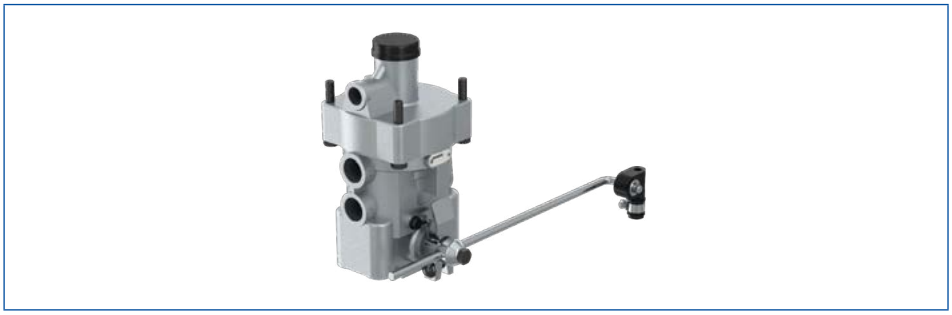
# 5.26 Load sensing valve (LSV) 475 71X

## 5.26.1 LSV 475 712



### Application

LSV controller with integrated trailer brake valve for leaf-spring semitrailers (mainly in Italy, France and the UK)

### Purpose

Control of the two-line trailer braking systems when actuating the braking system of the towing vehicle.
Automatic control of the braking force based on the load status of the vehicle with the integrated LSV.
Actuation of the automatic trailer braking with partial or total pressure drop in the supply line.

### Maintenance

Special maintenance that extends beyond the legally stipulated inspections is not required.

