

T-Max® U-Lock

Internal threading

B

Application

- Internal threading

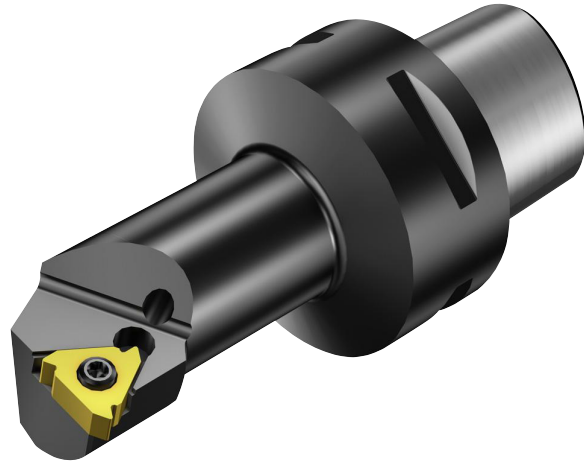
C

ISO application area:



Benefits and features

- Indexable inserts
- Three sharp cutting edges for high quality threads



D

T-Max U-Lock® is a complement to the CoroThread 266 rigid indexable insert threading system. It provides a specialized solution for 11 mm internal threading applications in two different geometries: all-round and sharp.

E

www.sandvik.coromant.com/tmaxulock

Right hand style shown unless otherwise stated

Inserts

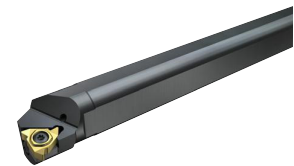
- Metric 60°
- UN 60°
- WhithWorth 55°
- NPT 60

Inserts

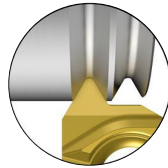
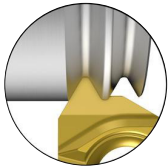
- V-profile 60° and 55°

Tools

- Coromant Capto® cutting units
- Boring bars
- CoroTurn® SL heads

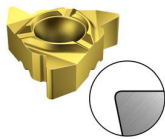


F

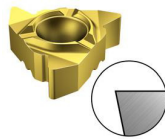


- Insert geometries and grades for all materials
- Tailor Made inserts for almost any thread form or pitch

G

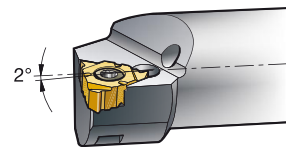


Standard geometry



Sharp F-geometry

The tool holders for inserts with size 11 are made for a 2° inclination angle and no shim



H



C45



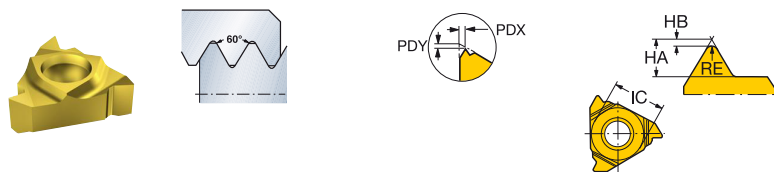
C51



H35

T-Max® U-Lock insert for thread turning

V-profile 60° Non-topping



Internal right-hand threads

						P	M	K	N	S	O	Dimensions, mm								
	TPN	TPX	TPIN	TPIX	NT	Ordering code	1020	4125	1020	4125	1020	4125	1020	4125	1020	RE	HA	HB	PDX	PDY
11	1.0	2.0	12.0	24.0	1	R166.0L-11VM01-001	★	☆	★	☆	★	☆	★	☆	★	0.06	1.45	0.06	0.90	0.68
	1.0	2.0	12.0	24.0	1	R166.0L-11VM01C001	★	★	★	★	★	★	★	★	★	0.06	1.45	0.06	0.90	0.68

Internal left-hand threads

						P	M	K	N	S	Dimensions, mm				
	TPN	TPX	TPIN	TPIX	NT	Ordering code	1020	1020	1020	1020	RE	HA	HB	PDX	PDY
11	1.0	2.0	12.0	24.0	1	L166.0L-11VM01-001	★	★	★	★	0.06	1.45	0.06	0.90	0.06

