

**ABSTRACT**  
**POLISHING DISK CASING MODIFICATION**  
**AND TUB'S BULKHEAD OF WATER CIRCULATION**

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Casing polishing disc on a polishing machine consists of four parts, there are: (a) upper Casing. (B) outter tube plate. (C) inner tube plate. (C) base tube. Tub's bulkhead of water circulation serves as a separator between the tub and the water entrance of the first chamber to chamber through the septum into two parts on the deposition system. The modification of Polishing disk and tub's bulkhead of water circulation is to: (1) Knowing the process of modification of Polishing disk and tub's bulkhead of water circulation. (2) Knowing the equipment required in the modification of polishing disk and tub's bulkhead of water circulation. (3) Knowing the modified Polishing disk and tub's bulkhead of water circulation after the performance test.

The method used in the modification of polishing disk and tub's bulkhead of water circulation include: Identification of working drawings, material identification, machine identification, the identification of the tools used and Safety matter. The order of the manufacturing process include: material selection, material preparation, perforation of materials, formation, splicing, and surface settlement. Materials used for modified casing and seal plate polishing bath is eyzer plate 1 and 2 mm thick.

Based on the achievements of the whole process modification and testing can be summarized as follows: (1) The process of polishing disc casing modifications include: Identification of working drawings, material identification, machine identification, identification of the tools used and Safety matter. Sequence modification process include: material selection, material preparation, perforation of materials, the formation, continuation, and completion of the surface. (2) Machinery, equipment and tools used are: gullotine hydraulic machines, lever shears, hand shears, drilling machines and accessories, compressor grinding machines, welding set ÖAW, plate bending tool, tool roller plate, roll bar, steel bar, the right angle bar, etcher, rasp hand tool, steel hammer, plastic hammer, strike pad, right angle ruler and pliers. (3) The results of performance testing of polishing disc casing include: all parts of the casing to function properly, causing no noise during operation and gives interesting look at the engine. The results of performance test of tub's bulkhead, the bulkhead well functioned and capable of producing clean water that is ready to re-use in the polishing process. There is a difference between the size of the working drawings to the finished object. The size difference does not affect test performance. The difference in size results an error percentage, the percentage of errors on the casing polishing by 0.99% and the percentage of errors on the tub's bulkhead water circulation of 1.84%.