TECHNICAL DATA

High Performance Thread Mills

Vega Standard Thread Mill Recommended Cutting Data (SFM/FPT*)

Effective Cut Diameter		Steel			Stainless Steel			Cast Iron		
		<15Rc	15-30Rc	>30Rc	<20Rc	20-30Rc	>30Rc	Grey Cast Iron	Ductile Iron	Chilled Iron
0.160 - 0.246	SFM	450	325	175	290	225	145	425	350	80
	FPT	0.0010	0.0009	0.0008	0.0009	0.0008	0.0007	0.0012	0.0009	0.0005
0.280 - 0.371	SFM	450	325	175	290	225	145	425	350	80
	FPT	0.0014	0.0013	0.0011	0.0013	0.0011	0.0011	0.0015	0.0013	0.0008
0.444 - 0.468	SFM	450	325	175	290	225	145	425	350	80
	FPT	0.0011	0.0010	0.0008	0.0010	0.0009	0.0008	0.0012	0.0010	0.0006
0.567 - 0.621	SFM	450	325	175	290	225	145	425	350	80
	FPT	0.0012	0.0011	0.0009	0.0010	0.0009	0.0008	0.0012	0.0011	0.0006
0..700 - 0.745	SFM	450	325	175	290	225	145	425	350	80
	FPT	0.0013	0.0012	0.0010	0.0011	0.0010	0.0009	0.0014	0.0012	0.0006
0.990	SFM	450	325	175	290	225	145	425	350	80
	FPT	0.0017	0.0016	0.0014	0.0015	0.0013	0.0012	0.0018	0.0016	0.0009

Effective Cut Diameter		Non Ferrous			Hi Temp Alloys		
		Aluminum	Brass/ Bronze	Copper Alloys	Titanium Alloys	Nickel Alloys	Cobalt Alloys
0.160 - 0.246	SFM	1500	1500	800	115	80	60
	FPT	0.0013	0.0013	0.0010	0.0005	0.0005	0.0005
0.280 - 0.371	SFM	1500	1500	800	115	80	60
	FPT	0.0018	0.0018	0.0015	0.0008	0.0007	0.0007
0.444 - 0.468	SFM	1500	1500	800	115	80	60
	FPT	0.0014	0.0014	0.0011	0.0006	0.0005	0.0005
0.567 - 0.621	SFM	1500	1500	800	115	80	60
	FPT	0.0014	0.0014	0.0011	0.0006	0.0006	0.0006
0.700 - 0.745	SFM	1500	1500	800	115	80	60
	FPT	0.0015	0.0015	0.0012	0.0007	0.0006	0.0006
0.990	SFM	1500	1500	800	115	80	60
	FPT	0.0020	0.0020	0.0017	0.0009	0.0009	0.0009

* Please note that the Feed Per Tooth (FPT) is determined at the tool center. Please calculate table feed accordingly.

Vega High Performance Thread Mill Application Tips

Holding the Tools

Whenever possible, utilize a milling chuck in conjunction with the thread mill for optimal performance and minimal tool deflection. If a milling chuck is not available, a weldon style endmill holder is acceptable. Collet chucks are not recommended due to the potential for tool deflection.

Cutting Straight Threads

Using the proper tool holder will have a major impact on the straightness of your threads. Reducing your effective feed per tooth will also have an impact on the straightness of your threads.

Troubleshooting

Problem:	**Solution:**
Premature Tool Wear	Decrease cutting speed or increase effective feed per tooth
Tool Chipping	Decrease effective feed per tooth
	Check for proper holder and holder runout
	Increase coolant pressure to flush chips
Undersize or Tapered Threads	Increase cutting speed or decrease effective feed per tooth
	Use Milling Chuck for tool holder
Tool Chattering	Decrease cutting speed and/or increase effective feed per tooth
	Use Milling Chuck for tool holder
	Reduce radial depth to 50% per pass

