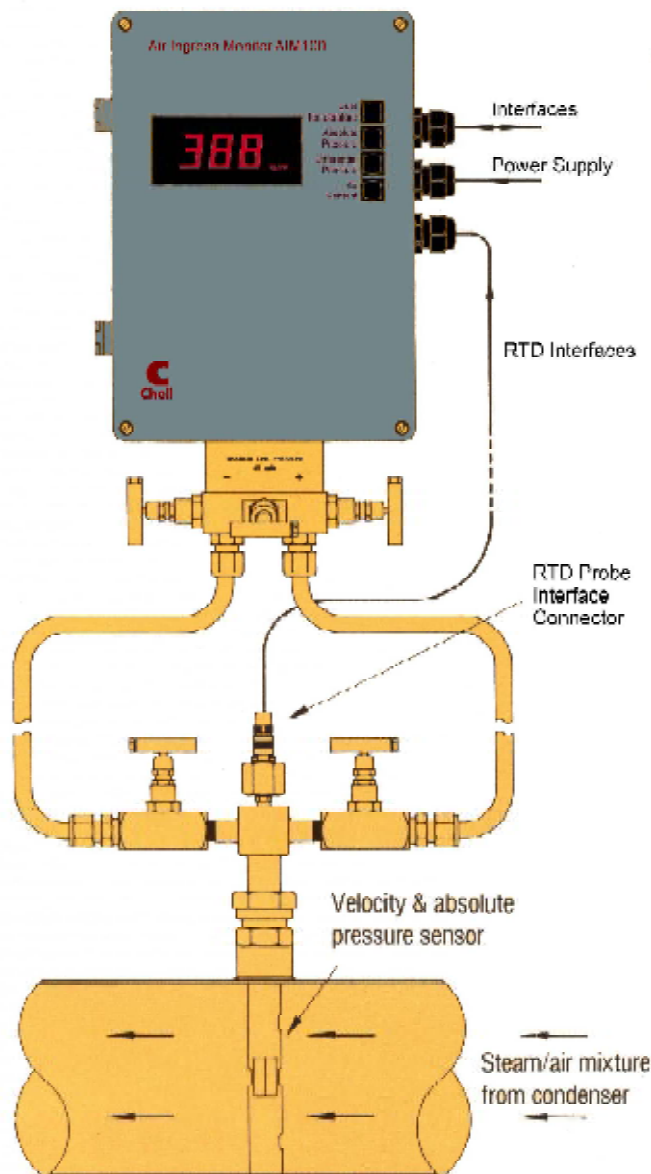


- On-line monitor for improved turbine efficiency.
- Assists the diagnosis of tube fouling and air blanketing.
- Easy single point installation using averaging pitot tube.
- Five continuous 4-20 mA outputs.
- RS232 or RS485 interface.



AIM (shown with optional five valve manifold)



Excessive air in-leakage and ineffective non-condensable gas removal can lead to condenser inefficiencies as great as 23%. One generator recently estimated the cost of air in-leakage on a 500 megawatt turbine as in excess of £1000 per mbar, per week. In addition to the increased generation costs, the man/hours taken to locate the source of the leak are a major concern.

Chell Instruments second generation AIM provides real time measurement of air ingress enabling trends to be picked up at an early stage, and relevant action taken. Once air in-leakage is detected comparison of the individual measured parameters under differing plant load conditions, with historical data and with other plant measurements is useful in indicating the most likely source.

Continuous output of all the measured parameters via 4-20 mA signals and the digital interface allows data logging, further analysis of the information, or integration into the plant management system.

| Air Ingress Monitor | |
|-----------------------------------|--|
| Case | IP65 with sealed keypad |
| Process connections | Carbon steel 3-valve manifold (5-valve manifold available) |
| Display | 3½ digit 25mm high intensity LED |
| Cable entry | 3 x M20 cable glands |
| Power input | 100 - 240 VAC 50/60 Hz |
| Analogue outputs | 5 x 4-20 mA proportional to air ingress, % air, absolute pressure, differential pressure and temperature |
| Digital interface | RS232 or RS485 |
| Temperature range | 0 - 70°C |
| Temperature resolution | 0.1°C |
| Temperature uncertainty | 0.3° |
| Differential pressure range | 0-1 mbar (0 - 10 mbar optional) |
| Differential pressure resolution | 0.1% of full-scale |
| Differential pressure uncertainty | 0.5% of reading |
| Absolute pressure range | 0 - 100 mbar (0 - 1000 mbar optional) |
| Absolute pressure resolution | 0.1% of full-scale |
| Absolute pressure uncertainty | 0.5% of reading |
| Pitot Tubes & Valves | |
| Pitot tube length | 100mm to 600 mm (4" to 24") |
| Material | 316 stainless steel |
| Pipe fitting | 1" BSP, carbon steel. |
| Output connectors | ½" BSP |
| Integral RTD | PT100 1/10DIN 4-wire with Jaeger plug |
| Valve option | Manual ball valve (requires extended neck pitot tube) |