

THE LP METER

**Compressed Air
Multi-Orifice Flow Meter**

**Taking control of your
compressed air system
is easier than you think**



Finally a simple system that measures up

Ninety percent of today's industries use compressed air in some aspect of their operations. With rising energy costs, compressed air has become one of the most expensive utilities in your plant. Air leaks and compressor inefficiency cost industries millions annually. The LP multi-orifice compressed air flow meter will enable you to get a firm handle on this valuable loss by allowing you to *quantify your air leaks* and *assess compressor performance*.

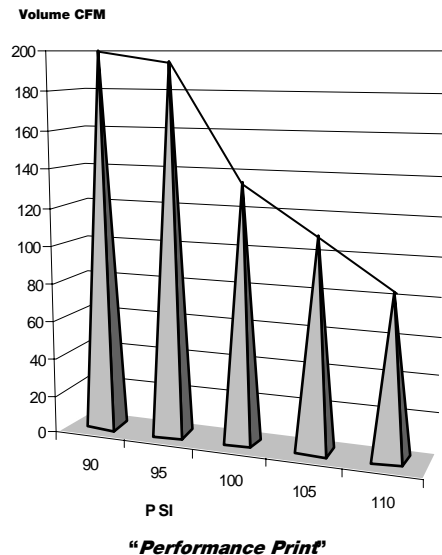
Measure the air leaks in your compressed air system

Unlike a hydraulic leak, plant maintenance staff will often overlook air leaks simply because air is invisible. The truth of it is, even if you can't see them, air leaks cost you money. Your compressor uses electrical energy to fulfill a spurious demand that adds nothing to your productivity. The average plant will use between 20% - 30 % of its running horsepower to produce air just to satisfy air leaks. What a waste! Air leaks are money right off your bottom line. The LP meter will allow you to quantify the volume of air being lost to leaks. Periodic verifications with the LP Meter allow you to keep air leaks under control and costs down.

Measure the performance of your compressor

An area of savings in compressed air that is not usually addressed by the compressor manufacturer is that of compressor performance. Rotary screw compressors (modulation types) in particular are prone to something we call "premature modulation". We have found that in 80% of the compressors we have tested, the small valve that controls the butterfly modulation or the inlet throttle does not functioning properly. Malfunctioning or improper adjustment to these inlet controls means the compressors deliver less air than the normal rating. It is not surprising to see some compressors operating at 60% of their rated capacity.

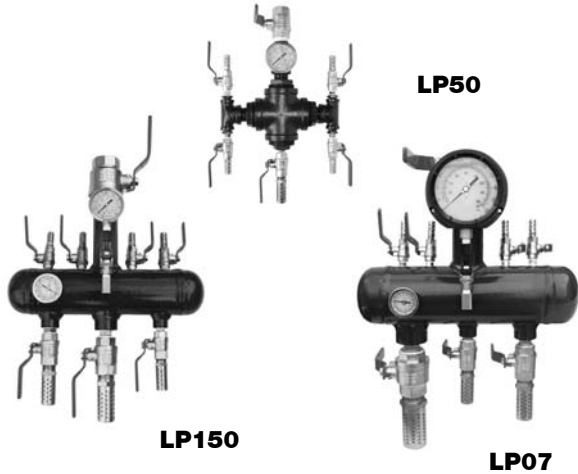
In order to get a firm handle on this problem, one has to test the compressor at different pressures in order to obtain a "*performance print*." Testing for a "*performance print*" will reveal at what pressure the throttle valve begins to close prematurely. For example .. If you are trying to maintain 105 psi in your plant, and your compressor starts to modulate at 95 psi. At 105 psi your compressor is modulating (or choking off the air) so at 105 psi you will not be obtaining the optimum flow of air from your compressor. In some cases you will need to start up a secondary compressor to makeup the loss in air volume. That costs you money! The LP meter will allow you to test your compressors at different pressure settings and will give you the volume of air delivered at those pressures. The LP Meter will provide you with the information necessary to determine maintenance adjustments or overhauls on any rotary screw, reciprocating, centrifugal or vane type compressor.



Measure plant air consumption

Before you purchase a new compressor, you need to determine what your true plant air consumption is and whether or not your existing compressor(s) will meet your current and future demands. After you have fixed your air leaks and verified the performance of your existing compressor(s), use the LP Meter to establish the true volume being consumed in your plant.

