



HP Valves Oldenzaal BV

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## COVERPAGE TO INSPECTION / TEST CERTIFICATE

Customer : CMI (HRSG + Energy Services)  
Project : Yajva SBV  
Customer P/O no : 203/2010/900588  
Shop order no : 2010 0006  
Item no : 163 / 000  
Quantity : 1 pce  
  
KKS No : 15LAF50AA104

Medium & high-pressure valves in  
accordance with ASME, API, BS & DIN

Bank ABN-AMRO SWIFT-address ABNANL2A  
EUR-account 59.55.41.437 IBAN-code NL88ABNA0595541437  
USD-account 57.60.74.780  
Trade register Enschede 060.567.50  
VAT no NL 008671242B01

Member of Indutrade AB





# INSPECTION / TEST CERTIFICATE

(EN 10204 TYPE 3.1)

|   |                   |                     |                   |
|---|-------------------|---------------------|-------------------|
| Client  | HP VALVES         | P.O. No.            | P100042/20100006  |
| Report No.  | E1003E05-01-19    | Date of Issue       | 2010. 07. 07      |
| Item Description : Forged Steel L/CHECK Valves Class 800# SA105N / 13Cr HF SW |                   |                     |                   |
| Tag No.   |                   | Size                | 1-1/2" Q'ty 1 Pcs |
| PRESSURE AND LEAK TEST(API 598 2004 Edition)                                  |                   |                     | Result            |
| Hydraulic   | Shell : 205.8 bar | Pneumatic           | Seat : N/A bar    |
| Test  | Seat : 149.9 bar  | Test                |                   |
| Dimension Inspection :  | GOOD              | Visual Inspection : | GOOD              |
| Function Test : GOOD  |                   |                     |                   |

## MATERIAL SPECIFICATION(ASME 2007 sect. II part A)

| Product Name | Material                    | ASTM/ASME | Heat No. | Lot No. | Remarks                      |
|--------------|-----------------------------|-----------|----------|---------|------------------------------|
| Body         | Forged Steel                | SA105N    | S89465   | F01     | Normalized (843°C ~ 927°C)   |
| Cover        | Forged Steel                | SA105N    | S87138   | V23     | Normalized (843°C ~ 927°C)   |
| Seat Disc    | Stellite #6 Stainless Steel | A276-410  | S87910   |         | Integral Seat Stellite #6 HF |

## CHEMICAL COMPOSITION

| Element       | C    | Mn   | P     | S     | Si   | Ni   | Cr   | Mo   | Cu   | V     | Nb    | N | Ti |
|---------------|------|------|-------|-------|------|------|------|------|------|-------|-------|---|----|
| min.          |      | 0.60 |       |       | 0.10 |      |      |      |      |       |       |   |    |
| Heat No. max. | 0.35 | 1.05 | 0.035 | 0.040 | 0.35 | 0.40 | 0.30 | 0.12 | 0.40 | 0.08  | 0.020 |   |    |
| S89465        | 0.19 | 0.80 | 0.016 | 0.013 | 0.28 | 0.07 | 0.19 | 0.02 | 0.13 | 0.002 | 0.002 | - | -  |
| S87138        | 0.19 | 0.84 | 0.014 | 0.009 | 0.28 | 0.11 | 0.20 | 0.03 | 0.16 | 0.001 | 0.001 | - | -  |

## MECHANICAL PROPERTIES(0.2% Offset)

| Item          | Tensile Strength (N/mm <sup>2</sup> ) | Yield Strength (N/mm <sup>2</sup> ) | Elongation (%) | Reduction of Area (%) | Hardness (HB) | Remarks |
|---------------|---------------------------------------|-------------------------------------|----------------|-----------------------|---------------|---------|
| Lot No. S.T.D | min. 485.0                            | min. 250.0                          | min. 22.0      | min. 30.0             | max.187       |         |
| F01           | 581.2                                 | 253.8                               | 38.1           | 57.2                  | 168,172       |         |
| V23           | 557.7                                 | 308.7                               | 31.6           | 57.4                  | 164,169       |         |

Notes 1. These Standards for inspection conform to ASME B16.34/API 598(2004 Edition).  
2. Spring Loaded

|  |              |
|--|--------------|
| Medium & high pressure valves acc. ANSI, API, BS & DIN |              |
| Your ref. : 203/2010/900538                            | Pos: 163,000 |
| Our ref. : 2010 0006                                   |              |
| Qty. : 1 pce   |              |

We hereby certify that the result mentioned above are true and correct in every details.

Witnessed/Reviewed by  
HP VALVES BV  
QUALITY CONTROL  
F. WOLBERS

Q.A Manager

C.K. Lee