



LarsLap model C for cutting, milling grinding and lapping seats and flanges on globe, safety and control valves

As a rule, control and reduction valves of the globe type have an integrated plug that narrowly constrains the tolerances for the seat position.

In the event of damage to the seat, it is often unfeasible or extremely expensive to dismantle the valve from the pipe system in order to repair it in the workshop.

If the damage is to be repaired in situ, the device to be used must be of stable construction without being bulky or heavy. As these valves show a large range of dimensional variation, the repair device must be adaptable to the largest possible mounting and seat area. Possible repairs include the grinding of gasket surfaces damaged by crushing or abrasion, of damage cylindrical a plane control areas, various treatments of gasket welds and cutting the seats in situ.

The LarsLap model C has been designed to ensure flexibility as well as speed and ease of handling.



The picture shows a model C2 with a mounting module for narrow seats on an Ø300mm globe valve.





VALVE GRINDING SYSTEMS

The grinder has a base drive unit with the following integrated functions:

Base unit:

- É Drive motor unit with pneumatic and electronic connections to the support head.
- É Central unit with connections for various system types and dimensions of securing vanes as well as a fine and fast feeder.
- É Control box for the various functions.



Drive motor:

- É Drive motor for grinding units.
- É Swivel unit for electronic connections to sensor and grinding motor.
- É Swivel unit for air to grinding motor and pneumatic feeds.
- É Air connections for reducing play.



Central unit:

- É Long and stable support for control of support tube.
- É Socket for van functions.
- É Fast feed for support tube.
- É Fine feed of support tube.
- É Digital display of depth position to accuracy of 0,01mm.





Support head:

- Dual support bearings.
- LarsLap standard connections for tool holder.
- Socket for pneumatic functions
- Socket for electronic functions

Control panel:

- Emergency stop
- Measure probe
- Speed adjustments



Model C base unit comes in three sizes:

Model C1

B = $\varnothing 25 - 150$ (1" - 6")

A max = 300mm (12")

C max = 600mm (24")

Model C2

B = $\varnothing 50 - 400$ (2" - 16")

A max = 600mm (24")

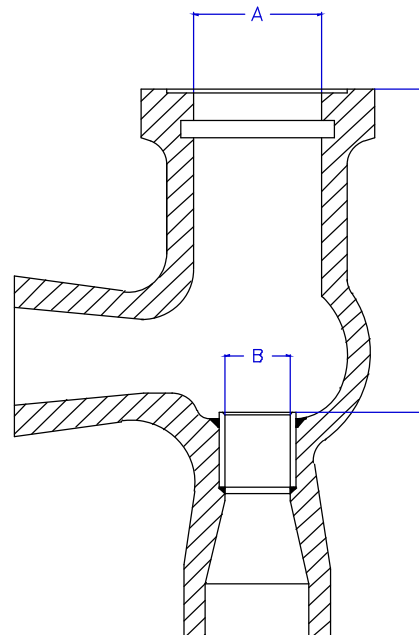
C max = 1000mm (40")

Model C3

B = $\varnothing 250 - 800$ (10" - 32")

A max = 900mm (36")

C max = 1000mm (40")



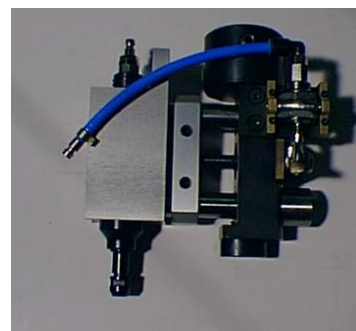


VALVE GRINDING SYSTEMS

To the base unit you have the possibility to add several grinding motors, mounting modules and guiding plates etc, depending on your specific need.

High speed motors:

- **Straight motor, vertical mounting**
Suitable for grinding, milling and cutting of gasket surfaces and angle or flat seat surfaces.
- **Angled motor, vertical mounting**
Suitable for grinding, milling and cutting of gasket surfaces and angle or flat seat surfaces.
- **Grinding motor holder with radial pneumatic feed**
Suitable for grinding, milling and cutting of gasket surfaces and angle or flat surfaces.

