

PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№2608/PO51243 DIN EN 10088-3-05, DIN EN 10272-08, DIN EN 10222-5-00; ASTM A182/A182M-10; ASME SA-182/SA-182M-10; ASTM A276-10; ASTM A314-08, ASTM A479/A479M-10; ASME SA-479/SA-479M-10; ASTM A484/A484M-10; AMS-QQ-S-763B-06 Cond.A; AMS 5648K-07; AMS 5653F-07; ASTM A193/A193M-10GR B8M, CL1; ASME SA-193/SA-193M-10 GR B8, CL 1; ASTM A320/A320M-08 GR B8M, CL 1; ASME SA-320/SA-320M-10 GR B8, CL1; NACE MR 0175-03; NACE MR 0103-10	Sheets:2 Sheet: 2 INSPECTION CERTIFICATE EN10204/3.1 Nr.370941 PLANT ORDER № 8014902608
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	CUSTOMER DSS INTERNATIONAL SA Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионностойких (нержавеющих) сталей кованные, обточенные. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 15.000in/381.00 mm L=8.426ft/2.570m L=8.443 ft/2.575m Grade: 316/316L/1.4401/1.4404	QUANTITY: (number of pcs) 1bund Q-5291 lb/2400 kg 1bund Q-5317 lb/2412 kg
			Delivery condition solution annealed :1940° F(1060°C)water 34minutes термообработка:закалка в воду

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N	Sn	B
REQUIRED	<.030	<1,00	1.20-2.00	<.040	.015-.030	16.50-18.00	10.00-13.00	2.00-2.50	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10		
CAST № A09969	.024	.44	1.37	.040	.027	16.79	10.25	2.06	.074	.22	.06	.05	.005	.10	.01	.029	.0076	.0023

DIN EN 10002-1, ASTM A370-09										TECHNICAL REQUIREMENTS: Macrostructure – GOOD GRAIN SIZE : 5 to ASTM E 112-96(2004) Nonmetallic inclusions ASTM E 45-05 (Method A) <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">C</td> <td style="text-align: center;">D</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">thin</td> <td style="text-align: center;">thick</td> <td style="text-align: center;">thin</td> <td style="text-align: center;">thick</td> <td style="text-align: center;">thin</td> <td style="text-align: center;">thick</td> <td style="text-align: center;">thin</td> <td style="text-align: center;">thick</td> <td style="text-align: center;">thin</td> <td style="text-align: center;">thick</td> </tr> <tr> <td style="text-align: center;">2.0</td> <td style="text-align: center;">2.0</td> <td style="text-align: center;">2.0</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">1.0</td> <td></td> <td></td> </tr> </table> ICC-ASTM A262-08 (practice E)-test: O.K. Dimension/surface defects test, anti-mixing test – OK We acknowledge that the delivered products conform to the requirements of the order/Подтверждаем, что поставленная продукция соответствует требованиям заказа Ratio of reduction-6.4:1									A	B	C	D							thin	thick	thin	thick	thin	thick	thin	thick	thin	thick	2.0	2.0	2.0	1.0	0.0	0.0	1.0	1.0		
A	B	C	D																																													
thin	thick	thin	thick	thin	thick	thin	thick	thin	thick																																							
2.0	2.0	2.0	1.0	0.0	0.0	1.0	1.0																																									
MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm ²)	Elongation A ₅ % L Q In 2 inches (50mm) or 4D _{min} ,% L		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J L Q																																								
REQUIRED	205	240	515-690	45 35	40	50	140-217	100	60																																							
EFFECTIVE	289	323	554	61 54	60	79	163	213 213 213	61 61 61																																							

Mechanical properties tested in state of delivery
Test specimen 10x10x55 mm with V-notch 2 mm deep

US - testing	yes	Results: ASTM A388/A388M-FBH1/5"; EN 10228-4 type 1a; class 3:OK	Date: 18.06.2021 Manager of quality assurance department - V. Kapaieva Zaporozhye Melted and Produced in Ukraine. MELTED and MANUFACTURED PrJSC " Dniprospetsstal" Phone number +380612834255 e-mail: info@dss.com.ua http://www.dss-ua.com
Radiation free; mercury free. No Weld or Weld repair.			

P.O. # 6127 Part # 12-FOE-40 Desc: 12" CPA 50E S-40 316 S/S