

Pump Performance System - add-on 8180035 (46107-10)

FESTO

LabVolt Series

Datasheet



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Festo Didactic
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General Description

The Pump Performance System is an add-on to the Single-Pump Systems. It consists of a digital flowmeter, a digital pressure gauge, and accessories required to assess the performance of centrifugal pumps in various contexts such as cavitation and air ingestion among others.

The project-based pedagogical approach makes it possible to contextualize the tasks performed by the learner. The exercises develop advanced skills required for workers interacting with any industrial process involving pumps.

Features:

- Clear pump cover for direct observation of cavitation
- Additional impeller to observe the effects of a change in diameter
- Industrial-grade components for a realistic learning experience
- Single tool to secure components on the worksurface for quick assembly
- 5S-type storage for all components in lockable drawers to keep the workspace tidy and organized

Learning outcomes:

- Trace, read and compare pump curves at various speeds.
- Evaluate the efficiency of a pump after changing its impeller.
- Compare major pump output control methods.
- Describe what causes cavitation and observe its effects.
- Describe what causes air ingestion and observe its effects.

List of Equipment

Qty	Description	Model number
1	Magnetic-inductive Flowmeter Assembly _____	8180048 (47410-00)
1	Digital Pressure Gauge Assembly _____	8180049 (47411-00)
1	Pump Performance Accessories _____	8180050 (47419-00)

Additional Equipment Required to Perform the Exercises (Purchased separately)

Qty	Description	Model number
1	Campus Licence, Pump Performance _____	8195827 ¹

Additional Equipment Required to Perform the Exercises (Purchased separately)

Qty	Description	Model number
1	Campus Licence, Pump Performance _____	8195827 ²

¹ Not needed with an LX subscription.

² Not needed with an LX subscription.

Additional Equipment Required to Perform the Exercises (Purchased separately)

Qty	Description	Model number
1	Campus Licence, Pump Performance _____	8195827 ³

Additional Equipment Required to Perform the Exercises (Purchased separately)

Qty	Description	Model number
1	Campus Licence, Pump Performance _____	8195827 ⁴

Additional Equipment Required to Perform the Exercises (Purchased separately)

Qty	Description	Model number
1	Campus Licence, Pump Performance _____	8195827 ⁵

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1	Campus Licence, Pump Performance _____	8195827 ⁶

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1	Campus Licence, Pump Performance _____	8195827 ⁸

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1	Campus Licence, Pump Performance _____	8195827 ¹⁰

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Additional Equipment Required to Perform the Exercises (Purchased separately)

Qty	Description	Model number
1	Campus Licence, Pump Performance _____	8195827 ¹¹

Additional Equipment Required to Perform the Exercises (Purchased separately)

Qty	Description	Model number
1	Campus Licence, Pump Performance _____	8195827 ¹²

Additional Equipment Required to Perform the Exercises (Purchased separately)

Qty	Description	Model number
1	Campus Licence, Pump Performance _____	8195827 ¹³

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²² Not needed with an LX subscription.

²³ Not needed with an LX subscription.

²⁴ Not needed with an LX subscription.

²⁵ Not needed with an LX subscription.

Equipment Description

Magnetic-inductive Flowmeter Assembly 8180048 (47410-00)



The Magnetic-inductive Flowmeter Assembly is used to measure the water flow rate in a piping system.

Features:

- Quick connect cam lever couplings for easy hose and pipe connections
- Quick connect push-in fitting for easy pneumatic tubing connection

Digital Pressure Gauge Assembly 8180049 (47411-00)



The Digital Pressure Gauge Assembly is used to measure pressure in a piping system.

Features:

- Tilted dial to facilitate reading
- Quick installation of mounting base to worksurface with single rotating knob
- Quick connect push-in fitting for easy pneumatic tubing connection

Pump Performance Accessories
8180050 (47419-00)



The Pump Performance Accessories consists of a clear pump cover for observation of cavitation in the centrifugal pump, one additional impeller to observe the effects of a change in diameter on pump performance, a connecting cable to supply power to the Magnetic-inductive Flowmeter Assembly and plastic tubing.

Optional Equipment Description

Campus Licence, Pump Performance (Optional)
8195827

List of Manuals

Description	Manual number
Pump Performance (Workbook (Instructor)) _____	8177348
Pump Performance (Workbook) _____	8177350
Pump Performance (Workbook (Instructor)) _____	8195714
Pump Performance (Workbook) _____	8195716

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