

MANUFACTURING SOLUTIONS. ABSOLUTE INTEGRITY. EMPLOYEE OWNED.



Finally...

**you can stop compromising
on fracture toughness values!**

PUC-7XT™ Tungsten Carbide
Designed for Subsea Choke Valves

**The first commercially available tungsten carbide grade
purpose-designed to meet the requirements of**

Equinor®, IOGP® JIP33®, and NORSOK®*

Transverse rupture strength exceeding 550,000 PSI

Typical Palmqvist fracture toughness exceeding 10 MNm^{-3/2}

Corrosion-resistant chemistry

*Equinor® ZH401 Rev. B, JIP33® S-563 Rev. 01, NORSOK® M-630 2020 Revision

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PUC-7XT™

TUNGSTEN CARBIDE FOR SUBSEA CHOKE VALVE TRIM

Standard Grade Specifications:

Grade:		PUC 7XT (HIP)
Binder:		7% Co Nominal alloyed with Ni + Cr ₃ C ₂
Density:	ASTM B311	14.51-14.85 g/cm ³
Hardness:	ISO 3878	1600 HV30 min.
Palmqvist Fracture Toughness:	ISO 28079	9.50 MNm ^{-3/2} (MPam ^{1/2}) min.
Transverse Rupture:	ASTM B406	550,000 psi min.
Compressive Strength:	ASTM E9	800,000 psi approx.
Erosion Rate:	ASTM G76	.0003 mm ³ /g approx.
Porosity:	ASTM B276	A:02 max. B:00 max. C:00 max.
Average Grain Size:	ASTM B390	0.5 μm

PURPOSE-DESIGNED TO MEET THE REQUIREMENTS OF
Equinor®, IOGP®, JIP33®, and NORSOK®*



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