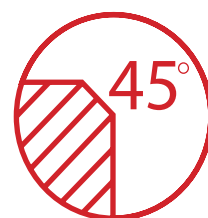


MULTI PURPOSE SOLID CARBIDE END MILLS
WĘGLIKOWE FREZY MONOLITYCZNE DO OBRÓBKİ OGÓLNEJ

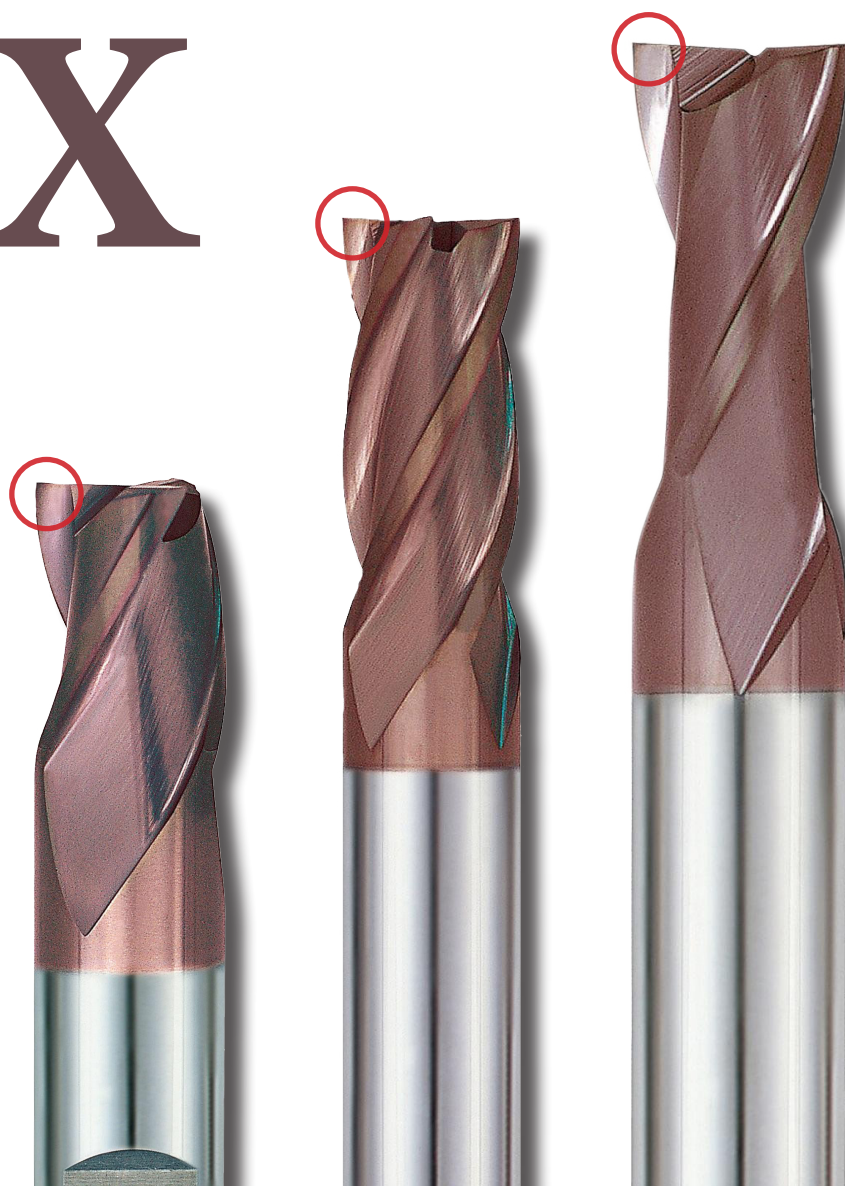


CARBIDE END MILLS

FREZY Z WĘGLIKA SPIEKANEGO

UCX

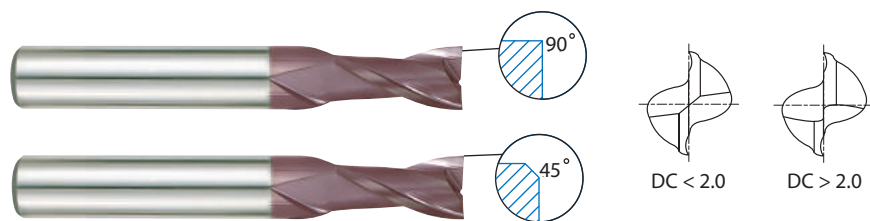
ADDED
CHAMFER
EDGES
DODANA
FAZA
KRAWĘDZI



