

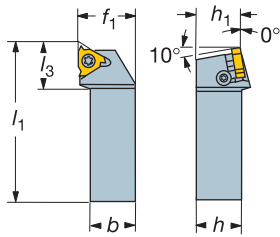
# T-Max U-Lock® shank tools

## Screw clamp design

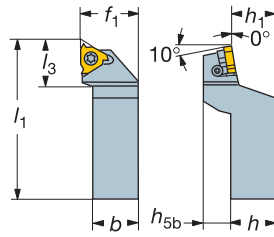


166.0G,  
154.0G<sup>1)</sup>

**R/L166.4FG**  
**R166.0G**



**R/L166.4FGZ**  
For upside down mounting



x and z, see infeed tables on pages C58-27

	Angle of inclination with different shims, see page C58.
<b>16</b>	-2°-+4°
<b>22</b>	0°-+3°

Right hand style shown

Main application		Pitch range		Ordering code	Dimensions, mm							Nm <sup>2)</sup>
		mm	t.p.i.		b	f <sub>1</sub>	l <sub>1</sub>	h	h <sub>1</sub>	h <sub>5b</sub>	l <sub>3</sub>	
	16	0.5-3.0	32-8	R/L166.4FG-1616-16	16	20.0	100	16	16		21.4	1.7
				R/L166.4FG-2020-16	20	25.0	125	20	20		21.6	1.7
				R/L166.4FG-2525-16	25	32.0	150	25	25		22.2	1.7
				R/L166.4FG-3225-16	25	32.0	150	32	32		22.2	1.7
				R/L166.4FG-4040-22	40	50.0	250	40	40		29.0	3.9
	22	3.5-6.0	7-4	R/L166.4FG-2525-22	25	32.0	150	25	25		28.2	3.9
				R/L166.4FG-3232-22	32	40.0	170	32	32		28.4	3.9
				R/L166.4FG-4040-22	40	50.0	250	40	40		29.0	3.9
				R166.0FG-4040-27	40	50.0	250	40	40		34.7	9.5
				R/L166.4FGZ-2525-16	25	32.0	150	25	25	19	22.2	1.7
	16	0.5-3.0	32-8	R/L166.4FGZ-2525-16	25	32.0	170	32	32	21	22.2	1.7
				R/L166.4FGZ-2525-22	25	32.0	150	25	25	19	28.2	3.9
				R/L166.4FGZ-3232-22	32	40.0	170	32	32	21	28.4	3.9

<sup>2)</sup> Insert tightening torque Nm

Ordering example: 2 pieces R166.4FG-1616-16  
2 pieces L166.4FG-1616-16  
R = Right hand, L = Left hand

<sup>1)</sup> When using U-Lock circlip grooving inserts, type R/L 154.0G, a shim giving 0° inclination must be used, see page C58.

## Main spare parts

### Insert size

	Insert screw	Key (Torx Plus)	Shim <sup>3)</sup> Inclination angle +1°	Shim screw	Key (Torx Plus/mm)
<b>16</b>	5513 026-01	5680 051-03 (9IP)	5322 361-11	5612 032-01	5680 051-03 (9IP)
<b>22</b>	5513 026-02	5680 049-02 (15IP)	5322 365-11	5612 032-02	5680 049-02 (15IP)
<b>27</b>	5513 020-14	5580 043-13 (15IP)	5322 383-11	5612 090-08	3921 010-060 (6.0)

<sup>3)</sup> For optional shims, see page C58.



C4



C31



C46



G6



C2

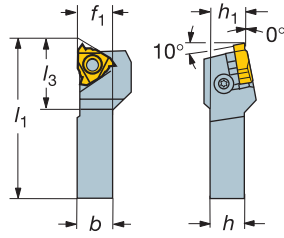
# T-Max U-Lock® shank tools

Tool holders for Swiss machines, Screw clamp design

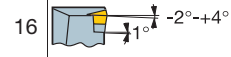
## R/L166.4FA



166.0G,  
154.0G<sup>1)</sup>



Angle of inclination with different shims, see page C58.



Threading of slender components and against centre

x and z, see infeed tables on pages C58.

