

**S W R 20 20 K 16 (B)**

1

2

3

4



5

6

7

8

### Clamping system

Code	Description
S	Screw clamping 
C	Top clamping 

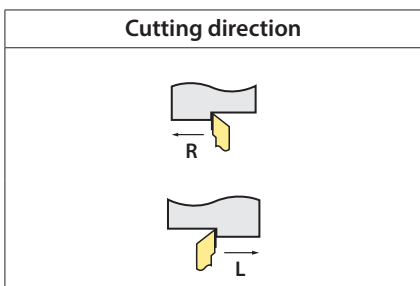
1

### Application

Code	Description
W	External thread tool holder
N	Internal thread tool holder

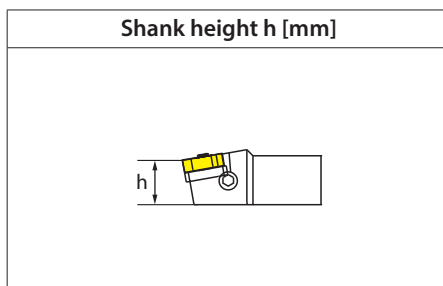
2

### Cutting direction



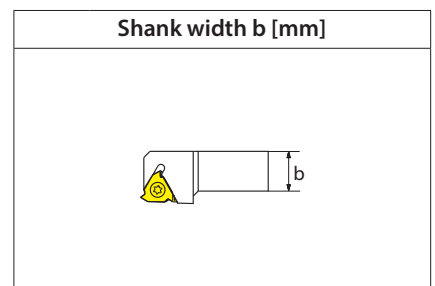
3

### Shank height h [mm]



4

### Shank width b [mm]



5

### Shank length L [mm]

Code	L
H	100
K	125
M	150
P	170
Q	180
R	200
S	250
T	300

6

### Insert size [mm]

Code	Height
11	6,35
16	9,525
22	12,7

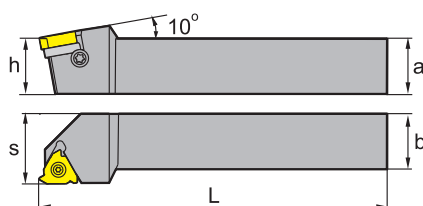
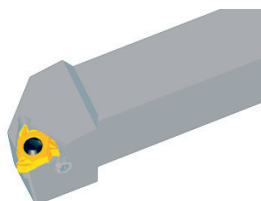
7

Holder for thin thread inserts  
(B type)

8

### Threading tool holder (external)

SWR/L




Article	*	Stock	Dimensions [mm]					Inserts
			a	b	L	h	s	
SWR1616H16		●	16	16	100	16	20	RT16.01W-****
SWR2020K16		●	20	20	125	20	25	RT16.01W-****
SWR2525M16		●	25	25	150	25	32	RT16.01W-****
SWR3225P16		●	32	25	170	32	32	RT16.01W-****
SWR3232P16		●	32	32	170	32	40	RT16.01W-****
SWR2525M22		●	25	25	150	25	32	RT22.01W-****
SWR3225P22		●	32	25	170	32	32	RT22.01W-****
SWR3232P22		●	32	32	170	32	40	RT22.01W-****
SWR4040S22		○	40	40	250	40	50	RT22.01W-****

● Ex stock    ○ On demand

\* With internal cooling

Spare parts			
	Insert	RT16.01W-****	RT22.01W-****
	h	16-32	25-40
	Screw	I60M3.5x12 (2.7 Nm)	I60M5x17 (6.7 Nm)
	Screw (shim)	SM4x8C	SM5x8.5C
	Shim	MT16-__M	MT22-__M
	Wrench (screw)	WT15IP	WT20IP

Insert



Medium Cut  
A413

System code > A438

Grade selection > A411

Technical info > A447

Cutting data > A446



A

Turning

B

Milling

C

Drilling

D

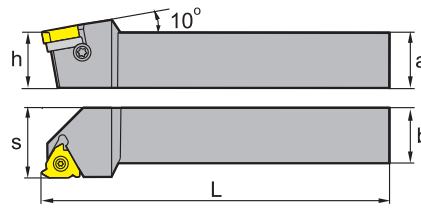
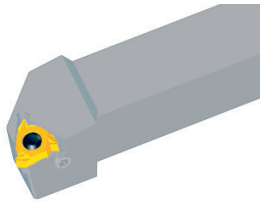
Technical Information