Series Seria	Model	Description Opis	Size Wymiary	
			min	max
UCX10 NEW		CARBIDE, 2 FLUTE SHORT LENGTH WĘGLIKOWY, 2 OSTRZOWY, KRÓTKI	D1.0	D20.0
		CARBIDE, 2 FLUTE LONG LENGTH WĘGLIKOWE, 2 OSTRZOWY, DŁUGI	D1.0	D20.0
UCX11 NEW		CARBIDE, 4 FLUTE SHORT LENGTH WĘGLIKOWE, 4 OSTRZOWY, KRÓTKI	D1.0	D20.0
		CARBIDE, 4 FLUTE LONG LENGTH WĘGLIKOWE, 4 OSTRZOWY, DŁUGIE	D2.0	D20.0
UCX95 NEW		CARBIDE, 3 FLUTE SHORT LENGTH MINIATURE WĘGLIKOWE, 3 OSTRZOWY, MINIATUROWY	D0.5	D20.0
		CARBIDE, 3 FLUTE SHORT LENGTH WĘGLIKOWE, 3 OSTRZOWY, KRÓTKI	D1.0	D20.0
		CARBIDE, 3 FLUTE LONG LENGTH WĘGLIKOWE, 3 OSTRZOWY, DŁUGI	D3.0	D20.0
UCX96 NEW		CARBIDE, 3 FLUTE 45° HELIX LONG LENGTH WĘGLIKOWE, 3 OSTRZOWY, SPIRALA 45°, DŁUGI	D3.0	D20.0

UCX10

CARBIDE, 2 FLUTE SHORT LENGTH
WĘGLIKOWY, 2 OSTRZOWY, KRÓTKI

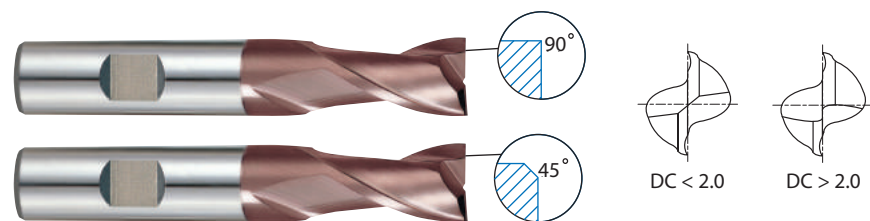


- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 2 flute design for slotting.
- Nadają się do frezowania na sucho przy wyższych temperaturach.
- Doskonałe wysoko-wydajne frezy.
- 2 ostrzowa konstrukcja do frezowania rowków.

EDP		DC	DCON	APMX	OAL	CHAMFER SIZE ROZMIAR FAZKI
SHARP OSTRY	CHAMFER FAZKA NEW					
UCX10010000A04003040		1.0	4	3	40	-
UCX10015000A04005040		1.5	4	4.5	40	-
UCX10020000A02008032		2.0	2	8	32	-
UCX10025000A02508032		2.5	2.5	8	32	-
UCX10030000A03012032	UCX1003000CA03012032	3.0	3	12	32	0.1
UCX10035000A03512032		3.5	3.5	12	32	-
UCX10040000A04012040	UCX1004000CA04012040	4.0	4	12	40	0.1
UCX10045000A04514050		4.5	4.5	14	50	-
UCX10050000A05014050	UCX1005000CA05014050	5.0	5	14	50	0.1
UCX10055000A05516050		5.5	5.5	16	50	-
UCX10060000A06016050	UCX1006000CA06016050	6.0	6	16	50	0.1
UCX10070000A07020060		7.0	7	20	60	-
UCX10080000A08020060	UCX1008000CA08020060	8.0	8	20	60	0.13
UCX10090000A09020060		9.0	9	20	60	-
UCX10100000A1002207	UCX1010000CA1002207	10.0	10	22	70	0.13
UCX10120000A12022070	UCX1012000CA12022070	12.0	12	22	70	0.18
UCX10140000A14025075	UCX1014000CA14025075	14.0	14	25	75	0.18
UCX10160000A16025075	UCX1016000CA16025075	16.0	16	25	75	0.18
UCX10200000A20032100	UCX1020000CA20032100	20.0	20	32	100	0.23

UCX10

CARBIDE, 2 FLUTE LONG LENGTH
WĘGLIKOWY, 2 OSTRZOWY, DŁUGI

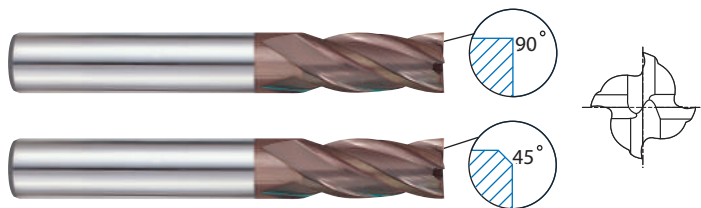


- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 2 flute design for slotting.
- Nadają się do frezowania na sucho przy wyższych temperaturach.
- Doskonałe wysoko-wydajne frezy.
- 2 ostrzowa konstrukcja do frezowania rowków.

