

# PASCAL ROD-SWING CLAMP TNA

air-operated

MODEL

## Die Holding Force

8800, 15400, 24200, 43000 lbs

### Hard Pull-up Spring for Safety

- Powerful die holding force even at no air pressure
- Most suitable for upper die of press machine

### Limit Switch Activation

- Clamp and unclamp can be detected by clamp rod's position.

### Eccentric Clamp Mechanism

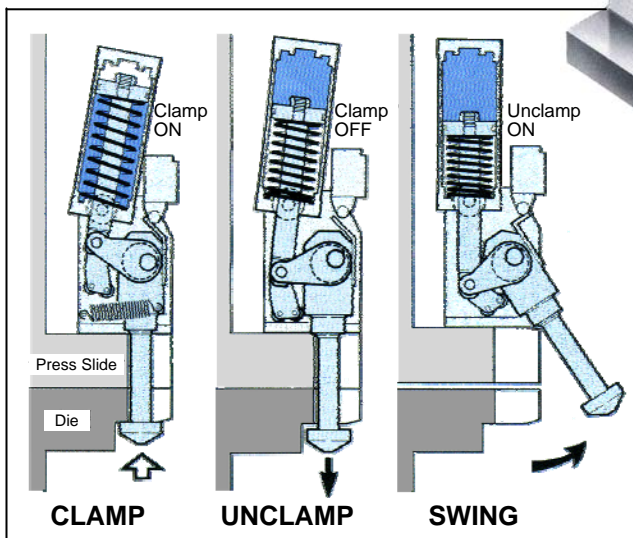
- Efficient and durable
- Prepared for shock and vibration
- No lubrication required

### Position Indicator of Clamp Rod

- Visual confirmation of clamp / unclamp / swing positions.

### Clamp Rod With High Durability

- Thorough heat and surface treatment on chrome-molybdenum steel



## FEATURES

- ① Compact size came out from simplified eccentric clamp mechanism, bearing high power along with durability and impact-resistance.
- ② At clamping, air cylinder output is enlarged by eccentric clamp mechanism, and it gives a large pull-up force and holding force to clamp rod. The model TNA□-H is equipped with hard pull-up spring inside air cylinder. Thus the die holding force is kept even when air supply is cut off. Even when press machine is not in use, die is securely clamped.
- ③ Position indicator at the body side clearly presents clamp / unclamp / swing conditions.
- ④ Limit switch for clamp / unclamp detection is standard-equipped for secure interlock mechanism.
- ⑤ All the structures are maintenance free.