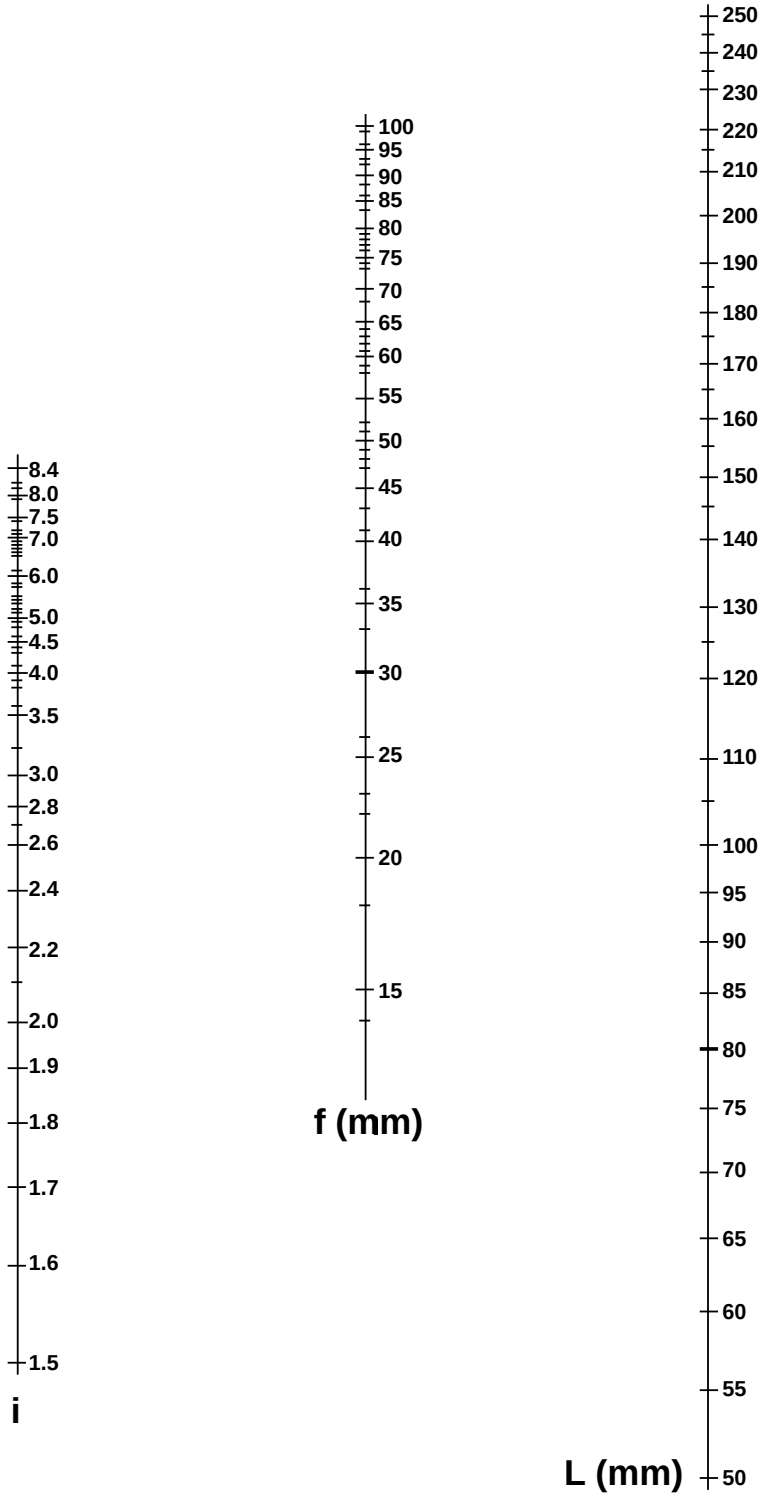
### Installation recommendation

– Install the LSV vertically so that the vent points downwards.
The setscrews on the top of the housing are used for fastening.
For the linkage, use knuckle joint 433 306 003 0 if necessary.

– To determine the lever length L, draw a line in the respective nomograph using the scale for control ratio i (e.g. 2.8) to the scale for spring deflection f (e.g. 30).

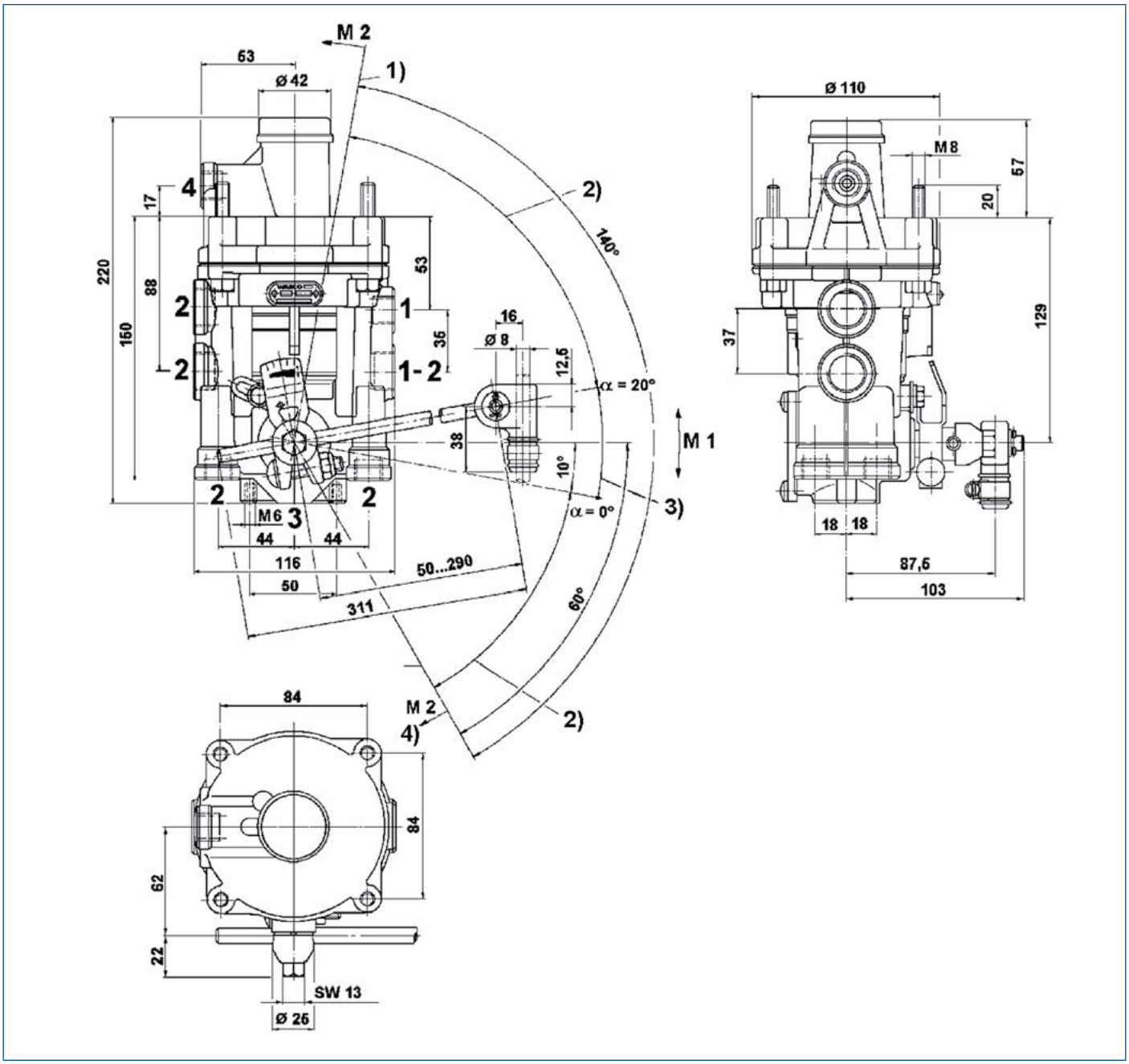
⇨ Extending this line crosses the scale for lever length L at 140 mm.