EDP		DC	DCON	APMX	OAL	CHAMFER SIZE ROZMIAR FAZKI
SHARP OSTRY	CHAMFER FAZKA NEW					
UCX10020000A03006038		2.0	3	6	38	-
UCX10028000B06007057		2.8	6	7	57	-
UCX10030000B06007057	UCX1003000CB06007057	3.0	6	7	57	0.1
UCX10035000B06007057		3.5	6	7	57	-
UCX10038000B06008057		3.8	6	8	57	-
UCX10040000B06008057	UCX1004000CB06008057	4.0	6	8	57	0.1
UCX10045000B06008057		4.5	6	8	57	-
UCX10048000B06010057		4.8	6	10	57	-
UCX10050000B06010057	UCX1005000CB06010057	5.0	6	10	57	0.1
UCX10058000B06010057		5.75	6	10	57	-
UCX10060000B06010057	UCX1006000CB06010057	6.0	6	10	57	0.1
UCX10068000B08013063		6.75	8	13	63	-
UCX10070000B08013063		7.0	8	13	63	-
UCX10078000B08016063		7.75	8	16	63	-
UCX10080000B08016063	UCX1008000CB08016063	8.0	8	16	63	0.13
UCX10087000B10016072		8.7	10	16	72	-
UCX10090000B10016072		9.0	10	16	72	-
UCX10097000B10019072		9.7	10	19	72	-
UCX10100000B10019072	UCX1010000CB10019072	10.0	10	19	72	0.13
UCX10117000B12022083		11.7	12	22	83	-
UCX10120000B12022083	UCX1012000CB12022083	12.0	12	22	83	0.18
UCX10137000B14022083		13.7	14	22	83	-
UCX10140000B14022083	UCX1014000CB14022083	14.0	14	22	83	0.18
UCX10157000B16026092		15.7	16	26	92	-
UCX10160000B16026092	UCX1016000CB16026092	16.0	16	26	92	0.18
UCX10177000B18026092		17.7	18	26	92	-
UCX10180000B18026092		18.0	18	26	92	-
UCX10197000B20032104		19.7	20	32	104	-
UCX10200000B20032104	UCX1020000CB20032104	20.0	20	32	104	0.23

UCX11

CARBIDE, 4 FLUTE SHORT LENGTH
WĘGLIKOWY, 4 OSTRZOWY, KRÓTKI

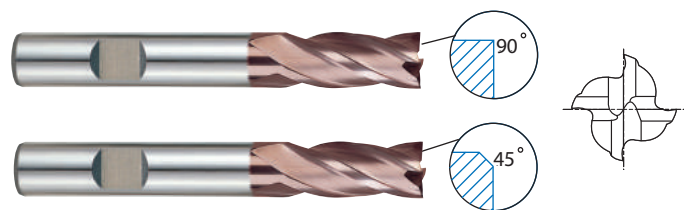


- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 4 flute allows for better work piece finishes.
- Nadają się do frezowania na sucho przy wyższych temperaturach.
- Doskonałe wysoko-wydajne frezy.
- 4 ostrza umożliwiają osiągnięcie gładziej powierzchni.

EDP		DC	DCON	APMX	OAL	CHAMFER SIZE ROZMIAR FAZKI
SHARP OSTRY	CHAMFER FAZKA NEW					
UCX11010000A04003040		1.0	4	3	40	-
UCX11015000A04005040		1.5	4	4.5	40	-
UCX11020000A02008032		2.0	2	8	32	-
UCX11025000A02508032		2.5	2.5	8	32	-
UCX11030000A03012032	UCX1103000CA03012032	3.0	3	12	32	0.1
UCX11035000A03512032		3.5	3.5	12	32	-
UCX11040000A04012040	UCX1104000CA04012040	4.0	4	12	40	0.1
UCX11045000A04514050		4.5	4.5	14	50	-
UCX11050000A05014050	UCX1105000CA05014050	5.0	5	14	50	0.1
UCX11055000A05516050		5.5	5.5	16	50	-
UCX11060000A06016050	UCX1106000CA06016050	6.0	6	16	50	0.1
UCX11070000A07020060		7.0	7	20	60	-
UCX11080000A08020060	UCX1108000CA08020060	8.0	8	20	60	0.13
UCX11090000A09020060		9.0	9	20	60	-
UCX1110000A10022070	UCX111000CA10022070	10.0	10	22	70	0.13
UCX11120000A12022070	UCX1112000CA12022070	12.0	12	22	70	0.18
UCX11140000A14025075	UCX1114000CA14025075	14.0	14	25	75	0.18
UCX11160000A16025075	UCX1116000CA16025075	16.0	16	25	75	0.18
UCX11200000A20032100	UCX1120000CA20032100	20.0	20	32	100	0.23

UCX11

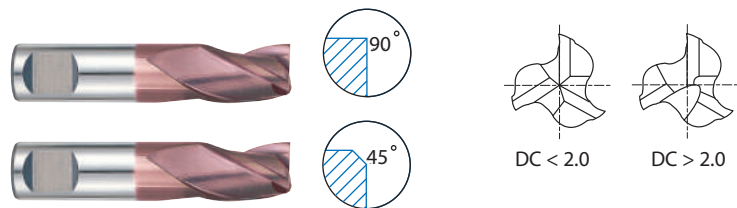
CARBIDE, 4 FLUTE LONG LENGTH
WĘGLIKOWY, 4 OSTRZOWY, DŁUGI



- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 4 flute allows for better work piece finishes.
- Nadają się do frezowania na sucho przy wyższych temperaturach.
- Doskonałe wysoko-wydajne frezy.
- 4 ostrza umożliwiają osiągnięcie gładszej powierzchni.

