



**Managing your asset integrity and risk  
with reliable, efficient and safe  
engineering solutions**

[www.wellube.com](http://www.wellube.com)



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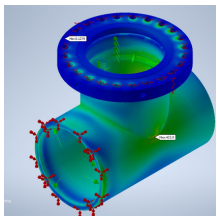
### **Pipeline Repair Products**

- Hot Tap Fittings
- Line Stop Fittings
- Full and Partial Reinforcing Saddles
- Reinforcing Sleeves
- Specialty Fittings
- Uni-Seal Split Sleeve Repair Clamps

**Wellube offers specialist engineering products and services for flow management intervention & integrity, turnkey valve reliability management and onsite precision machining to the global oil and gas, renewables, power, petrochemical and infrastructure industries.**

With over 20 years of experience in the industry, Wellube's technical knowledge, commitment to safety and hands-on approach is trusted by clients to provide them the best available solution for their dynamic operational challenges.

## WHY CHOOSE WELLUBE AS YOUR ONE-STOP ASSET MAINTENANCE



### Designing Capabilities

Our in-house design engineers are experts in custom designing fittings compliant to international codes and standards that best suit your asset maintenance and repair requirements.



### Engineering Expertise

Experienced engineering team to analyse and design tailor made solutions for your challenges from end-to-end.



### Customised Manufacturing

All products are manufactured to meet client specific requirements as well as to comply with international codes like ASME, API, ASTM and can be further validated by third party organisations like DNV, TUV among others.



### Competent and Trained Workforce

With decades of knowledge, proficiency and continuous in-house training, our engineers and technicians are equipped to handle projects efficiently and deliver the highest standards of operational excellence.



### Safety and Quality Always

All our products are delivered with stringent quality checks and our services follow complete compliance, thereby providing our customers the highest levels of quality assurance.

Wellube is accredited and certified to globally recognisable standards ISO 9001, 14001 and 45001.







# FLOW MANAGEMENT INTERVENTION & INTEGRITY SERVICES

In the industries ranging from oil and gas to infrastructure, the safety, productivity and cost of operation is directly proportional to asset integrity and continued operational performance. Wellube continues to be at the forefront of executing hot tap and line stop, under pressure leak sealing and pipe freezing across industries globally.

We provide an integrated solution for flow management which includes scope and specification development through client interaction, engineering evaluation, design & manufacture, quality and safety testing and project execution.

## HOT TAP, LINE STOP AND IN-SERVICE WELDING



Our range of specialist hot tapping equipment allows a connection to be made to a piping system or a vessel (onshore or subsea), **without shutdown or interruption to production**. Our services can also perform a temporary intervention and isolation of the pipeline while it is operational (therefore avoiding downtime), to provide rectification to the pipeline or to restore integrity of the system.



**Industries** – Oil and gas, petrochemical, power, construction, infrastructure.



**Pipe type** – Most types ranging from carbon, stainless and ductile steel to GRE, HDPE.



**Hot tap range** – Up to 84”.



**Line stop range** – Up to 48”.



**Pressure range** – Up to 1000 psig as a standard.



**Temperature range** – 375°C for hot tap/160°C for line stop.



Wellube manufactures specialised hot tap/line fittings in-house based on client requirements in line with the ASME codes. As a complete turnkey service, we also have a team of certified in-service welders available to meet the wide and varied requirements of customers.

All high-pressure line stop operations require a size on size hot tap. However, in low pressure systems, we can provide isolation using inflatable bags or folding head. Advantages of this method is that a smaller tapped hole is made to achieve isolation, therefore using a smaller fitting and equipment, which are convenient to use in congested locations. We also perform wellhead hot taps to check for trapped gases and as well as drill through stuck wellhead gates to re-access the wells.

**We provide a complete tailor-made package for your hot tap and line stop requirements, from designing, manufacturing and installation of the fittings on the system to performing the intervention. We conduct live interventions on pipeline systems and can support tasks of every scale, from the smallest bore emergency operation to the largest planned intervention campaign.**



## UNDER PRESSURE LEAK SEALING

A leak from a piping system during operation can lead to the escape of line medium into the atmosphere and depending on the severity of the leak, it could lead to an unplanned & costly shutdown.

Wellube maintains a stock of semi-finished clamps and our in-house manufacturing facilities enables us to provide a quick turnaround to arrest leaks with minimal loss of production and environmental impact. Our selection of specially formulated compounds is compatible with most line mediums encountered in normal plant operations.

Every clamp is identified with an unique number thus ensuring full material traceability, and follows strict inspection processes at various stages prior to dispatch.




