

A01794

C125680

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



Contract No.: 20002  
 TECHN.PROTOCOL № 390-11 SPEC.№ 6336/P035069-ED  
 DIN EN 10088-3-05,DIN EN 10272-08,AD2000-Merkblatt W2;AD 2000-Merkblatt W10;ASTM A 182/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 A 193/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 0103-10

Sheets:6 Sheet: 2  
 INSPECTION CERTIFICATE EN10204/3.1 Nr.292883  
 PLANT ORDER № 8014906336



GMS Certified

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: BAF+AOD**

**СПОСОБ ВЫПЛАВКИ:Электродуговая печь+АКР**

Round 7.000in/177.80 mm L=3.465m/11.361ft L=4.830m/15.836ft L=5.080m/16.656ft

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

QUANTITY: 1bund Q-1565 lb/710 kg  
 1bund Q-2178 lb/988 kg  
 (number of pcs) 1bund Q-2288 lb/1038 kg

Delivery condition  
 solution annealed :1900<sup>o</sup> F(1040<sup>o</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 <sub>2</sub>	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 № A01794	.027	.31	1.28	.040	.026	16,95	10.32	2.07	.062	.22	.05	.08	.005	.07	.01	.026	.0093	.0011

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		A <sub>5</sub> % 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	345 345	353 355	569 563	60	56 60	59 59	79 75	167 167	198 190 184 192 190 185	75 77 83 70 68 70

**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 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

Mechanical properties tested in state of delivery

US - testing      yes      Results: ASME SA-388/SA-388M-10(ASTM A 388/A 388M-09)-FBH1/8";EN 10308 type Ia;class 3:OK

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

Manufacturer: PJSC DNIPROSPETSSTAL  
 Date: 13.02.15      Manager of quality assurance department - V. Kapaieva  
 Signed:  
 Zaporozhnye  
 Made in Ukraine.