Equipment and solutions

JMV-D Single
Hydropneumatic System

Product technical datasheet

Automatic hydropneumatic system (direct start) with 2 or 3 MV series pumps for pressurization and water supply.



FT-P102 · Rev. 1

The JMV-D hydropneumatic system provides automatic start/stop control via adjustable pressure switches. When water is consumed, the initial supply comes from the hydropneumatic tank. When pressure drops to the start setpoint, the first pump activates. If consumption continues to.

Applications

- Residential and office buildings
- Shopping centres and hotels
- Manufacturing industry
- Schools and hospitals
- Irrigation and industrial washing systems
- Municipal services

Operating conditions

- Check the tank air pressure every 3 months with no water pressure
- The booster set price does not include a pressure tank
- Recommended minimum tank capacity:
- - Flow 2 to 3 m³/h: 100 L
- - Flow 5 m³/h: 200 L
- - Flow 10 m³/h: 300 L

Engineering note	Confirm the installation conditions, power supply and duty point before commissioning.
Complementary equipment	Contact JOVAL for compatible accessories and equipment.
Resources and support	Pump selection guide · JOVAL technical support
Contact	+351 253 490 740 · joval@joval.pt

Technical specifications

Type

Automatic hydropneumatic booster sets

Series

JMV-D (MV Series)

Components

2 or 3 electric pumps in parallel

Protection

Digital protection against dry running, overload and phase loss

Cooling

Cooled by pumped liquid

Applications

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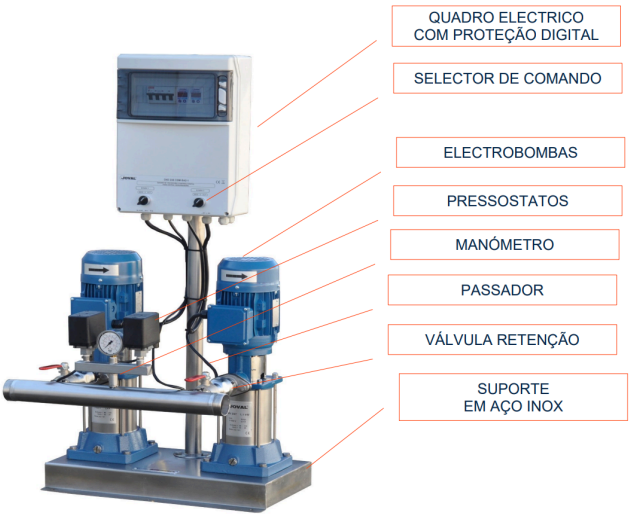
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List of materials

Materials



Pos.	Description	Material (Standard)
1	Control panel	Digital electronic protection
2	Electric pumps	MV Series (Vertical multistage)
3	Delivery manifold	AISI 304 stainless steel
4	Mounting base	AISI 304 stainless steel
5	Pressure switches	Start/stop control
6	Pressure gauge	Glycerine-filled
7	Non-return valve	Included for each pump
8	Isolation valves	Included for each pump

Models and performance characteristics

Dimensions and models

Model	kW	HP	V	Amp (A)	Head Pressure (m)	Flow Rate (l/h)
JMV 2-3M - D	0.37	0.5	230	2.6	28 - 7	600 - 4.200
JMV 2-7M - D	1.1	1.5	230	6.3	74 - 18	600 - 4.200
JMV 2-11M - D	1.5	2	230	8.4	116 - 28	600 - 4.200
JMV 2-3T - D	0.37	0.5	400	1	28 - 7	600 - 4.200
JMV 2-7T - D	1.1	1.5	400	2.4	74 - 18	600 - 4.200
JMV 2-13T - D	2.2	3	400	5	137 - 33	600 - 4.200
JMV 3-3M - D	0.55	0.75	230	3.5	30 - 11	600 - 4.800
JMV 3-7M - D	1.1	1.5	230	6.3	76 - 28	600 - 4.800
JMV 3-10M - D	1.5	2	230	8.4	62 - 17	600 - 4.800
JMV 5-3M - D	0.55	0.75	230	3.5	34 - 12	1.200 - 7.500
JMV 5-7M - D	1.5	2	230	8.4	81 - 35	1.200 - 7.500
JMV 10-2M - D	0.75	1	230	4.4	23 - 1	1.200 - 15.000
JMV 10-4M - D	1.5	2	230	8.4	44 - 9	1.200 - 15.000

Installation and maintenance

Installation:

- Install the booster set in a dry, ventilated location protected from the weather.

- Allow enough space for future maintenance work.

- Make sure the suction pipe is watertight and rises towards the pump.

- Check that the mains voltage matches the motor rating plates.

Preventive maintenance:

- Check the tank pre-charge pressure monthly, always with no water pressure in the booster set.

- Check that the electrical and hydraulic connections are tight.

- Check for abnormal noise or vibration during operation.

- Fully drain the pumps and manifolds during a long shutdown where there is a risk of frost.

Control panel protection

The digital control and protection panel included with the JMV-D booster set provides full system protection:

- Dry running: Electronic protection stops operation when there is no water at the suction inlet, with configurable automatic reset.

- Overload: Immediate shutdown if the motors draw excessive current.

- Phase loss: Protection against electrical supply faults that could damage three-phase motors.

- Duty alternation: Ensures that the pumps run for the same number of hours, extending the service life of the set.

Connections

