

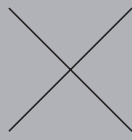


Electric Cylinder **PC/PCT**



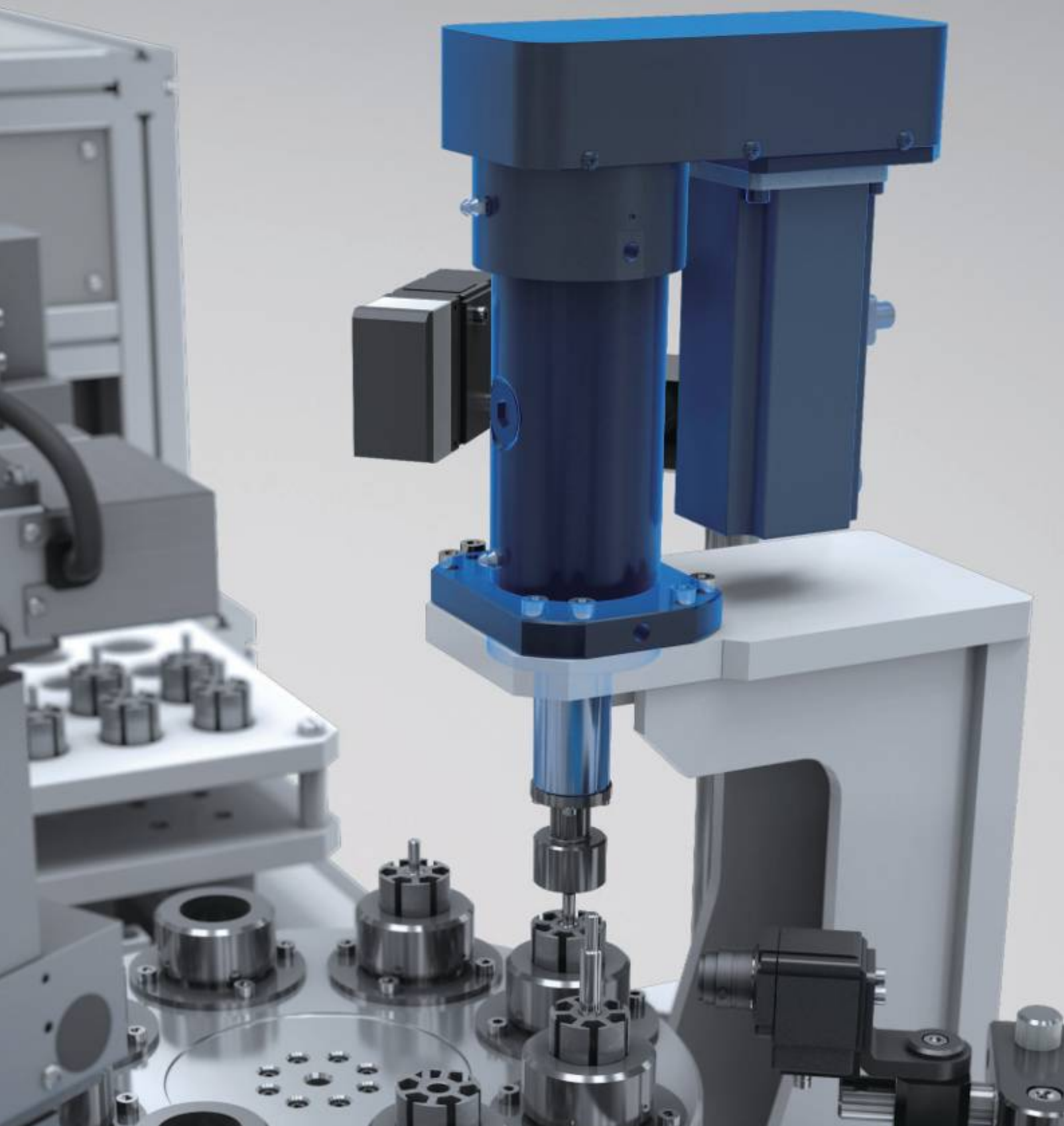
Maximum instantaneous thrust of 250 kN.
Smooth motion and highly precise positioning repeatability.
Compact design.

High
efficiency



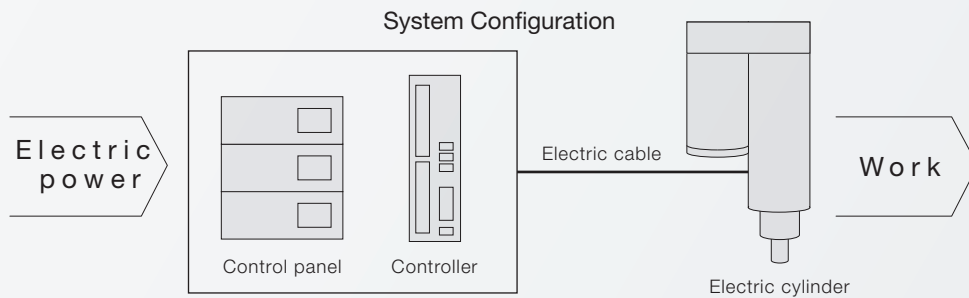
Low running
cost

Motorization for numerous press processes



Electric Cylinder

Motorization of the cylinder driver provides five benefits.



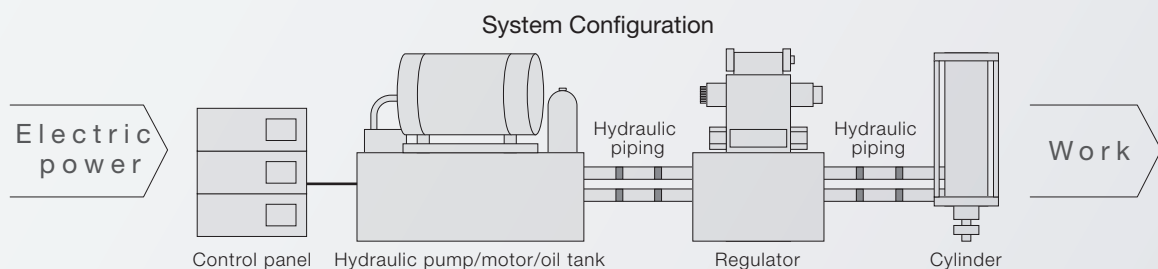
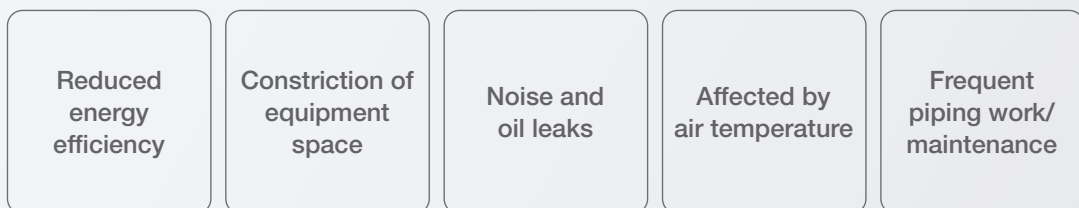
(Example) Electric and Hydraulic Cylinder Comparison

	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.



Maximum
instantaneous thrust
250 kN*
(25 t)

This model is capable of bearing large loads thanks to the maximized ball screw shaft diameter and the increased number of loaded circuits.

Rated thrust
106 kN*
(10 t)

Fewer defects
Consistent quality

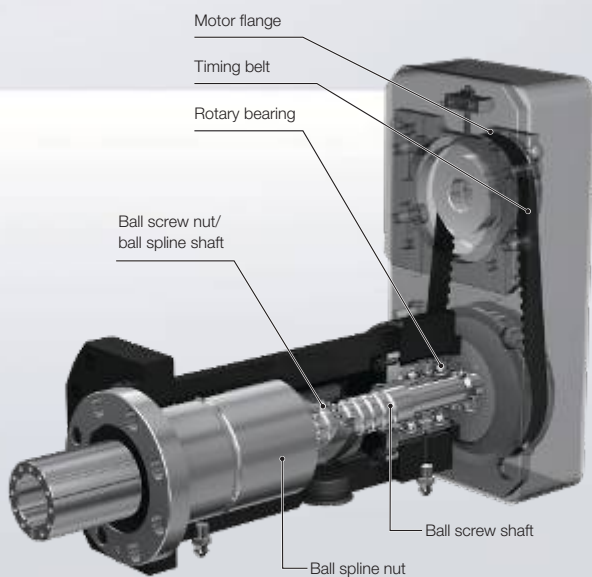
* When using PC120

Positioning
repeatability

> **±0.005 mm**

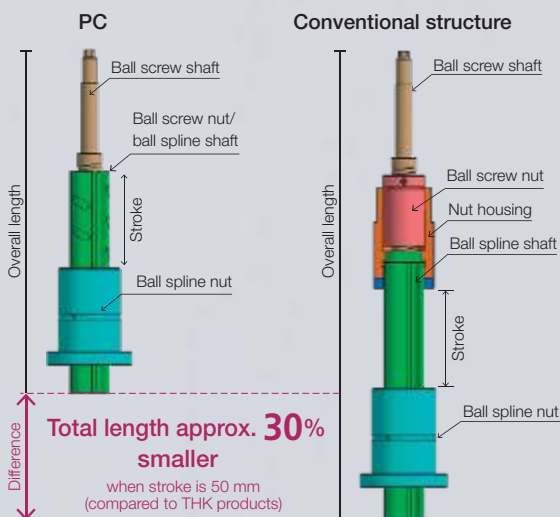
PCT

An electric cylinder
with an internal ball screw



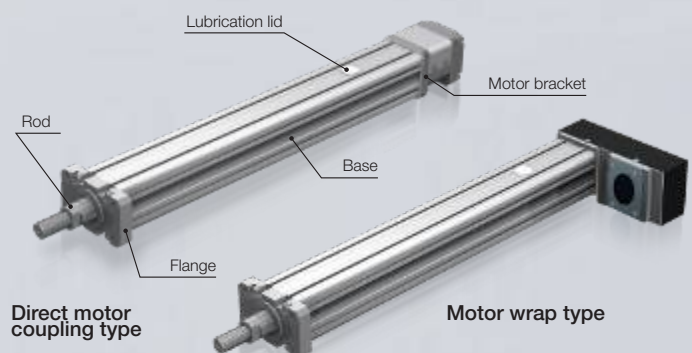
Unique, integrated structure enables compactness.

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.

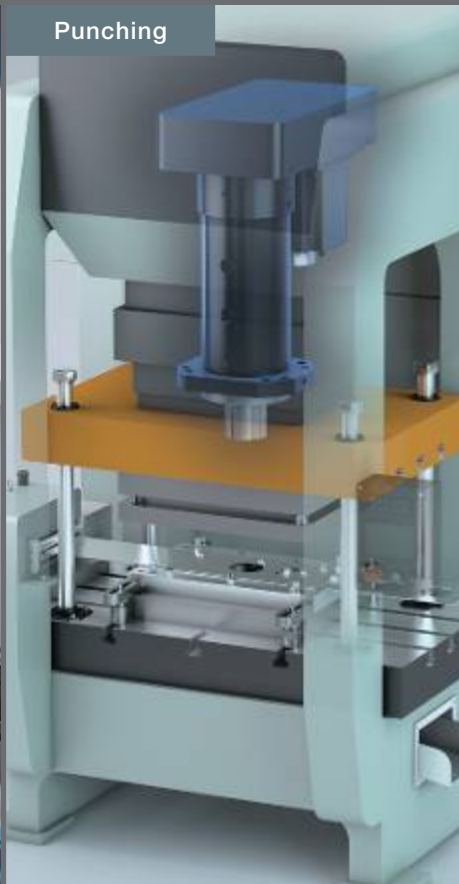
APPLICATIONS

PC

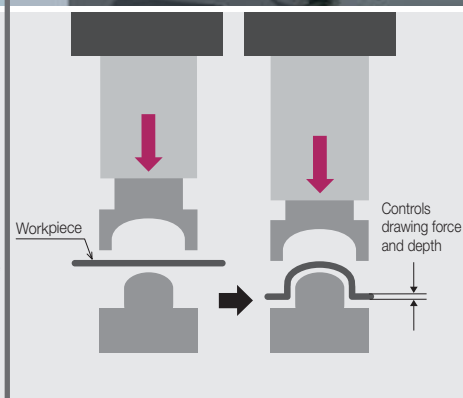
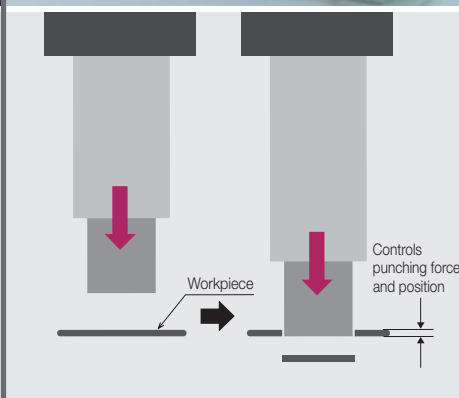
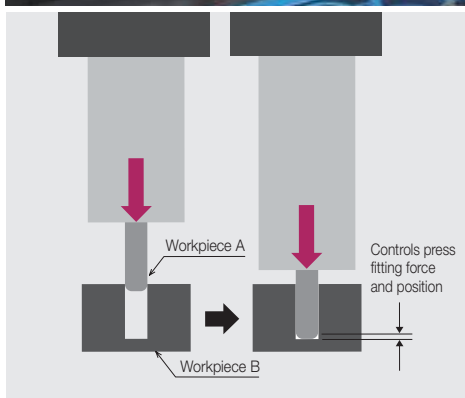
Press fitting



