

# Merlin

## Excavation and Jetting



The new 35 - 60 h.p. Merlin excavation pump is the must have successor to the Excalibur. Merlin incorporates many of the improved design features introduced on the small Super ZipJet pump which has proven to be so successful.

The pump is smaller, lighter and more robust with greater performance in both excavation and jetting functions. It features the same double seal arrangement as the Super ZipJet and a modular design provides great ease of maintenance. There are significant efficiency increases in both the impeller and educator making this the tool that no WROV should be without.

Like all Tritech excavation pumps the Merlin will not block or jam because there are no moving parts in the suction flow path. The flow reversal valve can be operated to back flush the suction nozzle should there be an obstruction. Power is derived from a stream of high velocity fluid creating a low pressure region behind the suction nozzle. The pump may be rapidly switched from suction to jetting, or be configured to an intermediate position allowing jetting and excavation to be carried out simultaneously.

### Specifications

Product	Merlin Excavation and Jetting
Country of origin	UK
Manufacturer	Tritech International Limited

## Features & benefits

- Robust and compact design
- Small and light
- Rapid switching from suction to jetting
- Option of close fitting inlet strainer
- Reverse flush for suction nozzle
- Modular pump core
- Double shaft seal

## Hydraulic motor input

<b>Pressure</b>	170 to 250 Bar (2450 to 3600 psi)
<b>Flow</b>	65 to 110 litres per minute (17 to 29 USgpm)

## Actuator

<b>Minimum pressure</b>	120 Bar (1740 psi)
<b>Maximum pressure</b>	240 Bar (3480 psi)

## Hydraulic Fittings

<b>Motor A &amp; B</b>	No. 12 JIC male
<b>Motor case drain</b>	No. 6 JIC male
<b>Actuator connection</b>	No. 4 JIC male

## Output

<b>Jetting performance</b>	Up to 600 litres per minute @ 8 Bar (160 USgpm @ 115 psi)
<b>Suction flow</b>	2000 - 4000 litres per minute (500 - 1000 USgpm)
<b>Solids removal rate</b>	10 - 40 tonnes per hour (350 - 1500 lb per minute)

## Applications

- Fitted to most work class ROVs
- Break up and excavation of seabed
- Removal of drill cuttings
- Clearing of subsea manifolds
- Removal of soft marine growth
- Marine archaeology
- Treasure hunting and salvage

## Nozzle and hose dimensions

<b>Jetting hose</b>	1" BSP Hose barb
<b>Jet nozzle diameter</b>	20mm (0.8")
<b>Discharge hose diameter</b>	150mm (6")
<b>Suction hose diameter</b>	100mm ID (4")

## Weight and Materials

<b>Weight in air</b>	40kg (90lb)
<b>Weight in water</b>	17kg (38lb)
<b>Materials</b>	Stainless steel, Nylacast, UHMWPE

