

CB18
CN18

EB18
EN18

TB18
TN18



The right and left hand insert system and the smooth cutting of the side milling cutters provide the stability essential for complying with highly precise radial and axial run out tolerances. For a wide range of work piece specific challenges requiring the attainment of maximum precision and ... maximum Q.

... take precision to
the highest level

SIDE MILLING CUTTERS

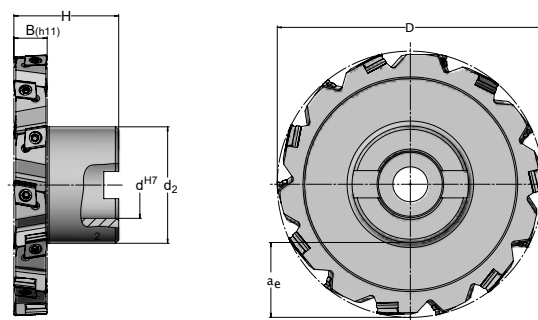
SIDE MILLING CUTTERS TANGENTIAL

CB18 | CN18



NEWTool

4-cutting edge CN indexable insert
 Fine tooth pitch through tangential insert design
 Very smooth cutting through left and right hand inserts
 Secondary cutting edge positioned outside of the cutting zone – face milling possible with CB18



CB18

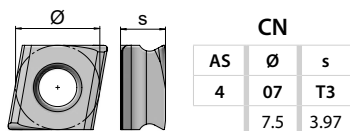
Article	D	d ₂	d ^{H7}	H	B _(h11)	zz	z _{eff}	a _e	lc	kg	INS
01C.1010.001	100	45	27	45	10	6x2	6	25.0	no	0.59	CN.07T3..
01C.1012.002	100	45	27	45	12	6x2	6	25.0	no	0.75	CN.07T3..
01C.1014.001	100	45	27	45	14	6x2	6	25.0	no	0.93	CN.07T3..
01C.1210.002	125	58	32	50	10	7x2	7	33.0	no	0.67	CN.07T3..
01C.1212.003	125	58	32	50	12	7x2	7	33.0	no	1.27	CN.07T3..
01C.1214.001	125	58	32	50	14	7x2	7	33.0	no	1.54	CN.07T3..
01C.1610.001	160	70	40	63	10	9x2	9	44.0	no	2.28	CN.07T3..
01C.1612.001	160	70	40	63	12	9x2	9	44.0	no	2.58	CN.07T3..
01C.1614.001	160	70	40	63	14	9x2	9	44.0	no	2.79	CN.07T3..

CN18

Article	D	d ₂	d ^{H7}	B _(h11)	zz	z _{eff}	a _e	lc	kg	INS
14C.1010.005	100	47	32	10	6x2	6	28.0	no	0.43	CN.07T3..
14C.1012.001	100	47	32	12	6x2	6	28.0	no	0.53	CN.07T3..
14C.1014.001	100	47	32	14	6x2	6	28.0	no	0.66	CN.07T3..
14C.1210.001	125	47	32	10	7x2	7	39.0	no	0.71	CN.07T3..
14C.1212.001	125	47	32	12	7x2	7	39.0	no	0.83	CN.07T3..
14C.1214.003	125	47	32	14	7x2	7	39.0	no	1.02	CN.07T3..
14C.1610.001	160	55	40	10	9x2	9	52.0	no	1.17	CN.07T3..
14C.1612.001	160	55	40	12	9x2	9	52.0	no	1.43	CN.07T3..
14C.1614.001	160	55	40	14	9x2	9	52.0	no	1.70	CN.07T3..

Width of cut B_(h11) can only be achieved with an indexable insert with W-geometry. Other dimensions on request.

INS SHAPE CN



Matching of machining parameters
with the AV material groups

				Steel						
Article		Designation		A22	A21	A20	A19	A18	A17	A16
CN..07T3..	CN.07T3.008.11 SKY77	CNHQ 07T306 SL-28W	h_{max}	0.16	0.16	0.15	0.13	0.12	0.10	0.10
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	CN.07T3.009.11 SKY77	CNHQ 07T306 SR-28W	h_{max}	0.16	0.16	0.15	0.13	0.12	0.10	0.10
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110

				Cast iron					
Article		Designation		D21	D20	D19	D18	D17	D16
CN..07T3..	CN.07T3.008.11 SKY77	CNHQ 07T306 SL-28W	h_{max}	0.17	0.15	0.14	0.12	0.12	0.12
			v_c	290-320	260-295	230-270	210-240	180-210	140-180
	CN.07T3.008.11 NERO ² 77	CNHQ 07T306 SL-28W	h_{max}	0.17	0.15	0.14	0.12	0.12	0.12
			v_c	340-380	280-340	240-280	210-240	180-210	140-180
	CN.07T3.009.11 SKY77	CNHQ 07T306 SR-28W	h_{max}	0.17	0.15	0.14	0.12	0.12	0.12
			v_c	290-320	260-295	230-270	210-240	180-210	140-180
	CN.07T3.009.11 NERO ² 77	CNHQ 07T306 SR-28W	h_{max}	0.17	0.15	0.14	0.12	0.12	0.12
			v_c	340-380	280-340	240-280	210-240	180-210	140-180

				NF metals		
Article		Designation		E82	E81	E80
CN..07T3..	CN.07T3.008.11 SKY77	CNHQ 07T306 SL-28W	h_{max}	0.20	0.20	0.16
			v_c	650-1000	450-650	280-450
	CN.07T3.009.11 SKY77	CNHQ 07T306 SR-28W	h_{max}	0.20	0.20	0.16
			v_c	650-1000	450-650	280-450

INS		
CN..07T3...	08B.0309.7991	TX208

Mounting | CN/EN/FN
indexable insert page 138

SIDE MILLING CUTTERS TANGENTIAL

EB18

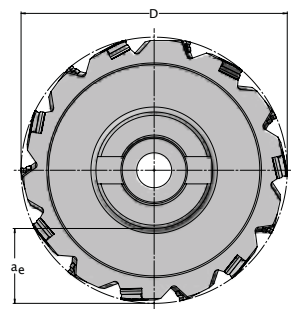
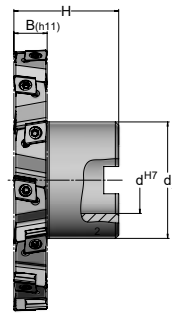


