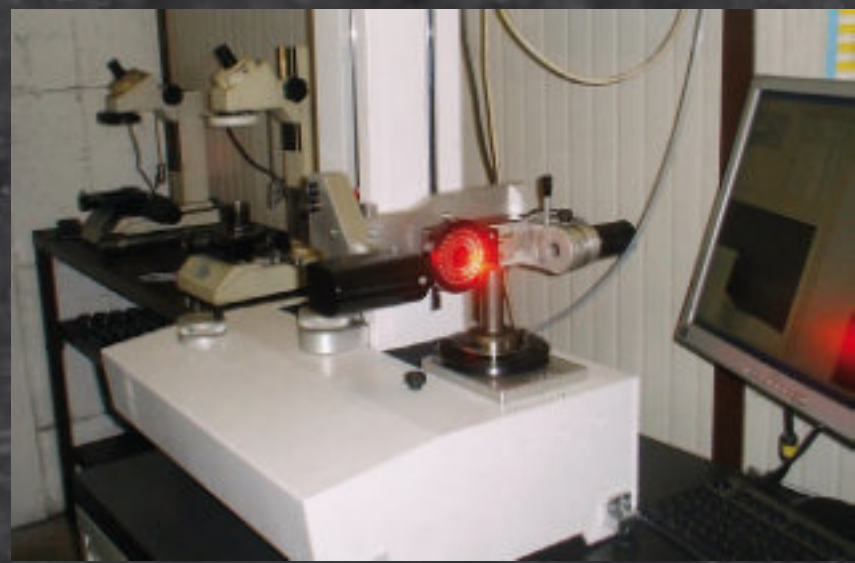


Utensili in metallo duro
Solid Carbide Tooling

CATALOGO
2016



preSenzione aziendale

Dueci Sr.l. nasce nel 1995 come azienda che produce utensili in metallo duro integrale (frese, punte, alesatori) in varie misure e dimensioni, sia standard da catalogo che speciali a disegno.

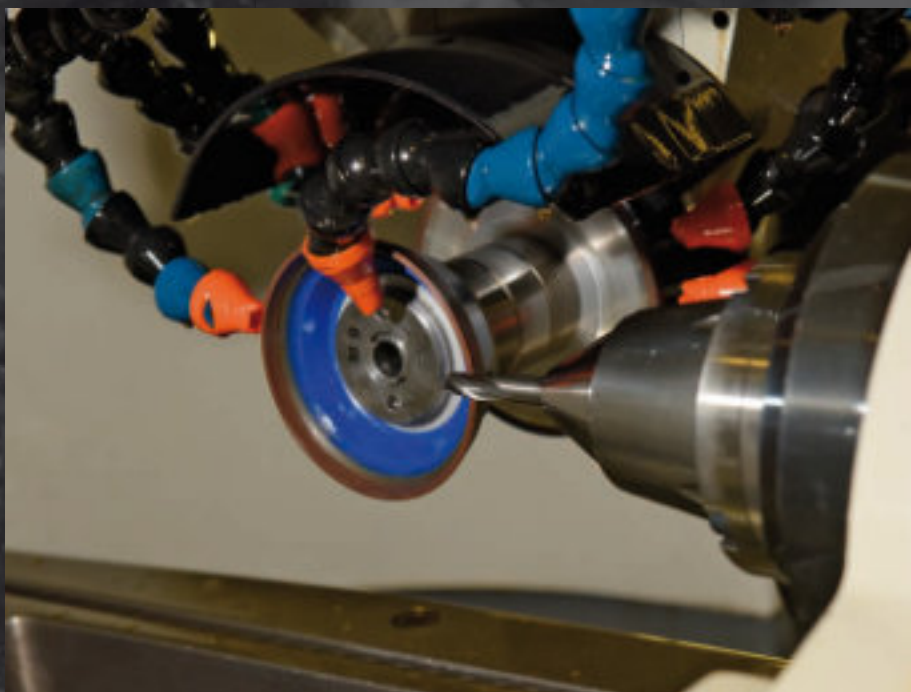
È una struttura solida e dinamica, i continui investimenti e personale altamente qualificato hanno garantito nel corso degli anni un livello di qualità, di prezzo e di servizio estremamente competitivi, grazie anche alle tecnologie altamente avanzate impiegate nel processo produttivo.

L'azienda è situata nella zona industriale di nave, a nord della città di Brescia, sulla Strada Statale del Caffaro che porta ai Tre I ghi. È raggiungibile dall'uscita autostradale di Brescia o vest in direzione Val Trompia.

Company profile

The company Dueci Sr.l. has been established in the year 1995 as leading manufacturer of solid carbide tooling (end mills, drills, reamers) in different dimensions and sizes as standard from catalogue and tailor-made according to drawing.











































The company is a well established company and dynamic with continuous investments with state-of-the-art machineries, skilled staff, selection of the best carbide materials. All these factors have guaranteed to our company a high quality standards, competitive prices and extremely accurate service to offer the best throughout of our customer's network. The company is located in the industrial area of nave, north of Brescia on the main road Caffaro to the three lakes. You can reach our company from the highway exit Brescia o vest with direction Val Trompia.



Azienda certificata ISO 9001



APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS

	SERIE	FLUTE	LUNG.	PAG	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/STAINLESS STEEL	NON FERROSI/NON FERROUS	LEGHE LEGGERE/LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
UNIVERSALI / UNIVERSAL													
	10	Z2		14	●	●	○	◐	○	◐	○	◐	○
	10L	Z2		15	●	●	○	◐	○	◐	○	◐	○
	10EL	Z2		16	●	●	○	◐	○	◐	○	◐	○
	12	Z3		17	●	●	○	◐	○	◐	○	◐	○
	12L	Z3		18	●	●	○	◐	○	◐	○	◐	○
	12EL	Z3		19	●	●	○	◐	○	◐	○	◐	○
	14	Z4		20	●	●	○	◐	○	◐	○	◐	○
	14L	Z4		21	●	●	○	◐	○	◐	○	◐	○
	14EL	Z4		22	●	●	○	◐	○	◐	○	◐	○
	16	Z3		23	○	○	○	●	●	○	○	○	○
	16S	Z3		24	○	○	○	●	●	○	○	○	○
	26	Z6		25	●	●	◐	○	○	●	○	◐	○
	26L	Z6		26	●	●	◐	○	○	●	○	◐	○
	28	Z3		27	●	●	◐	○	○	◐	○	◐	○
	29	Z4		28	●	●	◐	○	○	◐	○	◐	○
	56	Z4		29	◐	◐	●	○	◐	◐	○	●	○
	11	Z2		30	●	●	○	◐	○	◐	○	◐	○
	11L	Z2		31	●	●	○	◐	○	◐	○	◐	○
	11EL	Z2		32	●	●	○	◐	○	◐	○	◐	○
	13	Z3		33	●	●	○	◐	○	◐	○	◐	○
	13L	Z3		34	●	●	○	◐	○	◐	○	◐	○

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS

	SERIE	FLUTE	LUNG.	PAG	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/STAINLESS STEEL	NON FERROSI/NON FERROUS	LEGHE LEGGERE/LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	13EL	Z3		35	●	●	○	◐	○	◐	○	◐	○
	15	Z4		36	●	●	○	◐	○	◐	○	◐	○
	15L	Z4		37	●	●	○	◐	○	◐	○	◐	○
	15EL	Z4		38	●	●	○	◐	○	◐	○	◐	○
	R28	Z3		39	●	●	◐	○	○	◐	○	◐	○
	R29	Z4		40	●	●	◐	○	○	◐	○	◐	○
	S44			41	○	○	○	○	○	●	◐	○	○
	30	Z3/Z4		42, 43, 44	●	●	◐	○	○	◐	○	○	○
	54	Z2		45	●	●	●	◐	◐	◐	○	○	◐
	32			46	●	●	◐	○	○	●	◐	○	○
	37			47	●	●	◐	○	○	●	◐	○	○
	50	Z3		48	●	●	○	◐	○	◐	○	◐	○
	50L	Z3		49	●	●	○	◐	○	◐	○	◐	○
	52	Z2		50	●	●	○	◐	○	◐	○	◐	○
	52L	Z2		51	●	●	○	◐	○	◐	○	◐	○
	51	Z2		52	●	●	○	◐	○	◐	○	◐	○
	51L	Z2		53	●	●	○	◐	○	◐	○	◐	○
	D21	Z2		54	●	●	○	◐	○	◐	○	◐	○
	D25	Z4		55	●	●	○	◐	○	◐	○	◐	○
	18	Z1		56	○	○	○	●	●	○	○	○	DLC
	RA18	Z6/Z8		57	○	○	○	●	●	○	○	○	○
	A18	Z2		58	○	○	○	●	●	○	○	○	○









































APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS

	SERIE	FLUTE	LUNG.	PAG	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/STAINLESS STEEL	NON FERROSI/NON FERROUS	LEGHE LEGGERE/LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	A1845	Z2		59	○	○	○	●	●	○	○	○	○
	A1855	Z2		60	○	○	○	●	●	○	○	○	○
	19	Z1		61	○	○	○	●	●	○	○	○	DLC
	55	Z2		62	○	○	○	●	●	○	○	○	DLC
	55L	Z2		63	○	○	○	●	●	○	○	○	DLC
	FA			64	○	○	○	●	○	○	○	○	DLC
	FB			65	○	○	○	●	○	○	○	○	DLC
	FC			66	○	○	○	●	○	○	○	○	DLC
	FD			67	○	○	○	●	○	○	○	○	DLC
	W10	Z2		68	●	●	○	●	○	●	○	●	○
	WS10	Z2		69	●	●	○	●	○	●	○	●	○
	W16	Z3		70	○	○	○	●	●	○	○	○	○
	WS16	Z3		71	○	○	○	●	●	○	○	○	○
	W14	Z4		72	●	●	○	●	○	●	○	●	○
	WS14	Z4		73	●	●	○	●	○	●	○	●	○
	W28	Z3		74	●	●	○	○	○	●	○	●	○
	W29	Z4		75	●	●	○	○	○	●	○	●	○
	W11	Z2		76	●	●	○	●	○	●	○	●	○
	W13	Z3		77	●	●	○	●	○	●	○	●	○
	W15	z4		78	●	●	○	●	○	●	○	●	○
	WR28	Z3		79	●	●	○	○	○	●	○	●	○
	WR29	Z4		80	●	●	○	○	○	●	○	●	○

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS

	SERIE	FLUTE	LUNG.	PAG	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/STAINLESS STEEL	NON FERROSI/NON FERROUS	LEGHE LEGGERE/LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
HSC													
	AVC10	Z2		82	●	○	○	○	○	●	●	○	○
	AVC10L	Z2		83	●	○	○	○	○	●	●	○	○
	AVC14	Z4		84	●	○	○	○	○	●	●	○	○
	AVC14L	Z4		85	●	○	○	○	○	●	●	○	○
	AVT10	Z2		86	●	○	○	○	○	●	●	○	○
	AVT10L	Z2		87	●	○	○	○	○	●	●	○	○
	AVT14	Z4		88	●	○	○	○	○	●	●	○	○
	AVT14L	Z4		89	●	○	○	○	○	●	●	○	○
	AVC10D	Z2		90	●	○	○	○	○	●	●	○	○
	AVC10LD	Z2		91	●	○	○	○	○	●	●	○	○
	AVT10D	Z2		92	●	○	○	○	○	●	●	○	○
	AVT10LD	Z2		93	●	○	○	○	○	●	●	○	○
	AVC10R	Z2		94	●	○	○	○	○	●	●	○	○
	AVC10LR	Z2		95	●	○	○	○	○	●	●	○	○
	AVC10DR	Z2		96	●	○	○	○	○	●	●	○	○
	AVC10LDR	Z2		97	●	○	○	○	○	●	●	○	○
	AVR11	Z2		98	●	○	○	○	○	●	●	○	○
	AVR11L	Z2		99	●	○	○	○	○	●	●	○	○
	AVR11D	Z2		100	●	○	○	○	○	●	●	○	○
	AVR11LD	Z2		101	●	○	○	○	○	●	●	○	○
	AVRC11	Z2		102	●	○	○	○	○	●	●	○	○

































APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS

	SERIE	FLUTE	LUNG.	PAG	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/STAINLESS STEEL	NON FERROSI/NON FERROUS	LEGHE LEGGERE/LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	AVRC11L	Z2		103	●	○	○	○	○	●	●	○	○
	AVRC11D	Z2		104	●	○	○	○	○	●	●	○	○
	AVRC11LD	Z2		105	●	○	○	○	○	●	●	○	○
	AVTM	Z6		106	●	○	○	○	○	●	●	○	○
	AVTML	Z6		107	●	○	○	○	○	●	●	○	○
MICRO													
	M	Z2		110	●	●	●	○	○	●	●	○	○
	ML	Z2		111	●	●	●	○	○	●	●	○	○
	MR	Z2		112	●	●	●	○	○	●	●	○	○
	MRL	Z2		113	●	●	●	○	○	●	●	○	○
AEROSPACE													
	NOVA	Z4		116	●	○	●	○	○	●	●	●	○
	NOVAS	Z4		117	●	○	●	○	○	●	●	●	○
	SILR	Z4		118	●	●	●	○	○	●	●	●	○
	SIL	Z4		119	●	●	●	○	○	●	●	●	○
	DV	Z4		120	○	○	●	○	○	○	○	○	○
	DVS	Z4		121	○	○	●	○	○	○	○	○	○
	IB	Z4		122	○	○	●	○	○	○	○	○	○
	IBS	Z4		123	○	○	●	○	○	○	○	○	○
	IR	Z4		124	○	○	○	○	○	○	○	●	○
	IRS	Z4		125	○	○	○	○	○	○	○	●	○
	TA	Z4		126	○	○	○	○	○	○	○	●	○

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS

	SERIE	FLUTE	LUNG.	PAG	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/STAINLESS STEEL	NON FERROSI/NON FERROUS	LEGHE LEGGERE/LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	TAS	Z4		127	○	○	○	○	○	●	●	●	○
	H4	Z4		128	●	○	●	○	○	●	●	○	○
	H5	Z5		129	●	○	●	○	○	●	●	○	○
	H4R	Z4		130	●	○	●	○	○	●	●	○	○
	H6	Z6		131	●	○	●	○	○	●	●	○	○
	H7	Z7		132	●	○	●	○	○	●	●	○	○
	H4S	Z4		133	●	○	●	○	○	●	●	○	○
	H5S	Z5		134	●	○	●	○	○	●	●	○	○
	H6S	Z6		135	●	○	●	○	○	●	●	○	○
	H7S	Z7		136	●	○	●	○	○	●	●	○	○
	38	Z4		137	●	●	●	○	○	○	○	○	○
	53	Z4		138	●	●	○	●	○	○	○	○	○
	53L	Z4		139	●	●	○	●	○	○	○	○	○
	57	Z3		140	●	●	○	○	○	○	○	○	○
	58	Z4		141	●	●	○	○	○	○	○	○	○
	58L	Z4		142	●	●	○	○	○	○	○	○	○
	59	Z4		143	●	●	○	○	○	○	○	○	○
	60	Z4		144	●	●	○	○	○	○	○	○	○
PUNTE/DRILLS													
	MP	Z2		146	●	●	●	○	●	●	○	●	○
	MPL	Z2		147	●	●	●	○	●	●	○	●	○
	40	Z2		148	●	●	○	○		○	○	○	○

