

## Off-Shore Diamond Wires - OSDW

The Industry Sectors where the **Off-Shore diamond wires** are used are: OffShore – Sub Sea and Top Side – Nuclear Plants – Petrochemical – Power Generation

The **Off-Shore diamond wires** are expressly designed to perform the faster cut to reduce the operation time. The high resistance of the assembly permits to reduce the unwanted breakages during the cut

The tapered shape reduces the contact area increasing the cutting speed at maximum level. This wire can cut the most complicated material as: pure steel, bitumen coated steel pipes, plastic coated steel pipes, Inconel steel etcetera.

The Oriented Crystal® patented technology increase the resistance of the nickel bond and the diamond is more constricted, then the orientation of the diamond grains increase the cutting action.

The OSDW are designed to be used in underwater cutting (**S** version), but sometimes they are used in nuclear plants decommissioning and the usage of water is strictly forbidden. In these cases we offer the **SD** version for dry cutting. The assembly is different from the S version for more resistance to the temperature.

**Assembly:** The unique and exclusive assembly with polymeric coating and springs is born with the purpose to increase the safety on the job site. If correctly used the diamond wire doesn't need to be rebuild until the whole exhaustion of the diamond beads, avoiding problems such as wire breakages, sliding of the beads and beads expulsion in case of breakage of the wire.

We splice the wire in closed loops for the best usage of the machine and we can do the minimum length diamond wire at 1,40m with 40 BPM with the maximum length tolerance of +/- 2cm.

### LSR-S (Pro)

**Bead Type:** Electroplated

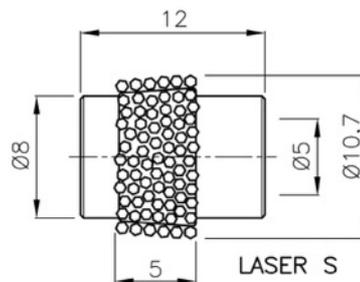
**Diamond Grit:** UsMesh 25/30 (Fepa 711)

**Outside  $\phi$ :** 10,8mm

**Internal Steel rope:** 4,9mm

**BPM:** 40 up to 48

**Alternative Diameters:** 9,4mm and 7,7mm  
(7,7mm has steel rope 3,8mm)



	Cutting Speed	Resistance
40 BPM	★★★★ ★★	★★ ★
44 BPM	★★★ ★★	★★★ ★★
48 BPM	★★★ ★	★★★★ ★★

### GHS-S (Pro) – High cutting speed

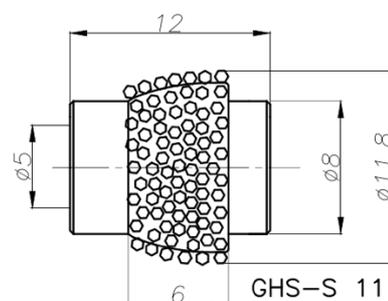
**Bead Type:** Electroplated

**Diamond Grit:** UsMesh 25/30 (Fepa 711)

**Outside  $\phi$ :** 11,8mm

**Internal Steel rope:** 4,9mm

**BPM:** 36 up to 40



	Cutting Speed	Resistance
36 BPM	★★★★ ★★★★	★★ ★
40 BPM	★★★ ★★	★★★★ ★★

Data Sheet Off Shore Diamond Wires Rev 3.3.docx

Material	Version	Average Cutting Speed		Average Life		Peripheral speed	
		[dm <sup>2</sup> /h]	[in <sup>2</sup> /h]	[dm <sup>2</sup> /lm]	[in <sup>2</sup> /ft]	[m/sec]	[ft/sec]
Off-Shore Steel pipes (40 beads/m)	S	7 ÷ 9	108 ÷ 139	6 ÷ 8	28 ÷ 37	14÷16	45 ÷ 52
On-Shore Structures Removal (48 beads/m)	S	4 ÷ 5	62 ÷ 77	10 ÷ 12	47 ÷ 56	14	45
On-Shore Dry Cut (42 beads/m)	SD	5 ÷ 9	77 ÷ 139	6 ÷ 8	28 ÷ 37	7 ÷ 10	23 ÷ 33

LSR-S Average Cutting Performance



Figure 1- LSR-S Diamond Wire Assembled



Figure 2- LSR-S Diamond Beads



Figure 3- GHS-S Diamond Wire Assembled



Figure 4- GHS-S Diamond Beads