4-cutting edge EN indexable insert

Fine tooth pitch through tangential insert design

Very smooth cutting through left and right hand inserts

Secondary cutting edge positioned outside of the cutting zone – face milling possible with EB18



EB18

Article	D	d ₂	d ^{H7}	H	B _(h11)	zz	Z _{eff}	a _e	lc	kg	INS
01E.1214.001	125	58	32	50	14	7 x 2	7	32.0	no	1.54	EN..08T3.R/L
01E.1216.001	125	58	32	50	16	6 x 2	6	32.0	no	1.64	EN..0904.R/L
01E.1218.001	125	58	32	50	18	6 x 2	6	32.0	no	1.77	EN..0904.R/L
01E.1614.001	160	70	40	63	14	9 x 2	9	43.0	no	2.80	EN..08T3.R/L
01E.1616.001	160	70	40	63	16	8 x 2	8	43.0	no	2.83	EN..0904.R/L
01E.1618.001	160	70	40	63	18	8 x 2	8	43.0	no	3.10	EN..0904.R/L
01E.1620.001	160	70	40	63	20	7 x 2	7	43.0	no	3.20	EN..1206.R/L
01E.1622.001	160	70	40	63	22	7 x 2	7	43.0	no	3.40	EN..1206.R/L
01E.1624.001	160	70	40	63	24	7 x 2	7	43.0	no	3.63	EN..1206.R/L
01E.2018.003	200	70	40	63	18	9 x 2	9	63.0	no	4.50	EN..0904.R/L
01E.2020.007	200	70	40	63	20	9 x 2	9	63.0	no	4.70	EN..1206.R/L
01E.2022.002	200	70	40	63	22	9 x 2	9	63.0	no	5.07	EN..1206.R/L
01E.2520.004	250	90	50	68	20	11 x 2	11	78.0	no	7.50	EN..1206.R/L
01E.2524.004	250	90	50	68	24	11 x 2	11	78.0	no	8.74	EN..1206.R/L

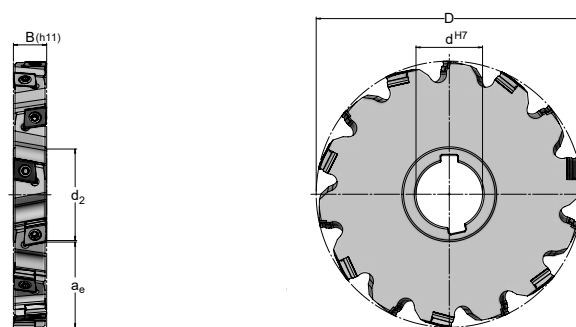
Width of cut B_(h11) can only be achieved with an indexable insert with W-geometry. Other dimensions on request.

SIDE MILLING CUTTERS TANGENTIAL

EN18



4-cutting edge EN indexable insert
 Fine tooth pitch through tangential insert design
 Very smooth cutting through left and right hand inserts
 Secondary cutting edge positioned outside of the cutting zone

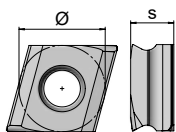


EN18

Article	D	d ₂	d ^{H7}	B _(h11)	zz	z _{eff}	a _e	lc	kg	INS
14E.1214.001	125	46	32	14	7 x 2	7	37.0	no	1.00	EN..08T3.R/L
14E.1216.001	125	46	32	16	6 x 2	6	37.0	no	1.19	EN..0904.R/L
14E.1218.001	125	46	32	18	6 x 2	6	37.0	no	1.33	EN..0904.R/L
14E.1614.003	160	55	40	14	9 x 2	9	50.0	no	1.70	EN..08T3.R/L
14E.1616.001	160	55	40	16	8 x 2	8	50.0	no	1.87	EN..0904.R/L
14E.1618.001	160	55	40	18	8 x 2	8	50.0	no	2.14	EN..0904.R/L
14E.1620.005	160	55	40	20	7 x 2	7	50.0	no	2.35	EN..1206.R/L
14E.1622.001	160	55	40	22	7 x 2	7	50.0	no	2.71	EN..1206.R/L
14E.1624.001	160	55	40	24	7 x 2	7	50.0	no	2.87	EN..1206.R/L
14E.2020.001	200	68	50	20	9 x 2	9	63.0	no	3.57	EN..1206.R/L

Width of cut B_(h11) can only be achieved with an indexable insert with W-geometry. Other dimensions on request.

