

LIFTING DEVICES



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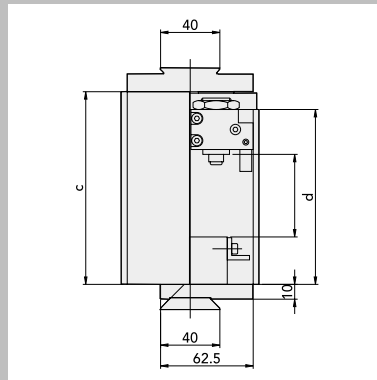
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LIFTING DEVICES

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LIFTING DEVICES HE PRODUCT DESCRIPTION



HE with for KSD



HE with LEP



Designed as a **compact and extremely stable unit** for short, straight movements, the **Lifting Unit HE** is predominantly used at increased moment load.

The ratio of extended to retracted length is optimal, so that the unit can be used even in very **confined installation situations**.

The lifting unit can be used as a **horizontal** or a **vertical unit**.

The two end positions feature hydraulic **shock absorbers**; they can be queried with **inductive proximity switches**. The housing and slide each have two dovetails for mounting.

APPLICATIONS



Unloading station;
includes a vertical Lifting Unit HE, a horizontal Linear Unit LEP, as well as an Angle Gripper GW.



Z-X linear unit;
for applications requiring extreme rigidity. A vertical lifting unit HE has been combined with a universal slide US, comprising a Quick-Set® profile TP-16-40. Application example: «active» memory.

LIFTING DEVICES HE-50/HE-100

One size in two stroke lengths.

SCOPE OF DELIVERY

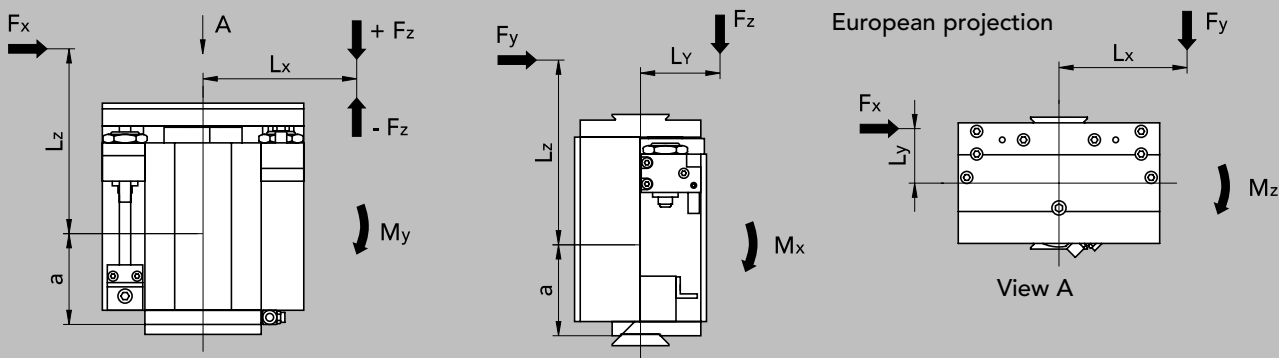
With two shock-absorbers, two exhaust-air throttles, two holders for proximity switch and an operating instruction.

SUITABLE ACCESSORIES

Accessories
Quick-Set®

from page 302
from page 338

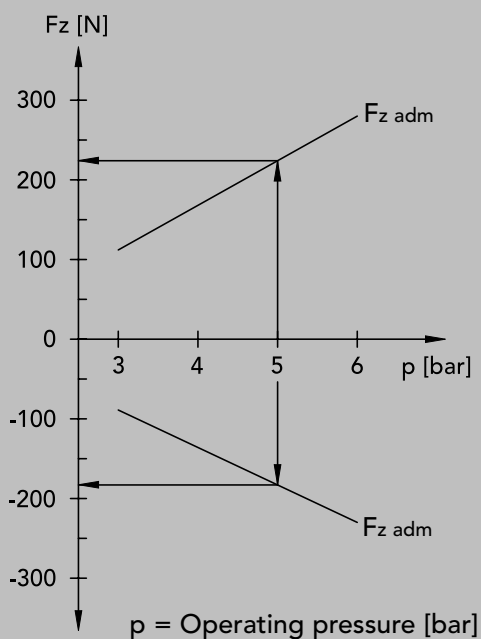
DEFINITION OF LOAD



	HE-50	HE-100
a (retracted) [mm]	70	95
a (extended) [mm]	95	145

The definition $\pm F_z$ is applicable for a fixed housing (If the lifting movement is performed by the housing, the signs of F_z are interchanged!).

