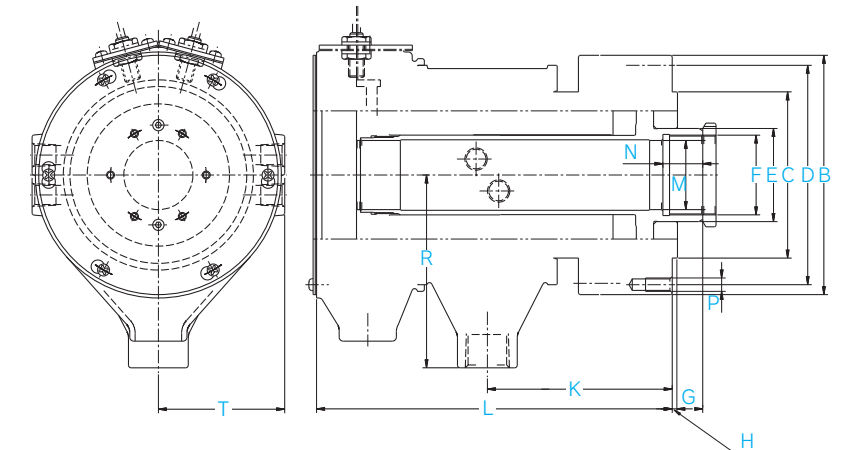
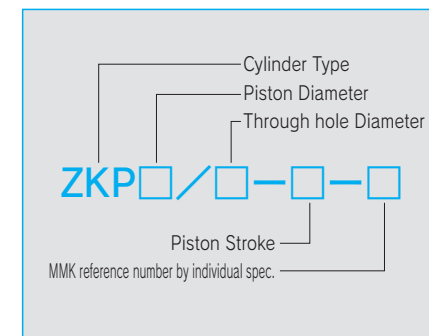
High speed

ZKP

Big bore type hydraulic actuator



The ZKP model is equipped with a large Through hole and is best suited for high speed turning. The built-in check valve is standard as a safety precaution.



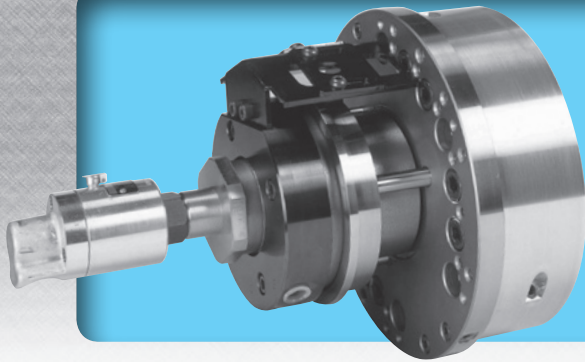
Specification

		Unit	ZKP100/34-10	ZKP125/46-13	ZKP150/66-17	ZKP170/82-20	ZKP195/93-20	ZKP230/120-30	ZKP280/175-30	ZKP335/204-30	ZKP400/230-30
Piston area	Push	cm ²	65.97	99.82	126.4	156.1	211.95	282.7	332.2	501	745.9
	Pul	cm ²	60.44	89.53	119.9	145.3	194.68	250.3	317.1	465.7	705
Draw pull	Push	KN	17.45	26.41	33.4	41.3	65.4	87.27	87.9	110.5	230.3
	Pull	KN	15.99	23.69	31.7	38.4	60.1	77.26	83.9	102.7	217.6
Piston stroke		mm	10	13	17	20	20	30	30	30	30
Through hole dia.		mm	34	46	66	82	93	120	175	204	230
Max. rotation speed		min ⁻¹	8,000	7,100	5,300	4,500	4,000	3,400	2,400	1,100	575
Max. pressure		Mpa	2.94	2.94	2.94	2.94	3.43	3.43	2.94	2.45	3.43
Weight		kg	14	18	27	40	46.5	65	155	195	350

Dimension

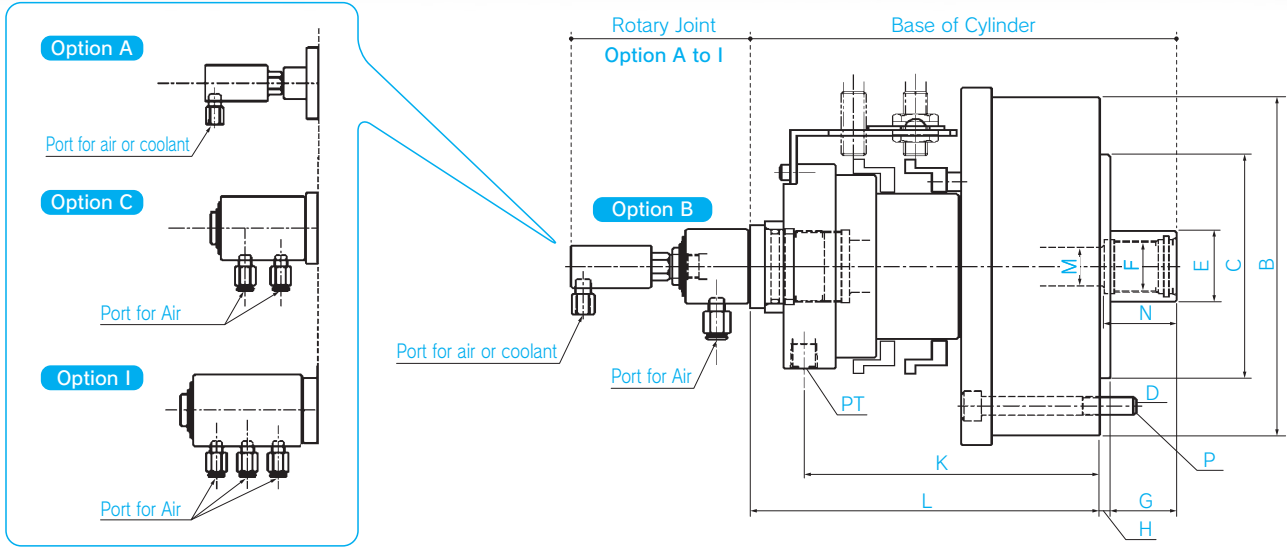


Dimension		Unit	ZKP100/34-10	ZKP125/46-13	ZKP150/66-17	ZKP170/82-20	ZKP195/93-20	ZKP230/120-30	ZKP280/175-30	ZKP335/204-30	ZKP400/230-30
B		mm	135	160	183	215	240	270	330	385	470
C		mm	80	80	125	125	180	165	220	280	315
D		mm	115	140	165	185	215	250	298	360	432
E		mm	48	65	85	102	115	145	195	230	265
F			M40×P1.5	M55×P1.5	M72×P1.5	M90×P1.5	M103×P2.0	M130×P2.0	M185×P3.0	M215×P3.0	M245×P3.0
G	Max.	mm	13	15	19	22	21	32	35	35	35
	Min	mm	3	2	2	2	1	2	5	5	5
H		mm	4	4	4	4	7	7	7	7	7
K		mm	121	131.5	150	177.5	187	207.5	228	286	297
L		mm	239	251.5	295.1	350.5	367.5	396.5	469.8	571.6	648
M		mm	34	46	66	82	93	120	175	204	230
N		mm	25	30	35	35	35	40	45	45	45
P			6-M8Depth16	12-M10Depth20	12-M10Depth20	6-M10Depth20	12-M12Depth24	12-M12Depth24	12-M12Depth24	12-M16Depth32	12-M20Depth40
R		mm	110	140	160	185	190	230	305	360	368
T		mm	70	85	105	120	128	140	199	227	250



