

PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE



Contract No.: 20002
 TECHN.PROTOCOL № 390-11 SPEC.№ 3734/P033051-ED
 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; 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 B8, CL1; NACE MR 0175-03; NACE MR 0103-10

Sheets: 4 Sheet: 1
 INSPECTION CERTIFICATE EN10204/3.1 Nr.287695
 PLANT ORDER № 8014903734



CUSTOMER
 DSS INTERNATIONAL
 SA Switzerland

PRODUCT DESCRIPTION
 Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line. Прутки из коррозионно-стойких (нержавеющих) сталей горячекатаные, отбеленные на линии Ландграф.
STEEL MAKING PROCESS: EAF+AOD
СПОСОБ ВЫПЛАВКИ: Электродуговая печь+AOP
 Round 7.250in/184.15 mm L=4.590m/15.049ft L=4.670m/15.311ft L=4.660m/15.279ft
Grade: 316/316L/1.4401/1.4404

QUANTITY:
 1bund Q-2218 lb/1006 kg
 1bund Q-2262 lb/1026 kg
 (number of pcs) 1bund Q-2253 lb/1022 kg

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

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N ₂	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 № A01058	.023	.43	1.39	.033	.022	16,90	10.30	2.07	.065	.23	.04	.07	.005	.08	.01	.025	.011	.001

DIN EN 10002-1, ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm ²)	Elongation		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J		
	L	Q		A ₅ % L	In 2 inches (50mm) or 4D, min, % L			L	Q	
REQUIRED	205	240	515-690	45	35	40	50	140-217	100	60
EFFECTIVE	326 320	344 341	554 551	61 60	52 52	60 60	80.5 80	163 163	262 265 259 264 261 260	112 118 115 117 116 112

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 3.0 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

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 1a; class 3:OK

Manufacturer: PJSC DNIPROSPETSSTAL
 Date: 30.08.14 Manager of quality assurance department - V. Kapaieva
 Signed:

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

Zaporozhye
 Made in Ukraine.

P.O. # 6059

Part# 04 - FM X01 - DEF SCH 3 Desc: static Mixer 4" - Pins
 Part# 03 - FM X01 - DEF SCH 3 Desc: static Mixer 3" - Pins

ANS