Right hand style shown

Main application	Pitch range	Dimensions, mm					Nm <sup>2)</sup>		
		b	f <sub>1</sub>	l <sub>1</sub>	h	h <sub>1</sub>		l <sub>3</sub>	
	mm t.p.i.	<b>Ordering code</b>							
	16 0.5-3 32-8	R/L166.4FA-1010-16-S	10	10.0	125	10	10	19.8	1.7
		R/L166.4FA-1212-16-S	12	12.0	125	12	12	21.3	1.7
		R/L166.4FA-1616-16-S	16	16.0	125	16	16	23.3	1.7

<sup>2)</sup> Insert tightening torque Nm

Ordering example: 2 pieces R166.4FA-1010-16-S  
2 pieces L166.4FA-1010-16-S  
R = Right hand, L = Left hand

<sup>1)</sup> When using U-Lock circlip grooving inserts, type R/L 154.0G, a shim giving 0° inclination must be used, see page C58.

## Main spare parts

### Insert size

	Insert screw	Key (Torx Plus)	Shim	Shim screw
16	5513 026-01	5680 051-03 (9IP)	5322 361-11	5512 032-01



# T-Max U-Lock® shank tools

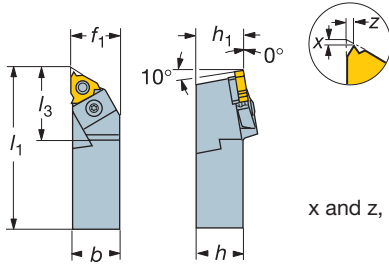
Wedge clamp design

R/L166.5FA



166.0G,  
154.0G<sup>1)</sup>

Threading of slender components and against live centre



x and z, see infeed tables on pages C58.

	Angle of inclination with different shims, see page C58.
<b>16</b>	0°-+4°

Right hand style shown

Main application		Pitch range		Ordering code	Dimensions, mm						Nm <sup>2)</sup>
		mm	t.p.i.		b	f <sub>1</sub>	l <sub>1</sub>	h	h <sub>1</sub>	l <sub>3</sub>	
	16	0.5-3	32-8	R/L166.5FA-1212-16	12	12.5	80	12	12	30.4	1.7
				R/L166.5FA-1616-16	16	16.5	100	16	16	30.4	1.7
				R/L166.5FA-2020-16	20	20.5	125	20	20	30.4	1.7
				R/L166.5FA-2525-16	25	25.5	150	25	25	30.4	1.7

<sup>2)</sup> Insert tightening torque Nm

Ordering example: 2 pieces R166.5FA-1212-16  
2 pieces L166.5FA-1212-16  
R = Right hand, L = Left hand

<sup>1)</sup> When using U-Lock circlip grooving inserts, type R/L 154.0G, a shim giving 0° inclination must be used, see page C58.

## Main spare parts

	Insert size			Shim <sup>3)</sup> Inclination angle +1°	
	Insert screw	Centre pin	Key (Torx Plus)	Right hand	Left hand
<b>16</b>	5431 126-011	5313 033-01	5680 051-03 (9IP)	5322 371-11	5322 372-11

<sup>3)</sup> For optional shims, see page C58.



C4



C32



G6



G6

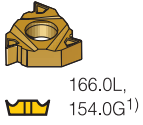


C2

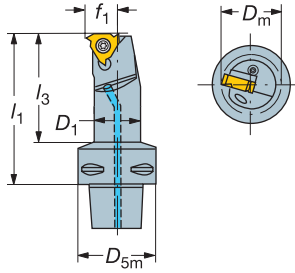
# T-Max U-Lock® Coromant Capto® cutting units

## Screw clamp design

### Steel bar with internal cutting fluid supply



x and z, see infeed tables on pages C58.



11

No shims used.

Bar diameter (D<sub>1</sub>)

Bar diameter (D<sub>1</sub>)

16

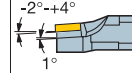
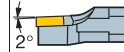
18.5 - 40

22

24.5 - 40

No shims used.

Angle of inclination -2° to +4°. For shims, see page C58.



