PASCAL®

TRAVELING CLAMP

Equip your press machines with advanced time saving automatic die clamping systems that dramatically reduce downtime and allow you to use new processing methods that increase productivity.

Pascal corporation

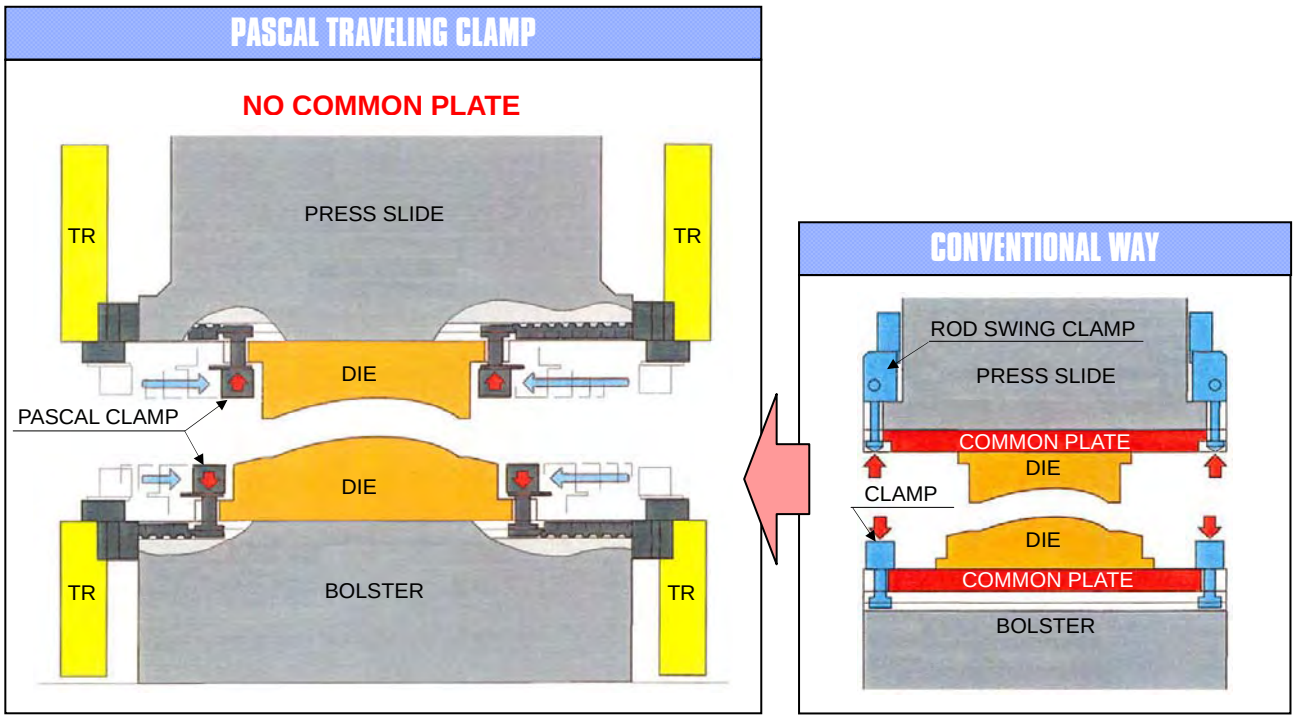
www.pascaleng.co.jp

Pamphlet PA-125E REV.1 2009.04

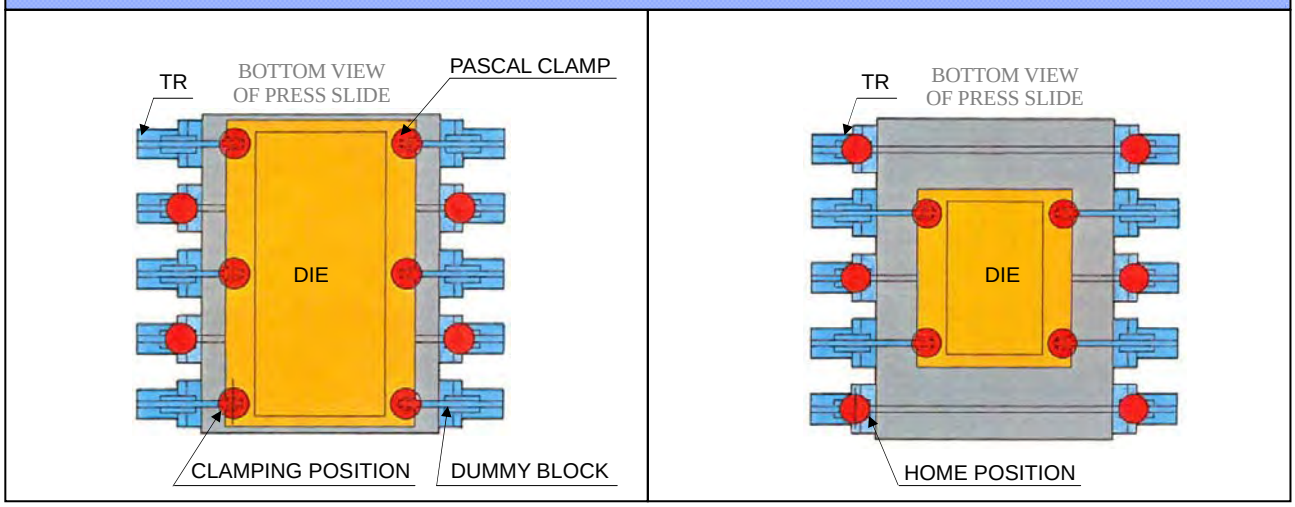
PASCAL TRAVELING CLAMP

1. FEATURE

PASCAL TRAVELING CLAMP TR series are the most advanced die clamping system made, and the hydraulic clamps are automatically carried to the die to clamp it through the T-slots. The introduction of