

Order : 4600018028 - YD 205688 - Dhiqar Delivery: 0085638230/000035  
 Index : 19090310500 Quantity: 1,000 ST  
 Ref. : Item 30 - Ident code PFQNG500070164P0  
 Article: 10" S 80 S ELB LR 90 WPB/P265GH BE BOL Heat : 972617

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**VALVITALIA S.p.A. - Tecnoforge Division**  
**Plants and Offices:**  
 Via Emilia Pavese, 38 • 29015 Castel S. Giovanni (PC) - Italy  
 Ph. +39 0523 889811 • Fax. +39 0523 889881  
 Via Stazione • 27040 Arena Po (PV)  
 Ph. +39 0523 889811 • Fax. +39 0385 70450  
 e-mail: info.tecnoforge@valvitalia.com • www.valvitalia.com  
 Doc.: INSP.REPORT Rev. 1

**Headquarters and Administrative Office:**  
 Via Tortona, 69 • 27055 Rivanazzano Terme (PV) - Italy  
 Ph. +39 0383 945911 • Fax. +39 0383 9459962  
 e-mail: info@valvitalia.com • www.valvitalia.com  
**Registered Office:**  
 Garibaldi Tower 2 - Piazza S. Freud, 1 • 20154 Milano (MI) - Italy  
 Ph. +39 02 62088911 • Fax. +39 02 62088960  
 e-mail (PEC): valvitalia@pec.valvitalia.com • www.valvitalia.com  
**Società con Unico Socio e soggetta alla direzione e coordinamento di**  
**Valvitalia Finanziaria S.p.A. Cap. Soc. € 130.000.000,00 i.v.**  
**C.F./P.IVA n. Registro Imprese 05962420963 - R.E.A. 1992445 - Milano**



## Inspection Certificate 164879

BS - EN 10204-2004 3.1

Rev 00  
 Date 02/09/2019

Job TF : V18-000455  
 Purchaser : PETER VAN LEEUWEN JR'S BUIZENHANDEL BV  
 Order : 3495523  
 Specification : ASTM/ASME A/SA234-15 & EN 10253-2:2007  
 Construction Standard : ASME B16.9/12 - B16.25/12

Item	Quantity	Descriptions	Heat	Lot
Y/R	O/R	48	972617	X695D
31	31	ELB 10" SCH 80 LR 90 WPB ASTM A/SA234 WPB / P265GH ART. NR.: 146583 SPEC. NO. IN-76102		

Type of Construction : SEAMLESS PRODUCED BY PIPE  
 Method of Fabrication : HOT FORMING BETWEEN 780°-980° COOLING IN STILL AIR  
 Heat Treatment : NORMALIZING 920°C COOLING IN STILL AIR  
 Mill Test Report N. : 01/17/06474  
 Supplier : DALMINE S.P.A.

### Ladle Analysis

Item	Y/R	O/R	Heat	C %	Mn %	Si %	P %	S %	Cr %	Mo %	Ni %	Cu %	Al %	V %	Nb %	Ti %
31		31	972617	0.110	1.240	0.310	0.018	0.0010	0.160	0.040	0.130	0.190	0.000	0.008	0.0040	0.0000
		Product		0.110	1.220	0.300	0.018	0.0010	0.150	0.040	0.120	0.180	0.028	0.004	0.0020	0.0010

CE1 = C +  $\frac{Mn}{6}$  = 0,32      CE2 = C +  $\frac{Mn}{6}$  + 0,04 = 0,36      CE3 = C +  $\frac{Mn}{6}$  +  $\frac{Cr + V + Mo}{5}$  +  $\frac{Cu + Ni}{15}$  = 0,37

CE1 - CE2    Ladle Analysis (%)      CE3 :      Product (if applicable)

### Tensile Test

				Base Material Direction:			TRANSVERSAL			Weld Direction:		
Item	Y/R	O/R	Test	Heat	Y.S.	T.S.	Elongation %	Y.S.	T.S.	Elongation %		
					MPA	MPA	(Lo=50mm)	MPA	MPA	(Lo=50mm)		
31		31	407107	972617	305	529	34.8	0	0	0.0		