Punching

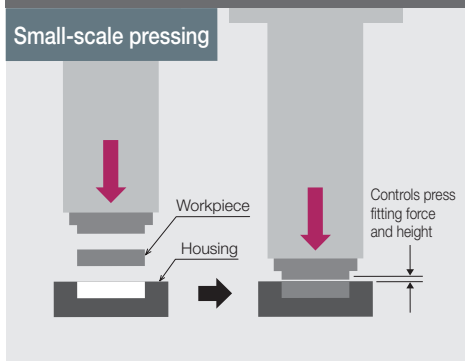


Deep drawing

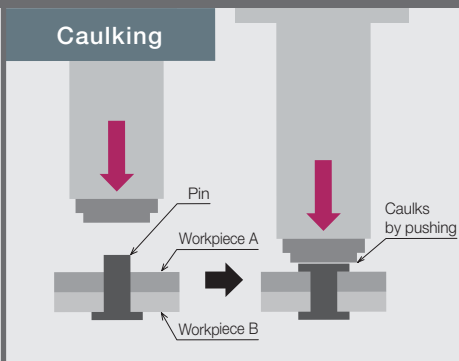


PCT

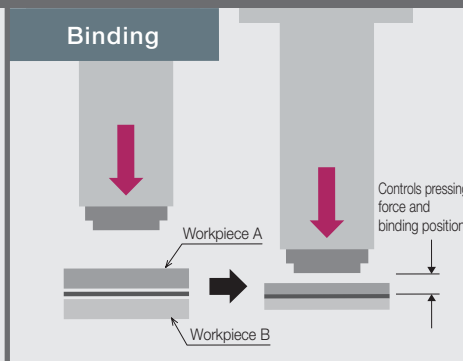
Small-scale pressing



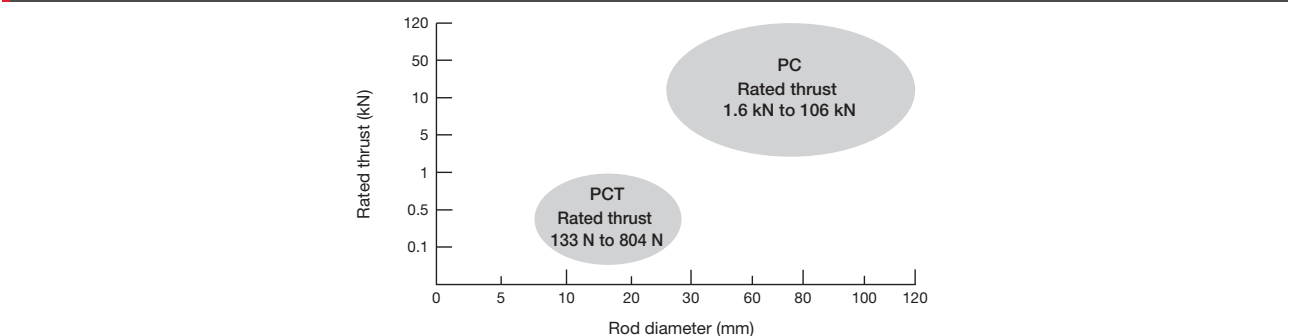
Caulking



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	160	180	200	220	240						
PC30-06A	Mitsubishi Electric Corporation	0.4 (0.36) ⁵	1.6 (1.4) ⁵	5.3	210		1.6 (1.4) ⁵	5.3																								
	YASKAWA Electric Corporation			5.3																												
	SANYO DENKI CO., LTD.			5.3																												
	OMRON Corporation			4.8																												
				4.3																												
PC40-06B	Mitsubishi Electric Corporation	0.75	3.2	10.1	200		3.2	10.1																								
	YASKAWA Electric Corporation			10.1																												
	SANYO DENKI CO., LTD.			10.1																												
	OMRON Corporation			9.4																												
				10.1																												
PC40H-08C	Mitsubishi Electric Corporation	1	5.6	15.5	151																											
	YASKAWA Electric Corporation	0.85	6.3	15.5	113		5.6																									
	SANYO DENKI CO., LTD.	1.2	6.7	15.5	151		6.3																									
	OMRON Corporation	1	5.6	11.2	150		6.7																									
							5.6																									
PC50-06D	Mitsubishi Electric Corporation	1.5	8.4	22.4	150																											
	YASKAWA Electric Corporation	1.75	9.9	22.4	150		8.4																									
	SANYO DENKI CO., LTD.	1.3	9.8	22.4	112		9.9																									
	OMRON Corporation	1.8	10.2	22.4	150		9.8																									
							10.2																									
PC60-10E	Mitsubishi Electric Corporation	2	10.9	31.1	155																											
	YASKAWA Electric Corporation	1.8	13.1	31.1	116		8.4																									
	SANYO DENKI CO., LTD.	2	10.9	21.8	155		10.9																									
	OMRON Corporation	2	10.9	21.8	155		13.1																									
							10.9																									
PC60H-10F	Mitsubishi Electric Corporation	3.5	17.8		166																											
	YASKAWA Electric Corporation	2.9	19.8		125		17.8																									
	SANYO DENKI CO., LTD.	3.5	18.1		166		19.8																									
	OMRON Corporation	4	20.4		166		18.1																									
							20.4																									
PC80L-12G	Mitsubishi Electric Corporation	5	23.9	71.6	177																											
	YASKAWA Electric Corporation	4.4	28.4	71.6	133		23.9																									
	SANYO DENKI CO., LTD.	4.5	21.5	75	177		28.4																									
	OMRON Corporation	5	23.9	71.6	177		21.5																									
							23.9																									
PC80-12G	Mitsubishi Electric Corporation	7	33.4	100	177																											
	YASKAWA Electric Corporation	5.5	35	102	133		25.5																									
	SANYO DENKI CO., LTD.	5.5	35	107	133		33.4																									
	OMRON Corporation	4.5	43	107	88		35																									
							43																									
PC80H-12G	Mitsubishi Electric Corporation	4.2	40.1	120	88																											
	YASKAWA Electric Corporation	7.5	48	119	133		31.8																									
	SANYO DENKI CO., LTD.	7.5	48	120	133		40.1																									
	OMRON Corporation	7.5	47.8	119	133		48																									
							47.8																									
PC100-20H	Mitsubishi Electric Corporation	11	70	175	125																											
	YASKAWA Electric Corporation																															
	SANYO DENKI CO., LTD.																															
	OMRON Corporation																															
PC120-20J	Mitsubishi Electric Corporation	15	106	250	112																											
	YASKAWA Electric Corporation			250																												
	SANYO DENKI CO., LTD.			240																												
	OMRON Corporation			250																												

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	1,000	1,500
PCT20-06N	50	133	300	200	130	402				
PCT20R-06N										
PCT25-06N		100		266	200	300	260	796		
PCT25R-06N										
PCT25-04N	400		300	500	1,600					
PCT25R-04N										
PCT25-06N	200	536	300	300	400	1,194				
PCT25R-06N										
PCT25-04N		804	200		800	2,400				
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

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (lubrication site) ⑤	Compatible motor bracket ⑥
PC30	06A	0200	A	R	OM
PC30	06A	0050: 50 mm	A	D: Bottom	OM: Without motor
PC40	06B	to	B	L: Left	OY: Without motor
PC40H	06D	0400: 400 mm		R: Right	OS: Without motor
PC50	08C				OR: Without motor
PC60	10E				
PC60H	10F				
PC80L	12G				
PC80	20H				
PC80H	20J				
PC100					
PC120					

This symbol indicates the lead and reduction ratio. Please select from the below combination options.

The maximum stroke varies depending on the model.
PC30 to PC80H: 250 mm
PC100, PC120: 400 mm

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

The mounting components (motor mounting plate, keyless bushing, timing pulley, and timing belt) for each model's compatible motors (p. 9) are included.
When PC100 or PC120 is selected, the product will be shipped with the reduction gear installed.
→ p. 29, 31

Combination Options

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

PCT 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	06N	0200	R	0	A1	D
PCT20	04N	0050: 50 mm	With direct coupling	0: Without motor	A1	With direct coupling
PCT20R	06N	to	N: Direct coupling		A2	No symbol
PCT25		0300: 300 mm	With motor wrap		K1	With motor wrap
PCT25R			D: Bottom		K2	D: Flat
			L: Left		B1	K: Key
			R: Right		B2	S: Clamp

"R" indicates motor wrap.

This symbol indicates the lead and reduction ratio. For motor wrap specification, only a 1/1 reduction ratio is available. Please select from the below combination options.

For direct motor coupling, select "N." For motor wrap, specify the wrap direction based on the figure below.

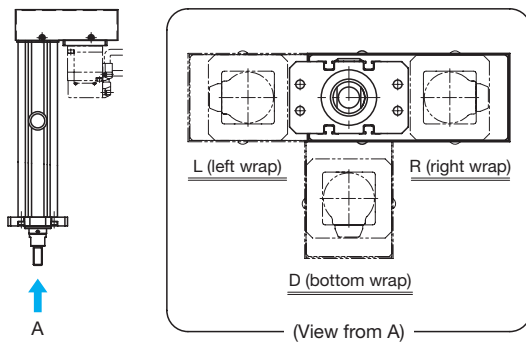
Direct motor coupling specification: No coupling will be included. Please specify if a coupling is required when ordering.
Motor wrap specification: Timing pulley and timing belt will be included. Selections must also be made for ⑥ Motor bracket and ⑦ Motor shaft securing method.
→ p. 33, 35

Select the motor bracket from the "Motor Bracket and Motor Shaft Securing Method Chart" that corresponds to the motor selected.
→ p. 33, 35

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	1.75	0M
		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	1.75	0M
		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		
		Without brake	SGMXG-30AWA81A1		
		With brake	SGMXG-30AWA8CA1		
	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		
		Without brake	SGMXG-44AWA81A1		
		With brake	SGMXG-44AWA8CA1		
	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		
		Without brake	SGMXG-55AWA81A1		
		With brake	SGMXG-55AWA8CA1		
	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		
		Without brake	SGMXG-75AWA81A1		
		With brake	SGMXG-75AWA8CA1		
	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		
		Without brake	SGM7G-1AFA21		
		With brake	SGM7G-1AFA2C		
	YASKAWA Electric Corporation	Without brake	SGMXG-1AAWA81A1	11	0Y
		With brake	SGMXG-1AAWA8CA1		
	SANYO DENKI CO., LTD.	Without brake	R2AA2211KBXRC0 ²	11	0S
		With brake	R2AA2211KBRC0 ²		
	OMRON Corporation	Without brake	R88M-K11K015T	11	0R
		With brake	R88M-K11K015T-B		
		Without brake	R88M-1M11K015T		
		With brake	R88M-1M11K015T-B		
PC120-20J	Mitsubishi Electric Corporation	Without brake	HG-JR15K1M	15	0M
		With brake	HG-JR15K1MB		
		Without brake	SGM7G-1EFA21		
		With brake	SGM7G-1EFA2C		
	YASKAWA Electric Corporation	Without brake	SGMXG-1EAWA81A1	15	0Y
		With brake	SGMXG-1EAWA8CA1		
	SANYO DENKI CO., LTD.	Without brake	R2AA2215KBXRC0 ²	15	0S
		With brake	R2AA2215KBRC0 ²		
	OMRON Corporation	Without brake	R88M-K15K015T	15	0R
		With brake	R88M-K15K015T-B		
		Without brake	R88M-1M15K015T		
		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	Max. stroke 250 mm
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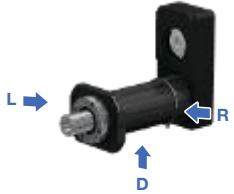
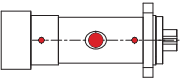
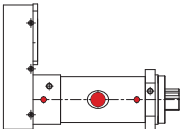
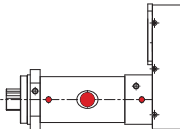
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (lubrication site) ⑤	Compatible motor bracket ⑥
PC30	06A	0200	B	R	0M
PC30	06A	0050: 50 mm to 0250: 250 mm	B	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 Specifications¹

Ball screw lead (mm)	6
Reduction ratio	28/40
Permissible axial load ² (kN)	Pressing direction 5.3 Pulling direction 1.6
Positioning repeatability (mm)	±0.005
Backlash (mm)	0.02
Permissible input torque ³ (N·m)	4.2

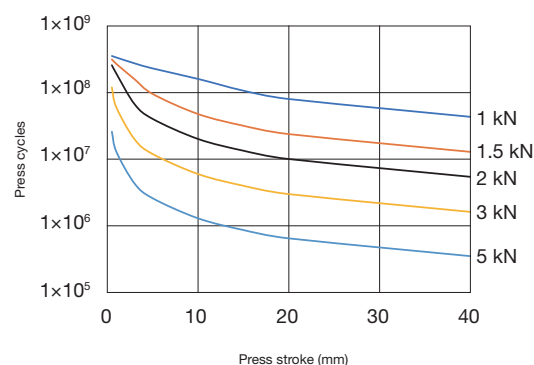
¹ The guideline value for the maximum acceleration/deceleration is 0.3 G.

² The permissible axial load value shows the load that the product can bear while the actuator is stationary.

³ There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

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)



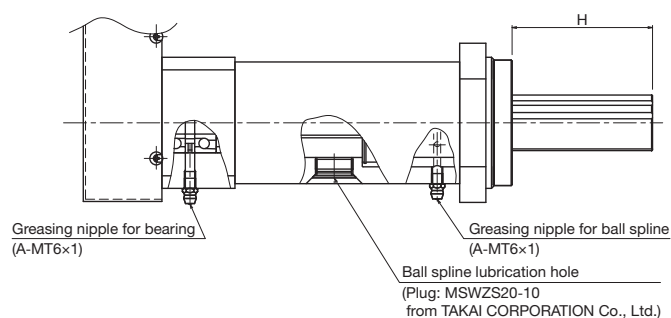
Service life will vary depending on press load and press stroke.
Operating life values are theoretical based on the below conditions.
Mounting orientation: Vertical (rod facing down)
Pressing direction: Compression direction
Load mass: 15kg

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.

