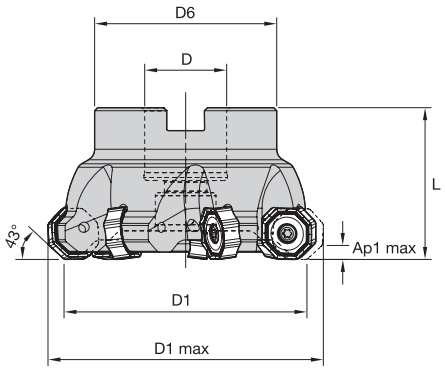
M1600 • 43° • Shell Mills • Metric

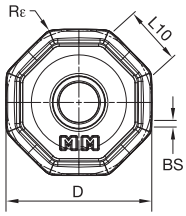




order number	catalogue number	D1	D1 max	D	D6	L	Ap1 max	Z	max RPM	coolant supply	kg
4002796	**M1600D050Z04S22ON06**	50	60,7	22	40	40	3,7	4	—	Yes	0,28
4002797	**M1600D063Z05S22ON06**	63	73,7	22	40	40	3,7	5	—	Yes	0,43
3837977	**M1600D080Z07S27ON06**	80	90,7	27	60	50	3,7	7	—	Yes	0,97
3860336	**M1600D100Z09S32ON06**	100	110,7	32	78	50	3,7	9	—	Yes	1,52
3837978	**M1600D125Z11S40ON06**	125	135,7	40	89	63	3,7	11	6900	Yes	2,70
4002798	**M1600D160Z13S40ON06**	160	170,7	40	90	63	3,7	13	—	Yes	3,83

M1600 • ONGX-MM • General Purpose Face Milling



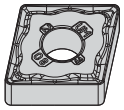


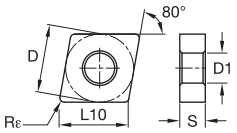
● first choice
○ alternate choice

P		●	●
M		●	●
K	●	○	○
N			○
S		○	○
H			○

ISO catalogue number	cutting edges	D	L10	S	BS	Rε	hm	WK15CM	WP35CM	WU20PM
ONGX060512ANSNMM	16	17	6,87	5,47	0,77	1,20	0,04	6072424	-	-
ONGX060512ANSNMM	16	17	6,87	5,47	0,77	1,20	0,06	-	6852431	3778942

CNMG-UM • Medium Machining



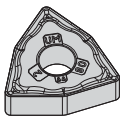


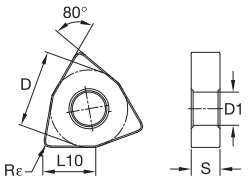
● first choice
○ alternate choice

		WP05CT	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK15CT	WK20CT	WS10PT	WS25PT	WU10HT	WU05PT	WP20TT	THM	TTR	WM20CT	WU10PT	WU25PT
P		●	●	●	●	○	○	○	○	○	○	○	○		○	●		●		●	●
M					○	●	●	●				●	●		○				●	●	●
K		○	○	○					●	●	●	○	○		○		●			○	○
N												○	○	●	●		○			○	○
S							○					●	●		○		○		○	●	●
H																				○	

ISO catalogue number	D	L10	S	Rε	D1																
CNMG120404UM	12,70	12,90	4,76	0,4	5,16	-	-	-	-	-	4172380	4172410	-	-	-	5645217	-	-	-	-	-
CNMG120408UM	12,70	12,90	4,76	0,8	5,16	6496789	-	5645219	-	4172335	4172381	4172411	-	-	-	-	-	-	-	-	-
CNMG120412UM	12,70	12,90	4,76	1,2	5,16	6496790	-	-	-	-	4172382	-	-	-	-	-	-	-	-	-	-

