

GAS SPRINGS

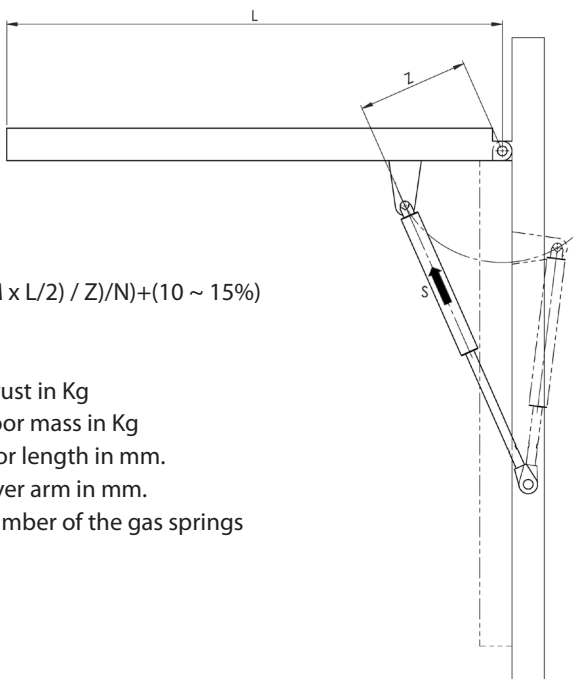


Use standard care and caution and follow these warnings:

- **The assembling must be carried out as follows: In closed position (compressed spring) the chrome shaft has to be turned downside**, i.e. with the rotation point of the chrome-plated shaft in a lower position than the rotation point of the black cylindrical body. This will facilitate the lubrication of the guide and of the seals and will permit a higher braking effect.
- The thrust of a gas spring will be calculated at 20°C, a higher or lower temperature would influence the thrust for about 3,6% every 10°C.
The normal function proceeds within a temperature between -30°C and +80°C.
Very hot environments with temperatures over 80°C and aggressive atmospheres cause gas spring malfunctions and may shorten its operating life.
- Ensure that the spring fittings are aligned to avoid buckling.
- If mounting hole is a through hole, use non threaded pins instead of screws.
- Avoid using blunt tools or abrasive materials that might damage the shaft surface. Avoid contact with corrosive agents or chemicals.
- Machine vibration may affect the seals and shorten gas spring life.
- Do not expose the gas spring to pulling forces exceeding the extension speed of the shaft.
- Doors opened through gas springs should be equipped with an additional rod (such as in a car hood) which keeps the door open in case of gas spring failure.

CHOICE OF GAS SPRING

VERTICAL DOORS APPLICATION



$$S = (((M \times L/2) / Z) / N) + (10 \sim 15\%)$$

where

S= Thrust in Kg

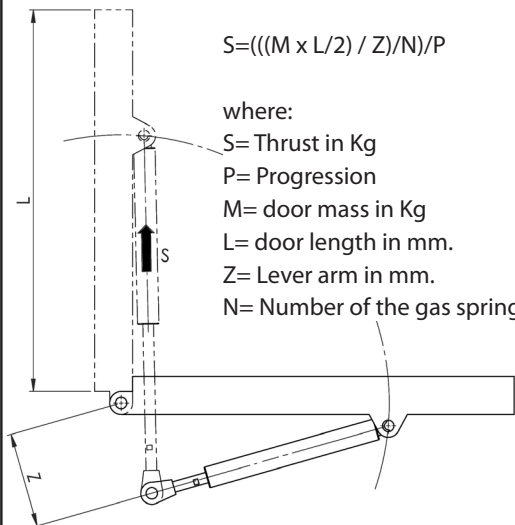
M= door mass in Kg

L= door length in mm.

Z= Lever arm in mm.

N= Number of the gas springs

HORIZONTAL DOORS APPLICATION



$$S = (((M \times L/2) / Z) / N) / P$$

where:

S= Thrust in Kg

P= Progression

M= door mass in Kg

L= door length in mm.

Z= Lever arm in mm.

N= Number of the gas springs

PROGRESSION TABLE (P)

Ø BODY mm	Ø SHAFT mm	PROGRESSION (P)
19	8	1,38
22	10	1,44
28	14	1,54