

CONTAINERIZED VALVE REPAIR WORKSHOP



MODEL: CT20-2

VENTIL - NLPolakweg 6 - 2288 GE
Rijswijk – The Netherlands
T.: +31 88 1130900
E.: info@ventil.nl**VENTIL USA INC.**906 Gemini Street
Houston TX 77058 - USA
T.: +1 281 2800141
E.: info@ventil-usa.com**VENTIL MIDDLE EAST FZC**SAIF Zone, Unit Q4-267
Sharjah, United Arab Emirates
T.: +971 506260955
E.: info@ventil-me.com**VENTIL RUSSIA**ул. Врубеля 8, офис 2
125080 МОСКВА
T.: +7 499 728 1550
E.: info@ventil-rus.ru

Containerized Workshop CT20-2

Following the trend for on-site, in-situ repair to reduce down times to a minimum, Ventil supplies a variety of container-based valve repair and test facilities with different configurations, adapted to the valve types, environmental conditions and specific needs of our customers worldwide. The CT20-2 is delivered ready for use.

Installed Equipment

- Blasting Cabinet, Steel Shot.
- Blasting Cabinet Glass Beads
- Lathe
- Jib Crane (500 kg)
- Utility / Shop Air Compressor.
- Cleaning Cabinet
- Workbench with storage shelving and vice.
- Safety valve nozzle remover / valve fixture / (dis)assembly block.
- HVAC Unit.
- Storage drawers
- Cupboards
- Hand Tools.

Specifications

Blasting Cabinet, Steel Shot.

For cleaning all sorts of valve parts and components. Delivery includes 25 kilos aluminum oxide shot.

Blasting Cabinet, Glass Beads.

For valve trims. Delivery includes 25 kilos Glass Beads.

Lathe.

Universal Lathe for repairing or reproducing machine/valve arts. The lathe is installed and delivered 'ready for use', including 3-jaw chuck, coolant system, fixed/sliding centers, safety guard, halogen light and complete set of cutting tools.

Jib Crane 500 kg.

Wall mounted jib crane with hand operated chain block for easy (un)loading valves in/outside the container. The container wall is strengthened for the 500 kg crane.

Utility / Shop Air Compressor.

Piston compressor with 500 litre storage tank, and automated control.

Cleaning Cabinet.

Hand operated, universal cleaning system for cleaning valve parts. The cabinet is completed with a pump system and user amount of cleaning solvent.

Work Bench.

The large workbench is specially fabricated for the use in containers and exists of a strong structure with 50 mm / 2" thick wooden plate, (lockable) storage cabinets and heavy duty vice.

Nozzle Remover / Valve (dis)assembly block.

This robust structure can be used for safely (dis)assembling (safety) valves and unscrewing the nozzle from the safety valve body. The heavy constructed block is completed with a 4-Jaw chuck to clamp the safety valve on the nozzle or flange. The side of the block is completed with grooves and T-bolts to clamp a valve to ensure safe working position.

HVAC unit.

Large size, split-system air conditioners, placed in the workshop area.

Storage drawers, cupboards and storage shelf.

(Lockable) storage drawers, cupboards and storage shelf for the storage of tools, spare parts, accessories.

Hand Tools.

Complete set of hand tools for valve (dis)assembly and repair.

Accessories

Set of additional equipment; fire extinguishers, spiral hose with air gun, documents clipboard.

