

Cylindrical end mills

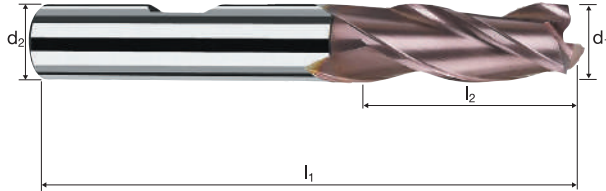
Smooth-edged, normal version

HSS

HSS-E
Co8

λ 30°
 γ 15°

90°



Roughing

Finishing



Rm
< 850

Rm
850-1100

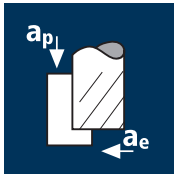
Rm
1100-1300

Inox
Stainless

GG(G)
Aluminium
Copper

Example: Order-N°.		Coating U	Article-N° 0780	ø-Code 100					UNICUT-4X
Ø Code	d ₁ f8	d ₂ h6	l ₁	l ₂	l ₄	α	z	U0780	
100	1.00	6.00	49	5.00	12.48	10.5°	3	●	
120	1.50	6.00	50	6.00	12.99	10.0°	3	●	
140	2.00	6.00	51	7.00	13.61	8.5°	3	●	
160	2.50	6.00	52	8.00	15.50	6.5°	3	●	
180	3.00	6.00	52	8.00	15.50	6.0°	3	●	
200	3.50	6.00	54	10.00	17.50	4.5°	3	●	
220	4.00	6.00	55	11.00	18.50	3.5°	3	●	
240	4.50	6.00	55	11.00	18.50	2.5°	3	●	
260	5.00	6.00	57	13.00	20.50	1.5°	3	●	
280	5.50	6.00	57	13.00	20.50	1.0°	3	●	
300	6.00	6.00	57	13.00	-	0.0°	3	●	
322	6.50	10.00	66	16.00	25.50	4.0°	3	●	
342	7.00	10.00	66	16.00	25.50	3.5°	3	●	
391	8.00	8.00	63	19.00	-	0.0°	3	●	
402	8.00	10.00	69	19.00	28.50	2.5°	3	●	
420	9.00	10.00	69	19.00	28.50	1.5°	3	●	
450	10.00	10.00	72	22.00	-	0.0°	3	●	
470	11.00	12.00	79	22.00	33.50	1.0°	3	●	
501	12.00	12.00	83	26.00	-	0.0°	3	●	
540	13.00	12.00	83	26.00	-	0.0°	3	●	
570	14.00	12.00	83	26.00	-	0.0°	3	●	

Application

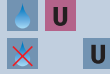


Material

Steel
< 850 N/mm²



Steel
850 - 1100 N/mm²



Inox normal
[Cr-Ni/1.4301]
[Cr-Ni-Mo/1.4571]



Cast iron
(lamellar / spheroidal)



Steel
< 850 N/mm²



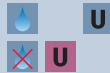
Steel
850 - 1100 N/mm²



Inox normal
[Cr-Ni/1.4301]
[Cr-Ni-Mo/1.4571]



Cast iron
(lamellar / spheroidal)