WNMG-UM • Medium Machining



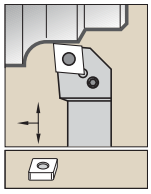


● first choice
○ alternate choice

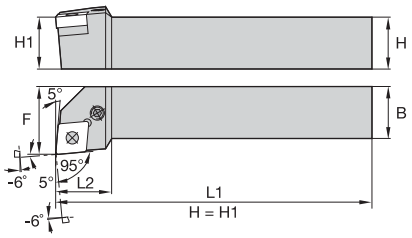
		WP05CT	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK15CT	WK20CT	WS10PT	WS25PT	WU10HT	WU05PT	WP20TT	THM	TTR	WM20CT	WU10PT	WU25PT
P		●	●	●	●	○	○	○	○	○	○	○	○		○	●		●		●	●
M					○	●	●	●				●	●		○				●	●	●
K		○	○	○					●	●	●	○	○		○		●			○	○
N												○	○	●	●		○			○	○
S							○					●	●		○		○		○	●	●
H																				○	

ISO catalogue number	D	L10	S	Rε	D1																
WNMG060404UM	9,53	6,52	4,76	0,4	3,81	-	-	-	-	4172375	4172403	4172432	-	-	-	-	-	-	-	-	-
WNMG060408UM	9,53	6,52	4,76	0,8	3,81	-	-	-	-	4172376	4172404	4172433	-	-	-	-	-	-	-	-	-
WNMG060412UM	9,53	6,52	4,76	1,2	3,81	-	-	-	-	-	4172405	-	-	-	-	-	-	-	-	-	-
WNMG080404UM	12,70	8,69	4,76	0,4	5,16	-	-	-	-	4172377	4172406	4172435	-	-	-	-	-	-	-	-	-
WNMG080408UM	12,70	8,69	4,76	0,8	5,16	6496991	-	5645270	-	4172378	4172407	4172436	-	-	-	-	-	-	-	-	-
WNMG080412UM	12,70	8,69	4,76	1,2	5,16	6496992	-	-	-	-	4172408	-	-	-	-	5645269	-	-	-	-	-

PCLN 95°

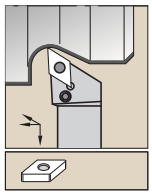


See pages E28–E42, E145, E159, E168–E169 for inserts.

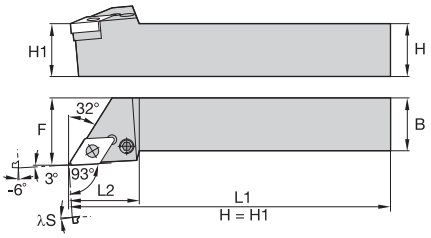


order number	catalogue number	H	B	F	L1	L2	gage insert
right hand							
3878400	**PCLNR1616H12**	16	16	20,0	100	26,0	CN..120408
3878422	**PCLNR2020K12**	20	20	25,0	125	26,0	CN..120408
3878419	**PCLNR2525M12**	25	25	32,0	150	26,0	CN..120408
3878401	**PCLNR2525M16**	25	25	32,0	150	28,0	CN..160612
3878402	**PCLNR3225P12**	32	25	32,0	170	26,0	CN..120408
3878421	**PCLNR3225P16**	32	25	32,0	170	38,0	CN..160612
3878396	**PCLNR3232P16**	32	32	40,0	170	36,0	CN..160612
3878414	**PCLNR3232P19**	32	32	40,0	170	36,0	CN..190612
3878417	**PCLNR4040S19**	40	40	50,0	250	36,0	CN..190612
left hand							
3878379	**PCLNL1616H12**	16	16	20,0	100	26,0	CN..120408
3878418	**PCLNL2020K12**	20	20	25,0	125	26,0	CN..120408
3878398	**PCLNL2525M12**	25	25	32,0	150	26,0	CN..120408
3878380	**PCLNL2525M16**	25	25	32,0	150	28,0	CN..160612
3878397	**PCLNL3225P12**	32	25	32,0	170	26,0	CN..120408
3878415	**PCLNL3232P16**	32	32	40,0	170	36,0	CN..160612
3878393	**PCLNL3232P19**	32	32	40,0	170	36,0	CN..190612
3878416	**PCLNL4040S19**	40	40	50,0	250	36,0	CN..190612

PDJN 93°

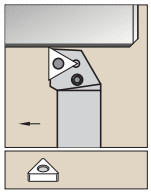


See pages E49–E60, E147, E162, E172–E173 for inserts.