Nomograph




| LEGEND | | | | | |
|---|---|---|---|---|---|
| **i** | Control ratio = $p_{on}$ -0.8 / $p_{off}$ -0.5 | **f** | Spring deflection | **L** | Lever length |

**Installation dimensions for 475 712 000 0**



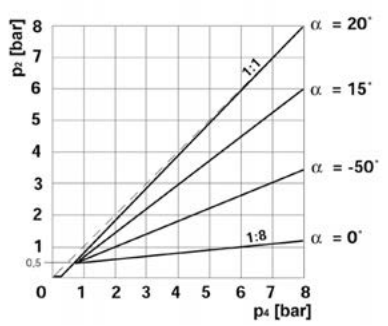

| CONNECTIONS | | PORT THREADS | | LEGEND | |
|---|---|---|---|---|---|
| **1-2** | Energy supply or release (supply reservoir) | **1, 4** | M 16x1.5 - 12 deep | **1)** | End stop at linkage break |
| **1** | Energy supply | **1-2** | M 22x1.5 - 13 deep | **2)** | Overstroke |
| **2** | Energy discharge | **2** | M 22x1.5 - 13 deep (side) | **3)** | Control stroke |
| **3** | Venting | **2** | M 16x1.5 - 122 deep (bottom) | **4)** | End stop |
| **4** | Control connection | | | | |

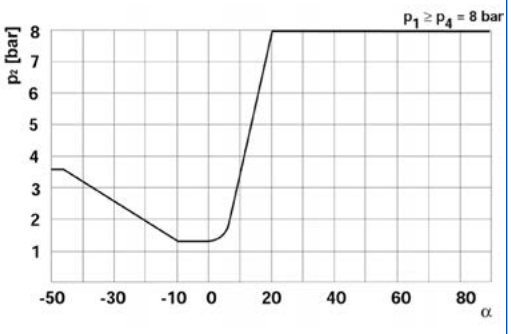
## Technical data

| ORDER NUMBER | 475 712 000 0 | 475 712 004 0 |
|---|---|---|
| Max. operating pressure | 10 bar | |
| Control range, dynamic effect | α = 20° | α = 30° |
| Usable lever length | 50 to 290 mm | 50 to 275 mm |
| Linkage | via linkage (see Fig. "Installation Dimensions") | with integrated knuckle joint, see 475 713 |
| Port 1, 1-2, 4 with filter | – | X |
| Max. permissible adjustment torque M2 | 20 Nm | |
| Thermal range of application | -40 °C to +80 °C | |
| Weight | 2.2 kg | 2.6 kg |