E

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### Threading tool holder (external)

SWR/L



Article	*	Stock	Dimensions [mm]					Inserts
			a	b	L	h	s	
SWL1616H16		●	16	16	100	16	20	LT16.01W-****
SWL2020K16		●	20	20	125	20	25	LT16.01W-****
SWL2525M16		●	25	25	150	25	32	LT16.01W-****
SWL3225P16		●	32	25	170	32	32	LT16.01W-****
SWL3232P16		○	32	32	170	32	40	LT16.01W-****
SWL2525M22		●	25	25	150	25	32	LT22.01W-****
SWL3225P22		○	32	25	170	32	32	LT22.01W-****
SWL3232P22		●	32	32	170	32	40	LT22.01W-****
SWL4040S22		○	40	40	250	40	50	LT22.01W-****

● Ex stock ○ On demand

\* With internal cooling

Spare parts			
	Insert	LT16.01W-****	LT22.01W-****
	h	16-32	25-40
	Screw	I60M3.5x12 (2.7 Nm)	I60M5x17 (6.7 Nm)
	Screw (shim)	SM4x8C	SM5x8.5C
	Shim	MT16-__M	MT22-__M
	Wrench (screw)	WT15IP	WT20IP

Insert
Medium Cut
A413

System code > A438

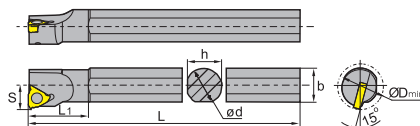
Grade selection > A411

Technical info > A447

Cutting data > A446

### Threading tool holder (internal)

SNR/L



Article	* Stock	Dimensions [mm]								Inserts
		ød	b	L	h	s	L <sub>1</sub>	D <sub>min</sub>		
SNR0016K11	●	16	16	125	15	10	20.9	12	RT11.01N-****	
SNR0016M11	●	16	15.5	150	15	10.5	25.9	16	RT11.01N-****	
SNR0016M16	●	16	15.5	150	15	12	27	20	RT16.01N-****	
SNR0020M16	●	20	19	150	18	14	28.7	25	RT16.01N-****	
SNR0020Q16	●	20	19	180	18	14	34	25	RT16.01N-****	
SNR0025M16	●	25	24	150	23	17	28.8	32	RT16.01N-****	
SNR0032R16	●	32	31	200	30	22	30.9	40	RT16.01N-****	
SNR0032S16	●	32	31	250	30	22	30.9	40	RT16.01N-****	
SNR0040T16	●	40	38.5	300	37	27	31.5	50	RT16.01N-****	
SNR0050U16	○	50	49.5	350	49	35	40.2	63	RT16.01N-****	
SNR0020Q22	●	20	21.5	180	18	15	35	25	RT22.01N-****	
SNR0025R22	●	25	24	200	23	19	39	32	RT22.01N-****	
SNR0032S22	●	32	31	250	30	22	36.4	40	RT22.01N-****	
SNR0040T22	●	40	38.5	300	37	27	37.2	50	RT22.01N-****	
SNR0050U22	●	50	48.5	350	47	35	42.6	63	RT22.01N-****	

● Ex stock    ○ On demand

\* With internal cooling

Spare parts						
	Insert	RT11.01N-****	RT16.01N-****	RT16.01N-****	RT22.01N-****	RT22.01N-****
	ød	16	16	20-50	20	25-50
	Screw	I60M2.5x6.5 (1.0 Nm)	I60M3.5x8 (2.7 Nm)	I60M3.5x12 (2.7 Nm)	I60M5*10 (6.7 Nm)	I60M5x17 (6.7 Nm)
	Screw (shim)			SM4x8C		SM5x8.5C
	Shim			MT16-__M		MT22-__M
	Wrench (screw)	WT07IP	WT15IP	WT15IP	WT20IP	WT20IP

