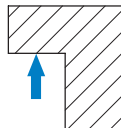
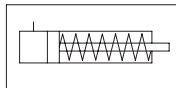


Application area

- For small to medium presses
- For various die sizes and clamping dimensions
- For clamping upper and lower dies
- For dies with U-recess
- Especially recommendable for retrofitting

Mode of operation



- The piston of the hydraulic T-bolt clamp is connected to the T-bolt via a screw thread, by means of which the die is clamped against the machine's clamping surface.
- The required clamping force is created by a single-acting hydraulic cylinder.
- The T-bolt clamp is pushed either manually or with one of the automatic positioning units EVK or EVS (see chapter of flexible clamp units) into the U-recess of the die and the T-slot on the machine underneath it.

Description

The hydraulically driven clamping cylinder of the clamp unit generates the required clamping force directly. In order to secure the clamping force, hydraulic pressure must be maintained (e.g. with pilot-controlled valves).

Pressure sensing by the pressure switch on the hydraulic power pack is required.

The continuous variation in length of the T-bolt enables an infinitely variable adaptation to various clamping dimensions and makes a standardisation of dies / adapter plates largely redundant.

The clamp unit can be operated centrally via the machine control system or by means of a separate hydraulic power pack with integrated control.



Advantages

- T-bolt is secured against unclamping
- Large clamping dimension tolerance
- Easy installation
- Central operation
- Continuous clamping force monitoring by pressure sensing
- Maintenance free
- Corrosion protected
- Simple operation
- Especially designed for retrofitting

Accessories

- Check valves
- Park stations
- Hydraulic connections
- Hydraulic hoses / Hydraulic accessories
- Hydraulic power packs



Technical data

Type	HKZ 40	HKZ 65	HKZ 104
Clamping force [kN] / at operating pressure [bar]	40 / 400	65 / 400	104 / 400
Max. loading force [kN] ¹⁾	50	80	130
Max. operating pressure [bar]	400		
Clamping dimension tolerance [mm]	+/- 4		
Stroke [mm]	12		
Oil volumes: Clamp [cm ³]	12	20	31
Max. operating temperature [°C]	135		
Weight without / with spherical washer [kg]	2.3 / 2.4	2.7 / 2.9	3.7 / 4.0

¹⁾ Mechanical damage may occur at higher loads.

The drawing shows a cross-section of the clamp assembly. Key dimensions include: $\varnothing D$ (outer diameter), G (thread diameter), B (thread length), A (total height), C (T-bolt length), X (height of spherical washer), 5 (washer thickness), $\varnothing E$ and $\varnothing F$ (T-slot diameters), L_{SP} (nominal clamping dimension), O (height of T-slot shoulder), M (T-slot width), and N (T-bolt width). The drawing also indicates a 'stroke' and 'clamping edge' with tolerance S . A note mentions a 'Spherical washer for adjusting to unparallel clamping surfaces up to 2°'. The hydraulic circuit diagram shows a pump (P), valve (V), and a clamp actuator connected to a tank (T). It also shows 'Additional clamp units' and 'Additional clamping circuits'.

HKZ-K **HKZ**

Spherical washer for adjusting to unparallel clamping surfaces up to 2°

stroke

Additional clamp units

Additional clamping circuits

T-slot DIN 650

T-bolt DIN 787

Other bolt lengths can be found in the "accessories" chapter. The T-bolt (dimension "C") can be shortened on request.

Note: Please indicate the dimensions of the T-slots which exist on the press bed and slide as the usual tolerance range of the T-slot shoulder height according to DIN 650 is too large. (Please see information sheet)

L_{SP} = Nominal clamping dimension [mm]
S = Clamping dimension tolerance [mm]

Example order

HKZ 65 (-K) 22 - 76

Type _____

Spherical washer (optional)

T-slot size according to DIN 650 _____

L_{SP} _____

(Custom designs available on request)

Technical specifications are subject to change without notice!

Type	T-slot M	stroke	S	A	B	C	$\varnothing D$	$\varnothing E$	$\varnothing F$	G	N	O	X	L_{sp}	
														min	max
HKZ 40	18	12	4	80	16	160	70	68	70	M 16	28	10	15	30	62
HKZ 65	18	12	4	90	16	160	80	68	73.5	M 16	28	10	21	25	52
	22				M 20					35				14	40
HKZ 104	28	12	4	100	24	250	90	78	85	M 24	44	18	24	50	124
	36				M 30					54				22	50