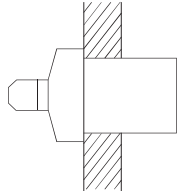
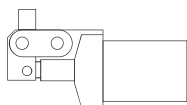
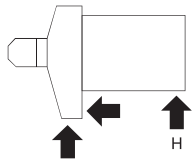
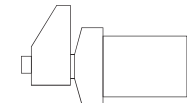
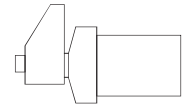
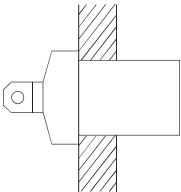
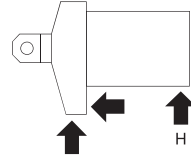
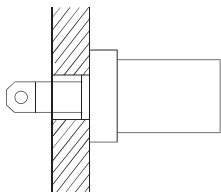
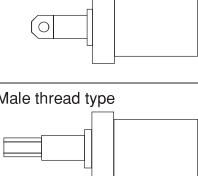
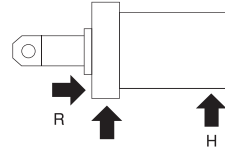
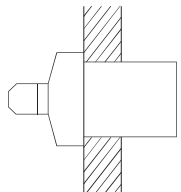
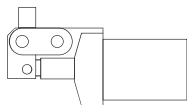
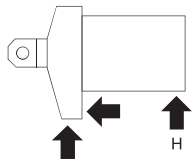
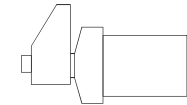


	Series	Mounting style	Rod end type	Piping port position
Hydraulic models	JEHS (swing type)			
	JEHM (move with turning type)			
	JEHP (move after turning type)			
	JEHF (front mount)			
			Male thread type 	
	JEHR (rear mount)		Male thread type 	
Pneumatic models	JEAS (swing type)			
	JEHM (move with turning type)			

To select a clamp unit, it is necessary to determine the following items.

■Clamp operation type
For unclamping, the clamp arm must be evacuated or have a special form depending on the shape of the jig or work. Determine the type in consideration of this.

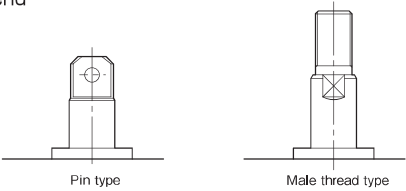
■Selection of clamp unit bore
Select the bore in accordance with the following procedures.

①To apply the cylinder force directly on the clamp unit axis center
In this case, select the bore referring to the cylinder force table. Examine the bore on the assumption that the cylinder output (actual output of the piston rod) is 95% of the cylinder force.

②To apply the cylinder force at a distance from the clamp unit axis center
In this case, the clamp force varies depending on the length of the clamp arm to be used. Determine the bore from the clamp force diagram.

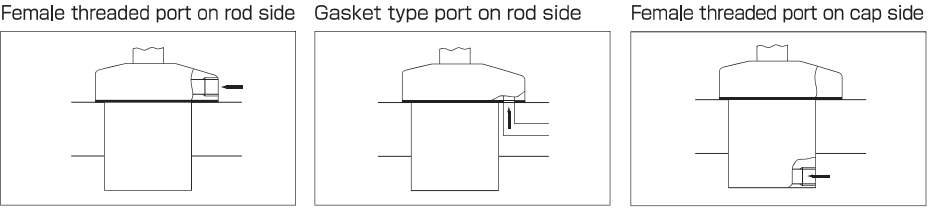
■Stroke
Select the stroke in consideration of the clamping distance, evacuating distance and clamp structure.

■Shape of piston rod
There are pin type and male thread type rod ends. Select the shape appropriate to the clamp arm mounting method.
Shapes of piston rod end



■Position of piping port
The piping port is positioned on the rod or cap side (side H). There are threaded type and gasket type ports. Select the position in consideration of the jig shape, work shape, and disposal of cuttings.

■Selection of piping port position



■Clamp unit output table

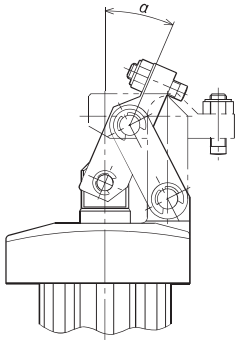
Cylinder Force Table

Unit: kN

Bore mm	Rod dia. mm	Working direction	Pressure receiving area mm ²	Hydraulic (pneumatic) pressure MPa							
				0.5	1.0	2.0	3.0	4.0	5.0	6.0	7.0
φ32	φ20	Extension side	804	0.40	0.80	1.61	2.41	3.22	4.02	4.82	5.63
		Retraction side	490	0.25	0.49	0.98	1.47	1.96	2.45	2.94	3.43
φ40	φ25	Extension side	1257	0.63	1.26	2.51	3.77	5.03	6.29	7.54	8.80
		Retraction side	766	0.38	0.77	1.53	2.30	3.06	3.83	4.60	5.36
φ50	φ32	Extension side	1963	0.98	1.96	3.93	5.89	7.85	9.82	11.78	13.74
		Retraction side	1159	0.58	1.16	2.32	3.48	4.64	5.80	6.95	8.11
φ63	φ40	Extension side	3117	1.56	3.12	6.23	9.35	12.47	15.59	18.70	21.82
		Retraction side	1860	0.93	1.86	3.72	5.58	7.44	9.30	11.16	13.02

Explanation of operations of swing type and turning type clamps

● Swing type (link)



Bore (mm)	α
$\phi 32$	22°58'
$\phi 40$	23°19'
$\phi 50$	24°12'
$\phi 63$	25°15'

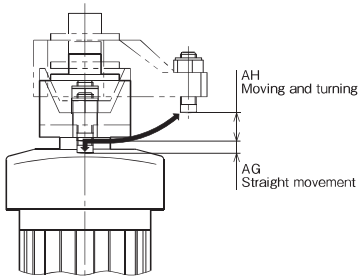
1.Clamping operation

When pressure is applied to the cylinder extending port, the piston rod starts protruding, and at the same time, the clamp arm starts turning around the upper link pin. The link turns around the lower link pin, and the clamp arm moves to the clamping position. Therefore, the clamp arm end moves along the trajectory composed of the turn of the clamp arm and the turn of the link.

2.Unclamping operation

When pressure is applied to the cylinder retracting port, the piston rod starts retracting, and at the same time, the clamp arm and link turn in the direction opposite to the clamping operation. The piston rod stops at the stroke end to finish the unclamping operation. At this time, the angle between the piston rod axis line and the clamp arm axis line is close to the value shown in the left table.

● Move with turning type



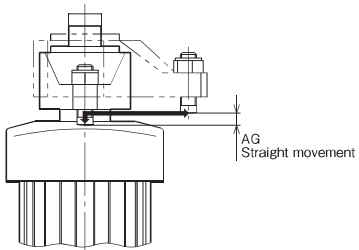
1.Clamping operation

When pressure is applied to the cylinder retracting port, the piston rod turns while retracting. After it moves and turns 75°, it stops turning and retracts. Set the clamping position within the stroke range in which the piston rod retracts after stopping turning, so that clamping is performed in the center of the stroke as far as possible. The clockwise turning direction as viewed from the top of the piston rod is indicated as R, and the counterclockwise direction is indicated as L.

2.Unclamping operation

When pressure is applied to the cylinder extending port, the piston rod protrudes without turning. After the completion of this operation, the piston rod turns in the direction opposite to the clamping operation while protruding and finishes unclamping after moving and turning 75°. Note) The piston rod moves while turning and moves straight continuously.

● Move after turning type



1.Clamping operation

When pressure is applied to the cylinder retracting port, the piston rod starts turning horizontally in the protruding state. After turning 75°, it stops turning and retracts. Set the clamping position within the stroke range in which the piston rod retracts after stopping turning, so that clamping is performed in the center of the stroke as far as possible. The clockwise turning direction as viewed from the top of the piston rod is indicated as R, and the counterclockwise direction is indicated as L.

2.Unclamping operation

When pressure is applied to the cylinder extending port, the piston rod extends without turning. After it moves to the stroke end, it starts turning in the direction opposite to the clamping operation at the position. It turns 75° and finishes unclamping. Note) The piston rod turns at the fixed position and moves straight continuously.

Selection of clamp unit bore

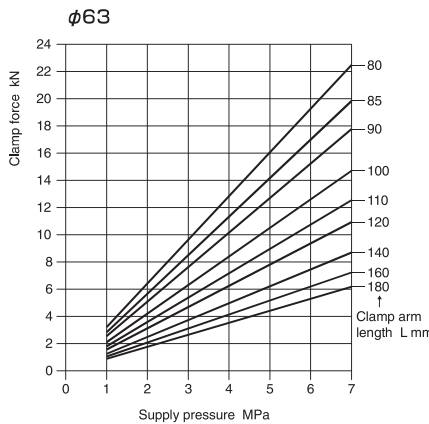
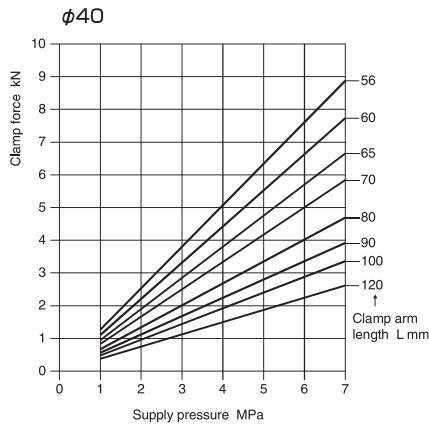
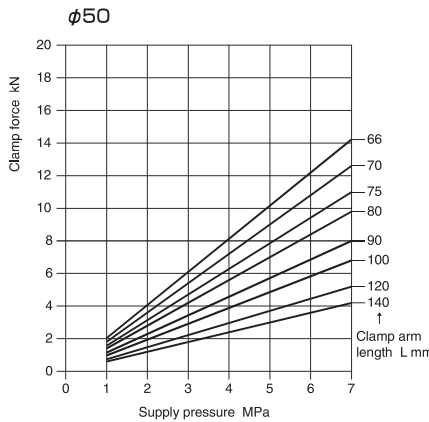
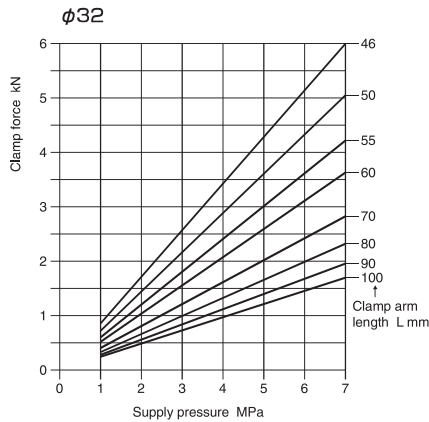
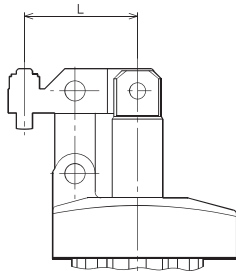
●Hydraulic models

Swing type(JEHS)

The swing type clamp unit swings the clamp arm through the link mechanism.

This type shows insignificant reduction in output by abrasion and clamps a load efficiently.

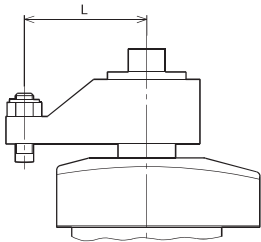
Determine the bore based on the clamp arm length, clamp force and supply pressure.



