

Pascal clamp

model **TXA**



page → 28

It is slotted in T-slot and U-cut of the die is clamped.

**Accessory Clamp hook** model **FX** □  
For TXA temporary hanging page → 41

model **TYA**



page → 84

T-slotted manual slide type of clamp with lever. It is suitable for the die without U-cut in clamp portion.

**Accessory Clamp hook** model **FYA**  
For TYA temporary hanging page → 99

model **TXC**



page → 50

Automatic slidable clamp with air cylinder. It enables to shorten the die exchange time.

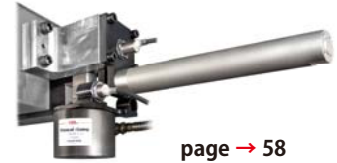
model **TYC**



page → 102

Automatic slidable clamp with air cylinder. It enables to shorten the die exchange time.

model **TXE**



page → 58

Automatic slidable clamp which utilizes the entire lower surface.

model **TRX**



page → 74

Motor driven traveling clamp which overhangs minimum from the edge of the machine slide.

Die-lifter & Die-roller

**Die-lifter** model **DLF**



With DLF series, heavy dies are lifted by hydraulic force. The rollers enable operator to move the die easily and smoothly. page → 113

**Die-roller** model **DRA**



A spring lifting roller that does not need hydraulic source. The compact design allows an easy installation just to slot in the die T-slots. page → 135

Pre-roller & Pre-roller stand

**Pre-roller**

model **PR**



Arm rollers being mountable on the edge of the machine bolster to carry die in or out of the machine easily when die changing. page → 139

**Pre-roller stand**

model **PRM**



page → 199

It has more excellent rigidity compared with pre-roller and there is very little displacement under the load so that the loading/unloading die can be smoothly performed.

Control system

**Pascal control unit (solenoid operated)**

It is an air-driven hydraulic control unit of the electrical control (solenoid operation), combined with Pascal pump and Pascal non leak valve unit.

model **HCS**  
(For small and medium press machine)  
page → 223



model **HCP**  
(For medium and large press machine)  
page → 225



**Pascal power unit**

A hydraulic source combined with a compact and high capacity Pascal pump and oil reservoir for actuation of the clamp. It can discharge 24.5 MPa of hydraulic pressure by means of compressed air.

model **HUT**  
page → 229



**Air solenoid valve unit**

model **GSA**  
page → 233

An air directional solenoid valve unit. It is applied for the automatic slidable clamp TXC/TYC with air cylinder control.



**Pascal non-leak valve unit**

A directional hydraulic valve unit for clamp actuation. It contains a reliable non leak valve in the body to positively maintain the circuit pressure even though power source fails to deliver the oil.

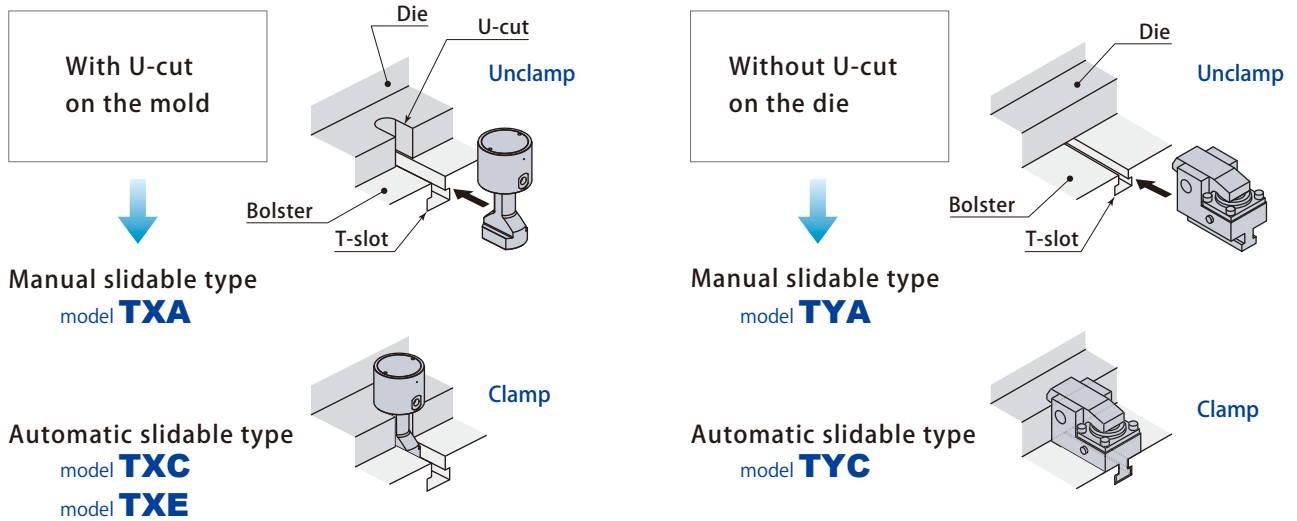
model **VHA**  
(Manual operated)  
page → 227



model **VSB**  
(Solenoid operated)  
page → 231



Clamp model



\* The unification of die thickness is conditions for the clamp use.  
If it is not unified, contact Pascal.

**Swing clamp**

The clamp rod swings and prevents the interference at time of load/unload of die.

\* It is not mentioned in this catalogue, so contact Pascal.

model **TNA**      model **THB**

Clamp force and quantity

Determine the size and quantity of the clamp in such a way that the total clamping force, i.e. clamping force by quantity, must be higher than the value stated below.

It should be better for stamping operation to increase the number of the clamp by lowering the force for each clamp, rather than decreasing the number of clamps raising the force for each.

$$\text{The total clamping force, i.e. clamp force by quantity} > \begin{cases} \text{Crank press} & : 10\% \text{ of machine tonnage} \\ \text{High speed press} & : 20\% \text{ of machine tonnage} \\ \text{Hydraulic press} & : \text{die opening force} \end{cases}$$

For tonnage 1100kN crank press

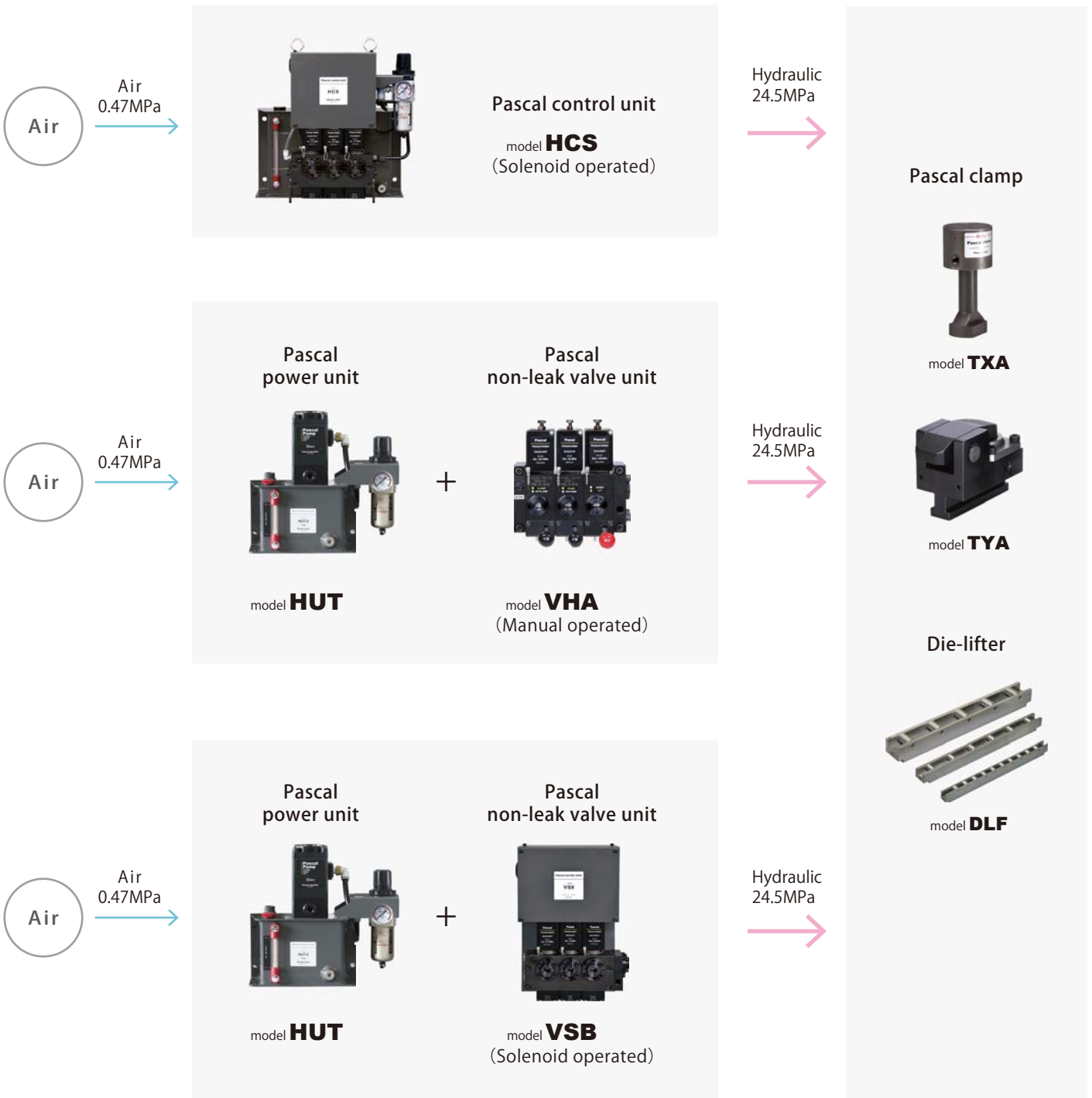
If 4 pieces of model TXA040 (clamping force 39.2kN) are installed on both of slide and bolster, total clamping force would be 156.8kN (39.2 x 4), which represents about 14% of machine tonnage.

The proper size and quantity of clamps differs depending on the condition of die and machine. Please contact Pascal sales representative or customer center for the details.

## Selection of stamping die clamping system

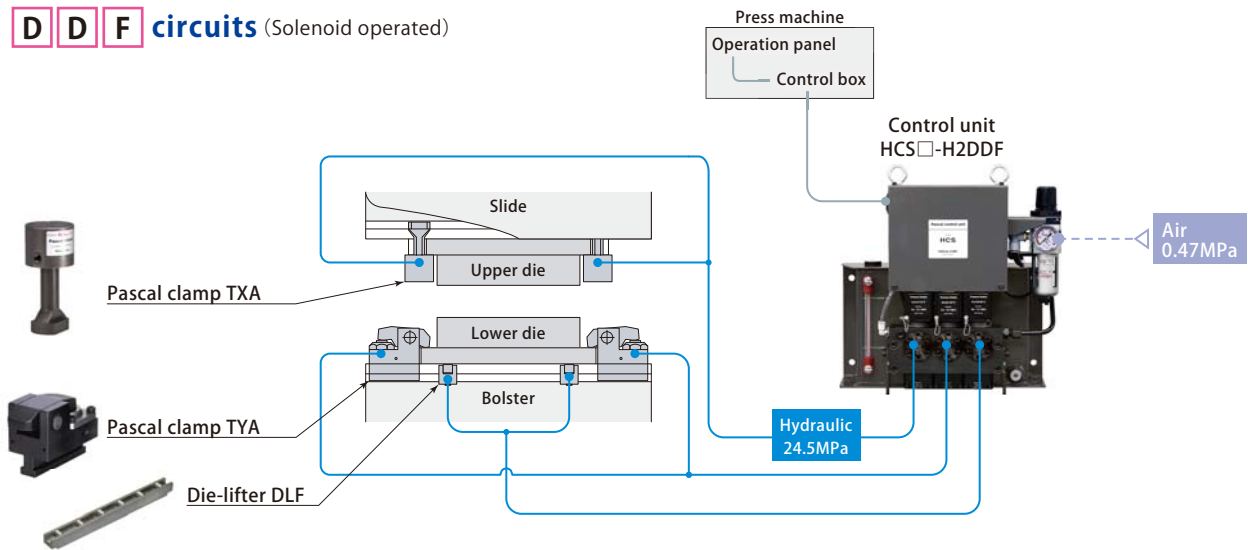
### Pascal control system

For the control system supplying the hydraulic pressure to the Clamp and Die-lifter, the compacted Control unit model HCS is recommended. For the manual operation, please select the Non leak valve unit model VHA(operated manually) and Power unit model HUT.

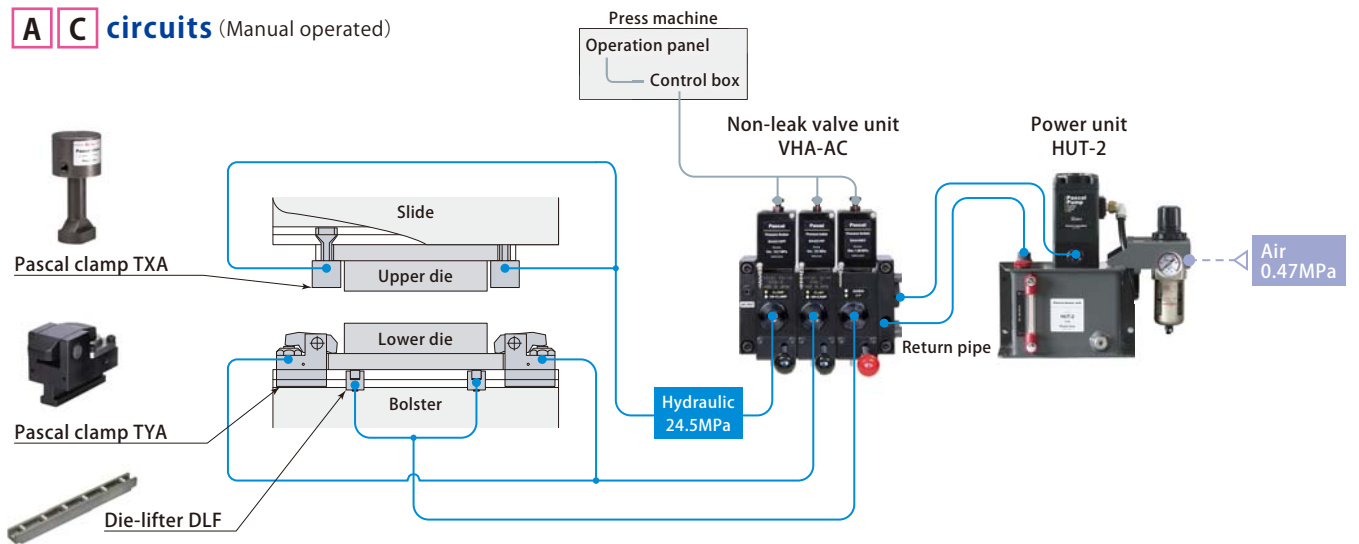


## Example of hydraulic circuit

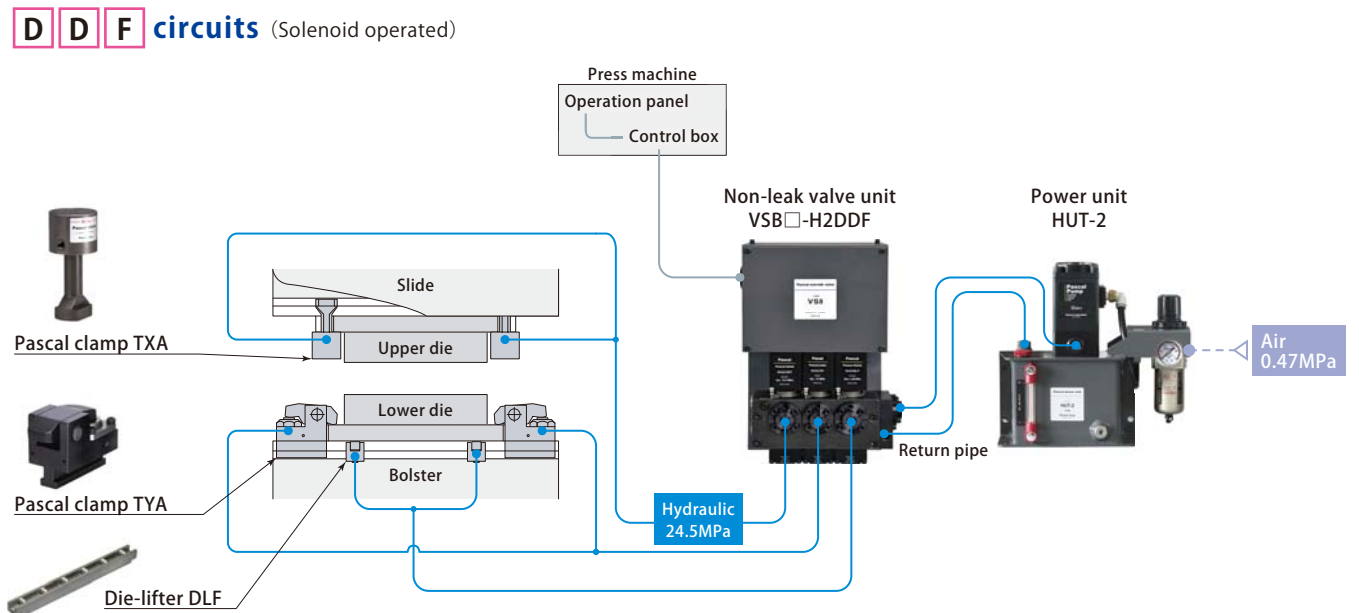
### DDF circuits (Solenoid operated)



### AC circuits (Manual operated)



### DDF circuits (Solenoid operated)





# Pascal clamp model TXA

Pascal clamp





Model designation

TXA **063**

Clamping force  
Refer to the below specifications for the details.



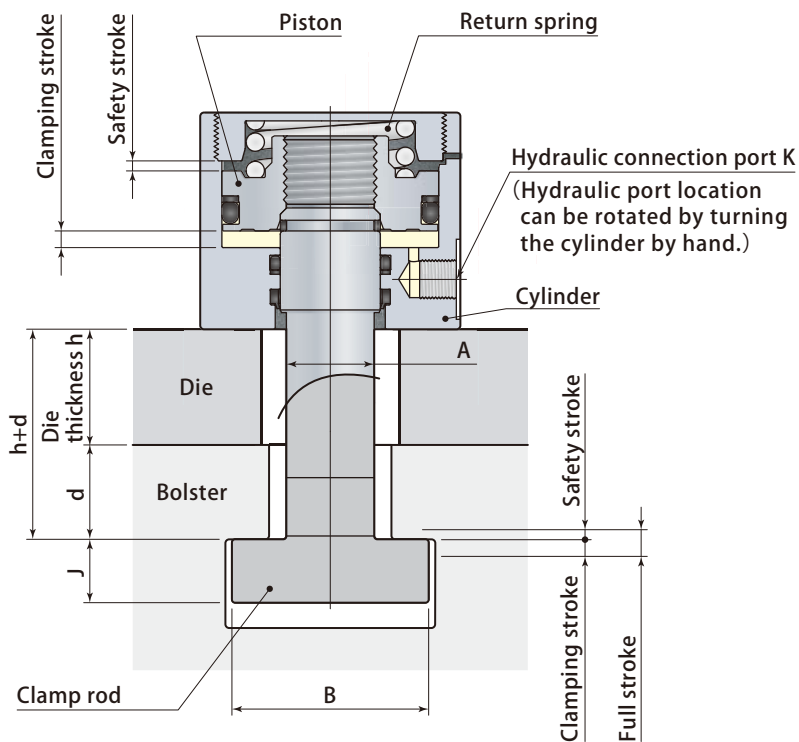
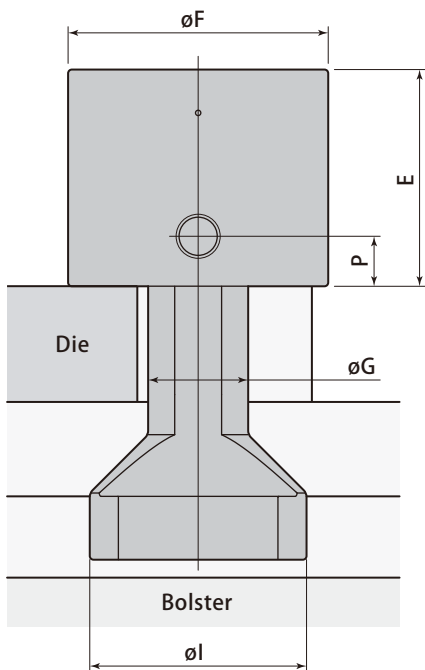
Clamp hook  
modelFXseries  
(Accessory)

For temporary hanging.  
Refer to **page → 41**  
for the details.

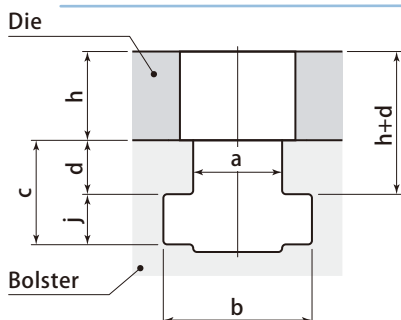
Specifications

Model	TXA010	TXA020	TXA040	TXA063	TXA100	TXA160	TXA250	
Clamping force (at 24.5 MPa)	kN	9.8	19.6	39.2	61.7	98	156	245
Proof pressure	MPa	36.7						
Full stroke	mm	5			8			
Clamping stroke	mm	3			5			
Safety stroke	mm	2			3			
Cylinder capacity (at full stroke)	cm <sup>3</sup>	2.0	6.5	13	21	32	54	84
Operating temperature	°C	0 ~ 70 (Standard)						
Approximate weight	kg	0.7	1	2	3	5	8	18

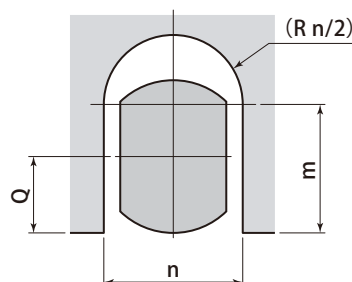
- Working hydraulic pressure : 24.5MPa
- Weight varies according to the die thickness and dimension of clamp rod.
- Clamping stroke and safety stroke are the standard, however they are subject to change depending on dimensions of die and T-slot. Contact Pascal for the details.



T-slot dimension and die thickness



U-cut dimension



mm

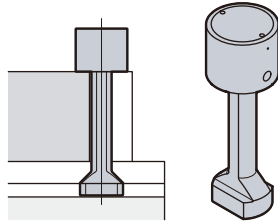
Model	TXA010	TXA020	TXA040	TXA063	TXA100	TXA160	TXA250
E	37	52	59	65	71	78	100
øF	38	49	62	78	98	127	157
øG	13	16	25	30	40	50	60
øI	30	38	60	65	80	90	100
Hydraulic connection port K	Rc1/8	Rc1/4					
P	9	12	13.5	15	16	16	18
Min. a	6	10	12	15	18	23	27
Max. h+d	70	80	90	100	110	120	120
Tolerance of dimension d				± 0.2			
Min. j	6	9	11	15	18	21	24
Tolerance of dimension h				± 0.3			
m	13.5	17	23.5	29	38	47	56
Min.Q	7	9	11	14	18	22	26
Max.n	20	30	35	40	50	60	70

- Specify T-slot dimensions a, b, d, j and die thickness h. For brand new machine, machine d and h dimensions with the tolerance shown in the above table. For existing machine, specify tolerance of 0.1mm unit on d and h dimensions.
- Dimensions A, B, J are determined based on T-slot dimension.
- In case U-cut width n is smaller than T-slot dimension a, contact Pascal.
- In case dimension is over Max. h+d, refer to the **page →32** Long clamp rod type.



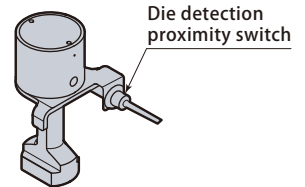
**H** Long clamp rod type TXA□-H

It is applied in case the die thickness is over the standard.  
page → 32



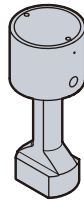
**E** With die detection proximity switch TXA□E

It prevents clamp misplace.  
page → 33



**V** Heat proof type TXA□-V

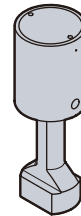
It is applied under condition that the die and its surroundings are in high temperature.



Operating temperature : 5 ~ 120°C

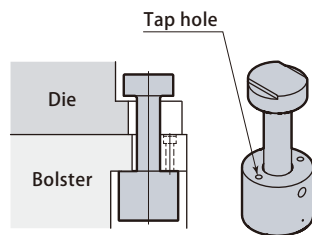
**X** Long stroke type TXA□-X

It is applied in case the variations of dimension h of die thickness are wide.  
page → 34



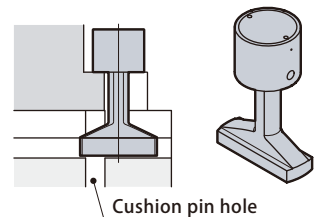
**K** Cylinder fixed type TXA□K

It is applied in case the cylinder is mounted in bolster.  
page → 35



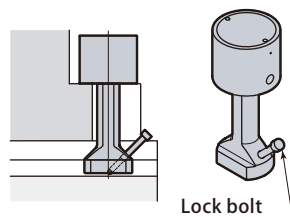
**W** Wide rod type TXA□W

It is applied at the point which intersects with T-slot or the point with cushion pin hole.  
page → 37



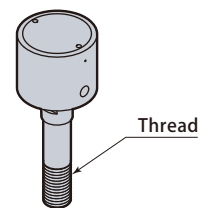
**L** Lock type TXA□-L

It can fix the clamp installed on the position out of reach, such as the rear side.  
page → 38



**S** Clamp rod thread type TXA□-S

It is applied without T-slot.  
page → 39

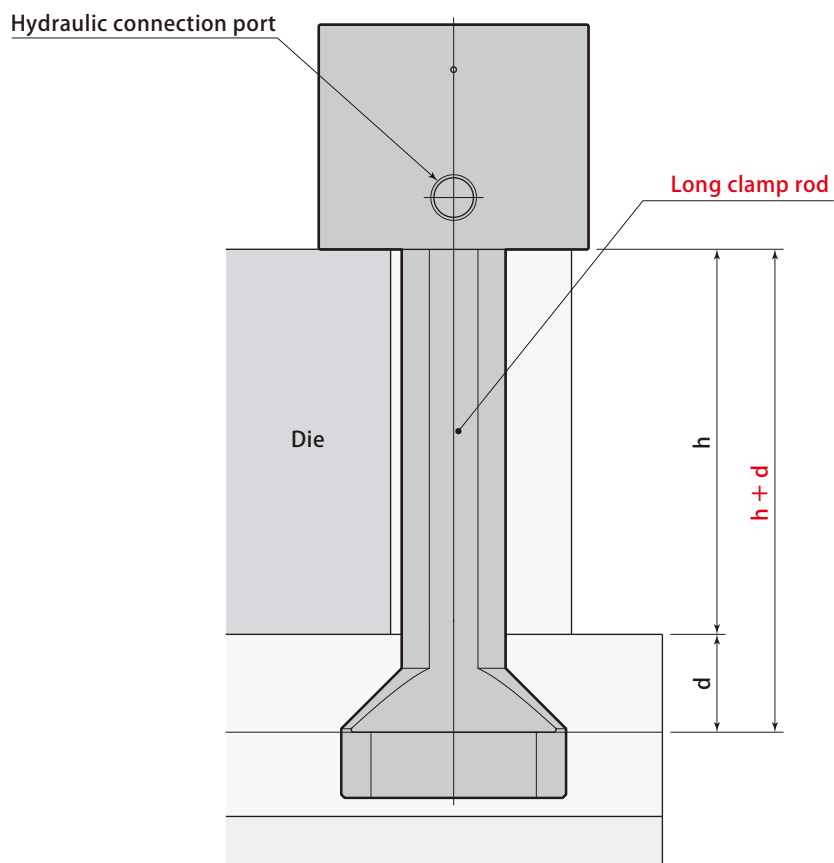


**H** Long clamp rod type It is applied in case the die thickness is over the standard.

Model designation

TXA 063 - H

- Clamping force  
TXA010 TXA020 TXA040 TXA063  
TXA100 TXA160 TXA250



mm

Model	TXA010-H	TXA020-H	TXA040-H	TXA063-H	TXA100-H	TXA160-H	TXA250-H
$h + d$	$h+d > 70$	$h+d > 80$	$h+d > 90$	$h+d > 100$	$h+d > 110$	$h+d > 120$	$h+d > 120$

**E** With die detection proximity switch

It prevents clamp misplace.

Model designation

TXA 063 E 0 L

- 1 Clamping force •
  - 2 Proximity switch •
  - 3 Mounting position of die detection proximity switch
- 1 Clamping force  
TXA040 TXA063 TXA100
  - 3 Mounting position of die detection proximity switch  
L : Left side R : Right side

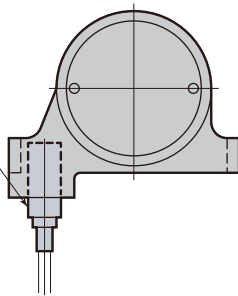
**2** Proximity switch

Symbol of proximity switch model	0	1	2	3
Specifications	DC24V 2-Wire	DC24V 3-Wire(NPN)	AC100V 2-Wire	DC24V 3-Wire(PNP)
Model	E2E-X7D1-N	E2E-X5E1	E2E-X5Y1	E2E-X5F1
Manufacturer name	OMRON			
Insulation vinyl cable length	5m			

Mounting position of die detection proximity switch

L : Left side

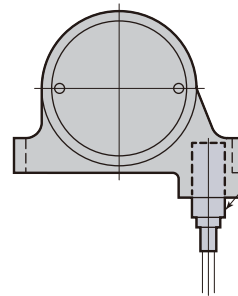
Die detection proximity switch



Mounting position of die detection proximity switch

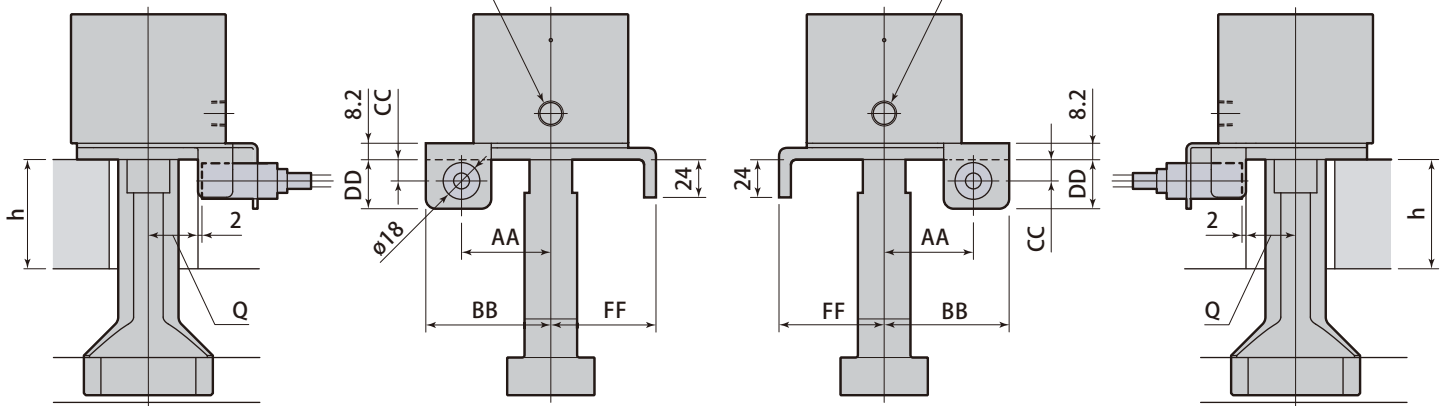
R : Right side

Die detection proximity switch



Hydraulic connection port  
(Port position is unchangeable.)

Hydraulic connection port  
(Port position is unchangeable.)