Right hand style shown

Main application	Pitch range	Dimensions, mm										
		mm	t.p.i.	Ordering code	D <sub>1</sub>	D <sub>m</sub> min	D <sub>m</sub> mod	D <sub>5m</sub>	f <sub>1</sub>	l <sub>1</sub>	l <sub>3</sub>	Nm <sup>2)</sup>
	11	0.5-2	32-14	C3-R/L166.0KF-12050-11	16.0	20		32	12.0	50	33.0	0.9
				C4-R/L166.0KF-12060-11	16.0	20		40	12.0	60	37.0	0.9
	16	0.5-3	32-8	C3-R/L166.4KF-12050-16	15.5	20	15.5	32	12.0	50	33.0	1.7
				C3-R/L166.4KF-14060-16	18.5	25		32	14.0	60	44.0	1.7
				C3-R/L166.4KF-17065-16	24.5	32		32	17.0	65	49.0	1.7
				C3-R/L166.4KF-22085-16	31.5	40		32	22.0	85	70.0	1.7
				C4-R/L166.4KF-12060-16	15.5	20	15.5	40	12.0	60	37.0	1.7
				C4-R/L166.4KF-14060-16	18.5	25		40	14.0	60	38.0	1.7
				C4-R/L166.4KF-17070-16	24.5	32		40	17.0	70	48.0	1.7
				C4-R/L166.4KF-22090-16	32.0	40		40	22.0	90	69.0	1.7
C4-R/L166.4KF-27080-16				39.5	50		40	27.0	80	60.0	1.7	
C5-R/L166.4KF-12060-16				15.5	20	15.5	50	12.0	60	35.0	1.7	
C5-R/L166.4KF-14060-16	18.5	25		50	14.0	60	36.0	1.7				
C5-R/L166.4KF-17070-16	24.5	32		50	17.0	70	47.0	1.7				
C5-R/L166.4KF-22090-16	24.5	40		50	22.0	90	68.0	1.7				
C5-R/L166.4KF-27105-16	40.0	50		50	27.0	105	84.0	1.7				
C6-R/L166.4KF-14070-16	18.5	25		63	14.0	70	42.0	1.7				
C6-R/L166.4KF-17075-16	24.5	32		63	17.0	75	48.0	1.7				
C6-R/L166.4KF-22090-16	32.0	40		63	22.0	90	64.0	1.7				
C6-R/L166.4KF-27105-16	40.0	50		63	27.0	105	80.0	1.7				
22	3.5-6	7-4	C3-R/L166.4KF-15060-22	18.5	25	21.5	32	15.0	60	43.0	3.9	
			C3-R/L166.4KF-19065-22	25.0	32		32	19.0	65	49.0	3.9	
			C3-R/L166.4KF-22085-22	31.5	40		32	22.0	85	70.0	3.9	
			C4-R/L166.4KF-15065-22	18.5	25	21.5	40	15.0	65	42.0	3.9	
			C4-R/L166.4KF-19070-22	25.0	32		50	19.0	70	48.0	3.9	
			C4-R/L166.4KF-22090-22	31.5	40		40	22.0	90	69.0	3.9	
			C4-R/L166.4KF-27080-22	39.5	50		40	27.0	80	60.0	3.9	
			C5-R/L166.4KF-15065-22	18.5	25	21.5	50	15.0	65	41.0	3.9	
			C5-R/L166.4KF-19070-22	25.0	32		50	19.0	70	47.0	2.9	
			C5-R/L166.4KF-22090-22	31.5	40		50	22.0	90	68.0	3.9	
C5-R/L166.4KF-27105-22	40.0	50		50	27.0	105	84.0	3.9				
C6-R/L166.4KF-19075-22	25.0	32		63	19.0	75	48.0	3.9				
C6-R/L166.4KF-22090-22	31.5	40		63	22.0	90	64.0	3.9				
C6-R/L166.4KF-27105-22	40.0	50		63	27.0	105	80.0	3.9				

<sup>2)</sup> Insert tightening torque Nm

Ordering example: 2 pieces C3-R166.0KF-12050-11

<sup>1)</sup> When using U-Lock circlip grooving inserts, type R/L 154.0G, the right hand round shank tool uses a left hand insert and the left hand round shank tool a right hand insert. A shim giving 0° inclination must be used, see page C58.