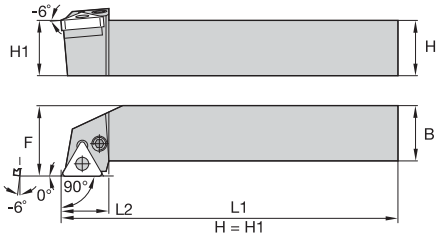


order number	catalogue number	H	B	F	L1	L2	λS°	gage insert
right hand								
3878424	**PDJNR1616H11**	16	16	20,0	100	22,0	-6.0	DN..110408
3878429	**PDJNR2020K11**	20	20	25,0	125	30,0	-7.0	DN..110408
3879318	**PDJNR2020K15**	20	20	25,0	125	36,0	-7.0	DN..150608
3879151	**PDJNR2525M11**	25	25	32,0	150	30,0	-7.0	DN..110408
3878425	**PDJNR3225P15**	32	25	32,0	170	38,0	-7.0	DN..150608
3879152	**PDJNR3232P15**	32	32	40,0	170	38,0	-7.0	DN..150608
3878426	**PDJNR4025R15**	40	25	32,0	200	38,0	-7.0	DN..150608
left hand								
3878427	**PDJNL2020K11**	20	20	25,0	125	30,0	-7.0	DN..110408
3879317	**PDJNL2020K15**	20	20	25,0	125	36,0	-7.0	DN..150608
3878428	**PDJNL2525M11**	25	25	32,0	150	30,0	-7.0	DN..110408
3879314	**PDJNL2525M15**	25	25	32,0	150	—	-7.0	DN..150608
3878423	**PDJNL3225P15**	32	25	32,0	170	38,0	-7.0	DN..150608
3879315	**PDJNL3232P15**	32	32	40,0	170	38,0	-7.0	DN..150608

PTGN 90°

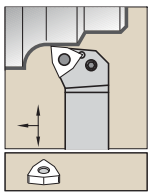


See pages E86–E95, E155, E164, E175 for inserts.

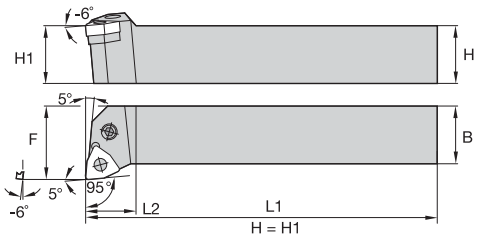


order number	catalogue number	H	B	F	L1	L2	gage insert
right hand							
3879385	**PTGNR1616H16**	16	16	20,0	100	20,0	TN..160408
3879389	**PTGNR2020K16**	20	20	25,0	125	20,0	TN..160408
3879390	**PTGNR2525M16**	25	25	32,0	150	20,0	TN..160408
3879387	**PTGNR2525M22**	25	25	32,0	150	26,0	TN..220408
3879846	**PTGNR3225P22**	32	25	32,0	170	28,0	TN..220408
3900163	**PTGNR4040T27**	40	40	50,0	300	31,0	TN..270612
left hand							
3879388	**PTGNL2525M16**	25	25	32,0	150	20,0	TN..160408
3879386	**PTGNL2525M22**	25	25	32,0	150	26,0	TN..220408
3879392	**PTGNL3232P22**	32	32	40,0	170	26,0	TN..220408
3900162	**PTGNL4040T27**	40	40	50,0	300	31,0	TN..270612

PWLN 95°

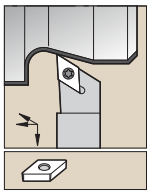


See pages E108–E116, E157, E167, E177 for inserts.

