



195 Museum Road  
Washington, PA 15301

Phone 724.228.1000  
Fax 724.229.4195

**PRODUCT CERTIFICATION**

WORK ORDER  
**041624**

SALES ORDER / RLS  
**030437 / 1**

SOLD TO

2987

Carpenter c/o Trinon Titanium  
Rue Edouard Belin 11  
Mont-Saint-Guibert, 1435  
Belgium

Quality System is registered  
to ISO 9001:2000 and AS9100:2001

CUSTOMER P.O. <b>Bestel.15.02.10</b>	CUSTOMER PART	QUANTITY <b>1,142 lbs</b>	COILS/TAGS <b>4</b>	LADING NO <b>00041872</b>	SHIPMENT DATE <b>04/20/2010</b>					
PART INFORMATION: <b>121DD2DRH02362</b> <b>TI 6AL 4V ELI CG Bar - 6,0 mm (0.2362") Dia.</b> Specifications: <b>DIN 17851 - 3.7165.1 Rev: ; ASTM F 136 Rev: 08e1; ASTM B 348 Gr23 Rev: 09; EN 10204 3.1 Rev: 04</b> Size: <b>6,0 mm (0.2362") Dia. h9 (+0" / -0.0011")</b> Length: <b>3,0 m (118.1") +/- 150 mm (+/- 5.9")</b> Option to ship max 10% shorts down to 1,8m (6') min.										
<b>Chemical Report (Wt.%)</b>										
Heat <b>8-11-05683</b>	Al <b>6.10</b>	V <b>3.99</b>	C <b>.024</b>	Fe <b>.22</b>	O <b>.12</b>	N <b>.004</b>	Y <b>&lt;.001</b>	Ot E <b>&lt;.05</b>	TOE <b>&lt;.20</b>	Ti <b>BAL</b>
<b>Hydrogen (As Shipped)</b>										
Hydrogen (%) <b>0.0030</b>										
<b>As Shipped Properties</b>										
UTS #1 (Mpa) <b>1043</b>	YS 0.2% #1 (Mpa) <b>917</b>	EL #1 (%) <b>18</b>	RA #1 (%) <b>45</b>							
Hardness (HRC) <b>33</b>										
<b>Metallography Results</b>										
Microstructure <b>Alpha-Beta</b> TEST <b>Alpha Case</b>										
RESULT <b>Material free of alpha-case</b>										



**DYNAMET**  
A Carpenter Company

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**Material Data**

Melt Origin	Bt Tr °F
Russia	1797
Melt Source	Bt Tr °C
VSMPO	981

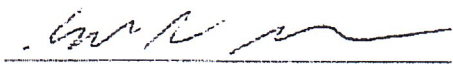
**CERTIFICATION REQUIREMENTS**

**Material Condition: Annealed 704°C 2 Hours A/C**

End of Certification

This is to certify that the above test results are correct as contained in the records of the company.

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Scott R. Gallagher  
Authorized Quality Release Agent