TR series offers major cost saving by eliminating the common plates. The die can be rigidly mounted at the central part of the press and it gives the high precise and stable metal stamping compared with the former clamping at the edge of the common plate. With over 20,000 units in use worldwide TR series are the proven products in the metal stamping industry especially in automobile industry. TR series are easily retrofitted to existing press machines.

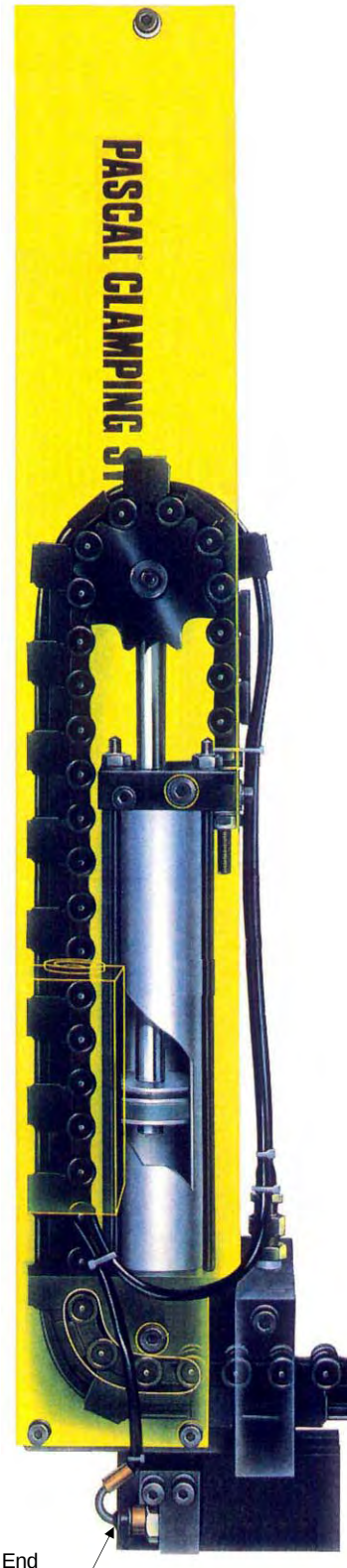


The die clamping pattern can be selected according to the variable die size and the U-cut position.