2 pieces C3-L166.0KF-12050-11

R = Right hand, L = Left hand

### Main spare parts

#### Insert size

	f <sub>1</sub>	Insert screw	Key (Torx Plus)	Shim <sup>3)</sup> Inclination angle +1°	Shim screw	Key (Torx Plus)
11	12	5513 020-03	5680 051-02 (7IP)	-	-	-
16	12	5513 026-05	5680 051-03 (9IP)	-	-	-
	14	5513 026-03	5680 051-03 (9IP)	5322 361-11	5512 032-01	5680 051-03 (9IP)
	17-27	5513 026-01	5680 051-03 (9IP)	5322 361-11	5512 032-01	5680 051-03 (9IP)
22	15	5513 026-06	5680 049-02 (15IP)	-	-	-
	19	5513 026-04	5680 049-02 (15IP)	5322 365-11	5512 032-02	5680 049-02 (15IP)
	22-27	5513 026-02	5680 049-02 (15IP)	5322 365-11	5512 032-02	5680 049-02 (15IP)

<sup>3)</sup> For optional shims, see page C58.



# T-Max U-Lock® Coromant Capto® cutting units

## Screw clamp design

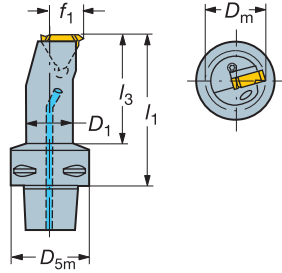
### Steel bar with internal cutting fluid supply For upside down mounting



166.0L,  
154.0G<sup>1)</sup>



x and z, see infed tables on pages C58.



		No shims used.
	Bar diameter (D <sub>1</sub> )	Bar diameter (D <sub>1</sub> )
<b>16</b>	15.5	18.5 - 40
<b>22</b>	18.5	24.5 - 40
	No shims used.	Angle of inclination -2° to +4°. For shims, see page C58.

Right hand style shown

Main application		Pitch range		Ordering code	Dimensions, mm								Nm <sup>2)</sup>
		mm	t.p.i.		D <sub>1</sub>	D <sub>m</sub> min	D <sub>m</sub> mod	D <sub>5m</sub>	f <sub>1</sub>	l <sub>1</sub>	l <sub>3</sub>		
	11	0.5-2	32-14	C3-R166.0KFZ12050-11	16.0	20		32	12.0	50	33.0	0.9	
				C4-R166.0KFZ12060-11	16.0	20		40	12.0	60	37.0	0.9	
	16	0.5-3	32-8	C3-R166.4KFZ12050-16	15.5	20	15.5	32	12.0	50	33.0	1.7	
				C3-R166.4KFZ14060-16	18.5	25		32	14.0	60	44.0	1.7	
				C3-R166.4KFZ17065-16	24.5	32		32	17.0	65	49.0	1.7	
				C3-R166.4KFZ22085-16	31.5	40		32	22.0	85	70.0	1.7	
				C4-R166.4KFZ12060-16	15.5	20	15.5	40	12.0	60	37.0	1.7	
				C4-R166.4KFZ14060-16	18.5	25		40	14.0	60	38.0	1.7	
				C4-R166.4KFZ17070-16	24.5	32		40	17.0	70	48.0	1.7	
				C4-R166.4KFZ22090-16	32.0	40		40	22.0	90	69.0	1.7	
				C4-R166.4KFZ27080-16	39.5	50		40	27.0	80	60.0	1.7	
				C5-R166.4KFZ12060-16	15.5	20	15.5	50	12.0	60	35.0	1.7	
	C5-R166.4KFZ14060-16	18.5	25		50	14.0	60	36.0	1.7				
	C5-R166.4KFZ17070-16	24.5	32		50	17.0	70	47.0	1.7				
	C5-R166.4KFZ22090-16	32.0	40		50	22.0	90	68.0	1.7				
	C5-R166.4KFZ27105-16	40.0	50		50	27.0	105	84.0	1.7				
	C6-R166.4KFZ14070-16	18.5	25		63	14.0	70	42.0	1.7				
	C6-R166.4KFZ17075-16	24.5	32		63	17.0	75	48.0	1.7				
	C6-R166.4KFZ22090-16	32.0	40		63	22.0	90	64.0	1.7				
	C6-R166.4KFZ27105-16	40.0	50		63	27.0	105	80.0	1.7				
22	3.5-6	7-4	C3-R166.4KFZ15060-22	18.5	25	21.5	32	15.0	60	43.0	3.9		
			C3-R166.4KFZ19065-22	25.0	32		32	19.0	65	49.0	3.9		
			C3-R166.4KFZ22085-22	31.5	40		32	22.0	85	70.0	3.9		
			C4-R166.4KFZ15065-22	18.5	25	21.5	40	15.0	65	42.0	3.9		
			C4-R166.4KFZ19070-22	25.0	32		50	19.0	70	48.0	3.9		
			C4-R166.4KFZ22090-22	31.5	40		40	22.0	90	69.0	3.9		
			C4-R166.4KFZ27080-22	39.5	50		40	27.0	80	60.0	3.9		
			C5-R166.4KFZ15065-22	18.5	25	21.5	50	15.0	65	41.0	3.9		
			C5-R166.4KFZ19070-22	24.89	32		50	19.0	70	47.0	3.9		
			C5-R166.4KFZ22090-22	31.5	40		50	22.0	90	68.0	2.9		
C5-R166.4KFZ27105-22	40.0	50		50	27.0	105	84.0	3.9					
C6-R166.4KFZ19075-22	25.0	32		63	19.0	75	48.0	3.9					
C6-R166.4KFZ22090-22	31.5	40		63	22.0	90	64.0	3.9					
C6-R166.4KFZ27105-22	40.0	50		63	27.0	105	80.0	3.9					

