

## Bakker Oilfield Supply Coevorden B.V.

a Bakker Groep Coevorden company

Whitepaper

9-Step process

**Maintenance** 

8

**Inspection** 

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  Supply



#### 1. Introduction

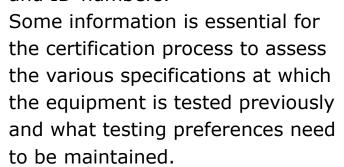
As the amount of work increases and the time to maintain and preserve equipment to its optimal state 'decreases" significantly, the lack of maintenance backfires and starts giving serious problems during rig up/rig down projects or even during operational activities.



In this whitepaper we want to give customers an insight of the maintenance procedures. Bakker Oilfield Supply Coevorden sustains to keep the equipment of our customers and our own equipment reliable and safe to work with.



When equipment arrives at our workshop our first priority is to identify the pressure class, couplings, dimensions, manufacturer and ID-numbers.





# 2. Measurement of LSA, Benzene and Mercury

During well testing operations various raw chemicals are pumped up and could contaminate the equipment. Our team consists out of specialists who are trained to measure and asses the level of contamination and handle the equipment if contamination is detected.



## 3. High pressure steam cleaning & visual inspection

After equipment is released from the measuring location it's transported to our cleaning workshop where it is thoroughly cleaned with high pressure hot steam to clean out dirt from within the piping and potential dirt residue on the threads.

After cleaning, equipment is visually inspected on the amount of corrosion on the body, condition of the threads, couplings and whether the sealing is damaged or not.

All visual findings are communicated further to the maintenance team which asses the findings and consult any repairs or replacement with the customer.





# 4. Disassebly, internal inspection, MPI, seal replacement & hardness check

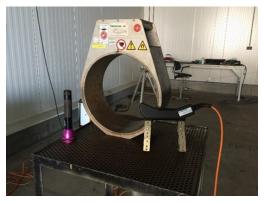
If requested Bakker Oilfield Supply carries out major inspection where there are several additional inspections that are carried out on the equipment.

#### This includes

- Disassembly of equipment
- Internal inspection on possible wear or damage
- Replacement of old seals and/ or O-rings
- Magnetic Particle Inspection (MPI) of welds, threads and both integrals
- Hardness check

These major inspections are usually carried out once in 5 years. In the case of irregular maintenance it is recommended to carry out a major inspection cycle.







#### 5. Wall thickness measurement

Our workshop has the ability to measure and asses wall thickness (UT) of equipment brought in by customers. With our specialised tools we measure all equipment on pre-defined positions where the material is subjected to the greatest stress.



#### 6. Pressure testing

High pressure equipment needs to be safe and reliable at all times. To ensure that equipment is still capable of handling their working pressure, according to their specification, a pressure test is carried out in our pressure testing facility. Equipment can be tested up to a pressure of 22000 psi depending on the type of equipment.

When the pressure test is successful and the tested equipment shows no signs of leakage it receives its certification and is released for the final steps of the maintenance procedure.





# 7. Date inscription & equipment preservation

One of our services is providing an identification tag or inscription with the test date and/or due date of the next recommended inspection. If requested the serial number of the equipment can be inscribed as well.

When equipment gets through the whole testing procedure with a satisfactory result, or after a few repairs, the final stage of the maintenance cycle is preservation of the couplings and threads.

The couplings and threads are greased to prevent them from corroding and in case of rig up operations create a smoother assembly of all the parts.

Also, our service can be extended with a new coating of the equipment in the desired colours of your company and following company guidelines. To make your equipment look new and presentable at any new project in the future.







### 8. COC Bureau Veritas / CO5 Bakker Oilfield Supply

On customer demand Bakker Oilfield Supply can ensure a Certificate of Conformity provided by Bureau Veritas (BV). Each pressure test will be checked independently and will be approved by BV.

If customers do not want to use the third party (BV) option, Bakker Oilfield Supply will provide a Certificate of Service at the end of each maintained batch.

#### 9. Database storage of certificates

After equipment is sufficiently tested and maintained it is certified and ready to be used for all projects safely and reliably.

All certification is stored in our certification database 'Bakker Certification System' (B.C.S.) where every customer, which had their equipment maintained at Bakker Oilfield Supply, can receive their own log-in credentials on request to access all their equipment certification anywhere in the world.







For example the following types of certification can be found:

- Pressure tests
- Magnetic Particle Inspection reports
- Wall thickness (UT) reports

The benefits of using B.C.S. are

- Download the most recent equipment certification
- Overview when equipment needs new certification



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