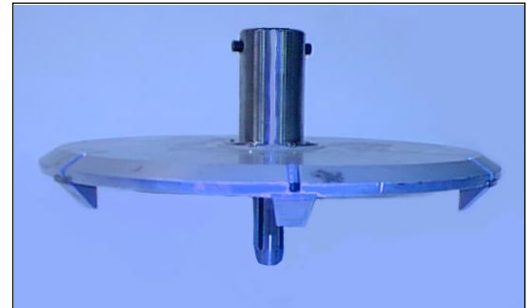


- Infinitely variable regulated high speed motor in 0 - 180°



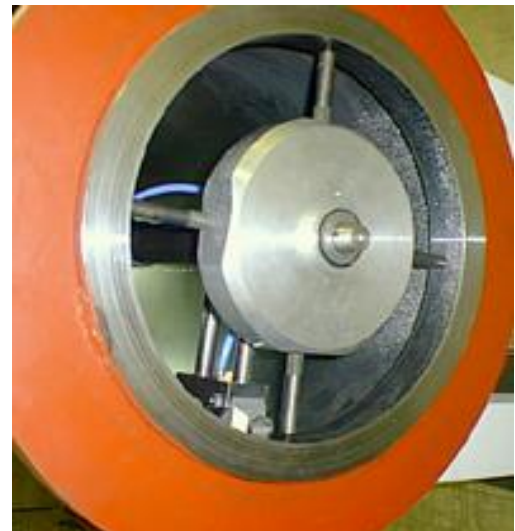
Grinding and lapping equipment:

- Lapping disk of type FL, for repairing minor damage on flat and/or angle seats. Available in different sizes between Ø50 - 500 (2 ½" - 20")



Grinding and lapping equipment:

- Guiding plate to stabilize the machine Suitable for deep valves or valves with angle seats. This option is necessary when the machine needs to be mounted in a horizontal position. This guiding plate is available in Ø50 - 800mm (2 ½" - 20")



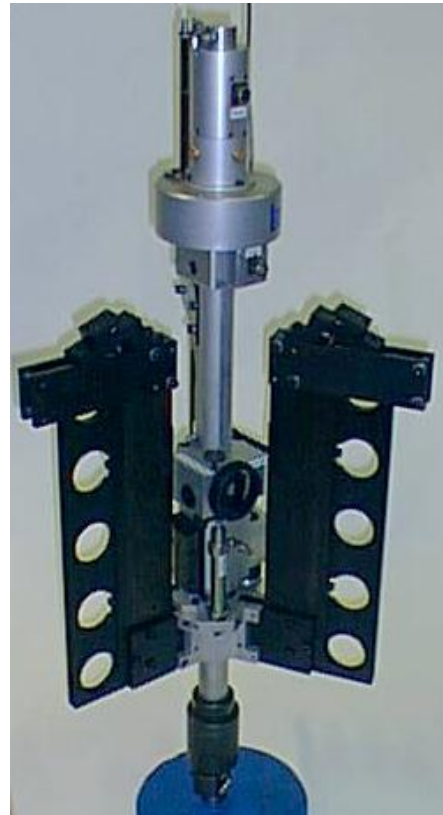
Tools:

- Milling, cutting and grinding tools.



Mounting modules:

- Mounting frames for deep valves
Available in different deeps and flange sizes
Ø250 - 800mm (10" - 32")





VALVE GRINDING SYSTEMS

- **Mounting module for flanges and valves with narrow seats.**
Available in flange sizes $\text{\O}150 - 800\text{mm}$ (6" - 32")