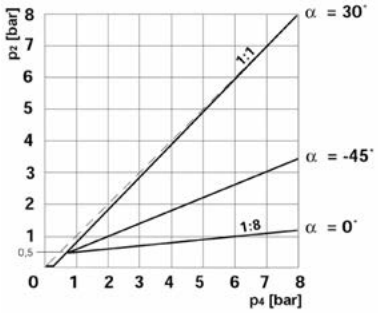
## Pressure diagrams

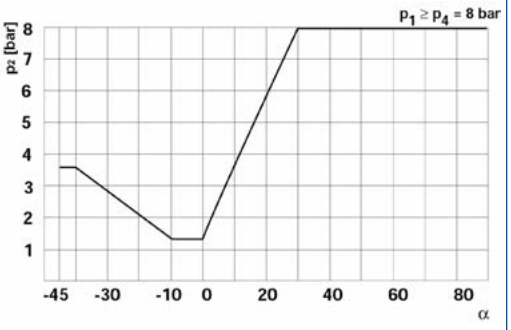
475 712 000 0



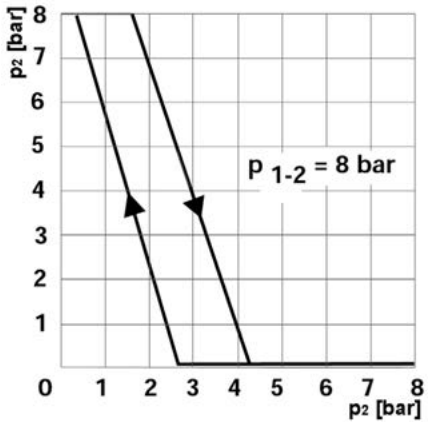




475 712 004 0




Automatic braking




| LEGEND | | | |
|---|---|---|---|
| $p_1$ | Input pressure | $p_4$ | Control pressure |
| $p_2$ | Output pressure | α | Lever travel [degrees] |

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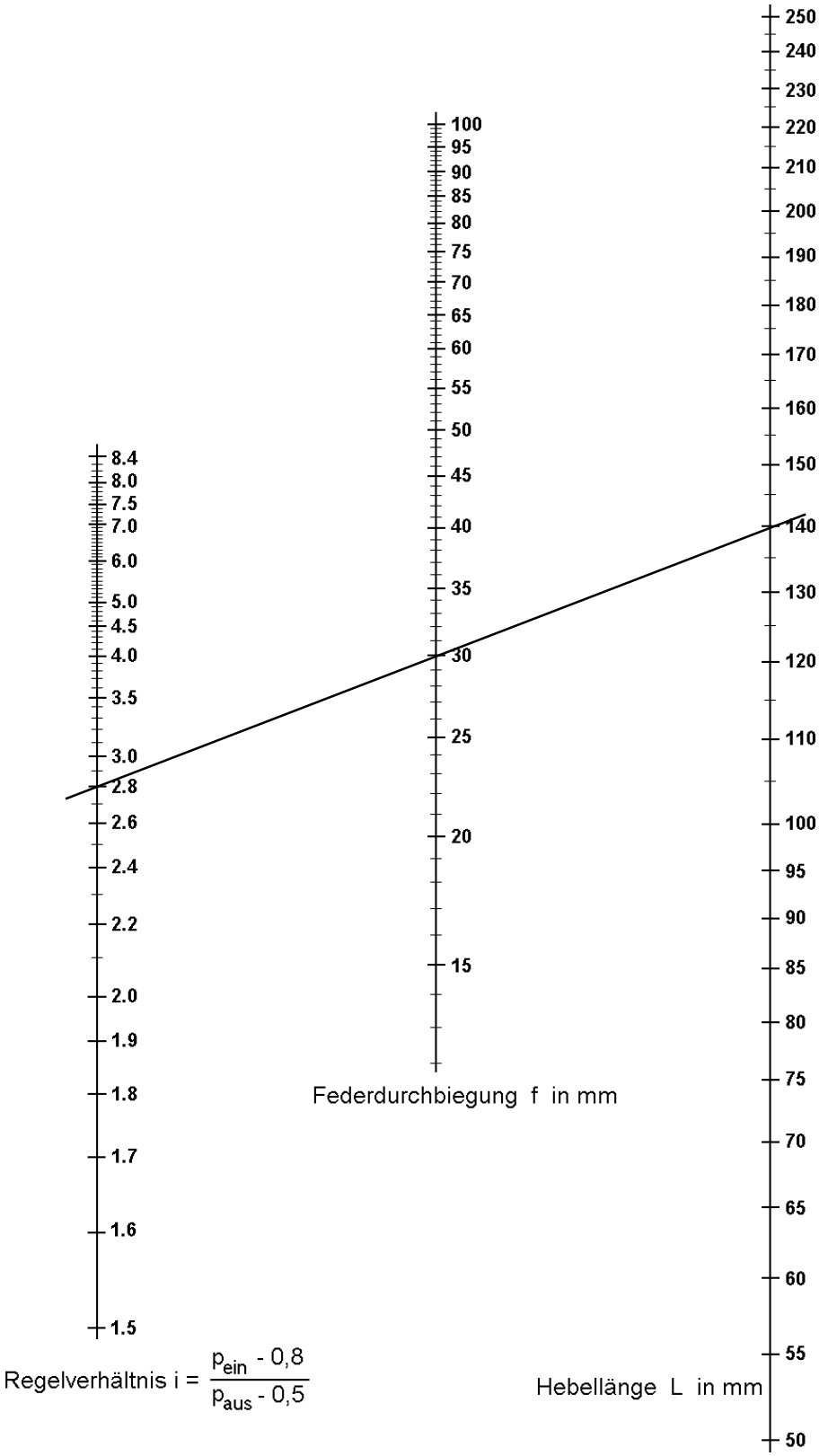
# Nomogramm / Nomograph

