

# GAS STRUTS

## GAS STRUTS (STEEL)

15

- Door weight (X)
- Door length (Y)
- Distance between the door hinging and the gas springs fixing point onto the door (Z)

- Number of gas springs (N)

- Gas spring thrust pressure (S)

The Formula to be applied to this calculation of (S):

$$\begin{aligned} X \times Y \\ S = + 5 \text{ Kg} \\ 2 N \times Z \\ (+5 \text{ Kg.} = \text{constant added weight for the frictions}) \end{aligned}$$

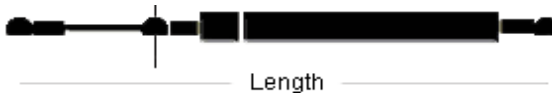
Example:

- Door weight (X) – 40kg
  - Door length (Y) – 1m
  - Distance (Z) – 0.2
  - Number of gas springs (N) – 2
- $$40 \times 1.0$$
- $$S = + 5 \text{ Kg} = 55\text{kg./P}$$
- $$(2 \times 2) \times 0.23$$

Therefore two 550N gas springs have to be fitted.

.....CAUTION.....

Contents of Gas Struts are under high pressure



### Dimensions :

What is the drop size of the door / lid / bonnet you are lifting ? the example shown the door has a 1000mm drop, this means (Y = 1.0)

### Weight :

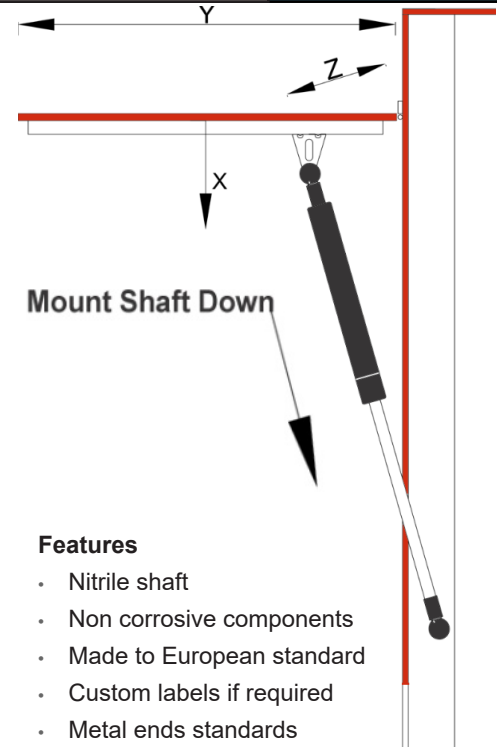
One way is to take a long rod or broomstick and with a set of bathroom scales choose the side midpoint of the door in this case 500mm if you can only weigh from the end of the door then double the weight as the force gets harder the closer you move to the hinge.  
Below (X = 40kg) mid point weight.

### Distance from hinge to Bracket:

Gas struts should be mounted on the door approximately 20% distance from the hinge so if our door 1000mm drop, 20% from hinge would be 200mm (Z = 0.2)

### What length should the Strut be:

Gas strut length should be approximately 60% of the door drop so in this case our door is 1000mm so 595mm long struts are needed.



### Features

- Nitrile shaft
- Non corrosive components
- Made to European standard
- Custom labels if required
- Metal ends standards

PART NO.	DESCRIPTION	LENGTH	PRESSURE
GSK50N-195-6-BK to GSK400N-195-6-BK	Gas strut 6mm dia. shaft x 15mm dia. tube	195mm	50 - 400N
GSK50N-316-6-BK to GSK400N-316-6-BK	Gas strut 6mm dia. shaft x 15mm dia. tube	316mm	50 - 400N
GSK50N-316-8-BK to GSK800N-316-8-BK	Gas strut 8mm dia. shaft x 18mm dia. tube	316mm	50 - 800N
GSK50N-365.5-8-BK to GSK800N-365.5-8-BK	Gas strut 8mm dia. shaft x 18mm dia. tube	365.5mm	50 - 800N
GSK50N-405-8-BK to GSK800N-405-8-BK	Gas strut 8mm dia. shaft x 18mm dia. tube	405mm	50 - 800N
GSK50N-501-8-BK to GSK800N-501-8-BK	Gas strut 8mm dia. shaft x 18mm dia. tube	501mm	50 - 800N
GSK50N-525-8-BK to GSK800N-525-8-BK	Gas strut 8mm dia. shaft x 18mm dia. tube	525mm	50 - 800N
GSK50N-525-10-BK to GSK1100N-525-10-BK	Gas strut 10mm dia. shaft x 22mm dia. tube	525mm	50 - 1100N
GSK50N-716-10-BK to GSK1100N-716-10-BK	Gas strut 10mm dia. shaft x 22mm dia. tube	716mm	50 - 1100N
GSK50N-816-10-BK to GSK1100N-816-10-BK	Gas strut 10mm dia. shaft x 22mm dia. tube	816mm	50 - 1100N
GSK50N-830-10-BK to GSK1100N-830-10-BK	Gas strut 10mm dia. shaft x 22mm dia. tube	830mm	50 - 1100N
GSK50N-525-12-BK to GSK1400N-525-12-BK	Gas strut 12mm dia. shaft x 28mm dia. tube	525mm	50 - 1400N
GSK50N-716-12-BK to GSK1400N-716-12-BK	Gas strut 12mm dia. shaft x 28mm dia. tube	716mm	50 - 1400N
GSK50N-816-12-BK to GSK1400N-816-12-BK	Gas strut 12mm dia. shaft x 28mm dia. tube	816mm	50 - 1400N
GSK50N-830-12-BK to GSK1400N-830-12-BK	Gas strut 12mm dia. shaft x 28mm dia. tube	830mm	50 - 1400N
GSK50N-525-14-BK to GSK1800N-525-14-BK	Gas strut 14mm dia. shaft x 28mm dia. tube	525mm	50 - 1800N
GSK50N-716-14-BK to GSK1800N-716-14-BK	Gas strut 14mm dia. shaft x 28mm dia. tube	716mm	50 - 1800N
GSK50N-816-14-BK to GSK1800N-816-14-BK	Gas strut 14mm dia. shaft x 28mm dia. tube	816mm	50 - 1800N
GSK50N-830-14-BK to GSK1800N-830-14-BK	Gas strut 14mm dia. shaft x 28mm dia. tube	830mm	50 - 1800N



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