<sup>2)</sup> Insert tightening torque Nm

Ordering example: 2 pieces C3-R166.0KFZ12050-11  
R = Right hand

<sup>1)</sup> When using U-Lock circlip grooving inserts, type R/L 154.0G, the right hand round shank tool uses a left hand insert and the left hand round shank tool a right hand insert. A shim giving 0° inclination must be used, see page C58.

## Main spare parts

### Insert size

	Ø D <sub>1</sub>	Insert screw	Key (Torx Plus)	Shim <sup>3)</sup> Inclination angle +1°	Shim screw	Key (Torx Plus)
<b>11</b>	-	5513 020-03	5680 051-01 (7IP)	-	-	-
<b>16</b>	12	5513 026-05	5680 051-03 (9IP)	-	-	-
	14	5513 026-03	5680 051-03 (9IP)	5322 361-11	5512 032-01	5680 051-03 (9IP)
	17-25	5513 026-01	5680 051-03 (9IP)	5322 361-11	5512 032-01	5680 051-03 (9IP)
<b>22</b>	15	5513 026-06	5680 049-02 (15IP)	-	-	-
	19	5513 026-04	5680 049-02 (15IP)	5322 365-11	5512 032-02	5680 049-02 (15IP)
	22-27	5513 026-02	5680 049-02 (15IP)	5322 365-11	5512 032-02	5680 049-02 (15IP)

<sup>3)</sup> For optional shims, see page C58.