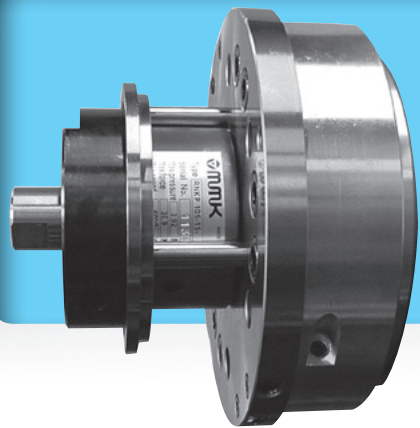
2R

Air or coolant through hydraulic actuator



Specification		Unit	2R105/21-25	2R120/21-25	2R120/21-35
Piston area	Push	cm ²	78.1	104.6	104.6
	Pul	cm ²	75.2	101.8	101.8
Draw pull	Push	KN	28.10	37.64	37.64
	Pul	KN	27.06	36.63	36.63
Piston stroke	mm		25	25	35
Through hole dia.	mm		21	21	21
Max. rotation speed	min ⁻¹		6,000	5,000	5,000
Max. pressure	Mpa		4.0	4.0	4.0
Weight	kg		11	11.5	13

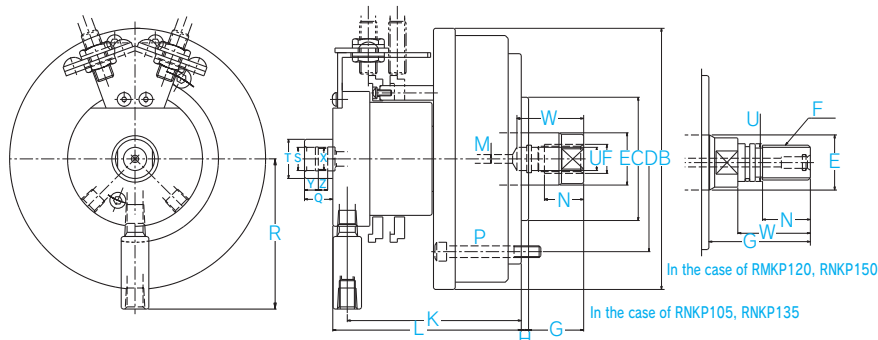
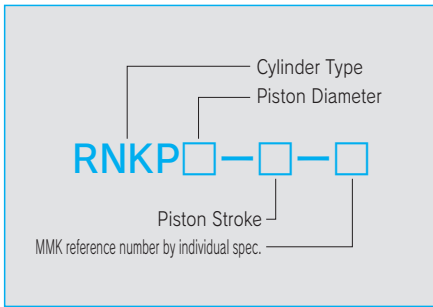
Dimension		Unit	2R105/21-25	2R120/21-25	2R120/21-35
B	mm		180	192	192
C	mm		85	120	120
D	mm		128	150	150
E	mm		38	38	38
F			M28×P1.5	M28×P1.5	M28×P1.5
G	Max.	mm	32	37	37
	Min	mm	7	7	2
H	mm		5	5	5
K	mm		148.5	143.5	162
L	mm		167.5	162.5	190
M	mm		21	21	21
N	mm		35	35	35
P			6-M8Depth75	6-M10Depth75	6-M10Depth85
R	mm		-	-	-
T	mm		-	-	-



RNKP

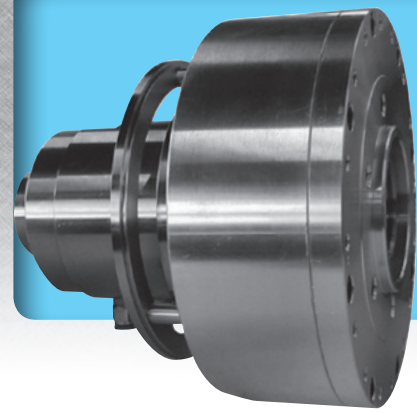
Short type closed center hydraulic actuator

The RNKP cylinder has a compact design to save valuable machine space.



Specification		Unit	RNKP105-15-02	RNKP105-15-09	RNKP120-25-07	RNKP120-25-08	RNKP135-25-01	RNKP135-25-02	RNKP150-35-01	RNKP150-35-02
Piston area	Push	cm ²	83	83	109.5	109.5	141.9	141.9	175.5	175.5
	Pull	cm ²	76.4	76.4	101.7	101.7	132.9	132.9	165.4	165.4
Draw pull	Push	KN	29.3	29.3	38.6	38.6	50.1	50.1	61.9	61.9
	Pull	KN	27	27	35.9	35.9	46.9	46.9	58.3	58.3
Piston stroke	mm		15	15	25	25	25	25	35	35
Pouring water			-	○	-	○	-	○	-	○
Max. turning speed	min ⁻¹		6,000	6,000	5,000	5,000	5,000	5,000	4,200	4,200
Max. pressure	Mpa		3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
Weight	kg		11.5	11.5	12.7	12.7	16.8	16.8	17.5	17.5

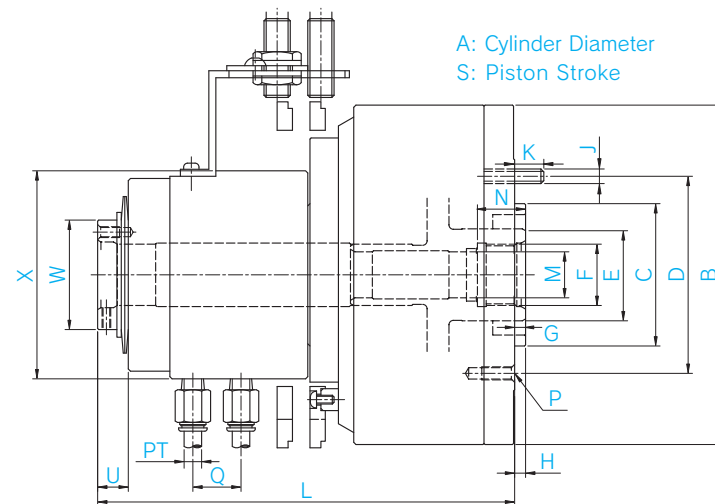
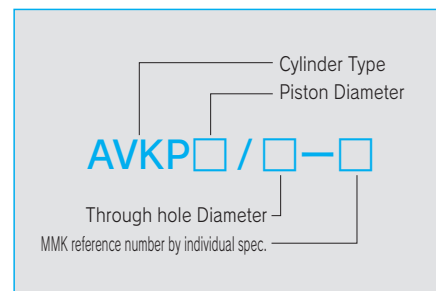
Dimension		Unit	RNKP105-15-02	RNKP105-15-09	RNKP120-25-07	RNKP120-25-08	RNKP135-25-01	RNKP135-25-02	RNKP150-35-01	RNKP150-35-02
B	mm		180	180	192	192	225	225	222	222
C	mm		85	85	120	120	120	120	110	110
D	mm		128	128	150	150	160	160	175	175
E	mm		36	36	38	38	36	36	38	38
F			M20×P2.5	M20×P2.5	M24×P3.0	M24×P3.0	M20×P2.5	M20×P2.5	M24×P3.0	M24×P3.0
G	Max.	mm	53	53	95	95	58	58	105	105
	Min.	mm	38	38	70	70	33	33	70	70
H	mm		5	5	5	5	5	5	5	5
K	mm		120	120	129	129	129	129	167	167
L	mm		130	130	139	139	139	139	180	180
M	mm		6	6	6	6	6	6	6	6
N	mm		27	27	38	38	27	27	38	38
P			6-M8	6-M8	6-M10	6-M10	6-M10	6-M10	6-M12	6-M12
R	mm		103.5	103.5	46.5	46.5	103.5	103.5	103.5	103.5
S	mm		-	16	-	16	-	16	-	16
T	mm		-	27	-	27	-	27	-	27
U	mm		16	16	26	26	16	16	26	26
W	mm		46	46	50	50	46	46	50	50
X			-	M16×P1.5	-	M16×P1.5	-	M16×P1.5	-	M16×P1.5
Y	mm		-	9.5	-	9.5	-	9.5	-	9.5
Z	mm		-	6.5	-	6.5	-	6.5	-	6.5