**Pascal**

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MODEL **TNA**

## Model and Specifications

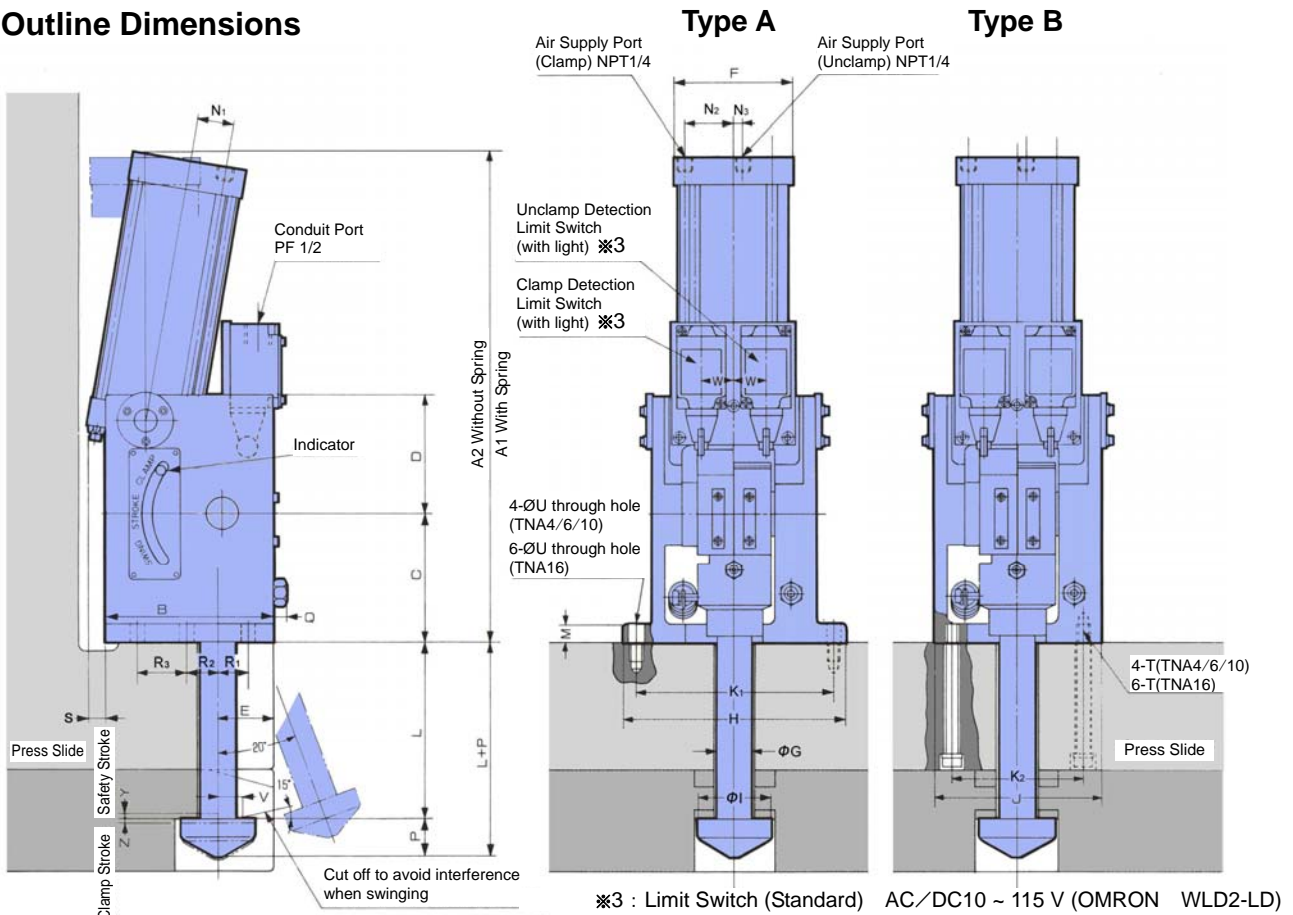
TNA4 - ① ② R - ③ - ④

- ① Pull-up Spring ----- N]without spring H]with spring
- ② Mounting Type ----- A] B] (see drawing below)
- ③ Swing Angle ----- 20° (other angle available on request)
- ④ Clamp Rod Length ----- L mm

MODEL	Pull-Up Force ※1 (lbs)			Holding Force ※1 (lbs)			Clamp Rod Break Force (lbs)	Clamp Stroke (inch)	Safety Stroke (inch)	Swing Angle (standard) ※2	Air Pressure (psi)		Ambient Temperature (°F)
	Air Pressure 71 psi	Air Pressure 71 psi	Air Pressure 0 psi	Air Pressure 71 psi	Air Pressure 71 psi	Air Pressure 0 psi					Rated	Max	
TNA4-N	3300	6400	----	13200	0.12	0.02	20°	71	100	14~158			
TNA4-H	4400	8800	2400										
TNA6-N	4800	11000	----	22000	0.12	0.04							
TNA6-H	6800	15400	4400										
TNA10-N	7700	17600	----	33000	0.14	0.04							
TNA10-H	11000	24200	6600										
TNA16-N	13200	32000	----	52920	0.16	0.04							
TNA16-H	18700	43000	11000										

※1 : Pull-Up force and holding force vary with the tolerance of ±10% from the figure.  
 ※2 : Swing angle is set as designated at factory before delivered.

## Outline Dimensions



※3 : Limit Switch (Standard) AC/DC10 ~ 115 V (OMRON WLD2-LD)

MODEL	A1-H	A2-N	B	C	D	E	F	G	H	I	J	K1	K2	M	N1	N2	N3	P	Q	R1	R2	R3	S	T	U	V	W	Y	Z
TNA 4	13.90	11.42	4.33	3.54	3.23	1.34	3.15	0.87	5.91	1.97	4.33	5.12	3.15	0.67	0.98	1.20	0	0.98	0.71	0.79	0.79	-	0.63	M10	0.43	0.79	0.83	0.02	0.12
TNA 6	15.63	13.94	5.31	4.13	3.74	1.77	3.78	1.10	7.09	2.36	5.71	6.30	4.13	0.63	1.14	1.54	0.28	1.18	0.71	0.98	1.57	-	0.51	M10	0.43	0.79	1.02	0.04	0.12
TNA 10	18.31	16.22	6.22	5.31	4.72	1.69	4.65	1.34	8.86	2.95	7.01	7.87	4.33	0.79	1.22	1.85	0.71	1.57	0.75	0.79	1.97	-	0.51	M12	0.55	1.18	1.08	0.04	0.14
TNA 16	22.24	19.29	7.48	6.30	5.31	2.36	5.51	1.65	10.24	3.46	8.46	9.25	4.72	0.98	1.57	2.40	0.98	1.97	0.98	1.18	0.79	1.97	0.87	M12	0.55	1.38	1.08	0.04	0.14

Specifications are subject to change without prior notice.

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CERTIFICATE OF APPROVAL ISO9001