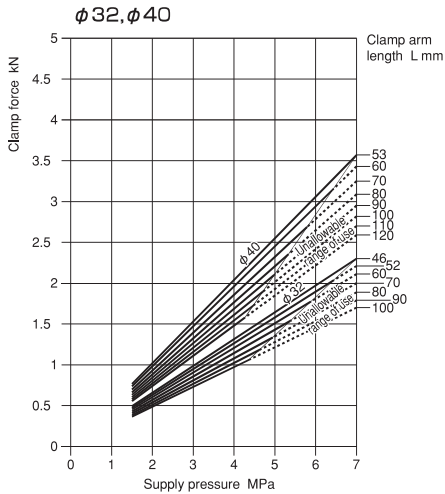
■ Selection of clamp unit bore

- Hydraulic models
- Turning type

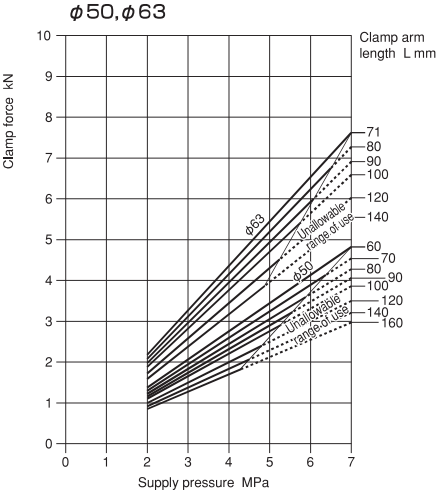
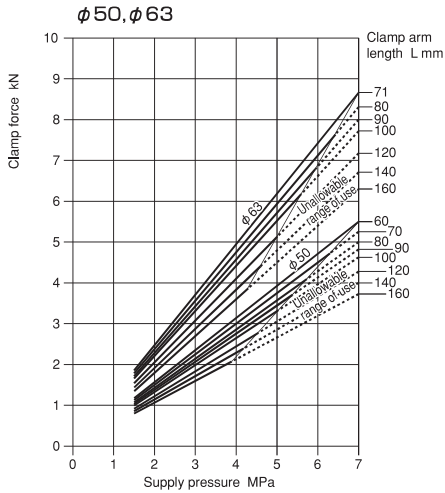
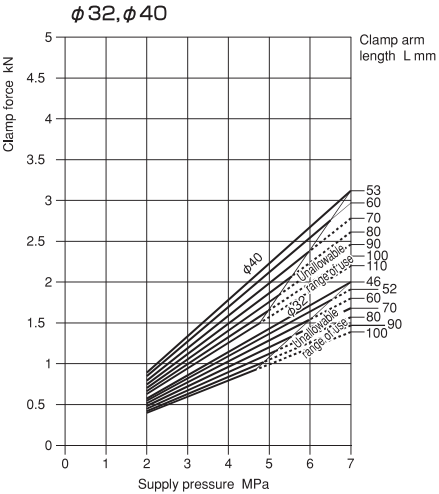
When the turning type clamp unit clamps a load, bending moment is applied to the piston rod. As the clamp arm becomes longer, the bending moment applied to the piston rod increases. Therefore, the working pressure range is limited according to the arm length. Determine the bore, arm length and set pressure within the allowable range of use referring to the clamp force diagram and limit working pressure diagram. (When using optional parts, select proper ones in the same manner.)



Move with turning type(JEHM)



Move after turning type(JEHP)

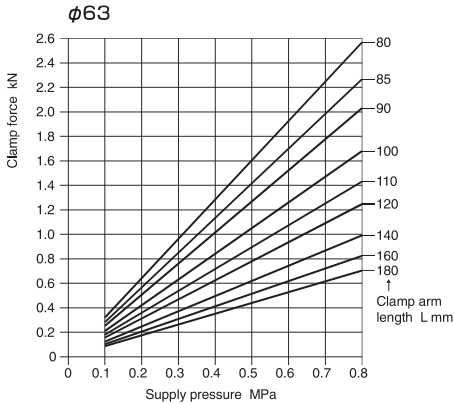
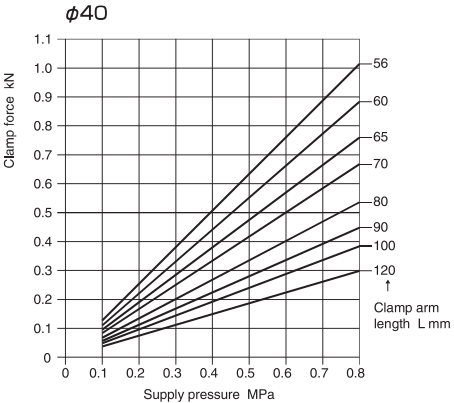
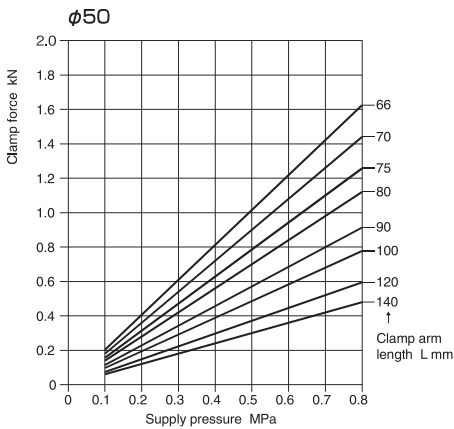
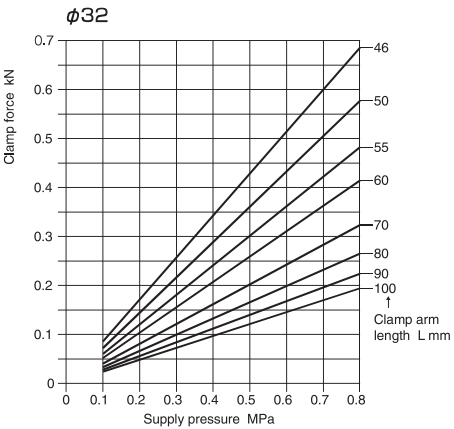
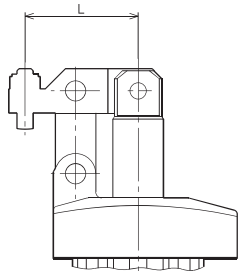


■ Selection of clamp unit bore

- Pneumatic models

Swing type(JEAS)

The swing type clamp unit swings the clamp arm through the link mechanism. This type shows insignificant reduction in output by abrasion and clamps a load efficiently. Determine the bore based on the clamp arm length, clamp force and supply pressure.



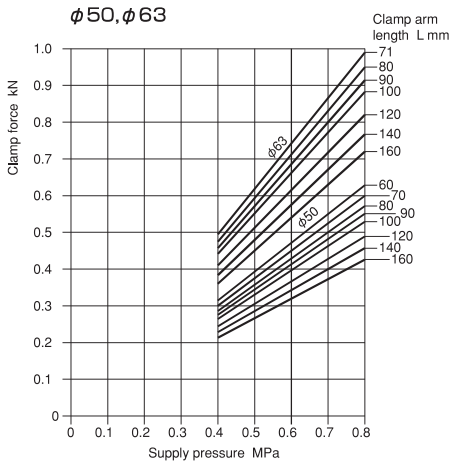
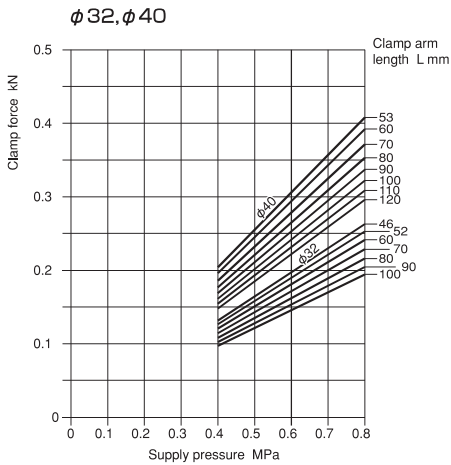
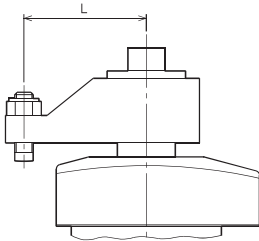
■ Selection of clamp unit bore

● Pneumatic models

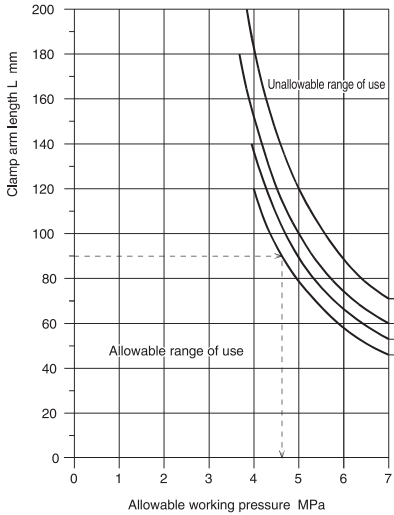
Move with turning type(JEAM)

When the turning type clamp unit clamps a load, bending moment is applied to the piston rod. As the clamp arm becomes longer, the bending moment applied to the piston rod increases. Therefore, the working pressure range is limited according to the arm length. Select the bore, arm length and set pressure within the allowable range of uses referring to the clamp force diagram and limit working pressure diagram.

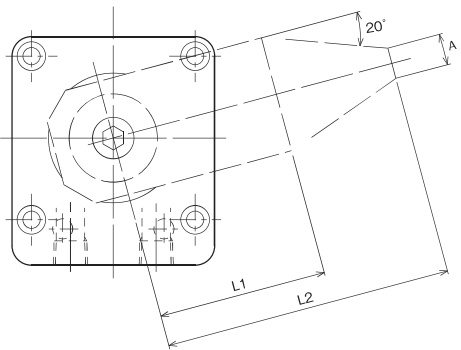
(When using optional parts, select proper ones in the same manner.)



● Limit working pressure diagram for long clamp arm



● Size for allowing long clamp arm to evacuate
Since the working range of the turning type units (JEHM, JEHP and JEAM) is 75°, the length of the clamp arms which can evacuate in the rod cover end face is limited. A clamp arm whose end face is not chamfered can evacuate if its dimension L1 does not exceed the value shown in the following table. When the end face is chamfered in the same manner as the standard arm, the clam arm can evacuate if its dimension L2 does not exceed the value shown in the following table.



Dimensional Table			
Unit: mm			
Bore	L1	L2	L1
φ32	67	102	10
φ40	65	110	12
φ50	60	118	16
φ63	68	140	20

A wide variation of compact units

- Hydraulic (7 MPa) models and pneumatic models of the same size are available.
- The new design reduces the overall length and promotes downsizing of jigs.
- The newly applied gasket type seals on the rod cover and jig surface are easy to fit and reliable.
- The easy-to-use magnetic proximity sensor embedded in the body facilitates confirmation of clamping and unclamping state.



Main Body Specifications: Hydraulic models

Type	Swing type	Move with turning type	Move after turning type	Front mount type	Rear mount type
	JEHS	JEHM	JEHP	JEHF	JEHR
Nominal pressure	7 MPa				
Proof test pressure	10.5 MPa				
Minimum operating pressure	1 MPa	1.5 MPa	2 MPa	1 MPa	
Working speed range	8 to 100 mm/s	Note)		8 to 100 mm/s	
Working temperature range	Without sensor.....-5 to +80℃ With sensor.....-5 to +70℃ (No freezing)				
Structure of cushioning	None				
Adaptable fluid	Petroleum-based fluid				

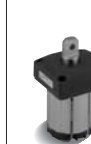
Note) Adjust the flow control valve to obtain the 75° swing time of 0,5 sec or more.