Model	TXA040E	TXA063E	TXA100E
AA	45	45	51.5
BB	63	63	75
FF	53	53	60
DD	24.7	24.7	31.7
CC	10.7	10.7	16.7
Q	22	25	30
Min. h	30	30	40

mm

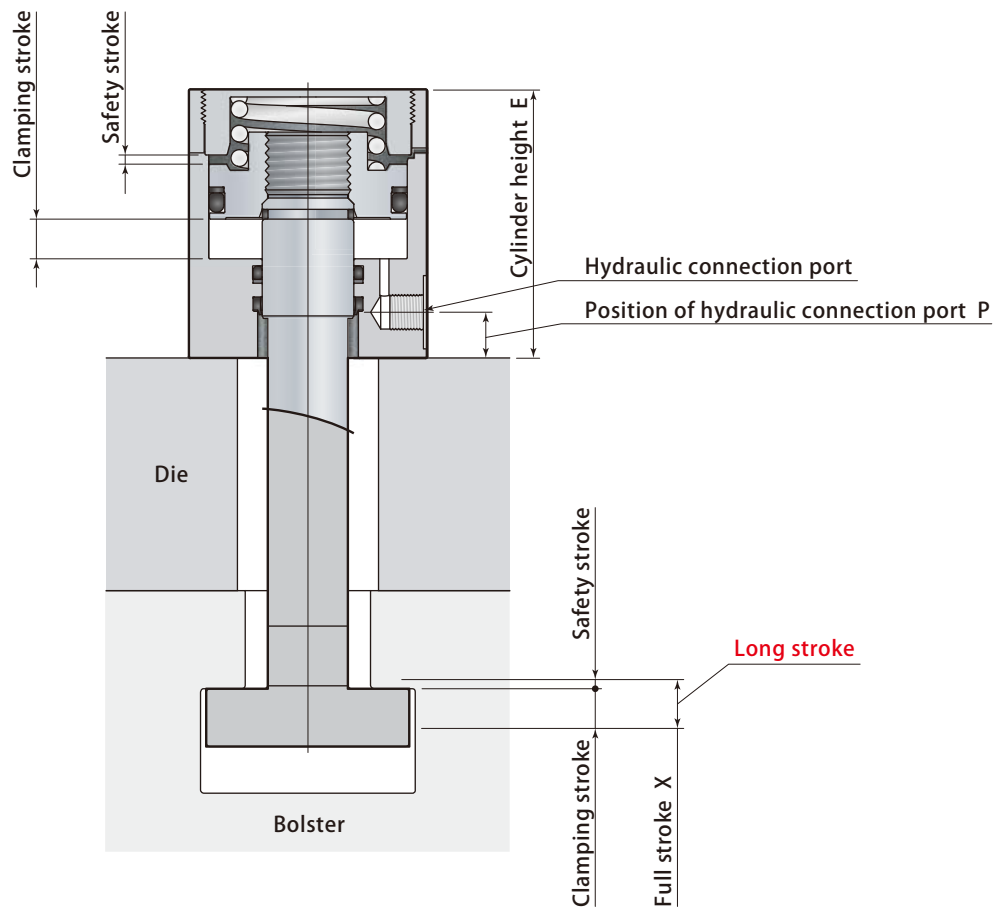
**X** Long stroke type It is applied in case the variations of dimension h of die thickness are wide.

Model designation

TXA 063 - X 10

- 1 Clamping force
- 2 Full stroke (mm)

- 1 Clamping force  
TXA020 TXA040  
TXA063 TXA100 TXA160



2 Full stroke (mm) 10 ~ 20 mm

● TXA020-X mm

Full stroke X	—	12	16	20
Cylinder height E	—	65	73	81
Position of hydraulic connection port P	—	12	12	20

● TXA063-X mm

Full stroke X	10	12	16	20
Cylinder height E	73	77	88	103
Position of hydraulic connection port P	15	17	15	27

● TXA040-X mm

Full stroke X	10	12	16	20
Cylinder height E	63	67	80	94
Position of hydraulic connection port P	15.5	15.5	13.5	13.5

● TXA100-X mm

Full stroke X	10	12	16	20
Cylinder height E	79	83	94	107
Position of hydraulic connection port P	16	16	16	16

- Pascal selects optional length of the stroke. Contact Pascal for the details.
- Confirm the length of clamping stroke and safety stroke with the approval drawing.

● TXA160-X mm

Full stroke X	10	12	16	20
Cylinder height E	80	86	101	109
Position of hydraulic connection port P	16	20	24	28

**K** **Cylinder fixed type** It is applied in case the cylinder is mounted in bolster.

Model designation

TXA **063** **K** - **080**

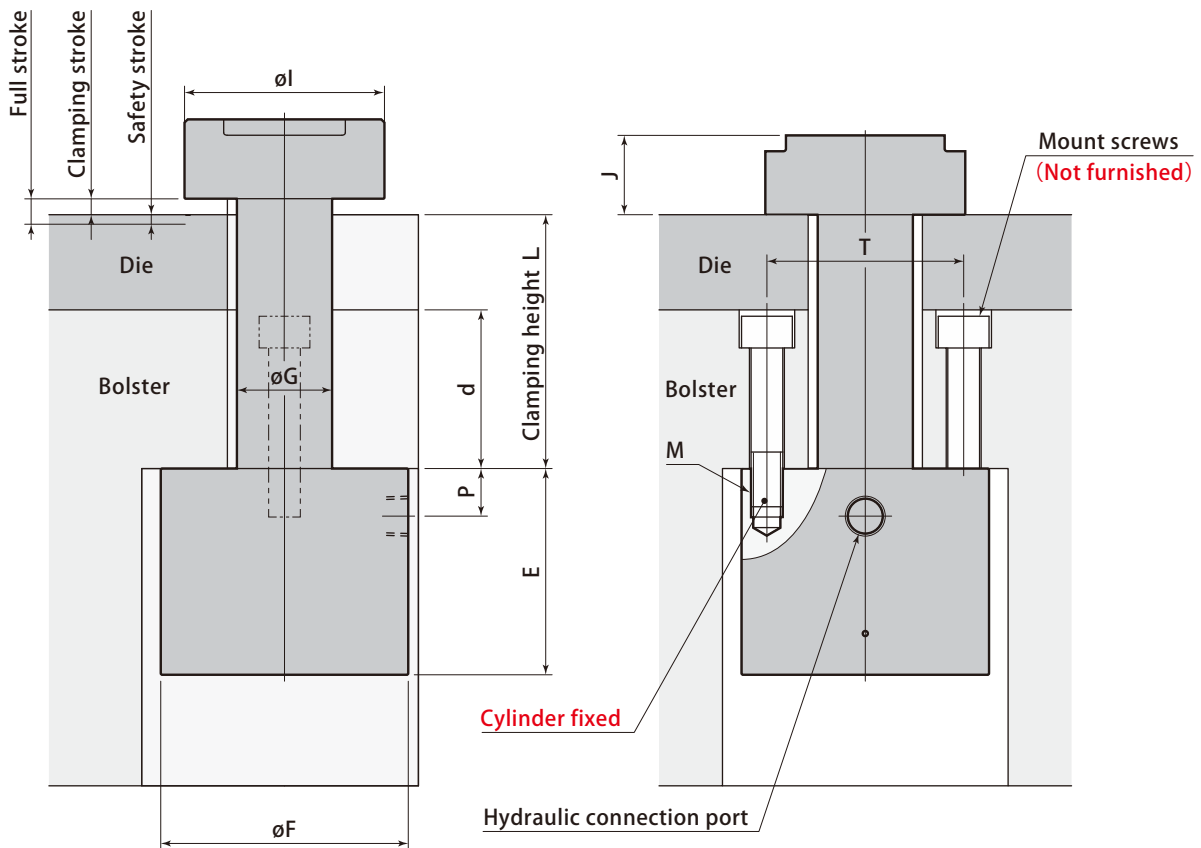
1 Clamping force ●.....

2 Clamping height (mm) ●.....

\* Indicated in 3 digits

1 Clamping force  
TXA020 TXA040 TXA063 TXA100

2 Clamping height L (mm)  
Refer to the below table "Range of clamping height L/ tolerance".



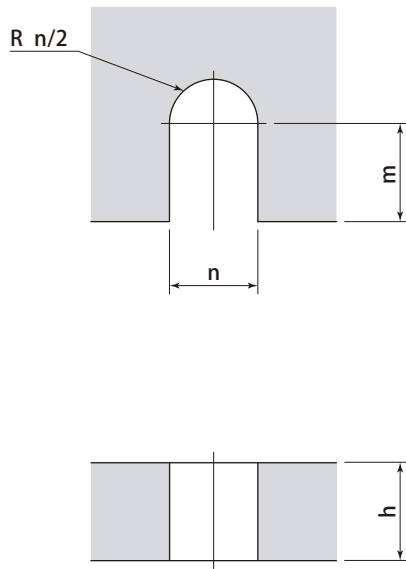
mm

Model	TXA020K	TXA040K	TXA063K	TXA100K
ø l	40	50	63	75
J	18	25	25	32
ø G	16	24	30	34
P	12	13.5	15	16
E	52	59	65	71
ø F	49	62	78	98
T	36	46	62	82
M	M6 depth 10	M6 depth 12	M10 depth 15	M10 depth 15
2 Range of clamping height L	50 ~ 100	65 ~ 220	80 ~ 220	85 ~ 230
2 Tolerance of clamping height L dimension	± 0.5	± 0.5	± 0.5	± 0.5

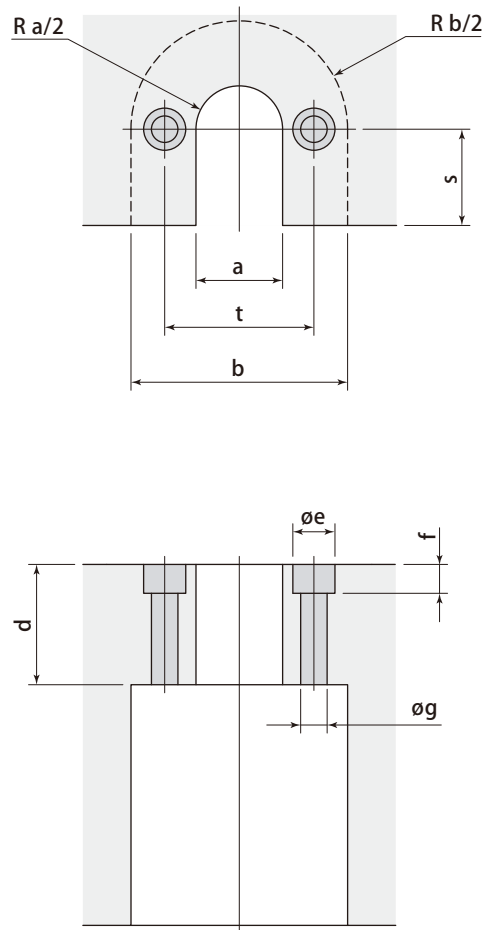
- Specify clamping height L dimension.
- In case the lift stroke of Die-lifter is large, the clamping stroke extension is necessary, so contact Pascal.

Mounting details

U-cut dimension



Dimensional drawing to clamp on bolster



Model	TXA020K	TXA040K	TXA063K	TXA100K
a	20	28	36	38 ~ 42
t	36	46	62	82
b	52	70	90	110
Min. d	30	40	50	50
Min. h	20	25	30	30
ø e	11	11	17.5	17.5
f	8	8	13	13
ø g	6.8	6.8	11	11
n	20	28 ~ 30	34 ~ 36	38 ~ 42
Min. m	20	20	40	35
Min. s	25	32	40	50

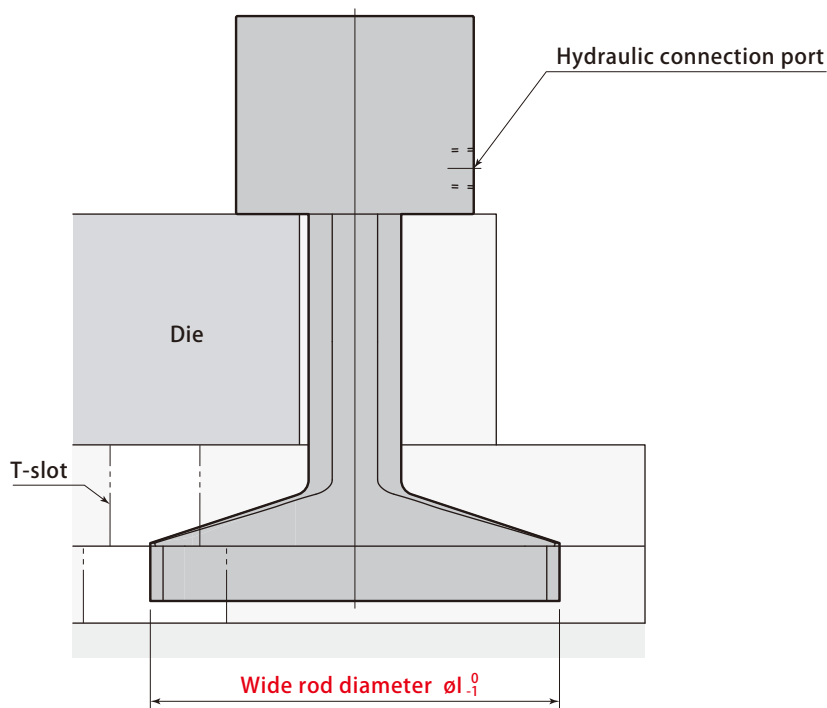
mm

**W** Wide rod type It is applied at the point which intersects with T-slot or the point with cushion pin hole.

Model designation

TXA **063** **W**

Clamping force TXA010 TXA020 TXA040  
TXA063 TXA100 TXA160



Model	TXA010W	TXA020W	TXA040W	TXA063W	TXA100W	TXA160W
Wide rod diameter øl	45	58	90	98	120	135

- In case the clamp is placed at the T-slot that has a hole for the cushion pin, specify the dimension of the clamp rod referring to the table shown below.

Model designation

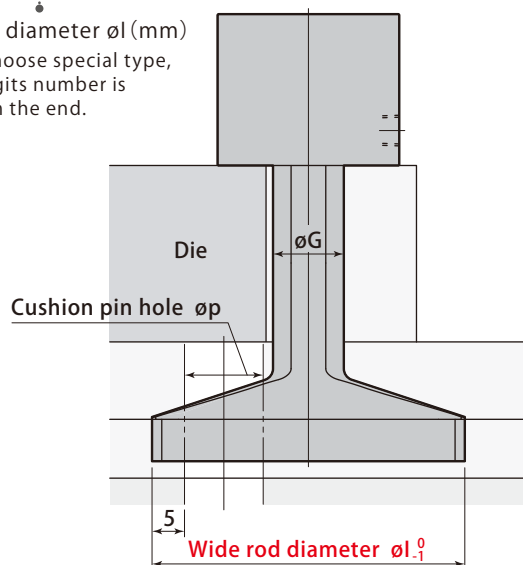
TXA **063** **W** - **095**

Clamping force TXA040  
TXA063  
TXA100

Wide rod diameter øl (mm)  
\*When choose special type,  
the 3 digits number is  
added in the end.

Max. producible rod diameter øl

Model	TXA040W-□	TXA063W-□	TXA100W-□
Clamp rod diameter øG	25	30	40
Cushion pin hole diameter øp	30	95	110
	35	105	120
	40	115	130
	45	125	140
	50	135	150
	55	145	160
	60	155	170
	65	165	180
70	175	190	



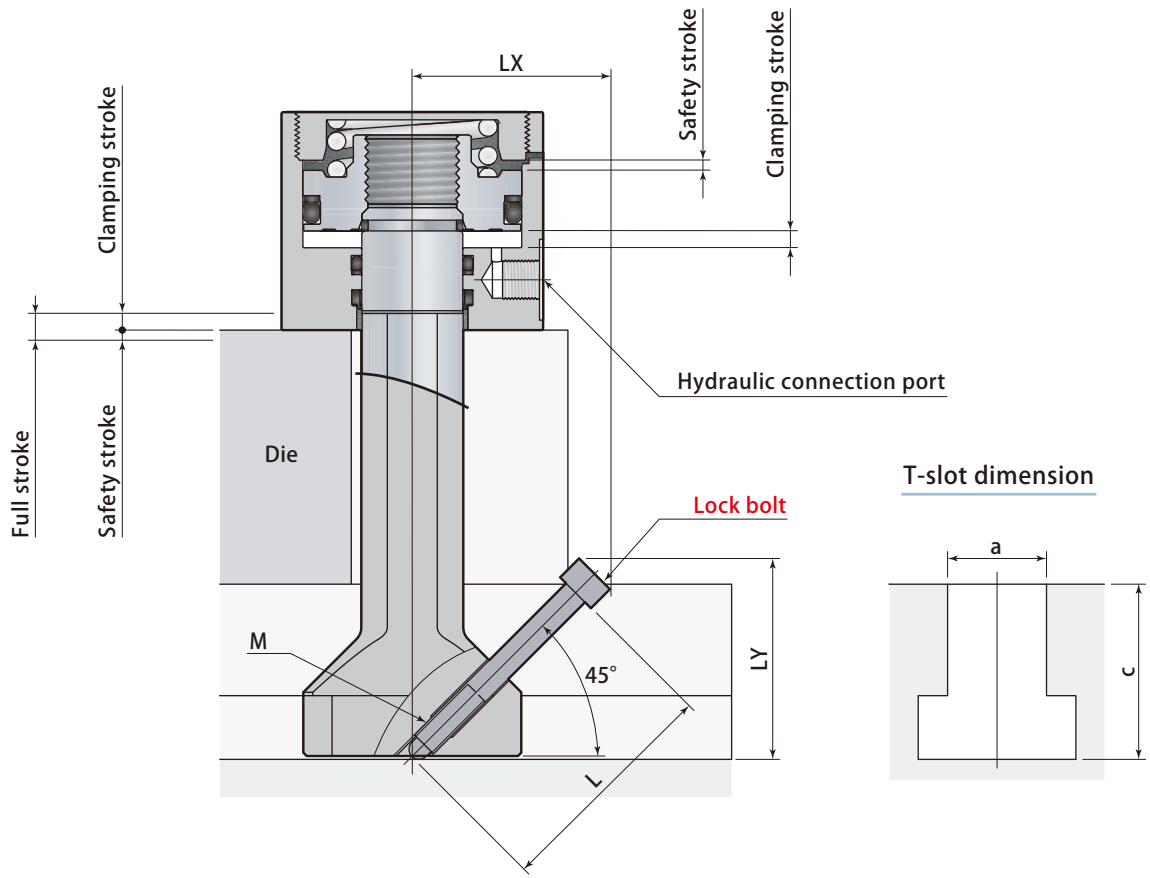
Relational expression  $øl = (øp + øG \div 2 + 5) \times 2$

**L Lock type** It can fix the clamp installed on the position out of reach, such as the rear side.

Model designation

TXA **063** - **L**

Clamping force TXA020 TXA040 TXA063  
TXA100 TXA160



mm

Model	TXA020-L	TXA040-L	TXA063-L	TXA100-L	TXA160-L
Min. a	11.5	14.5	15	18	23

● Lock bolt size differs according to c dimension of T-slot.

mm

Model	TXA020-L			TXA040-L	TXA063-L	TXA100-L	TXA160-L
Range of c dimension of T-slot	M×L	LX	LY	M×L	LX	LY	
17.7 < c ≤ 21.2	M6×29	27.9	28.9	M8×29	30.6	31.6	
21.2 < c ≤ 24.7	M6×34	31.4	32.4	M8×34	34.2	35.2	
24.7 < c ≤ 28.2	M6×39	34.9	35.9	M8×39	37.7	38.7	
28.2 < c ≤ 31.8	M6×44	38.5	39.5	M8×44	41.2	42.2	
31.8 < c ≤ 35.3	M6×49	42.0	43.0	M8×49	44.8	45.8	
35.3 < c ≤ 38.8	M6×54	45.5	46.5	M8×54	48.3	49.3	
38.8 < c ≤ 42.3	M6×59	49.1	50.1	M8×59	51.9	52.9	
42.3 < c ≤ 45.9	M6×64	52.6	53.6	M8×64	55.4	56.4	
45.9 < c ≤ 49.4	M6×69	56.2	57.2	M8×69	58.9	59.9	
49.4 < c ≤ 52.9	M6×74	59.7	60.7	M8×74	62.5	63.5	
52.9 < c ≤ 56.5	M6×79	63.2	64.2	M8×79	66.0	67.0	
56.5 < c ≤ 60.1	M6×84	66.8	67.8	M8×84	69.5	70.5	

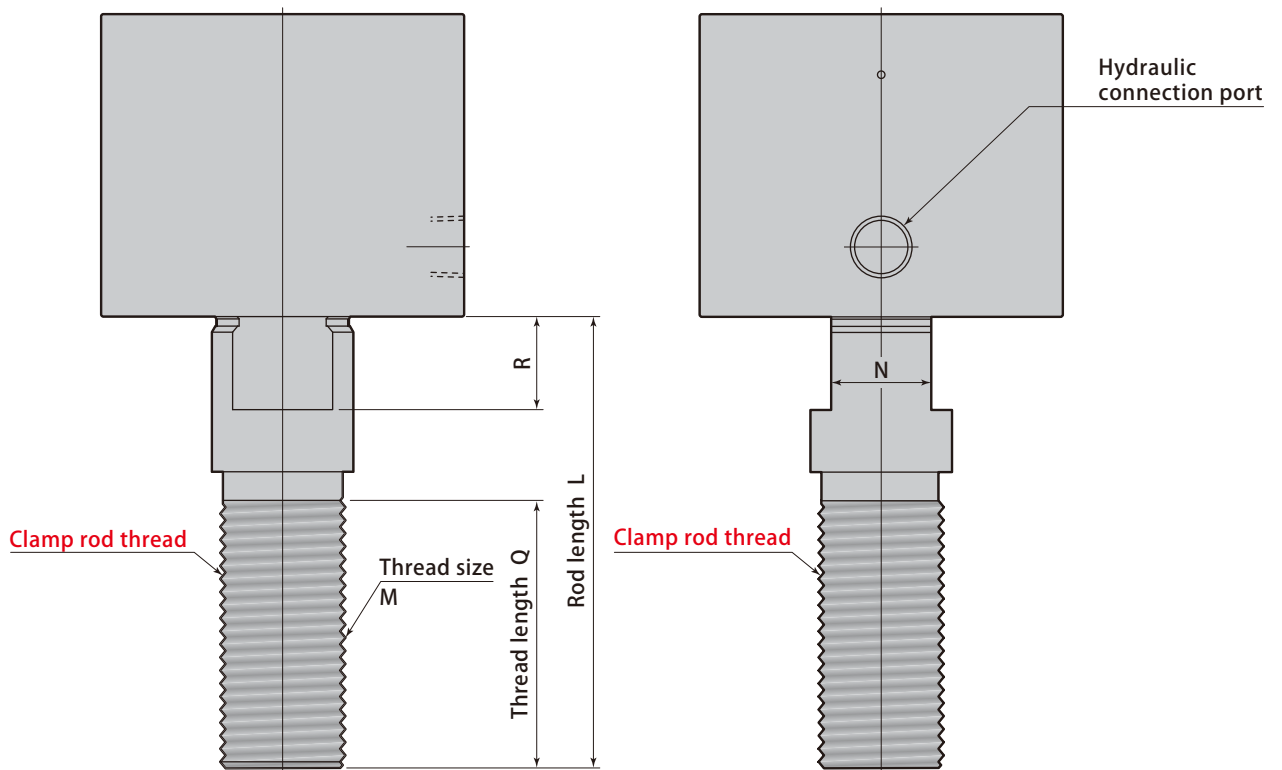


**S** Clamp rod thread type It is applied without T-slot.

Model designation

TXA 063 - S

- Clamping force  
TXA010 TXA020 TXA040  
TXA063 TXA100 TXA160



● The drawing indicated : position of unclamped

Model		TXA010-S	TXA020-S	TXA040-S	TXA063-S	TXA100-S	TXA160-S
Thread size	M	M12 × 1.75	M16 × 2	M22 × 2.5	M27 × 3	M36 × 4	M45 × 4.5
Width across flats	N	10	11.5	18.5	21.5	29.5	35.5

● Specify the thread length Q and rod length L.

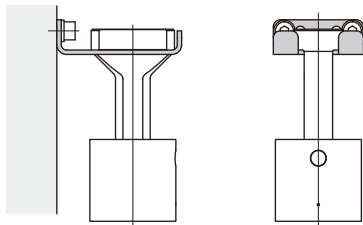
● R dimension to be changeable depending on Q and L dimensions.

Model	TXA010-S	TXA020-S	TXA040-S	TXA063-S	TXA100-S	TXA160-S
Width across flats height R Inside the brackets range of L-Q	10 (10 < L-Q ≤ 20)					-
	20 (20 < L-Q)					-
	-					15 (15 < L-Q ≤ 25)
	-					25 (25 < L-Q)



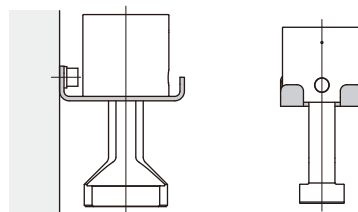
For TXA temporary hanging

**FX A** Upper clamp hook page → 42



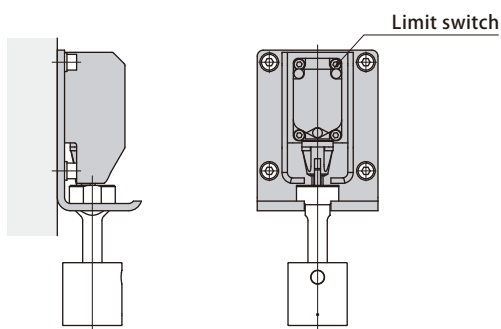
\* Not applicable for model TXA □ W.

**FX A** Lower clamp hook page → 42



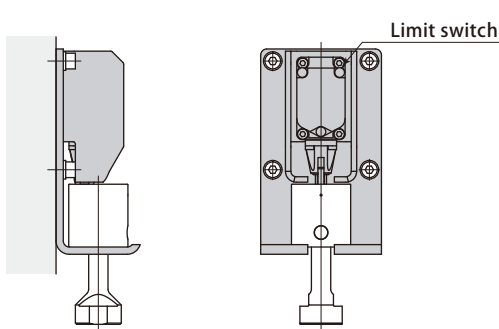
\* Not applicable for model TXA □ E.

**FX B** Upper clamp hook with LS page → 43



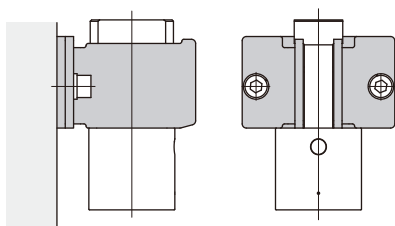
\* Not applicable for model TXA □ W.

**FX C** Lower clamp hook with LS page → 44



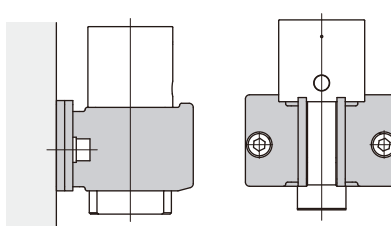
\* Not applicable for model TXA □ E, TXA-X □ and TXA □ W.

**FX D** Upper clamp hook with dummy plate page → 45



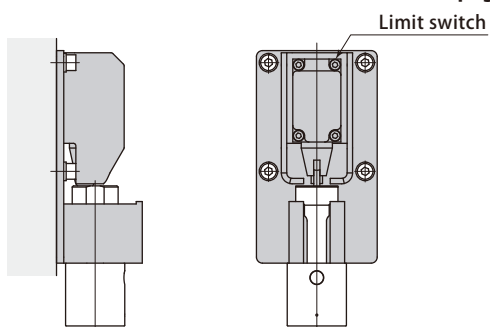
\* Not applicable for model TXA □ W.

**FX D** Lower clamp hook with dummy plate page → 45



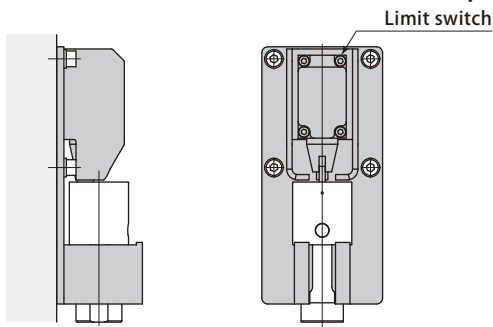
\* Not applicable for model TXA □ W.

**FX E** Upper clamp hook with LS and dummy plate page → 46



\* Not applicable for model TXA □ W.

**FX F** Lower clamp hook with LS and dummy plate page → 47



\* Not applicable for model TXA □ E, TXA-X □ and TXA □ W.

\* Contact Pascal for the details.

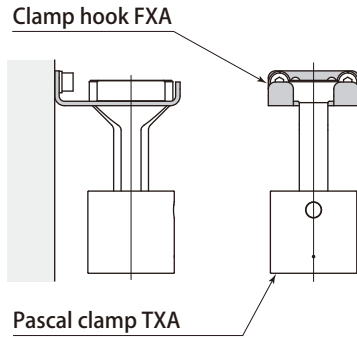
Model designation

FX **A** **01** - **18**

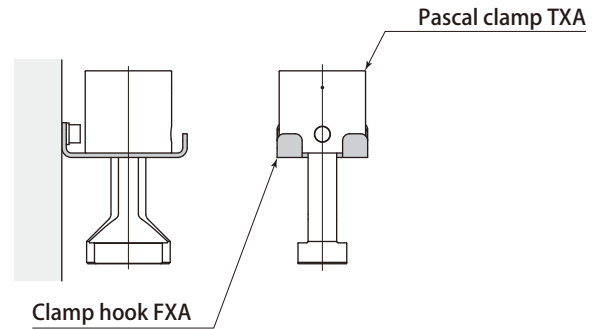
- 1 Hook size
- 2 W dimension (mm)

- 1 Hook size  
FXA01 FXA02 FXA03
- 2 W dimension (mm)  
Refer to the below table

Installation example of the upper type of clamp

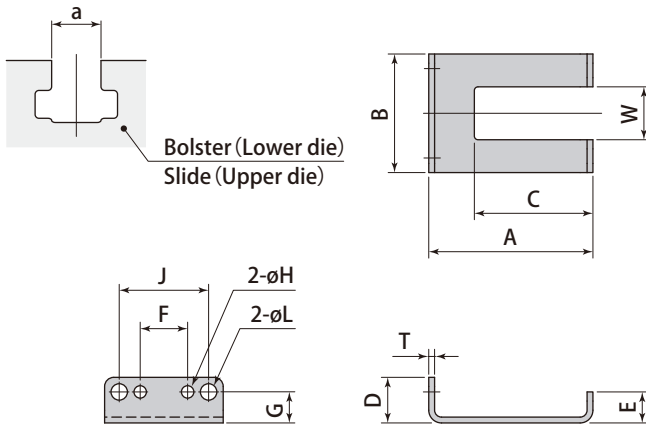


Installation example of the lower type of clamp



- The shape of the upper and lower type of hook is the same.
- Do not operate the machine with clamp hung on the clamp hook.

T-slot dimension



- The mount screw is not furnished. If necessary, order the mount screw type sold separately.

øH Mount screw

Hook type	Reference specification	Mount screw type (option)
FXA01	2-M5 length 12	FXA-A05
FXA02	2-M6 length 14	FXA-A06

øL Mount screw

Hook type	Reference specification	Mount screw type (option)
FXA01	2-M6 length 14	FXA-A06
FXA02	2-M8 length 16	FXA-A08
FXA03	2-M8 length 16	FXA-A08

Clamp model	TXA010				TXA020 / TXA040					TXA063 / TXA100				TXA160				
	T-slot a	Less than 14	15~18	19~22	23~28	Less than 14	15~18	19~22	23~28	29~34	Less than 22	23~28	29~34	35~40	Less than 28	29~34	35~40	41~46
Clamp hook type	FXA 01-14	FXA 01-18	FXA 01-22	FXA 01-28	FXA 02-14	FXA 02-18	FXA 02-22	FXA 02-28	FXA 02-34	FXA 03-22	FXA 03-28	FXA 03-34	FXA 03-40	FXA 04-28	FXA 04-34	FXA 04-40	FXA 04-46	
W	mm	14	18	22	28	14	18	22	28	34	22	28	34	40	28	34	40	46
A	mm		65				90				120				155			
B	mm		50				65				75				100			
C	mm		50				65				90				110			
D	mm		25				25				25				60			
E	mm		12				17				17				24			
G	mm		17				17				17				45			
T	mm		2.3				3.2				3.2				4.5			
F	mm		17				26				—				—			
øH	mm		5.5				6.8				—				—			
J	mm		35				49				49				80			
øL	mm		6.8				9				9				11			
Weight	kg		0.1				0.2				0.3				0.7			

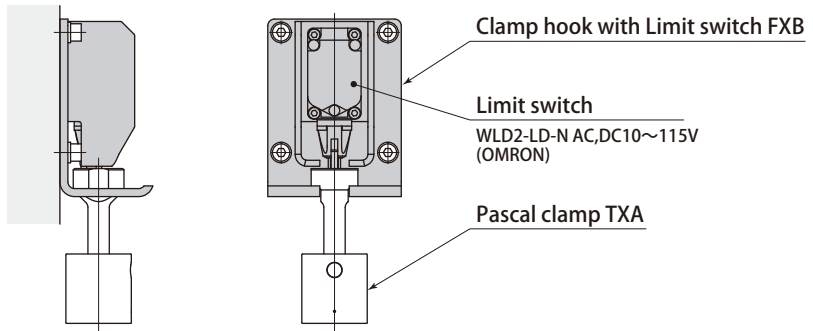
Model designation

FX **B** **01** - **18** - **11**

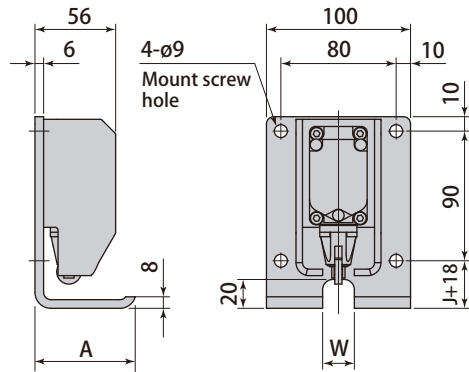
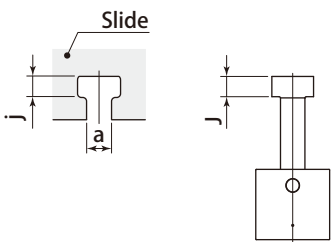
- 1 Hook size  
FXB01 FXB02 FXB03  
FXB04 FXB05
- 2 W dimension (mm)  
Refer to the below table
- 3 J dimension (mm)

Installation example

● Do not operate the machine with clamp hung on the clamp hook.