R = Right hand, L = Left hand



C51



C73



C83



H36



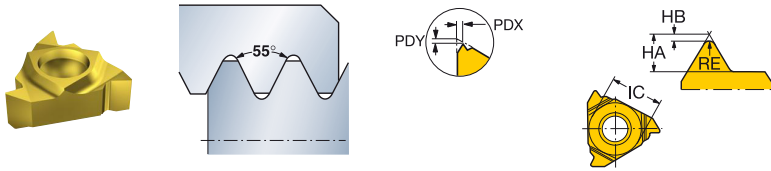
H35



T-Max® U-Lock insert for thread turning

V-profile 55° Non-topping

B



C

Internal right-hand threads

				P	M	K	N	S	O	Dimensions, mm					
	TPIN	TPIX	NT	Ordering code						RE	HA	HB	PDX	PDY	
11	14.0	28.0	1	R166.0L-11VW01-001	★	☆	★	☆	★	☆	0.11	1.60	0.12	0.95	0.68

Internal left-hand threads

				P	M	K	N	S	Dimensions, mm						
	TPIN	TPIX	NT	Ordering code						RE	HA	HB	PDX	PDY	
11	14.0	28.0	1	L166.0L-11VW01-001	★	★	★	★			0.11	1.60	0.12	0.95	0.12

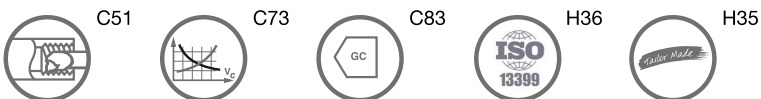
R = Right hand, L = Left hand

E

F

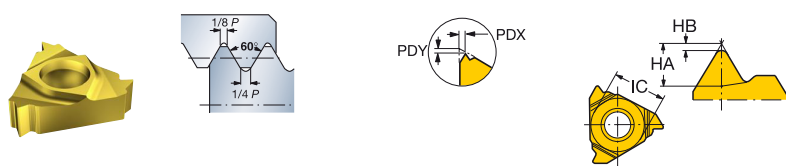
G

H



T-Max® U-Lock insert for thread turning

Metric 60° Full form



STDNO
TCTR

ISO 965-1998
6

Internal right-hand threads

TP	NT	Ordering code	Dimensions, mm					HA	HB	PDX	PDY				
			P	M	K	N	S								
11	0.50	1	R166.0L-11MM01-050	★	★	★	★	★	★	★	★	0.32	0.03	0.50	0.68
	0.75	1	R166.0L-11MM01-075	★	★	★	★	★	★	★	★	0.47	0.04	0.60	0.68
	1.00	1	R166.0L-11MM01-100	★	★	★	★	★	★	★	★	0.64	0.06	0.80	0.68
	1.25	1	R166.0L-11MM01-125	★	★	★	★	★	★	★	★	0.79	0.07	0.80	0.68
	1.50	1	R166.0L-11MM01-150	★	★	★	★	★	★	★	★	0.96	0.09	1.10	0.68
	1.75	1	R166.0L-11MM01-175	★	★	★	★	★	★	★	★	1.11	0.11	1.05	0.68
	2.00	1	R166.0L-11MM01-200	★	★	★	★	★	★	★	★	1.27	0.12	0.92	0.58

Internal left-hand threads

TP	NT	Ordering code	Dimensions, mm					HA	HB	PDX	PDY				
			P	M	K	N	S								
11	0.50	1	L166.0L-11MM01-050	★	★	★	★	★	★	★	★	0.32	0.03	0.50	0.68
	0.75	1	L166.0L-11MM01-075	★	★	★	★	★	★	★	★	0.47	0.04	0.60	0.68
	1.00	1	L166.0L-11MM01-100	★	★	★	★	★	★	★	★	0.64	0.06	0.85	0.68
	1.25	1	L166.0L-11MM01-125	★	★	★	★	★	★	★	★	0.79	0.07	0.90	0.68
	1.50	1	L166.0L-11MM01-150	★	★	★	★	★	★	★	★	0.96	0.09	1.00	0.68
	1.75	1	L166.0L-11MM01-175	★	★	★	★	★	★	★	★	1.11	0.11	1.05	0.68
	2.00	1	L166.0L-11MM01-200	★	★	★	★	★	★	★	★	1.27	0.12	0.92	0.58

