

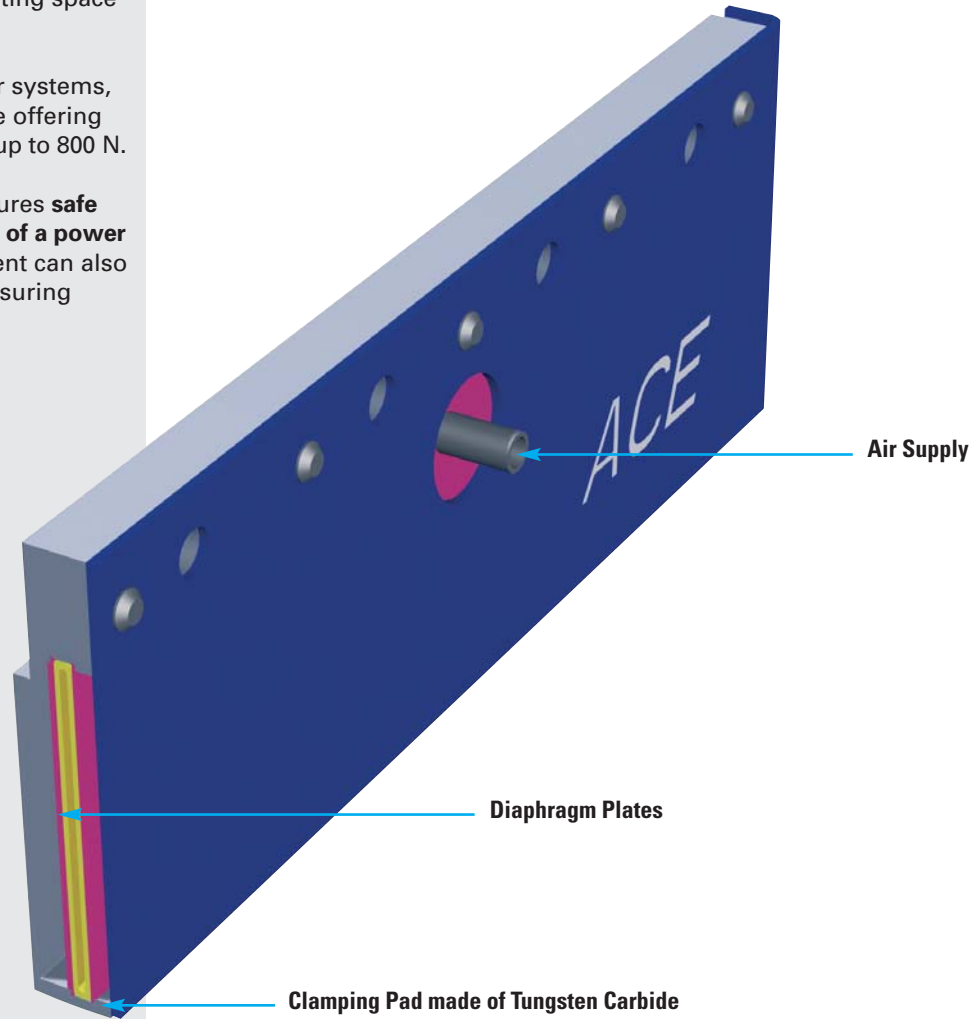
The **extension unit LOCKED-Series L** from ACE enables pneumatic clamping adjacent to the precision rail.

The ACE LOCKED-L extension units are identical for all standard rail manufacturers.

Due to the side mounting at the carriage, the need for mounting space is minimised.

This, in comparison to other systems, is a cost effective alternative offering medium clamping forces of up to 800 N.

A spring-brake actuator assures **safe and secure clamping in case of a power failure**. This clamping element can also be used for rails with a measuring system.



Rail Sizes: 25 and 35 mm (45 mm planned)

Minimum holding forces: up to 800 N

Clamping cycles: 10 000
(for higher values please consult ACE)

Material: Clamp body and milled parts: tool steel; spring steel plate: spring steel; brake pads: sintered bronze or steel.

Mounting: In any position.

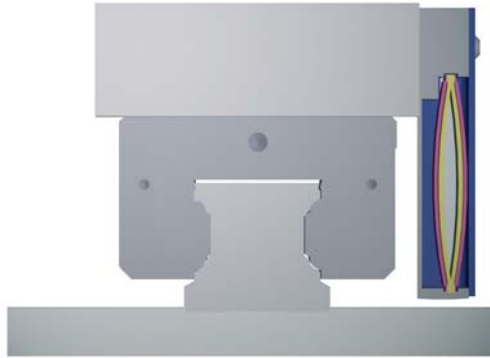
Operating Pressure: 4 bar

Pneumatic medium:
Dried filtered air.

Operating temperature range: 15 to 45°C



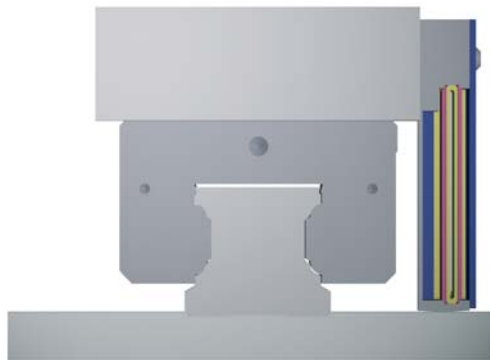
Operational Principle



LOCKED-L Extension Released

The chamber between the two spring-steel diaphragms is filled with compressed air, so that the spring plates are elastically deformed and the whole system contracts. Due to contraction, the brake plate moves upwards and the carriage can move freely.

