

96172. (18.75")



QMS Certified



DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYYE 69008, UKRAINE

C033935

Contract No.: 50005

TECHN.PROTOCOL № 210-06 SPEC.№1882/P023364-ED

ASTM A182/A182M-05; ASME SA-182/SA-182M-04; ASTM A276-04;

ASTM A479/A479M-04; ASTM SA-479/SA-479M-04; ASTM A484/A484M-05; AMS-QQ-S-763A-03

Cond.A; NACE MR 0175-2003; AMS 5648K-02; AMS 5653F-02; ASTM A193/A193M-04 GR B8M, CL1 ;

ASME SA-193/SA-193M-04 GR B8M, CL1 ; NACE MR0103

EN10204/3.1

Sheets:6

Sheet: 6

QUALITY CERTIFICATE Nr.245761

PLANT ORDER № 8014901882

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 18.750in/476.25 mm L=2.60m/8.52ft

Grade: 316/F316/316L/F316L

QUANTITY:

(number of pcs) 1bund Q-8294 lb/3762 kg

Delivery condition

solution annealed :1900-2010° F(1040-1100° C)/water 32minutes
термообработка: закалка в воду

ANALYSES, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N ₂		
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 № 96172.	.021	.55	1.29	.034	.025	17.01	10.10	2.00	.079	.27	.05	.12	.075	.11	.012	.031		

ASTM A370-08a

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{0.2})	Tensile Strength, Rm,ksi (N/mm ²)	Elongation	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J
			in 2 inches (50mm) or 40, min, % (ASTM A370)			
REQUIRED	36(248)	75 (515)	45	50	140-223	100
EFFECTIVE	39.7(273)	83.1(571)	58	75	167	190

TECHNICAL REQUIREMENTS:

Macrostructure – GOOD

GRAIN SIZE: 5 to ASTM E 112

Nonmetallic inclusions ASTM E 45 (Method A)

A B C D

thin thick thin thick thin thick thin thick

2.0 1.5 2.0 1.0 0 0 1.0 1.0

ICC-ASTM A262-02a(Method E)-test: O.K.

„Dimension/surface defects test, anti-mixing test – O.K.“

Ratio of reduction- 4.9:1

Mechanical properties tested in state of delivery

US - testing yes Results: SEP 1921, 3/ Cc - O.K.

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

Manufacturer: JSC DNEPROSPETSSTAL

Date: 11.04.11 Signed:

V. Kapuc

Zaporozhye

Made in Ukraine.