FORCE F_z DIAGRAM



PERMISSIBLE LOADS

$F_x \text{ adm}$	[N]	700
$F_y \text{ adm}$	[N]	300
$F_z \text{ adm}$	[N]	Diagram
$M_x \text{ adm}$ ($M_x = F_z \cdot L_y + F_y \cdot L_z$) ¹⁾	[Nm]	40
$M_y \text{ adm}$ ($M_y = F_z \cdot L_x + F_x \cdot L_z$) ¹⁾	[Nm]	80
$M_z \text{ adm}$ ($M_z = F_x \cdot L_y + F_y \cdot L_x$) ¹⁾	[Nm]	60

For combined loads:

$$12 \cdot |F_x| + 28 \cdot |F_y| + 220 \cdot |M_x| + 110 \cdot |M_y| + 80 \cdot |M_z| \leq 8800$$

F_x, F_y in [N]
 M_x, M_y, M_z in [Nm]

¹⁾ $M_x \text{ adm}, M_y \text{ adm}, M_z \text{ adm}$: Sum of all moments about the corresponding axis.

Note: In the case of downward movements with a mass ≥ 16 kg, the exhaust choke should be closed by at least 2 turns.

LIFTING DEVICES HE

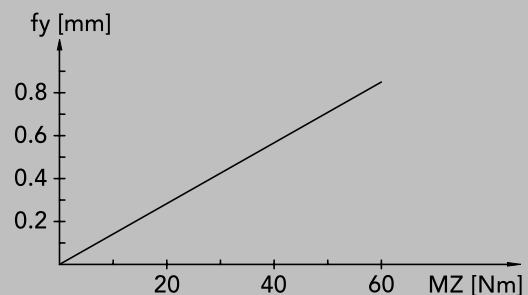
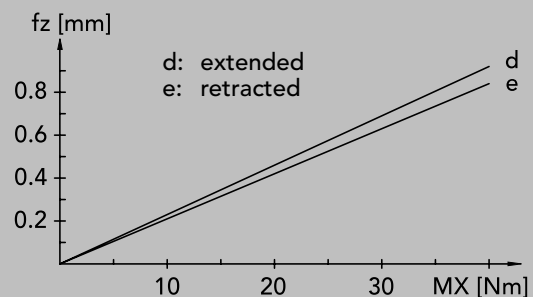
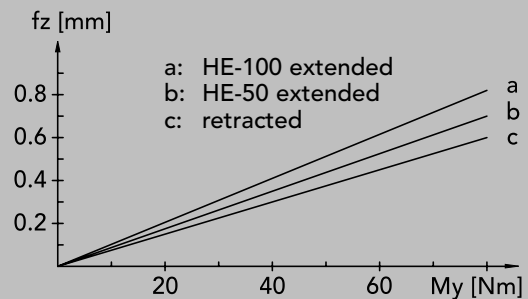
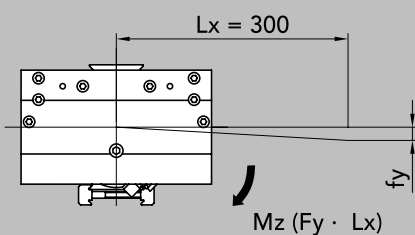
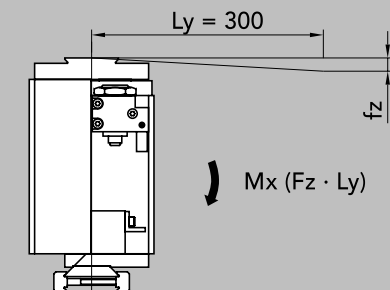
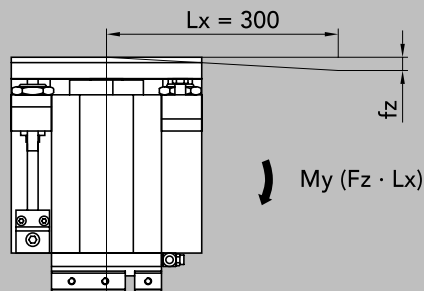
			HE-50	HE-100
Stroke (min./max.)	[mm]		10/50	10/100
Piston diameter/Piston-rod diameter	[mm]		32/12	32/12
Weight	[kg]		4.7	6
Operating pressure	[bar]		3–6	
Operating medium			air, oiled or unoled, filtered to 5 µm, dew point < 6°C	
End stop absorption			hydraulic shock-absorbers	
Repeatability	1)	[mm]	< 0.01	
Check of end position	2)		inductive proximity switches	
Pneumatic connection			hose-Ø 6 mm	
Speed regulation			adjustable exhaust throttle	
Noise level	3)	[dBA]	< 64	
Ambient: Temperature		[°C]	10–50	
Rel. humidity			< 95% (without condensation)	
Air purity			normal workshop atmosphere	
Guaranty period			2 years from the date of delivery	
Maintenance			none needed	
Mounting position			any	
Material			aluminum, steel	