AVKP

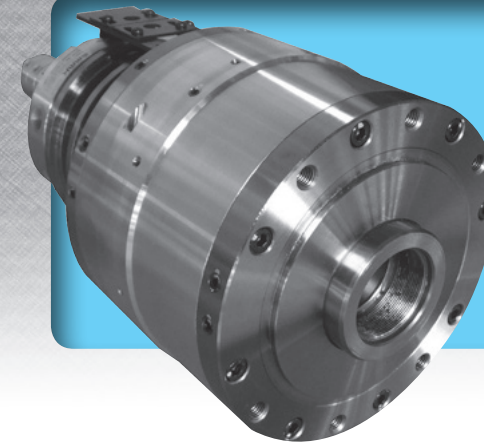
Thru hole high speed pneumatic actuator

AVKP pneumatic actuator is for an NC lathe which does not have a hydraulic unit.



Specification		Unit	AVKP88/8-5	AVKP130/21-15	AVKP165/31-15	AVKP190/31-15
Piston area	Push	cm ²	59.2	124.2	202.4	272.1
	Pull	cm ²	56.9	119	190	259.7
Draw pull	Push	KN	4.6	7.9	13.0	17.4
	Pull	KN	4.5	7.6	12.2	16.6
Max. pressure		MPa	0.98	0.78	0.78	0.78
Min. operation pressure		MPa	0.12	0.08	0.08	0.08
Piston stroke		mm	5	15	15	15
Cylinder diameter		mm	88	130	165	190
Max. rotation speed		min ⁻¹	10,000	8,000	6,000	6,000
Weight		kg	4.8	7.5	9.4	10.4

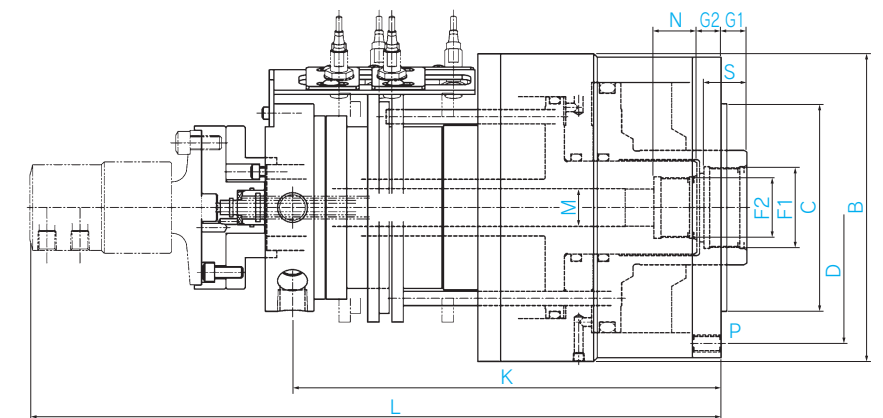
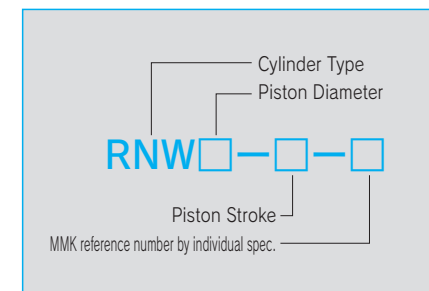
Dimension		Unit	AVKP88/8-5	AVKP130/21-15	AVKP165/31-15	AVKP190/31-15
A		mm	φ 88	φ 130	φ 165	φ 190
B		mm	φ 119	φ 155	φ 190	φ 215
C		mm	φ 80h7	φ 65h7	φ 80h7	φ 80h7
D		mm	P.C.D.105	P.C.D.90	P.C.D.100	P.C.D.100
E		mm	φ 22	φ 42	φ 55	φ 55
F			M15xP1.5	M28xP1.5	M42xP1.5	M42xP1.5
G	Max.	mm	23.5	5	15	15
	Min.	mm	18.5	-10	0	0
H		mm	5	5	5	5
J			M6	-	-	-
K		mm	9	-	-	-
L		mm	144	190.5	207.5	198
M		mm	φ 8	φ 21	φ 31	φ 31
N		mm	25	22	25	25
P			-	6-M6x15	6-M10x18	6-M10x18
Q		mm	-	22	22	22
S		mm	5	15	15	15
U		mm	8	14	31	21.5
W		mm	φ 30	φ 50	φ 50	φ 50
X		mm	φ 81	φ 95	φ 95	φ 95
PT		mm	8	8	8	8



RNW

Short type closed center hydraulic double actuator

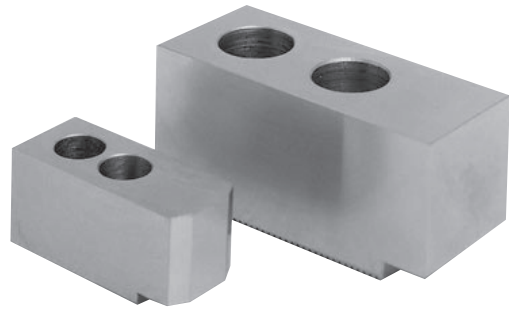
Compact design



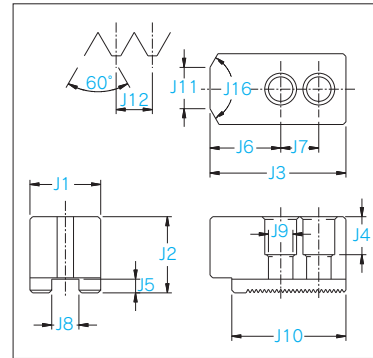
Specification		Unit	RNW30-100	RNW40-12	RNW85-12	RNW155-20-02	RNW215-30-01
Primary piston area	Push	cm ²	132.6	125.5	160.2	207.3	311
	Pull	cm ²	120.6	110.7	146.1	190.3	274.9
Secondary piston area	Push	cm ²	4.5	6.4	50.5	176.1	338.8
	Pull	cm ²	3.2	6.4	49.6	155.5	276.5
Primary piston draw pull	Push	KN	46.78	44.28	56.52	54.85	82.29
	Pull	KN	42.55	39.05	51.54	50.35	72.74
Secondary piston draw pull	Push	KN	1.59	2.26	17.82	46.60	89.65
	Pull	KN	1.13	2.26	17.50	41.15	73.16
Piston stroke, primary / secondary		mm	22/100	35/12	35/12	35/20	40/30
Through hole dia.		mm	-	14	14	26	42
Max. turning speed		min ⁻¹	2,000	4,000	4,000	3,600	2,000
Max. pressure		Mpa	3.92	3.92	3.92	2.94	2.94
		kg/cm ²	40	40	40	30	30
GD ² (Moment of inertia)		N-m ²	4.6	5.1	6.3	6.1	21.7
		Kgf-m ²	0.47	0.52	0.64	0.62	2.21
Weight		kg	33	22.5	32	40	85

