

C308345

**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,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; 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 B8M,CL 1;NACE MR 0175-03;NACE MR 0103-10

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



**CUSTOMER**  
**DSS INTERNATIONAL**  
**SA Switzerland**

**PRODUCT DESCRIPTION**

Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line. Прутки из коррозионностойких (нержавеющих) сталей горячекатаные, обточенные на линии Ландграф.

**STEEL MAKING PROCESS:** EAF+AOD**СПОСОБ ВЫПЛАВКИ:** Электродуговая печь+АКР

Round 6.500in/165.10 mm L=4.770/16.000ft

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

QUANTITY:

(number of pcs) **1bund Q-3686 lb/1672 kg**

Delivery condition

solution annealed :1900<sup>0</sup>F(1040<sup>0</sup>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 № A10380	.020	.41	1.38	.030	.022	16.86	10.30	2.03	.061	.20	.06	.03	.005	.14	.011	.037	.0065	.0023

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		As %	In 2 inches (50mm) or 4D,min,% L			L	Q
REQUIRED	205	240	515-700	45 35	40	50	140-217	100	60
EFFECTIVE	272	313	548	59 49	58	73	163	198 198 198	63 63 63

**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	1.5	1.5	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

Ratio of reduction-13.5:1

Mechanical properties tested in state of delivery

US - testing	yes	Results: ASTM A388/A388M-FBH1/8";EN 10308 type Ia;class 3:OK
--------------	-----	--

Date: 03.10.2021 **Manager of quality assurance**  
**department - V. Kapaieva** Signed:

Zaporozhye

Melted and Produced in Ukraine.

MELTED and MANUFACTURED

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.

INS