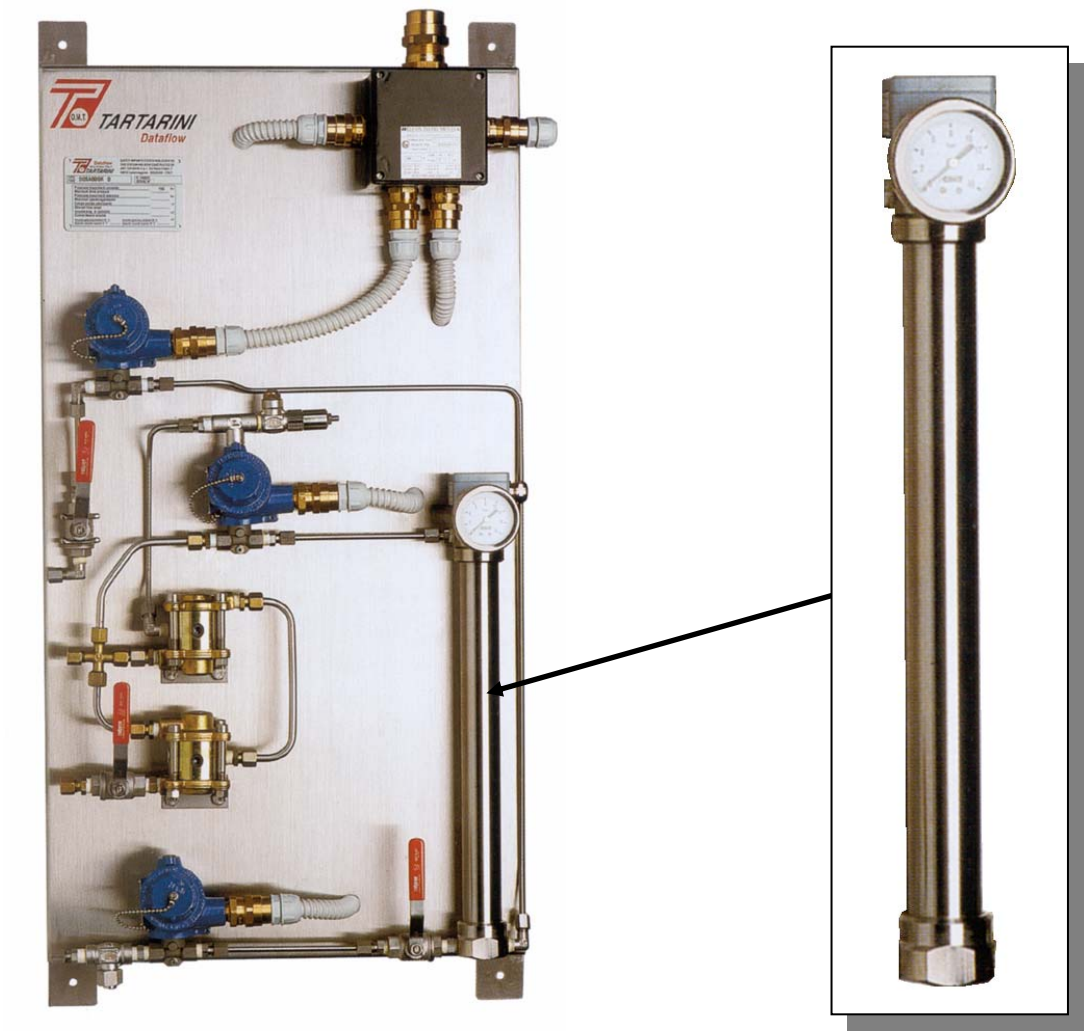
INJECTION ODORIZING SYSTEMS : DOSAODOR TYPE



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INDEX

The ***DOSAODOR cylindrical tank*** is just a part of the electro-pneumatic panel of the DOSAODOR odorizing systems series produced by OMT Tartarini SpA : installation, operation, maintenance, start-up and shut-down procedures have to be in accordance with station's safety procedures and the Instruction Manual of the DOSAODOR system.

This Safe Use Guide provides instructions and safety information on ***DOSAODOR cylindrical tank*** so as to avoid any foreseeable risk during the use. For further information refer to DOSAODOR Bulletin, nn ° 176 & 177, and their Instruction Manuals.

To receive a copy of the Bulletin, please contact your local O.M.T. Tartarini Sales Office or O.M.T Tartarini Sales Representative.