C4



C48



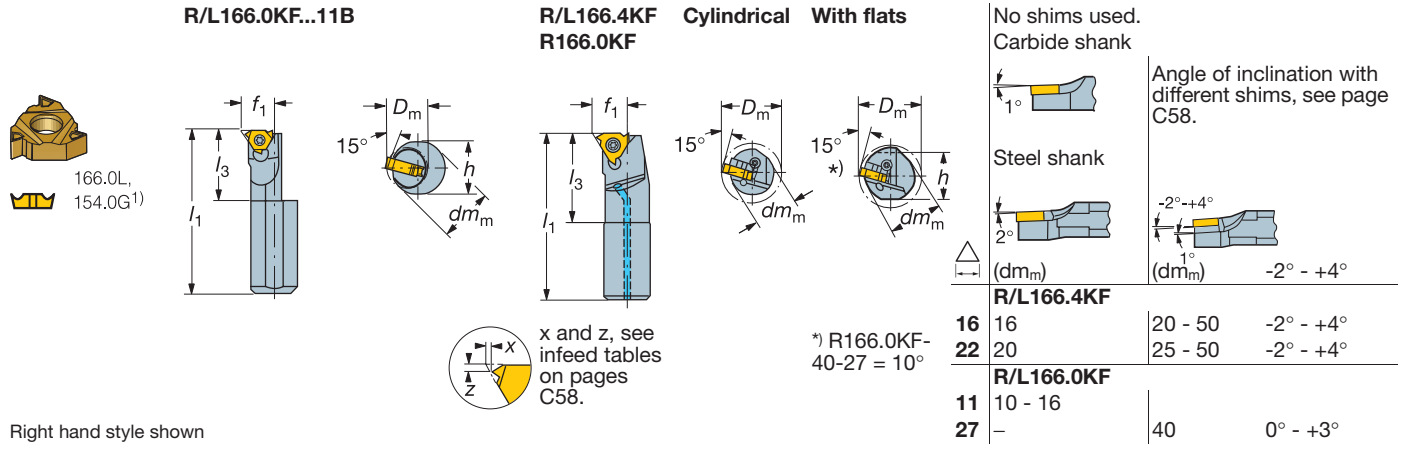
G6



C2

# T-Max U-Lock® boring bars

## Screw clamp design



Main application	Pitch range		Ordering code	Dimensions, mm							Nm <sup>3)</sup>	
	mm	t.p.i.		dm <sub>m</sub>	D <sub>m</sub> min	D <sub>m</sub> mod <sup>2)</sup>	f <sub>1</sub>	l <sub>1</sub>	h	l <sub>3</sub>		
	11	0.5-2.0	32-14	R/L166.0KF-16-1220-11B <sup>4)</sup>	16	12		10.0	125	15	20.9	0.9
				R/L166.0KF-16-1625-11B <sup>4)</sup>	16	16		10.5	150	15	25.9	0.9
	16	0.75-3.0	32-8	R/L166.4KF-16-16	16	20	15.5	12.0	125	27.0	1.7	
				R/L166.4KF-20-16	20	25		14.0	140	28.7	1.7	
				R/L166.4KF-25-16	25	32		17.0	180	28.8	1.7	
				R/L166.4KF-16F16 <sup>4)</sup>	16	20	15.5	12.0	200	15	30.5	1.7
				R/L166.4KF-20F16 <sup>4)</sup>	20	25		14.0	250	18	34.0	1.7
				R/L166.4KF-25F16 <sup>4)</sup>	25	32		17.0	300	23	36.5	1.7
				R/L166.4KF-32-16 <sup>4)</sup>	32	40		22.0	250	30	30.9	1.7
				R/L166.4KF-40-16 <sup>4)</sup>	40	50		27.0	300	37	31.5	1.7
				R/L166.4KF-50-16 <sup>4)</sup>	50	63		35.0	350	49	40.2	1.7
				22	3.5-6.0	7-4	R/L166.4KF-20F22 <sup>4)</sup>	20	25	21.5	15.0	250
R/L166.4KF-25F22 <sup>4)</sup>	25	32					19.0	300	23	39.0	3.9	
R/L166.4KF-20-22	20	25	21.5				15.0	140		34.2	3.9	
R/L166.4KF-25-22	25	32					19.0	180		34.6	3.9	
R/L166.4KF-32-22	32	40					22.0	250	30	36.4	3.9	
R/L166.4KF-40-22 <sup>4)</sup>	40	50					37.0	300	27	37.2	3.9	
27	8.0	3	R/L166.4KF-50-22 <sup>4)</sup>	50	63		35.0	350	47	42.6	3.9	
			R166.0KF-40-27 <sup>4)</sup>	40	50		27.0	300	37	46.9	9.5	
Cylindrical Carbide shank	11	0.5-2.0	32-14	R166.0KF-10E-11	10	12		7.2	150	21	0.9	
				R166.0KF-12E-11	12	16		9.0	180	25	0.9	
				R166.4KF-16E-16	16	20		12.0	200	33.2	1.7	

<sup>2)</sup> Modification of round shank tool for small holes.      Ordering example: 2 pieces R166.0KF-16-1220-11B  
<sup>2)</sup> For technical information see our Metal Cutting Technical guide      2 pieces L166.0KF-16-1220-11B  
<sup>3)</sup> Insert tightening torque Nm      R = Right hand, L = Left hand  
<sup>4)</sup> With flats

<sup>1)</sup> When using U-Lock circlip grooving inserts, type R/L 154.0G, the right hand round shank tool uses a left hand insert and the left hand round shank tool a right hand insert. A shim giving 0° inclination must be used, see page C58.