R = Right hand, L = Left hand



C51



C73



C83



H36

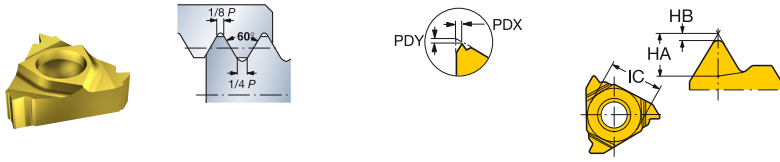


H35

T-Max® U-Lock insert for thread turning

UN 60° Full form

B



STDNO
TCTR

ISO 5864-1978
2B

C

Internal right-hand threads

				P	M	K	N	S	Dimensions, mm			
	TPI	NT	Ordering code	1020	1020	1020	1020	1020	HA	HB	PDX	PDY
				*	*	*	*	*				
11	32.0	1	R166.0L-11UN01-320	*	*	*	*	*	0.50	0.04	0.60	0.68
	28.0	1	R166.0L-11UN01-280	*	*	*	*	*	0.58	0.05	0.80	0.68
	24.0	1	R166.0L-11UN01-240	*	*	*	*	*	0.67	0.06	0.85	0.68
	20.0	1	R166.0L-11UN01-200	*	*	*	*	*	0.80	0.07	0.90	0.68
	18.0	1	R166.0L-11UN01-180	*	*	*	*	*	0.89	0.08	1.00	0.68
	16.0	1	R166.0L-11UN01-160	*	*	*	*	*	1.00	0.09	1.00	0.68
	14.0	1	R166.0L-11UN01-140	*	*	*	*	*	1.13	0.11	1.05	0.68

D

Internal left-hand threads

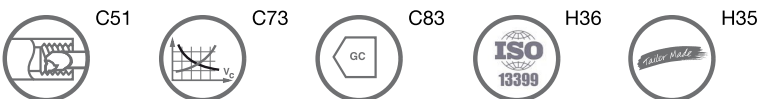
				P	M	K	N	S	Dimensions, mm			
	TPI	NT	Ordering code	1020	1020	1020	1020	1020	HA	HB	PDX	PDY
				*	*	*	*	*				
11	32.0	1	L166.0L-11UN01-320	*	*	*	*	*	0.50	0.04	0.60	0.68
	28.0	1	L166.0L-11UN01-280	*	*	*	*	*	0.58	0.05	0.80	0.68
	24.0	1	L166.0L-11UN01-240	*	*	*	*	*	0.67	0.06	0.85	0.68
	20.0	1	L166.0L-11UN01-200	*	*	*	*	*	0.80	0.07	0.90	0.68
	18.0	1	L166.0L-11UN01-180	*	*	*	*	*	0.89	0.08	1.00	0.68
	16.0	1	L166.0L-11UN01-160	*	*	*	*	*	1.00	0.09	1.00	0.68
	14.0	1	L166.0L-11UN01-140	*	*	*	*	*	1.13	0.11	1.05	0.68

R = Right hand, L = Left hand

F

G

H

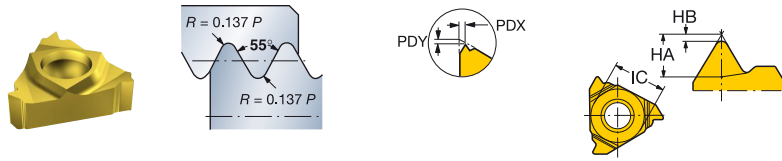


T-Max® U-Lock insert for thread turning

Whitworth 55° (BSW, BSF, BSP) Full form

STDNO
STDNO
STDNO
TCTR

ISO 228-1982
BS 2779-1973
BS-84-1956
A



Internal right-hand threads

TPI	NT	Ordering code	Dimensions, mm					HA	HB	PDX	PDY	
			P	M	K	N	S					
11	20.0	1	R166.0L-11WH01-200	★	★	★	★	★	0.99	0.17	0.90	0.68
19.0	1	R166.0L-11WH01-190	★	★	★	★	★	1.05	0.18	0.90	0.68	
14.0	1	R166.0L-11WH01-140	★	★	★	★	★	1.43	0.25	1.05	0.68	

Internal left-hand threads

TPI	NT	Ordering code	Dimensions, mm					HA	HB	PDX	PDY
			P	M	K	N	S				
11	20.0	1	L166.0L-11WH01-200	★	★	★	★	0.99	0.17	0.90	0.68
19.0	1	L166.0L-11WH01-190	★	★	★	★	1.05	0.18	0.90	0.68	
14.0	1	L166.0L-11WH01-140	★	★	★	★	1.43	0.25	1.05	0.68	

