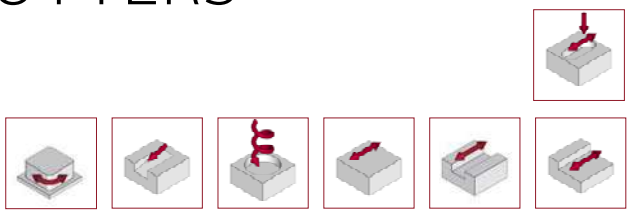
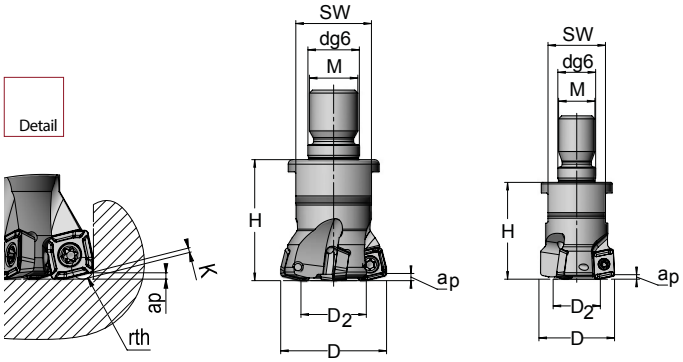
HIGH FEED MILLING CUTTERS
UD90



The versions with Ø 16–50 mm are optimal for powerful milling on live tooling lathes and machining centers with rather low rigidity and drive power

DIN tool holders with standard adaptation shank and spindle connection for HSK, Capto and SK



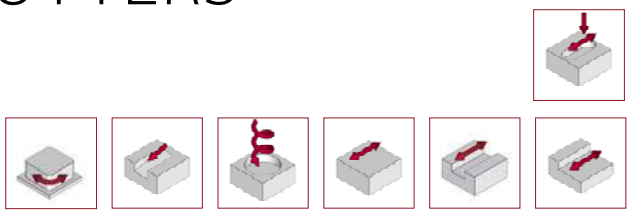
UD90
Screw-in milling cutters

Article	D	D_2	d_{g6}	H	M	SW	z_{eff}	a_p	rth	K	Ramp	lc	kg	INS
18U.1625.130	16	6.6	8.5	25	8	12	2	1.0	1.5	0.7	3°	yes	0.05	UD..0602.R*
18U.2025.130	20	10.6	10.5	25	10	15	2	1.0	1.5	0.7	3°	yes	0.05	UD..0602.R
18U.2532.130	25	15.6	12.5	32	12	17	3	1.0	1.5	0.7	3°	yes	0.10	UD..0602.R
18U.2532.080	25	14.6	12.5	32	12	17	2	1.3	2.1	0.8	4°	yes	0.10	UD..0803.R
18U.3240.130	32	22.6	17	40	16	24	4	1.0	1.5	0.7	2.5°	yes	0.21	UD..0602.R
18U.3240.080	32	21.7	17	40	16	24	4	1.3	2.1	0.8	2.8°	yes	0.18	UD..0803.R
18U.3240.100	32	18.6	17	40	16	24	3	1.7	2.5	1.0	3.5°	yes	0.19	UD..10T3.R
18U.3540.130	35	25.6	17	40	16	24	5	1.0	1.5	0.7	2.5°	yes	0.25	UD..0602.R
18U.3540.080	35	24.7	17	40	16	24	4	1.3	2.1	0.8	2.5°	yes	0.22	UD..0803.R
18U.3540.100	35	21.6	17	40	16	24	4	1.7	2.5	1.0	2.9°	yes	0.20	UD..10T3.R
18U.3540.070	35	19.6	17	40	16	24	3	2.0	2.5	1.3	3.8°	yes	0.25	UD..1204.R
18U.4040.130	40	30.6	17	40	16	24	5	1.0	1.5	0.7	2.0°	yes	0.32	UD..0602.R
18U.4040.080	40	27.2	17	40	16	24	5	1.3	2.1	0.8	2.3°	yes	0.26	UD..0803.R
18U.4040.100	40	26.6	17	40	16	24	4	1.7	2.5	1.0	2.5°	yes	0.27	UD..10T3.R
18U.5040.070	50	34.6	17	40	16	24	5	2.0	2.5	1.3	3.0°	yes	0.36	UD..1204.R

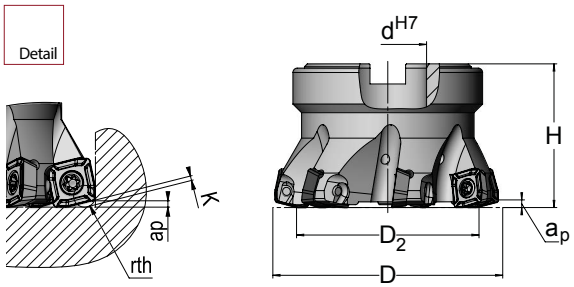
* Note that the screw length required varies depending on the insert used

