



SURFACE IRON/DISCHARGE **MANIFOLD EQUIPMENT INSPECTION**



SURFACE IRON/DISCHARGE

INTRODUCTION

SGS is pleased to announce the provision of Surface Iron/Discharge Manifold Inspections performed by the Drilling Equipment Inspections (DEI) team.

SGS is now one of the leading providers of this service in various countries throughout the Asia Pacific Region (APAC). In addition to the services provided, our professional inspection team has the experience to ensure the required safety and quality outcomes for all our customers and their clients.

This provides our customers with the peace of mind that their equipment is in good hands and will be returned in perfect working condition in a timely manner. Ensuring our customers can meet the demanding deadlines of their clients.

INITIAL VISUAL INSPECTION

When Discharge Manifold Equipment (DME) is delivered to SGS, visual inspections are performed to ensure the equipment has not been damaged in transit.

Any damage is immediately reported and repair work can be done post approval from our customer.

DISASSEMBLY, CLEANING AND VISUAL INSPECTION OF WORKING PARTS, SEALS AND SEGMENTS

The DME is now dismantled, cleaned by power tools and washed in De-Greaser, inspected for wear, corrosion and worn out parts. Seals, O Rings, Segments, Retainer Rings and Plugs are all examined for damage and wear. Any part found to be damaged or worn is replaced to ensure the integrity of our customer's name and their equipment.



Chemical Cleaning



Inspection for worn out parts

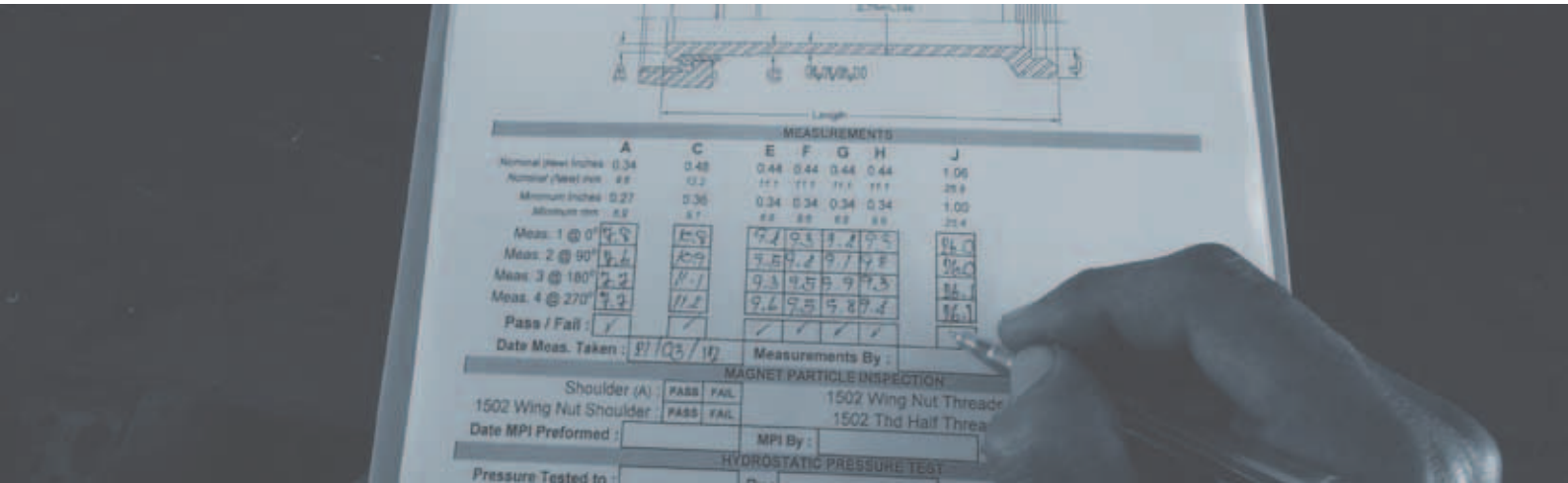
ULTRASONIC WALL THICKNESS

After disassembly, cleaning and visual inspection, more specialised stages of inspection and dimensional checks are required.

Ultrasonic Wall Thickness Measurements are performed in accordance with ASTM E 797, or customer specifications. Minimum wall thicknesses are provided by our customer and the DME manufacturer. Any reading below the specified minimum will result in rejection of the equipment.



Ultrasonic Wall Thickness readings being taken on various DME parts



MANIFOLD EQUIPMENT INSPECTION

DIMENSIONAL MEASUREMENTS

To compliment the ultrasonic wall thickness readings, dimensional measurements are taken on areas of the equipment that are susceptible to wear. Minimum dimensions are provided by our customer and/or equipment manufacturer to ensure against wear that will increase probability of failure.



Dimensional Measurements to ensure wear is not below Minimum Dimensions

NDT INSPECTION

To ensure the equipment has not been over worked or placed under extreme stress, Non-Destructive Inspection & Testing (NDT) is performed. Magnetic Particle (Fluorescent and Black & White) Inspection for ferromagnetic equipment parts and Dye Penetrant Inspection for the non-magnetic equipment is tested to ensure against defects. NDT Inspection & Testing are all performed to ASTM E165 (Dye Pen) and ASTM E709 (Magnetic Particle) or specifications requested by the customer and/or client.



Various DME undergoing NDT and Equipment Calibration

RE-ASSEMBLE, PRE-TEST CLEANING AND HYDROSTATIC PRESSURE TESTING

When all examinations are complete the equipment is then re-assembled, cleaned and flushed to remove any debris trapped by re-assembly and greasing. Finally it is pressure tested to the customers' specific pressure ratings. This is to simulate the maximum pressure the equipment will be subjected during field operation. This significantly reduces the chance of failure.



Pressure Testing



Chart recorder for pressure test

PAINTING, BANDING AND REPORTING

After the equipment has been pressure tested it will be spray primed and painted to our customers' specifications. After drying the equipment it is then ID Tagged with metal bands for traceability and identification. Final reports and pressure test charts are issued to the customer to complete the final process.



Spray painted DME



ID Banding

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WHEN YOU NEED TO BE SURE

SGS