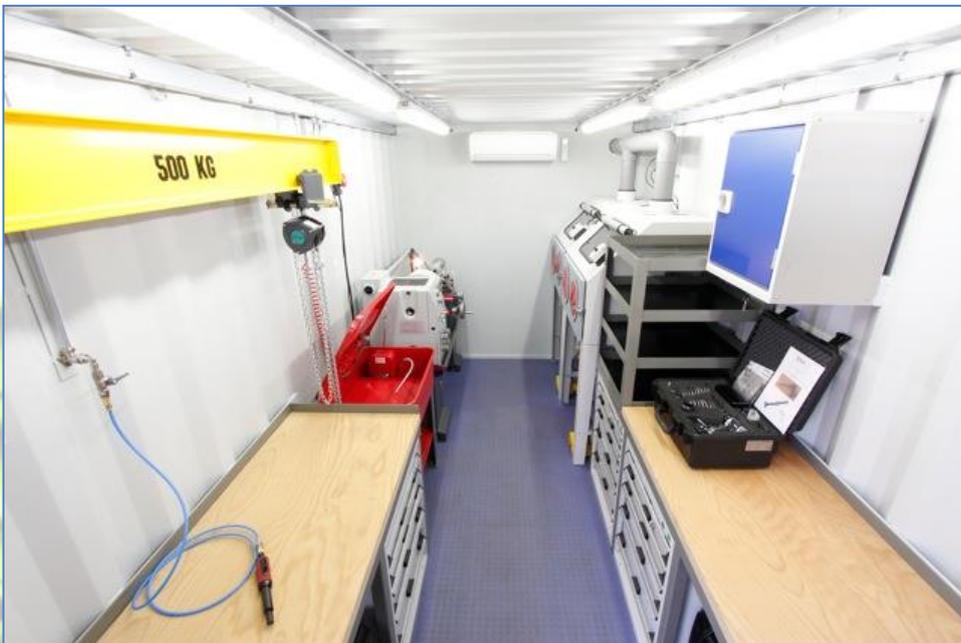
Impressions



Cleaning Cabinet and Lathe



Lathe



Blasting Cabinets



Air Compressor

Optional Systems and Tools.

Option 122 - Polir F6 PSV Lapping /Grinding unit.

Portable, battery driven machine for grinding and lapping flat sealing faces of globe- and safety valves. The Polir F6 machine is designed for on-site or in-shop valve reconditioning. The light weight machine is equipped for a full, universal range up to 6" / DN150 mm. The Polir F6 is standard equipped with a range of grinding and center plates for grinding and lapping any type and size of 'flat' seats. The center plate keeps the grinding plate in position, but also gives an eccentric, orbital rotation ensuring complete coverage and absolute flatness.



Abrasives

The Polir F6 is completed with a large consumer quantity of polyester based, 3M self-adhesive aluminum oxide round foil tips in grains rough, middle and fine. The foil tips can be used dry and on all common seat materials.

Drive machine

The Polir F6 is standard equipped with a battery driven machine and is delivered with two batteries. The low weight and good balance of the machine increases the grinding performance and makes it easier to attain high quality flat 'results'. The complete set is packed in a robust, but light weight carrying case. Contact us or look at www.valve-lapping.com for other valve lapping solutions.



Option 128 - Polir Conical Seat Attachment C2.5.

Attachment set for grinding and lapping valves with conical seats in range 3/8" – 2½"

Seat Angles:

- ✓ 30° (2x 15°)
- ✓ 40° (2x 20°)
- ✓ 60° (2x 30°)
- ✓ 75° (2x 37.5°)
- ✓ 90° (2x 45°)



Option 94. Optic 15 Flat Lapping machine.

The V-Tec OPTIC is a Flat lapping and Polishing machine for high precision and fine finishing of the sealing faces of (safety) valve and components up to a diameter of 240 mm. / 9,5". The frame mounted 'open face' OPTIC is built on rigid metal construction with a height adjustment and waste tank. The machine incorporates a fully automatic Liquid Diamond Dispensing System and process timer and adjustable speed knob.

The OPTIC flat lapping machines are used in valve repair shops for fine finishing of all common PSV discs, seats or complete nozzles. Only optical flat lapping can be used for reaching the so important required seat tightness of metal seated Safety valves, used in the oil- & gas industry. The V-Tec OPTIC lapping plate and standard supplied consumables are specially selected for this purpose. The OPTIC can be used to reach a flatness accuracy within 3 light bands. The OPTIC is specially designed and equipped for the use in valve repair, but for a long and reliable working effect, it needs to be placed in a dedicated lapping room.



Option 95. Optical Flats and Monochromatic Light.