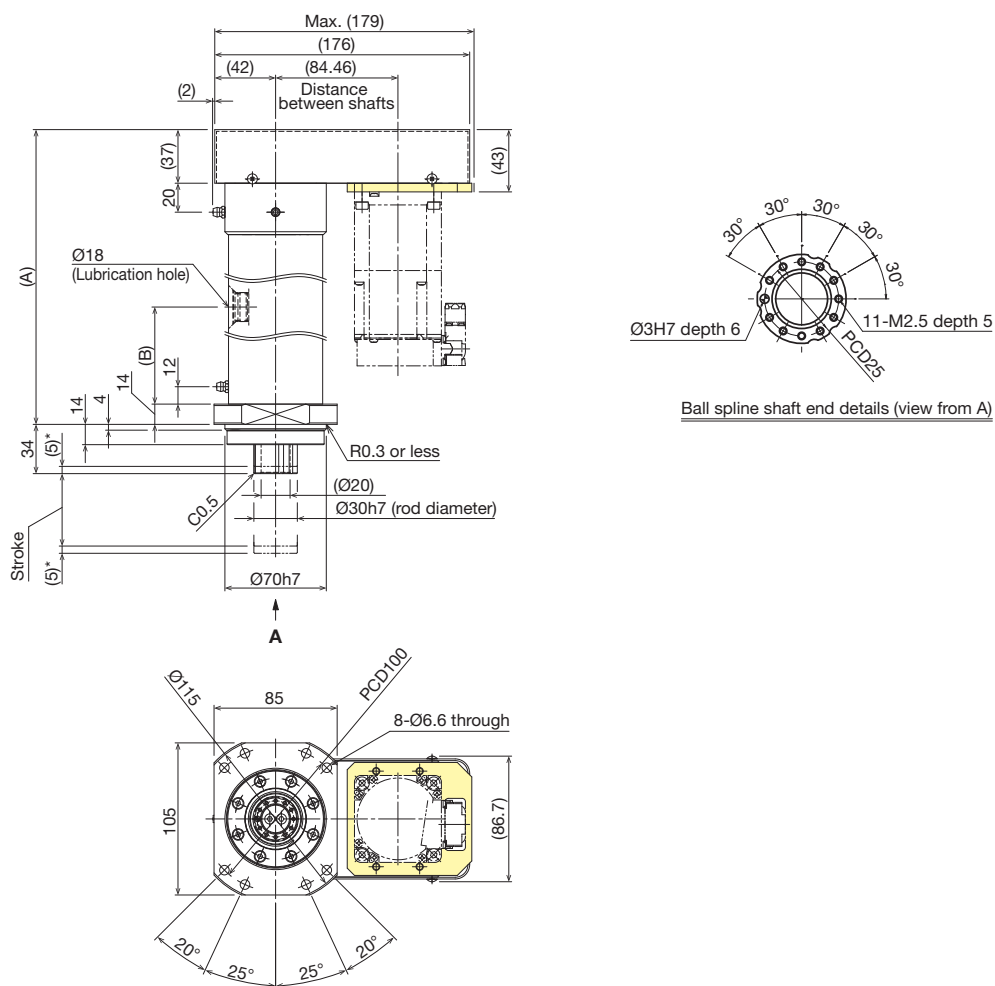
Lubricate the product with the rod extended to the lubrication site.



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

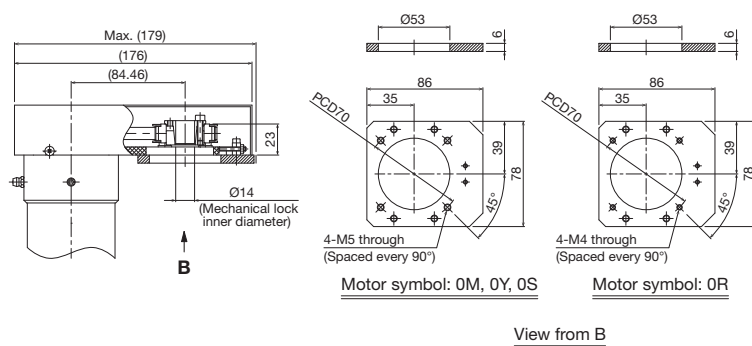
Dimensions

This figure shows lubrication site D (bottom).



* 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	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	Max. stroke 250 mm
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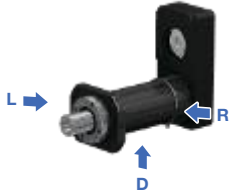
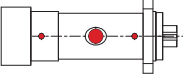
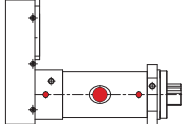
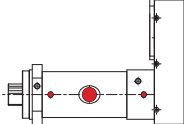
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (lubrication site) ⑤	Compatible motor bracket ⑥
PC40	06B	0200	B	R	0M
PC40	06B	0050: 50 mm to 0250: 250 mm	B	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 Specifications¹

Ball screw lead (mm)	6
Reduction ratio	32/48
Permissible axial load ² (kN)	Pressing direction 10.1 Pulling direction 3.2
Positioning repeatability (mm)	±0.005
Backlash (mm)	0.02
Permissible input torque ³ (N·m)	7.6

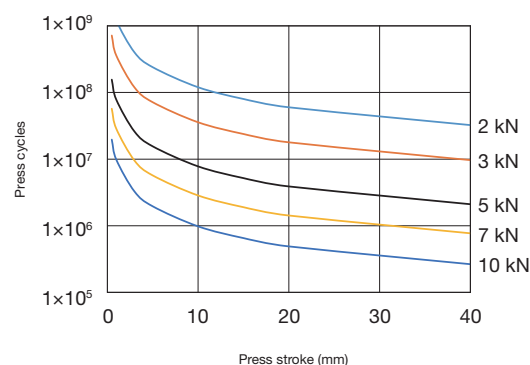
¹ The guideline value for the maximum acceleration/deceleration is 0.3 G.

² The permissible axial load value shows the load that the product can bear while the actuator is stationary.

³ There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

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)



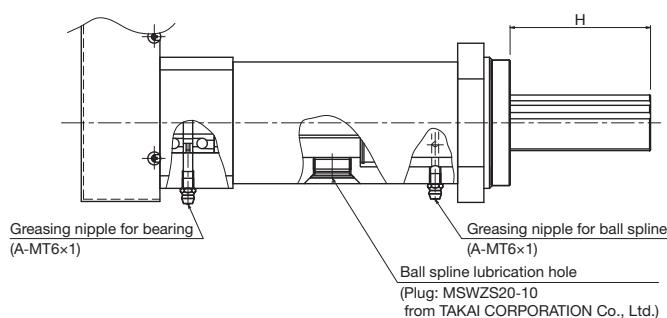
Service life will vary depending on press load and press stroke.
Operating life values are theoretical based on the below conditions.
Mounting orientation: Vertical (rod facing down)
Pressing direction: Compression direction
Load mass: 25kg

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.

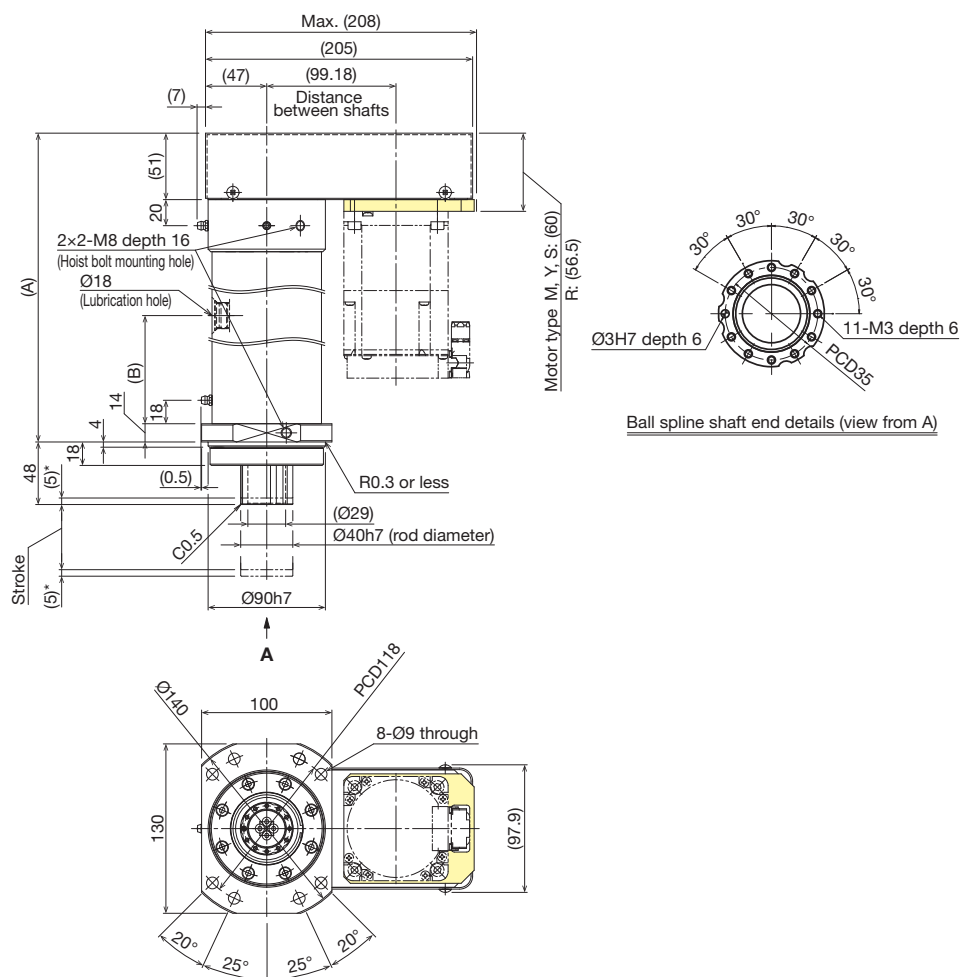
Lubricate the product with the rod extended to the lubrication site.



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

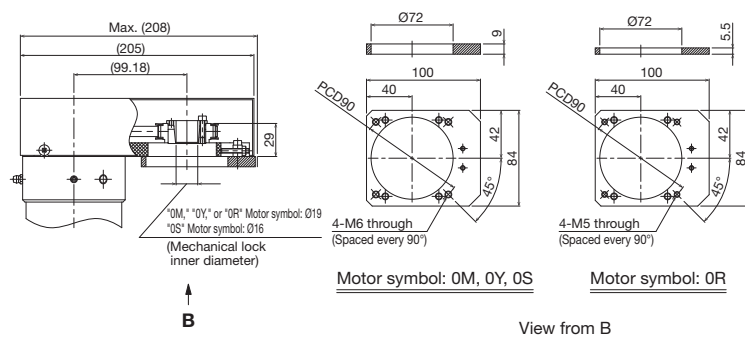
Dimensions

This figure shows lubrication site D (bottom).



* 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	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	Max. stroke 250 mm
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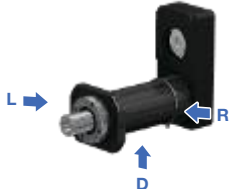
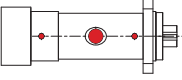
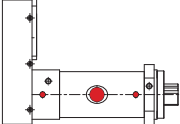
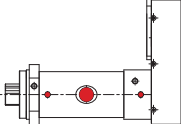
Model Number Coding

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	B B	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 Specifications¹

Ball screw lead (mm)	8
Reduction ratio	25/44
Permissible axial load ² (kN)	Pressing direction 15.5 Pulling direction 5.6
Positioning repeatability (mm)	±0.005
Backlash (mm)	0.02
Permissible input torque ³ (N·m)	13.2

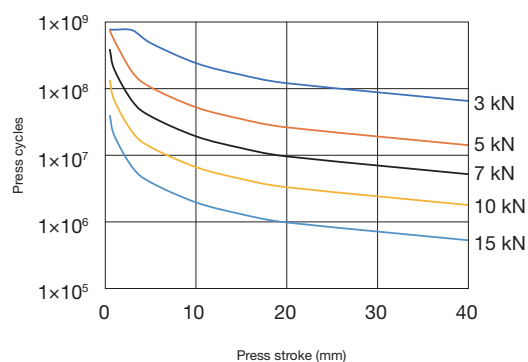
¹ The guideline value for the maximum acceleration/deceleration is 0.1 G.

² The permissible axial load value shows the load that the product can bear while the actuator is stationary.

³ There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

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)



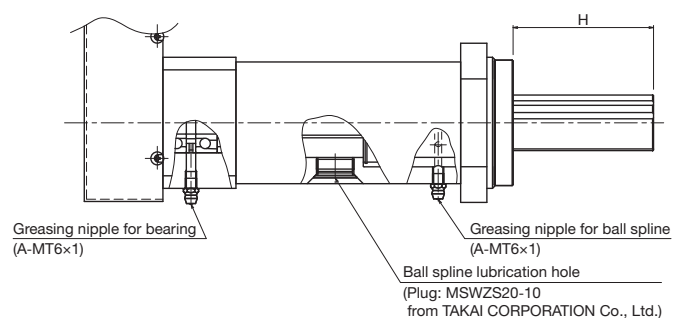
Service life will vary depending on press load and press stroke.
Operating life values are theoretical based on the below conditions.
Mounting orientation: Vertical (rod facing down)
Pressing direction: Compression direction
Load mass: 50kg

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.

