

DrillLine

DRILL^{FORCE}**MEISTER**

www.tungaloy.com/us

Tungaloy Report No. 509S2-US



**Expanded lineup with new SMF
flat-edged drill head: $\varnothing 0.787"$ - $1.575"$
($\varnothing 20$ mm – $\varnothing 40$ mm)**



INDUSTRY 4.0
FEED the SPEED!



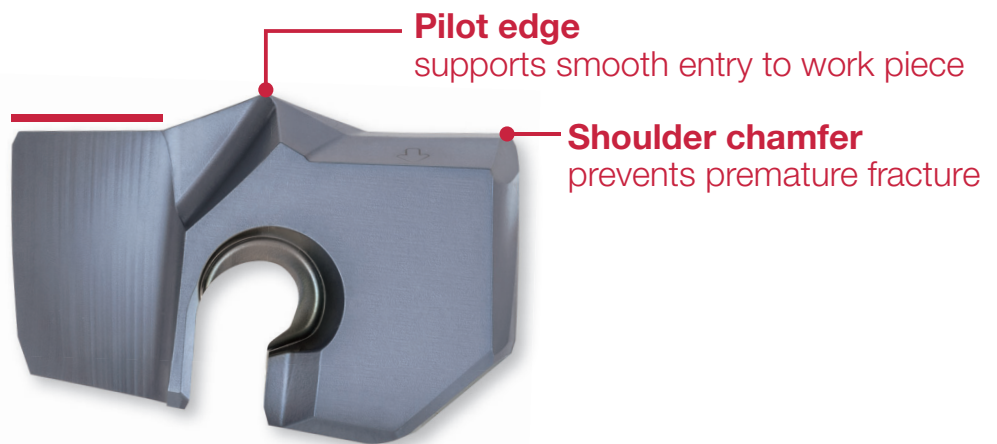
Optimized edge design for efficient drilling of flat-bottom holes

New SMF DrillForceMeister flat-edged drill head

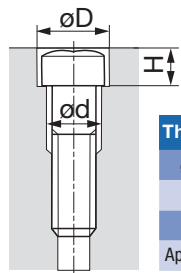
Tungaloy further expands the lineup of SMF flat-edged drill heads. All heads are coated with Tungaloy's top-notch wear resistant PVD grade, AH9130.

The flat-edge drill head is an ideal tool for counterboring bolt and screw heads.

180° flat cutting edges
produces holes with flat bottom. Ideal for counterboring bolt heads.



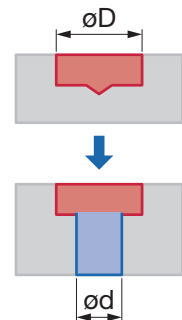
Counterbore dimensions for bolt holes



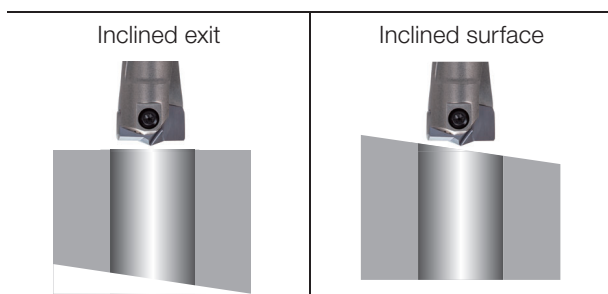
Thread size	M16	M20	M22	M24
øD (mm)	26	32	35	39
H (mm)	17.5	21.5	23.5	25.5
ød (mm)	18	22	24	26
Applicable tool	SMF260	SMF320	SMF350	SMF390

Recommended counterboring method

- 1 Use SMF to make a counterbore for the bolt head.
- 2 Drill a smaller diameter hole for threads.



Typical applications for irregular surfaces



Compared with a 140° drill tip, the SMF head provides greater resistance to radial forces, improving machining stability during the drilling of irregular surfaces or workpieces with low rigidity. In addition, the drill head and holder interface is designed to provide tool reliability during demanding operations.

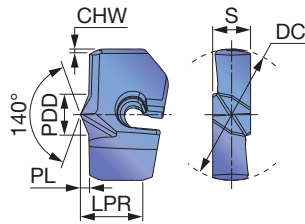
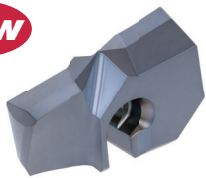


Wide contact area

* Standard DrillForceMeister body can be used

SMF

New



Tool diameter	Head diameter tolerance
ø20 - ø29.9	0 / -0.020
ø30 - ø40	0 / -0.025

P	Steel	★			
M	Stainless	★			
K	Cast iron	★			
N	Non-ferrous	☆			
S	Superalloys	★			
H	Hard materials	★			