Tool holders/adapters page 120

HIGH FEED MILLING CUTTERS
UD90



- Suitable for universal use with 4-cutting edge UDGT indexable insert in particular for high alloy steels
- Smooth cutting ensures maximum metal removal rate Q even in case of extreme overhang – ideal for pocket milling

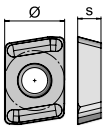


UD90
Plug-in milling cutters

Article	D	D_2	d^{H7}	H	z_{eff}	a_p	rth	K	Ramp	Ic	kg	INS
18U.5050.080	50	39.7	22	50	7	1.3	2.1	0.8	3.0°	Ja	0.39	UD..0803.R
18U.5050.100	50	36.6	22	50	6	1.7	2.5	1.0	2.1°	yes	0.38	UD..10T3.R
18U.5050.070	50	34.6	22	50	5	2.0	2.5	1.3	3.0°	yes	0.36	UD..1204.R
18U.5250.100	52	38.6	22	50	6	1.7	2.5	1.0	1.9°	yes	0.40	UD..10T3.R
18U.5250.070	52	36.6	22	50	5	2.0	2.5	1.3	3.0°	yes	0.42	UD..1204.R
18U.6350.100	63	49.6	22	50	7	1.7	2.5	1.0	1.6°	yes	0.65	UD..10T3.R
18U.6350.070	63	47.6	22	50	6	2.0	2.5	1.3	2.0°	yes	0.62	UD..1204.R
18U.6650.100	66	52.6	27	50	7	1.7	2.5	1.0	1.5°	yes	0.65	UD..10T3.R
18U.6650.070	66	50.6	27	50	6	2.0	2.5	1.3	1.8°	yes	0.67	UD..1204.R
18U.8050.070	80	64.6	27	50	7	2.0	2.5	1.3	1.3°	yes	1.03	UD..1204.R
18U.8050.160	80	56.2	27	50	5	3.0	3.8	3.0	1.1°	yes	0.94	UD..1606.R
18U.1050.070	100	84.6	32	50	9	2.0	2.5	1.3	1.2°	yes	1.57	UD..1204.R
18U.1050.160	100	76.2	32	50	7	3.0	3.8	3.0	1.1°	yes	1.57	UD..1606.R
18U.1263.070	125	109.6	40	63	11	2.0	2.5	1.3	0.8°	yes	3.14	UD..1204.R
18U.1263.160	125	98.6	40	63	9	3.0	3.8	3.0	1.1°	yes	3.10	UD..1606.R
18U.1663.160**	160	136.2	40	63	10	3.0	3.8	3.0	0.8°	yes	5.73	UD..1606.R

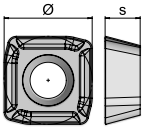
* * On request

INS SHAPE **UD**



UD

AS	Ø	s
2	06	02
	6.7	2.4



UD

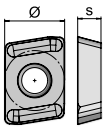
AS	Ø				s			
4	08	10	12	16	03	T3	04	06
	8.4	10	12.7	16.5	3.2	3.97	4.76	6.35

Matching of machining parameters with the AV material groups

	Article	Designation		Steel						
				A22	A21	A20	A19	A18	A17	A16
UD.0602..	UD.0602.002.01 SKY77	UDGT 060215 SR-28	f_z	1.10	1.00	0.85	0.80	0.80	–	–
			v_c	280-320	240-280	210-240	180-210	140-180	–	–
	UD.0602.002.01 AV1077	UDGT 060215 SR-28	f_z	–	–	–	–	0.80	0.70	0.60
			v_c	–	–	–	–	170-200	140-180	90-130
UD.0803..	UD.0803.003.01 SKY77	UDGT 080321 SR-28	f_z	1.30	1.15	1.00	1.00	1.00	–	–
			v_c	280-320	240-280	210-240	180-210	140-180	–	–
	UD.0803.003.01 AV1077	UDGT 080321 SR-28	f_z	–	–	–	–	1.00	0.80	0.60
			v_c	–	–	–	–	170-200	140-180	90-130
UD.10T3..	UD.10T3.002.01 SKY77	UDGT 10T325 SR-25	f_z	1.40	1.30	1.20	1.20	1.20	–	–
			v_c	280-320	240-280	210-240	180-210	140-180	–	–
	UD.10T3.002.01 AV1077	UDGT 10T325 SR-25	f_z	–	–	–	–	1.20	0.90	0.65
			v_c	–	–	–	–	150-210	130-170	80-120
UD.1204..	UD.1204.002.01 SKY77	UDGT 120425 SR-25	f_z	1.70	1.50	1.40	1.40	1.40	–	–
			v_c	280-320	240-280	210-240	180-210	140-180	–	–
	UD.1204.002.01 AV1077	UDGT 120425 SR-25	f_z	–	–	–	–	1.40	1.00	0.70
			v_c	–	–	–	–	150-210	130-170	80-120
UD.1606..	UD.1606.002.01 SKY77	UDGT 160638 SR-25	f_z	2.00	1.80	1.60	1.60	1.60	–	–
			v_c	280-320	240-280	210-240	180-210	140-180	–	–
	UD.1606.002.01 AV1077	UDGT 160638 SR-25	f_z	–	–	–	–	1.60	1.20	0.80
			v_c	–	–	–	–	150-210	130-170	80-120

