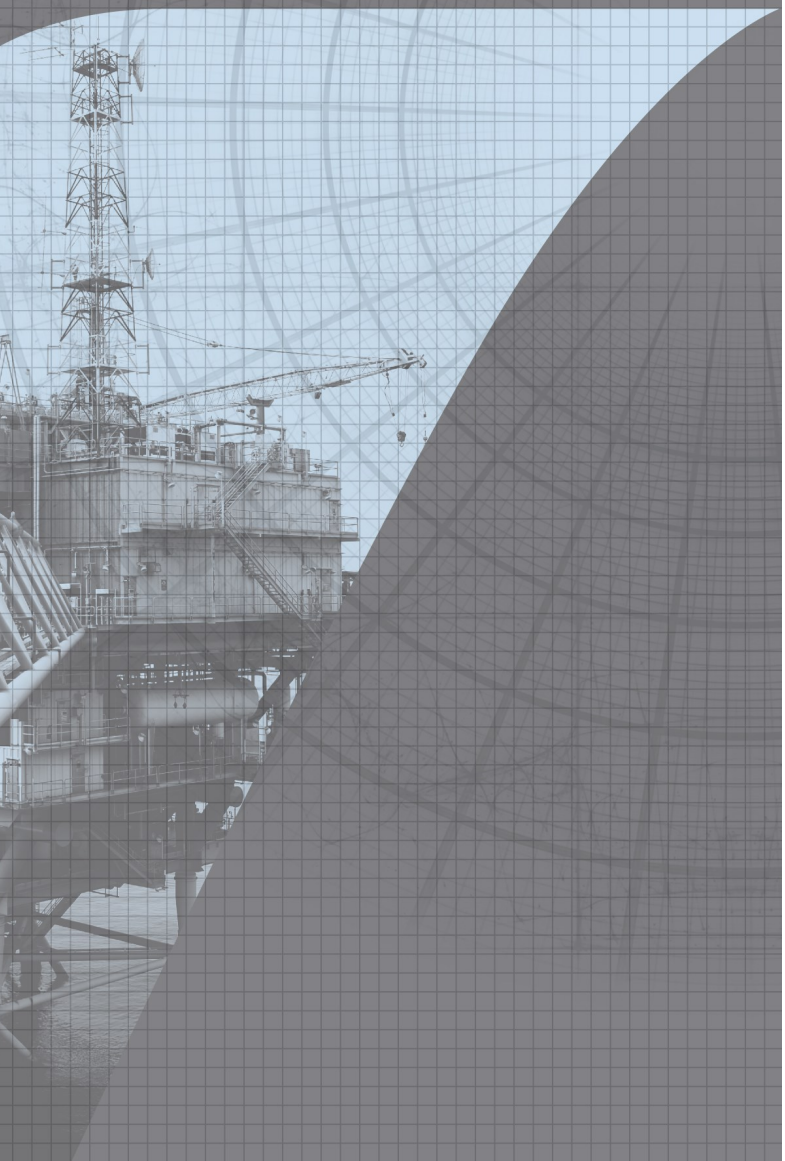
SPEX Wellhead Abandonment Service



The **SPEX Offshore (UK) Ltd. Wellhead Abandonment Severance Service** has been delivered globally for many years. The system is rapidly deployed by our team of Specialists who ensure casings are severed safely and efficiently. This solution is both reliable and economic, and can substantially reduce client vessel time and costs.

Principle of Operation

The system can be deployed from a Dive Support Vessel (DSV), drill ship or a semi-submersible. Normal operating methods are employed to ensure accurate positioning within the wellhead casings. Steel armoured mono-conductor is used for deployment and electrical initiation of the RF-safe detonating system.

