

Operation Manual: PR-522 PRESSURE FEED TANKS

SB-E-21-051-B



Important:

Read and follow all instructions and SAFETY PRECAUTIONS
before using this equipment

DESCRIPTION

Pressure feed tanks for the supply of coating material at a constant pressure. The tanks are equipped with an air regulator, pressure gauge, safety valve, pressure relief valve, hand agitator, air and coating material valves.

IMPORTANT: These pressure feed tanks are not designed for use with highly corrosive or highly abrasive coating material and if used with such materials it must be expected that the need for thorough cleaning and/or the necessity for replacement parts will be increased. If there is any doubt regarding the suitability of a specific material, advise what material is to be used and/or submit a sample for test.

MODELS

- PR-522-2 Nine litre pressure feed tank with BSP hose connections.
PR-557-1 Nine litre pressure feed tank with NPS hose connections.

SPECIFICATIONS

MAXIMUM RECOMMENDED WORKING PRESSURE : $P_1 = 5.5 \text{ bar (80 lbf/in}^2\text{)}$.

MAXIMUM AIR SUPPLY PRESSURE : 10 bar (145 lbf/in²).

HOSE CONNECTIONS

Model	PR-522-2	PR-557-1
Air inlet	: 1/4" BSP	1/4" NPS
Air outlet	: 1/4" BSP	1/4" NPS
Coating material outlet	: 3/8" BSP	3/8" NPS

Materials in contact with coating material

Tank shell	: Steel, galvanised
Tank lid	: Aluminium alloy
Agitator shaft	: Steel, Zinc plated
Coating material tube	: Steel, Zinc plated
Agitator blades	: Steel, Zinc plated
Blade fasteners	: Steel, Nickel plated
Lid gasket	: Neoprene rubber
Coating material valve	: Brass, nickel plated

WEIGHT : 14.5 kg

DIMENSIONS

Internal tank size	
Diameter	: 203 mm (8")
Height at centre	: 390 mm (15 3/8")
Overall Size	
Width	: 305 mm (12")
Height	: 635 mm (25")

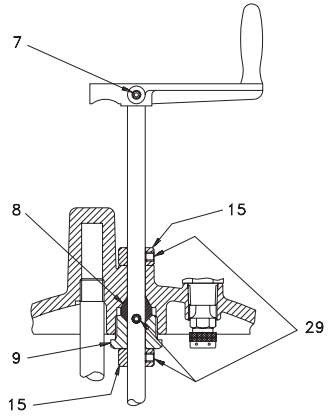
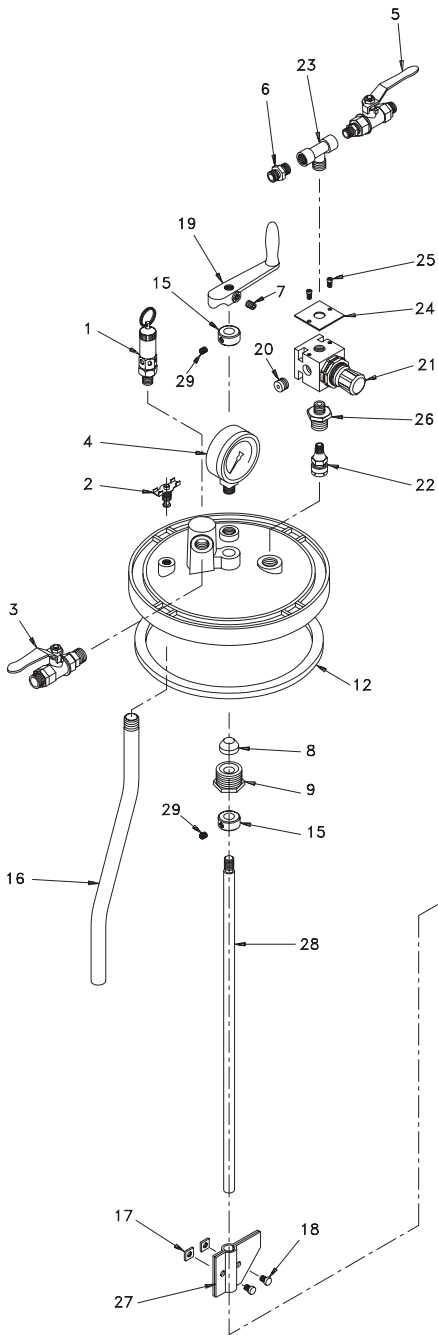