Main Body Specifications: Pneumatic models

Type	Swing type	Move with turning type
	JEAS	JEAM
Adaptable fluid	Air	
Lubrication	Unnecessary	
Working pressure range	0.1 to 0.8 MPa	0.4 to 0.8 MPa
Proof test pressure	1.2 MPa	
Working speed range	30 to 100 mm/s	Note)
Working temperature range	+5 to +60℃	
Structure of cushioning	None	

Note) Adjust the speed controller to obtain the 75° swing time of 0.5 sec or more.

Hydraulic models

						
Swing type JEHS	Move with turning type JEHM	Move after turning type JEHP	Front mount type JEHF	Rear mount type JEHR	Swing type JEAS	Move with turning type JEAM

Terminologies

Nominal pressure

Pressure given to a cylinder for convenience of naming. It is not always the same as the working pressure (rated pressure) that guarantees performance under the specified conditions.

Proof test pressure

Test pressure against which a cylinder can withstand without unreliable performance at the return to nominal pressure.

Minimum operating pressure

Minimum pressure at which cylinder installed horizontally operates under no load.

Note) ● The hydraulic models do not have air vents.

Product Lineup

Unit: mm

		Type	Straight movement	Turning	φ32	φ40	φ50	φ63
Hydraulic models	Swing type (link) JEHS	●			●	●	●	●
	Move with turning type JEHM	●	●		●	●	●	●
	Move after turning type JEHP	●	●		●	●	●	●
	Front mount type JEHF	●			●	●	●	●
	Rear mount type JEHR	●			●	●	●	●
Pneumatic models	Swing type (link) JEAS	●			●	●	●	●
	Move with turning type JEAM	●	●		●	●	●	●

Bore and Stroke

Note) The strokes contained in the part numbers of turning type units indicate the full strokes. Unit: mm

		Type	Straight movement	Turning	φ32	φ40	φ50	φ63
Hydraulic models	Swing type (link) JEHS	●			Stroke 30	Stroke 35	Stroke 41	Stroke 49
	Move with turning type JEHM	●	●		Full stroke 17 Turning stroke 11 Straight movement clamp stroke 6	Full stroke 20 Turning stroke 14 Straight movement clamp stroke 6	Full stroke 25 Turning stroke 18 Straight movement clamp stroke 7	Full stroke 29 Turning stroke 22 Straight movement clamp stroke 7
	Move after turning type JEHP	●	●		Full stroke 17 Turning stroke 11 Straight movement clamp stroke 6	Full stroke 19 Turning stroke 13 Straight movement clamp stroke 6	Full stroke 24 Turning stroke 17 Straight movement clamp stroke 7	Full stroke 28 Turning stroke 21 Straight movement clamp stroke 7
	Front mount type JEHF	●			Stroke 10, 20, 30, 40, 50			
	Rear mount type JEHR	●			Stroke 10, 20, 30, 40, 50			
Pneumatic models	Swing type (link) JEAS	●			Stroke 30	Stroke 35	Stroke 41	Stroke 49
	Move with turning type JEAM	●	●		Full stroke 17 Turning stroke 11 Straight movement clamp stroke 6	Full stroke 20 Turning stroke 14 Straight movement clamp stroke 6	Full stroke 25 Turning stroke 18 Straight movement clamp stroke 7	Full stroke 29 Turning stroke 22 Straight movement clamp stroke 7

One kind of stroke for each bore of the swing, move with turning and move after turning type units
For all bores of the front mount and rear mount type units, one of 10, 20, 30, 40, and 50 mm can be selected.

● How to order

Hydraulic Models

● Swing type

JEHS

Type 1

Dust wiper type 2

Pipe port position 3

Bore and stroke 4

Clamp option 5

Sensor symbol 6

Sensor quantity 7

None Standard

E Fluorocarbon (cutting oil proof type)

None Female threaded rod side and gasket on rod side

H Female threaded cap side

Symbol	Bore (mm)	Stroke (mm)
32×30	φ32	30
40×35	φ40	35
50×41	φ50	41
63×49	φ63	49

Note) One stroke for each bore

SA Solid state sensor

SB Reed sensor

Notes on ordering Switch Set

- When no sensor is required, place an order without specifying the sensor symbol 6 and the sensor quantity 7.
- Sensors are not mounted on cylinders at delivery.

None No clamp option

A With clamp arm assembly

B With clamp arm blank

Note) When no symbol is entered, the unit will be supplied without an arm. If the arm is necessary, enter [A]. If the arm material is necessary, enter [B].

Sensor quantity (1 or 2)

● Turning type

JEHM

Type 1

Dust wiper type 2

Turning direction 3

Pipe port position 4

Bore and stroke 5

Clamp option 6

Sensor symbol 7

Sensor quantity 8

None Standard

E Fluorocarbon (cutting oil proof type)

R Right

L Left

Type	Symbol	Bore (mm)	Stroke (mm)
JEHM	32×17	φ32	17
	40×20	φ40	20
	50×25	φ50	25
	63×29	φ63	29
JEHP	32×17	φ32	17
	40×19	φ40	19
	50×24	φ50	24
	63×28	φ63	28

Note) One stroke for each bore

SA Solid state sensor

SB Reed sensor

Notes on ordering Switch Set

- When no sensor is required, place an order without specifying the sensor symbol 7 and the sensor quantity 8.
- Sensors are not mounted on cylinders at delivery.

None No clamp option

A With clamp arm assembly

B With clamp arm blank

Note) When no symbol is entered, the unit will be supplied without an arm. If the arm is necessary, enter [A]. If the arm material is necessary, enter [B].

Sensor quantity (1 or 2)

● Mount type

JEHF

Type 1

Dust wiper type 2

Rod end shape 3

Pipe port position 4

Bore 5

Stroke 6

Clamp option 7

Sensor symbol 8

Sensor quantity 9

None Standard

E Fluorocarbon (cutting oil proof type)

None Pin type

W Male thread type

JEHF Front mount type

JEHR Rear mount type

None Standard

E Fluorocarbon (cutting oil proof type)

SA Solid state sensor

SB Reed sensor

Notes on ordering Switch Set

- When no sensor is required, place an order without specifying the sensor symbol 8 and the sensor quantity 9.
- Sensors are not mounted on cylinders at delivery.

None No clamp option

U With side support

Note) Applicable only to JEFH (front mount type)

None Female threaded rod side and gasket on rod side

H Female threaded cap side

JEHR Rear mount type

None Female threaded rod side

R Gasket on rod side

H Female threaded cap side

Stroke (mm)

10, 20, 30, 40, 50

Bore (mm)

φ32, φ40, φ50, φ63

Sensor quantity (1 or 2)

Sensor List

Type	Sensor symbol	Load voltage range	Load current range	Max. switching capacity	Protective circuit	Indicator	Wiring method	Cord length
Reed sensor	SB	DC: 10 to 28 V AC: 85 to 115 V	DC: 5 to 40 mA AC: 5 to 20 mA	DC: 1.5 W AC: 2 VA	None	LED (Lights in red when sensing)	0.15 mm ² , 2-core, outer dia. φ2.5 mm, rear wiring	3 m
Solid state sensor	SA	DC: 10 to 28 V	4 to 20 mA	—	None	LED (Lights in red when sensing)	0.15 mm ² , 2-core, outer dia. φ2.5 mm, rear wiring	3 m

Notes) ●For the details of sensors, be sure to see the sensor specifications.
●The reed sensor and solid state sensor are cutting oil proof.
●We recommend AND Unit (AU series) for multiple sensors connected in series. For details, refer to AND Unit at the end of this catalog.



● How to order

Pneumatic Models

● Swing type

Type①

JEAS

Pin type rod end②

H

Bore and stroke③

40×35

Clamp option④

A

Sensor symbol⑤

SA

Sensor quantity⑥

2

None

Female threaded rod side and gasket on rod side

H

Female threaded cap side

Symbol	Bore (mm)	Stroke (mm)
32×30	φ32	30
40×35	φ40	35
50×41	φ50	41
63×49	φ63	49

SA

Solid state sensor

SB

Reed sensor

①Notes on ordering Switch Set

●When no sensor is required, place an order without specifying the sensor symbol ⑤ and the sensor quantity ⑥.

●Sensors are not mounted on cylinders at delivery.

None

No clamp option

A

With clamp arm assembly

B

With clamp arm blank

Note)

When no symbol is entered, the unit will be supplied without an arm. If the arm is necessary, enter [A]. If the arm material is necessary, enter [B].

● Move with turning type

Type①

JEAM

Turning direction②

R

Pin type rod end③

H

Bore and stroke④

40×20

Clamp option⑤

A

Sensor symbol⑥

SA

Sensor quantity⑦

2

None

Female threaded rod side and gasket on rod side

H

Female threaded cap side

SA

Solid state sensor

SB

Reed sensor

①Notes on ordering Switch Set

●When no sensor is required, place an order without specifying the sensor symbol ⑥ and the sensor quantity ⑦.

●Sensors are not mounted on cylinders at delivery.

None

No clamp option

A

With clamp arm assembly

B

With clamp arm blank

Note)

When no symbol is entered, the unit will be supplied without an arm. If the arm is necessary, enter [A]. If the arm material is necessary, enter [B].

Type	Symbol	Bore (mm)	Stroke (mm)
JEAM	32×17	φ32	17
	40×20	φ40	20
	50×25	φ50	25
	63×29	φ63	29

Sensor List

Type	Sensor symbol	Load voltage range	Load current range	Max. switching capacity	Protective circuit	Indicator	Wiring method	Cord length
Reed sensor	SB	DC: 10 to 28 V AC: 85 to 115 V	DC: 5 to 40 mA AC: 5 to 20 mA	DC: 1.5 W AC: 2 VA	None	LED (Lights in red when sensing)	0.15 mm ² , 2-core, outer dia. φ2.5 mm, rear wiring	3 m
Solid state sensor	SA	DC: 10 to 28 V	4 to 20 mA	—	None	LED (Lights in red when sensing)	0.15 mm ² , 2-core, outer dia. φ2.5 mm, rear wiring	3 m

Notes) ●For the details of sensors, be sure to see the sensor specifications.
●The reed sensor and solid state sensor are cutting oil proof.
●We recommend AND Unit (AU series) for multiple sensors connected in series.
For details, refer to AND Unit at the end of this catalog.



