

<b>REPORT N.</b> Rapporto N.	<b>TC-015109-15-0010</b>	<b>Issued on</b> Emesso il	<b>16/10/2015</b>	<b>Customer</b> Cliente	PROVEEDORA DE MATERIALES ANGER SA DE CV, AV ADOLFO LOPEZ MATEOS 150, COL LAGRANGE, SAN NICOLAS DE LOS GARZA, N.L. - 66490, MEXICO	<b>Job n. / Com. n.</b>	<b>15109</b>	<b>Page n./ Pagina n.</b>	<b>2 of 5</b>
<b>Revision</b> Revisione	<b>0</b>	<b>According to</b> In accordo a	<b>EN 10204:2004</b> <b>UNI EN 10204:2005</b>	<b>Type</b> Tipo	<b>3.1</b>	<b>Purchase order and project/Ordine e progetto</b> <b>315</b>			

**DESCRIPTION / DESCRIZIONE**

Test Prova	Item Pos.	Qty Q.tà	Customer code Codice cliente	Material Materiale	Heat Colata	Product Prodotto
SALL	25	817		A/SA105-14	P4141443932	COUPLING S. 3000 NPT A/SA105N 1
JUCL	49	1000		A/SA105-14	221834	BUSHING M/F NPT A/SA105N 1.1/2x3/4
YDDU	62	3250	*	A/SA105-14	15/74729	90 DEG. ELBOW S. 3000 SW A/SA105N 1
JUCX	64	1200	*	A/SA105-14	13/77294	90 DEG. ELBOW S. 3000 SW A/SA105N 2
JNDC	66	320		A/SA105-14	P4121241107	90 DEG. ELBOW S. 3000 SW A/SA105N 3

Test Prova	HEAT TREATMENT DATA AND REFERENCES TO OTHER CERTIFICATES / Dettagli di trattamento termico e riferimenti ad altri certificati	RAW AND FORGING MATERIAL CERTIFICATES / Certificati di acciaieria/forgia
SALL	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR.	CERT.2014-67373.LUCCHINI*(VACUUM DEGASED STEEL)
JUCL	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR.	CERT.78.EVASI*
YDDU	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 880 C COOLED IN STILL AIR.	CERT.FC-005265-15-0011.MEGA/CERT.2004 MEGA*
JUCX	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR.	CERT.64.EVASI.
JNDC	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 880 C COOLED IN STILL AIR.	CERT.FC-004474-13-0004.MEGA/I*0077MEGA

Test Prova	Test loc. Preso a	Orient. Direz.	TENSILE TEST AT ROOM TEMPERATURE / Trazione a temperatura ambiente							CVN (KV) / Prova di resilienza					Bend [B] Flatt. [F] Piegia Schiacc.	Hardness Durezza
			Specimen / Provino			Yield strength Snerv [Mpa] Min:	Tensile strength Rottura [Mpa] Min:	Elongation Allung. [%] Min:	Red. Of Area Contraz. [%] Min:	Dimens. Dimens. [mm]	T Temp. [°C]	Abs. Energy Energia ass. [J]	Shear A Area d [%]	Lat Exp Esp. Lat. [mm]		
			Shape Forma	A [mm <sup>2</sup> ] Sezione	L [mm] Lung.											
SALL	T/2	LONG	Round	124.700	50.000	324.500	499.000	35.700	73.000	10x10x55	0	215-215-200	--	--	HBW 140-143	
JUCL	T/2	LONG	Round	121.500	50.000	333.900	521.800	33.000	68.800	10x10x55	0	116-119-51	--	--	HBW 155-157	
YDDU	T/2	LONG	Round	61.200	35.000	285.300	494.000	28.700	64.500	10X10X55	0	118-73-79	--	--	HBW 143-145	
JUCX	T/2	LONG	Round	59.700	35.000	330.500	507.000	42.600	67.000	10x10x55	0	185-207-192	--	--	HBW 141-143	
JNDC	T/2	LONG	Round	124.100	50.000	266.700	492.400	30.300	60.300	10x10x55	0	98-87-174	--	--	HBW 140-142	

Test Prova	C [%]	Si [%]	Mn [%]	S [%]	P [%]	Cr [%]	Ni [%]	Mo [%]	Ti [%]	Cu [%]	V [%]	Al [%]	Co [%]	Nb [%]	N [%]	Sn [%]	W [%]	B [%]	Fe [%]	Zr [%]	CE <sup>A</sup> [%]	PREN <sup>B</sup> [%]	X fact. <sup>C</sup> [%]	J fact. <sup>D</sup> [%]	
SALL	0.1750	0.2650	1.0300	0.0030	0.0130	0.1600	0.0430	0.0120		0.0390	0.0050	0.0300		0.0021	0.0060			0.0001				0.3875			
JUCL	0.1680	0.1900	1.0430	0.0070	0.0100	0.1110	0.1500	0.0450		0.2410	0.0050	0.0210		0.0040	0.0086	0.0120						0.4000			
YDDU	0.1850	0.2400	0.9600	0.0050	0.0150	0.1500	0.0500	0.0100	0.0210	0.1600	0.0030	0.0300		0.0030	0.0085	0.0080						0.3916			
JUCX	0.1600	0.2000	0.9000	0.0070	0.0120	0.1500	0.0600	0.0100	0.0130	0.1600	0.0210	0.0240		0.0020	0.0102	0.0090						0.3608			
JNDC	0.1700	0.2100	1.0900	0.0040	0.0130	0.1500	0.0250	0.0020		0.0660	0.0030			0.0006				0.0001				0.3887			

**REMARKS / Note**

1: MATERIAL ACCORDING TO NACE MR0175/ISO 15156-1-2-3 Ed.2009. MATERIAL ACCORDING TO NACE MR0103 Ed.2012  
 2: MATERIAL ACCORDING TO ASME Sect. II Part. A 2013 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

**Quality inspector representative**

Ispettore controllo qualità

Riccardo Scorsetti