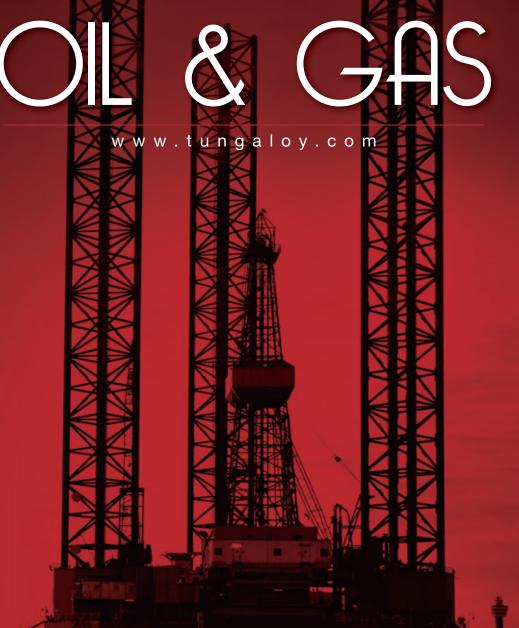


providing solutions for each industry.



### INDUSTRY SOLUTIONS



# Tungaloy's tooling solutions for Oil & Gas Industry

The Oil & Gas industry is usually divided into three main segments: upstream, midstream and downstream. Deep water operations particularly are among the most important and challenging exploration and production frontiers today, the success of which offers a unique opportunity for adding significantly to the world's proven oil reserves.

Going deeper and deeper into the sea means unprecedented technological challenges. The equipment involved in this challenging environment must be carefully designed using state-of-the-art technology and advanced engineering. There is also growing demand for machining exotic materials and expensive materials in the Oil & Gas industry. In order to meet these challenges and maintain economical productivity at the same time, TUNGALOY has developed advanced, innovative cutting tools and guarantees technical and logistic support to each customer through a strong global network.

**Tungaloy** is committed to creating solutions for a better greener environment.



### Pipes Rock Bits Pressure Valves





### Turning

Ultimate chipbreaker for taper turning. Superior chip evacuation for medium to heavy duty cuts and/or varying depths of cut.



### Tooling

Quick-changeable, polygon shank coupling. Highly productive tooling system to drastically reduce tool change time.



### **Turning & Threading**

Coolant pressure of up to 20 MPa propels from the holder in two directions to break the chip and improve chip control and tool life, enabling increased cutting parameters to be applied.



# Pipes for Tubing & Drill

### **PIPE SOLUTIONS**



### Threading

Tungaloy provides popular international standards like API, ANSI/ASME, and GOST; as well as inserts for **Premium Connections**. TungThread ensures superb hydraulic sealing in today's oil and gas components.



Wide range of threading tools for your target solution



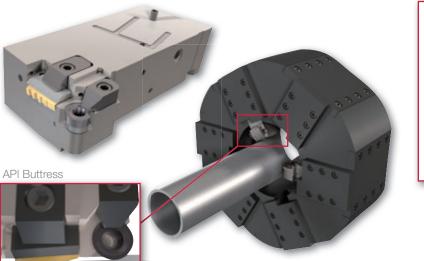
### **Turning & Threading**

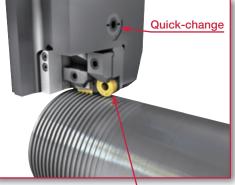
Tungaloy's competence in tailored tooling for the oil and gas industry is to produce special cartridge systems with various thread configurations for the center-drive lathe.



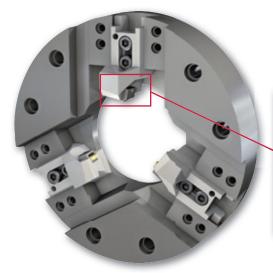
### Quick-change system

Tungaloy's original clamping system ensures rigid clamping, high index repeatability, and easy operation for improved tool change time and productivity.









API Round







### **Groove**Line **PARTING-OFF SOLUTIONS**

Tungaloy is capable of providing tailored tooling solutions in any given environment. Building a rigid clamp system for the center-drive lathe is one of the competences Tungaloy has to offer to efficiently part-off large diameter tubes.

