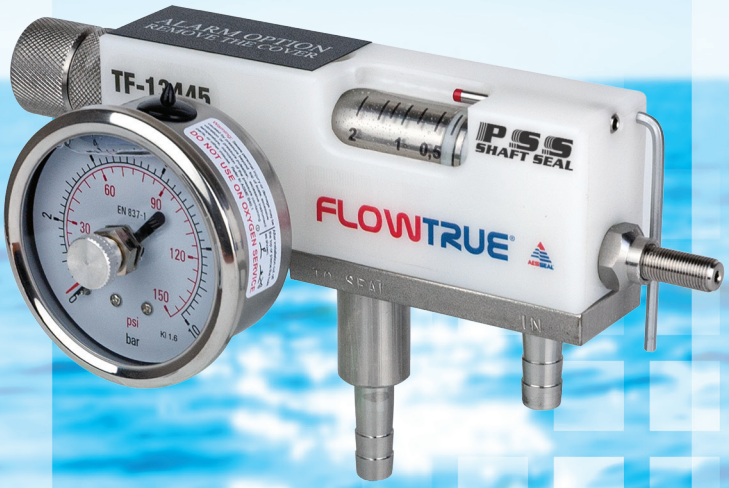
PSS SHAFT SEAL

AESSEAL® ENVIRONMENTAL TECHNOLOGY

FLOWTRUE™
INSTALLATION INSTRUCTIONS



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HEALTH & SAFETY

- Before attempting work on any process equipment, ensure that all permit requirements are satisfied and all necessary process, electrical and mechanical isolations are in place.
- The system should be installed by competent engineering personnel.
- Do not over-pressurize the FLOWTRUE™ beyond the maximum design pressure. If there is any possibility of over-pressurization the system must be fitted with a suitable protection device – contact PSS Seal for advice.
- Do not exceed the operating limits of the FLOWTRUE™.
- The FLOWTRUE™ supply connections may get hot in operation with risk of burn injury.
- Ensure the FLOWTRUE™ is completely leak free before full operation.
- This system has been designed for use only as a flow meter for mechanical seals using water.

ENVIRONMENT

Once the barrier fluid and system have reached the end of its life, it should be disposed of in accordance with local regulations and with due regard to the environment.

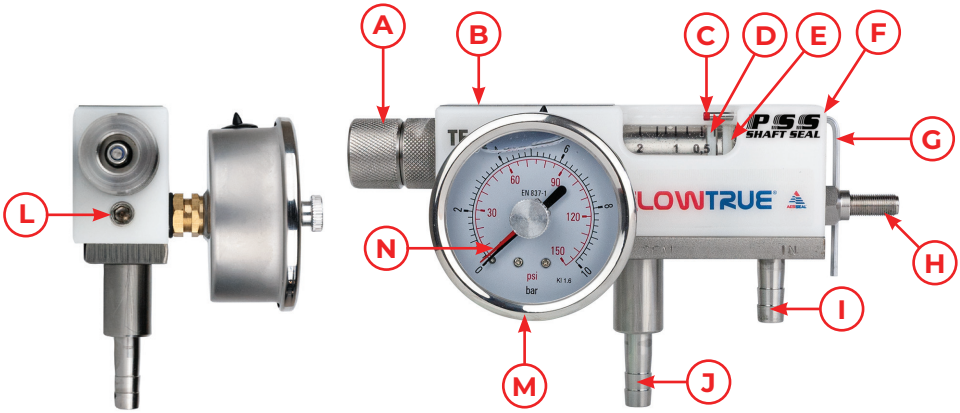

Fig. 1

A. Cleaning button

B. Inductive alarm (option)

C. Target flow indicator

D. Flow indicator ring

E. Cleaning ring

F. Flow indicator adjustment point

G. Allen key

H. Flow adjustment point

I. Water supply connection

J. Supply connection to the mechanical seal

K. Back pressure control valve

L. Back pressure control valve adjustment point

M. Pressure gauge

N. Target pressure indicator

INSTALLING & COMMISSIONING

1. New or renewed water supply lines need to be flushed correctly to prevent harmful particles from passing through the FLOWTRUE™ valve and seal. Ensure that the water supply is closed for steps 2 - 5.
2. Install the FLOWTRUE™ in a suitable location which is free from vibration and in close proximity to the pump. The meter should be mounted so that it is easy to read and maintain.
3. Connect the hoses from the water supply to the FLOWTRUE™ **(I)** and from the FLOWTRUE™ connection **(J)** to the mechanical seal.
4. Ensuring that the flow valve **(H)** is closed, set the red target flow indicator **(C)** to the desired flow rate using the 2.5mm allen key **(G)**.

