

For the CRAL slow-return nitrogen gas springs, both of the following apply:

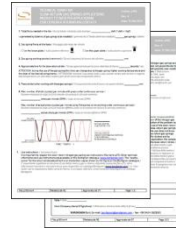
- 1) **the general use instructions for nitrogen gas springs**, indicated in our catalogue (we invite you to download the current version from the website www.bordignon.com and to periodically check for possible updates)
- 2) the following specific/additional use instructions:

NO



No side forces. Work stroke always perpendicular to the base of the nitrogen gas spring. Because of their non-standard construction, CRAL gas springs are particularly subject to the detrimental effects caused by side forces. It is very important to use properly sized (possibly over-sized) and efficient guide elements in the tool, to ensure a perpendicular-to-the-base working stroke.

YES



Respect the working conditions which were declared on the document p169 (technical form for the request of CRAL gas springs) and approved by Bordignon. The document p169 also indicates important conditions about warranty responsibility.



Do not put your fingers or other body parts between the piston rod and the pressing plate.



Manual lubrication is always necessary. Apply grease with molybdenum disulfide (MoS₂) on the piston rod (for example, using a painting brush) before use and then at regular intervals.

HOW TO ADJUST THE LENGTH OF THE BRAKED STROKE ON THE BACK-STROKE

This section does not apply to the CRAL gas springs with fixed (non-adjustable) slow-return: they can be identified by the layout of the gas spring base, which only features the threaded holes for fixing and the threaded hole (port) for nitrogen gas charging/discharging (the latter is placed in the centre). This section instead applies only to the CRAL gas springs with adjustable slow-return stroke (braked back-stroke): they can be identified by the layout of the gas spring base shown in *Figure 1* below. For such models, the following instructions apply:

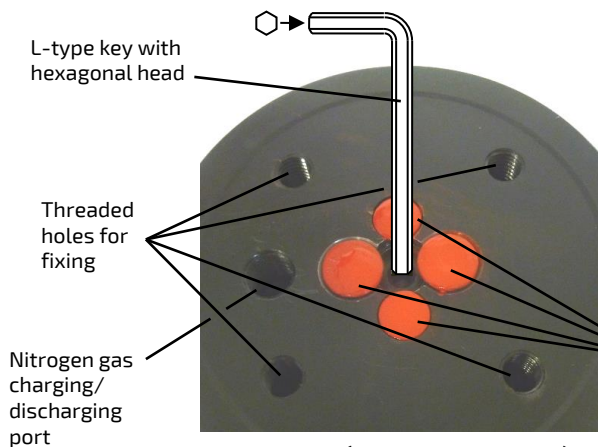


Figure 1 (gas spring base)

How to adjust the length of the braked stroke:

- the braked stroke length decreases by turning the L-type key anticlockwise
- the braked stroke length increases by turning the L-type key clockwise

IMPORTANT: turn the L-type key by hand, without using much force



Safety screws: never remove them and never make any mechanical work on them

How to adjust the braked stroke on the back stroke of several nitrogen gas springs not linked to a system:

1. Put the first nitrogen gas spring under the press and make some single shots with the press.
2. Following what is explained in *Figure 1*, start with the closed (fully screwed-in) adjusting screw and open (partially unscrew) it to find the braked stroke that you need. The shorter the braked stroke length, the lower the heat generated by the gas spring.
3. Put the other nitrogen gas springs next to the first one. Adjust the nitrogen gas springs one by one according to point 2 above, until all the nitrogen gas springs have the same braked stroke.