### Main spare parts

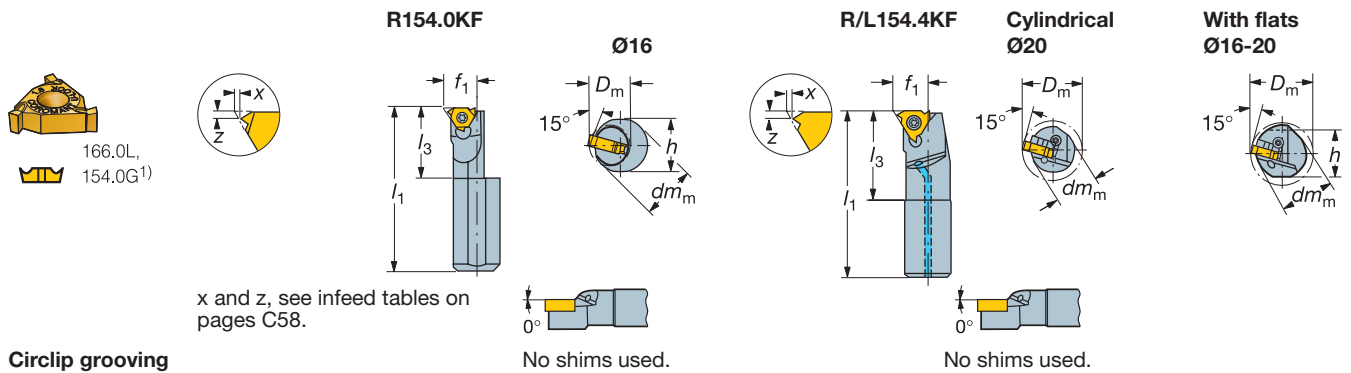
Insert size		Insert screw	Key (Torx Plus)	Shim <sup>5)</sup> Inclination angle +1°	Shim screw	Key (Torx Plus)
$\Delta$	$\varnothing$ dm <sub>m</sub>					
11	16	5513 020-03	5680 051-02 (7IP)	-	-	-
16	16	5513 026-05	5680 051-03 (9IP)	-	-	-
	20	5513 026-03	5680 051-03 (9IP)	5322 361-11	5512 032-01	5680 051-03 (9IP)
22	25-50	5513 026-01	5680 051-03 (9IP)	5322 361-11	5512 032-01	5680 051-03 (9IP)
	20	5513 026-06	5680 049-02 (15IP)	-	-	-
27	25	5513 026-04	5680 049-02 (15IP)	5322 361-11	512 032-02	5680 049-02 (15IP)
	32-50	5513 026-02	5680 049-02 (15IP)	5322 361-11	512 032-02	5680 049-02 (15IP)
	40	5513 0260-02	5680 043-15 (25IP)	5322 383-11	5512 090-08	-

<sup>5)</sup> For optional shims, see page C58.



## T-Max U-Lock® boring bars

Screw clamp design dedicated for circlip grooves



### Circlip grooving

For larger bar diameters, use bars type 166.4KF with shim 0°.

Right hand style shown

Main application	Pitch range		Ordering code	Dimensions, mm								Nm <sup>2)</sup>
	mm	t.p.i.		$dm_m$	$D_m$ min	$D_m$ mod	$f_1$	$l_1$	$h$	$l_3$		
	11	0.5-2.0	32-14	R154.0KF-16-1220-11B	16	12	12	10.0	125	15	20.9	0.9
	16	0.75-3.0	32-8	R154.4KF-16-16	16	20	15.5	12.0	125	15	27	1.7
	22	3.5-6.0	7-4 (5)	R154.4KF-16F16	16	20	15.5	12.0	200	15	30.5	1.7
				R154.4KF-20-22	20	25	21.5	15.0	140	-	34.2	3.9
			7-4	R154.4KF-20F22	20	25	21.5	15.0	250	18	35.4	3.9

<sup>2)</sup> Insert tightening torque Nm

Ordering example: 2 pieces R154.0KF-16-1220-11B  
R = Right hand

<sup>1)</sup> When using U-Lock circlip grooving inserts, type R/L 154.0G, the right hand round shank tool uses a left hand insert and the left hand round shank tool a right hand insert. A shim giving 0° inclination must be used, see page C58.

### Main spare parts

#### Insert size

Insert	Insert screw	Key (Torx Plus)
11	5513 020-03	5680 051-02 (7IP)
16	5513 026-05	5680 051-03 (9IP)
22	5513 026-06	5680 049-02 (15IP)



C4



C48



G6



C2

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