DEVILBISS
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Service Bulletin
SB-21-002-D
Replaces SB-21-002-C

PRESSURE FEED TANK INFORMATION

DESCRIPTION

These devises are intended for use as a pressure container to supply material at a constant preset pressure up to a maximum of 110 psi. The tanks are built to A.S.M.E. Specifications.

SPECIFICATIONS

	Qty.	Thread
Air Inlet (2, 5,10,15 Gallon)	1	1/4" NPS(M)
Air Outlet (2, 5,10,15 Gallon)	1	1/4" NPS(M)
Fluid Outlet (2, 5, 10,15 Gallon)	1	3/8" NPS(M)

STANDARD FLUID REGULATION

Standard type tank for use on jobs where precision control of both fluid and atomization air pressures is not required. Also used where atomization air can be taken from air transformer or regulated air line. Provides standard fluid pressure control only. Equipped with; pressure regulator and gauge; safety valve; pressure release valve. See specifications for inlet and outlet connections.

STANDARD AIR AND FLUID REGULATION (Double Regulation)

Precision controlled tanks for use with modem materials that are best angled at low, closely controlled fluid and atomization air pressures. Used with portable air compressors or with air lines when no other means (air transformers or regulators) of air pressure regulation is available. Equipped with; two regulators with gauges, one for fluid pressure, the other for atomization air pressure; safety valve; pressure release valve. See specifications for connections.

EXTRA SENSITIVE FLUID REGULATION

Tanks specially adapted for use with electrostatic spray installations; application of lubricants, special coatings, etc. Suitable for use whenever extremely sensitive, non-fluctuating low pressure control is required. Large, reinforced synthetic diaphragm type regulator controls to a maximum of 30 pounds pressure. Equipped with; extra sensitive regulator; 30 pound gauge; safety valve set for 40 psi; pressure release valve. See specifications for inlet and outlet connections.

CAUTION

Standard tanks can be used with most common coating and finishing materials. Materials that are considered to be highly corrosive, highly rust Inducing, or highly abrasive should not be used. If these materials are used, the need for cleaning, maintenance and parts replacement will be greatly increased.

WARNING

Air pressure loads that are higher than design loads, or changes to the pressure feed tank can cause the tanks to rupture or explode.

- A safety valve protects the tanks from over-pressurization. During each use, pull the ring on the safety valve to make sure it operates freely and relieves air pressure. If the valve is stuck, does not operate freely or does not relieve air pressure, it must be replaced. Do not eliminate, make adjustments or substitutions to this valve.

- Changes to the air tank will weaken it. Never drill into, weld, or change the tanks in any way.

- The maximum working pressure of this tank is 110 psi.

WARNING

Halogenated hydrocarbon solvents - for example; 1, 1, 1 - Trichlorethylene and methylene chloride can chemically react with aluminum, zinc plating or galvanized materials. If this reaction occurs within an enclosed container such as this pressure feed tank, the tank may explode. Any contact of aluminum and halogenated solvents within the tank must be avoided. Stainless steel models may be used with halogenated solvents.

INSTALLATION

Note

A tank with agitator assembly is shipped with the curved edge of the paddles down. When an insert container is used, it is necessary to turn the bottom paddle upside down so that the flat side is down. In either position, the correct adjustment on the shaft will be obtained by tightening the cap screw at a point where the paddle socket and the shaft are flush at the bottom. This mounting should give 1/2" clearance between the paddle and insert container.

Mix and prepare material to be used according to manufacturer's instructions. Strain material through a fine mesh screen to remove all lumps, skin and foreign matter which might enter and clog fluid passages and/or spray equipment.

1. Always relieve the air pressure in tank before attempting to remove lid assembly. Pull the safety valve ring until pressure bleeds down.
2. To add material, see A or B below.

Note

When filling the pressure tank, fil to within 4" below the rim.

A. Lilt lid assembly off tank and pour directly into the tank or container.
B. Remove plug and pour through the filler hole.

3. Replace the lid assembly and tighten clamps and thumb screws securely; and/or replace the plug of lid assembly and tighten securely.
4. If possible, the air supply line should pass through a transformer to filter dirt from air and remove entrained water and oil. Connect the air supply hose to the air inlet fitting on tank regulator.
5. Connect material hose to the fluid outlet valve.

OPERATION

Turn handle on regulator counterclockwise until spring tension is relieved.

2 Turn on air supply to tank.

3. Open air inlet valve on regulator.

4. Open fluid outlet valve.

5. Turn the handle on regulator clockwise to increase pressure on material and counterclockwise to decrease pressure.

6. Turn on atomization air to spray gun at source of supply.

Test spray. For further instructions, see the spray gun parts list.

PREVENTIVE MAINTENANCE

To clean equipment:

Turn off the air supply.

2 Relieve all pressure from the tank by turning the air relief valve thumb screw counterclockwise until the pressure bleeds down.

3. Loosen thumb screws, tip clamps back and tip tank lid to one side.

4. Loosen spray gun air cap retaining ring about three

5 Turn T-handle adjusting screw on tank regulator counterclockwise until no spring tension is felt.

6. Turn on the air supply.

Cup cloth over air cap on the gun and pull trigger. This will force material back through the hose, into the tank.

8. Empty and clean tank and parts which come in contact with material.. Use a suitable solvent.

9. Pour solvent into the tank.

10. Replace lid and tighten thumb screws and clamps.

11. Spray until clean solvent appears.

12. Repeat Steps 5-8.

Keep the safety valve clean at all time.

LUBRICATION

If tank includes air motor agitator, refer to the service bulletin provided with the air motor for lubrication information.

Agitator assemblies on 2, 5, 10 and 15 gallon tanks include a permanently lubricated bearing assembly and require no lubrication.

TROUBLESHOOTING

Problem	Cause	Correction
Air escaping from port on regulator cap.	Broken or damaged diaphragm	Replace diaphragm.
Pressure creepage registered on gauge. —	Dirty or worn valve seat in regulator.	Clean or replace valve seat
Material tends to settle out rapidly.	Not enough agitation of material.	Increase agitation.
Air leakage at agitator seal assembly.	Defective seal assembly.	Replace.
Paint getting into bearing assembly of agitator.	Paint level in tank too high.	Do not fill tank above agitator bearing assembly.
	Defective seal assembly.	Replace
	Defective agitator shaft seal.	Replace
Fluid or air leak at lid gasket.	Defective lid gasket.	Replace
	Thumb screw not tight.	Tighten.

Note: Occasionally check pressure gauge. The needle should return to zero with no pressure on the gauge.

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