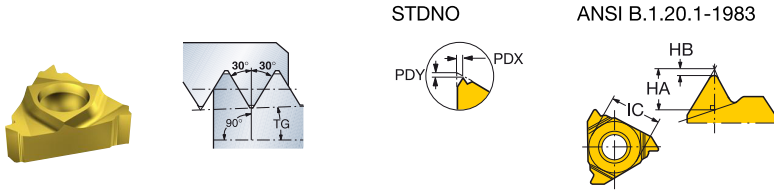
R = Right hand, L = Left hand



T-Max® U-Lock insert for thread turning

NPT 60° (NPSC, NPTR, LINE PIPE) Full form

B



C

Internal right-hand threads

			Dimensions, mm									
			P	M	K	N	S	HA	HB	PDX	PDY	TG
	TPI	NT	1020	1020	1020	1020						
	Ordering code		*	*	*	*	*	1.14	0.08	0.85	0.67	0.06
11	18.0	1	R166.0L-11NT01F180	*	*	*	*	1.14	0.08	0.85	0.67	0.06
	14.0	1	R166.0L-11NT01F140	*	*	*	*	1.46	0.09	0.95	0.67	0.06

The insert can give a slightly bigger truncation for LINE PIPE 14 t.p.i.

R = Right hand

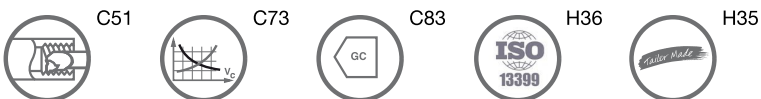
D

E

F

G

H



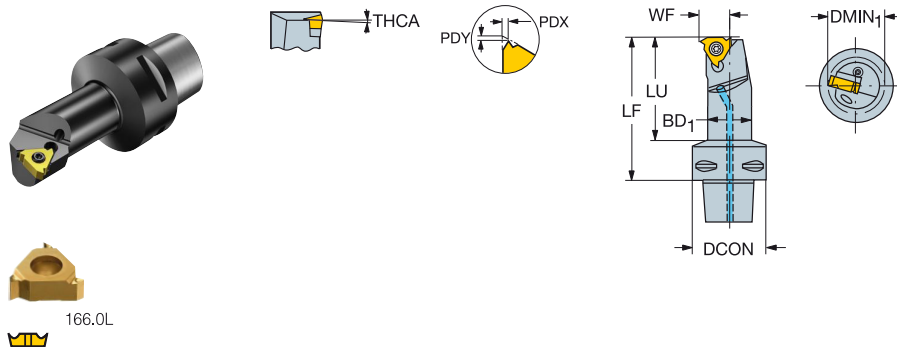
C 50



T-Max® U-Lock cutting unit for thread turning

Screw clamp design

Coromant Capto® - Internal coolant supply



CZC _{MS}	DMIN ₁	LU	CNCS	Ordering code	Dimensions, mm							MIID		
					DCON	BD ₁	LF	WF	THCA	BAR	NM		KG	
11	C3	20.0	33.0	3	C3-R/L166.0KF-12050-11	32	16.0	50.0	12.0	1°	10	0.9	0.19	L166.0L-11..
	C4	20.0	37.0	3	C4-R/L166.0KF-12060-11	40	16.0	60.0	12.0	1°	10	0.9	0.34	L166.0L-11..
11	C3	20.0	33.0	3	C3-R166.0KFZ12050-11	32	16.0	50.0	12.0	1°	10	0.9	0.19	R166.0L-11..
	C4	20.0	37.0	3	C4-R166.0KFZ12060-11	40	16.0	60.0	12.0	1°	10	0.9	0.34	R166.0L-11..

For PDX/PDY values - see insert page.

R = Right hand, L = Left hand

For infeed recommendations, see page C77

Angle of inclination (THCA) with different shims, see page C75

Z = For upside down mounting

Spare parts
Insert screw
5513 020-03

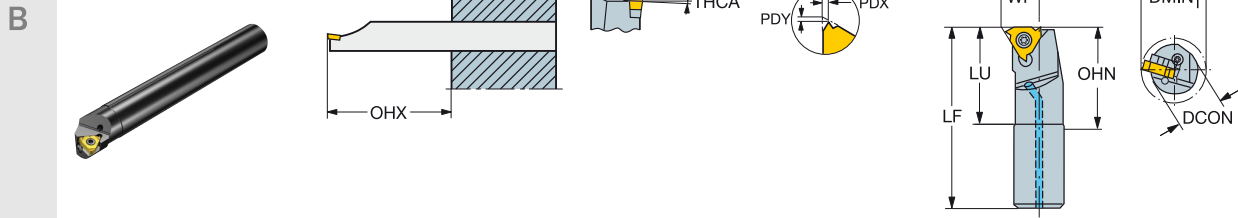
For complete list of spare parts, see www.sandvik.coromant.com