Insert



Medium Cut

A413

System code > A438

Grade selection > A411

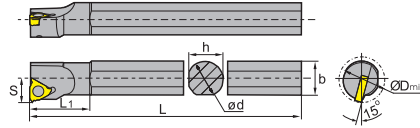
Technical info > A447

Cutting data > A446



### Threading tool holder (internal)

SNR/L




Article	*	Stock	Dimensions [mm]							Inserts
			ød	b	L	h	s	L <sub>1</sub>	D <sub>min</sub>	
SNL0016K11	●	●	16	16	125	15	10	20.9	12	LT11.01N-****
SNL0016M11	●	●	16	15.5	150	15	10.5	25.9	16	LT11.01N-****
SNL0016M16	●	●	16	15.5	150	15	12	27	20	LT16.01N-****
SNL0020M16	○	○	20	19	150	18	14	28.7	25	LT16.01N-****
SNL0020Q16	●	●	20	19	180	18	14	34	25	LT16.01N-****
SNL0025M16	●	●	25	24	150	23	17	28.8	32	LT16.01N-****
SNL0032R16	●	●	32	31	200	30	22	30.9	40	LT16.01N-****
SNL0032S16	○	○	32	31	250	30	22	30.9	40	LT16.01N-****
SNL0040T16	●	●	40	38.5	300	37	27	31.5	50	LT16.01N-****
SNL0050U16	○	○	50	49.5	350	49	35	40.2	63	LT16.01N-****
SNL0020Q22	●	●	20	21.5	180	18	15	35	25	LT22.01N-****
SNL0025R22	○	○	25	24	200	23	19	39	32	LT22.01N-****
SNL0032S22	●	●	32	31	250	30	22	36.4	40	LT22.01N-****
SNL0040T22	●	●	40	38.5	300	37	27	37.2	50	LT22.01N-****
SNL0050U22	●	●	50	48.5	350	47	35	42.6	63	LT22.01N-****

● Ex stock    ○ On demand

\* With internal cooling

Spare parts						
	Insert	LT11.01N-****	LT16.01N-****	LT16.01N-****	LT22.01N-****	LT22.01N-****
	ød	16	16	20-50	20	25-50
	Screw	I60M2.5x6.5 (1.0 Nm)	I60M3.5x8 (2.7 Nm)	I60M3.5x12 (2.7 Nm)	I60M5*10 (6.7 Nm)	I60M5x17 (6.7 Nm)
	Screw (shim)			SM4x8C		SM5x8.5C
	Shim			MT16-__M		MT16-__M
	Wrench (screw)	WT07IP	WT15IP	WT15IP	WT20IP	WT20IP

Insert



**Medium Cut**  
A413

System code > A438

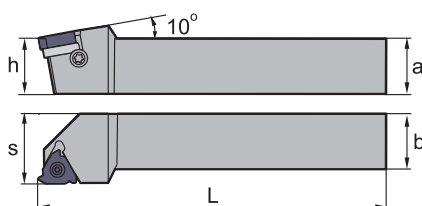
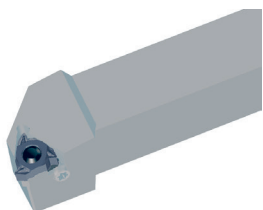
Grade selection > A411

Technical info > A447

Cutting data > A446

### Threading tool holder (external)

#### SWR-B Thin Type



Article	*	Stock	Dimensions [mm]					Inserts
			a	b	L	h	s	
SWR1616H16B		●	16	16	100	16	20	RT16.01W-****B
SWR2020K16B		●	20	20	125	20	25	RT16.01W-****B
SWR2525M16B		●	25	25	150	25	32	RT16.01W-****B
SWR3225P16B		●	32	25	170	32	32	RT16.01W-****B
SWR3232P16B		●	32	32	170	32	40	RT16.01W-****B

● Ex stock    ○ On demand

\* With internal cooling

Spare parts		
	Insert	RT16.01W-****B
	h	16-32
	Screw	I60M3.5x12TT (2.7 Nm)
	Screw (shim)	SM4x8C
	Shim	MT16-__M
	Wrench (screw)	WT15IP

Insert
<b>Medium Cut</b>
A432

System code > A438

Grade selection > A411

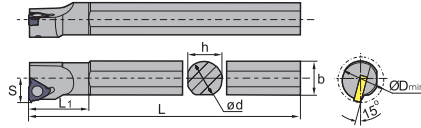
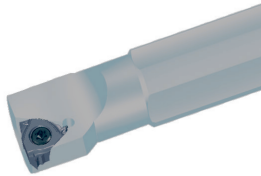
Technical info > A447