### Impact Test

				Direction:	TRANSVERSAL	Temp.: -10 °C	Type:	KCV
Item	Y/R	O/R	Test	Size MM.	Section CM2	Impact Value (J) - Avg	Shear Area (%) - Avg	Lat. Expansion (mm) - Avg
						(1) (2) (3)	(1) (2) (3)	(1) (2) (3)
31		31	407107	10 X 10	0,800	Base Mat. : 115 112 107 111 H.A.Z. : 0 0 0 0 Weld : 0 0 0 0		

### Bending Test

#### Hardness Test

Base Mat.  
197 HBW MAX

H.A.Z.



Weld

### Note

-HOT YIELD GUARANTEE AS PER ASME BPVC Sect.II, part D, Table Y1 -VISUAL AND DIMENSIONAL CHECK CARRIED OUT ON 10% OF FITTINGS: SATISFACTORY RESULTS -IN ACC. TO PED 2014/68/EU/ Annex 1 SEC. 4.3 -ACTUAL HARDNESS VALUES HBW:  
 156-160-FITTINGS COMPLY WITH NACE MR0175/ISO 15156-2, Ed.2015 and NACE MR0103 Ed.2016-STEEL MAKING PROCESS: ELECTRIC FURNACE  
 -La Società Valvitalia - Tecnoforge Division garantisce che tutti i prodotti oggetto del presente certificato, rispettano in loro totalità le prescrizioni de l'Article 15 de l'Arrete Ministériel du 24 mars 1978 modifié: C<= 0,25%, P< 0,05%, S<0,05% R<= 700N/mm2, E <= 0,9 x R. A% (Lo= 5,65VSo) min. 16% en long. R(A-Z) >= 10500. A% (Lo= 5,65VSo) min 14% en transv. R x A >= 10500

We certify that the items comply with order requirements and above mentioned specifications.  
 All items are marked with low stress die stamps or interrupted dot stamps.

Visual and dimensional inspection: SATISFACTORY

Mechanical test carried out on finished items - ( YES / )

Trade Mark

Mfr Authorized Inspector

Official Designated Inspector

Purchaser Authorized Inspector



VALVITALIA S.p.A.  
 MARIA D'ACREMA  
 (Signature)





<b>INSPECTION CERTIFICATE</b> <b>CERTIFICATO DI COLLAUDO</b> <b>(UNI EN 10204 3.1 / ISO 10474 3.1.B)</b>		Number / Numero: <b>01/17/06474</b>	Page / Pagina: <b>2 / 5</b>
Customer / Cliente: <b>VALVITALIA SPA DIVISIONE TECNOFORGE</b>		Date / Data: <b>June 13, 2017</b>	
Product / Tipo / Tipo di prodotto: <b>SS STEEL PIPES FOR MANUFACTURE OF ELBOWS AND FITTINGS (WITH SUPPLEMENTARY REINFORCEMENT AND EXT BARE TUBI S.S.A CALDO PER RIVICO CURVE E RACCORDERIA (CON RICHIESTE SUPPLEMENTARI) GREZZI</b>		Manufacturer's Works Order N° / Conferma-Posizione <b>1261772601</b>	
Surface / Superficie: <b>Ends / Estremità</b>		Surface / Superficie: <b>Ends / Estremità</b>	
Standard or Specification / Norme o specifiche: <b>See note nr.1</b>		Surface / Superficie: <b>Ends / Estremità</b>	
Dimensions / Dimensioni: <b>Ø 219.07mm O.D. x 18.28mm W.T.</b>		Surface / Superficie: <b>Ends / Estremità</b>	
Schedule / Scheda: <b>28.247 ft x 38.714 ft</b>		Surface / Superficie: <b>Ends / Estremità</b>	
Weight / Peso: <b>10592 kg</b>		Surface / Superficie: <b>Ends / Estremità</b>	
Chemical Composition / Composizione Chimica		Surface / Superficie: <b>Ends / Estremità</b>	

