

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



Contract No.: 20002

TECHN.PROTOCOL № 390-11 SPEC.№3055/PO51518

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:3

Sheet: 3

INSPECTION CERTIFICATE EN10204/3.1 Nr.371973  
 PLANT ORDER № 8014903055



CUSTOMER  
**DSS INTERNATIONAL**  
 SA Switzerland

**PRODUCT DESCRIPTION**

Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионноустойчивых (нержавеющих) сталей кованные, обточенные.

**STEEL MAKING PROCESS: EAF+AOD**

**СПОСОБ ВЫПЛАВКИ:** Электродуговая печь+АКР

Round 11.000in/279.40 mm L=14.000ft/4.270m L=14.000 ft/4.380m

**Grade: 316/316L/1.4401/1.4404**

QUANTITY:  
 (number of pcs)

**1bund Q-4705 lb/2134 kg**  
**1bund Q-4841 lb/2196 kg**

Delivery condition

solution annealed :1958<sup>0</sup> F(1070<sup>0</sup> C) water 18minutes  
 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 № A10095	.020	.52	1.39	.037	.025	17.03	10.15	2.06	.069	.37	.05	.06	.005	.12	.012	.028	.010	.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 % L Q	In 2 inches (50mm) or 4D,min,% L			L	Q
REQUIRED	205	240	515-690	45 35	40	50	140-217	100	60
EFFECTIVE	281	327	562	63.58	61	77	167	230 230 230	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	thin	thick	thin	thick
3.0	2.0	2.0	1.0	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-7.4:1

Date: 20.07.2021 Manager of quality assurance department

- V. Kapaieva Signed:

Zaporozhye

Melted and Produced in Ukraine.

MELTED and MANUFACTURED PrJSC " Dniprospsstal"

Phone number +380612834255

e-mail: info@dss.com.ua

http://www.dss-ua.com

Mechanical properties tested in state of delivery

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. # 6074 Part # 08-FOE-80 Desc: 8" CPA 50E S-80 316 S/S

ANS