T-slot dimension    T-leg dimension



● The mount screw is not furnished. If necessary, order the mount screw type sold separately.

Mount screw

Hook type	Reference specification	Mount screw type (option)
FXB01	4-M8 length 16	FXB-A08
FXB02		
FXB03		
FXB04		
FXB05		

Clamp model	TXA010					TXA020				
T-slot a mm	Less than 14	15~18	19~22	23~28		Less than 14	15~18	19~22	23~28	29~34
Clamp hook type	FXB01-14	FXB01-18	FXB01-22	FXB01-28		FXB02-14	FXB02-18	FXB02-22	FXB02-28	FXB02-34
W mm	14	18	22	28		14	18	22	28	34
A mm	55					70				
Weight (Approx) kg (Reference J dimension) mm	1.6 (J=11)					1.6 (J=15)				

Clamp model	TXA040					TXA063				TXA100			
T-slot a mm	Less than 14	15~18	19~22	23~28	29~34	Less than 22	23~28	29~34	35~40	Less than 22	23~28	29~34	35~40
Clamp hook type	FXB03-14	FXB03-18	FXB03-22	FXB03-28	FXB03-34	FXB04-22	FXB04-28	FXB04-34	FXB04-40	FXB05-22	FXB05-28	FXB05-34	FXB05-40
W mm	14	18	22	28	34	22	28	34	40	22	28	34	40
A mm	90					95				110			
Weight (Approx) kg (Reference J dimension) mm	1.7 (J=17)					1.7 (J=19)				1.8 (J=19)			

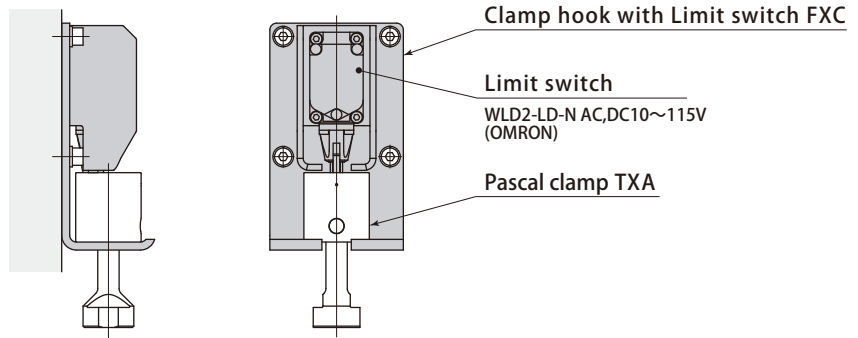
Model designation

**FX C 01 - 18**

- 1 Hook size
- 2 W dimension (mm)

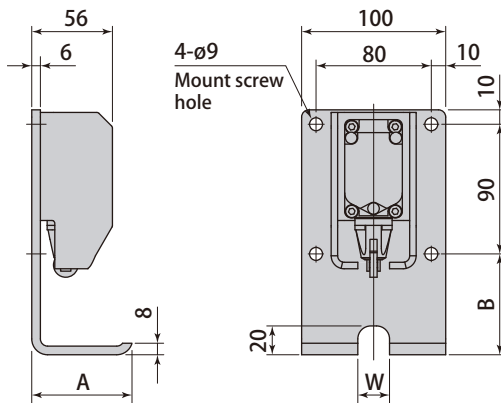
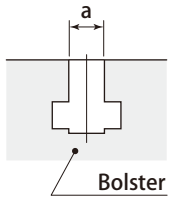
- 1 Hook size  
FXC01 FXC02 FXC03  
FXC04 FXC05
- 2 W dimension (mm)  
Refer to the below table

Installation example



● Do not operate the machine with clamp hung on the clamp hook.

T-slot dimension



● The mount screw is not furnished. If necessary, order the mount screw type sold separately.

Mount screw

Hook type	Reference specification	Mount screw type (option)
FXC01	4-M8 length 16	FXC-A08
FXC02		
FXC03		
FXC04		
FXC05		

Clamp model		TXA010				TXA020				
		T-slot a	mm	Less than 14	15~18	19~22	23~28	Less than 14	15~18	19~22
Clamp hook type		FXC01-14	FXC01-18	FXC01-22	FXC01-28	FXC02-14	FXC02-18	FXC02-22	FXC02-28	FXC02-34
W	mm	14	18	22	28	14	18	22	28	34
A	mm	55				70				
G	mm	55				70				
Weight	kg	1.7				1.8				

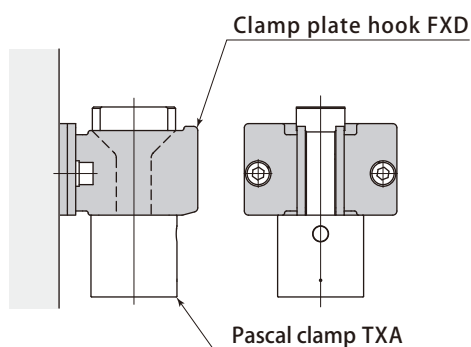
Clamp model		TXA040					TXA063				TXA100			
		T-slot a	mm	Less than 14	15~18	19~22	23~28	29~34	Less than 22	23~28	29~34	35~40	Less than 22	23~28
Clamp hook type		FXC03-14	FXC03-18	FXC03-22	FXC03-28	FXC03-34	FXC04-22	FXC04-28	FXC04-34	FXC04-40	FXC05-22	FXC05-28	FXC05-34	FXC05-40
W	mm	14	18	22	28	34	22	28	34	40	22	28	34	40
A	mm	90					110				130			
G	mm	77					83				89			
Weight	kg	1.9					2.0				2.1			

Model designation

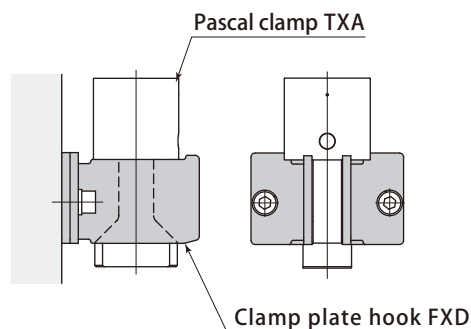
FX **D** **01** - **18** - **38**

- 1 Hook size  
FXD01 FXD02 FXD03
- 2 W dimension (mm)  
Refer to the below table
- 3 d+h dimension (mm)

Installation example of the upper type of clamp

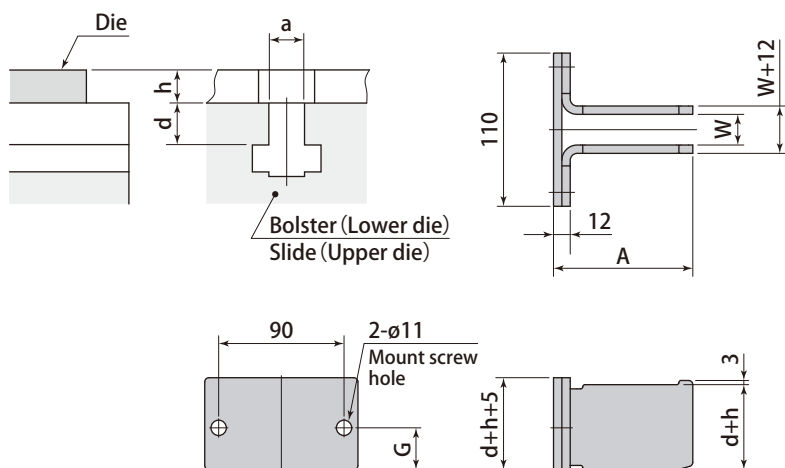


Installation example of the lower type of clamp



- The shape of the upper and lower type of hook is the same.
- The clamp plate which fixes the unused clamp outside machine is attached.

T-slot dimension



- The mount screw is not furnished. If necessary, order the mount screw type sold separately.

Mount screw

Hook type	Reference specification	Mount screw type (option)
FXD01	2-M10 length 30	FXD-A10
FXD02		
FXD03		

Clamp model	TXA010				TXA020 / TXA040					TXA063 / TXA100				
	T-slot a mm	Less than 14	15~18	19~22	23~28	Less than 14	15~18	19~22	23~28	29~34	Less than 22	23~28	29~34	35~40
Clamp hook type	FXD01 -14	FXD01 -18	FXD01 -22	FXD01 -28	FXD02 -14	FXD02 -18	FXD02 -22	FXD02 -28	FXD02 -34	FXD03 -22	FXD03 -28	FXD03 -34	FXD03 -40	
W	mm	14	18	22	28	14	18	22	28	34	22	28	34	40
A	mm	60				100					125			
G	mm	22				30					30			
Wight (Approx) (Reference d+h dimension)	kg mm	0.6 (d+h=38)				1.1 (d+h=61)					1.6 (d+h=83)			

Model designation

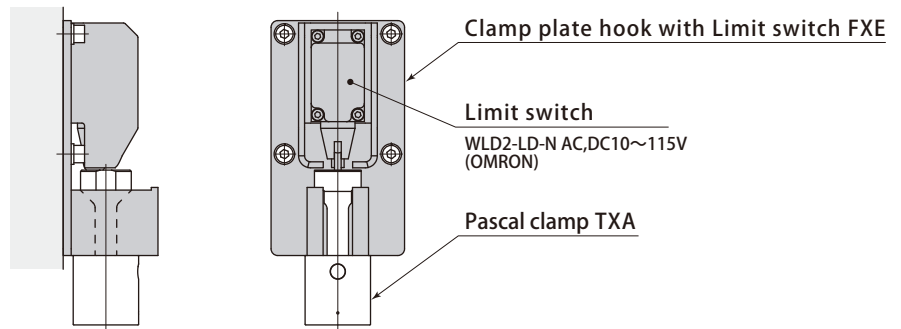
**FX E 01 - 18 - 38 - 11**

- 1 Hook size
- 2 W dimension (mm)
- 3 d+h dimension (mm)
- 4 J dimension (mm)

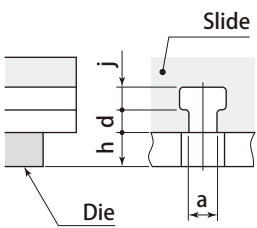
- 1 Hook size  
FXE01 FXE02 FXE03  
FXE04 FXE05
- 2 W dimension (mm)  
Refer to the below table.
- 3 d+h dimension (mm)  
Refer to T-slot dimension.
- 4 J dimension (mm)

Installation example

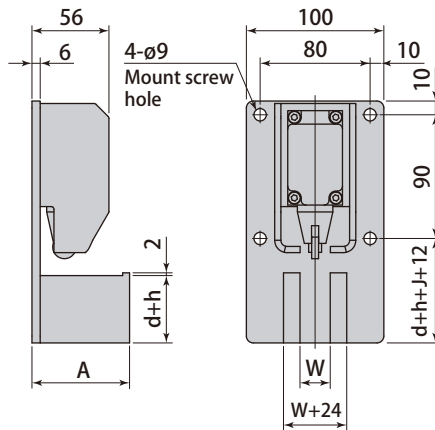
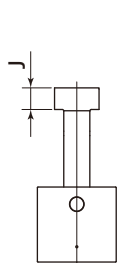
● The clamp plate which fixes the unused clamp outside machine is attached.



T-slot dimension



T-leg dimension



● The mount screw is not furnished. If necessary, order the mount screw type sold separately.

Mount screw

Hook type	Reference specification	Mount screw type (option)
FXE01	4-M8 length 16	FXE-A08
FXE02		
FXE03		
FXE04		
FXE05		

Clamp model		TXA010					TXA020						
		T-slot a	mm	Less than 14	15~18	19~22	23~28	Less than 14	15~18	19~22	23~28	29~34	
Clamp hook type		FXE01-14	FXE01-18	FXE01-22	FXE01-28	FXE02-14	FXE02-18	FXE02-22	FXE02-28	FXE02-34			
W	mm	14	18	22	28	14	18	22	28	34			
A	mm	56					71						
Wight (Approx) (Reference d,h,J dimension)	kg mm	1.9 (d+h=38, J=11)					2.2 (d+h=49, J=15)						

Clamp model		TXA040					TXA063				TXA100					
		T-slot a	mm	Less than 14	15~18	19~22	23~28	29~34	Less than 22	23~28	29~34	35~40	Less than 22	23~28	29~34	35~40
Clamp hook type		FXE03-14	FXE03-18	FXE03-22	FXE03-28	FXE03-34	FXE04-22	FXE04-28	FXE04-34	FXE04-40	FXE05-22	FXE05-28	FXE05-34	FXE05-40		
W	mm	14	18	22	28	34	22	28	34	40	22	28	34	40		
A	mm	91					106				131					
Wight (Approx) (Reference d,h,J dimension)	kg mm	2.7 (d+h=61, J=17)					3.2 (d+h=73, J=19)				3.8 (d+h=83, J=19)					



Model designation

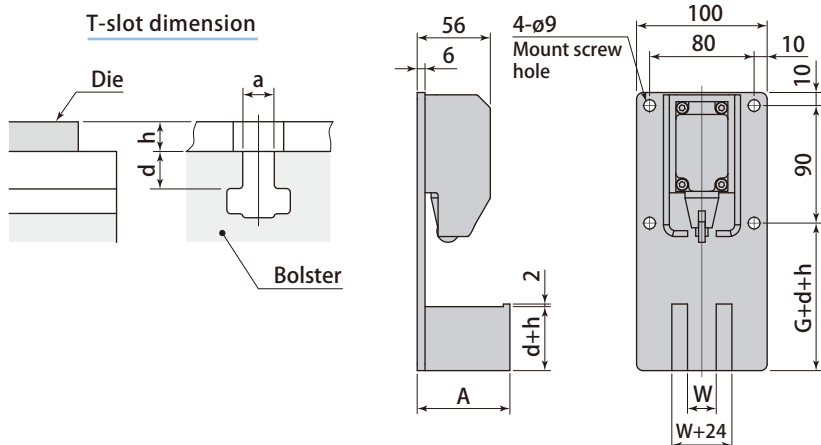
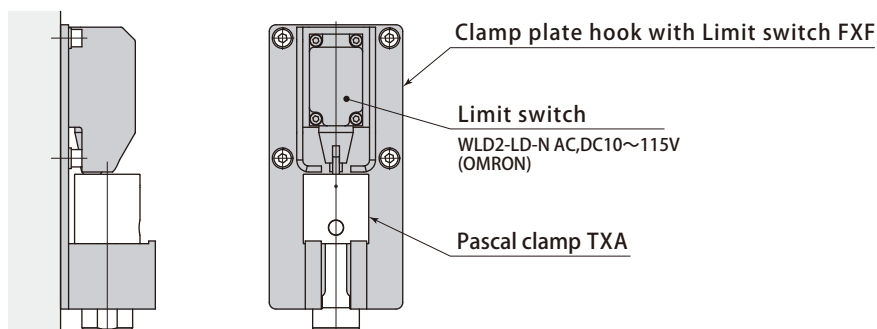
FX **F** **01** - **18** - **38**

- 1 Hook size
- 2 W dimension (mm)
- 3 d+h dimension (mm)

- 1 Hook size  
FXF01 FXF02 FXF03  
FXF04 FXF05
- 2 W dimension (mm)  
Refer to the below table.
- 3 d+h dimension (mm)

Installation example

The clamp plate which fixes the unused clamp outside machine is attached.



The mount screw is not furnished. If necessary, order the mount screw type sold separately.

Mount screw

Hook type	Reference specification	Mount screw type (option)
FXF01	4-M8 length 16	FXF-A08
FXF02		
FXF03		
FXF04		
FXF05		

Clamp model		TXA010				TXA020				
		Less than 14	15~18	19~22	23~28	Less than 14	15~18	19~22	23~28	29~34
T-slot a	mm									
Clamp hook type		FXF01-14	FXF01-18	FXF01-22	FXF01-28	FXF02-14	FXF02-18	FXF02-22	FXF02-28	FXF02-34
W	mm	14	18	22	28	14	18	22	28	34
A	mm	56				71				
G	mm	49				64				
Wight (Approx) (Reference d+h dimension)	kg mm	2.1 (d+h=38)				2.4 (d+h=49)				

Clamp model		TXA040					TXA063				TXA100			
		Less than 14	15~18	19~22	23~28	29~34	Less than 22	23~28	29~34	35~40	Less than 22	23~28	29~34	35~40
T-slot a	mm													
Clamp hook type		FXF03-14	FXF03-18	FXF03-22	FXF03-28	FXF03-34	FXF04-22	FXF04-28	FXF04-34	FXF04-40	FXF05-22	FXF05-28	FXF05-34	FXF05-40
W	mm	14	18	22	28	34	22	28	34	40	22	28	34	40
A	mm	91					106				131			
G	mm	71					77				83			
Wight (Approx) (Reference d+h dimension)	kg mm	2.9 (d+h=61)					3.4 (d+h=73)				4.0 (d+h=83)			





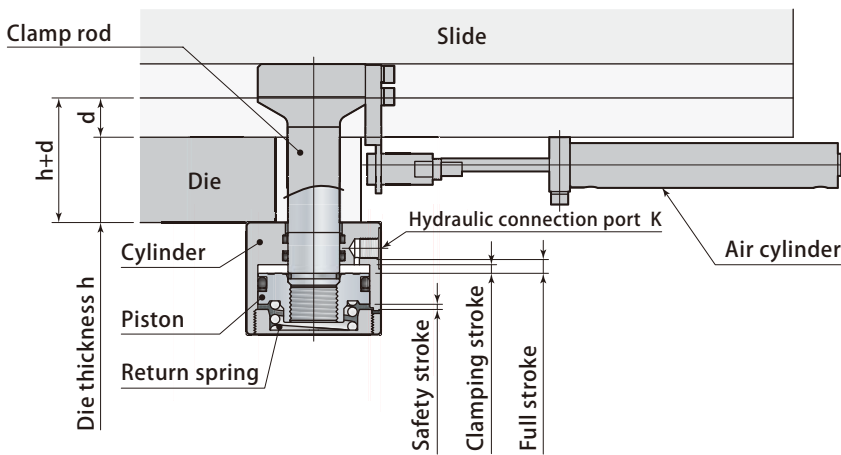
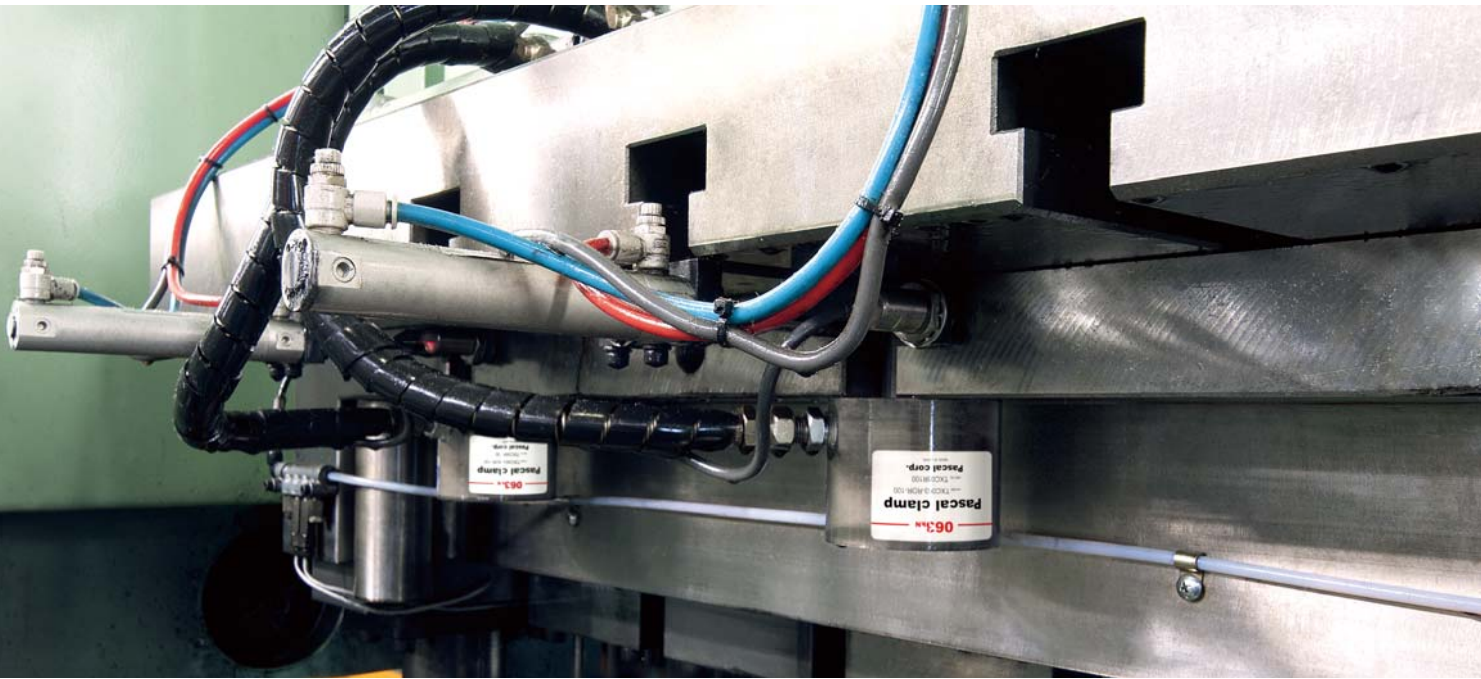
# Pascal clamp model TXC

Pascal clamp automatic slidable type



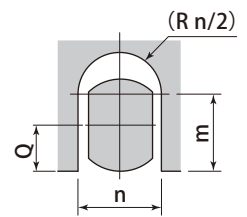
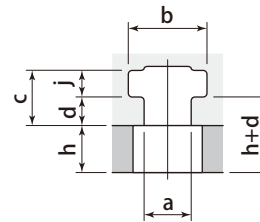
Automatic slidable clamp with air cylinder. It enables to shorten the die exchange time.

Automatic slidable TXC



T-slot dimension and die thickness

U-cut dimension



**Specifications**

Model		TXC020	TXC040	TXC063	TXC100
Clamping force (at 24.5 MPa)	kN	19.6	39.2	61.7	98
Proof pressure	MPa	36.7			
Full stroke	mm	8			
Clamping stroke	mm	5			
Safety stroke	mm	3			
Cylinder capacity (at full stroke)	cm <sup>3</sup>	6.5	13	21	32
Operating temperature	°C	0 ~ 70 (Standard)			
Approximate weight	kg	2	3	4	6
Range of dimension a	mm	18 ~ 28	22 ~ 32		28 ~ 36
Min. h	mm	30			40
Max. h+d	mm	80	90	100	110
Tolerance of dimension d	mm	± 0.2			
Tolerance of dimension j	mm	0 ~ +1			
Tolerance of dimension h	mm	± 0.3			
Min. m	mm	15	40	45	57
Range of dimension n	mm	22 ~ 30	22 ~ 35	22 ~ 40	28 ~ 50

- Working hydraulic pressure : 24.5MPa ● Weight varies according to the clamp rod dimension and sliding stroke.
- Specify T-slot dimensions a, b, d, j and die thickness h. For brand new machine, machine d, j and h dimension with the tolerance shown in the above table. For existing machine, specify tolerance of 0.1mm unit on d, j and h dimensions.
- In case dimension is over Max. h+d, refer to **page →56** Long clamp rod type. ● Stop the press during the clamp wait.

Model designation

TXC **040** R **0** L - **075**

- 1 Clamping force
- 2 Proximity switch
- 3 Mounting position of die detection proximity switch
- 4 Sliding stroke (mm)  
\* Indicated in 3 digits

- 1 Clamping force  
TXC020 : 19.6kN  
TXC040 : 39.2kN  
TXC063 : 61.7kN  
TXC100 : 98kN

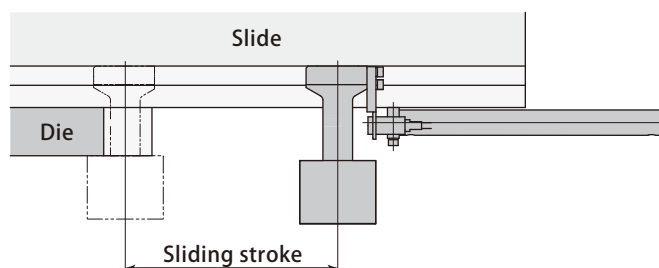
**2** Proximity switch

Symbol of proximity switch model	0	1	2	3
Specifications	DC24V 2-Wire	DC24V 3-Wire(NPN)	AC100V 2-Wire	DC24V 3-Wire(PNP)
Model	E2E-X7D1-N	E2E-X5E1	E2E-X5Y1	E2E-X5F1
Manufacturer name	OMRON			
Insulation vinyl cable length	5m			

**3** Mounting position of die detection proximity switch



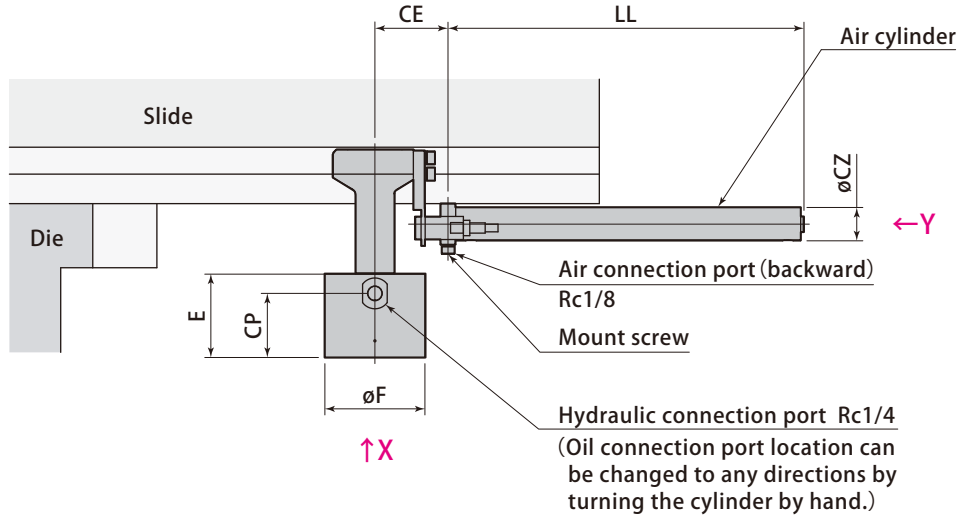
**4** Sliding stroke



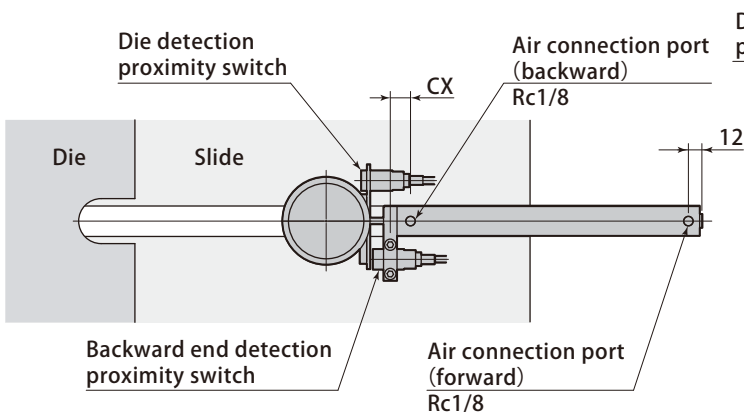
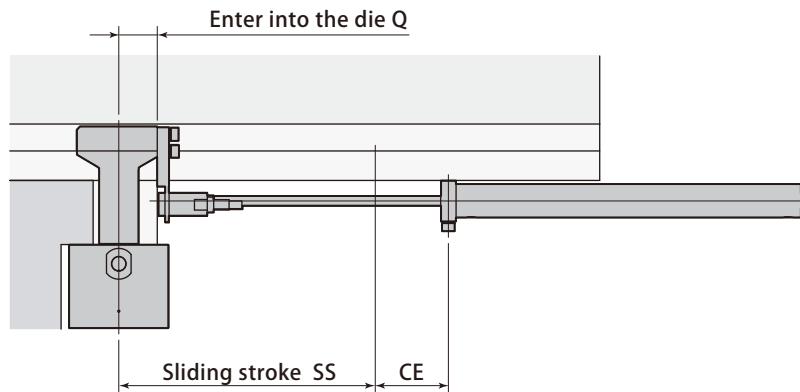
Model	TXC020R	TXC040R	TXC063R	TXC100R
Sliding stroke *	mm 50, 75, 100, 125, 150, 200	75, 100, 125, 150, 200	100, 125, 150, 200	100, 150, 200
Air cylinder driven pressure	MPa 0.39 ~ 0.54			
Slide velocity	mm/s 30 ~ 1000 (to be adjusted by a flow control valve)			
Air cylinder model	CG1BN20-□			CG1BN32-□
Air cylinder manufacturer	SMC			

● Refer to **page →54** for the details of sliding stroke.  
\* Contact Pascal for the sliding stroke which is not mentioned above.

