

# SUPERSEN Gas Spring Guarantee & General Advice for Installation

SUPERSEN provide one year guarantee since the sold time (based on the invoice date) on the condition that all the instruction are strictly followed. Since gas spring is expendable product, its lifetime may differ from its use environment and method. SUPERSEN gas spring is high qualified product but cannot assume any suitability for your design. To extend gas spring life, you must read our general advice for installation seriously before installation!

Thank you for your consideration!

1. Gas springs are designed for a temperature range of  $-20^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$ .
2. Gas springs are filled with pure nitrogen, which is an inert gas, does not burn, will not explode and is not poisonous.
3. Gas spring contents under high pressure! Do not open or heat up!
4. Avoid askew installation, sloping or lateral and side force which may damage gas spring and shorten the lifetime.
5. It is recommended to install with the piston rod downwards. This position ensures the best damping effect.
6. The gas springs should not be exposed to rain or installed in wet and dusty areas.
7. No Foreigner materials such as paint, oil should be attached to the gas spring. And the piston rod should be protected against shocks, scratches and dirty.
8. Avoid the piston rod thread destroy the sealing system, do not dismantle the connecting part and compress the gas spring beyond the max stroke length.
9. Recommend to reserve 10mm space on stroke when full compressed gas spring to avoid impact.
10. Gas spring must not be loaded with traction force when it full extend. The high Tension load beyond limit may damage the gas spring.

11. Recommend to rotate the piston rod only for gas spring position but not frequently which may destroy the sealing system.
12. Recommend installation after building or machinery equipment finished to ensure the clean of gas spring and lifetime.
13. Recommend to assemble the gas spring with additional locking mechanisms to avoid the danger caused by force majeure element.
14. After installation finished, do not use gas spring as the grip to avoid break or deform gas spring.
15. Stop use when gas spring break down and consult us immediately.  
Do not dismantle or incinerate gas spring.
16. If not using Supersen standard size, and you needs special request, You can select your best dimensions yourself within the mentioned limits. If very high demands are placed on durability and stability. Please avoid the combination of (small diameter + long stroke + high force.)
17. Please advise us the environment of usage and conditions as possible if there is no experience on gas spring using or design on mechanism.
18. Recommend not to store gas spring longer than 6 months. There may be sticking effect the first time you compress gas spring, which may require a higher force than the nominal force.
19. Force tolerance between + 40N /- 20N or  $\pm 5\% \sim 7\%$  of nominal force. Physically, the actual force of gas spring depends on the temperature, for each 10°C change about 3.5%.
20. Take security measures before dispose the gas spring and use 2mm~3mm diameter drill to cut from the bottom about 20mm~30mm hole. Dispose the gas spring after the inner gas entirely releasing and obey local environmental regulation.