Heat N°	Sample N°	Prova N°	H	I max	Min	P	Max	Min	Composition % / Composições %																	
									x (wt)									x (vol)							x (moles)	
									C	Mn	Si	Ni	Cr	Mo	Cu	Ca	La	F	P	S	Nb	V	B			
972817									20	135	--	40	40	15	40	40	100	20	10	20	10	5	--	--		
Q6863									--	29	10	--	--	--	--	--	--	--	--	--	--	--	--	--		
Q6870									20	135	--	40	40	15	40	43	100	20	10	20	10	5	--	--		
972817									--	29	10	--	--	--	--	--	--	--	--	--	--	--	--	--		
Q6863									11	124	31	13	16	4	16	38	52,8	18	1	4	5	4	--	--		
Q6870									P	12	122	30	13	16	4	21	39	52,4	18	1	3	4	1	--		
972817									P	12	120	29	13	16	4	21	39	54,3	19	1	2	3	2	--		

	Ht./Haar / Cobala	Min. Minimum / Minimo
	Mex. Maximum / Mess mo	P. Product / Producto
Ce. L.F. C. Hines (C-Mor-V) 6-(N-Cd) 15		
F. J. V-N-Cr-Mor-Cu		

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Dalmine SPA - Dalmine Plant  
Piazza Caduti 6 luglio 1944, 1  
24044 Dalmine (BG) - Italy  
+ 39 035 560 111 tel  
+ 39 035 560 3827 fax

<b>INSPECTION CERTIFICATE</b> <b>CERTIFICATO DI COLLAUDO</b> (UNI EN 10204 3.1 / ISO 10474 3.1B)		Number / Numero: <b>01/1706474</b>	Page / Pagina: <b>4 / 5</b>
Customer / Cliente: <b>VALVITALIA SPA DIVISIONE TECNOFORGE</b>		Date / Data: <b>June 13, 2017</b>	
Manufacturer's Order Item / Item Cliente: <b>12817720031</b>		Manufacturer's Work Order N° / Conferma-Posizione: <b>12817720031</b>	
Product Type / Tipo di prodotto: <b>SS STEEL PIPES FOR MANUFACTURE OF ELBOWS AND FITTINGS (WITH SUPPLEMENTARY REINFORCEMENT AND EXT BARE)</b>		Surface / Superficie: <b>PLAIN END (SQUARE CUT)</b>	
Manufacture Process / Processo di fabbricazione: <b>TUBI S.S. A CALDO PER RICCIVO CURVE E RACCORDERIA (CON RICHIESTE SUPPLEMENTARI) GREZZI</b>		Ends / Estremità: <b>LISCIALLE ESTREMITA'</b>	
Standard of Specification / Norma di specificazione: <b>See note nr.1</b>		Nominal Weight / Peso nominale: <b>60.77 lb/ft</b>	
Vessel note nr.1: <b>See note nr.2</b>		Weight / Peso: <b>90.44 Kg/ft</b>	
Dimensions / Dimensioni: <b>ø 8.625" O.D. x 0.718" W.T.</b>		Quantity / Quantità: <b>11 Pcs/ft</b>	
Schedule / Scheda: <b>28.247 ft x 36.714 ft</b>		Length / Lunghezza: <b>8608 mm x 11800 mm</b>	
Standard of Specification / Norma di specificazione: <b>See note nr.1</b>		Weight / Peso: <b>10592 kg</b>	
Vessel note nr.1: <b>See note nr.2</b>		Weight / Peso: <b>10592 kg</b>	
<b>SUPPLEMENTARY INFORMATION / INFORMAZIONI SUPPLEMENTARI</b>			
Supplementary Information / Informazioni supplementari: MATERIAL IN ACCORDO ALLA SPEC. ASME B 31.3, LAG. 1. SUE SU TUTTA LA LUNGHEZZA INCLUSI NON METTITI IN ACCORDO ALLA ASTM-A 454 SUE: SENZA SALDATURA FINITI A CALDO IL CONTAGGIO VISIVO E L'INERTEZZA IN DATO ESISTE SODDISFACENTE FABBRICATO IN ITALIA, A GRADI FINI, PRODOTTO AL FORNO ELETTRICO MATERIALE FORNITO E' IN ACCORDO AI REQUISITI DELL'ORDINE. FABBRICATO DA TENARIS LOMINE CON RAPPORTE MEDIANTE RAPPORTE, RSM IN DA MENCURIO E RALLAZIONI Numero Identificativo Fornitore IT 12817720031			
<b>MARKING / MARCATURA</b>			
Marking / Marcatura: VERIFICATA ASTM ASME A SA 105 B 219 07 X 18.25 MPa 18.0 HEAT COLATA KG_KG MT_MT NR._NR. LEGENDA T = TENARIS Logo COLATA = Heat Number KG = Pipe/Tube Weight in Kilograms			