# Couplings

### **PIPE SOLUTIONS**



### Threading

TungThread with exchangeable head incorporates common international standards like API, ANSI/ASME, and GOST; as well as inserts for Premium Connections. The head can be replaced without removing the shank from the machine turret, minimizing tool change time. Varieties of thread applications are available including robust Tung T-Clamp, laydown, tangential, and chaser to address various needs from the oil and gas industry.





Tung T-Clamp

6

Laydown



On edge

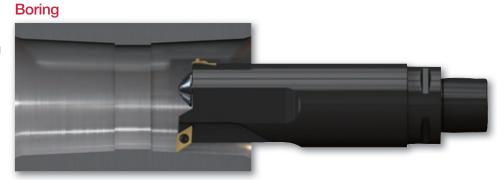
**Tungaloy** - Industry Solutions



### TurnLine TAILOREDTOOL

### **Turning & Threading**

A tailored tool for ISO turning and threading combination improves tool change time and economy. TungCap interface further increases productivity and cycle time.



### Threading





### Tooling

A tailored combination tool with TungCap interface improves machine downtime for precise indexing when changing tools for a variety of coupling diameters.

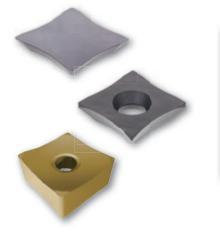


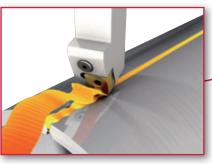




### **External scarfing**

Tungaloy provides a wide range of inserts for external scarfing.





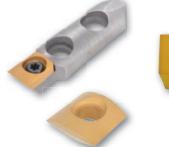
# Welded **Pipes**

### **PIPE SOLUTIONS**



### Internal scarfing

Tungaloy offers scarfing rings and tangential inserts for internal scarfing.













### 

### Drilling

Tungaloy's exchangeable head drills enhance tool life for maximum productivity. The Optimized insert geometry and robust drill body have technical advantages to machine components even in extreme environments.



### TurnLine TUNGTHREAD Threading

Tungaloy provides threading solutions for a variety of connections like API rotary shoulder connection. TungThread ensures superb hydraulic sealing in today's oil and gas components.

# Drill Head ROCK BITS SOLUTIONS

### MillLine



### Milling

Replaceable head endmills are an ideal solution for finishing drill bit seats due to its outstanding tool economy. TungMeister is engineered to deliver quality performance and longer tool life to component manufacturers for the oil and gas industry.







### Drilling

Available with an easy-to-mount chamfering adaptor, DrillMeister is capable of machining a hole and chamfer in one operation. Optimized drill head geometry and robust drill body provide technical advantages for manufacturers of components dedicated for use in an extreme environment.

### Drilline TUNGSIX-DRILL Drilling

The first indexable drill in the market that uses doublesided inserts with six cutting edges to improve tool economy and productivity.





Chamfering adaptor

# Valves & Frac Pumps

### **VALVE SOLUTIONS**



### Milling

The ultimate high-feed mill with versatility, endorsed by Tungaloy's longtime dedication in high-feed milling technology. The ideal tool and method for machining large components with long-reach tools like valves and housings.





### **Face Milling**

Unique dovetail clamping structure and a triple advantage of using square, octagonal, and round inserts in the same pocket.







### **Shoulder Milling**

Long-flute milling cutter for roughing generates small chips to minimize chattering.



### MillLine TUNGTHREAD

### **Thread Milling**

Indexable type thread mills with various types of thread profiles available to fit the same holder. Thread types are available in ISO-metric, Unified, and more. TungThread provides a flexible and capable approach for high-quality threaded holes on components that function deep underwater as well as at well heads and rigs.

### **Slot Milling**

The triangular insert creates chips with a constant curl, enabling smooth chip control and reduced cutting forces. A built-in wiper on the insert improves surface finish for accurate slot milling required on frac pump equipment.









