

Spiral Mill-Thread



Advantages of Spiral Mill-Thread Tools

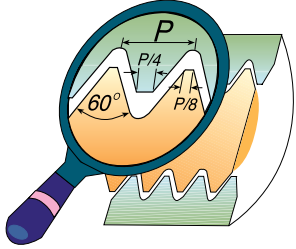
- The spiral designed tools enable a smooth cutting operation at a high feed rate and reduced machining time.
- The tools suit a wide range of applications, from machining small components in small machining centers to heavy-duty applications in high power milling machines.
- Spiral fluted toolholders hold 2 to 9 inserts in a comparatively small cutting diameter.
- The unique clamping method enables optimal indexability.
- Spiral tools reduce vibration and chatter.
- High grade finish is achieved in all applications: threading, end milling roughing and finishing.
- Inserts are available in MT7 Sub-Micron Grade with Titanium Aluminum Nitride multi-layer coating (ISO K10 - K20). This is a general purpose grade, which can be used with all materials.

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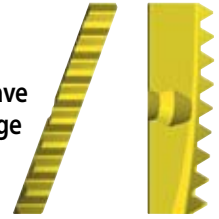
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ISO



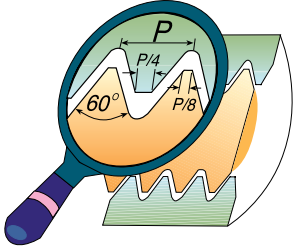
Spiral inserts have one cutting edge



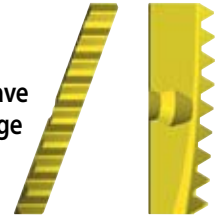
Insert Size	Pitch mm		Ordering code	Thread Size	Toolholder
H23	1.0	Ext.	H23 E 1.0 ISO		SR 091 H23 - 2 SR 091 H23M- 2
	1.0	Int.	H23 I 1.0 ISO	≥ M26	
	1.5	Ext.	H23 E 1.5 ISO		
	1.5	Int.	H23 I 1.5 ISO	≥ M27	
	2.0	Ext.	H23 E 2.0 ISO		
	2.0	Int.	H23 I 2.0 ISO	≥ M28	
	3.0	Ext.	H23 E 3.0 ISO		
	3.0	Int.	H23 I 3.0 ISO	≥ M30	
H32	3.5	Int.	H23 I 3.5 ISO	≥ M30	SR 126 H32 - 5 SR 126 H32P - 5
	4.0	Int.	H23 I 4.0 ISO	≥ M36	
	1.0	Int.	H32 I 1.0 ISO	≥ M34	
	1.5	Ext.	H32 E 1.5 ISO		
	1.5	Int.	H32 I 1.5 ISO	≥ M35	
	2.0	Ext.	H32 E 2.0 ISO		
	2.0	Int.	H32 I 2.0 ISO	≥ M36	
	3.0	Ext.	H32 E 3.0 ISO		
	3.0	Int.	H32 I 3.0 ISO	≥ M38	
	3.5	Int.	H32 I 3.5 ISO		
H45	4.0	Ext.	H32 E 4.0 ISO		SR 177 H45 - 6 SR 177 H45 - 6M
	4.0	Int.	H32 I 4.0 ISO	≥ M40	
	4.5	Int.	H32 I 4.5 ISO	≥ M42	
	5.0	Int.	H32 I 5.0 ISO	≥ M48	
	1.5	Ext.	H45 E 1.5 ISO		
	1.5	Int.	H45 I 1.5 ISO	≥ M50	
	2.0	Ext.	H45 E 2.0 ISO		
	2.0	Int.	H45 I 2.0 ISO	≥ M50	
	3.0	Int.	H45 I 3.0 ISO	≥ M52	
	3.5	Int.	H45 I 3.5 ISO		
H63	4.0	Int.	H45 I 4.0 ISO	≥ M56	SR 248 H63 - 9
	4.5	Int.	H45 I 4.5 ISO		
	5.0	Int.	H45 I 5.0 ISO		
	5.5	Int.	H45 I 5.5 ISO	≥ M56	
	6.0	Int.	H45 I 6.0 ISO	≥ M64	
	1.5	Int.	H63 I 1.5 ISO	≥ M68	
H63	2.0	Int.	H63 I 2.0 ISO	≥ M70	SR 248 H63 - 9
	3.0	Int.	H63 I 3.0 ISO	≥ M70	
	4.0	Int.	H63 I 4.0 ISO	≥ M72	
	6.0	Int.	H63 I 6.0 ISO	≥ M76	