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**Tenaris**

Dalmine SPA - Dalmine Plant  
Piazza Caduti 6 luglio 1944, 1  
24044 Dalmine (BG) - Italy  
+ 39 035 560 111 tel  
+ 39 035 560 3827 fax

INSPECTION CERTIFICATE CERTIFICATO DI COLLAUDO (UNI EN 10204 3.1 / ISO 10474 3.1.B)		Number / Numero: <b>01/17/06474</b>	Page / Pagina: <b>5 / 5</b>
Customer / Cliente: <b>VALVITALIA SPA DIVISIONE TECNOFORGE</b>		Date / Data: <b>June 13, 2017</b>	
Manufacturer's Order Item / Rifer. Ordine Cliente: <b>A37-000196/CS</b>		Manufacturer's Works Order N° / Conferma-Posizione: <b>1281772/001</b>	
Product Type / Tipo di prodotto: <b>SS STEEL PIPES FOR MANUFACTURE OF ELBOWS AND FITTINGS WITH SUPPLEMENTARY REINT AND EXT BARE</b>		Surface / Superficie: <b>GREZZI</b>	
Manufacture Process / Processo di fabbricazione: <b>TUBI S.S. A CALDO PER RIVAVO CURVE E RAGGORDERIA (CON RICHIESTE SUPPLEMENTARI)</b>		End / Estremità: <b>PLAIN END (SQUARE CUT)</b>	
Standard or Specification / Norma o specifica: <b>See note nr.1</b>		Normal Weight / Peso - nominale: <b>90.44 Kg/m</b>	
Dimensions / Dimensioni: <b>See note nr.1</b>		Normal Weight / Peso - nominale: <b>90.44 Kg/m</b>	
Schedule / Scheda: <b>See note nr.1</b>		Normal Weight / Peso - nominale: <b>90.44 Kg/m</b>	
Length / Lunghezza: <b>26.247 ft ± 38.714 ft</b>		Normal Weight / Peso - nominale: <b>90.44 Kg/m</b>	
Weight / Peso: <b>18000 mm ± 11800 mm</b>		Normal Weight / Peso - nominale: <b>90.44 Kg/m</b>	
<b>MARKING / MARCATURA</b>			
Marking Marcatura			
_NR = Identificativo numerico del tubo			
PUNCHING T.ASA 105 B MPA 19.0 HEAT _C			
GLATA			
LEGEND T = TENARIS Logo			
COLATA = Heat Number			
This is to certify that the product described here has been manufactured, sampled, tested and inspected in accordance with purchaser order requirements. This certificate is not a declaration of origin nor may it be used as a declaration of origin.			
<b>CUSTOMER THIRD PARTY</b>		<b>TENARIS QUALITY DEPARTMENT SIGNATURE</b>	
INSPECTION COMPANY COMPAGNIA DISPEZIONE		 CHIEF OF QUALITY CERTIFICATION DEPT. RESPONSABILE DELL'UFFICIO CERTIFICAZIONE QUALITÀ FERRARI Donatelli	
This certificate is subject to a supplementary system and is valid only if accompanied by the original certificate. On the original certificate the date, time, place, edition, number, and name of the original certificate holder must be indicated. A copy of it, bearing the original certificate number, must be attached to the original one before it is used. Any alteration and/or falsification will be subject to the law.			

*DF*