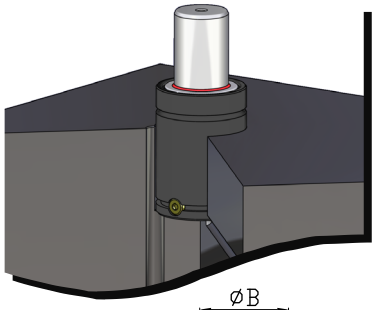
TECAPRES

Perfection in pressure dynamics

GAS SPRINGS ASSEMBLY GUIDELINES

ASS 00 12-2013

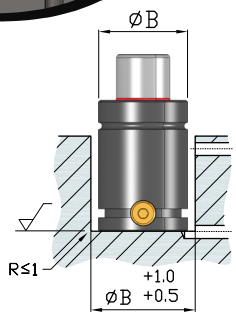
FIXTURE IN LODGING HOLES ON THE TOOL



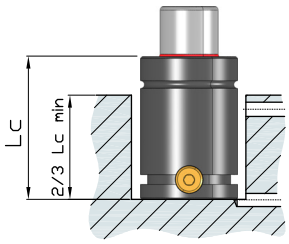
There should be a flat surface under the gas spring base in all circumstances. Inadequate lodgings cause structural damage or reduce gas spring useful life.

Gas Spring position: Only in the upright standing position.

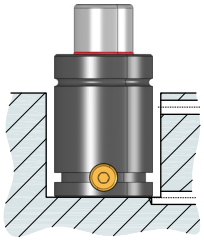
Interconnected gas springs: This assembly form it is not allowed for interconnected gas springs..



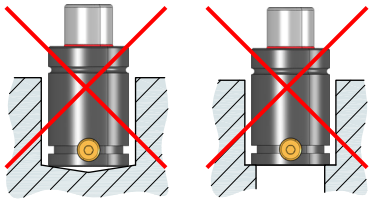
In case of lodging in a hole, the hole has to have the dimensions specified.



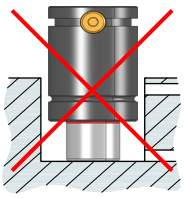
The depth of the hole has to have the dimensions specified, and never below 70% of length "Lc".



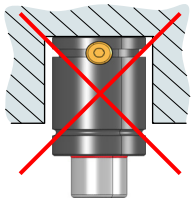
The lodging holes should be cleaned regulary and equiped with drainage.



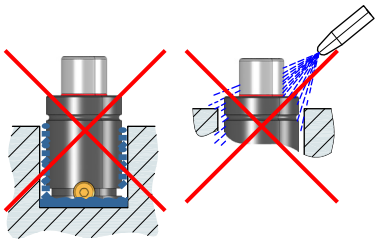
Ensure gas springs sit on a flat surface.



Never install a gas spring upside down in a lodging hole.

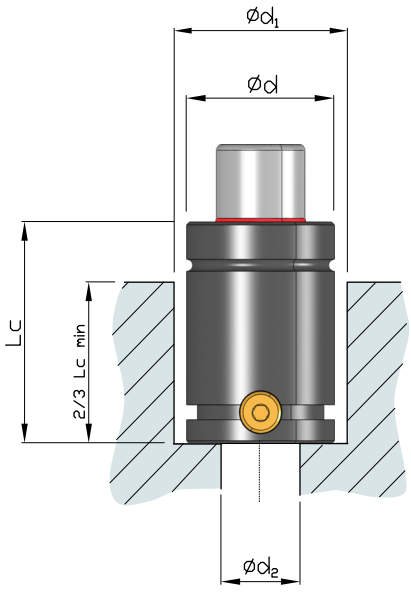


Installation in an upside down lodging hole is forbidden.



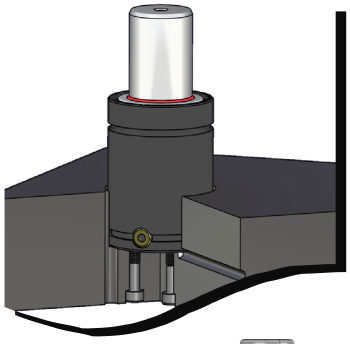
Protect gas springs from liquid and solid pollution.