EDP		DC	DCON	APMX	OAL	CHAMFER SIZE ROZMIAR FAZKI
SHARP OSTRY	CHAMFER FAZKA NEW					
UCX11020000A03007038		2.0	3	7	38	-
UCX11030000B06008057	UCX1103000CB06008057	3.0	6	8	57	0.1
UCX11035000B06010057		3.5	6	10	57	-
UCX11040000B06011057	UCX1104000CB06011057	4.0	6	11	57	0.1
UCX11045000B06011057		4.5	6	11	57	-
UCX11050000B06013057	UCX1105000CB06013057	5.0	6	13	57	0.1
UCX11060000B06013057	UCX1106000CB06013057	6.0	6	13	57	0.1
UCX11070000B08016063		7.0	8	16	63	-
UCX11080000B08019063	UCX1108000CB08019063	8.0	8	19	63	0.13
UCX11090000B10019072		9.0	10	19	72	-
UCX11100000B10022072	UCX1110000CB10022072	10.0	10	22	72	0.13
UCX11120000B12026083	UCX1112000CB12026083	12.0	12	26	83	0.18
UCX11140000B14026083	UCX1114000CB14026083	14.0	14	26	83	0.18
UCX11160000B16032092	UCX1116000CB16032092	16.0	16	32	92	0.18
UCX11180000B18032092		18.0	18	32	92	-
UCX11200000B20038104	UCX1120000CB20038104	20.0	20	38	104	0.23
UCX11140000A14025075	UCX1114000CA14025075	14.0	14	25	75	0.18
UCX11160000A16025075	UCX1116000CA16025075	16.0	16	25	75	0.18
UCX11200000A20032100	UCX1120000CA20032100	20.0	20	32	100	0.23

UCX95
CARBIDE, 3 FLUTE SHORT LENGTH MINIATURE
WĘGLIKOWY, 3 OSTRZOWY, MINIATUROWY

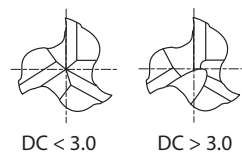
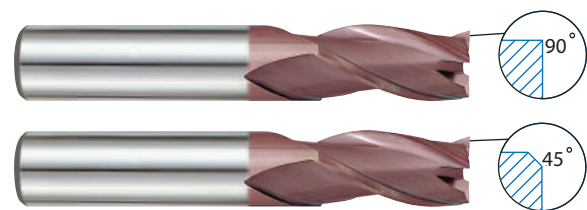


- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 3 flute design possess the advantage of 2 flute and 4 flute end mill.
- Nadają się do frezowania na sucho przy wyższych temperaturach.
- Doskonale wysoko-wydajne frezy.
- 3 ostrzowa konstrukcja posiada zalety frezów 2 ostrzowych oraz 4 ostrzowych.

EDP		DC	DCON	APMX	OAL	CHAMFER SIZE ROZMIAR FAZKI
SHARP OSTRY	CHAMFER FAZKA NEW					
UCX95005000A03002038		0.5	3	1.5	38	-
UCX95006000A03002038		0.6	3	1.5	38	-
UCX95008000A03002038		0.8	3	2	38	-
UCX95010000A03002038		1.0	3	2	38	-
UCX95012000A03002038		1.2	3	2	38	-
UCX95015000A03002038		1.5	3	2	38	-
UCX95018000A03002038		1.8	3	2	38	-
UCX95020000B06004035		2.0	6	4	35	-
UCX95025000B06005036		2.5	6	5	36	-
UCX95030000B06005036	UCX9503000CB06005036	3.0	6	5	36	0.1
UCX95035000B06006037		3.5	6	6	37	-
UCX95040000B06007038	UCX9504000CB06007038	4.0	6	7	38	0.1
UCX95045000B06008038		4.5	6	8	38	-
UCX95050000B06008039	UCX9505000CB06008039	5.0	6	8	39	0.1
UCX95055000B06008039		5.5	6	8	39	-
UCX95058000B06008039		5.75	6	8	39	-
UCX95060000B06008039	UCX9506000CB06008039	6.0	6	8	39	0.1
UCX95068000B08010042		6.75	8	10	42	-
UCX95070000B08010042		7.0	8	10	42	-
UCX95078000B08010042		7.75	8	10	42	-
UCX95080000B08011043	UCX9508000CB08011043	8.0	8	11	43	0.13
UCX95087000B10011048		8.7	10	11	48	-
UCX95090000B10011048		9.0	10	11	48	-
UCX95097000B10011048		9.7	10	11	48	-
UCX95100000B10013050	UCX9510000CB10013050	10.0	10	13	50	0.13
UCX95120000B12015055	UCX9512000CB12015055	12.0	12	15	55	0.18
UCX95140000B14015058	UCX9514000CB14015058	14.0	14	15	58	0.18
UCX95160000B16018062	UCX9516000CB16018062	16.0	16	18	62	0.18
UCX95180000B18020070		18.0	18	20	70	-
UCX95200000B20022075	UCX9520000CB20022075	20.0	20	22	75	0.23