The space between brake plate and base at 5 bar is approx. 0.05 mm. Due to the accuracy of the precision rails, the distance between carriage and base is very stable, and the space of 0.05 mm is suitable.



LOCKED-L Extension Engaged

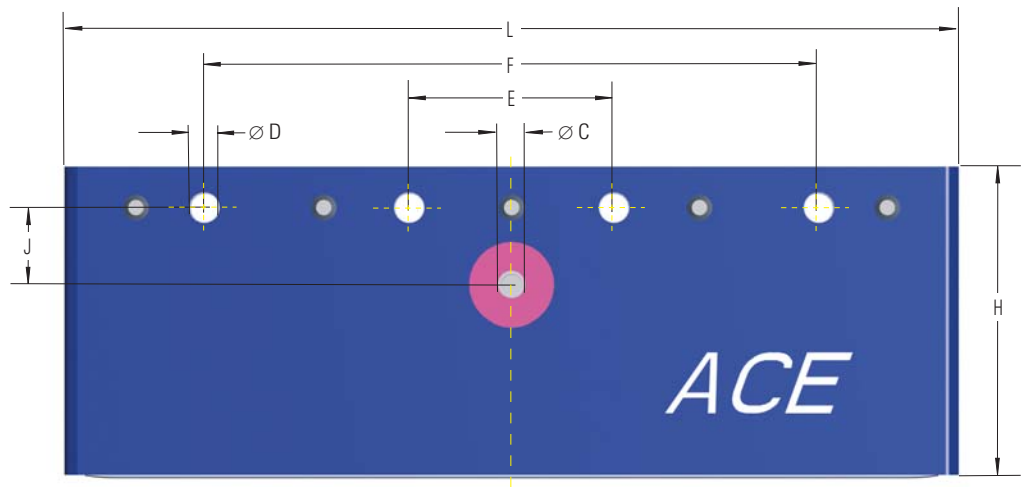
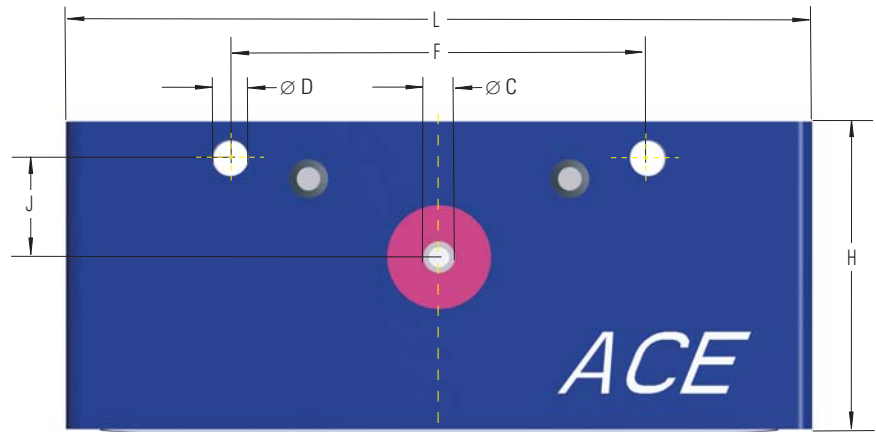
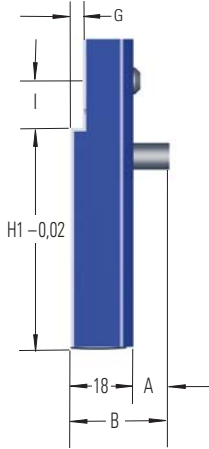
The air pressure in the chamber between the two spring-steel diaphragms is released. The energy accumulated in the spring plates causes an expansion of the brake elements on to the machine base.

When the brake plates contact the base, a large part of the energy is still present in the spring brake actuator. The carriage is clamped tightly.

General Information for ACE LOCKED Series

- Exceeding the permissible operating pressure may lead to damage of the clamping unit.
- Clamping units are not designed to secure floating loads.
- Dirt, oil, and grease on the surface of the brake plates and the system affect the holding forces.
- Clamping elements may only be used according to technical specifications.
- The chosen compressed air is to be maintained throughout the entire service life.
- Regulations of the BG or other controlling institutes as well as technical regulations are to be adhered to.
- Further information can be taken from the **mounting and operating manuals** in the download areas of the ACE Homepage at www.ace-controls.co.uk.

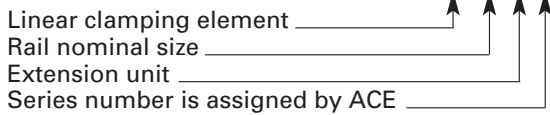
Part Number LC . . .



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Ordering Example

LC 25-A-X



Complete Details Required when Ordering:

- Opening pressure
- Drilling template with drawing, if different
- Rail manufacturer, rail type, rail size
- Carriage type (height/width)

Dimensions and Capacity Chart

Type	L	B	H	H1	A	C	D	E	F	G	I	J	Holding Force* N	Weight kg
LC 25-A	140	28.15	60	36	17	4	6.8		80	3.5	17	19	500	0.55
LC 35-A	212	29.45	81	55	19	8	6.8	50	150	3.5	14	22	800	1.15

* The stated holding forces are dependent on clamping area, and the clamp material pairing and can only be taken as an approximate reference value. Releasing of the clamping takes place at an operating pressure of 4 bar.

Issue 8.2006 Specifications subject to change