Dimension		Unit	RNW30-100	RNW40-12	RNW85-12	RNW155-20-02	RNW215-30-01
B		mm	190	215	200	215	275
C		mm	110	145	80	145	180
D		mm	160	190	100	190	243
F1			M50P1.5	M50P1.5	M42P1.5	M56P1.5	M105P2.0
F2			M10	M20P1.5	M24P1.5	M42P1.5	M85P2.0
G1	Max.	mm	45	70	40	53	72
	Min.	mm	23	35	28	18	32
G2	Max.	mm	77	4	30	-17	-7
	Min.	mm	-23	-8	-5	-37	-37
K		mm	217	180	243.5	300	395.5
L		mm	383	256	332.5	483	556
M		mm	-	14	14	26	42
N		mm	20	25	25	25	35
P			6-M12D24	6-M10x95	6-M10D15	6-M12D20	12-M12
S		mm	30	30	28	30	34

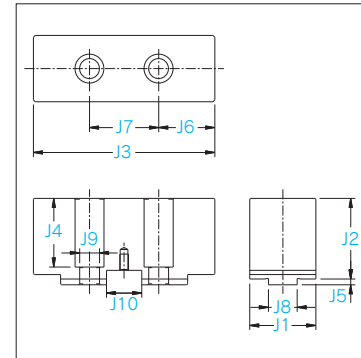
Standard Soft Jaws



■ Type S



■ Type K



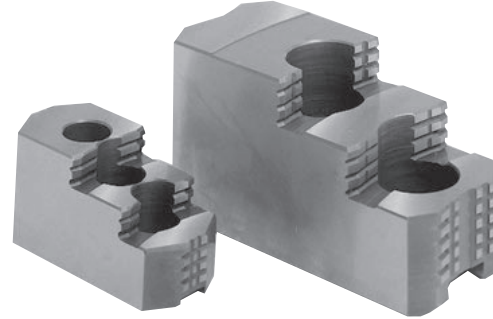
(Unit : mm)

Jaw Type	Chuck Dimension	Code No.	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12	J16	Bolt Dimension	Applicable Series
S	4	61040008	26	28	50	14	5	26	14	10	9	42	6	1.5	120°	M8×28	H, He, HeX
	4, 5	4605027	23	28	50	14	5	26	14	10	9	42	6	1.5	120°	M8×28	Z-4, Z-5
	5	61060104	23	25	65	15	5	38	19	10	9	65	5	1.5	120°	M8×22	HX, HHX
	6	60060001	30	34	80	26	3.5	41	25	11	9	70	6	1.5	90°	M8×22	H, He, HeX
		62061640	27	30	70	20	5	33	25	11	9	51	5	1.5	120°	M8×25	Z
	8	60080001	36	40	90	25	5	45	25	14	13	65	20	1.5	120°	M12×32	H, He, HeX
		62080904	34	40	79	25	5	39	25	14	13	58	15	1.5	120°	M12×32	Z
	10, 11	60100001	40	48	110	31	6	50	30	16	13	90	25	1.5	120°	M12×32	H, He, HeX
		60100101	40	48	103	31	6	50	32	16	13.5	88	25	1.5	120°	M12×32	H, He, HeX *
		60100301	40	42	110	27	5	50	30	16	13	75	16	1.5	120°	M12×32	Z
	12	60120001	50	50	130	33	6	60	30	18	15	100	30	1.5	120°	M14×40	Z, H, He, HeX
		60120101	50	50	140	33	6	68	32	18	15	102.5	20	1.5	90°	M14×40	H, He, HeX *
		4612165	46	50	112	33	6	52	30	18	15	90	25	1.5	120°	M14×40	Z
		4612164	46	50	112	33	6	52	32	18	15	90	25	1.5	120°	M14×40	Z *
	15, 18	60150101	62	62	150	43	8.5	45	50	22	22	105	-	3	-	M20×50	H, He, HeX
		3615102	58	62	140	43	8.5	60	50	22	22	120	58	3	-	M20×50	Z
K	21 - 24	3624011	73	95.3	200	75.8	6.3	61.9	76.2	31.75	22	38.88	-	-	-	M20	HH
	28 - 40	3632006	80	95.3	200	75.8	6.3	61.9	76.2	31.75	22	38.88	-	-	-	M20	HH

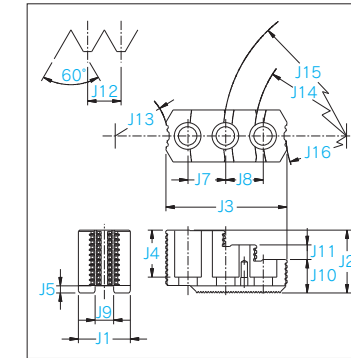
* Applicable to only former Hitachi-Seiki NC Lathe

Standard Hard Jaws

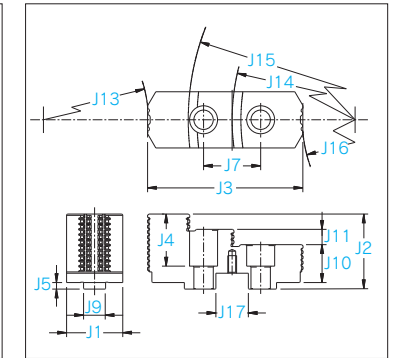
T-nut and jaw mount bolt are attached for hard jaw.