**zur Ermittlung der Einstelldaten des ALB-Relaisventils 475 710 040 0 und des ALB-Anhänger-Bremsventils 475 712 000 0**

**for Determination of Adjusting Values of Automatic Load Sensing Valves 475 710 040 0 and Load Sensing Relay Emergency Valve 475 712 000 0**

Zur Ermittlung der Hebellänge L wird im nachfolgenden Nomogramm eine Gerade von der Skala des Regelverhältnisses i (z. B. 2,8) zur Skala der Federdurchbiegung F (z. B. 30 mm) gezogen. Die Verlängerung dieser Geraden schneidet die Skala der Hebellänge L bei 140 mm.

To determine lever length L draw a straight linie in the following nomograph from scale of regulating relation (for example: 2.8) to scale of spring deflection f (for example: 30 mm). The extension of this straight line intersects scale of lever length at 140 mm.

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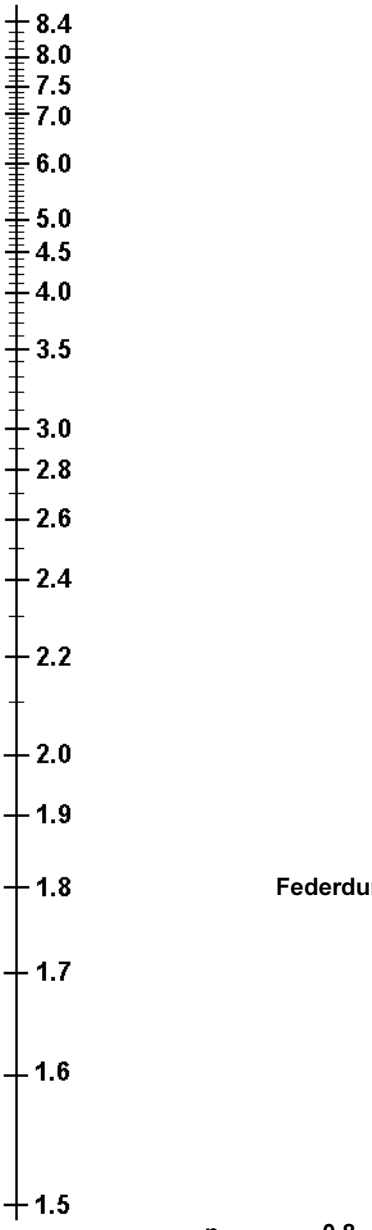
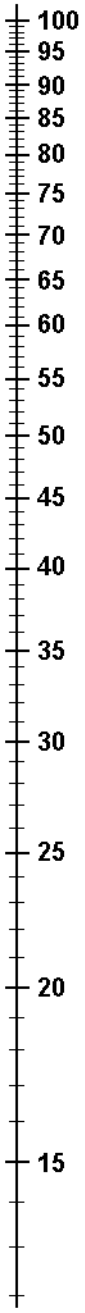
# Nomogramm / Nomograph

für das ALB-Relaisventil 475 710 040 0
und des ALB-Anhänger-Bremsventils 475 712 000 0

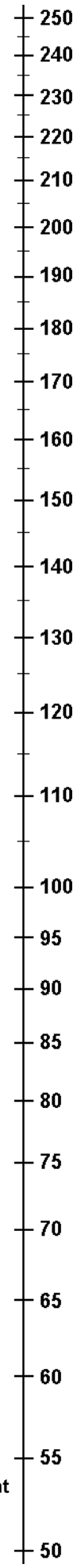
for the Automatic Load Sensing Valves 475 710 040 0 and
Load Sensing Relay Emergency Valve 475 712 000 0




**Regelverhältnis / Regulating** $i = \frac{p_{ein\ /\ on} - 0{,}8}{p_{aus\ /\ off} - 0{,}5}$




**Federdurchbiegung / Spring Deflection**
**f in mm**




**Hebellänge / Lever Lenght**
**L in mm**

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