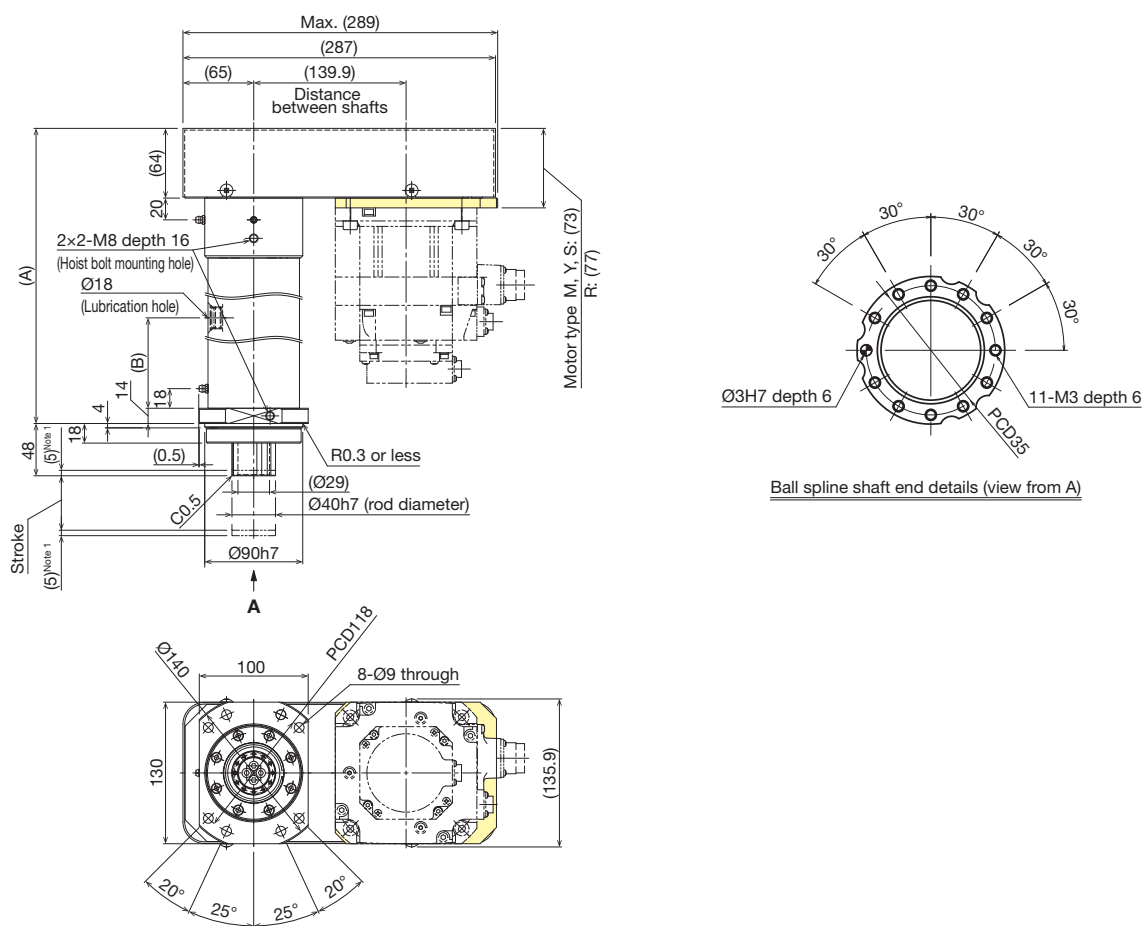


Stroke	50	100	150	200	250
Lubrication site: H	78	118	148	148	148

Unit: mm

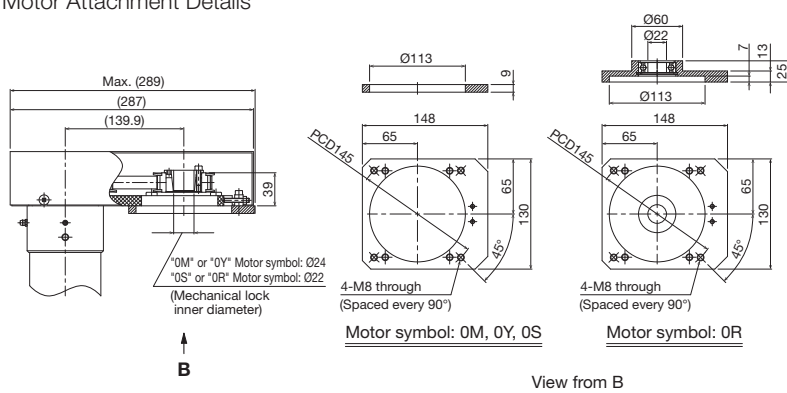
Dimensions

This figure shows lubrication site D (bottom).



¹ This is the stroke up to the mechanical stopper.

Motor Attachment Details



Stroke (mm)		50	100	150	200	250
(Stroke between mechanical stoppers)		(60)	(110)	(160)	(210)	(260)
Dimensions (mm)	A	271	321	371	421	471
	B	83	93	113	163	213
Mass ² (kg)	0M, 0Y, 0S	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	Max. stroke 250 mm
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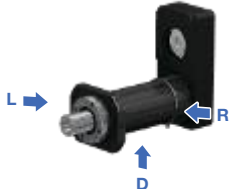
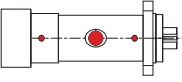
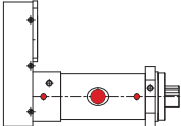
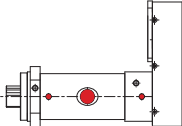
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (lubrication site) ⑤	Compatible motor bracket ⑥
PC50	06D	0200	B	R	0M
PC50	06D	0050: 50 mm to 0250: 250 mm	B	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 Specifications¹

Ball screw lead (mm)	6
Reduction ratio	30/40
Permissible axial load ² (kN)	22.4
Pressing direction	8.4
Pulling direction	±0.005
Positioning repeatability (mm)	0.02
Backlash (mm)	18.9
Permissible input torque ³ (N·m)	

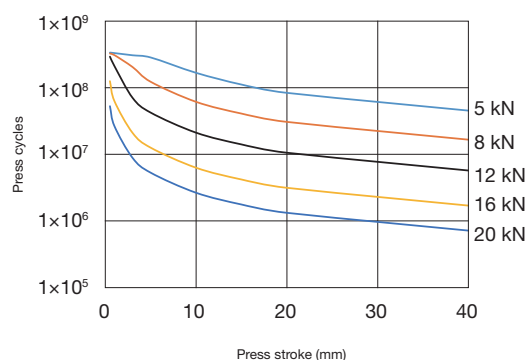
¹ The guideline value for the maximum acceleration/deceleration is 0.1 G.

² The permissible axial load value shows the load that the product can bear while the actuator is stationary.

³ There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

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)



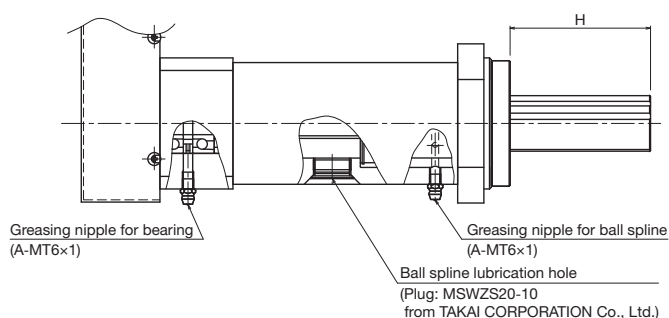
Service life will vary depending on press load and press stroke.
Operating life values are theoretical based on the below conditions.
Mounting orientation: Vertical (rod facing down)
Pressing direction: Compression direction
Load mass: 75kg

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.

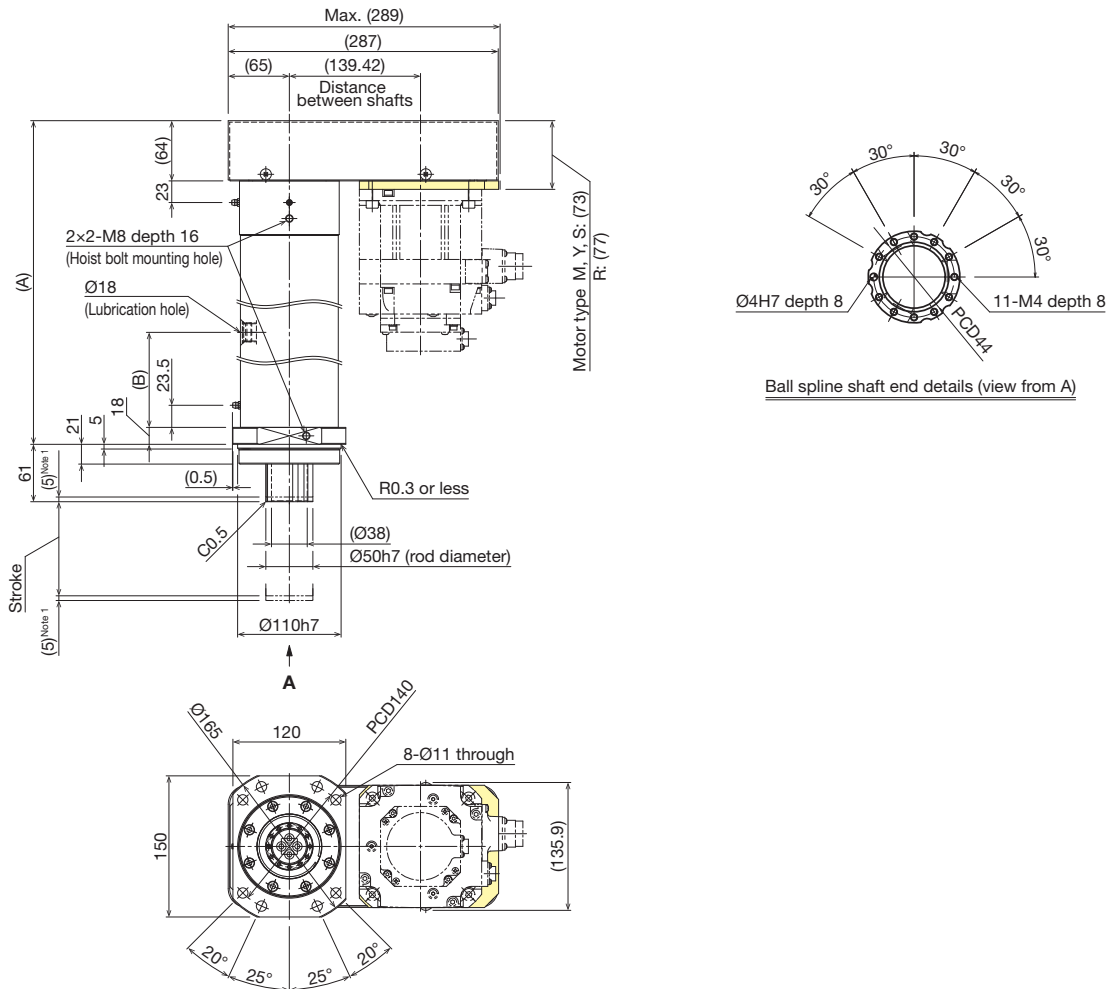


Stroke	50	100	150	200	250
Lubrication site: H	83	133	173	173	173

Unit: mm

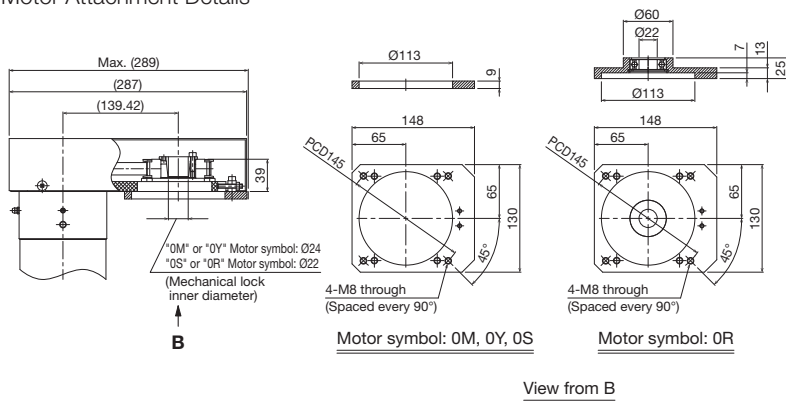
Dimensions

This figure shows lubrication site D (bottom).



¹ This is the stroke up to the mechanical stopper.

Motor Attachment Details



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				
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

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.

PC60-10E

Rod diameter 60 mm	Motor wrap	Max. stroke 250 mm
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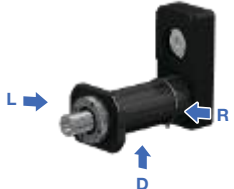
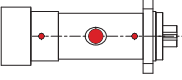
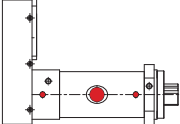
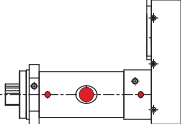
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (lubrication site) ⑤	Compatible motor bracket ⑥
PC60	10E	0200	B	R	0M
PC60	10E	0050: 50 mm to 0250: 250 mm	B	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 Specifications¹

Ball screw lead (mm)	10
Reduction ratio	28/60
Permissible axial load ² (kN)	Pressing direction 31.1 Pulling direction 10.9
Positioning repeatability (mm)	±0.005
Backlash (mm)	0.02
Permissible input torque ³ (N·m)	27.2

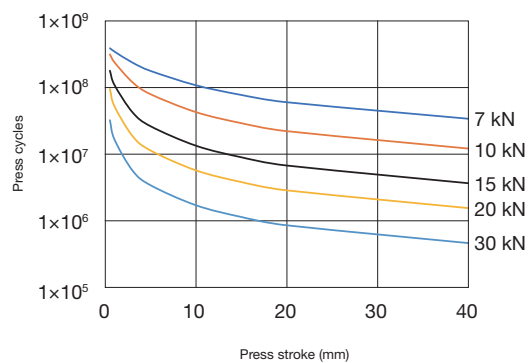
¹ The guideline value for the maximum acceleration/deceleration is 0.1 G.

² The permissible axial load value shows the load that the product can bear while the actuator is stationary.

³ There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

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)



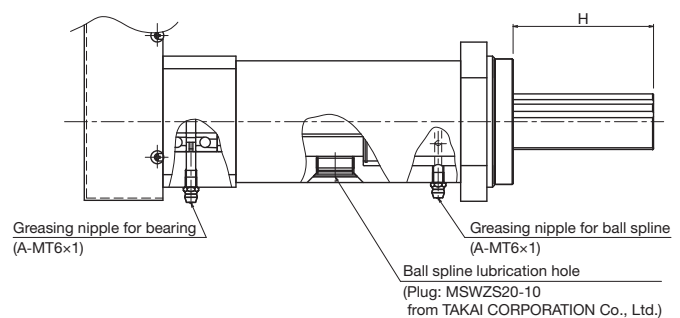
Service life will vary depending on press load and press stroke.
Operating life values are theoretical based on the below conditions.
Mounting orientation: Vertical (rod facing down)
Pressing direction: Compression direction
Load mass: 100kg

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.