Weight Table

Hydraulic Models/Swing type and turning type

Unit: kg

Bore (mm)	Swing type (JEHS)		Move with turning type (JEHM)		Move after turning type (JEHP)	
	Standard type	Female threaded cap side (H)	Standard type	Female threaded cap side (H)	Standard type	Female threaded cap side (H)
φ32	1.53	1.59	1.50	1.56	1.62	1.66
φ40	2.24	2.33	2.29	2.38	2.42	2.50
φ50	3.76	3.88	3.84	3.95	4.02	4.06
φ63	5.93	6.21	5.90	6.17	6.40	6.57

Hydraulic Models/Front mount type

Unit: kg

Bore (mm)	JEHF (basic weight)				Added weight per mm of stroke
	Pin type rod end		Male thread type rod end (W)		
	Standard type	Female threaded cap side (H)	Standard type	Female threaded cap side (H)	
φ32	1.16	1.22	1.21	1.26	0.0065
φ40	1.63	1.73	1.73	1.83	0.0094
φ50	2.68	2.78	2.84	2.95	0.0147
φ63	3.92	4.19	4.22	4.49	0.0206

Hydraulic Models/Rear mount type

Unit: kg

Bore (mm)	JEHR (basic weight)						Added weight per mm of stroke
	Pin type rod end			Male thread type rod end (W)			
	Standard type	Gasket on rod side (R)	Female threaded cap side (H)	Standard type	Gasket on rod side (R)	Female threaded cap side (H)	
φ32	1.18	1.17	1.24	1.23	1.22	1.28	0.0065
φ40	1.68	1.67	1.78	1.78	1.77	1.87	0.0094
φ50	2.80	2.79	2.91	2.96	2.95	3.07	0.0147
φ63	4.04	4.03	4.32	4.34	4.33	4.62	0.0206

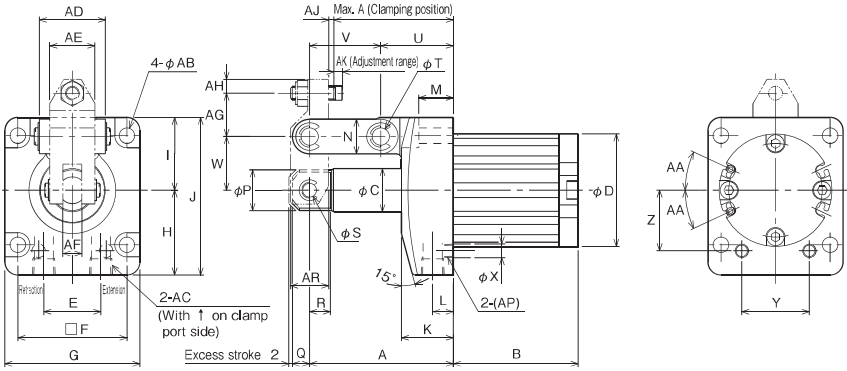
Pneumatic Models/Swing type and turning type

Unit: kg

Bore (mm)	Swing type (JEAS)		Move with turning type (JEAM)	
	Standard type	Female threaded cap side (H)	Standard type	Female threaded cap side (H)
φ32	1.53	1.59	1.50	1.56
φ40	2.24	2.33	2.29	2.38
φ50	3.76	3.88	3.84	3.95
φ63	5.93	6.21	5.90	6.17

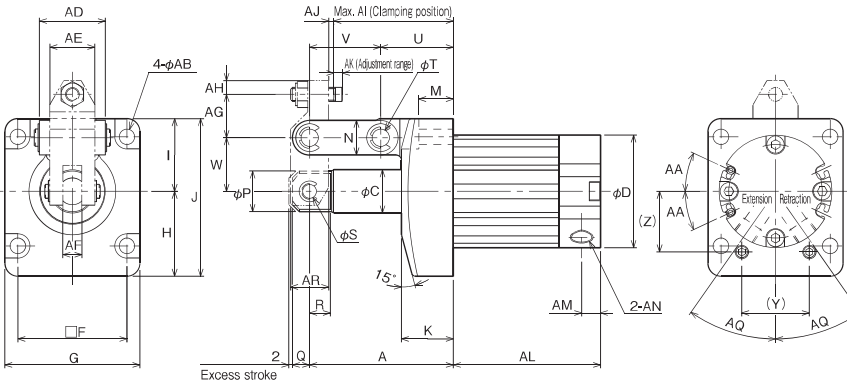
JEH/TJEHS Bore CAD/DATA is available. 

Female threaded rod side and gasket on rod side
JEHS E Borestroke – A



JEH/TJEHS Bore 

Female threaded cap side
JEHS E H Borestroke – A



Note) The port of the rod cover cannot be used.

Dimensional Table

Symbol	Stroke	A	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL
Bore														
φ32	30	74	30°	6.6	Rc1/8	32	22	11 ^{+0.1} _{-0.4}	20	6	63	2	5	73
φ40	35	83	25°	9	Rc1/4	38	26	11 ^{+0.1} _{-0.4}	25	8	69	3	5	85
φ50	41	97	30°	11	Rc1/4	46	30	13 ^{+0.1} _{-0.4}	29	10	79	4	5	94
φ63	49	110	30°	13.5	Rc3/8	58	38	17 ^{+0.1} _{-0.4}	35	12	88	4	5	112

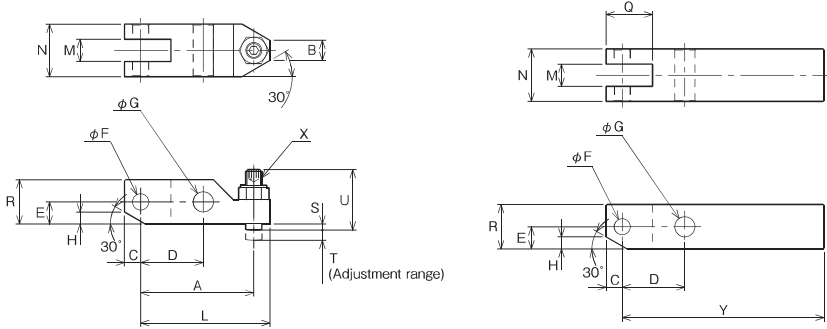
Symbol	AM	AN	(AP)	AQ	AR	B	C	D	E	F	G	H	I	J
Bore														
φ32	9	Rc1/8	Rc1/16	30°	18	63	20	55 ⁺⁰ _{-0.3}	30	55	70	43	35	78
φ40	11	Rc1/4	Rc1/16	35°	22	72	25	65 ⁺⁰ _{-0.3}	33	63	78	49	42	91
φ50	11	Rc1/4	Rc1/16	35°	28	85	32	80 ⁺⁰ _{-0.3}	35	70	88	58	50	108
φ63	15	Rc3/8	Rc1/8	35°	36	96	40	95 ⁺⁰ _{-0.3}	42	85	106	67	62	129

Symbol	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z
Bore															
φ32	28	11	11	16	18.5	8	10.5	6	8	41	33	26	8	30	32
φ40	30	12	20	20	23.5	10	12	8	10	42	41	31	8	39	35
φ50	35	13	20	24	30.5	13	15	10	12	49	48	37	8	40	44
φ63	36	14	20	32	38.5	17	19	12	16	54	56	45	10	48	51

JEH/TJEHS Bore 

Optional parts

- A Clamp arm assembly
- B Clamp arm blank



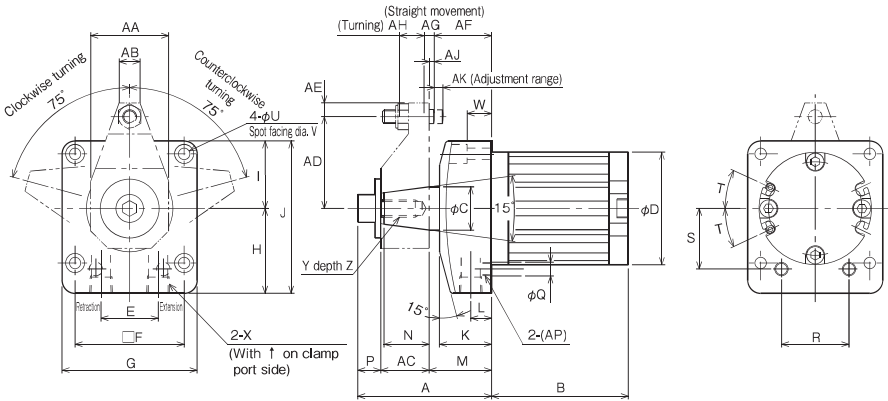
寸法表

Symbol	A	B	C	D	E	F	G	H	L	M	N	Q	R	S	T	U	X	Y
Bore																		
φ32	46	10	8	26	9	6H9	8H9	5	52	11 ^{+0.2} ₀	22 ⁺⁰ _{-0.2}	19.5	18	2	5	25	M6	125
φ40	56	10	8	31	11	8H9	10H9	6	64	11 ^{+0.2} ₀	26 ⁺⁰ _{-0.2}	23	22	3	5	30	M8	160
φ50	66	14	10	37	14	10H9	12H9	7	76	13 ^{+0.2} ₀	30 ⁺⁰ _{-0.2}	28	28	4	5	35	M10	200
φ63	80	14	12	45	18	12H9	16H9	10	92	17 ^{+0.2} ₀	38 ⁺⁰ _{-0.2}	36	36	4	5	42	M12	200

JEH/TJEHM  CAD/DATA is available. 

Female threaded rod side and gasket on rod side

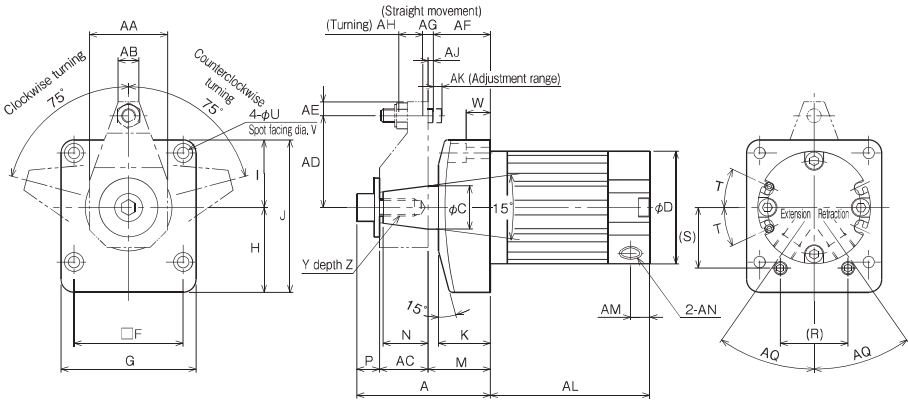
JEHM    - 



JEH/TJEHM  

Female threaded cap side

JEHM     - 



Note) The port of the rod cover cannot be used.