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS

	SERIE	FLUTE	LUNG.	PAG	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/STAINLESS STEEL	NON FERROSI/NON FERROUS	LEGHE LEGGERE/LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	AL40	Z2		150, 151	○	○	○	○	●	○	○	○	○
	OT40	Z2		152, 153	○	○	○	●	○	○	○	○	○
	DG40	Z2		154, 155	○	○	○	●	○	○	○	○	○
	41	Z3		156, 157	◐	●	○	●	○	○	○	○	○
	39	Z2		158, 159	●	●	◐	◐	○	◐	○	○	○
	AL39	Z2		160, 161	○	○	○	○	●	○	○	○	○
	OT39	Z2		162, 163	○	○	○	●	○	○	○	○	○
	DG39	Z2		164, 165	○	○	○	●	○	○	○	○	○
	42	Z2	3XD	166, 167	●	●	○	●	◐	◐	○	◐	○
	45	Z2	3XD	168, 169	●	●	○	●	◐	◐	○	◐	○
	43	Z2	5XD	170, 171	●	●	○	●	◐	◐	○	◐	○
	46	Z2	5XD	172, 173	●	●	○	●	◐	◐	○	◐	○
	49	Z2	8XD	174, 175	●	●	○	●	◐	◐	○	◐	○
	47	Z2	3XD	176, 177	○	●	○	●	●	○	○	○	○
	48	Z2	5XD	178, 179	○	●	○	●	●	○	○	○	○
	49D	Z2	8XD	180, 181	○	●	○	●	●	○	○	○	○
	33	Z2		182	●	●	◐	◐	◐	○	○	◐	○
	34	Z2		183	●	●	◐	◐	◐	○	○	◐	○
	D34	Z2		184, 185	●	●	◐	◐	◐	○	○	◐	○
ALESATORI / REAMERS													
	D35L			186	●	●	●	●	●	◐	○	◐	○

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS

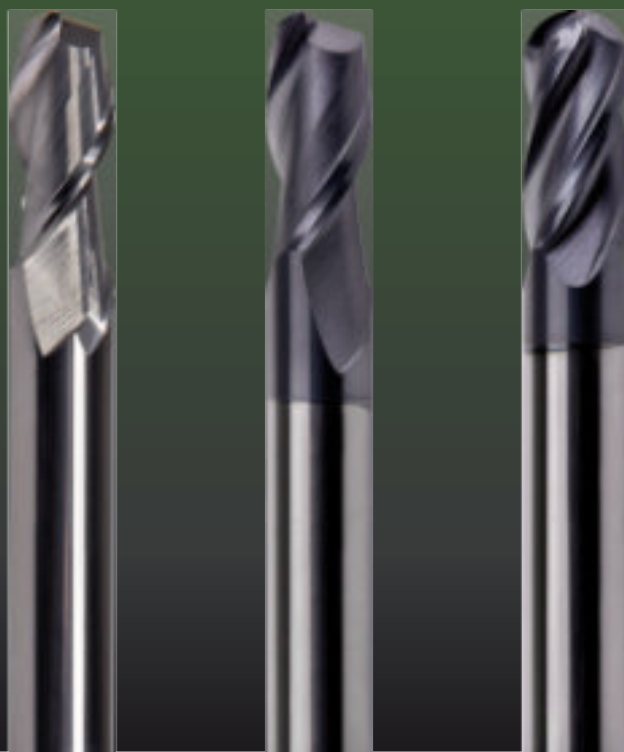
	SERIE	FLUTE	LUNG.	PAG	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/STAINLESS STEEL	NON FERROSI/NON FERROUS	LEGHE LEGGERE/LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
BARRETTE													
	31	●		188									
	C	●		189									
	BG	■		190									
ROTATIVE / BARRS													
	A-C-D-F 81			192									
	A-C-D-F 82			193									
	A-C-D-F 83			194									
	A-C-D-F 84			195									
	A-C-D-F 85			196									
	A-C-D-F 86			197									
	A-C-D-F 87			198									
	A-C-D-F 88			199									
	A-C-D-F 89			200									
	A-C-D-F 90			201									
	A-C-D-F 91			202									
	A-C-D-F 92			203									

- CONSIGLIATO / RECOMMENDED
- ◐ ACCETTABILE / ACCEPTABLE
- NON CONSIGLIATO / NOT RECOMMENDED



Frese per lavorazioni universali

Universal end mills

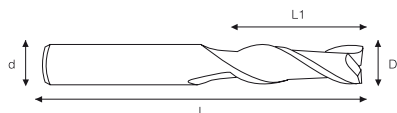


Frese Z2 denti elicoidali taglio al centro lavorazioni universali

Universal end mills 2 flutes center cutting

SERIES
10

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
1	3	40	1	2	103501	20,30	23,00	24,30
1,5	3	40	1,5	2	1035015	20,30	23,00	24,30
2	8	40	2	2	103502	8,50	11,40	12,00
2,5	8	40	2,5	2	1035025	8,80	12,20	12,80
3	10	40	3	2	103503	10,30	13,70	14,40
3,5	10	40	3,5	2	1035035	10,80	14,20	14,90
4	12	40	4	2	103504	11,50	14,90	15,70
4,5	12	50	4,5	2	1035045	12,90	17,50	18,40
5	14	50	5	2	103505	13,70	18,30	19,20
5,5	14	50	5,5	2	1035055	15,60	20,20	21,20
6	16	50	6	2	103506	16,30	20,90	22,00
6,5	16	50	6,5	2	1035065	19,00	24,50	25,70
7	16	60	7	2	103507	21,20	26,70	28,00
7,5	16	60	7,5	2	1035075	22,40	28,00	29,40
8	18	60	8	2	103508	23,70	29,30	30,80
8,5	18	60	8,5	2	1035085	24,90	31,60	33,20
9	20	60	9	2	103509	26,10	32,80	34,40
9,5	20	70	9,5	2	1035095	30,50	37,30	39,20
10	22	70	10	2	103510	32,20	38,90	40,90
10,5	22	70	10,5	2	1035105	35,60	42,40	44,50
11	22	70	11	2	103511	39,70	46,50	48,90
11,5	22	70	11,5	2	1035115	41,30	48,00	50,40
12	25	70	12	2	103512	41,90	48,60	51,00
13	25	75	13	2	103513	47,80	55,20	58,00
14	28	75	14	2	103514	56,50	63,90	67,10
15	28	75	15	2	103515	66,50	73,80	77,50
16	32	80	16	2	103516	73,80	82,80	87,00
17	32	80	17	2	103517	88,90	99,70	104,70
18	32	80	18	2	103518	96,70	107,50	112,90
19	38	104	19	2	103519	121,10	137,90	144,80
20	38	104	20	2	103520	133,80	150,60	158,10
22	38	104	22	2	103522	166,70	183,50	192,70
25	38	104	25	2	103525	206,60	230,10	241,60
30	38	104	30	2	103530	289,50	316,20	332,00

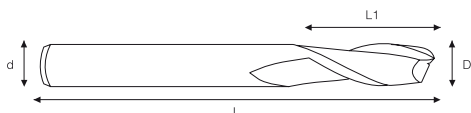
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	○	●	○	●	○

Frese Z2 denti elicoidali taglio al centro lavorazioni universali

Universal long series end mills 2 flutes center cutting

SERIES
10L

DUCCI



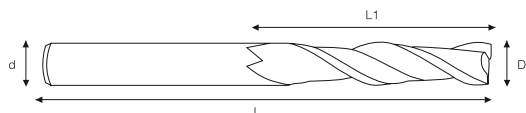
D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	20	50	2	2	103502L	10,70	13,60	14,30
3	20	55	3	2	103503L	11,80	15,20	16,00
4	20	60	4	2	103504L	15,10	18,50	19,40
5	20	60	5	2	103505L	16,50	21,10	22,20
6	24	65	6	2	103506L	20,20	24,80	26,00
7	30	75	7	2	103507L	25,50	31,00	32,60
8	32	80	8	2	103508L	29,60	36,60	38,40
9	32	80	9	2	103509L	34,80	43,10	45,30
10	32	80	10	2	103510L	38,40	46,70	49,00
11	50	100	11	2	103511L	53,90	62,30	65,40
12	50	100	12	2	103512L	61,80	70,20	73,70
13	50	100	13	2	103513L	69,10	78,10	82,00
14	55	100	14	2	103514L	77,20	86,20	90,50
15	60	120	15	2	103515L	97,20	109,00	114,50
16	60	120	16	2	103516L	109,80	121,60	127,70
17	60	120	17	2	103517L	122,30	135,90	142,70
18	60	120	18	2	103518L	133,10	146,60	154,00
19	60	130	19	2	103519L	155,90	172,70	181,30
20	60	130	20	2	103520L	176,30	193,10	202,80
22	75	150	22	2	103522L	270,00	295,20	310,00
25	75	150	25	2	103525L	334,90	377,70	396,60
30	75	150	30	2	103530L	436,90	491,40	516,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	○	●	○	●	○

Frese Z2 denti elicoidali taglio al centro lavorazioni universali

Universal extra long series end mills 2 flutes center cutting

SERIES
10eL



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	40	80	6	2	103506EL	26,10	32,00	33,60
8	42	100	8	2	103508EL	35,50	42,50	44,60
10	45	100	10	2	103510EL	48,00	56,30	59,10
12	75	150	12	2	103512EL	84,70	97,60	102,50
14	75	150	14	2	103514EL	111,80	126,50	132,80
16	75	150	16	2	103516EL	139,70	154,30	162,00
18	75	150	18	2	103518EL	171,40	189,60	199,10
20	75	150	20	2	103520EL	212,70	237,90	249,80
22	80	200	22	2	103522EL	333,30	375,70	394,50
25	80	200	25	2	103525EL	413,10	465,30	488,60
30	80	200	30	2	103530EL	540,00	602,80	633,00

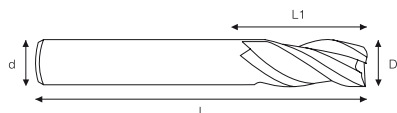
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	◐	○	◐	○	◐	○

Frese Z3 denti elicoidali taglio al centro lavorazioni universali

Universal end mills 3 flutes center cutting

SERIES
12

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	8	40	2	3	123502	8,50	11,40	12,00
2,5	8	40	2,5	3	1235025	8,80	12,20	12,80
3	10	40	3	3	123503	10,30	13,70	14,40
3,5	10	40	3,5	3	1235035	10,80	14,20	14,90
4	12	40	4	3	123504	11,50	14,90	15,70
4,5	12	50	4,5	3	1235045	12,90	17,50	18,40
5	14	50	5	3	123505	13,70	18,30	19,20
5,5	14	50	5,5	3	1235055	15,60	20,20	21,20
6	16	50	6	3	123506	16,30	20,90	22,00
6,5	16	50	6,5	3	1235065	19,00	24,50	25,70
7	16	60	7	3	123507	21,20	26,70	28,00
7,5	16	60	7,5	3	1235075	22,40	28,00	29,40
8	18	60	8	3	123508	23,70	29,30	30,80
8,5	18	60	8,5	3	1235085	24,90	31,60	33,20
9	20	60	9	3	123509	26,10	32,80	34,40
9,5	20	70	9,5	3	1235095	30,50	37,30	39,20
10	22	70	10	3	123510	32,20	38,90	40,90
10,5	22	70	10,5	3	1235105	35,60	42,40	44,50
11	22	70	11	3	123511	39,70	46,50	48,90
11,5	22	70	11,5	3	1235115	41,30	48,00	50,40
12	25	70	12	3	123512	41,90	48,60	51,00
13	25	75	13	3	123513	47,80	55,20	58,00
14	28	75	14	3	123514	56,50	63,90	67,10
15	28	75	15	3	123515	66,50	73,80	77,50
16	32	80	16	3	123516	73,80	82,80	87,00
17	32	80	17	3	123517	88,90	99,70	104,70
18	32	80	18	3	123518	96,70	107,50	112,90
19	38	104	19	3	123519	121,10	137,90	144,80
20	38	104	20	3	123520	133,80	150,60	158,10
22	38	104	22	3	123522	166,70	183,50	192,70
25	38	104	25	3	123525	206,60	230,10	241,60
30	38	104	30	3	123530	289,50	316,20	332,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	○	●	○	●	○

Frese Z3 denti elicoidali taglio al centro lavorazioni universali

Universal long series end mills 3 flutes center cutting

SERIES
12L

DUCCI



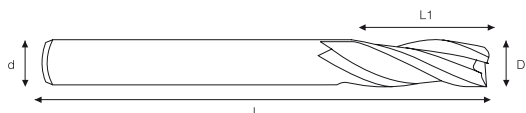
D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	20	50	2	3	123502L	10,70	13,60	14,30
3	20	55	3	3	123503L	11,80	15,20	16,00
4	20	60	4	3	123504L	15,10	18,50	19,40
5	20	60	5	3	123505L	16,50	21,10	22,20
6	24	65	6	3	123506L	20,20	24,80	26,00
7	30	75	7	3	123507L	25,50	31,00	32,60
8	32	80	8	3	123508L	29,60	36,60	38,40
9	32	80	9	3	123509L	34,80	43,10	45,30
10	32	80	10	3	123510L	38,40	46,70	49,00
11	50	100	11	3	123511L	53,90	62,30	65,40
12	50	100	12	3	123512L	61,80	70,20	73,70
13	50	100	13	3	123513L	69,10	78,10	82,00
14	55	100	14	3	123514L	77,20	86,20	90,50
15	60	120	15	3	123515L	97,20	109,00	114,50
16	60	120	16	3	123516L	109,80	121,60	127,70
17	60	120	17	3	123517L	122,30	135,90	142,70
18	60	120	18	3	123518L	133,10	146,60	154,00
19	60	130	19	3	123519L	155,90	172,70	181,30
20	60	130	20	3	123520L	176,30	193,10	202,80
22	75	150	22	3	123522L	270,00	295,20	310,00
25	75	150	25	3	123525L	334,90	377,70	396,60
30	75	150	30	3	123530L	436,90	491,40	516,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
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Frese Z3 denti elicoidali taglio al centro lavorazioni universali

Universal extra long series end mills 3 flutes center cutting

SERIES
12eL



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	40	80	6	3	123506EL	26,10	32,00	33,60
8	42	100	8	3	123508EL	35,50	42,50	44,60
10	45	100	10	3	123510EL	48,00	56,30	59,10
12	75	150	12	3	123512EL	84,70	97,60	102,50
14	75	150	14	3	123514EL	111,80	126,50	132,80
16	75	150	16	3	123516EL	139,70	154,30	162,00
18	75	150	18	3	123518EL	171,40	189,60	199,10
20	75	150	20	3	123520EL	212,70	237,90	249,80
22	80	200	22	3	123522EL	333,30	375,70	394,50
25	80	200	25	3	123525EL	413,10	465,30	488,60
30	80	200	30	3	123530EL	540,00	602,80	633,00

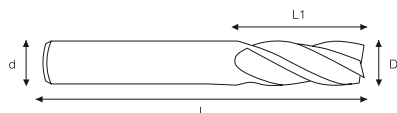
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z4 denti elicoidali taglio al centro lavorazioni universali

Universal end mills 4 flutes center cutting

SERIES
14

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	8	40	2	4	143002	8,50	11,40	12,00
2,5	8	40	2,5	4	1430025	8,80	12,20	12,80
3	10	40	3	4	143003	10,30	13,70	14,40
3,5	10	40	3,5	4	1430035	10,80	14,20	14,90
4	12	40	4	4	143004	11,50	14,90	15,70
4,5	12	50	4,5	4	1430045	12,90	17,50	18,40
5	14	50	5	4	143005	13,70	18,30	19,20
5,5	14	50	5,5	4	1430055	15,60	20,20	21,20
6	16	50	6	4	143006	16,30	20,90	22,00
6,5	16	50	6,5	4	1430065	19,00	24,50	25,70
7	16	60	7	4	143007	21,20	26,70	28,00
7,5	16	60	7,5	4	1430075	22,40	28,00	29,40
8	18	60	8	4	143008	23,70	29,30	30,80
8,5	18	60	8,5	4	1430085	24,90	31,60	33,20
9	20	60	9	4	143009	26,10	32,80	34,40
9,5	20	70	9,5	4	1430095	30,50	37,30	39,20
10	22	70	10	4	143010	32,20	38,90	40,90
10,5	22	70	10,5	4	1430105	35,60	42,40	44,50
11	22	70	11	4	143011	39,70	46,50	48,90
11,5	22	70	11,5	4	1430115	41,30	48,00	50,40
12	25	70	12	4	143012	41,90	48,60	51,00
13	25	75	13	4	143013	47,80	55,20	58,00
14	28	75	14	4	143014	56,50	63,90	67,10
15	28	75	15	4	143015	66,50	73,80	77,50
16	32	80	16	4	143016	73,80	82,80	87,00
17	32	80	17	4	143017	88,90	99,70	104,70
18	32	80	18	4	143018	96,70	107,50	112,90
19	38	104	19	4	143019	121,10	137,90	144,80
20	38	104	20	4	143020	133,80	150,60	158,10
22	38	104	22	4	143022	166,70	183,50	192,70
25	38	104	25	4	143025	206,60	230,10	241,60
30	38	104	30	4	143030	289,50	316,20	332,00

