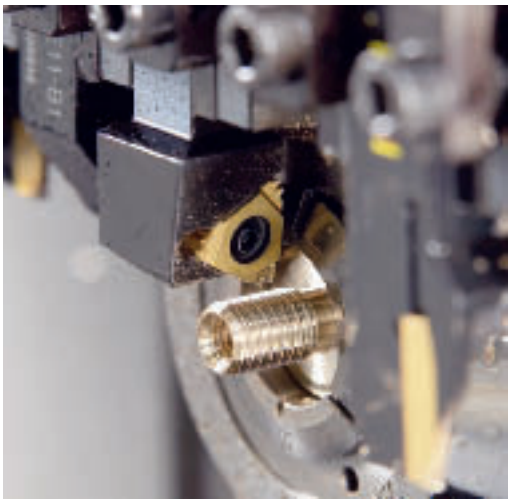
T-Max U-Lock®

Thread turning

Component diameter 12-32 mm

For all types of external threading in sliding head machines

The T-Max U-Lock threading system ensures highly productive threading on almost every component. The three edged insert style programme includes almost every thread profile, including multi-point inserts for fewer passes and three geometries for various materials.



Thread types available

For an extensive range of thread styles and pitches, see main catalogue.

- ISO MM UN
- Whitworth, NPT
- Round DIN 405
- BSPT, NPTF
- MJ, UNJ
- DIN103, ACME, STUB-ACME

Tailor Made

Tool options designed to individual customer requirements are available. For information on our Tailor Made programme see page H4.

Three geometries for mastering all threads

First choice:
All-round geometry for general threading in most materials:

- good chip control
- good edge security
- few passes required
- long conistent tool life

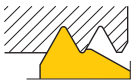
Second choice:
Sharp F geometry for soft materials:

- clean cuts in sticky or work hardening materials
- reduced cutting forces and good surface finishes
- less built-up edge

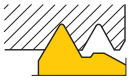
Chip breaking geometry for low carbon and low alloy steels:

- for maximum chip control and minimum supervision
- an optimizer for low carbon and low alloy steel
- to be used with modified flank infeed only

Insert types



Full profile inserts for high productivity



V-profile insert- 60° and 55° profile for minimum tool inventory

Multi-point insert reduces the number of passes for highly productive threading in mass production

Basic grade GC1020

has been specially developed for threading operations in most materials and particularly recommended for use in stainless and low carbon steels. Combined with the sharp F-geometry it is a good choice for Duplex steels, heat resistant and titanium alloys.

Optimizing grade: GC4125

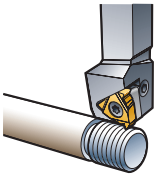
A grade developed for higher cutting speeds and long cutting time.

Complementary grade: H13A

An uncoated grade with extreme edge sharpness.

First choice recommendation

Threading



External threading

Insert:	R166.0G-16MM01-100 1020
Holder:	R166.4FA-1212-16-S
Material	low alloy steel
v_c m/min:	120
a_p mm:	0.67
nap:	5

Shank tools

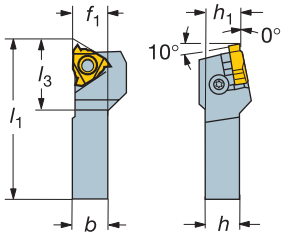
Threading

T-Max U-Lock® screw clamp design

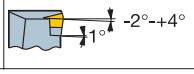
R/L166.4FA

166.0G,
154.0G[1)]

Threading of slender components and against centre

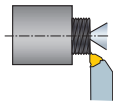


See main catalogue.

△	Angle of inclination with different shims, see main catalogue.
16	

1) When using U-Lock circlip grooving inserts, type R/L 154.0G, a shim giving 0° inclination must be used, see main catalogue.

Right hand style shown

Main application	△	Pitch range mm	Pitch range t.p.i.	Ordering code	Dimensions, mm b	f_1	l_1	h	h_1	l_3	Nm[2)]
	16	0.5-3.0	32-6	**R/L166.4FA-1010-16-S**	10	10	125	10	10	19.8	1.7
				R/L166.4FA-1212-16-S	12	12	125	12	12	21.3	1.7
				R/L166.4FA-1616-16-S	16	16	125	16	16	23.3	1.7

2) Insert tightening torque Nm.

Main spare parts

Insert size

△	Insert screw	Key (Torx Plus)	Inclination angle	Shim screw
16	5513 026-01	5680 051-03 (9IP)	5322 361-22 (-2°)	5512 032-01
			5322 361-21 (-1°)	
			5322 361-10 [1)] (0°)	
			5322 361-11 [2)] (1°)	
			5322 361-12 (2°)	
			5322 361-13 (3°)	
			5322 361-14 (4°)	

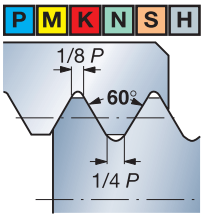
1) Must be used when using U-Lock circlip grooving inserts, type R/L 154.0G.
2) Delivered with the tool

B43

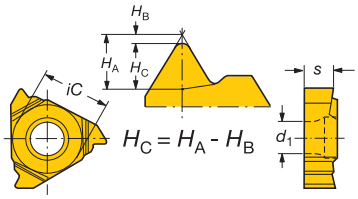
Metric 60° Full form

Threading

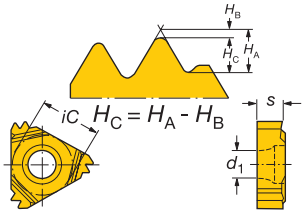
Threads for general usage in all segments of engineering industry.



Single-point



Multi-point



ISO 965-1980 Tolerance class 6

△	mm	*iC*	d_1	*s*
16	0.5-1.25	9.525	4.4	3.97

Style shown: Right hand external

R166.0G/L-16MM0 3-100
|
2 = Two points
3 = Three points

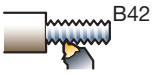
Tailor Made

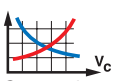
Even more possibilities thanks to tailored design!
See page H4.

△	Pitch, mm	External **Ordering code**	Dimensions, mm H_A	 H_B	GC 1020	GC 4125	- H13A
16	0.50	**R166.0G-16MM01-050**	0.37	0.08	★		
		L166.0G-16MM01-050	0.37	0.08	★		
	0.75	**R166.0G-16MM01-075**	0.56	0.11	★		☆
		L166.0G-16MM01-075	0.56	0.11	★		
	0.80	**R166.0G-16MM01F080**	0.60	0.11	★		
	1.00	**R166.0G-16MM01-100**	0.75	0.15	★	☆	☆
		L166.0G-16MM01-100	0.75	0.15	★		
		R166.0G-16MM03-100	0.75	0.15	★		
		R166.0G-16MM01C100	0.75	0.15	★		
		R166.0G-16MM01F100	0.75	0.15	★		
	1.25	**R166.0G-16MM01-125**	0.93	0.19	★	☆	☆
		L166.0G-16MM01-125	0.93	0.19	★		
		R166.0G-16MM01C125	0.93	0.19	★		
		R166.0G-16MM01F125	0.93	0.19	★		

Note: Inserts in grade H13A have sharp cutting edge without ER-treatment.

R = Right hand, L = Left hand
★= First choice





GC

See main catalogue.