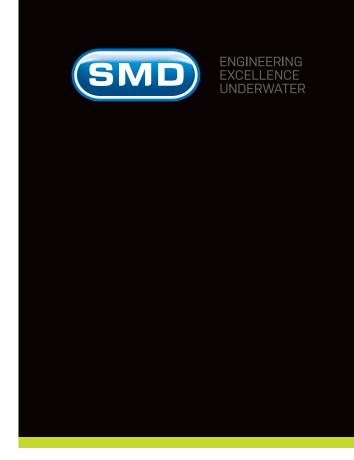


QCOLLECTOR NODULE COLLECTION RANGE



QC RANGE

The patent pending SMD QCollector (QC) range has been designed for the purpose of collecting polymetallic nodules in deep water. The range is available in a variety of sizes to suit vessel and client requirements.

Designed with a least impact philosophy at its core, the resultant technique and process form a unique, energy-efficient solution that minimises any impact on both the seabed and surrounding environment.

SMD can supply the umbilical system and launch and recovery equipment associated with the QC vehicle.

SMD can also offer, with a consortium, a full nodule collection turnkey solution from seabed to surface, if

SMD CUSTOMISATION SERVICE

SMD understand that every customer is different and therefore have individual needs from their systems. In order to meet your specific requirements SMD can customise our vehicles using our range of standard components to suit your preference and performance requirements.

FEATURES

required.

- → Designed with environmental sensitivity at its core. Low submerged weight and a collection method designed for minimal seabed disturbance and minimised sediment plumes.
- → Proven SMD technology to 6000m operation
- → Efficient, commercially viable method combines minimised processing on ship with maximised nodule collection.
- → Plastic tracks to minimise submerged weight.

QC RANGE

SYSTEM SPECIFICATIONS

GENERAL Depth rating	QC1000 6000msw	QC1500 6000msw	QC2000 6000msw	QC2000MAX 6000msw
Dimensions*:				
Length	6m	9m	12m	12m
Width	5m	7.5m	10m	15m
Height	5m	5m	6m	6m
Weight in air	30te	65te	95te	105te
Submerged weight	4.5te	4.5te	4.5te	4.5te

MECHANICAL

Construction Steel chassis
Collection tank Steel

Buoyancy Syntactic foam

Other Stainless steel fittings and housings

COLLECTOR HEAD

Width 2.5m 5m 10m 15m No. of eductors 16 24 ~150kW ~300kW ~600kW ~750kW Eduction power ~375kW ~375kW Dredge power ~150kW N/A POWER 2x375kW 3x375kW 4x375kW 4x375kW Power

SUBSEA ELECTRONICS

Electronics pod One atmosphere pressure vessel

SUBSEA SURVEILLANCE

Comprehensive instrumentation and surveillance suite, typically comprising cameras, lamps, pan & tilt and sonar.

POWER AND CONTROL SYSTEM

Vessel integrated or housed in ISO A60 containers

UMBILICAL SYSTEM

Synthetic umbilical on a 30te SWL winch with slack/snatch system

LARS

A-Frame Up to 110te SWL with docking head and cursor

Lift Winch Up to 120te SWL

Control Kiosk To control all LARS components HPU To power LARS equipment

AFTER SALES SERVICE

Operational Personnel Technical Support Service Agreements Spares Packages

^{*}All dimensions are approximate and subject to final design