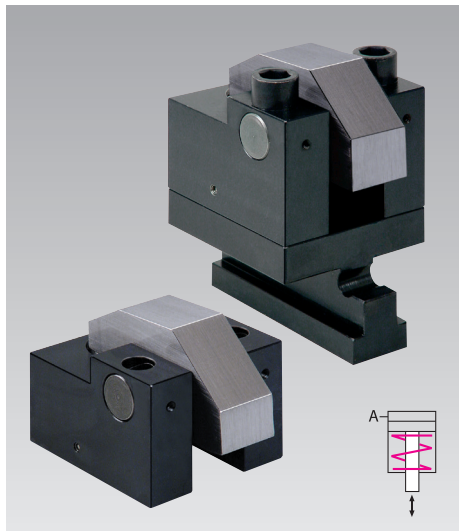




Angular Clamps, Hydraulic

single acting, with spring return

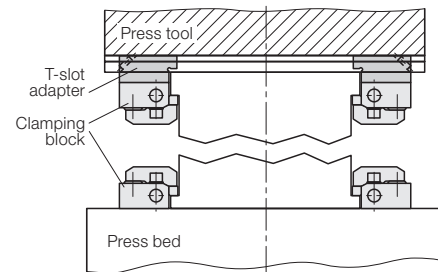
max. operating pressure 400 bar, clamping force from 40 to 110 kN



Advantages

- Optimum force transmission
- Compact design
- Easy mounting
- Suitable for minimum clamping edges
- T-slot 18, 22, 28 and 36 mm are available
- Total stroke 5.5 – 6 mm
- Die standardisation with regard to the width and depth is not required
- Easy to retrofit

Installation option



Application

Angular clamps are used for clamping and locking on machines and plants, on press bed and ram.

Due to the manageable and rounded design, angular clamps are especially suitable where space is limited and with small clamping edges. The use is possible at ambient temperatures up to a maximum of 120 °C.

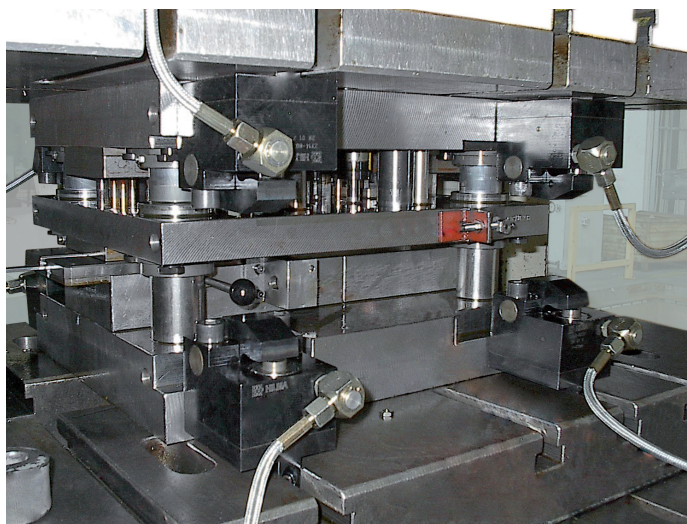
Description

The angular clamp is manually placed in the T-slots provided in press ram or bed.

Clamping on the die clamping edge by the application of hydraulic pressure to the piston and unclamping by spring force.

The clamping block can also be directly screwed without T-slot adapter and can be ordered separately.

Application examples

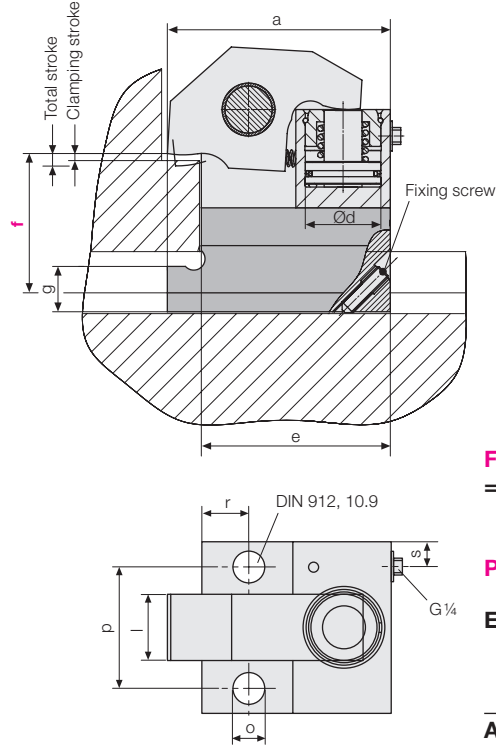


Angular clamp with T-slot adaptor in a high-speed punching press, the clamping force per clamping point is 66 kN

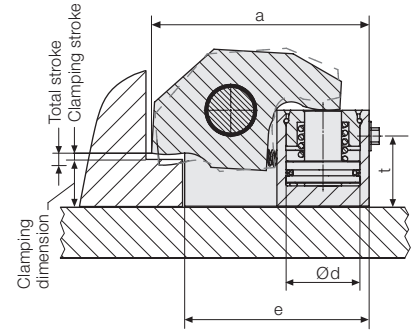
Technical data Dimensions

Angular clamp, hydraulic

Angular clamp complete, with T-slot adapter



Clamping block separate, without T-slot adapter



T-slot dimensions as per DIN 650.
See also product group 1
"General Information", page 5

Functional dimension "f":

