



**TMK-ARTROM S.A.**

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 J 28/9/1991; VAT No. RO 1510210/1992  
 Subscribed and Paid Share Capital: 291.587.538,34 lei

**INSPECTION CERTIFICATE - EN 10204: 2004 / 3.1**

<b>No : I 4029</b> <b>Date: 18.05.2016</b>	<b>Manufacturer's mark:</b> 	<b>Customer Order No. : 98</b>	<b>PL: 1538</b>
<b>CUSTOMER: COM GAZ STEEL SA</b>			
<b>Specification:</b> EN 10216-2:13		<b>Dimensions: 28 x 4 x 12 000+100/-0 mm</b> <b>Steel: P265GH TC2</b>	
<b>Description: Seamless steel pipes; marking by painting at one end: manufacturer's mark, standard, steel grade, heat no., lot, mill inspector no. 5, technical control sign, 98</b>			
<b>Heat No. : 44959</b>			
<b>Quantity delivered</b>	<b>Pcs.</b>	<b>Length - m</b>	<b>Weight - Kg</b>
	874	10488	19304

**Ladle Chemical Analysis [%]**

Heat no.	C	Mn	S	P	Si	Ni	Cr	Mo	Cu	Al	Nb	Ti	N	V
44959	0.15	0.64	0.002	0.013	0.19	0.07	0.05	0.02	0.19	0.022	0.001	0.001	0.008	0.003

**Mechanical Properties**

<b>TENSILE TEST ( EN ISO 6892-1 )</b> - at room temperature- <b>Test Specimen / Full section</b>		<b>Rp0,2</b> N/mm <sup>2</sup>	<b>Rm</b> N/mm <sup>2</sup>	<b>A</b> %
Dimension (mm) : 1. 28.00 x 4.05 / 2. 28.00 x 4.00		1. 371	468	38
Section ( mm <sup>2</sup> ) : 1. 238.95 / 2. 235.5				
Length - (Lo) ( mm ) : 1. 90 / 2. 90		2. 364	461	37
Drift expanding test ( EN ISO 8493 )	Flattening test ( EN ISO 8492 )	Charpy V - Notch ( EN ISO 148-1 )		Ring tensile test ( EN ISO 8496 )
OK	OK	-		-
Test Eddy Current Acc. EN ISO 10893-1 : OK UT -Acc EN ISO 10893-10 cls. U2/C: OK Melting process: electric arc furnace, fully killed		Heat treatment: normalised during hot rolling process, temperature between 880°C - 940°C and cooler in still air Grain size ASTM E 112: 9.0		

Visual inspection and dimensional check : OK

The manufacturer of pipes is certified by LRQA in accordance with: ISO 9001:08 (certificate no. 6007159 issued by 2015-08-10, valid until 2018-08-10), ISO 14001:04 (certificate no. 6007157 issued by 2015-08-16, valid until 2018-08-10), OHSAS 18001:07 (certificate no. 6007158 issued by 2015-08-12, valid until 2018-08-10).

“ NO WELD REPAIR ON HEREBY CERTIFIED TUBES “

**QC & LABORATORIES CHIEF**

Dipl. Eng. Silviu Barbulescu



**MILL INSPECTOR**

Eng. Constantin Lupu



**The forgery of this certificate concludes to responsibility mentioned on Romanian Penal Code (art. 290-292).**

THIS IS FOR CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN MANUFACTURED WITH THE ORDERED SPECIFICATION AND THAT INFORMATION IS CORRECT, THEY MEET THE SPECIFICATION'S REQUIREMENTS AND CONTAINED THE RECORDS OF OUR COMPANY.

<b>PJSC INTERPIPE NTRP</b> 21 Stoletova Street 49081 DNIPRO CITY UKRAINE	(A01)	 	<b>INSPECTION CERTIFICATE</b> (A02) 3.1 EN 10204:2004
			No. : 2546NT19 (A03) Page: 1 / 7 Date: 03.08.2019

