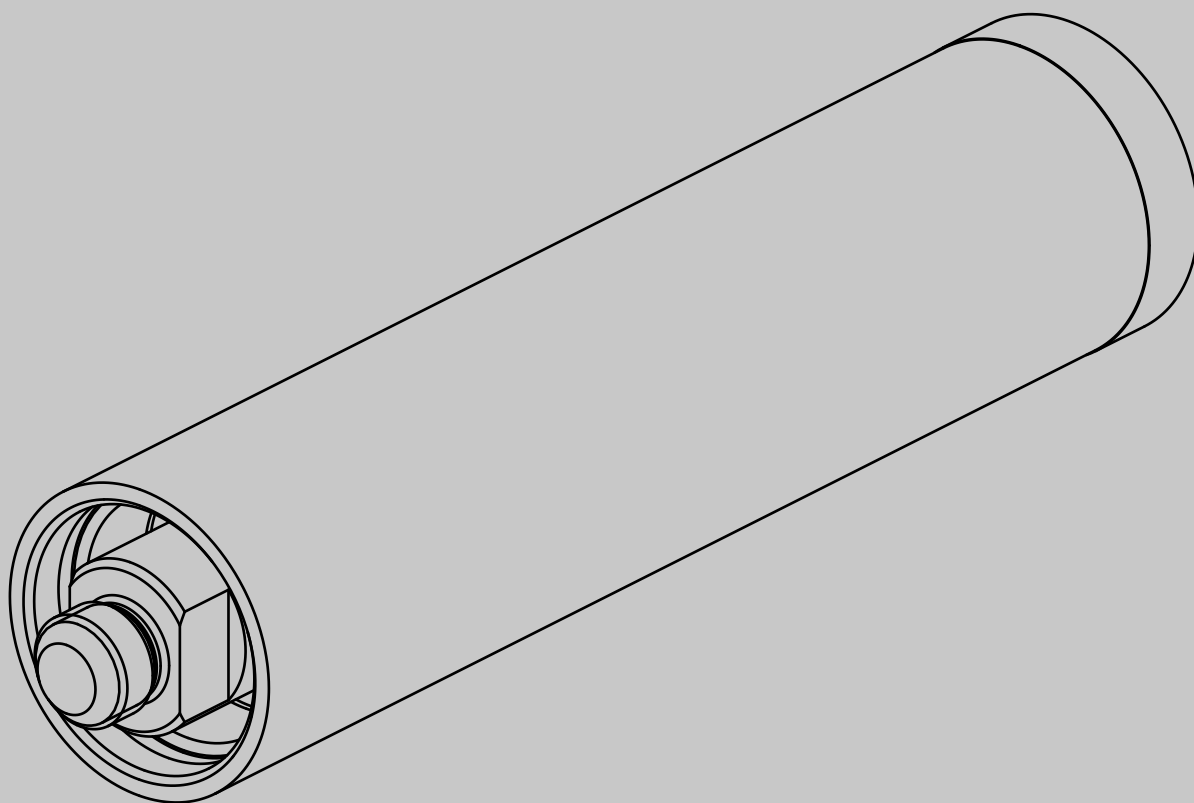


TOX[®] Hydraulic Cylinder type HZ 40

Data sheet 15.01

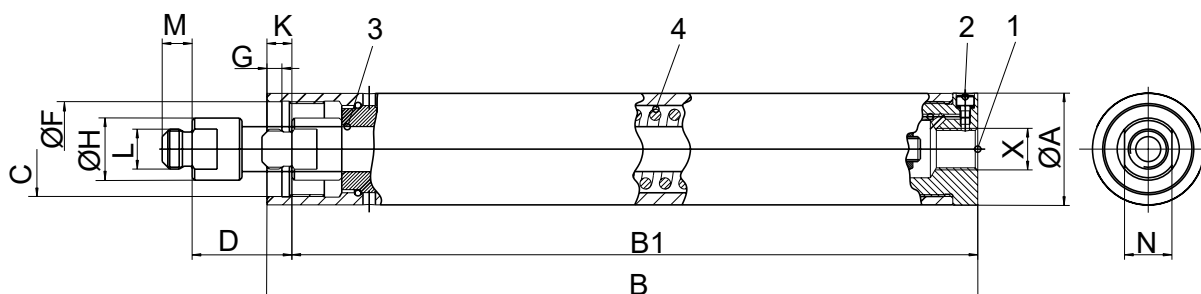
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Hydraulic cylinder type HZ 40