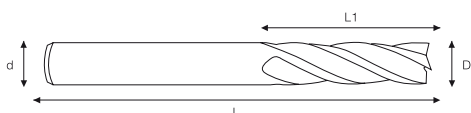
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z4 denti elicoidali taglio al centro lavorazioni universali

Universal long series end mills 4 flutes center cutting

SERIES
14L

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	20	50	2	4	143002L	10,70	13,60	14,30
3	20	55	3	4	143003L	11,80	15,20	16,00
4	20	60	4	4	143004L	15,10	18,50	19,40
5	20	60	5	4	143005L	16,50	21,10	22,20
6	24	65	6	4	143006L	20,20	24,80	26,00
7	30	75	7	4	143007L	25,50	31,00	32,60
8	32	80	8	4	143008L	29,60	36,60	38,40
9	32	80	9	4	143009L	34,80	43,10	45,30
10	32	80	10	4	143010L	38,40	46,70	49,00
11	50	100	11	4	143011L	53,90	62,30	65,40
12	50	100	12	4	143012L	61,80	70,20	73,70
13	50	100	13	4	143013L	69,10	78,10	82,00
14	55	100	14	4	143014L	77,20	86,20	90,50
15	60	120	15	4	143015L	97,20	109,00	114,50
16	60	120	16	4	143016L	109,80	121,60	127,70
17	60	120	17	4	143017L	122,30	135,90	142,70
18	60	120	18	4	143018L	133,10	146,60	154,00
19	60	130	19	4	143019L	155,90	172,70	181,30
20	60	130	20	4	143020L	176,30	193,10	202,80
22	75	150	22	4	143022L	270,00	295,20	310,00
25	75	150	25	4	143025L	334,90	377,70	396,60
30	75	150	30	4	124530L	436,90	491,40	516,00

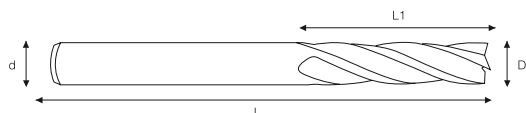
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z4 denti elicoidali taglio al centro lavorazioni universali

Universal extra long series end mills 4 flutes center cutting

SERIES
14eL

DUCCI



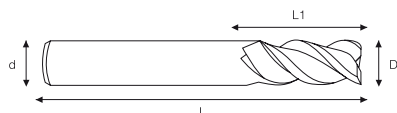
D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	40	80	6	4	143006EL	26,10	32,00	33,60
8	42	100	8	4	143008EL	35,50	42,50	44,60
10	45	100	10	4	143010EL	48,00	56,30	59,10
12	75	150	12	4	143012EL	84,70	97,60	102,50
14	75	150	14	4	143014EL	111,80	126,50	132,80
16	75	150	16	4	143016EL	139,70	154,30	162,00
18	75	150	18	4	143018EL	171,40	189,60	199,10
20	75	150	20	4	143020EL	212,70	237,90	249,80
22	80	200	22	4	143022EL	333,30	375,70	394,50
25	80	200	25	4	143025EL	413,10	465,30	488,60
30	80	200	30	4	143030EL	540,00	602,80	633,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z3 denti elicoidali taglio al centro lavorazioni universali

Universal end mills 3 flutes center cutting

SERIES
16



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	8	40	2	3	164502	8,50	11,40	12,00
2,5	8	40	2,5	3	1645025	8,80	12,20	12,80
3	10	40	3	3	164503	10,30	13,70	14,40
3,5	10	40	3,5	3	1645035	10,80	14,20	14,90
4	12	40	4	3	164504	11,50	14,90	15,70
4,5	12	50	4,5	3	1645045	12,90	17,50	18,40
5	14	50	5	3	164505	13,70	18,30	19,20
5,5	14	50	5,5	3	1645055	15,60	20,20	21,20
6	16	50	6	3	164506	16,30	20,90	22,00
6,5	16	50	6,5	3	1645065	19,00	24,50	25,70
7	16	60	7	3	164507	21,20	26,70	28,00
7,5	16	60	7,5	3	1645075	22,40	28,00	29,40
8	18	60	8	3	164508	23,70	29,30	30,80
8,5	18	60	8,5	3	1645085	24,90	31,60	33,20
9	20	60	9	3	164509	26,10	32,80	34,40
9,5	20	70	9,5	3	1645095	30,50	37,30	39,20
10	22	70	10	3	164510	32,20	38,90	40,90
10,5	22	70	10,5	3	1645105	35,60	42,40	44,50
11	22	70	11	3	164511	39,70	46,50	48,90
11,5	22	70	11,5	3	1645115	41,30	48,00	50,40
12	25	70	12	3	164512	41,90	48,60	51,00
13	25	75	13	3	164513	47,80	55,20	58,00
14	28	75	14	3	164514	56,50	63,90	67,10
15	28	75	15	3	164515	66,50	73,80	77,50
16	32	80	16	3	164516	73,80	82,80	87,00
17	32	80	17	3	164517	88,90	99,70	104,70
18	32	80	18	3	164518	96,70	107,50	112,90
19	38	104	19	3	164519	121,10	137,90	144,80
20	38	104	20	3	164520	133,80	150,60	158,10
22	38	104	22	3	164522	166,70	183,50	192,70
25	38	104	25	3	164525	206,60	230,10	241,60
30	38	104	30	3	164530	289,50	316,20	332,00

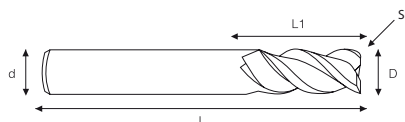
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z3 denti elicoidali taglio al centro lavorazioni universali

Universal chamfered end mills 3 flutes center cutting

SERIES
16S

DUCCI



D h10	L1	L	d h6	Z	S	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	8	40	2	3	0,1 - 0,2 x 45°	164502S	10,50	13,40	14,10
2,5	8	40	2,5	3	0,1 - 0,2 x 45°	1645025S	10,80	14,20	15,00
3	10	40	3	3	0,1 - 0,2 x 45°	164503S	12,30	15,70	16,50
3,5	10	40	3,5	3	0,1 - 0,2 x 45°	1645035S	12,80	16,20	17,00
4	12	40	4	3	0,1 - 0,2 x 45°	164504S	13,50	16,90	17,80
4,5	12	50	4,5	3	0,1 - 0,2 x 45°	1645045S	14,90	19,50	20,50
5	14	50	5	3	0,1 - 0,2 x 45°	164505S	15,70	20,30	21,30
5,5	14	50	5,5	3	0,1 - 0,2 x 45°	1645055S	17,60	22,20	23,30
6	16	50	6	3	0,1 - 0,2 x 45°	164506S	18,30	22,90	24,10
6,5	16	50	6,5	3	0,1 - 0,2 x 45°	1645065S	21,00	26,50	27,90
7	16	60	7	3	0,1 - 0,2 x 45°	164507S	23,20	28,70	30,20
7,5	16	60	7,5	3	0,1 - 0,2 x 45°	1645075S	24,40	30,00	31,50
8	18	60	8	3	0,1 - 0,2 x 45°	164508S	25,70	31,30	32,90
8,5	18	60	8,5	3	0,1 - 0,2 x 45°	1645085S	26,90	33,60	35,30
9	20	60	9	3	0,1 - 0,2 x 45°	164509S	28,10	34,80	36,60
9,5	20	70	9,5	3	0,1 - 0,2 x 45°	1645095S	32,50	39,30	41,30
10	22	70	10	3	0,1 - 0,2 x 45°	164510S	34,20	40,90	43,00
10,5	22	70	10,5	3	0,1 - 0,2 x 45°	1645105S	37,60	44,40	46,70
11	22	70	11	3	0,1 - 0,2 x 45°	164511S	41,70	48,50	51,00
11,5	22	70	11,5	3	0,1 - 0,2 x 45°	1645115S	43,30	50,00	52,50
12	25	70	12	3	0,1 - 0,2 x 45°	164512S	43,90	50,60	53,20
13	25	75	13	3	0,1 - 0,2 x 45°	164513S	49,80	57,20	60,10
14	28	75	14	3	0,1 - 0,2 x 45°	164514S	58,50	65,90	69,20
15	28	75	15	3	0,1 - 0,2 x 45°	164515S	68,50	75,80	79,60
16	32	80	16	3	0,1 - 0,2 x 45°	164516S	75,80	84,80	89,10
17	32	80	17	3	0,1 - 0,2 x 45°	164517S	90,90	101,70	106,80
18	32	80	18	3	0,1 - 0,2 x 45°	164518S	98,70	109,50	115,00
19	35	100	19	3	0,1 - 0,2 x 45°	164519S	123,10	139,90	146,90
20	35	100	20	3	0,1 - 0,2 x 45°	164520S	135,80	152,60	160,30
22	38	100	22	3	0,1 - 0,2 x 45°	164522S	168,70	185,50	194,80
25	38	100	25	3	0,1 - 0,2 x 45°	164525S	208,60	232,10	243,70
30	38	100	30	3	0,1 - 0,2 x 45°	164530S	291,50	318,20	334,10

A richiesta possibili Smussi diversi

Different chamfer on request

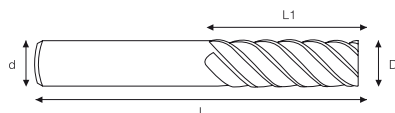
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z6 denti elicoidali lavorazioni universali

Universal end mills 6 flutes

SERIES
26

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
4	15	40	4	6	264504	14,90	18,30	19,30
6	20	50	6	6	264506	20,30	24,90	26,20
8	25	60	8	6	264508	27,70	33,30	35,00
10	30	70	10	6	264510	39,60	46,30	48,70
12	35	75	12	6	264512	51,90	58,60	61,60
14	35	75	14	6	264514	65,90	73,30	77,00
16	38	80	16	6	264516	83,20	92,20	96,90
18	38	80	18	6	264518	104,70	115,50	121,30
20	40	104	20	6	264520	143,80	160,60	168,70
22	40	104	22	6	264522	186,70	203,50	213,70
25	40	104	25	6	264525	236,60	260,10	273,20
30	40	104	30	6	264530	309,50	336,20	353,00

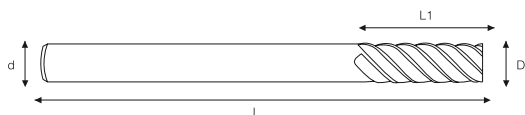
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	○	●	○

Frese Z6 denti elicoidali lavorazioni universali

Universal long series end mills 6 flutes

SERIES
26L

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
4	20	100	4	6	264504L	21,10	25,60	26,90
6	24	100	6	6	264506L	28,60	34,60	36,30
8	32	100	8	6	264508L	39,50	46,50	48,80
10	32	100	10	6	264510L	50,00	58,30	61,20
12	50	100	12	6	264512L	71,80	82,50	86,70
16	60	150	16	6	264516L	137,70	152,30	160,00
18	60	150	18	6	264518L	169,40	187,60	197,00
20	60	150	20	6	264520L	208,70	233,90	245,60
22	60	150	22	6	264522L	290,00	315,20	331,00
25	60	150	25	6	264525L	354,90	397,70	417,60
30	60	150	30	6	264530L	454,30	508,80	534,20

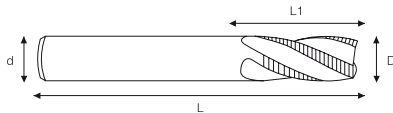
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z3 denti elicoidali taglio al centro lavorazione sgrossatura

Roughing end mills 3 flutes center cutting

SERIES
28

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	16	60	6	3	283006	23,60	28,20	29,70
8	19	70	8	3	283008	33,70	39,20	41,20
10	22	70	10	3	283010	43,60	50,30	52,90
12	26	80	12	3	283012	57,90	66,20	69,60
14	26	80	14	3	283014	72,60	81,60	85,70
16	32	100	16	3	283016	102,50	111,50	117,10
18	32	100	18	3	283018	124,90	135,70	142,50
20	38	104	20	3	283020	155,80	172,60	181,30

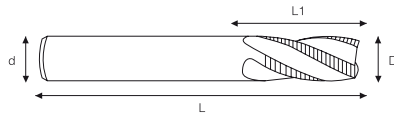
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z4 denti elicoidali taglio al centro lavorazione sgrossatura

Roughing end mills 4 flutes center cutting

SERIES
29

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	16	60	6	4	293006	23,60	28,20	29,70
8	19	70	8	4	293008	33,70	39,20	41,20
10	22	70	10	4	293010	43,60	50,30	52,90
12	26	80	12	4	293012	57,90	66,20	69,60
14	26	80	14	4	293014	72,60	81,60	85,70
16	32	100	16	4	293016	102,50	111,50	117,10
18	32	100	18	4	293018	124,90	135,70	142,50
20	38	104	20	4	293020	155,80	172,60	181,30

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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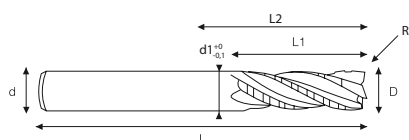
Frese divisione irregolare elica variabile taglio interrotto per ridurre la dimensione del truciolo

Unequal interrupted cut pitch and variable helix end mills to reduce chip's size

SERIES
56

NEW

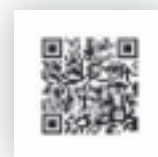
DUCCI



Macro
Gain



D	R.	L1	L2	d1	L	d	Z	Code	€ uncoated	€ TopTiAlN
8	0,5	19	26	7,8	63	8	4	5608	51,90	57,70
10	0,5	22	32	9,8	72	10	4	5610	65,80	73,00
12	1	26	38	11,7	83	12	4	5612	87,00	95,20
16	1,5	32	50	15,7	100	16	4	5616	135,60	145,00
20	1,5	40	60	19,7	110	20	4	5620	214,00	230,00



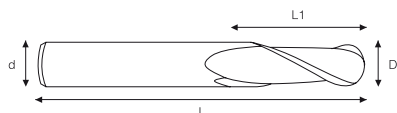
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z2 raggiate denti elicoidali taglio al centro lavorazioni universali

Universal ball nose end mills 2 flutes center cutting

SERIES
11

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
1	3	40	1	2	113001	27,50	30,30	32,00
1,5	3	40	1,5	2	1130015	27,50	30,30	32,00
2	8	40	2	2	113002	11,70	14,60	15,30
2,5	8	40	2,5	2	1130025	12,00	15,40	16,20
3	10	40	3	2	113003	14,30	17,70	18,60
3,5	10	40	3,5	2	1130035	14,60	18,00	18,90
4	12	40	4	2	113004	14,90	18,30	19,20
4,5	12	50	4,5	2	1130045	16,30	20,90	22,00
5	14	50	5	2	113005	18,70	23,30	24,50
5,5	14	50	5,5	2	1130055	19,60	24,20	25,40
6	16	50	6	2	113006	20,30	24,90	26,20
6,5	16	50	6,5	2	1130065	22,00	27,50	28,90
7	16	60	7	2	113007	24,20	29,70	31,20
7,5	16	60	7,5	2	1130075	25,40	31,00	32,60
8	18	60	8	2	113008	27,70	33,30	35,00
8,5	18	60	8,5	2	1130085	30,90	37,60	39,50
9	20	60	9	2	113009	32,10	38,80	40,80
9,5	20	70	9,5	2	1130095	36,80	43,60	45,80
10	22	70	10	2	113010	38,50	45,20	47,50
10,5	22	70	10,5	2	1130105	42,60	49,40	51,90
11	22	70	11	2	113011	47,70	54,50	57,20
11,5	22	70	11,5	2	1130115	49,30	56,00	58,80
12	25	70	12	2	113012	49,90	56,60	59,40
13	25	75	13	2	113013	57,80	65,20	68,50
14	28	75	14	2	113014	64,90	72,30	76,00
15	28	75	15	2	113015	77,50	84,80	89,00
16	32	80	16	2	113016	85,20	94,20	98,90
17	32	80	17	2	113017	102,90	113,70	119,40
18	32	80	18	2	113018	112,70	123,50	129,70
19	38	104	19	2	113019	137,10	153,90	161,60
20	38	104	20	2	113020	149,80	166,60	175,00
22	38	104	22	2	113022	186,70	203,50	213,70
25	38	104	25	2	113025	236,60	260,10	273,10
30	38	104	30	2	113030	329,50	356,20	374,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
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Frese Z2 raggiate denti elicoidali taglio al centro lavorazioni universali