1. P.E.D. CATEGORIES AND SPECIFICATIONS

1.1 P.E.D. Categories and Fluid Group

Type	Category	Fluid Group
DOSAODOR Cylindrical tank	II	1

1.2 Specifications

Volume : 1,3 and 2 liters
Pipes connection style : ¼" NPT

! WARNING !

Type	Maximum Allowable Pressure (PS) bar	Hydrostatic Test Pressure (PT) bar
DOSAODOR Cylindrical tank	100	150

Minimum/Maximum Allowable Temperature (TS)

-10 ÷ +60 °C

N.B. : The pressure/temperature limits detailed in this Safe Use Guide and any applicable standard or code limitation should not be exceeded.

2. HAZARDS

2.1 Only qualified personnel shall install an odorizing system. Odorizing systems should be installed, operated and maintained in accordance with international and national applicable codes and regulations. Following notes and instruction point out, in particular, the "pressure" risk. Installation, operation and maintenance procedures performed by unqualified personnel may result in unsafe operation.
This condition may result in equipment damage or personal injury. If a leak develops in the system, the escaping gas may accumulate and become a fire or explosion hazard. Immediately call qualified service personnel in case of trouble.

2.2 Hazards arising from mis-use and mis-operating are:

Personal injury, equipment damage, or leakage due to escaping gas or bursting of pressure-containing parts may result if the equipment is installed where its capabilities (PS and TS) can be exceeded or where conditions exceed any ratings of the adjacent piping or piping connections.

Physical damage could result in breakage, causing personal injury and property damage due to escaping gas.

2.3 Installing the equipment where its capabilities, or those of any downstream equipment, can be exceeded may cause personal injury or property damage due to bursting of pressure-containing parts or explosion of accumulated gas.

To avoid above hazards, install the equipment where:

- service conditions are within unit capabilities.
- service conditions are within applicable local, federal or national codes or regulations.
- the unit is protected from exposure to physical damage and/or corrosive substances.
- suitable pressure-limiting or pressure-relieving devices have been installed in those instances where supply pressure is capable of exceeding the maximum allowable downstream equipment pressure.

3. HANDLING

3.1 The equipment supplied with present package is shipped already installed in the electro-pneumatic panel of the DOSAODOR system. Above panel has been designed to hold tank weight: established transport and handling procedures shall be followed to avoid any damage on the pressure containing parts by shocks or anomalous stresses.

3.2 The equipment is self stiffened and standard lifting devices may be used for handling.

3.3 Special care must be taken over avoiding any damage to pressure accessories installed together with the DOSAODOR cylindrical tank.

4. PRESERVATION AND STORAGE

4.1 DOSAODOR equipment is delivered all surfaces completely protected (paint or inox steel material) , hence the equipment doesn't need specific precautions for storage, providing to follow the recommendations listed below.

4.2 Upon arrival at site, the unit shall be completely inspected for eventual damage caused by transportation. Repair actions shall be carried out as soon as possible to avoid paint scaling and rust propagation, if any.

4.3 Inspection shall be done also on possible assembled pressure accessories (valves, level indicator, …)

5. INSTALLATION

! WARNING !

National safety standards and established rules shall be applied in odorizing system installation and operation, concerning, in particular, electrical works, fire and thunderbolt protection, safety procedures on odorisant handling. All means for venting have to be provided in the assemblies where the pressure equipment is installed.
Before installation, check shall be done if service conditions are consistent with use limitations.

Where this product is used :
- provide the cathodic protection and electrical isolation to avoid any corrosion and
- the gas shall be cleaned by proper filters/separators/scrubbers to avoid any technical & reasonable hazard of erosion or abrasion for pressure containing parts
DOSAODOR cylindrical tank shall be installed in non-seismic area and hasn't to undergo fire and thunderbolt action.

5.1 Levelling
The vessel should be installed to the correct level and vertical line if any within the limits agreed by data sheet or specifications.

5.2 Access
The vessel should be installed with sufficient clearance from associated structures and equipment to provide safe, efficient working by operators and to provide ready access for cleaning, inspection and maintenance.
Support should be so arranged to provide adequate facility for the inspection of every part of the vessel.

5.3 Ventilation
Equipment should have adequate ventilation around them, particularly where vessels are located indoors. The ventilation requirements should take into account the type of medium which may escape from the equipment. Special requirements for lethal material should be agreed with the Authority involved.

5.4 Lighting
Where necessary, the illumination level of lighting at the equipment should be sufficient to allow free movement of operating personnel in safety while in operation under normal conditions. Permanent lighting should provide an illumination level which ensures that portable lights will not be required in the normal operation.