FIG 2

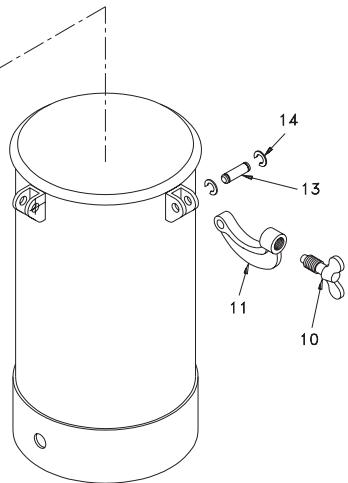


FIG 1

Parts list

REF.	ORDER No.	DESCRIPTION	QTY.
1	MA-TI-536	Safety valve	1
2	RC-19-A	Relief valve	1
3	VA-5425 VA-5430	Valve 3/8" BSP Valve 3/8" NPS	1
4	XJ-16	Gauge	1
5	VA-5432 VA-5426	Valve 1/4" BSP Valve 1/4" NPS	1
6	2101004 CT-1118	Connector 1/4" BSP Connector 1/4" NPS	1
7	SPS-576	Screw	1
8	SPS-2381-A	Seal	1
9	PR-11	Adjusting screw	1
10	PR-131	Screw	4
11	PR-130	Clamp	4
12	PR-5	Seal	1
13	PR-137	Pin	4
14	SST-8432-ZN	Circlip	8
15	PR-12	Collar	2
16	PR-13	Tube	1
17	SPS-8751-P	Nut	2
18	SPS-1-P	Screw	2
19	PR-10	Handle	1
20	2107001	Plug	1
21	1202002-DV	Regulator	1
22	XM-4	Protector	1
23	2112002	Tee	1
24	PR-139	Plate	1
25	SSF-3159-ZN	Screw	2
26	PR-138	Connector	1
27	PR-91-A	Paddle	2
28	PR-8	Shaft	1
29	SPS-555	Screw	3

SAFETY WARNINGS

FIRE AND EXPLOSION

Solvents and coating materials can be highly flammable or combustible, especially when sprayed.

- Work stations must be provided with adequate ventilation/exhaust to prevent the build-up of flammable vapours.
- Smoking and naked flames must not be allowed in the spraying or mixing areas.
- Fire extinguishing equipment must be provided in the spraying and mixing areas.

Users must comply with all local and national codes of practice and insurance company requirements governing ventilation, fire precautions, operation, maintenance and housekeeping of work stations.

HALOGENATED HYDROCARBON SOLVENTS - for example 1,1,1-Trichloroethane and Methylene Chloride can chemically react with aluminium and galvanised or zinc coated parts and cause an explosion hazard. Read the label and data sheet of the material you intend to spray.

DO NOT USE SOLVENTS OR COATING MATERIALS CONTAINING HALOGENATED HYDROCARBONS WITH THIS EQUIPMENT.

The safety valve protects the tank from over pressurisation, during each use, pull the ring on the valve to make sure that it operates freely and relieves pressure. If it does not operate freely or relieve pressure it must be replaced.

STATIC ELECTRICITY - is generated by fluid moving through pipes and hoses. A static spark, capable of igniting certain solvents and coating materials, could be produced by high fluid flow rates. To prevent the risk of fire or explosion, earth continuity to the spray equipment and object being sprayed should be maintained.

PERSONAL PROTECTIVE EQUIPMENT

TOXIC VAPOURS - when sprayed, certain materials may be poisonous, create irritation or otherwise be harmful to health. Always read carefully all labels and safety/performance data for the material being sprayed and follow any recommendations. IF IN DOUBT, CONSULT THE MATERIAL SUPPLIER.

- The use of respiratory protective equipment is recommended at all times when spraying. The type of respiratory protective equipment used must be compatible with the material being sprayed and the level of concentration.
- Always wear eye protection when spraying or cleaning the equipment.
- Gloves must be worn for spraying or cleaning the equipment when certain coating materials and solvents are used.

TRAINING

Personnel should be given adequate training in the safe use and maintenance of this equipment. Training courses on all aspects of the equipment are available. For details contact your local representative. The instructions and safety precautions contained in this literature and the literature supplied with the coating material should be read and understood before the equipment is used.

MISUSE

- Never exceed the recommended safe working pressures for any of the equipment used.
- The fitting of non-recommended or non-original accessories or spare parts may create hazardous conditions.
- Before dismantling the equipment for cleaning or maintenance, all pressures, air and material, must be isolated and released.
- Never weld, drill into or modify the pressure feed tank in any way.
- Do not adjust, remove or tamper with the safety valve. If a replacement is necessary, use the same type and pressure rating of the original valve.

The disposal of non-metallic materials must be carried out in an approved manner. Burning may generate toxic fumes. The removal of waste solvents and coating materials should be carried out by an authorised local waste disposal service.

Some seals contain Chrysotile (white) asbestos fibres impregnated with PTFE or graphite. The physical/chemical binding processes used in the manufacture of these seals prevent any health or safety hazards in normal use, handling or storage. The disposal of seals should be in accordance with local or national regulations.

