



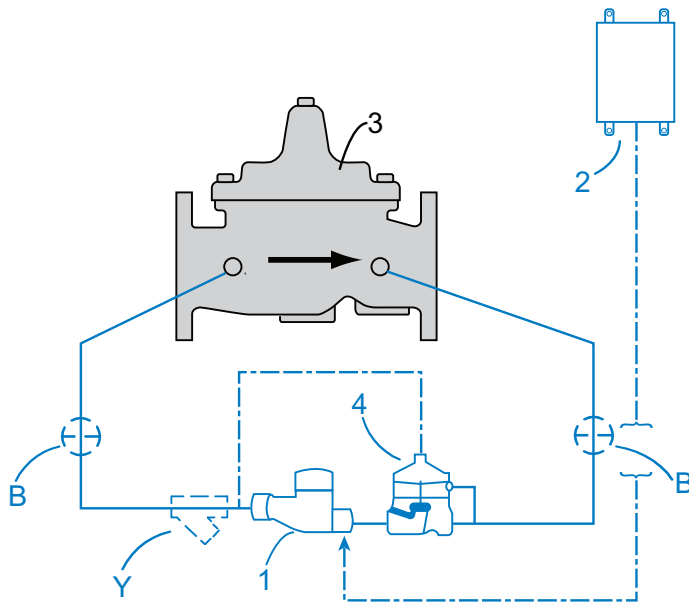
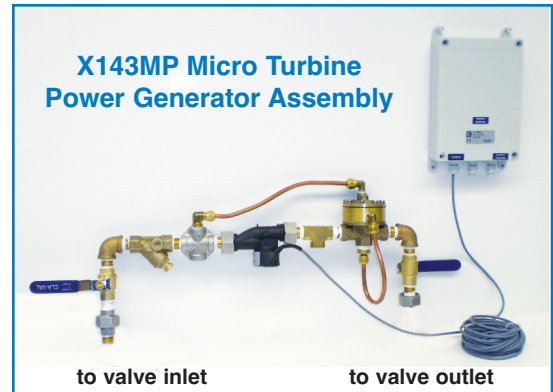
— MODEL — **X143MP**

Micro Turbine Power Generator

Product Description

The X143MP Micro Turbine Power Generator is a self-contained power generation system designed to be installed into the bypass of a Cla-Val Automatic Control Valve.

The X143MP uses the pressure drop across the valve to produce adequate power to operate devices located within close proximity of the valve.



X143MP Generator Kit shown in Blue

Typical Schematic Diagram

Supplied Equipment

- 1 Power Generator Unit
- 2 Electronics & Battery Housing
- 3 Cla-Val Automatic Control Valve
- 4 CDHS-27 Pressure Differential Control
- B Isolation Valves
- Y Y-Strainer

Product Features

- Depending on site power requirements, the X143MP alleviates the need to tie into the local power grid
- Factory installed or retrofitted to an existing Cla-Val Automatic Control Valve
- Ideal for isolated locations and confined spaces
- Excellent alternative for a back-up power source
- Generates up to .75 watts (double-turbine) of power to operate onsite equipment such as:
 - X144D e-FlowMeter
 - X145 e-Display
 - RTUs



X144D



X145

The X143MP is available in two configurations:

1) Single X143MP Micro Turbine (.39 Watts)

- Voltage 6 or 12 VDC
- Flow 1.66 gpm (6.5 l/min)
- dP 8.7 PSI (6 m)

2) Two X143MP Micro Turbines in parallel (.75 Watts)

- Voltage 6 or 12 VDC
- Flow 3.32 gpm (13 l/min)
- dP 8.7 PSI (6 m)