INS SHAPE EN

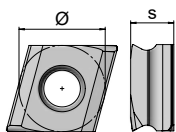


EN						
AS	Ø			s		
4	08	09	12	T3	04	06
	8	9.52	12.7	3.97	4.76	6.35

Matching of machining parameters
with the AV material groups

				Steel						
Article	Designation			A22	A21	A20	A19	A18	A17	A16
EN..08T3..	EN.08T3.012.09 SKY77	ENHQ 08T306 SL-28W	h_{max}	0.15	0.15	0.15	0.12	0.12	0.10	0.08
			v_c	200-280	190-230	180-220	160-210	140-180	110-140	80-110
	EN.08T3.014.09 SKY77	ENHQ 08T306 SR-28W	h_{max}	0.15	0.15	0.15	0.12	0.12	0.10	0.08
			v_c	200-280	190-230	180-220	160-210	140-180	110-140	80-110
	EN.08T3.017.26 SKY77	ENHQ 08T306 SL-28V	h_{max}	0.15	0.15	0.15	0.12	0.12	0.10	0.08
			v_c	200-280	190-230	180-220	160-210	140-180	110-140	80-110
	EN.08T3.016.26 SKY77	ENHQ 08T306 SR-28V	h_{max}	0.15	0.15	0.15	0.12	0.12	0.10	0.08
			v_c	200-280	190-230	180-220	160-210	140-180	110-140	80-110
	EN.08T3.001.54 SKY77	ENHQ 08T306 SL-30	h_{max}	-	-	-	0.11	0.11	0.09	0.08
			v_c	-	-	-	160-210	140-180	110-140	80-110
	EN.08T3.002.54 SKY77	ENHQ 08T306 SR-30	h_{max}	-	-	-	0.11	0.11	0.09	0.08
			v_c	-	-	-	160-210	140-180	110-140	80-110
EN..0904..	EN.0904.023.12 SKY77	ENHQ 090408 SL-28W	h_{max}	0.18	0.18	0.18	0.15	0.15	0.12	0.10
			v_c	200-280	190-230	180-220	160-210	140-180	110-140	80-110
	EN.0904.022.12 SKY77	ENHQ 090408 SR-28W	h_{max}	0.18	0.18	0.18	0.15	0.15	0.12	0.10
			v_c	200-280	190-230	180-220	160-210	140-180	110-140	80-110
	EN.0904.017.26 SKY77	ENHQ 090408 SL-28V	h_{max}	0.18	0.18	0.18	0.15	0.15	0.12	0.10
			v_c	200-280	190-230	180-220	160-210	140-180	110-140	80-110
	EN.0904.016.26 SKY77	ENHQ 090408 SR-28V	h_{max}	0.18	0.18	0.18	0.15	0.15	0.12	0.10
			v_c	200-280	190-230	180-220	160-210	140-180	110-140	80-110
	EN.0904.003.54 SKY77	ENHQ 090408 SL-30	h_{max}	-	-	-	0.13	0.13	0.10	0.08
			v_c	-	-	-	160-210	140-180	110-140	80-110
	EN.0904.002.54 SKY77	ENHQ 090408 SR-30	h_{max}	-	-	-	0.13	0.13	0.10	0.08
			v_c	-	-	-	160-210	140-180	110-140	80-110

INS SHAPE EN



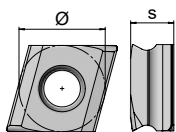
EN						
AS	Ø			s		
4	08	09	12	T3	04	06
	8	9.52	12.7	3.97	4.76	6.35

Matching of machining parameters
with the AV material groups

			Steel							
Article	Designation		A22	A21	A20	A19	A18	A17	A16	
EN..1206..	EN.1206.027.18 SKY77	ENHQ 120610 SL-25V	h_{max}	0.22	0.22	0.22	0.20	0.18	–	–
			v_c	200-280	190-230	180-220	160-210	140-180	–	–
	EN.1206.026.18 SKY77	ENHQ 120610 SR-25V	h_{max}	0.22	0.22	0.22	0.20	0.18	–	–
			v_c	200-280	190-230	180-220	160-210	140-180	–	–
	EN.1206.029.13 SKY77	ENHQ 120610 SL-28W	h_{max}	0.20	0.20	0.20	0.18	0.16	0.15	0.11
			v_c	200-280	190-230	180-220	160-210	140-180	110-140	80-110
	EN.1206.030.13 SKY77	ENHQ 120610 SR-28W	h_{max}	0.20	0.20	0.20	0.18	0.16	0.15	0.11
			v_c	200-280	190-230	180-220	160-210	140-180	110-140	80-110
	EN.1206.003.54 SKY77	ENHQ 120610 SL-30	h_{max}	–	–	–	0.16	0.14	0.12	0.10
			v_c	–	–	–	160-210	140-180	110-140	80-110
	EN.1206.002.54 SKY77	ENHQ 120610 SR-30	h_{max}	–	–	–	0.16	0.14	0.12	0.10
			v_c	–	–	–	160-210	140-180	110-140	80-110

			Cast iron						
Article	Designation		D21	D20	D19	D18	D17	D16	
EN..08T3..	EN.08T3.012.09 SKY77	ENHQ 08T306 SL-28W	h_{max}	0.15	0.15	0.15	0.12	0.10	0.08
			v_c	200-280	200-260	180-230	170-210	160-190	140-180
	EN.08T3.012.09 NERO26	ENHQ 08T306 SL-28W	h_{max}	0.15	0.15	0.15	0.12	0.10	0.08
			v_c	240-300	240-300	220-260	200-240	180-210	140-180
	EN.08T3.014.09 SKY77	ENHQ 08T306 SR-28W	h_{max}	0.15	0.15	0.15	0.12	0.10	0.08
			v_c	200-280	200-260	180-230	170-210	160-190	140-180
	EN.08T3.014.09 NERO26	ENHQ 08T306 SR-28W	h_{max}	0.15	0.15	0.15	0.12	0.10	0.08
			v_c	240-300	240-300	220-260	200-240	180-210	140-180
	EN.08T3.017.26 SKY77	ENHQ 08T306 SL-28V	h_{max}	0.15	0.15	0.15	0.12	0.10	0.08
			v_c	200-280	200-260	180-230	170-210	160-190	140-180
	EN.08T3.017.26 NERO26	ENHQ 08T306 SL-28V	h_{max}	0.15	0.15	0.15	0.12	0.10	0.08
			v_c	240-300	240-300	220-260	200-240	180-210	140-180
EN.08T3.016.26 SKY77	ENHQ 08T306 SR-28V	h_{max}	0.15	0.15	0.15	0.12	0.10	0.08	
		v_c	200-280	200-260	180-230	170-210	160-190	140-180	
EN.08T3.016.26 NERO26	ENHQ 08T306 SR-28V	h_{max}	0.15	0.15	0.15	0.12	0.10	0.08	
		v_c	240-300	240-300	220-260	200-240	180-210	140-180	

