

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 work 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 will respond immediately.

Application

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

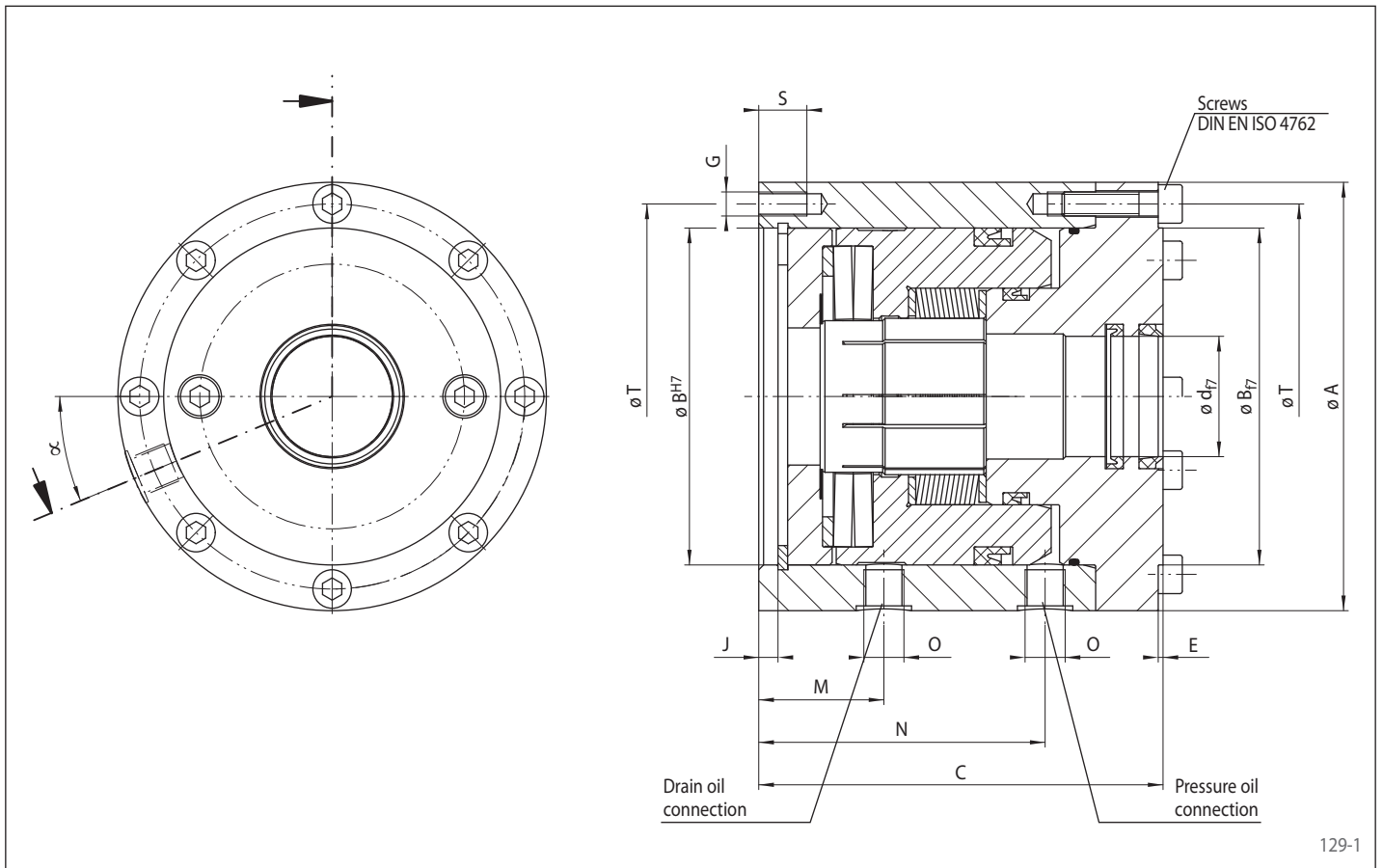
For example, on machines with cylinders or linear motors a certain position can be driven in one continuous movement. With the Clamping Unit this position can then be held mechanically with accuracy.

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; the clamping force is effective immediately and does not depend on outside forces. If it is necessary to brake the mo-

vement 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 decelerated components of the installation.

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Piston rod- ø d ¹⁾	Holding force F _H ²⁾	A	B	C	E	G	J	M	N	O	S	T	X ³⁾	Necess. release press.	Max. perm. press.	Oil vol. per stroke	α	Weight	Article number
mm	N	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	bar	bar	cm ³	Degree	kg	
12	2500	72	48	76	2	M 5	5	26	54	R1/8"	9	60	4	57	120	1	22,5	2,1	4133-032900
14	5000	85	60	88	2	M 6	6	31	64	R1/8"	11	72	4	68	120	2	22,5	3,4	4133-037902
18																			4133-037900
20	8000	100	68	100	2	M 6	6	34	72	R1/8"	11	85	4	82	120	2	22,5	5,3	4133-037901
22																			4133-042900
25	12500	110	80	115	2	M 6	7	42	85	R1/8"	15	92	6	84	120	3	22,5	7,3	4133-042901
28																			4133-047900
(30)	19000	130	95	130	2	M 8	7	48	96	R1/4"	16	112	6	88	120	5	22,5	11,5	4133-047901
32																			4133-057900
34																			4133-057901
36	30000	150	116	148	3	M 8	4	52	108	R1/4"	16	132	8	102	120	6	22,5	17,2	4133-070902
40																			4133-070900
45	48000	178	140	168	3	M 10	8	52	119	R3/8"	20	160	8	108	160	13	22,5	27,2	4133-070903
50																			4133-090900
(55)																			4133-090901
56	68000	210	168	185	3	M 12	10	60	133	R3/8"	22	190	8	122	160	17	22,5	41,2	4133-090902
60																			4133-105900
63	120000	273	220	230	3	M 14	12	75	172	R3/8"	25	250	12	115	160	39	15	86,9	4133-105901
70																			4133-105902
80	200000	330	270	270	5	M 18	16	90	200	R3/8"	38	300	12	110	160	64	15	148,2	4133-140900
(85)																			4133-140901
90	110	330	270	270	5	M 18	16	90	200	R3/8"	38	300	12	110	160	64	15	148,2	4133-140902
100																			4133-160900
110	200000	330	270	270	5	M 18	16	90	200	R3/8"	38	300	12	110	160	64	15	148,2	4133-160901
(115)																			4133-160902

¹⁾ Diameter printed in bold to be preferred. Diameter line without () corresponds to DIN 24334.

²⁾ Please note recommendations on page 132.

³⁾ Number of tapped holes G or screws DIN EN ISO 4762 on pitch øT.