Spiral Mill - Thread Inserts

UN



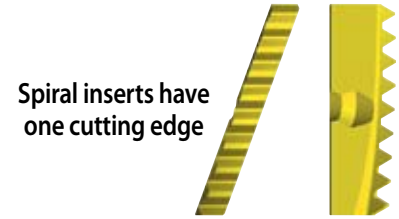
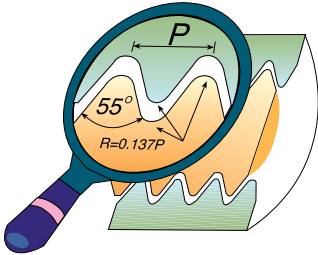
Spiral inserts have one cutting edge



Insert Size	Pitch TPI		Ordering code	Thread Size	Toolholder
H23	32	Int.	H23 I 32 UN	≥ 1"	SR 091 H23 - 2 SR 091 H23M - 2
	24	Int.	H23 I 24 UN	≥ 1"	
	20	Ext.	H23 E 20 UN		
	20	Int.	H23 I 20 UN	≥ 1"	
	18	Ext.	H23 E 18 UN		
	18	Int.	H23 I 18 UN	≥ 11/16"	
	16	Ext.	H23 E 16 UN		
	16	Int.	H23 I 16 UN	≥ 11/16"	
	14	Ext.	H23 E 14 UN		
	14	Int.	H23 I 14 UN	≥ 11/8"	
	12	Ext.	H23 E 12 UN		
	12	Int.	H23 I 12 UN	≥ 11/8"	
	10	Ext.	H23 E 10 UN		
	10	Int.	H23 I 10 UN	≥ 11/8"	
	8	Ext.	H23 E 8 UN		
8	Int.	H23 I 8 UN	≥ 13/16"		
7	Ext.	H23 E 7 UN			
7	Int.	H23 I 7 UN	≥ 11/4"		
H28	12	Int.	H28 I 12 UN	≥ 15/16"	SR 110 H28 - 3
	8	Int.	H28 I 8 UN	≥ 13/8"	
	6	Int.	H28 I 6 UN	≥ 11/2"	
H32	24	Ext.	H32 E 24 UN		SR 126 H32 - 5 SR 126 H32P - 5
	20	Ext.	H32 E 20 UN		
	20	Int.	H32 I 20 UN	≥ 13/8"	
	18	Ext.	H32 E 18 UN		
	18	Int.	H32 I 18 UN	≥ 13/8"	
	16	Ext.	H32 E 16 UN		
	16	Int.	H32 I 16 UN	≥ 13/8"	
	12	Ext.	H32 E 12 UN		
	12	Int.	H32 I 12 UN	≥ 17/16"	
	8	Ext.	H32 E 8 UN		
	8	Int.	H32 I 8 UN	≥ 17/16"	
6	Ext.	H32 E 6 UN			
6	Int.	H32 I 6 UN	≥ 17/16"		
5	Int.	H32 I 5 UN	≥ 17/16"		
H40	6	Int.	H40 I 6 UN	≥ 2"	SR 157 H40 - 4
	4.5	Int.	H40 I 4.5 UN	≥ 2"	
H45	16	Int.	H45 I 16 UN	≥ 2"	SR 177 H45 - 6 SR 177 H45 - 6M
	12	Int.	H45 I 12 UN	≥ 2"	
	8	Int.	H45 I 8 UN	≥ 21/4"	
	6	Int.	H45 I 6 UN	≥ 21/4"	
	4.5	Int.	H45 I 4.5 UN	≥ 21/4"	
4	Int.	H45 I 4 UN	≥ 21/2"		
H63	16	Int.	H63 I 16 UN	≥ 23/4"	SR 248 H63 - 9
	12	Int.	H63 I 12 UN	≥ 23/4"	
	8	Int.	H63 I 8 UN	≥ 3"	
	6	Int.	H63 I 6 UN	≥ 3"	
4	Int.	H63 I 4 UN	≥ 3"		