INS SHAPE EN

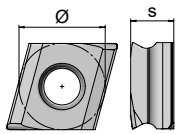


EN						
AS	Ø			s		
4	08	09	12	T3	04	06
	8	9.52	12.7	3.97	4.76	6.35

Matching of machining parameters
with the AV material groups

				Cast iron						
Article	Designation			D21	D20	D19	D18	D17	D16	
EN..0904..	EN.0904.023.12 SKY77	ENHQ 090408 SL-28W	h_{max}	0,18	0,18	0,18	0,15	0,12	0,10	
			v_c	200-280	200-260	180-230	170-210	160-190	140-180	
	EN.0904.023.12 NERO26	ENHQ 090408 SL-28W	h_{max}	0,18	0,18	0,18	0,15	0,12	0,10	
			v_c	240-300	240-300	220-260	200-240	180-210	140-180	
EN..0904..	EN.0904.022.12 SKY77	ENHQ 090408 SR-28W	h_{max}	0,18	0,18	0,18	0,15	0,12	0,10	
			v_c	200-280	200-260	180-230	170-210	160-190	140-180	
	EN.0904.022.12 NERO26	ENHQ 090408 SR-28W	h_{max}	0,18	0,18	0,18	0,15	0,12	0,10	
			v_c	240-300	240-300	220-260	200-240	180-210	140-180	
EN..0904..	EN.0904.017.26 SKY77	ENHQ 090408 SL-28V	h_{max}	0,18	0,18	0,18	0,15	0,12	0,10	
			v_c	200-280	200-260	180-230	170-210	160-190	140-180	
	EN.0904.017.26 NERO26	ENHQ 090408 SL-28V	h_{max}	0,18	0,18	0,18	0,15	0,12	0,10	
			v_c	240-300	240-300	220-260	200-240	180-210	140-180	
EN..0904..	EN.0904.016.26 SKY77	ENHQ 090408 SR-28V	h_{max}	0,18	0,18	0,18	0,15	0,12	0,10	
			v_c	200-280	200-260	180-230	170-210	160-190	140-180	
	EN.0904.016.26 NERO26	ENHQ 090408 SR-28V	h_{max}	0,18	0,18	0,18	0,15	0,12	0,10	
			v_c	240-300	240-300	220-260	200-240	180-210	140-180	
EN..1206..	EN.1206.027.18 SKY77	ENHQ 120610 SL-25V	h_{max}	0,25	0,25	0,22	0,20	0,18	0,13	
			v_c	200-280	200-260	180-230	170-210	160-190	140-180	
	EN.1206.027.18 NERO26	ENHQ 120610 SL-25V	h_{max}	0,25	0,25	0,22	0,20	0,18	0,13	
			v_c	240-300	240-300	220-260	200-240	180-210	140-180	
	EN..1206..	EN.1206.026.18 SKY77	ENHQ 120610 SR-25V	h_{max}	0,25	0,25	0,22	0,20	0,18	0,13
				v_c	200-280	200-260	180-230	170-210	160-190	140-180
		EN.1206.026.18 NERO26	ENHQ 120610 SR-25V	h_{max}	0,25	0,25	0,22	0,20	0,18	0,13
				v_c	240-300	240-300	220-260	200-240	180-210	140-180
	EN..1206..	EN.1206.029.13 SKY77	ENHQ 120610 SL-28W	h_{max}	0,23	0,23	0,21	0,18	0,17	0,12
				v_c	200-280	200-260	180-230	170-210	160-190	140-180
		EN.1206.029.13 NERO26	ENHQ 120610 SL-28W	h_{max}	0,23	0,23	0,21	0,18	0,17	0,12
				v_c	240-300	240-300	220-260	200-240	180-210	140-180
	EN..1206..	EN.1206.030.13 SKY77	ENHQ 120610 SR-28W	h_{max}	0,23	0,23	0,21	0,18	0,17	0,12
				v_c	200-280	200-260	180-230	170-210	160-190	140-180
		EN.1206.030.13 NERO26	ENHQ 120610 SR-28W	h_{max}	0,23	0,23	0,21	0,18	0,17	0,12
				v_c	240-300	240-300	220-260	200-240	180-210	140-180



INS SHAPE EN



EN						
AS	Ø			s		
4	08	09	12	T3	04	06
	8	9.52	12.7	3.97	4.76	6.35

Matching of machining parameters
with the AV material groups

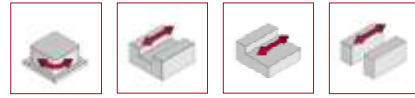
				NF metals		
Article		Designation		E82	E81	E80
EN..08T3..	EN.08T3.001.54 SKY77	ENHQ 08T306 SL-30	h_{max}	0,18	0,15	0,12
			v_c	650-1000	450-650	280-450
EN..08T3..	EN.08T3.002.54 SKY77	ENHQ 08T306 SR-30	h_{max}	0,18	0,15	0,12
			v_c	650-1000	450-650	280-450
EN..0904..	EN.0904.003.54 SKY77	ENHQ 090408 SL-30	h_{max}	0,20	0,18	0,15
			v_c	650-1000	450-650	280-450
EN..0904..	EN.0904.002.54 SKY77	ENHQ 090408 SR-30	h_{max}	0,20	0,18	0,15
			v_c	650-1000	450-650	280-450
EN..1206..	EN.1206.003.54 SKY77	ENHQ 120610 SL-30	h_{max}	0,25	0,20	0,18
			v_c	650-1000	450-650	280-450
EN..1206..	EN.1206.002.54 SKY77	ENHQ 120610 SR-30	h_{max}	0,25	0,20	0,18
			v_c	650-1000	450-650	280-450

INS		
EN..08T3...	08B.0309.7991	TX208
EN..0904...	08B.3511.7991	TX215
EN..1206...	08B.0513.7991	TX220

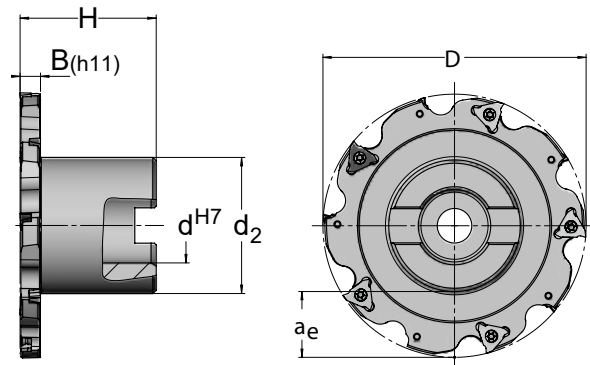
Mounting | CN/EN/FN
indexable insert page 138

SIDE MILLING CUTTERS

TB18



Extremely smooth cutting through left and right hand inserts – highly precise widths of cut from 4–12 mm
Complies with narrow radial and axial run out tolerances
3-side embedding of the T-style indexable insert