For assembly in lodging holes with holes on the base of the lodging, please respect the indicated dimensions (see table on the right). Gas springs should never be installed in lodging holes without sufficient support surface.



Model	Ø d	Ø d_1 $^{+1'0}_{+0'5}$	Ø d_2 max
MICRO 19V	19,2 $^{+0'10}_{-0}$	19	0
MICRO 25H	25,2 ± 0'10	25	15
MICRO 32VS	32 ± 0'10	32	20
MICRO 38VS	38 ± 0'10	38	25
MICRO 45V	45 ± 0'15	45	30
MICRO 50VS	50 ± 0'15	50	35
MICRO 63V	63 ± 0'10	63	40
MICRO 75	75,2 $^{+0'10}_{-0}$	75	50
MICRO 95	95 ± 0'15	95	70
MICRO 120V	120 ± 0'15	120	90
TPS 32	32 ± 0'10	32	15
TPS 250	38 ± 0'10	38	25
TPS 500	45 ± 0'10	45	30
TPS 750	50 ± 0'20	50	35
TPS 1500	75 ± 0'25	75	50
TPS 3000	95 ± 0'25	95	70
TPS 5000	120 ± 0'30	120	90

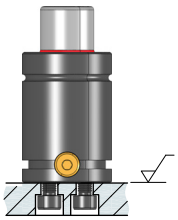
FIXTURE WITH SCREWS ON THE TOOL



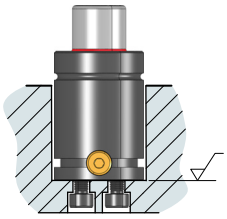
Fix the gas spring solidly onto the tool. If possible, fix the gas spring onto the tool using the fixing threaded holes at the bottom of the body or fixing accessories. Do not use the threaded hole on the stem for fixing onto the tool. This hole is only to be used in maintenance operations. Make sure the length of the screws is such that the base of the gas spring sits flatly on the tool.

Gas spring position: All positions are permisible with this kind of fixture.

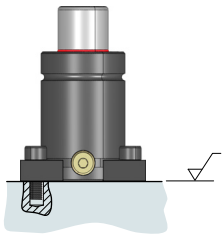
Interconnected gas springs: This kind of fixture is the most convenient for interconnected gas springs, as it avoids vibrations and damage in connection elements



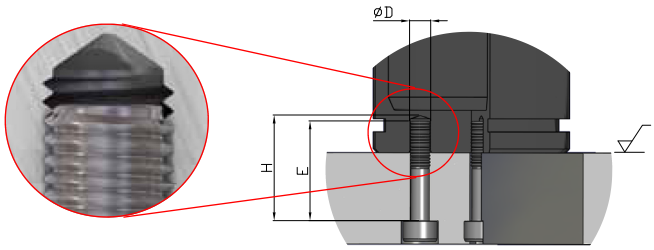
Make sure the length of the screws is such that the base of the gas spring sits flatly on the tool.



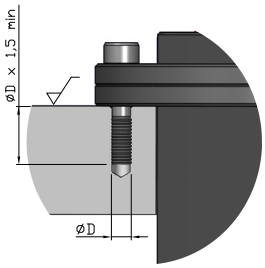
Even when fixing inside a lodging hole, the use of fixing screws is recommended.



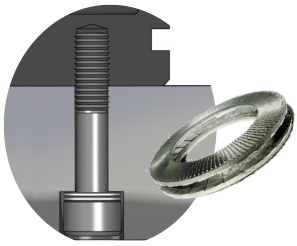
In fixtures with flanges, make sure the screws are tightened to the indicated torque readings.



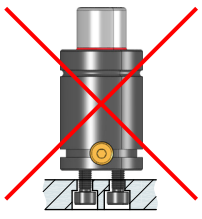
Please try to use all of the available thread length in the gas springs in order to obtain the best fixture.