 **Industries** – Oil and gas, petrochemical, power, construction, infrastructure.

 **Pipe type** – Carbon and alloy Steel, GRE and HDPE.

 **Pressure range** – Vacuum to 8500 psi.

 **Temperature range** – 196°C to 1000°C.

 **Line Medium** – Steam, acids, chemicals, hydrocarbons.

**Wellube offers under pressure leak sealing as a complete turnkey service - from assessing the leak, designing and engineering the suitable clamp and sealing the leak, this ensures high plant uptime and reliable operational results.**

## PIPE FREEZING

This is a non-intrusive method for isolation of a piping system to allow for modifications or maintenance downstream. A major advantage to this process is that it does not involve the complexities required for a line stop operation and has the advantages of achieving an isolation at much lower costs and without the added downtime of a system drain down.

The isolation is achieved by means of a controlled formation of a solid ice plug within the pipeline using liquid nitrogen. The plug(s) formed adheres to the inner pipe wall and can withstand extremely high-pressure differential. For smaller pipe diameters, we have systems which does not use liquid nitrogen, thus making logistics and mobilisation easy and fast.



**Industries** – Oil and gas, petrochemical, power, construction, infrastructure.



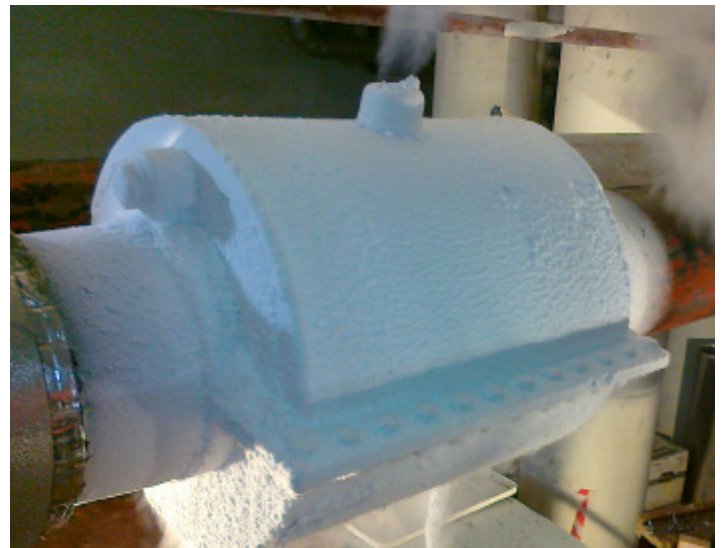
**Pipe type** – Carbon and alloy steel.



**Pipe Diameters** – Up to 24" / DN600.



**Line medium** – Water as a standard in zero flow conditions.



This technique is commonly used on in district cooling systems, fire main systems and sea water injection lines and also has application within petrochemical operations.

**We offer a complete package to meet all your maintenance requirements from initial survey to providing all necessary equipment and personnel to complete the project, including system recommissioning.**



# TURNKEY VALVE RELIABILITY MANAGEMENT

Valve reliability plays a crucial role in maintaining the operational efficiency of a plant. Wellube has helped solve complex valve maintenance challenges for clients for over two decades.

With the experience gained in the field, Wellube provides complete turnkey solutions which can be performed both online and offline. Our service packages include on-line valve sealing for ball/gate passing, valve maintenance for overall integrity assessment and Uni-Test for safety and relief valve testing.

Be it planned or reactive maintenance for valve management, Wellube is well placed to provide the best solution for your requirements.



## ON-LINE VALVE MAINTAINENCE

Most valve problems arising in production, transportation or processing are from inadequate lubrication and sealing, abrasive contaminants, or severe-duty service.



Maintaining the integrity of the valve assembly is crucial for continuous operation of assets. We understand the importance and hence have applied our knowledge and experience to develop a robust and proven method of flushing and lubricating valves on-line; without having to close the valve.

 **Industries** – Oil and gas, petrochemical, power, construction, infrastructure.

 **Valve types** – All Ball/Gate/Plug valves with grease ports.

 **Pressure range** – No limit.

 **Temperature range** – Upto 200°C.

 **Line medium** – Hydrocarbons, chemicals, water.

This maintenance service, delivered by our expert teams of qualified supervisors and technicians, includes:

- + On-line flushing of valves to remove old lubricant/sealant and hydrocarbon deposits.
- + Subsequent injection of specially formulated lubricants to enhance and protect expensive valves, providing many more years of extended, trouble-free service.

The integrity of the valves is compromised when foreign debris produce tiny scratches on the polished ball surface and wears on the ball and seat during the cycling of the valve. This reduces the valve's ability to provide an adequate seal and begin to cause minor leak paths.