INSTALLATION

IMPORTANT: To ensure that this equipment reaches you in first class condition, protective coatings, rust inhibitors, etc., have been used. Flush all equipment through with a suitable solvent before use to remove these agents from the material passages.

1. Connect a filtered regulated air supply to air inlet valve (5) on the tank regulator.
Note: Check the direction of airflow by the arrows on the regulator body.
2. Attach spray gun coating material hose to valve (3).
3. Attach spray gun air hose to connector (6).

OPERATION

Caution: Pressure is maintained in the tank after air supply is isolated. Before removing the lid or dismantling equipment relieve the system pressure. Turn off air supplies and open tank relief valve (2).

Mix, prepare and filter coating material according to the manufacturers instructions.

1. Close regulator inlet valve on tank. Turn regulator knob (21) counter-clockwise until spring tension is relieved. Open relief valve (2) by turning counter-clockwise.
2. Release screws and clamps (10 & 11). Remove lid and fill tank.
3. Replace lid and tighten screws (10) securely. Close relief valve (2) by turning clockwise.
4. Turn on air supply to tank and open regulator inlet valve.
5. Adjust regulator (21) to the desired pressure. Turning knob clockwise increases pressure, counter-clockwise reduces pressure.
Note: The regulator is self-relieving and air exhausts from ports in the regulator's cap when reducing the tank pressure.
6. Open coating material valve (3).
7. To agitate coating material turn handle (19) slowly clockwise or back and forth.

PREVENTATIVE MAINTENANCE

Caution: Pressure is maintained in the tank after air supply is isolated. Before removing the lid or dismantling equipment relieve the system pressure. Turn off air supplies and open tank relief valve (2).

Regularly check the safety valve (1) and relief valve (2) are operating correctly, and the pressure gauge (4) needle returns to zero when the tank pressure has been relieved. If any of these parts are faulty replace immediately.

CLEANING

1. Turn off regulator air inlet valve (5). Open relief valve (2) by turning counter-clockwise and wait until all air pressure has escaped from the tank.
2. Turn regulator knob (21) counter-clockwise until spring tension is relieved. Close valve (3), release screws and clamps (11) and remove lid assembly.
3. Remove coating material from tank and clean parts that have come in contact with the coating material. Check the protector (22), relief valve (2) and safety valve (1) are clean.
4. To clean tube (16), hose and gun passages. Pour a small quantity of compatible solvent into the tank, replace lid assembly, clamps and tighten screws (10) securely.
5. Close relief valve (2) and turn on air supply valve (5). Adjust regulator (21) to a lower pressure, open valve (3) close spray gun air control valve (if fitted) and trigger spray gun. Allow solvent to flow until clean.
Note: Spray gun atomising air supply should be turned off when cleaning with solvent.
6. Repeat steps 1, 2 and 3 and replace lid assembly. Leave relief valve (2) open when not in use.

REPLACEMENT OF PARTS

Note: To ensure leak tight fitting when replacing any air or coating material threaded connections use PTFE tape or sealing compound.

1. **Replacing regulator (21).** The arrows on the regulator body indicate the direction of flow through the regulator, (inlet g outlet). Air inlet valve (5) should be on the right when viewed from the front.
2. **To replace seal (8),** remove lid assembly from tank, loosen screws (29) retaining lower collar (15) and seal nut (9) inside lid. Unscrew seal nut (9) and slide nut and collar down agitator shaft. Remove seal (8) and replace. Tighten seal nut (9) and lock with screw (29). Push agitator shaft down until the top collar contacts the lid, reposition lower collar (15) and retain with screw (29). Replace lid assembly onto tank.

ACCESSORIES

Insert container: Permits easy handling of coating materials, manufactured from tin plated steel.

Order No. PR-28.

Coating material filters: Primary filter that attaches between the tank outlet valve and hose. Manufactured from nickel plated brass with a 150 micron nylon filter.

Order No. VS-522 3/8" BSP or **VS-521** 3/8" NPS.

SERVICE CHECKS

	CONDITION	CAUSE	CORRECTION
1	Air leaking continuously from port in regulator cap.	Broken or damaged regulator diaphragm.	Repair regulator.
2	Tank pressure continues to increase after regulator has been adjusted.	Dirty or worn regulator valve seat.	Clean or replace valve seat.
3	Air or coating material leaks at lid gasket.	Clamp screws (10) not tight. Damaged gasket (12).	Tighten. Replace.
4	Air leaks at agitator shaft.	Damaged or worn seal (8).	Replace.
5	Coating material rapidly settles out.	Not enough agitation.	Increase agitation.
6	Air mixing with coating material.	Excessive agitation. Tube (16) to lid joint not sealing properly.	Reduce agitation. Tighten or reseal joint.

NOTES

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