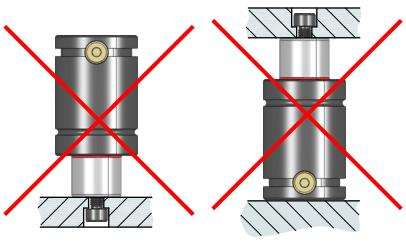
For all kinds of flanges, only screws with an adequate length should be used. Please respect minimum specified lengths.



Lock washers is recommended in a all fixtures with screws.



The screws should have an adequate length.



Fixing gas springs on the stems is forbidden.

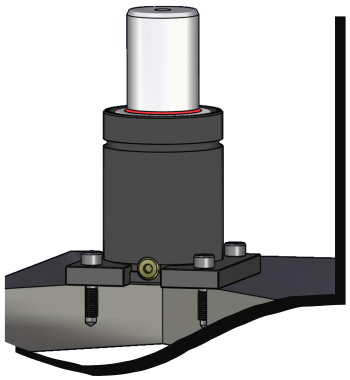
SUGGESTED TORQUE VALUES FOR SCREW THREADS

Diameter	Torque
M6	10
M8	25
M10	49
M12	85
M16	210

Reference values for Socket Head Cap Screws:

- Quality 8.8
- Without lubrication
- New threads.
- Torque coefficient μ = 0,14

FIXTURE WITH FLANGES IN THE BOTTOM POSITION



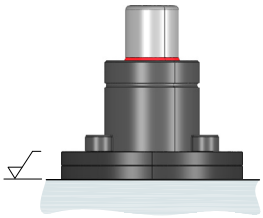
In order to fix the gas spring to the tool, use specific fixing elements. TECAPRES offers a wide variety of assembly options to satisfy our customers' different application needs.

Flange type FP, FB

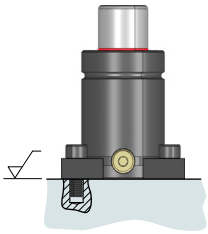
Gas Spring position: permissible for all positions.
Interconnected gas springs: this kind of fixture is recomended for interconnected gas springs.

Flange type FS, FSC

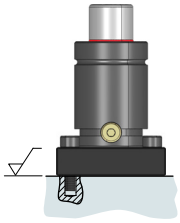
Gas Spring position: available for all vertical positions, both staniding or upside down.
Interconnected gas springs: this kind of fixture is not allowed for interconnected gas springs.



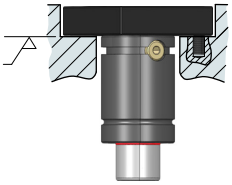
FS / FSC



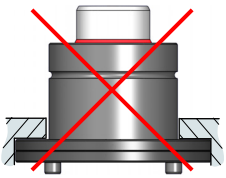
FP

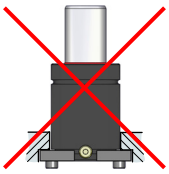


FB



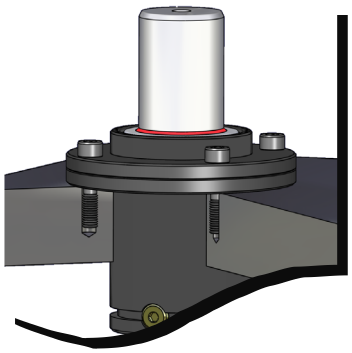
FB





All the force should be borne by the flange. The screws should not bear the compression force. Incorrect fixing methods may reduce gas spring life and affect safety.

FIXTURE WITH FLANGES IN THE TOP POSITION



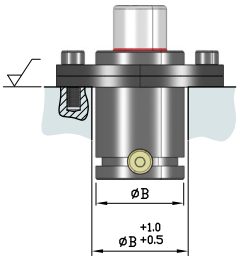
In order to fix the gas spring to the tool, use specific fixing elements. TECAPRES offers a wide variety of assembly options to satisfy our customers' different application needs.

Flange type: FRS

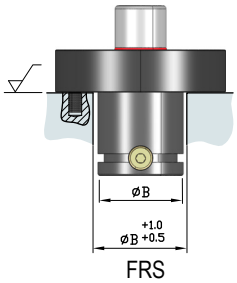
Gas Spring position: available for all positions.
Interconnected gas springs: it is recomended for interconnected gas springs.