5. Switch on the plant water supply. Open the flow valve (H) until the white left hand ring **(D)** is in line with the red flow indicator **(C)**.

ALARM OPTION (IF SELECTED)

- Remove the alarm label from the top of the FLOWTRUE™ device and attach the alarm using the screws supplied.
- Attach the alarm cables to a suitable control panel.
- Using the FLOWTRUE™ allen key **(G)**, adjust the flow control valve **(H)** until the flow indicator ring **(D)** is at the minimum flow rate acceptable for the application. This will be known as the flow alarm valve.
- Loosen the screws and move the alarm to the far left of the alarm slot. Then, move the alarm to the right until the light on the alarm comes on.
- When the light comes on, tighten the alarm in position using the screws supplied.
- Using the FLOWTRUE™ allen key, adjust the target flow indicator **(C)** (red marker) to the desired flow for the application.
- Using the FLOWTRUE™ allen key **(G)**, adjust the flow control valve **(H)** until the flow indicator ring **(D)** is in line with the target flow indicator **(C)** (red marker).
- The alarm light will remain on until the flow drops below the flow alarm valve. This will trigger the selected alarm device on the control panel.

CLEANING OPERATION

1. Un-screw cleaning button **(A)** by rotating it anti-clockwise.
2. Pull the cleaning button out of the main body. Push the button back and forth until the cleaning ring **(E)** clears the flow tube.
3. Push the cleaning button **(A)** back into the main body and tighten by rotating it clockwise until hand tight.

INSTALLATION EXAMPLE

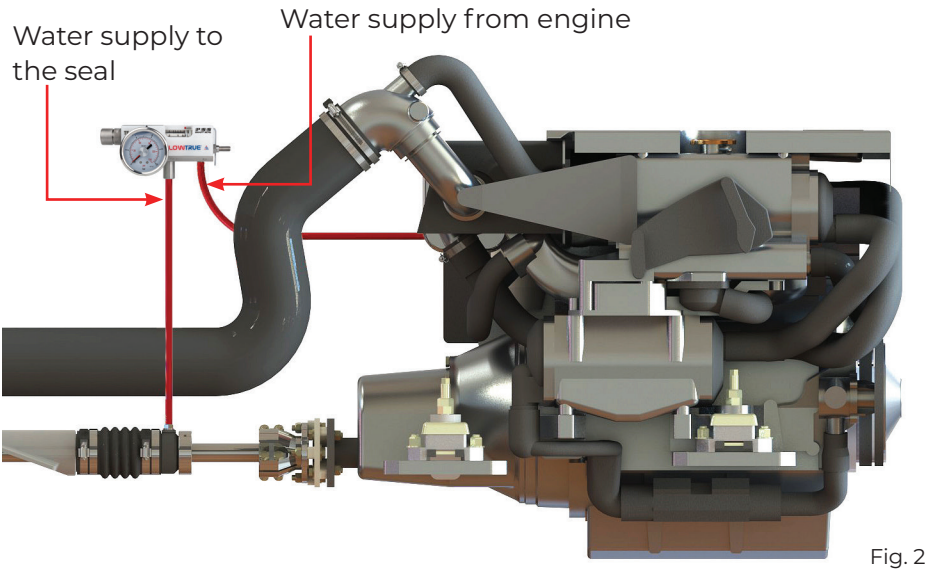

Fig. 2

OPERATING LIMITS

Polyethylene (chemical environments body material, yellow in color)

- Maximum Pressure = 145 PSI / 10 BAR
- Maximum Temperature = 140°F / 60°C

IMPORTANT INFORMATION

Using a suitable filtration or solid buildup mechanism, such as a Y strainer, with the FlowTrue™ system helps to prevent clogging and ensures smooth operation by effectively capturing debris and particulates. This enhances the longevity and efficiency of the system, reducing maintenance needs and potential downtime.

For 316 Systems, when used with a water based barrier/buffer the Chloride content should not exceed 250ppm.

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