Whitworth

Same insert for internal and external thread

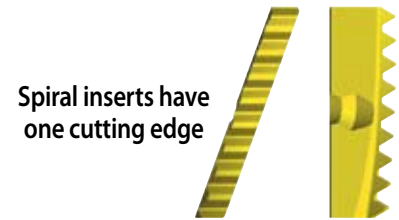
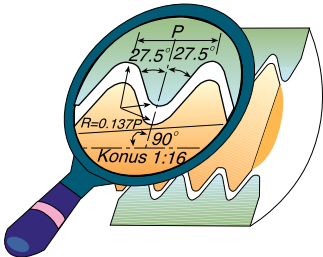


Spiral inserts have one cutting edge

Insert Size	Pitch TPI	Ordering code	Thread Size	Toolholder
H23	14	H23-14 W	Int. G 7/8" Ext. ≥ G 1/2"	SR 091 H23 - 2 SR 091 H23M- 2
	11	H23-11 W	≥ G 1"	
H32	14	H32-14 W	Ext. ≥ G 1/2"	SR 126 H32 - 5 SR 126 H32P - 5
	11	H32-11 W	Int. ≥ G 1 1/8" Ext. ≥ G 1"	
H45	11	H45-11 W	Int. ≥ G 1 5/8" Ext. ≥ G 1"	SR 177 H45 - 6 SR 177 H45 - 6M
H63	11	H63-11 W	Int. ≥ G 2 3/8" Ext. ≥ G 1"	SR 248 H63 - 9

BSPT

Same insert for internal and external thread

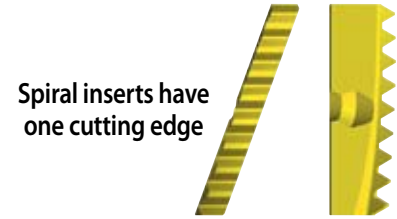
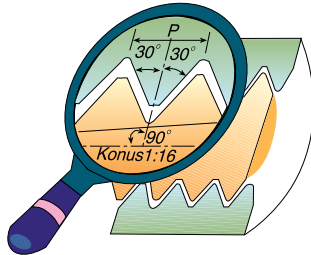


Spiral inserts have one cutting edge

Insert Size	Pitch TPI	Ordering code	Thread Size	Toolholder
H23	11	H23-11 BSPT	≥ 1" BSPT	SR 091 H23 - 2 SR 091 H23M- 2
H32	11	H32-11 BSPT	Int. ≥ 1 1/8" BSPT Ext. ≥ 1" BSPT	SR 126 H32 - 5 SR 126 H32P - 5
H45	11	H45-11 BSPT	Int. ≥ 1 3/4" BSPT Ext. ≥ 1" BSPT	SR 177 H45 - 6 SR 177 H45 - 6M
H63	11	H63-11 BSPT	Int. ≥ 2 1/2" BSPT Ext. ≥ 1" BSPT	SR 248 H63 - 9

NPT

Same insert for internal and external thread

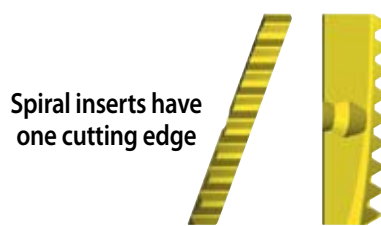
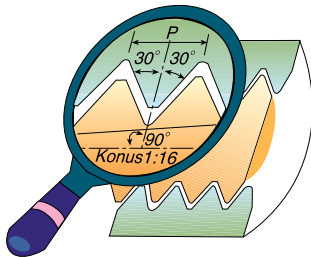


