

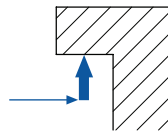
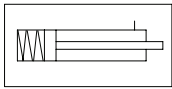
# Flexible Clamp System

## EVK with ZSF

### Application area

- For medium and large presses
- For various die dimensions
- For clamping upper dies
- For dies with U-recesses and standardised clamping dimensions
- Suitable for retrofitting

### Mode of operation



- The electric positioning unit moves the spring clamp unit along the T-slot.
- A single-acting spring clamp cylinder generates the clamping force.
- Unclamping of the spring clamp units is effected hydraulically.

### Description

The electric positioning unit moves the spring clamp unit by means of a chain. For clamping, the clamp unit is depressurized so that the springs generate the clamping force. Hydraulic pressure is required for unclamping respectively positioning of the clamp units.

Therefore, pressure control by means of a pressure switch on the hydraulic power pack is necessary. The electric positioning units may be switched off individually by the machine control so that these clamp units remain in their park position, where they are clamped.



### Advantages

- Clamping of different die sizes
- Short clamping time
- Clamping force is generated mechanically by springs
- Displacement path up to 1000 mm available
- All important functions electrically monitored
- High automation level
- Central operation

### Accessories

- Fittings
- Hydraulic hoses / hydraulic accessories
- Hydraulic power packs
- Limit switches / cable
- Plug connectors



Fixing is achieved with four hexagon head screws with flange (DIN 6921), M10x30, strength class 8.8 and two spring dowelpins (DIN 1481) Ø8x20 (not included).

1) Mechanical damage may occur at higher load.

### Technical Data

Positioning Unit	EVK		
Motor: Type	DC	alternatively	three-phase
Supply voltage	24V DC		400V 50 HZ
Motor power [W]	8		90
Positioning speed [mm/s]	150		145
Limit switches: Type	• Inductive proximity switches		
Switch voltage	• PNP normally open; 10-30V DC		
Designation	• Clamp unit in park position S1		
	• Clamp unit at the die S2		
	• End of displacement path (optional) S5		
Plug connector	Han* 25 D		
	Han* 6E (additionally for three-phase drive)		
Clamp Unit	ZSF 100		
Clamping force [kN]	100		
Max. loading force [kN] <sup>1)</sup>	125		
Clamping dimension tolerance [mm]	+/- 0,5		
Stroke [mm]	5		
Unclamp pressure / max. unclamp pressure [bar]	300 / 320		
Oil volume: Unclamp [cm <sup>3</sup> ]	20		
Max. operating temperature [°C]	70		
Weight [kg]	26		

# Flexible Clamp System

## EVK with ZSF

Technical drawing showing dimensions and components of the EVK with ZSF clamp system. Key dimensions include 181, 69,5, H/2+300, L=500, 12, H, 10, stroke=5, 3, 0,5, 0,5, 140, 200, 4x Ø0,1, 50, 10, M, N, O, 28, 44, 18, 62,5, 32, 50, 20, 64,5, 36, 36, 54, 22, 66,5. Components include Housings (not included), Steckverbindung 6-polig, Stift, Plug connector 25-poles, male, 24V DC, 400V 50Hz, Hydraulic connection "UNCLAMP" G1/4, S1, S2, slide, unclamp, and Additional clamp units and clamping circuits.

Graph showing Force  $F_{sp}$  [kN] vs Displacement  $L_{sp}$  [mm]. The graph shows a linear relationship between force and displacement. The y-axis ranges from 50 to 150 kN, and the x-axis ranges from -1 to +3 mm. Key points on the graph are 84 kN at 0 mm, 110 kN at 1 mm, 144 kN at 2 mm, and 150 kN at 3 mm. Corresponding pressure values are 198 bar at 0 mm, 240 bar at 1 mm, 282 bar at 2 mm, and 300 bar at 3 mm.

**Example order** EVK - 400V 50 Hz - 700 - S5 - ZSF100 - 28 - 75

Positioning unit \_\_\_\_\_  
 Supply voltage \_\_\_\_\_  
 Displacement path (H) \_\_\_\_\_  
 Limit switch (optional) \_\_\_\_\_  
 Clamp Unit \_\_\_\_\_  
 T-slot \_\_\_\_\_  
 Clamping dimension  $L_{sp}$  \_\_\_\_\_

T-Slot	M	N	O	$Y_L$
28	28	44	18	62,5
32	32	50	20	64,5
36	36	54	22	66,5

(Custom designs available on request)