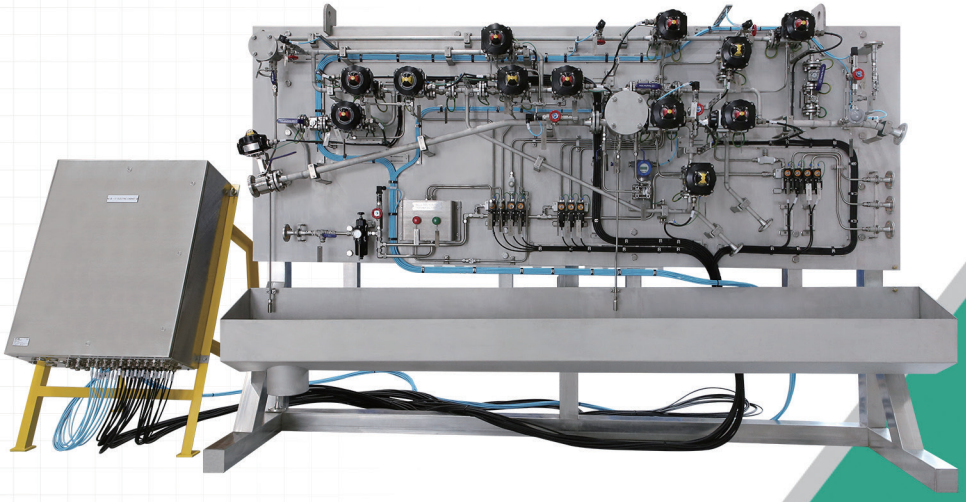
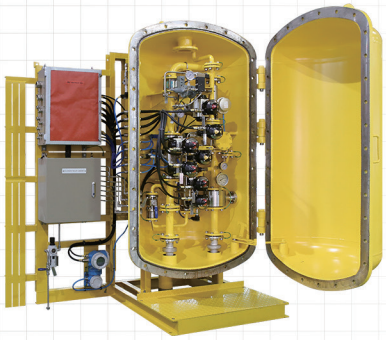
BMT

# Eco-Fuel Conversion and Supply Units

- Fuel Valve Train
- Fuel Valve Unit
- Gas Regulating Unit
- Gas Valve Unit





SUPERLOK®

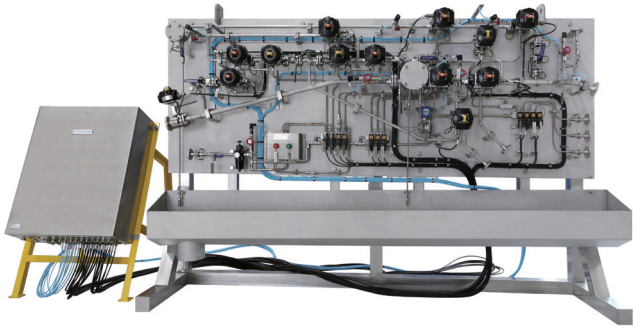
# Fuel Valve Train (FVT)

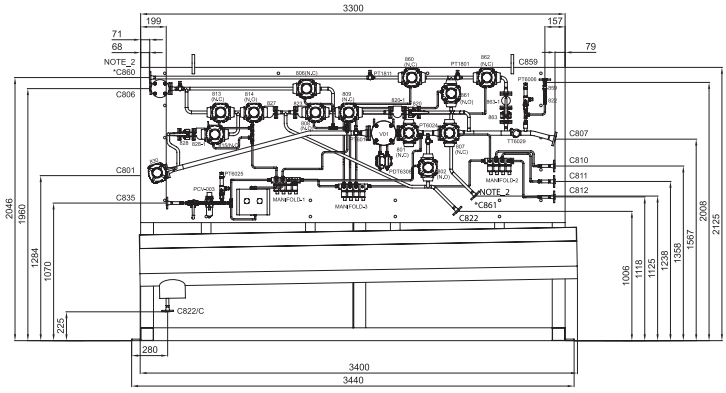
## EVERLLENCE | Methanol Fuel

## Features

- Fuel Valve Train (FVT) designed to stably supply the fuel that has passed the fuel supply system to the engine.
- FVT securely isolate the engine from fuel during shut down and discharge remaining fuel during abnormal operation and maintenance.
- FVT provides nitrogen purging functionalities to ensure engine safety during shut off.
- FVT includes a manual shut down valve, a fuel filter, a purging line and control cabinet for solenoid valves and sensors and there is a water line installed as an option.

