


C308403

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**PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE**

Contract No.: 20002  
 TECHN.PROTOCOL № 390-11 SPEC.№3642/PO51840  
 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

**INSPECTION CERTIFICATE EN10204/3.1 Nr.374318**  
 PLANT ORDER № 8014903642

 GMS Certified	CUSTOMER <b>DSS INTERNATIONAL</b> SA Switzerland	<b>PRODUCT DESCRIPTION</b> Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионностойких (нержавеющих) сталей кованные, обточенные. <b>STEEL MAKING PROCESS: EAF+AOD</b> <b>СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР</b> Round 18.750in/476.25 mm L=5.000 ft/1.660m L=5.000 ft/1.640m <b>Grade: 316/316L/1.4401/1.4404</b>	QUANTITY: <b>1bund Q-5295 lb/2402 kg</b> (number of pcs) <b>1bund Q-5234 lb/2374 kg</b>
			Delivery condition solution annealed : 1922 <sup>o</sup> F(1050 <sup>o</sup> C) water 36minutes 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 № A10353	.023	.43	1.33	.039	.025	16.76	10.22	2.03	.06	.23	.05	.04	.006	.13	.01	.027	.0077	.0022

DIN EN 10002-1, ASTM A370-09

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		
	L	Q		A5, %	In 2 inches (50mm) or 4D, min, % L			L	Q	L
REQUIRED	205	240	515-690	45	35	40	50	140-217	100	60
EFFECTIVE	286	319	560	62	53	60	79	167	250 250 250	61 61 61

**TECHNICAL REQUIREMENTS:**  
 Macrostructure – GOOD  
 GRAIN SIZE : 5 to ASTM E 112-96(2004)  
 Nonmetallic inclusions ASTM E 45-05 (Method A)  


A	B	C	D
thin	thick	thin	thick
3.0	2.0	2.0	1.0
0.0	0.0	0.0	1.0

 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-7.5:1

Mechanical properties tested in state of delivery

US - testing	yes	Results: ASTM A388/A388M-FBH1/5"; EN 10228-4 type 1a; class 3:OK
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Date: 03.10.2021 Manager of quality assurance department  
 - V. Kapaieva Signed:  
 Zaporozhye  
 Melted and Produced in Ukraine,  
 MELTED and MANUFACTURED PrJSC " Dniprospetsstal"  
 Phone number +380612834255  
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 http://www.dss-ua.com



Radiation free; mercury free. No Weld or Weld repair.

ANS