UCX95

CARBIDE, 3 FLUTE SHORT LENGTH
WĘGLIKOWY, 3 OSTRZOWY, KRÓTKI

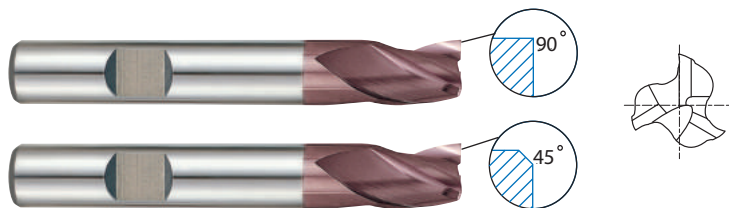


- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 3 flute design possess the advantage of 2 flute and 4 flute end mill.
- Nadają się do frezowania na sucho przy wyższych temperaturach.
- Doskonałe wysoko-wydajne frezy.
- 3 ostrzowa konstrukcja posiada zalety frezów 2 ostrzowych oraz 4 ostrzowych.

EDP		DC	DCON	APMX	OAL	CHAMFER SIZE ROZMIAR FAZKI
SHARP OSTRY	CHAMFER FAZKA NEW					
UCX95010000A04003040		1.0	4	3	40	-
UCX95015000A04005040		1.5	4	4.5	40	-
UCX95020000A02008032		2.0	2	8	32	-
UCX95025000A02508032		2.5	2.5	8	32	-
UCX95030000A03012032	UCX9503000CA03012032	3.0	3	12	32	0.1
UCX95035000A03512032		3.5	3.5	12	32	-
UCX95040000A04012040	UCX9504000CA04012040	4.0	4	12	40	0.1
UCX95045000A04514050		4.5	4.5	14	50	-
UCX95050000A05014050	UCX9505000CA05014050	5.0	5	14	50	0.1
UCX95055000A05516050		5.5	5.5	16	50	-
UCX95060000A06016050	UCX9506000CA06016050	6.0	6	16	50	0.1
UCX95070000A07020060		7.0	7	20	60	-
UCX95080000A08020060	UCX9508000CA08020060	8.0	8	20	60	0.13
UCX95090000A09020060		9.0	9	20	60	-
UCX95100000A10022070	UCX9510000CA10022070	10.0	10	22	70	0.13
UCX95120000A12022070	UCX9512000CA12022070	12.0	12	22	70	0.18
UCX95140000A14025075	UCX9514000CA14025075	14.0	14	25	75	0.18
UCX95160000A16025075	UCX9516000CA16025075	16.0	16	25	75	0.18
UCX95200000A20032100	UCX9520000CA20032100	20.0	20	32	100	0.23

UCX95

CARBIDE, 3 FLUTE LONG LENGTH
WĘGLIKOWY, 3 OSTRZOWY, DŁUGI

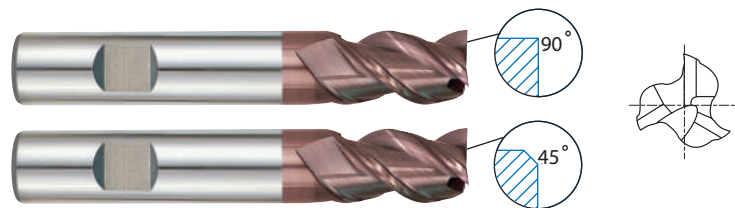


- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 3 flute design possess the advantage of 2 flute and 4 flute end mill.
- Nadają się do frezowania na sucho przy wyższych temperaturach.
- Doskonałe wysoko-wydajne frezy.
- 3 ostrzowa konstrukcja posiada zalety frezów 2 ostrzowych oraz 4 ostrzowych.

EDP		DC	DCON	APMX	OAL	CHAMFER SIZE ROZMIAR FAZKI
SHARP OSTRY	CHAMFER FAZKA NEW					
UCX95030000B06007057	UCX9503000CB06007057	3.0	6	7	57	0.1
UCX95040000B06008057	UCX9504000CB06008057	4.0	6	8	57	0.1
UCX95050000B06010057	UCX9505000CB06010057	5.0	6	10	57	0.1
UCX95060000B06010057	UCX9506000CB06010057	6.0	6	10	57	0.1
UCX95080000B08016063	UCX9508000CB08016063	8.0	8	16	63	0.13
UCX95090000B10016072		9.0	10	16	72	-
UCX95100000B10019072	UCX9510000CB10019072	10.0	10	19	72	0.13
UCX95120000B12022083	UCX9512000CB12022083	12.0	12	22	83	0.18
UCX95140000B14022083	UCX9514000CB14022083	14.0	14	22	83	0.18
UCX95160000B16026092	UCX9516000CB16026092	16.0	16	26	92	0.18
UCX95180000B18026092		18.0	18	26	92	-
UCX95200000B20032104	UCX9520000CB20032104	20.0	20	32	104	0.23

UCX96

CARBIDE, 3 FLUTE 45° HELIX LONG LENGTH
WĘGLIKOWY, 3 OSTRZOWY, SPIRALA 45° ,DŁUGI

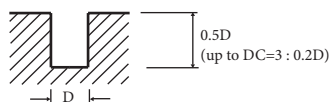


- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- Nadają się do frezowania na sucho przy wyższych temperaturach.
- Doskonałe wysoko-wydajne frezy.

