M.E.G.A.

INSPECTION CERTIFICATE

Certificato d'ispezione

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001:2015 =

REPORT N. / Rapporto N. TC-029144-22-0001	**Issued on** 29/09/2022 / **Revised on**	**Customer** / Cliente	TEXAS PIPE & SUPPLY CO.	**Job n. /** Com. n. **29144**	**Page n./** Pagina n. 2 of 14
Revision / Revisione 0	**According to** / In accordo a EN 10204:2004 UNI EN 10204:2005	**Type** / Tipo 3.1	2330 HOLMES ROAD HOUSTON, TEXAS 77051-1098 - USA	**Purchase order and project**/Ordine e progetto **330503-01**	

DESCRIPTION / DESCRIZIONE

Test / Prova	Item / Pos.	Qty / Q.tà	Customer code / Codice cliente	Material / Materiale	Heat / Colata	Product / Prodotto
BATE	9	200		ASTM A182-22 F304/304L	1MZX	HALF COUPLING S.3000 SW A/SA182 F304/L 1/2
ARDE	10	40		ASTM A182-22 F304/304L	486878	HALF COUPLING S.3000 SW A/SA182 F304/L 2
AHZM	11	20		ASTM A182-22 F304/304L	457952	CAP S.3000 SW A/SA182 F304/L 1/2
AVPP	14	20		ASTM A182-22 F304/304L	274129	90 DEG. ELBOW S.3000 NPT A/SA182 F304/L 1/4
AVPI	15	1000		ASTM A182-22 F304/304L	487843	90 DEG. ELBOW S.3000 NPT A/SA182 F304/L 1

Test / Prova	STEEL MELTING AND HEAT TREATMENT DATA / Dettagli di produzione e trattamento termico	CTY of melt	RAW AND FORGING MATERIAL CERTIFICATES / Certificati di acciaieria/forgia	Ref. to MEGA-LAB Mechanical Test
BATE	ELECT.FURN.-SOLUT.ANNEALED at 1050 C-WATER QUENCHED CERT 2022/007681 ROLDAN	ES	2022/007681 by ROLDAN by ACERINOX ITALIA srl	MC-000000-22-0653
ARDE	ELECT.FURN.-SOLUT.ANNEALED at 1050^C WATER QUENCHED CERT 401812 OLARRA	ES	401812 by OLARRA by ACEROS INOXIDABLE OLARRA	MC-000000-20-0015
AHZM	ELECT.FURN.-SOLUT.ANNEALED at 1050 C-WATER QUENCHED CERT 354482 OLARRA	ES	354482 by OLARRA	
AVPP	ELECT.FURN.-SOLUT.ANNEALED at 1060 C WATER QUENCHED CERT 7276 MEGA	IT	MEST112633/2017 by VALBRUNA / FC-011173-19-0201 by M.E.G.A. S.P.A.	MC-000000-20-0867
AVPI	ELECT.FURN.-SOLUT.ANNEALED at 1060 C-WATER QUENCHED CERT.7277.MEGA	ES	403060 by OLARRA / FC-011173-19-0199 by M.E.G.A. S.P.A.	MC-000000-20-0867

Test / Prova	Test loc. / Preso a	Orient. / Direz.	TENSILE TEST AT ROOM TEMPERATURE / Trazione a temperatura ambiente						CVN IMPACT TEST (KV) / Prova di resilienza					Bend [B] Flatt. [F] Piega Schiacc.	Hardness Durezza [HBW$_{2,5/187,5}$]	Grain Size Dimens. grano
			Specimen / Provino			Yield strength Sner. [Mpa]	Tensile strength Rottura [Mpa]	Elongation Allung. [%]	Red. Of Area Contraz. [%]	Dimens. Dimens. [mm]	T Temp. [°C]	Abs. Energy Energia ass. [J]	Shear A Area d [%]	Lat Exp Esp. Lat. [mm]			
			Shape Forma	A Sez.[mm^2]	Gage Length Lungh.[mm]	Min:	Min:	Min:	Min:								
BATE	T/2	LONG	Round	118.800	50.000	314.500	613.300	52.900	69.200	10X10X55	20	82-91-76	--	--		166-168	
ARDE	T/2	TRANS	Round	30.200	25.000	312.000	618.100	53.900	71.000	10x10x55	0	168-178-182	--	--		170-172	
AHZM	T/2	LONG	Round	122.600	50.000	332.800	638.500	52.200	70.000	10X10X55	0	186-190-212	--	--		176-177	
AVPP	T/2	LONG	Round	30.700	25.000	296.300	595.400	59.700	71.500				--	--		160-166	
AVPI	T/2	LONG	Round	60.500	25.000	304.200	603.600	60.300	75.400				--	--		163-167	

Test / Prova	C [%]	Si [%]	Mn [%]	S [%]	P [%]	Cr [%]	Ni [%]	Mo [%]	Ti [%]	Cu [%]	V [%]	Al [%]	H [%]	Nb [%]	N [%]	Sn [%]	O [%]	B [%]	Fe [%]	Zr [%]	CE^A [%]	PREN^B [%]	CEs^E [%]	J fact.^{D} [%]
BATE	0.0270	0.4230	1.4700	0.0280	0.0320	18.1750	8.0800	0.4220	0.0040	0.4170					0.0800							20.8476		
ARDE	0.0200	0.4000	1.4600	0.0280	0.0340	18.0700	8.0600								0.0905							19.5180		
AHZM	0.0170	0.4400	1.4400	0.0280	0.0360	18.0500	8.0000								0.0785							19.3060		
AVPP	0.0150	0.3200	1.8200	0.0250	0.0320	18.1500	8.5200								0.0870							19.5420		
AVPI	0.0220	0.4700	1.4700	0.0270	0.0360	18.1400	8.0400								0.0850							19.5000		

REMARKS / Note

1: MATERIAL ACCORDING TO NACE MR0175/ISO 15156-1-2-3 Ed.2020, NACE MR0103 Ed.2015.
2: MATERIAL ACCORDING TO ASME Sect. II Part A 2021 Edition.

A: CE = C + Mn/6 + (Cr+Mo+V)/5 + (Cu+Ni)/15 | B: PREN = Cr + 3.3Mo + 16N
C: X factor = (10P + 5Sb+4Sn+As)/100 - elements expressed in ppm
D: J factor = ((Mn + Si)(P + Sn)) x 10E4 | E: CEs = C + Mn/6

Additional elements: 'BATE': Co 0.1610 | 'ARDE': Co 0.1500 | 'AHZM': Co 0.1500 | 'AVPI': Co 0.1600 |

Quality Control Inspector
Certification department
Ispettore controllo qualità

Emmanuel Centemeri

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev. 0 2013-03-15