Product description

The hydraulic cylinder type HZ 40 is a single-acting cylinder with forces up to 47 kN and spring return. Two different basic lengths are available.



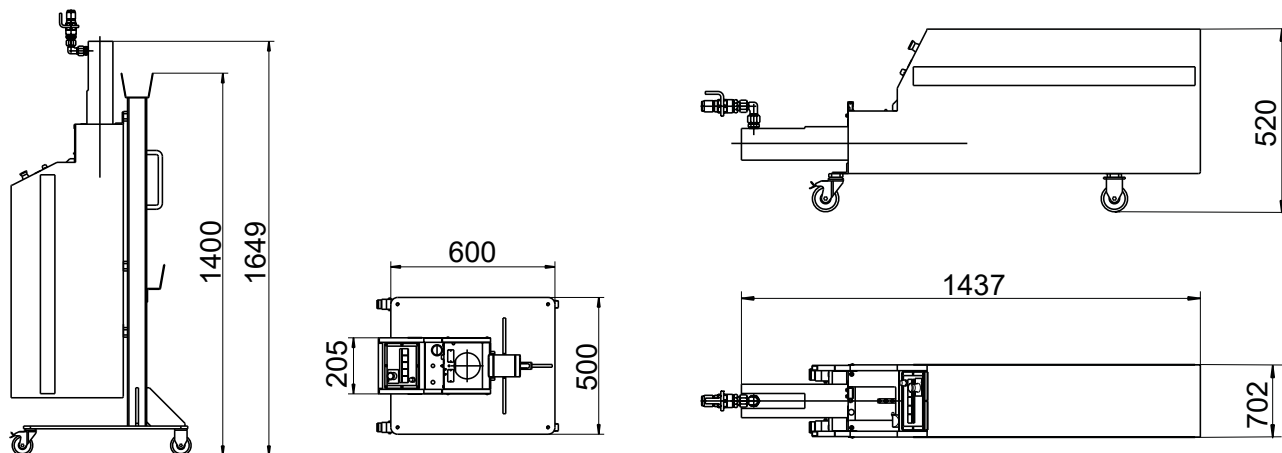
Order no.	HZ 40 12.035.18.20.431	HZ 40 12.035.18.40.431
Hub D [mm]	20	40
Consecutive number		431
Maximum press force at at 500 bar oil pressure [kN]		47
Restoring force for spring ES [kN]		0.3
Flow volume V_{HZ} [cm ³]		0.96
Factor F_2		0.25
Ø A [mm]		44.9
B [mm]	191	285
B1 [mm]	181	275
C		M38 x 1.5
Ø F _{H7} [mm]		38
G [mm]		6
Ø H [mm]		24.9
K [mm]		10
L		M16 x 1.5
M [mm]		12
N [mm]		19
X		G3/8

Properties and advantages

- Full press force at each position of the stroke, no subdivision in power stroke and fast approach stroke.
- Compact construction and low weight. Suited for the mobile and stationary operation.
- Individual or combination of hydraulic cylinder type HZ 40 + pressure intensifier type ES 160.99.
- Multi-cylinder solution possible