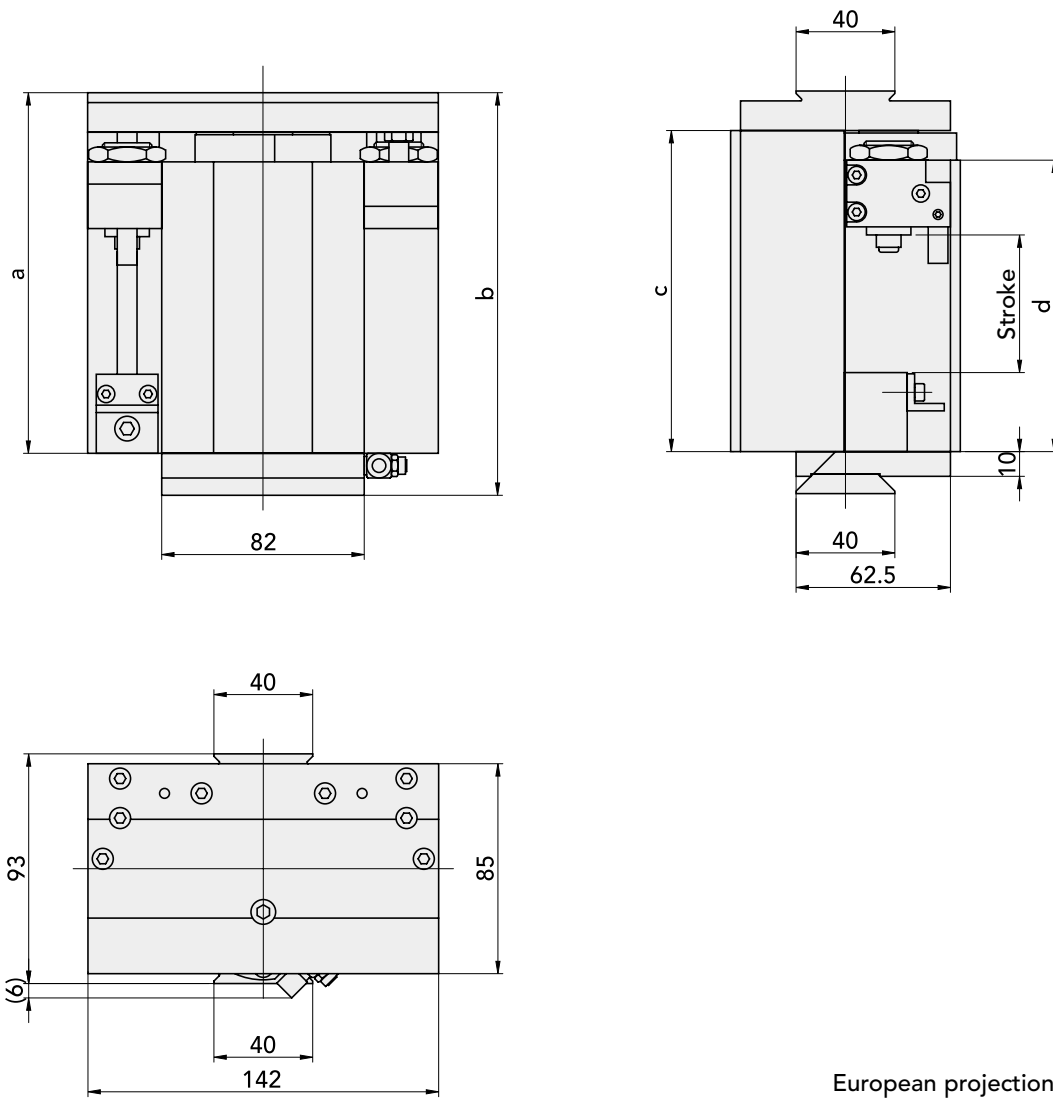
1) Difference in end positions after 100 successive strokes under constant conditions

2) See accessories page 302

3) Measured at 5 bar, 50 mm stroke (vertical), $m = 12$ kg, throttles valves completely open

DEFORMATION





European projection

	a	b	c	d	Stroke
HE-50	146	163	130	118	50
HE-100	196	213	180	168	100

Ref. No.
HE-50
HE-100

46911
47189



MONTECH AG
Gewerbestrasse 12, CH-4552 Derendingen
Fon +41 32 681 55 00, Fax +41 32 682 19 77
info@montech.com, www.montech.com