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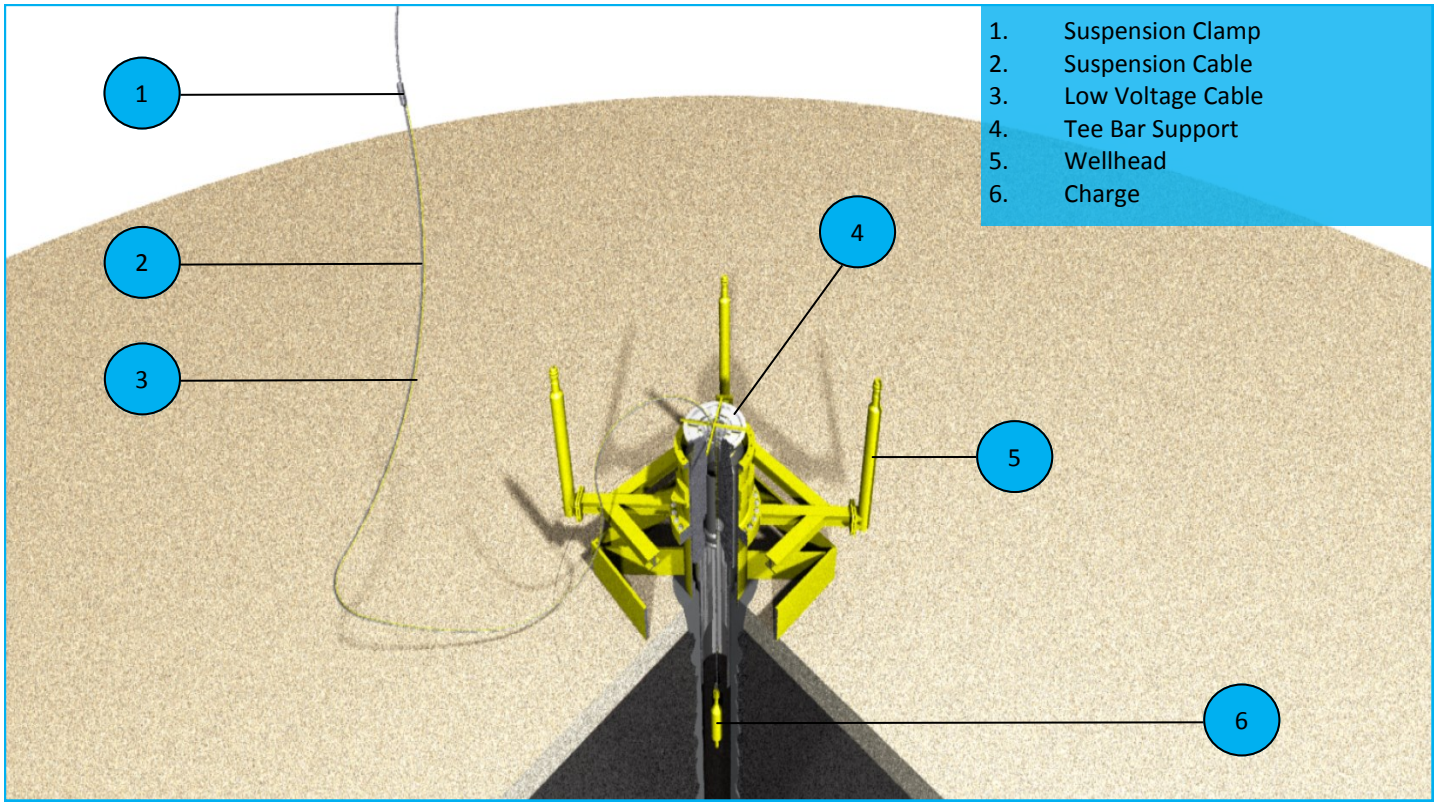
The system is based on the Colliding Shock Wave theory. The charge is simultaneously initiated at either end, sending shock waves of equal magnitude through the column of explosive. When the shock waves collide, the energy is projected outwards in a radial direction. It is this energy that impacts the casing, causing complete severance.

Upon detonation, sufficient power is released to sever multiple casings out to 36” diameter.

The system comprises of three main components. These are the initiation system, pressure compensation and explosive type which permits 10,000 ft deployment rating.