■ Type S



■ Type K



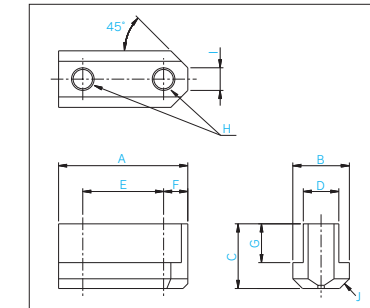
(Unit : mm)

Jaw Type	Chuck Dimension	Code No.	J1	J2	J3	J4	J5	J7	J8	J9	J10	J11	J12	J13	J14	J15	J16	J17	Bolt Dimension	Applicable Series
S	6	3606059	32	36	72.2	27	4	16	16	11	18	9	1.5	R37	R58.5	R80	-	-	M8	H, He, HeX, Z
	8	3608040	40	48	90.6	35	4	20	20	14	26	11	1.5	R46	R73.5	R101	-	-	M12	H, He, HeX, Z
	10, 11	3610042	45	56	100.5	40	6	25	25	16	30	13	1.5	R61.5	R93.5	R125.5	-	-	M12	H, He, HeX, Z
	12	3612030	50	62	111.5	45	6	30	30	18	32	15	1.5	R78	R114	R150	-	-	M14	H, He, HeX, Z
	15, 18	3615044	62	66.5	144.4	56	8.5	50	-	22	40	17.5	3	R62.5	R137.5	R175	R100	-	M20	H, He, HeX, Z
K	21 - 40	3228004	73	95.3	141	75.8	6.3	76.2	-	31.75	38.2	25.4	-	R235	R289	R340	R235	38.88	M20	HH

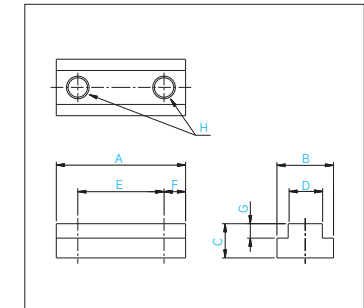
T-Nuts



■ Type S



■ Type K



(Unit : mm)

T-Nut Type	Chuck Dimension	Code No.	A	B	C	D	E	F	G	H	J	I	Soft Jaw/ Hard Jaw	Applicable Series
S	4, 5	4604012	26	17	19	10	14	6	12	M8	C3	4	Soft Jaws	Z, HH
	5	61060105	30	15	16.5	10	19	5.5	11	M8	-	5	Soft Jaws	HX, HHX
	6	60060002	40	17.5	20	11	25	7.5	12.5	M8	C3	7	Soft Jaws	H, He, HeX, Z, HH
		4606067	31	17.5	20	11	16	7.5	12.5	M8	C3	7	Hard Jaws	H, He, HeX, Z, HH
	8	60080002	45	20	23	14	25	10	14.5	M12	C4	10	Soft Jaws	H, He, HeX, Z, HH
		4608090	40	20	22	14	20	10	13.5	M12	C4	10	Hard Jaws	H, He, HeX, Z, HH
	10	60100002	50	23	23	16	30	10	15	M12	C4	15	Soft Jaws	H, He, HeX, Z, HH
		60100102	52	23	23	16	32	10	15	M12	C4	15	Soft Jaws	H, He, HeX, Z, HH *
		4610066	45	23	23	16	25	10	15	M12	C4	15	Hard Jaws	H, He, HeX, Z, HH
		60120002	54	29	30	18	30	12	16	M14	C6	15	Soft Jaw Hard Jaw	H, He, HeX, Z, HH
	12	60120102	56	29	30	18	32	12	16	M14	C6	15	Soft Jaws	H, He, HeX, Z, HH *
		60150102	80	34	39.5	22	50	15	20	M20	C6	12	Soft Jaw Hard Jaw	H, He, HeX, Z, HH
	15, 18, 22	60150102	80	34	39.5	22	50	15	20	M20	C6	12	Soft Jaw Hard Jaw	H, He, HeX, Z, HH
K	21, 24 - 40	4228006	114.2	40	30.2	30	76.2	19	17.5	M20	C1	-	Soft Jaw Hard Jaw	HH

* For Hitachi-Seiki machine (Jaw mount bolt pitch is different from standard)

Special Soft Jaws

Rotation speed and gripping force are limited with using special soft jaws mentioned in below.

(Unit : mm)

Jaw Type	Chuck Dimension	Code No.	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12	J16	Specification	Applicable Series
S	8	60080301	36	40	100	25	5	55	25	14	13	65	3	1.5	90°	for small dia	H, He, HeX, Z
		60080004	36	60	90	45	5	45	25	14	13	65	20	1.5	120°	J2 : 60	H, He, HeX, Z
		60080007	36	70	90	55	5	45	25	14	13	65	20	1.5	120°	J2 : 70	H, He, HeX, Z
		60080003	36	80	90	65	5	45	25	14	13	65	20	1.5	120°	J2 : 80	H, He, HeX, Z
	10, 11	4610112	40	48	125	31	6	65	30	16	13	90	10	1.5	90°	for small dia	H, He, HeX, Z
		60100003	40	60	110	43	6	50	30	16	13	90	25	1.5	120°	J2 : 60	H, He, HeX, Z
		60100005	40	70	110	43	6	50	30	16	13	90	25	1.5	120°	J2 : 70	H, He, HeX, Z
		60100004	40	80	110	63	6	50	30	16	13	90	25	1.5	120°	J2 : 80	H, He, HeX, Z
		60100106	40	48	118	31	6	65	32	16	13.5	88	10	1.5	90°	for small dia	H, He, HeX, Z *
		60100103	40	60	103	43	6	50	32	16	13.5	88	25	1.5	120°	J2 : 60	H, He, HeX, Z *
		60100104	40	80	103	63	6	50	32	16	13.5	88	25	1.5	120°	J2 : 80	H, He, HeX, Z *
		60120006	50	90	130	73	6	60	30	18	15	100	30	1.5	120°	J2 : 90	H, He, HeX, Z

* Applicable to only former Hitachi-Seiki NC Lathe

Soft Jaws for GH/GX Chuck

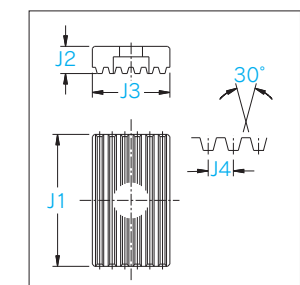
(Unit : mm)

Chuck Dimension	Code No.	Purpose	Chuckling Rang (φ)	Jaw height	Jaw Width
4	4604166△3	Small dia.	4 - 104	23.5	21
6	4606498△2	Small dia. *	25 - 72	23.5	24
	4606574△4	Large dia. *	72 - 154.8	38	30
8	46081342△	Very Small dia.	16 - 90	23.5	24
	4608812△5	Small dia. *	25 - 90	23.5	24
	4608839△4	Large dia. *	90 - 180	27	39
10	3610557△		34 - 228	29	28
12	3612597△		45 - 274	43	46

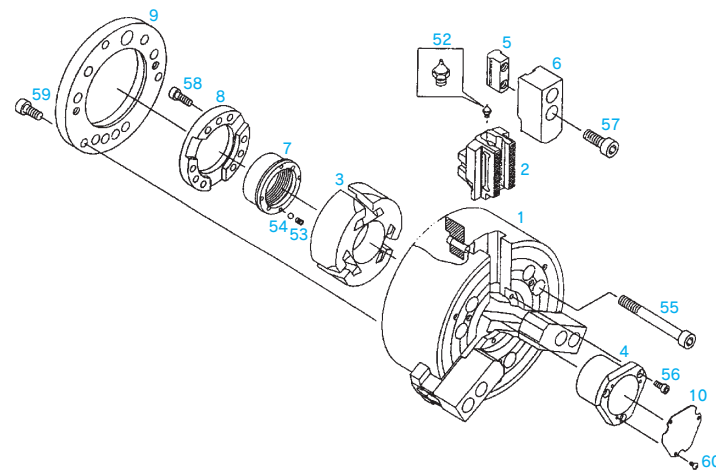
Master key For type K soft jaw & hard jaw

(Unit : mm)

