



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 : 153 / 000  
Quantity : 2 pcs

KKS No : 15LAF50AA118 15LAF50AA131

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.	E1003E05-01-4	Date of Issue	2010. 07. 07
Item Description : Forged Steel GATE Valves Class 800# SA105N / 13Cr HF SW			
Tag No.		Size	2" Q'ty 2 Pcs

### PRESSURE AND LEAK TEST(API 598 2004 Edition)

Result

Pass

Hydraulic Test	Shell : 205.8 bar Seat/Back Seat: N/A bar	Pneumatic Test	Seat/Back Seat : 5.9 bar
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	VCS611	1BT	Normalized (843°C ~ 927°C)
Bonnet	Forged Steel	SA105N	S87820	1BU	Normalized (843°C ~ 927°C)
Seat Ring	Stainless Steel	A276-410	S87910		Stellite #6 HF
Wedge	Stainless Steel	A217-CA15	4S11/N5		Stellite #6 HF
Stem	Stainless Steel	A276-410	S87910		Hardened (Q.T.)

### CHEMICAL COMPOSITION

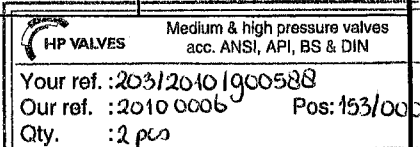
Element	C	Mn	P	S	Si	Ni	Cr	Mo	Cu	V	Nb	N	Ti
min.		0.60			0.10								
Heat No. max.	0.35	1.05	0.035	0.040	0.35	0.40	0.30	0.12	0.40	0.08	0.020		
VCS611	0.20	0.84	0.015	0.006	0.28	0.00	0.00	0.00	0.00	0.000	0.001	-	-
S87820	0.18	0.81	0.009	0.011	0.27	0.08	0.19	0.03	0.16	0.001	0.002	-	-

### 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	
1BT	562.6	318.5	39.5	58.2	165,170	
1BU	495.9	304.8	38.9	56.8	167,170	

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

2. Indicator Installed.



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

Witnessed/Reviewed by

HP VALVES BV  
QUALITY CONTROL  
E. WILBERS

Q.A Manager

C.K. Lee

FORM : QAP-1001-05(Rev.1)

ILSHIN VALVE CO., LTD.

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