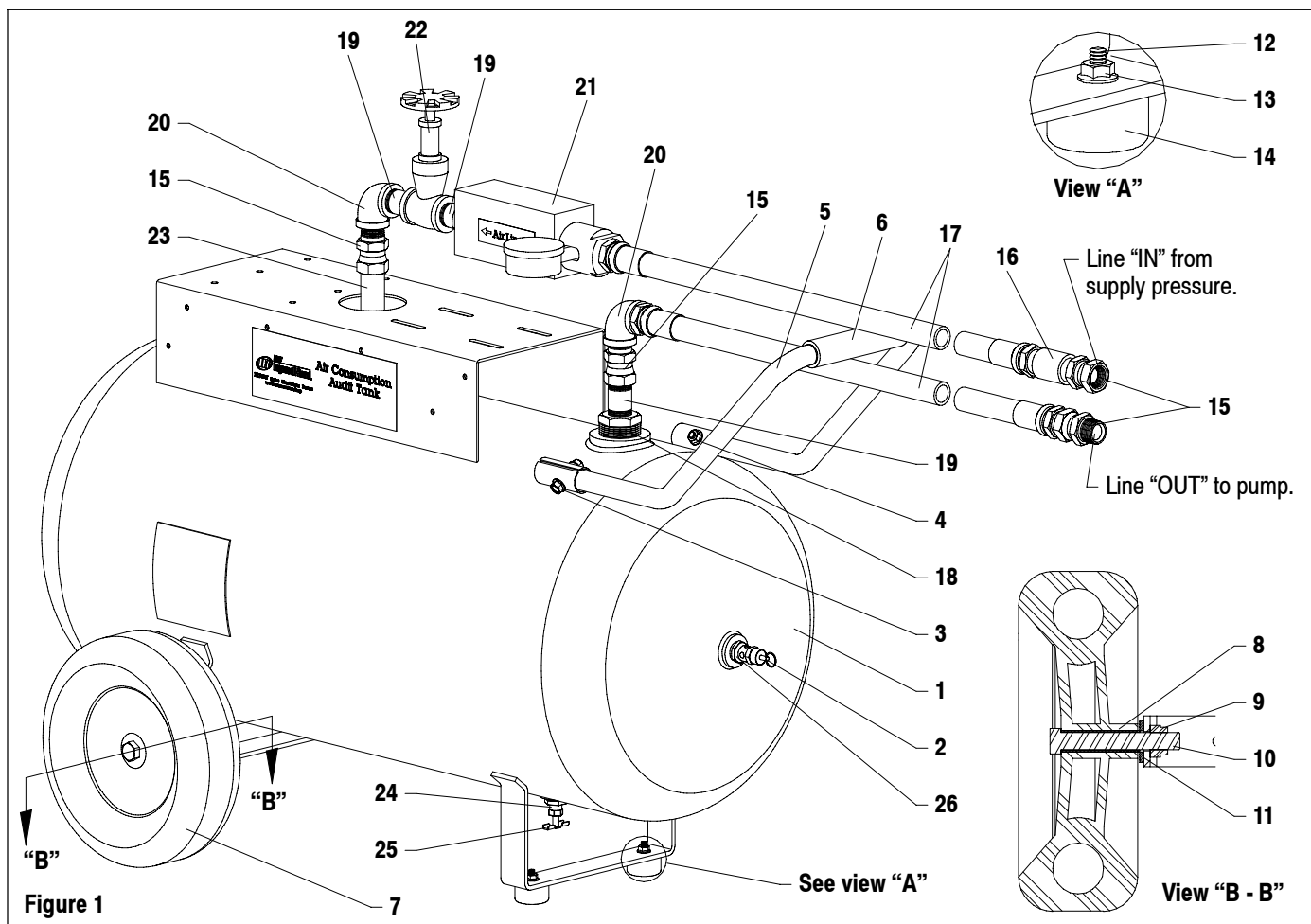


PQ1251-A1 AIR CONSUMPTION DEMO TANK



**READ THIS MANUAL CAREFULLY BEFORE INSTALLING,
OPERATING OR SERVICING THIS EQUIPMENT.**

It is the responsibility of the employer to place this information in the hands of the operator. Keep for future reference.



