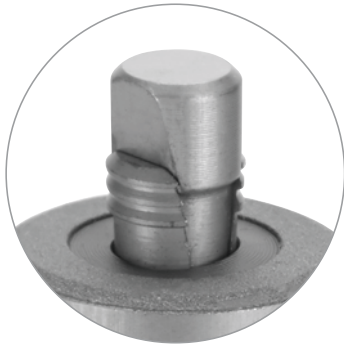


No. 6970CD

Bore clamp MINI, hydraulic, centric

Double-acting,
max. operating pressure, see table,
min. operating pressure 40 bar,
lateral compensation per clamp ± 0.2 mm.



Order no.	Article no.	Clamping force vertical at 100 bar [kN]	Clamping force vertical at 150 bar [kN]	Clamping rim height min. for Al-alloy [mm]	dia. K	L	Md [Nm]	max. operating pressure [bar]	Weight [g]
556561	6970CD-055	2,76	-	5	5,2 - 5,9	8,5	3,7	100	273
556562	6970CD-06	2,76	4,1	5	6,0 - 6,7	8,5	3,7	150	274
556563	6970CD-065	2,76	4,1	5	6,6 - 7,2	8,5	3,7	150	274
556564	6970CD-07	2,76	4,1	5	7,0 - 7,7	8,5	3,7	150	275

Design:

The actuating piston is double-acting. Body, clamping segments and tension bolts are made of nitrided tempered steel. Two-part clamping segments are externally interlocked. Four fastening screws are supplied as standard. Oil supply via oil channel in fixture body.

Application:

The hydraulic bore clamp is preferred for use on workpieces with complex external geometries that must be clamped for machining. After the clamping segments are applied to single-attachment clamping holes with low depth, a secure 5-sided processing can be performed without difficulty. Workpieces can be installed or removed automatically with handling devices.

Features:

Two clamping segments are spread in parallel, thus ensuring contact on the entire surface in every position of the tension bolt. This facilitates a high clamping power and ensures very low wear. Elastic rings hold the clamping segments together and seal them against entry of chips. Depending on the material, the external serration is pressed into the clamping hole with more or less force, thus permitting the required positive fit. The built-in plate springs achieve a max. pull-down stroke of approx. 0.2 mm during clamping. The integrated air connection L1 is used for cleaning the clamping area. This blow-off can also be used as a mount check for blind holes.

The integrated air connection is used for cleaning the clamping control. With a suction volume flow meter, the volume flow is measured in the unclamped and clamped state of the workpiece. The difference is used for clamping control. The max. operating pressure should not exceed 6 bar here.

The tension bolts are sword-shaped for better pre-positioning of the workpieces. The complete clamping-segment / tension bolt unit can be turned 90° so that an optimal force flow towards the workpiece centre can be set and locked. By setting the clamping elements, overloading of the clamping hole (spreading force) with low clamping rim is avoided. The drill clamp is also a contact surface for the workpiece. The workpiece contact surface is hard-metal coated ($\mu = 0.3$), which markedly increases the displacement force.

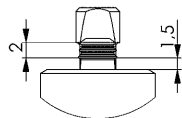
Note:

The lateral force when inserting the workpiece must not exceed the "lateral force" table value. The radial force must be observed.

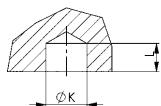
Please contact us if clamping hardened or cast workpieces.

On request:

Bore clamps for other hole diameters available upon request.



