



### Pascal Die Clamp TXA

Cylinder type



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 : 24.5 MPa.
- Weight varies according to the dies 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.

### Pascal Die Clamp TXC

TXA + Automatic slidable type



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			
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 : 24.5 MPa.
- 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 and on d, j, and h dimensions.
- In case dimension is over Max. h+d
- Stop the press during the clamp wait.

## Pascal Die Clamp TXE

TXA + Automatic slidable type which utilizes the entire lower surface



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 : 24.5 MPa. • 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 and on d, j, and h dimensions.
- In case dimension is over Max. h+d • Stop the press during the clamp wait.

## Pascal Die Clamp TYA

Lever type



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 : 24.5 MPa.
- Weight varies according to the 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 dimension with the tolerance shown in the above table. For existing machine, specify tolerance of 0.1mm unit and on d, j, and h dimensions.
- In case dimension is over Max. h+d • Stop the press during the clamp wait.

## Pascal Die Clamp TYC

TYA + Automatic slidable type



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 : 24.5 MPa. • Weight varies according to the 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 dimension with the tolerance shown in the above table. For existing machine, specify tolerance of 0.1mm unit and on d and h dimensions.
- In case dimension is over Max. h
- In case dimension is less than Min. h • Stop the press during the clamp wait.

## Pascal Die Clamp TGC

Twist clamp



Model		TGC060	TGC100	TGC160	
Clamping force (at 18 Mpa hyd. Pressure)		kN	61	99	164
Hydraulic portion	Max. operating pressure	MPa	18		
	Proof pressure	MPa	27		
	Overall stroke	mm	8.5		
	Clamp stroke	mm	4		
	Safety stroke	mm	4.5		
	Cylinder capacity (at fully stroked)	cm <sup>3</sup>	35	55	90
Pneumatic portion	Operating pressure range	MPa	0.4 ~ 0.7		
	Proof pressure	MPa	1		
	Turning angle	°	90 ± 3		
Operating temperature		°C	0 ~ 60		
Mounting screw tightening torque (Strenght class 12.9) N-m		(M8 P: thru hole Q: thread) 28	(M10 P: thru hole Q: thread) 55		
		(M12 P: thru hole Q: thread) 78	(M14 P: thru hole Q: thread) 132	(M16 P: thru hole Q: thread) 210	

- The clamp rod raise/lower stroke is determined according to the die plate thickness
- Applicable hydraulic fluid: Mineral oil (ISO-VG32 equivalent), Water glycol

## Pascal Die Clamp TNA

Air driven swing rod clamp



Model	Pull-up force ※1 kN		Holding force ※1 kN			Clamp rod break force kN	Clamp stroke mm	Safety stroke mm	Swing angle ※2 (standard)	Air pressure MPa		Ambient temperature °C
	Air 0.5 MPa	Air 0.5 MPa	Air 0.5 MPa	Air 0 MPa	Rated					Max.		
TNA040A/TNA040B	19.6	39.2	10.7	-	58.8	3.0	0.5	20°	0.49	0.68	0 ~ 70	
TNA040C/TNA040D	14.7	28.4	-	-								
TNA063A/TNA063B	30.4	68.6	19.6	-	98.0	3.0	1.0					
TNA063C/TNA063D	21.5	49.0	-	-								
TNA100A/TNA100B	49.0	107.8	29.4	-	147.0	3.5	1.0					
TNA100C/TNA100D	34.3	78.4	-	-								

※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.