



PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	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 15.0in/381.00 mm L=15.049 ft/4.59 m; Grade: 316/316L/1.4401/1.4404	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№0623/P050062 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-10 GR 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.366188 PLANT ORDER № 8014900623
			QUANTITY: 1bund Q-9405 lb/4266 kg (number of pcs)	Delivery condition solution annealed :1922° F(1050° C)water 30minutes 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 № A09456	.020	.51	1.24	.036	.023	16.78	10.26	2.10	.069	.31	.06	.06	.005	.16	.01	.035	.0145	.0025

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) A B C D thin thick thin thick thin thick thin thick 2.5 2.0 2.0 2.0 0.0 0.0 1.0 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-6.3:1									
MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm ²)	Elongation		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J											
	A5%	In 2 inches (50mm) or 4D, min, % L		L	Q			L	Q										
REQUIRED	205	240	515-690	45	35	40	50	140-217	100										
EFFECTIVE	283	312	552	61	54	60	77	167	240 240 240	61 61 61									
Mechanical properties tested in state of delivery										Date: 02.02.21 Manager of quality assurance department Signed: - V. Kapaieva Zaporozhye Melted and Produced in Ukraine. MELTED and MANUFACTURED PrJSC " Dniprospeetsstal" Phone number +380612834255 e-mail: info@dss.com.ua http://www.dss-ua.com									
US - testing	yes	Results: ASTM A388/A388M)-FBH1/5"; EN 10228-4 type 1a; class 3:OK																	
Radiation free; mercury free. No Weld or Weld repair.																			

P.O.# 5876 Part # 12 - FOE - 40 Desc: 12" CPA 50E S-40 316 S/S

ANS