Universal ball nose long series end mills 2 flutes center cutting

SERIES
11L

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	20	50	2	2	113002L	15,00	17,90	18,80
3	20	55	3	2	113003L	16,10	19,50	20,50
4	20	60	4	2	113004L	20,30	23,70	24,90
5	20	60	5	2	113005L	21,70	26,30	27,60
6	24	65	6	2	113006L	26,20	30,80	32,30
7	30	75	7	2	113007L	32,50	38,00	39,90
8	32	80	8	2	113008L	36,60	43,60	45,80
9	32	80	9	2	113009L	42,80	51,10	53,70
10	32	80	10	2	113010L	46,40	54,70	57,40
11	50	100	11	2	113011L	63,90	72,30	75,90
12	50	100	12	2	113012L	72,80	81,20	85,30
13	50	100	13	2	113013L	81,10	90,10	94,60
14	55	100	14	2	113014L	89,20	98,20	103,10
15	60	120	15	2	113015L	110,20	122,00	128,10
16	60	120	16	2	113016L	123,80	135,60	142,40
17	60	120	17	2	113017L	138,30	151,90	159,50
18	60	120	18	2	113018L	151,10	164,60	172,80
19	60	130	19	2	113019L	175,90	192,70	202,30
20	60	130	20	2	113020L	198,30	215,10	225,90
22	75	150	22	2	113022L	310,00	335,20	352,00
25	75	150	25	2	113025L	384,90	427,70	449,10
30	75	150	30	2	113030L	496,90	551,40	579,00

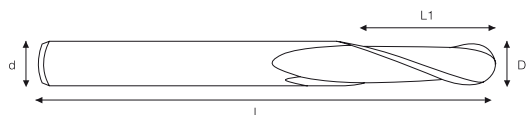
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z2 raggiate denti elicoidali taglio al centro lavorazioni universali

Universal ball nose extra long series end mills 2 flutes center cutting

SERIES
11eL

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	40	80	6	2	113006EL	34,10	40,00	42,00
8	42	100	8	2	113008EL	43,50	50,50	53,00
10	45	100	10	2	113010EL	58,00	66,30	69,60
12	75	150	12	2	113012EL	97,70	110,60	116,10
14	75	150	14	2	113014EL	127,80	142,50	149,60
16	75	150	16	2	113016EL	159,70	174,30	183,00
18	75	150	18	2	113018EL	196,40	214,60	225,30
20	75	150	20	2	113020EL	242,70	267,90	281,30
22	80	200	22	2	113022EL	373,30	415,70	436,50
25	80	200	25	2	113025EL	463,10	515,30	541,10
30	80	200	30	2	113030EL	600,00	662,80	696,00

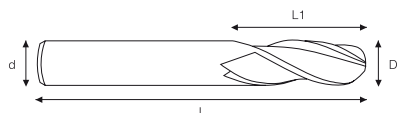
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z3 raggiate denti elicoidali taglio al centro lavorazioni universali

Universal ball nose end mills 3 flutes center cutting

SERIES
13

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	8	40	2	3	133002	11,70	14,60	15,30
2,5	8	40	2,5	3	1330025	12,00	15,40	16,20
3	10	40	3	3	133003	14,30	17,70	18,60
3,5	10	40	3,5	3	1330035	14,60	18,00	18,90
4	12	40	4	3	133004	14,90	18,30	19,20
4,5	12	50	4,5	3	1330045	16,30	20,90	22,00
5	14	50	5	3	133005	18,70	23,30	24,50
5,5	14	50	5,5	3	1330055	19,60	24,20	25,40
6	16	50	6	3	133006	20,30	24,90	26,20
6,5	16	50	6,5	3	1330065	22,00	27,50	28,90
7	16	60	7	3	133007	24,20	29,70	31,20
7,5	16	60	7,5	3	1330075	25,40	31,00	32,60
8	18	60	8	3	133008	27,70	33,30	35,00
8,5	18	60	8,5	3	1330085	30,90	37,60	39,50
9	20	60	9	3	133009	32,10	38,80	40,80
9,5	20	70	9,5	3	1330095	36,80	43,60	45,80
10	22	70	10	3	133010	38,50	45,20	47,50
10,5	22	70	10,5	3	1330105	42,60	49,40	51,90
11	22	70	11	3	133011	47,70	54,50	57,20
11,5	22	70	11,5	3	1330115	49,30	56,00	58,80
12	25	70	12	3	133012	49,90	56,60	59,40
13	25	75	13	3	133013	57,80	65,20	68,50
14	28	75	14	3	133014	64,90	72,30	76,00
15	28	75	15	3	133015	77,50	84,80	89,00
16	32	80	16	3	133016	85,20	94,20	98,90
17	32	80	17	3	133017	102,90	113,70	119,40
18	32	80	18	3	133018	112,70	123,50	129,70
19	38	104	19	3	133019	137,10	153,90	161,60
20	38	104	20	3	133020	149,80	166,60	175,00
22	38	104	22	3	133022	186,70	203,50	213,70
25	38	104	25	3	133025	236,60	260,10	273,10
30	38	104	30	3	133030	329,50	356,20	374,00

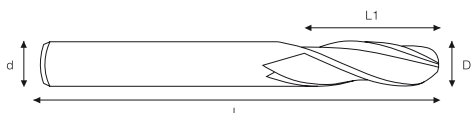
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z3 raggiate denti elicoidali taglio al centro lavorazioni universali

Universal ball nose long series end mills 3 flutes center cutting

SERIES
13L

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	20	50	2	3	133002L	15,00	17,90	18,80
3	20	55	3	3	133003L	16,10	19,50	20,50
4	20	60	4	3	133004L	20,30	23,70	24,90
5	20	60	5	3	133005L	21,70	26,30	27,60
6	24	65	6	3	133006L	26,20	30,80	32,30
7	30	75	7	3	133007L	32,50	38,00	39,90
8	32	80	8	3	133008L	36,60	43,60	45,80
9	32	80	9	3	133009L	42,80	51,10	53,70
10	32	80	10	3	133010L	46,40	54,70	57,40
11	50	100	11	3	133011L	63,90	72,30	75,90
12	50	100	12	3	133012L	72,80	81,20	85,30
13	50	100	13	3	133013L	81,10	90,10	94,60
14	55	100	14	3	133014L	89,20	98,20	103,10
15	60	120	15	3	133015L	110,20	122,00	128,10
16	60	120	16	3	133016L	123,80	135,60	142,40
17	60	120	17	3	133017L	138,30	151,90	159,50
18	60	120	18	3	133018L	151,10	164,60	172,80
19	60	130	19	3	133019L	175,90	192,70	202,30
20	60	130	20	3	133020L	198,30	215,10	225,90
22	75	150	22	3	133022L	310,00	335,20	352,00
25	75	150	25	3	133025L	384,90	427,70	449,10
30	75	150	30	3	133030L	496,90	551,40	579,00

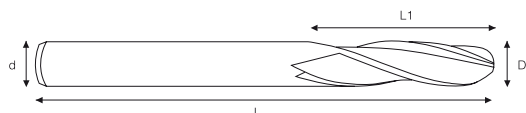
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z3 raggiate denti elicoidali taglio al centro lavorazioni universali

Universal ball nose extra long series end mills 3 flutes center cutting

SERIES
13eL

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	40	80	6	3	133006EL	34,10	40,00	42,00
8	42	100	8	3	133008EL	43,50	50,50	53,00
10	45	100	10	3	133010EL	58,00	66,30	69,60
12	75	150	12	3	133012EL	97,70	110,60	116,10
14	75	150	14	3	133014EL	127,80	142,50	149,60
16	75	150	16	3	133016EL	159,70	174,30	183,00
18	75	150	18	3	133018EL	196,40	214,60	225,30
20	75	150	20	3	133020EL	242,70	267,90	281,30
22	80	200	22	3	133022EL	373,30	415,70	436,50
25	80	200	25	3	133025EL	463,10	515,30	541,10
30	80	200	30	3	133030EL	600,00	662,80	696,00

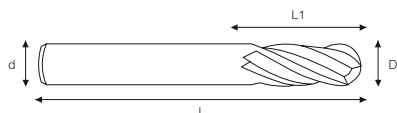
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z4 raggiate denti elicoidali taglio al centro lavorazioni universali

Universal ball nose end mills 4 flutes center cutting

SERIES
15

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	8	40	2	4	153002	11,70	14,60	15,30
2,5	8	40	2,5	4	1530025	12,00	15,40	16,20
3	10	40	3	4	153003	14,30	17,70	18,60
3,5	10	40	3,5	4	1530035	14,60	18,00	18,90
4	12	40	4	4	153004	14,90	18,30	19,20
4,5	12	50	4,5	4	1530045	16,30	20,90	22,00
5	14	50	5	4	153005	18,70	23,30	24,50
5,5	14	50	5,5	4	1530055	19,60	24,20	25,40
6	16	50	6	4	153006	20,30	24,90	26,20
6,5	16	50	6,5	4	1530065	22,00	27,50	28,90
7	16	60	7	4	153007	24,20	29,70	31,20
7,5	16	60	7,5	4	1530075	25,40	31,00	32,60
8	18	60	8	4	153008	27,70	33,30	35,00
8,5	18	60	8,5	4	1530085	30,90	37,60	39,50
9	20	60	9	4	153009	32,10	38,80	40,80
9,5	20	70	9,5	4	1530095	36,80	43,60	45,80
10	22	70	10	4	153010	38,50	45,20	47,50
10,5	22	70	10,5	4	1530105	42,60	49,40	51,90
11	22	70	11	4	153011	47,70	54,50	57,20
11,5	22	70	11,5	4	1530115	49,30	56,00	58,80
12	25	70	12	4	153012	49,90	56,60	59,40
13	25	75	13	4	153013	57,80	65,20	68,50
14	28	75	14	4	153014	64,90	72,30	76,00
15	28	75	15	4	153015	77,50	84,80	89,00
16	32	80	16	4	153016	85,20	94,20	98,90
17	32	80	17	4	153017	102,90	113,70	119,40
18	32	80	18	4	153018	112,70	123,50	129,70
19	38	104	19	4	153019	137,10	153,90	161,60
20	38	104	20	4	153020	149,80	166,60	175,00
22	38	104	22	4	153022	186,70	203,50	213,70
25	38	104	25	4	153025	236,60	260,10	273,10
30	38	104	30	4	153030	329,50	356,20	374,00

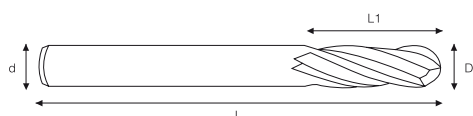
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z4 raggiate denti elicoidali taglio al centro lavorazioni universali

Universal ball nose long series end mills 4 flutes center cutting

SERIES
15L

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	20	50	2	4	153002L	15,00	17,90	18,80
3	20	55	3	4	153003L	16,10	19,50	20,50
4	20	60	4	4	153004L	20,30	23,70	24,90
5	20	60	5	4	153005L	21,70	26,30	27,60
6	24	65	6	4	153006L	26,20	30,80	32,30
7	30	75	7	4	153007L	32,50	38,00	39,90
8	32	80	8	4	153008L	36,60	43,60	45,80
9	32	80	9	4	153009L	42,80	51,10	53,70
10	32	80	10	4	153010L	46,40	54,70	57,40
11	50	100	11	4	153011L	63,90	72,30	75,90
12	50	100	12	4	153012L	72,80	81,20	85,30
13	50	100	13	4	153013L	81,10	90,10	94,60
14	55	100	14	4	153014L	89,20	98,20	103,10
15	60	120	15	4	153015L	110,20	122,00	128,10
16	60	120	16	4	153016L	123,80	135,60	142,40
17	60	120	17	4	153017L	138,30	151,90	159,50
18	60	120	18	4	153018L	151,10	164,60	172,80
19	60	130	19	4	153019L	175,90	192,70	202,30
20	60	130	20	4	153020L	198,30	215,10	225,90
22	75	150	22	4	153022L	310,00	335,20	352,00
25	75	150	25	4	153025L	384,90	427,70	449,10
30	75	150	30	4	153030L	496,90	551,40	579,00

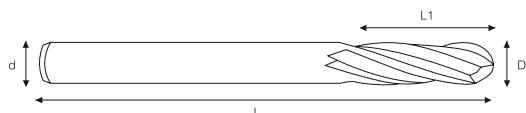
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
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Frese Z4 raggiate denti elicoidali taglio al centro lavorazioni universali

Universal ball nose extra long series end mills 4 flutes center cutting

SERIES
15eL

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	40	80	6	4	153006EL	34,10	40,00	42,00
8	42	100	8	4	153008EL	43,50	50,50	53,00
10	45	100	10	4	153010EL	58,00	66,30	69,60
12	75	150	12	4	153012EL	97,70	110,60	116,10
14	75	150	14	4	153014EL	127,80	142,50	149,60
16	75	150	16	4	153016EL	159,70	174,30	183,00
18	75	150	18	4	153018EL	196,40	214,60	225,30
20	75	150	20	4	153020EL	242,70	267,90	281,30
22	80	200	22	4	153022EL	373,30	415,70	436,50
25	80	200	25	4	153025EL	463,10	515,30	541,10
30	80	200	30	4	153030EL	600,00	662,80	696,00

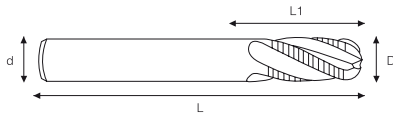
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z3 raggiate taglio al centro lavorazione sgrossatura

Roughing ball nose end mills 3 flutes center cutting

SERIES
R28

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	16	60	6	3	R283006	27,60	32,20	33,90
8	19	70	8	3	R283008	37,70	43,20	45,40
10	22	70	10	3	R283010	55,60	62,30	65,50
12	26	80	12	3	R283012	69,90	78,20	82,20
14	26	80	14	3	R283014	82,60	91,60	96,20
16	32	100	16	3	R283016	114,50	123,50	129,70
18	32	100	18	3	R283018	150,90	161,70	170,00
20	38	100	20	3	R283020	179,80	196,60	206,50

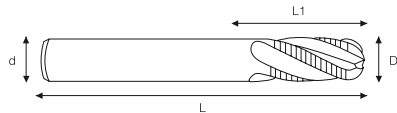
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
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Frese Z4 raggiate taglio al centro lavorazione sgrossatura

Roughing ball nose end mills 4 flutes center cutting

SERIES
R29

DUCCI



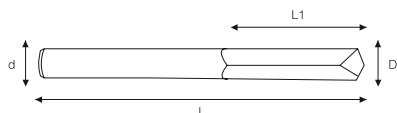
D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	16	60	6	4	R293006	27,60	32,20	33,90
8	19	70	8	4	R293008	37,70	43,20	45,40
10	22	70	10	4	R293010	55,60	62,30	65,50
12	26	80	12	4	R293012	69,90	78,20	82,20
14	26	80	14	4	R293014	82,60	91,60	96,20
16	32	100	16	4	R293016	114,50	123,50	129,70
18	32	100	18	4	R293018	150,90	161,70	170,00
20	38	100	20	4	R293020	179,80	196,60	206,50

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	○	●	○

Utensile Salva (Rompi maschi)

Solid carbide safety break up tool

SERIES
S44



d h10	L1	L	d h6	Code	€ uncoated
2	10	50	2	S4402	25,00
2,5	15	50	2,5	S44025	25,00
3	15	50	3	S4403	25,00
3,5	15	50	3,5	S44035	25,00
4	20	50	4	S4404	25,00
4,5	20	50	4,5	S44045	30,00
5	25	50	5	S4405	30,00
6	30	60	6	S4406	30,00
7	30	75	7	S4407	35,00
8	30	80	8	S4408	35,00
9	35	100	9	S4409	35,00
10	35	100	10	S4410	50,00
11	35	100	11	S4411	50,00
12	35	100	12	S4412	55,00

MODO D'UTILIZZO USING METHOD

∅	maschio (taps) 3mm	Salva S4402
∅	maschio (taps) 4/5 mm	Salva S4403
∅	maschio (taps) 6mm	Salva S4404
∅	maschio (taps) 8/10 mm	Salva S4405
∅	maschio (taps) 10/12 mm	Salva S4406
∅	maschio (taps) 14/16 mm	Salva S4408
∅	maschio (taps) 18/20 mm	Salva S4410
∅	maschio (taps) 22/24 mm	Salva S4412

L'utensile Salva in metallo duro integrale è stato progettato per distruggere maschi spezzati dentro i fori. La lavorazione viene eseguita a secco.

