

Datasheet

Deployment Machine – through-hull



The Type 7950 through-hull Deployment Machine consists of a hydraulically operated pole, a sealed bearing section and a sea chest service section, with inspection door. The whole machine sits on a gate valve which in turn is mounted on the flange of a through hull penetration pipe.

The sea chest, when the gate valve is closed, provides easy access to the retracted transceiver for service and inspection purposes. The gate valve also allows the machine to be removed without dry docking.

The ideal deployed length is dependant on each particular application, but in general terms it is best to minimise the deployed pole length to achieve a specified acoustic performance. Typically, a length of between 1 and 3 m below the hull has been found to be acceptable.

The pole is very rugged and is designed to be highly resistant to vibration caused by vortex shedding.

When installed to Sonardyne's standard installation requirements the pole will operate safely in water currents of up to 7 knots¹ with the ability to survive short duration exposure to higher speeds.

For heavy duty installation where the pole is longer than 3 m or where operational water currents may reach 10 knots^{1,2}, the pole must be installed using Sonardyne's heavy duty installation requirements.

Sonardyne can give detailed application advice on positioning, installing and commissioning the machine. An optional hydraulic drive for the valve is available.

The machine can be controlled from a main control panel or locally at the machine. A bridge control is also available as an option.

The hydraulic power pack and main control can be mounted remotely if the machine is to be configured for Zone 1 classification. The standard form of machine can be simply configured to the meet individual vessel requirements by changing the height of the machine and providing adaptor flanges for different size or specification gate valves.

For specialist or demanding applications, machines of this general type can be engineered to suit customer specific requirements.

Note: The Gate Valve is supplied separately in sizes of DN300, DN350 and DN500, with the option of hydraulic operation.

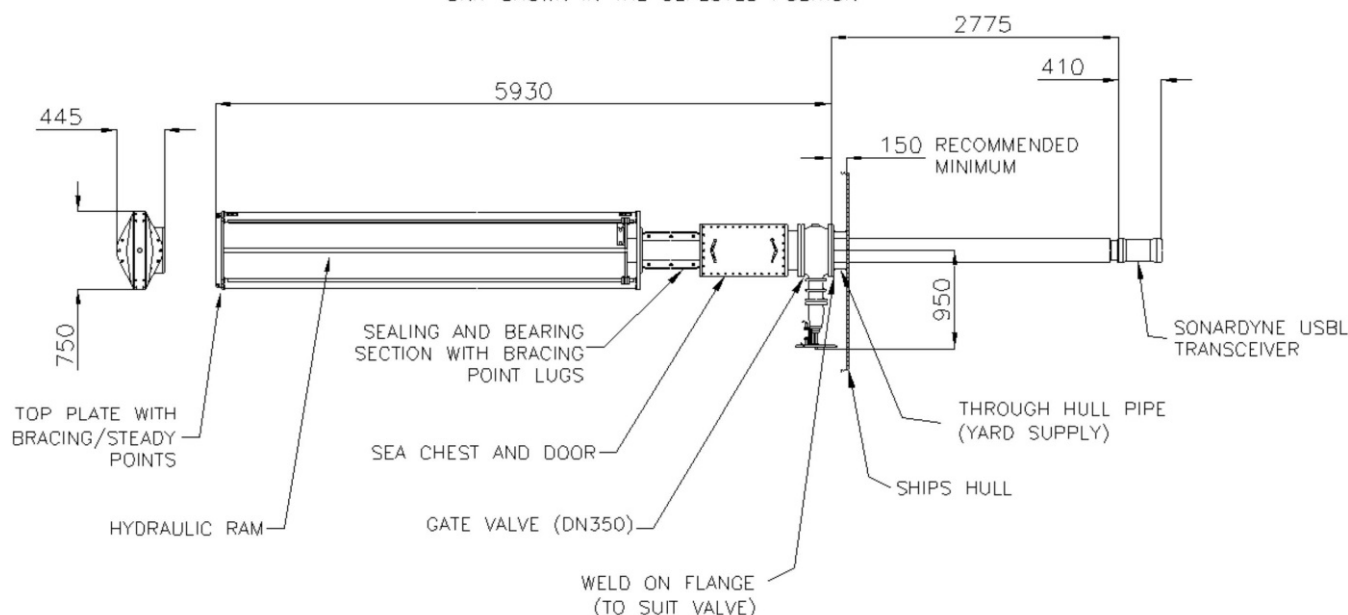
Key features

- High strength carbon steel pole for stiffness and strength
- Nickel based (Inconel 625) coated pole for durability and corrosion resistance.
- High integrity bearing and sealing design
- Reliable hydraulic actuation with safety interlocks
- Configurable design, can be zone 1 ex rated
- Operational speeds of up to 10 knots^{1,2}
- Manual retraction of pole in emergency with loss of power

Specifications

Deployment Machine – through-hull

UNIT SHOWN IN THE DEPLOYED POSITION



Feature		Type 7950 through-hull transceiver Deployment Machine	
Deployment Machine	Transducer pole	Nickel based (Inconel 625) coated steel pole for corrosion resistance	
	Guide sealing section	Contains bronze support bearings plus high integrity 2 stage seal	
	Service section	Removable door access to the transceiver without the need to lift the machine	
	Operational speed	Standard	7 knots ¹ operational (15 knots survival)
		heavy duty	10 knots ^{1,2} operational (15 knots survival)
	Emergency operation	Manual hand pump	
	Length	Maximum available deployed length is 3 m to face of transceiver	
Weight	1,200 kg		
Gate valve	Hydraulic drive available (DN350 and DN500 gate valves available on request)		
Power supply	Nominal 440 V 50-60 Hz 3-phase 3.0 kW (690 V 50-60 Hz 3-phase available)		
Limit switches	Sense position of the transceiver pole and the gate valve. Enable safety interlock		
Hydraulic power pack	Dimensions (HxWxD)	632 x 908 x 300 mm	
	Weight	60 kg	
	Tank volume	50 litres Mobil DTE 24	
	Working pressure	100 bar operational (180 bar max.)	
Main control cabinet	Dimensions (HxWxD)	600 x 600 x 210 mm	
	Weight	25 kg	
	Supply	24 V dc (internally generated from 440 V)	
Local control box	Dimensions (HxWxD)	300 x 150 x 159 mm	
	Weight	5 kg	
	Supply	24 V dc from main control cabinet	
Bridge control (optional)	As the local control box with dimmer control (flat plate version also available)		
Certification	DNV, ABS, Lloyds, BV, CCS, RMRS (others on request)		

¹ Total through water speed.

² Sonardyne to be consulted for any application with an operational through water speed greater than 7 knots.