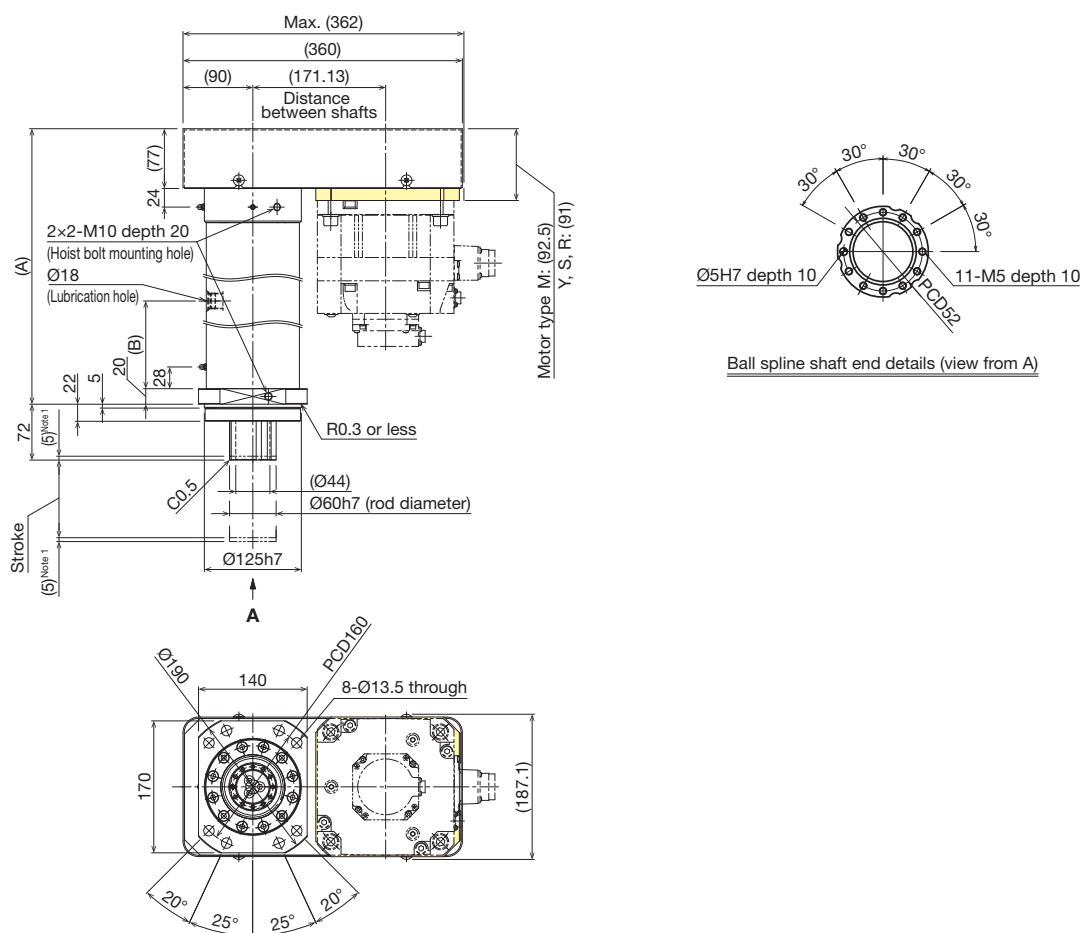
Lubricate the product with the rod extended to the lubrication site.



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

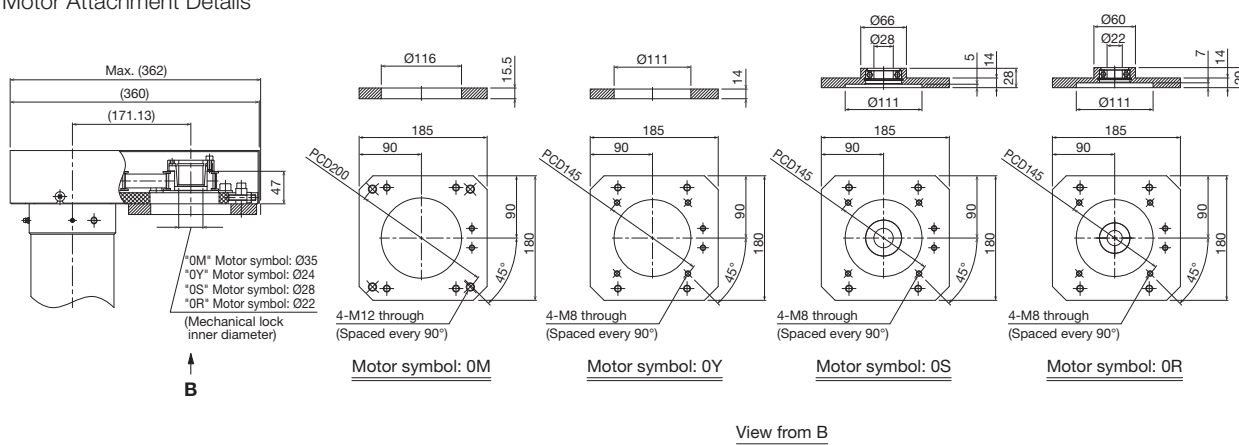
Dimensions

This figure shows lubrication site D (bottom).



¹ This is the stroke up to the mechanical stopper.

Motor Attachment Details



Stroke (mm)		50	100	150	200	250
(Stroke between mechanical stoppers)		(60)	(110)	(160)	(210)	(260)
Dimensions (mm)	A	305	355	405	455	505
	B		113		163	213
Mass ² (kg)	OM, OS, OR	40.4	44	47.6	51.2	54.7
	OY	39.6	43.2	46.8	50.4	53.9

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	Max. stroke 250 mm
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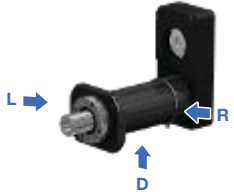
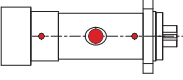
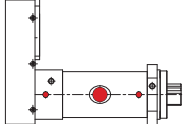
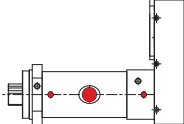
Model Number Coding

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	B B	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 Specifications¹

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

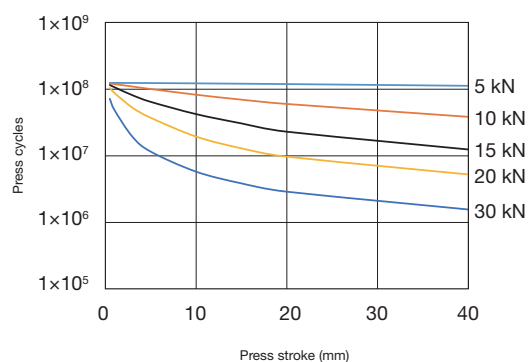
¹ The guideline value for the maximum acceleration/deceleration is 0.1 G.

² The permissible axial load value shows the load that the product can bear while the actuator is stationary.

³ There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

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)



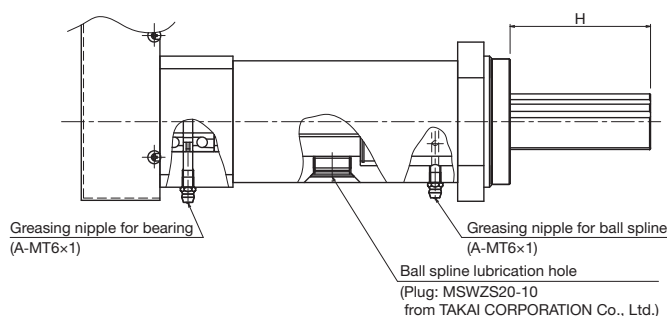
Service life will vary depending on press load and press stroke.
Operating life values are theoretical based on the below conditions.
Mounting orientation: Vertical (rod facing down)
Pressing direction: Compression direction
Load mass: 150kg

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.

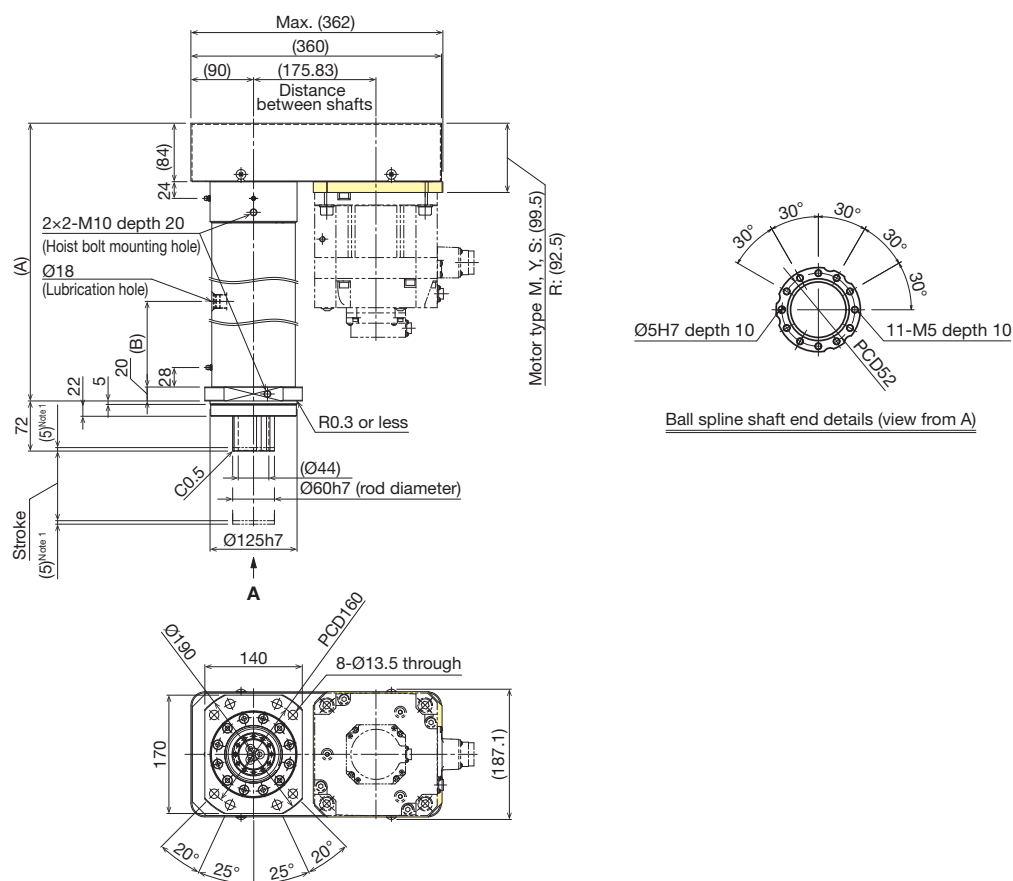


Stroke	50	100	150	200	250
Lubrication site: H	100	150	200	230	230

Unit: mm

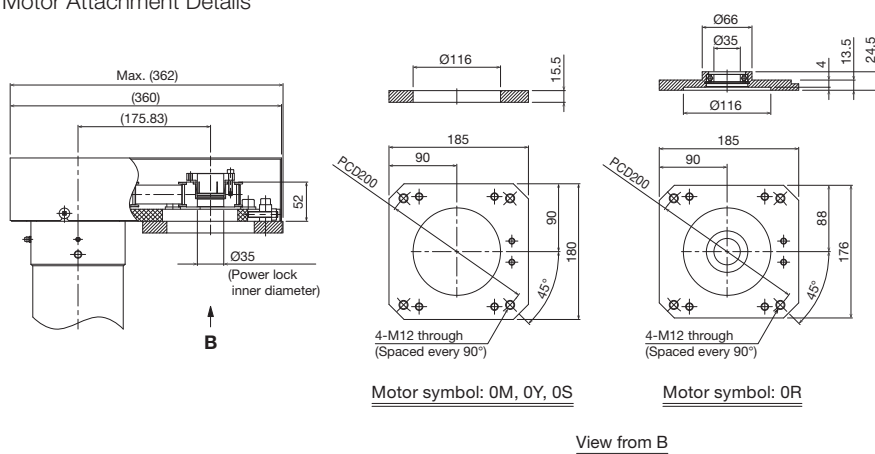
Dimensions

This figure shows lubrication site D (bottom).



¹ This is the stroke up to the mechanical stopper.

Motor Attachment Details



Stroke (mm)		50	100	150	200	250
(Stroke between mechanical stoppers)		(60)	(110)	(160)	(210)	(260)
Dimensions (mm)	A	349	399	449	499	549
	B		123		145	195
Mass ² (kg)	0M, 0Y, 0S	44.3	47.9	51.5	55.1	58.6
	0R	43.7	47.3	50.9	54.5	58.1

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.

PC80L-12G

Rod diameter 80 mm	Motor wrap	Max. stroke 250 mm
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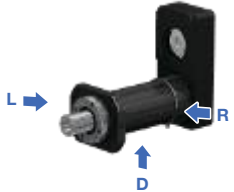
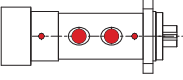
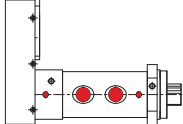
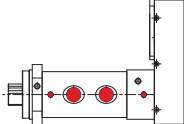
Model Number Coding

Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (lubrication site) ⑤	Compatible motor bracket ⑥
PC80L	12G	0200	B	R	0M
PC80L	12G	0050: 50 mm to 0250: 250 mm	B	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 Specifications¹

Ball screw lead (mm)	12
Reduction ratio	40/90
Permissible axial load ² (kN)	120
Pulling direction	48
Positioning repeatability (mm)	±0.005
Backlash (mm)	0.02
Permissible input torque ³ (N·m)	75

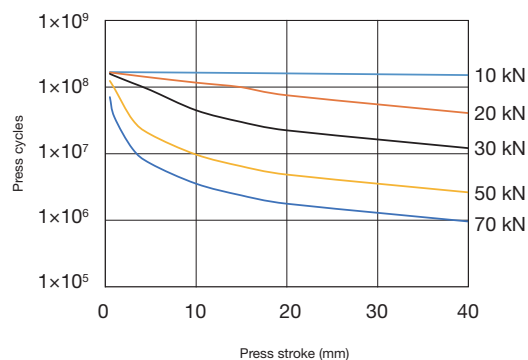
¹ The guideline value for the maximum acceleration/deceleration is 0.1 G.

² The permissible axial load value shows the load that the product can bear while the actuator is stationary.