Cutting data > A446

A

### Threading tool holder (internal)

SNR-B Thin Type



Turning

B

Article	*	Stock	Dimensions [mm]							Inserts
			ød	b	L	h	s	L <sub>1</sub>	D <sub>min</sub>	
SNR0016M16B	●	16	15.5	150	15	12	27	20	RT16.01W-****B	
SNR0020Q16B	●	20	19	180	18	14	34	25	RT16.01W-****B	
SNR0025M16B	●	25	24	150	23	17	28.8	32	RT16.01W-****B	
SNR0032R16B	●	32	31	200	30	22	30.9	40	RT16.01W-****B	
SNR0032S16B	●	32	31	250	30	22	30.9	40	RT16.01W-****B	

● Ex stock    ○ On demand

\* With internal cooling

Milling

C

Spare parts			
	Insert	RT16.01W-****B	RT16.01W-****B
	ød	16	20-32
	Screw	I60M3.5x08TT (2.7 Nm)	I60M3.5x12TT (2.7 Nm)
	Screw (shim)		SM4x8C
	Shim		MT16-__M
	Wrench (screw)	WT15IP	WT15IP

Drilling

D

Technical Information

E

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System code > A438

Grade selection > A411

Technical info > A447

Cutting data > A446





## Threading inserts

Material group	Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed $v_c$ [m/min]			
					HC			
					YBG202	YBG205		
<b>P</b> Unalloyed steel  Low-alloyed steel  High-alloyed steel and high-alloyed tool steel	approx. 0,15 % C	annealed	125	1	190	190		
		approx. 0,45 % C	annealed	190	2	175	175	
		approx. 0,45 % C	tempered	250	3	145	145	
		approx. 0,75 % C	annealed	270	4	140	140	
	approx. 0,75 % C	tempered	300	5	135	135		
		annealed	180	6	170	170		
		tempered	275	7	125	125		
	High-alloyed steel and high-alloyed tool steel	tempered	300	8	115	115		
		tempered	350	9	105	105		
	<b>M</b> Stainless steel	ferritic/martensitic	annealed	200	12	165	165	
martensitic			240	13	135	135		
austenitic			180	14	155	155		
austenitic-ferritic			230	15	135	135		
Grey cast iron		perlitic/ferritic	180	16	240	240		
		perlitic (martensitic)	260	17	185	185		
Cast iron with spheroidal graphite		ferritic	160	18	220	220		
		perlitic	250	19	165	165		
Malleable cast iron	ferritic	130	20	175	175			
	perlitic	230	21	165	165			
<b>N</b> Aluminium wrought alloys  Cast aluminium alloys  Copper and copper alloys (bronze/brass)	cannot be hardened		60	22	800	800		
	hardenable	hardened	100	23	600	600		
	$\leq 12\% \text{ Si}$ , cannot be hardened			75	24	320	320	
		$\leq 12\% \text{ Si}$ , hardenable	hardened	90	25	240	240	
		$> 12\% \text{ Si}$ , cannot be hardened			130	26	160	160
	Copper and copper alloys (bronze/brass)	machining steel, PB > 1%		110	27	160	160	
		CuZn, CuSnZn		90	28	600	600	
		CuSn, Pb-free copper, electrolytic copper		100	29	200	200	
<b>S</b> Heat-resistant alloys  Titanium alloys	Fe-based alloys	annealed	200	30	95	95		
		hardened	280	31	50	50		
		annealed	250	32	80	80		
		hardened	350	33	70	70		
	Ni or Co bass	cast	320	34	70	70		
		pure titanium	$R_m 400$	35	145	145		
$\alpha$ and $\beta$ alloys	hardened	$R_m 1050$	36	50	50			
<b>H</b> Hardened steel Hard cast iron Hardened cast iron	hardened and tempered		55 HRC	37				
	hardened and tempered		60 HRC	38				
	cast		400	39				
<b>X</b> Non-metallic materials	hardened and tempered		55 HRC	40				
	Thermoplasts			41				
	Thermosetting plastics			42				
	Plastic, glass-fibre reinforced GFRP			43				
	Plastic, carbon fibre reinforced CFRP			44				
	Graphite			45				
Wood			46					

Note: The given cutting values are guide values, which were determined under ideal conditions. The values have to be adapted in individual cases. For examples of material for cutting tool groups view page D22.

HC Coated carbide