T-Max® U-Lock solid carbide boring bar for thread turning

Screw clamp design

Cylindrical with flats - Internal coolant supply



C

CZC _{MS}	DMIN ₁	LU	OHX	OHN	CNCS	Ordering code	Dimensions, mm							
							DCON	LF	WF	THCA	BAR	NM	KG	MIID
11	10	12.0	60.0	60.0	21.0	R166.0KF-10E-11	10	150.0	7.2	2°	10	0.9	0.15	R166.0L-11..
12	16.0	72.0	72.0	25.0	1	R166.0KF-12E-11	12	180.0	9.0	2°	10	0.9	0.25	R166.0L-11..

For PDX/PDY values - see insert page.
 For infed recommendations, see page C77
 Angle of inclination (THCA) with different shims, see page C75

R = Right hand

Spare parts

Insert screw
5513 020-03

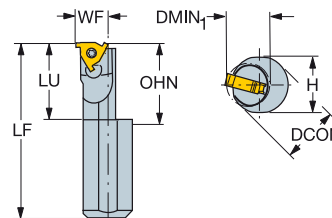
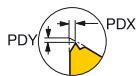
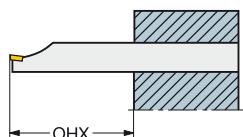
For complete list of spare parts, see www.sandvik.coromant.com



T-Max® U-Lock solid carbide boring bar for thread turning

Screw clamp design

Cylindrical with flats



166.0L



		Dimensions, mm												
CZC _{MS}	DMIN ₁	LU	OHX	OHN	Ordering code	DCON	H	BD ₁	LF	WF	THCA	NM	KG	MIID
11	16	12.0	20.9	48.0	R/L166.0KF-16-1220-11B	16	15.0	12.0	125.0	10.0	2°	0.9	0.19	L166.0L-11..
16	16.0	25.9	48.0	25.9	R/L166.0KF-16-1625-11B	16	15.0	16.0	150.0	10.5	2°	0.9	0.23	L166.0L-11..

For PDX/PDY values - see insert page.

For infeced recommendations, see page C77

Angle of inclination (THCA) with different shims, see page C75

R = Right hand, L = Left hand

Spare parts
Insert screw
5513 020-03

For complete list of spare parts, see www.sandvik.coromant.com



C4



F2



G2

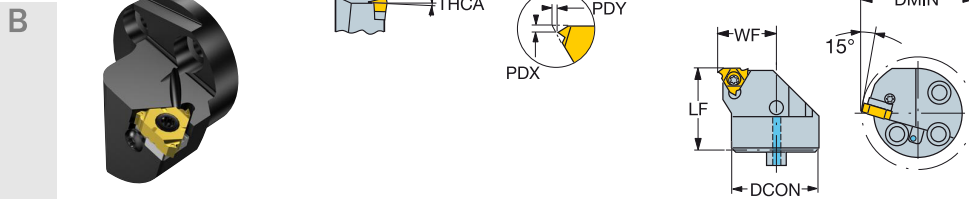


H36

T-Max® U-Lock head for thread turning

Screw clamp design

CoroTurn® SL - Internal coolant supply



C

	CZC _{MS}	DMIN ₁	CNCS	Ordering code	Dimensions, mm						MID		
					DCON	LF	WF	THCA	BAR	NM		KG	
	11	16	20.0	1	R/L566.0KFC-162012-11	16	20.0	12.0	1°	10	0.9	0.03	L166.0L-11..
		20	25.0	1	R/L566.0KFC-202014-11	20	20.0	14.0	1°	10	0.9	0.04	L166.0L-11..

For PDX/PDY values - see insert page.

For infeed recommendations, see page C77

Angle of inclination (THCA) with different shims, see page C75

R = Right hand, L = Left hand

E

Spare parts
Insert screw
5513 020-03

For complete list of spare parts, see www.sandvik.coromant.com