★ : First choice
☆ : Second choice

Designation	DC (in)	DC (mm)	S (mm)	Coated			LPR (mm)	PL (mm)	CHW (mm)	PDD (mm)	Pocket size	Body
				AH9130								
SMF200	0.787	20	5.69	●			10.2	2.11	0.3	6	20	TIS200F25-*
SMF205	0.807	20.5	5.69	●			10	2.11	0.3	6	20	TIS200F25-*
SMF210	0.827	21	5.69	●			9.8	2.11	0.3	6	21	TIS210F25-*
SMF215	0.846	21.5	5.69	●			9.6	2.11	0.3	6	21	TIS210F25-*
SMF220	0.866	22	6.19	●			10.9	2.27	0.3	6.6	22	TIS220F25-*
SMF225	0.886	22.5	6.19	●			10.7	2.27	0.3	6.6	22	TIS220F25-*
SMF230	0.906	23	6.19	●			10.5	2.27	0.3	6.6	23	TIS230F25-*
SMF235	0.925	23.5	6.19	●			10.3	2.27	0.3	6.6	23	TIS230F25-*
SMF240	0.945	24	6.69	●			11	2.43	0.3	7.2	24	TIS240F32-*
SMF245	0.965	24.5	6.69	●			10.8	2.43	0.3	7.2	24	TIS240F32-*
SMF250	0.984	25	6.69	●			10.6	2.43	0.3	7.2	25	TIS250F32-*
SMF255	1.004	25.5	6.69	●			10.4	2.43	0.3	7.2	25	TIS250F32-*
SMF260	1.024	26	7.49	●			12.7	2.5	0.3	7.8	26	TIS260F32-*
SMF265	1.043	26.5	7.49	●			12.5	2.5	0.3	7.8	26	TIS260F32-*
SMF270	1.063	27	7.49	●			12.3	2.5	0.3	7.8	27	TIS270F32-*
SMF275	1.083	27.5	7.49	●			12.1	2.5	0.3	7.8	27	TIS270F32-*
SMF280	1.102	28	7.99	●			12.9	2.66	0.3	8.4	28	TIS280F32-*
SMF300	1.181	30	8.49	●			15.1	2.82	0.3	9	30	TIS300F32-*
SMF315	1.240	31.5	8.49	●			14.4	2.82	0.3	9	31	TIS310F32-*
SMF320	1.260	32	8.99	●			15.3	2.98	0.3	9.6	32	TIS320F40-*
SMF325	1.280	32.5	8.99	●			15.1	2.98	0.3	9.6	32	TIS320F40-*
SMF330	1.299	33	8.99	●			14.9	2.98	0.3	9.6	33	TIS330F40-*
SMF340	1.339	34	8.99	●			14.5	2.98	0.3	9.6	34	TIS340F40-*
SMF345	1.358	34.5	8.99	●			14.3	2.98	0.3	9.6	34	TIS340F40-*
SMF350	1.378	35	9.99	●			17.1	3.21	0.3	10.5	35	TIS350F40-*
SMF360	1.417	36	9.99	●			16.7	3.21	0.3	10.5	36	TIS360F40-*
SMF390	1.535	39	10.49	●			17	3.44	0.3	11.4	39	TIS390F40-*
SMF400	1.575	40	10.49	●			16.6	3.44	0.3	11.4	40	TIS400F40-*

● : New product

STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Cutting speed Vc (sfm)	Feed: f (ipr)		
			ø0.787 - ø1.177	ø1.181 - ø1.413	ø1.417 - ø1.575
P	Low carbon steel 1015, 1020 etc.	262 - 459	0.008 - 0.020	0.008 - 0.02	0.008 - 0.022
	Carbon steel and alloy steel 1055, 4140, etc.	262 - 427	0.008 - 0.020	0.008 - 0.02	0.008 - 0.022
	Prehardend steel NAK80, PX5, etc.	164 - 328	0.008 - 0.020	0.008 - 0.02	0.008 - 0.022
M	Stainless steel 304SS, 316SS, etc.	131 - 230	0.006 - 0.010	0.008 - 0.012	0.008 - 0.014
K	Gray cast iron Class 25, Class 30, etc.	262 - 591	0.010 - 0.022	0.01 - 0.022	0.012 - 0.024
	Ductile cast iron 60-4018, 80-55-06, etc.	262 - 459	0.010 - 0.022	0.01 - 0.022	0.012 - 0.024
N	Non ferrous materials	328 - 656	0.016 - 0.024	0.016 - 0.024	0.020 - 0.028
S	Heat-resistant alloys Inconel718, etc.	66 - 164	0.004 - 0.008	0.004 - 0.008	0.004 - 0.010
	Titanium alloys Ti-6Al-4V, etc.	66 - 164	0.004 - 0.008	0.004 - 0.008	0.004 - 0.010
H	Hardened materials	66 - 197	0.004 - 0.008	0.004 - 0.008	0.004 - 0.010

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To see this product in action visit:

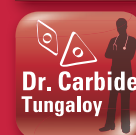
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