PARTS LIST

Item	Description (size)	Qty	Part No.
1	Tank (includes items 24 and 25)	(1)	54478409
2	Relief Valve (1/4 - 18 N.P.T.)	(1)	31385693
3	Bolt (5/16" - 20 x 1-1/2")	(2)	58879461
4	Flange Nut (5/16" - 20)	(2)	39128558
5	Handle	(1)	54480249
6	Grip	(1)	54480223
7	Wheel	(2)	54506001
8	Bushing	(2)	20101929
9	Nut (1/2" - 13)	(2)	95923397
10	Bolt (1/2" - 13 x 3-1/2")	(2)	95958393
11	Washer (1/2" i.d. x 1-1/16" o.d.)	(2)	95937371
12	Bolt (1/4" - 20 x 1")	(2)	39128434
13	Flange Nut (1/4" - 20)	(2)	39128541

Item	Description (size)	Qty	Part No.
14	Pad	(2)	97175343
15	Swivel Union (3/4 - 14 N.P.T.F. male x 3/4 - 14 N.P.S.M. female)	(4)	75367
16	Coupling (3/4 - 14 N.P.T.F.)	(1)	Y43-45-C
17	Hose (3/4" i.d. x 5") (3/4 - 14 N.P.T.F. male)	(2)	622651-5
18	Reducing Bushing (1-1/2 N.P.T. male x 3/4 N.P.T. female)	(2)	Y45-22-C
19	Short Nipple (3/4 - 14 N.P.T.F. x 2")	(3)	Y27-55-C
20	90° Elbow (3/4 - 14 N.P.T.F.)	(2)	Y43-15-C
21	Flow Meter (3/4 - 14 N.P.T.)	(1)	96259
22	Valve (3/4 - 14 N.P.T.F.)	(1)	Y25-3
23	Long Nipple (3/4 - 14 N.P.T. x 4")	(1)	Y44-45-C
24	Bushing	(1)	95002044
25	Manual Drain Valve	(1)	32027120
26	Reducing Bushing (1/2 N.P.T. male x 1/4 N.P.T. female)	(1)	Y45-5-C

OPERATING AND SAFETY PRECAUTIONS

READ, UNDERSTAND, AND FOLLOW THIS INFORMATION TO AVOID INJURY AND PROPERTY DAMAGE.

CAUTION This product should be installed and serviced by technically qualified personnel trained in maintaining industrial class flow instrumentation and processing equipment.

CAUTION This flow meter contains a residual amount of Mobil DTE 24 hydraulic oil at the time of shipment.

CAUTION Do not install this unit within 2 feet (0.61 m) of electrical transformers, high powered electric motors or other electromagnetic devices that could adversely affect the magnetic coupling between the flow indicator ring and the piston magnet.

CAUTION Do not use Aromatic Hydrocarbons, Halogenated Hydrocarbons, Ketones or Ester based fluids on or near the polycarbonate guard.

CAUTION Do not use Loctite Threadlocker or liquid PTFE as thread sealant.

CAUTION Do not use cleaning solvent on the transparent guard.

CAUTION Do not use pipe wrenches on the flow meter body. To avoid scarring or otherwise damaging the external surface, use an open end wrench for securing the inlet and for tightening the flow meter outlet connection port.

CAUTION The standard flow meter is a single direction (one way) flow meter. The piston acts as a check valve to block flow in the reverse direction. This causes an excessive pressure differential, which can result in damage to internal meter components.

CAUTION Before attempting to remove the meter from the line, check the system to confirm that line pressure has been reduced to 0 p.s.i.

OPERATION

1. Turn off the air line pressure to the pump.
2. Close (item 22) gate valve.
3. Install the air consumption demo tank. Note the orientation of "Line In" and "Line Out".
4. Turn on the air line pressure.
5. Slowly open (item 22) gate valve.
6. Note the reading on (item 21) flow meter.
7. Slowly close (item 22) gate valve.
8. Repeat steps 1 thru 7 for all pumps being tested.

Multipressure Flow Scale

The in-line pneumatic flow meter is offered with a multipressure flow scale to visually indicate air flow rates (1.0 s.g.) in s.c.f.m. (standard cubic feet / minute) at various pressure levels, from 40 p.s.i. to 130 p.s.i.