d1 [mm]	z	v _c [m/min]	f _s [mm]	a _p [mm]	a _e [mm]	n [min ⁻¹]	v _r [mm/min]	Q [cm ³ /min]
3.00	3	64	0.010	4.500	0.200	6790	205	0.2
4.00	3	64	0.010	6.000	0.300	5095	155	0.3
5.00	3	64	0.015	7.500	0.350	4075	185	0.5
6.00	3	64	0.020	9.000	0.400	3395	205	0.7
7.00	3	64	0.020	10.500	0.500	2910	175	0.9
8.00	3	64	0.025	12.000	0.550	2545	190	1.3
10.00	3	64	0.030	15.000	0.700	2035	185	1.9
12.00	3	64	0.045	18.000	0.850	1700	230	3.5
14.00	3	64	0.055	21.000	1.000	1455	240	5.0
3.00	3	52	0.010	4.500	0.200	5515	165	0.1
4.00	3	52	0.010	6.000	0.300	4140	125	0.2
5.00	3	52	0.015	7.500	0.350	3310	150	0.4
6.00	3	52	0.020	9.000	0.400	2760	165	0.6
7.00	3	52	0.020	10.500	0.500	2365	140	0.7
8.00	3	52	0.025	12.000	0.550	2070	155	1.0
10.00	3	52	0.030	15.000	0.700	1655	150	1.6
12.00	3	52	0.045	18.000	0.850	1380	185	2.8
14.00	3	52	0.055	21.000	1.000	1180	195	4.1
3.00	3	26	0.010	4.500	0.200	2760	85	0.1
4.00	3	26	0.010	6.000	0.300	2070	60	0.1
5.00	3	26	0.015	7.500	0.350	1655	75	0.2
6.00	3	26	0.020	9.000	0.400	1380	85	0.3
7.00	3	26	0.020	10.500	0.500	1180	70	0.4
8.00	3	26	0.025	12.000	0.550	1035	80	0.5
10.00	3	26	0.030	15.000	0.700	830	75	0.8
12.00	3	26	0.045	18.000	0.850	690	95	1.4
14.00	3	26	0.055	21.000	1.000	590	100	2.0
3.00	3	45	0.010	4.500	0.200	4775	145	0.1
4.00	3	45	0.010	6.000	0.300	3580	105	0.2
5.00	3	45	0.015	7.500	0.350	2865	130	0.3
6.00	3	45	0.020	9.000	0.400	2385	145	0.5
7.00	3	45	0.020	10.500	0.500	2045	125	0.6
8.00	3	45	0.025	12.000	0.550	1790	135	0.9
10.00	3	45	0.030	15.000	0.700	1430	130	1.4
12.00	3	45	0.045	18.000	0.850	1195	160	2.5
14.00	3	45	0.055	21.000	1.000	1025	170	3.5
3.00	3	60	0.010	1.500	3.000	6365	190	0.9
4.00	3	60	0.010	2.000	4.000	4775	145	1.1
5.00	3	60	0.015	2.500	5.000	3820	170	2.1
6.00	3	60	0.020	3.000	6.000	3185	190	3.4
7.00	3	60	0.020	3.500	7.000	2730	165	4.0
8.00	3	60	0.025	4.000	8.000	2385	180	5.7
10.00	3	60	0.030	5.000	10.000	1910	170	8.6
12.00	3	60	0.045	6.000	12.000	1590	215	15.5
14.00	3	60	0.055	7.000	14.000	1365	225	22.1
3.00	3	50	0.010	1.500	3.000	5305	160	0.7
4.00	3	50	0.010	2.000	4.000	3980	120	1.0
5.00	3	50	0.015	2.500	5.000	3185	145	1.8
6.00	3	50	0.020	3.000	6.000	2655	160	2.9
7.00	3	50	0.020	3.500	7.000	2275	135	3.3
8.00	3	50	0.025	4.000	8.000	1990	150	4.8
10.00	3	50	0.030	5.000	10.000	1590	145	7.2
12.00	3	50	0.045	6.000	12.000	1325	180	12.9
14.00	3	50	0.055	7.000	14.000	1135	190	18.4
3.00	3	23	0.010	1.500	3.000	2440	75	0.3
4.00	3	23	0.010	2.000	4.000	1830	55	0.4
5.00	3	23	0.015	2.500	5.000	1465	65	0.8
6.00	3	23	0.020	3.000	6.000	1220	75	1.3
7.00	3	23	0.020	3.500	7.000	1045	65	1.5
8.00	3	23	0.025	4.000	8.000	915	70	2.2
10.00	3	23	0.030	5.000	10.000	730	65	3.3
12.00	3	23	0.045	6.000	12.000	610	80	5.9
14.00	3	23	0.055	7.000	14.000	525	85	8.5
3.00	3	40	0.010	1.500	3.000	4245	125	0.6
4.00	3	40	0.010	2.000	4.000	3185	95	0.8
5.00	3	40	0.015	2.500	5.000	2545	115	1.4
6.00	3	40	0.020	3.000	6.000	2120	125	2.3
7.00	3	40	0.020	3.500	7.000	1820	110	2.7
8.00	3	40	0.025	4.000	8.000	1590	120	3.8
10.00	3	40	0.030	5.000	10.000	1275	115	5.7
12.00	3	40	0.045	6.000	12.000	1060	145	10.3
14.00	3	40	0.055	7.000	14.000	910	150	14.7

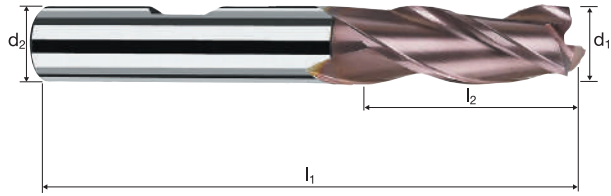
Cylindrical end mills

Smooth-edged, normal version

HSS

HSS-E Co8	λ 30° γ 15°
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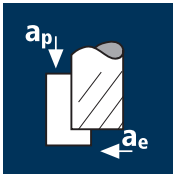
90°	



