

C117155



CARRS STAINLESS STEELS

A Division of ELG Haniel Metals Ltd.
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Purchaser - Basteller - Acheteur ASA Alloys Div of CSM ULC 20 Challenger Crescent Sherwood Park Alberta T8H 2R1 Canada		Inspection Certificate: Attestation de réception: Certificat de réception:		DIN 50049 3.1 EN 10204	Cert No: Zertifikat-Nr: Cert No: 140641	Date: Datum: Date: 08/10/14
Customer Order No: Kundenbestellnummer: No. de Commande Client:		Product Description - Beschreibung des Erzeugnisses - Description du Produit: 18.75in Dia. x 8812lbs Electric Melt & Vacuum Degassed Stainless Steel Solution Annealed Forged 316/316L - ASA - MS2 rev A ASTM A182-14, A276-13a, A479-13b - F316/F316L 316/316L ASME SA182-LE, SA479-LE - F316/F316L 316/316L NACE MR0175-09/ISO 15156 API 6A / ISO 10423 ED20		7088 LB 3215 Kgs.		
Our Order No: Unsere Auftr.-Nr: notre Comm. No:		P033771 53179 W144627/00				

Chemical Analysis - Chemische Analyse - Analyse Chimique

Cast No Schmelznummer No. de Coulee	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Co	N
CD24568 A	.028	.37	1.29	.036	.011	17.06	2.07	10.19	.36	.19	.065

Heat Treatment - Wärmebehandlung - Traitement Thermique

Solution annealed @ 1060 C for 5 hours & Water Quenched

Mechanical Properties - Mechanische Eigenschaften - Caractéristiques Mécaniques

Test No Probe Nr No. d'Essai	Test dimension Messung Dimension	Proof Stress Beweislast Limite d'élasticité	Rp	Tensile strength Zugfestigkeit Résistance à la traction	Rm	Elong % Bruchdehnung Allongement % to 5D, 4D	Red of Area % Bruchrechnerung % Striction %	Impact Kerbschlagzähigkeit Resilience	Hardness Härte Dureté
MN8364	18.75"	37.7 KSI 0.2%	41.9 KSI 1.0%	79.2 KSI		61.5 %	78 %	149 HB	

Remarks - Bemerkungen - Remarques

Ultrasonically tested to ASTM A388 and found satisfactory
Intergranular corrosion test to ASTM A262E satisfactory
Grain size to ASTM E112-1
Material produced by ELG Carrs Stainless Steels in the United Kingdom

The material detailed has been manufactured and tested in accordance with the Quality Assurance system ISO 9001:2008 and the requirements of the specification order.

Signed: *C. Ryall*

Chris Ryall - Quality Manager
Approved signatory for
ELG Carrs Stainless Steels