How to Read

To use, the operator reads the inlet gauge pressure and selects the appropriate vertical line or interpolated value closest to the gauge reading and follows the line until it intersects the brightly colored horizontal indicator bar. The flow rate in s.c.f.m. / l.p.s. is read by taking the intersection points and following the slope of the closest diagonal line to a scale value and interpolating the s.c.f.m. / l.p.s. flow rate. No further calculations are required. See figure 2, multipressure scale, for further details.

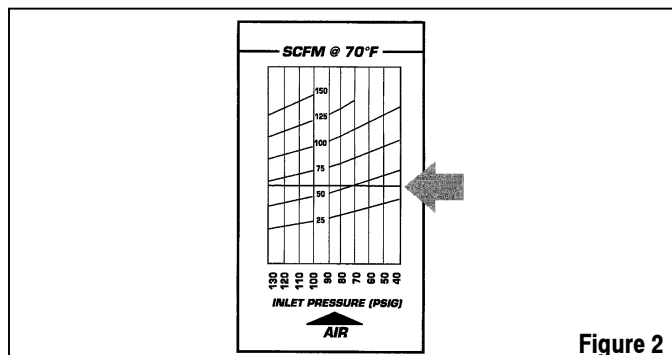


Figure 2

Flow Direction

Caution should be taken to align the flow arrow, located on the meter scale, in the same direction as the anticipated line flow.

Mounting Orientation

The design of the in-line flow meter provides the designer / installer the flexibility to install the product in any plane, without affecting flow rate accuracy. Flow rate is calibrated in the horizontal axis and will provide the highest degree of accuracy in that orientation.

Filtration

The meter will allow particulate to pass that would jam most valves and flow controls. Systems which do not have filtration should be equipped with at least a 200 mesh sieve or 74 micron filter. Most pneumatic systems would already have a much finer filtration.

Within the flow meter body, dirt, ferrous metal or sealing agents, such as PTFE tape, may lodge and cause malfunction. If the meter is jammed at a fixed position, follow the cleaning instructions.

MAINTENANCE

Cleaning and Maintenance

1. Remove the flow meter from the line. Remove excess piping from the meter. NOTE: It is not necessary to remove the transparent dust guard from the meter to remove the meter from the line.
2. Thoroughly wipe off the entire flow meter surface, removing all foreign matter.
3. If you choose to remove the dust guard assembly, refer to "Removing Dust Guard" below.
4. Remove the inlet cap from the flow meter body, noting the sequence of disassembly for later reference (during reassembly). After removing the retaining ring, the internal wetted parts should slide out when the meter is tilted. If they do not slide out freely, read "Service Inspection / Replacement" below before proceeding.
5. Place all meter components on a clean work surface in order of disassembly.
6. Clean and dry the spring and meter body, checking outlet port threads for foreign particles.
7. Inspect the piston and ring magnet assembly. Check the magnet for hairline cracks. Clean, dry and reassemble.
8. Clean the inlet spider plate and metering cone assembly.
9. Reassemble the flow meter, checking the inlet cap "O" ring for nicks and cuts. If nicks and cuts are present, the "O" ring should be replaced.

Removal of the Dust Guard

To remove the dust guard for cleaning or replacement, simply loosen the end fitting located at the bottom of the meter and slide the end cap, dust bumper and dust guard off the bottom of the meter, taking care to avoid damaging the "O" ring seal between the end cap and the dust gland.

Service Inspection / Replacement

1. If internal wetted parts do not slide freely out of the flow meter body, they may be pushed out by inserting a wooden dowel into the outlet port of the meter. NOTE: Be sure the retaining ring has been removed.
2. After disassembly, check for foreign matter on the wetted parts and on the inner surface of the flow meter body.
 - a. Isolate and identify the source of the foreign matter.
 - b. Take corrective action to resolve the problem (install a finer filtration unit, etc.).
3. Check for scored or worn parts, especially the outer diameter of the piston assembly. Also check the inner surface of the flow meter body.
 - a. Replace any badly worn parts.
 - b. Return the flow meter to the factory for detailed inspection and repair, if necessary.