GERMA
HYDRAULIKZYLINDER

HOLLOW PISTON CYLINDER TYPE 82-50
SINGLE-ACTING

- **Piston diameter:** 25 mm – 80 mm
- **Stroke:** 8 mm – 16 mm
- **Seal variants:** NBR (80°C) and FKM (180°C)
- **Piston rod:** Through-bore with/without internal thread
- **Accessories:** Locknuts
- **Possible custom series:** Special housing, Special stroke lengths, Special pistons

TYPE 82-50

Operating pressure: max. 500bar
Lateral forces on the piston rod must be avoided

Our **hollow piston cylinders** are designed to meet the requirements of a wide range of applications and are used in **mechanical engineering**, **fixture construction**, **mold and tool making**, as well as plant **engineering**.
In single-acting hollow piston cylinders, the piston rod is extended hydraulically. The piston is returned to its original position in the depressurized state by spring force. The spring is sufficiently dimensioned for returning the piston; however, it cannot absorb any additional external forces.

Type 82-50 – Single-acting

The **Type 82-50 hollow piston cylinder** features a through-bore in the piston rod. Especially in combination with a tie rod, this enables a wide range of applications. The diameter of the through-bore in the piston is matched to the corresponding tie rod (strength class 8.8). The cylinder can be used as both a pushing and pulling cylinder. The pressure medium is supplied via a pipe thread connection according to DIN ISO 228-1.
If a piston rod with a metric ISO internal thread is required, a Heli-Coil insert with a length of 1.5 × d is screwed into the standard HC thread (see dimension “g”) prior to delivery (order index “1”).

Example:
HC M8 corresponds to M8×12 after installation of the thread insert.

PERFORMANCE FEATURES TYPE 82-50

- **High force output**
- **Very compact and space-saving design**
- **Internal thread in the piston rod possible by means of an HC insert**
- **Mounting via external thread using a locknut**
- **Application-specific sealing systems**
- **Roller-burnished cylinder bore**

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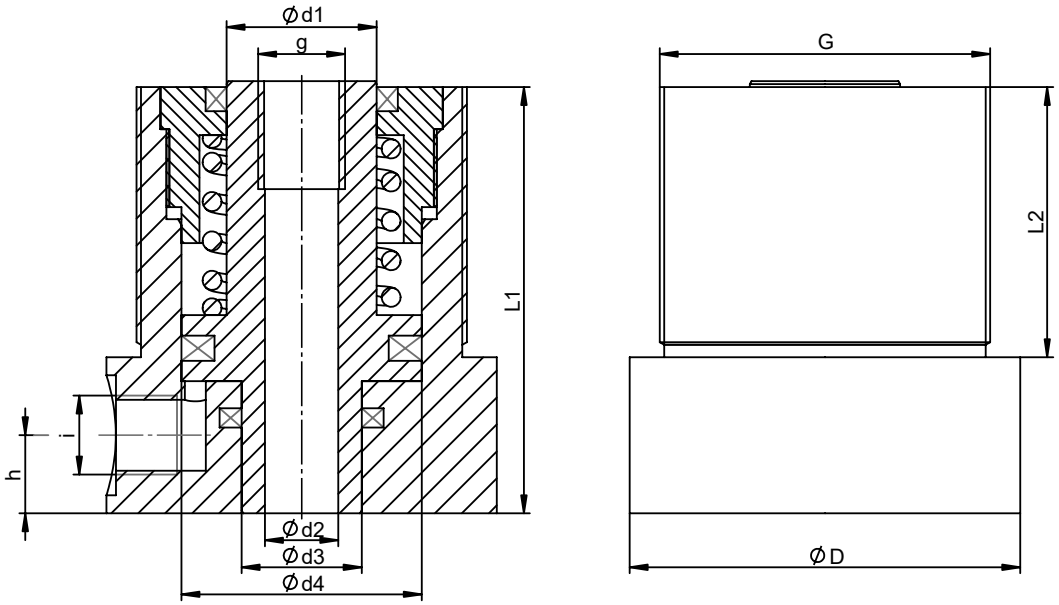
DIMENSION TABLE
AND ORDER NUMBER

TYPE 82-50



Basic designation		82-50-2	82-51-2	82-52-2	82-53-2	82-54-2	82-55-2
Stroke	(mm)	10	10	12	12	16	16
Compressive force per 100 bar	(kN)	3,68	5,93	9,30	14,50	22,70	37,19
Piston area (forward stroke)	(cm^2)	3,77	6,03	9,42	14,72	23,12	37,68
d1	(mm)	16	20	25	32	40	50
d2	(mm)	8,2	10,2	12,2	16,2	20,2	27,2
d3	(mm)	12	16	20	25	32	40
d4	(mm)	25	32	40	50	63	80
D	(mm)	50	55	65	70	80	100
g		HC M8	HC M10	HC M12	HC M16	HC M20	HC M27
G		M40x1,5	M45x1,5	M55x1,5	M65x1,5	M80x2	M100x2
h	(mm)	12	12	13	15	21	23
i		G1/4	G1/4	G1/4	G1/4	G1/4	G1/4
L1	(mm)	60	65	72	78	96	110
L2	(mm)	36	41	45	50	60	65

Order number without thread insert	82-50-2-0	82-51-2-0	82-52-2-0	82-53-2-0	82-54-2-0	82-55-2-0
Piston rod with HC thread **without** thread insert (dimension d2 is continuous)						

Order number with thread insert	82-50-2-1	82-51-2-1	82-52-2-1	82-53-2-1	82-54-2-1	82-55-2-1
Thread in the piston rod (dimension g)	M8	M10	M12	M16	M20	M27

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FURTHER VERSIONS
FKM SEALS

TYPE 82-50

FKM seals

All hollow piston cylinders can optionally be equipped with **FKM seals**. These increase the permissible operating temperature from 80°C to 180°C. For this version, the suffix „**-V**"* must be added to the order number.

Example: 82-52-2-0-V

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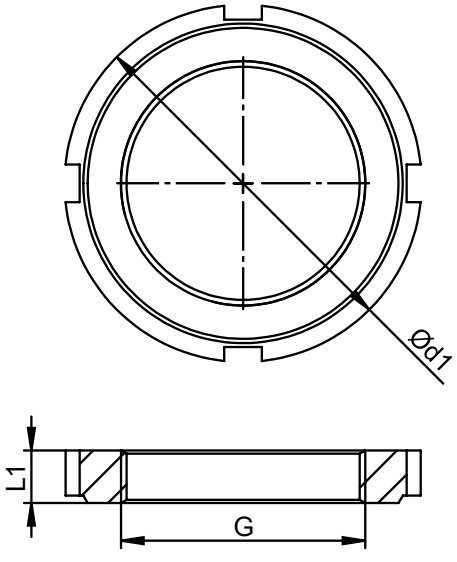
ACCESSORIES
Locknuts

TYPE 82-50



Locknuts

Locknuts are available for GERMA hollow piston cylinders, allowing the cylinder to be mounted and locked in position on the fine thread.

Order No.:	G	d1	L1
NM-40	M40x1,5	62	12
NM-45	M45x1,5	68	12
NM-55	M55x1,5	80	13
NM-65	M65x1,5	95	14
NM-80	M80x2	115	16
NM-100	M100x2	145	16

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