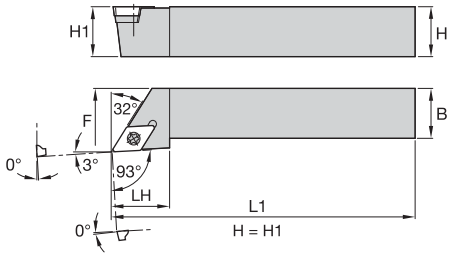


order number	catalogue number	H	B	F	L1	L2	gage insert
right hand							
3879405	**PWLNR1616H06**	16	16	20,0	100	14,0	WN..060408
3879407	**PWLNR2020K06**	20	20	25,0	125	14,0	WN..060408
3879408	**PWLNR2020K08**	20	20	25,0	125	20,0	WN..080408
3900167	**PWLNR2525M06**	25	25	32,0	150	20,0	WN..060408
3879409	**PWLNR2525M08**	25	25	32,0	150	26,0	WN..080408
3900164	**PWLNR3232P08**	32	32	40,0	170	26,0	WN..080408
left hand							
3879403	**PWLNL2020K08**	20	20	25,0	125	20,0	WN..080408
3900166	**PWLNL2525M06**	25	25	32,0	150	20,0	WN..060408
3879404	**PWLNL2525M08**	25	25	32,0	150	26,0	WN..080408
3900165	**PWLNL3232P08**	32	32	40,0	170	26,0	WN..080408

SDJC 93°

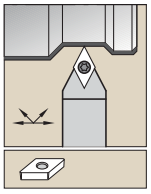


See pages E44–E48, E123, E161, E170–E171 for inserts.

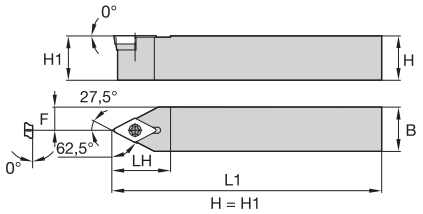


order number	catalogue number	H	B	F	L1	LH	gage insert
right hand							
3879464	**SDJCR1010M07**	10	10	12,0	150	16,0	DC..070204
3899890	**SDJCR1212F07**	12	12	16,0	80	–	DC..070204
3900177	**SDJCR1212F11**	12	12	16,0	80	–	DC..11T308
3879456	**SDJCR1616H07**	16	16	20,0	100	16,0	DC..070204
3879459	**SDJCR1616H11**	16	16	20,0	100	22,0	DC..11T308
3879458	**SDJCR2020K07**	20	20	25,0	125	16,0	DC..070204
3879460	**SDJCR2020K11**	20	20	25,0	125	22,0	DC..11T308
3879457	**SDJCR2020K15**	20	20	25,0	125	32,0	DC..150408
3879461	**SDJCR2525M11**	25	25	32,0	150	22,1	DC..11T308
3879463	**SDJCR2525M15**	25	25	32,0	150	32,0	DC..150408
3900175	**SDJCR3225P15**	32	25	32,0	170	–	DC..150408
left hand							
3899892	**SDJCL1010E07**	10	10	12,0	70	–	DC..070204
3899891	**SDJCL1212F07**	12	12	16,0	80	–	DC..070204
3900176	**SDJCL1212F11**	12	12	16,0	80	–	DC..11T308
2024450	**SDJCL1616H11**	16	16	20,0	100	–	DC..11T3..
3879454	**SDJCL1616H11**	16	16	20,0	100	22,0	DC..11T308
3879442	**SDJCL2020K07**	20	20	25,0	125	16,0	DC..070204
3879462	**SDJCL2020K11**	20	20	25,0	125	22,0	DC..11T308
3879453	**SDJCL2525M11**	25	25	32,0	150	22,1	DC..11T308
3879455	**SDJCL2525M15**	25	25	32,0	150	32,0	DC..150408
3900174	**SDJCL3225P15**	32	25	32,0	170	–	DC..150408

SDNC 62,5°

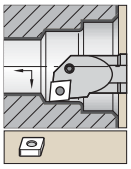


See pages E44–E48, E123, E161, E170–E171 for inserts.