- 1 E' consigliabile eseguire una spianatura del maschio rotto usando l'utensile Salva di una misura più grande. Passare quindi alla scelta dell'utensile Salva per il tipo di maschio rotto consultando la tabella a fianco riportata. E' molto importante che la macchina utensile sia rigida e con una velocità di lavoro da 1000 a 3500 giri/min.
- 2 Ultima operazione rimuovere i pezzi di maschio rimasti lungo le pareti usando un utensile appuntito. Nel caso risultasse conveniente il refrigerante avere cura che questo sia continuo e abbondante.
- 3 L'utensile Salva è pure adatto per eseguire fori precisi dal pieno in una sola operazione su acciai cementati, temperati stelliti e tipi di acciai inox.

Può forare in limiti di tolleranza molto ristrette con ottimo grado di finitura evitando in molti casi l'operazione di alesatura.

The Safety Break Up Tool made out from Solide Carbide has been designed to totally remove the taps broken inside the machined hole. Cutting operation to be made in dry execution:

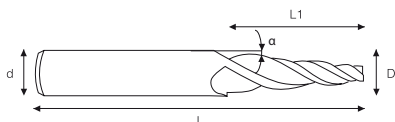
- 1 It is recommended to make a first flattening of the broken tap by the Carbide Safety Break Up Tool of a bigger size. Then select the most appropriate Safety Tool for the kind of broken tap (see the table below). It is very important that machinery is rigid and the cutting speed is 1000 to 3500RPM.
- 2 Last operation to remove all the smashed tap pieces along the hole by a sharp tool. Whenever coolant is convenient please make sure it flows nonstop and massively.
- 3 The Safety Break Up Tool is also suitable to machine precise holes from solide carbide materials in one operation and from hardened steels, satellite and any kind of stainless steels and steel alloys. It can machine within very strict tolerances achieving good finishing and it can substitute the reaming operation.

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	○	○	●	●	○	○

Frese coniche per stampi taglio al centro

Tapered end mills for mould & dies center cutting

SERIES
30



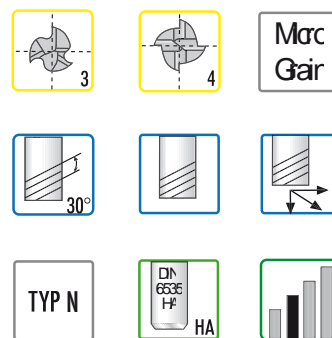
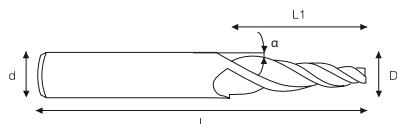
D h10	L1	L	d h6	Z	α	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2,5	20	60	4	3	0,5°	300525	20,00	23,70	24,90
3	20	60	4	3	0,5°	30053	20,00	23,70	24,90
3,5	20	60	5	3	0,5°	300535	20,00	24,90	26,10
4	20	60	5	3	0,5°	30054	20,00	24,90	26,10
5	30	75	6	3	0,5°	30055	30,00	35,00	36,80
6	30	75	8	4	0,5°	30056	35,00	41,00	43,00
8	30	75	10	4	0,5°	30058	45,00	52,30	55,00
10	30	75	12	4	0,5°	300510	60,00	67,30	70,70
12	50	100	14	4	0,5°	300512	102,00	111,70	117,30
16	60	100	18	4	0,5°	300516	132,00	143,00	150,00
2,5	20	60	4	3	1°	30125	20,00	23,70	24,90
3	20	60	4	3	1°	3013	20,00	23,70	24,90
3,5	20	60	5	3	1°	30135	20,00	24,90	26,10
4	20	60	5	3	1°	3014	20,00	24,90	26,10
5	30	75	6	3	1°	3015	30,00	35,00	36,80
6	30	75	8	4	1°	3016	35,00	41,00	43,00
8	30	75	10	4	1°	3018	45,00	52,30	55,00
10	30	75	12	4	1°	30110	60,00	67,30	70,70
12	50	100	14	4	1°	30112	102,00	111,70	117,30
16	60	100	18	4	1°	30116	132,00	143,00	150,00
2,5	20	60	4	3	1,5°	301525	20,00	23,70	24,90
3	20	60	4	3	1,5°	30153	20,00	23,70	24,90
3,5	20	60	5	3	1,5°	301535	20,00	24,90	26,10
4	20	60	5	3	1,5°	30154	20,00	24,90	26,10
5	30	75	6	3	1,5°	30155	30,00	35,00	36,80
6	30	75	8	4	1,5°	30156	35,00	41,00	43,00
8	30	75	10	4	1,5°	30158	45,00	52,30	55,00
10	30	75	12	4	1,5°	301510	60,00	67,30	70,70
12	50	100	16	4	1,5°	301512	107,00	116,90	122,80
16	60	100	20	4	1,5°	301516	154,00	168,00	176,40

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	○	○	○

Frese coniche per stampi taglio al centro

Tapered end mills for mould & dies center cutting

SERIES
30



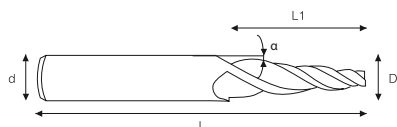
D h10	L1	L	d h6	Z	α	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2,5	20	60	4	3	2°	30225	20,00	23,70	24,90
3	20	60	5	3	2°	3023	20,00	24,90	26,10
3,5	20	60	5	3	2°	30235	20,00	24,90	26,10
4	20	60	6	3	2°	3024	25,00	30,00	31,50
5	30	75	8	3	2°	3025	35,00	41,00	43,00
6	30	75	8	4	2°	3026	35,00	41,00	43,00
8	30	75	10	4	2°	3028	45,00	52,30	55,00
10	30	75	12	4	2°	30210	60,00	67,30	70,70
12	50	100	16	4	2°	30212	107,00	116,90	122,80
2,5	20	60	6	3	3°	30325	30,00	35,00	36,80
3	25	60	6	3	3°	3033	30,00	35,00	36,80
3,5	30	75	8	3	3°	30335	40,00	46,00	48,30
4	30	75	8	3	3°	3034	40,00	46,00	48,30
5	40	75	10	3	3°	3035	55,00	62,30	65,50
6	30	75	10	3	3°	3036	55,00	62,30	65,50
8	30	75	12	4	3°	3038	62,00	69,30	72,80
10	50	100	16	4	3°	30310	120,00	129,70	136,20
12	55	100	18	4	3°	30312	140,00	151,60	159,20
2,5	20	60	6	3	4°	30425	30,00	35,00	36,80
3	20	60	6	3	4°	3043	30,00	35,00	36,80
3,5	25	60	8	3	4°	30435	40,00	46,00	48,30
4	30	75	10	3	4°	3044	50,00	57,30	60,20
5	40	100	12	3	4°	3045	70,00	79,00	83,00
6	50	100	16	3	4°	3046	110,00	120,00	126,00
8	50	100	18	4	4°	3048	140,00	151,60	159,20
10	50	100	20	4	4°	30410	160,00	174,00	182,70
12	55	100	20	4	4°	30412	160,00	174,00	182,70

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	●	●	●	○	○	●	○	○	○

Frese coniche per stampi taglio al centro

Tapered end mills for mould & dies center cutting

SERIES
30



D h10	L1	L	d h6	Z	α	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2,5	20	60	6	3	5°	30525	25,00	30,00	31,50
3	25	60	8	3	5°	3053	35,00	41,00	43,10
3,5	30	75	10	3	5°	30535	50,00	57,30	60,20
4	30	75	10	3	5°	3054	50,00	57,30	60,20
5	40	100	12	3	5°	3055	70,00	79,00	83,00
6	50	100	16	3	5°	3056	110,00	120,00	126,00
8	50	100	18	4	5°	3058	140,00	151,60	159,20
10	50	100	20	4	5°	30510	160,00	174,00	182,70
12	50	100	20	4	5°	30512	160,00	174,00	182,70
2,5	20	60	8	3	7°	30725	35,00	41,00	43,10
5	25	80	12	3	7°	3075	65,00	74,00	77,70
2,5	20	75	10	3	10°	301025	55,00	62,30	65,50
3	30	80	14	3	10°	30103	90,00	99,50	104,50
6	30	100	16	3	10°	30106	110,00	120,00	126,00
8	30	100	20	4	10°	30108	170,00	184,00	193,20

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	○	○	○

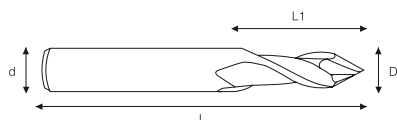
Frese Z2 multi-impiego angolo di punta 60°/90°

Multi-purpose two flutes end mills 60°/90°

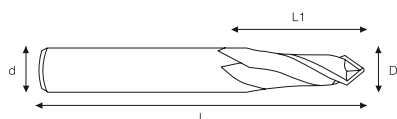
SERIES
54

NEW

DUCCI



D h10	L1	L	d h6	Code	€ uncoated	€ TiAlN
3	6	50	6	546003	36,00	41,00
4	8	50	6	546004	36,00	41,00
6	12	60	8	546006	50,00	56,00
8	16	70	10	546008	56,00	62,00
10	18	70	12	546010	70,00	77,00
12	20	70	12	546012	70,00	77,00



D h10	L1	L	d h6	Code	€ uncoated	€ TiAlN
3	6	50	6	549003	36,00	41,00
4	8	50	6	549004	36,00	41,00
6	12	60	8	549006	50,00	56,00
8	16	70	10	549008	56,00	62,00
10	18	70	12	549010	70,00	77,00
12	20	70	12	549012	70,00	77,00

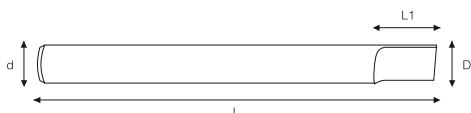


APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	○	○	○	○

Bulini rettificati h6

Grounded carbide rods h6

SERIES
32



TYP N



Macro
Gain



d h6	L1	L	Code	€ uncoated
2	3	50	320250	6,00
2	3	100	3202100	9,00
3	4	50	320350	6,50
3	4	100	3203100	10,00
4	5	50	320450	7,50
4	5	100	3204100	11,00
5	7	100	3205100	15,00
6	8	50	320650	11,50
6	8	100	3206100	19,00
7	8	100	3207100	24,00
8	10	100	3208100	27,00
9	10	100	3209100	33,00
10	13	100	3210100	38,00
11	16	100	3211100	45,00
12	16	100	3212100	51,50
13	18	100	3213100	59,50
14	18	100	3214100	69,00
15	20	100	3215100	76,00
16	20	100	3216100	84,00
17	22	100	3217100	92,00
18	22	100	3218100	100,50
19	25	100	3219100	110,00
20	25	100	3220100	124,50

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	●	○	○

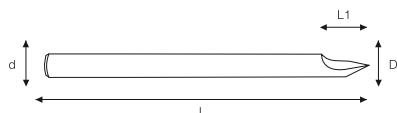
Bulini per lavorazioni su pantografi 60° - 90°

Engraving tool 60°-90° shaped on one side

SERIES
37

new

DUCCI



TYP N



Macro Gain



d	L1	L		Code	€ uncoated
3	4	50	60°	376003	15,00
4	5	50	60°	376004	18,00
6	7	60	60°	376006	22,50
8	9	80	60°	376008	33,00
10	11	100	60°	376010	50,00
12	13	100	60°	376012	68,00



d	L1	L		Code	€ uncoated
3	4	50	90°	379003	15,00
4	5	50	90°	379004	18,00
6	7	60	90°	379006	22,50
8	9	80	90°	379008	33,00
10	11	100	90°	379010	50,00
12	13	100	90°	379012	68,00

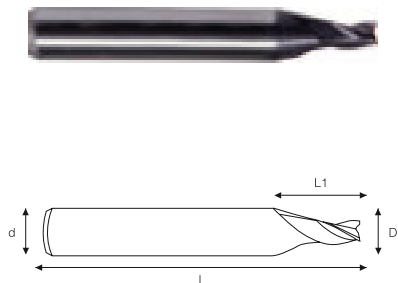


APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	●	○	○

Frese Z3 gambo rinforzato taglio al centro

Reinforced shank carbide end mills 3 flutes center cutting

SERIES
50



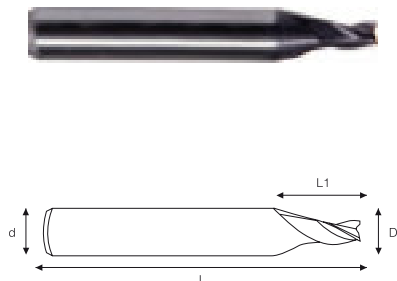
D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	4	38	6	3	503002	12,80	17,40	18,30
3	5	38	6	3	503003	12,80	17,40	18,30
4	7	38	6	3	503004	12,80	17,40	18,30
5	8	38	6	3	503005	11,80	16,40	17,30
6	8	38	6	3	503006	11,80	16,40	17,30

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	◐	○	◐	○	◐	○

Frese Z3 gambo rinforzato taglio al centro

Reinforced shank carbide long series end mills 3 flutes center cutting

SERIES
50L



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	6	60	6	3	503002L	15,60	20,20	21,30
3	8	60	6	3	503003L	15,60	20,20	21,30
4	10	60	6	3	503004L	15,60	20,20	21,30
5	12	60	6	3	503005L	16,60	21,20	22,30
6	12	60	6	3	503006L	16,60	21,20	22,30

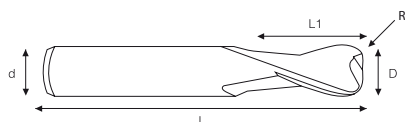
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	◐	○	◐	○	◐	○

Frese Z2 toriche gambo rinforzato taglio al centro

Reinforced shank carbide corner radius end mills 2 flutes center cutting

SERIES
52

DUCCI



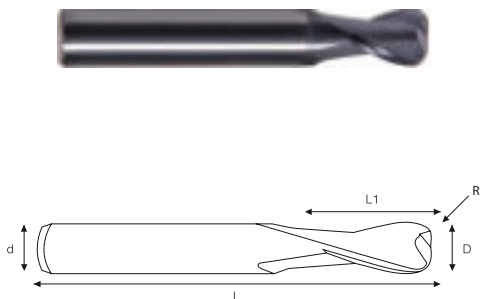
D h10	L1	L	d h6	Z	R	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	4	38	6	2	0,5	523002	15,40	20,00	21,00
3	5	38	6	2	0,5	523003	15,40	20,00	21,00
4	7	38	6	2	0,5	523004	15,40	20,00	21,00
5	8	38	6	2	0,5	523005	14,80	19,40	20,40
6	8	38	6	2	1	523006	14,80	19,40	20,40

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	◐	○	◐	○	◐	○

Frese Z2 toriche gambo rinforzato taglio al centro

Reinforced shank carbide corner radius long series end mills 2 flutes center cutting

SERIES
52L



D h10	L1	L	d h6	Z	R	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	6	60	6	2	0,5	523002L	18,20	22,80	24,00
3	8	60	6	2	0,5	523003L	18,20	22,80	24,00
4	10	60	6	2	0,5	523004L	18,20	22,80	24,00
5	12	60	6	2	0,5	523005L	20,60	25,20	26,50
6	12	60	6	2	1	523006L	20,60	25,20	26,50