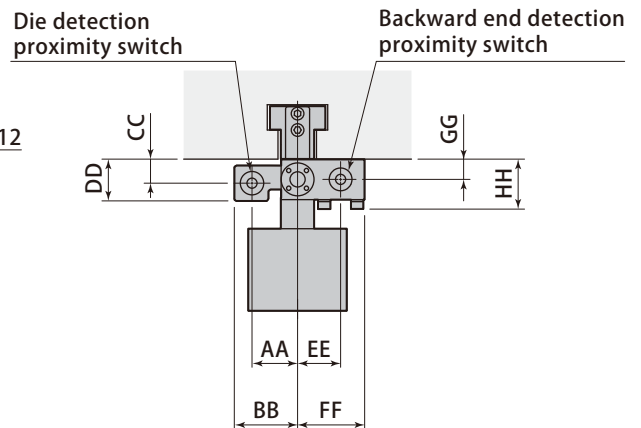
**Unclamp**



**Clamp**



**VIEW : X**



**VIEW : Y**

● These drawings indicate : mounting position of proximity switch **L**

Dimensions

Model	mm			
	TXC020R	TXC040R	TXC063R	TXC100R
øCZ	26	26	26	38
øF	49	62	78	98
CP	40	45.5	50	55
E	52	59	65	71
CE	42	54	57	64
CX	18	18	18	20
Q	15	27	30	37
HH	39.5	39.5	39.5	54
GG	16	16	16	22
CC	19	19	19	20
EE	34	34	34	39.5
AA	36	36	36	43
FF	53	53	53	54
BB	50.5	50.5	50.5	57.5
DD	33	33	33	34
Mount screw	4-M6 length 40	4-M6 length 40	4-M6 length 40	4-M8 length 55

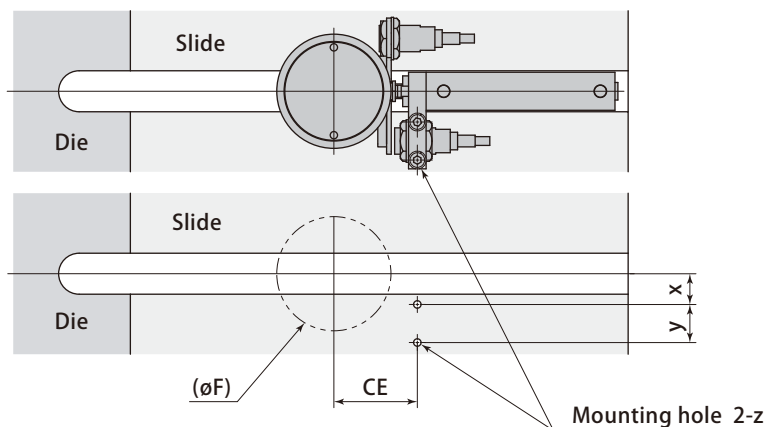
Sliding stroke  50  75  100  125  150  200 mm

Sliding stroke SS	mm			
	TXC020R	TXC040R	TXC063R	TXC100R
	Overall length LL			
50	127	—	—	—
75	152	152	—	—
100	177	177	177	181
125	202	202	202	206
150	227	227	227	231
200	277	277	277	281



Mounting details

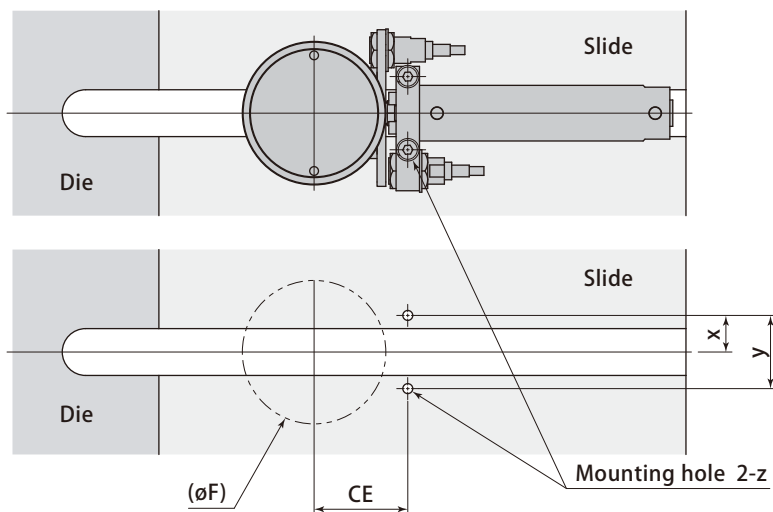
TXC020R TXC040R TXC063R



● This drawing indicates : mounting position of proximity switch L

TXC100R

The mounting hole position is the same between TXC100RL and TXC100RR.



mm

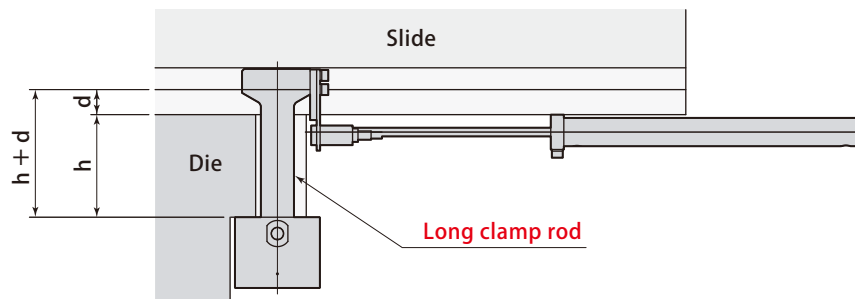
Model	TXC020R	TXC040R	TXC063R	TXC100R
øF	49	62	78	98
CE	42	54	57	64
x	21	21	21	25
y	26	26	26	50
z	M6 depth 12	M6 depth 12	M6 depth 12	M8 depth 16

**H** Long clamp rod type It is applied in case the die thickness is over the standard.

Model designation

TXC **040** R **0** **L** - **075** - **H**

- 1 Clamping force
  - 2 Proximity switch
  - 3 Mounting position of die detection proximity switch
  - 4 Sliding stroke (mm) \* Indicated in 3 digits
- 1 2 3 4 Refer to page →52



Model	TXC020R	TXC040R	TXC063R	TXC100R
h+d	h+d > 80	h+d > 90	h+d > 100	h+d > 110

mm

**V** Heat proof type It is applied under condition that the die and its surroundings are in high temperature.

Model designation

TXC **040** R **0** **L** - **075** - **V**

- 1 Clamping force
  - 2 Proximity switch
  - 3 Mounting position of die detection proximity switch
  - 4 Sliding stroke (mm) \* Indicated in 3 digits
- 1 2 3 4 Refer to page →52

● The operating ambient temperature of heat proof type is 5-120°C.



# Pascal clamp model TXE

Pascal clamp automatic solidable type model TXE  
which utilizes the entire lower surface.



Automatic slidable clamp which utilizes **the entire** lower surface.

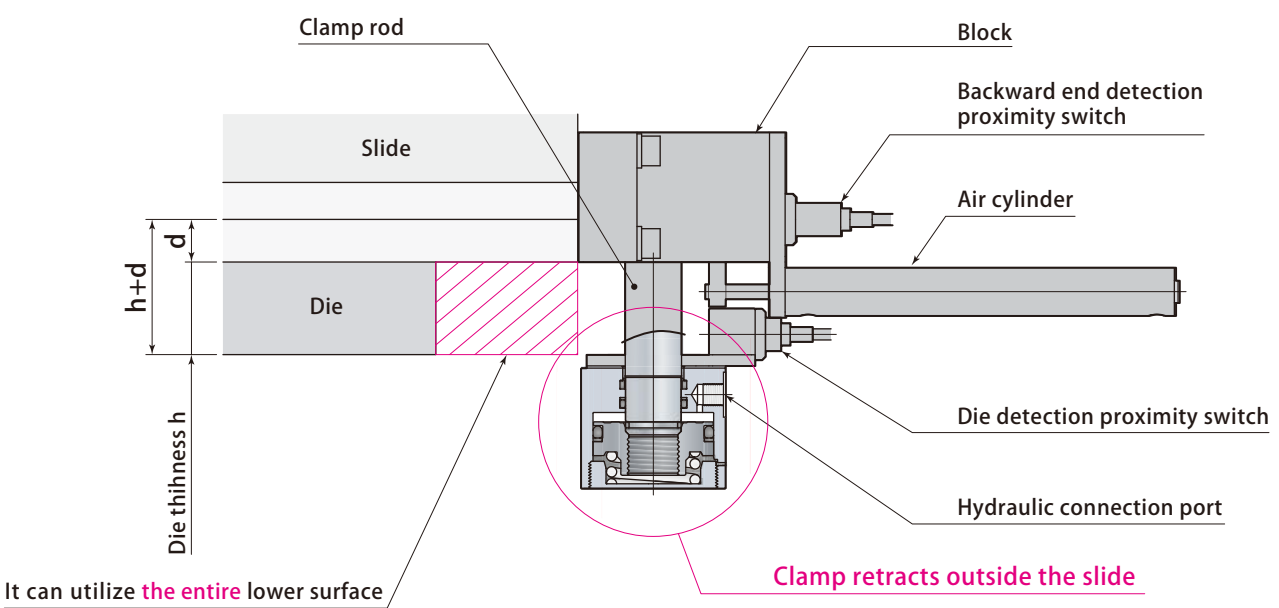


### Specifications

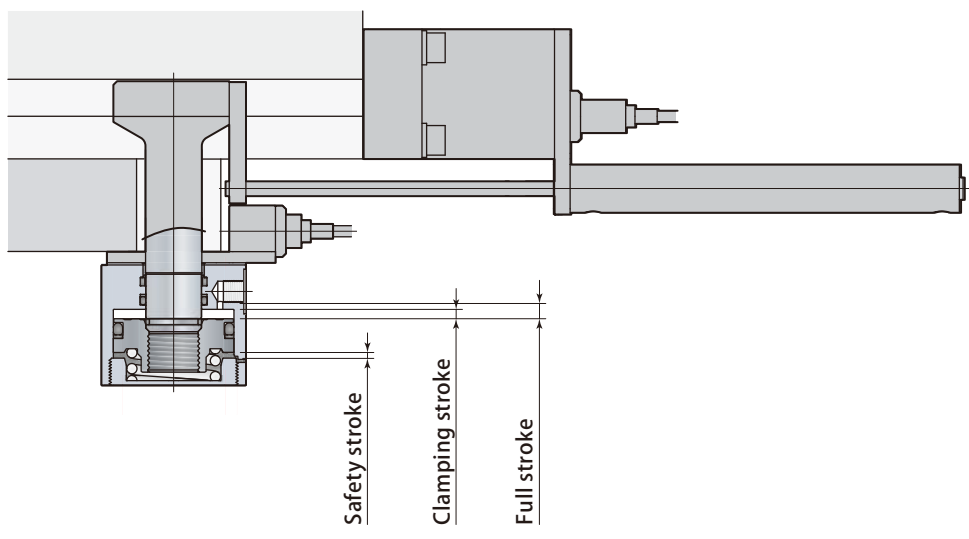
Model		TXE020	TXE040	TXE063	TXE100
Clamping force (at 24.5 MPa)	kN	19.6	39.2	61.7	98
Proof pressure	MPa	36.7			
Full stroke	mm	8			
Clamping stroke	mm	5			
Safety stroke	mm	3			
Cylinder capacity (at full stroke)	cm <sup>3</sup>	6.5	13	21	32
Operating temperature	°C	0 ~ 70 (Standard)			
Approximate weight	kg	4	5	6	9
Range of dimension a	mm	18 ~ 28	22 ~ 32		28 ~ 36
Min. h	mm	30			40
Max. h+d	mm	80	90	100	110
Tolerance of dimension d	mm	± 0.2			
Tolerance of dimension j	mm	0 ~ +1			
Tolerance of dimension h	mm	± 0.3			
Min. m	mm	15	40	45	57
Range of dimension n	mm	22 ~ 30	22 ~ 35	22 ~ 40	28 ~ 50

- Working hydraulic pressure : 24.5MPa
- Weight varies according to clamp rod dimension and existence or non-existence of sliding stroke and clamp plate.
- Specify T-slot dimensions a, b, d, j and die thickness h. For brand new machine, machine d, j and h dimensions with the tolerance shown in the above table. For existing machine, specify tolerance of 0.1mm unit on d, j and h dimensions.
- In case dimension is over Max. h+d, refer to **page → 72** Long clamp rod type.
- Stop the press during the clamp wait.

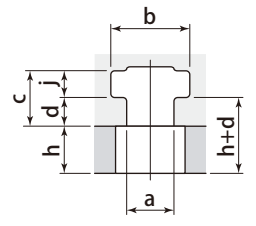
**Home clamp**



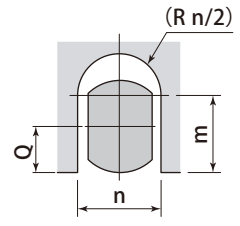
**Clamp**



T-slot dimension and die thickness



U-cut dimension



Model designation

TXE 063 C 0 L - 090

- 1 Clamping force
- 2 Clamp plate  
Mounting bracket
- 3 Proximity switch
- 4 Mounting position  
of die detection proximity switch
- 5 Sliding stroke (mm) \* Indicated in 3 digits

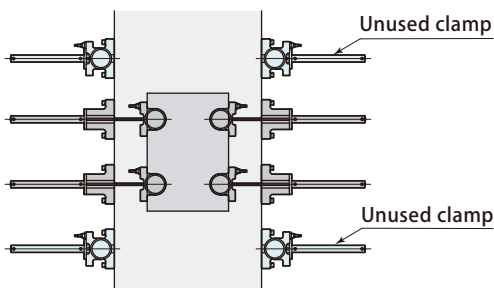
- 1 Clamping force  
TXE020 : 19.6kN  
TXE040 : 39.2kN  
TXE063 : 61.7kN  
TXE100 : 98kN

2 Clamp plate, Mounting bracket

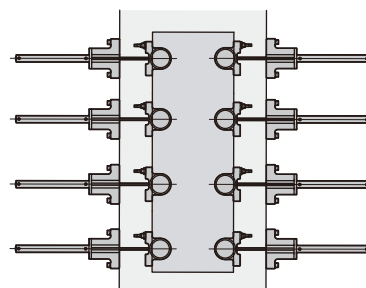
Symbol of clamp plate and mounting bracket model	B	C	D	E
Clamp plate	No attached	Attached	No attached	Attached
Mounting bracket	No attached	No attached	Attached	Attached

The clamp plate is necessary, in case each die varies to number of used clamps.

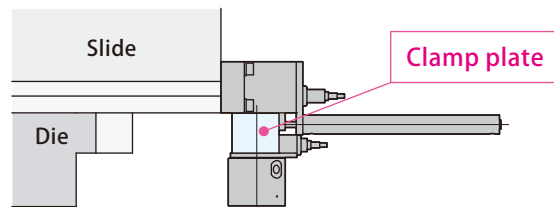
Clamping the small sized die



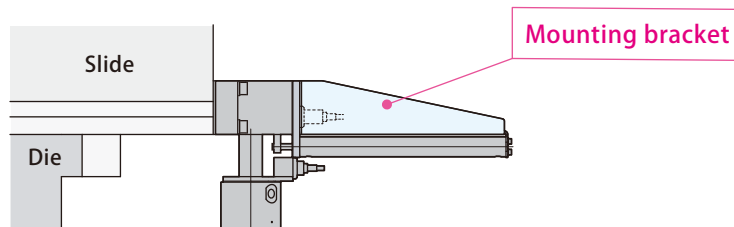
Clamping the large sized die



- If the unused clamps are forced to wait and the press is operated, the connecting part will be damaged by vibration. Therefore, specify the clamp plate and let them wait in status of clamping.



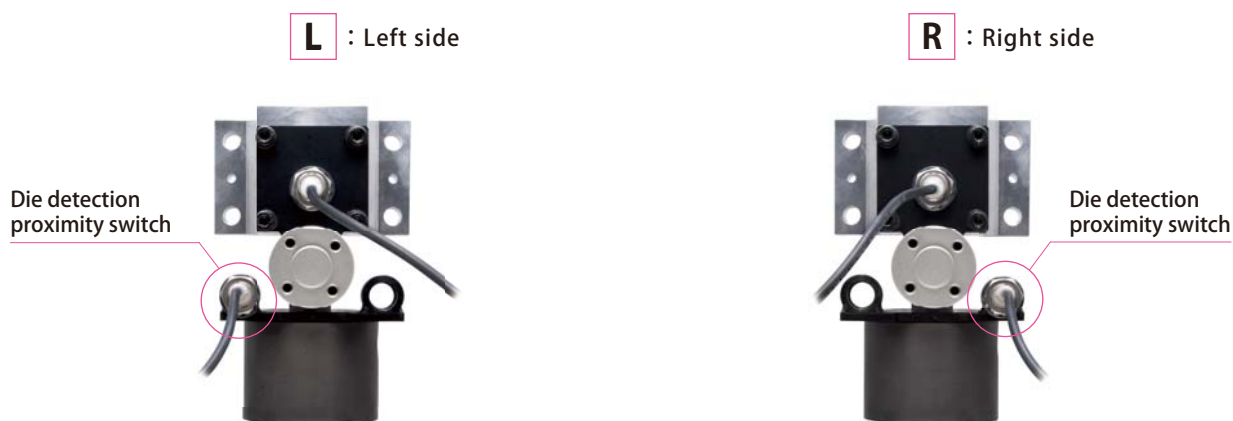
In case the sliding stroke is over 200mm, mounting bracket is necessary.



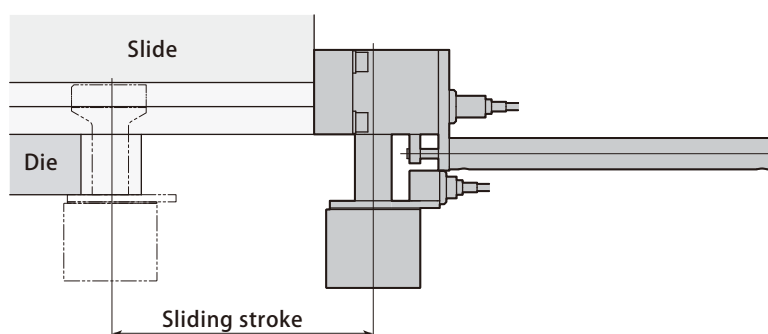
**3** Proximity switch

Symbol of proximity switch model	0	1	2	3
Specifications	DC24V 2-Wire	DC24V 3-Wire(NPN)	AC100V 2-Wire	DC24V 3-Wire(PNP)
Model	E2E-X7D1-N	E2E-X5E1	E2E-X5Y1	E2E-X5F1
Manufacturer name	OMRON			
Insulation vinyl cable length	5m			

**4** Mounting position of die detection proximity switch



**5** Sliding stroke



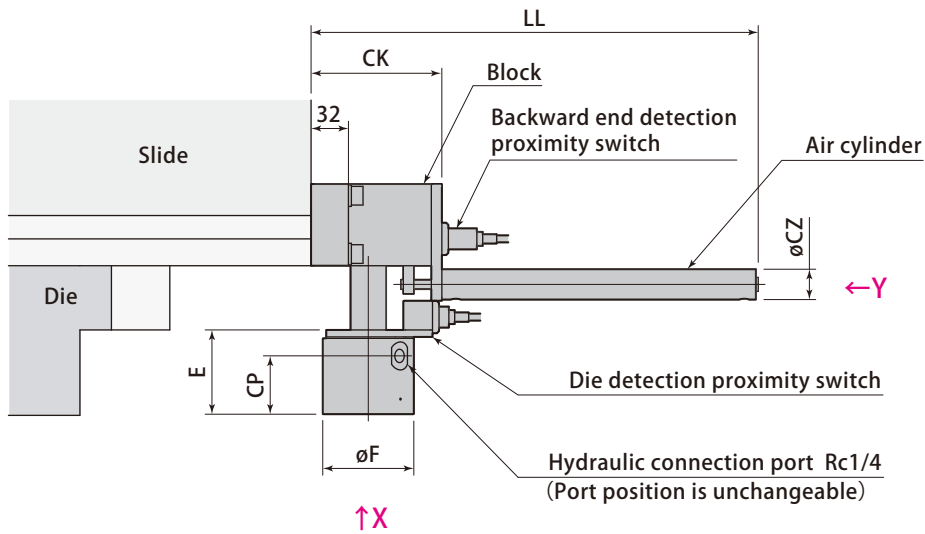
Model	TXE020	TXE040	TXE063	TXE100
Sliding stroke *	mm 50, 75, 100, 125, 150, 200, 250, 300	75, 100, 125, 150, 200, 250, 300	100, 125, 150, 200, 250, 300	100, 125, 150, 200, 250, 300
Air cylinder driven pressure	MPa	0.39 ~ 0.54		
Slide velocity	mm/s	30 ~ 100 (to be adjusted by a flow control valve)		
Air cylinder model	CG1BN20-□			CG1BN32-□
Air cylinder manufacturer	SMC			

● Refer to **pages →64 ~ 70** for the details of sliding stroke.

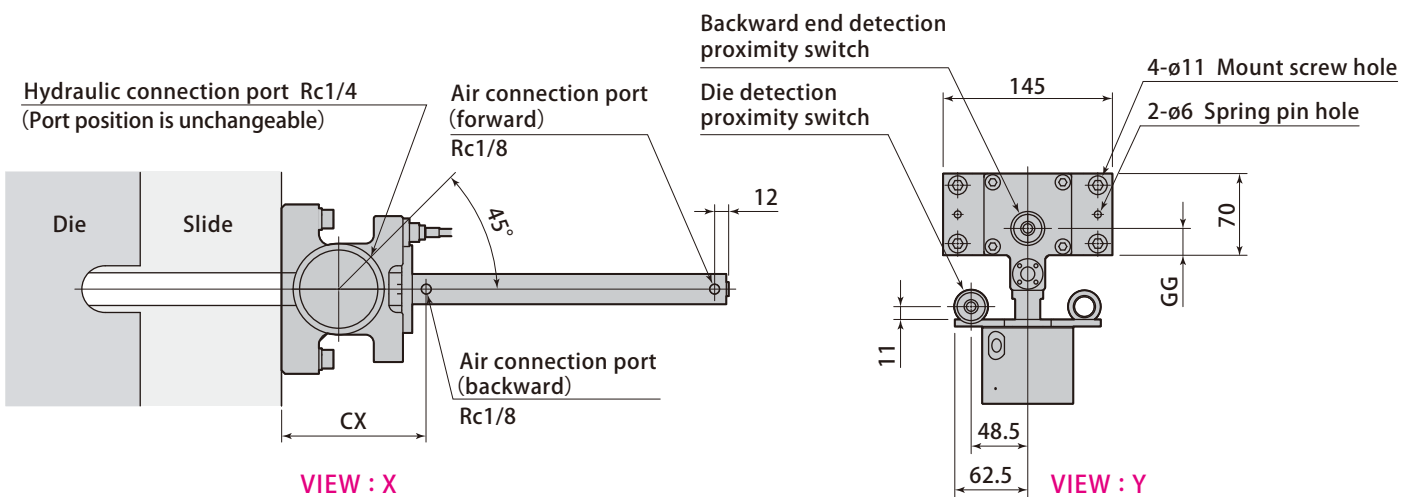
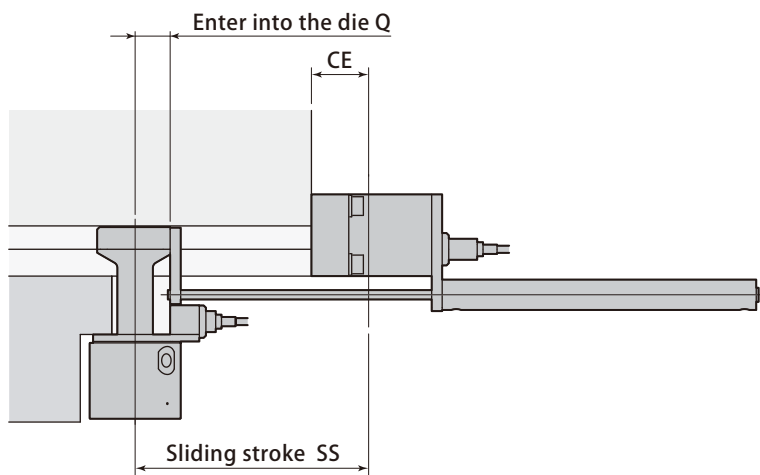
\* Contact Pascal for the sliding stroke which is not mentioned above.



Home clamp



Clamp



● These drawings indicate : mounting position of proximity switch L

**B** Clamp plate : no attached  
Mounting bracket : no attached

Model designation

TXE **040** **B** **0** **L** - **075**

- 1 Clamping force
- 3 Proximity switch
- 4 Mounting position of die detection proximity switch
- 5 Sliding stroke (mm) \*Indicated in 3 digits

1 3 4 Refer to pages → 61 ~ 62

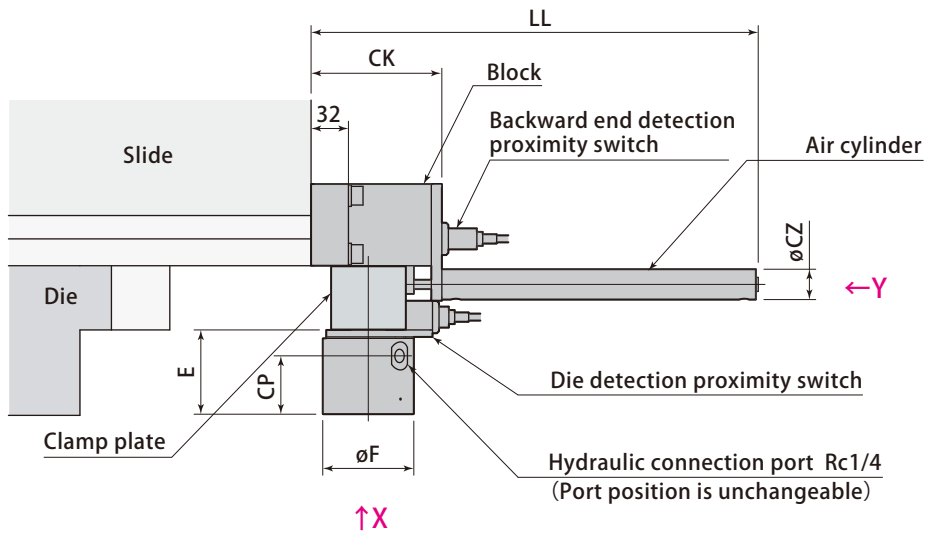
5 Sliding stroke 50 75 100 125 150 200 mm

Sliding stroke SS	TXE020B	TXE040B	TXE063B	TXE100B
	Overall length LL			
50	203.5	—	—	—
75	228.5	247	—	—
100	253.5	272	283	304
125	278.5	297	308	329
150	303.5	322	333	354
200	353.5	372	383	404

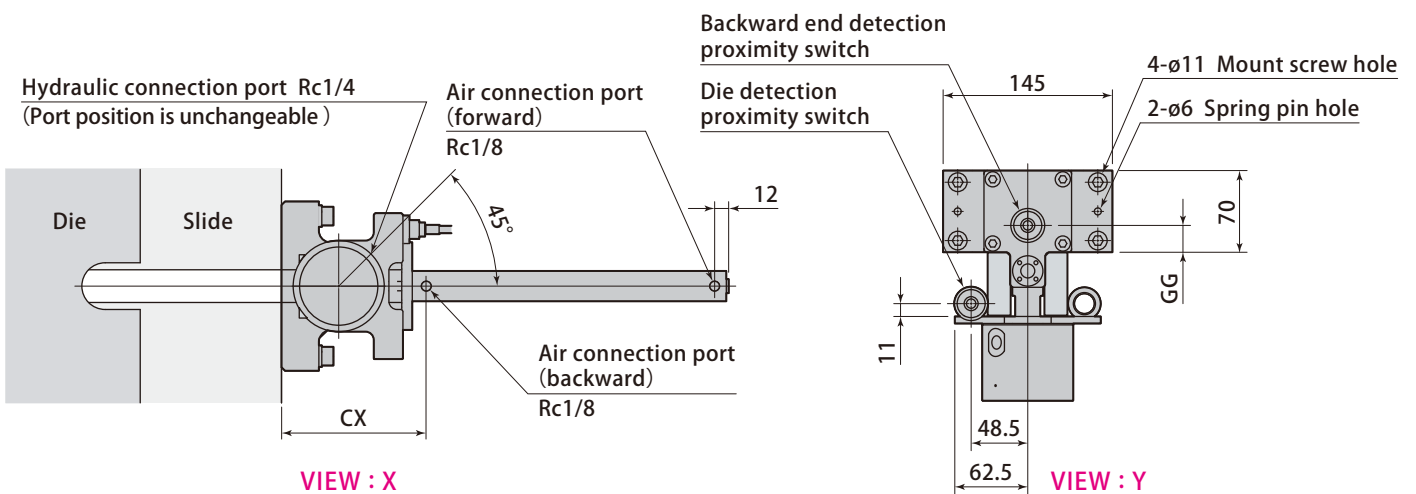
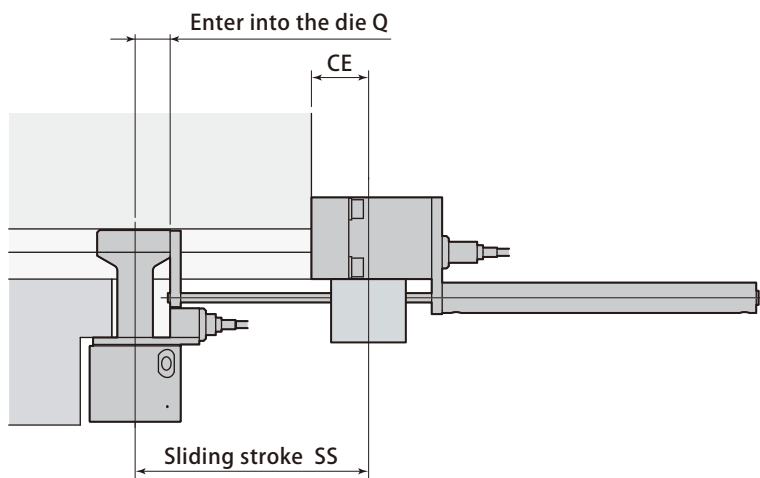
External dimension

Model	TXE020B	TXE040B	TXE063B	TXE100B
øCZ	26	26	26	38
øF	49	62	78	98
CP	40	45.5	50	55
E	67	71	75.5	81.5
CK	82.5	101	112	131
CX	94.5	113	124	143
CE	34.5	41	49	59
Q	15	27	30	37
GG	23	23	23	29
Mount screw	4-M10 length 50			
Spring washer	4-M10			
Spring pin	2-ø6 length 45			

Home clamp



Clamp



● These drawings indicate : mounting position of proximity switch L

**C** Clamp plate : attached  
Mounting bracket : no attached

Model designation

TXE **040** **C** **0** **L** - **075**

- 1 Clamping force
- 3 Proximity switch
- 4 Mounting position of die detection proximity switch
- 5 Sliding stroke (mm) \* Indicated in 3 digits

1 3 4 Refer to pages → 61 ~ 62

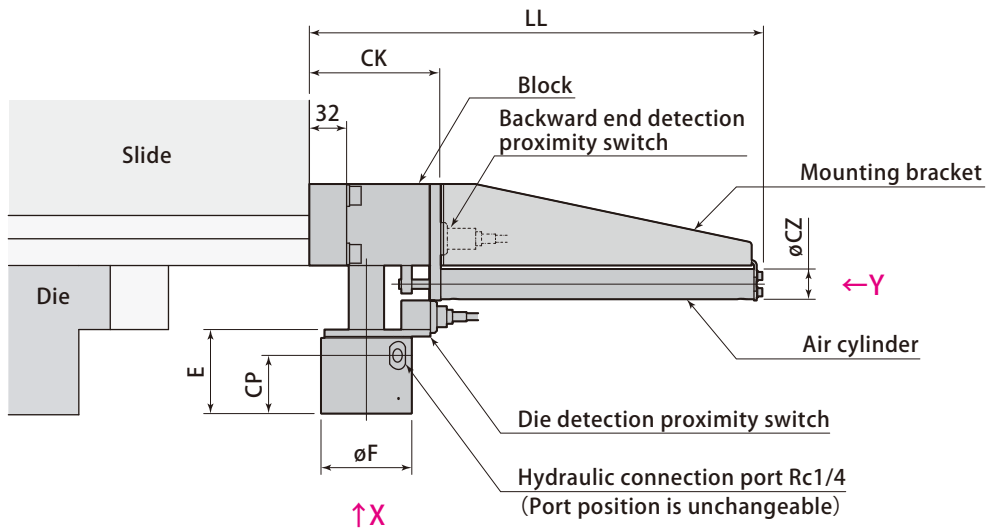
5 Sliding stroke 50 75 100 125 150 200 mm

Sliding stroke SS	TXE020C	TXE040C	TXE063C	TXE100C
	Overall length LL			
50	203.5	—	—	—
75	228.5	247	—	—
100	253.5	272	283	304
125	278.5	297	308	329
150	303.5	322	333	354
200	353.5	372	383	404

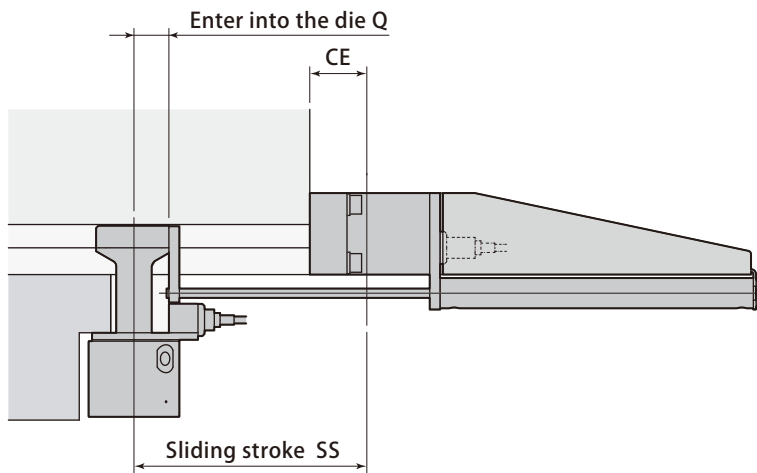
External dimension

Model	TXE020C	TXE040C	TXE063C	TXE100C
øCZ	26	26	26	38
øF	49	62	78	98
CP	40	45.5	50	55
E	67	71	75.5	81.5
CK	82.5	101	112	131
CX	94.5	113	124	143
CE	34.5	41	49	59
Q	15	27	30	37
GG	23	23	23	29
Mount screw	4-M10 length 50			
Spring washer	4-M10			
Spring pin	2-ø6 length 45			