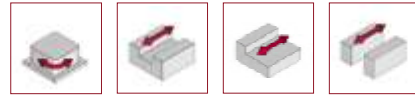
TB18

Article	D	d ₂	d ^{H7}	H	B _(h11)	zz	z _{eff}	a _e	lc	kg	INS
01T.0604.041	63	32	16	32	4	4 x 2	4	13.0	no	0.21	TN..1302.R/L
01T.0605.001	63	32	16	32	5	4 x 2	4	13.0	no	0.22	TC..1102.R/L
01T.0606.001	63	32	16	32	6	4 x 2	4	13.0	no	0.23	TC..1103.R/L
01T.0610.001	63	32	16	32	10	3 x 2	3	13.0	no	0.30	TN..1606.R/L
01T.0804.041	80	40	22	40	4	5 x 2	5	13.0	no	0.37	TN..1302.R/L
01T.0805.001	80	40	22	40	5	5 x 2	5	18.0	no	0.39	TC..1102.R/L
01T.0806.001	80	40	22	40	6	5 x 2	5	18.0	no	0.41	TC..1103.R/L
01T.0808.001	80	40	22	40	8	4 x 2	4	18.0	no	0.47	TN..1604.R/L
01T.0810.001	80	40	22	40	10	4 x 2	4	18.0	no	0.53	TN..1606.R/L
01T.0812.001	80	40	22	40	12	4 x 2	4	18.0	no	0.57	TN..1606.R/L*
01T.1004.041	100	45	27	45	4	8 x 2	8	18.0	no	0.67	TN..1302.R/L
01T.1005.001	100	45	27	45	5	7 x 2	7	25.0	no	0.58	TC..1102.R/L
01T.1006.001	100	45	27	45	6	7 x 2	7	25.0	no	0.62	TC..1103.R/L
01T.1008.001	100	45	27	45	8	5 x 2	5	25.0	no	0.70	TN..1604.R/L
01T.1010.001	100	45	27	45	10	5 x 2	5	25.0	no	0.79	TN..1606.R/L
01T.1012.001	100	45	27	45	12	5 x 2	5	25.0	no	0.86	TN..1606.R/L*
01T.1204.042	125	58	32	50	4	9 x 2	9	32.0	no	0.67	TN..1302.R/L
01T.1205.001	125	58	32	50	5	9 x 2	9	32.0	no	1.04	TC..1102.R/L
01T.1206.001	125	58	32	50	6	9 x 2	9	32.0	no	1.09	TC..1103.R/L
01T.1208.001	125	58	32	50	8	6 x 2	6	32.0	no	1.22	TN..1604.R/L
01T.1210.001	125	58	32	50	10	6 x 2	6	32.0	no	1.36	TN..1606.R/L
01T.1212.001	125	58	32	50	12	6 x 2	6	32.0	no	1.49	TN..1606.R/L*
01T.1606.001	160	68	40	63	6	11 x 2	11	44.0	no	1.85	TC..1103.R/L
01T.1607.001	160	68	40	63	7	8 x 2	8	44.0	no	1.97	TN..16T3.R/L
01T.1608.001	160	68	40	63	8	8 x 2	8	44.0	no	2.08	TN..1604.R/L
01T.1609.001	160	68	40	63	9	8 x 2	8	44.0	no	2.20	TN..1604.R/L*
01T.1610.001	160	68	40	63	10	8 x 2	8	44.0	no	2.32	TN..1606.R/L
01T.1612.001	160	68	40	63	12	8 x 2	8	44.0	no	2.40	TN..1606.R/L*

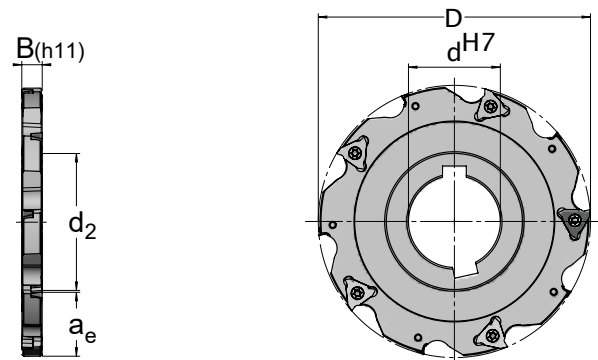
* Note that the screw length required varies depending on the insert used. Other dimensions on request.

SIDE MILLING CUTTERS

TN18



Extremely smooth cutting through left and right hand inserts – highly precise widths of cut from 4–12 mm
Complies with narrow radial and axial run out tolerances
3-side embedding of the T-style indexable insert

