

FLEXIBILITY FOR INNOVATORS ONLY



STABLE
COMPLETE
POWERFUL



LIFTING DEVICES



LIFTING DEVICES HE CONTENTS

PRODUCT DESCRIPTION 224

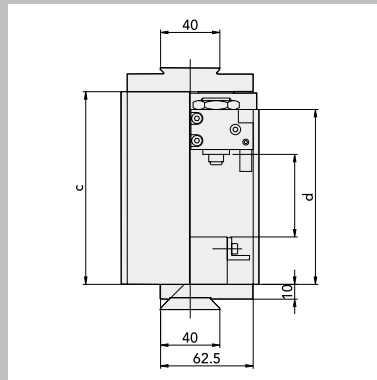


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**TECHNICAL DATA/
DIMENSIONS**

227-229

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

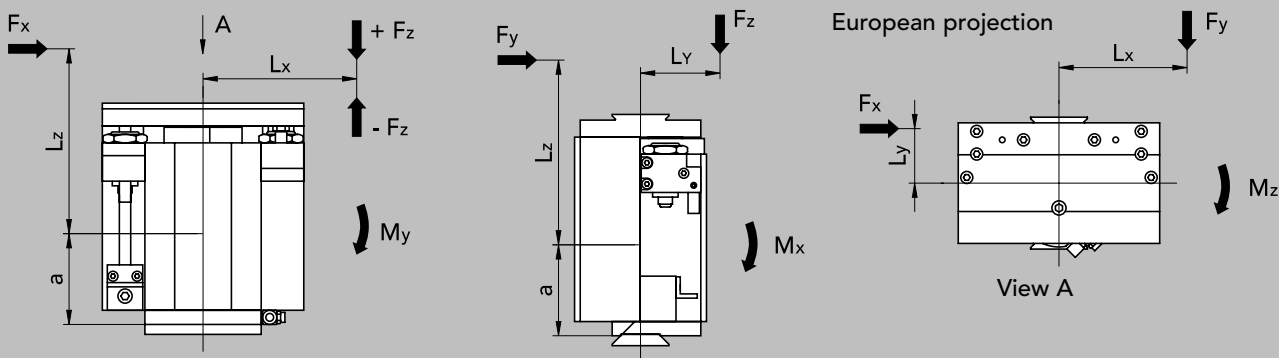
With two shock-absorbers, two exhaust-air throttles, two holders for proximity switch and an operating instruction.

SUITABLE ACCESSORIES

Accessories
Quick-Set®

from page 302
from page 338

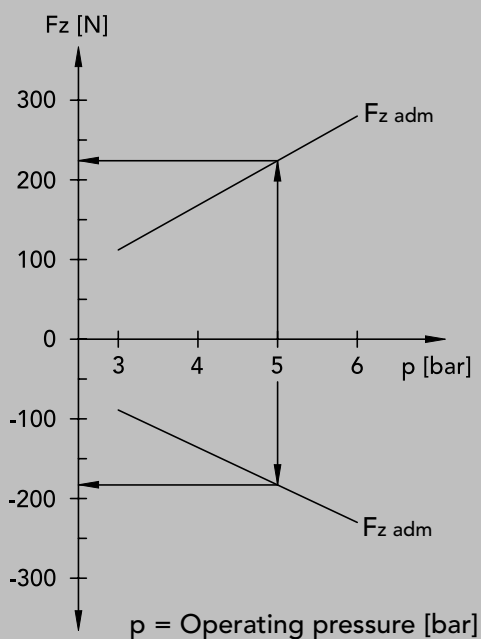
DEFINITION OF LOAD



	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 adm	[N]	700
F_y adm	[N]	300
F_z adm	[N]	Diagram
M_x adm ($M_x = F_z \cdot L_y + F_y \cdot L_z$) ¹⁾	[Nm]	40
M_y adm ($M_y = F_z \cdot L_x + F_x \cdot L_z$) ¹⁾	[Nm]	80
M_z 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 adm, M_y adm, M_z adm: Sum of all moments about the corresponding axis.