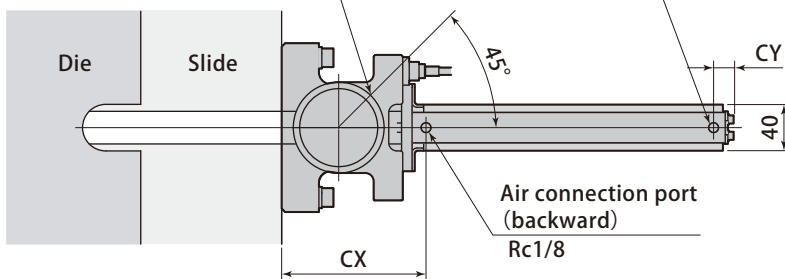
Home clamp



Clamp



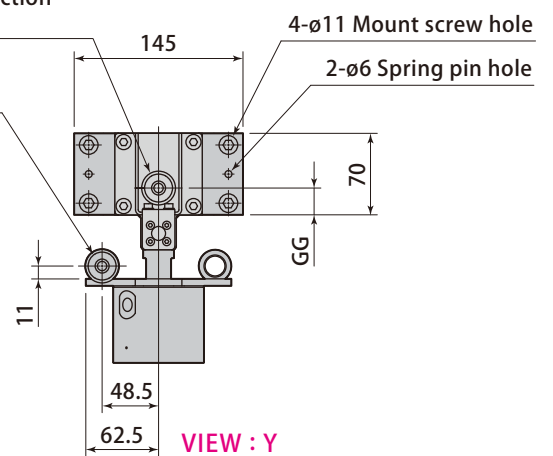
Hydraulic connection port Rc1/4  
(Port position is unchangeable)



VIEW : X

Backward end detection proximity switch

Die detection proximity switch



VIEW : Y

● These drawings indicate : mounting position of proximity switch **L**

**D** Clamp plate : no attached  
Mounting bracket : attached

Model designation

TXE **063** **D** **0** **L** - **250**

- 1 Clamping force
- 3 Proximity switch
- 4 Mounting position of die detection proximity switch
- 5 Sliding stroke (mm) \* Indicated in 3 digits

1 3 4 Refer to pages → 61 ~ 62

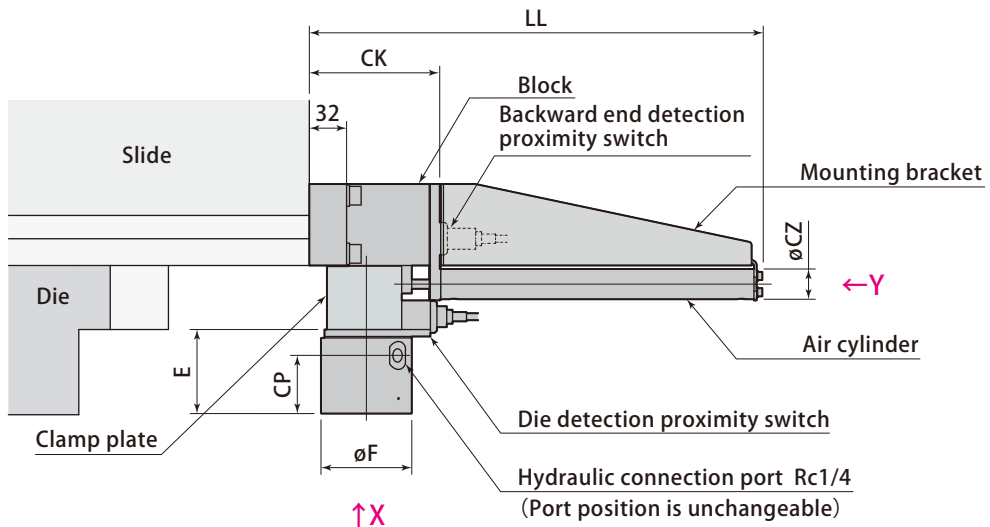
5 Sliding stroke 250 300 mm

Sliding stroke SS	TXE020D	TXE040D	TXE063D	TXE100D
	Overall length LL			
250	417	435	446	461
300	467	485	496	511

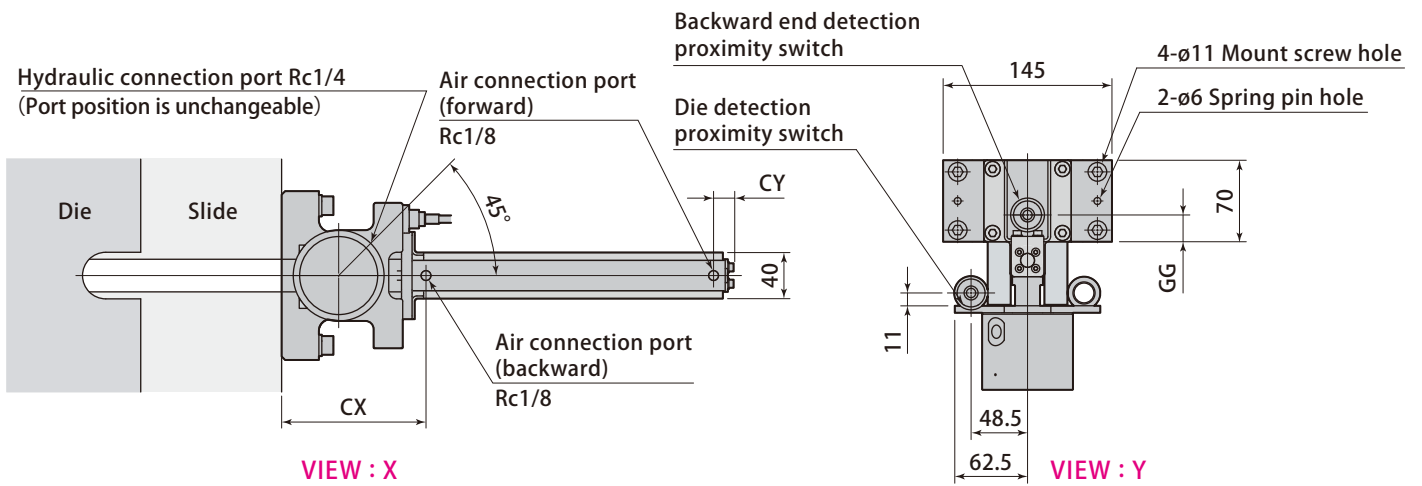
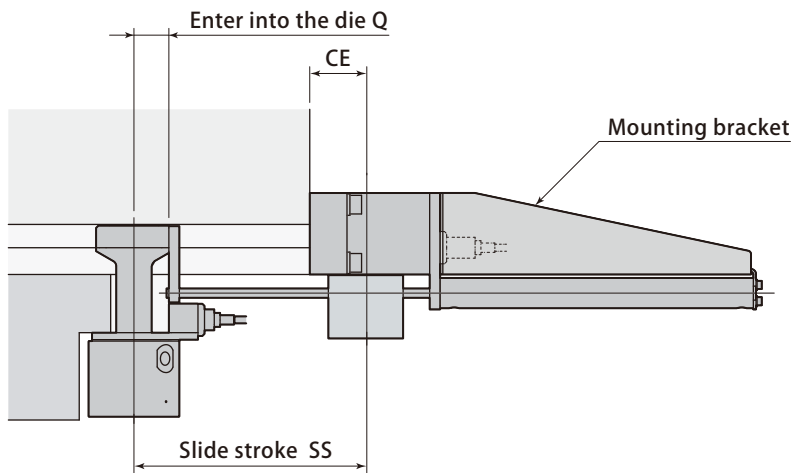
External dimension

Model	TXE020D	TXE040D	TXE063D	TXE100D
∅CZ	26	26	26	38
∅F	49	62	78	98
CP	40	45.5	50	55
E	67	71	75.5	81.5
CK	82.5	101	112	131
CX	94.5	113	124	143
CE	34.5	41	49	59
Q	15	27	30	37
GG	23	23	23	29
CY	19.2	19.2	19.2	18.6
Mount screw	4-M10 length 50			
Spring washer	4-M10			
Spring pin	2-∅6 length 45			

Home clamp



Clamp



● These drawings indicate : mounting position of proximity switch **L**

**E** Clamp plate : attached  
Mounting bracket : attached

Model designation

TXE **063** **E** **0** **L** - **250**

- 1 Clamping force
- 3 Proximity switch
- 4 Mounting position of die detection proximity switch
- 5 Sliding stroke (mm) \* Indicated in 3 digits

1 3 4 Refer to pages → 61 ~ 62

5 Sliding stroke 250 300 mm

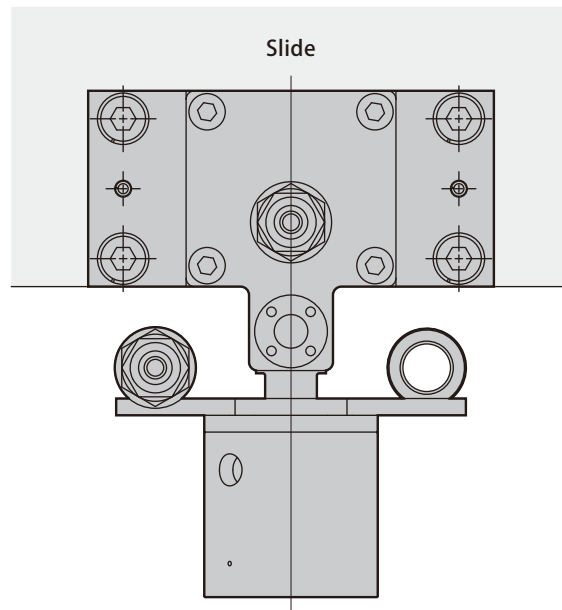
Sliding stroke SS	TXE020E	TXE040E	TXE063E	TXE100E
	Overall length LL			
250	417	435	446	461
300	467	485	496	511

External dimension

Model	TXE020E	TXE040E	TXE063E	TXE100E
∅CZ	26	26	26	38
∅F	49	62	78	98
CP	40	45.5	50	55
E	67	71	75.5	81.5
CK	82.5	101	112	131
CX	94.5	113	124	143
CE	34.5	41	49	59
Q	15	27	30	37
GG	23	23	23	29
CY	19.2	19.2	19.2	18.6
Mount screw	4-M10 length 50			
Spring washer	4-M10			
Spring pin	2-∅6 length 45			

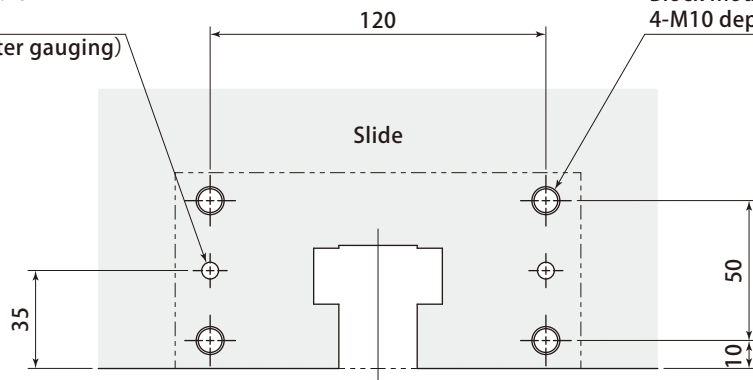


Mounting details



Block mounting hole  
2-6 depth12  
(Co-machining after gauging)

Block mounting hole  
4-M10 depth20



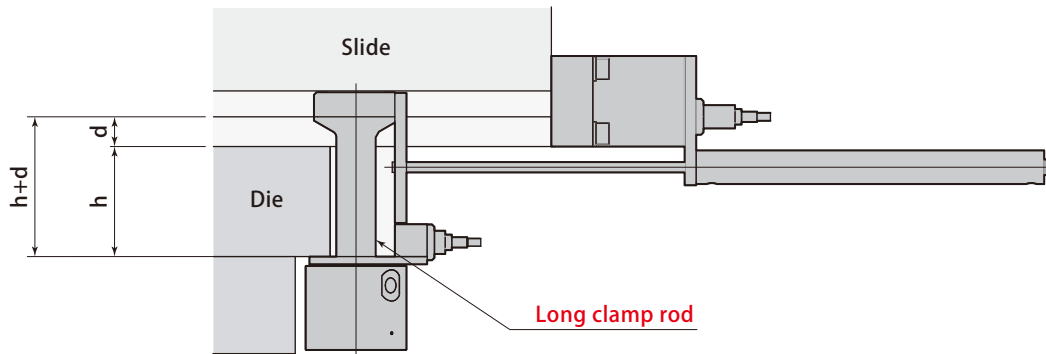
**H** Long clamp rod type It is applied in case the die thickness is over the standard.

Model designation

TXE 040 C 0 L - 075 - H

- 1 Clamping force
- 2 Clamp plate  
Mounting bracket
- 3 Proximity switch
- 4 Mounting position  
of die detection proximity switch
- 5 Sliding stroke (mm)

1 2 3 4 5 Refer to pages → 61 ~ 62



Model	TXE020	TXE040	TXE063	TXE100
$h+d$	$h+d > 80$	$h+d > 90$	$h+d > 100$	$h+d > 110$

mm

**V** Heat proof type It is applied under condition that the die and its surroundings are in high temperature.

Model designation

TXE 040 C 0 L - 075 - V

- 1 Clamping force
- 2 Clamp plate  
Mounting bracket
- 3 Proximity switch
- 4 Mounting position  
of die detection proximity switch
- 5 Sliding stroke (mm)

1 2 3 4 5 Refer to pages → 61 ~ 62

● The operating ambient temperature of heat proof type is 5-120°C.



# traveling clamp model **TRX**

Compact, vibration-resistant automatic slidable clamp

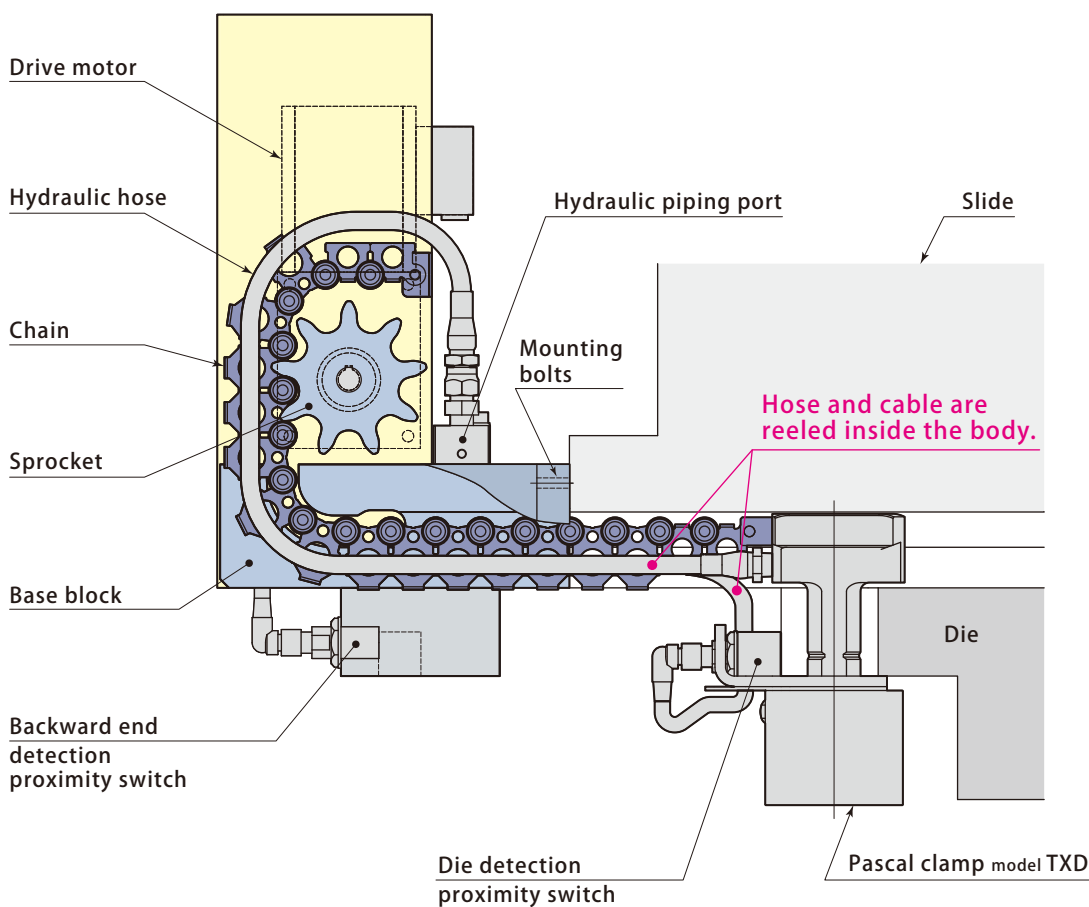
Short stroke Motor driven



Vibration-resistant type

Applicable for high tensile stamping

Compact and neatly outlined body



Specifications

Model		TRX040-0200	TRX040-0300	TRX063-0200	TRX063-0300
Traveling stroke	mm	200	300	200	300
Traveling speed (50/60Hz)	mm/sec.	85/104		85/104	
Clamping force (at 24.5 MPa)	kN	39.2		61.7	
Full stroke	mm	8		8	
Clamping stroke	mm	4		4	
Safety stroke	mm	4		4	
Cylinder capacity (at full stroke)	cm <sup>3</sup>	13		21	
Approximate weight	kg	16		17	

- Working hydraulic pressure : 24.5MPa
- Fluid used : General mineral based hydraulic oil (ISO-VG32 equivalent)
- Operating temperature : -10 ~ 50°C (No frozen)
- Weight varies according to the die thickness and dimension of clamp rod.

Model designation

TRX 040 – 0200 L

- 1 Clamp Model \* Indicated in 3 digits •
- 2 Traveling stroke \* Indicated in 4 digits •
- 3 Mounting position of drive motor, terminal box and proximity switch •

**1 Clamp Model** \* Indicated in 3 digits

040 : model TXD040 (Clamping force 39.2kN )

063 : model TXD063 (Clamping force 61.7kN )

**2 Traveling stroke** \* Indicated in 4 digits

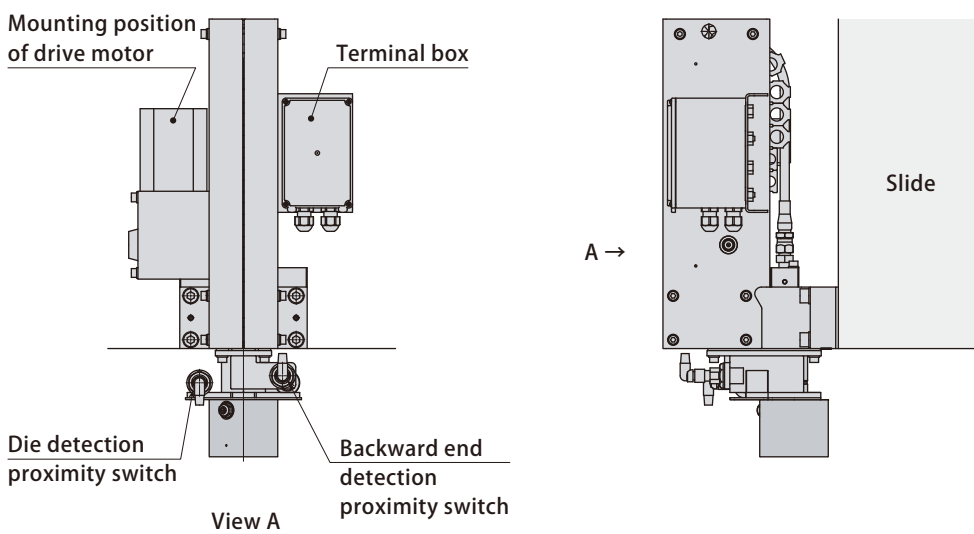
0200 : 200 mm    0300 : 300 mm

**3 Mounting position of drive motor, terminal box and proximity switch**

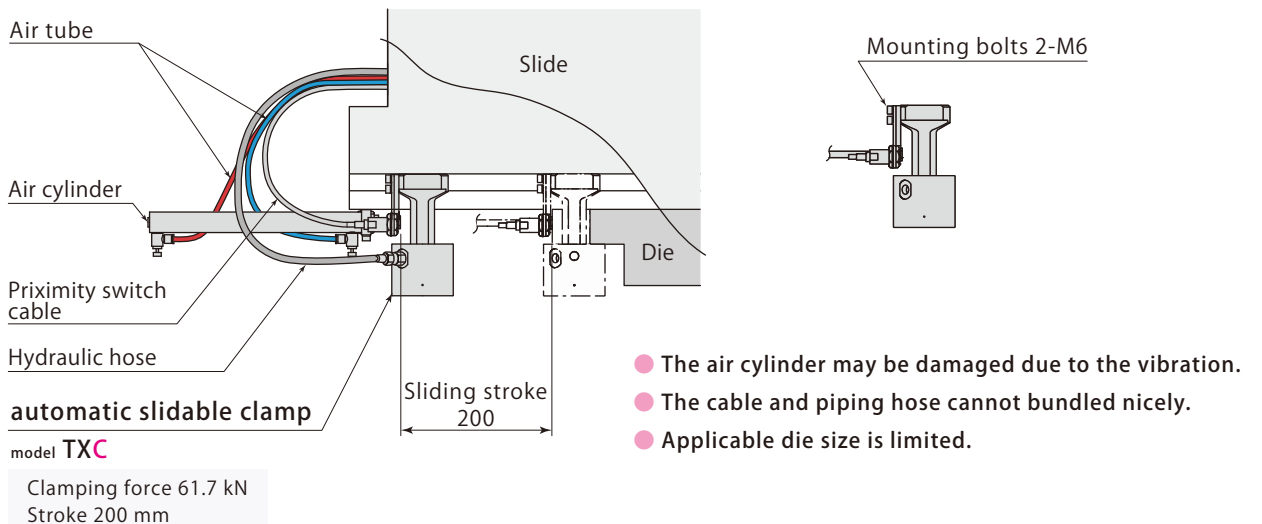
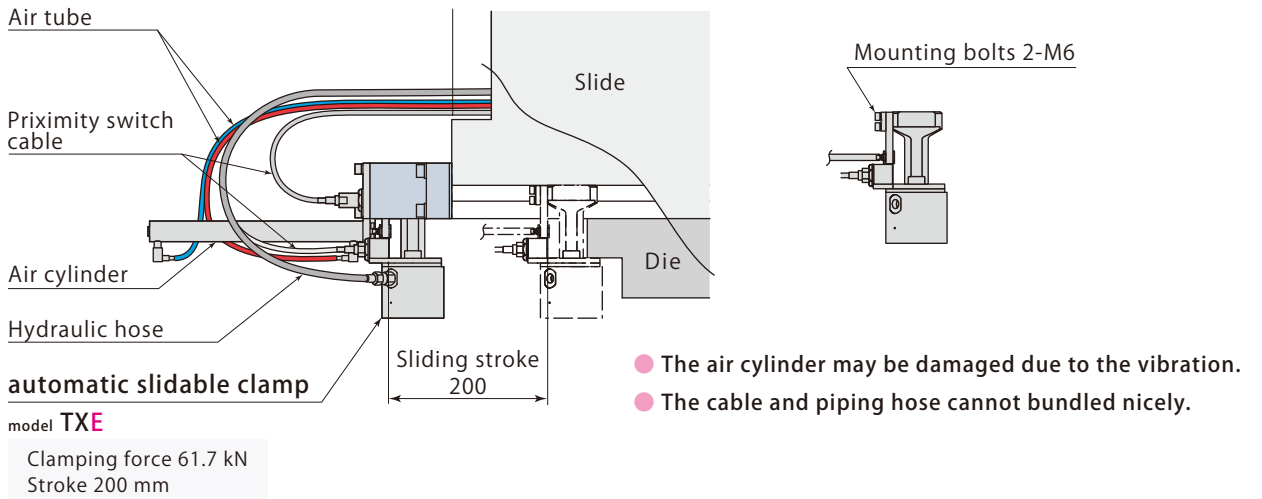
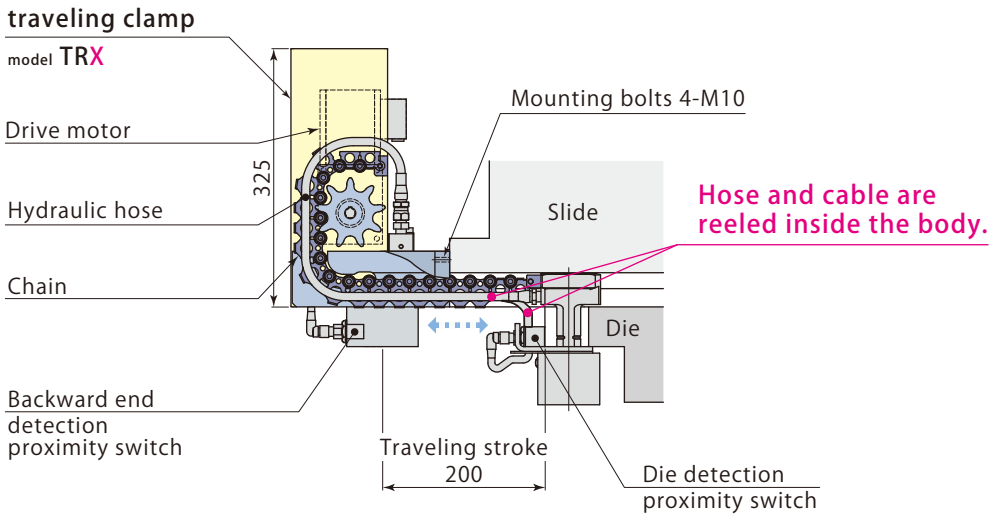
L : As shown in the below diagram

R : Mirror image of L

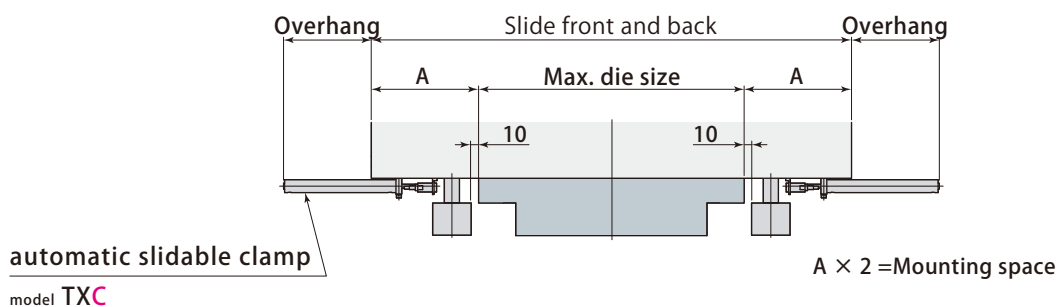
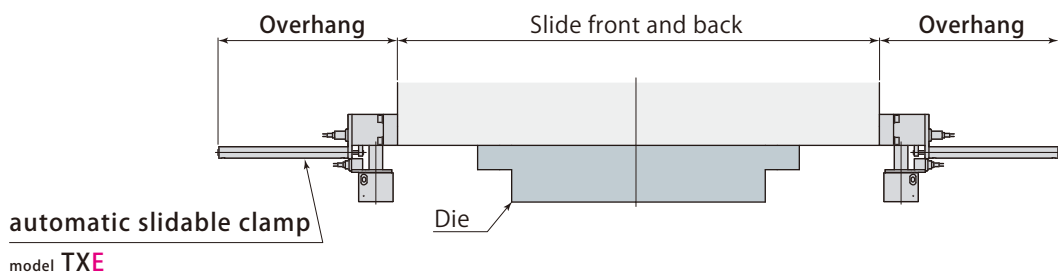
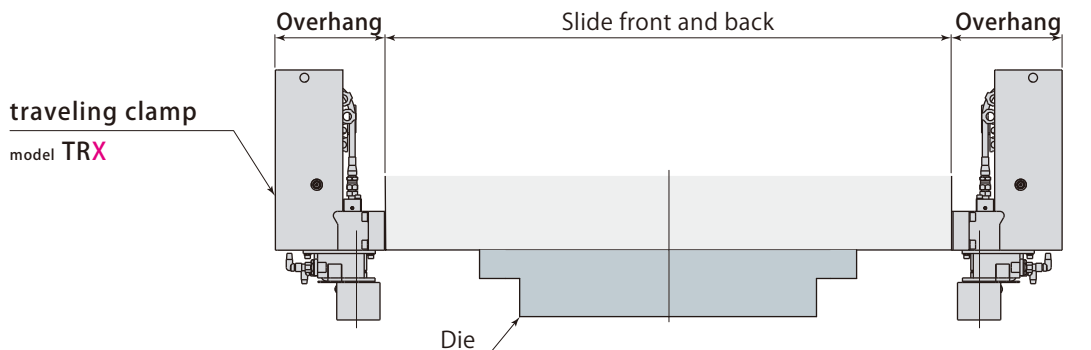
TRX   –   L



Piping/wiring looks nicer than that of model TXE or TXC



Distance from the mount face is shorter than that of model TXE or TXC



Overhang(for stroke 200mm)

Clamp size (Clamping force (at 24.5 MPa))	kN	040 (39.2)	063 (61.7)
TRX	mm	200	
TXE	mm	372	383
TXC	mm	222	233

TXC mounting space (Above figure A x2)

Clamp size (Clamping force (at 24.5 MPa))	kN	040 (39.2)	063 (61.7)
Mounting space (for 2 pcs of clamps)	mm	210	232



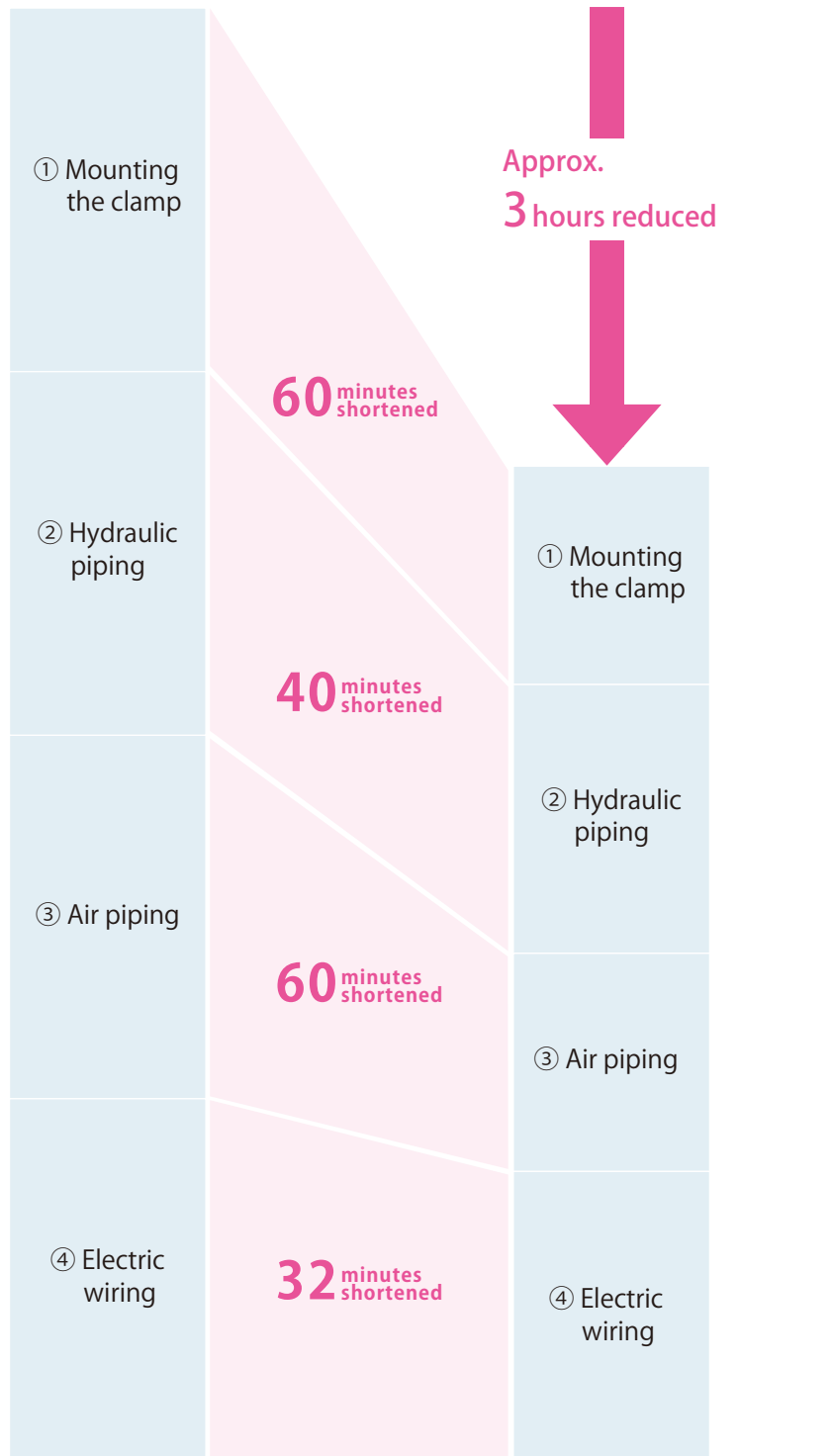
Installation period can be shortened compared to the model TXE

Automatic slidable type

model TXE 8 pcs

Traveling stroke

model TRX 8 pcs





Dimensions

TRX **063** **0200** **L**

● Mounting position of drive motor, terminal box and proximity switch

**L** : As shown in the below diagram

**R** : Mirror image of L

**2** Traveling stroke

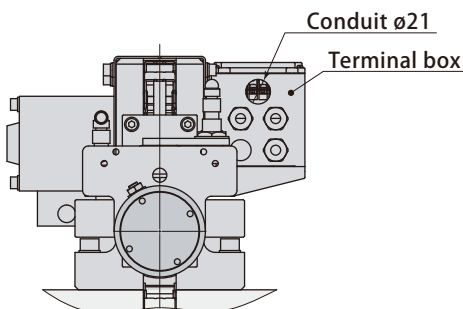
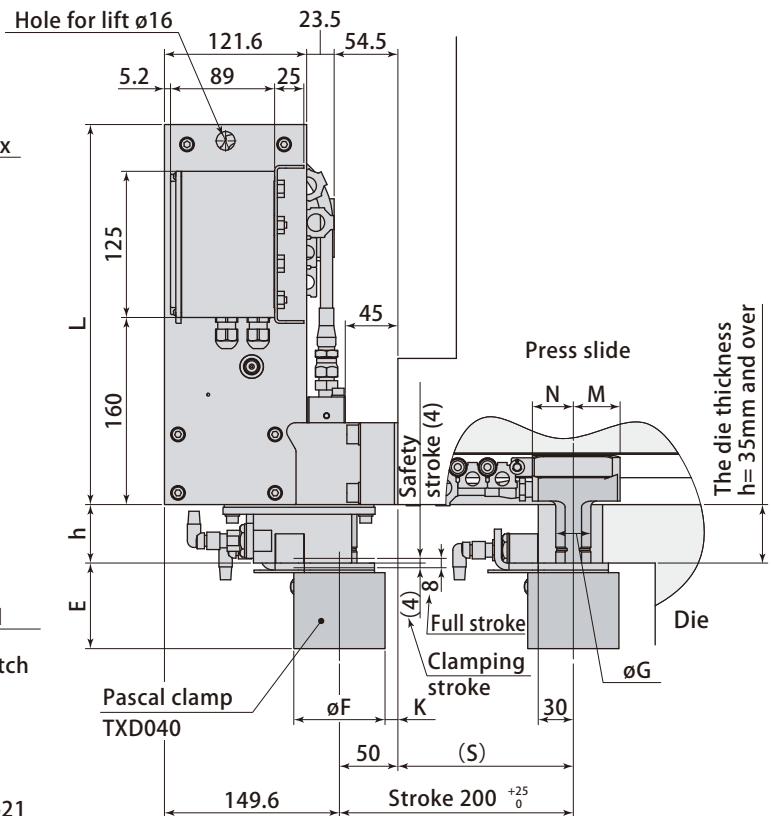
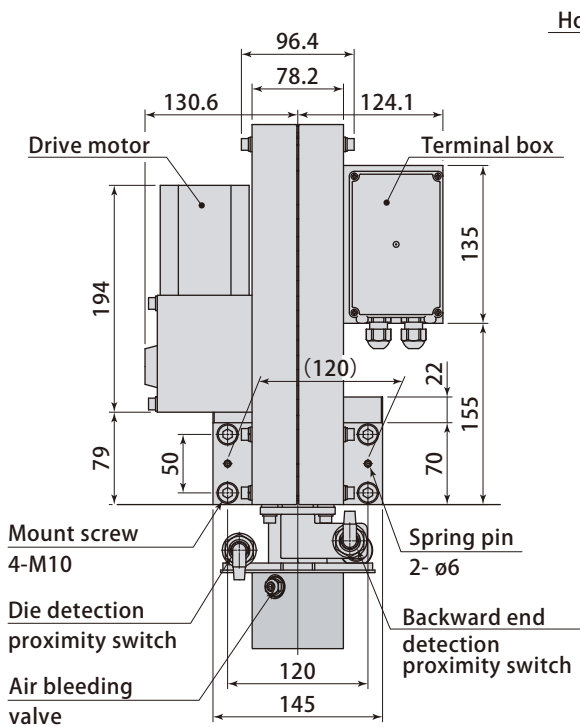
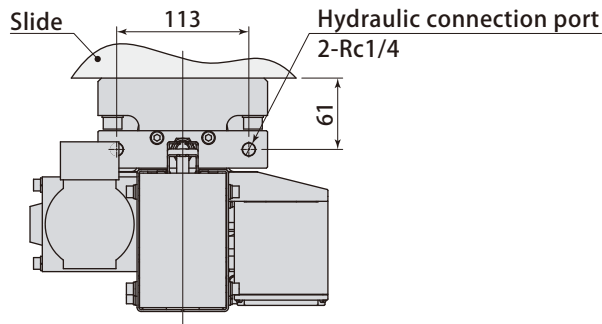
0200 : 200 mm

0300 : 300 mm

**1** Clamp Model

040 : model TXD040 (Clamping force 39.2 kN)

063 : model TXD063 (Clamping force 61.7 kN)



● This diagram indicates the motor, terminal box and prox. Sensor position at **L** position.

