## Deutsche Montan Technologie GmbH

Fachstelle für Explosionsschutz - Bergbau-Versuchsstrecke



DAR-Reg.-Nr.: ZLS-P-359-4/01



Person responsible:

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## CERTIFICATE

for the test of tension rings concerning pressure shock resistance

Translation from German into English.
Only valid in connection with the first edition.

Customer:

Jacob Söhne GmbH & Co, Porta Westfalica

The Quick-Connect-Rings designed by Jacob Söhne GmbH & Co, Porta Westfalica, according to the following drawings and list of items

10903010

of 14.05.2002

10903003

of 20.11.2001

with Index a vom 14.05.2002

10903007

of 23.04.2002

with Index a vom 14.05.2002

in DN 300 design were exposed to methane explosions together with duct parts and a container of  $1\text{-m}^3$ . The rinsing method caused the explosive methane/air-mixtures. The ignition in the middle of the container was caused by an ignition pill (E = 100 J).

In working material design, the tension rings were galvanised on the prescribed test conditions and V2A with cooper gasket (NBR and silicone) and with sealing compound (EGOBON 212) exposed to a maximum explosion over pressure of 4,4 bar.

It can be testified that the tension rings have an explosion pressure shock resistance of 4 bar due to the explosion tests according to VDI 2263, page 3.

Basing on the test results and the drawings stated above, an explosion pressure shock resistance of 4 bar can be testified for tension rings with the same design but having a smaller diameter than DN 300 in working material design galvanised or V2A with cooper gasket (NBR or silicone) or with sealing compound (EGOBON 212).

Bochum, 27.06.2002

signed Dr. Hesener