Dimensional Table

Symbol Bore	A	AA	AB	AC	AD	AE	AF	Straight movement AG	Turning AH	AJ	AK	AL	AM	AN
	φ32	69.2	36	10	24	46	6	32	6	11	2	5	79	9
φ40	77.2	45	12	28	53	8	33	6	14	3	5	92	11	Rc1/4
φ50	91.5	58	16	34	60	10	37	7	18	4	5	105	11	Rc1/4
φ63	105	72	20	42	71	12	38	7	22	4	5	123	15	Rc3/8

Symbol Bore	(AP)	AQ	B	C	D	E	F	G	H	I	J	K	L
φ32	Rc1/16	30°	69	20	55 ⁰ _{-0.3}	30	55	70	43	35	78	28	11
φ40	Rc1/16	35°	79	25	65 ⁰ _{-0.3}	33	63	78	49	39	88	30	12
φ50	Rc1/16	35°	96	32	80 ⁰ _{-0.3}	35	70	88	58	44	102	35	13
φ63	Rc1/8	35°	107	40	95 ⁰ _{-0.3}	42	85	106	67	53	120	36	14

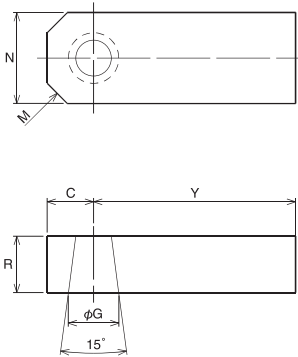
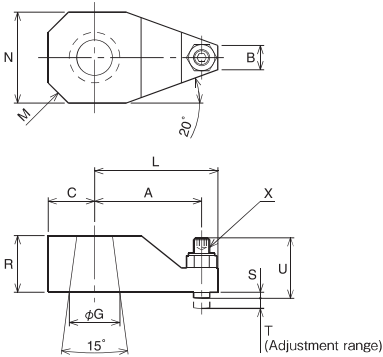
Symbol Bore	M	N	P	Q	R	S	T	U	V	W	X	Y	Z
φ32	34	22	11.2	8	30	32	30°	6.6	11	11	Rc1/8	M8	18
φ40	36	26	13.2	8	39	35	25°	6.6	11	14	Rc1/4	M10	18
φ50	41	32	16.5	8	40	44	30°	9	14	14	Rc1/4	M12	23
φ63	42	38	21	10	48	51	30°	11	17.5	11	Rc3/8	M16	32

JEH/TJEHM  

Optional parts

●  Clamp arm assembly

●  Clamp arm blank



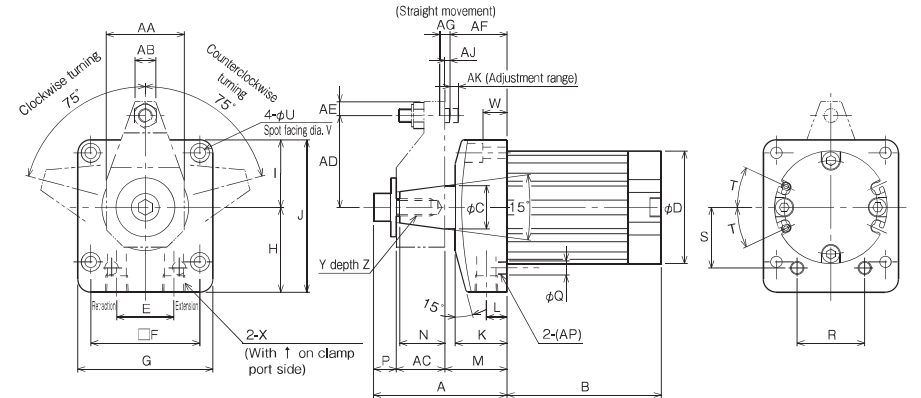
Dimensional Table

Symbol Bore	A	B	C	G	L	M	N	R	S	T	U	X	Y
φ32	46	10	18	20±0.02	52	8	36	24	2	5	25	M6	125
φ40	53	12	23	25±0.02	61	10	45	28	3	5	30	M8	160
φ50	60	16	29	32±0.02	70	12	58	34	4	5	35	M10	160
φ63	71	20	36	40±0.02	83	16	72	42	4	5	42	M12	200

JEH/TJEHP Bore CAD/DATA is available. 

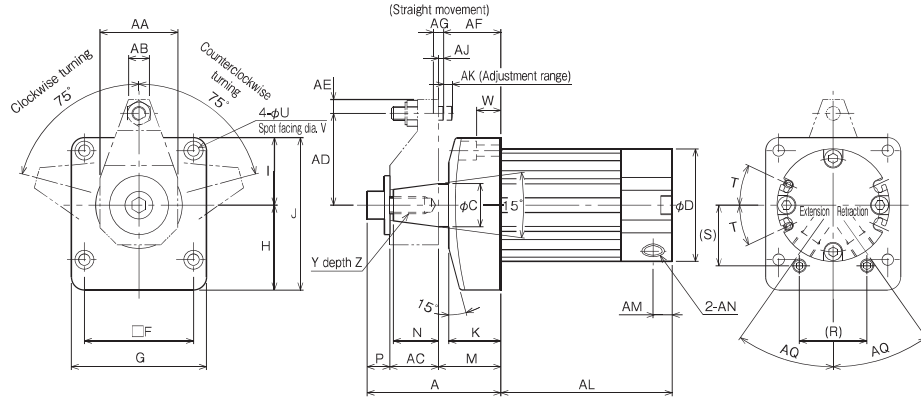
Female threaded rod side and gasket on rod side

JEHP E R Bore × stroke – A



Female threaded cap side

JEHP E R H Bore × stroke – A



Note) The port of the rod cover cannot be used.

Dimensional Table

Symbol	A	AA	AB	AC	AD	AE	AF	Straight movement movement AG	AJ	AK	AL	AM	AN
Bore													
φ32	69.2	36	10	24	46	6	32	6	2	5	89	9	Rc1/8
φ40	77.2	45	12	28	53	8	33	6	3	5	99	11	Rc1/4
φ50	91.5	58	16	34	60	10	37	7	4	5	110	11	Rc1/4
φ63	105	72	20	42	71	12	38	7	4	5	132	15	Rc3/8

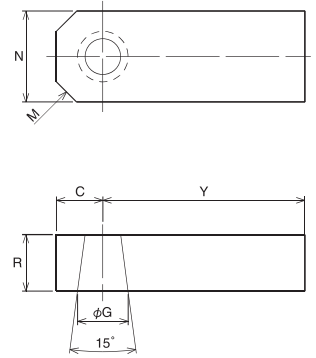
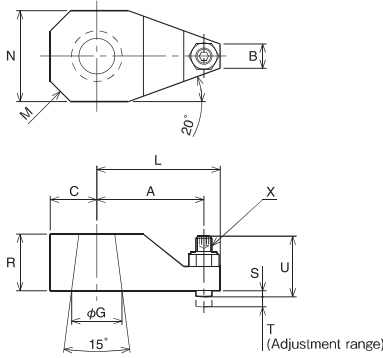
Symbol	(AP)	AQ	B	C	D	E	F	G	H	I	J	K	L
Bore													
φ32	Rc1/16	30°	82	20	55 ⁰ _{-0.3}	30	55	70	43	35	78	28	11
φ40	Rc1/16	35°	89	25	65 ⁰ _{-0.3}	33	63	78	49	39	88	30	12
φ50	Rc1/16	35°	106	32	80 ⁰ _{-0.3}	35	70	88	58	44	102	35	13
φ63	Rc1/8	35°	122	40	95 ⁰ _{-0.3}	42	85	106	67	53	120	36	14

Symbol	M	N	P	Q	R	S	T	U	V	W	X	Y	Z
Bore													
φ32	34	22	11.2	8	30	32	30°	6.6	11	11	Rc1/8	M8	18
φ40	36	26	13.2	8	39	35	25°	6.6	11	14	Rc1/4	M10	18
φ50	41	32	16.5	8	40	44	30°	9	14	14	Rc1/4	M12	23
φ63	42	38	21	10	48	51	30°	11	17.5	11	Rc3/8	M16	32

Optional parts

● A Clamp arm assembly

● B Clamp arm blank

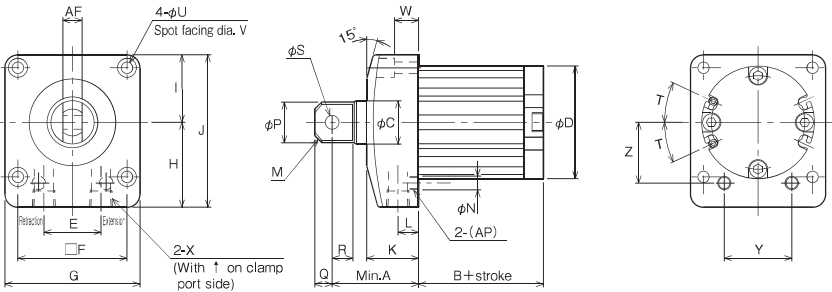


Symbol	A	B	C	G	L	M	N	R	S	T	U	X	Y
Bore													
φ32	46	10	18	20±0.02	52	8	36	24	2	5	25	M6	125
φ40	53	12	23	25±0.02	61	10	45	28	3	5	30	M8	160
φ50	60	16	29	32±0.02	70	12	58	34	4	5	35	M10	160
φ63	71	20	36	40±0.02	83	16	72	42	4	5	42	M12	200

JEH/TJEHF Bore is available. CAD/DATA is available.

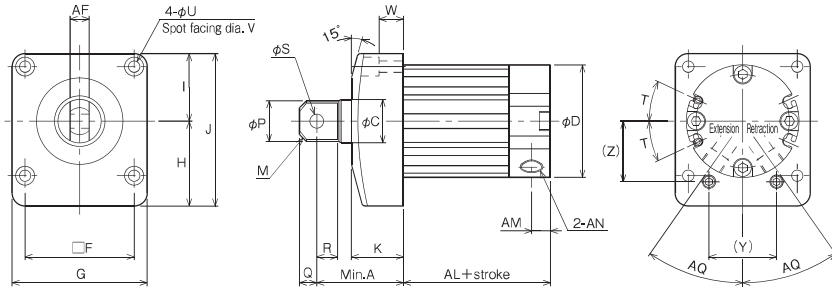
Female threaded rod side and gasket on rod side

JEHF E Bore × stroke



Female threaded cap side

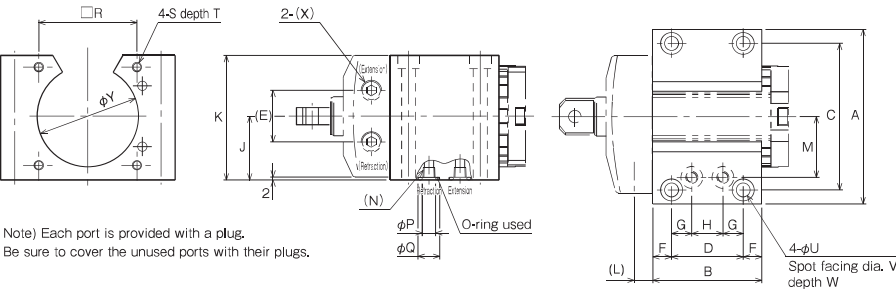
JEHF E H Bore × stroke



Note) The port of the rod cover cannot be used.

Side support

JEHF E Bore × stroke -U



Note) Each port is provided with a plug.
Be sure to cover the unused ports with their plugs.