Code No.	J1	J2	J3	J4	Applicable Series
4632002	72	11.7	38.88	6	HH
4624014	72	12.7	38.88	6.35	
4624018	63	13.0	37	6	HH6J
4615081	49	11.36	16	2.5	
4228005	72	12.7	38.88	6.35	
4650003	79	12.45	38.88	6.35	
4618025	63	13.0	37	6	



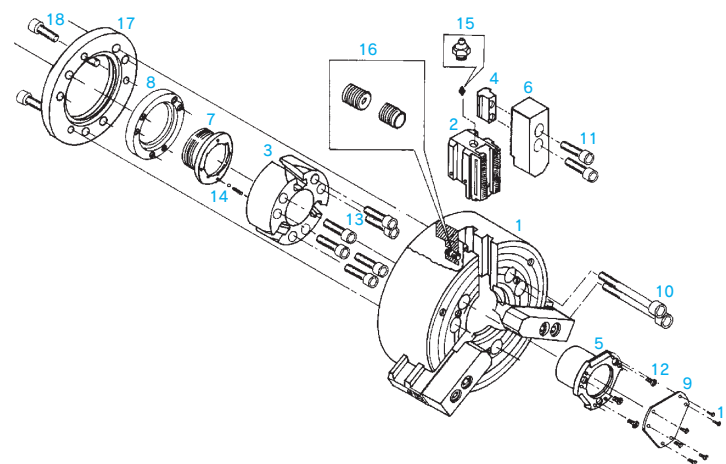
Z model power chuck [Through hole]



Construction Drawings & Parts Lists

1 Chuck Body	52 Grease Nipple
2 Master Jaw	53 Spring
3 Shifter	54 Steel Ball
4 Cap	55 Cap Screw
5 T-nut	56 Cap Screw
6 Soft Jaw	57 Cap Screw
7 Draw Screw	58 Cap Screw
8 Thrust Block	59 Cap Screw
9 Rear Plate	60 Cap Screw
10 Cover Lid	

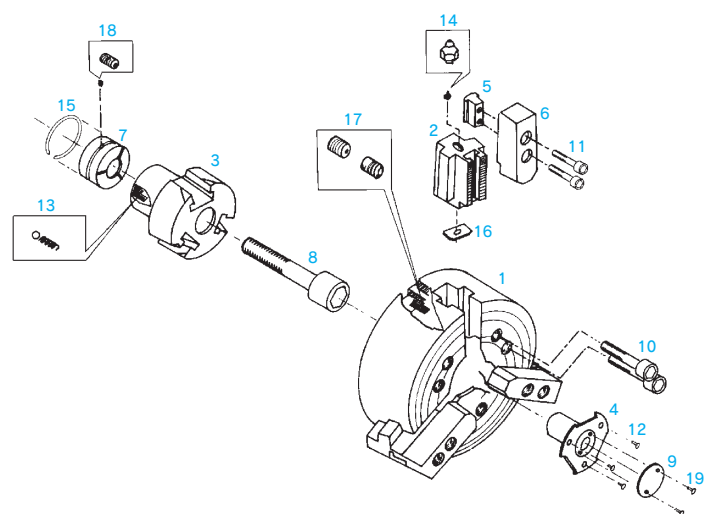
He, HeX model power chuck [Through hole]



Construction Drawings & Parts Lists

1 Chuck Body	11 Cap Screw
2 Master Jaw	12 Cap Screw
3 Shifter	13 Cap Screw
4 T-nut	14 Steel Ball
5 End Plate	15 Grease Nipple
6 Soft Jaw	16 Safety Screw
7 Draw Screw	17 Rear Plate
8 Thrust Block	18 Cap Screw
9 Cover Lid	19 Cap Screw
10 Cap Screw	

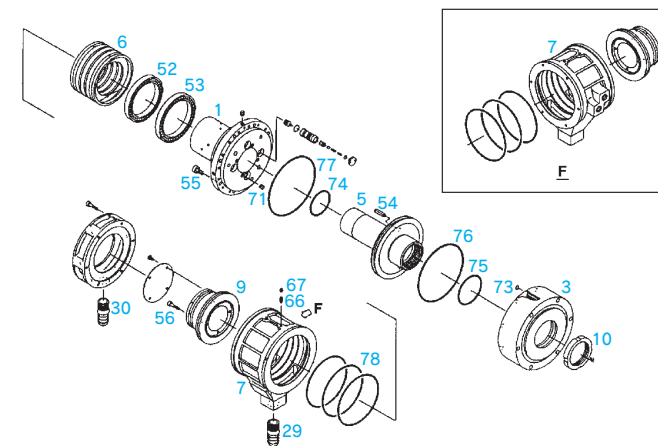
HH model power chuck [Closed center]



Construction Drawings & Parts Lists

1 Chuck Body	11 Cap Screw
2 Master Jaw	12 Cap Screw
3 Shifter	13 Steel Ball
4 End Plate	14 Grease Nipple
5 T-nut	15 Circle Spring
6 Soft Jaw	16 Dust Plate
7 Draw Nut	17 Safety Screw
8 Draw Bolt	18 Set Screw
9 Cover Lid	19 Cap Screw
10 Cap Screw	

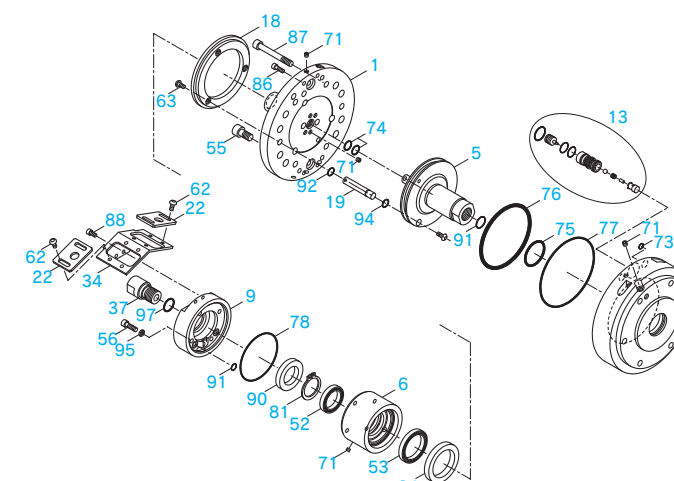
ZKP model hydraulic actuator [Through hole]



Construction Drawings & Parts Lists

1 Cylinder Body (A)	55 Cap Screw
3 Cylinder Body (B)	56 Cap Screw
5 Piston	66 Set Screw
6 Distributor	67 Set Screw
7 Distributor Case	71 Plug
9 End plate	73 O-ring
10 Nut	74 O-ring
29 Drain Joint	75 O-ring
30 drain Joint	76 O-ring
52 Ball Bearing#	77 O-ring
53 Ball Bearing#	78 O-ring
54 Spring Roll Pin	

RNKP model hydraulic actuator [Closed center]

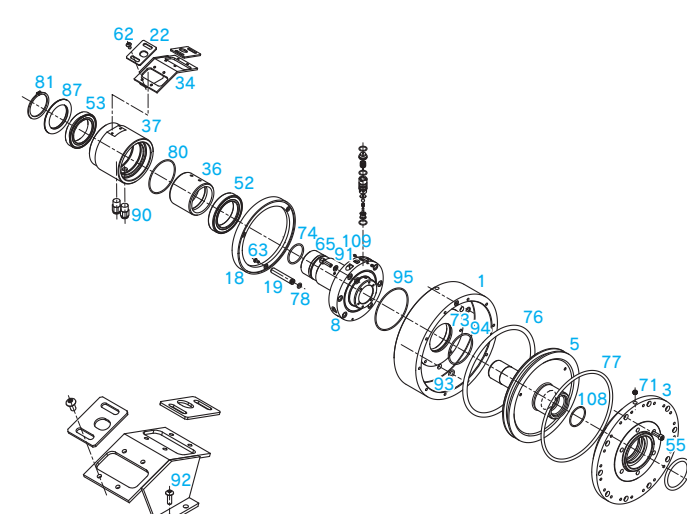


No. 37 and No. 97 are for coolant through type.

