

**Booster mounting plate** 

# Base complete with pressure reducer





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DIMENSIONS							
CODE	Α	В	С	D	Е	F	ØG
1740.02	75	5	30	45	72	82	5,5
1763.02	100	15	53	70	98"	110	M8

Overall dimensions and technical information are provided solely for informative purposes and may be modified without notice

# Series P+

#### **Basic Information**

In some cases the force generated by a pneumatic actuator is not sufficient to carry out its required function. To overcome this problem it is then necessary, where possible, to either increase the working pressure or use a larger bore actuator providing it will fit within the structure of the machine.

If you cannot fit a larger actuator, the solution is to use a pressure booster to increase the air pressure to that portion of the pneumatic circuit. The booster operates using the same compressed air used by the pneumatic system and does not require an external power supply. It is easy to install and can increase the working pressure in any part of the system where ever its needed, maintaining the normal working pressure in the rest of the system.

The new pressure booster P+ is lightweight with a new compact and linear design, P+ has an integrated pressure regulator that adjusts the setting of the output pressure P2 which is also fitted with a pressure relief valve. The design of the internal circuit provides high flow rates and fast filling times whilst the two G1/8" manometer connections built into the body of the booster allow monitoring of the input and output pressures.

### Operation

The operating principle of the device is based on a four chamber pump in which with a reciprocating movement, two chambers compress the air in the compression chamber whilst the fourth chamber is in the discharge phase. The incoming air passes through the non-return valves and supplies the compression chambers "A" and "B" at the same time.

Meanwhile, the integrated pressure regulator feeds the thrust chamber "C" via the oscillating valve which in turn compresses the air in compression chamber "B", the air is then pushed through the non-return valve and exits through the outlet connection.

When the piston reaches the end of stroke the oscillating valve changes over and feeds chamber "D" putting chamber "C" into the discharge position, thus reversing the piston and compressing the air in compression chamber "A", pushing it through the non-return valve and out through the outlet connection.

The oscillating motion of the piston allows the pressure booster to pump intensified air into the downstream circuit until the chambers reach a state of equilibrium; this in turn stops the booster.

When the downstream pressure decays the booster restarts oscillating until the state of equilibrium is re-established.



# **Pneumatic Circuit**

The **P+** pressure booster, is certified by ATEX:

C€ ll 3GD c T6 T85°C X 5°C≤Ta≤50°C.

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