Dimensional Table

Symbol	A	AF	AL	AM	AN	(AP)	AQ	B	C	D
Bore										
φ32	46	11 ^{-0.1} _{-0.4}	43	9	Rc1/8	Rc1/16	30°	33	20	55 ⁰ _{-0.3}
φ40	50	11 ^{-0.1} _{-0.4}	50	11	Rc1/4	Rc1/16	35°	37	25	65 ⁰ _{-0.3}
φ50	58	13 ^{-0.1} _{-0.4}	53	11	Rc1/4	Rc1/16	35°	44	32	80 ⁰ _{-0.3}
φ63	63	17 ^{-0.1} _{-0.4}	63	15	Rc3/8	Rc1/8	35°	47	40	95 ⁰ _{-0.3}

Symbol	E	F	G	H	I	J	K	L	M	N	P
Bore											
φ32	30	55	70	43	35	78	28	11	3	8	18.5
φ40	33	63	78	49	39	88	30	12	4	8	23.5
φ50	35	70	88	58	44	102	35	13	5	8	30.5
φ63	42	85	106	67	53	120	36	14	5	10	38.5

Symbol	Q	R	S	T	U	V	W	X	Y	Z
Bore										
φ32	8	10.5	6H9	30°	6.6	11	11	Rc1/8	30	32
φ40	10	12	8H9	25°	6.6	11	14	Rc1/4	39	35
φ50	13	15	10H9	30°	9	14	14	Rc1/4	40	44
φ63	17	19	12H9	30°	11	17.5	11	Rc3/8	48	51

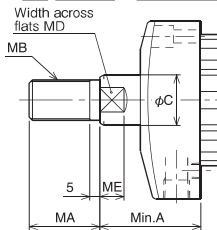
Dimensional Table: U Side port

Symbol	A	B	C	D	(E)	F	G	H	J	K	(L)	M	(N)
Bore													
φ32	97	66	82	46	30	10	13	20	37	72	11	34	Rc1/16
φ40	112	70	94	46	33	12	13	20	41	80	12	39	Rc1/16
φ50	134	74	112	46	35	14	13	20	46	90	13	46	Rc1/16
φ63	162	74	138	46	42	14	12	22	55	108	14	55	Rc1/8

Symbol	P	Q	O-ring used	R	S	T	U	V	W	(X)	Y
Bore											
φ32	8.5	14	P10A	55	M6	15	6.6	11	6.5	Rc1/8	55 ^{+0.5} _{+0.2}
φ40	8.5	14	P10A	63	M6	13	9	14	8.5	Rc1/4	65 ^{+0.5} _{+0.2}
φ50	8.5	14	P10A	70	M8	18	11	17.5	11	Rc1/4	80 ^{+0.5} _{+0.2}
φ63	10.5	16	P12	85	M10	22	13.5	20	13	Rc3/8	95 ^{+0.5} _{+0.2}

Male thread type rod end

JEHF E W H Bore × Stroke



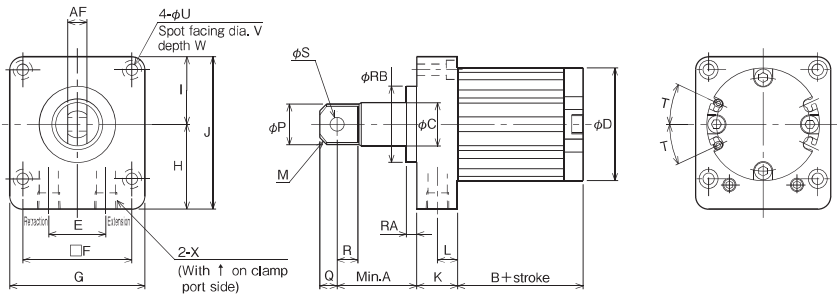
Dimensional Table

Symbol	A	C	MA	MB	MD	ME
Bore						
φ32	46	20	30	M14 × 1.5	17	10
φ40	50	25	35	M20 × 1.5	22	12
φ50	58	32	40	M24 × 1.5	27	14
φ63	63	40	50	M30 × 1.5	32	16

JEH/TJEHR Bore CAD/DATA is available. 

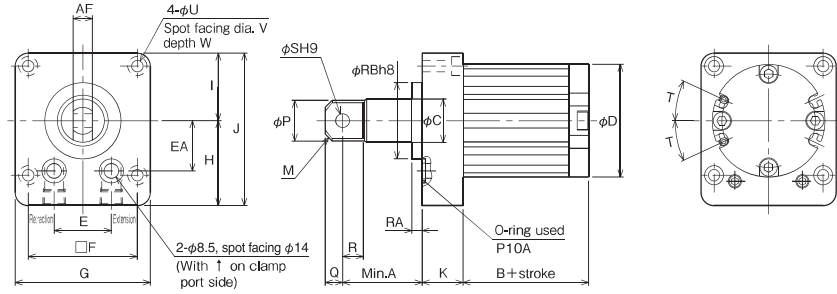
Female threaded rod side

JEHR E Bore × stroke



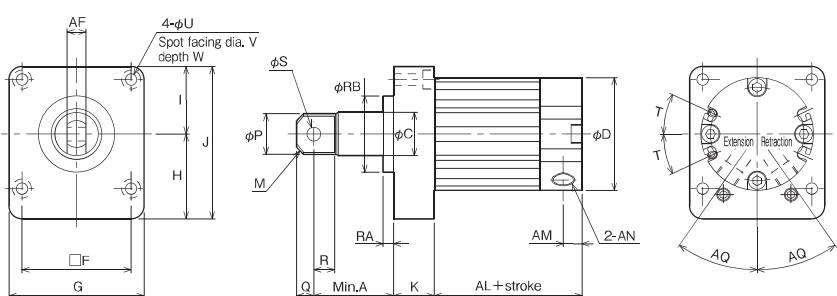
Gasket type on rod side

JEHR E R Bore × stroke



Female threaded cap side

JEHR E H Bore × stroke



Note) The port of the rod cover cannot be used.

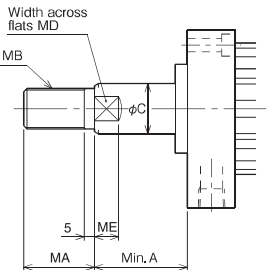
Dimensional Table

Symbol	A	AF	AL	AM	AN	AQ	B	C	D	E	EA	F	G	H	I
Bore															
φ32	64	11 ^{-0.1} _{-0.4}	43.5	9	Rc1/8	30°	33.5	20	55 ⁰ _{-0.3}	30	24	55	70	43	35
φ40	66	11 ^{-0.1} _{-0.4}	50.5	11	Rc1/4	35°	37.5	25	65 ⁰ _{-0.3}	33	29	63	78	49	39
φ50	70	13 ^{-0.1} _{-0.4}	53.5	11	Rc1/4	35°	44.5	32	80 ⁰ _{-0.3}	35	33	70	88	58	44
φ63	75	17 ^{-0.1} _{-0.4}	63.5	15	Rc3/8	35°	47.5	40	95 ⁰ _{-0.3}	42	37	85	106	67	53

Symbol	J	K	L	M	P	Q	R	RA	RB	S	T	U	V	W	X
Bore															
φ32	78	21.5	10.5	3	18.5	8	10.5	6	38h8	6H9	30°	6.6	11	6.5	Rc1/8
φ40	88	23.5	11.5	4	23.5	10	12	6	44h8	8H9	25°	6.6	11	6.5	Rc1/4
φ50	102	27.5	12.5	5	30.5	13	15	7	50h8	10H9	30°	9	14	8.5	Rc1/4
φ63	120	27.5	13.5	5	38.5	17	19	8	58h8	12H9	30°	11	17.5	11	Rc3/8

Male thread type rod end

JEHR E W H Bore × Stroke

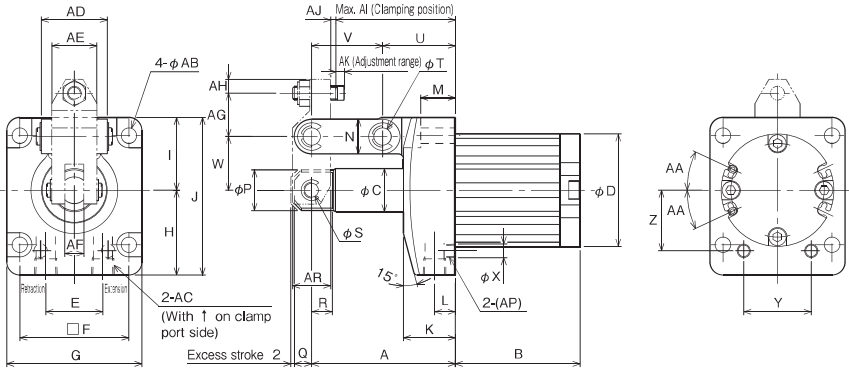


Dimensional Table

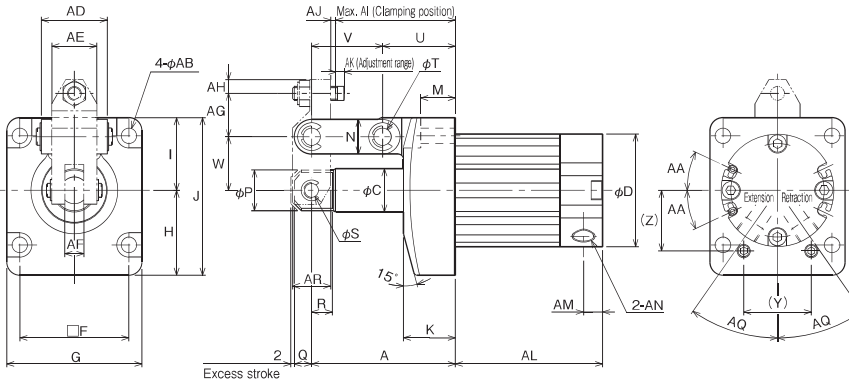
Symbol	A	C	MA	MB	MD	ME
Bore						
φ32	64	20	30	M14×1.5	17	10
φ40	66	25	35	M20×1.5	22	12
φ50	70	32	40	M24×1.5	27	14
φ63	75	40	50	M30×1.5	32	16

JEA/TJEAS Bore is available. CAD/DATA

Female threaded rod side and gasket on rod side
JEAS Borexstroke - A



Female threaded cap side
JEAS H Borexstroke - A



Note) The port of the rod cover cannot be used.

Dimensional Table

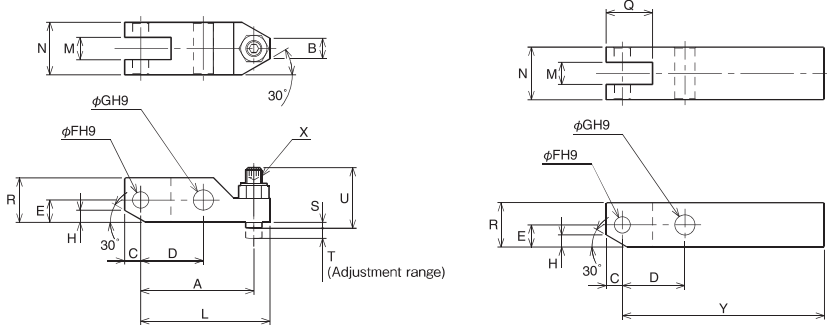
Symbol	Stroke	A	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL
Bore														
φ32	30	74	30°	6.6	Rc1/8	32	22	11 ^{+0.1} _{-0.4}	20	6	63	2	5	73
φ40	35	83	25°	9	Rc1/4	38	26	11 ^{+0.1} _{-0.4}	25	8	69	3	5	85
φ50	41	97	30°	11	Rc1/4	46	30	13 ^{+0.1} _{-0.4}	29	10	79	4	5	94
φ63	49	110	30°	13.5	Rc3/8	58	38	17 ^{+0.1} _{-0.4}	35	12	88	4	5	112

Symbol	AM	AN	(AP)	AQ	AR	B	C	D	E	F	G	H	I	J
Bore														
φ32	9	Rc1/8	Rc1/16	30°	18	63	20	55 ⁺⁰ _{-0.3}	30	55	70	43	35	78
φ40	11	Rc1/4	Rc1/16	35°	22	72	25	65 ⁺⁰ _{-0.3}	33	63	78	49	42	91
φ50	11	Rc1/4	Rc1/16	35°	28	85	32	80 ⁺⁰ _{-0.3}	35	70	88	58	50	108
φ63	15	Rc3/8	Rc1/8	35°	36	96	40	95 ⁺⁰ _{-0.3}	42	85	106	67	62	129

Symbol	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z
Bore															
φ32	28	11	11	16	18.5	8	10.5	6	8	41	33	26	8	30	32
φ40	30	12	20	20	23.5	10	12	8	10	42	41	31	8	39	35
φ50	35	13	20	24	30.5	13	15	10	12	49	48	37	8	40	44
φ63	36	14	20	32	38.5	17	19	12	16	54	56	45	10	48	51