During on-line valve sealing, when the valve is in the closed position sealant is injected into the ball/seat interface to enable an isolation. After injecting both the upstream and downstream seal sets, the effectiveness of the seal can be gauged by opening the vent points on the downstream side or by venting pressure through the valve body bleed vent.

Wellube offers both reactive as well as Planned Preventive Maintenance (PPM) packages, these include online flushing, lubrication and sealing solutions on valves.

**Wellube's experience and technical knowledge alongside our on-line valve maintenance method is a complete solution to your valve reliability management and asset integrity needs.**

## UNI-TEST ON-LINE SAFETY AND RELIEF VALVE TESTING

Our Uni-Test system delivers safe and accurate Pressure Relief Valve (PRV) testing – with no operational disruption. The service ensures that every safety/pressure valve is operating at peak efficiency and meeting relevant safety obligations, which are key factors in maintaining plant productivity, safety, and profitability.

Wellube's Uni-Test has been developed based on over 20 years of experience in valve maintenance, and the system is certified and approved by TÜV and DNV. These tests are performed in-situ, on-line and under normal operating conditions.

The Uni-Test procedure is as follows:

- + Force is applied to the valve spindle to overcome the spring tension of the valve; this is done by using a hydraulic power pack in conjunction with an electronic force transducer linked to a digital recorder that controls and records the force applied.
- + The recorded data, together with the valve seat area and the line pressure enables the set pressure to be calculated.

Based on the results, Uni-Test identifies valves in need of adjustment or full service. The result is a certifiable process that allows correctly performing valves to remain in service for longer periods and identifies valves that do not meet the correct performance criteria so that they can be scheduled for maintenance at the next available opportunity.



The Uni-Test is more accurate than a cold test on a bench, as the tests are executed under normal operating condition of the valve. Moreover, as the valves are tested in-situ, costs associated with a shutdown, removal and the risk of damage during the transportation are all avoided.

**Wellube understands the importance of valve reliability assessment for our clients, as it directly affects the safety and productivity of their facility. Hence, as part of our solution, our trained and experienced team provides a detailed analysis of the valves and advises on performance issues in addition to digitally managing the test data.**



# ON-SITE PRECISION MACHINING

Shorter time frames to complete projects is every client's need. To assist in achieving this task on-site, precision machining services are used.

Wellube has an extensive range of portable precision machining equipment which is suited for every industry from onshore and offshore oil and gas, construction, power and petrochemical. We have trained and experienced personnel who can perform on-site precision machining thus bringing workshop-quality results at your facility.

Reduced downtime and cost savings are additional reasons to choose Wellube's on-site precision machining solutions.

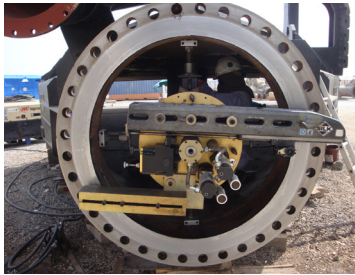


## ON-SITE MACHINING

We offer a diverse range of portable on-site machines, with machine shop tolerances for remedial work on flanges, heat exchangers, cover joints, boiler manways, industrial pipelines, base plates, crane pedestals, welded valve and vessel joints up to 130".

We have a wide range of pneumatic and hydraulic machines, which are apt to be safely and efficiently deployed in hazardous areas. Our experienced technical personnel are well trained to perform on-site machining in various project locations thus helping our clients make huge savings in logistics, labour, time and money.

Applications include:



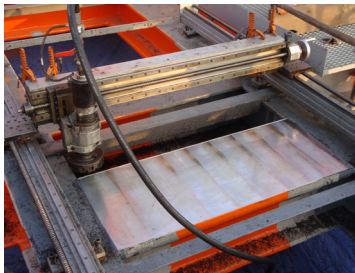
### Flange facing

Flanges up to a diameter of 3.3 metres can be machined to specific tolerances.



### Pipe cold cutting and beveling

Pipes and vessels can be cut to any given diameter using our range of lightweight pipe cutting machines.



### Surface milling

Milling rails of various lengths are available locally and are capable of operating in a 3-axis movement within 3m x 2.2m frame in a single set-up. A typical type of work completed using this equipment would be turbine half joint covers, pump, compressor mounting pads, heat exchanger pass bar and divisional slots.



### Drilling

Holes of 8 inches diameter to a depth of one metre can be achieved using our standard range of drilling machines. Trepanning holes of a larger diameter can be achieved using our standard range of cutting and facing machines.

