

Hydraulic Block Clamp Unit

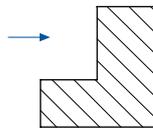
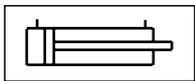
HBS

Application area

- For medium and large presses
- For clamping moving bolsters as well as upper and lower dies
- For dies with straight clamping edges
- Fixed installation to the sides of the press columns, on the press bed or slide



Mode of operation



- A double-acting hydraulic cylinder pushes a wedge onto the clamping edge of the die.
- The clamping force is generated by the angle of the wedge.
- The clamp unit is unclamped by reversing this sequence.

Description

The hydraulically driven wedge clamp unit generates the required clamping force by means of the wedge mechanism. In order to secure the clamping force, hydraulic pressure must be maintained (with pilot-controlled check valves, optional). Pressure sensing by the pressure switch on the hydraulic power pack is required.

In its park position, the clamping wedge is fully retracted into the housing and therefore protected against damage. To ensure that the clamping wedge remains in the park position during die change, the operating pressure must be maintained or a pilot-controlled check valve must be integrated into the unclamping line. Park and clamping positions can be monitored by limit switches (optional).

Advantages

- Low space requirements due to compact dimensions
- Large clamping dimension tolerance
- Minimal installation investment
- Central operation
- Continuous clamping force monitoring possible (pressure sensing)
- Monitoring of clamping and unclamping positions possible (optional)
- High mechanical load capacity

Accessories

- Pilot-controlled check valves
- Flow-control valves
- Fittings
- Hydraulic hoses / Hydraulic accessories
- Hydraulic power packs

Technical data



Type	HBS 100
Clamping force [kN]	100
Max. loading force [kN] ¹⁾	150
Max. operating pressure [bar]	60
Operating pressure: Unclamp [bar]	120
Clamping dimension tolerance [mm]	+/- 0,5
Stroke [mm]	33
Oil volume: Clamp / unclamp [cm ³]	200 / 176
Max. oil volume flow [l/min] ²⁾	10-12
Limit switch: Number / type (optional)	• two inductive proximity switches
Supply voltage	• 10-30 V DC
Connection type	• Plug-in type (M8 x 1)
Designation	• Clamping wedge in park position S1
	• Clamping wedge in clamping position S2
Max. operating temperature [°C]	70
Weight [kg]	30

1) Mechanical damage may occur at higher loads.

2) If a pump with a greater output is used, the oil flow must be reduced by means of flow control valves or one-way restrictors.

Fixing is achieved with four screws, DIN EN ISO 4762, strength class 10.9 (not included).

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HBS

Hydraulic connection G1/4 "CLAMP"

Hydraulic connection G1/4 "UNCLAMP"

Electrical Monitoring S1 S2 (optional)

stroke

H

max. 3

$L_{SP}^{+0.5}$

X_L

E

X_S

C

B

$\varnothing J$

R

A

M

Connection fitted on the right hand side (R)

$\varnothing F$

Connection fitted on the left hand side (L) (optional)

O

$\varnothing N$

$Q_{-0.1}^{+0.1}$

Lubrication nipple DIN 71412

clamp

unclamp

Additional clamp units

Additional clamp circuits

P

R

S1 S2

HBS 100 - R - E

Type _____

Position of connections _____

Electrical Monitoring (optional) _____

L_{SP} = Nominal clamping dimension [mm]
(Custom designs available on request)

Type	stroke	A	B	C	E	F	H	$\varnothing J$	$\varnothing K$	$\varnothing M$	$\varnothing N$	O	Q	R	X_L	X_S	L_{SP}
HBS 100	32	139	155	253	146	135	157	33	21	45	90	35	120	21	144	231	60