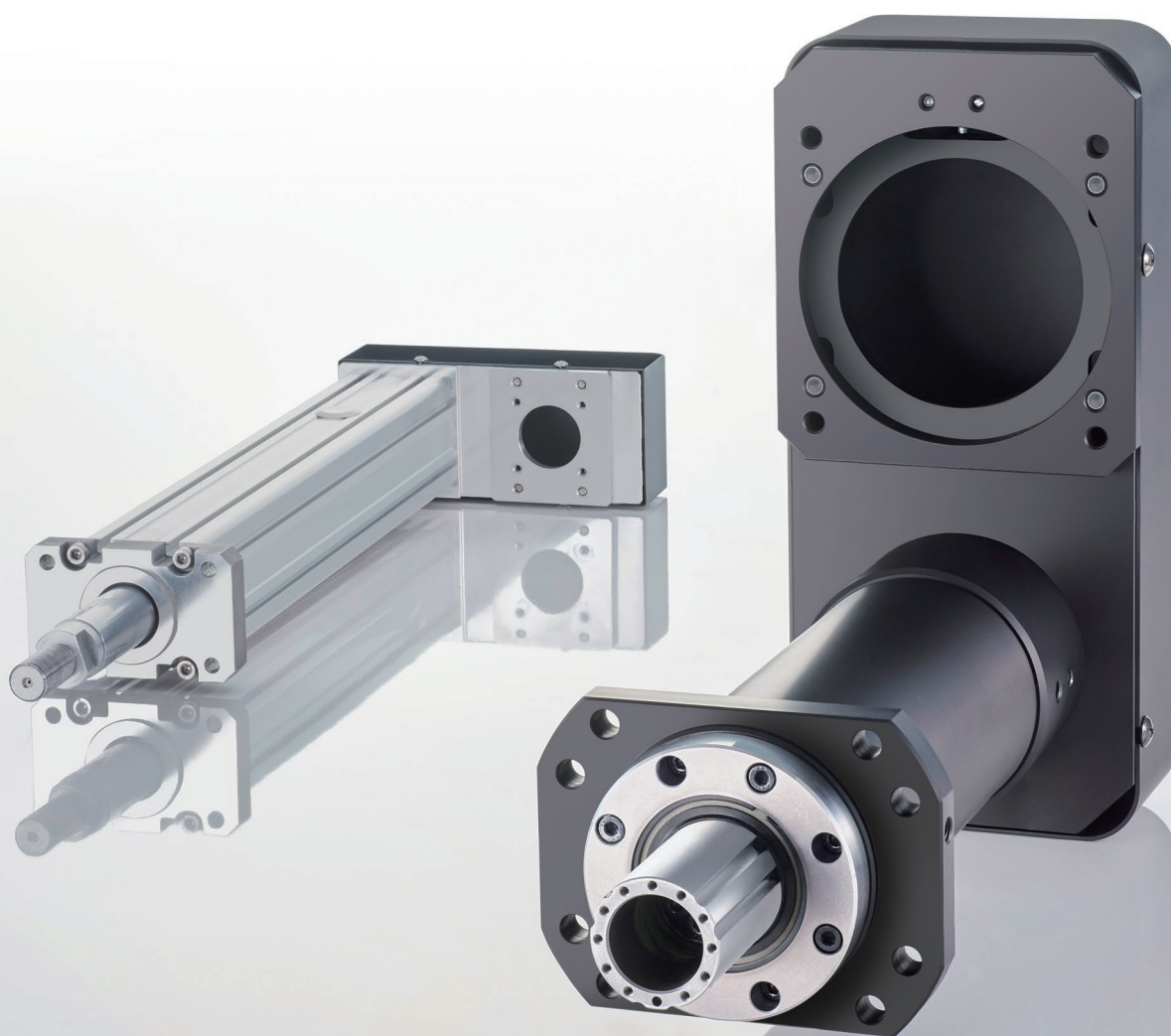


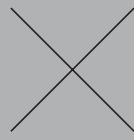


Electric Cylinder **PC/PCT**



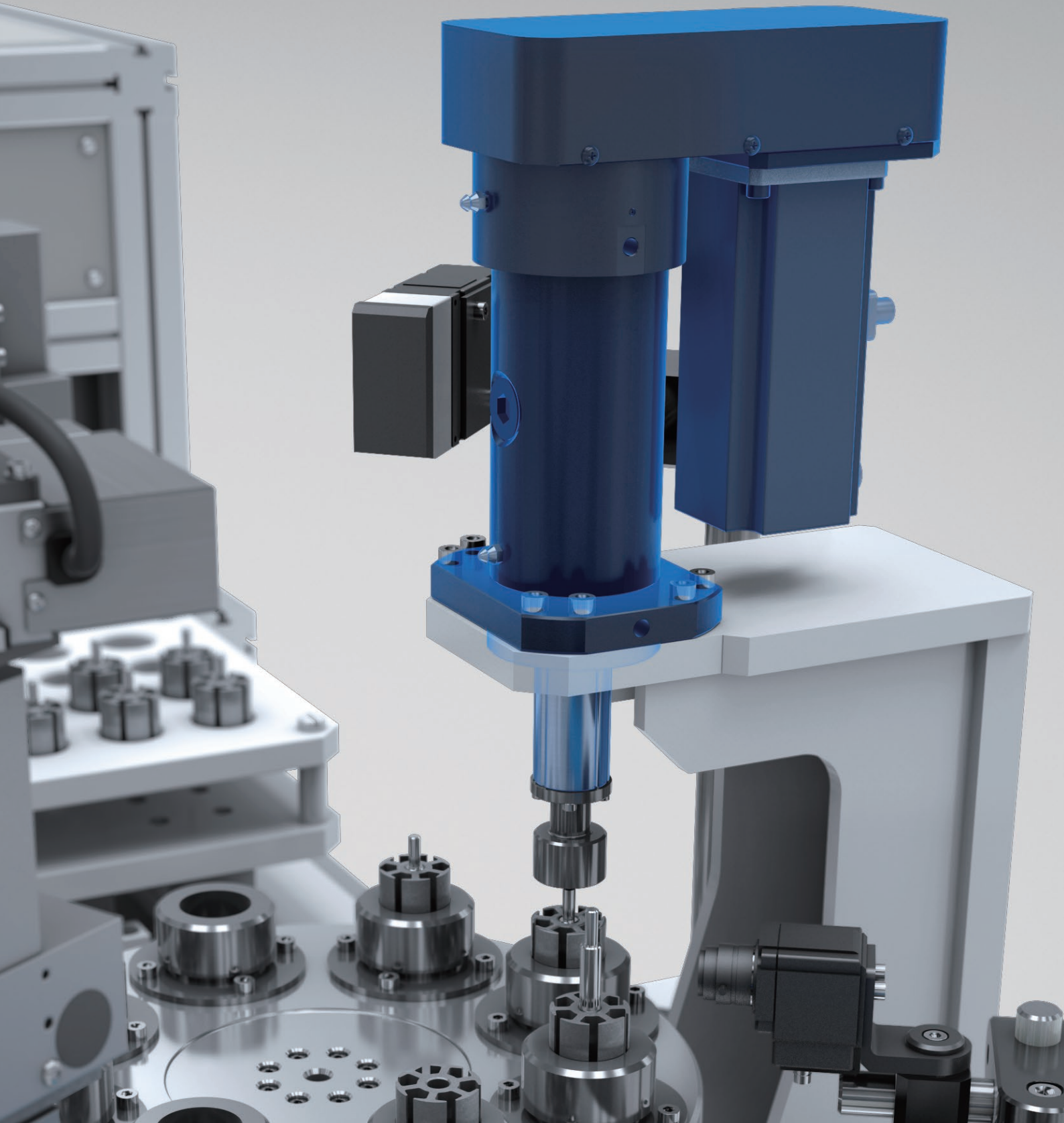
Maximum instantaneous thrust of 250 kN.
Smooth motion and highly precise positioning repeatability.
Compact design.

High
efficiency



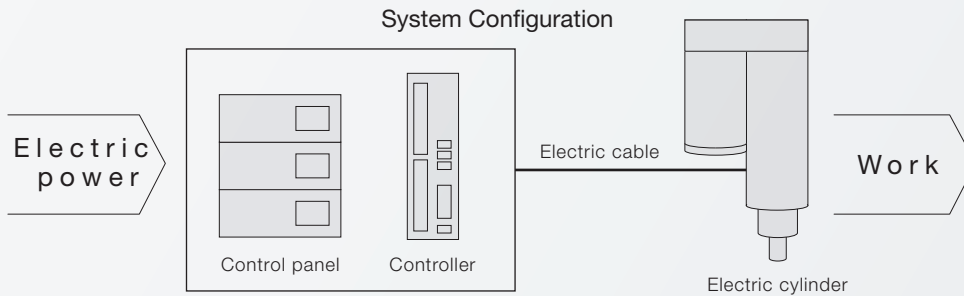
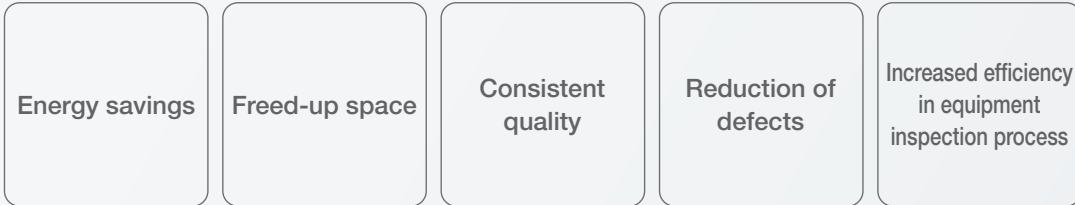
Low running
cost

Motorization for numerous press processes



Electric Cylinder

Motorization of the cylinder driver provides five benefits.



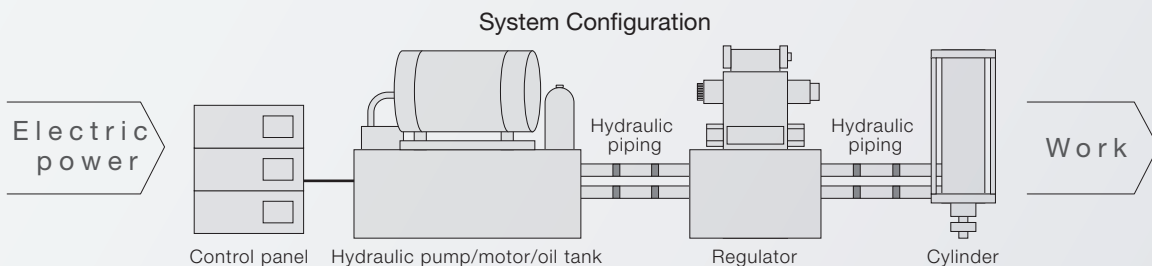
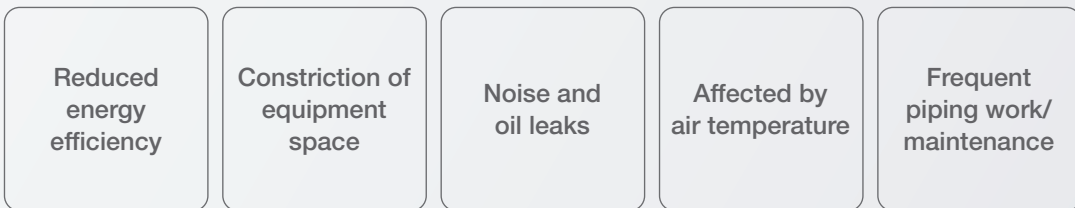
(Example) Electric and Hydraulic Cylinder Comparison

	Motion control				Machining control			Environment		
Electric	○	○	○	○	○	○	○	○	○	○
Properties	Ability to select speed	High-speed motion	Ability to select thrust	Bottom dead center position control when molding	High-precision machining	Ability to machine difficult materials	Lower burden on molds	Compact equipment footprint	Clean environment	Quiet noise
Hydraulic	○	○	○	-	-	○	-	-	-	-

¹ The above is a general comparison.

² ◎: Superior, ○: Good, -: Not compatible

Hydraulic Cylinder



Electric Cylinder PC/PCT

Achieves steady, high thrust and high-precision positioning repeatability by using a ball screw for the drive element.

PC

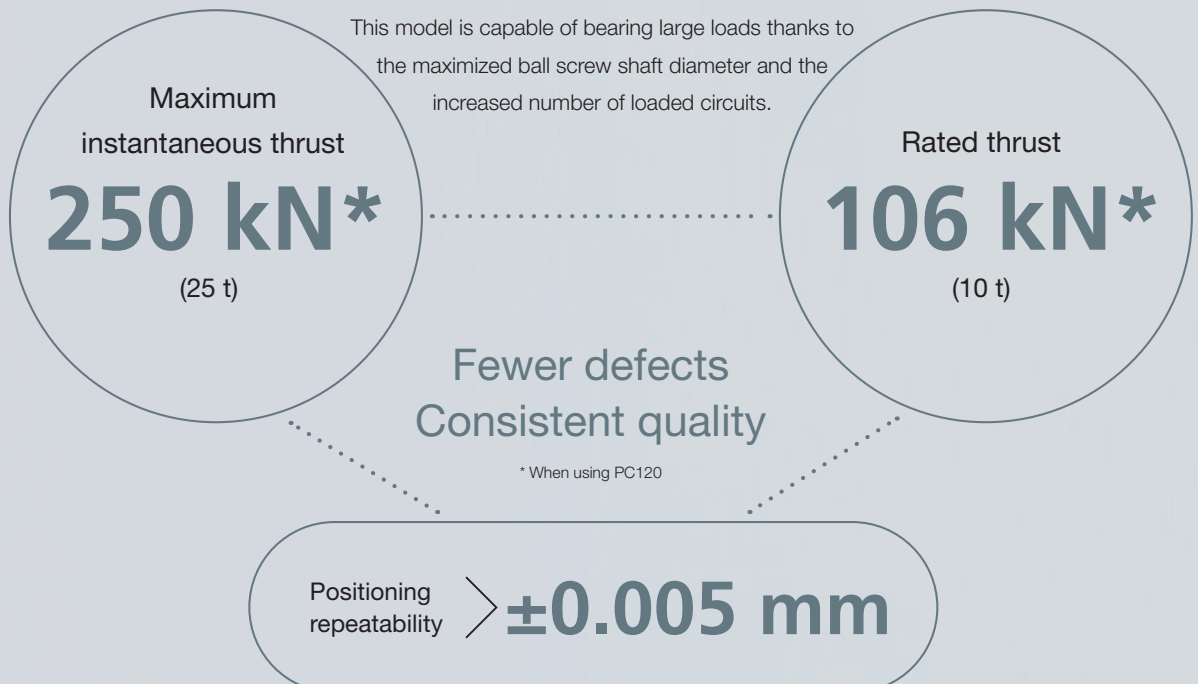
High-thrust electric cylinder with proprietary, built-in mechanism combining the drive and guide elements

Compact, highly rigid, high-precision.
Can be used in presses that require high thrust.

Space savings are enabled by the compact structure, which combines the ball spline shaft and the high-precision ball screw nut. Furthermore, this product achieves high thrust with a maximum instantaneous thrust of 250 kN* and high-precision positioning repeatability.

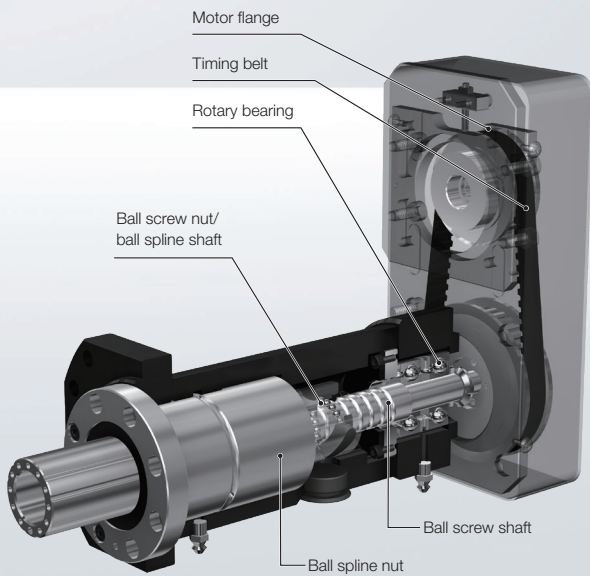
It is optimal for high-precision pressing, press-fitting workpieces, punching, and deep drawing.

Smooth movement and high-precision positioning repeatability provided by ball spline and ball screw.



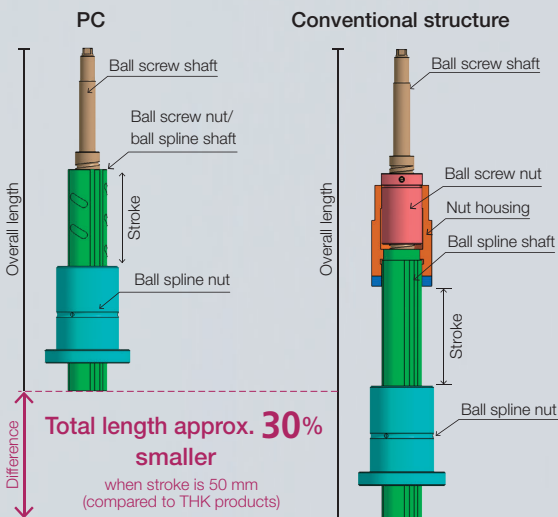
PCT

An electric cylinder
with an internal ball screw



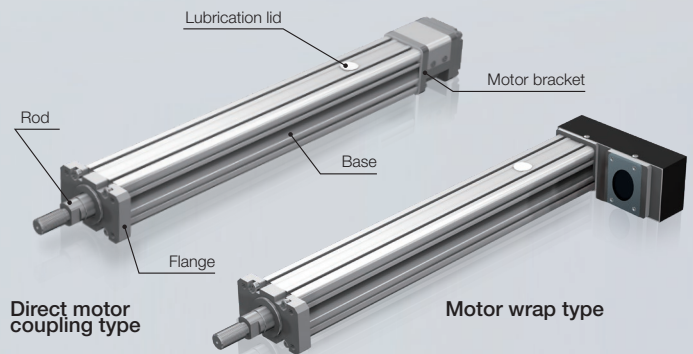
Unique, integrated structure enables compactness.

With an integrated structure combining a ball spline with a precision ball screw, the overall length is significantly more compact, and there are fewer components.



Supports a variety of mounting configurations
with two different mounting methods.
Enables high-precision positioning repeatability.

Because the PCT is specialized in rigidity for load-bearing in the axial direction, it can be used in small presses and caulking machines.



Rated thrust
800 N max.

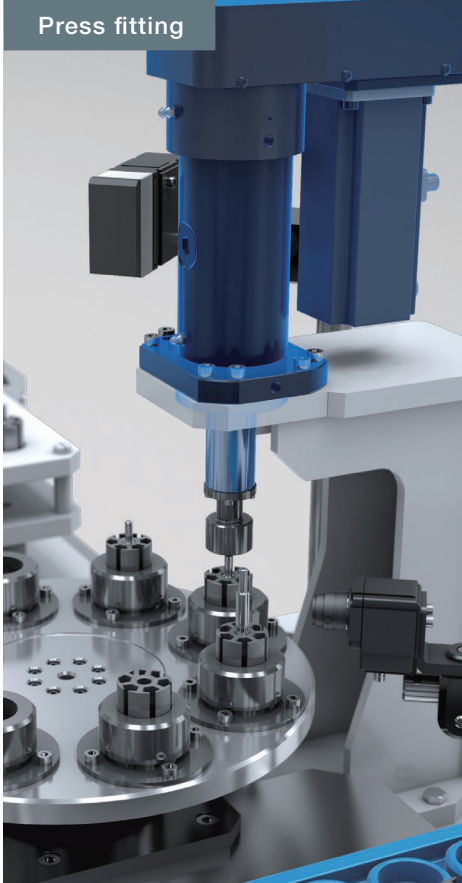
Positioning repeatability $> \pm 0.01 \text{ mm}$

Mount with flange or mount using the T-slot on the main unit.