## Fuel Valve Train - 1 Inch Me-OH

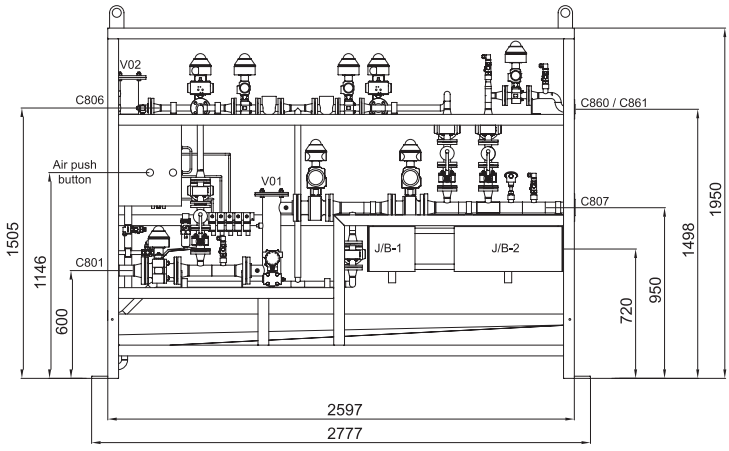





## Specifications

| Subject | Description |
|---|---|
| Dimension (WxDxH) / Weight (Approx.) | 3440 x 2130 x 800 mm / 1,350 kg |
| Media for Engine | Methanol (CH3OH) |
| Media for Purge | Nitrogen (N2) |
| Design Pressure | 16 bar (g) |
| Design Temperature | -25~60 ℃ |
| Line Size | 1" Fuel & 1/2" N2 Line |
| Me-OH Flow Rate | 3,500 kg/h |
| Engine Maker | EVERLLENCE |

# Fuel Valve Train - 2 Inch Me-OH




## Specifications

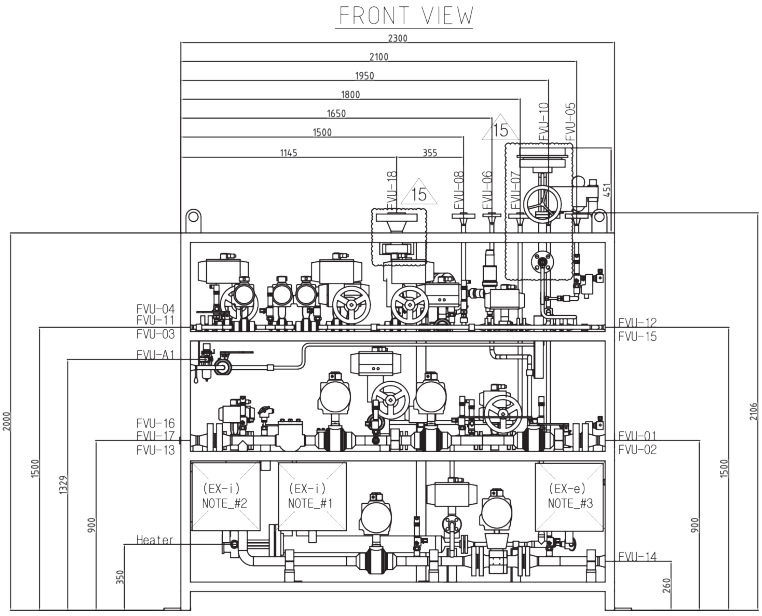
| Subject | Description |
|---|---|
| Dimension (WxDxH) / Weight (Approx.) | 2780 x 910 x 2100 mm / 665 kg |
| Media for Engine | Methanol (CH3OH) |
| Media for Purge | Nitrogen (N2) |
| Design Pressure | 16 bar (g) |
| Design Temperature | -25~60 ℃ |
| Line Size | 2" Fuel & 1" N2 Line |
| Me-OH Flow Rate | 19,000 kg/h |
| Engine Maker | EVERLLENCE |

# Fuel Valve Unit (FVU)

## WinGD | Ammonia Fuel

## Features

- The world's first Fuel Valve Unit (FVU) for ammonia engines is responsible for isolating the engine from the ammonia supply system, controlling the return of ammonia to the ammonia-nitrogen separator, and connecting the nitrogen supply system.
- FVU includes a main PLC control panel so that tests can be carried out on their own for the required modes.
- In consideration of the colorless and odorless toxic gas characteristics of ammonia, valves installed in the main line through which ammonia flows were installed as welding types to minimize the risk.
- FVU includes a manual shut down valve, a purging line, a cooling water line, a pressure control valve, a safety valve, a main control panel and control cabinets for solenoid valves and sensors.