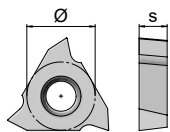


TN18

Article	D	d ₂	d ^{H7}	B _(h11)	zz	z _{eff}	a _e	lc	kg	INS
14T.0604.041	63	34	22	4	4 x 2	4	12.0	no	0.07	TN..1302.R/L
14T.0605.001	63	34	22	5	4 x 2	4	12.0	no	0.08	TC..1102.R/L
14T.0606.001	63	34	22	6	4 x 2	4	12.0	no	0.10	TC..1103.R/L
14T.0804.041	80	40	27	4	5 x 2	5	12.0	no	0.11	TN..1302.R/L
14T.0805.001	80	40	27	5	5 x 2	5	18.0	no	0.14	TC..1102.R/L
14T.0806.001	80	40	27	6	5 x 2	5	18.0	no	0.17	TC..1103.R/L
14T.0810.001	80	40	27	10	4 x 2	4	18.0	no	0.30	TN..1606.R/L
14T.1004.041	100	40	32	4	7 x 2	7	25.0	no	0.28	TN..1302.R/L
14T.1005.001	100	46	32	5	7 x 2	7	25.0	no	0.21	TC..1102.R/L
14T.1006.001	100	46	32	6	7 x 2	7	25.0	no	0.27	TC..1103.R/L
14T.1007.001	100	46	32	7	5 x 2	5	25.0	no	0.32	TN..16T3.R/L
14T.1008.001	100	46	32	8	5 x 2	5	25.0	no	0.37	TN..1604.R/L
14T.1009.001	100	46	32	9	5 x 2	5	25.0	no	0.42	TN..1604.R/L*
14T.1010.001	100	46	32	10	5 x 2	5	25.0	no	0.47	TN..1606.R/L
14T.1012.001	100	46	32	12	5 x 2	5	25.0	no	0.57	TN..1606.R/L*
14T.1204.041	125	46	32	4	9 x 2	9	37.0	no	0.28	TN..1302.R/L
14T.1205.001	125	46	32	5	9 x 2	9	37.0	no	0.36	TC..1102.R/L
14T.1206.001	125	46	32	6	9 x 2	9	37.0	no	0.44	TC..1103.R/L
14T.1207.001	125	46	32	7	6 x 2	6	37.0	no	0.52	TN..16T3.R/L
14T.1208.001	125	46	32	8	6 x 2	6	37.0	no	0.61	TN..1604.R/L
14T.1209.001	125	46	32	9	6 x 2	6	37.0	no	0.69	TN..1604.R/L*
14T.1210.001	125	46	32	10	6 x 2	6	37.0	no	0.78	TN..1606.R/L
14T.1212.001	125	46	32	12	6 x 2	6	37.0	no	0.92	TN..1606.R/L*
14T.1606.001	160	55	40	6	11 x 2	11	50.0	no	0.72	TC..1103.R/L
14T.1607.001	160	55	40	7	8 x 2	8	50.0	no	0.84	TN..16T3.R/L
14T.1608.001	160	55	40	8	8 x 2	8	50.0	no	0.97	TN..1604.R/L
14T.1609.001	160	55	40	9	8 x 2	8	50.0	no	1.12	TN..1604.R/L*
14T.1610.001	160	55	40	10	8 x 2	8	50.0	no	1.25	TN..1606.R/L
14T.1612.001	160	55	40	12	8 x 2	8	50.0	no	1.54	TN..1606.R/L*
14T.2007.001	200	55	40	7	10 x 2	10	70.0	no	1.40	TN..16T3.R/L
14T.2008.001	200	55	40	8	10 x 2	10	70.0	no	1.59	TN..1604.R/L
14T.2009.001	200	55	40	9	10 x 2	10	70.0	no	1.81	TN..1604.R/L*
14T.2010.001	200	55	40	10	10 x 2	10	70.0	no	1.98	TN..1606.R/L
14T.2012.001	200	55	40	12	10 x 2	10	70.0	no	2.43	TN..1606.R/L*
14T.2508.001	250	68	50	8	12 x 2	12	89.0	no	2.51	TN..1604.R/L
14T.2510.001	250	68	50	10	12 x 2	12	89.0	no	3.22	TN..1606.R/L
14T.2512.001	250	68	50	12	12 x 2	12	89.0	no	3.91	TN..1606.R/L*

* Note that the screw length required varies depending on the insert used. Other dimensions on request.

INS SHAPE TC | TN

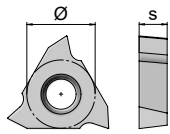


		TC TN							
AS	Ø			s					
3	11	13	16	02	03	T3	04	06	
	6.35	8	9.52	2.6	3.2	3.97	4.76	6.4	

Matching of machining parameters
with the AV material groups

				Steel						
Article		Designation		A22	A21	A20	A19	A18	A17	A16
TC..1102..	TC.1102.004.35 SKY77	TCAW 1102ZZ TL-28	h_{max}	0.12	0.10	0.10	0.08	0.08	0.06	0.05
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TC.1102.005.35 SKY77	TCAW 1102ZZ TR-28	h_{max}	0.12	0.10	0.10	0.08	0.08	0.06	0.05
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TC.1102.004.40 SKY77	TCAW 110206 TL-28	h_{max}	0.12	0.10	0.10	0.08	0.08	0.06	0.05
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TC.1102.005.40 SKY77	TCAW 110206 TR-28	h_{max}	0.12	0.10	0.10	0.08	0.08	0.06	0.05
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
TC..1103..	TC.1103.007.27 SKY77	TCAW 1103ZZ TL-28	h_{max}	0.12	0.10	0.10	0.08	0.08	0.06	0.05
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TC.1103.006.27 SKY77	TCAW 1103ZZ TR-28	h_{max}	0.12	0.10	0.10	0.08	0.08	0.06	0.05
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TC.1103.007.28 SKY77	TCAW 1103ZZ TL-28	h_{max}	0.12	0.10	0.10	0.08	0.08	0.06	0.05
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TC.1103.006.28 SKY77	TCAW 1103ZZ TR-28	h_{max}	0.12	0.10	0.10	0.08	0.08	0.06	0.05
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
TN..1302..	TN.1302.140.06 SKY77	TNAX 130203 SL-28	h_{max}	0.14	0.12	0.12	0.10	0.10	0.08	0.06
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TN.1302.141.06 SKY77	TNAX 130203 SR-28	h_{max}	0.14	0.12	0.12	0.10	0.10	0.08	0.06
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
TN..16T3..	TN.16T3.004.14 SKY77	TNAW 16T3ZZ TL-28	h_{max}	0.16	0.16	0.16	0.14	0.12	0.10	0.08
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TN.16T3.003.14 SKY77	TNAW 16T3ZZ TR-28	h_{max}	0.16	0.16	0.16	0.14	0.12	0.10	0.08
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TN.16T3.003.25 SKY77	TNAW 16T308 SR-28	h_{max}	0.16	0.16	0.16	0.14	0.12	0.10	0.08
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TN.16T3.004.25 SKY77	TNAW 16T308 SL-28	h_{max}	0.16	0.16	0.16	0.14	0.12	0.10	0.08
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110

INS SHAPE TC | TN

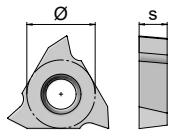


		TC TN								
AS	Ø			s						
3	11	13	16	02	03	T3	04	06		
	6.35	8	9.52	2.6	3.2	3.97	4.76	6.4		

Matching of machining parameters
with the AV material groups

				Steel						
Article		Designation		A22	A21	A20	A19	A18	A17	A16
TN..1604..	TN.1604.004.41 SKY77	TNAW 1604ZZ TR-28	h_{max}	0.16	0.16	0.16	0.14	0.12	0.10	0.08
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TN.1604.003.41 SKY77	TNAW 1604ZZ TL-28	h_{max}	0.16	0.16	0.16	0.14	0.12	0.10	0.08
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TN.1604.004.46 SKY77	TNAW 160408 SL-28	h_{max}	0.16	0.16	0.16	0.14	0.12	0.10	0.08
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TN.1604.003.46 SKY77	TNAW 160408 SR-28	h_{max}	0.16	0.16	0.16	0.14	0.12	0.10	0.08
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
TN..1606..	TN.1606.004.49 SKY77	TNAW 1606ZZ TL-28	h_{max}	0.16	0.16	0.16	0.14	0.12	0.10	0.08
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TN.1606.003.49 SKY77	TNAW 1606ZZ TR-28	h_{max}	0.16	0.16	0.16	0.14	0.12	0.10	0.08
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TN.1606.004.60 SKY77	TNAW 160608 SL-28	h_{max}	0.16	0.16	0.16	0.14	0.12	0.10	0.08
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110
	TN.1606.003.60 SKY77	TNAW 160608 SR-28	h_{max}	0.16	0.16	0.16	0.14	0.12	0.10	0.08
			v_c	280-320	240-280	210-240	180-210	140-180	110-140	80-110