Outline dimensions

Model	TRX040-0200	TRX040-0300	TRX063-0200	TRX063-0300
E	67.2		73.2	
øF	62		78	
øG	25		30	
K	19		11	
L	325	375	325	375
M	35		40	
N	30		35	
S	150	250	150	250
SS	200	300	200	300
a	28			
Min. b	46			
Min. d	22			
Min. h	35			
Max. h+d	90		100	
Min. j	18			
Max. n	45		55	
Clamp Model	TXD040 (39.2kN)		TXD063 (61.7kN)	

● Specify dimension b, d, j and h.

Drive motor

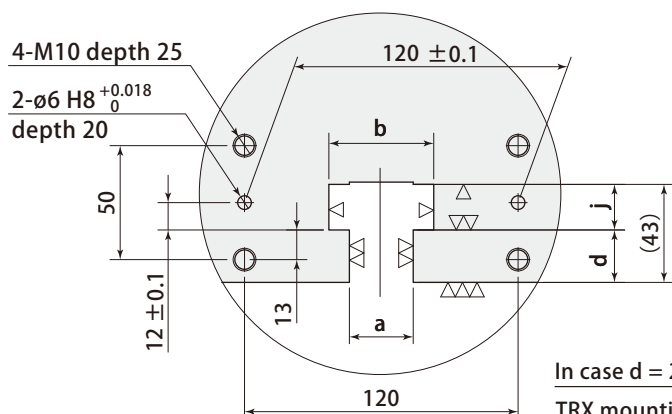
Manufacturer	Nissei Corporation		
Model	F2SMR-12-60-S15TXH3		
Output	W	15	
Reduction ratio	1:60		
Power supply frequency	VAC	100	
Power supply frequency	Hz	50/60	
Phase	Single phase		
Rated current value	A	0.39/0.35	

● Non-UL or CE approved motor. Consult Pascal for the details.

Proximity switch

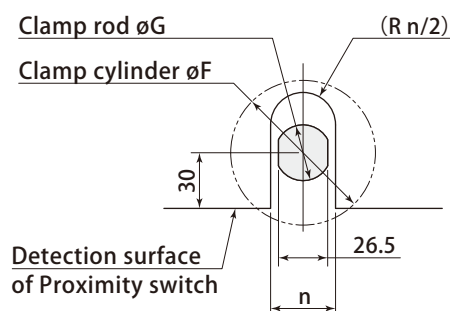
Manufacturer	OMRON		
Voltage	V	DC12 ~ 24 ( 2wire N.O.)	
Model	E2E-X7D1G-M1G		
Cable	XS2F-G422-G80-F		

T-slot dimension and Mounting hole dimension



In case d = 23mm  
TRX mounting position  
moves up or down  
according to the d dimension.

U-cut dimension



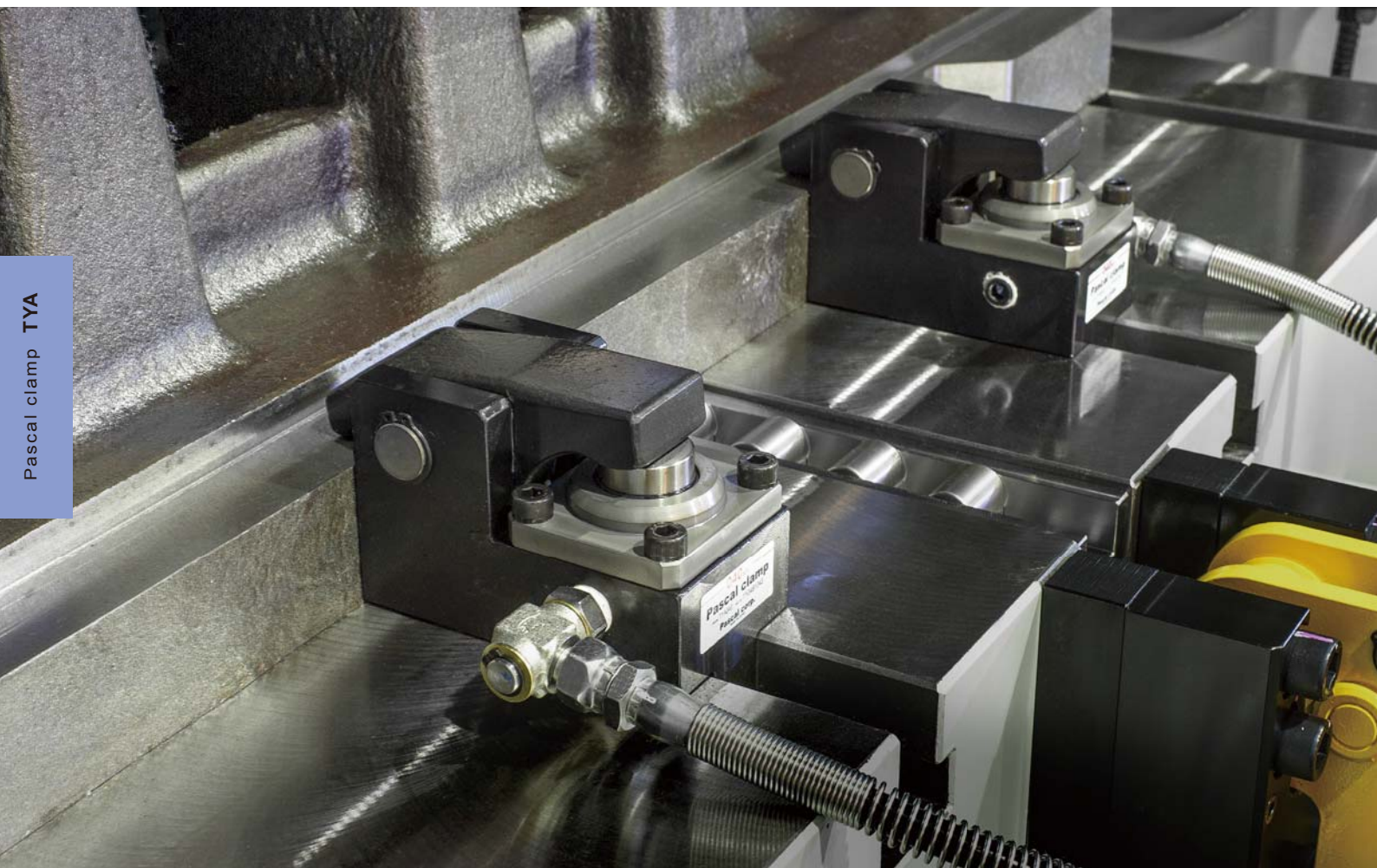


# Pascal clamp model TYA

Pascal clamp



T-slotted manual slide type of clamp with lever.



Pascal clamp TYA

### Model designation

TYA **063**

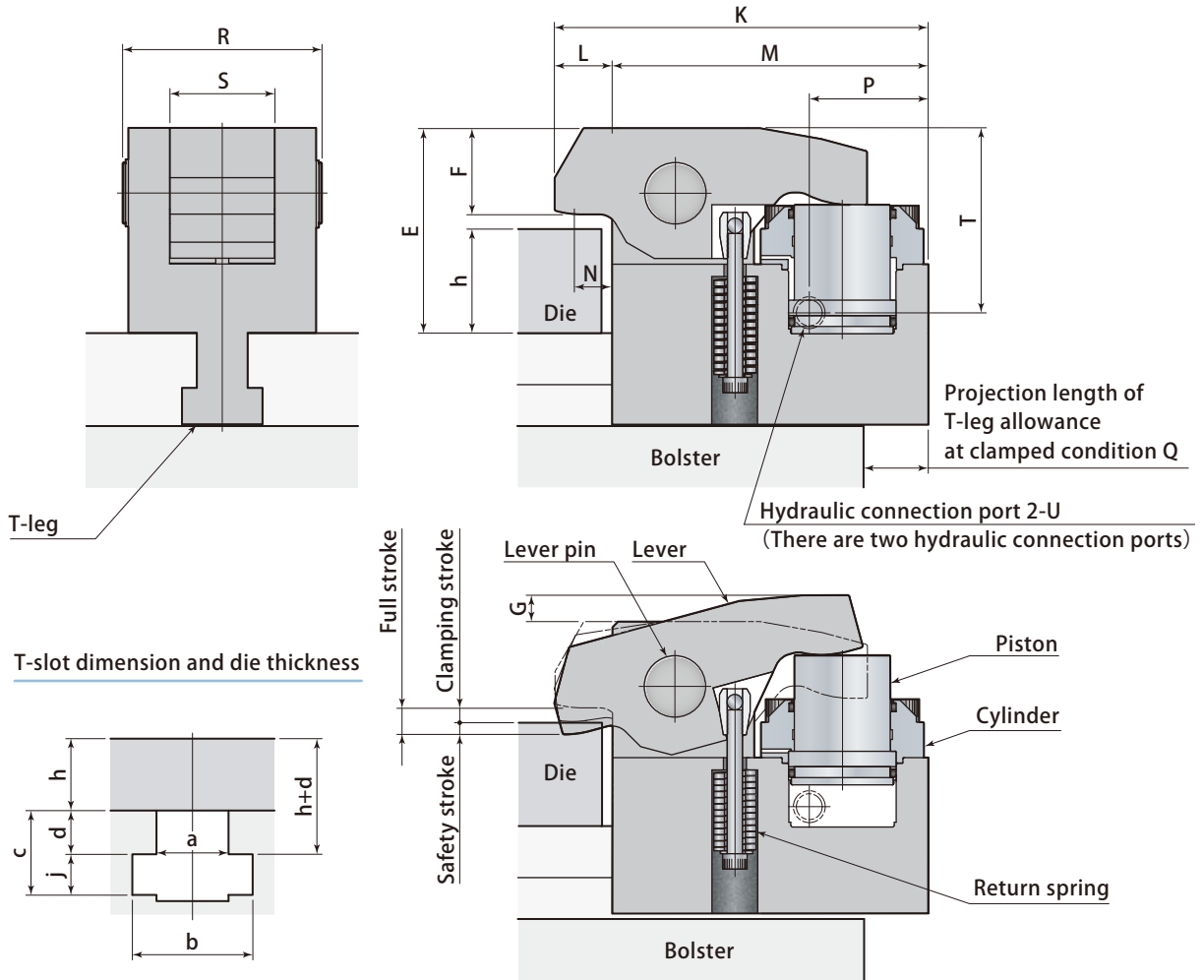
Clamping force

Refer to the below specifications for the details.

#### Specifications

Model		TYA010	TYA020	TYA040	TYA063	TYA100	TYA160	TYA250
Clamping force (at 24.5 MPa)	kN	9.8	19.6	39.2	61.7	98	156	245
Proof pressure	MPa	36.7						
Full stroke	mm	6	7		8			
Clamping stroke	mm	3	4					
Safety stroke	mm	3			4			
Cylinder capacity (at full stroke)	cm <sup>3</sup>	2.4	6.3	13.2	22.3	37	61	93
Operating temperature	°C	0 ~ 70 (Standard)						
Approximate weight	kg	1	3	4.5	9	15	25	35

- Working hydraulic pressure : 24.5MPa ● Weight varies according to the dimension of clamp T-leg and die thickness.
- Clamping stroke and safety stroke are the standard, however they are subject to change depending on dimensions of die and T-slot. Contact Pascal for the details.



Pascal clamp TYA

Model	TYA010	TYA020	TYA040	TYA063	TYA100	TYA160	TYA250
K	73	101	143	163	195	230	270
L	15	18	23	30	30	30	30
M	58	83	120	133	165	200	240
Clamping point N	10	12.5	16	20	20	20	20
P	31	41	32.5	36	62	80	90
R	46.4	58	73	93	104	125	155
S	20	28	40	50	55	60	72
T	34.5	43	57.5	68.5	97	120	156
Hydraulic connection port U	Rc1/8			Rc1/4			
Max. G	6	10	10	10	11	12	13
Max. Q	18	22	32	36	45	55	69
Min. E	44.5	54	69.5	81.5	107	132	168
Min. a	10	12.5	15	19	23	27	32
Min. j	8	9.5	11.5	15	17	20	23
Tolerance of dimension d	± 0.2						
Max. h	50			60	70	80	100
Min. h	15	22.5	28	28	38	48	68
Tolerance of dimension h	± 0.3						

- Specify T-slot dimensions a, b, d, j and die thickness h. For brand new machine, machine d and h dimensions with the tolerance shown in the above table. For existing machine, specify tolerance of 0.1mm unit on d and h dimensions.
- In case dimension is over Max. h, refer to **page →88** High distance clamp type.
- In case dimension is less than Min. h, refer to **page →90** Low distance clamp type.

● Lever height F varies according to the dimension h.

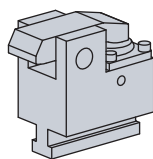
Model	TYA010	TYA020	TYA040	TYA063	TYA100	TYA160	TYA250
Lever height F	16.5 (25 ≤ h)	17.5 (32.5 ≤ h)	27.5 (38 ≤ h)	29.5 (48 ≤ h)	45 (58 ≤ h)	60 (68 ≤ h)	76 (88 ≤ h)
Inside the parenthesis is range of h	21.5 (20 ≤ h < 25)	22.5 (27.5 ≤ h < 32.5)	32.5 (33 ≤ h < 38)	39.5 (38 ≤ h < 48)	55 (48 ≤ h < 58)	70 (58 ≤ h < 68)	86 (78 ≤ h < 88)
	26.5 (15 ≤ h < 20)	27.5 (22.5 ≤ h < 27.5)	37.5 (28 ≤ h < 33)	49.5 (28 ≤ h < 38)	65 (38 ≤ h < 48)	80 (48 ≤ h < 58)	96 (68 ≤ h < 78)



**H** High distance clamp type TYA□-H

It is applied in case the die thickness is over the standard.

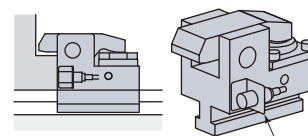
page → 88



**E** With die detection proximity switch TYA□E

It prevents clamp misplace.

page → 89

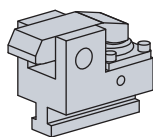


Die detection proximity switch

**V** Heat proof type TYA□-V

It is applied under condition that the die and its surroundings are in high temperature.

Operating temperature : 5 ~ 120°C

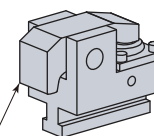


**T** Low distance clamp type TYA□-T

It is applied in case the die thickness is thinner than the standard.

page → 90

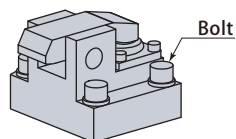
Lower type of lever



**F** Bolted type TYA□-F

It is applied in case of clamping without T-slot.

pages → 91 ~ 92



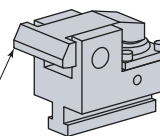
Bolt

**W** Wide lever type TYA□-W

It is applied in case of clamping the die with U-cut.

page → 93

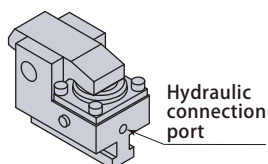
Wide lever



**J** Rear piping type TYA□-J

It is applied in case there are some interferences at clamp side and the side piping connection (standard specification) is not available.

page → 94

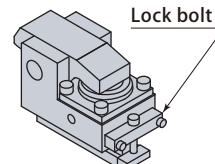


Hydraulic connection port

**L** Lock type TYA□-L

It can fix the clamp installed on the position out of reach, such as the rear side.

page → 95



Lock bolt

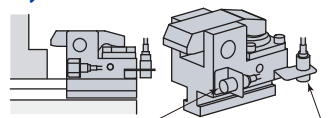
**U** With die detection and backward end detection proximity switches TYA□U

It prevents misclamping and the damage due to retract back misplace at die change operation.

page → 96

Die detection proximity switch

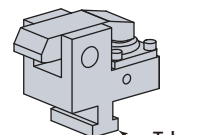
Backward end detection proximity switch



**C** T-slot type for lateral direction TYA□-C

It is applied in case the T-slot is parallel against the die.

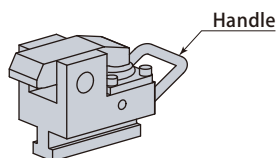
page → 97



T-leg

**G** With handle TYA□-G

Only for TYA040-250. It does not correspond to TYA010, TYA020.



Handle

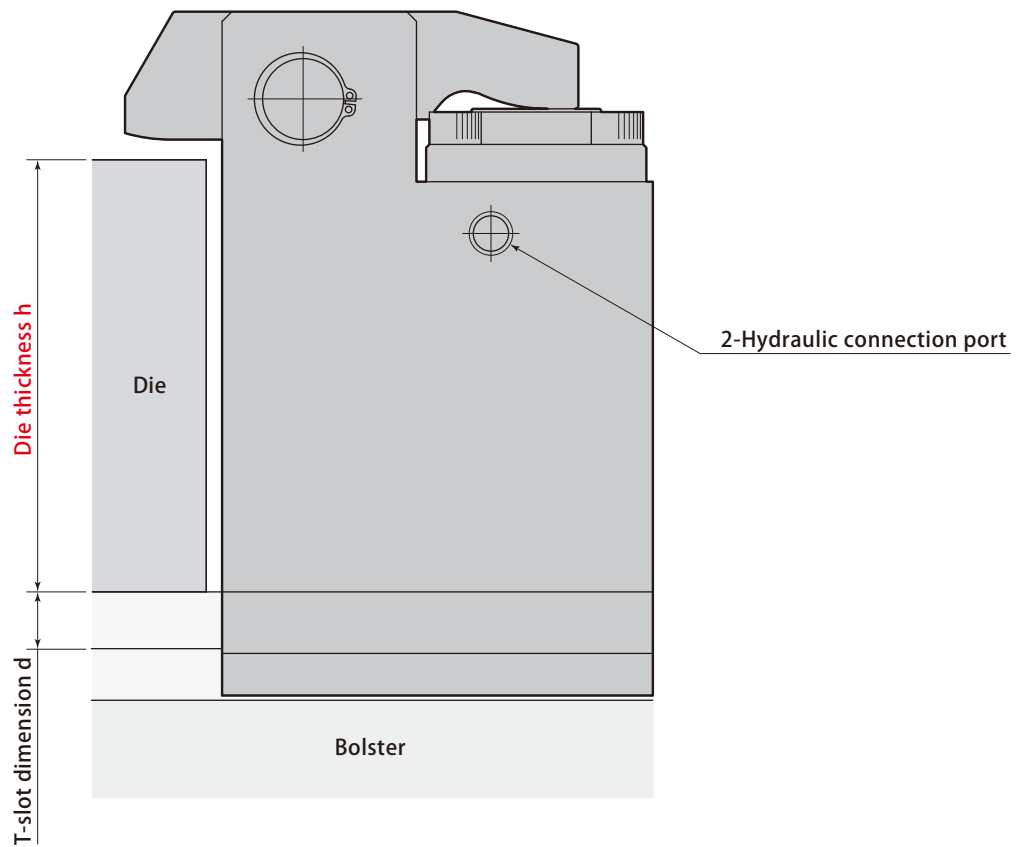
**H** High distance clamp type It is applied in case the die thickness is over the standard.

Model designation

TYA 063 - H

• Clamping force

- TYA010 TYA020 TYA040 TYA063
- TYA100 TYA160 TYA250



- In case the die thickness h is inside range of the below table, specify the high distance clamp type. In case the dimension h, d is over the below table, contact Pascal.

Model	TYA010-H	TYA020-H	TYA040-H	TYA063-H	TYA100-H	TYA160-H	TYA250-H
Clamping height h	50 < h ≤ 90	50 < h ≤ 90	50 < h ≤ 100	60 < h ≤ 150	70 < h ≤ 140	80 < h ≤ 130	100 < h ≤ 120
T-slot dimension d	d < 30	d < 30	d < 30	d < 40	d < 40	d < 40	d < 40

mm

**E With die detection proximity switch**

It prevents clamp misplace.

Model designation

TYA **063** **E** **0** **L**

- 1 Clamping force
- 2 Proximity switch
- 3 Mounting position of die detection proximity switch

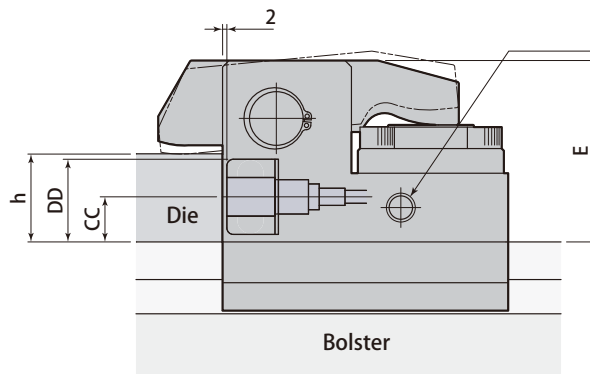
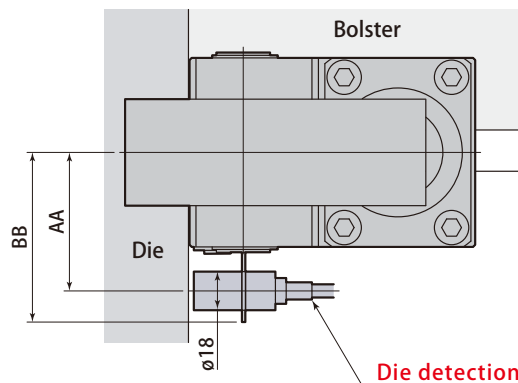
- 1 Clamping force TYA010 TYA020 TYA040  
TYA063 TYA100 TYA160  
TYA250

- 3 Mounting position of die detection proximity switch

**L** : Left side **R** : Right side

**2 Proximity switch**

Proximity switch symbol	0	1	2	3
Specifications	DC24V 2-Wire	DC24V 3-Wire(NPN)	AC100V 2-Wire	DC24V 3-Wire(PNP)
Model	E2E-X7D1-N	E2E-X5E1	E2E-X5Y1	E2E-X5F1
Manufacturer name	OMRON			
Insulation vinyl cable length	5m			



**2-Hydraulic connection port**  
Only 1-oil connection port for TYA010/020 due to sensor mount space.(opposite to the sensor)

● These drawings indicate : mounting position of proximity switch **L**

Model	TYA010E	TYA020E	TYA040E	TYA063E	TYA100E	TYA160E	TYA250E
AA	42	47	54.5	64.5	74	84	98.5
BB	56.5	61.5	69	79	89	99	113.5
CC	15	15	15	21	26	26	32
DD	29.5	29.5	29.5	38.5	51	51	63
Min. E	49.5	54	69.5	81.5	107	132	168
Max. h	50		60	70	80	100	100
Min. h	20	22.5	28	28	38	48	68

● Lever height F varies according to the dimension h.

Model	TYA010E	TYA020E	TYA040E	TYA063E	TYA100E	TYA160E	TYA250E
Lever height F	16.5 (30≤h)	17.5 (32.5≤h)	27.5 (38≤h)	29.5 (48≤h)	45 (58≤h)	60 (68≤h)	76 (88≤h)
Inside the parenthesis is range of h	21.5 (25≤h<30)	22.5 (27.5≤h<32.5)	32.5 (33≤h<38)	39.5 (38≤h<48)	55 (48≤h<58)	70 (58≤h<68)	86 (78≤h<88)
	26.5 (20≤h<25)	27.5 (22.5≤h<27.5)	37.5 (28≤h<33)	49.5 (28≤h<38)	65 (38≤h<48)	80 (48≤h<58)	96 (68≤h<78)

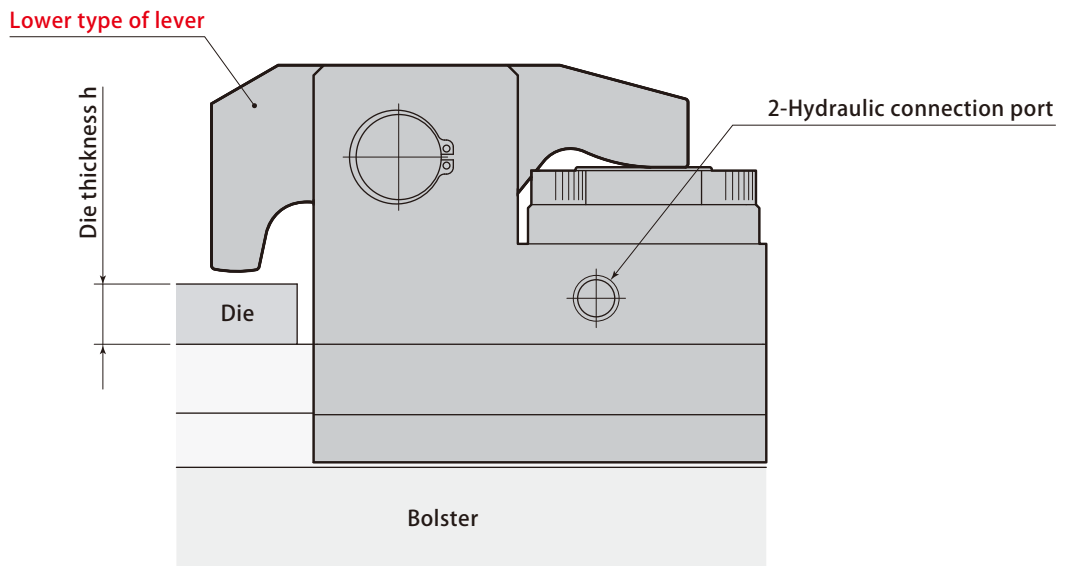
**T** **Low distance clamp type** It is applied in case the die thickness is thinner than the standard.

Model designation

TYA **063** - **T**

• Clamping force

TYA010 TYA020 TYA040 TYA063  
TYA100 TYA160 TYA250



● In case the die thickness  $h$  is less than value of the below table, specify the low distance clamp type.

Model	TYA010-T	TYA020-T	TYA040-T	TYA063-T	TYA100-T	TYA160-T	TYA250-T
Die thickness $h$	$h < 15$	$h < 22.5$	$h < 28$	$h < 28$	$h < 38$	$h < 48$	$h < 68$

● Refer to another document for the applicable  $h$  dimension for TYA□ET, YA□-FT, TYA□-JT.

**F Bolt type**

It is applied in case of clamping without T-slot.

