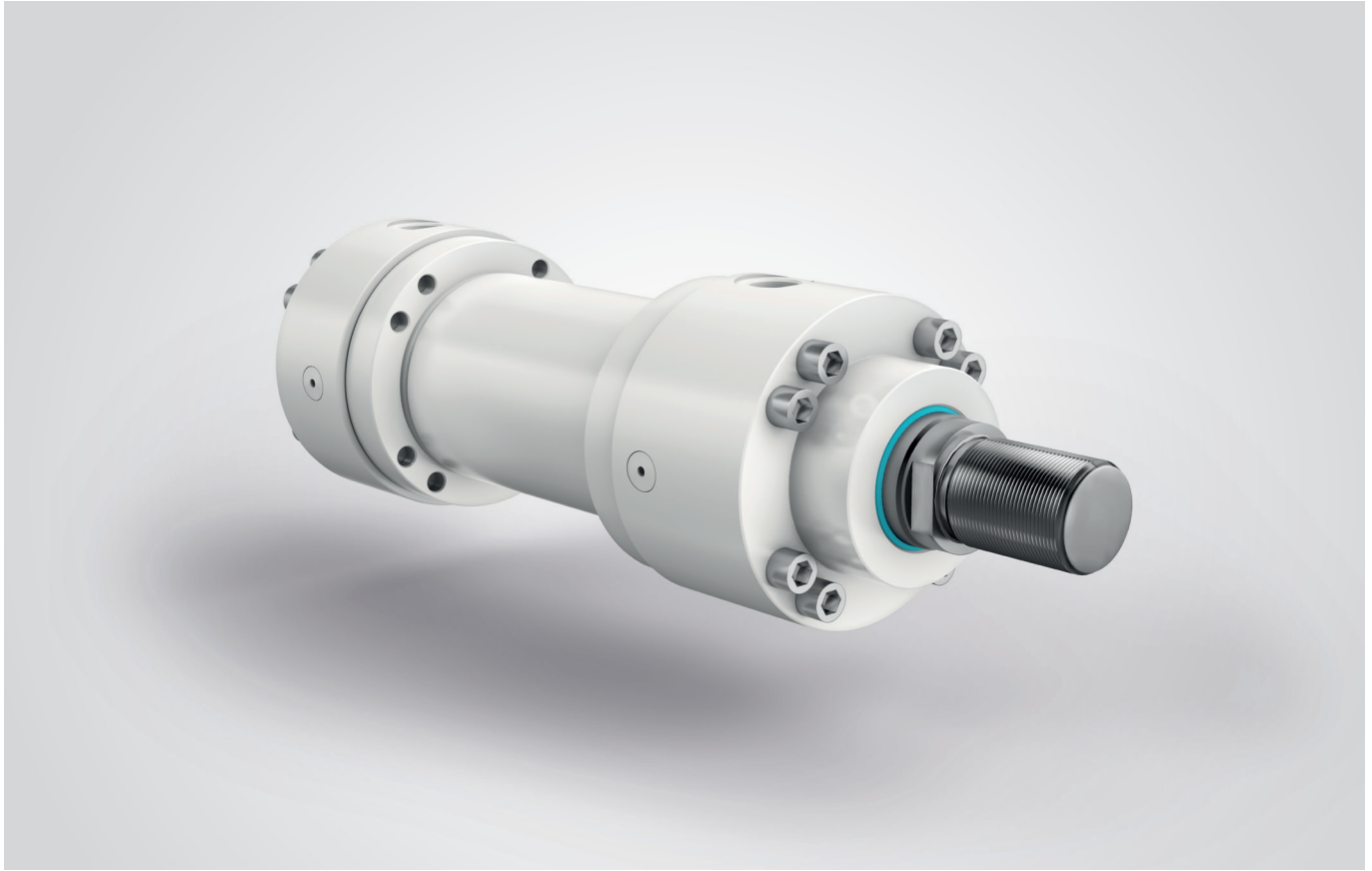


Short Description

Hydraulic cylinders according to ISO 6022



Hydraulic cylinders from the Liebherr industrial range are designed and manufactured according to ISO 6022 standard specifications.

Installation dimensions and mounting options adhere to the relevant standards, yet our selected details give customers a high degree of flexibility and individualization in order to suit every application. Here, Liebherr offers suitable standard sealing systems for mineral oils such as HL and HLP as per DIN 51524 and biodegradable oils or optimized seal kits for fire- and heat-resistant hydraulic fluids, if required. In addition to this, the wide range of piston rod coatings and paint types are ideal for every challenge in use.

The cylinders are a perfect match for various application areas such as tooling machines, automation and manufacturing solutions as well as the automotive and steel industries.

Features

- Differential cylinders in a round design
- Nominal pressures up to 250 bar
- Piston diameters of 63–320 mm*
- Piston rod diameters of 40–220 mm*
- Stroke lengths of up to 6,000 mm* (permissible stroke lengths depending on buckling force)
- Stroke speeds of up to 0.5 m/s*
- Ambient temperature range of -20 °C to +80 °C*
- Ports: Pipe thread and metric thread, as well as SAE connections upon request
- Position transducers, cushioning systems, proximity switches or pressure sensors are available as an option

* Further performances upon request

Technical Data

Hydraulic cylinders according to ISO 6022

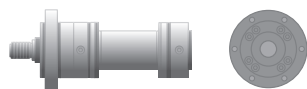
Technical Data

Piston Ø	Rod Ø	Stroke length max. (mm)	Rod thread	Length rod thread (mm)	Connections			
					ISO 1179-1 Pipe thread	ISO 6149-1 Metr. connection	ISO 6164 Square flange	ISO 6162-1 (≅ SAE)
63	40 45	2,000	M33x2	45	G3/4	M27x2	DN15	DN13
80	50 56	2,000	M42x2	56	G3/4	M27x2	DN15	DN13
100	63 70	3,000	M48x2	63	G1	M33x2	DN20	DN19
125	80 90	3,000	M64x3	85	G1	M33x2	DN20	DN19
140	90 100	3,000	M72x3	90	G 1-1/4	M42x2	DN25	DN25
160	100 110	3,000	M80x3	95	G 1-1/4	M42x2	DN25	DN25
180	110 125	3,000	M90x3	106	G 1-1/4	M42x2	DN25	DN25
200	125 140	3,000	M100x3	112	G 1-1/4	M42x2	DN25	DN25
220	140 160	3,000	M125x4	125	G 1-1/2	M60x2	DN32	DN32
250	160 180	6,000	M125x4	125	G 1-1/2	M60x2	DN32	DN32
280	180 200	6,000	M160x4	160	G 1-1/2	M60x2	DN32	DN32
320	200 220	6,000	M160x4	160	G 1-1/2	M60x2	DN32	DN32

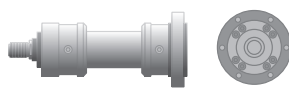
Options

Position transducers, testing connections, proximity switches, end of stroke cushioning (on piston and/or rod side), pressure connections, vents, measurement connections

Mounting Options



MF3 Flange mounting at cylinder head



MF4 Flange mounting at cylinder base



MP3 / MP4 Bushing at cylinder base



MP5 / MP6 Spherical bearing at cylinder base



MT4 Trunnion mounting



MS2 Foot mounting