³ There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

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)

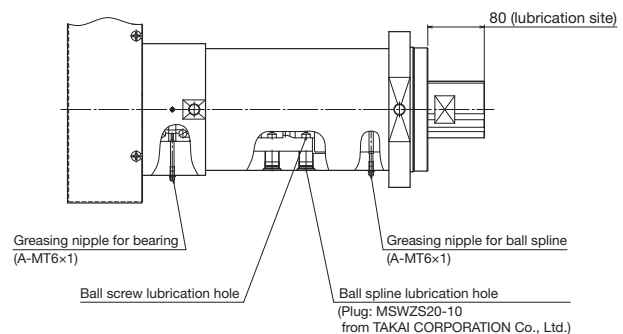


Service life will vary depending on press load and press stroke.
Operating life values are theoretical based on the below conditions.
Mounting orientation: Vertical (rod facing down)
Pressing direction: Compression direction
Load mass: 200kg

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

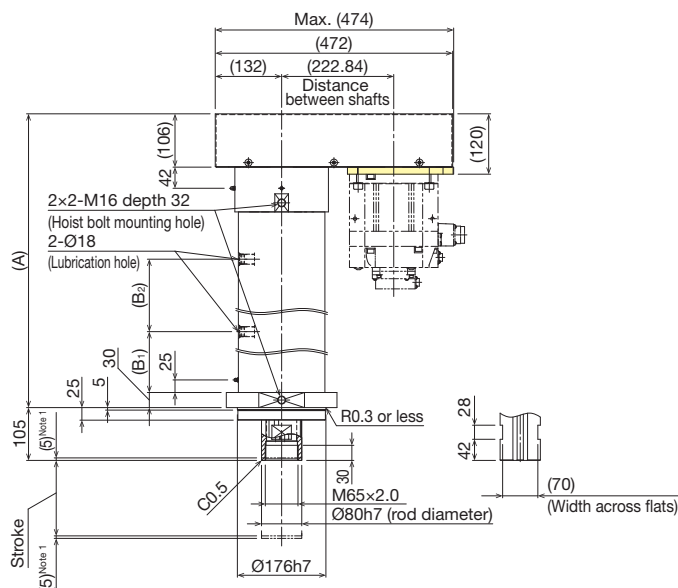
Maintenance

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



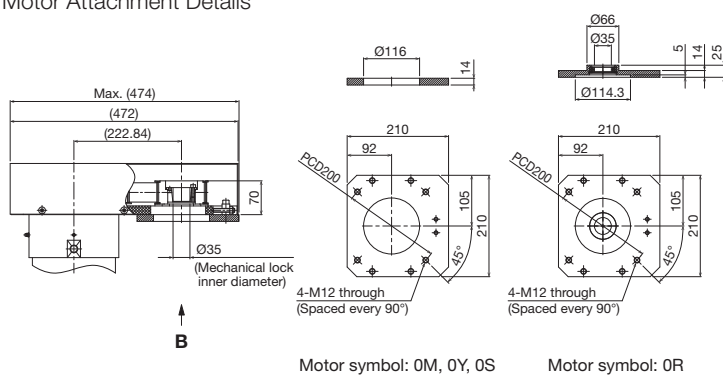
Dimensions

This figure shows lubrication site D (bottom).



¹ This is the stroke up to the mechanical stopper.

Motor Attachment Details



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		
Mass ² (kg)	0M, 0Y, 0S	117.4	124.6	131.9	139.2	146.4
	0R	118.1	125.4	132.7	139.9	147.2

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.

PC80-12G

Rod diameter 80 mm	Motor wrap	Max. stroke 250 mm
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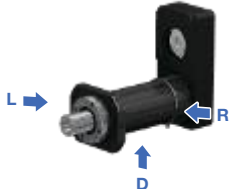
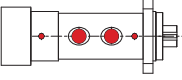
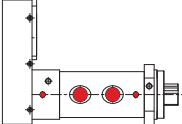
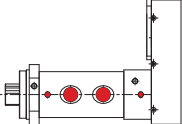
Model Number Coding

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

Compatible Motor Bracket Symbol Coding

Without motor	0	Y
	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 Specifications¹

Ball screw lead (mm)	12
Reduction ratio	40/90
Permissible axial load ² (kN)	120
Pulling direction	48
Positioning repeatability (mm)	±0.005
Backlash (mm)	0.02
Permissible input torque ³ (N·m)	107

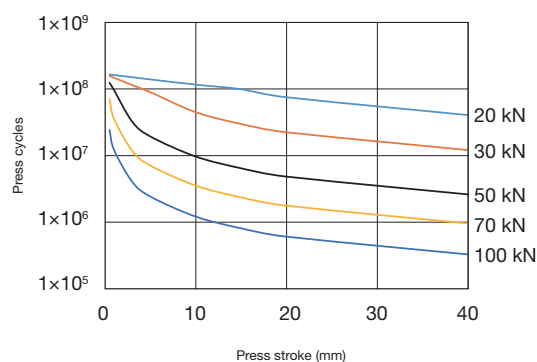
¹ The guideline value for the maximum acceleration/deceleration is 0.1 G.

² The permissible axial load value shows the load that the product can bear while the actuator is stationary.

³ There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

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)

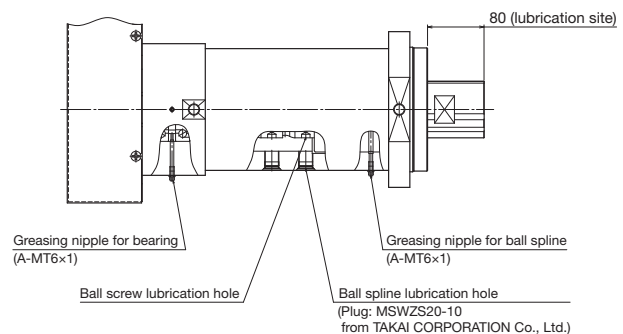


Service life will vary depending on press load and press stroke.
Operating life values are theoretical based on the below conditions.
Mounting orientation: Vertical (rod facing down)
Pressing direction: Compression direction
Load mass: 200kg

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

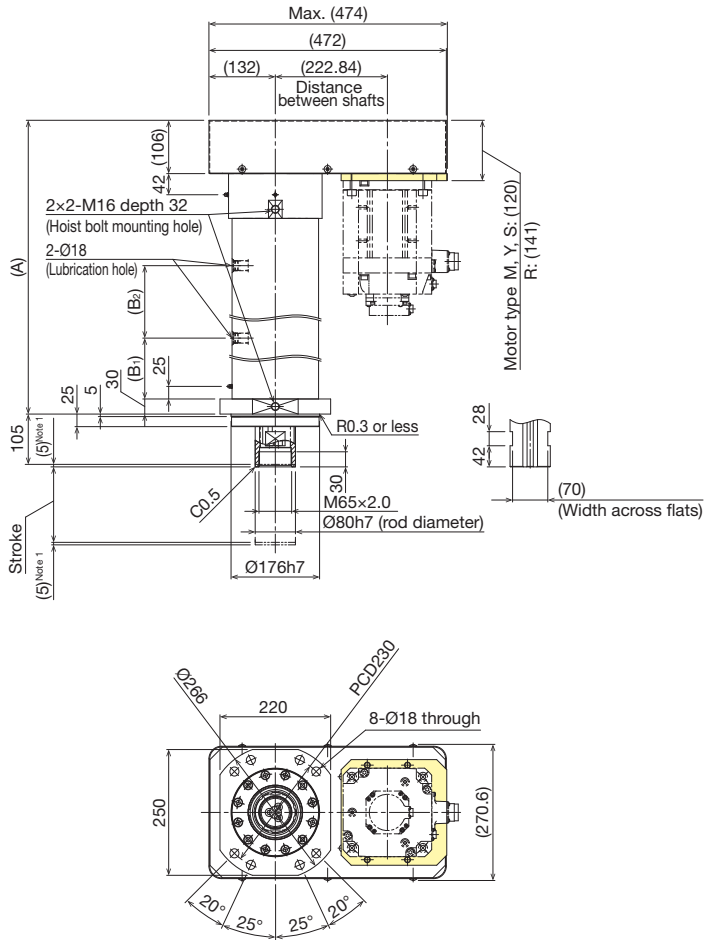
Maintenance

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



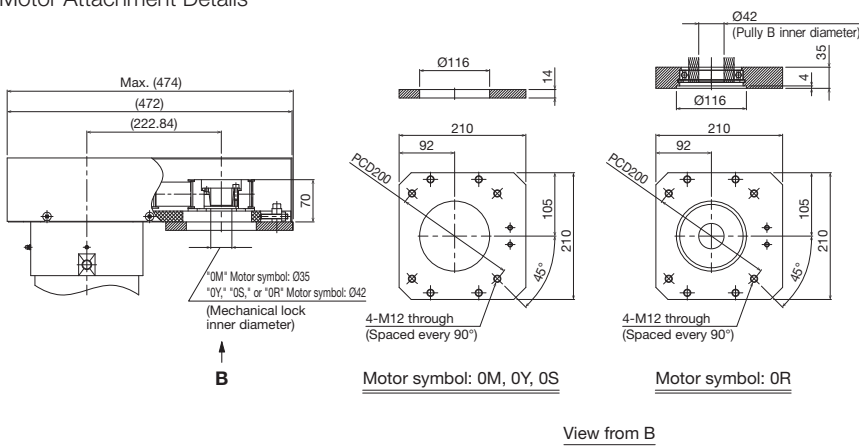
Dimensions

This figure shows lubrication site D (bottom).



¹ This is the stroke up to the mechanical stopper.

Motor Attachment Details



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)	OM, OY, OS	117.4	124.6	131.9	139.2	146.4
	OR	125	132.3	139.6	146.8	154.1

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	Max. stroke 250 mm
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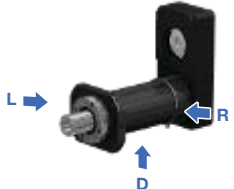
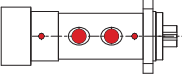
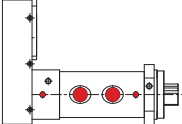
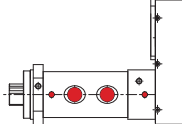
Model Number Coding

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	B B	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 Specifications¹

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

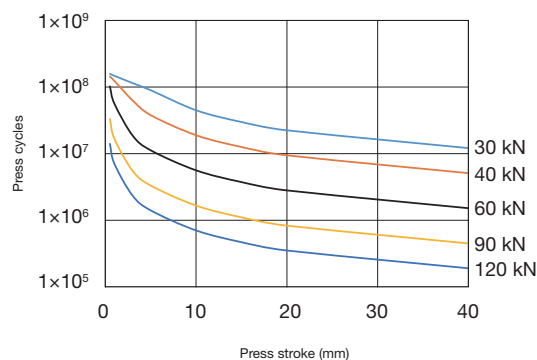
¹ The guideline value for the maximum acceleration/deceleration is 0.1 G.

² The permissible axial load value shows the load that the product can bear while the actuator is stationary.

³ There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

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)

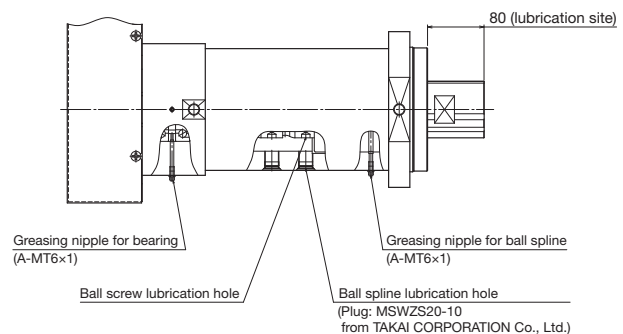


Service life will vary depending on press load and press stroke.
Operating life values are theoretical based on the below conditions.
Mounting orientation: Vertical (rod facing down)
Pressing direction: Compression direction
Load mass: 200kg

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

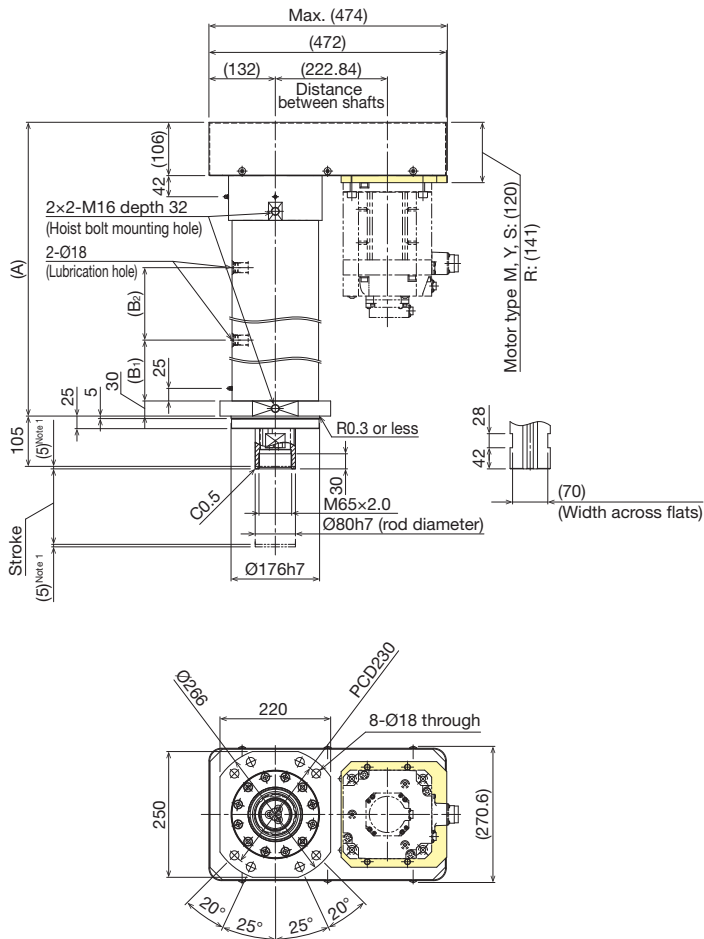
Maintenance

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



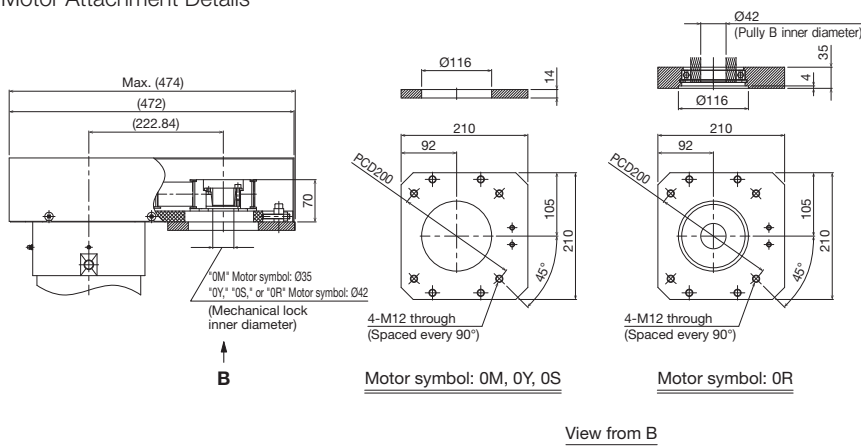
Dimensions

This figure shows lubrication site D (bottom).



¹ This is the stroke up to the mechanical stopper.