Three standard units that can help you measure up



Standard Features

- Precision to within 2% accuracy
- ASME coded and stamped
- CRN Approved
- Stainless steel orifices
- Liquid filled precision gauge
- Diffused exhaust ports for added safety
- Rugged direct mount thermometer

Installation and testing is easy

The sketch below (*Figure 1*) indicates the possible locations for LP Meter installations. Any **X** connection for rotary screw and centrifugal compressors
Any **Y** connection for reciprocating (piston) compressors

Choose a location either inside your compressor room, on the air receiver tank, or where minimum pipe bends, elbows or "T's" exist in order to avoid pressure drop at the LP testing unit. When testing, It is preferred to by-pass the air dryer system due to pressure drop. The less pressure drop in the compressed air system, the more accurate the test results.

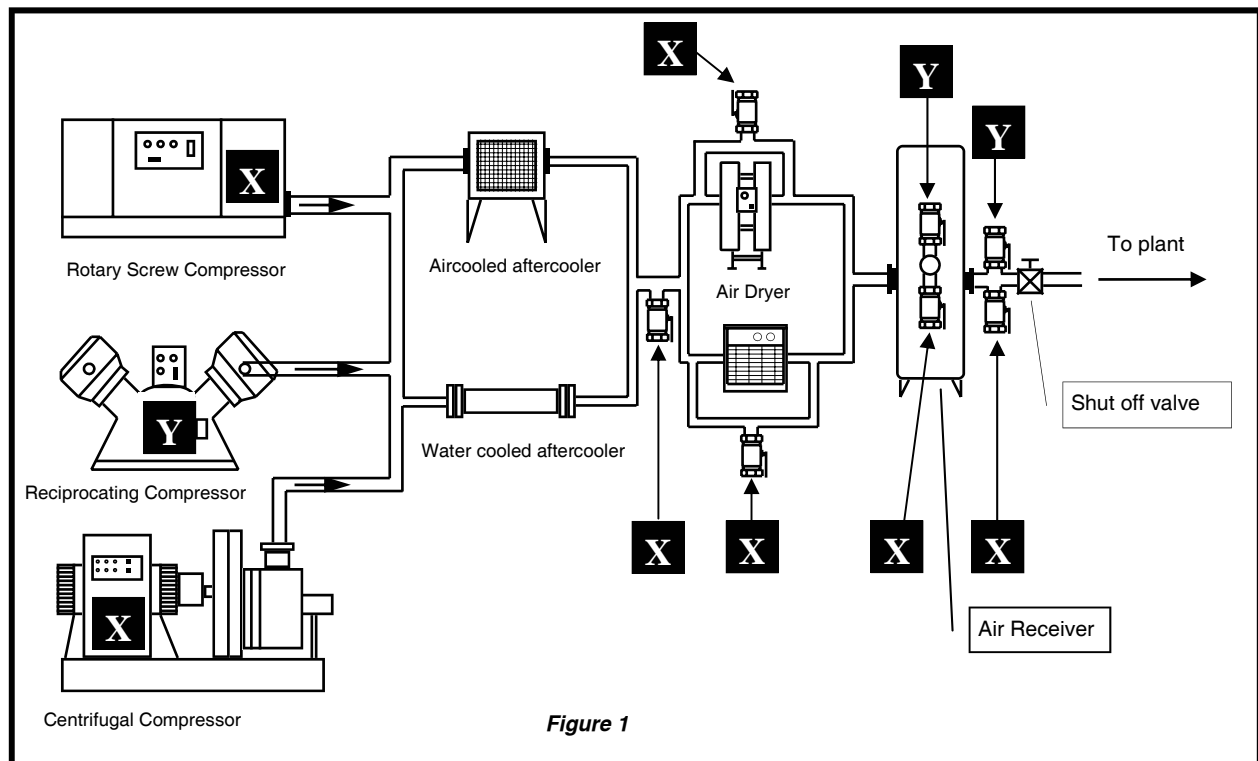


Figure 1

LP METER

Make a positive impact on the environment

When it comes to curbing global warming, using the LP Meter to control your compressed air system losses does make a difference. This energy saving product saves you money off your electric bill. This translates directly into greenhouse gas emission reductions. When you save on electricity you reduce carbon dioxide gas (CO₂) and methane gas (CH₄) emissions.

Product information

MODEL	LP50	LP150	LP07
Single compressor capacity (CFM)	200	800	1600
Single compressor capacity (HP)	50	200	400
Test range (CFM) at 100 psi	10-200	10-800	10-1600
Connection size	1" NPT (F)	1 1/2" NPT (F)	2" NPT (F)
Dimensions W x L x D	13" x 21" x 4.5"	15.75" x 25" x 6"	17.5" x 28.5" x 13.5"
Weight (Lbs)	15	26	45



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