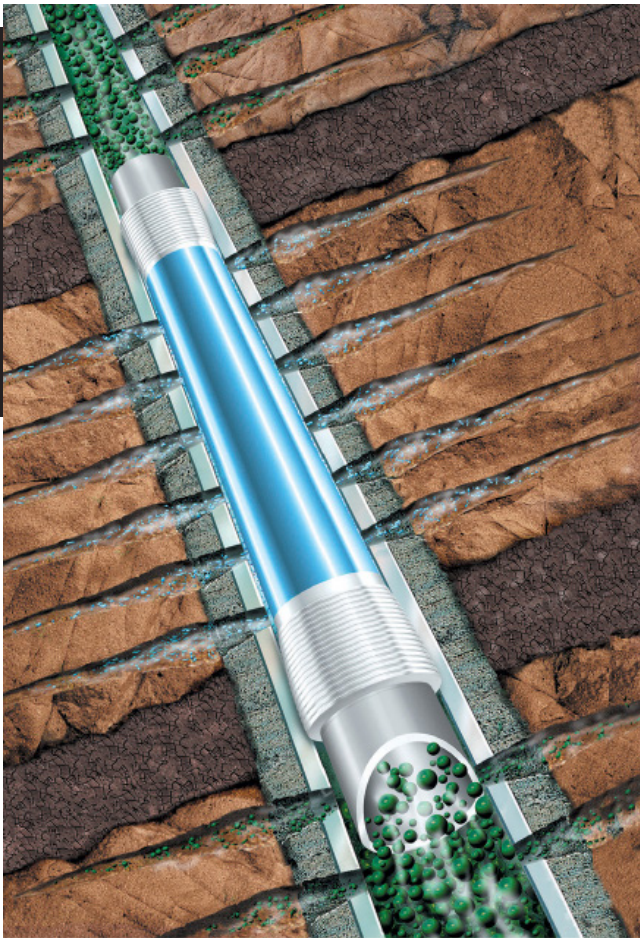


## X-SPAN™ SYSTEMS

Tubing/Casing Patch Technologies

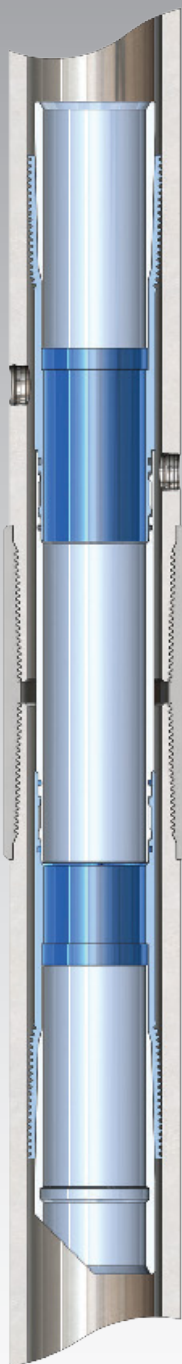


### Tubing and Casing repair / Zonal Isolation

- A proven, durable and dependable seal
- Deployment on electric wireline, tubing, drill pipe or coil tubing in vertical, deviated or horizontal or geothermal well bores
- An economical and reliable solution for a broad range of applications
- A large bore for easy passage of service tools
- Minimal surface equipment required for deployment

The X-SPAN™ Tubing/Casing Patch System provides a proven, durable and dependable seal over perforations, holes or splits, corrosion or leaks of any kind in all types of tubulars. This system can utilize a myriad of deployment methods in virtually any type of well bore. The Owen X-SPAN system has proven to be an economical and reliable solution for a broad range of applications, including shutting off unwanted water or gas influx, zonal protection for frac-through applications, repairing tubular leaks from pin holes to collar leaks, repairing corroded or eroded tubing or casing as well as isolating frac ports and auxiliary tools in horizontal wells. The large bore assures easy passage of service tools including bridge plugs, drop balls, seal bore assemblies, logging tools and perforating systems. The minimal surface equipment required for deploying the patch and rigless intervention results in significant savings for the operator.

The metal-to-metal X-SPAN™ seal is proven technology engineered for high temperature applications while yielding the highest burst and collapse pressure ratings in the industry. The X-SPAN Tubing Casing Patch can be deployed to protect up to 300ft (91m) sections of tubing or casing on a single trip. Multi-trip stackable systems are available to span intervals longer than 300ft (91m). X-SPAN systems can be designed using premium alloys for extreme well bore environments and custom sized for most tubing restrictions.



### **Standard X-Span**

The standard X-SPAN™ system consists of three basic components;

- top metal to metal sealing element,
- tubular middle extension
- bottom metal to metal sealing element.

The system is modular and patch lengths can be adjusted in the field. It is the most reliable patch on the market and the pressure integrity is not reduced due to casing conditions.

### **Gas tight system - GTX-Span**

The GTX-SPAN™ adds premium sealing elements with each element containing two elastomer seals that have enabled us to provide the industry with the first effective gas tight patch.

### **X-Span bridgeplug - BPX-SPAN**

The BPX-SPAN™ is an elastomer free bridge plug designed for hostile well conditions that can cause the elastomers to swell on standard bridge plugs while running in the hole. The BPX-SPAN uses our proven metal to metal seal technology to create a mechanical seal and anchor to the casing wall. The BPX-SPAN can include a ceramic knock out sub, pump out sub or burst disc or be converted as a hanger system for velocity strings or include a tailpipe assembly with profile subs.

### **Stackable System - STX-SPAN**

The new multi-trip stackable STX-SPAN™ version can be utilized to isolate longer intervals and deployment can be performed on flowing or static wells. The STX-SPAN system is also ideal for wells with limited rig up height and on wells that have severe dog legs where only short sections will pass. Each section seals to the previous one via a ratchet latch stinger and seal bore receptacle.

### **Deployment**

All X-SPAN™ systems are easily deployed using a range of multi-stage explosive, electric line non-explosive or hydraulic setting tools. The explosive setting tools can be initiated electrically, on e-line or slick line using a variety of compatible firing systems. For conventional tubing or coil tubing deployment requirements several sizes of hydraulically operated setting tools available.

X-SPAN systems are easily removable by milling off the sealing elements. The reliability and quality of the X-SPAN system has been proven many times with over 2900 installations completed with a success rate of 98% when setting depth has been achieved.