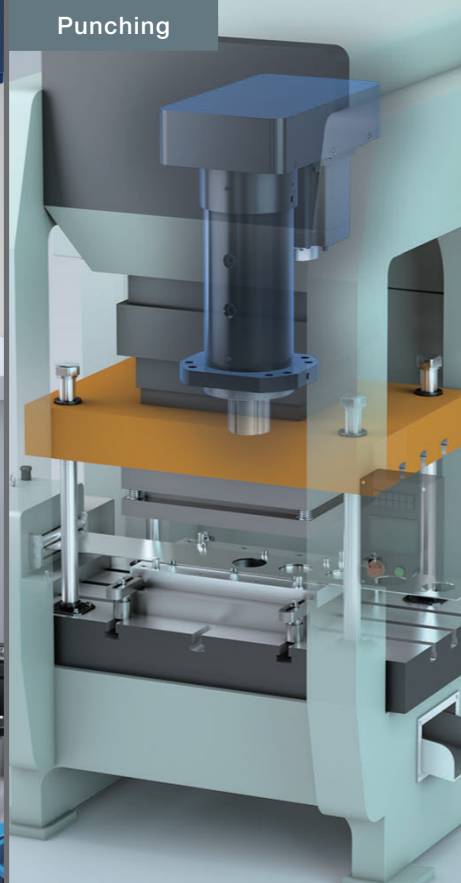
APPLICATION

PC

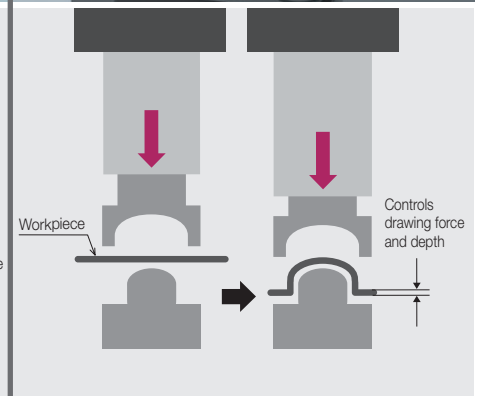
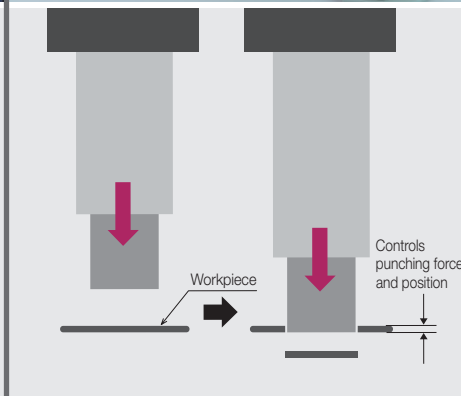
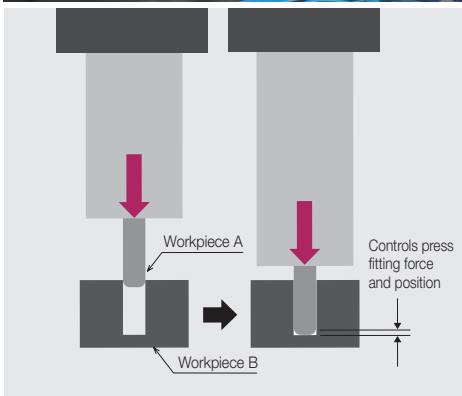
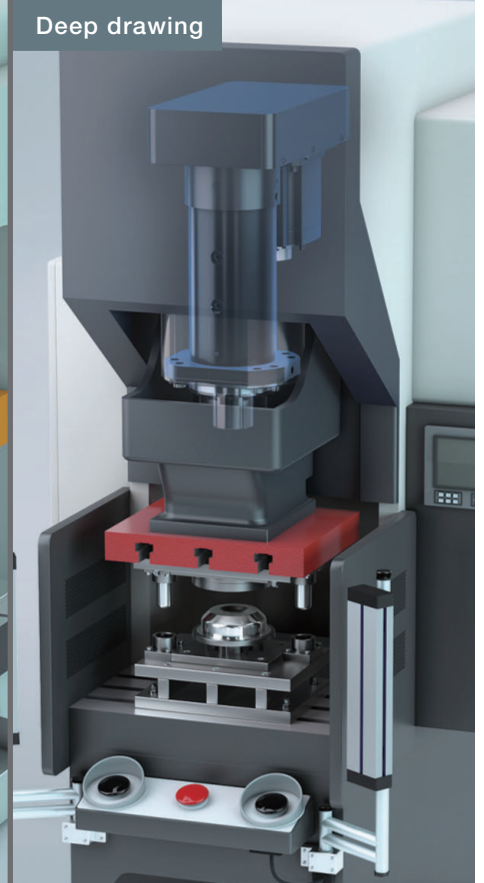
Press fitting



Punching

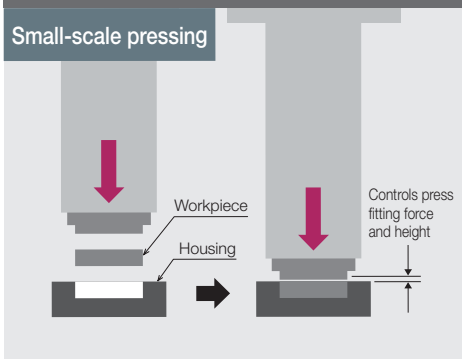


Deep drawing

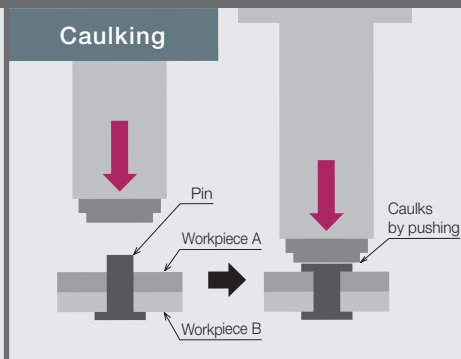


PCT

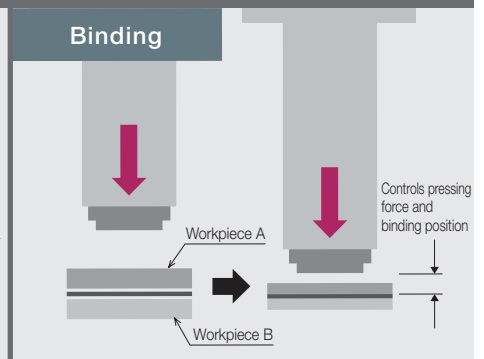
Small-scale pressing



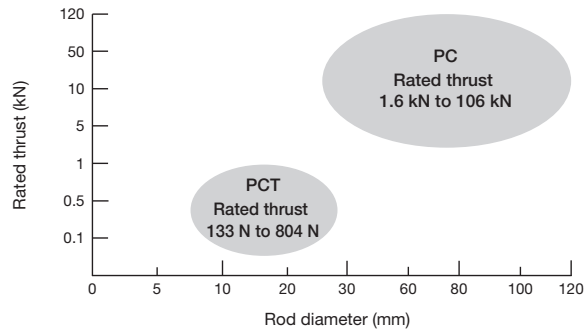
Caulking



Binding



Product Lineup



Specifications

PC

Model	Servo motor			Rated thrust ¹ (kN)	Maximum instantaneous thrust ² (kN)	Maximum speed ³ (mm/s)	Maximum stroke (mm)	Generated thrust ⁴ (kN)														
	Manufacturer	Estimated capacity (kW)						0	1	2	3	7.5	10	15	20	30	40	50	70	100	120	140
PC30-06A	Mitsubishi Electric Corporation	0.4 (0.36) ⁵	1.6	3.3	210	250		1.6		3.3												
	YASKAWA Electric Corporation																					
	SANYO DENKI CO., LTD.																					
	OMRON Corporation																					
PC40-06B	Mitsubishi Electric Corporation	0.75	3.2	6.4	200	250		3.2		6.4												
	YASKAWA Electric Corporation																					
	SANYO DENKI CO., LTD.																					
	OMRON Corporation																					
PC40H-08C	Mitsubishi Electric Corporation	1	5.6	11.2	151	250		5.6		11.2												
	YASKAWA Electric Corporation																					
	SANYO DENKI CO., LTD.																					
	OMRON Corporation																					
PC50-06D	Mitsubishi Electric Corporation	1.5	8.4	16.8	150	250		8.4		16.8												
	YASKAWA Electric Corporation																					
	SANYO DENKI CO., LTD.																					
	OMRON Corporation																					
PC60-10E	Mitsubishi Electric Corporation	2	10.9	21.8	155	250		10.9		21.8												
	YASKAWA Electric Corporation																					
	SANYO DENKI CO., LTD.																					
	OMRON Corporation																					
PC60H-10F	Mitsubishi Electric Corporation	3.5	17.8	35.6	166	250		17.8		35.6												
	YASKAWA Electric Corporation																					
	SANYO DENKI CO., LTD.																					
	OMRON Corporation																					
PC80L-12G	Mitsubishi Electric Corporation	5	24	71	177	250		24		71												
	YASKAWA Electric Corporation																					
	SANYO DENKI CO., LTD.																					
	OMRON Corporation																					
PC80-12G	Mitsubishi Electric Corporation	5.5	35	102	133	250		35		102												
	YASKAWA Electric Corporation																					
	SANYO DENKI CO., LTD.																					
	OMRON Corporation																					
PC80H-12G	Mitsubishi Electric Corporation	7.5	48	119	133	250		48		119												
	YASKAWA Electric Corporation																					
	SANYO DENKI CO., LTD.																					
	OMRON Corporation																					
PC100-20H	Mitsubishi Electric Corporation	11	70	175	125	400		70		175												
	YASKAWA Electric Corporation																					
	SANYO DENKI CO., LTD.																					
	OMRON Corporation																					
PC120-20J	Mitsubishi Electric Corporation	15	106	250	112	400		106		250												
	YASKAWA Electric Corporation																					
	SANYO DENKI CO., LTD.																					
	OMRON Corporation																					

Rated thrust / Maximum instantaneous thrust

- ¹ The rated thrust refers to the thrust force at the rated motor torque for the estimated motor capacity.
- ² Maximum instantaneous thrust is limited by the permissible axial load.
- ³ The maximum speed is restricted either by the rated rotational speed for the estimated motor capacity or by the permissible speed of the actuator.
- ⁴ Contact THK if the product will be used for pressing motions above the rated thrust but below the maximum instantaneous thrust.
- ⁵ Value within parentheses is when a SANYO DENKI CO., LTD. motor with a brake is used.

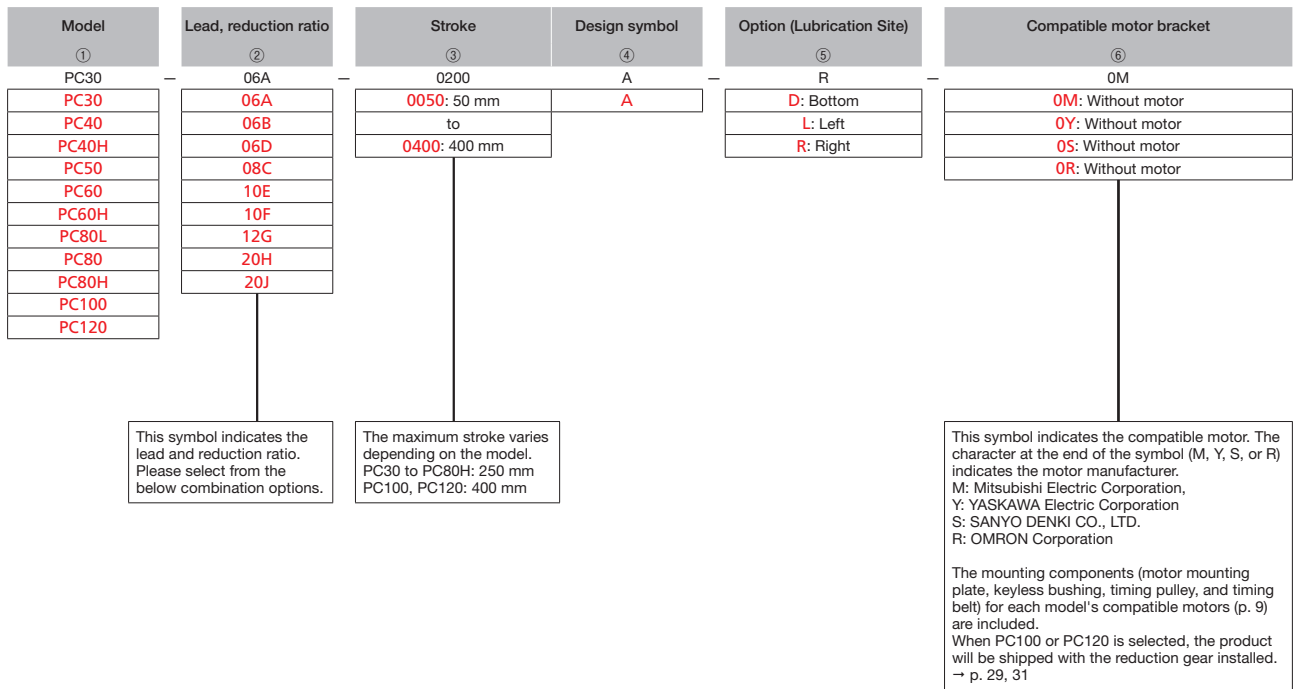
PCT

Model	Estimated motor capacity (W)	Rated thrust ⁶ (N)	Maximum speed ⁷ (mm/s)	Maximum stroke (mm)	Generated thrust ⁸ (N)								
					0	100	250	500	1000	1500	2500		
PCT20-06N	50	133	300	200	130		402						
PCT20R-06N													
PCT25-06N	100	266	200	300	260		796						
PCT25R-06N													
PCT25-04N					400		1194						
PCT25R-04N													
PCT25-06N	200	536	300	200	500		1600						
PCT25R-06N													
PCT25-04N					800		2400						
PCT25R-04N													

Rated thrust / Maximum instantaneous thrust

- ⁶ The rated thrust refers to the thrust force at the rated motor torque for the estimated motor capacity.
 - ⁷ The maximum speed is restricted either by the rotational speed of the motor at 3000 min⁻¹ or by the permissible speed of the actuator.
 - ⁸ Contact THK if the product will be used for pressing motions above the rated thrust but below the maximum instantaneous thrust.
- Note) See the page of each model for details concerning specifications.

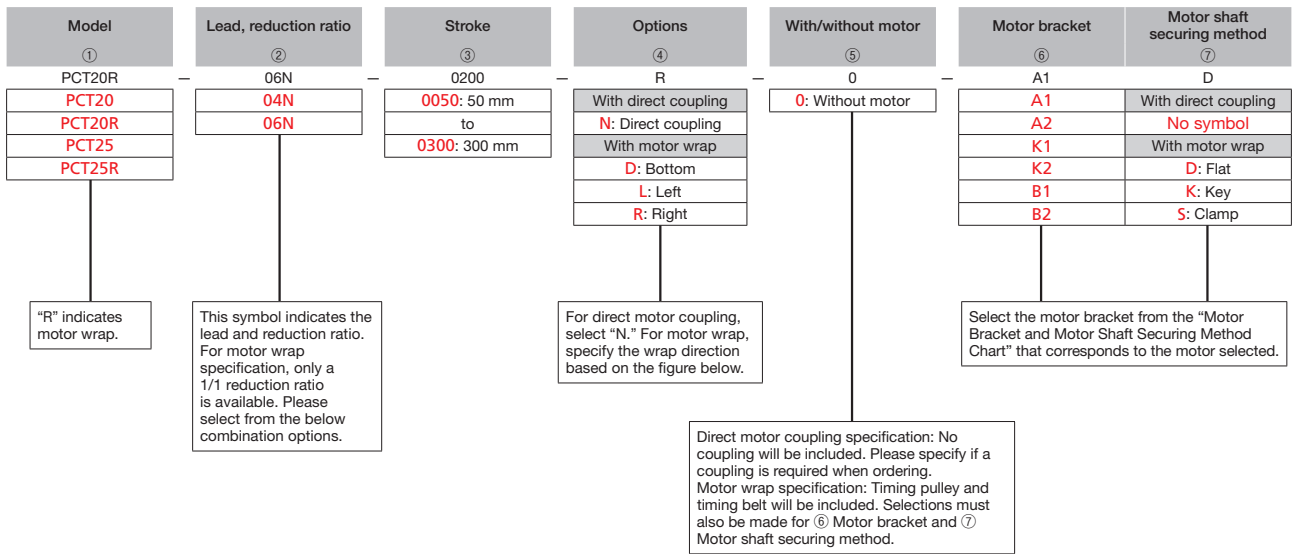
PC Model Number Coding



Combination Options

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④
PC30	06A	0050 to 0250	A
PC40	06B		
PC40H	08C		
PC50	06D		
PC60	10E		
PC60H	10F		
PC80L	12G		
PC80			
PC80H			
PC100	20H	0200, 0400	
PC120	20J		

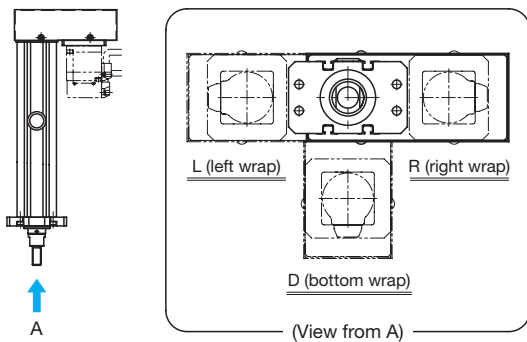
PCT Model Number Coding



Combination Options

Model ①	Lead, reduction ratio ②	Stroke ③
PCT20 PCT20R	06N	0050 to 0200
PCT25 PCT25R	06N or 04N	0050 to 0300

④ Option (Motor Wrap)



Compatible Motors (Control Devices) by Model List

Model, lead, reduction ratio	Manufacturer		Motor model	Motor rated output (kW)	Compatible motor bracket ¹
PC30-06A	Mitsubishi Electric Corporation	Without brake	HG-KR43	0.4	0M
		With brake	HG-KR43B		
		Without brake	HK-KT43W		
		With brake	HK-KT43WB		
	YASKAWA Electric Corporation	Without brake	SGM7J-04AFA21	0.4	0Y
		With brake	SGM7J-04AFA2C		
		Without brake	SGMXJ-04AWA21A1		
		With brake	SGMXJ-04AWA2CA1		
	SANYO DENKI CO., LTD.	Without brake	R2AA06040FXRA0M	0.4	0S
		With brake	R2AA06040FCRA0M6		
	OMRON Corporation	Without brake	R88M-K40030T	0.4	0R
		With brake	R88M-K40030T-B		
Without brake		R88M-1M40030T			
With brake		R88M-1M40030T-B			
PC40-06B	Mitsubishi Electric Corporation	Without brake	HG-KR73	0.75	0M
		With brake	HG-KR73B		
		Without brake	HK-KT7M3W		
		With brake	HK-KT7M3WB		
	YASKAWA Electric Corporation	Without brake	SGM7J-08AFA21	0.75	0Y
		With brake	SGM7J-08AFA2C		
		Without brake	SGMXJ-08AWA21A1		
		With brake	SGMXJ-08AWA2CA1		
	SANYO DENKI CO., LTD.	Without brake	R2AA08075FXRA0M	0.75	0S
		With brake	R2AA08075FCRA0M		
	OMRON Corporation	Without brake	R88M-K75030T	0.75	0R
		With brake	R88M-K75030T-B		
Without brake		R88M-1M75030T			
With brake		R88M-1M75030T-B			
PC40H-08C	Mitsubishi Electric Corporation	Without brake	HG-SR102	1	0M
		With brake	HG-SR102B		
		Without brake	HK-ST102W		
		With brake	HK-ST102WB		
	YASKAWA Electric Corporation	Without brake	SGM7G-09AFA21	0.85	0Y
		With brake	SGM7G-09AFA2C		
		Without brake	SGMXG-09AWA21A1		
		With brake	SGMXG-09AWA2CA1		
	SANYO DENKI CO., LTD.	Without brake	R2AA13120BXCRC0 ²	1.2	0S
		With brake	R2AA13120BCRC0 ²		
	OMRON Corporation	Without brake	R88M-K1K020T	1	0R
		With brake	R88M-K1K020T-B		
Without brake		R88M-1M1K020T			
With brake		R88M-1M1K020T-B			
PC50-06D	Mitsubishi Electric Corporation	Without brake	HG-SR152	1.5	0M
		With brake	HG-SR152B		
		Without brake	HK-ST172W		
		With brake	HK-ST172WB		
	YASKAWA Electric Corporation	Without brake	SGM7G-13AFA21	1.3	0Y
		With brake	SGM7G-13AFA2C		
		Without brake	SGMXG-13AWA21A1		
		With brake	SGMXG-13AWA2CA1		
	SANYO DENKI CO., LTD.	Without brake	R2AA13180HXCRC0 ²	1.8	0S
		With brake	R2AA13180HCRC0 ²		
	OMRON Corporation	Without brake	R88M-K1K520T	1.5	0R
		With brake	R88M-K1K520T-B		
Without brake		R88M-1M1K520T			
With brake		R88M-1M1K520T-B			
PC60-10E	Mitsubishi Electric Corporation	Without brake	HG-SR202	2	0M
		With brake	HG-SR202B		
		Without brake	HK-ST202W		
		With brake	HK-ST202WB		
	YASKAWA Electric Corporation	Without brake	SGM7G-20AFA21	1.8	0Y
		With brake	SGM7G-20AFA2C		
		Without brake	SGMXG-20AWA21A1		
		With brake	SGMXG-20AWA2CA1		
	SANYO DENKI CO., LTD.	Without brake	R2AA13200LXCRC0 ²	2	0S
		With brake	R2AA13200LCRC0 ²		
	OMRON Corporation	Without brake	R88M-K2K020T	2	0R
		With brake	R88M-K2K020T-B		
Without brake		R88M-1M2K020T			
With brake		R88M-1M2K020T-B			

¹ The character at the end of the symbol (M, Y, S, or R) represents the motor manufacturer. M: Mitsubishi Electric Corporation; Y: YASKAWA Electric Corporation; S: SANYO DENKI CO., LTD.; R: OMRON Corporation

² Special product for PC specification.