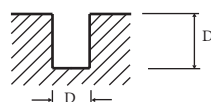
EDP		DC	DCON	APMX	OAL	CHAMFER SIZE ROZMIAR FAZKI
SHARP OSTRY	CHAMFER FAZKA NEW					
UCX96030000B06007057	UCX9603000CB06007057	3.0	6	7	57	0.1
UCX96035000B06007057		3.5	6	7	57	-
UCX96040000B06008057	UCX9604000CB06008057	4.0	6	8	57	0.1
UCX96045000B06008057		4.5	6	8	57	-
UCX96050000B06010057	UCX9605000CB06010057	5.0	6	10	57	0.1
UCX96060000B06010057	UCX9606000CB06010057	6.0	6	10	57	0.1
UCX96070000B08013063		7.0	8	13	63	-
UCX96080000B08016063	UCX9608000CB08016063	8.0	8	16	63	0.13
UCX96090000B10016072		9.0	10	16	72	-
UCX96100000B10019072	UCX9610000CB10019072	10.0	10	19	72	0.13
UCX96120000B12022083	UCX9612000CB12022083	12.0	12	22	83	0.18
UCX96140000B14022083	UCX9614000CB14022083	14.0	14	22	83	0.18
UCX96160000B16026092	UCX9616000CB16026092	16.0	16	26	92	0.18
UCX96180000B18026092		18.0	18	26	92	-
UCX96200000B20032104	UCX9620000CB20032104	20.0	20	32	104	0.23

UCX10 - slotting rowkowanie

MATERIAL MATERIAL	P								M			
	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS STALE NIESTOPOWE STALE STOPOWE STALE NARZĘDZIOWE				ALLOY STEELS HEAT RESISTANT STEELS STALE STOPOWE STALE ŻAROODPORNE				STAINLESS STEELS STALE NIERDZEWNE			
HARDNESS TWARDOŚĆ	-HRC30				HRC30 -HRC45							
DC	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz
1.0	14300	105	45	0.004	8500	65	25	0.004	7150	50	20	0.003
1.5	9350	150	45	0.008	5550	85	25	0.008	5600	80	25	0.007
2.0	7850	160	50	0.010	5150	100	30	0.010	4300	80	25	0.009
3.0	6100	180	55	0.015	3800	120	35	0.016	3150	100	30	0.016
4.0	5150	255	65	0.025	3150	155	40	0.025	2650	130	35	0.025
5.0	4300	270	70	0.031	2550	160	40	0.031	2150	135	35	0.031
6.0	3800	300	70	0.039	2300	190	45	0.041	1950	155	35	0.040
8.0	2850	325	70	0.057	1700	170	45	0.050	1450	155	35	0.053
10.0	2200	280	70	0.064	1350	135	40	0.050	1150	135	35	0.059
12.0	1850	240	70	0.065	1150	110	45	0.048	950	110	35	0.058
14.0	1700	215	75	0.063	1050	100	45	0.048	850	100	35	0.059
16.0	1500	185	75	0.062	950	95	50	0.050	700	95	35	0.068
20.0	1150	145	70	0.063	700	70	45	0.050	550	70	35	0.064

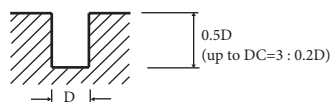


MATERIAL MATERIAL	N								K			
	ALUMINUM ALLOYS STOPY ALUMINIUM				COPPER, BRASS, NON-FERROUS METALS MIEDŹ, BRĄZ, METALE NIEŻALAZNE				CAST IRON ŻELIWO			
DC	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz
1.0	44000	330	140	0.004	24700	200	80	0.004	18700	205	60	0.005
1.5	27500	385	130	0.007	20300	300	95	0.007	12100	205	55	0.008
2.0	22000	460	140	0.010	16500	340	105	0.010	9350	220	60	0.012
3.0	15400	460	145	0.015	11000	340	105	0.015	6050	220	55	0.018
4.0	11000	460	140	0.021	8800	340	110	0.019	4600	220	60	0.024
5.0	9150	460	145	0.025	6800	340	105	0.025	3650	220	55	0.030
6.0	7600	485	145	0.032	5700	375	105	0.033	2950	255	55	0.043
8.0	5700	485	145	0.043	4400	375	110	0.043	2200	275	55	0.063
10.0	4600	485	145	0.053	3400	375	105	0.055	1850	285	60	0.077
12.0	3750	485	140	0.065	2850	375	105	0.066	1450	295	55	0.102
14.0	3300	485	145	0.073	2400	375	105	0.078	1300	310	55	0.119
16.0	2850	485	145	0.085	2200	375	110	0.085	1100	320	55	0.145
20.0	2200	485	140	0.110	1700	375	105	0.110	900	340	55	0.189