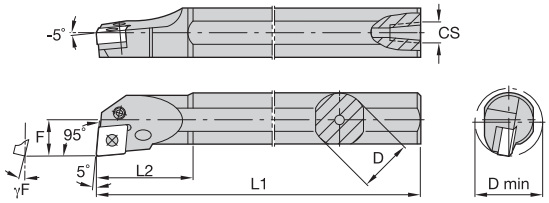


order number	catalogue number	H	B	F	L1	LH	gage insert
neutral hand							
3879468	**SDNCN0808L07**	8	8	4,0	140	16,0	DC..070204
3900178	**SDNCN1212F11**	12	12	6,0	80	–	DC..11T308
3879465	**SDNCN1616H11**	16	16	8,0	100	22,0	DC..11T308
3879467	**SDNCN2020K11**	20	20	10,0	125	22,0	DC..11T308
3879849	**SDNCN2525M11**	25	25	12,5	150	24,9	DC..11T308
3879466	**SDNCN2525M15**	25	25	12,5	150	28,0	DC..150408
3900179	**SDNCN3225P15**	32	25	12,5	170	–	DC..150408

A-PCLN 95°



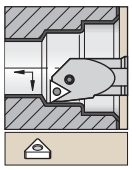
See pages E28–E42, E145, E159, E168–E169 for inserts.



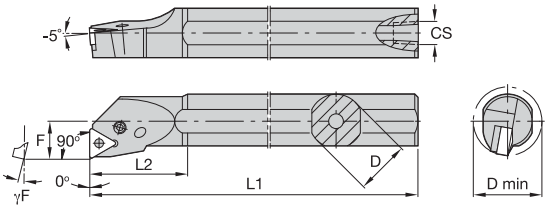
Steel shank with through coolant.

order number	catalogue number	D	D min	F	L1	L2	CS	γF°	gage insert
right hand									
3883468	**A25TPCLNR12**	25	32,0	17,0	300	40	1/4-18 NPT	-12.0	CN..120408
3883466	**A32UPCLNR12**	32	40,0	22,0	350	50	1/4-18 NPT	-10.0	CN..120408
3883463	**A40TPCLNR12**	40	50,0	27,0	400	55	1/4-18 NPT	-10.0	CN..120408
3883442	**A40TPCLNR16**	40	50,0	27,0	400	55	1/4-18 NPT	-11.0	CN..160612
left hand									
3883469	**A25TPCLNL12**	25	32,0	17,0	300	40	1/4-18 NPT	-12.0	CN..120408
3883467	**A32UPCLNL12**	32	40,0	22,0	350	50	1/4-18 NPT	-10.0	CN..120408
3883465	**A40TPCLNL12**	40	50,0	27,0	400	55	1/4-18 NPT	-10.0	CN..120408

A-PTFN 90°



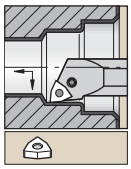
See pages E86–E95, E155, E164, E175 for inserts.



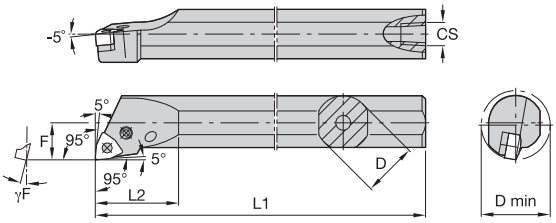
Steel shank with through coolant.

order number	catalogue number	D	D min	F	L1	L2	CS	γF°	gage insert
right hand									
3883263	**A25TPTFNR16**	25	32,0	17,0	300	40	1/4-18 NPT	-12.0	TN..160408
3883151	**A32UPTFNR16**	32	40,0	22,0	350	50	1/4-18 NPT	-10.0	TN..160408
3883149	**A40VPTFNR22**	40	48,0	27,0	400	55	1/4-18 NPT	-10.0	TN..220408

A-PWLN 95°



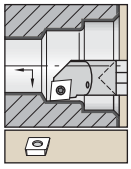
See pages E108–E116, E157, E167, E177 for inserts.