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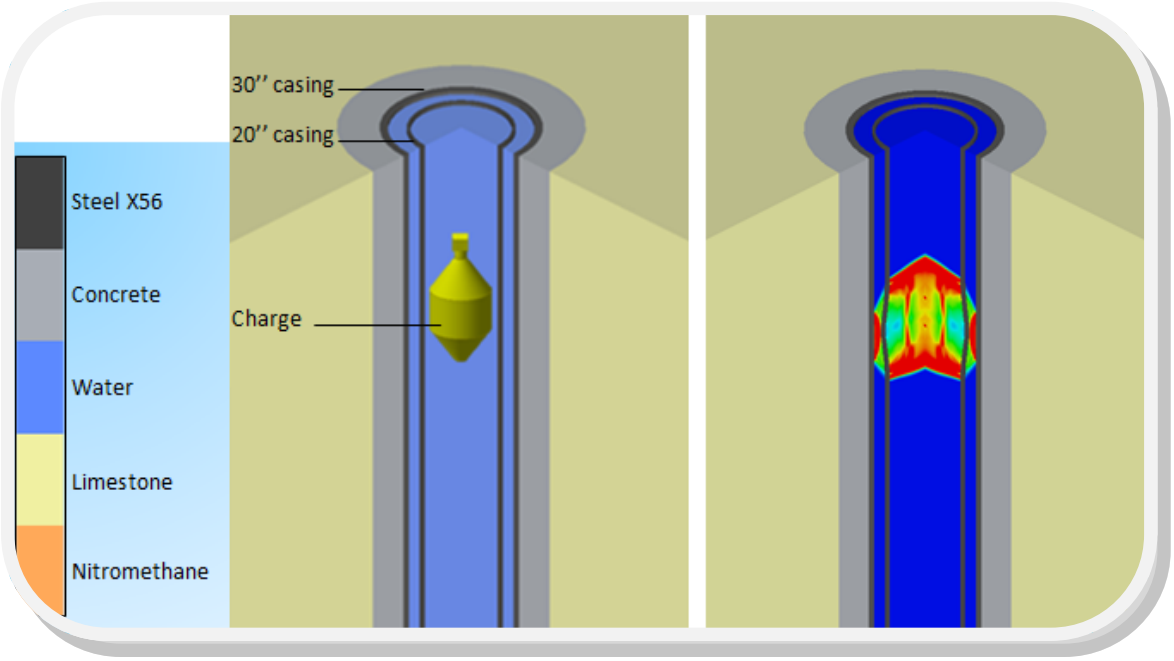


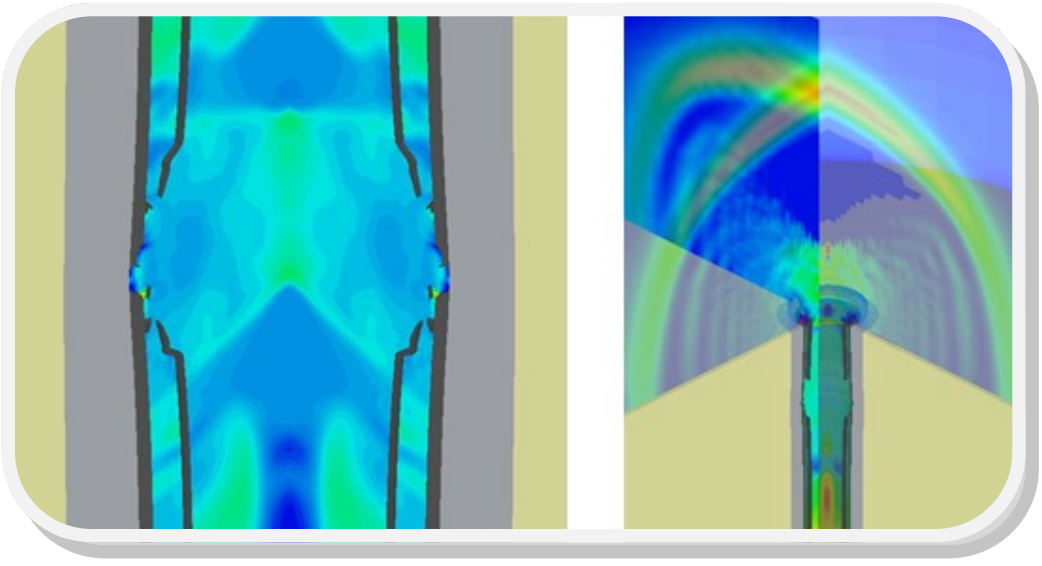
SPEX has the capability to simulate explosive events, to predict severance capability and optimise the explosive charge weight required.

The model presented here simulates a 16'' OD well abandonment charge severing 20'' and 30'' casings simultaneously.

The images above show the charge in -hole and the pressure wave 0.1 ms after detonation.

The lower left-hand image below shows that the 20'' and 30'' casings are severed 2 ms after detonation.

The effects of the explosion shock wave impinging on nearby structures or support vessel hulls can also be assessed.



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