

C219703

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



Contract No.: 20002  
 TECHN.PROTOCOL № 390-11 SPEC.№ 9398/PO44029  
 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

Sheets:5 Sheet: 5  
**INSPECTION CERTIFICATE** EN10204/3.1 Nr. 335238  
 PLANT ORDER № 8014909398



**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 3.000in/76.20 mm L=5.570m/18.262ft L=5.570m/18.262ft L=5.570m/18.262ft  
**Grade:** 316/316L/1.4401/1.4404

**QUANTITY:**  
 (number of pcs) **1bund Q-3192 lb/1448 kg**  
**1bund Q-2280 lb/1034 kg**  
**1bund Q-1371 lb/622 kg**

**Delivery condition**  
 solution annealed :1900°F(1040°C)water 30minutes  
 термообработка:закалка в воду

QMS Certified

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 № A06087	.015	.42	1.35	.039	.026	16.86	10.18	2.05	.073	.33	.06	.06	.005	.12	.01	.028	.011	.0022

DIN EN 10002-1,ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm²) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm²)	Elongation		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J	
	A5 %	In 2 inches (50mm) or 4D,min,% L		L	Q				
REQUIRED	205	240	515-690	40 -	40	50	140-217	100	-
EFFECTIVE	290 294	310 313	596 601	61 - 60 -	58 59	77 78	174 174	204 204 204 210 210 210	-

**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
2.5	2.0	2.5	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  
 Ratio of reduction-50.9:1

Mechanical properties tested in state of delivery

US - testing yes Results: ASTM A388/A388M-FBH1/8";EN 10308 type 1a;class 3:OK

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

Manufacturer:PrJSC DNIPROSPETSSTAL  
 Date: 26.06.18 Manager of quality assurance department - V. Kapaieva  
 Signed:   
 Zaporozhye  
 Made in Ukraine.

ANS