## **External** Threading

Но	lder	Ins	sert
Laydown single side	CER_16		16ER_
	CER_22		22ER_
1 C	CER_27		27ER_
Laydown single side	MTVNR_53		L53_EXT
Laydown double side	MTVNR_54		LDS_54
On edge	STVOR_	- 0	TNMC_
On edge	MTVOR_	9	TNMA_
Chaser	CLVOR_	3	CR_E
Tung T-clamp	FL(A)SR_M3		FLT_

### Internal Threading

Holder			Insert		
Laydown single side	CNR	_16		16IR_	
No. of Concession, Name	CNR_22 CNR_27			22IR_	
				27IR_	
	Head	Shank	Ins	ert	
Laydown single side	HS_LNFR_53	S_570		L53_INT	
Laydown double side	HS_LNFR_54API	S_570		LDS_54	
On edge	HS_MTHOR	S_570_	0	TNMC_INT	
Ho Chaser	lder		Ins	ert	
Constant and the second s	SI_CLHOR_		3	CR_I	
	Head	Shank	Ins	ert	
Tung T-clamp	HS_FLER3W	S-570_		FLT_	





# Scarfing

### External



Description	Tube Diameter	Thickness	Cutting edge length	R-Radius
SPUB-63B-E	up to 7/8"	3/16"	3/4"	0.475
SPUB-63C-E	7/8" - 1-1/8"	3/16"	3/4"	0.590
SPUB-63D-E	1-1/8" - 1-1/2"	3/16"	3/4"	0.785
SPUB-63E-E	1-1/2" - 1-7/8"	3/16"	3/4"	0.985
SPUB-63F-E	1-7/8" - 2-1/4"	3/16"	3/4"	1.180
SPUB-63G-E	2-1/4" - 3-1/8"	3/16"	3/4"	1.575
SPUB-63H-E	3-1/8" - 3-7/8"	3/16"	3/4"	1.970
SPUB-63I-E	3-7/8" - 4-7/8"	3/16"	3/4"	2.470
SPUB-63J-E	4-7/8" - 5-7/8"	3/16"	3/4"	2.970
SPUB-63K-E	5-7/8" - 6-7/8"	3/16"	3/4"	3.470
SPUB-63L-E	6-7/8" - 7-7/8"	3/16"	3/4"	3.970
SPUB-63M-E	7-7/8" and up 3/16"	3/16"	3/4"	None
SPUB-63B-30-E	-	3/16"	3/4"	None

External					
	Description	Tube Diameter	Thickness	Cutting edge length	R-Radius
the second s	SQ86-14-0-E	-	3/8"	1.000	0.000
	SQ86-14-2.5-E	3" - 4-3/4"	3/8"	1.000	2.500
Contraction of the local division of the loc	SQ86-10-3.4-E	4-3/4" - 6-3/4"	3/8"	1.000	3.400
	SQ86-14-4.5-E	6-3/4" - 8-3/4"	3/8"	1.000	4.500
	SQ86-10-9.5-E	8-3/4" - 18"	3/8"	1.000	9.500

### Internal

Intornal					
	Description	Tube Diameter	Thickness	Cutting edge length	R-Radius
	SQ86-14-0-I	-	3/8"	1.000	0.750
	SQ86-14-2.5-I	3" - 4-3/4"	3/8"	1.000	1.000
	SQ86-10-3.4-I	4-3/4" - 6-3/4"	3/8"	1.000	1.250

### Internal



Description	Int'll Tube Diameter
IDR-2010	9/16" - 11/16"
IDR-2020	11/16" - 13/16"
IDR-2030	13/16" - 1-1/32"
IDR-2040	1-1/32" - 1-3/8"
IDR-2050	5/16" - 1-7/16"
IDR-2060	1-1/32" - 1-1/8"
IDR-2070	1-1/8" - 1-3/16"
IDR-2080	1-3/16" - 1-3/8"

Description	Int'll Tube Diameter
IDR-2090	1-14" - 1-5/8"
IDR-2100	1-5/8" - 2"
IDR-2110	1-7/8" - 2-7/8"
IDR-2120	2-3/4" - 3-3/8"
IDR-2130	3-3/8" - 4"
IDR-2140	4" - 5"
IDR-2150	5" - 6-1/4"
IDR-2160	6" - 10-1/4"

# Check our site and our App to get more info!



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**Tung-TV** www.youtube.com/tungaloycorporation







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