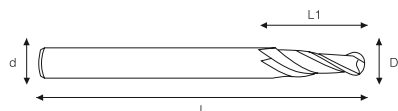
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	○	●	○	●	○

Frese Z2 raggiate gambo rinforzato taglio al centro

Reinforced shank carbide ball nose end mills 2 flutes center cutting

SERIES
51

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	4	38	6	2	513002	15,40	20,00	21,00
3	5	38	6	2	513003	15,40	20,00	21,00
4	7	38	6	2	513004	15,40	20,00	21,00
5	8	38	6	2	513005	14,80	19,40	20,40
6	8	38	6	2	513006	14,80	19,40	20,40

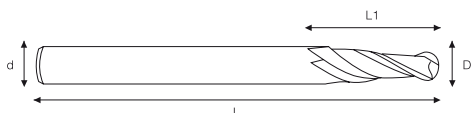
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	◐	○	◐	○	◐	○

Frese Z2 raggiate gambo rinforzato taglio al centro

Reinforced shank carbide ball nose long series end mills
2 flutes center cutting

SERIES
51L

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	6	60	6	2	513002L	18,20	22,80	24,00
3	8	60	6	2	513003L	18,20	22,80	24,00
4	10	60	6	2	513004L	18,20	22,80	24,00
5	12	60	6	2	513005L	20,60	25,20	26,50
6	12	60	6	2	513006L	20,60	25,20	26,50

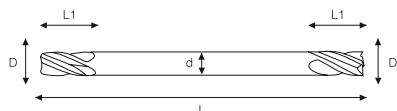
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	○	●	○	●	○

Frese Z2 gambo rinforzato doppie taglio al centro

Reinforced shank double ended mills 2 flutes center cutting

SERIES
D21

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
1	2	38	3	2	D213001	13,00	16,00	16,80
1,5	3	38	3	2	D2130015	13,00	16,00	16,80
2	4	38	3	2	D213002	12,00	15,00	15,80
2,5	5	38	3	2	D2130025	12,00	15,00	15,80
3	6	38	3	2	D213003	11,00	14,00	14,70
3,5	7	50	4	2	D2130035	15,00	18,00	18,90
4	8	50	4	2	D213004	14,00	17,00	17,90
5	10	63	5	2	D213005	17,00	21,50	22,60
6	12	63	6	2	D213006	21,00	25,00	26,30
8	12	63	8	2	D213008	27,00	32,00	33,60
10	14	75	10	2	D213010	40,00	46,00	48,30
12	16	75	12	2	D213012	51,00	58,00	60,90

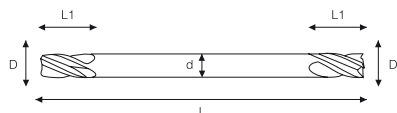
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	○	●	○	●	○

Frese Z4 gambo rinforzato doppie taglio al centro

Reinforced shank double ended mills 4 flutes center cutting

SERIES
D25

DUCCI



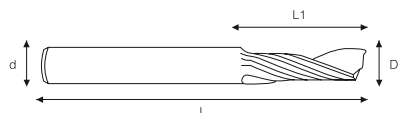
D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
1	2	38	3	4	D253001	13,00	16,00	16,80
1,5	3	38	3	4	D2530015	13,00	16,00	16,80
2	4	38	3	4	D253002	12,00	15,00	15,80
2,5	5	38	3	4	D2530025	12,00	15,00	15,80
3	6	38	3	4	D253003	11,00	14,00	14,70
3,5	7	50	4	4	D2530035	15,00	18,00	18,90
4	8	50	4	4	D253004	14,00	17,00	17,90
5	10	63	5	4	D253005	17,00	21,50	22,60
6	12	63	6	4	D253006	21,00	25,00	26,30
8	12	63	8	4	D253008	27,00	32,00	33,60
10	14	75	10	4	D253010	40,00	46,00	48,30
12	16	75	12	4	D253012	51,00	58,00	60,90

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	○	●	○	●	○

Frese monoelica elica dx tagliente dx lavorazione alluminio

Single fluted carbide end mills right helix right cut - designed for aluminium application

SERIES
18



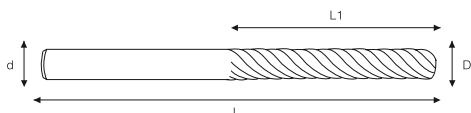
D h10	L1	L	d h6	Z	Code	€ uncoated	€ ALU
2	10	40	2	1	18002	9,00	15,30
2,5	12	40	2,5	1	180025	9,00	15,30
3	12	40	3	1	18003	10,80	17,30
3,5	12	40	3,5	1	180035	10,80	17,30
4	12	40	4	1	18004	11,50	18,00
5	16	50	5	1	18005	14,00	22,50
6	16	50	6	1	18006	17,00	25,00
8	22	60	8	1	18008	24,00	33,60
10	25	70	10	1	18010	33,60	45,50
12	25	70	12	1	18012	43,90	55,80
14	28	75	14	1	18014	58,00	71,00
16	35	80	16	1	18016	75,20	90,60
18	35	80	18	1	18018	101,00	119,00
20	40	100	20	1	18020	138,00	160,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	●	○	○	○	DLC

Frese elicoidali Z6/Z8 per sbavatura alluminio

Carbide end mills 6/8 flutes for aluminium deburring

SERIES
RA18



TYP W

Mac
Gar



D h10	L1	L	d h6	Z	Code	€ uncoated
3	40	80	6	6	RA18003	40,00
4	40	80	6	8	RA18004	40,00
5	40	80	6	8	RA18005	40,00
6	40	80	6	8	RA18006	36,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	●	○	○	○	○

Frese Z2 per alluminio taglio al centro

End mills 2 flutes center cutting - aluminium application

SERIES
A18



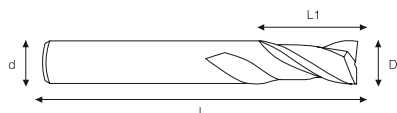
D h10	L1	L	d h6	Z	Code	€ uncoated	€ ALU
2	8	40	2	2	A18002	8,50	15,00
2,5	8	40	2,5	2	A180025	8,80	15,30
3	10	40	3	2	A18003	10,30	16,80
3,5	10	40	3,5	2	A180035	10,80	17,30
4	12	40	4	2	A18004	11,50	18,00
5	14	50	5	2	A18005	13,70	22,30
6	16	50	6	2	A18006	16,30	24,90
8	18	60	8	2	A18008	23,70	33,60
10	22	70	10	2	A18010	32,20	44,10
12	25	70	12	2	A18012	41,90	53,80
14	28	75	14	2	A18014	56,50	69,40
16	32	80	16	2	A18016	73,80	89,20
18	32	80	18	2	A18018	96,70	114,80
20	35	100	20	2	A18020	133,80	155,20

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	●	○	○	○	○

Frese Z2 per alluminio taglio al centro

End mills 2 flutes center cutting -
45° designed for aluminium applications

SERIES
A1845



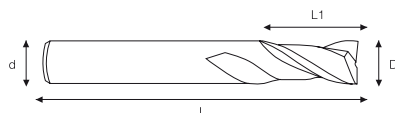
D h10	L1	L	d h6	Z	Code	€ uncoated	€ ALU
3	8	57	6	2	A184503	17,80	26,40
4	11	57	6	2	A184504	17,80	26,40
5	13	57	6	2	A184505	17,80	26,40
6	13	57	6	2	A184506	17,20	25,80
8	19	63	8	2	A184508	24,30	34,20
10	22	72	10	2	A184510	32,70	44,70
12	26	83	12	2	A184512	47,00	61,40
14	26	83	14	2	A184514	60,80	76,20
16	32	92	16	2	A184516	81,80	97,20
20	38	100	20	2	A184520	137,90	165,10

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	●	○	○	○	○

Frese Z2 per alluminio taglio al centro

End mills 2 flutes center cutting -
55° designed for aluminium applications

SERIES
A1855



D h10	L1	L	d h6	Z	Code	€ uncoated	€ ALU
3	12	50	3	2	A185503	11,50	18,00
4	14	50	4	2	A185504	13,60	20,10
5	20	50	6	2	A185505	16,90	25,50
6	20	63	6	2	A185506	18,50	27,10
8	20	63	8	2	A185508	24,90	34,80
10	25	70	10	2	A185510	33,60	45,50
12	25	75	12	2	A185512	44,50	56,40
16	32	88	16	2	A185516	80,50	96,00
20	38	100	20	2	A185520	134,40	161,60

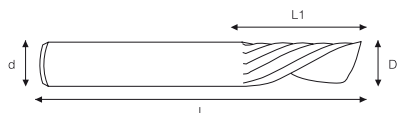
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	●	○	○	○	○

Frese Monoelica elica sx tagliente dx lavorazioni plastiche vetroresina

Single fluted carbide end mills left helix right cut -
plastic material and fiberglass

SERIES
19

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated
2	10	40	2	1	19002	9,00
2,5	12	40	2,5	1	190025	9,00
3	12	40	3	1	19003	10,80
3,5	12	40	3,5	1	190035	10,80
4	12	40	4	1	19004	11,50
5	16	50	5	1	19005	14,00
6	16	50	6	1	19006	17,00
8	22	60	8	1	19008	24,00
10	25	70	10	1	19010	33,60
12	25	70	12	1	19012	43,90
14	28	75	14	1	19014	58,00
16	35	80	16	1	19016	75,20
18	35	80	18	1	19018	101,00
20	40	100	20	1	19020	138,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	●	○	○	○	DLC

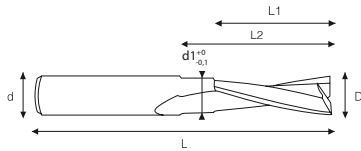
Frese a finire Z2 lavorazione plastiche

Super finishing two flutes end mills designed for plastic applications

SERIES
55

NEW

DUCCI



D	L1	L2	L	d1-0,2	d h6	Z	Code	€ uncoated
3	12	15	40	2,8	3	2	551403	21,90
4	15	18	50	3,8	4	2	551404	23,40
6	22	25	60	5,8	6	2	551406	31,90
8	32	40	80	7,8	8	2	551408	46,30
10	32	40	80	9,8	10	2	551410	59,40
12	32	40	83	9,8	12	2	551412	74,30

A RICHIESTA RIVESTIMENTO DLC / DLC coating on request



APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	●	○	○	○	DLC

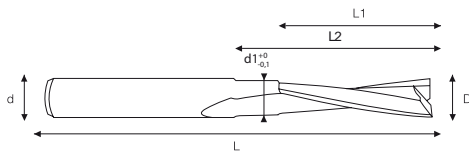
Frese a finire Z2 lavorazioni plastiche serie lunga

Super finishing two flutes long series end mills designed for plastic applications

SERIES
55L

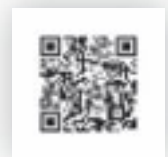
NEW

DUCCI



D	L1	L2	L	d1-0,2	d h6	Z	Code	€ uncoated
3	20	25	80	2,8	3	2	551403L	34,00
4	20	25	100	3,8	4	2	551404L	36,80
6	30	40	100	5,8	6	2	551406L	49,00
8	40	50	100	7,8	8	2	551408L	60,40
10	40	50	110	9,8	10	2	551410L	76,00
12	40	50	110	9,8	10	2	551412L	95,50

A RICHIESTA RIVESTIMENTO DLC / DLC coating on request



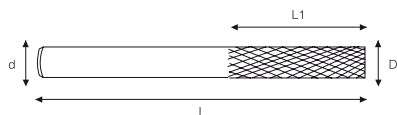
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	●	○	○	○	DLC

Frese per lavorazione materie plastiche e vetroresina senza taglio in testa

Plastic material and fiberglass router without end cut

SERIES
FA

DUCCI



D h10	L1	L	d h6	FA	€ uncoated
2	10	40	2	FA210	11,70
3	12	40	3	FA312	12,30
4	12	40	4	FA412	12,90
4	17	50	4	FA417	14,40
5	12	40	5	FA512	15,80
5	17	60	5	FA517	17,70
6	12	40	6	FA612	21,00
6	17	60	6	FA617	23,60
6	22	60	6	FA622	23,60
6	32	80	6	FA632	30,10
8	10	40	8	FA810	23,80
8	22	60	8	FA822	31,70
8	32	80	8	FA832	39,60
10	22	70	10	FA1022	41,60
10	32	80	10	FA1032	47,00
12	10	60	12	FA1210	47,90
12	32	80	12	FA1232	59,90
12	42	90	12	FA1242	67,80
12	52	100	12	FA1252	73,80
12	62	120	12	FA1262	83,80
14	32	75	14	FA1432	75,90
16	36	80	16	FA1636	95,20
18	40	80	18	FA1840	110,70
20	45	100	20	FA2045	151,90

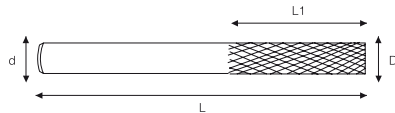
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	○	○	○	○	DLC

Frese per lavorazione materie plastiche e vetroresina con taglio in testa

Plastic material and fiberglass router with end cut

SERIES
FB

DUCCI



TYP W-N

Marc
Gar

DIN
6535
H-P
HA



D h10	L1	L	d h6	FB	€ uncoated
2	10	40	2	FB210	11,70
3	12	40	3	FB312	12,30
4	12	40	4	FB412	12,90
4	17	50	4	FB417	14,40
5	12	40	5	FB512	15,80
5	17	60	5	FB517	17,70
6	12	40	6	FB612	21,00
6	17	60	6	FB617	23,60
6	22	60	6	FB622	23,60
6	32	80	6	FB632	30,10
8	10	40	8	FB810	23,80
8	22	60	8	FB822	31,70
8	32	80	8	FB832	39,60
10	22	70	10	FB1022	41,60
10	32	80	10	FB1032	47,00
12	10	60	12	FB1210	47,90
12	32	80	12	FB1232	59,90
12	42	90	12	FB1242	67,80
12	52	100	12	FB1252	73,80
12	62	120	12	FB1262	83,80
14	32	75	14	FB1432	75,90
16	36	80	16	FB1636	95,20
18	40	80	18	FB1840	110,70
20	45	100	20	FB2045	151,90

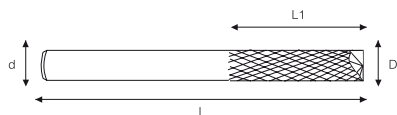
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	○	○	○	○	DLC

Frese per lavorazione materie plastiche e vetroresina testa piana due taglienti

Plastic material and fiberglass router cross cut

SERIES
FC

DUCCI



D h10	L1	L	d h6	FC	€ uncoated
2	10	40	2	FC210	11,70
3	12	40	3	FC312	12,30
4	12	40	4	FC412	12,90
4	17	50	4	FC417	14,40
5	12	40	5	FC512	15,80
5	17	60	5	FC517	17,70
6	12	40	6	FC612	21,00
6	17	60	6	FC617	23,60
6	22	60	6	FC622	23,60
6	32	80	6	FC632	30,10
8	10	40	8	FC810	23,80
8	22	60	8	FC822	31,70
8	32	80	8	FC832	39,60
10	22	70	10	FC1022	41,60
10	32	80	10	FC1032	47,00
12	10	60	12	FC1210	47,90
12	32	80	12	FC1232	59,90
12	42	90	12	FC1242	67,80
12	52	100	12	FC1252	73,80
12	62	120	12	FC1262	83,80
14	32	75	14	FC1432	75,90
16	36	80	16	FC1636	95,20
18	40	80	18	FC1840	110,70
20	45	100	20	FC2045	151,90

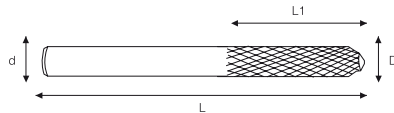
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	○	○	○	○	DLC