Spiral inserts have one cutting edge

Insert Size	Pitch TPI	Ordering code	Thread Size	Toolholder
H23	11.5	H23-11.5 NPT	1"-2" NPT	SR 091 H23 - 2 SR 091 H23M- 2
H32	11.5	H32-11.5 NPT	Int. 1 1/4"-2" NPT Ext. 1" - 2" NPT	SR 126 H32 - 5 SR 126 H32P - 5
H45	11.5	H45-11.5 NPT	Int. $\geq G 1\frac{5}{8}$ " Ext. $\geq G 1$ "	SR 177 H45 - 6 SR 177 H45 - 6M
	8	H45- 8 NPT	$\geq 2\frac{1}{2}$ " NPT	
H63	11.5	H63-11.5 NPT	Ext. 1-2" NPT	SR 248 H63 - 9
	8	H63- 8 NPT	≥ 3 " NPT	

NPTF

Same insert for internal and external thread

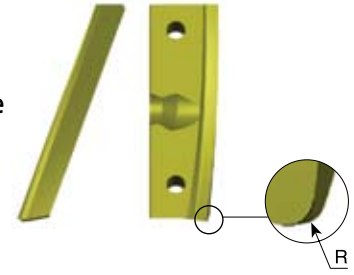


Spiral inserts have one cutting edge

Insert Size	Pitch TPI	Ordering code	Thread Size	Toolholder
H23	11.5	H23-11.5 NPTF	1"-2" NPTF	SR 091 H23 - 2 SR 091 H23M- 2
H32	11.5	H32-11.5 NPTF	Int 1 1/4"-2" NPTF Ext. 1" -2" NPTF	SR 126 H32 - 5 SR 126 H32P - 5

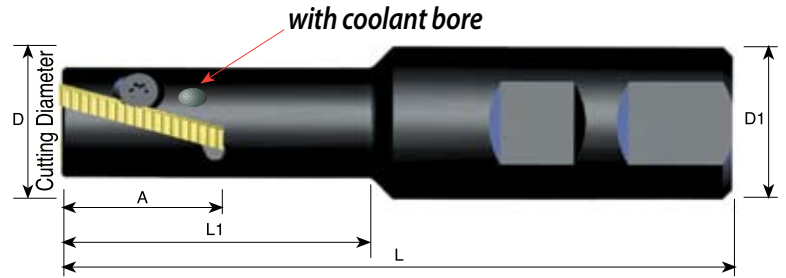
Spiral Finishing Inserts

Spiral inserts have one cutting edge

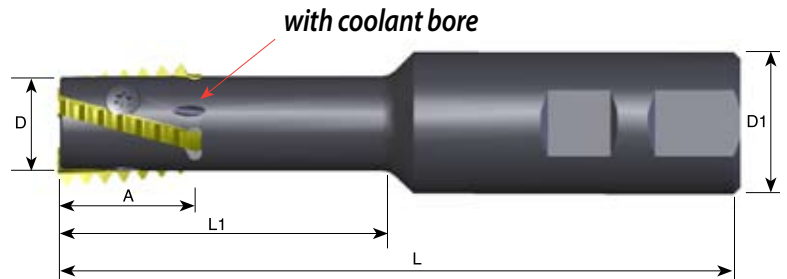


Insert Size	R	Ordering code	Toolholder
H23	0.2	H23 F R 0.2	SR 091 H23 - 2
	0.5	H23 F R 0.5	SR 091 H23M - 2
	1.0	H23 F R 1.0	
H32	0.2	H32 F R 0.2	SR 126 H32 - 5
	0.5	H32 F R 0.5	SR 126 H32P - 5
	1.0	H32 F R 1.0	
H45	0.2	H45 F R 0.2	SR 177 H45 - 6 SR 177 H45 - 6M
	0.5	H45 F R 0.5	
	1.0	H45 F R 1.0	
	1.5	H45 F R 1.5	
	2.0	H45 F R 2.0	
H63	0.2	H63 F R 0.2	SR 248 H63 - 9
	0.5	H63 F R 0.5	
	1.0	H63 F R 1.0	
	1.5	H63 F R 1.5	
	2.0	H63 F R 2.0	