Motor Attachment Details



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	125	132.3	139.6	146.8	154.1
	B ₂	48	96		144	
Mass ² (kg)	OM, OY, OS	117.4	124.6	131.9	139.2	146.4
	OR	125	132.3	139.6	146.8	154.1

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	Max. stroke 400 mm
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Model Number Coding

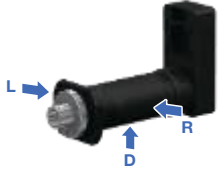
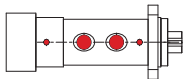
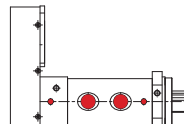
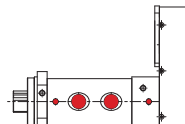
Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (lubrication site) ⑤	Compatible motor bracket ⑥
PC100 PC100	20H 20H	0400 0200: 200 mm 0400: 400 mm	A A	D D: Bottom L: Left R: Right	0M 0M: Without motor 0Y: Without motor 0S: Without motor 0R: Without motor

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. R: OMRON Corporation

⑤ Option (lubrication site)

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

Selection Information

Basic Specifications¹

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

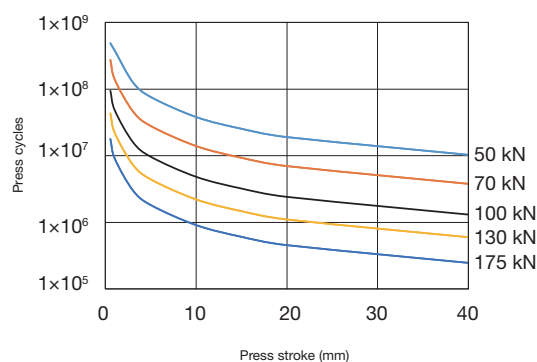
¹ The guideline value for the maximum acceleration/deceleration is 0.1 G.

² The permissible axial load value shows the load that the product can bear while the actuator is stationary.

³ There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

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)

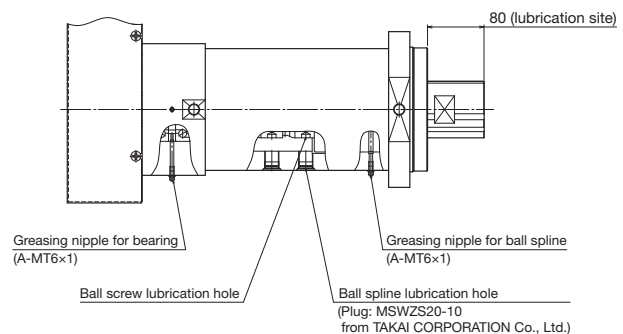


Service life will vary depending on press load and press stroke.
Operating life values are theoretical based on the below conditions.
Mounting orientation: Vertical (rod facing down)
Pressing direction: Compression direction
Load mass: 200kg

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

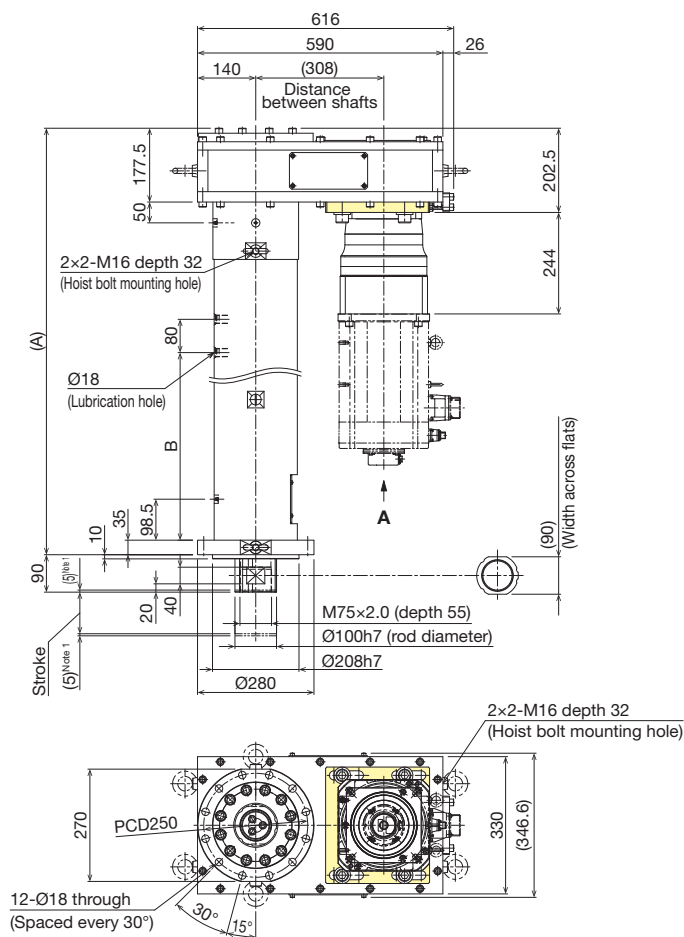
Maintenance

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

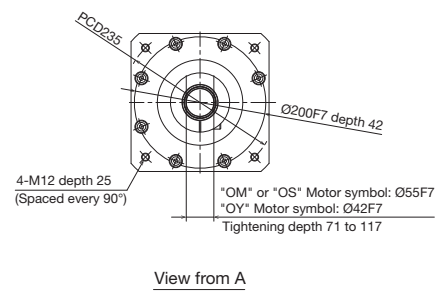


Dimensions

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	1,025.5
	B	251	451
Mass ² (kg)		325	363

² The mass includes the reduction gear.

PC120-20J

Rod diameter 120 mm	Motor wrap	Max. stroke 400 mm
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Model Number Coding

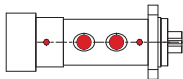
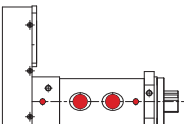
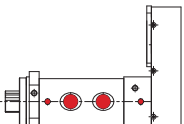
Model ①	Lead, reduction ratio ②	Stroke ③	Design symbol ④	Option (lubrication site) ⑤	Compatible motor bracket ⑥
PC120 PC120	20J 20J	0400 0200: 200 mm 0400: 400 mm	A A	D D: Bottom L: Left R: Right	0M 0M: Without motor 0Y: Without motor 0S: Without motor 0R: Without motor

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. R: OMRON Corporation

⑤ Option (lubrication site)

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

Selection Information

Basic Specifications¹

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

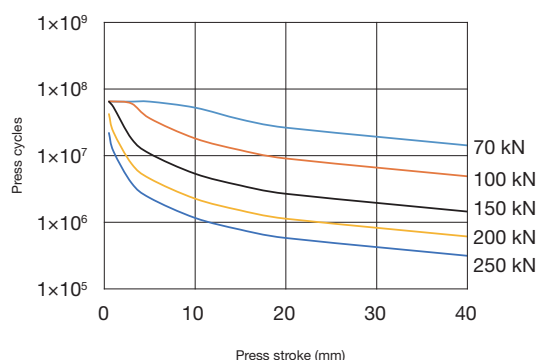
¹ The guideline value for the maximum acceleration/deceleration is 0.1 G.

² The permissible axial load value shows the load that the product can bear while the actuator is stationary.

³ There is a risk of damage to the mechanical parts. Only use the motor within the permissible input torque range.

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)

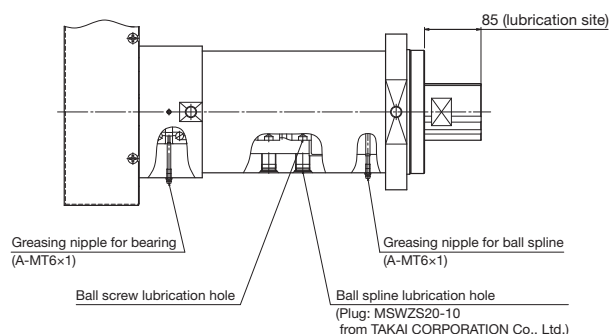


Service life will vary depending on press load and press stroke.
Operating life values are theoretical based on the below conditions.
Mounting orientation: Vertical (rod facing down)
Pressing direction: Compression direction
Load mass: 200kg

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

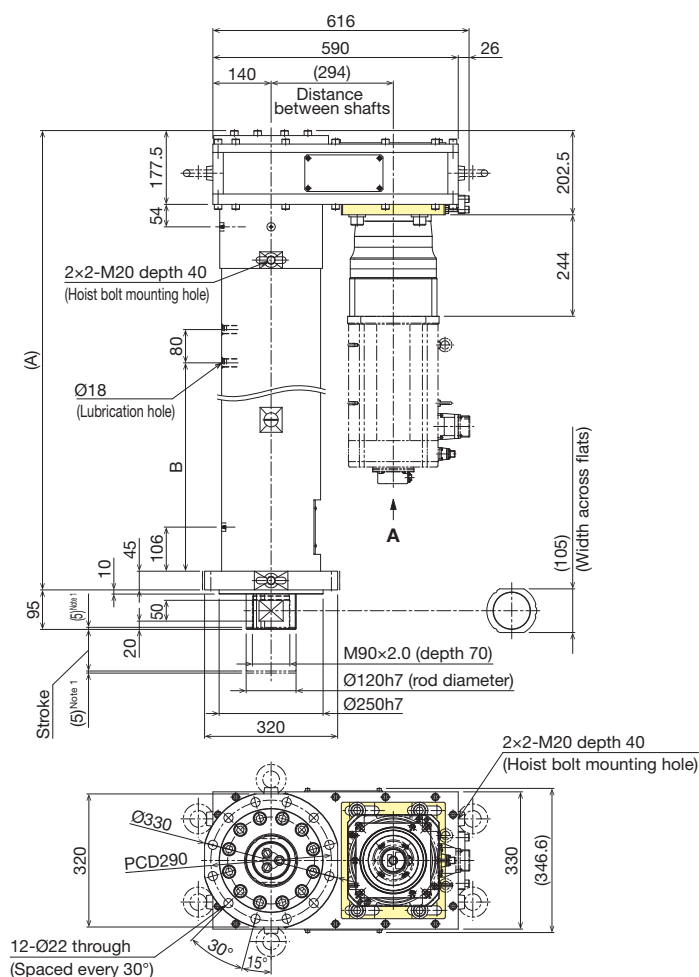
Maintenance

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

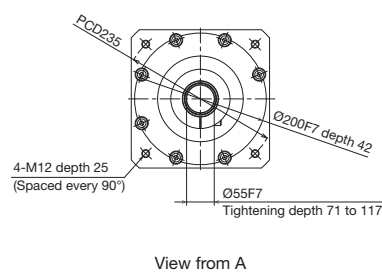


Dimensions

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	904.5	1,104.5
	B	301	501
Mass ² (kg)		426	480

² The mass includes the reduction gear.

PCT20/PCT20R

Rod diameter 20 mm	Direct motor coupling	Motor wrap	Max. stroke 200 mm
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Model Number Coding

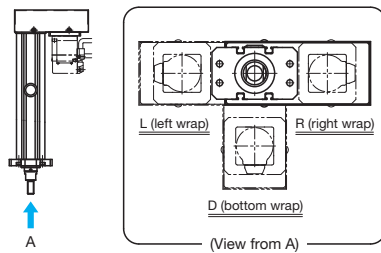
Model ①	Lead, reduction ratio ②	Stroke ③	Options ④	With/without motor ⑤	Motor bracket ⑥	Motor shaft securing method ⑦
PCT20R PCT20	06N 06N	0200 0050: 50 mm to 0200: 200 mm	R With direct coupling N: Direct coupling With motor wrap D: Bottom L: Left R: Right	0 0: Without motor	A1 K1	D With direct coupling 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	SGMXJ-A5				
			SGMXA-A5				
	Mitsubishi Electric Corporation	MELSERVO	J4	HG-KR053	50		A1
				HG-MR053			
			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	SGMXJ-A5	50	A1	D, K, S
			SGMXA-A5			
	Mitsubishi Electric Corporation	MELSERVO	J4 HG-KR053	50	A1	D, K, S
			J5 HG-MR053			
	TAMAGAWA SEIKI CO., LTD.	TBL-III	TS4602	50	A1	D, K, S
			TSM3102			
	OMRON Corporation	OMNUC	G5 R88M-K05030	50	A1	D, K, S
			1S R88M-TM05030			
	SANYO DENKI CO., LTD.	SANMOTION R	R2□A04005	50	A1	D, K, S
	Panasonic Corporation	MINAS	A6 MSMF5A	50	K1	D, K, S

Notes: 1. Contact THK if a motor other than the ones above will be mounted.

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)		Ø8
	Ball screw lead (mm)		6
	Basic dynamic load rating Ca (N)		1,950
	Basic static load rating C0a (N)		3,510
	Thread minor diameter (mm)		Ø6.872
	Ball center-to-center diameter (mm)		Ø8.4
Bearing (fixed side)	Axial direction	Basic dynamic load rating Ca (N)	8,000
		Static permissible load P0a (N)	3,240
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.

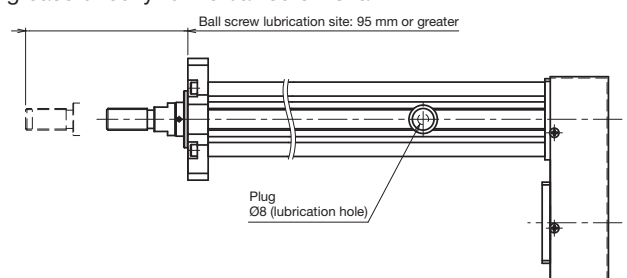
Wrapping Direction Details

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

Maintenance

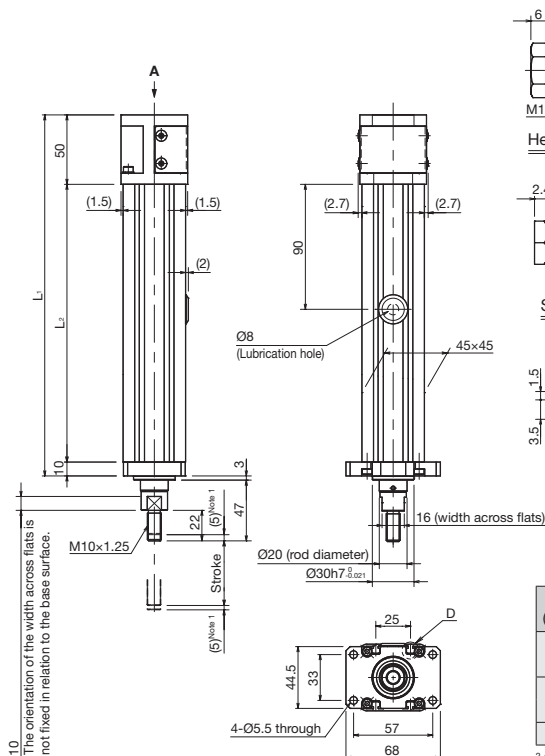
Standard grease: AFB-LF

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



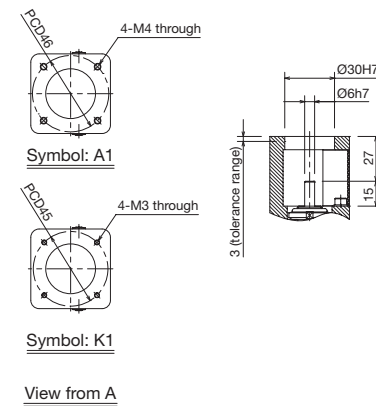
Dimensions

Direct Coupling



¹ This is the stroke up to the mechanical stopper.