Note) The table shows only a portion of the model numbers for motors. For details regarding model numbers, please see the catalog for each respective motor manufacturer.

Model, lead, reduction ratio	Manufacturer		Motor model	Motor rated output (kW)	Compatible motor bracket ¹
PC60H-10F	Mitsubishi Electric Corporation	Without brake	HG-SR352	3.5	0M
		With brake	HG-SR352B		
		Without brake	HK-ST352W		
		With brake	HK-ST352WB		
	YASKAWA Electric Corporation	Without brake	SGM7G-30AFA21	2.9	0Y
		With brake	SGM7G-30AFA2C		
	SANYO DENKI CO., LTD.	Without brake	R2AA18350LXRC0 ²	3.5	0S
		With brake	R2AA18350LCRC0 ²		
	OMRON Corporation	Without brake	R88M-K4K020T	4	0R
		With brake	R88M-K4K020T-B		
		Without brake	R88M-1M4K015T		
		With brake	R88M-1M4K015T-B		
PC80L-12G	Mitsubishi Electric Corporation	Without brake	HG-SR502	5	0M
		With brake	HG-SR502B		
		Without brake	HK-ST502W		
		With brake	HK-ST502WB		
	YASKAWA Electric Corporation	Without brake	SGM7G-44AFA21	4.4	0Y
		With brake	SGM7G-44AFA2C		
	SANYO DENKI CO., LTD.	Without brake	R2AA18450HXRC0 ²	4.5	0S
		With brake	R2AA18450HCRC0 ²		
	OMRON Corporation	Without brake	R88M-K5K020T	5	0R
		With brake	R88M-K5K020T-B		
		Without brake	R88M-1M4K015T	4	0R
		With brake	R88M-1M4K015T-B		
PC80-12G	Mitsubishi Electric Corporation	Without brake	HG-SR702	7	0M
		With brake	HG-SR702B		
		Without brake	HK-ST702W		
		With brake	HK-ST702WB		
	YASKAWA Electric Corporation	Without brake	SGM7G-55AFA21	5.5	0Y
		With brake	SGM7G-55AFA2C		
	SANYO DENKI CO., LTD.	Without brake	R2AA18550HXRC0 ²	5.5	0S
		With brake	R2AA18550HCRC0 ²		
	OMRON Corporation	Without brake	R88M-K4K510T	4.5	0R
		With brake	R88M-K4K510T-B		
		Without brake	R88M-1M5K015T	5	0R
		With brake	R88M-1M5K015T-B		
PC80H-12G	Mitsubishi Electric Corporation	Without brake	HG-SR421	4.2	0M
		With brake	HG-SR421B		
		Without brake	HK-ST7024W		
		With brake	HK-ST7024WB		
	YASKAWA Electric Corporation	Without brake	SGM7G-75AFA21	7.5	0Y
		With brake	SGM7G-75AFA2C		
	SANYO DENKI CO., LTD.	Without brake	R2AA18750HXRC0 ²	7.5	0S
		With brake	R2AA18750HCRC0 ²		
	OMRON Corporation	Without brake	R88M-K7K515T	7.5	0R
		With brake	R88M-K7K515T-B		
		Without brake	R88M-1M7K515T		
		With brake	R88M-1M7K515T-B		
PC100-20H	Mitsubishi Electric Corporation	Without brake	HG-JR11K1M	11	0M
		With brake	HG-JR11K1MB		
	YASKAWA Electric Corporation	Without brake	SGM7G-1AFA21	11	0Y
		With brake	SGM7G-1AFA2C		
	SANYO DENKI CO., LTD.	Without brake	R2AA2211KBXRC0 ²	11	0S
		With brake	R2AA2211KBCRC0 ²		
	OMRON Corporation	Without brake	R88M-1M11K015T	11	0R
		With brake	R88M-1M11K015T-B		
PC120-20J	Mitsubishi Electric Corporation	Without brake	HG-JR15K1M	15	0M
		With brake	HG-JR15K1MB		
	YASKAWA Electric Corporation	Without brake	SGM7G-1EFA21	15	0Y
		With brake	SGM7G-1EFA2C		
	SANYO DENKI CO., LTD.	Without brake	R2AA2215KBXRC0 ²	15	0S
		With brake	R2AA2215KBCRC0 ²		
	OMRON Corporation	Without brake	R88M-1M15K015T	15	0R
		With brake	R88M-1M15K015T-B		

¹ The character at the end of the symbol (M, Y, S, or R) represents the motor manufacturer. M: Mitsubishi Electric Corporation; Y: YASKAWA Electric Corporation; S: SANYO DENKI CO., LTD.; R: OMRON Corporation

² Special product for PC specification.

Note) The table shows only a portion of the model numbers for motors. For details regarding model numbers, please see the catalog for each respective motor manufacturer.

PC30-06A

Rod diameter
30 mm

Motor
Wrap

Stroke max.
250 mm

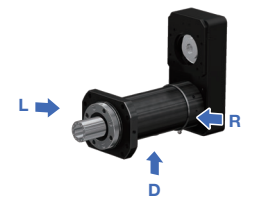
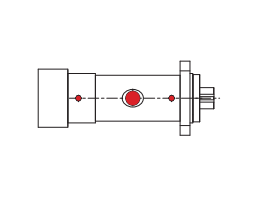
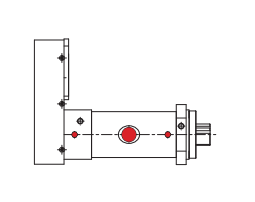
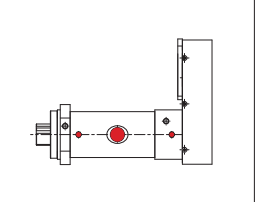
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (Lubrication Site) ⑤	Compatible motor bracket ⑥
PC30 PC30	06A 06A	0200 0050: 50 mm to 0250: 250 mm	A A	R D: Bottom L: Left R: Right	0M 0M: Without motor 0Y: Without motor 0S: Without motor 0R: Without motor

Compatible Motor Bracket Symbol Coding

0	Y
Without motor	M: Mitsubishi Electric Corporation Y: YASKAWA Electric Corporation S: SANYO DENKI CO., LTD. R: OMRON Corporation

⑤ Option (Lubrication Site)

Lubrication site Symbol	Bottom D	Left L	Right R
Rough drawing of lubrication site 			

Selection Information

Basic Specifications

Ball screw lead (mm)	6	
Reduction ratio	28/40	
Permissible axial load ¹ (kN)	Pressing direction	3.3
	Pulling direction	1.6
Positioning repeatability (mm)	±0.005	
Backlash (mm)	0.02	
Permissible input torque ² (N·m)	2, 6	
Maximum load capacity ³ (kg)	15	

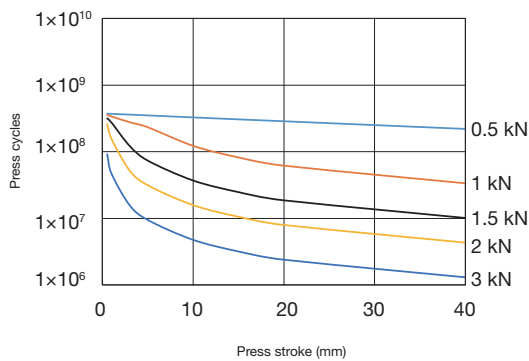
¹ The permissible axial load value shows the load that the product can bear while the actuator is stationary.

² There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

³ The maximum load capacity value is the mass when the product is mounted in a vertical orientation (with the rod facing down).

Note 1) Prepare a separate guide mechanism if a load will be applied to the rod in a non-axial direction.

Theoretical Press Service Life (Press Cycles)



Service life will vary depending on press load and press stroke. Operating life values are theoretical based on the below conditions.

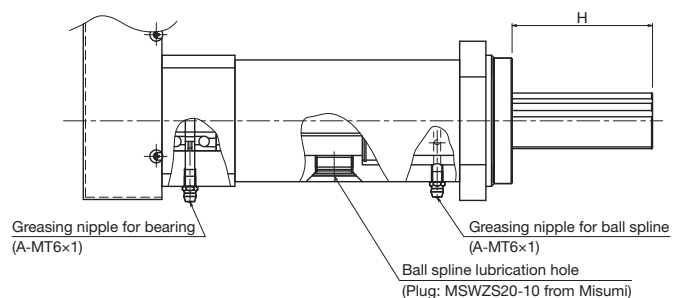
- Mounting orientation: Vertical (rod facing down)
- Pressing direction: Compression direction
- Load mass: Maximum load capacity

Note 2) This graph is not a guarantee of press stroke operations under a press load.

Maintenance

For greasing of the ball screw, remove the plug and apply grease directly to the ball screw shaft.

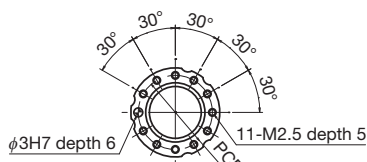
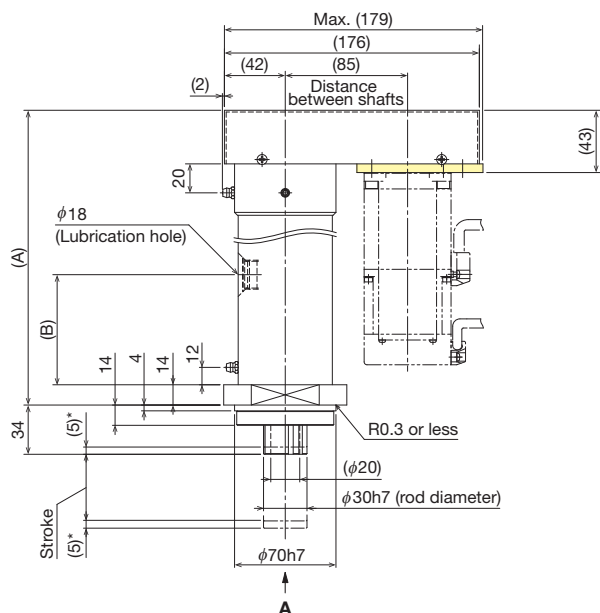
Lubricate the product with the rod extended to the lubrication site.



	Unit: mm				
Stroke	50	100	150	200	250
Lubrication site: H	65	102	102	102	103

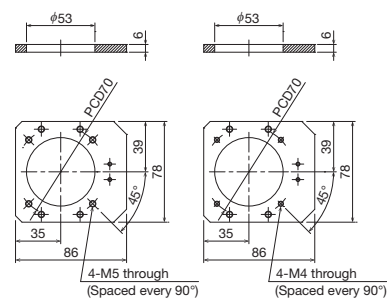
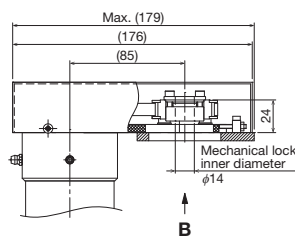
Dimensions

This figure shows lubrication site D (bottom).



Ball spline shaft end details (view from A)

Motor Attachment Details



Symbol: 0M, 0Y, 0S

Symbol: 0R

View from B

* This is the stroke up to the mechanical stopper.

Stroke (mm) (Stroke between mechanical stoppers)	50 (60)	100 (110)	150 (160)	200 (210)	250 (260)
Dimensions (mm)					
A	203.5	253.5	303.5	353.5	403.5
B	67	80	130	180	230
Mass (kg)	6.9	8	9.2	10.3	11.4

PC40-06B

Rod diameter
40 mm

Motor
Wrap

Stroke max.
250 mm

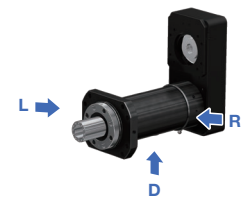
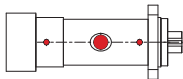
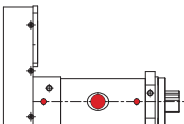
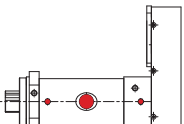
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (Lubrication Site) ⑤	Compatible motor bracket ⑥
PC40 PC40	06B 06B	0200 0050: 50 mm to 0250: 250 mm	A A	R D: Bottom L: Left R: Right	0M 0M: Without motor 0Y: Without motor 0S: Without motor 0R: Without motor

Compatible Motor Bracket Symbol Coding

0	Y
Without motor	M: Mitsubishi Electric Corporation Y: YASKAWA Electric Corporation S: SANYO DENKI CO., LTD. R: OMRON Corporation

⑤ Option (Lubrication Site)

Lubrication site Symbol	Bottom D	Left L	Right R
Rough drawing of lubrication site 			

Selection Information

Basic Specifications

Ball screw lead (mm)	6
Reduction ratio	32/48
Permissible axial load ¹ (kN)	Pressing direction
	Pulling direction
Positioning repeatability (mm)	±0.005
Backlash (mm)	0.02
Permissible input torque ² (N·m)	4.8
Maximum load capacity ³ (kg)	25

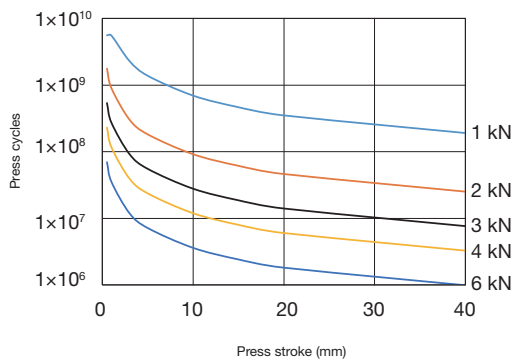
¹ The permissible axial load value shows the load that the product can bear while the actuator is stationary.

² There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

³ The maximum load capacity value is the mass when the product is mounted in a vertical orientation (with the rod facing down).

Note 1) Prepare a separate guide mechanism if a load will be applied to the rod in a non-axial direction.

Theoretical Press Service Life (Press Cycles)



Service life will vary depending on press load and press stroke. Operating life values are theoretical based on the below conditions.

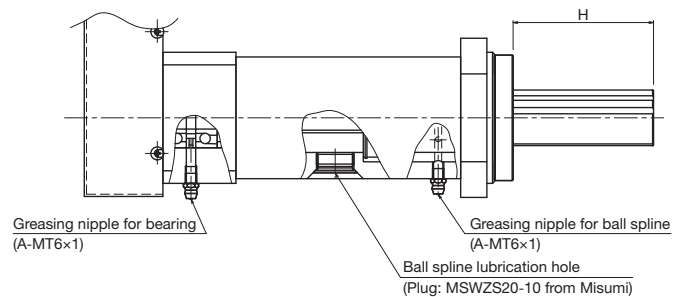
- Mounting orientation: Vertical (rod facing down)
- Pressing direction: Compression direction
- Load mass: Maximum load capacity

Note 2) This graph is not a guarantee of press stroke operations under a press load.

Maintenance

For greasing of the ball screw, remove the plug and apply grease directly to the ball screw shaft.

Lubricate the product with the rod extended to the lubrication site.

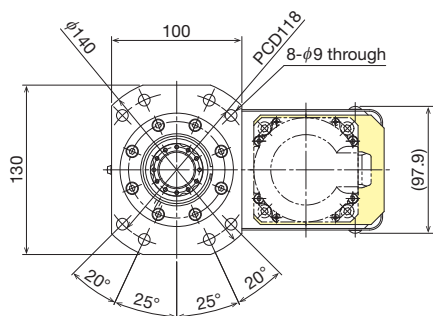
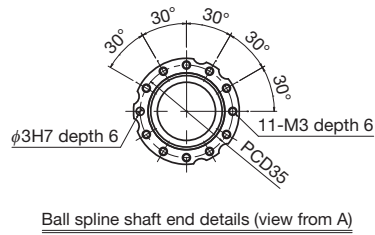
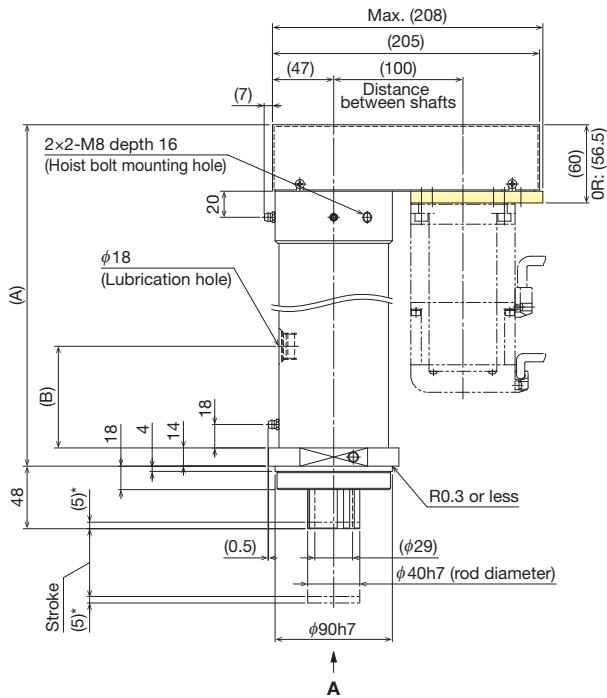


Stroke	50	100	150	200	250
Lubrication site: H	75	115	115	115	115

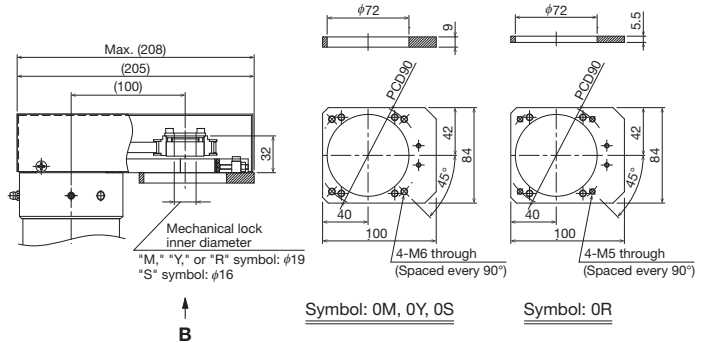
Unit: mm

Dimensions

This figure shows lubrication site D (bottom).