Frese per lavorazione materie plastiche e vetroresina testa angolo 135°

Plastic material and fiberglass router cross cut 135°

SERIES
FD

DUCCI



TYP W-N

Marc
Gar

DIN
6535
H-P
HA



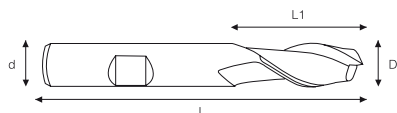
D h10	L1	L	d h6	FD	€ uncoated
2	10	40	2	FD210	11,70
3	12	40	3	FD312	12,30
4	12	40	4	FD412	12,90
4	17	50	4	FD417	14,40
5	12	40	5	FD512	15,80
5	17	60	5	FD517	17,70
6	12	40	6	FD612	21,00
6	17	60	6	FD617	23,60
6	22	60	6	FD622	23,60
6	32	80	6	FD632	30,10
8	10	40	8	FD810	23,80
8	22	60	8	FD822	31,70
8	32	80	8	FD832	39,60
10	22	70	10	FD1022	41,60
10	32	80	10	FD1032	47,00
12	10	60	12	FD1210	47,90
12	32	80	12	FD1232	59,90
12	42	90	12	FD1242	67,80
12	52	100	12	FD1252	73,80
12	62	120	12	FD1262	83,80
14	32	75	14	FD1432	75,90
16	36	80	16	FD1636	95,20
18	40	80	18	FD1840	110,70
20	45	100	20	FD2045	151,90

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	○	○	○	○	DLC

Frese Z2 denti elicoidali taglio al centro lavorazione universale

Universal end mills 2 flutes center cutting Weldon Shank

SERIES
W10



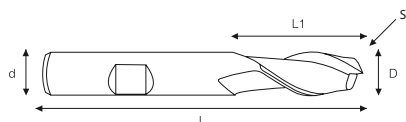
D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	7	57	6	2	W103502	21,20	25,80	27,10
2,5	7	57	6	2	W1035025	21,20	25,80	27,10
3	7	57	6	2	W103503	21,20	25,80	27,10
3,5	7	57	6	2	W1035035	21,20	25,80	27,10
4	8	57	6	2	W103504	21,20	25,80	27,10
4,5	8	57	6	2	W1035045	21,20	25,80	27,10
5	10	57	6	2	W103505	19,20	23,80	25,00
6	10	57	6	2	W103506	17,80	22,40	23,50
7	13	63	8	2	W103507	27,00	32,50	34,10
8	19	63	8	2	W103508	26,00	31,50	33,10
9	19	72	10	2	W103509	35,70	42,50	44,60
10	22	72	10	2	W103510	34,70	41,50	43,60
12	26	83	12	2	W103512	49,60	58,00	60,90
14	26	83	14	2	W103514	64,80	73,80	77,50
16	30	92	16	2	W103516	85,20	94,20	98,90
18	32	92	18	2	W103518	108,40	119,30	125,30
20	38	100	20	2	W103520	141,90	158,70	166,70

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	◐	○	◐	○	◐	○

Frese Z2 denti elicoidali taglio al centro lavorazione universale

Chamfered universal end mills 2 flutes center cutting
Weldon Shank

SERIES
WS10



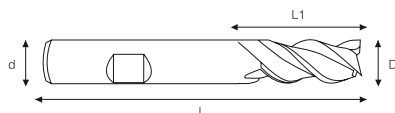
D h10	L1	L	d h6	Z	S	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	7	57	6	2	0,1 - 0,2 x 45°	WS103502	23,20	27,80	29,20
2,5	7	57	6	2	0,1 - 0,2 x 45°	WS1035025	23,20	27,80	29,20
3	7	57	6	2	0,1 - 0,2 x 45°	WS103503	23,20	27,80	29,20
3,5	7	57	6	2	0,1 - 0,2 x 45°	WS1035035	23,20	27,80	29,20
4	8	57	6	2	0,1 - 0,2 x 45°	WS103504	23,20	27,80	29,20
4,5	8	57	6	2	0,1 - 0,2 x 45°	WS1035045	23,20	27,80	29,20
5	10	57	6	2	0,1 - 0,2 x 45°	WS103505	21,20	25,80	27,10
6	10	57	6	2	0,1 - 0,2 x 45°	WS103506	19,80	24,40	25,60
7	13	63	8	2	0,1 - 0,2 x 45°	WS103507	29,30	34,90	36,60
8	19	63	8	2	0,1 - 0,2 x 45°	WS103508	28,30	33,90	35,60
9	19	72	10	2	0,1 - 0,2 x 45°	WS103509	37,70	44,50	46,70
10	22	72	10	2	0,1 - 0,2 x 45°	WS103510	36,70	43,50	45,70
12	26	83	12	2	0,1 - 0,2 x 45°	WS103512	51,60	60,00	63,00
14	26	83	14	2	0,1 - 0,2 x 45°	WS103514	66,80	75,80	79,60
16	30	92	16	2	0,1 - 0,2 x 45°	WS103516	87,20	96,20	101,00
18	32	92	18	2	0,1 - 0,2 x 45°	WS103518	110,40	121,30	127,40
20	38	100	20	2	0,1 - 0,2 x 45°	WS103520	143,90	160,70	168,80

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	●	○	○	○	●	○	●	○

Frese Z3 denti elicoidali taglio al centro lavorazione universale

Universal end mills 3 flutes center cutting Weldon Shank

SERIES
W16



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	7	57	6	3	W164502	21,20	25,80	27,10
2,5	7	57	6	3	W1645025	21,20	25,80	27,10
3	7	57	6	3	W164503	21,20	25,80	27,10
3,5	7	57	6	3	W1645035	21,20	25,80	27,10
4	8	57	6	3	W164504	21,20	25,80	27,10
4,5	8	57	6	3	W1645045	21,20	25,80	27,10
5	10	57	6	3	W164505	19,20	23,80	25,00
6	10	57	6	3	W164506	17,80	22,40	23,50
7	13	63	8	3	W164507	27,00	32,50	34,10
8	19	63	8	3	W164508	26,00	31,50	33,10
9	19	72	10	3	W164509	35,70	42,50	44,60
10	22	72	10	3	W164510	34,70	41,50	43,60
12	26	83	12	3	W164512	49,60	58,00	60,90
14	26	83	14	3	W164514	64,80	73,80	77,50
16	30	92	16	3	W164516	85,20	94,20	98,90
18	32	92	18	3	W164518	108,40	119,30	125,30
20	38	100	20	3	W164520	141,90	158,70	166,70

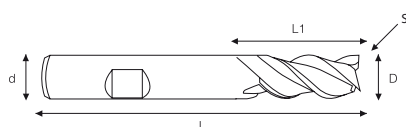
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	○	○	○	●	●	○	○	○	○

Frese Z3 denti elicoidali taglio al centro lavorazione universale

Chamfered universal end mills 3 flutes center cutting
Weldon Shank

SERIES
WS16

DUCCI



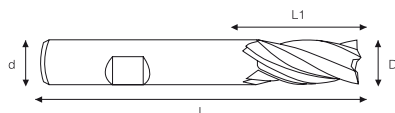
D h10	L1	L	d h6	Z	S	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	7	57	6	3	0,1 - 0,2 x 45°	WS164502	23,20	27,80	29,20
2,5	7	57	6	3	0,1 - 0,2 x 45°	WS1645025	23,20	27,80	29,20
3	7	57	6	3	0,1 - 0,2 x 45°	WS164503	23,20	27,80	29,20
3,5	7	57	6	3	0,1 - 0,2 x 45°	WS1645035	23,20	27,80	29,20
4	8	57	6	3	0,1 - 0,2 x 45°	WS164504	23,20	27,80	29,20
4,5	8	57	6	3	0,1 - 0,2 x 45°	WS1645045	23,20	27,80	29,20
5	10	57	6	3	0,1 - 0,2 x 45°	WS164505	21,20	25,80	27,10
6	10	57	6	3	0,1 - 0,2 x 45°	WS164506	19,80	24,40	25,60
7	13	63	8	3	0,1 - 0,2 x 45°	WS164507	29,30	34,90	36,60
8	19	63	8	3	0,1 - 0,2 x 45°	WS164508	28,30	33,90	35,60
9	19	72	10	3	0,1 - 0,2 x 45°	WS164509	37,70	44,50	46,70
10	22	72	10	3	0,1 - 0,2 x 45°	WS164510	36,70	43,50	45,70
12	26	83	12	3	0,1 - 0,2 x 45°	WS164512	51,60	60,00	63,00
14	26	83	14	3	0,1 - 0,2 x 45°	WS164514	66,80	75,80	79,60
16	30	92	16	3	0,1 - 0,2 x 45°	WS164516	87,20	96,20	101,00
18	32	92	18	3	0,1 - 0,2 x 45°	WS164518	110,40	121,30	127,40
20	38	100	20	3	0,1 - 0,2 x 45°	WS164520	143,90	160,70	168,80

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	●	○	○	○	○

Frese Z4 denti elicoidali taglio al centro lavorazione universale

Universal end mills 4 flutes center cutting Weldon Shank

SERIES
W14



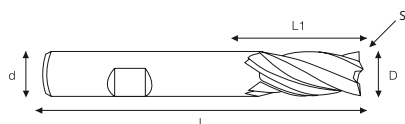
D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	7	57	6	4	W143002	21,20	25,80	27,10
2,5	7	57	6	4	W1430025	21,20	25,80	27,10
3	7	57	6	4	W143003	21,20	25,80	27,10
3,5	7	57	6	4	W1430035	21,20	25,80	27,10
4	8	57	6	4	W143004	21,20	25,80	27,10
4,5	8	57	6	4	W1430045	21,20	25,80	27,10
5	10	57	6	4	W143005	19,20	23,80	25,00
6	10	57	6	4	W143006	17,80	22,40	23,50
7	13	63	8	4	W143007	27,00	32,50	34,10
8	19	63	8	4	W143008	26,00	31,50	33,10
9	19	72	10	4	W143009	35,70	42,50	44,60
10	22	72	10	4	W143010	34,70	41,50	43,60
12	26	83	12	4	W143012	49,60	58,00	60,90
14	26	83	14	4	W143014	64,80	73,80	77,50
16	30	92	16	4	W143016	85,20	94,20	98,90
18	32	92	18	4	W143018	108,40	119,30	125,30
20	38	100	20	4	W143020	141,90	158,70	166,70

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	○	●	○	●	○

Frese Z4 denti elicoidali taglio al centro lavorazione universale

Chamfered universal end mills 4 flutes center cutting
Weldon Shank

SERIES
WS14



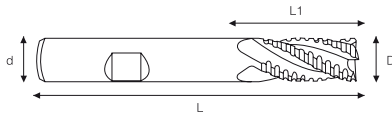
D h10	L1	L	d h6	Z	S	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	7	57	6	4	0,1 - 0,2 x 45°	WS143002	23,20	27,80	29,20
2,5	7	57	6	4	0,1 - 0,2 x 45°	WS1430025	23,20	27,80	29,20
3	7	57	6	4	0,1 - 0,2 x 45°	WS143003	23,20	27,80	29,20
3,5	7	57	6	4	0,1 - 0,2 x 45°	WS1430035	23,20	27,80	29,20
4	8	57	6	4	0,1 - 0,2 x 45°	WS143004	23,20	27,80	29,20
4,5	8	57	6	4	0,1 - 0,2 x 45°	WS1430045	23,20	27,80	29,20
5	10	57	6	4	0,1 - 0,2 x 45°	WS143005	21,20	25,80	27,10
6	10	57	6	4	0,1 - 0,2 x 45°	WS143006	19,80	24,40	25,60
7	13	63	8	4	0,1 - 0,2 x 45°	WS143007	29,30	34,90	36,60
8	19	63	8	4	0,1 - 0,2 x 45°	WS143008	28,30	33,90	35,60
9	19	72	10	4	0,1 - 0,2 x 45°	WS143009	37,70	44,50	46,70
10	22	72	10	4	0,1 - 0,2 x 45°	WS143010	36,70	43,50	45,70
12	26	83	12	4	0,1 - 0,2 x 45°	WS143012	51,60	60,00	63,00
14	26	83	14	4	0,1 - 0,2 x 45°	WS143014	66,80	75,80	79,60
16	30	92	16	4	0,1 - 0,2 x 45°	WS143016	87,20	96,20	101,00
18	32	92	18	4	0,1 - 0,2 x 45°	WS143018	110,40	121,30	127,40
20	38	100	20	4	0,1 - 0,2 x 45°	WS143020	143,90	160,70	168,80

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	○	●	○	●	○

Frese Z3 lavorazione sgrossatura

Roughing end mills 3 flutes center cutting Weldon Shank

SERIES
W28



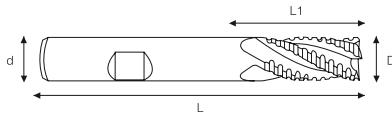
D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	16	57	6	3	W283006	25,20	29,80	31,30
8	19	63	8	3	W283008	34,30	39,90	41,90
10	22	72	10	3	W283010	46,10	52,90	55,60
12	26	83	12	3	W283012	61,00	69,40	72,90
14	26	83	14	3	W283014	76,20	85,20	89,50
16	32	92	16	3	W283016	99,20	108,20	113,60
18	32	92	18	3	W283018	120,40	131,30	137,90
20	38	100	20	3	W283020	161,90	178,70	187,70

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	○	●	○

Frese Z4 lavorazione sgrossatura

Roughing end mills 4 flutes center cutting Weldon Shank

SERIES
W29



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	16	57	6	4	W293006	25,20	29,80	31,30
8	19	63	8	4	W293008	34,30	39,90	41,90
10	22	72	10	4	W293010	46,10	52,90	55,60
12	26	83	12	4	W293012	61,00	69,40	72,90
14	26	83	14	4	W293014	76,20	85,20	89,50
16	32	92	16	4	W293016	99,20	108,20	113,60
18	32	92	18	4	W293018	120,40	131,30	137,90
20	38	100	20	4	W293020	161,90	178,70	187,70

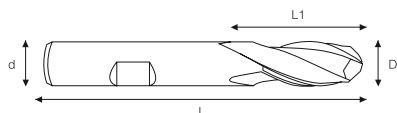
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	○	●	○

Frese Z2 raggiate denti elicoidali taglio al centro lavorazioni universali

Universal ball nose end mills 2 flutes center cutting
Weldon Shank

SERIES
W11

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	7	57	6	2	W113002	25,20	29,80	31,30
2,5	7	57	6	2	W1130025	25,20	29,80	31,30
3	7	57	6	2	W113003	25,20	29,80	31,30
3,5	7	57	6	2	W1130035	25,20	29,80	31,30
4	8	57	6	2	W113004	25,20	29,80	31,30
4,5	8	57	6	2	W1130045	25,20	29,80	31,30
5	10	57	6	2	W113005	23,20	27,80	29,20
6	10	57	6	2	W113006	21,80	26,40	27,70
7	13	63	8	2	W113007	31,90	37,50	39,40
8	19	63	8	2	W113008	30,90	36,50	38,40
9	19	72	10	2	W113009	43,70	50,50	53,00
10	22	72	10	2	W113010	42,70	49,50	52,00
12	26	83	12	2	W113012	59,00	67,40	70,80
14	26	83	14	2	W113014	72,80	81,80	85,90
16	30	92	16	2	W113016	95,80	104,80	110,10
18	32	92	18	2	W113018	124,40	135,30	142,10
20	38	100	20	2	W113020	157,90	174,70	183,50

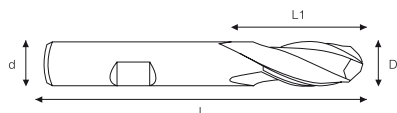
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	●	○	◐	○	◐	○	◐	○

Frese Z3 raggiate denti elicoidali taglio al centro lavorazioni universali

Universal ball nose end mills 3 flutes center cutting
Weldon Shank

SERIES
W13

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	7	57	6	3	W133002	25,20	29,80	31,30
2,5	7	57	6	3	W1330025	25,20	29,80	31,30
3	7	57	6	3	W133003	25,20	29,80	31,30
3,5	7	57	6	3	W1330035	25,20	29,80	31,30
4	8	57	6	3	W133004	25,20	29,80	31,30
4,5	8	57	6	3	W1330045	25,20	29,80	31,30
5	10	57	6	3	W133005	23,20	27,80	29,20
6	10	57	6	3	W133006	21,80	26,40	27,70
7	13	63	8	3	W133007	31,90	37,50	39,40
8	19	63	8	3	W133008	30,90	36,50	38,40
9	19	72	10	3	W133009	43,70	50,50	53,00
10	22	72	10	3	W133010	42,70	49,50	52,00
12	26	83	12	3	W133012	59,00	67,40	70,80
14	26	83	14	3	W133014	72,80	81,80	85,90
16	30	92	16	3	W133016	95,80	104,80	110,10
18	32	92	18	3	W133018	124,40	135,30	142,10
20	38	100	20	3	W133020	157,90	174,70	183,50