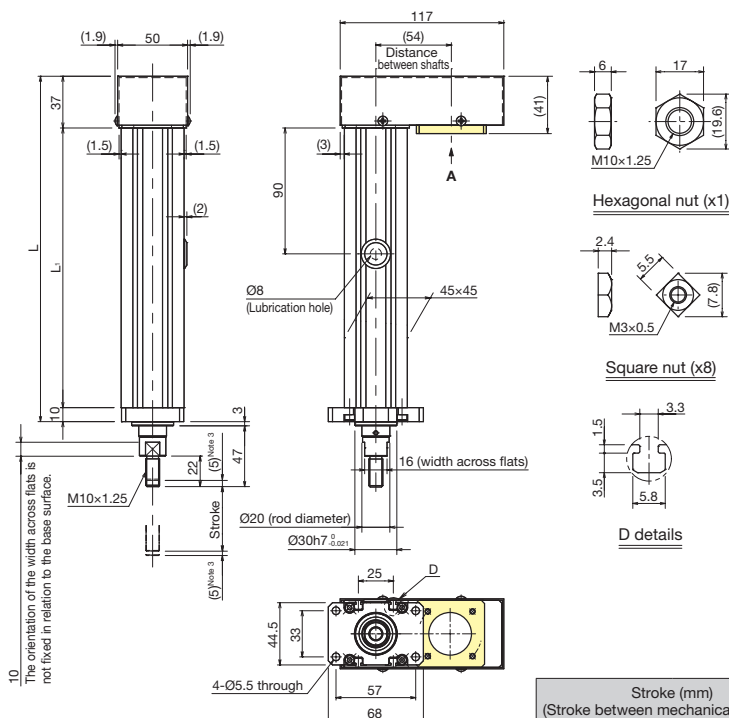
Motor Attachment Details



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			230
Dimensions (mm)	L ₁	260	310	360	410
	L ₂	200	250	300	350
Mass (kg)		1.4	1.6	1.8	2.1

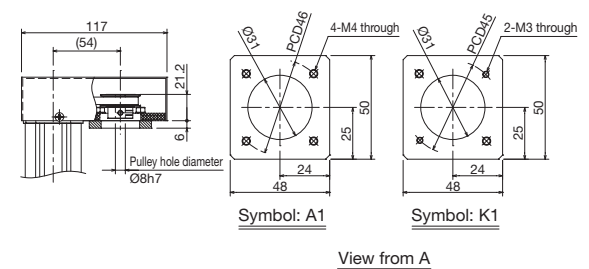
² The maximum speed is restricted either by the rotational speed of the motor at 3,000 min⁻¹ or by the permissible speed of the actuator.

Motor Wrap



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			230
Dimensions (mm)	L	247	297	347	397
	L ₁	200	250	300	350
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

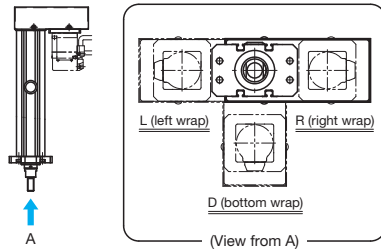
Rod diameter 25 mm	Direct motor coupling	Motor wrap	Max. stroke 300 mm
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Model Number Coding

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 to 0300: 300 mm	With direct coupling N: Direct coupling	0: Without motor	A1	With direct coupling
PCT25R	06N		With motor wrap D: Bottom L: Left R: Right	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.	A2	No symbol
					K1	With motor wrap
					K2	D: Flat
					B1	K: Key
					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.)	
				SGM7A-01				
		Σ-X		SGMJX-01				
				SGMXA-01				
	Mitsubishi Electric Corporation	MELSERVO	J4	HG-KR13	100	A1		
			J5	HG-MR13				
				HK-KT13W				
	TAMAGAWA SEIKI CO., LTD.	TBL-III	TS4603		100	A1		XGT2-25C-8-8 Nabeya Bi-tech Kaisha (NBK)
		TBL-IV	TSM3104					
	OMRON Corporation	OMNUC	G5	R88M-K10030	100	A1		SFC-025DA2-8B-14B (MIKI PULLEY CO., LTD.)
			1S	R88M-1M10030				
	SANYO DENKI CO., LTD.	SANMOTION R		R2□A04010	100	A1		
	YASKAWA Electric Corporation	Σ-7		SGM7J-02	200	A2		
				SGM7A-02				
		Σ-X		SGMJX-02				
				SGMXA-02				
	Mitsubishi Electric Corporation	MELSERVO	J4	HG-KR23	200	A2		
			J5	HG-MR23				
				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	SFC-020DA2-8B-8B (MIKI PULLEY CO., LTD.)		
	OMRON Corporation	OMNUC	G5	R88M-K20030	200		K2	
			1S	R88M-1M20030				
Panasonic Corporation	MINAS	A6	MSMF02	200	K2		XGT2-25C-8-11 Nabeya Bi-tech Kaisha (NBK)	
Stepper motor	ORIENTAL MOTOR CO., LTD.	α Step		A26*, AR6*			B1	SFC-020DA2-8B-10B (MIKI PULLEY CO., LTD.)
		5-phase	PKP/	PKP56* (this excludes PKP569FM*)	B1		XGT2-25C-8-8 Nabeya Bi-tech Kaisha (NBK)	
		2-phase	CVD					PKP26*

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			
			SGMJX-01			
		Σ-X	SGMXA-01	200	A2	D, K, S
			HG-KR13			
			HG-MR13			
	Mitsubishi Electric Corporation	MELSERVO	J4	100	A1	D, S
			J5			
			HG-KR23			
	TAMAGAWA SEIKI CO., LTD.	TBL-III	TS4603	100	A1	D, K, S
			TS4607			
			TSM3104			
		TBL-IV	TSM3202	200	A2	D, K, S
			MSMF01			
			MSMF02			
	Panasonic Corporation	MINAS	A6	100	K1	D, K, S
	SANYO DENKI CO., LTD.	SANMOTION R	R2□A04010	100	A1	D, K, S
			R2□A06020	200	A2	D, K, S
	OMRON Corporation	OMNUC	G5 R88M-K10030	100	A1	K, S
			1S R88M-K20030	200	K2	K, S
			R88M-1M10030	100	A1	K, S
			R88M-1M20030	200	K2	K, S

Notes: 1. Contact THK if a motor other than the ones above will be mounted.

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)			100		200	
Ball screw	Screw shaft diameter (mm)		Ø14	Ø12	Ø14	Ø12
	Ball screw lead (mm)		4	6	4	6
	Basic dynamic load rating Ca (N)		6,600	4,910	6,600	4,910
	Basic static load rating C0a (N)		12,300	9,600	12,300	9,600
	Thread minor diameter (mm)		Ø11.5	Ø9.872	Ø11.5	Ø9.872
	Ball center-to-center diameter (mm)		Ø14.4	Ø12.65	Ø14.4	Ø12.65
Bearing (fixed side)	Axial direction	Basic dynamic load rating Ca (N)	13,800			
		Static permissible load P0a (N)	5,850			
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	3.2
Max. input torque ² (N·m)			1.91 (0.95)		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.

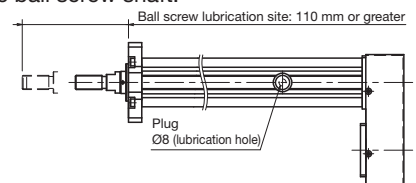
Wrapping Direction Details

Motor rated output (W)		100		200	
Timing belt	Manufacturer	Gates Unittta Asia Company			
	Model	273-3GT-6		273-3GT-9	

Maintenance

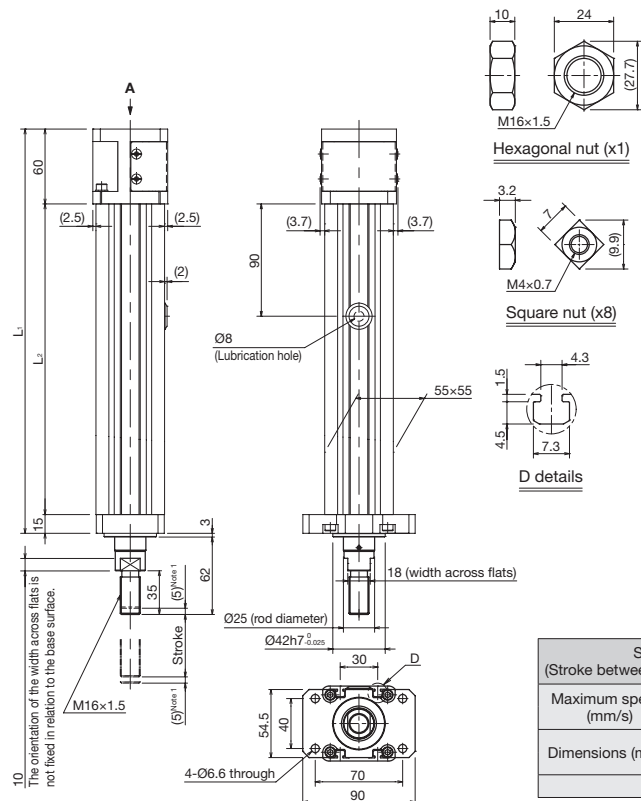
Standard grease: AFB-LF

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



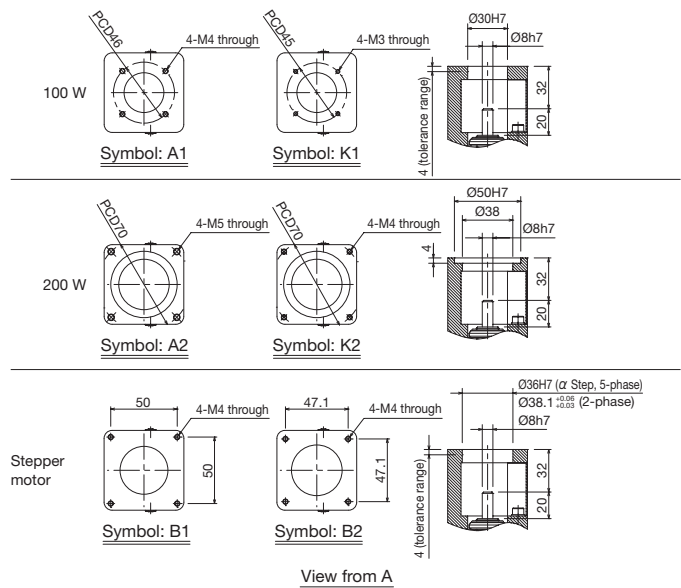
Dimensions

Direct Coupling



¹ This is the stroke up to the mechanical stopper.

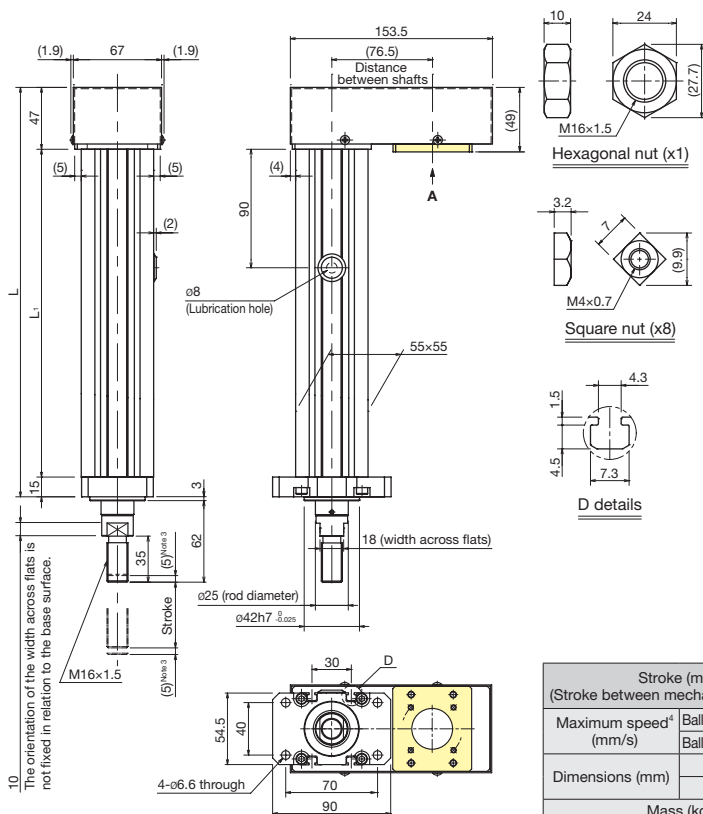
Motor Attachment Details



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	574
	L ₂	249	299	349	399	449	499
Mass (kg)		2.8	3.2	3.5	3.8	4.2	4.5

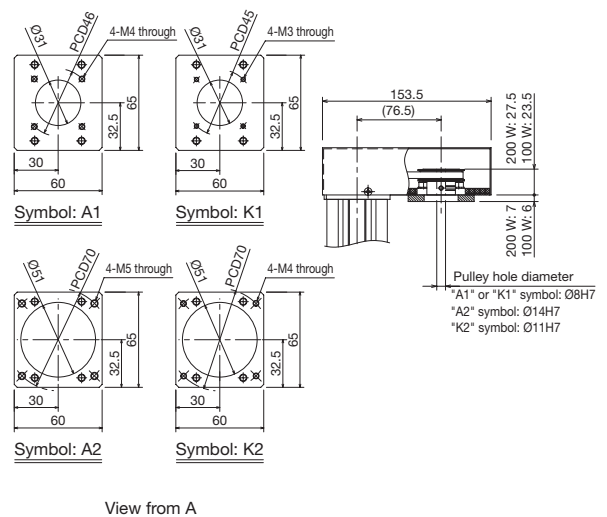
² The maximum speed is restricted either by the rotational speed of the motor at 3,000 min⁻¹ or by the permissible speed of the actuator.

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	561
	L ₁	249	299	349	399	449	499
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.