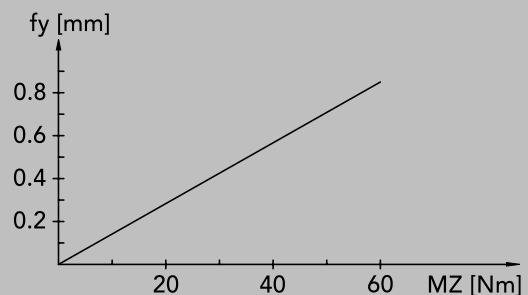
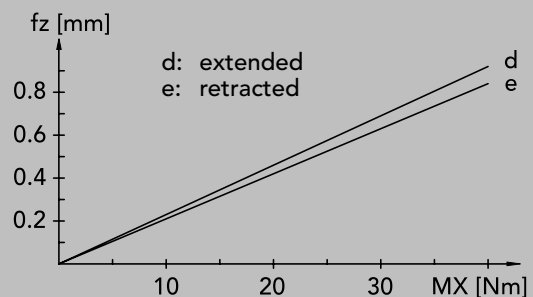
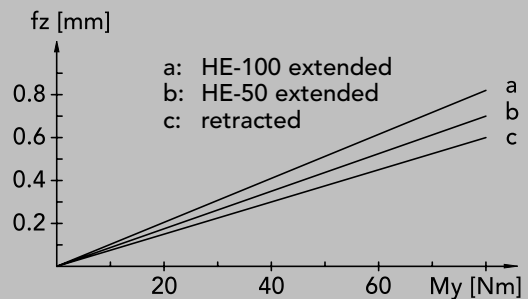
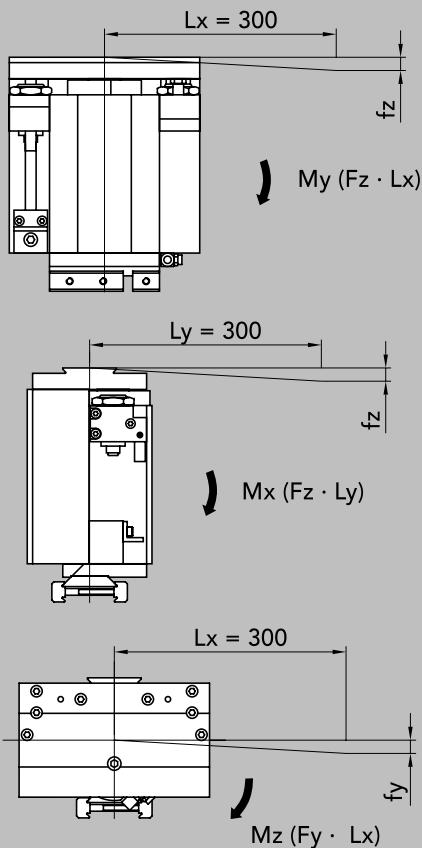
Note: In the case of downward movements with a mass ≥ 16 kg, the exhaust choke should be closed by at least 2 turns.

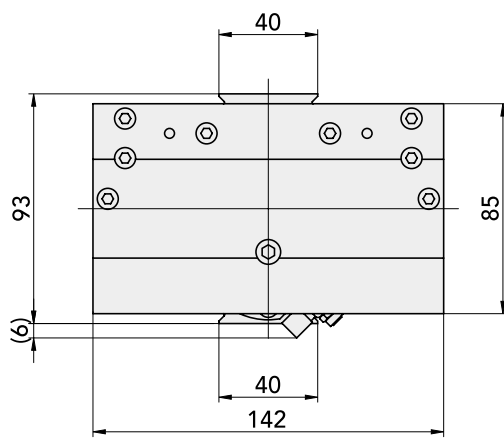
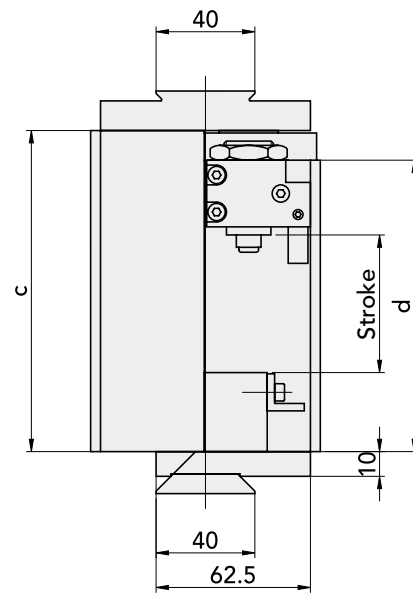
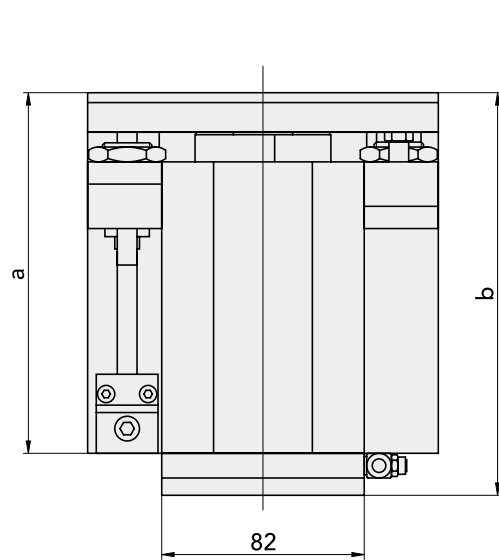
LIFTING DEVICES HE

		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