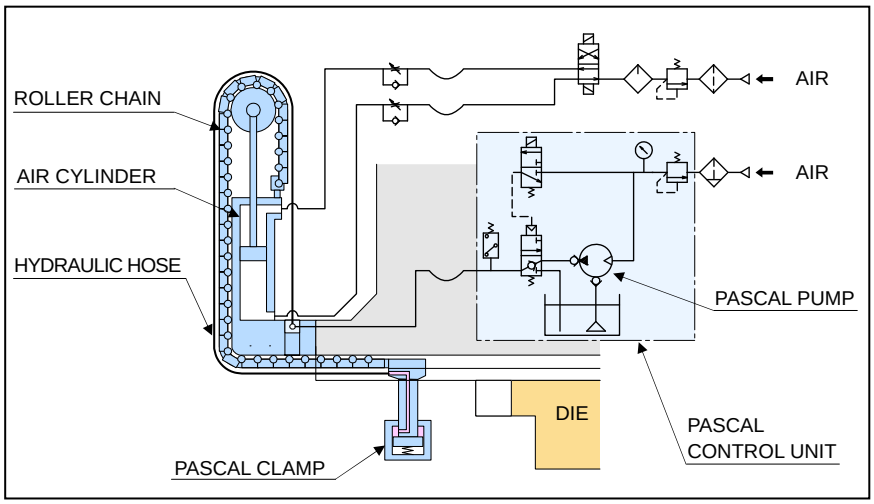


PASCAL TRAVELING CLAMP

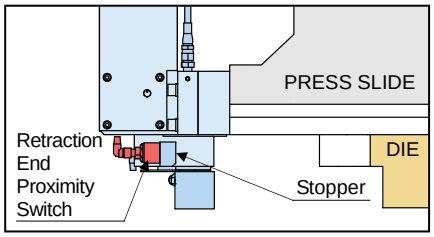
2. STRUCTURE



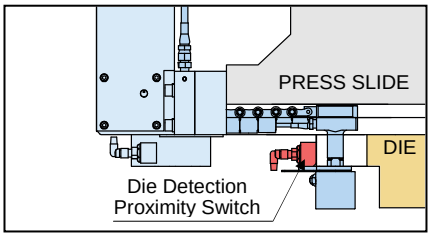
System Diagram



Retraction End Proximity Switch



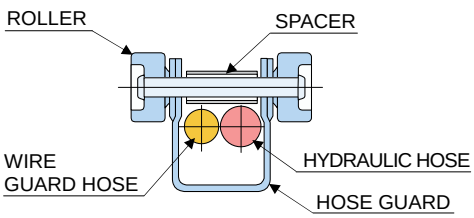
Die Detection Proximity Switch

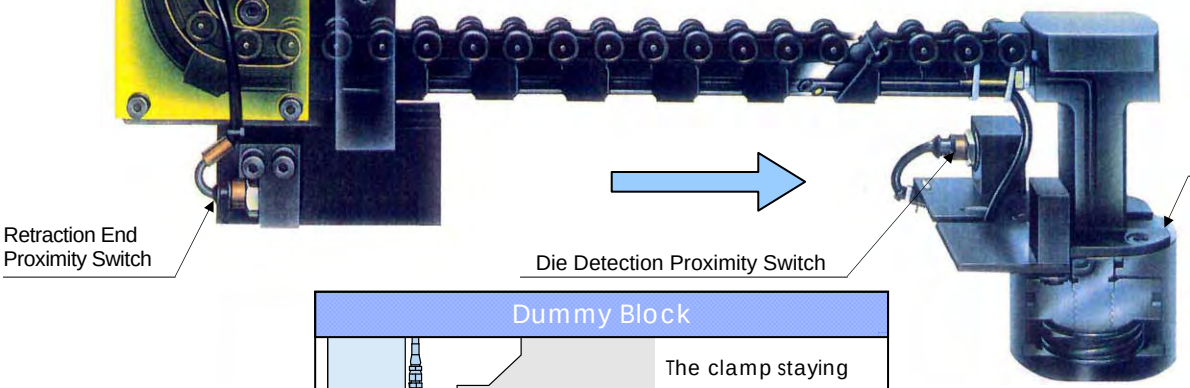


TR series has a simple and durable mechanism and withstands shock and vibration under severe operating conditions of a press

