

VMC™

VALVED MULTIPORTED FLUID CONNECTOR

SUBSEA
VALVED
MULTIPORTED

The VMC™ valved, multiported fluid connector, enables the simultaneous connection/disconnection of a number of piping runs.

The VMC™ Connector has been specifically designed for use in seabed processing installations for the vertical connection of modules, such as the System-Modules™ used in the AlphaCPU™.

The connector provides fine alignment of the module to the receiving structure during installation. Once connected, all the process fluid paths, to and from the module, are simultaneously opened by the rotation of the annular ring sleeves.

The VMC™ Connector utilises elastomer seals and was the forerunner of the MATE™ Connector that incorporates industry-standard metal-to-metal sealing.

The VMC™ Connector is configured for five 8-inch ports and five 4-inch ports, with a pressure rating of 5000 psi. However, the connector can be designed to accommodate other port combinations and pressure ratings.

Each connector half incorporates an annular ring sleeve. When connected, the annular ring sleeves engage with each other and rotate around the central vertical axis. This allows all the connecting ports to be simultaneously opened or closed. When closed, the two annular ring sleeves provide containment of the process fluids.

The low overall height of the connector provides horizontal, radial, connection of the mating pipe flanges to the periphery of both the lower and upper connector halves. This gives rise to an angular fluid flow path configuration through the connector, which minimises the vertical parting forces by containing the fluid pressure forces within the two annular ring sleeves.

Although the connector can be sized to accommodate API or ASME mating pipe flanges, most proprietary compact flange systems are preferred, as the connector can then be reduced in both size and weight.

Once the two halves of the connector have been mated, they are locked together by the actuation of hydraulic cylinders located in the upper connector half. These hydraulic cylinders are powered, by a power pack on an ROV, via a hydraulic stab.

