

4" Nozzle. 95805 (6.5m)

C027204



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

QMS Certified

Contract No.: 50005  
 TECHN. PROTOCOL № 210-06 SPEC. № 1462/PO23042  
 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  
 Concl. A; NACE MR0175-2003; AMS 5648K-02; AMS 5653F-02; ASTM A193/A193M-04c GR B8M, CL1 (EXC PAR 6.3)  
 ASME SA-193/SA-193M-04GR B8M, CL1 (EXC PAR 6.3);

Sheets: 9 Sheet: 5  
 QUALITY CERTIFICATE Nr. 242283  
 PLANT ORDER № 8014901462

EN10204/3.1

CUSTOMER  
 „DSS INTERNATIONAL SA“  
 Switzerland

PRODUCT DESCRIPTION  
 Bars and rods of corrosion-resistant (stainless) steel hot rolled, peened on Landgraf line. Прутки из коррозионностойких (нержавеющих) сталей горячекатаные обточенные на линии Ландаграф.  
 STEEL MAKING PROCESS: EAF+AOD  
 СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР  
 Round 6.500in/165.10 mm L=3.40-5.50m/11.15-18.03ft  
 Grade: 316/F316/316L/F316L

1bund Q-1733 lb/786 kg  
 QUANTITY: 1bund Q-1733 lb/786 kg  
 (number of pcs) 1bund Q-3514 lb/1594kg

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

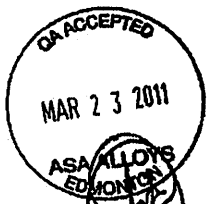
ANALYSES, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N <sub>2</sub>		
REQUIRED	<.030	<1.00	1.25-2.00	<.040	.020-.030	16.00-18.00	10.00-14.00	2.00-3.00	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10		
HEAT № 95805	.024	.49	1.45	.040	.024	16.69	10.18	2.04	.076	.25	.04	.15	.005	.08	.01	.072		

MECHANICAL PROPERTIES „ASTM A370-08a“	Yield Strength, Ksi(MPA)	Tensile Strength, Rm,ksi (N/mm <sup>2</sup> )	Elongation in 2 inches (50mm) or 4D,min, % (ASTM A370)	Reduction of area, Z, %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	36(248)	75 (515)	45	50	140-223	100
EFFECTIVE	56.6(388)	87.2(599)	53	80	174	287

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
3.0	2.5	2.5	2.0
0.0	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-12.6 :1



Mechanical properties tested in state of delivery

US - testing	yes	Results: SEP 1921, 3/ Dd - O.K.
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Manufacturer: JSC DNEPROSPETSSTAL  
 Date: 12.01.11 Signed: \_\_\_\_\_



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

Zaporozhye  
 Made in Ukraine.  
 V.Kapaieva