For further information on installation procedures refer to DOSAODOR Bulletin and their Instruction Manuals.

6. START-UP AND SHUTDOWN

6.1 Upon arrival at site the equipment must be inspected for eventual damages occurred during transportation.
At least, the following points have to be inspected:

a) integrity of nozzles closure and equipment sealing

b) status of painted surfaces. If paint is damage any touch-up shall be carried out in accordance with the project coating specification

c) visual check of critical areas such as pipe plugs, level gauge connection, ...

6.2 Any damage shall be reported to the project team and to the vendor in order to agree and co-ordinate any repair work.

6.3 The equipment is been subject to hydrostatic test at the factory according to applicable codes requirements and thoroughly inspected for leakage during the above test. However, handling during transportation or moving into place may have loose gasketed seals: based upon the above, it is recommended to recheck all bolted connections prior to start up.

6.4 Equipment operating at high pressure should be warmed up slowly and uniformly before applying full pressure. Tank is particular sensitive to pressure increase very rapidly. Pressure should be increase in stages of approximately 10% of operating pressure up to the operating value. In case of leakage or other inconvenience, the procedure should be immediately stopped and the problem investigated and removed before a new start-up.

6.5 Gasketed connections
Before start-up and after initial start-up, at normal operating pressure and temperature, it is recommended to inspect all gasketed joints for tightness.

6.6 Shutting down
When possible, reduce slowly the pressure in order to avoid damage.
In no case open the equipment before the pressure is completely released.

For further information on start-up and shutdown procedures refer to DOSAODOR Instruction Manuals.

7. MAINTENANCE

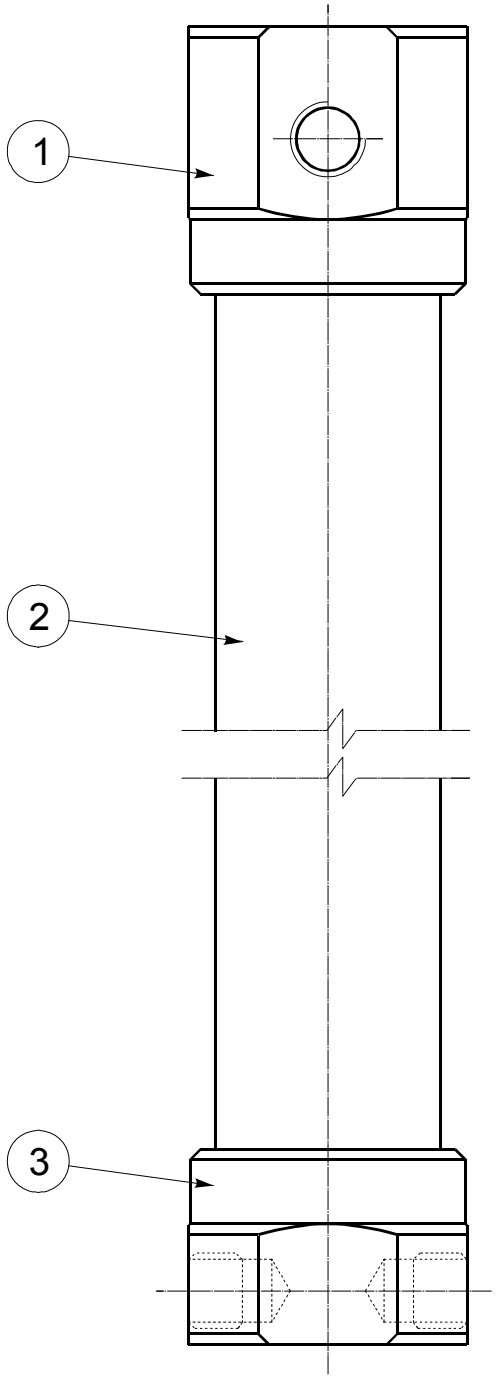
7.1 At regular intervals and as frequently as experience indicates, an examination should be made of the tank condition. In case of need, specific procedures are prepared by Manufacturer according national and applicable codes and regulations. The frequency of inspection/checks and replacements depends upon the severity of service conditions and upon applicable codes and national standards/rules.

7.2 If any liquid leakage or gas escaping occurs, safety station procedures shall be applied to shut-down odorizing system.

7.3 No special spare part is foreseen for odorizing tanks.

For further information on maintenance and cleaning procedures refer to DOSAODOR Instruction Manuals.

8. DRAWING



N°	Name
1	Top Threaded Plug
2	Cylinder
3	Bottom Threaded Plug