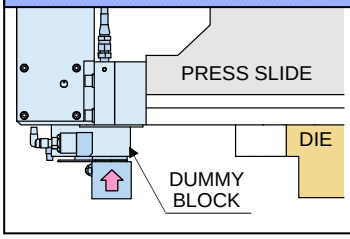
JAPAN PAT.	1739284
	1815288
	1477239
U.S. PAT.	4830337
GERMANY PAT.	3501524

Roller Chain Section





Dummy Block



The clamp staying at home position clamps rigidly the dummy block and does not vibrate with press operation.

CLAMPING FORCE
4 tonf
6.3 tonf
10 tonf

PASCAL TRAVELING CLAMP

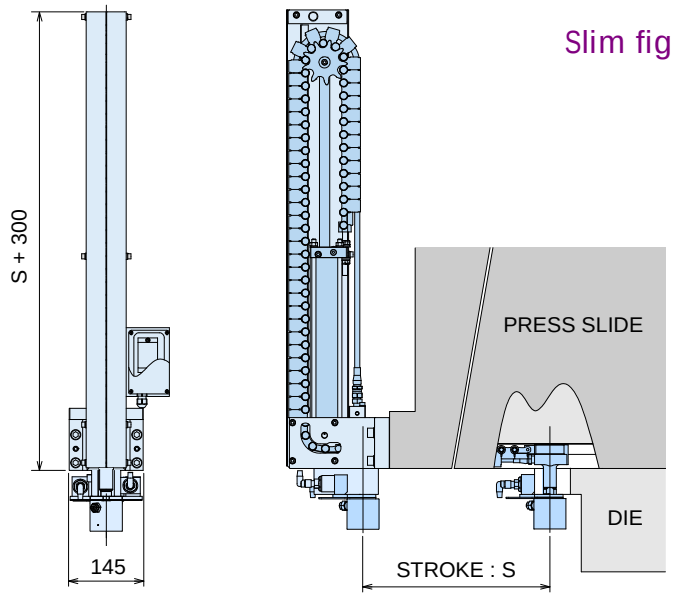
3. VARIATION

Three kinds of clamp sliding methods are provided as follows ; -

model TRAE

Air Cylinder driven

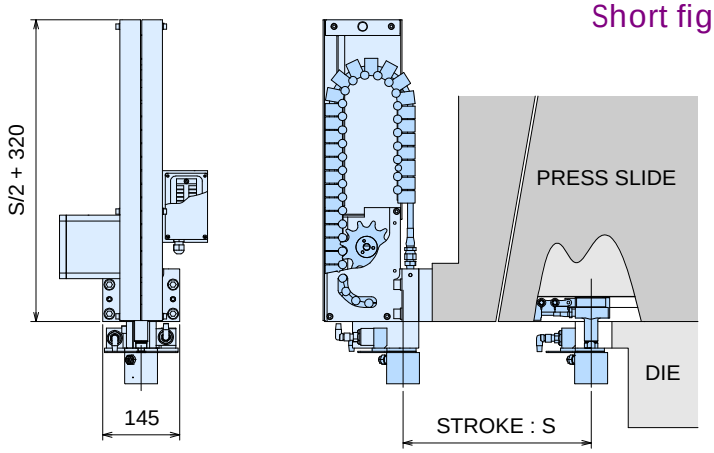
Slim figure type



model TRB

Rotary Actuator driven

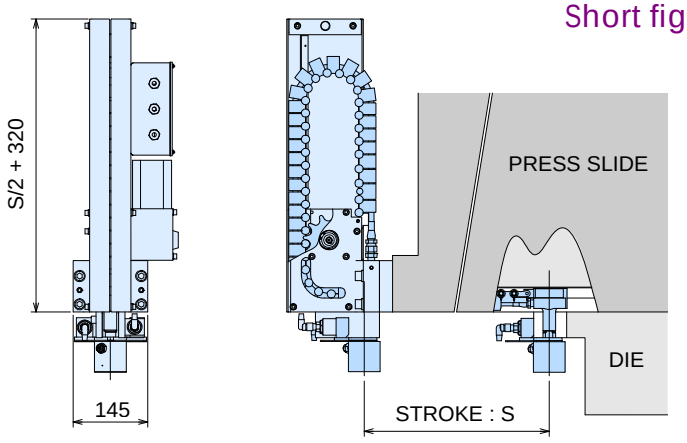
Short figure type



model TRC

Electric Motor driven

Short figure type



TR [AE] [X06] - [0800]

