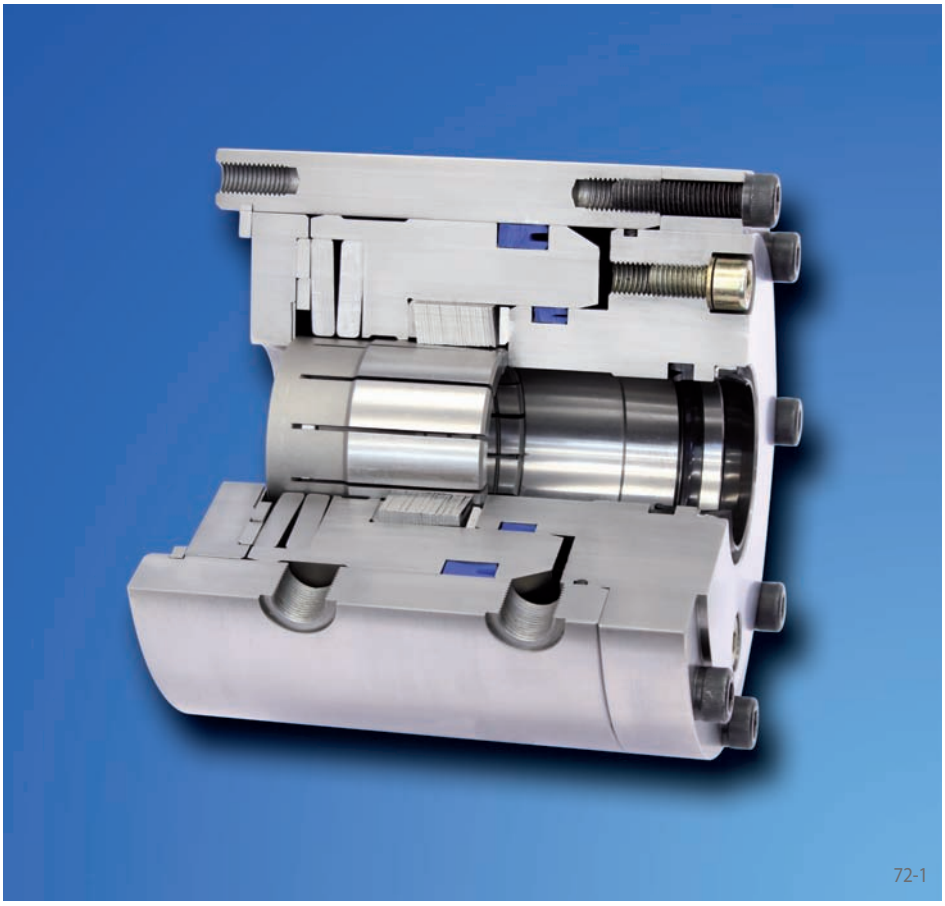
Clamping Unit KEFH

spring activated – hydraulically released



Features

- For continuous piston rod clamping
- Spring activated, hydraulically released
- Holding forces transmissible in both directions of movement
- No application of force (lifting) to the piston rod required for release

Description

The Clamping Unit KEFH clamps and holds hydraulic cylinder drawbars with a calculated clamping force in both directions of movement.

The clamping force is generated via built-in disc springs. The Clamping Unit is released by hydraulic pressure.

The units are fitted to cylinders and other machine parts with a connecting flange by the customer.

Operation

During the working stroke of the hydraulic cylinder, pressure is exerted onto the Clamping Unit. Through this pressure the disc springs are compressed via the piston. In this position, the clamping discs are free of axial tension and thus allow the piston rod to move freely.

When the pressure on the Clamping Unit is removed, the force of the springs works fully onto the piston and therefore also on to the disc pack. The clamping discs translate the axial spring pressure into a radial force applied to the slotted clamping sleeve that is equal to at least five times the axial pressure. The clamping sleeve transmits the radial clamping forces to the piston rod, thereby holding the piston rod firmly in place.

Each time the pressure falls – even when this was not planned – the Clamping Unit can be relied upon to respond immediately.