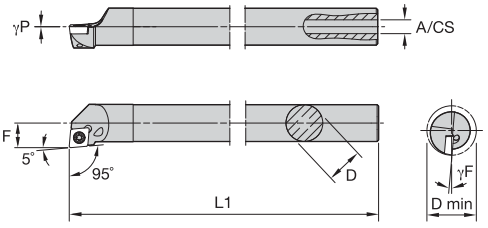
Steel shank with through coolant.

order number	catalogue number	D	D min	F	L1	L2	CS	γF°	gage insert
right hand									
3883459	**A16RPWLNR06**	16	27,0	11,0	200	32	1/8-27 NPT	-12.0	WN..060404
3883455	**A20SPWLNR06**	20	25,0	13,0	250	—	1/8-27 NPT	-14.0	WN..060408
3883458	**A25RPWLNR08**	25	32,0	17,0	200	—	1/4-18 NPT	-12.0	WN..080408
3883454	**A32SPWLNR08**	32	40,0	22,0	250	50	1/4-18 NPT	-10.0	WN..080408
left hand									
3883461	**A16RPWLNL06**	16	27,0	11,0	200	32	1/8-27 NPT	-12.0	WN..060404
3883457	**A20SPWLNL06**	20	25,0	13,0	250	—	1/8-27 NPT	-14.0	WN..060408
3883456	**A32SPWLNL08**	32	40,0	22,0	250	50	1/4-18 NPT	-10.0	WN..080408

E-SCLC 95°



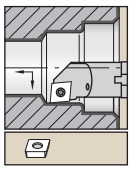
See pages E22–E27, E122, E158, E167–E168 for inserts.



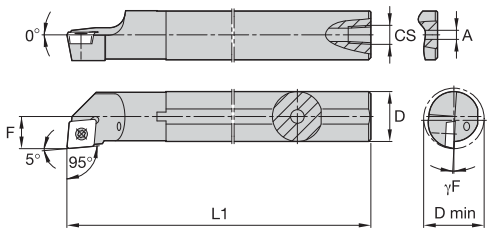
Carbide shank with through coolant.

order number	catalogue number	D	D min	F	L1	A	CS	γF°	γP°	gage insert
right hand										
2010068	**E08KSCLCR06**	8	11,0	6,0	125	3,0	–	-12.0	0.0	CC..060204
2023603	**E08KSCLCR065**	8	10,0	5,0	125	3,0	–	-15.0	0.0	CC..060204
2031021	**E10MSCLCR06**	10	13,0	7,0	151	3,2	–	-10.0	0.0	CC..060204
2023608	**E12QSCLCR06**	12	16,0	9,0	180	4,5	–	-8.0	0.0	CC..060204
2010139	**E16RSCLCR09**	16	20,0	11,0	200	4,5	–	-7.0	0.0	CC..090308
2023614	**E16RSCLCR09T3**	16	20,0	11,0	200	4,5	–	-7.0	0.0	CC..09T308
2023621	**E20SSCLCR09**	20	25,0	13,0	250	–	G1/8	-5.0	0.0	CC..090308
2010184	**E20SSCLCR09T3**	20	25,0	13,0	250	–	G1/8	-5.0	0.0	CC..09T308
2010224	**E25TSCLCR09T3**	25	32,0	17,0	300	–	G1/4	-3.0	0.0	CC..09T308
2023632	**E32USCLCR12**	32	40,0	22,0	350	–	G1/4	-10.0	0.0	CC..120408
left hand										
2023601	**E08KSCLCL06**	8	11,0	6,0	125	3,0	–	-12.0	0.0	CC..060204
2031020	**E08KSCLCL065**	8	10,0	5,0	125	3,0	–	-15.0	0.0	CC..060204
2031022	**E10MSCLCL06**	10	13,0	7,0	151	3,2	–	-10.0	0.0	CC..060204
2023607	**E12QSCLCL06**	12	16,0	9,0	180	4,5	–	-8.0	0.0	CC..060204
2023613	**E16RSCLCL09**	16	20,0	11,0	200	4,5	–	-7.0	0.0	CC..090308
2031026	**E20SSCLCL09**	20	25,0	13,0	250	–	G1/8	-5.0	0.0	CC..090308
2010215	**E25TSCLCL09**	25	32,0	17,0	300	–	G1/4	-3.0	0.0	CC..090308

A-SCLP 95°



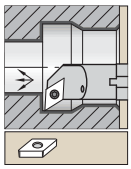
See pages E43, E160, E169–E170 for inserts.



