

96428 (15.75")



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

C038355

Contract No.: 50005  
 TECHN. PROTOCOL № 210-11 SPEC. № 2798/PO24122-ED  
 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, CL 1; ASME SA-193/SA-193M-10 GR B8M, 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

EN10204/3.1  
 Sheets: 1 Sheet: 1  
 QUALITY CERTIFICATE Nr. 248327  
 PLANT ORDER № 8014902798

**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 15.750in/400.05 mm L= 3.92 ft/12.85m  
 Grade: 316/F316/316L/F316L

**QUANTITY:** 1bund Q-8911 lb/4042 kg  
 (number of pcs)  
**Delivery condition**  
 solution annealed :1900-2010°F(1040-1100°C);water 27minutes  
 термообработка: закалка в воду /27 мин.

ANALYSES, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N <sub>2</sub>		
REQUIRED	<.030	<1.00	1.25-2.00	<.040	.020-.030	16.00-18.00	10.00-14.00	2.00-3.00	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10		
HEAT № 96428	.024	.27	1.33	.036	.020	16.67	10.00	2.05	.065	.25	.04	.08	.088	.07	.01	.033		

ASTM A370-08a

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm <sup>2</sup> ) Re (R <sub>e2</sub> )	Tensile Strength, Rm, ksi (N/mm <sup>2</sup> )	Elongation, A, %	Reduction of area, Z, %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	36(248)	75 (515)	45	50	140-223	100
EFFECTIVE	40.7(277)	83.6(569)	59	75	163	192

Mechanical properties tested in state of delivery

**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
2.0	1.0	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 O.K.  
 Ratio of reduction- 8.1:1

US - testing      yes      Results: SEP 1921, group 3/class Cc - OK

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

Manufacturer: PJSC DNIPROSPETSSTAL  
 Date: 09.06.11 Signed:

Zaporozh'ye  
 Made in Ukraine.