= clamping stroke
+ die clamping edge
+ web height of T-slot

Please specify when ordering

Example of ordering

8 2314 2211 / F110

Angular clamp

Clamping force: 66 kN

T-slot

22 mm

Functional dimension "f" [mm]

Please specify when ordering

T-slot as per DIN 650	[mm]	18	22	22	28	28	36
Clamping force at 400 bar	[kN]	40	40	66	66	110	110
Clamping force at 100 bar	[kN]	10	10	16.5	16.5	27.5	27.5
Total stroke	[mm]	5.5	5.5	6	6	6	6
Clamping stroke	[mm]	2.5	2.5	3	3	3	3
Clamping dimension	[mm]	±1	±1	±1.5	±1.5	±1.5	±1.5
Oil volume	[cm ³]	6.5	6.5	10	10	16	16
Dimension "f" min.	[mm]	61	66	76	83	97	107
Dimension "f" max.	[mm]	90	95	96	103	157	167
a	[mm]	101	101	118	118	147	147
b	[mm]	75	75	90	90	120	120
c max. (at "f" min.)	[mm]	93	93	106	106	133	133
c1	[mm]	80	80	88	88	108	108
c2	[mm]	62.5	62.5	67.5	67.5	85.0	85.0
d	[mm]	32	32	40	40	50	50
e	[mm]	85	85	100	100	125	125
g	[mm]	24	32	32	42	41	53
h	[mm]	25	30	30	37	37	47
i	[mm]	10	14	14	18	18	23
k	[mm]	18	22	22	28	28	36
l	[mm]	25	25	35	35	55	55
m	[mm]	28	35	35	44	44	54
o	[mm]	12.5	12.5	16.5	16.5	22.0	22.0
p	[mm]	50	50	64	64	90	90
r	[mm]	20	20	25	25	30	30
s	[mm]	13	13	13	13	20	20
t	[mm]	32	32	38	38	45	45

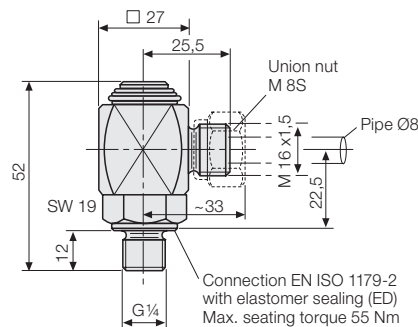
Clamping block with T-slot adapter	Part no.	823121802	823122202	823142211	823142811	823152811	823153611
Weight	[kg]	4.0	4.4	6.7	7.4	14.2	15.5
Clamping block, separate	Part no.	823120101	823120101	823140501	823140501	823150501	823150501
Clamping dimension	[mm]	20.5 ±1	20.5 ±1	25 ±1.5	25 ±1.5	32 ±1.5	32 ±1.5
Weight	[kg]	2.6	2.6	4.0	4.0	8.6	8.6
Clamping block, separate with position monitoring	Part no.	823120104		823140504			

Please consult us if aggressive spray is used. Max. operating pressure 400 bar, max. operating temperature 120 °C.
Further sizes and special versions are available on request.

Angular rotary coupling (M 8S / G 1/4)

Part no. 9208176

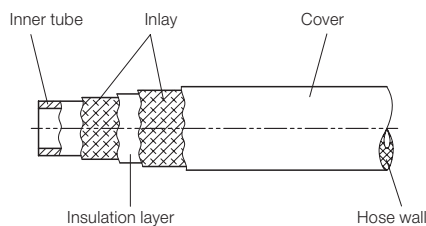
For easier handling when changing dies.
Max. operating pressure 400 bar



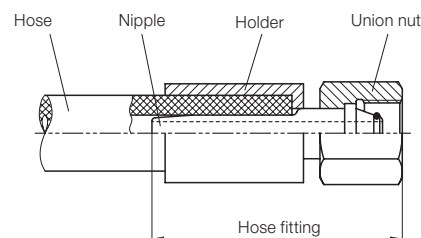
Hydraulic high-pressure hoses assembled ready for connection
max. operating pressure 250 / 500 bar

High-pressure hoses are used for energy and signal transmission in hydraulic systems. The hose lengths should be generously dimensioned to avoid kinks, abrasion marks, torsion, tensile and compressive stress and unacceptable bending radii.

Hose structure



Hose union

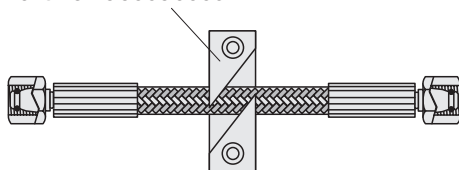


High-pressure hose	ND	4	4	6.3	6
Max. operating pressure [bar]		250	500	250	500
Port size		8L	8S	8L	8S
Union nut		m8L (M 14 x 1.5)	m8S (M 16 x 1.5)	m8L (M 14 x 1.5)	m8S (M 16 x 1.5)
SW [mm]		17	19	17	19
Preferred lengths	L =				
	500 [mm]	93751 00500	93752 00500	93206 00500	93706 00500
	1000 [mm]	93751 01000	93752 01000	93206 01000	93706 01000
	1600 [mm]	93751 01600	93752 01600	93206 01600	93706 01600
	2500 [mm]	93751 02500	93752 02500	93206 02500	93706 02500

Other hose connections left / right on request. For further information and technical data, see data sheet WZ 11.3800

Accessory

Hose holder made from Delrin
Part no. 550650003



Other accessories

Hydraulic power units
see product group 7

Hydraulic accessories
see product group 11