① ② ③

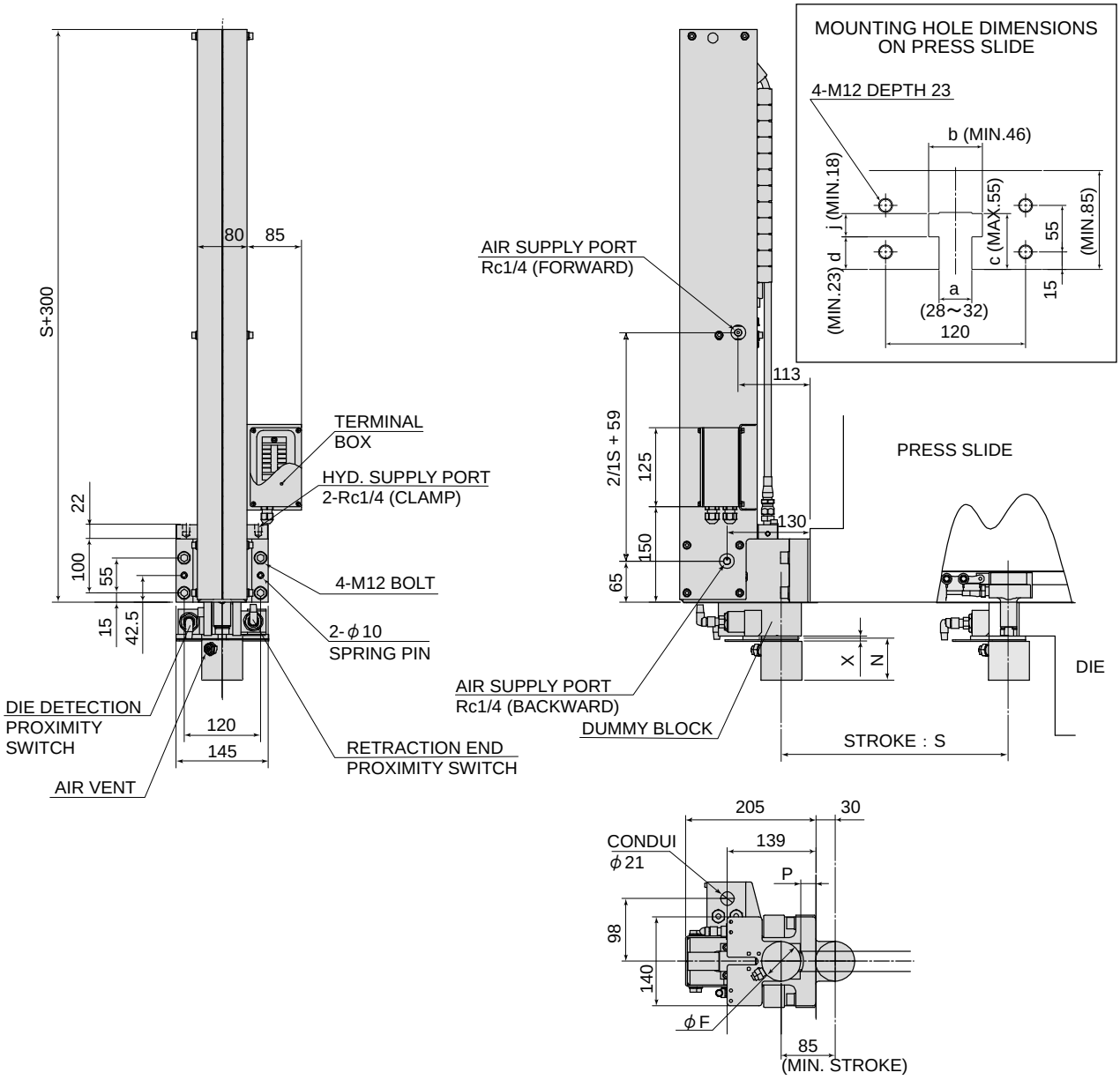
① Model AE, B, C (See above)