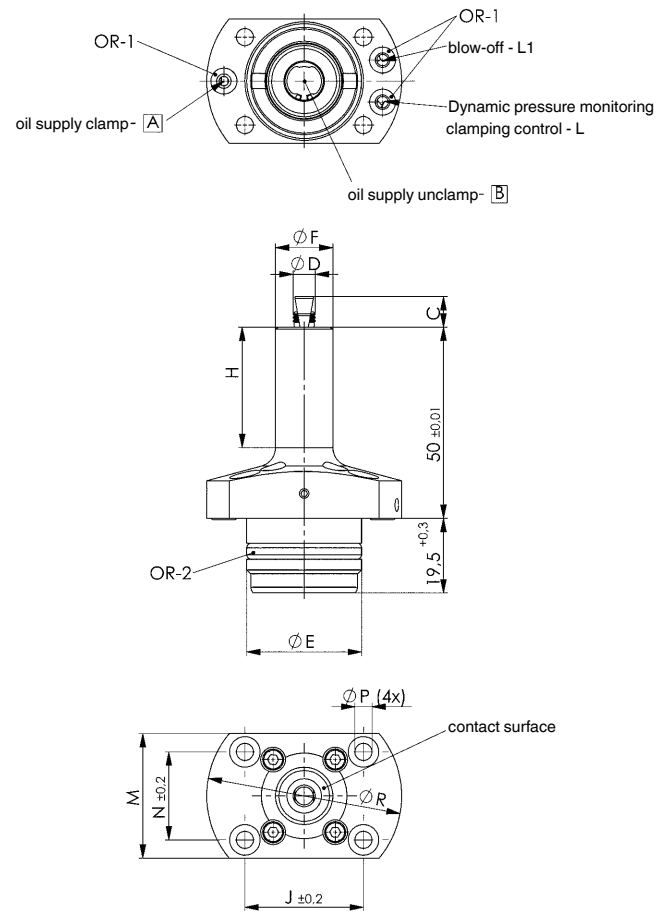
Clamping hole in workpiece:



CAD

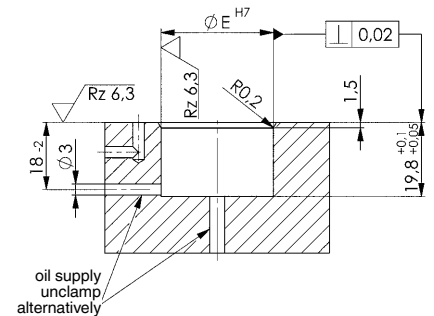


Subject to technical alterations.



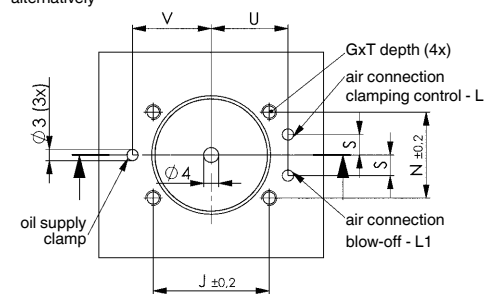
Dimensions:

Order no.	Article no.	Displacement force horizontal at 100 bar [kN]	Displacement force horizontal at 150 bar [kN]	Clamping sleeve radial force at 100 bar [kN]	Clamping sleeve radial force at 150 bar [kN]	Vol. Sp [cm ³]	Vol. Lo [cm ³]	C	dia. D	dia. E	dia. F	H	J	M	N	P	R	OR-1 O-ring Order No.	OR-2 O-ring Order No.
556561	6970CD-055	0,83	-	7,85	-	1,1	1,26	8	5,0	30	15	31,5	31	32,6	23	4,5	51	176164	490342
556562	6970CD-06	0,83	1,23	7,85	11,78	1,1	1,26	8	5,8	30	15	31,5	31	32,6	23	4,5	51	176164	490342
556563	6970CD-065	0,83	1,23	7,85	11,78	1,1	1,26	8	6,3	30	15	31,5	31	32,6	23	4,5	51	176164	490342
556564	6970CD-07	0,83	1,23	7,85	11,78	1,1	1,26	8	6,8	30	15	31,5	31	32,6	23	4,5	51	176164	490342



Installation dimensions:

Order no.	Article no.	ØE H7	G	S	T	U	V
556561	6970CD-055	30	M4	5,5	8	20,5	21
556562	6970CD-06	30	M4	5,5	8	20,5	21
556563	6970CD-065	30	M4	5,5	8	20,5	21
556564	6970CD-07	30	M4	5,5	8	20,5	21



Subject to technical alterations.