Application

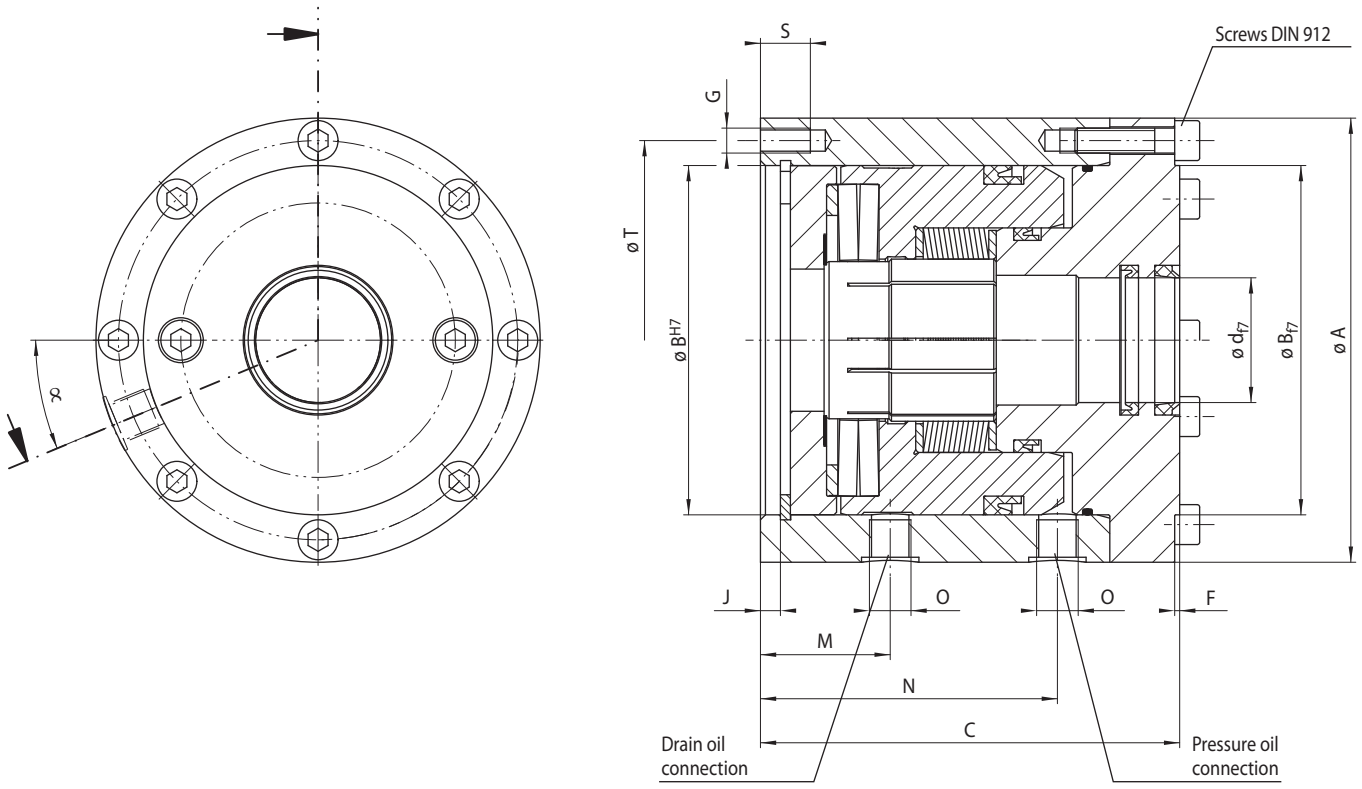
The Clamping Unit secures the piston rod with precision against unintentional axial movements.

For example, on machines with cylinders or linear motors a certain position can be driven in one continuous movement. With the Clamping Unit this position can then be held accurately mechanically.

The accuracy of the safety Clamping Unit is independent of the size and the direction of the force on the piston rod up to the maximum holding force indicated. No movement of the piston rod is required for the holding force to become effective; on the contrary, the clamping force is effective immediately and does not depend on outside forces. If it is necessary to brake the movement of the piston rod, the Clamping Unit would, when pressure falls, produce virtually without delay a constant friction force independent of time. The slowing down of the piston rod is therefore even and protects the slowed-down components of the installation.

Clamping Unit KEFH

spring activated – hydraulically released



73-1

Piston rod- ø d[1] mm	Article number	Holding force FH[2] N	A mm	B mm	C mm	F mm	G	J mm	M mm	N mm	O	S mm	T mm	X[3]	Necess. release press. bar	Max. perm. press. bar	Oil vol. per stroke cm³	α Degree
12	4133.032.900	2500	72	48	76	2	M 5	5	26	54	R1/8″	9	60	4	57	120	1	22,5
14	4133.037.902																	
16	4133.037.900	5000	85	60	88	2	M 6	6	31	64	R1/8″	11	72	4	68	120	2	22,5
18	4133.037.901																	
20	4133.042.900	8000	100	68	100	2	M 6	6	34	72	R1/8″	11	85	4	82	120	2	22,5
22	4133.042.901																	
25	4133.047.900	12500	110	80	115	2	M 6	7	42	85	R1/8″	15	92	6	84	120	3	22,5
28	4133.047.901																	
(30)	4133.057.900																	
32	4133.057.901	19000	130	95	130	2	M 8	7	48	96	R1/4″	16	112	6	88	120	5	22,5
34	4133.057.902																	
36	4133.070.902																	
40	4133.070.900	30000	150	116	148	3	M 8	4	52	108	R1/4″	16	132	8	102	120	6	22,5
45	4133.070.903																	
50	4133.090.900																	
(55)	4133.090.901	48000	178	140	168	3	M 10	8	52	119	R3/8″	20	160	8	108	160	13	22,5
56	4133.090.902																	
60	4133.105.900																	
63	4133.105.901	68000	210	168	185	3	M 12	10	60	133	R3/8″	22	190	8	122	160	17	22,5
70	4133.105.902																	
80	4133.140.900																	
(85)	4133.140.901	120000	273	220	230	3	M 14	12	75	172	R3/8″	25	250	12	115	160	39	15
90	4133.140.902																	
100	4133.160.900																	
110	4133.160.901	200000	330	270	270	5	M 18	16	90	200	R3/8″	38	300	12	110	160	64	15
(115)	4133.160.902																	

[1] Diameter printed in bold to be preferred. Diameter line without ( ) corresponds to DIN 24334.
[2] Please note recommendations on page 79.
[3] Number of tapped holes G and srews DIN 912 on pitch øT.