Motor Attachment Details



Symbol: 0M, 0Y, 0S

Symbol: 0R

View from B

* This is the stroke up to the mechanical stopper.

Stroke (mm) (Stroke between mechanical stoppers)	50 (60)	100 (110)	150 (160)	200 (210)	250 (260)
Dimensions (mm)					
A	237	287	337	387	437
B	83	93	143	193	243
Mass (kg)	12.3	13.9	15.5	17.1	18.7

PC40H-08C

Rod diameter
40 mm

Motor
Wrap

Stroke max.
250 mm

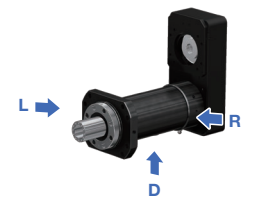
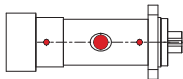
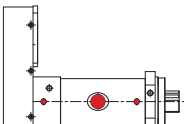
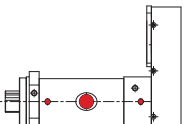
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (Lubrication Site) ⑤	Compatible motor bracket ⑥
PC40H PC40H	08C 08C	0200 0050: 50 mm to 0250: 250 mm	A A	R D: Bottom L: Left R: Right	0M 0M: Without motor 0Y: Without motor 0S: Without motor 0R: Without motor

Compatible Motor Bracket Symbol Coding

0	Y
Without motor	M: Mitsubishi Electric Corporation Y: YASKAWA Electric Corporation S: SANYO DENKI CO., LTD. R: OMRON Corporation

⑤ Option (Lubrication Site)

Lubrication site Symbol	Bottom D	Left L	Right R
Rough drawing of lubrication site 			

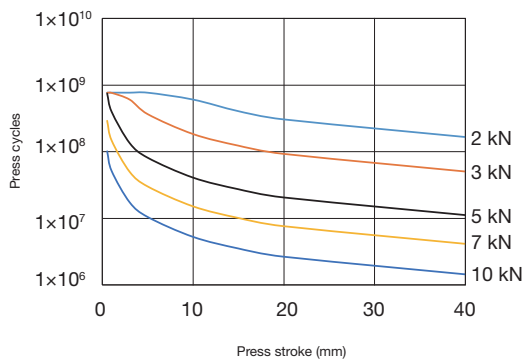
Selection Information

Basic Specifications

Ball screw lead (mm)	8	
Reduction ratio	25/44	
Permissible axial load ¹ (kN)	Pressing direction	11.2
	Pulling direction	5.6
Positioning repeatability (mm)	±0.005	
Backlash (mm)	0.02	
Permissible input torque ² (N·m)	9.5	
Maximum load capacity ³ (kg)	50	

- The permissible axial load value shows the load that the product can bear while the actuator is stationary.
 - There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.
 - The maximum load capacity value is the mass when the product is mounted in a vertical orientation (with the rod facing down).
- Note 1) Prepare a separate guide mechanism if a load will be applied to the rod in a non-axial direction.

Theoretical Press Service Life (Press Cycles)

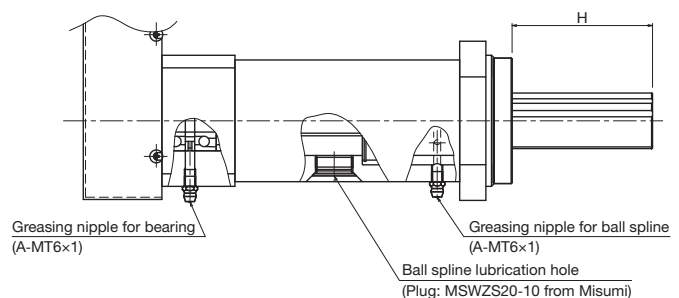


Service life will vary depending on press load and press stroke. Operating life values are theoretical based on the below conditions.
 Mounting orientation: Vertical (rod facing down)
 Pressing direction: Compression direction
 Load mass: Maximum load capacity

Note 2) This graph is not a guarantee of press stroke operations under a press load.

Maintenance

For greasing of the ball screw, remove the plug and apply grease directly to the ball screw shaft.
 Lubricate the product with the rod extended to the lubrication site.

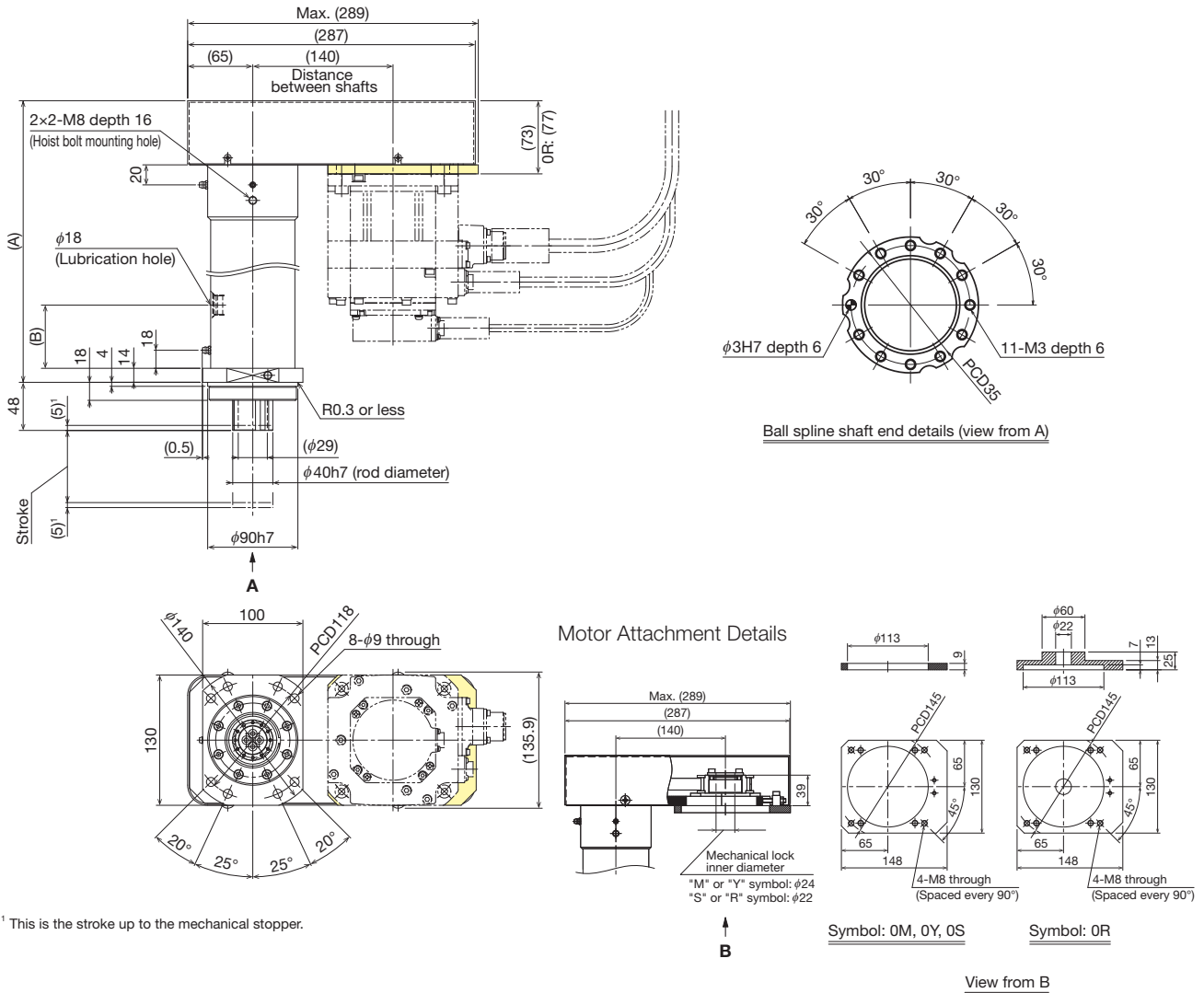


Unit: mm

Stroke	50	100	150	200	250
Lubrication site: H	78	118	148	148	148

Dimensions

This figure shows lubrication site D (bottom).



¹ This is the stroke up to the mechanical stopper.

Stroke (mm) (Stroke between mechanical stoppers)	50 (60)	100 (110)	150 (160)	200 (210)	250 (260)
Dimensions (mm)					
A	271	321	371	421	471
B	83	93	113	163	213
Mass ² (kg)					
0M, 0Y, OS	17.1	18.7	20.3	21.9	23.5
0R	18	19.6	21.2	22.8	24.4

² The final character of the symbol indicates the manufacturer. Respectively, M: Mitsubishi Electric Corporation; Y: YASKAWA Electric Corporation; S: SANYO DENKI CO., LTD.; and R: OMRON Corporation.

PC50-06D

Rod diameter
50 mm

Motor
Wrap

Stroke max.
250 mm

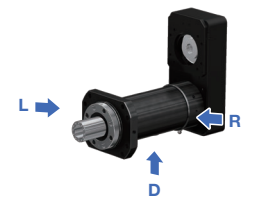
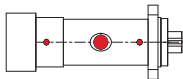
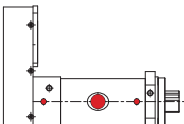
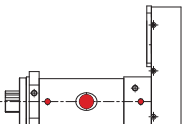
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (Lubrication Site) ⑤	Compatible motor bracket ⑥
PC50 PC50	06D 06D	0200 0050: 50 mm to 0250: 250 mm	A A	R D: Bottom L: Left R: Right	0M 0M: Without motor 0Y: Without motor 0S: Without motor 0R: Without motor

Compatible Motor Bracket Symbol Coding

0	Y
Without motor	M: Mitsubishi Electric Corporation Y: YASKAWA Electric Corporation S: SANYO DENKI CO., LTD. R: OMRON Corporation

⑤ Option (Lubrication Site)

Lubrication site Symbol	Bottom D	Left L	Right R
Rough drawing of lubrication site 			

Selection Information

Basic Specifications

Ball screw lead (mm)	6	
Reduction ratio	30/40	
Permissible axial load ¹ (kN)	Pressing direction	16.8
	Pulling direction	8.4
Positioning repeatability (mm)	±0.005	
Backlash (mm)	0.02	
Permissible input torque ² (N·m)	14.3	
Maximum load capacity ³ (kg)	75	

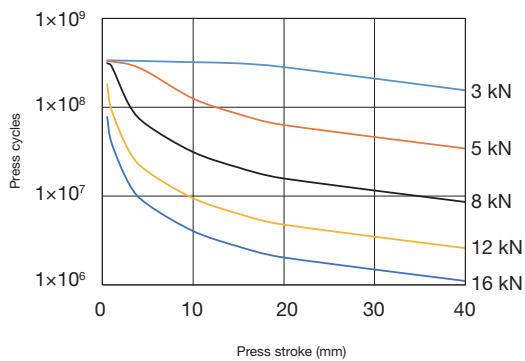
¹ The permissible axial load value shows the load that the product can bear while the actuator is stationary.

² There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

³ The maximum load capacity value is the mass when the product is mounted in a vertical orientation (with the rod facing down).

Note 1) Prepare a separate guide mechanism if a load will be applied to the rod in a non-axial direction.

Theoretical Press Service Life (Press Cycles)



Service life will vary depending on press load and press stroke. Operating life values are theoretical based on the below conditions.

Mounting orientation: Vertical (rod facing down)

Pressing direction: Compression direction

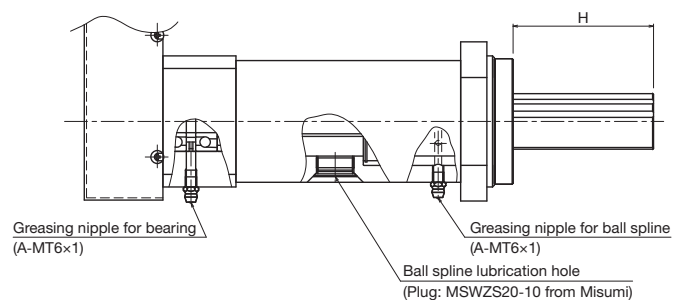
Load mass: Maximum load capacity

Note 2) This graph is not a guarantee of press stroke operations under a press load.

Maintenance

For greasing of the ball screw, remove the plug and apply grease directly to the ball screw shaft.

Lubricate the product with the rod extended to the lubrication site.

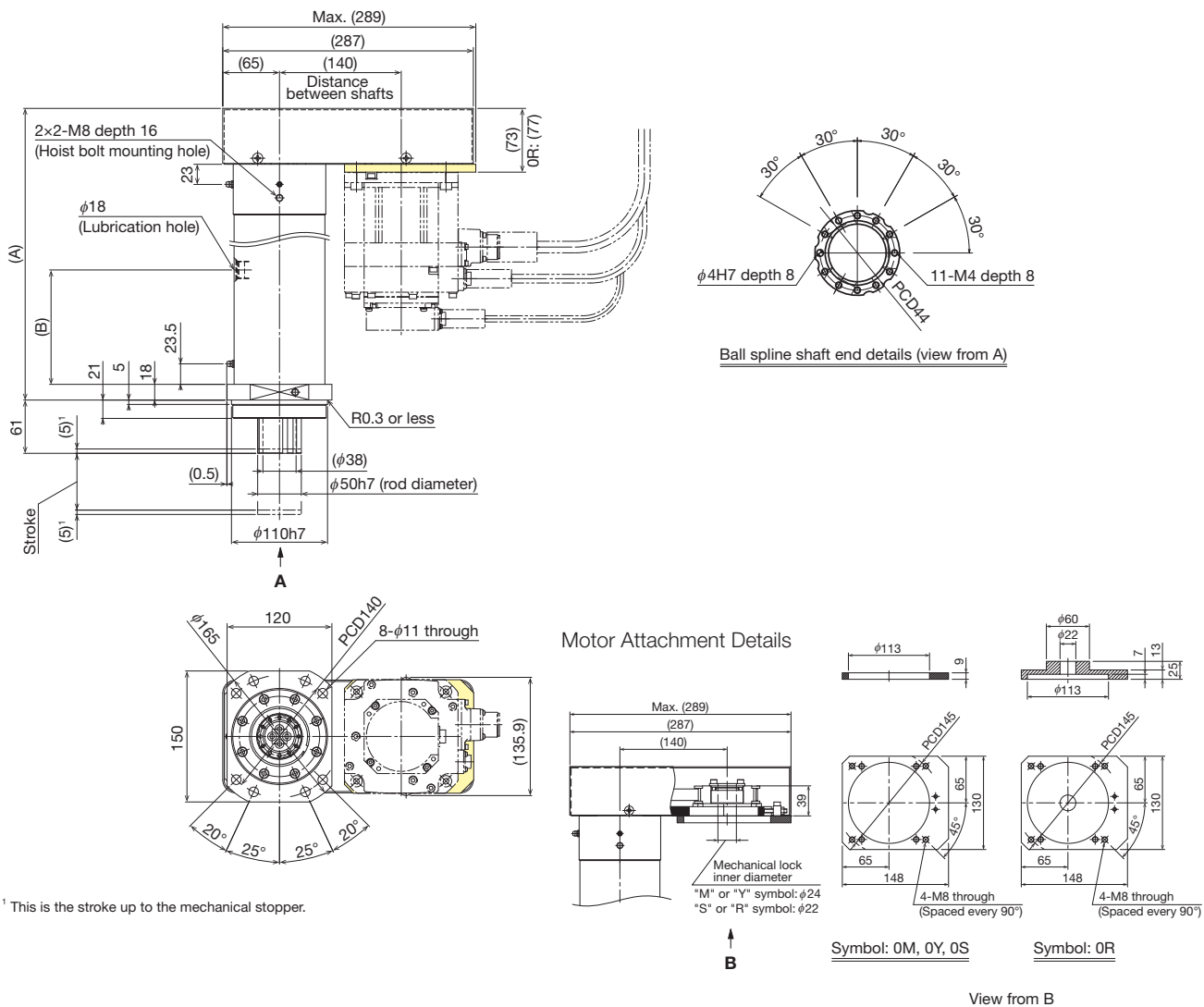


Stroke	50	100	150	200	250
Lubrication site: H	83	133	173	173	173

Unit: mm

Dimensions

This figure shows lubrication site D (bottom).



¹ This is the stroke up to the mechanical stopper.

² The final character of the symbol indicates the manufacturer. Respectively, M: Mitsubishi Electric Corporation; Y: YASKAWA Electric Corporation; S: SANYO DENKI CO., LTD.; and R: OMRON Corporation.

Stroke (mm) (Stroke between mechanical stoppers)	50 (60)	100 (110)	150 (160)	200 (210)	250 (260)
Dimensions (mm)					
A	294	344	394	444	494
B	101		111	161	211
Mass ² (kg)					
0M, 0Y, 0S	24.5	27.1	29.7	32.2	34.8
0R	25.4	28	30.6	33.1	35.7

PC60-10E

Rod diameter
60 mm

Motor
Wrap

Stroke max.
250 mm

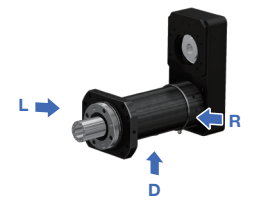
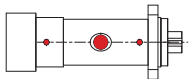
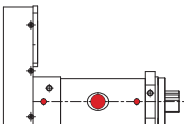
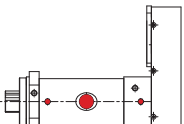
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (Lubrication Site) ⑤	Compatible motor bracket ⑥
PC60 PC60	10E 10E	0200 0050: 50 mm to 0250: 250 mm	A A	R D: Bottom L: Left R: Right	OM OM: Without motor OY: Without motor OS: Without motor OR: Without motor

Compatible Motor Bracket Symbol Coding

0	Y
Without motor	M: Mitsubishi Electric Corporation Y: YASKAWA Electric Corporation S: SANYO DENKI CO., LTD. R: OMRON Corporation

⑤ Option (Lubrication Site)

Lubrication site Symbol	Bottom D	Left L	Right R
Rough drawing of lubrication site 			

Selection Information

Basic Specifications

Ball screw lead (mm)	10	
Reduction ratio	28/60	
Permissible axial load ¹ (kN)	Pressing direction	21.8
	Pulling direction	10.9
Positioning repeatability (mm)	±0.005	
Backlash (mm)	0.02	
Permissible input torque ² (N·m)	19.1	
Maximum load capacity ³ (kg)	100	

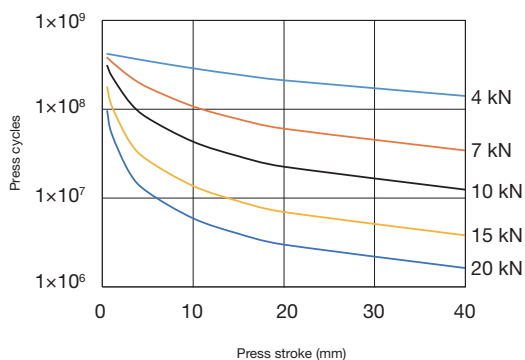
¹ The permissible axial load value shows the load that the product can bear while the actuator is stationary.