Flange type FS, FSC

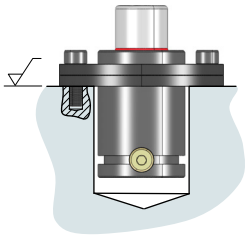
Gas Spring position: only for vertical positions, both upright and upside down.
Interconnected gas springs: it is recomended for interconnected gas springs.



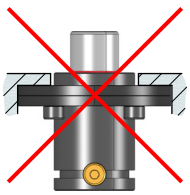
FS / FSC



FRS

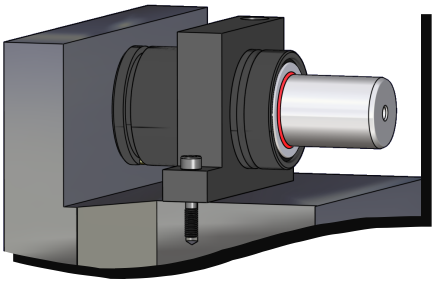


Gas springs with this kind of fixture do not need to sit on a solid base.



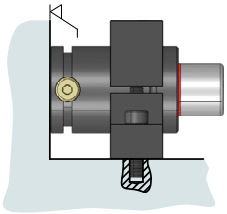
All flanges are designed for a single type of assembly, therefore each flange assembly mode is to be strictly adhered to.

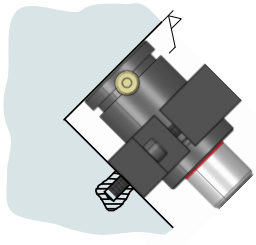
FIXTURE WITH TYPE FI FLANGES

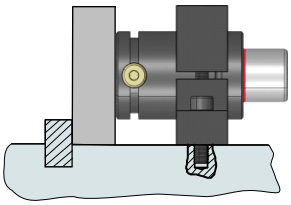


In order to fix the gas spring to the tool, use specific fixing elements. TECAPRES offers a wide variety of assembly options to satisfy our customers' different application needs.

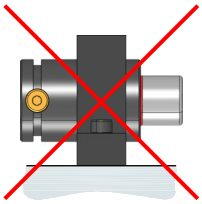
Gas Spring position: available for all positions.
Interconnected gas springs: it is recomended for interconnected gas springs.





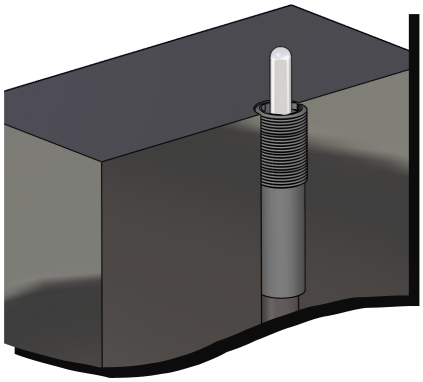


The gas spring base is to rest on some kind of solid support.



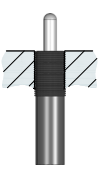
The flange does not support any force.

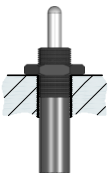
FIXTURE WITH THREADED GAS SPRINGS

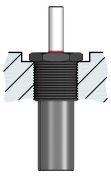


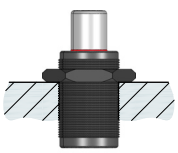
In order to fix the gas spring to the tool, use specific fixing elements. TECAPRES offers a wide variety of assembly options to satisfy our customers' different application needs.

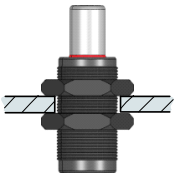
Gas Spring position: available for all positions.
Interconnected gas springs: it is not allowed to connecting gas springs.

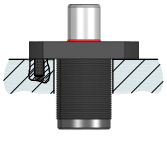


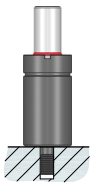


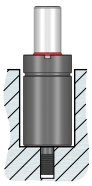












TPR/TPRB/TPRC FR TPRT24 FR FR FRS MICRO...R / TPKR

Dismountable locking adhesive is recommended to be sure that gas spring are correctly tightened. It also prevents loosening from shock and vibration.