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(A01) <b>PJSC INTERPIPE NTRP</b>	(A08.1) <b>Vallourec-Order-No.</b> 256061
	(A08.2) <b>Suborder</b>
(A06.1) <b>Consignee</b> S.C. Comtech Co. S.R.L. Str. Constructorului nr. 3 230070 Slatina, Jud. Olt,	(A07.1) <b>Orderer Order-No.</b> A1716 25.06.2019 <b>Project name</b> <b>Project ref.</b>
(B01, B02, B04) <b>Description of the product</b>	Hot finished seamless line pipes EN 10216-2, TC1, October 2013 ASTM A106M, 2019 ASME SA-106M, 2017 ASTM A530M, 2018 ASME SA-530M, 2017 ASME Boiler and pressure vessel code, Section II, Part A, 2017 NACE Standard MR0175 / ISO 15156-2 : 2015, annex A.2.1.2 / NACE Standard MR0103 / ISO 17495-1 : 2016, Paragraph 13.1 AD-2000 - Merkblatt W 4, including chapter 7, February 2013 P265GH TC1, EN 10216-2 Grade B, ASTM A106M - ASME SA-106M Ends plain, square to tube axis, deburred Without outside rust protection Without inside rust protection Tube ends closed by plastic caps
The works operate a Quality Management System according to European Pressure Equipment Directive (PED) 2014/68/EU Annex I Par. 4.3 (Certificate DGR-0036-QS-W 758/2016/MUC issued by TÜV SÜD valid until July 31-2019)	
The manufacturer of pipes is certified in acc. with ISO 9001:2015 Pipes are produced by normalizing rolling method with the temperature range within 880-1000 C with following air cooling Metal is not radioactive. To use has no restrictions. Weld repair is not permitted. Pipes are mercury free. The works operate a Quality Management System according to European Pressure Equipment Directive (PED) 2014/68/EU Annex I Par. 4.3 (Certificate 0090-151-0486 issued by TÜV Thüringen valid until 30.11.2019).	

(A13) Vallourec Item	(A09) <b>Orderer Item</b>	(B14) <b>Item text</b>	(B09) <b>Dimensions</b>	(B10) <b>Single length</b>
25		PURCHASE-NUMBER 0400337311/00250	OD 219 x WT 26 mm OD Tol + 1.6 mm -0.8 mm WT Tol : ± 12.5 %	Limited length from 6000 to 6500 mm Without short length



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(A13) Vallourec Item	(A09) <b>Orderer Item</b>	(B08) Quantity P	(B11) Total length m	(B13) Weight kg
25		8	50.91	6 315

(C71)

**HEAT CHEMICAL ANALYSIS**

(B07.1) Heat	(B15) Process	C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Cu %	Al %
min	-	-	0.1	0.29	-	-	-	-	-	-	0.02
max	-	0.2	0.4	1.35	0.025	0.01	0.3	0.08	0.3	0.3	-
1192665	Electrical(EAF)	0.19	0.19	0.47	0.007	0.006	0.08	0.011	0.11	0.17	0.028

(B07.1) Heat	Ti %	Nb(Cb) %	V %	N %	0010 %	0076 %						
min	-	-	-	-	-	0.02						
max	0.04	0.02	0.02	-	0.7	-						
1192665	0.003	0.002	0.002	0.007	0.371	0.03						

0010 Cu+Cr+Ni+Mo

0076 Al+Ti/2

Heats fully killed

Steel is produced by INTERPIPE STEEL (MP DNEPROSTEEL LLC)#Vinokurova str., 4, Dnipro, Ukraine 49051

(C72)

**PRODUCT CHEMICAL ANALYSIS**

(B07.1) Heat	(C00.1) Test Piece	C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Cu %	Al %
min		-	0.1	0.29	-	-	-	-	-	-	0.02
max		0.2	0.4	1.35	0.025	0.01	0.3	0.08	0.3	0.3	-
1192665	1	0.18	0.19	0.47	0.007	0.005	0.07	0.01	0.1	0.16	0.028



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(C72)

**PRODUCT CHEMICAL ANALYSIS**

(B07.1) Heat	(C00.1) Test Piece	Ti %	Nb(Cb) %	V %	0010 %	0076 %					
min		-	-	-	-	0.02					
max		0.04	0.02	0.02	0.7	-					
1192665	1	0.005	0.001	0.005	0.34	0.031					

0010 Cu+Cr+Ni+Mo

0076 Al+Ti/2

Steel is produced by INTERPIPE STEEL (MP DNEPROSTEEL LLC)#Vinokurova str., 4, Dnipro, Ukraine 49051