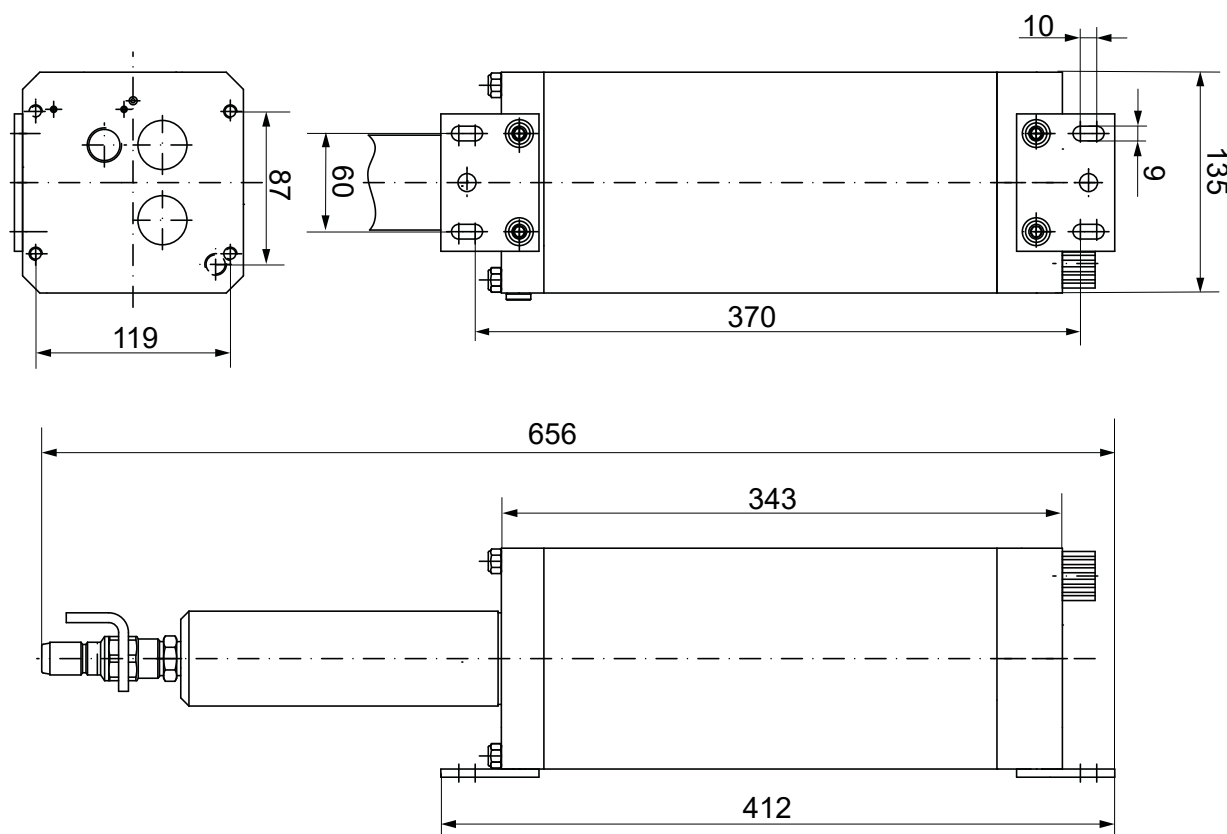
Hydraulic cylinder type HZ 40

External pressure intensifier pneumohydraulic unit type PHA 160.99



- Pneumohydraulic unit type PHA 160.99 is driven by an intensifier type ES 160.99.
- Can be mounted horizontal in a carriage or vertical on a stand.
- Total weight 65 kg, selectable with hand operation or external electric pulse.
- For additional information see data sheet TOX® - hand tongs 90.10.