² There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

³ The maximum load capacity value is the mass when the product is mounted in a vertical orientation (with the rod facing down).

Note 1) Prepare a separate guide mechanism if a load will be applied to the rod in a non-axial direction.

Theoretical Press Service Life (Press Cycles)



Service life will vary depending on press load and press stroke. Operating life values are theoretical based on the below conditions.

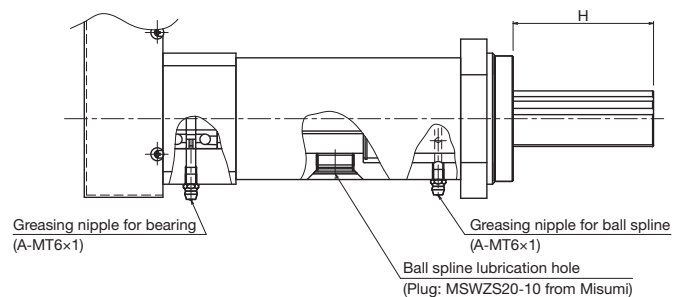
- Mounting orientation: Vertical (rod facing down)
- Pressing direction: Compression direction
- Load mass: Maximum load capacity

Note 2) This graph is not a guarantee of press stroke operations under a press load.

Maintenance

For greasing of the ball screw, remove the plug and apply grease directly to the ball screw shaft.

Lubricate the product with the rod extended to the lubrication site.

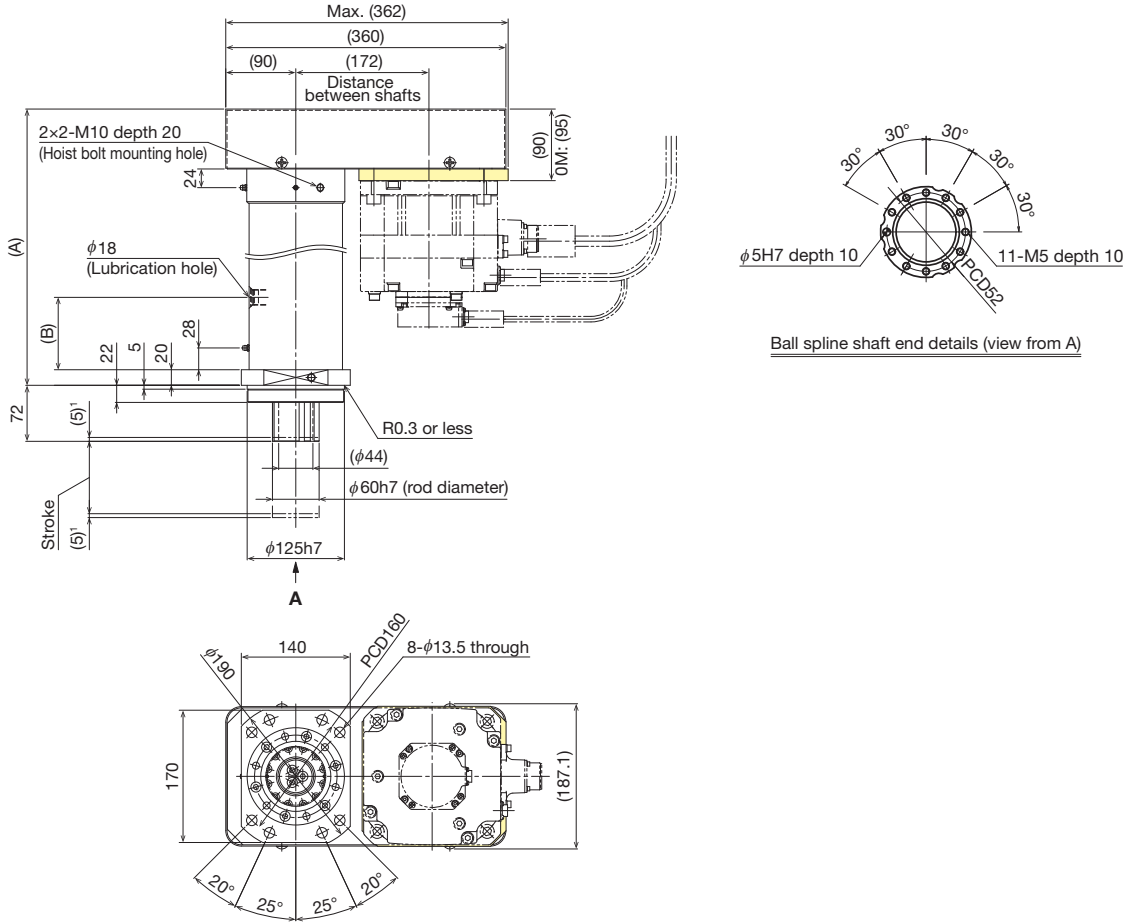


Stroke	50	100	150	200	250
Lubrication site: H	91	141	191	191	191

Unit: mm

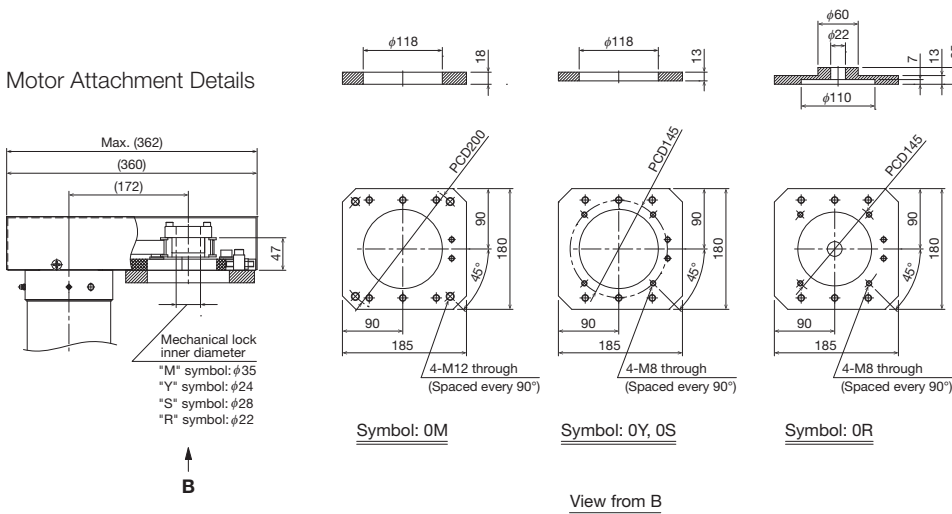
Dimensions

This figure shows lubrication site D (bottom).



¹ This is the stroke up to the mechanical stopper.

Motor Attachment Details



Stroke (mm) (Stroke between mechanical stoppers)	50 (60)	100 (110)	150 (160)	200 (210)	250 (260)	
Dimensions (mm)						
A	305	355	405	455	505	
B		113		163	213	
Mass ² (kg)	OM, OR	40.4	44	47.6	51.2	54.7
	OY, OS	39.3	42.9	46.5	50	53.6

² The final character of the symbol indicates the manufacturer. Respectively, M: Mitsubishi Electric Corporation; Y: YASKAWA Electric Corporation; S: SANYO DENKI CO., LTD.; and R: OMRON Corporation.

PC60H-10F

Rod diameter
60 mm

Motor
Wrap

Stroke max.
250 mm

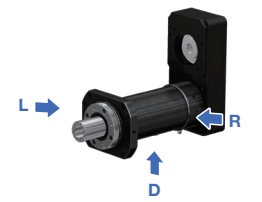
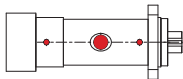
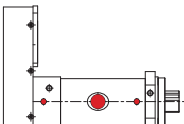
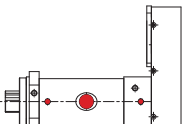
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (Lubrication Site) ⑤	Compatible motor bracket ⑥
PC60H PC60H	10F 10F	0200 0050: 50 mm to 0250: 250 mm	A A	R D: Bottom L: Left R: Right	0M 0M: Without motor 0Y: Without motor 0S: Without motor 0R: Without motor

Compatible Motor Bracket Symbol Coding

0	Y
Without motor	M: Mitsubishi Electric Corporation Y: YASKAWA Electric Corporation S: SANYO DENKI CO., LTD. R: OMRON Corporation

⑤ Option (Lubrication Site)

Lubrication site Symbol	Bottom D	Left L	Right R
Rough drawing of lubrication site 			

Selection Information

Basic Specifications

Ball screw lead (mm)	10	
Reduction ratio	30/60	
Permissible axial load ¹ (kN)	Pressing direction	35.6
	Pulling direction	17.8
Positioning repeatability (mm)	±0.005	
Backlash (mm)	0.02	
Permissible input torque ² (N·m)	33.4	
Maximum load capacity ³ (kg)	150	

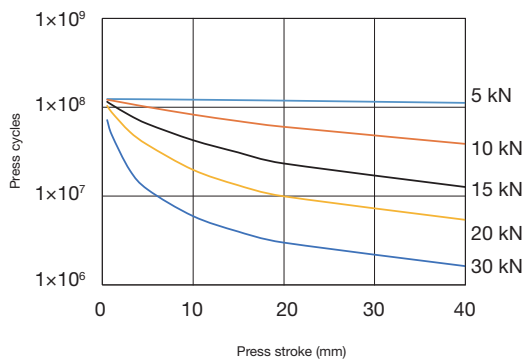
¹ The permissible axial load value shows the load that the product can bear while the actuator is stationary.

² There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

³ The maximum load capacity value is the mass when the product is mounted in a vertical orientation (with the rod facing down).

Note 1) Prepare a separate guide mechanism if a load will be applied to the rod in a non-axial direction.

Theoretical Press Service Life (Press Cycles)



Service life will vary depending on press load and press stroke. Operating life values are theoretical based on the below conditions.

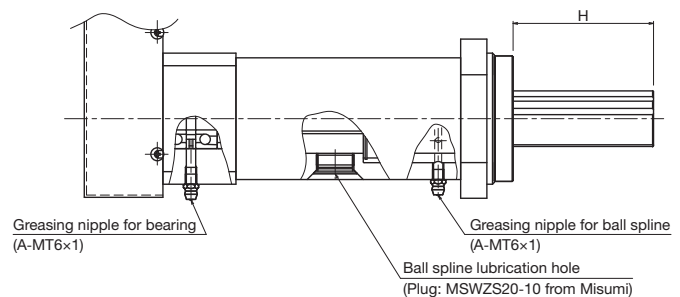
- Mounting orientation: Vertical (rod facing down)
- Pressing direction: Compression direction
- Load mass: Maximum load capacity

Note 2) This graph is not a guarantee of press stroke operations under a press load.

Maintenance

For greasing of the ball screw, remove the plug and apply grease directly to the ball screw shaft.

Lubricate the product with the rod extended to the lubrication site.

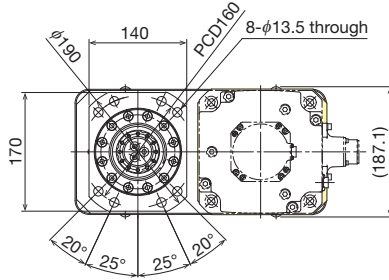
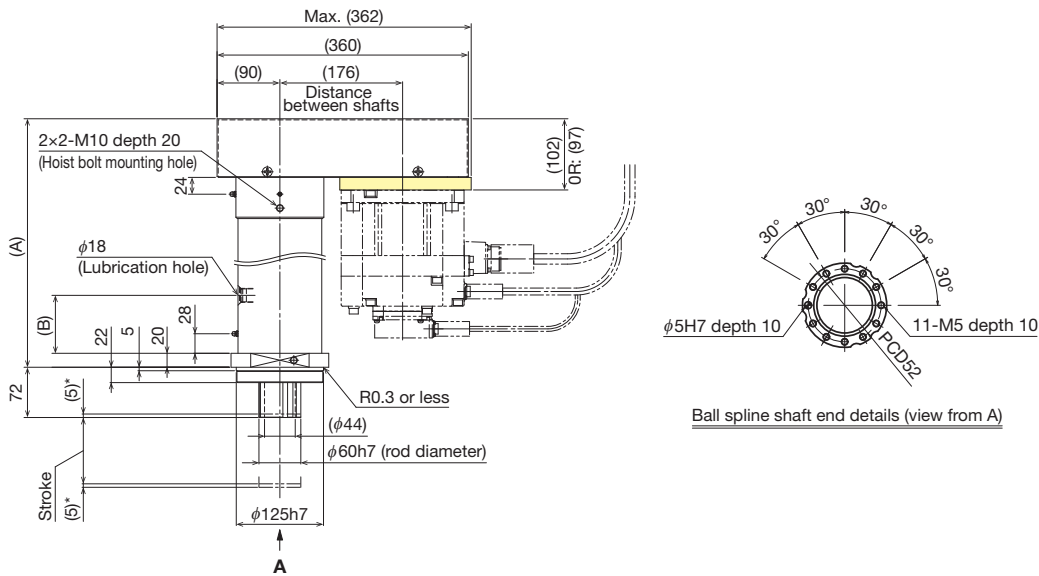


Stroke	50	100	150	200	250
Lubrication site: H	100	150	200	230	230

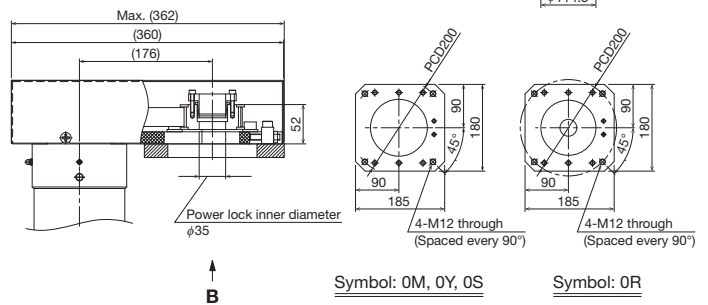
Unit: mm

Dimensions

This figure shows lubrication site D (bottom).



Motor Attachment Details



* This is the stroke up to the mechanical stopper.

View from B

Stroke (mm) (Stroke between mechanical stoppers)		50 (60)	100 (110)	150 (160)	200 (210)	250 (260)
Dimensions (mm)	A	349	399	449	499	549
	B		123		145	195
Mass (kg)		44.7	48.3	51.9	55.5	59

PC80L-12G

Rod diameter
80 mm

Motor
Wrap

Stroke max.
250 mm

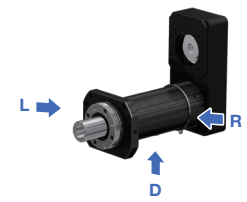
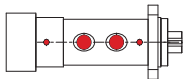
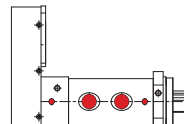
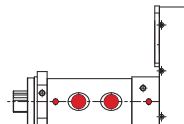
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (Lubrication Site) ⑤	Compatible motor bracket ⑥
PC80L	12G	0200	A	R	OM
PC80L	12G	0050: 50 mm to 0250: 250 mm	A	D: Bottom L: Left R: Right	OM: Without motor OY: Without motor OS: Without motor OR: Without motor

Compatible Motor Bracket Symbol Coding

0	Y
Without motor	M: Mitsubishi Electric Corporation Y: YASKAWA Electric Corporation S: SANYO DENKI CO., LTD. R: OMRON Corporation

⑤ Option (Lubrication Site)

Lubrication site Symbol	Bottom D	Left L	Right R
Rough drawing of lubrication site 			

Selection Information

Basic Specifications

Ball screw lead (mm)	12	
Reduction ratio	40/90	
Permissible axial load ¹ (kN)	Pressing direction	120
	Pulling direction	48
Positioning repeatability (mm)	±0.005	
Backlash (mm)	0.02	
Permissible input torque ² (N·m)	71.6	
Maximum load capacity ³ (kg)	200	

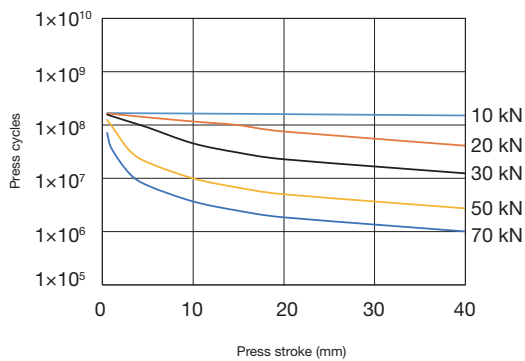
¹ The permissible axial load value shows the load that the product can bear while the actuator is stationary.

² There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

³ The maximum load capacity value is the mass when the product is mounted in a vertical orientation (with the rod facing down).

Note 1) Prepare a separate guide mechanism if a load will be applied to the rod in a non-axial direction.

Theoretical Press Service Life (Press Cycles)



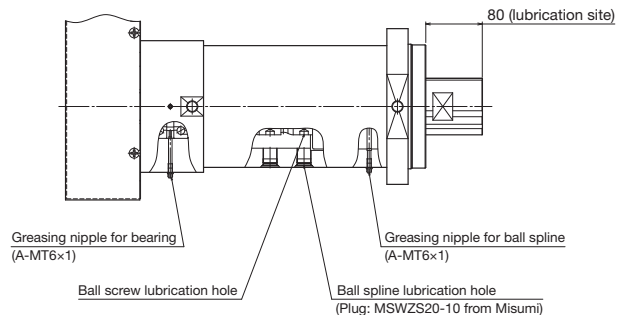
Service life will vary depending on press load and press stroke. Operating life values are theoretical based on the below conditions.

- Mounting orientation: Vertical (rod facing down)
- Pressing direction: Compression direction
- Load mass: Maximum load capacity

Note 2) This graph is not a guarantee of press stroke operations under a press load.

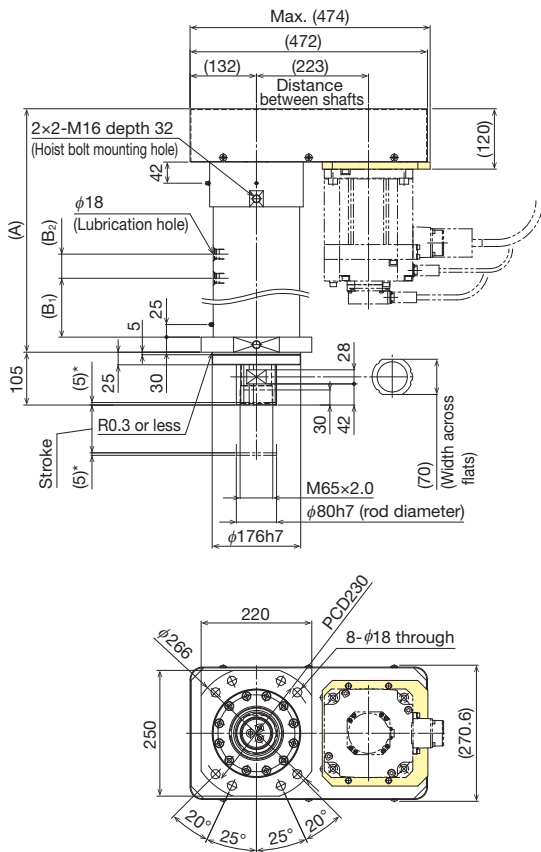
Maintenance

For greasing of the ball screw, remove the plug and supply grease through the ball screw lubrication hole.

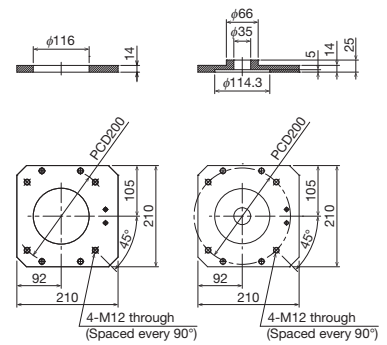
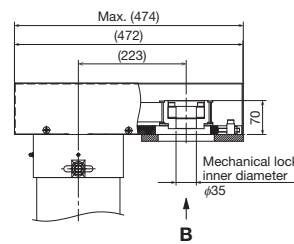


Dimensions

This figure shows lubrication site D (bottom).