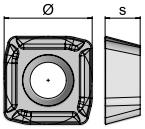
	Article	Designation		Cast iron					
				D21	D20	D19	D18	D17	D16
UD.0602..	UD.0602.002.01 SKY77	UDGT 060215 SR-28	f_z	1.20	1.10	0.95	0.80	0.60	0.60
			v_c	290-340	260-310	240-280	210-240	180-210	140-180
UD.0803..	UD.0803.003.01 SKY77	UDGT 080321 SR-28	f_z	1.40	1.20	1.00	1.00	0.80	0.70
			v_c	290-340	260-310	240-280	210-240	180-210	140-180
UD.10T3..	UD.10T3.002.01 SKY77	UDGT 10T325 SR-25	f_z	1.50	1.40	1.20	1.20	1.00	0.75
			v_c	290-340	260-310	240-280	210-240	180-210	140-180
UD.1204..	UD.1204.002.01 SKY77	UDGT 120425 SR-25	f_z	1.80	1.60	1.40	1.40	1.20	0.90
			v_c	290-340	260-310	240-280	210-240	180-210	140-180
UD.1606..	UD.1606.002.01 SKY77	UDGT 160638 SR-25	f_z	2.10	1.90	1.60	1.60	1.40	1.00
			v_c	290-340	260-310	240-280	210-240	180-210	140-180

INS SHAPE **UD**



UD

AS	Ø	s
2	06	02
	6.7	2.4



UD

AS	Ø				s			
4	08	10	12	16	03	T3	04	06
	8.4	10	12.7	16.5	3.2	3.97	4.76	6.35

Matching of machining parameters with the AV material groups

	Article	Designation		Stainless steels				Titanium		
				C12	C11	C10	C09	S10	S09	S08
UD.0602..	UD.0602.002.01 AV1077	UDGT 060215 SR-28	f_z	0.80	–	–	–	–	–	–
			v_c	120-200	–	–	–	–	–	–
	UD.0602.002.01 AV1055	UDGT 060215 SR-28	f_z	0.80	0.75	0.70	0.50	0.70	0.50	0.45
			v_c	120-200	140-170	100-140	60-100	60-80	40-70	20-50
UD.0803..	UD.0803.003.01 AV1077	UDGT 080321 SR-28	f_z	0.80	–	–	–	–	–	–
			v_c	120-200	–	–	–	–	–	–
	UD.0803.003.01 AV1055	UDGT 080321 SR-28	f_z	0.80	0.75	0.70	0.55	0.70	0.50	0.45
			v_c	120-200	100-170	100-140	60-100	60-80	40-70	20-50
UD.10T3..	UD.10T3.002.01 AV1077	UDGT 10T325 SR-25	f_z	0.90	–	–	–	–	–	–
			v_c	100-150	–	–	–	–	–	–
	UD.10T3.002.02 AV1055	UDGT 10T325 SR-28	f_z	0.90	0.80	0.75	0.60	0.70	0.60	0.45
			v_c	100-200	100-170	100-140	60-100	60-80	40-70	20-50
UD.1204..	UD.1204.002.01 AV1077	UDGT 120425 SR-25	f_z	1.00	–	–	–	–	–	–
			v_c	100-150	–	–	–	–	–	–
	UD.1204.002.02 AV1055	UDGT 120425 SR-28	f_z	1.00	0.85	0.75	0.60	0.70	0.60	0.45
			v_c	120-200	100-170	100-140	60-100	60-80	40-70	20-50
UD.1606..	UD.1606.002.01 AV1077	UDGT 160638 SR-25	f_z	1.20	–	–	–	–	–	–
			v_c	100-150	–	–	–	–	–	–
	UD.1606.002.02 AV1055	UDGT 160638 SR-28	f_z	1.20	0.90	0.80	0.70	0.75	0.70	0.50
			v_c	120-200	100-170	100-140	60-100	60-80	40-70	20-50

INS		
UD..0602...*	08TP.2555.500	TP7I1
UD..0602...	08TP.2565.501	TP7I1
UD..0803...	08B.0307.7991	TX208
UD..10T3...	08B.3509.7991	TX215
UD..1606...	08B.0513.7991	TX220

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

Theoretical corner radius page 145
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