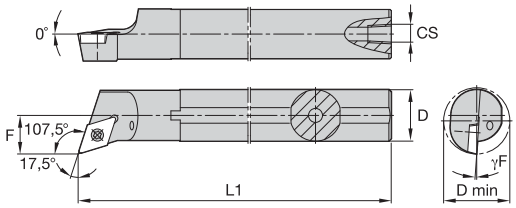
Steel shank with through coolant.

order number	catalogue number	D	D min	F	L1	A	CS	γF°	gage insert
right hand									
5077645	**A10KSCLPR06**	10	13,0	7,0	125	3,2	–	-4.0	CP..0602..
5077681	**A12MSCLPR06**	12	16,0	9,0	150	4,0	–	-3.0	CP..0602..
5077694	**A16RSCLPR06**	16	20,0	11,0	200	–	1/8-27 NPT	-5.0	CC..0602..
left hand									
5077680	**A12MSCLPL06**	12	16,0	9,0	150	4,0	–	-3.0	CP..0602..

A-SDQP



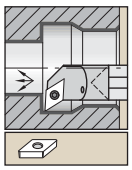
See pages E162–E163 for inserts.



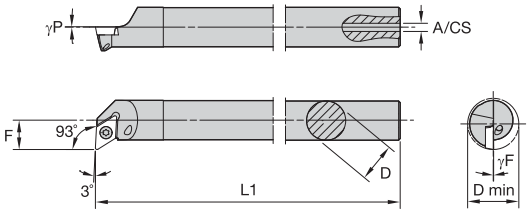
Steel shank with through coolant.

order number	catalogue number	D	D min	F	L1	CS	γF°	gage insert
right hand								
5078298	**A20SSDQPR11**	20	25,0	13,0	250	1/8-27 NPT	2.0	DP..11T3..

E-SDUC 93°



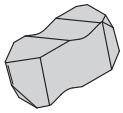
See pages E44–E48, E123, E161, E170–E171 for inserts.

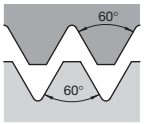


Carbide shank with through coolant.

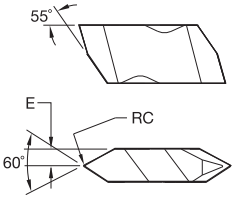
order number	catalogue number	D	D min	F	L1	A	CS	γF°	γP°	gage insert
right hand										
2023611	**E12QSDUCR07**	12	16,0	9,0	180	4,5	–	-7.0	0.0	DC..070204
2010157	**E16RSDUCR07**	16	20,0	11,0	200	4,5	–	-5.0	0.0	DC..070204
2023624	**E20SSDUCR11**	20	25,0	13,0	250	–	G1/8	-7.0	0.0	DC..11T308
2023630	**E25TSDUCR11**	25	32,0	17,0	300	–	G1/4	-5.0	0.0	DC..11T308
left hand										
2023610	**E12QSDUCL07**	12	16,0	9,0	180	4,5	–	-7.0	0.0	DC..070204
2023617	**E16RSDUCL07**	16	20,0	11,0	200	4,5	–	-5.0	0.0	DC..070204
2010193	**E20SSDUCL11**	20	25,0	13,0	250	–	G1/8	-7.0	0.0	DC..11T308
2023629	**E25TSDUCL11**	25	32,0	17,0	300	–	G1/4	-5.0	0.0	DC..11T308

Threading Inserts • NT





Partial Profile 60°



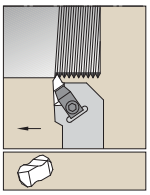
● first choice
○ alternate choice

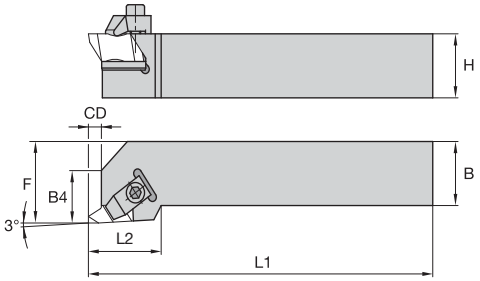
P	●	●		
M	●	●		
K	●	○	●	
N	●	○	○	
S	●	●	○	
H	○	○		