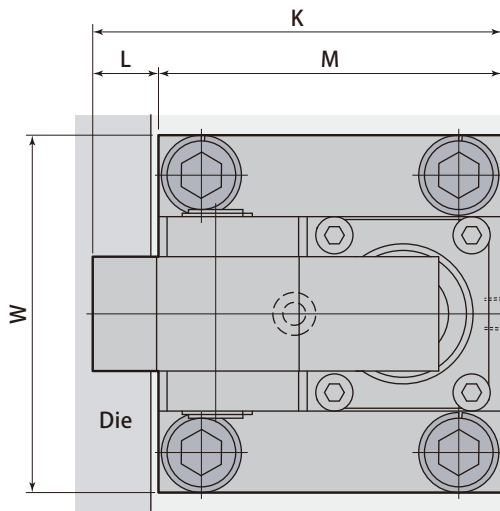
Model designation

TYA **063** - **F**

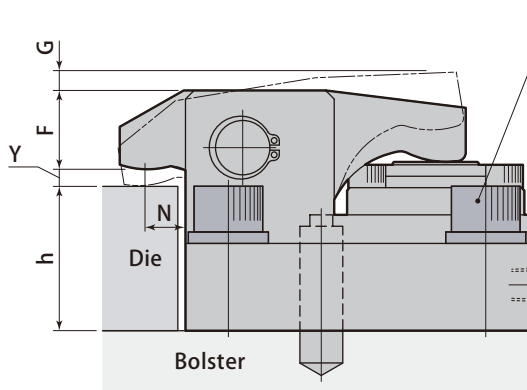
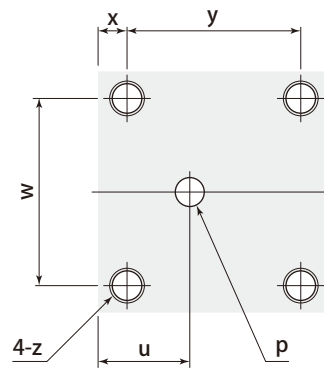
• Clamping force

- TYA010 TYA020 TYA040 TYA063
- TYA100 TYA160 TYA250

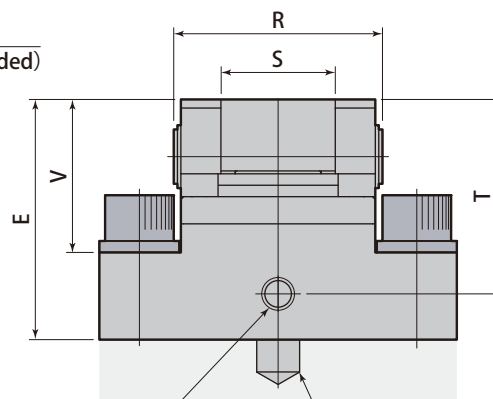
TYA020-F TYA040-F TYA063-F TYA100-F TYA160-F TYA250-F



Mounting details



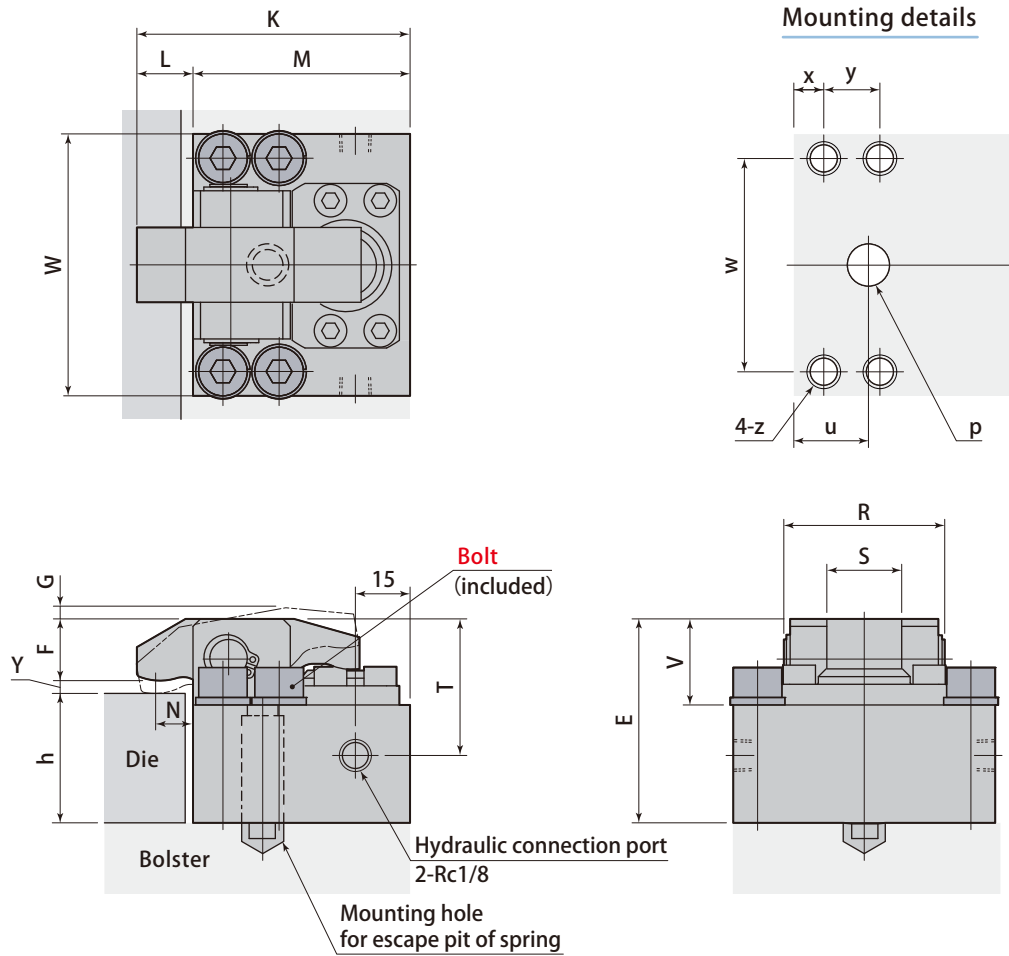
**Bolt**  
(included)



Hydraulic connection port  
Rc1/4

Mounting hole  
for escape pit of spring

TYA010-F



Pascal clamp TYA  
Special type

Model	TYA010-F	TYA020-F	TYA040-F	TYA063-F	TYA100-F	TYA160-F	TYA250-F
K	73	101	143	163	195	230	270
L	15	18	23	30	30	30	30
M	58	83	120	133	165	200	240
Clamping point N	10	12.5	16	20	20	20	20
R	46.4	58	73	93	104	125	155
S	20	28	40	50	55	60	72
T	36.5	54	68	79	97	120	156
Max. G	6	10	10	10	11	12	13
Min. E	48.5	66	80	91	115	142	177
V	23	31	53.5	52.5	71	89	113
W	70	98	125	148	180	214	260
Y	3	4	4	4	4	4	4
Max. h		50		60	70	80	100
Min. h	19	34.5	38.5	37.5	46	58	77

mm

Model	TYA010-F	TYA020-F	TYA040-F	TYA063-F	TYA100-F	TYA160-F	TYA250-F
x	8	15	15	15	20	25	27.5
y	15	53	90	40	50	60	55
u	19.5	30.5	47.5	53	65.7	74.5	90.5
w	57	77	97	120	142	168	205
z	M8 depth 20	M12 depth 24	M16 depth 30	M16 depth 30	M20 depth 40	M24 depth 48	M30 depth 56
p	ø11 depth 59.5-E	ø14 depth 79.5-E	ø18 depth 102-E	ø22 depth 117-E	ø26 depth 138-E	ø30 depth 166-E	ø30 depth 197-E

mm

● Lever height F varies according to the dimension h.

mm

Model	TYA010-F	TYA020-F	TYA040-F	TYA063-F	TYA100-F	TYA160-F	TYA250-F
Lever height F	16.5 (29 ≤ h)	17.5 (44.5 ≤ h)	27.5 (48.5 ≤ h)	29.5 (57.5 ≤ h)	45 (66 ≤ h)	60 (78 ≤ h)	76 (97 ≤ h)
Inside the parenthesis is range of h	21.5 (24 ≤ h < 29)	22.5 (39.5 ≤ h < 44.5)	32.5 (43.5 ≤ h < 48.5)	39.5 (47.5 ≤ h < 57.5)	55 (56 ≤ h < 66)	70 (68 ≤ h < 78)	86 (87 ≤ h < 97)
	26.5 (19 ≤ h < 24)	27.5 (34.5 ≤ h < 39.5)	37.5 (38.5 ≤ h < 43.5)	49.5 (37.5 ≤ h < 47.5)	65 (46 ≤ h < 56)	80 (58 ≤ h < 68)	96 (77 ≤ h < 87)

**W** **Wide lever type** It is applied in case of clamping the die with U-cut.

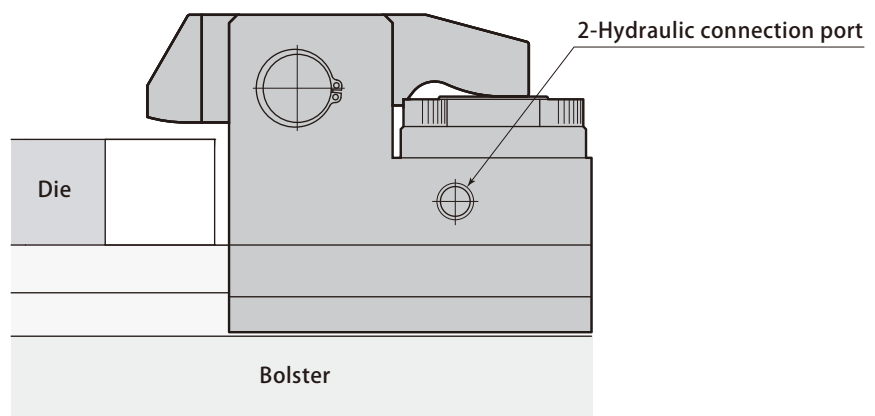
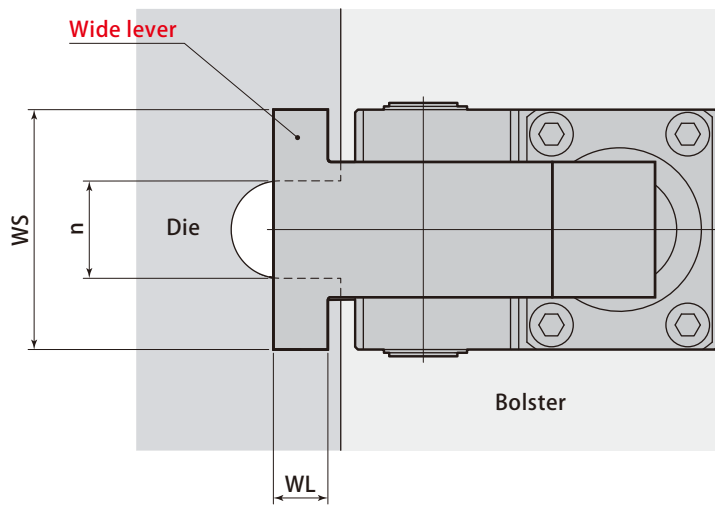
Model designation

TYA **063** - **W**

• Clamping force

- TYA010 TYA020 TYA040 TYA063
- TYA100 TYA160 TYA250

Pascal clamp TYA  
Special type



Model	TYA010-W	TYA020-W	TYA040-W	TYA063-W	TYA100-W	TYA160-W	TYA250-W
WS	43	62	72	88	88	100	110
WL	10	13	15	20	20	20	20
Max. n	22	32	32	36	32	40	40

mm

**J** Rear piping type

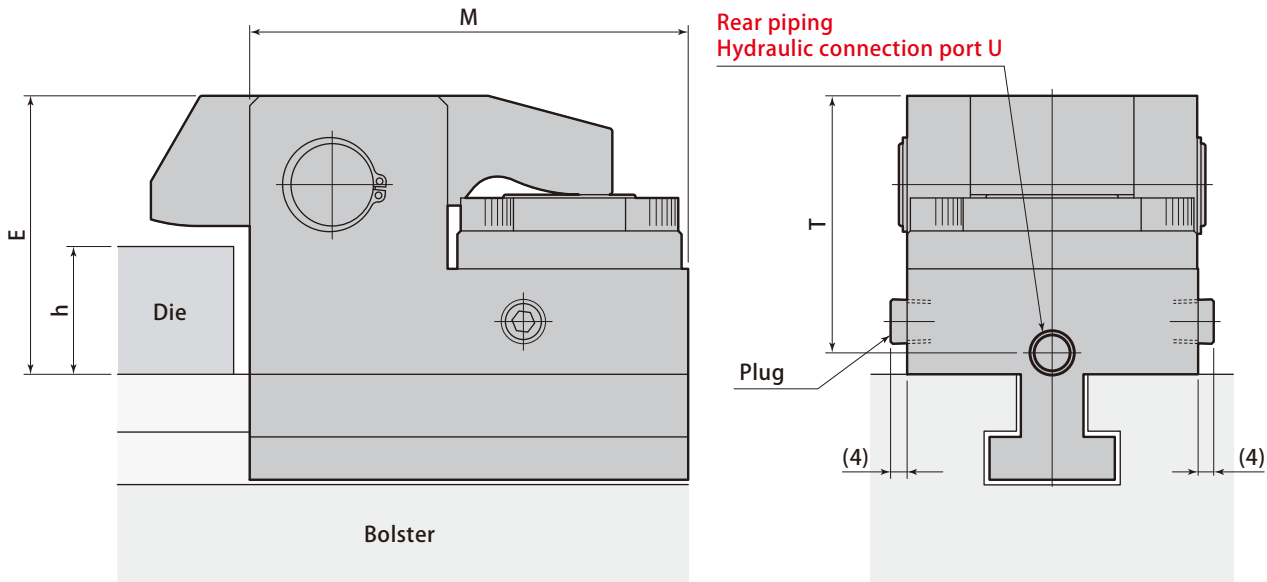
It is applied in case there are some interferences at clamp side and the side piping connection(standard specification) is not available.

Model designation

TYA **063** - **J**

• Clamping force

- TYA010 TYA020 TYA040 TYA063
- TYA100 TYA160 TYA250



Model	TYA010-J	TYA020-J	TYA040-J	TYA063-J	TYA100-J	TYA160-J	TYA250-J
M	63	83	120	133	165	200	240
T	40.5	54	68	79	97	120	156
U	Rc1/8	Rc1/4	Rc1/4	Rc1/4	Rc1/4	Rc1/4	Rc1/4
Min. E	50	65	79	90	107	132	168
Max.h	50			60	70	80	100
Min. h	20.5	33.5	37.5	36.5	38	48	68

● Lever height F varies according to the dimension h.

Model	TYA010-J	TYA020-J	TYA040-J	TYA063-J	TYA100-J	TYA160-J	TYA250-J
Lever height F	16.5 (30.5 ≤ h)	17.5 (43.5 ≤ h)	27.5 (47.5 ≤ h)	29.5 (56.5 ≤ h)	45 (58 ≤ h)	60 (68 ≤ h)	76 (88 ≤ h)
Inside the parenthesis is range of h	21.5 (25.5 ≤ h < 30.5)	22.5 (38.5 ≤ h < 43.5)	32.5 (42.5 ≤ h < 47.5)	39.5 (46.5 ≤ h < 56.5)	55 (48 ≤ h < 58)	70 (58 ≤ h < 68)	86 (78 ≤ h < 88)
	26.5 (20.5 ≤ h < 25.5)	27.5 (33.5 ≤ h < 38.5)	37.5 (37.5 ≤ h < 42.5)	49.5 (36.5 ≤ h < 46.5)	65 (38 ≤ h < 48)	80 (48 ≤ h < 58)	96 (68 ≤ h < 78)



**L** Lock type

It can fix the clamp installed on the position out of reach, such as the rear side.

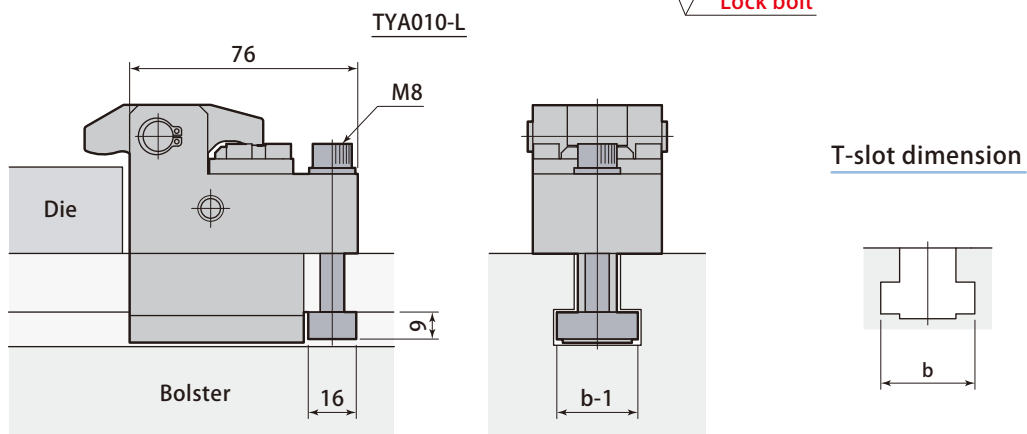
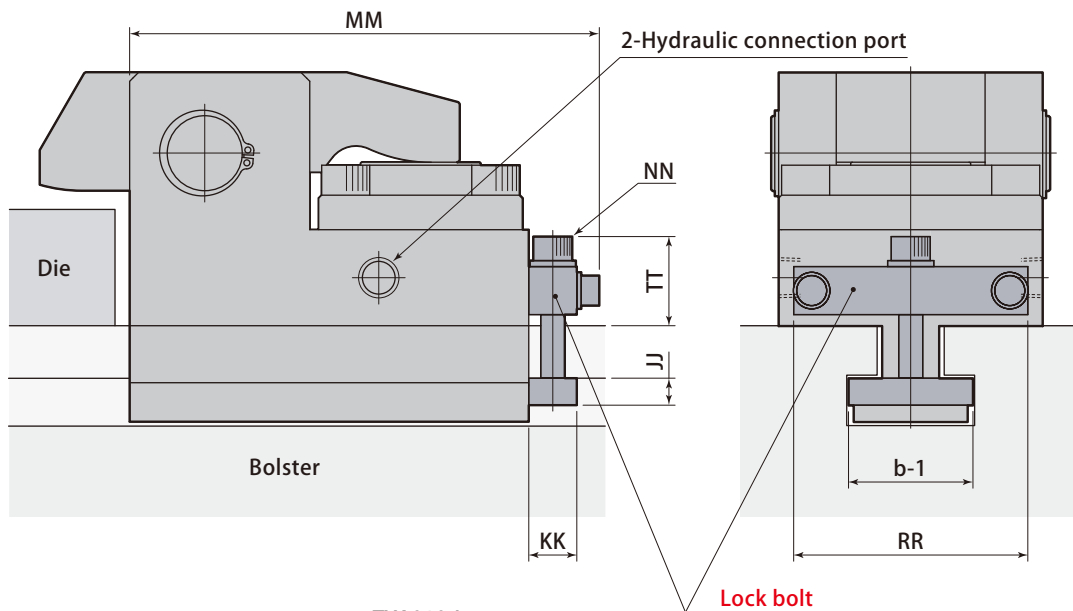
Model designation

TYA **063** - **L**

• Clamping force

- TYA010 TYA020 TYA040 TYA063
- TYA100 TYA160 TYA250

TYA020-L TYA040-L TYA063-L TYA100-L TYA160-L TYA250-L



Model	TYA020-L	TYA040-L	TYA063-L	TYA100-L	TYA160-L	TYA250-L
MM	106.5	143.5	156.5	188.5	223.5	280
NN	M8	M8	M8	M8	M8	M16
KK	16	16	16	16	16	25
JJ	9	9	9	9	9	16
RR	53	64	78	88	108	100
TT	29	29	29	29	29	52

mm

**U With die detection and backward end detection proximity switch**

It prevents misclamping and the damage due to retract back misplace at die change operation.

Model designation

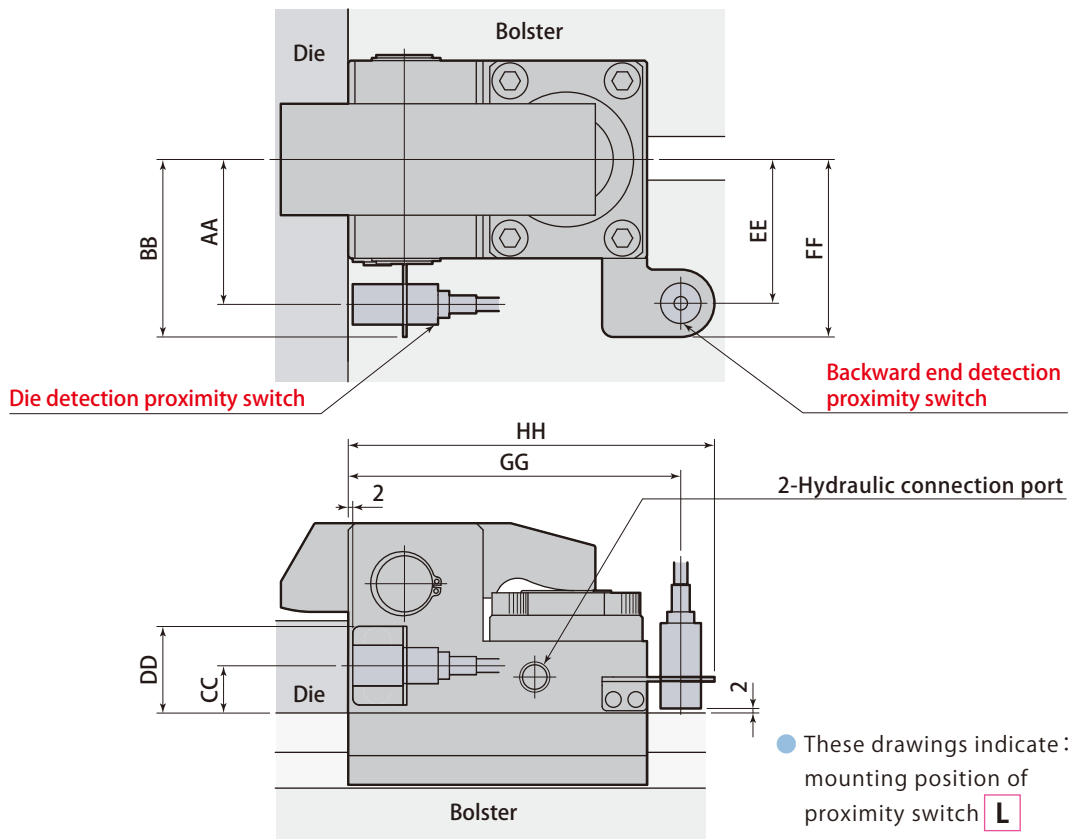
TYA **063** **U** **0** **L** **R**

- 1 Clamping force
- 2 Proximity switch
- 3 Mounting position of die detection proximity switch
- 4 Mounting position of backward end detection proximity switch

- 1 Clamping force  
TYA040 TYA063 TYA100  
TYA160 TYA250
- 3 Mounting position of die detection proximity switch  
**L** : Left side **R** : Right side
- 4 Mounting position of backward end detection proximity switch  
**L** : Left side **R** : Right side

**2 Proximity switch**

Proximity switch symbol		0(Std.)	1	2	3
Specifications		DC24V 2 Wire	DC24V 3 Wire(NPN)	AC100V 2 Wire	DC24V 3 Wire (PNP)
Model	Die detection	E2E-X7D1-N	E2E-X5E1	E2E-X5Y1	E2E-X5F1
	Backward end detection	E2E-X7D2-N	E2E-X5E2	E2E-X5Y2	E2E-X5F2
Manufacturer name		OMRON			
Insulation vinyl cable length		5m			



mm

Model	TYA040U	TYA063U	TYA100U	TYA160U	TYA250U
AA	54.5	64.5	74	84	98.5
BB	69	79	89	99	113.5
CC	15	21	26	26	32
DD	29.5	38.5	51	51	63
EE	54	64	69	79	93.5
FF	69	79	84	94	108.5
GG	135	148	180	215	255
HH	150	163	195	230	270

**C** T-slot type for lateral direction

It is applied in case the T-slot is parallel against the die.

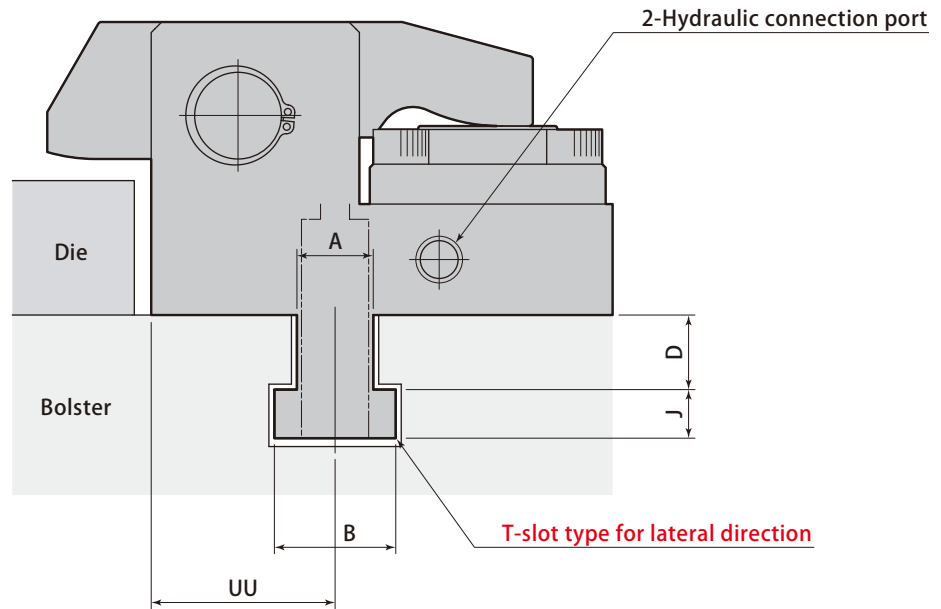
Model designation

TYA 063 - C

• Clamping force

TYA010 TYA020 TYA040 TYA063

Pascal clamp TYA  
Special type



- T-leg dimensions A, B, D, J are determined based on T-slot dimensions.
- The dimension UU is unchangeable due to the existence of spring.

Model	TYA010-C	TYA020-C	TYA040-C	TYA063-C
UU	19.5	30.3	47.5	53.0

mm



For TYA temporary hanging

Upper and lower type of clamp hook

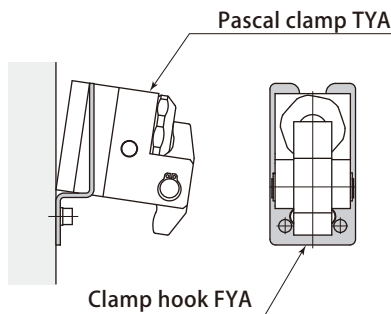
Model designation

FYA 01 - 18

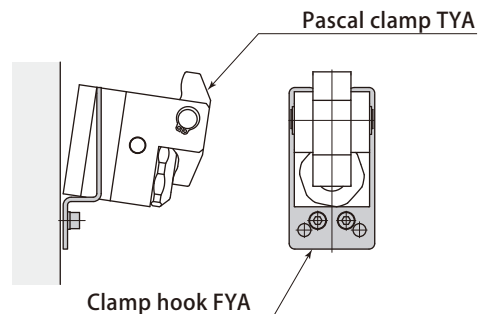
- 1 Hook size
- 2 W dimension (mm)

- 1 Hook size  
FYA01 FYA02 FYA03 FYA04
- 2 W dimension (mm)  
Refer to the below table.

Installation example of the upper type of clamp

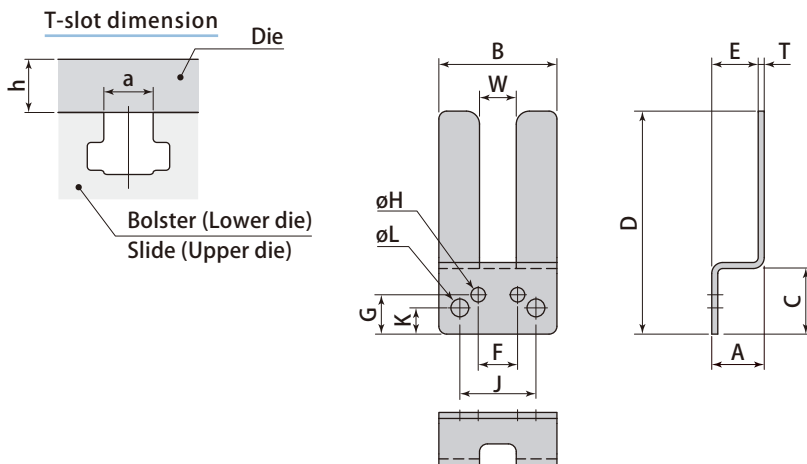


Installation example of the lower type of clamp



- The shape of the upper and lower type of hook is the same.
- Do not operate the machine with clamp hung on the clamp hook.
- Contact Pascal when the holder is used for model TYA□-H.

- The mount screw is not furnished. If necessary, order the mount screw type sold separately.



øH Mount screw

Hook type	Reference specification	Mount screw type (option)
FYA01	2-M5 length 12	FXA-A05
FYA02	2-M6 length 14	FXA-A06
FYA03	2-M8 length 16	FXA-A08
FYA04	2-M10 length 20	FXA-A10

øL Mount screw

Hook type	Reference specification	Mount screw type (option)
FYA01	2-M6 length 14	FXA-A06
FYA02	2-M8 length 16	FXA-A08
FYA03	2-M10 length 20	FXA-A10
FYA04	2-M12 length 20	FXA-A12

Clamp model	TYA010				TYA020					TYA040				TYA063			TYA100		
	Less than 14	15~18	19~22	Less than 14	15~18	19~22	23~28	29~34	Less than 18	19~22	23~28	29~34	Less than 22	23~28	29~34	Less than 28	29~34	35~40	
T-slot a mm	FYA01 -14	FYA01 -18	FYA01 -22	FYA02 -14	FYA02 -18	FYA02 -22	FYA02 -28	FYA02 -34	FYA02 -18	FYA02 -22	FYA02 -28	FYA02 -34	FYA03 -22	FYA03 -28	FYA03 -34	FYA04 -28	FYA04 -34	FYA04 -40	
W mm	14	18	22	14	18	22	28	34	18	22	28	34	22	28	34	28	34	40	
A mm	20			27					27				29			34			
B mm	45			75					75				75			100			
C mm	25			25					25				28.7			35.5			
D mm	85			105					105				110			170			
E mm	17.7			23.8					23.8				24.5			29.5			
T mm	2.3			3.2					3.2				4.5			4.5			
F mm	15			26					26				22			27			
G mm	15			10					10				15			17			
øH mm	5.5			6.8					6.8				9			11			
J mm	29			49					49				49			60			
K mm	10			10					10				15			17			
øL mm	6.8			9					9				11			14			
Max. h mm	100			100					80				80			70			
Weight kg	0.1			0.2					0.2				0.3			0.6			

Pascal clamp TYA  
Clamp hook





# Pascal clamp model TYC

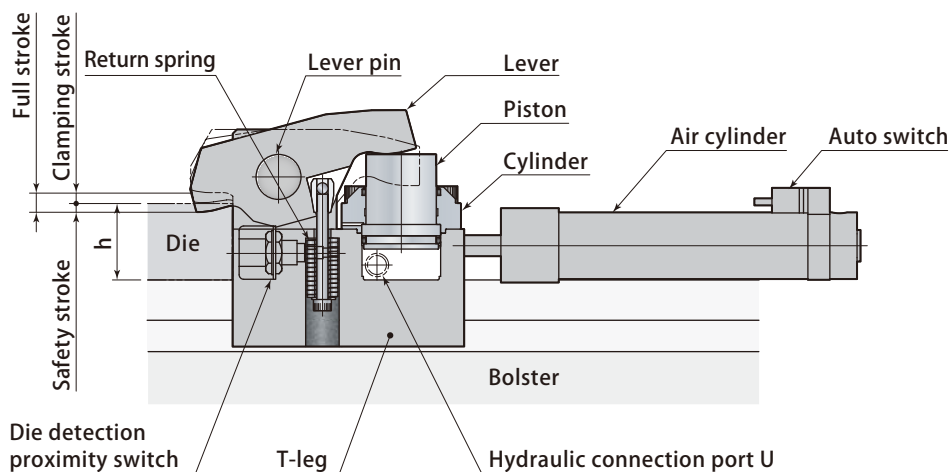
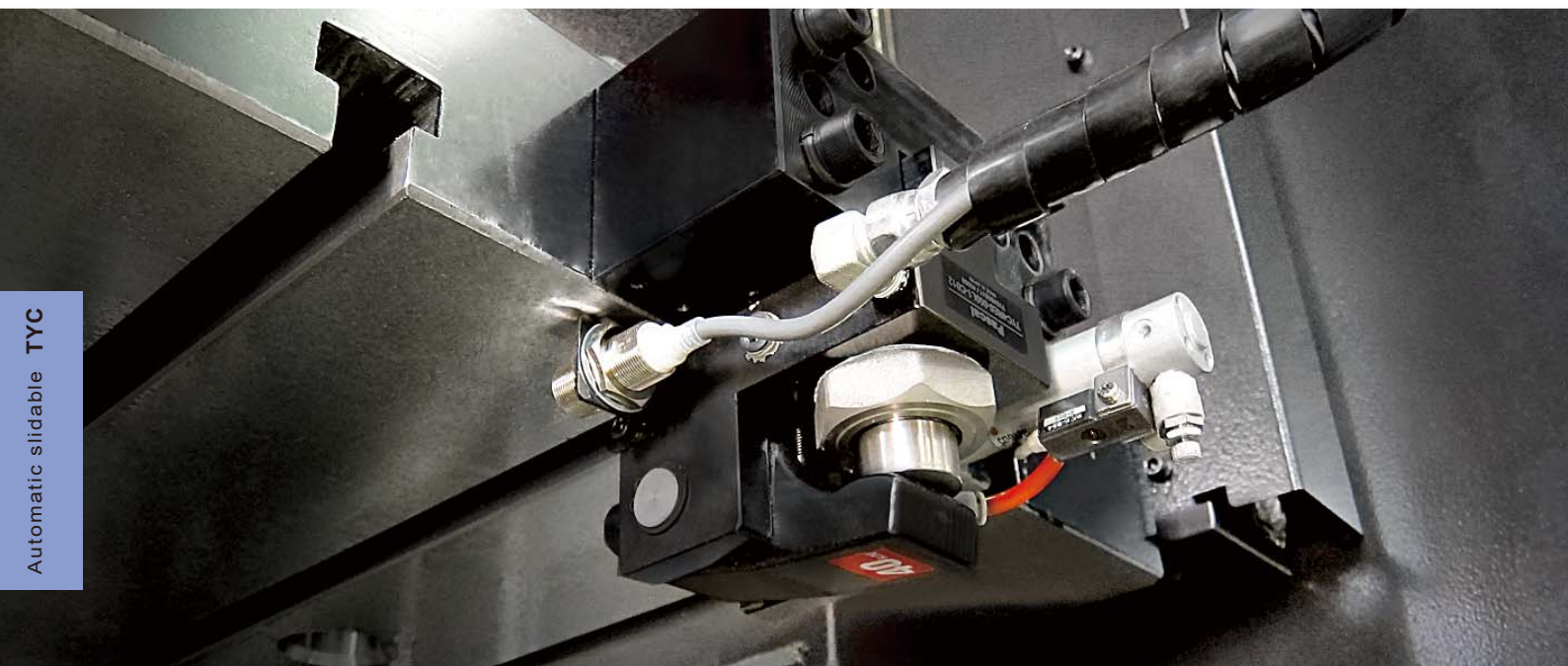
Pascal clamp automatic slidable type

Automatic slidable TYC

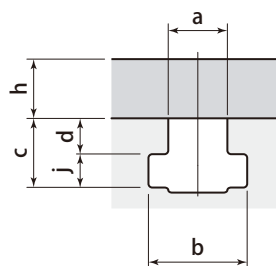




Automatic slidable clamp with air cylinder. It enables to shorten the die exchange time.