(C72)

**PRODUCT CHEMICAL ANALYSIS**

(B07.1) Heat	(C00.1) Test Piece	C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Cu %	Al %
min		-	0.1	0.29	-	-	-	-	-	-	0.02
max		0.2	0.4	1.35	0.025	0.01	0.3	0.08	0.3	0.3	-
1192665	2	0.18	0.19	0.46	0.007	0.006	0.07	0.01	0.1	0.17	0.028
1192665	3	0.18	0.2	0.46	0.007	0.006	0.07	0.01	0.1	0.16	0.028

(B07.1) Heat	(C00.1) Test Piece	Ti %	Nb(Cb) %	V %	0010 %	0076 %					
min		-	-	-	-	0.02					
max		0.04	0.02	0.02	0.7	-					
1192665	2	0.005	0.001	0.005	0.35	0.031					
1192665	3	0.005	0.001	0.005	0.34	0.031					

0010 Cu+Cr+Ni+Mo

0076 Al+Ti/2

Steel is produced by INTERPIPE STEEL (MP DNEPROSTEEL LLC)#Vinokurova str., 4, Dnipro, Ukraine 49051

**TENSILE TEST RESULTS**

Direction	L
Temperature	+20°C

<b>PJSC INTERPIPE NTRP</b> 21 Stoletova Street 49081 DNIPRO CITY UKRAINE	(A01)	 	<b>INSPECTION CERTIFICATE</b> (A02) 3.1 EN 10204:2004
			No. : 2546NT19 (A03) Page: 1 / 7 Date: 03.08.2019

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**TENSILE TEST RESULTS**

(B07.1)	(C00.1)	(C10.2)	(C11)	(C12)	(C13.2)	(C14.1)					
Heat	Test Piece	Dimension	YS	TS	Elong.	Ratio					
		MM / MM2	R <sub>p0,2</sub> MPA	R <sub>m</sub> MPA	Uniform %	R/R <sub>m</sub> -					
min		-	255	415	23	-					
max		-	-	570	-	-					
1192665	1 1416	14x25 350	280.74	457.2	28.8	0.61					

Column Test Piece contains Inspection Lot Number

(C00.1)	Test Piece	Sample HT lot / Inspection Lot
(C10.2)	Dimension	Test piece dimensions Test piece area

**TENSILE TEST RESULTS**

Direction	L
Temperature	+20°C

(B07.1)	(C00.1)	(C10.2)	(C11)	(C12)	(C13.2)	(C14.1)					
Heat	Test Piece	Dimension	YS	TS	Elong.	Ratio					
		MM / MM2	R <sub>10,5</sub> MPA	R <sub>m</sub> MPA	Uniform %	R/R <sub>m</sub> -					
min		-	240	415	-	-					
max		-	-	-	-	-					
1192665	2 1416	12.7x25 317.5	270.9	448.9	31.3	0.6					

Column Test Piece contains Inspection Lot Number

(C00.1)	Test Piece	Sample HT lot / Inspection Lot
(C10.2)	Dimension	Test piece dimensions Test piece area

**IMPACT TEST RESULTS**

<b>PJSC INTERPIPE NTRP</b> 21 Stoletova Street 49081 DNIPRO CITY UKRAINE	(A01)	 	<b>INSPECTION CERTIFICATE</b> (A02) 3.1 EN 10204:2004
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### IMPACT TEST RESULTS

Type	Charpy
Type	KV
Test temperature	0°C
Direction	T

(B07.1) Heat	(C00.1) Test Piece	(C10.2) Dimension	(C42.1) Impact1	(C42.1) Impact2	(C42.1) Impact3	(C43.1) Mean					
		MM / MM2	J	J	J	J					
min		-	27	27	27	27					
max		-	-	-	-	-					
1192665	1 1416	10x10 80	104.8	95.8	85	95.2					

Column Test Piece contains Inspection Lot Number

(C00.1) Test Piece	Sample HT lot / Inspection Lot
(C10.2) Dimension	Test piece dimensions Test piece area