catalogue number	RC	E	SSC	external thread pitch mm	internal thread pitch mm	external TPI	internal TPI	TN6010	TN6025	THM
right hand										
NT2R	0,10	1,90	2	0,70-3,0	1,25-3,5	8-36	7-20	3607647	3607843	-
NT3R	0,17	2,49	3	1,25-4,0	2,0-5,0	6-20	5-12	3607530	3607825	-
NT4R	0,17	3,25	4	1,25-6,25	2,0-6,25	4-20	4-12	3607676	3607834	-
left hand										
NT2L	0,10	1,90	2	0,70-3,0	1,25-3,5	8-36	7-20	3607675	3607835	-
NT3L	0,17	2,49	3	1,25-4,0	2,0-5,0	6-20	5-12	3607532	3607826	-
NT4L	0,17	3,25	4	1,25-6,25	2,0-6,25	4-20	4-12	-	3607849	-

NOTE: SSC = To correspond with the SSC on the toolholder.

Integral Toolholders • NS • Metric





Right Hand Tool

order number	catalogue number	SSC	H	B	F	L1	L2	B4	CD	gage insert
right hand										
3632147	**NSR062**	2	10	10	14	64	19	9	3,5	N.2R
3641660	**NSR1212F2**	2	12	12	16	80	19	9	3,5	N.2R
3639035	**NSR082V**	2	13	13	19	89	19	9	3,5	N.2R
3636542	**NSR1616H2**	2	16	16	20	100	19	9	3,5	N.2R
3639026	**NSR122B**	2	19	19	25	114	19	9	3,5	N.2R
3638589	**NSR2020K2**	2	20	20	25	125	19	9	3,5	N.2R
3638590	**NSR2525M2**	2	25	25	32	150	19	9	3,5	N.2R
3639025	**NSR162C**	2	25	25	32	127	19	9	3,5	N.2R
3639027	**NSR123A**	3	19	19	25	102	32	13	5,3	N.3R
3639023	**NSR123B**	3	19	19	25	114	32	13	5,3	N.3R
3638588	**NSR2020K3**	3	20	20	25	125	32	13	5,3	N.3R
3636536	**NSR2525M3**	3	25	25	32	150	32	13	5,3	N.3R
3638592	**NSR163C**	3	25	25	32	127	32	13	5,3	N.3R
3638591	**NSR163D**	3	25	25	32	152	32	13	5,3	N.3R
3639028	**NSR203D**	3	32	32	38	152	32	13	5,3	N.3R
3641666	**NSR3232P3**	3	32	32	40	170	32	13	5,3	N.3R
3636540	**NSR2525M4**	4	25	25	32	150	35	14	7,5	N.4R
3641669	**NSR3232P4**	4	32	32	40	170	35	14	7,5	N.4R
left hand										
3632145	**NSL122B**	2	19	19	25	114	19	9	3,5	N.2L
3639045	**NSL2020K2**	2	20	20	25	125	19	9	3,5	N.2L
3639047	**NSL2525M2**	2	25	25	32	150	19	9	3,5	N.2L
3632138	**NSL162C**	2	25	25	32	127	19	9	3,5	N.2L
3632152	**NSL123A**	3	19	19	25	102	32	13	5,3	N.3L
3639032	**NSL123B**	3	19	19	25	114	32	13	5,3	N.3L
3639046	**NSL2020K3**	3	20	20	32	125	32	13	5,3	N.3L
3636539	**NSL2525M3**	3	25	25	32	150	32	13	5,3	N.3L
3639029	**NSL163C**	3	25	25	32	127	32	13	5,3	N.3L
3639024	**NSL163D**	3	25	25	32	152	32	13	5,3	N.3L
3639037	**NSL203D**	3	32	32	38	152	32	13	5,3	N.3L
3636544	**NSL2525M4**	4	25	25	32	150	35	14	7,5	N.4L

NOTE: F dimension measured over sharp point of insert.