Motor Attachment Details



Symbol: 0M, 0Y, 0S

Symbol: 0R

View from B

Stroke (mm)		50	100	150	200	250
(Stroke between mechanical stoppers)		(60)	(110)	(160)	(210)	(260)
Dimensions (mm)	A	484	534	584	634	684
	B ₁	117	119	121	171	221
	B ₂	48	96	144	144	144
Mass (kg)		118	125.2	132.5	139.8	147

PC80-12G

Rod diameter
80 mm

Motor
Wrap

Stroke max.
250 mm

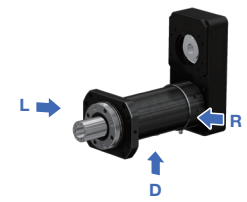
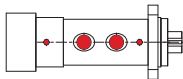
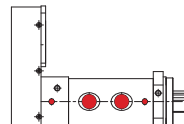
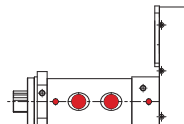
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (Lubrication Site) ⑤	Compatible motor bracket ⑥
PC80	12G	0200	A	R	0M
PC80	12G	0050: 50 mm to 0250: 250 mm	A	D: Bottom L: Left R: Right	0M: Without motor 0Y: Without motor 0S: Without motor 0R: Without motor

Compatible Motor Bracket Symbol Coding

0	Y
Without motor	M: Mitsubishi Electric Corporation Y: YASKAWA Electric Corporation S: SANYO DENKI CO., LTD. R: OMRON Corporation

⑤ Option (Lubrication Site)

Lubrication site Symbol	Bottom D	Left L	Right R
Rough drawing of lubrication site 			

Selection Information

Basic Specifications

Ball screw lead (mm)	12	
Reduction ratio	40/90	
Permissible axial load ¹ (kN)	Pressing direction	120
	Pulling direction	48
Positioning repeatability (mm)	±0.005	
Backlash (mm)	0.02	
Permissible input torque ² (N·m)	100	
Maximum load capacity ³ (kg)	200	

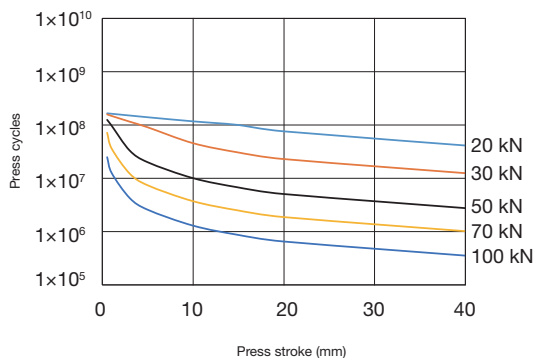
¹ The permissible axial load value shows the load that the product can bear while the actuator is stationary.

² There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

³ The maximum load capacity value is the mass when the product is mounted in a vertical orientation (with the rod facing down).

Note 1) Prepare a separate guide mechanism if a load will be applied to the rod in a non-axial direction.

Theoretical Press Service Life (Press Cycles)



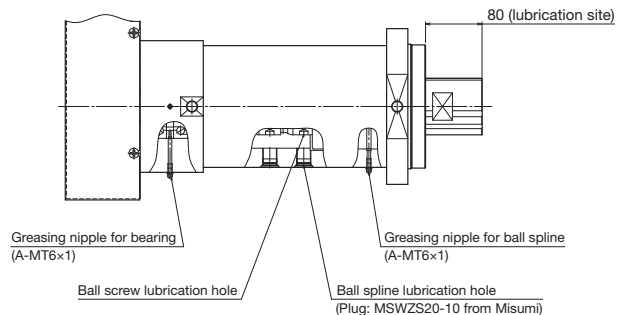
Service life will vary depending on press load and press stroke. Operating life values are theoretical based on the below conditions.

- Mounting orientation: Vertical (rod facing down)
- Pressing direction: Compression direction
- Load mass: Maximum load capacity

Note 2) This graph is not a guarantee of press stroke operations under a press load.

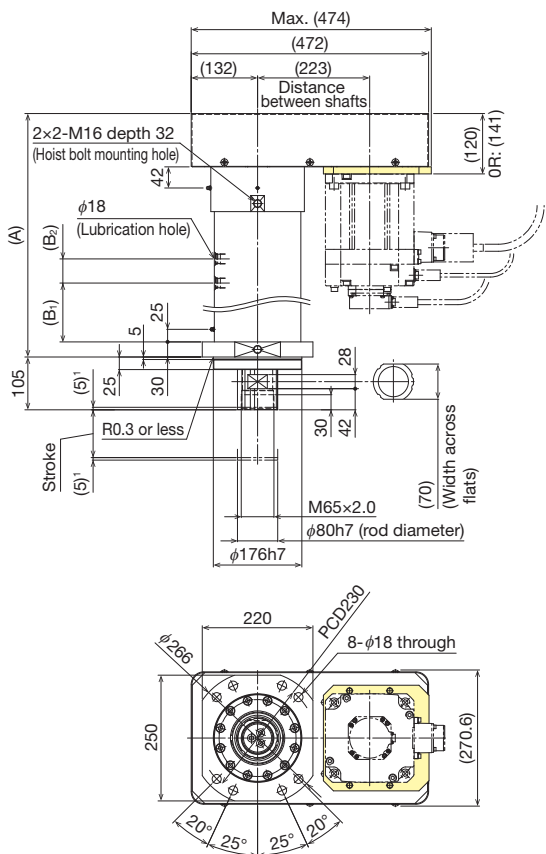
Maintenance

For greasing of the ball screw, remove the plug and supply grease through the ball screw lubrication hole.



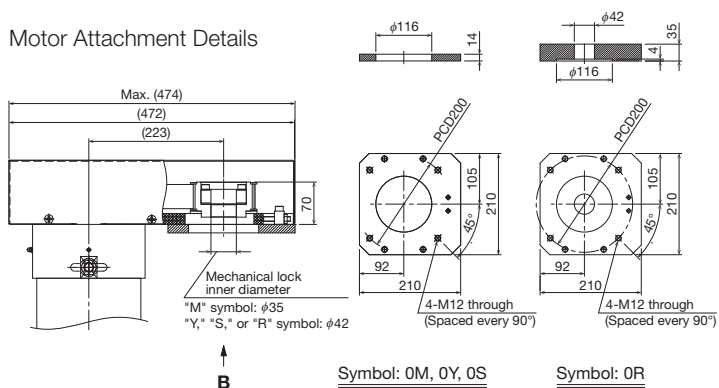
Dimensions

This figure shows lubrication site D (bottom).



¹ This is the stroke up to the mechanical stopper.

Motor Attachment Details



M symbol: φ35
 Y, *S,* or *R* symbol: φ42

Symbol: 0M, 0Y, 0S

Symbol: 0R

View from B

Stroke (mm) (Stroke between mechanical stoppers)		50 (60)	100 (110)	150 (160)	200 (210)	250 (260)
Dimensions (mm)	A	484	534	584	634	684
	B ₁	117	119	121	171	221
	B ₂	48	96		144	
Mass ² (kg)	0M, 0Y, 0S	117.5	124.7	132	139.3	146.5
	0R	124.7	131.9	139.2	146.5	153.7

² The final character of the symbol indicates the manufacturer. Respectively, M: Mitsubishi Electric Corporation; Y: YASKAWA Electric Corporation; S: SANYO DENKI CO., LTD.; and R: OMRON Corporation.

PC80H-12G

Rod diameter
80 mm

Motor
Wrap

Stroke max.
250 mm

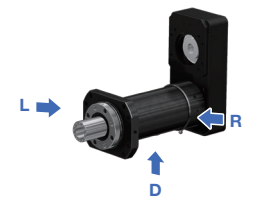
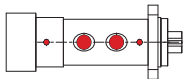
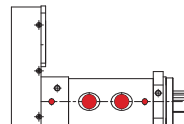
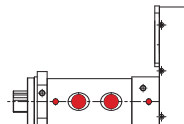
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (Lubrication Site) ⑤	Compatible motor bracket ⑥
PC80H PC80H	12G 12G	0200 0050: 50 mm to 0250: 250 mm	A A	R D: Bottom L: Left R: Right	0M 0M: Without motor 0Y: Without motor 0S: Without motor 0R: Without motor

Compatible Motor Bracket Symbol Coding

0	Y
Without motor	M: Mitsubishi Electric Corporation Y: YASKAWA Electric Corporation S: SANYO DENKI CO., LTD. R: OMRON Corporation

⑤ Option (Lubrication Site)

Lubrication site Symbol	Bottom D	Left L	Right R
Rough drawing of lubrication site 			

Selection Information

Basic Specifications

Ball screw lead (mm)	12	
Reduction ratio	40/90	
Permissible axial load ¹ (kN)	Pressing direction	120
	Pulling direction	48
Positioning repeatability (mm)	±0.005	
Backlash (mm)	0.02	
Permissible input torque ² (N·m)	120	
Maximum load capacity ³ (kg)	200	

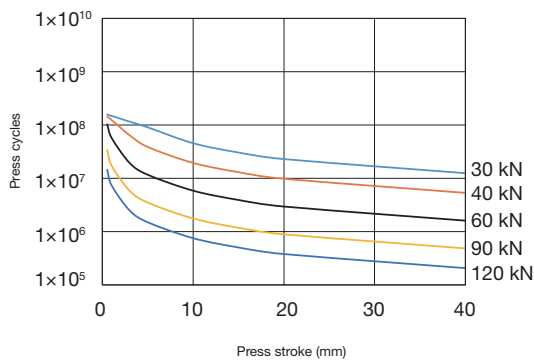
¹ The permissible axial load value shows the load that the product can bear while the actuator is stationary.

² There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

³ The maximum load capacity value is the mass when the product is mounted in a vertical orientation (with the rod facing down).

Note 1) Prepare a separate guide mechanism if a load will be applied to the rod in a non-axial direction.

Theoretical Press Service Life (Press Cycles)



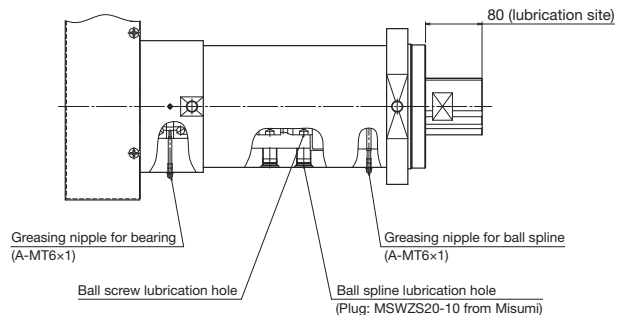
Service life will vary depending on press load and press stroke. Operating life values are theoretical based on the below conditions.

- Mounting orientation: Vertical (rod facing down)
- Pressing direction: Compression direction
- Load mass: Maximum load capacity

Note 2) This graph is not a guarantee of press stroke operations under a press load.

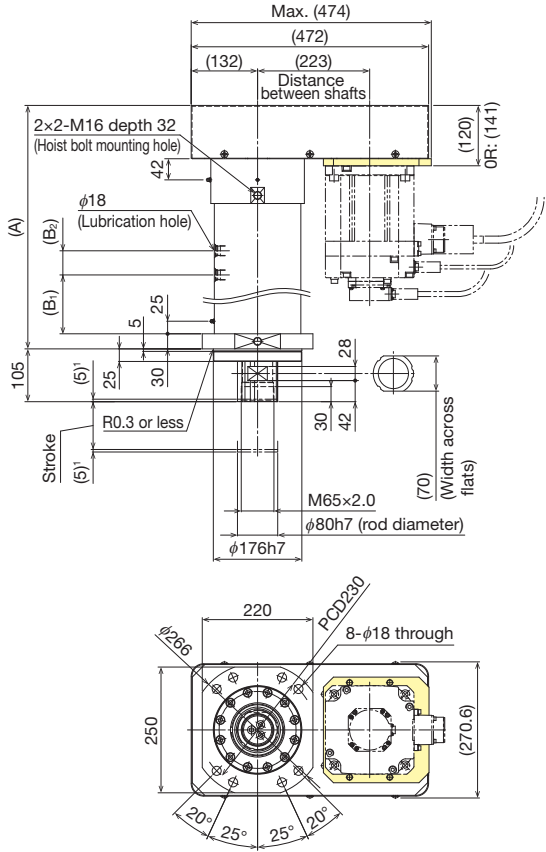
Maintenance

For greasing of the ball screw, remove the plug and supply grease through the ball screw lubrication hole.



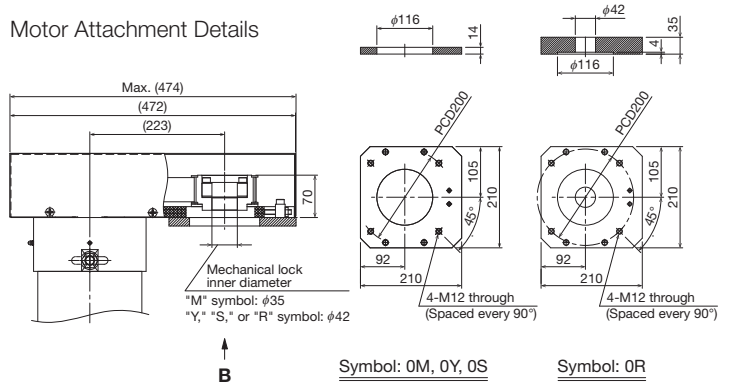
Dimensions

This figure shows lubrication site D (bottom).



¹ This is the stroke up to the mechanical stopper.

Motor Attachment Details



Symbol: 0M, 0Y, 0S

Symbol: 0R

View from B

Stroke (mm) (Stroke between mechanical stoppers)		50 (60)	100 (110)	150 (160)	200 (210)	250 (260)
Dimensions (mm)	A	484	534	584	634	684
	B ₁	117	119	121	171	221
	B ₂	48	96		144	
Mass ² (kg)	0M, 0Y, 0S	117.5	124.7	132	139.3	146.5
	0R	124.7	131.9	139.2	146.5	153.7

² The final character of the symbol indicates the manufacturer. Respectively, M: Mitsubishi Electric Corporation; Y: YASKAWA Electric Corporation; S: SANYO DENKI CO., LTD.; and R: OMRON Corporation.

PC100-20H

Rod diameter
100 mm

Motor
Wrap

Stroke max.
400 mm

Model Number Coding

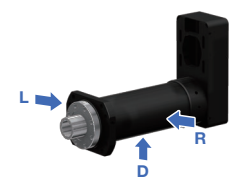
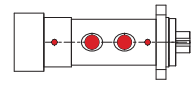
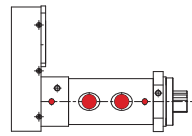
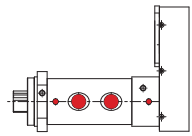
Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (Lubrication Site) ⑤	Compatible motor bracket ⑥
PC100 PC100	20H 20H	0400 0200: 200 mm 0400: 400 mm	A A	D D: Bottom L: Left R: Right	0M 0M: Without motor 0Y: Without motor 0S: Without motor

Note 1) This product will be shipped with a reduction gear installed.

Compatible Motor Bracket Symbol Coding

0	Y
Without motor	M: Mitsubishi Electric Corporation Y: YASKAWA Electric Corporation S: SANYO DENKI CO., LTD.

⑤ Option (Lubrication Site)

Lubrication site Symbol	Bottom D	Left L	Right R
Rough drawing of lubrication site 			

Selection Information

Basic Specifications

Ball screw lead (mm)	20	
Reduction ratio (pulley ratio)	38/38	
Reduction ratio (reduction gear)	1/4	
Permissible axial load ¹ (kN)	Pressing direction	175
	Pulling direction	70
Positioning repeatability (mm)	±0.01	
Backlash (mm)	0.02	
Permissible input torque ² (N·m)	175	
Maximum load capacity ³ (kg)	200	

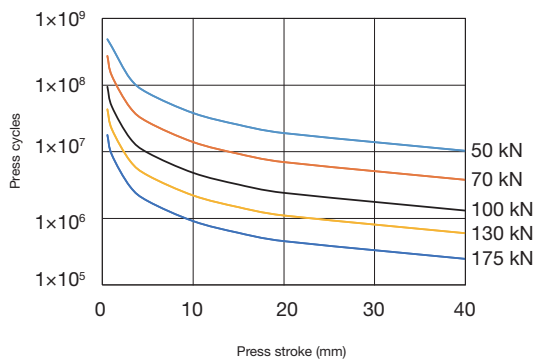
¹ The permissible axial load value shows the load that the product can bear while the actuator is stationary.

² There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

³ The maximum load capacity value is the mass when the product is mounted in a vertical orientation (with the rod facing down).

Note 2) Prepare a separate guide mechanism if a load will be applied to the rod in a non-axial direction.

Theoretical Press Service Life (Press Cycles)



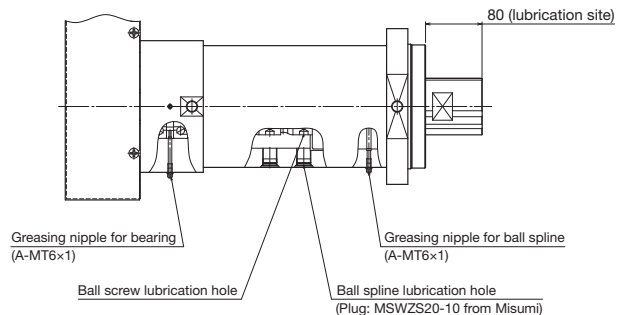
Service life will vary depending on press load and press stroke. Operating life values are theoretical based on the below conditions.

- Mounting orientation: Vertical (rod facing down)
- Pressing direction: Compression direction
- Load mass: Maximum load capacity

Note 3) This graph is not a guarantee of press stroke operations under a press load.

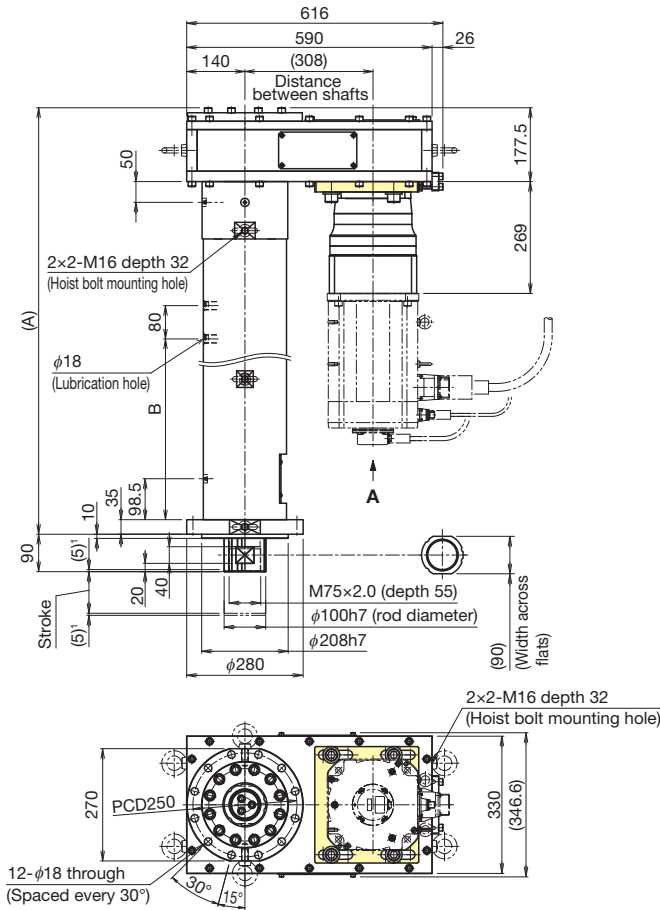
Maintenance

For greasing of the ball screw, remove the plug and supply grease through the ball screw lubrication hole.