UCX95, UCX96 - slotting rowkowanie

MATERIAL MATERIAL	P								M			
	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS STALE NIESTOPOWE STALE STOPOWE STALE NARZĘDZIOWE				ALLOY STEELS HEAT RESISTANT STEELS STALE STOPOWE STALE ŻAROWYTRZYMAŁE ORAZ ŻA- ROODPORNE				STAINLESS STEELS STALE NIERDZEWNE			
HARDNESS TWARDOŚĆ	-HRC30				HRC30 -HRC45							
DC	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz
1.0	14300	75	45	0.002	8500	45	25	0.002	7150	35	20	0.002
1.5	12750	105	60	0.003	5550	60	25	0.004	5600	55	25	0.003
2.0	7850	110	50	0.005	5150	70	30	0.005	4300	55	25	0.004
3.0	6100	125	55	0.007	3800	85	35	0.007	3150	70	30	0.007
4.0	5150	180	65	0.012	3150	110	40	0.012	2650	90	35	0.011
5.0	4300	190	70	0.015	2550	110	40	0.014	2150	95	35	0.015
6.0	3800	210	70	0.018	2300	135	45	0.020	1950	110	35	0.019
8.0	2850	230	70	0.027	1700	120	45	0.024	1450	110	35	0.025
10.0	2200	195	70	0.030	1350	95	40	0.023	1150	95	35	0.028
12.0	1850	170	70	0.031	1150	75	45	0.022	950	75	35	0.026
14.0	1700	150	75	0.029	1050	70	45	0.022	850	70	35	0.027
16.0	1500	130	75	0.029	950	65	50	0.023	700	65	35	0.031
20.0	1150	100	70	0.029	700	50	45	0.024	550	50	35	0.030

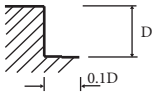


MATERIAL MATERIAL	N								K			
	ALUMINUM ALLOYS STOPY ALUMINIUM				COPPER, BRASS, NON-FERROUS METALS MIEDŹ, BRĄZ, METALE NIEŻALAZNE				CAST IRON ŻELIWO			
DC	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz
1.0	44000	300	140	0.002	24700	180	80	0.002	18700	185	60	0.003
1.5	27500	345	130	0.004	20300	270	95	0.004	12100	185	55	0.005
2.0	22000	420	140	0.006	16500	310	105	0.006	9350	200	60	0.007
3.0	15400	430	145	0.009	11000	310	105	0.009	6050	200	55	0.011
4.0	11000	420	140	0.013	8800	310	110	0.012	4600	185	60	0.013
5.0	9150	420	145	0.015	6800	310	105	0.015	3650	200	55	0.018
6.0	7600	440	145	0.019	5700	340	105	0.020	2950	230	55	0.026
8.0	5700	440	145	0.026	4400	330	110	0.025	2200	240	55	0.036
10.0	4600	440	145	0.032	3400	330	105	0.032	1850	255	60	0.046
12.0	3750	430	140	0.038	2850	330	105	0.039	1450	275	55	0.063
14.0	3300	430	145	0.043	2400	330	105	0.046	1300	285	55	0.073
16.0	2850	430	145	0.050	2200	330	110	0.050	1100	285	55	0.086
20.0	2200	430	140	0.065	1700	330	105	0.065	900	310	55	0.115

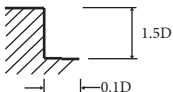


UCX95, UCX96 - side cutting frezowanie bokiem

MATERIAL MATERIAL	P								M			
	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS STALE NIESTOPOWE STALE STOPOWE STALE NARZĘDZIOWE				ALLOY STEELS HEAT RESISTANT STEELS STALE STOPOWE STALE ŻAROWYTRZYMAŁE ORAZ ŻA- ROODPORNE				STAINLESS STEELS STALE NIERDZEWNE			
	-HRC30				HRC30 -HRC45							
DC	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz
1.0	17600	110	55	0.002	10250	65	30	0.002	8650	55	25	0.002
1.5	11800	160	55	0.005	7050	85	35	0.004	7050	90	35	0.004
2.0	9850	180	60	0.006	6450	120	40	0.006	5350	100	35	0.006
3.0	7600	205	70	0.009	4750	130	45	0.009	3950	105	35	0.009
4.0	6450	365	80	0.019	3950	220	50	0.019	3300	180	40	0.018
5.0	5350	385	85	0.024	3200	230	50	0.024	2700	195	40	0.024
6.0	4750	425	90	0.030	2850	265	55	0.031	2400	215	45	0.030
8.0	3550	450	90	0.042	2150	245	55	0.038	1800	225	45	0.042
10.0	2750	390	85	0.047	1700	195	55	0.038	1450	195	45	0.045
12.0	2350	330	90	0.047	1450	160	55	0.037	1150	155	45	0.045
14.0	2100	465	90	0.074	1300	145	55	0.037	1050	140	45	0.044
16.0	1850	265	95	0.048	1150	130	60	0.038	900	130	45	0.048
20.0	1450	205	90	0.047	900	100	55	0.037	700	100	45	0.048