Battery

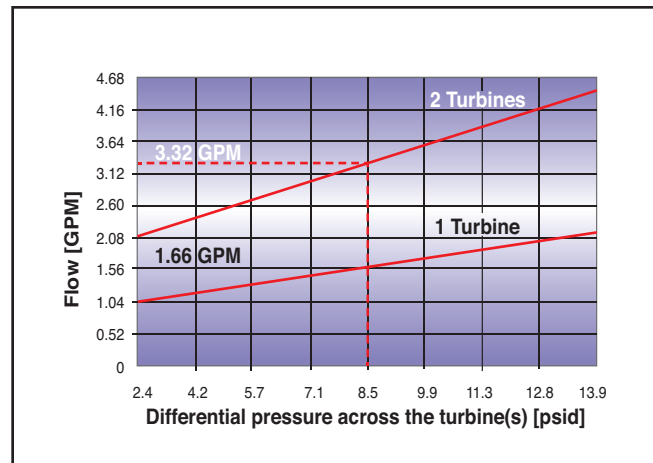
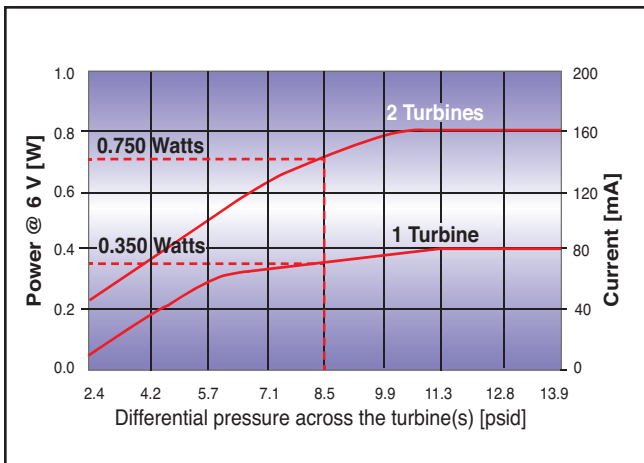
- Battery capacity = 1.2Ah
- The autonomous low voltage system is combined with a 6V battery

X143MP Micro Turbine Power Generator Set-Up

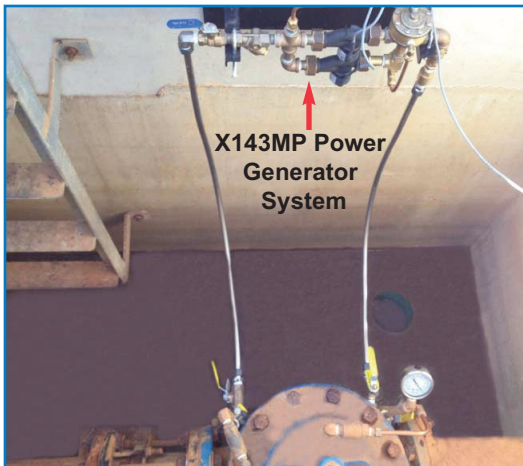
Notes:

- The electrical power produced by the turbine recharges a 6V battery. The power indicated in the table below is the maximum charging power. The device being powered must require less than the maximum charging power.
- To calculate the device power (W), multiply Voltage (V) by Current (A).
 Example: A 4-20mA device being powered by 12 VDC:
 Power (W) = 12 VDC x .020 A = .24 W
 .24 Watts < .38 Watts, therefore, a 4-20mA device can be powered by a single X143MP Micro Turbine.

X143MP Set-Up	Mounting	Continuous (60min/h)	Peak (1min/h)
6V	Single (1) X143MP	60 mA	4.0 A
	Double (2) X143MP	120 mA	2.0 A
12V	Single (1) X143MP	25 mA	2.0 A
	Double (2) X143MP	55 mA	2.0 A



Typical Applications



Retrofit to an existing valve without removal from pipeline

The X143MP Generator System is installed as part of the pilot system of an existing Cla-Val Automatic Control valve to provide power without compromising valve performance and without tying into the local power grid.

Note: Wall-mounting plate is customer supplied.



Typical Installation:

Pressure Reducing Valve Station with dual X143MP Micro Turbine Generator System providing power to operate the Cla-Val X144D e-FlowMeter



X143MP Single Micro Turbine