Optical flats are optical-grade, lapped and polished glass pieces which are extremely flat (about 25 nanometres). They are used in combination with a monochromatic light to determine the flatness of the lapped valve seat or disc.

When the valve seat or disc and optical flat are placed under the monochromatic light, the surface is illuminated and the light waves reflect off both the bottom surface of the flat and the surface of the seat. The reflected waves interfere, creating a pattern of interference fringes (Newton's rings), visible as light and dark bands.

The spacing between the fringes is smaller where the gap is changing more rapidly, indicating a departure from flatness in one of the two surfaces, in a similar way to the contour lines on a map. A flat surface is indicated by a pattern of straight, parallel fringes with equal spacing, while other patterns indicate uneven surfaces. Two adjacent fringes indicate a difference in elevation of one-half wavelength of the light used, so by counting the fringes differences in elevation of the surface can be measured to millionths of an inch. The delivery includes a laminated poster with operating instructions and indicative guidelines of levels of flatness.



Option 129. – Orbit 24 Valve Grinder

The ORBIT 24 is a robust, but light weight grinding and lapping machine for 'in-situ' or 'in-shop' repair of damaged valve seats. The unique set up and construction makes the versatile ORBIT 24 suitable for all sorts of vertical seats (Gate-, Parallel slide-, Check Valves) and horizontal mounted seats (Globe- and Safety valves) in the range 6-24".

The ORBIT 24 is suitable and equipped for grinding and lapping the faces on both the Gate valve seats and wedge. Both seats inside the valve body are quickly machined in one setting of the mounting bracket. The standard included Gate valve wedge bracket allows you to accurately machine both faces of the wedge.

Within seconds the ORBIT 24 is prepared for machining the flat seats of both Gate-, Parallel Slide, Globe and Safety valves. The ball joint construction in the arm ensures a very easy alignment and accurate control of the force. The unique orbital, - mechanical driven grinding head results in a very high material removal rate and extreme flatness accuracy.

The ORBIT 24 is equipped with two different grinding heads and three sets of different lengths of grinding arms to cover the whole range. The grinding heads are mechanically driven by an internal gearing system that rotates the wheels at the same speed producing the perfect cross hatch machining pattern. This orbital lapping design assures the highest material removal rate with the highest flatness accuracy.

Absolute flat grinding is guaranteed by the mechanical drive having the same speed on the inside and outside of the seat. The standard delivery includes different grit sizes of self-adhesive 3M foil suitable for any type of finish on all common seat materials. Permanent impregnated diamond grinding-heads are available on request.

The light weight, stainless steel mounting bracket can be clamped on various bonnet types and sizes.

The ORBIT 24 is designed and equipped for the tough life on-site. The machine is built from stainless steel and high quality aluminum parts and components. All parts, components, tools and materials are packed in a robust, watertight, crush- and dustproof trolley case. The case is compartmentalized to assist with the organization of the machine parts for inventory control.



Datasheet Container CT20-2

Container	20 ft.
Type	High cube, standard container.
Weight (equipped) (estimated)	6500 kg.
Dimensions external (l x w x h)	6058 x 2438 x 2996 mm.
Dimensions internal (l x w x h)	5898 x 2287 x 2698 mm.
Color Inside	RAL 7035 <i>(advise for different requirements)</i>
Color Outside	RAL 1023 <i>(advise for different requirements)</i>
Floor	Diamond plated.
Doors	At both sides – entrance workshop.
HVAC Unit	5.0 kW cooling / 5.8 kW heating. Max air flow 11.3 m ³ / minute.
Jib Crane	500 kg (manual operation)
Compressor Station	10 bar / 150 PSI, 500 nl/min.
Required connections	Electricity : 3 Phase 400 V, 50 Hz + ground + Neutral Other available on request
Pneumatic installation	3 x workshop quick connect air connections at strategic positions in container.
Electrical installation	4 x 230 V Electric sockets at strategic positions in container. Lightning 5x fluorescent tube, IP 65.
Connection box (electricity)	Left side of container.
Delivery	Ready for use.