Optional parts

- A Clamp arm assembly
- B Clamp arm blank



Dimensional Table

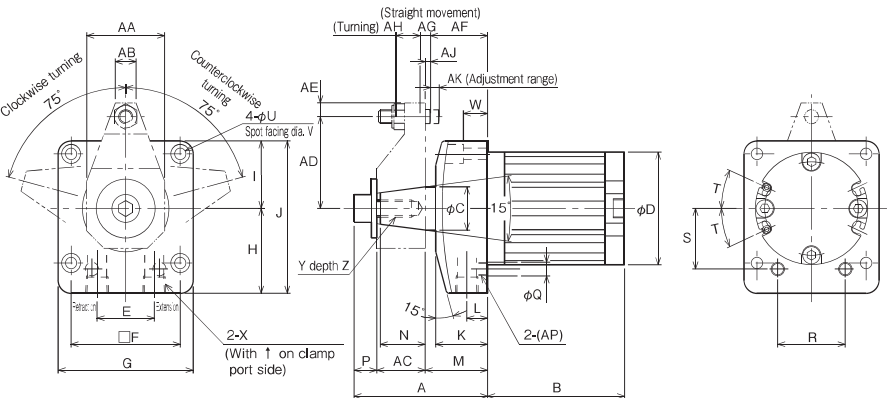
Symbol	A	B	C	D	E	F	G	H	L	M	N	Q	R	S	T	U	X	Y
Bore																		
φ32	46	10	8	26	9	6	8	5	52	11 ^{+0.2} ₀	22 ⁺⁰ _{-0.2}	19.5	18	2	5	25	M6	125
φ40	56	10	8	31	11	8	10	6	64	11 ^{+0.2} ₀	26 ⁺⁰ _{-0.2}	23	22	3	5	30	M8	160
φ50	66	14	10	37	14	10	12	7	76	13 ^{+0.2} ₀	30 ⁺⁰ _{-0.2}	28	28	4	5	35	M10	200
φ63	80	14	12	45	18	12	16	10	92	17 ^{+0.2} ₀	38 ⁺⁰ _{-0.2}	36	36	4	5	42	M12	200

JEA/TJEA[Bore] CAD/DATA is available.



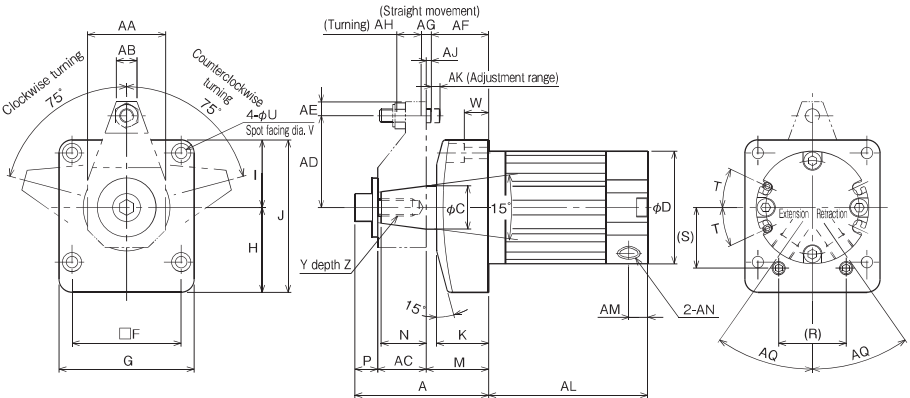
Female threaded rod side and gasket on rod side

JEA[Bore]xstroke – A



Female threaded cap side

JEA[H] Borexstroke – A



Note) The port of the rod cover cannot be used.

Dimensional Table

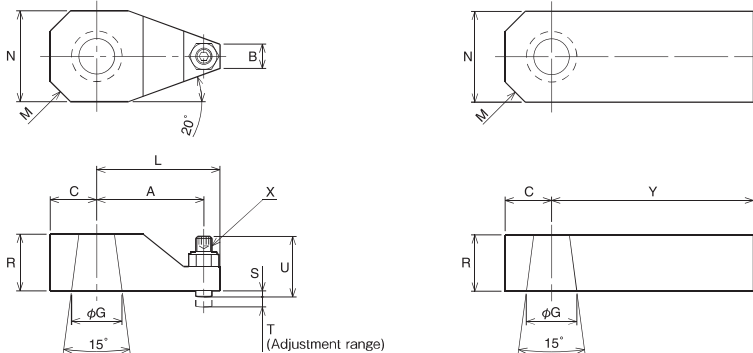
Symbol	A	AA	AB	AC	AD	AE	AF	Straight movement AG	Turning AH	AJ	AK	AL	AM	AN
Bore														
φ32	69.2	36	10	24	46	6	32	6	11	2	5	79	9	Rc1/8
φ40	77.2	45	12	28	53	8	33	6	14	3	5	92	11	Rc1/4
φ50	91.5	58	16	34	60	10	37	7	18	4	5	105	11	Rc1/4
φ63	105	72	20	42	71	12	38	7	22	4	5	123	15	Rc3/8

Symbol	(AP)	AQ	B	C	D	E	F	G	H	I	J	K	L
Bore													
φ32	Rc1/16	30°	69	20	55 ⁰ _{-0.3}	30	55	70	43	35	78	28	11
φ40	Rc1/16	35°	79	25	65 ⁰ _{-0.3}	33	63	78	49	39	88	30	12
φ50	Rc1/16	35°	96	32	80 ⁰ _{-0.3}	35	70	88	58	44	102	35	13
φ63	Rc1/8	35°	107	40	95 ⁰ _{-0.3}	42	85	106	67	53	120	36	14

Symbol	M	N	P	Q	R	S	T	U	V	W	X	Y	Z
Bore													
φ32	34	22	11.2	8	30	32	30°	6.6	11	11	Rc1/8	M8	18
φ40	36	26	13.2	8	39	35	25°	6.6	11	14	Rc1/4	M10	18
φ50	41	32	16.5	8	40	44	30°	9	14	14	Rc1/4	M12	23
φ63	42	38	21	10	48	51	30°	11	17.5	11	Rc3/8	M16	32

Optional parts

- A Clamp arm assembly
- B Clamp arm blank

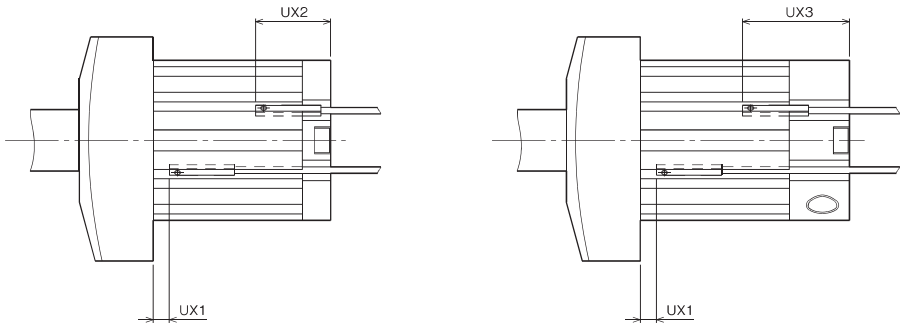


Dimensional Table

Symbol	A	B	C	G	L	M	N	R	S	T	U	X	Y
Bore													
φ32	46	10	18	20 ^{±0.02}	52	8	36	24	2	5	25	M6	125
φ40	53	12	23	25 ^{±0.02}	61	10	45	28	3	5	30	M8	160
φ50	60	16	29	32 ^{±0.02}	70	12	58	34	4	5	35	M10	160
φ63	71	20	36	40 ^{±0.02}	83	16	72	42	4	5	42	M12	200

Sensor mounting position

- Female threaded rod side and gasket on rod side
- Female threaded cap side



Dimensional Table: Swing type, front mount type, rear mount type

Symbol Bore	SA (solid state sensor)			SB (reed sensor)		
	UX1	UX2	UX3	UX1	UX2	UX3
φ32	9	24 Note)	34	5	28	38
φ40	10.5	26.5	39.5	6.5	30.5	43.5
φ50	12.5	31.5	40.5	8.5	35.5	44.5
φ63	13	34	50	9	38	54

Note) Note that the sensor end part protrudes 2.5 mm from the cover end (the sensor overall length is 26.5).

Dimensional Table: Move with turning type

Symbol Bore	SA (solid state sensor)			SB (reed sensor)		
	UX1	UX2	UX3	UX1	UX2	UX3
φ32	28	24 Note)	34	24	28	38
φ40	32.5	26.5	39.5	28.5	30.5	43.5
φ50	39.5	31.5	40.5	35.5	35.5	44.5
φ63	44	34	50	40	38	54

Note) Note that the sensor end part protrudes 2.5 mm from the cover end (the sensor overall length is 26.5).

Dimensional Table: Move after turning type

Symbol Bore	SA (solid state sensor)			SB (reed sensor)		
	UX1	UX2	UX3	UX1	UX2	UX3
φ32	32	33	40	28	37	44
φ40	34	36	46	30	40	50
φ50	41	41	45	37	45	49
φ63	49.5	44.5	54.5	45.5	48.5	58.5

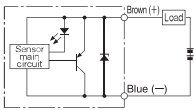
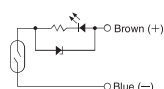
Note) Dimension UX indicates the optimum sensor mounting position for detection of stroke end.



Compact magnetic proximity sensors.

- Cutting fluid proof sensors.
- Since the sensor is embedded in the body, it does not protrude from the body.

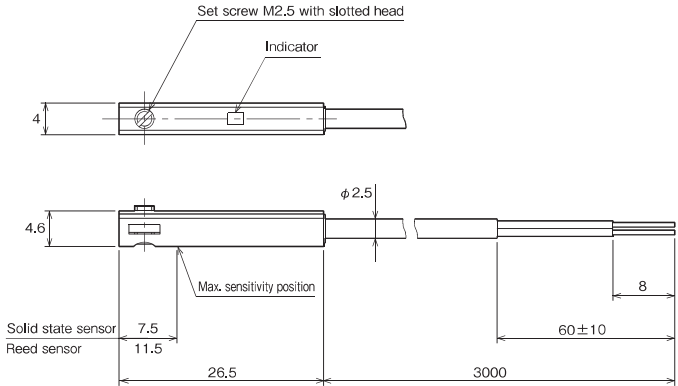
Sensor Specifications

Contact type		Solid state sensor		Reed sensor	
Type	With cord (3 m)	SA		SB	
Wiring direction		Rear			
Load voltage range	10 to 28 V DC		10 to 28 V DC	85 to 115 V AC	
Load current range	4 to 20 mA (at 25°C, 10 mA at 70°C)		5 to 40 mA	5 to 20 mA	
Internal voltage drop	4.5 V or less		3 V or less		
Max. switching capacity	—		DC1.5W·AC2VA		
Leakage current	1 mA or less (24 V DC, 25°C)		0		
Response time	1 ms or less				
Insulation resistance	100 Ω or more (between case and cord) on 500-V DC megger				
Withstand voltage	500 V AC for 1 min (between case and cord)				
Impact resistance	300 m/s ² (non-repeating)				
Vibration resistance	Double amplitude of 1.5 mm 10 to 55 Hz (90 m/s ²)		Double amplitude of 1.5 mm 10 to 55 Hz (90 m/s ²) Resonance frequency 2750±250 Hz		
Ambient temperature	-5 to +70°C (No freezing)				
Wiring method	100 V, 0.15 mm ² , 2-core, outer dia. φ2.5 mm				
Protection structure	IEC IP67, JIS C9020 (immersion-proof type)				
Indicator	Red LED turns on when sensing.				
Electric circuit					
Applicable load	Small relay, programmable controller				

Note) When using any induction load (relay, etc.), be sure to provide a protective circuit (SK-100) with the load.

