



Side doors for ROV operation

Offshore vessels are often built to comply with specific customer demands and are therefore tailor-made. TTS offers a variety of equipment configurations to help meet these needs. The purpose of an offshore ROV (Remote Operated Vehicle) side door is mainly to deploy and retrieve subsea vehicles. The door must be designed to withstand operation in heavy seas and rough weather. TTS delivers a number of door configurations, all designed for operational flexibility, reliability and watertightness.



Side doors for supply and ROV operations can be delivered in various combinations of the following door types:

- **Side-hinged one section:** (See picture overleaf) here fitted with covers plates for the A-frame legs (The lower door is a side hinged door for direct access from the deck). This door benefits from very simple operation and a limited number of rotating components. When open, the door is hydraulically secured to the ship side.
- **Side-hinged foldable:** in combination with the roller door (see below). Due to the large height/width ratio, the door leaves are strengthened with torsion boxes to their full height. One single hydraulic cylinder operates the door and the movement is controlled by a guide fitted below the door. The door is secured and made weathertight by hydraulic cleating cylinders built into each door leaf.
- **Roller door:** The upper part of a ROV side door is not exposed to large sea pressures and a light roller door in galvanized steel may be fitted above the side-hinged door. This electrically driven door is weathertight, has a compact stowage above the light opening and is fitted with storm hooks on the sides for safety.

- **Top-hinged:** Top-hinged doors are a proven alternative to sideways operated doors and can be installed as an alternative to the roller door if watertightness is required, or as a independent unit in full height.
- **Sliding, vertically or sideways:** The sliding door can be designed either for operation outside or inside the shell and is a perfect alternative for ships with restrictions in door swing radius. Doors are driven either by rack and pinion or by a hydraulic cylinder, and are guided in their operation.

Different types of manoeuvring can be specified, either by manually actuated valves or by electric push-button types. Normally, the hydraulic oil is delivered from a centrally located power unit but small independent pump units with emergency operation can be mounted directly onto the door or in the nearby coaming. The benefit of the latter system is that there is no cost for external pipe laying, shorter installation time and no need for separate emergency units.