Construction Drawings & Parts Lists

1 Cylinder Body (A)	73 O-ring
3 Cylinder Body (B)	74 O-ring
5 Piston	75 O-ring
6 Distributor	76 O-ring
9 End plate	77 O-ring
13 Check Valve Unit	78 O-ring
18 Dog (A)	81 Snap Ring
19 Dog Bar	84 Oil Seal
22 Plate	86 Cap Screw
34 Stay	87 Cap Screw
37 Bushing	88 Cap Screw
52 Bearing	90 Oil Seal
53 Bearing	91 O-ring
55 Cap Screw	92 O-ring
56 Cap Screw	94 O-ring
62 Bolt	95 Seal Washer
63 Bolt	97 O-ring
71 Plug	

AVKP model pneumatic actuator [Through hole]

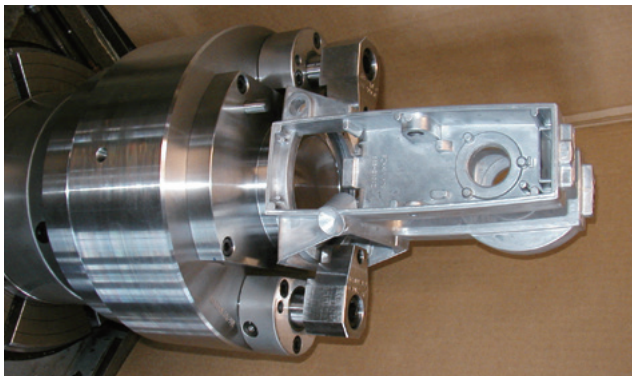


Construction Drawings & Parts Lists

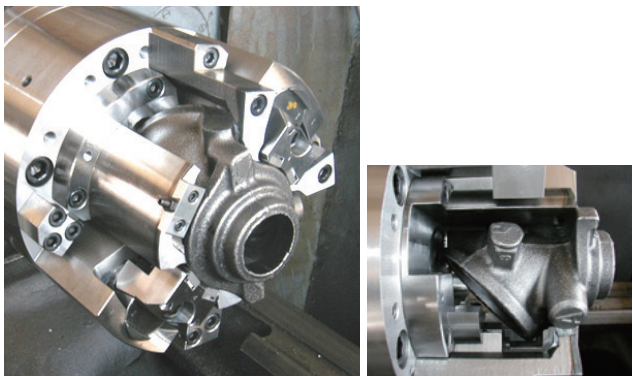
1 Cylinder Body (A)	73 O-ring
3 Cylinder Body (B)	74 O-ring
5 Piston	75 O-ring
8 Shaft	76 O-ring
18 Dog	77 O-ring
19 Dog Bar	78 O-ring
22 Plate	80 O-ring
34 Stay	81 Snap Ring
36 Bushing	87 Spring
37 Sleeve	90 Joint
52 Bearing	91 Seal Washer
53 Bearing	92 Bolt
55 Bolt	93 O-ring
62 Bolt	94 O-ring
63 Bolt	95 O-ring
65 Bolt	108 O-ring
71 Plug	109 Set Screw



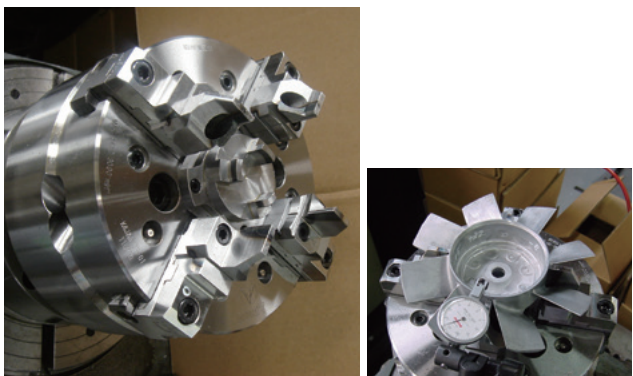
Design chuck	
Model name	HHA11-28-10
Kind of machine	Vertical lathe
Workpiece	Base carrier parts for power shovel
Chuck diameter	28inch (φ 711)
Nose	A2-#11
Reference	Drives only one in 3-jaws, Max. R.P.M.400



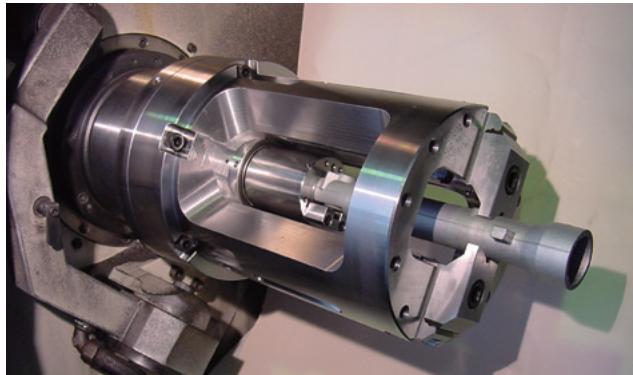
Finger chuck	
Model name	HPCJA8-12
Kind of machine	Combined lathe (second process)
Workpiece	Die-cast aluminum, turning & milling
Chuck diameter	12inch (φ 305)
Nose	A2-#8
Reference	Cam slot type of 2-jaws (Pull-down, Swivel face clamp)



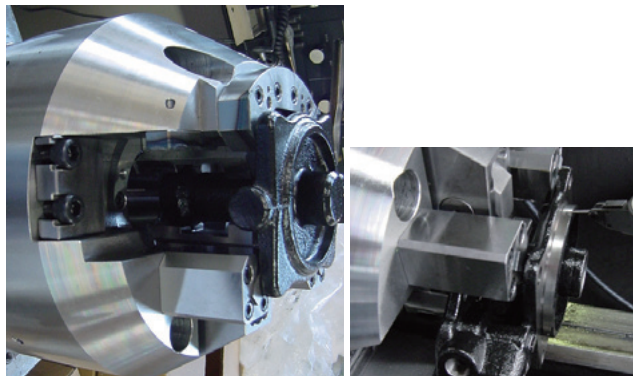
Power bar chuck	
Model name	PBJA6-10-02
Kind of machine	Horizontal lathe
Workpiece	Parts for automobiles
Chuck diameter	10inch (φ 254)
Nose	A2-#6
Reference	Power-bar type of 2-jaws (Pull-down), Max. R.P.M. 2,000