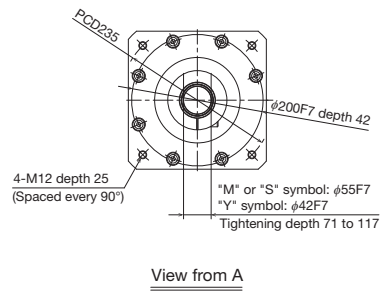


Dimensions

This figure shows lubrication site D (bottom).



Motor Attachment Details



¹ This is the stroke up to the mechanical stopper.

Stroke (mm) (Stroke between mechanical stoppers)	200 (210)	400 (410)
Dimensions (mm)	A	825.5
	B	251
Mass ² (kg)	325	363

² The mass includes the reduction gear.

PC120-20J

Rod diameter
120 mm

Motor
Wrap

Stroke max.
400 mm

Model Number Coding

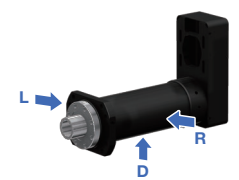
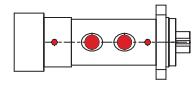
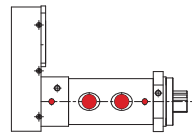
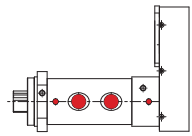
Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (Lubrication Site) ⑤	Compatible motor bracket ⑥
PC120	20J	0400	A	D	0M
PC120	20J	0200: 200 mm 0400: 400 mm	A	D: Bottom L: Left R: Right	0M: Without motor 0Y: Without motor 0S: Without motor

Note 1) This product will be shipped with a reduction gear installed.

Compatible Motor Bracket Symbol Coding

0	Y
Without motor	M: Mitsubishi Electric Corporation Y: YASKAWA Electric Corporation S: SANYO DENKI CO., LTD.

⑤ Option (Lubrication Site)

Lubrication site Symbol	Bottom D	Left L	Right R
Rough drawing of lubrication site 			

Selection Information

Basic Specifications

Ball screw lead (mm)	20	
Reduction ratio (pulley ratio)	36/40	
Reduction ratio (reduction gear)	1/4	
Permissible axial load ¹ (kN)	Pressing direction	250
	Pulling direction	106
Positioning repeatability (mm)	±0.01	
Backlash (mm)	0.02	
Permissible input torque ² (N·m)	224	
Maximum load capacity ³ (kg)	200	

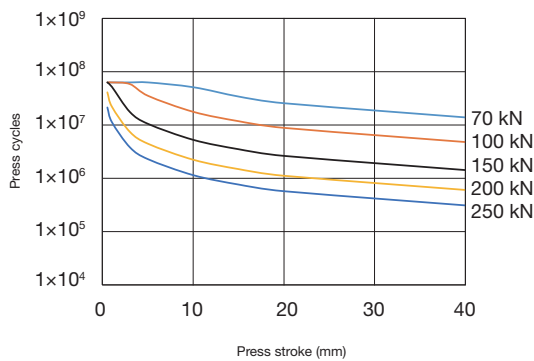
¹ The permissible axial load value shows the load that the product can bear while the actuator is stationary.

² There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

³ The maximum load capacity value is the mass when the product is mounted in a vertical orientation (with the rod facing down).

Note 2) Prepare a separate guide mechanism if a load will be applied to the rod in a non-axial direction.

Theoretical Press Service Life (Press Cycles)



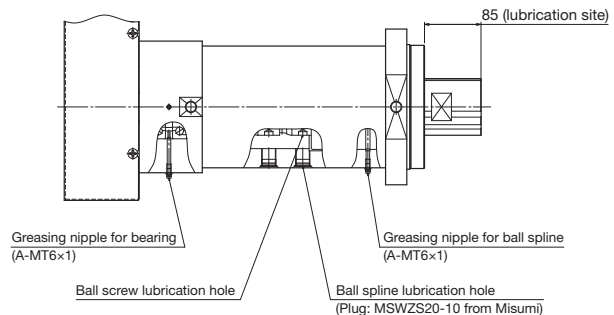
Service life will vary depending on press load and press stroke. Operating life values are theoretical based on the below conditions.

- Mounting orientation: Vertical (rod facing down)
- Pressing direction: Compression direction
- Load mass: Maximum load capacity

Note 3) This graph is not a guarantee of press stroke operations under a press load.

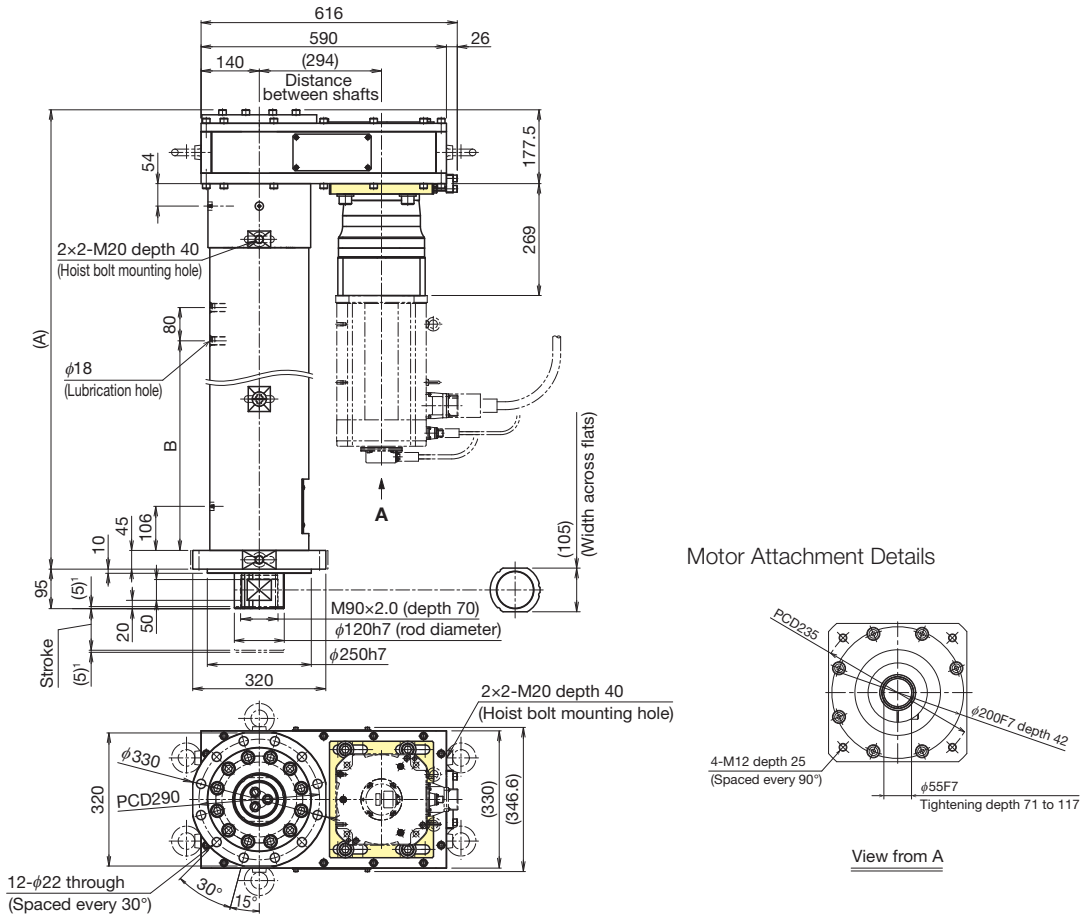
Maintenance

For greasing of the ball screw, remove the plug and supply grease through the ball screw lubrication hole.



Dimensions

This figure shows lubrication site D (bottom).



¹ This is the stroke up to the mechanical stopper.

Stroke (mm)		200	400
(Stroke between mechanical stoppers)		(210)	(410)
Dimensions (mm)	A	904.5	1104.5
	B	301	501
Mass ² (kg)		426	480

² The mass includes the reduction gear.

PCT20/PCT20R



Model Number Coding

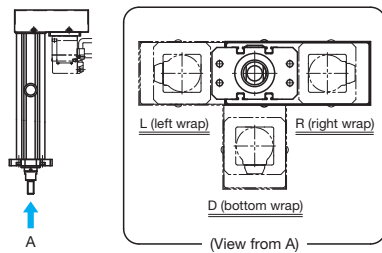
Model ①	Lead, reduction ratio ②	Stroke ③	Options ④	With/without motor ⑤	Motor bracket ⑥	Motor shaft securing method ⑦
PCT20R PCT20 PCT20R	06N 06N	0200 0050: 50 mm to 0200: 200 mm	R With direct coupling N: Direct coupling With motor wrap D: Bottom L: Left R: Right	0 0: Without motor	A1 K1	D With direct coupling No symbol With motor wrap D: Flat K: Key S: Clamp

*R" indicates motor wrap.

When "PCT20R" is selected for ① Model, "N" cannot be selected.

Direct motor coupling specification: No coupling will be included. Please specify if a coupling is required when ordering.
Motor wrap specification: Timing pulley and timing belt will be included.

④ Option (Motor Wrap)



Motor Bracket and Motor Shaft Securing Method Compatibility

Direct Coupling

Motor type	Manufacturer	Series	Motor model	Motor rated output (W)	Motor bracket	Compatible coupling
AC servo motor	YASKAWA Electric Corporation	Σ-7	SGM7J-A5	50	A1	SFC-010DA2-6B-8B (MIKI PULLEY CO., LTD.) XGT2-19C-6-8 Nabeya Bi-tech Kaisha (NBK)
			SGM7A-A5			
		Σ-X	SGMJ-A5			
			SGMXA-A5			
	Mitsubishi Electric Corporation	MELSERVO	J4 HG-KR053	50	A1	
			J5 HK-KT053W			
	TAMAGAWA SEIKI CO., LTD.	TBL-III	TS4602	50	A1	
			TBL-IV TSM3102			
	OMRON Corporation	OMNUC	G5 R88M-K05030	50	A1	
			1S R88M-1M05030			
SANYO DENKI CO., LTD.	SANMOTION R	R2□A04005	50	A1		
Panasonic Corporation	MINAS	A6 MSMF5A	50	K1		

Motor Wrap

Motor type	Manufacturer	Series	Motor model	Motor rated output (W)	Motor bracket	Motor shaft securing method
AC servo motor	YASKAWA Electric Corporation	Σ-7	SGM7J-A5	50	A1	D, K, S
			SGM7A-A5			
		Σ-X	SGMJ-A5			
			SGMXA-A5			
	Mitsubishi Electric Corporation	MELSERVO	J4 HG-KR053	50	A1	D, K, S
			J5 HK-KT053W			
	TAMAGAWA SEIKI CO., LTD.	TBL-III	TS4602	50	A1	D, K, S
			TBL-IV TSM3102			
	OMRON Corporation	OMNUC	G5 R88M-K05030	50	A1	D, K, S
			1S R88M-1M05030			
SANYO DENKI CO., LTD.	SANMOTION R	R2□A04005	50	A1	D, K, S	
Panasonic Corporation	MINAS	A6 MSMF5A	50	K1	D, K, S	

Note 1) Contact THK if a motor other than the ones above will be mounted.

Note 2) The table shows only a portion of the model numbers for motors. For details regarding model numbers, please see the catalog for each respective motor manufacturer.

Selection Information

Basic Specifications

Motor rated output (W)		50	
Ball screw	Screw shaft diameter (mm)	φ8	
	Ball screw lead (mm)	6	
	Basic dynamic load rating Ca (N)	1950	
	Basic static load rating C0a (N)	3510	
	Thread minor diameter (mm)	φ6.872	
	Ball center-to-center diameter (mm)	φ8.4	
Bearing (fixed side)	Axial direction	Basic dynamic load rating Ca (N)	8000
		Static permissible load P0a (N)	3240
Positioning repeatability (mm)		±0.01	
Lost motion (mm)		0.1	
Rod non-rotating accuracy (°)		±1	
Starting torque* (N-cm)		1.6	
Max. input torque (N-m)		0.48	
Standard grease		THK AFB-LF Grease	

* Timing pulley and timing belt are not included.

Note 3) Prepare a separate guide mechanism if a load will be applied to the rod in a non-axial direction.

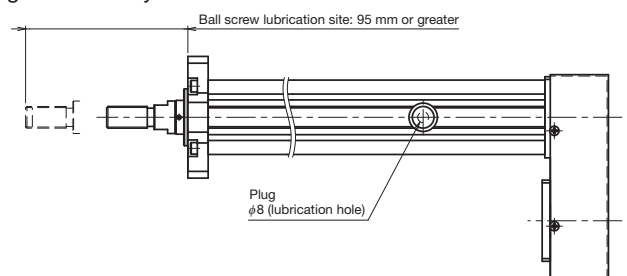
Wrapping Direction Details

Motor rated output (W)		50
Timing belt	Manufacturer	Gates Unittta Asia Company
	Model	196-2GT-6

Maintenance

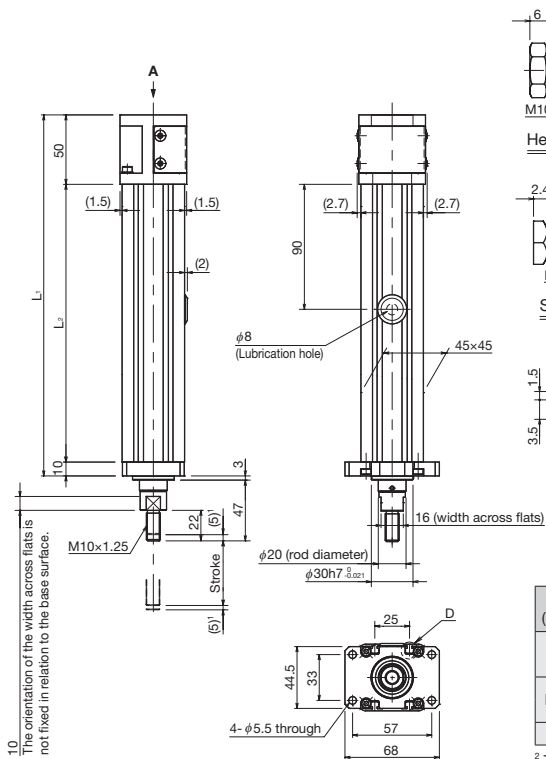
Standard grease: AFB-LF

For greasing of the ball screw, remove the plug and apply grease directly to the ball screw shaft.



Dimensions

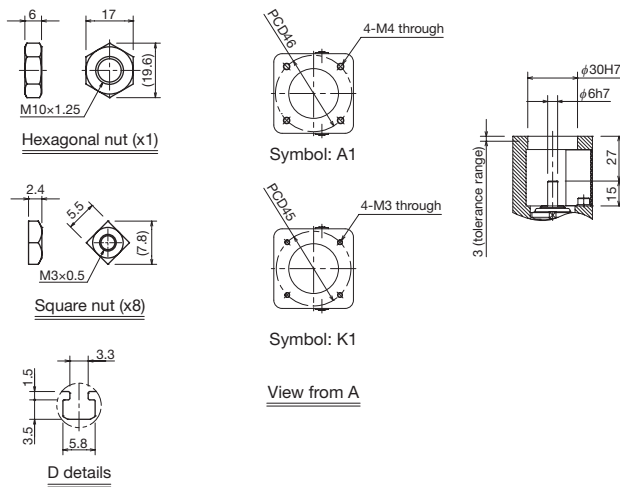
Direct Coupling



10 The orientation of the width across flats is not fixed in relation to the base surface.

¹ This is the stroke up to the mechanical stopper.

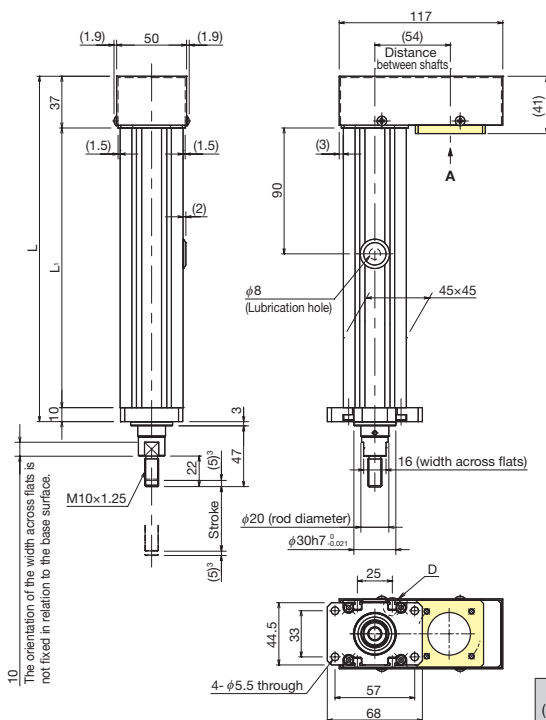
Motor Attachment Details



Stroke (mm) (Stroke between mechanical stoppers)	50 (60)	100 (110)	150 (160)	200 (210)
Maximum speed ² (mm/s)	Ball screw lead: 6 mm			300
Dimensions (mm)	L ₁	260	310	360
	L ₂	200	250	300
Mass (kg)	1.4	1.6	1.8	2.1

² The maximum speed is restricted either by the rotational speed of the motor at 3,000 min⁻¹ or by the permissible speed of the actuator.

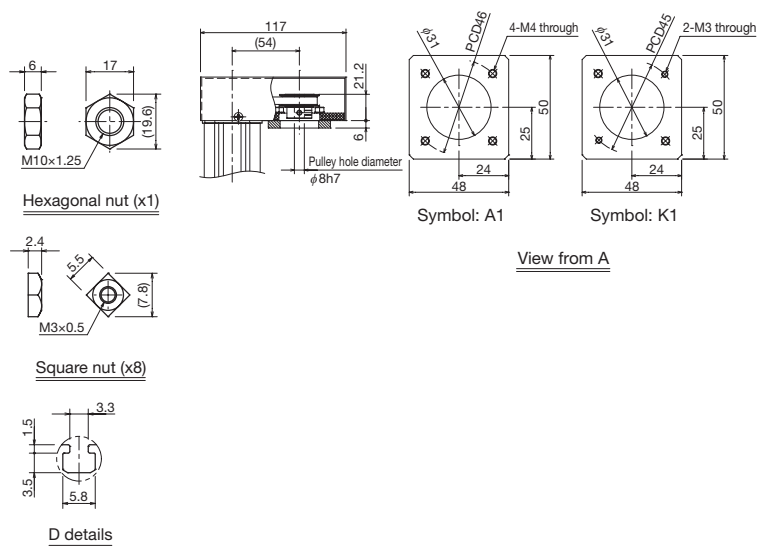
Motor Wrap



10 The orientation of the width across flats is not fixed in relation to the base surface.

³ This is the stroke up to the mechanical stopper.

Motor Attachment Details



Stroke (mm) (Stroke between mechanical stoppers)	50 (60)	100 (110)	150 (160)	200 (210)
Maximum speed ⁴ (mm/s)	Ball screw lead: 6 mm			300
Dimensions (mm)	L	247	297	347
	L ₁	200	250	300
Mass (kg)	1.6	1.8	2	2.2

⁴ The maximum speed is restricted either by the rotational speed of the motor at 3,000 min⁻¹ or by the permissible speed of the actuator.

PCT25/PCT25R

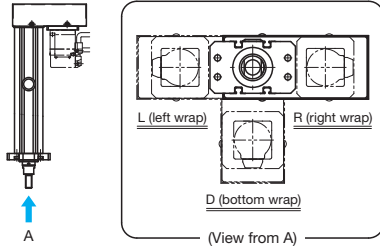


Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Options ④	With/without motor ⑤	Motor bracket ⑥	Motor shaft securing method ⑦
PCT25R	04N	0200	R	0	A1	D
PCT25	04N	0050: 50 mm	With direct coupling	0: Without motor	A1	With direct coupling
PCT25R	06N	to	N: Direct coupling	Direct motor coupling specification: No coupling will be included. Please specify if a coupling is required when ordering.	A2	No symbol
		0300: 300 mm	With motor wrap	Motor wrap specification: Timing pulley and timing belt will be included.	K1	With motor wrap
			D: Bottom		K2	D: Flat
			L: Left		B1	K: Key
			R: Right		B2	S: Clamp

R indicates motor wrap.

