

# Qualification Test Record (QTR)

Ceramic mould - ASTM A 995 5A (UNS J93404)  
NORSOK M-650

**SCHMEES**  
cast



|  |  |                  |              |
|--|--|------------------|--------------|
| <b>5QTR. No.:</b>                                | 5A-C   | <b>Rev. No.:</b> | 07 June 2023 |
| <b>Manufacturer name /address/ Web page:</b>     | SCHMEES cast Langenfeld GmbH<br>Rudolf-Diesel-Weg 6-8, 40764 Langenfeld / Germany<br>www.schmees.com   |                  |              |
| <b>Reference standard</b>                        | NORSOK M-650, Edition 4  |                  |              |
| <b>Material designation and MDS No.:</b>         | ASTM A 995 5A (UNS J93404), MDS D 56 Rev. 6  |                  |              |
| <b>Manufacturing Summary doc. No.:</b>           | Manufacturing summary [MS30]   | Rev. No.: 3      |              |
| <b>Products and manufacturing process(es):</b>   | impeller, diffuser, stage casing, pump casing, etc.<br>static castings, ceramic moulding   |                  |              |
| <b>Mandatory conditions and sub-contractors:</b> | <ul style="list-style-type: none"> <li>tensile &amp; impact test and micrographic examination by: TÜV Rheinland Werkstoffprüfung GmbH, Am Grauen Stein, D-51105 Köln or Element Materials Technology Hamburg GmbH, Tempowerkring 11, 21079 Hamburg</li> <li>radiographic testing by: TÜV AUSTRIA Tecnotest GmbH, Moselstr. 29, D-51371 Leverkusen</li> <li>pickling by: KSO Edelstahlbeizerei GmbH, Essener Str. 16, D-57234 Wilnsdorf</li> <li>corrosion testing by: TÜV Rheinland Werkstoffprüfung GmbH, Am Grauen Stein, D-51105 Köln or Element Materials Technology Hamburg GmbH, Tempowerkring 11, 21079 Hamburg</li> <li>quality heat treatment only in furnaces no. 03 / 05</li> </ul> |                  |              |
| <b>Other information:</b>                        | <ul style="list-style-type: none"> <li>Revision updated according to MDS D56 Rev. 6</li> <li>In compliance with ISO 17782</li> </ul>   |                  |              |
| <b>Qualification expires:</b>                    | Qualification expires 01.2027  |                  |              |

## Tested and qualified thickness and weight

| <b>Products and manufacturing process(es):</b> | <b>Test record No.</b> | <b>Tested thickness mm</b> | <b>Qualified thickness mm</b> | <b>Test piece weight kg</b> | <b>Qualified weight kg</b> |
|--|------------------------|----------------------------|-------------------------------|-----------------------------|----------------------------|
| Stage casing                                   | C438                   | 100                        | 100                           | 71                          | 142                        |
|  |                        |                            |                               |                             |                            |

## Qualification/acceptance signatures

|                      |   |   |
|----------------------|---|---|
| <b>Manufacturer:</b> | <b>Prepared by/Date:</b><br>OSTHOFF, Sven<br>07 June 2023 | <b>Checked by/Date:</b><br>BRINKMANN, Peter<br>07 June 2023 |
|----------------------|---|---|

The manufacturer and this QTR are evaluated and found to be in compliance with the requirements of NORSOK M-650 for supply of the above listed products and materials.  
This acceptance does not exempt any purchaser from his responsibility to ensure that this qualification is valid for his products within the essential variables of NORSOK M-650.

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|---|--|--|
| <b>Qualified/Accepted by:</b><br>Aker Solutions AS<br>Snarøyveien 20, 1360 Fornebu.<br>PO Box 222, 1326 Lysaker<br>Norway |  <b>Aker Solutions</b><br>Fornebu, Norway<br>NO 929 877 950 VAT | <b>Signature/Date:</b><br>12/06/2023<br> |
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