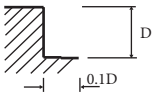


MATERIAL MATERIAL	N								K			
	ALUMINUM ALLOYS STOPY ALUMINIUM				COPPER, BRASS, NON-FERROUS METALS MIEDŹ, BRĄZ, METALE NIEŻALAZNE				CAST IRON ŻELIWO			
DC	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz
1.0	44000	750	140	0.006	24700	450	80	0.006	18700	460	60	0.008
1.5	27500	860	130	0.010	20300	675	95	0.011	12100	460	55	0.013
2.0	22000	1035	140	0.016	16500	770	105	0.016	9350	475	60	0.017
3.0	15400	990	145	0.021	11000	760	105	0.023	6050	475	55	0.026
4.0	11000	1035	140	0.031	8800	770	110	0.029	4600	485	60	0.035
5.0	9150	1010	145	0.037	6800	760	105	0.037	3650	485	55	0.044
6.0	7600	1100	145	0.048	5700	825	105	0.048	2950	570	55	0.064
8.0	5700	1100	145	0.064	4400	825	110	0.063	2200	615	55	0.093
10.0	4600	1100	145	0.080	3400	825	105	0.081	1850	640	60	0.115
12.0	3750	1100	140	0.098	2850	825	105	0.096	1450	670	55	0.154
14.0	3300	1100	145	0.111	2400	825	105	0.115	1300	705	55	0.181
16.0	2850	1100	145	0.129	2200	825	110	0.125	1100	725	55	0.220
20.0	2200	1100	140	0.167	1700	825	105	0.162	900	770	55	0.285

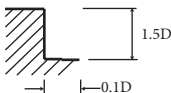


UCX11 - side cutting frezowanie bokiem

MATERIAL MATERIAL	P								M			
	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS STAŁE NIESTOPOWE STAŁE STOPOWE STAŁE NARZĘDZIOWE				ALLOY STEELS HEAT RESISTANT STEELS STAŁE STOPOWE STAŁE ŻAROODPORNE				STAINLESS STEELS STAŁE NIERDZEWNE			
	-HRC30				HRC30 -HRC45							
DC	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz
1.0	17600	150	55	0.002	10250	85	30	0.002	8650	75	25	0.002
1.5	11800	215	55	0.005	7050	115	35	0.004	7050	120	35	0.004
2.0	9850	240	60	0.006	6450	145	40	0.006	5350	120	35	0.006
3.0	7600	270	70	0.009	4750	170	45	0.009	3950	145	35	0.009
4.0	6450	485	80	0.019	3950	300	50	0.019	3300	240	40	0.018
5.0	5350	510	85	0.024	3200	305	50	0.024	2700	255	40	0.024
6.0	4750	560	90	0.029	2850	350	55	0.031	2400	280	45	0.029
8.0	3550	605	90	0.043	2150	325	55	0.038	1800	300	45	0.042
10.0	2750	520	85	0.047	1700	255	55	0.038	1450	255	45	0.044
12.0	2350	440	90	0.047	1450	215	55	0.037	1150	205	45	0.045
14.0	2100	395	90	0.047	1300	195	55	0.038	1050	190	45	0.045
16.0	1850	350	95	0.047	1150	170	60	0.037	950	170	50	0.045
20.0	1450	270	90	0.047	900	135	55	0.038	700	130	45	0.046



MATERIAL MATERIAL	N								K			
	ALUMINUM ALLOYS STOPY ALUMINIUM				COPPER, BRASS, NON-FERROUS METALS MIEDŹ, BRĄZ, METAŁE NIEŻALAZNE				CAST IRON ŻELIWO			
DC	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz	RPM	FEED POSUW	Vc	fz
1.0	44000	1050	140	0.006	24700	605	80	0.006	18700	620	60	0.008
1.5	27500	1160	130	0.011	20300	910	95	0.011	12100	620	55	0.013
2.0	22000	1320	140	0.015	16500	1035	105	0.016	9350	640	60	0.017
3.0	15400	1320	145	0.021	11000	1035	105	0.024	6050	640	55	0.026
4.0	11000	1320	140	0.030	8800	1035	110	0.029	4600	640	60	0.035
5.0	9150	1320	145	0.036	6800	1035	105	0.038	3650	640	55	0.044
6.0	7600	1430	145	0.047	5700	1100	105	0.048	2950	770	55	0.065
8.0	5700	1430	145	0.063	4400	1100	110	0.063	2200	815	55	0.093
10.0	4600	1430	145	0.078	3400	1100	105	0.081	1850	860	60	0.116
12.0	3750	1430	140	0.095	2850	1100	105	0.096	1450	900	55	0.155
14.0	3300	1430	145	0.108	2400	1100	105	0.115	1300	945	55	0.182
16.0	2850	1430	145	0.125	2200	1100	110	0.125	1100	970	55	0.220
20.0	2200	1430	140	0.163	1700	1100	105	0.162	900	1035	55	0.288



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