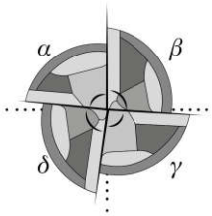
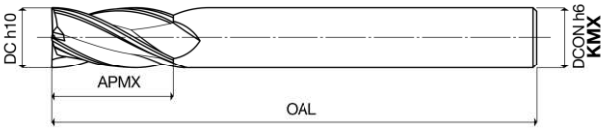
Series

45120

Frese a quattro taglienti
Four flute end mills

Z4
IRREGULAR DIVISION





Skin up Coating | Quality UOP | H Execution | λ°s 30 Helix | W on request | Length

Cod. Art.	DC h10	APMX	OAL	DCON h6	Z	UNCOATED
451200300 KMX	3	25	70	3	4	KM
451200400 KMX	4	32	72	4	4	KM
451200500 KMX	5	32	80	5	4	KM
451200600 KMX	6	40	82	6	4	KM
451200700 KMX	7	42	100	7	4	KM
451200800 KMX	8	42	100	8	4	KM
451200900 KMX	9	45	100	9	4	KM
451201000 KMX	10	45	100	10	4	KM
451201100 KMX	11	70	130	11	4	KM
451201200 KMX	12	75	160	12	4	KM
451201300 KMX	13	75	160	13	4	KM
451201400 KMX	14	75	160	14	4	KM
451201500 KMX	15	75	160	15	4	KM
451201600 KMX	16	75	160	16	4	KM
451201700 KMX	17	75	160	17	4	KM
451201800 KMX	18	75	160	18	4	KM
451201900 KMX	19	75	160	19	4	KM
451202000 KMX	20	75	160	20	4	KM

parametri tecnici a pag. / *for technical parameters see page 276*

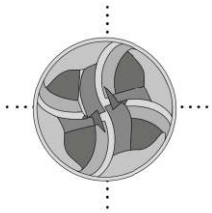
Series

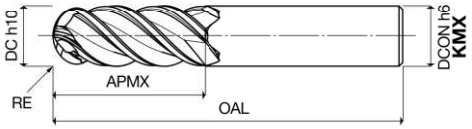
45135

Frese a quattro taglienti a testa semisferica
Ball-nosed four flute end mills

Gamma Raggi
Radii Range
RE: 1 - 1,5 - 2 - 2,5 - 3 - 3,5 - 4
4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 7,5
8 - 8,5 - 9 - 9,5 - 10

Z4
BALL-NOSED CUTTERS



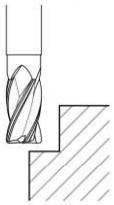


Skin up Coating | Quality UOP | H Execution | λ°s 30 Helix | W on request | Length

Cod. Art.	DC h10	APMX	OAL	RE	DCON h6	Z	UNCOATED
451350200 KMX	2	7	40	1	2	4	KM
451350300 KMX	3	10	40	1,5	3	4	KM
451350400 KMX	4	11	50	2	4	4	KM
451350500 KMX	5	13	50	2,5	5	4	KM
451350600 KMX	6	16	57	3	6	4	KM
451350700 KMX	7	16	60	3,5	7	4	KM
451350800 KMX	8	19	63	4	8	4	KM
451350900 KMX	9	19	67	4,5	9	4	KM
451351000 KMX	10	22	72	5	10	4	KM
451351100 KMX	11	22	83	5,5	11	4	KM
451351200 KMX	12	26	83	6	12	4	KM
451351300 KMX	13	26	83	6,5	13	4	KM
451351400 KMX	14	28	83	7	14	4	KM
451351500 KMX	15	32	92	7,5	15	4	KM
451351600 KMX	16	32	92	8	16	4	KM
451351700 KMX	17	32	92	8,5	17	4	KM
451351800 KMX	18	32	92	9	18	4	KM
451351900 KMX	19	38	104	9,5	19	4	KM
451352000 KMX	20	38	104	10	20	4	KM

parametri tecnici a pag. / *for technical parameters see page 277*

Parametri di taglio/*Cutting parameters*



Materiali *Materials*		Contornatura *Shouldering* ap = 1,5ø | ae = 0,15ø	
Serie *Series*		45110* - 45120** - 45505 - 46105	
	Gruppo e descrizione *Group and description*	Vc (m/min.)	
		NON RIVESTITA UNCOATED	Skin^{up}
Ghisa *Cast Iron*	Grigia e sferoidale *Grey and spheroidal*	80 - 90	110 - 120
Acciaio *Steel*	Basso contenuto di C *Low Carbon content*	90 - 100	120 - 130
	Medio contenuto di C *Medium Carbon content*	90 - 100	120 - 130
	Basso legato *Low alloy*	80 - 90	110 - 120
	Alto legato *High alloy*	70 - 80	90 - 100
	Acciaio da stampi e utensili *Tool and die Steel*	50 - 60	70 - 80
Materiali non ferrosi - Leghe leggere *Non ferrous materials - Ligh alloys*	Alluminio non legato *Unalloyed aluminium*	–	–
	Alluminio Si < 6% *si < 6% aluminium*	–	–
	Materiali termoplastici *Thermoplastic materials*	–	–
	Rame/Ottone *Copper/Brass*	90 - 100	120 - 130
Acciaio Temprato *Hardened Steel*	≤ 54 HRC	-	-
Acciaio Inossidabile *Stainless Steel*	Aisi 304 - 416 - 420	-	60 - 70
	Aisi 316 - 440	-	40 - 50
	17-4 ph 15-5 ph	-	40 - 50
	Leghe Cr - Co / *Cr - Co alloys*	-	30 - 40
	Duplex F51	-	30 - 40
	Super Duplex F55	-	20 - 30
Superleghe resistenti al calore *Heat Resistant Super Alloys*	Hrsa Hastelloy	-	10 - 15
	Hrsa Inconel 625	-	10 - 15
	Hrsa Inconel 718	-	10 - 15
	Hrsa Nimonic	-	10 - 15
Ti	Titanio - Titanium	-	25 - 35
	Leghe di titanio / *Titanium alloys*	-	25 - 35

DC	Avanzamento fz mm/tagliente | *FEED mm/tooth*
3	0,009
4	0,012
5	0,015
6	0,018
8	0,023
10	0,033
12	0,042
16	0,055
20	0,075

*series **45110 fz** consigliato | *recommended* -50%,
series **45120 fz consigliato | *recommended* -70%

45110*	45120**	45505	46105
●	●	●	●
●	●	●	●
○	○	○	○
◪	◪	◪	◪
◪	◪	○	◪
◪	◪	◪	○

● consigliata/recommended ◪ accettabile/acceptable ○ non consigliata/not recommended