Cam lever 4 jaw chuck	
Model name	K4JA6-8B-01
Kind of machine	Horizontal lathe
Workpiece	Cooling fans for vehicles (8 pieces of blades, Die-cast aluminum)
Chuck diameter	8inch (φ 203.2)
Nose	A2-#6
Reference	Cam lever type of 4-jaws, Max. R.P.M. 3,000



Long stroke 2 jaw chuck	
Model name	PFJA8-10
Kind of machine	Horizontal lathe
Workpiece	front fork for motorcycle
Chuck diameter	10inch (φ 254)
Nose	A2-#8
Reference	wedge-type of 2-jaws, leap-over clamping (long stroke), Max. R.P.M. 2,500



Long stroke 2 jaw chuck	
Model name	ZLJA6-10
Workpiece	hydraulic component
Chuck diameter	10inch (φ 254)
Nose	A2-#6
Reference	wedge-type of 2-jaws, jaw-stroke φ 20, leap-over clamping, Drives only one in two jaws, Max. R.P.M. 1,500



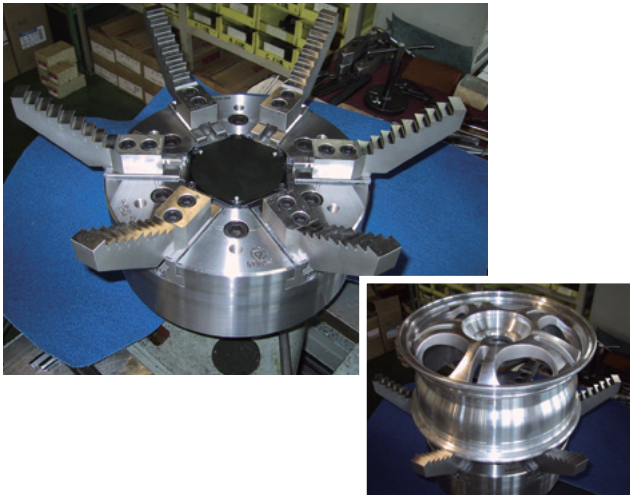
Swivel chuck	
Model name	HPC-7-01
Kind of machine	Horizontal lathe
Workpiece	Thin-ring (thickness : 2mm)
Chuck diameter	7inch (φ 178)
Nose	Strait type
Reference	Combination-chuck, Face clamping of 3inch + 7inch, Built-in air cylinder, Max. R.P.M. 2,000



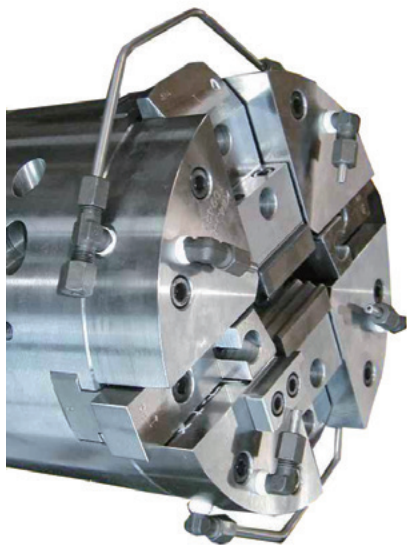
Stationary chuck	
Model name	STC-8-52
Kind of machine	Machining center
Workpiece	Gear-wheel
Chuck diameter	8inch (φ 203.2)
Reference	Wedge-type of stationary chuck (non-rotation), Trimming inner jaws, Workpiece mounting confirmation structure



Cam lever chuck	
Model name	K5JA8-20-07
Kind of machine	Horizontal lathe
Workpiece	Aluminum wheels for automobiles (14inch to 20inch), Remachining (finishing process after coating)
Chuck diameter	20inch (ϕ 508)
Nose	A2-#8
Reference	Cam lever type of 5-jaws, Max. R.P.M. 1,800



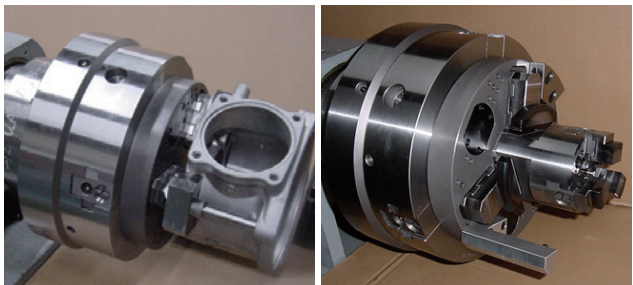
6 jaw chuck	
Model name	Z6JA8-15-120B-03
Kind of machine	Horizontal lathe
Workpiece	Aluminum wheels for automobiles (14inch to 20inch), Remachining (finishing process after coating)
Chuck diameter	15inch (ϕ 381)
Nose	A2-#8
Reference	Wedge type of 6-jaws



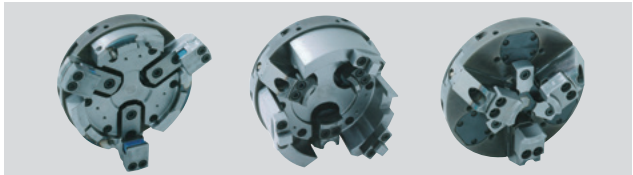
Cam lever chuck	
Model name	KW4JA8-12-85
Kind of machine	Combined Machine
Workpiece	Square Timber
Reference	Cam Lever type of 4-jaws, Two sets of jaws facing each other operate independently., Double cylinder



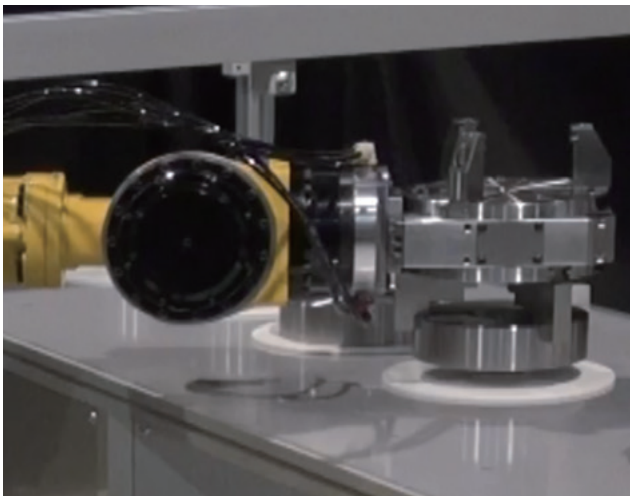
2.5 inch power chuck	
Model name	USS2-25
Diameter	63.5mm
Max. speed	7,000min ⁻¹
Jaw stroke	ϕ 2.2mm
Max. clamping force	6.87KN
Weight	1.8kg



交換プレート例



Automatic jaw exchange chuck	
Model name	AJCA8-12-35-07
Kind of machine	Combined machine
Workpiece	motor case, die-cast aluminum
Chuck diameter	12inch (ϕ 304.8)
Nose	A2-#8
Reference	Work-stopper / positioning to rotation direction / balance weight for exchange plates, Max. R.P.M. 2,500



Loader chuck	
Model name	LC-8
Kind of machine	Robot and material handring machine
Workpiece	Round material
Max. clamping force	0.96 (KN) / 0.49 (MPa)
Weight	15kg
Reference	Both sides clamp

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