T-slot dimension & die thickness



**Specifications**

	Model	TYC020	TYC040	TYC063	TYC100	TYC160	TYC250	
Clamping force (at 24.5 MPa)	kN	19.6	39.2	61.7	98	156	245	
Proof pressure	MPa	36.7						
Full stroke	mm	7			8			
Clamping stroke	mm	4						
Safety stroke	mm	3			4			
Cylinder capacity at full stroke	cm <sup>3</sup>	6.3	13.2	22.3	37	61	93	
Operating temperature	°C	0 ~ 70 (Standard)						
Approximate weight	kg	3.5	5	10	16	26	38	
Max. a	mm	12.5	15	19	23	27	32	
Min. j	mm	9.5	11.5	15	17	20	23	
Tolerance of dimension d	mm	± 0.2						
Max. h	mm	50	50	60	70	80	100	
Min. h	mm	33.5	28	28	38	48	68	
Tolerance of dimension h	mm	± 0.3						

- Working hydraulic pressure : 24.5MPa ● Weight varies according to the dimension of clamp T-leg and die thickness as well as sliding stroke.
- Specify T-slot dimensions a, b, d, j and die thickness h. For brand new machine, machine d and h dimensions with the tolerance shown in the above table. For existing machine, specify tolerance of 0.1mm unit on d and h dimensions.
- In case dimension is over Max. h, refer to **page→109** High distance clamp type.
- In case dimension is less than Min. h, refer to **page→110** Low distance clamp type. ● Stop the press during the clamp wait.

Model designation

TYC **063** R **0** L - **075**

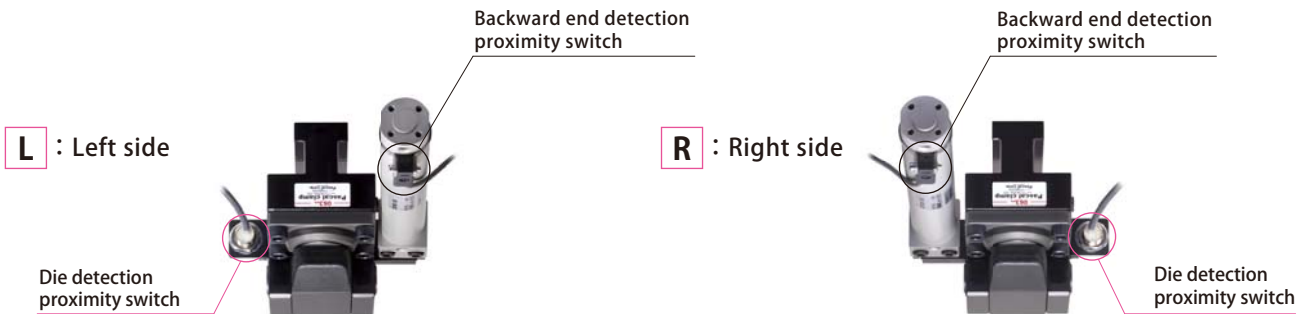
- 1 Clamping force
- 2 Proximity switch
- 3 Mounting position of die detection proximity switch
- 4 Sliding stroke (mm) \*Indicated in 3 digits

- 1 Clamping force  
 TYC020 : 19.6kN  
 TYC040 : 39.2kN  
 TYC063 : 61.7kN  
 TYC100 : 98kN  
 TYC160 : 156kN  
 TYC250 : 245kN

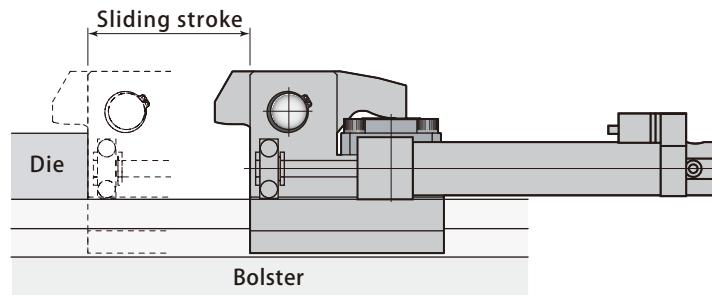
**2** Proximity switch

Proximity switch symbol	0	1	2	3
Specifications	DC24V 2Wire	DC24V 3Wire(NPN)	AC100V 2Wire	DC24V 3Wire (PNP)
Model	E2E-X7D1-N	E2E-X5E1	E2E-X5Y1	E2E-X5F1
Manufacturer name	OMRON			
Insulation vinyl cable length	5m			

**3** Mounting position of die detection proximity switch



**4** Slide stroke

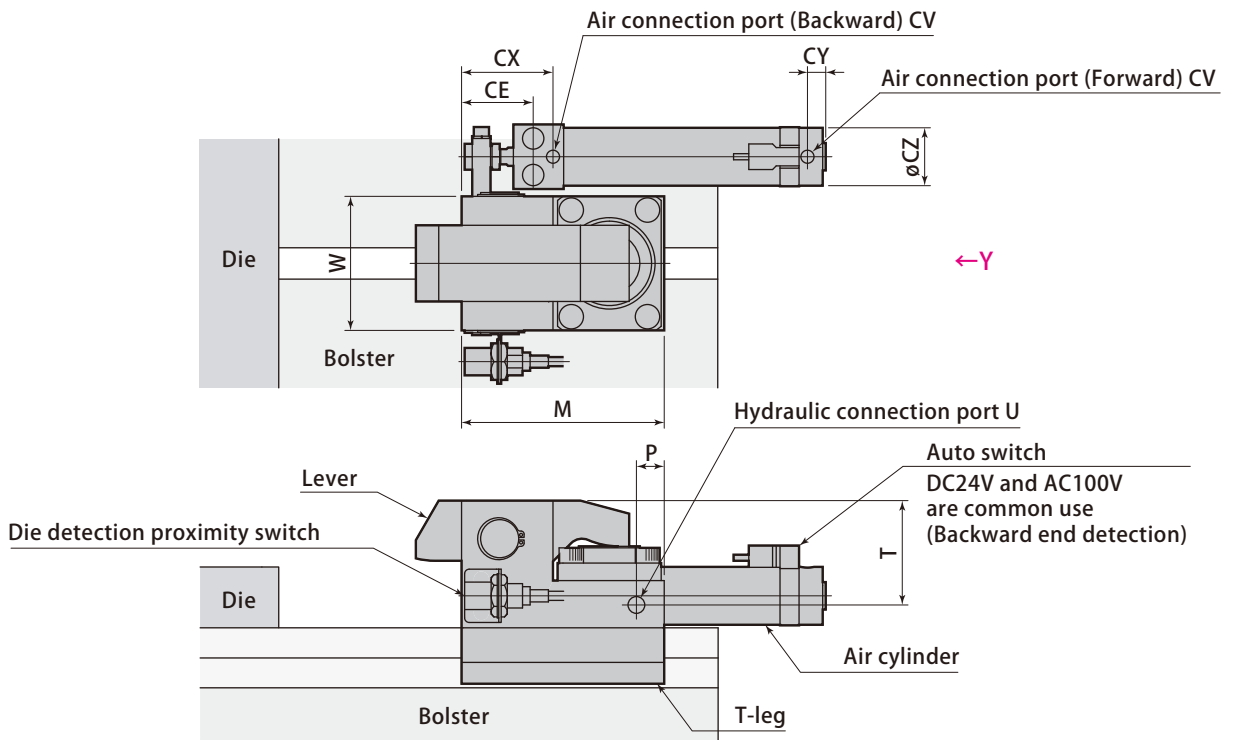


Model	TYC020R	TYC040R	TYC063R	TYC100R	TYC160R	TYC250R
Sliding stroke *	mm	25, 50, 75, 100, 125, 150	50, 75, 100, 125, 150, 200	50, 75, 100, 125, 150, 200, 250, 300		
Air cylinder driven pressure	MPa	0.39 ~ 0.54				
Slide velocity	mm/s	30 ~ 100 (to be adjusted by a flow control valve)				
Air cylinder model	CDG1RN20-□-B54LS	CDG1RN32-□-B54LS	CDG1RN40-□-B54LS	CDG1RN50-□-B54LS		
Air cylinder manufacturer	SMC					

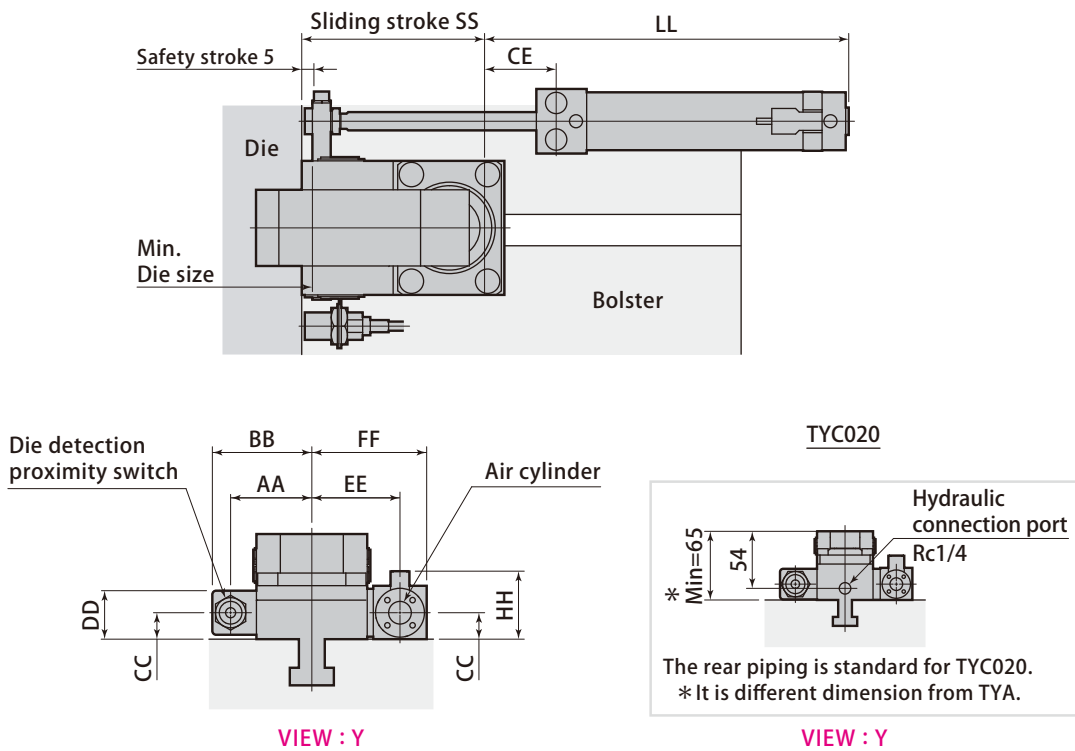
● Refer to **page →106** for the details of sliding stroke.

\* Contact Pascal for the sliding stroke which is not mentioned above.

**Unclamp**



**Clamp**



● These drawings indicate : mounting position of proximity switch **R**

External dimension

Model	TYC020	TYC040	TYC063	TYC100	TYC160	TYC250
Air connection port CV	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4
CX	51.5	51.5	60	71	71	87
CY	12	12	12	12	12	14
øCZ	26	26	38	47	47	58
W	53	68	88	98	118	147
M	83	120	133	165	200	240
CE	42.5	42.5	47	57	57	71
P	—	32.5	36	62	80	90
Hydraulic connection port U	—	Rc1/4	Rc1/4	Rc1/4	Rc1/4	Rc1/4
T	—	57.5	68.5	97	120	156
BB	61.5	69	79	89	99	113.5
FF	64.6	72.1	89.5	109	119	153
AA	47	54.5	64.5	74	84	98.5
EE	48.5	56	70	81	91	116
DD	29.5	29.5	38.5	51	51	63
CC	15	15	21	26	26	32
HH	42	42	54	63	63	74
Mount screw	2-M5 length 35	2-M5 length 35	2-M8 length 45	2-M10 length 55	2-M10 length 55	2-M12 length 70
Quadrate spring washer	2-M5	2-M5	2-M8	2-M10	2-M10	2-M12
Auto switch model	D-B54L					
Insulation vinyl cable with auto switch	3m					

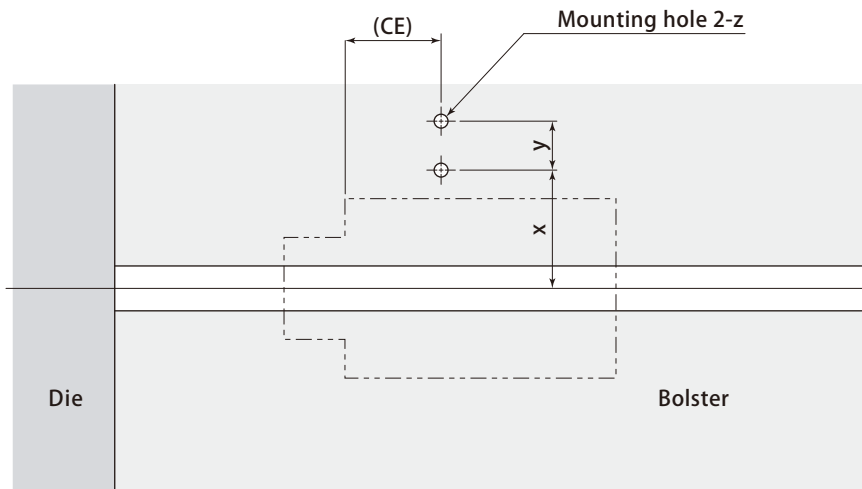
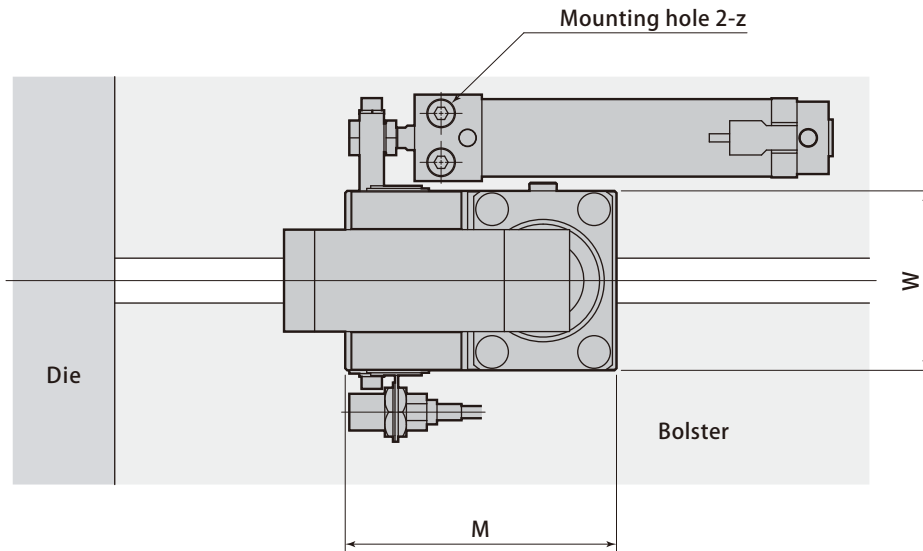
Sliding stroke  25  50  75  100  125  150  200  250  300 mm

Sliding stroke SS	TYC020	TYC040	TYC063	TYC100	TYC160	TYC250
	Overall length LL					
25	133.5	133.5	—	—	—	—
50	158.5	158.5	169	187	187	214
75	183.5	183.5	194	212	212	239
100	208.5	208.5	219	237	237	264
125	233.5	233.5	244	262	262	289
150	258.5	258.5	269	287	287	314
200	—	—	319	337	337	364
250	—	—	—	387	387	414
300	—	—	—	437	437	464

● Lever height F varies according to the dimension h.

Model	TYC020	TYC040	TYC063	TYC100	TYC160	TYC250
Lever height F	17.5 (43.5≤h)	27.5 (38≤h)	29.5 (48≤h)	45 (58≤h)	60 (68≤h)	76 (88≤h)
Inside the parenthesis is range of h	22.5 (38.5≤h<43.5)	32.5 (33≤h<38)	39.5 (38≤h<48)	55 (48≤h<58)	70 (58≤h<68)	86 (78≤h<88)
	27.5 (33.5≤h<38.5)	37.5 (28≤h<33)	49.5 (28≤h<38)	65 (38≤h<48)	80 (48≤h<58)	96 (68≤h<78)

Mounting details



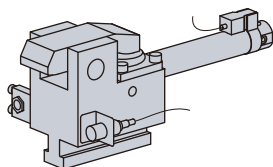
● These drawings indicate : mounting position of proximity switch **R**

mm

Model	TYC020	TYC040	TYC063	TYC100	TYC160	TYC250
CE	42.5	42.5	47	57	57	71
M	83	120	133	165	200	240
W	53	68	88	98	118	147
x	39.5	47	58	65	75	95.5
y	18	18	24	32	32	41
z	M5 depth12	M5 depth12	M8 depth12	M10 depth16	M10 depth16	M12 depth20

**H** High distance clamp type TYC□-H

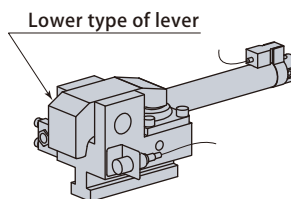
It is applied in case the die thickness is over the standard.



page → 109

**T** Low distance clamp type TYC□-T

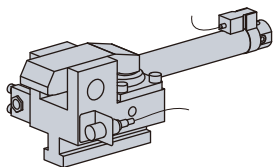
It is applied in case the die thickness is thinner than the standard.



page → 110

**V** Heat proof type TYC□-V

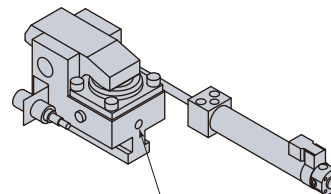
It is applied under condition that the die and its surroundings are in high temperature.



Operating temperature: 5 ~ 120°C

**J** Rear piping type TYC□-J

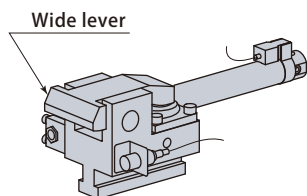
It is applied in case there are some interferences at clamp side and the side piping connection (standard specification) is not available.



page → 111

**W** Wide lever type TYC□-W

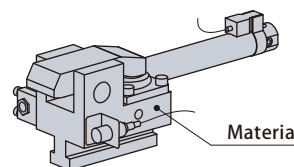
It is applied in case of clamping the die with U-cut.



page → 112

**S1 S2** Material strength TYC□-S1, TYC□-S2

It is applied in case the T-slot dimension is under the standard and the strength is insufficient.



TYC□-S1: S45C  
TYC□-S2: SCM435 Quenching and high-temperature tempering

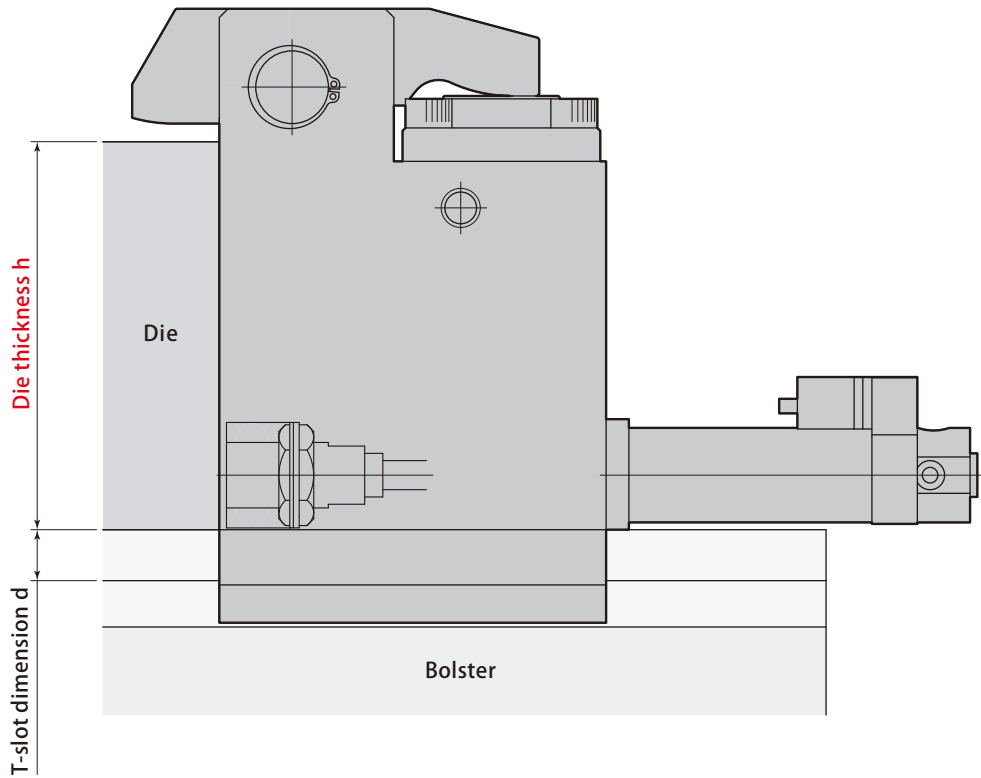
**H** High distance clamp type It is applied in case the die thickness is over the standard.

Model designation

TYC 063 R 0 L - 075 - H

- 1 Clamping force
- 2 Proximity switch
- 3 Mounting position of die detection proximity switch
- 4 Sliding stroke (mm)  
\* Indicated in 3 digits

1 2 3 4 Refer to page → 104



- In case the die thickness h is inside range of the below table, specify the high distance clamp type. In case the dimension h is over the below table, contact Pascal.

mm

Model	TYC020R-H	TYC040R-H	TYC063R-H	TYC100R-H	TYC160R-H	TYC250R-H
Die thickness h	50 < h ≤ 100	50 < h ≤ 100	60 < h ≤ 150	70 < h ≤ 140	80 < h ≤ 130	100 < h ≤ 120
T-slot dimension d	d < 30	d < 30	d < 30	d < 40	d < 40	d < 40

**T** **Low distance clamp type** It is applied in case the die thickness is thinner than the standard.

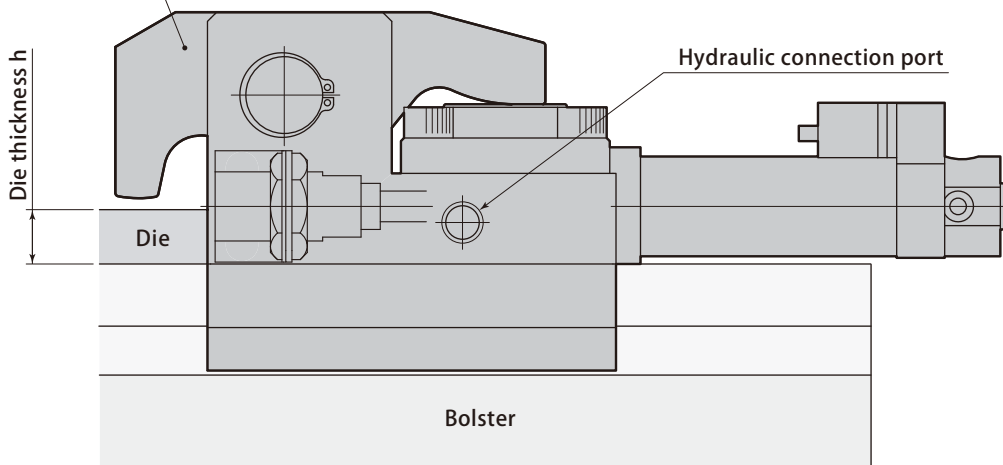
Model designation

TYC 063 R 0 L - 075 - T

- 1 Clamping force
- 2 Proximity switch
- 3 Mounting position of die detection proximity switch
- 4 Sliding stroke (mm)  
\* Indicated in 3 digits

1 2 3 4 Refer to page → 104

Lower type of lever



● In case the die thickness h is less than value of the below table, specify the Low distance clamp type.

Model	TYC020R-T	TYC040R-T	TYC063R-T	TYC100R-T	TYC160R-T	TYC250R-T
Die thickness h	h < 33.5	h < 28	h < 28	h < 38	h < 48	h < 68

mm



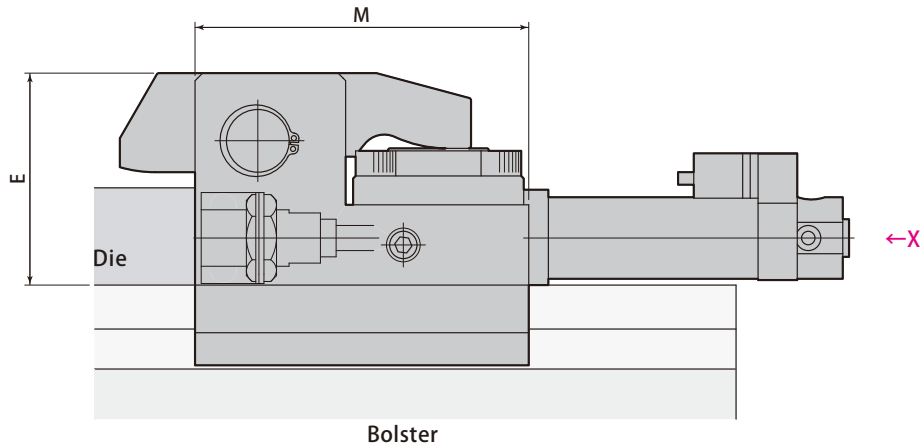
**J** **Rear piping type** It is applied in case there are some interferences at clamp side and the side piping connection (standard specification) is not available.

Model designation

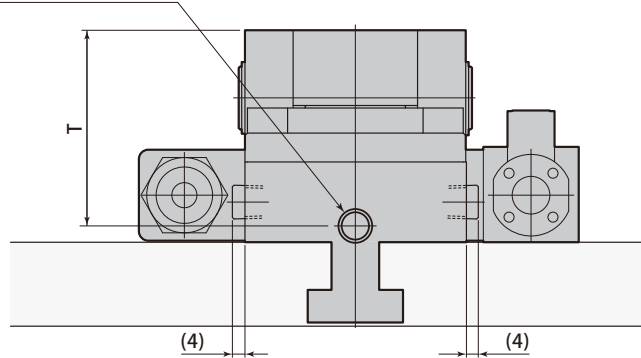
TYC 063 R 0 L - 075 - J

- 1 Clamping force ●
- 2 Proximity switch ●
- 3 Mounting position ● of die detection proximity switch
- 4 Sliding stroke (mm) ●  
\* Indicated in 3 digits

1 2 3 4 Refer to page → 104



Rear piping  
Hydraulic connection port U



VIEW : X

Model	TYC040R-J	TYC063R-J	TYC100R-J	TYC160R-J	TYC250R-J
M	120	133	165	200	240
T	68	79	97	120	156
Hydraulic connection port U	Rc1/4	Rc1/4	Rc1/4	Rc1/4	Rc1/4
Min. E	79	90	107	132	168

● Lever height F varies according to the dimension h.

Model	TYC040R-J	TYC063R-J	TYC100R-J	TYC160R-J	TYC250R-J
Lever height F	47.5 (38 ≤ h)	29.5 (56.5 ≤ h)	45 (58 ≤ h)	60 (68 ≤ h)	76 (88 ≤ h)
Inside the parenthesis is range of h	42.5 (33 ≤ h < 47.5)	39.5 (46.5 ≤ h < 29.5)	55 (48 ≤ h < 58)	70 (58 ≤ h < 68)	86 (78 ≤ h < 88)
	37.5 (28 ≤ h < 42.5)	49.5 (36.5 ≤ h < 46.5)	65 (38 ≤ h < 48)	80 (48 ≤ h < 58)	96 (68 ≤ h < 78)

Automatic slidable TYC  
Special type

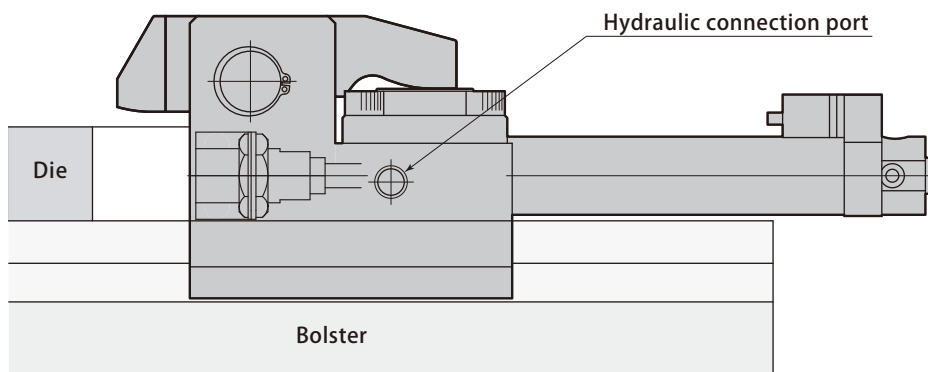
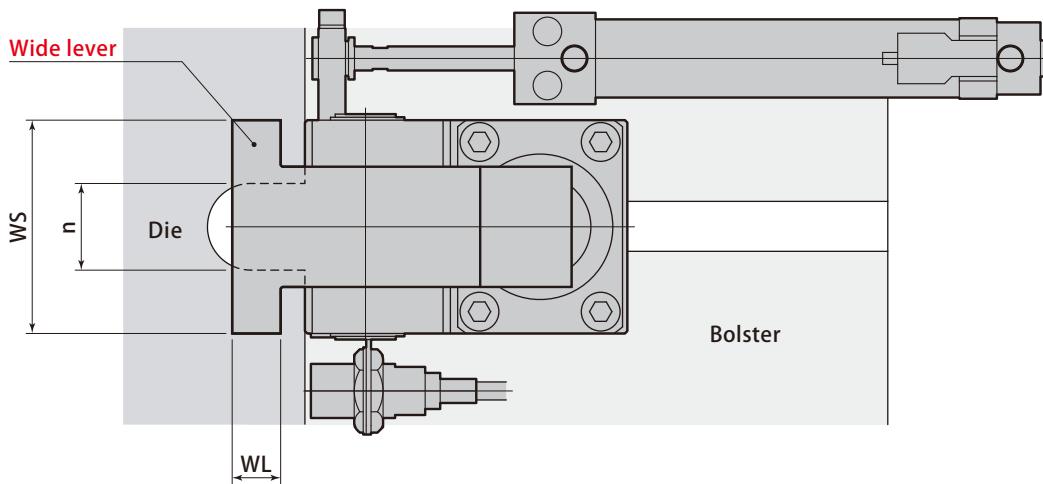
**W** **Wide lever type** It is applied in case of clamping the die with U-cut.

Model designation

TYC 063 R 0 L - 075 - W

- 1 Clamping force
- 2 Proximity switch
- 3 Mounting position of die detection proximity switch
- 4 Sliding stroke (mm)  
\* Indicated in 3 digits

1 2 3 4 Refer to page → 104



mm

Model	TYC020R-W	TYC040R-W	TYC063R-W	TYC100R-W	TYC160R-W	TYC250R-W
WS	62	72	88	88	100	110
WL	13	15	20	20	20	20
Max. n	32	32	36	32	40	40