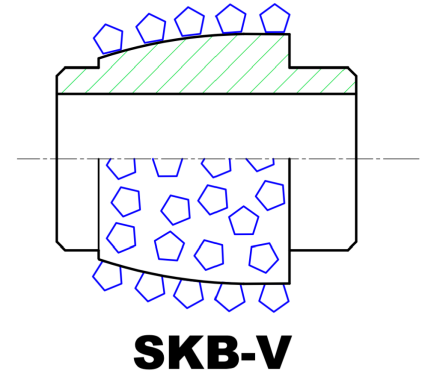


## Salvage Operations Diamond Wires - SODW

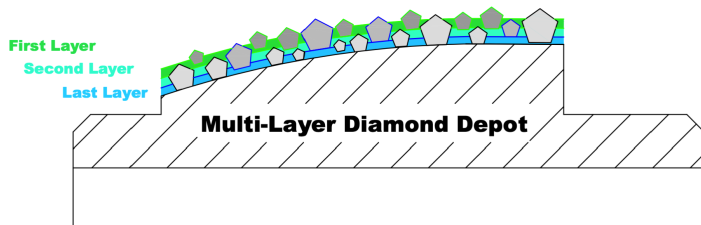
The cut of big steel structures as Oil & Gas platform and their jacket legs or sunk shipwrecks needs a special diamond wire due to the non-homogeneous steel structure and the unconventional dimension of it. The **SO Diamond Wire** is expressly designed to make the cut with a surgical precision with the higher cutting speed in the market and it can also keep the operations' costs lower than others.

Many shipwrecks are cluttering the oceans and till now the operation costs were too much expensive to make it possible or not convenient for most of the salvage operations. In the last years the diamond cutting technology increased its possibility to perform an easy and surgical cut with the possibility to adapt easily to several different condition. In the same times the machines are being developed to adapt itself to different objects' dimension and conditions taking a great advantage from the versatility of our diamond wire for an easy solution of the cut. **SKB-V 48BPM** diamond wire is the perfect tool for these jobs.



The SKB-V 48BPM diamond wire has a special diamond depot by **Oriented Crystal®** patented technology and **Multi-Layer Diamond Depot**.

The first of these two technologies can increase the adhesion of the diamond grains to the metal surface of the bead. At the same time more diamond crystals are oriented in the most advantageous direction to have the cutting edges in the perfect position for the maximum cutting performance.



The second technology, the **MLDD**, can increase the resistance of the diamond coating. While some grains are cutting, the small edges of the diamonds in the inner level exit and they are ready to protect the beads against extra shocks on the cut material.

As the first level of diamonds have finished its cutting operation the second level start to cut and although the small grains of the old first diamond level are near their

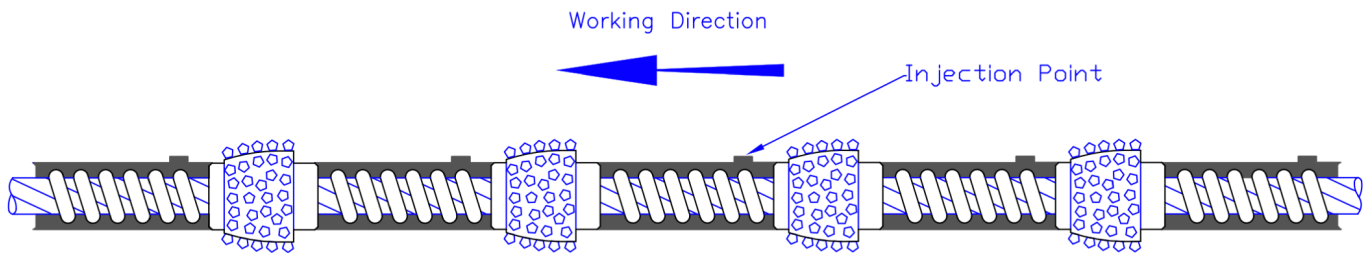
end of life, they can protect the other cutting diamond too. This mutable behavior of cutting and protection can increase the life of the tool.

The special rounded-shape of the SKB-V diamond bead (rounded) permits to increase the cutting pressure of the diamond reducing the contact area between the diamond itself and the material to cut from CA (standard Contact Area) to CA\*(reduced Contact Area) and therefore the cutting speed of the diamond wire will be increased.

This geometrical modification of the contact area will increase a lot the pressure on the diamond and the diamond could be damaged quickly! But our **patented Oriented Crystal Technology and the MLDD technology** increase the resistance of the nickel bond and the diamond stays well fixed on the metal surface and works properly.

The incline shape of the diamond beads allows a progressive use of diamond for a long-lasting tool. In fact the first diamond to be used is the one on the bigger diameter. This diamond receive all the effort and work for a complete life cycle. Once the cutting edge is not good enough the grain cracks along its simmetric planes and a new cutting edges is formed. This process will continue until the complete use of the diamond grain. Once it's reduced in a smaller diameter grain, it is pulled out, The inner grains start its works. This cycle is repeated some times for this reason the life of our diamond wire is longer than others.

Beware! The tapered diamond wires have **only one correct working direction**, if you use it in wrong direction you can damage the wire quickly.



## SKB-V

The **SODW** are designed to be used in underwater cutting (**V** version) and in onshore application with or without water cooling. In these cases, we offer the **VD** version for dry cutting. Even the assembly is different from the B 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 rebuilt 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.

### SKB-V (Pro)

**Bead Type:** Electroplated

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

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

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

**BPM:** 44 up to 48

**Alternative Diameters:** 9,4mm and 7,7mm (7,7mm has an internal steel rope of  $\phi$ 3,8mm)

<b>Application</b>	<b>Version</b>	<b>Average Cutting Speed</b> [dm <sup>2</sup> /h]	<b>Average Life</b> [dm <sup>2</sup> /lm]	<b>Peripheral speed</b> [m/sec]
Underwater and on-Shore <b>Structures Removal</b> (48 BPM)	V	25 - 35	30 - 40	7 - 10
On-Shore <b>Dry Cut</b> (44 BPM)	VD	15 - 25	18 - 25	7 - 10

SKB-V Average Cutting Performance