Compact pressure intensifier type BES 125.10.018.108

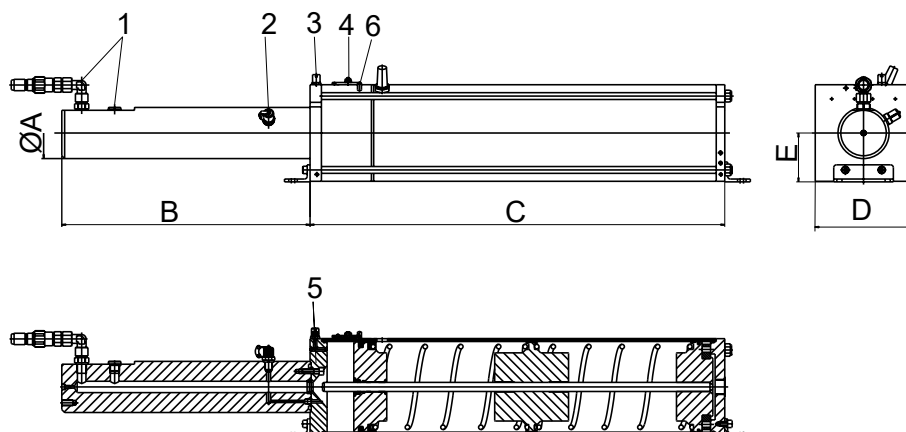


- Pressure intensifier with pneumatic control, process safety with automatic return stroke initiation.
- Including pressure relief valve and quick coupling.
- Total weight 15 kg.
- For additional information see data sheet TOX® - hand tongs 90.10.

Hydraulic cylinder type HZ 40

Intensifier type ES 160.99

To generate the necessary pressure for hydraulic cylinder HZ 40, we recommend pressure intensifier type ES 160.90. This is connected to the compressed air network and operates without additional hydraulic unit. The system is activated as a normal, single-acting cylinder, e.g. via a 3/2-way valve.



1	High pressure connection	2	High pressure measuring and control connection
3	Oil filling nipple	4	Venting
5	Oil level indicator	6	Overfill protection

Order no.	Ø A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Pneumatic connection of power stroke	High pressure connection	Flow volume power stroke [cm³]
ES 160.13.067.99	90	437	730	170	86	G3/4	2 x G3/8	67

TOX®-Handheld tongs type CMH 03.45

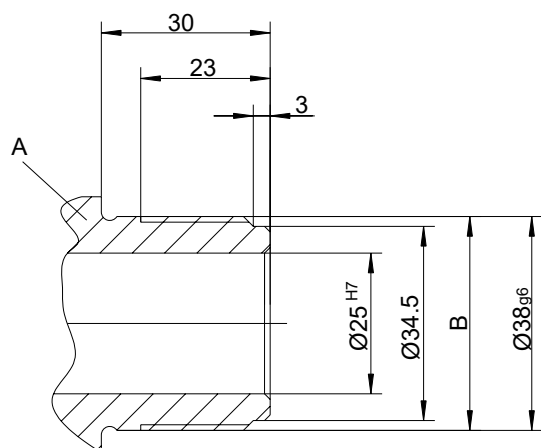


- Hydraulic powered C-frame tongs with integrated hydraulic cylinder type HZ40.
- Tool opening:
 - up to 6 mm for 1-hand operation.
 - up to 14 mm for 2-hand operation.

Hydraulic cylinder type HZ 40

Mounting flange

To mount hydraulic cylinder type HZ 40 to a bow or press frame, the following flange connection is recommended, such as is used for TOX® machine tongs CMH 03.45 (see data sheet TOX® handheld tongs 90.10).



A	Bow side flange	B	Mounting thread
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high pressure hose

Version	Hydraulic cylinder type HZ 40-side	Pressure intensifier type ES 160.99-side	Connection of
01			2 x straight connection



Many other connection versions (angled, with or without quick coupling) are possible on request.

A [mm]	B [mm]	C [mm]	D Standard length of hose in [mm]	R _{min}
225	265	65	1,000, 3,000, 5,000, 7,000	70

R_{min}: smallest admissible bending radius of the high pressure hose

Additional hose lengths available on request. The high pressure hose is equipped with burst protection and complies with the applicable Press C-Standard EN 16092-1.

Typical applications

					
Clinching	Riveting	Pressing of function elements	Installing, press fitting	Punching, piercing	Embossing, marking