### IMPACT TEST RESULTS

Type	Charpy
Type	KV
Test temperature	0°C
Direction	L

(B07.1) Heat	(C00.1) Test Piece	(C10.2) Dimension	(C42.1) Impact1	(C42.1) Impact2	(C42.1) Impact3	(C43.1) Mean					
		MM / MM2	J	J	J	J					
min		-	40	40	40	40					
max		-	-	-	-	-					
1192665	1 1416	10x10 80	115	85.6	104.2	101.6					

Column Test Piece contains Inspection Lot Number

(C00.1) Test Piece	Sample HT lot / Inspection Lot
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<b>PJSC INTERPIPE NTRP</b> 21 Stoletova Street 49081 DNIPRO CITY UKRAINE	(A01)	 	<b>INSPECTION CERTIFICATE</b> (A02) 3.1 EN 10204:2004
			No. : 2546NT19 (A03) Page: 1 / 7 Date: 03.08.2019

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**IMPACT TEST RESULTS**

(C10.2)	Dimension	Test piece dimensions
		Test piece area

**HARDNESS TEST RESULTS**

Type	HRBW
Test temperature	+20°C

(B07.1)	(C00.1)	(C31.3)	(C31.3)	(C31.3)	(C32.3)						
Heat	Test Piece	Readings	Readings	Readings	Value						
min		-	-	-	-						
max		100	100	100	100						
1192665	1 1416	78	76.5	76	76.83						

Column Test Piece contains Inspection Lot Number
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(C00.1)	Test Piece	Sample
		HT lot / Inspection Lot

(C50)

**TECHNOLOGICAL AND OTHER TESTS ON SPECIMENS**

Test	Conditions	Test rate	Result
Bending	According to standard	100%	Satisfactory
Flattening test	According to standard	100%	Satisfactory


(D55)

**OTHER TESTS ON PIPE**

Test	Conditions	Test rate	Result
Hydrostatic test	19MPa/5sec	100%	Satisfactory
Appearance & Dimensions		100%	Satisfactory
Positive Material Identification		100%	Satisfactory

(A04, B06)

**MARKING, IDENTIFICATION**

Continuously paint stenciled	 <b>VALLOUREC</b>	{Vallourec Logo VALLOUREC} INTERPIPE NTRP ASTM A106/A106M/EN 10216-2 219,1 25,0 B/P265GH TC1 {HEAT} 19,0MPA {Length of the pipe in meters up to two decimal places} {Pipe weight in kilo} NPS 8 {inspector mark} PO#256061,25 S.C. Comtech Co. S.R.L. SO#A1716 Pipe number}
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(Z01)
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<b>PJSC INTERPIPE NTRP</b> 21 Stoletova Street 49081 DNIPRO CITY UKRAINE	 	<b>INSPECTION CERTIFICATE</b> 3.1 EN 10204:2004  No. : 2546NT19 Page: 1 / 7 Date: 03.08.2019
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The supplied products are in compliance with the requirements of the order

(A05, Z02, Z03, Z05)

Date	03.08.2019	
Validated by	Inspection Representative	Vallourec Representative
	Elena Popko 	Aleksandr ROMASHCHENKO 
	+380562 35 81 31	+38 056-663-02-50
		
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Stamp		

Indication in parentheses correspond to attributes according to EN 10168

This testimonial and certification respectively may neither be modified nor used for other products. Offences are regarded as falsification of documents and will be subject to criminal prosecution.



<b>PJSC INTERPIPE NTRP</b> PJSC INTERPIPE NTRP 21 Stoletova Street 49081 Dnipro City		<b>TUBE/ PIPE LIST</b>
		No. : 2546NT19 Page : 1 / 1 Date : 03.08.2019

<b>Customer</b> S.C. Comtech Co. S.R.L. Str. Constructorului nr. 3 230070 Slatina, Jud. Olt, <b>Orderer Order-No.</b> A1716 <b>Item</b>				<b>Vallourec-Order-No.</b> 256061 <b>Item</b> 25 <b>Suborder</b>			
Tally-No	Bundle	Heat	Insp. Lot	Total Length	Pieces	Actual Gross Weight	Actual Net Weight
				m		kg	kg
0001	19-VR7-10303	1192665	1416	19.050	3.000	2355	2350
0002	19-VR7-10304	1192665	1416	19.150	3.000	2410	2405
0003	19-VR7-10305	1192665	1416	12.710	2.000	1565	1560
<b>Summary</b>				50.910	8.000	6330	6315