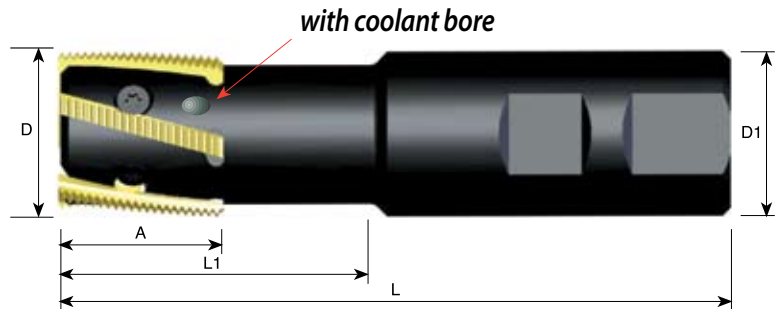
Spiral Mill - Thread Toolholders



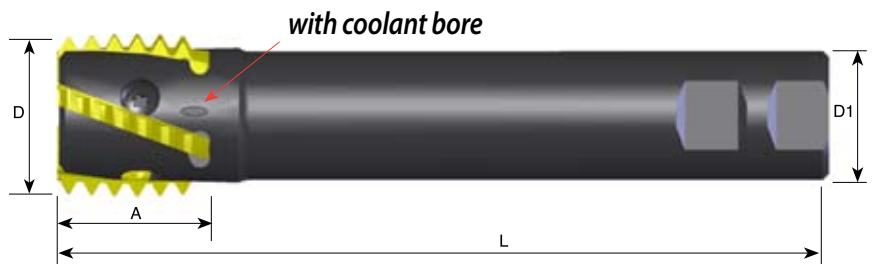
Ordering Code	A	D	D1	L	L1	No. of Inserts	Screw	Key
SR091H23 -2	1.06	0.91	1.0	4.5	2.00	2	S23	K21
SR091H23M-2	1.06	0.91	1.0	6.0	3.07	2	S23	K21



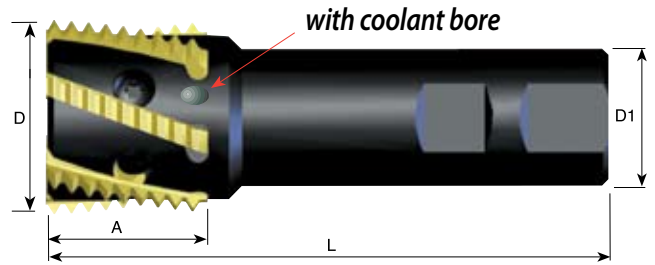
Ordering Code	A	D	D1	L	L1	No. of Inserts	Screw	Key
SR110H28 -3	1.26	1.10	1.25	6.0	3.0	3	S32S	K22



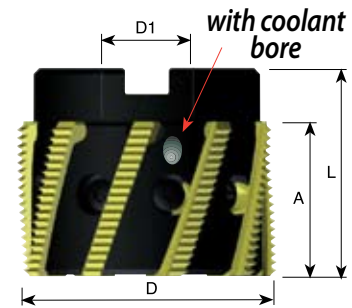
Ordering Code	A	D	D1	L	L1	No. of Inserts	Screw	Key
SR126H32 -5	1.26	1.26	1.25	5.0	2.36	5	S32	K22
SR126H32P-5	1.26	1.26	1.25	7.0	3.58	5	S32	K22



Ordering Code	A	D	D1	L	No. of Inserts	Screw	Key
SR157H40 -4	1.46	1.57	1.25	7.5	4	S45S	K40



Ordering Code	A	D	D1	L	No. of Inserts	Screw	Key
SR177H45 - 6	1.46	1.77	1.25	5.0	6	S45S	K40



Ordering Code	A	D	D1	L	No. of Inserts	Screw	Key
SR177H45 - 6M	1.46	1.77	0.50	1.91	6	S45	K40
SR248H63 - 9	1.5	2.48	0.75	2.00	9	S63	K40

MT7 Inserts are available in MT7 Sub-Micron Grade with Titanium Aluminium Nitride multi-layer coating (ISO K10 - K20). This is a general purpose grade, which can be used with all materials.

Special Tools

In addition to standard products, Carmex manufactures special tools and inserts according to customers' requests. The toolholders are multi-purpose, making them suitable for both roughing and finishing inserts. Special tools are supplied in short delivery times.