INS SHAPE TC | TN

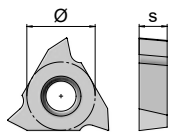


		TC TN							
AS	Ø			s					
3	11	13	16	02	03	T3	04	06	
	6.35	8	9.52	2.6	3.2	3.97	4.76	6.4	

Matching of machining parameters
with the AV material groups

				Cast iron					
Article		Designation		D21	D20	D19	D18	D17	D16
TC..1102..	TC.1102.004.35 SKY77	TCAW 1102ZZ TL-28	h_{max}	0.12	0.12	0.10	0.10	0.08	0.06
			v_c	280-320	260-290	210-260	190-240	180-210	140-180
	TC.1102.005.35 SKY77	TCAW 1102ZZ TR-28	h_{max}	0.12	0.12	0.10	0.10	0.08	0.06
			v_c	280-320	260-290	210-260	190-240	180-210	140-180
	TC.1102.004.40 SKY77	TCAW 110206 TL-28	h_{max}	0.12	0.12	0.10	0.10	0.08	0.06
			v_c	280-320	260-290	210-260	190-240	180-210	140-180
	TC.1102.005.40 SKY77	TCAW 110206 TR-28	h_{max}	0.12	0.12	0.10	0.10	0.08	0.06
			v_c	280-320	260-290	210-260	190-240	180-210	140-180
TC..1103..	TC.1103.007.27 SKY77	TCAW 1103ZZ TL-28	h_{max}	0.12	0.12	0.10	0.10	0.08	0.06
			v_c	280-320	260-290	210-260	190-240	180-210	140-180
	TC.1103.006.27 SKY77	TCAW 1103ZZ TR-28	h_{max}	0.12	0.12	0.10	0.10	0.08	0.06
			v_c	280-320	260-290	210-260	190-240	180-210	140-180
	TC.1103.007.28 SKY77	TCAW 1103ZZ TL-28	h_{max}	0.12	0.12	0.10	0.10	0.08	0.06
			v_c	280-320	260-290	210-260	190-240	180-210	140-180
	TC.1103.006.28 SKY77	TCAW 1103ZZ TR-28	h_{max}	0.12	0.12	0.10	0.10	0.08	0.06
			v_c	280-320	260-290	210-260	190-240	180-210	140-180
TN..1302..	TN.1302.140.06 SKY77	TNAX 130203 SL-28	h_{max}	0.14	0.14	0.12	0.12	0.10	0.08
			v_c	280-320	260-290	210-260	190-240	180-210	140-180
	TN.1302.141.06 SKY77	TNAX 130203 SR-28	h_{max}	0.14	0.14	0.12	0.12	0.10	0.08
			v_c	280-320	260-290	210-260	190-240	180-210	140-180
TN..16T3..	TN.16T3.004.14 SKY77	TNAW 16T3ZZ TL-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08
			v_c	280-320	260-290	210-260	190-240	180-210	140-180
	TN.16T3.003.14 SKY77	TNAW 16T3ZZ TR-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08
			v_c	280-320	260-290	210-260	190-240	180-210	140-180
	TN.16T3.003.25 SKY77	TNAW 16T308 SR-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08
			v_c	280-320	260-290	210-260	190-240	180-210	140-180
	TN.16T3.004.25 SKY77	TNAW 16T308 SL-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08
			v_c	280-320	260-290	210-260	190-240	180-210	140-180

INS SHAPE TC | TN

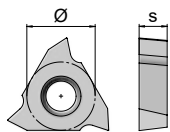


		TC TN								
AS	Ø			s						
3	11	13	16	02	03	T3	04	06		
	6.35	8	9.52	2.6	3.2	3.97	4.76	6.4		

Matching of machining parameters
with the AV material groups

				Cast iron						
Article	Designation			D21	D20	D19	D18	D17	D16	
TN..1604..	TN.1604.004.41 SKY77	TNAW 1604ZZ TR-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08	
			v_c	280-320	260-290	210-260	190-240	180-210	140-180	
	TN.1604.004.41 NERO26	TNAW 1604ZZ TR-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08	
			v_c	340-380	280-340	240-280	210-240	180-210	140-180	
TN..1604..	TN.1604.003.41 SKY77	TNAW 1604ZZ TL-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08	
			v_c	280-320	260-290	210-260	190-240	180-210	140-180	
	TN.1604.003.41 NERO26	TNAW 1604ZZ TL-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08	
			v_c	340-380	280-340	240-280	210-240	180-210	140-180	
TN..1604..	TN.1604.004.46 SKY77	TNAW 160408 SL-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08	
			v_c	280-320	260-290	210-260	190-240	180-210	140-180	
	TN.1604.004.46 NERO26	TNAW 160408 SL-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08	
			v_c	340-380	280-340	240-280	210-240	180-210	140-180	
TN..1604..	TN.1604.003.46 SKY77	TNAW 160408 SR-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08	
			v_c	280-320	260-290	210-260	190-240	180-210	140-180	
	TN.1604.003.46 NERO26	TNAW 160408 SR-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08	
			v_c	340-380	280-340	240-280	210-240	180-210	140-180	
TN..1606..	TN.1606.004.49 SKY77	TNAW 1606ZZ TL-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08	
			v_c	280-320	260-290	210-260	190-240	180-210	140-180	
	TN.1606.004.49 NERO26	TNAW 1606ZZ TL-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08	
			v_c	340-380	280-340	240-280	210-240	180-210	140-180	
	TN..1606..	TN.1606.003.49 SKY77	TNAW 1606ZZ TR-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08
				v_c	280-320	260-290	210-260	190-240	180-210	140-180
		TN.1606.003.49 NERO26	TNAW 1606ZZ TR-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08
				v_c	340-380	280-340	240-280	210-240	180-210	140-180
	TN..1606..	TN.1606.004.60 SKY77	TNAW 160608 SL-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08
				v_c	280-320	260-290	210-260	190-240	180-210	140-180
		TN.1606.004.60 NERO26	TNAW 160608 SL-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08
				v_c	340-380	280-340	240-280	210-240	180-210	140-180
TN..1606..	TN.1606.003.60 SKY77	TNAW 160608 SR-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08	
			v_c	280-320	260-290	210-260	190-240	180-210	140-180	
	TN.1606.003.60 NERO26	TNAW 160608 SR-28	h_{max}	0.18	0.18	0.15	0.13	0.10	0.08	
			v_c	340-380	280-340	240-280	210-240	180-210	140-180	