## SURFACE & SUBSEA DIAMOND WIRE MACHINES

Our adaptable diamond wire cutting system operates on a continuous looped diamond wire which is hydraulically powered. The compact and robust design creates an ideal cutting environment, reducing setup, installation, and removal time – saving time and money.



All our diamond wire saws are designed to give you maximum cutting range flexibility with the smallest footprint and the cutting frame can be configured in multiple ways, depending on, for example, the direction of cut, or the size and shape of items to be cut. The wire travels through the driving pulleys at high speed, whilst appropriate angulation and proper tension provides the necessary cutting friction.

Our products are designed and manufactured to cut a wide range of materials and structures and are ideally suited for both topside and subsea applications. For underwater deployment it can be operated by either ROV or diver operations.

**Wellube offers a wide range of diamond wire saws up to 102" which are compact and environment friendly. Our product line offers inline and articulating saws which can be tailored to your specific project requirement and guarantee cut-completion.**



# PIPELINE REPAIR PRODUCTS

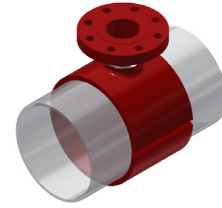
Each pipeline repair solution requires a customised product which is designed, manufactured and tested in accordance to client requirements and international standards. Wellube provides custom made products for enhanced flow management and pipeline repairs.

All our products are available for the entire size range of existing pipelines covering materials such as carbon steel, alloy steel, and stainless steel among others.



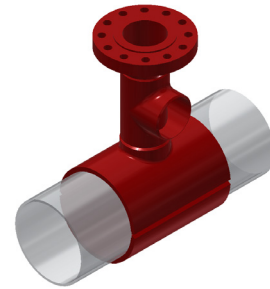
## HOT TAP FITTINGS

Our hot tap pipe fittings include full branch split tees designed for equipment tie-ins, lateral connections and line extensions using a permanent full-bore valve without shutdown. Available in a wide range of sizes, and material of construction.



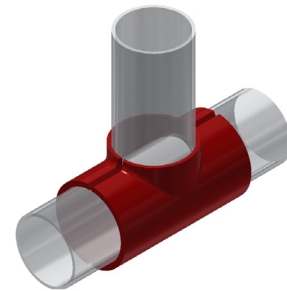
## LINE STOP FITTINGS

Our line stopping fittings are designed to be safe for virtually any piping or pipeline system, including oil, natural gas, chemicals, among others. Our fittings are designed to ASME standards with options of fabricated and extruded branches, rated to ANSI class 150, 300, 600 or 900. All our fittings are equipped with closure flanges.



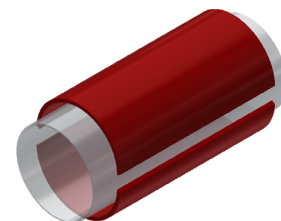
## FULL AND PARTIAL REINFORCING SADDLES

Our full and partial encirclement reinforcing saddles come in a wide range of sizes to help you meet any pipeline maintenance and repair situation. Safety and quality are critical to your success - that's why our full-encirclement and partial reinforcing saddles strengthen branch outlets meeting the ASME B31.3, B31.4, and B31.8 standards, as well as other relevant design codes.



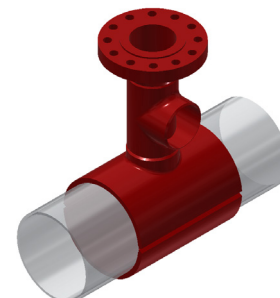
## REINFORCING SLEEVES

We manufacture and supply reinforcing sleeves to repair or strengthen pipelines that have been weakened due to internal or external corrosion, scrapes, dents, cracks or poor welds. Our sleeves can be custom designed to provide structural reinforcement at full pressure.



## SPECIALTY FITTINGS

We understand that some pipeline repair and maintenance issues require a unique solution. Our engineers can design a custom product for your special requirements.





## UNI-SEAL SPLIT SLEEVE REPAIR CLAMPS (SSRC)

Our Uni-Seal clamp is an economical, bolt-together fitting designed to allow both temporary and permanent repairs to damaged pipelines. This product can be used for offshore, onshore and subsea applications, on pipelines carrying oil, gas, steam, chemical and water.

Designed to ASME VIII, its unique construction means repairs can be made while the line continues on-line and are designed for fast and easy installation. Once the Uni-Seal Split Sleeve Repair Clamp is bolted in place, the seal is complete.

The standard clamps are rated to 1000 psig of design pressure with Buna-N sealing material, however Uni-Seal Split Sleeve Repair Clamps can be custom-made to higher pressure ratings and extended sealing lengths to meet your specific requirements.



## OUR GLOBAL PRESENCE



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