Diamond Wire Saw (DWS) Subsea Cutters

Five different models offer wide range of cuts

Diamond Wire Saw (DWS) Subsea Cutters are designed for the underwater cutting of horizontal or vertical pipes, and offer five models that cut pipe outside diameters (ODs) ranging from 4 in to 84 in (10 cm to 213.4 cm) (DN100–DN2100). Running on hydraulic power, the diamond wire saw is controlled remotely by using the topside control panel (TCP) or by ROV control operable via zero leak hot stabs.

FEATURES
- Hydrodynamic design
- Self-adjusting autofeed system
- Synchronized clamping
Description
All of our diamond wire saws feature a unique hydrodynamic design that dramatically reduces centrifugal forces during operation, which means that less power is wasted in churning water and more power is directed to cutting the workpiece.

Self-adjusting autofeed system
This diamond wire saw is the only machine of its kind with a self-adjusting autofeed system that controls wire bend and automatically matches the feed rate to the cutting rate. With the ability to adjust or stop the feed entirely until the cutting action catches up, it delivers a more efficient cutting action with enhanced operator safety and greatly extended wire life.

Synchronized clamping
In addition, the diamond wire saw is equipped with a fully adjustable power clamping system, designed to grasp the workpiece more accurately with fewer contact pads. It features two synchronized hydraulically actuated clamping arms that pivot inward, providing easy and secure remote control mounting. Synchronized clamping arms ensure uniform, square, and secure mounting, and prevent damage to the arms from unequal forces. Because the machine mounts more accurately, less visual supervision is required.

Specifications
- System function: Designed to cut submerged pipe of varying materials and thicknesses by using a high-speed rotating diamond wire loop cutting element
- System capacity: Five models designed to cut pipe ODs ranging from 4 in to 84 in (10 cm to 213.4 cm)
- Cutting wire: Quick-change, continuous-loop DWC element
- Cutting wire speed: Variable, 0–1,500 RPM
- Drive options: Hydraulic only
- Hydraulic power requirements: 15 gpm @ 2,000 psi (57 lpm @ 138 bar), varies by model/application
- Feed method: Automatic self-adjusting feed control with screw drive and manual override
- Feed rate: Variable based on workpiece material and density.
- Construction: Lightweight aluminum plate construction, constant tension bow feed, three hydraulic drive circuits (cutting drive, feed drive, and clamp drive)
- Clamping pads: User-replaceable, crush-resistant nylon clamping pads
- Wire guides: User-replaceable, durable nylon inserts

<table>
<thead>
<tr>
<th>Model</th>
<th>Diameter Range</th>
<th>DWSSS 4–16 in (10–41 cm)</th>
<th>DWSSS 12–30 in (30.5–76 cm)</th>
<th>DWSSS 16–36 in (40.6–91.4 cm)</th>
<th>DWSSS 30–52 in (30.5–132.1 cm)</th>
<th>DWSSS 60–84 in (152.4–213.4 cm)</th>
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