INS SHAPE TC | TN

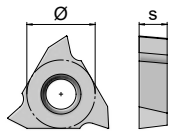


		TC TN								
AS	Ø			s						
3	11	13	16	02	03	T3	04	06		
	6.35	8	9.52	2.6	3.2	3.97	4.76	6.4		

Matching of machining parameters
with the AV material groups

Article	Designation		Stainless steels				NF metals			
			C12	C11	C10	C09	E82	E81	E80	
TC..1102..	TC.1102.004.35 SKY77	TCAW 1102ZZ TL-28	h_{max}	0.10	0.08	0.07	0.05	0.15	0.12	0.10
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
	TC.1102.005.35 SKY77	TCAW 1102ZZ TR-28	h_{max}	0.10	0.08	0.07	0.05	0.15	0.12	0.10
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
TC.1102.004.40 SKY77	TCAW 110206 TL-28	h_{max}	0.10	0.08	0.07	0.05	0.15	0.12	0.10	
		v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450	
TC.1102.005.40 SKY77	TCAW 110206 TR-28	h_{max}	0.10	0.08	0.07	0.05	0.15	0.12	0.10	
		v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450	
TC..1103..	TC.1103.007.27 SKY77	TCAW 1103ZZ TL-28	h_{max}	0.10	0.08	0.07	0.05	0.15	0.12	0.10
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
	TC.1103.006.27 SKY77	TCAW 1103ZZ TR-28	h_{max}	0.10	0.08	0.07	0.05	0.15	0.12	0.10
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
TC.1103.007.28 SKY77	TCAW 1103ZZ TL-28	h_{max}	0.10	0.08	0.07	0.05	0.15	0.12	0.10	
		v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450	
TC.1103.006.28 SKY77	TCAW 1103ZZ TR-28	h_{max}	0.10	0.08	0.07	0.05	0.15	0.12	0.10	
		v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450	
TN..1302..	TN.1302.140.06 SKY77	TNAX 130203 SL-28	h_{max}	0.10	0.08	0.07	0.05	0.17	0.15	0.10
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
TN.1302.141.06 SKY77	TNAX 130203 SR-28	h_{max}	0.10	0.08	0.07	0.05	0.17	0.15	0.10	
		v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450	
TN..16T3..	TN.16T3.004.14 SKY77	TNAW 16T3ZZ TL-28	h_{max}	0.12	0.10	0.08	0.07	0.20	0.18	0.15
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
	TN.16T3.003.14 SKY77	TNAW 16T3ZZ TR-28	h_{max}	0.12	0.10	0.08	0.07	0.20	0.18	0.15
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
TN.16T3.003.25 SKY77	TNAW 16T308 SR-28	h_{max}	0.12	0.10	0.08	0.07	0.20	0.18	0.15	
		v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450	
TN.16T3.004.25 SKY77	TNAW 16T308 SL-28	h_{max}	0.12	0.10	0.08	0.07	0.20	0.18	0.15	
		v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450	

INS SHAPE TC | TN



		TC TN								
AS	Ø			s						
3	11	13	16	02	03	T3	04	06		
	6.35	8	9.52	2.6	3.2	3.97	4.76	6.4		

Matching of machining parameters
with the AV material groups

Article	Designation		Stainless steels				NF metals			
			C12	C11	C10	C09	E82	E81	E80	
TN..1604..	TN.1604.004.41 SKY77	TNAW 1604ZZ TR-28	h_{max}	0.12	0.10	0.08	0.07	0.20	0.18	0.15
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
	TN.1604.003.41 SKY77	TNAW 1604ZZ TL-28	h_{max}	0.12	0.10	0.08	0.07	0.20	0.18	0.15
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
	TN.1604.004.46 SKY77	TNAW 160408 SL-28	h_{max}	0.12	0.10	0.08	0.07	0.20	0.18	0.15
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
	TN.1604.003.46 SKY77	TNAW 160408 SR-28	h_{max}	0.12	0.10	0.08	0.07	0.20	0.18	0.15
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
TN..1606..	TN.1606.004.49 SKY77	TNAW 1606ZZ TL-28	h_{max}	0.12	0.10	0.08	0.07	0.20	0.18	0.15
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
	TN.1606.003.49 SKY77	TNAW 1606ZZ TR-28	h_{max}	0.12	0.10	0.08	0.07	0.20	0.18	0.15
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
	TN.1606.004.60 SKY77	TNAW 160608 SL-28	h_{max}	0.12	0.10	0.08	0.07	0.20	0.18	0.15
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450
	TN.1606.003.60 SKY77	TNAW 160608 SR-28	h_{max}	0.12	0.10	0.08	0.07	0.20	0.18	0.15
			v_c	120-200	140-150	100-140	60-100	650-1000	450-650	280-450

INS		
TC..1102...	08B.2538.7991	TX208
TC..1103...	08B.2552.7991	TX208
TN..11T3...	08B.0354.7991	TX208
TN..1302...	08B.0334.001	TX208
TN..1604...	08B.0364.7991	TX208
TN..1604...*	08B.0375.7991	TX208
TN..1606...	08B.3585.7991	TX215
TN..1606...*	08B.3509.7991	TX215

* Note that the screw length required varies depending on the insert used

Mounting | TC/TN
indexable insert page 137