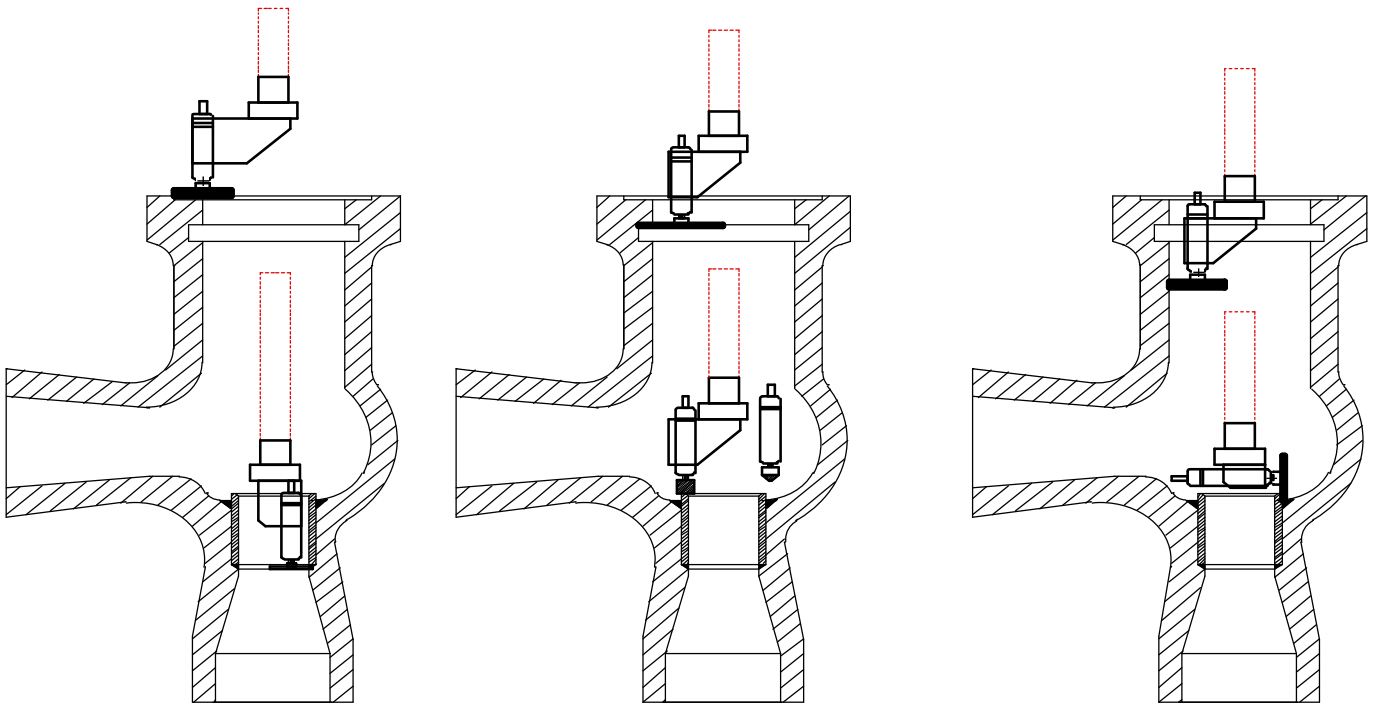
- **Wings in different sizes for valves mounted in vertical mode and for valves without flanges.**
Available in flange sizes $\text{\O}20 - 800\text{mm}$ (1" - 32")





VALVE GRINDING SYSTEMS

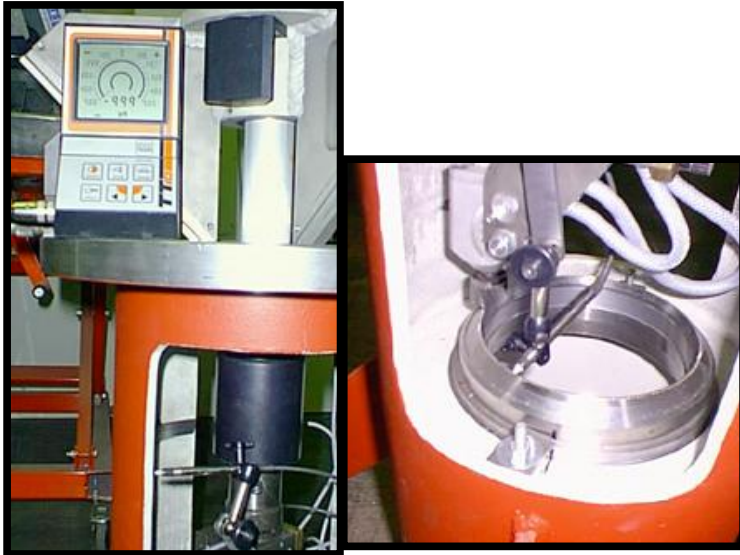
A view over possibilities with LarsLap model C





VALVE GRINDING SYSTEMS

LarsLap model C in action



The integrated power unit connects the external instrument (measure probe) to a sensor. The centering, roundness and evenness of seat can be measured.



LarsLap model C in action, trimming a $\varnothing 100\text{mm}$ seat with a 400mm deep flange.