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless	GG(G) Aluminium Copper
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Example: Order-N°.		Coating	Article-N°.	ø-Code					UNICUT-4X	
		U	0780	581					U0780	
Ø Code	d ₁ f8	d ₂ h6	l ₁	l ₂	l ₄	α	z			
581	15.00	12.00	83	26.00	-	0.0°	3	●		
610	16.00	16.00	92	32.00	-	0.0°	3	●		
640	18.00	16.00	92	32.00	-	0.0°	3	●		
671	20.00	16.00	98	38.00	-	0.0°	3	●		
682	20.00	20.00	104	38.00	-	0.0°	3	●		
710	22.00	20.00	104	38.00	-	0.0°	3	●		
772	25.00	25.00	121	45.00	-	0.0°	3	●		

Application



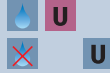
Material

Steel
< 850 N/mm²



d1 [mm]	z	v _r [m/min]	f _s [mm]	a _p [mm]	a _e [mm]	n [min ⁻¹]	v _r [mm/min]	Q [cm ³ /min]
15.00	3	64	0.060	22.500	1.050	1360	245	5.8
16.00	3	64	0.060	24.000	1.100	1275	230	6.1
18.00	3	64	0.070	27.000	1.250	1130	240	8.0
20.00	3	64	0.080	30.000	1.400	1020	245	10.3
22.00	3	64	0.085	33.000	1.550	925	235	12.1
25.00	3	64	0.100	37.500	1.750	815	245	16.0

Steel
850 - 1100 N/mm²



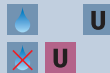
15.00	3	52	0.060	22.500	1.050	1105	200	4.7
16.00	3	52	0.060	24.000	1.100	1035	185	4.9
18.00	3	52	0.070	27.000	1.250	920	195	6.5
20.00	3	52	0.080	30.000	1.400	830	200	8.3
22.00	3	52	0.085	33.000	1.550	750	190	9.8
25.00	3	52	0.100	37.500	1.750	660	200	13.0

Inox normal
[Cr-Ni/1.4301]
[Cr-Ni-Mo/1.4571]

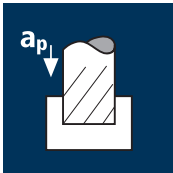


15.00	3	26	0.060	22.500	1.050	550	100	2.3
16.00	3	26	0.060	24.000	1.100	515	95	2.5
18.00	3	26	0.070	27.000	1.250	460	95	3.3
20.00	3	26	0.080	30.000	1.400	415	100	4.2
22.00	3	26	0.085	33.000	1.550	375	95	4.9
25.00	3	26	0.100	37.500	1.750	330	100	6.5

Cast iron
(lamellar / spheroidal)



15.00	3	45	0.060	22.500	1.050	955	170	4.1
16.00	3	45	0.060	24.000	1.100	895	160	4.3
18.00	3	45	0.070	27.000	1.250	795	165	5.6
20.00	3	45	0.080	30.000	1.400	715	170	7.2
22.00	3	45	0.085	33.000	1.550	650	165	8.5
25.00	3	45	0.100	37.500	1.750	575	170	11.3



Steel
< 850 N/mm²



15.00	3	60	0.060	7.500	15.000	1275	230	25.8
16.00	3	60	0.065	8.000	16.000	1195	235	29.8
18.00	3	60	0.070	9.000	18.000	1060	225	36.1
20.00	3	60	0.080	10.000	20.000	955	230	45.8
22.00	3	60	0.085	11.000	22.000	870	220	53.6
25.00	3	60	0.100	12.500	25.000	765	230	71.6

Steel
850 - 1100 N/mm²



15.00	3	50	0.060	7.500	15.000	1060	190	21.5
16.00	3	50	0.065	8.000	16.000	995	195	24.8
18.00	3	50	0.070	9.000	18.000	885	185	30.1
20.00	3	50	0.080	10.000	20.000	795	190	38.2
22.00	3	50	0.085	11.000	22.000	725	185	44.6
25.00	3	50	0.100	12.500	25.000	635	190	59.7

Inox normal
[Cr-Ni/1.4301]
[Cr-Ni-Mo/1.4571]



15.00	3	23	0.060	7.500	15.000	490	90	9.9
16.00	3	23	0.065	8.000	16.000	460	90	11.4
18.00	3	23	0.070	9.000	18.000	405	85	13.8
20.00	3	23	0.080	10.000	20.000	365	90	17.6
22.00	3	23	0.085	11.000	22.000	335	85	20.5
25.00	3	23	0.100	12.500	25.000	295	90	27.5

Cast iron
(lamellar / spheroidal)



15.00	3	40	0.060	7.500	15.000	850	155	17.2
16.00	3	40	0.065	8.000	16.000	795	155	19.9
18.00	3	40	0.070	9.000	18.000	705	150	24.1
20.00	3	40	0.080	10.000	20.000	635	155	30.6
22.00	3	40	0.085	11.000	22.000	580	150	35.7
25.00	3	40	0.100	12.500	25.000	510	155	47.7