



**PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZH'YE, UKRAINE**

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№ 7107/PO48147 DIN EN 10088-3-05, DIN EN 10272-08, AD2000-Merkblatt W2; AD 2000-Merkblatt W10; 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 (EXC PAR 7.2); ASME SA-193/SA-193M-10 GR B8, CL 1 (EXC PAR 7.3); NACE MR 0175-03; NACE MR 0103-10	INSPECTION CERTIFICATE EN10204/3.1 Nr. 355247 PLANT ORDER № 8014907107
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 GMS Certified	<b>CUSTOMER</b> <b>DSS INTERNATIONAL</b> <b>SA Switzerland</b>	<b>PRODUCT DESCRIPTION</b> Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line. Прутки из коррозионностойких (нержавеющих) сталей горячекатаные, обточенные на линии Ландграф. <b>STEEL MAKING PROCESS: EAF+AOD</b> <b>СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР</b> Round 4.000in/101.60 mm L=5.620/18.426ft L=5.610m/18.393ft <b>Grade: 316/316L/1.4401/1.4404</b>	QUANTITY: <b>1bund Q-2447 lb/1110 kg</b> (number of pcs) <b>1bund Q-4074 lb/1848 kg</b>  Delivery condition solution annealed : 1900 <sup>o</sup> F(1040 <sup>o</sup> C)water 30minutes термообработка: закалка в воду
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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 № A08357	.018	.42	1.41	.038	.024	17.02	10.29	2.10	.07	.34	.06	.05	.005	.12	.01	.037	.009	.0026

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%; text-align: center;"> <tr> <td>A</td><td>B</td><td>C</td><td>D</td><td></td><td></td><td></td><td></td> </tr> <tr> <td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td> </tr> <tr> <td>2.5</td><td>2.0</td><td>2.5</td><td>2.0</td><td>0.0</td><td>0.0</td><td>1.0</td><td>1.0</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 Ratio of reduction-29.8:1										A	B	C	D					thin	thick	thin	thick	thin	thick	thin	thick	2.5	2.0	2.5	2.0	0.0	0.0	1.0	1.0
A	B	C	D																																								
thin	thick	thin	thick	thin	thick	thin	thick																																				
2.5	2.0	2.5	2.0	0.0	0.0	1.0	1.0																																				
MECHANICAL PROPERTIES	Yield Strength, (N/mm <sup>2</sup> ) R0.2% R 1.0%		Tensile Strength, Rm, (N /mm <sup>2</sup> )	Elongation		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J																																			
	A5, % L	Q		In 2 inches (50mm) or 4D, min, % L	L			Q																																			
REQUIRED	205	240	515-690	40	-	40	50	140-217	100	-																																	
EFFECTIVE	275 280	294 301	574 580	61	-	59	76 78	170 170	194 194 194 197 197 197	-																																	

US - testing	yes	Results: ASTM A388/A388M-FBH1/8"; EN 10308 type 1a; class 3:OK	Date: 19.03.2020 <b>Manager of quality assurance</b> department - V. Kapaicva Signed: Zaporozhye Melted and Produced in Ukraine. <b>MELTED and MANUFACTURED</b> PrJSC " Dnipropetsstal" Phone number +380612834255 e-mail: info@dss.com.ua http://www.dss-ua.com
Radiation free; mercury free. No Weld or Weld repair.			