② Clamp Model X04 : Model TXD4 (Clamping force 4.0 tonf)
X06 : Model TXD6 (Clamping force 6.3 tonf)
X10 : Model TXD10 (Clamping force 10.0 tonf)

③ Sliding stroke in mm (A : 0400~1300) (B,C : 0400~0900)

PASCAL TRAVELING CLAMP model TRAE

■ DIMENSIONS



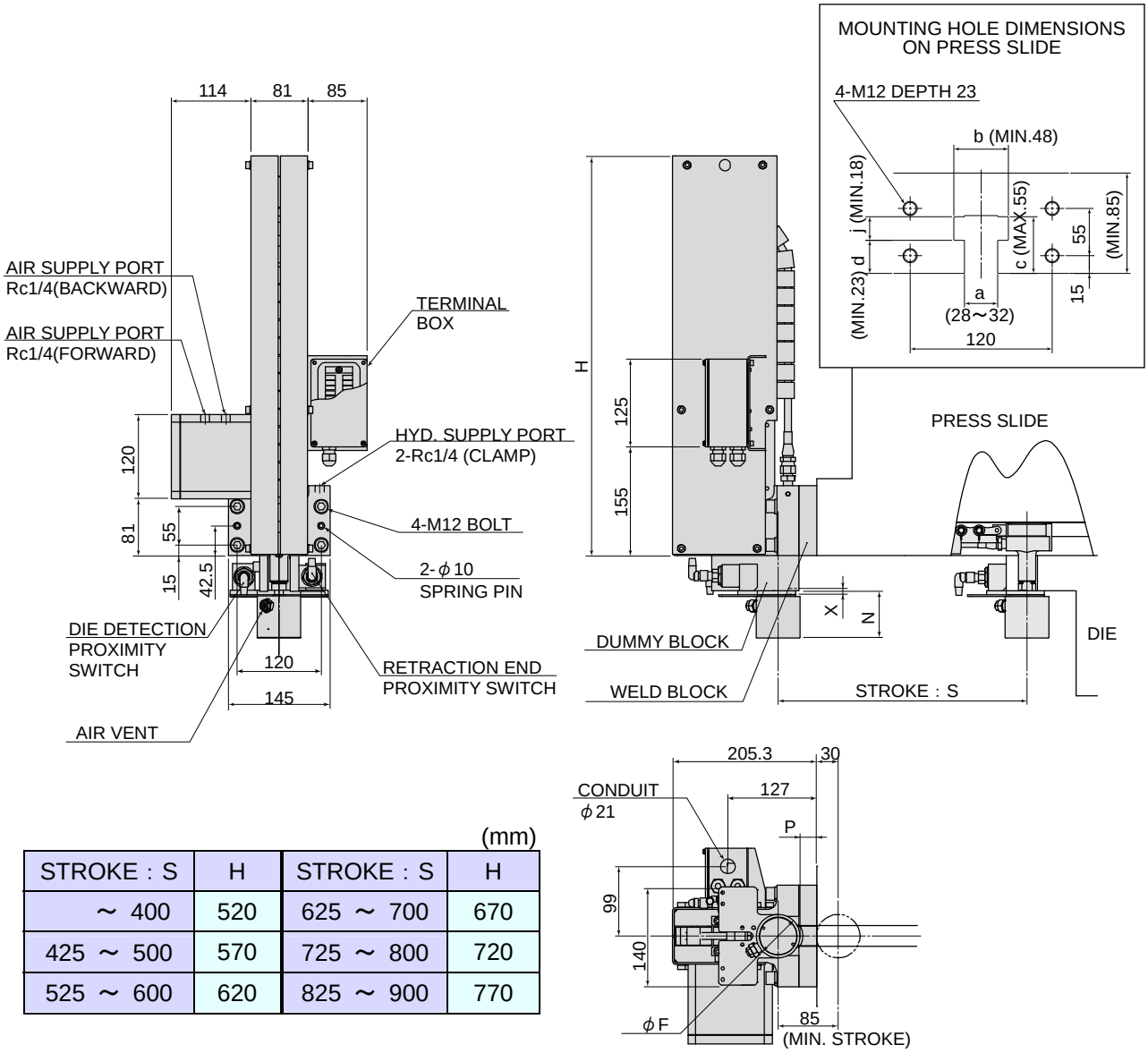
■ SPECIFICATIONS

CLAMP MODEL		TXD 4	TXD 6	TXD 10
CLAMPING FORCE ＊1		4 tonf { 39.2 kN, 4.41 USton }	6.3 tonf { 61.7 kN, 6.94 USton }	10 tonf { 98.0 kN, 11.0 USton }
CLAMPING STROKE : X		8 mm (Full Stroke)		
SLIDING STROKE : S		400 ～ 1300 mm, every 50 mm		
SLIDING FORCE ＊2		20 kgf { 196 N }		
SLIDING SPEED		0.14 ～ 0.20 m / sec.		
DIMENSIONS	F	62 mm	78 mm	98 mm
	N	67.2 mm	73.2 mm	79.2 mm
	P	24 mm	16 mm	6 mm

＊1: Hydraulic pressure 250 kgf/cm^2 { 24.5 MPa, 3560 psi }

＊2: Air pressure 4 kgf/cm^2 { 0.39 MPa, 57 psi }

■ DIMENSIONS



(mm)