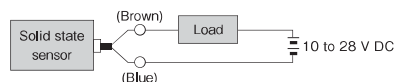
Dimensional Drawings

Unit: mm

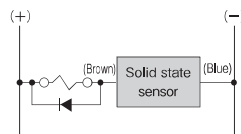


Solid state sensor connecting procedures

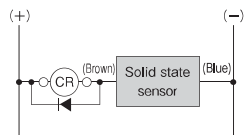
● Basic connection



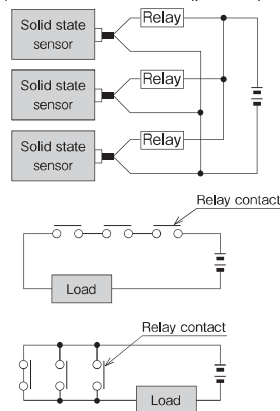
● Connection with solenoid valve



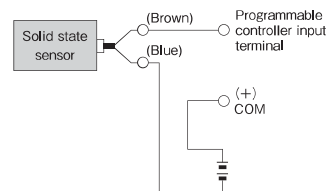
● Connection with relay



AND (serial) connection and OR (parallel) connection



● Connection with programmable controller



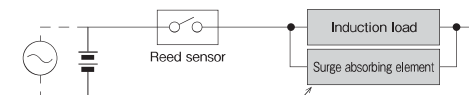
Notes on use of sensor

1. Connect the lead wires checking their colors. Since no overcurrent protective device is provided, miswiring can damage the sensor.
2. Do not connect the solid state sensor to TTL or C-MOS.
3. For an induction load, such as an electromagnetic relay, the use of a protective diode against surge is recommended.
4. Since the circuit voltage is reduced in proportion to the number of sensors, avoid AND (serial) connection of the sensors. We recommend AND Unit (AU series) for multiple sensors connected in series. (For details, refer to "AND UNIT AU Series.")
5. In the case of OR (parallel) connection, sensor outputs (for example, the blue lines) can be connected directly. However, leakage current is increased for the number of sensors. Carefully check for restoration failure of the load.

Measures for protection of reed sensor contact

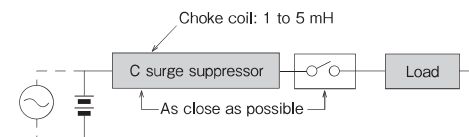
To use the reed sensor in a stable state, take the following measures for protection of the contact.

● When an induction load (electromagnetic relay, etc.) is connected



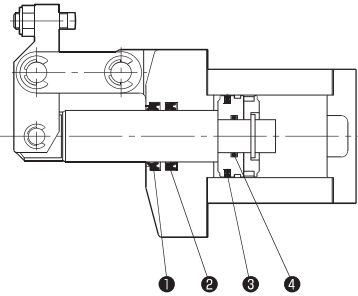
For DC: Diode, CR, etc.
For AC: CR, etc.
Diode: Resistant to current higher than the circuit current in the forward direction and reverse voltage 10 times or more the circuit voltage in the reverse direction
CR: C=0.01 to 0.1 μ F
R=1 to 4 k Ω

● When capacitive surge is generated (When the lead wire is longer than 10 m)

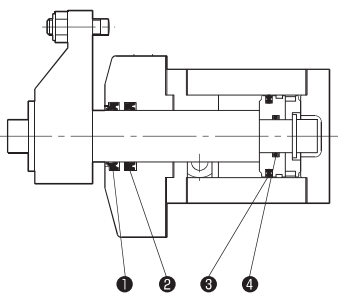


6. The sensor is magnetically sensitive. Avoid using the sensor in a place with a strong external magnetic field or close to a large current power line, etc.
7. Do not strongly pull the lead wire or excessively bend it to give undue force to it.
8. Avoid using the sensor in an environment where it is exposed to chemicals or gases.
9. The sensor may be affected some kinds of cutting fluid.

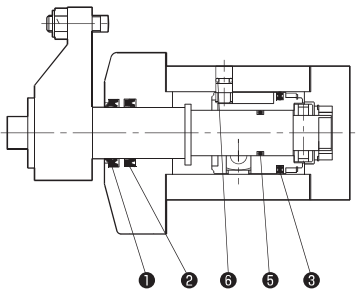
Swing type
JEHS



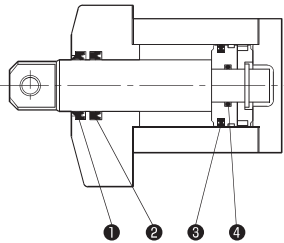
Move with turning type
JEHM



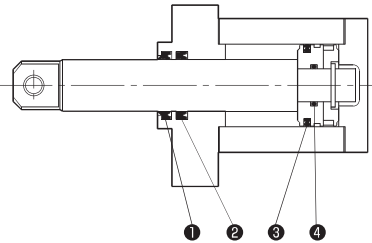
Move after turning type
JEHP



Front mount type
JEHF



Rear mount type
JEHR



Seal List: Swing type and move with turning type

No.	Part name		Qty.	Part number			
				φ32	φ40	φ50	φ63
①	Dust wiper	Standard specifications	1	LBH-20	LBH-25	LBH-32	LBH-40
		SDB scraper type	1	SDB-20F	SDB-25F	SDB-32F	SDB-40F
②	Rod seal		1	RNY-20	RNY-25	RNY-32	RNY-40
③	Piston seal		1	HSD-32	HSD-40	HSD-50	HSD-63
④	Rod gasket		1	P-12.5	P-16	P-20	P-25
Seal set		Standard specifications SDB scraper type	1 set	Please contact us.			

●The rod gasket ④ conforms to JIS B2401.

Seal List: Move after turning type

No.	Part name		Qty.	Part number			
				φ32	φ40	φ50	φ63
①	Dust wiper	Standard specifications	1	LBH-20	LBH-25	LBH-32	LBH-40
		SDB scraper type	1	SDB-20F	SDB-25F	SDB-32F	SDB-40F
②	Rod seal		1	RNY-20	RNY-25	RNY-32	RNY-40
③	Piston seal		1	HSD-32	HSD-40	HSD-50	HSD-63
⑤	Piston seal		1	P-14	P-18	P-22	P-29
⑥	Guide gasket		1	P-3	P-5	P-7	P-9
Seal set		Standard specifications SDB scraper type	1 set	Please contact us.			

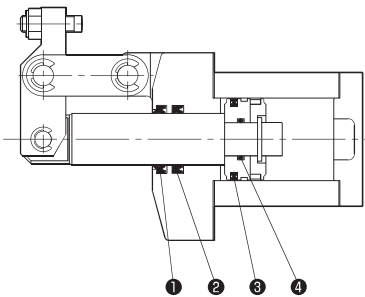
●The rod gasket ④, piston seal ⑤ and guide gasket ⑥ conform to JIS B2401.

Seal List: Front mount type and rear mount type

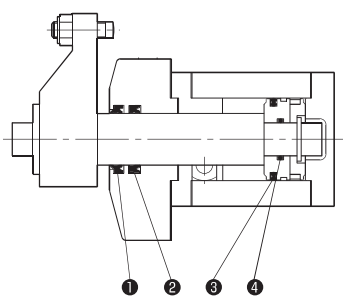
No.	Part name		Qty.	Part number			
				φ32	φ40	φ50	φ63
①	Dust wiper	Standard specifications	1	LBH-20	LBH-25	LBH-32	LBH-40
		SDB scraper type	1	SDB-20F	SDB-25F	SDB-32F	SDB-40F
②	Rod seal		1	RNY-20	RNY-25	RNY-32	RNY-40
③	Piston seal		1	HSD-32	HSD-40	HSD-50	HSD-63
④	Rod gasket		1	P-3	P-5	P-7	P-9
Seal set		Standard specifications SDB scraper type	1 set	Please contact us.			

●The rod gasket ④ conforms to JIS B2401.

Swing type
JEAS



Move with turning type
JEAM



Seal List: Swing type and move with turning type

No.	Part name	Qty.	Part number			
			φ32	φ40	φ50	φ63
❶	Dust wiper	1	LBH-20	LBH-25	LBH-32	LBH-40
❷	Rod seal	1	RNY-20	RNY-25	RNY-32	RNY-40
❸	Piston seal	1	HSD-32	HSD-40	HSD-50	HSD-63
❹	Rod gasket	1	P-12.5	P-16	P-20	P-25
Seal set		Standard specifications	1 set	Please contact us.		

●The rod gasket ❹ conforms to JIS B 2401.

●Installation

- 1.To install the clamp unit, use hex. bolts (strength class 12.9).

Tightening Torque

Unit: N·m

Series	JEHS		Others	
	Bolt size	Tightening Torque	Bolt size	Tightening Torque
φ32	M6×1	12.3	M6×1	12.3
φ40	M8×1.25	30.0	M6×1	12.3
φ50	M10×1.5	59.0	M8×1.25	30.0
φ63	M12×1.75	103.0	M10×1.5	59.0

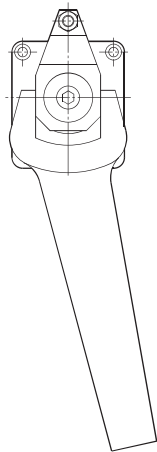
- 2.Install the clamp unit on a flat surface. Note that air may leak if the installation surface has flaws or hit marks.
(When piping on the gasket on the rod side)
- 3.Fit the clamp arm in accordance with the following procedures to prevent damage to the internal structural parts.
(In the case of JEHM, JEHP and JEAM)

●When the clamp unit is used in a stand-alone state
Secure the clamp arm with a vise, and tighten the clamp arm mounting bolts confirming the positional relationship between the arm and the cylinder body.

●When the clamp unit is mounted on a jig
After mounting the clamp arm to the specified position, hold the clamp arm with a spanner, and tighten the clamp arm mounting bolts.

Tightening Torque Unit: N·m

Series	JEHM, JEHP, JEAM	
	Bolt size	Tightening Torque
φ32	M8×1	25.5
φ40	M10×1.5	51.0
φ50	M12×1.75	88.0
φ63	M16×2	219.0



●Fluid and air sources

- 1.As a working fluid, use a petroleum-based fluid for a hydraulic model or air for a pneumatic model. When using another fluid, consult us.
- 2.Clean the fluid and air to be used to actuate the clamp unit through a filter.

●Piping

Before piping the clamp unit, sufficiently flush the inside of the piping. If cuttings, sealing tape and rust enter the piping during piping work, fluid or air leak and operation failure may occur.

●Atmosphere

- 1.Do not use the clamp unit in a place with much dust or welding spatter. If a large quantity of cuttings may fall on the clamp unit, fit a cover or the like. Particularly, if the cylinder tube external surface is covered with cuttings, the sensor may malfunction.
- 2.If the clamp unit may be exposed to cutting fluid, etc., use an SDB scraper type.
- 3.The sensor is resistant to splashes or streams of cutting fluid and can be used in a slightly submerged state (almost no hydraulic pressure is applied to the sensor). However, avoid using it in such a state where a large amount of cutting fluid may fall from a height. In such a case, fit a cover or the like.