

# AVT 13B Vacuum flush toilet

## Bulkhead mounted

### PRODUCT LEAFLET



Wärtsilä Water Systems has supplied waste water treatment systems to the marine & offshore market for over 50 years. Our operational experience and market-led innovation and technology means that we can deliver a range of unrivalled waste water treatment products. Mindful of the environment, we work to ensure that all our products meet the highest standards of compliance. Wärtsilä has developed an enviable reputation for reliable equipment, backed up by an efficient spares and service capability.

The Wärtsilä vacuum flush toilet has been designed to be mechanically simple, operationally reliable and stylish in appearance. It uses air to drive waste through the toilet and vacuum piping to the treatment tank or intermediate collection tank. By using only approximately 1 litre of water, a dramatic reduction in the amount of waste water is realised.

This contemporarily styled toilet has a built-in vacuum breaker and flush memory. The control mechanism can be accessed without removing the bowl.

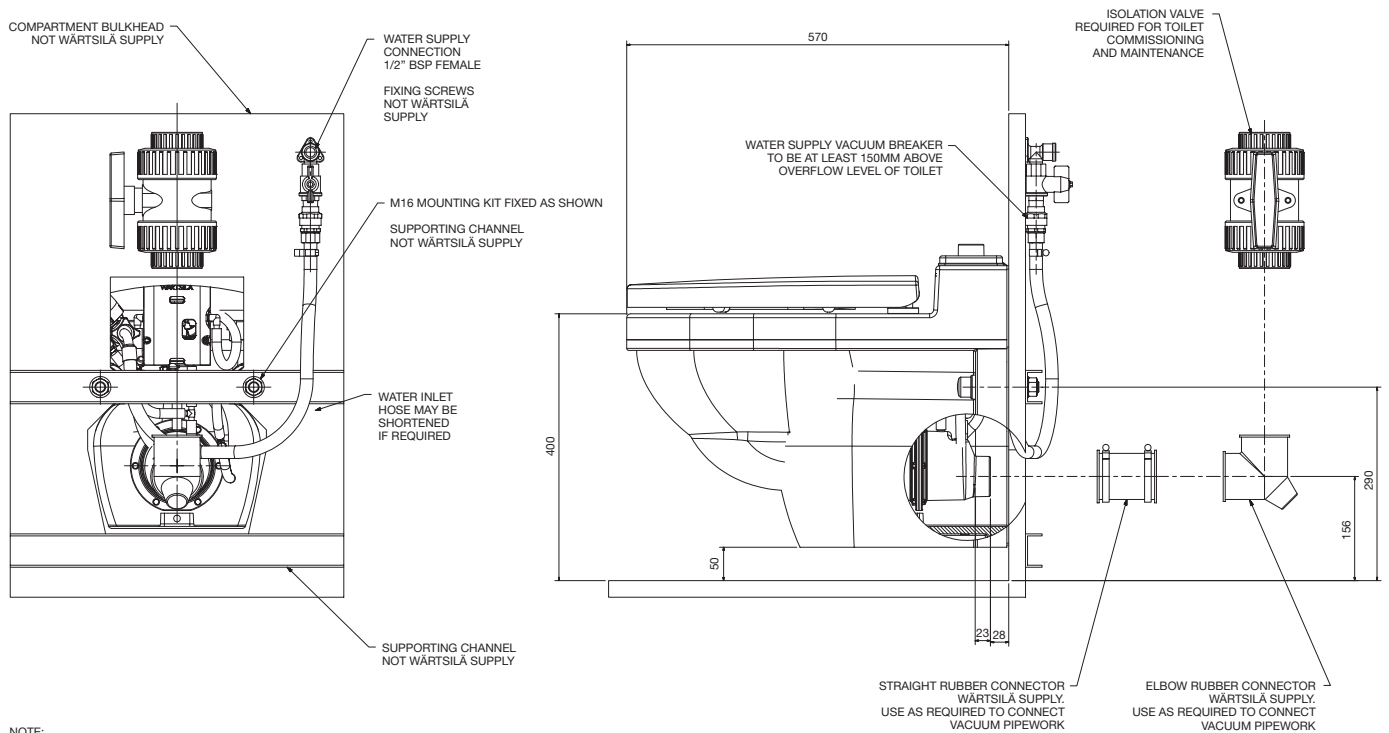
#### FEATURES

- Contemporary styling
- Minimum space requirements
- Low water consumption
- Simple to install - supplied complete, ready to connect
- Quiet operation
- Maintenance in-situ
- Easy deck cleaning



Fig.1 Installation data and interface requirements

Fully Installed Weight: 22 kg  
Dimensions (mm)



**NOTE:**

- VACUUM BREAKER CAN BE MOUNTED AT ANY CONVENIENT LOCATION BUT MUST BE A MINIMUM OF 150mm ABOVE THE OVERFLOW LEVEL OF THE TOILET
- SUPPORTING CHANNEL SECTIONS NOT WÄRTSILÄ SUPPLY
- SUPPORTING CHANNEL SECTIONS TO BE SECURELY FASTENED TO A SOLID STRUCTURE AT EACH END
- FLUSH CONTROL MODULE IS REMOVEABLE FROM THE TOILET SIDE. WATER VALVE AND SEWAGE DISCHARGE VALVE ARE ACCESSIBLE FROM THE PIPE DUCT SIDE
- RUBBER STRAIGHT AND ELBOW CONNECTORS TO BE USED ACCORDING TO CUSTOMER REQUIREMENTS
- CUSTOMER CONNECTIONS REQUIRED AT INSTALLATION:
  - WATER INLET HOSE (WÄRTSILÄ SUPPLY) TO TOILET WATER VALVE WITHIN THE BOWL
  - SHIP WATER SUPPLY TO WALLPLATE ELBOW 1/2" BSP FEMALE
  - VACUUM TRANSFER LINE TO TOILET SEWAGE DISCHARGE VALVE
- THE QUANTITY OF FLUSHING WATER USED IS CONTROLLED BY A BLEED PLUG ON THE TOILET WATER VALVE IN THE BOWL. THE CORRECT QUANTITY OF WATER USED IS 750 TO 1000ml. CHANGE THE BLEED PLUG AS NEEDED TO ACHIEVE THIS FROM THE SHIP WATER SUPPLY PRESSURE.

**OPERATION**

The toilet is activated by pressing and releasing the push-button located at the rear of the bowl. The toilet is equipped with a vacuum circuit that automatically controls the flush cycle. The controls have timing circuitry which allows the discharge valve to open and empty the contents of the bowl. Simultaneously, the water valve opens causing water to flow into and rinse the bowl. The water valve remains open long enough after the discharge valve has closed for a residual pool to accumulate in the bowl. In the event of vacuum drop, the unit's memory registers the push-button activation and completes the flush cycle once the vacuum is restored to the appropriate level.

**MATERIAL SPECIFICATION**

Bowl: Vitreous china, white  
 Seat & cover: Impact resistant plastic  
 Mechanism: Plastic - ABS  
 Mechanism: Rubber - EPDM

**OPERATING DATA**

Operating vacuum: -0.4 bar to -0.6 bar  
 Water pressure: 1.5 bar to 8.0 bar  
 Water consumption: 1 litre to 1.5 litres/flush

**NOTES**

- Additional reinforcements may be required depending upon the bulkhead thickness and material.
- Vacuum breaker, 90° elbow or straight connector and all mechanism and bowl inter connecting hoses are supplied with the toilet.