④ Option (Motor Wrap)



When "PCT25R" is selected for ① Model, "N" cannot be selected.

Motor Bracket and Motor Shaft Securing Method Compatibility

Direct Coupling

Motor type	Manufacturer	Series	Motor model	Motor rated output (W)	Motor bracket	Compatible coupling		
AC servo motor	YASKAWA Electric Corporation	Σ-7	SGM7J-01	100	A1	SFC-020DA2-8B-8B (MIKI PULLEY CO., LTD.) XGT2-25C-8-8 Nabeya Bi-tech Kaisha (NBK)		
			SGM7A-01					
		Σ-X	SGMJ-01					
			SGMXA-01					
	Mitsubishi Electric Corporation	MELSERVO	J4	HG-KR13	100		A1	
				HG-MR13				
			J5	HK-KT13W				
				HK-KT13W				
	TAMAGAWA SEIKI CO., LTD.	TBL-III	TS4603	100	A1			
		TBL-IV	TSM3104					
	OMRON Corporation	OMNUC	G5	R88M-K10030	100		A1	
			1S	R88M-1M10030				
	SANYO DENKI CO., LTD.	SANMOTION R	R2□A04010		100		A1	
	AC servo motor	YASKAWA Electric Corporation	Σ-7	SGM7J-02	200		A2	
				SGM7A-02				
			Σ-X	SGMJ-02				
				SGMXA-02				
		Mitsubishi Electric Corporation	MELSERVO	J4	HG-KR23		200	A2
					HG-MR23			
J5				HK-KT23W				
				HK-KT23W				
TAMAGAWA SEIKI CO., LTD.		TBL-III	TS4607	200	A2			
		TBL-IV	TSM3202					
SANYO DENKI CO., LTD.		SANMOTION R	R2□A06020		200	A2		
Panasonic Corporation		MINAS	A6	MSMF01	100	K1		
				MSMF02				
OMRON Corporation		OMNUC	G5	R88M-K20030	200	K2		
				1S			R88M-1M20030	
Panasonic Corporation	MINAS	A6	MSMF02	200	K2			
Stepper motor	ORIENTAL MOTOR CO., LTD.	α Step	AZ6*, AR6*	13800	B1			
		5-phase	CVK			PKP56* (this excludes PKP569FM*)	B1	
		2-phase	PKP/CVD			PKP26*		B2

Motor Wrap

Motor type	Manufacturer	Series	Motor model	Motor rated output (W)	Motor bracket	Motor shaft securing method		
AC servo motor	YASKAWA Electric Corporation	Σ-7	SGM7J-01	100	A1	D, K, S		
			SGM7A-01					
			SGM7J-02					
			SGM7A-02					
	Mitsubishi Electric Corporation	MELSERVO	Σ-X	SGMJ-01	100	A1	D, K, S	
				SGMXA-01				
				SGMJ-02				
				SGMXA-02				
	AC servo motor	Mitsubishi Electric Corporation	MELSERVO	J4	HG-KR13	100	A1	D, S
					HG-MR13			
				J5	HG-KR23			
					HG-MR23			
		TAMAGAWA SEIKI CO., LTD.	TBL-III	TS4603	100	A1	D, K, S	
				TS4607				
			TBL-IV	TSM3104				
				TSM3202				
		Panasonic Corporation	MINAS	A6	MSMF01	100	K1	D, K, S
					MSMF02			
		SANYO DENKI CO., LTD.	SANMOTION R	R2□A04010		100	A1	D, K, S
				R2□A06020				
OMRON Corporation	OMNUC	G5	R88M-K10030	100	A1	K, S		
			R88M-K20030					
			R88M-1M10030					
			R88M-1M20030					

Note 1) Contact THK if a motor other than the ones above will be mounted.

Note 2) The table shows only a portion of the model numbers for motors. For details regarding model numbers, please see the catalog for each respective motor manufacturer.

Selection Information

Basic Specifications

		100		200		
Ball screw	Motor rated output (W)	100		200		
	Screw shaft diameter (mm)	φ14	φ12	φ14	φ12	
	Ball screw lead (mm)	4	6	4	6	
	Basic dynamic load rating Ca (N)	6600	4910	6600	4910	
	Basic static load rating Coa (N)	12300	9600	12300	9600	
	Thread minor diameter (mm)	φ11.5	φ9.872	φ11.5	φ9.872	
Bearing (fixed side)	Ball center-to-center diameter (mm)	φ14.4	φ12.65	φ14.4	φ12.65	
	Axial direction	Basic dynamic load rating Ca (N)	13800			
		Static permissible load Poa (N)	5850			
	Positioning repeatability (mm)		±0.01			
	Lost motion (mm)		0.1			
Rod non-rotating accuracy (°)		±1				
Starting torque ¹ (N-cm)	2.8		3.2		2.8	
	1.91 (0.95)		1.91		1.91	
	Standard grease THK AFB-LF Grease					

¹ Timing pulley and timing belt are not included.

² Values in parentheses are for motor wrap specifications.

Note 3) Prepare a separate guide mechanism if a load will be applied to the rod in a non-axial direction.

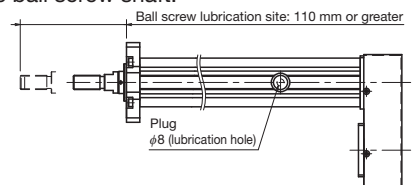
Wrapping Direction Details

		100	200
Timing belt	Manufacturer	Gates Unittta Asia Company	
	Model	273-3GT-6	273-3GT-9

Maintenance

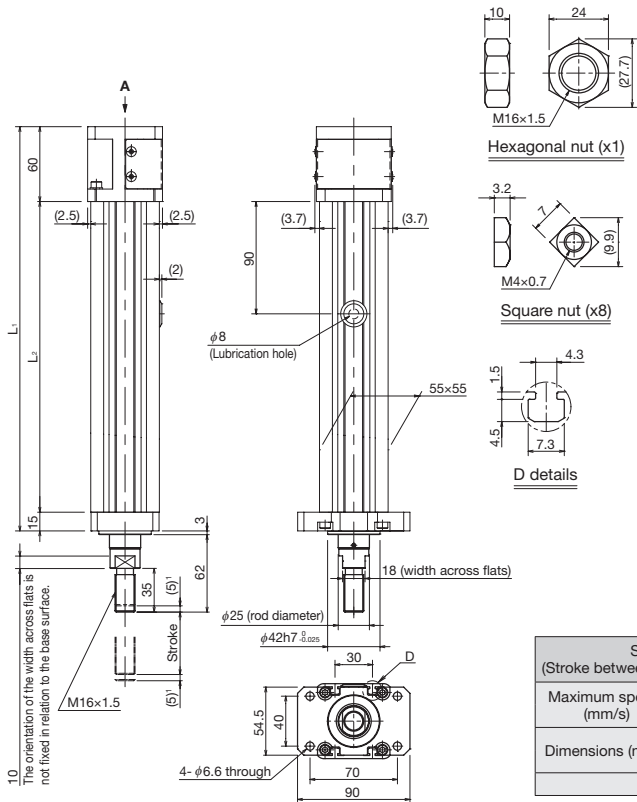
Standard grease: AFB-LF

For greasing of the ball screw, remove the plug and apply grease directly to the ball screw shaft.



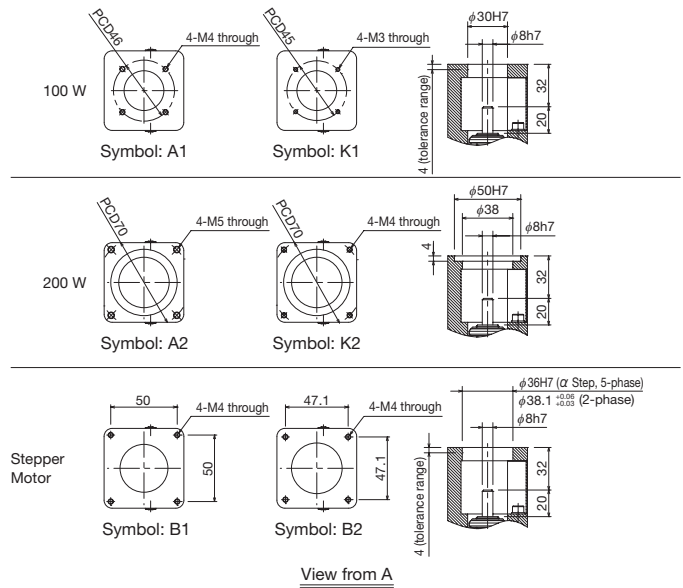
Dimensions

Direct Coupling



¹ This is the stroke up to the mechanical stopper.

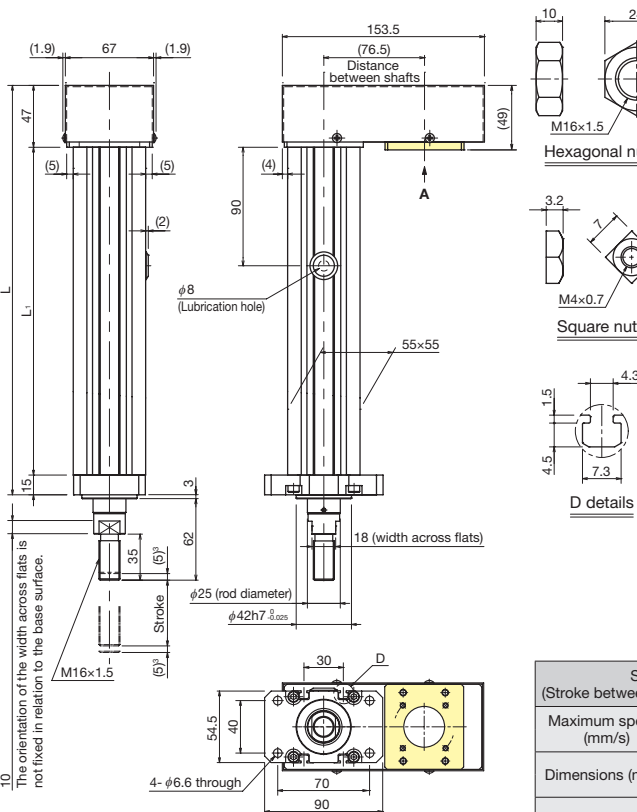
Motor Attachment Details



Stroke (mm) (Stroke between mechanical stoppers)	50 (60)	100 (110)	150 (160)	200 (210)	250 (260)	300 (310)
Maximum speed ² (mm/s)	Ball screw lead: 4 mm		200		160	130
	Ball screw lead: 6 mm		300	260	200	160
Dimensions (mm)	L ₁	324	374	424	474	524
	L ₂	249	299	349	399	449
Mass (kg)	2.8	3.2	3.5	3.8	4.2	4.5

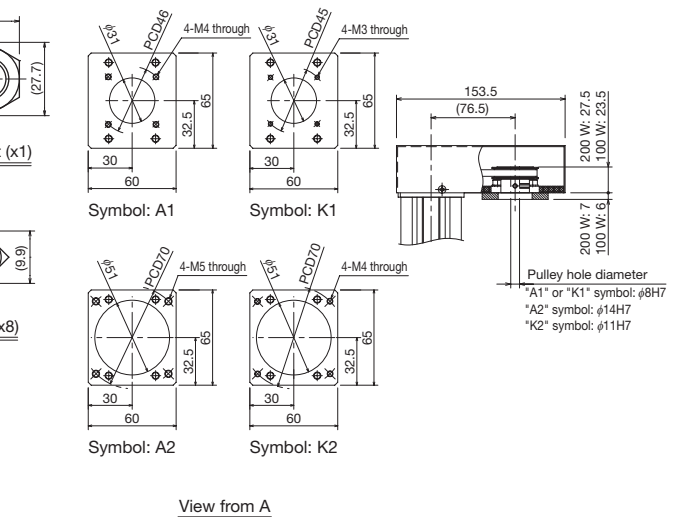
² The maximum speed is restricted either by the rotational speed of the motor at 3,000 min⁻¹ or by the permissible speed of the actuator.

Motor Wrap



³ This is the stroke up to the mechanical stopper.

Motor Attachment Details



Stroke (mm) (Stroke between mechanical stoppers)	50 (60)	100 (110)	150 (160)	200 (210)	250 (260)	300 (310)
Maximum speed ⁴ (mm/s)	Ball screw lead: 4 mm		200		160	130
	Ball screw lead: 6 mm		300	260	200	160
Dimensions (mm)	L	311	361	411	461	511
	L ₁	249	299	349	399	449
Mass (kg)	3.1	3.4	3.8	4.1	4.4	4.7

⁴ The maximum speed is restricted either by the rotational speed of the motor at 3,000 min⁻¹ or by the permissible speed of the actuator.

Precautions on Use

How to Use this Product

- This product must not be used for devices or systems that are utilized under situations that may affect human life.
- Be sure to contact THK in advance if you are considering using this product for special applications, such as with devices or systems relating to passenger vehicles, medicine, aerospace, nuclear power, or electric power.

Products with Rotary Motor Drives

Handling

- Please contact THK when using the product in special environments such as locations exposed to constant vibrations, clean rooms, vacuums, and low/high temperatures.
- Tilting a table or outer rail may cause it to fall by its own weight.

Safety Precautions

- Carefully read JIS B8433 "Manipulating Industrial Robots - Safety" and the Japanese Ministry of Health, Labour and Welfare's "Ordinance on Industrial Safety and Health" before working with the product, and follow the guidance within.
- Carefully read the user manual, gain a sufficient understanding of its contents, and be sure to follow the safety precautions.
- When installing, adjusting, inspecting, or performing maintenance on the main actuator unit and connected peripherals, be sure to remove all power plugs from their outlets, and prepare a lock or safety plug to prevent anyone else from turning on the power. Additionally, place a sign in a visible location to notify others that work is being performed.
- Do not touch any moving parts of the actuator while it is energized. In addition, do not enter the operating range of this product while it is in operation or in an operable state.
- If performing a task involving multiple people, confirm how to perform the work, what signals will be used, and how to handle problems before beginning, and assign another person to monitor the work.
- Do not carelessly disassemble this product. Otherwise, it may cause foreign material ingress or decrease the accuracy.
- Take care not to drop or strike this product. Otherwise, it may cause injury or damage the unit. Even if there is no outward indication of damage, a sudden impact could prevent the unit from functioning properly.
- Using this product in excess of the permissible rotational speed may damage the components or cause an accident. Please use the product within the range of speeds we have specified.
- Prevent foreign materials such as cutting chips from entering the product. Otherwise, it may damage the ball circulation components or result in a loss of functionality.
- If using the product in an environment where coolant may get inside, contact THK.
- Install shock absorbers or another impact-absorbing mechanism if there is a risk that the slider may strike the stoppers mounted on both ends of the range of motion. The stoppers are not intended to absorb the impact from sliders. Impacts to the stoppers during operation may lead to damage or accidents.
- Using this product in excess of the torque limit may damage the components or cause an accident.
- Do not set the torque control parameter higher than the torque limit.
- The motor wrap type does not have a safety device for if the timing belt breaks. For your safety, please install a safety device next to the equipment.
- The PC is designed for pressing motions. Service life will deteriorate considerably if a load is applied in the pulling direction.
- The PCT can only bear loads in the axial direction. Use in conjunction with an LM Guide so that non-axial loads will not be applied to the rod.
- If rotational torque or a moment load will be applied to the PC rod, please contact THK.
- Some models of the PC are heavy, with the main unit weighing in excess of 20 kg. When moving these products, use a hoisting belt to lift them. Use appropriate transportation equipment and take safety precautions to avoid injury or damage when transporting or assembling the product. Do not lift this product by hooking only the hoisting belt to the main body of the unit. When moving the product in a vertical orientation for installation, use two belts: one on the motor side and one on the rod side. When moving the product in a horizontal orientation, use two or four belts on the motor side and rod side. Depending on the model, the main body may tilt when hoisted due to an unbalanced center of gravity.
- In applications where this product will be moved or transferred, the conditions of use may cause inertia from the motor's mass to result in damage to the motor attachment (Housing A) or other parts. Please contact THK before using in this manner.

Operating Environment

- Indoors, with an ambient temperature between 0°C and 40°C and ambient humidity at 20 to 80% RH (no condensation)
- A location with no corrosive or flammable gas
- A location where vibrations or impacts are not transmitted to the main unit
- A location where electrically conductive particles such as steel dust, dust, oil mist, cutting oil, water content, salt content, or organic solvents will not be present in the air
- A location not exposed to direct sunlight or radiant heat
- A location where no strong electric fields or powerful magnetic fields are generated
- A location where inspections and cleanings can easily be performed
- If this product will be used in special environments, such as one with constant vibrations, in a vacuum, or at very low or high temperatures, contact THK.

Actuator Mounting Surface

- Prepare a flat surface that has been machined or possesses an equivalent level of accuracy. Some products specify a required level of flatness.
- Be sure to mount the product on a sufficiently rigid base.

Lubrication

- The actuator must be lubricated in order for it to demonstrate its full performance. Insufficient lubrication may increase wear on the rolling elements and lead to premature damage.
- Do not mix lubricants with different properties. Please be aware that the applied lubricant will differ depending on the product.
- Contact THK if a special lubricant will be used.
- Replenish the grease every 100 km traveled under normal circumstances or 500 km under normal operation with pressure applied at one end of the stroke, or once every 6 months, whichever comes sooner. However, this will vary depending on the usage conditions, so we recommend determining the greasing interval based on the initial inspection.
- Contact THK if the product will be used in a special environment such as a location with constant vibrations, a vacuum, high/low temperatures, or a clean room, as it may not be possible to use the regular lubricant.
- Contact THK if oil lubricant will be used.
- Thoroughly wipe off anti-rust oil and feed lubricant before using the product.
- Directly apply grease to the raceway of the screw shaft, as a grease nipple is not installed on the ball screw unit.

Storage

- When storing the actuator, enclose it in a package designated by THK and store it in a horizontal orientation while avoiding high temperatures, low temperatures, and high humidity.
- Avoid storing control devices in an environment with high/low temperatures or high humidity.

Disposal

- The product should be treated as industrial waste and disposed of appropriately.

Other Recommended Products



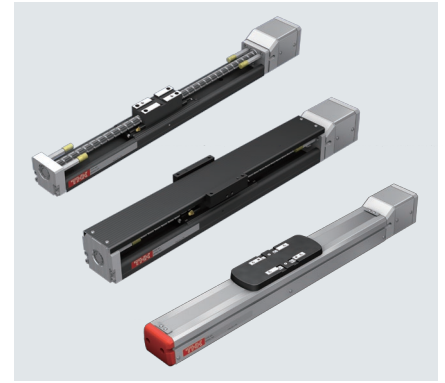
Caged Ball LM Guide Actuator SKR

- Modular structure reduces the number of parts, design hours, and assembly hours
- Caged ball effect enables a long service life and long-term maintenance-free operation
- Ideal for high-precision positioning and orthogonal, multi-axis designs



LM Guide Actuator KR

- Modular structure reduces the number of parts, design hours, and assembly hours
- Can be used in various orientations, including horizontal, wall-mounted, vertical, and hanging
- Extensive lineup of 9 sizes




LM Guide Actuator with Large-Diameter Ball Screw KSF

Open cover/top cover/fully enclosed

- Large-diameter ball screw enables high-speed and high-acceleration operations
- 3 types of cover options to choose from to suit the application
- Supports long strokes up to 1500 mm

Electric Cylinder PC/PCT

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- The actual products may differ from the illustrations and photographs in this catalog.
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