## Specifications

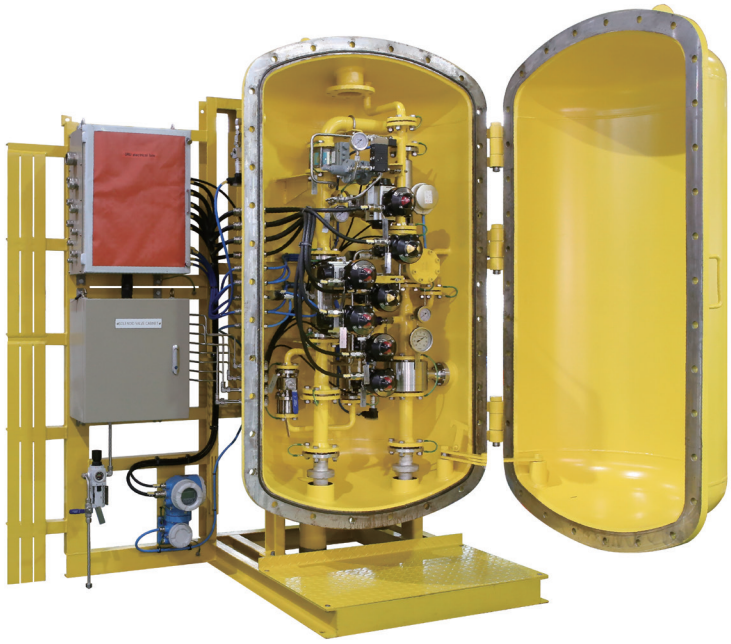
| Subject | Description |
|---|---|
| Dimension (WxDxH) / Weight (Approx.) | 2520 x 1000 x 2110 mm / 1,060 kg |
| Media for Engine | Ammonia (NH3) |
| Media for Purge | Nitrogen (N2) |
| Design Pressure | 110 bar (g) |
| Design Temperature | 40±5 ℃ |
| Engine Maker | WinGD X-DF-A |

# Gas Regulating Unit (GRU)

## HIMSEN | Methane Fuel

## Features

- The Gas Regulating Unit(GRU) is a unit for supplying stable fuel gas to regulate and control the flow and pressure of gas.
- GRU ensures that the gas pressure is adjusted to the desired level to prevent over-pressurization.
- GRU includes filtration components to remove impurities and contaminants from the gas before distribution.
- GRU includes a manual shut down valve, a fuel filter, a flowmeter, a regulator, DBB Valve, a purging line and control cabinets for solenoid valves and sensors.



## Specifications

| Subject | Description |
|---|---|
| Dimension (WxDxH) / Weight (Approx.) | 1530 x 1120 x 2320 mm / 1,380 kg |
| Media for Engine | Methane (CH4) |
| Media for Purge | Nitrogen (N2) |
| Design Pressure | 10 bar (g) |
| Design Temperature | 0~50 ℃ |
| Engine Maker | HIMSEN |

# Gas Valve Unit (GVU)

## WinGD | Methane Fuel

## Features

- The enclosure of Gas Valve Unit(GVU) acts as part of the double wall piping and at the same time acts as part of the ventilation system, which can supply gas to the GVU when the enclosure is ventilated.
- The pneumatic gas pressure regulating valve controls the feed pressure to the engine and the gas pressure is controlled by the Engine Control System based on the charge air pressure.
- GVU includes a manual shut down valve, a purging line, a pressure control valve, a main control panel and control cabinets for solenoid valves and sensors.
- GVU includes a main PLC control panel so that tests can be carried out on their own for the required modes.

## Specifications

| Subject | Description |
|---|---|
| Dimension (WxDxH) / Weight (Approx.) | 2240 x 1365 x 2800 mm / 2,600 kg |
| Media for Engine | Methane (CH4) |
| Media for Purge | Nitrogen (N2) |
| Design Pressure | 16 bar (g) |
| Design Temperature | 0~60 ℃ |
| Engine Maker | WinGD X-DF |

# Gas Valve Unit (GVU)

## EVERLLENCE | Methane Fuel

## Features

- Gas Valve Unit(GVU) is supply system valve which supplies and shut off fuel gas from the gas storage to main engine.
- GVU enables safe maintenance and leakage testing on the main engine before the engine starts operating on gas.
- In case of emergency, GVU automatically purged by nitrogen through the Engine Control System.
- GVU includes a manual shut down valve, a flowmeter, a fuel filter, DBB Valve, a purging line and control cabinets for solenoid valves and sensors.

## Specifications

| Subject | Description |
|---|---|
| Dimension (WxDxH) / Weight (Approx.) | 3900 x 640 x 1200 mm / 670kg |
| Media for Engine | Methane (CH4) |
| Media for Purge | Nitrogen (N2) |
| Design Pressure | 16 bar (g) |
| Design Temperature | -25~ 50 ℃ |
| Engine Maker | EVERLLENCE |

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