STROKE : S	H	STROKE : S	H
～ 400	520	625 ～ 700	670
425 ～ 500	570	725 ～ 800	720
525 ～ 600	620	825 ～ 900	770

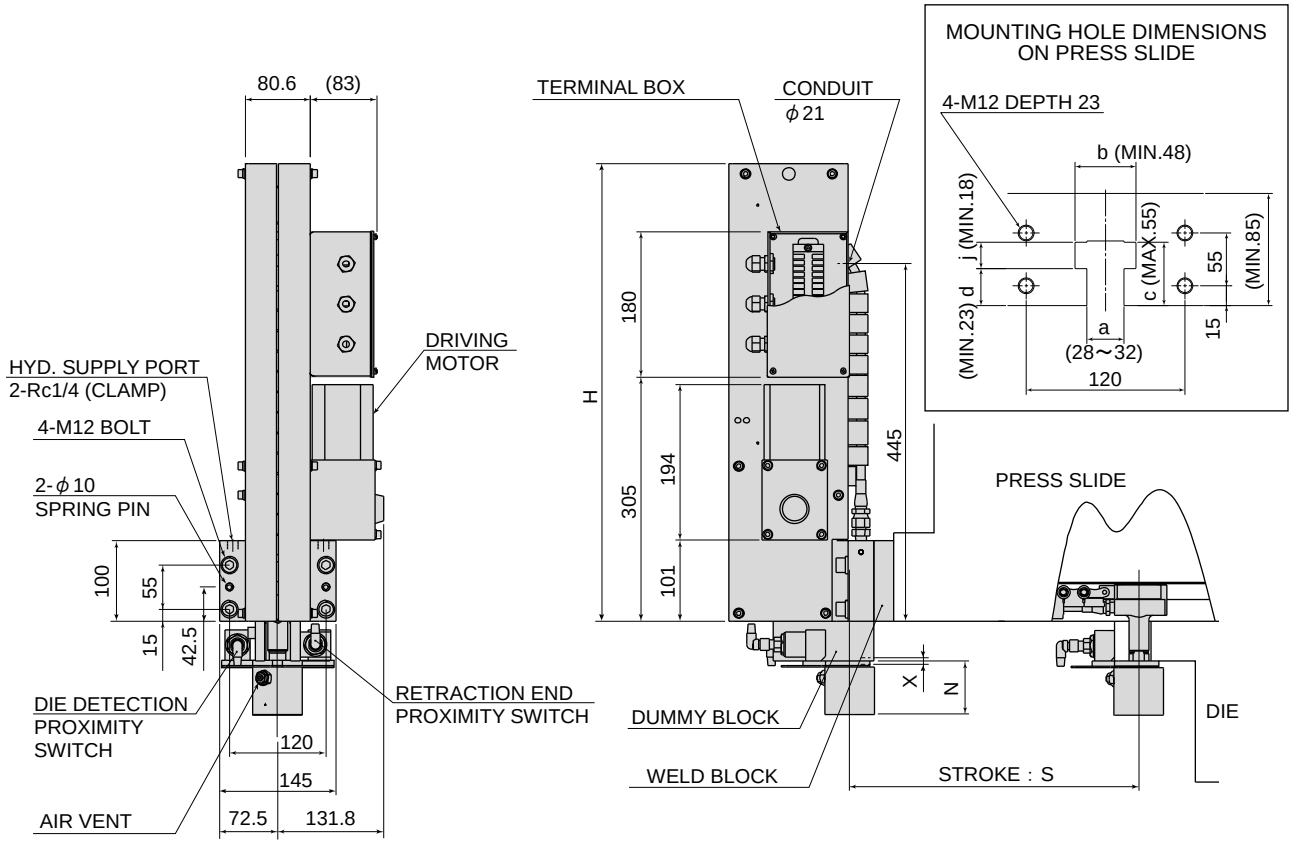
■ SPECIFICATIONS

CLAMP MODEL		TXD 4	TXD 6	TXD 10
CLAMPING FORCE ＊1		4 tonf { 39.2 kN, 4.41 UStonf }	6.3 tonf { 61.7 kN, 6.94 UStonf }	10 tonf { 98.0 kN, 11.0 UStonf }
CLAMPING STROKE : X		8 mm (Full Stroke)		
SLIDING STROKE : S		400 ～ 900 mm, every 25 mm		
SLIDING FORCE ＊2		10 kgf { 98 N }		
SLIDING SPEED		0.14 ～ 0.20 m / sec.		
DIMENSIONS	F	62 mm	78 mm	98 mm
	N	67.2 mm	73.2 mm	79.2 mm
	P	24 mm	16 mm	6 mm

＊1: Hydraulic pressure 250 kgf/cm^2 { 24.5 MPa, 3560 psi }

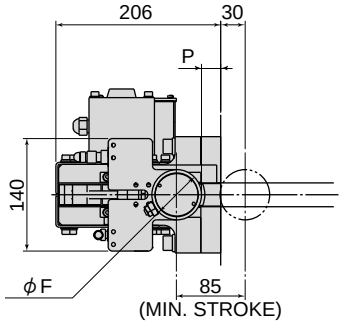
＊2: Air pressure 4 kgf/cm^2 { 0.39 MPa, 57 psi }

■ DIMENSIONS



(mm)

STROKE : S	H	STROKE : S	H
～ 400	520	625 ～ 700	670
425 ～ 500	570	725 ～ 800	720
525 ～ 600	620	825 ～ 900	770



■ SPECIFICATIONS

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CLAMPING FORCE ＊1		4 tonf { 39.2 kN, 4.41 UStон }	6.3 tonf { 61.7 kN, 6.94 UStон }	10 tonf { 98.0 kN, 11.0 UStон }
CLAMPING STROKE : X		8 mm (Full Stroke)		
SLIDING STROKE : S		400 ～ 900 mm, every 25 mm		
SLIDING FORCE ＊2		18 kgf { 177 N }		
SLIDING SPEED		0.18 m / sec. (50Hz) ・ 0.21 m / sec. (60Hz)		
DIMENSIONS	F	62 mm	78 mm	98 mm
	N	67.2 mm	73.2 mm	79.2 mm
	P	24 mm	16 mm	6 mm

＊1: Hydraulic pressure 250 kgf/cm^2 { 24.5 MPa, 3560 psi }

＊2: Air pressure 4 kgf/cm^2 { 0.39 MPa, 57 psi }