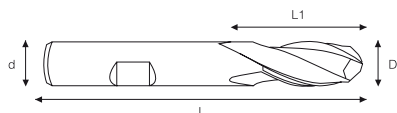
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	●	○	◐	○	◐	○	◐	○

Frese Z4 raggiate denti elicoidali taglio al centro lavorazioni universali

Universal ball nose end mills 4 flutes center cutting
Weldon Shank

SERIES
W15

DUCCI



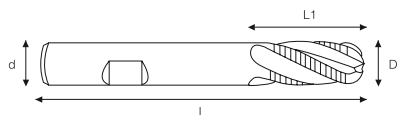
D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
2	7	57	6	4	W153002	25,20	29,80	31,30
2,5	7	57	6	4	W1530025	25,20	29,80	31,30
3	7	57	6	4	W153003	25,20	29,80	31,30
3,5	7	57	6	4	W1530035	25,20	29,80	31,30
4	8	57	6	4	W153004	25,20	29,80	31,30
4,5	8	57	6	4	W1530045	25,20	29,80	31,30
5	10	57	6	4	W153005	23,20	27,80	29,20
6	10	57	6	4	W153006	21,80	26,40	27,70
7	13	63	8	4	W153007	31,90	37,50	39,40
8	19	63	8	4	W153008	30,90	36,50	38,40
9	19	72	10	4	W153009	43,70	50,50	53,00
10	22	72	10	4	W153010	42,70	49,50	52,00
12	26	83	12	4	W153012	59,00	67,40	70,80
14	26	83	14	4	W153014	72,80	81,80	85,90
16	30	92	16	4	W153016	95,80	104,80	110,10
18	32	92	18	4	W153018	124,40	135,30	142,10
20	38	100	20	4	W153020	157,90	174,70	183,50

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	○	●	○	●	○

Frese Z3 raggiate lavorazione sgrossatura

Roughing ball nose end mills 3 flutes center cutting
Weldon Shank

SERIES
WR28



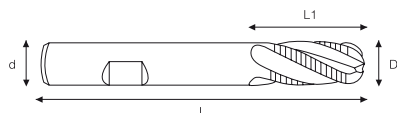
D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	16	57	6	3	WR283006	29,60	34,20	35,90
8	19	63	8	3	WR283008	39,70	45,20	47,50
10	22	72	10	3	WR283010	57,60	64,30	67,50
12	26	83	12	3	WR283012	71,90	80,20	84,20
14	26	83	14	3	WR283014	84,60	93,60	98,30
16	32	92	16	3	WR283016	116,50	125,50	131,80
18	32	92	18	3	WR283018	152,90	163,70	171,90
20	38	100	20	3	WR283020	181,80	198,60	208,50

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	○	●	○

Frese Z4 raggiate lavorazione sgrossatura

Roughing ball nose end mills 4 flutes center cutting
Weldon Shank

SERIES
WR29



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	16	57	6	4	WR293006	29,60	34,20	35,90
8	19	63	8	4	WR293008	39,70	45,20	47,50
10	22	72	10	4	WR293010	57,60	64,30	67,50
12	26	83	12	4	WR293012	71,90	80,20	84,20
14	26	83	14	4	WR293014	84,60	93,60	98,30
16	32	92	16	4	WR293016	116,50	125,50	131,80
18	32	92	18	4	WR293018	152,90	163,70	171,90
20	38	100	20	4	WR293020	181,80	198,60	208,50

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	○	●	○



Frese per lavorazioni ad alta velocità

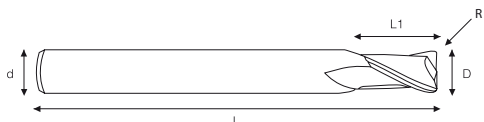
High Speed Machining End Mills



Frese toriche elicoidali Z2 taglio al centro

Corner radius end mills 2 flutes center cutting

SERIES
AVC10



D h10	L1	L	d h6	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	60	2	0,5	2	AVC1002	14,00	17,10	24,10
3	8	60	3	0,5	2	AVC1003	17,20	20,30	27,30
4	10	60	4	0,5	2	AVC1004	18,10	21,70	28,20
5	10	60	5	0,5	2	AVC1005	19,60	24,50	31,80
6	10	60	6	1	2	AVC1006	22,30	27,20	34,50
8	12	75	8	1	2	AVC1008	31,50	37,40	45,60
10	18	75	10	1,5	2	AVC1010	40,50	47,70	56,90
12	18	100	12	1,5	2	AVC1012	62,90	71,90	82,20
16	24	100	16	2	2	AVC1016	100,50	110,20	121,10
18	24	100	18	2	2	AVC1018	125,00	136,50	148,70
20	38	104	20	2	2	AVC1020	160,70	178,70	195,50

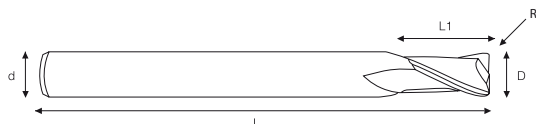
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese toriche elicoidali Z2 taglio al centro

Corner radius long/extra long series end mills 2 flutes center cutting

SERIES
AVC10L



D h10	L1	L	d h6	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	100	2	0,5	2	AVC1002L	15,80	19,80	27,60
3	8	100	3	0,5	2	AVC1003L	19,70	23,70	31,50
4	10	100	4	0,5	2	AVC1004L	21,20	25,90	33,00
4	10	150	4	0,5	2	AVC1004EL	25,00	34,00	43,70
5	10	100	5	0,5	2	AVC1005L	23,70	30,00	38,00
6	10	100	6	1	2	AVC1006L	27,70	34,10	42,10
6	10	150	6	1	2	AVC1006EL	34,50	45,70	56,70
8	12	100	8	1	2	AVC1008L	36,70	44,20	53,60
8	12	150	8	1	2	AVC1008EL	47,10	59,30	71,80
10	18	100	10	1,5	2	AVC1010L	48,00	56,90	67,30
10	18	150	10	1,5	2	AVC1010EL	62,90	76,80	90,50
12	18	150	12	1,5	2	AVC1012L	84,20	98,10	107,80
16	24	150	16	2	2	AVC1016L	136,10	151,80	166,80
18	24	150	18	2	2	AVC1018L	168,30	187,80	205,40
20	38	150	20	2	2	AVC1020L	210,90	237,80	260,70

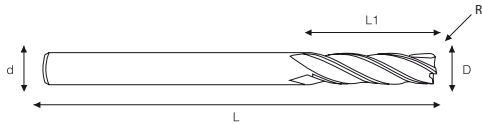
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese toriche elicoidali Z4 taglio al centro

Corner radius end mills 4 flutes center cutting

SERIES
AVC14



D h10	L1	L	d h6	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	60	2	0,5	4	AVC1402	14,00	17,10	24,10
3	8	60	3	0,5	4	AVC1403	17,20	20,30	27,30
4	10	60	4	0,5	4	AVC1404	18,10	21,70	28,20
5	10	60	5	0,5	4	AVC1405	19,60	24,50	31,80
6	10	60	6	1	4	AVC1406	22,30	27,20	34,50
8	12	75	8	1	4	AVC1408	31,50	37,40	45,60
10	18	75	10	1,5	4	AVC1410	40,50	47,70	56,90
12	18	100	12	1,5	4	AVC1412	62,90	71,90	82,20
16	24	100	16	2	4	AVC1416	100,50	110,20	121,10
18	24	100	18	2	4	AVC1418	125,00	136,50	148,70
20	38	104	20	2	4	AVC1420	160,70	178,70	195,50

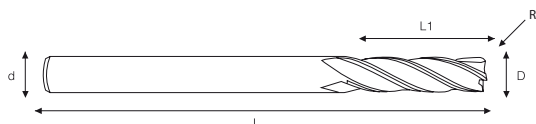
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese toriche elicoidali Z4 taglio al centro

Corner radius long/extra long series end mills 4 flutes center cutting

SERIES
AVC14L



D h10	L1	L	d h6	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	100	2	0,5	4	AVC1402L	15,80	19,80	27,60
3	8	100	3	0,5	4	AVC1403L	19,70	23,70	31,50
4	10	100	4	0,5	4	AVC1404L	21,20	25,90	33,00
4	10	150	4	0,5	4	AVC1404EL	25,00	34,00	43,70
5	10	100	5	0,5	4	AVC1405L	23,70	30,00	38,00
6	10	100	6	1	4	AVC1406L	27,70	34,10	42,10
6	10	150	6	1	4	AVC1406EL	34,50	45,70	56,70
8	12	100	8	1	4	AVC1408L	36,70	44,20	53,60
8	12	150	8	1	4	AVC1408EL	47,10	59,30	71,80
10	18	100	10	1,5	4	AVC1410L	48,00	56,90	67,30
10	18	150	10	1,5	4	AVC1410EL	62,90	76,80	90,50
12	18	150	12	1,5	4	AVC1412L	84,20	98,10	107,80
16	24	150	16	2	4	AVC1416L	136,10	151,80	166,80
18	24	150	18	2	4	AVC1418L	168,30	187,80	205,40
20	38	150	20	2	4	AVC1420L	210,90	237,80	260,70

A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese toriche Z2 scaricate taglio al centro

Corner radius tapered end mills 2 flutes center cutting

SERIES
AVT10



D h10	L1	L2	L	d h6	d1	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	12	60	6	1,9	0,5	2	AVT1002	26,10	31,10	38,30
3	8	14	60	6	2,9	0,5	2	AVT1003	26,10	31,10	38,30
4	10	18	60	6	3,9	0,5	2	AVT1004	26,10	31,10	38,30
5	10	20	60	6	4,9	0,5	2	AVT1005	26,10	31,10	38,30
6	10	24	60	6	5,9	1	2	AVT1006	23,90	28,80	36,00
8	12	30	75	8	7,8	1	2	AVT1008	33,70	39,60	47,90
10	18	30	75	10	9,6	1,5	2	AVT1010	42,70	50,00	59,10
12	18	38	100	12	11,6	1,5	2	AVT1012	65,20	74,10	84,50
16	24	44	100	16	15	2	2	AVT1016	102,80	112,40	123,30
18	24	44	100	18	17	2	2	AVT1018	127,20	138,80	150,90
20	38	58	104	20	19	2	2	AVT1020	162,90	180,90	197,70

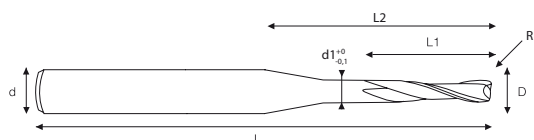
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese toriche Z2 scaricate taglio al centro

Corner radius long neck tapered series end mills 2 flutes center cutting

SERIES
AVT10L



D h10	L1	L2	L	d h6	d1	R	Z	Cod.	€ uncoated	€ TiAlN	€ Advanced
2	6	40	100	6	1,9	0,5	2	AVT1002L	31,50	37,90	45,90
3	8	40	100	6	2,9	0,5	2	AVT1003L	31,50	37,90	45,90
4	10	40	100	6	3,9	0,5	2	AVT1004L	31,50	37,90	45,90
4	10	80	150	6	3,9	0,5	2	AVT1004EL	38,30	49,50	60,50
5	10	40	100	6	4,9	0,5	2	AVT1005L	31,50	37,90	45,90
6	10	40	100	6	5,9	1	2	AVT1006L	29,30	35,60	43,70
6	10	80	150	6	5,9	1	2	AVT1006EL	36,00	47,30	58,20
8	12	40	100	8	7,8	1	2	AVT1008L	38,90	46,40	55,80
8	12	80	150	8	7,8	1	2	AVT1008EL	49,40	61,50	74,10
10	18	80	100	10	9,6	1,5	2	AVT1010L	50,20	59,20	69,50
10	18	80	150	10	9,6	1,5	2	AVT1010EL	65,20	79,00	92,70
12	18	80	150	12	11,6	1,5	2	AVT1012L	86,50	100,30	110,10
16	24	80	150	16	15	2	2	AVT1016L	138,40	154,10	169,00
18	24	80	150	18	17	2	2	AVT1018L	170,60	190,10	207,70
20	38	80	150	20	19	2	2	AVT1020L	213,10	240,10	262,90

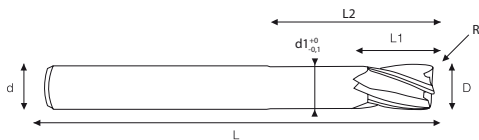
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese toriche elicoidali Z4 scaricate taglio al centro

Corner radius tapered end mills 4 flutes center cutting

SERIES
AVT14



D h10	L1	L2	L	d h6	d1	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	12	60	6	1,9	0,5	4	AVT1402	26,10	31,10	38,30
3	8	14	60	6	2,9	0,5	4	AVT1403	26,10	31,10	38,30
4	10	18	60	6	3,9	0,5	4	AVT1404	26,10	31,10	38,30
5	10	20	60	6	4,9	0,5	4	AVT1405	26,10	31,10	38,30
6	10	24	60	6	5,9	1	4	AVT1406	23,90	28,80	36,00
8	12	30	75	8	7,8	1	4	AVT1408	33,70	39,60	47,90
10	18	30	75	10	9,6	1,5	4	AVT1410	42,70	50,00	59,10
12	18	38	100	12	11,6	1,5	4	AVT1412	65,20	74,10	84,50
16	24	44	100	16	15	2	4	AVT1416	102,80	112,40	123,30
18	24	44	100	18	17	2	4	AVT1418	127,20	138,80	150,90
20	38	58	104	20	19	2	4	AVT1420	162,90	180,90	197,70

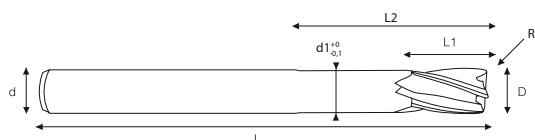
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese toriche elicoidali Z4 scaricate taglio al centro

Corner radius long neck tapered end mills 4 flutes center cutting

SERIES
AVT14L



D h10	L1	L2	L	d h6	d1	R	Z	Cod.	€ uncoated	€ TiAlN	€ Advanced
2	6	40	100	6	1,9	0,5	4	AVT1402L	31,50	37,90	45,90
3	8	40	100	6	2,9	0,5	4	AVT1403L	31,50	37,90	45,90
4	10	40	100	6	3,9	0,5	4	AVT1404L	31,50	37,90	45,90
4	10	80	150	6	3,9	0,5	4	AVT1404EL	38,30	49,50	60,50
5	10	40	100	6	4,9	0,5	4	AVT1405L	31,50	37,90	45,90
6	10	40	100	6	5,9	1	4	AVT1406L	29,30	35,60	43,70
6	10	80	150	6	5,9	1	4	AVT1406EL	36,00	47,30	58,20
8	12	40	100	8	7,8	1	4	AVT1408L	38,90	46,40	55,80
8	12	80	150	8	7,8	1	4	AVT1408EL	49,40	61,50	74,10
10	18	40	100	10	9,6	1,5	4	AVT1410L	50,20	59,20	69,50
10	18	80	150	10	9,6	1,5	4	AVT1410EL	65,20	79,00	92,70
12	18	80	150	12	11,6	1,5	4	AVT1412L	86,50	100,30	110,10
16	24	80	150	16	15	2	4	AVT1416L	138,40	154,10	169,00
18	24	80	150	18	17	2	4	AVT1418L	170,60	190,10	207,70
20	38	80	150	20	19	2	4	AVT1420L	213,10	240,10	262,90

A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese toriche Z2 elica diritta taglio al centro

Corner radius end mills 2 straight flutes center cutting

SERIES
AVC10D



D h10	L1	L	d h6	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	60	2	0,5	2	AVC1002D	14,00	17,10	24,10
3	8	60	3	0,5	2	AVC1003D	17,20	20,30	27,30
4	10	60	4	0,5	2	AVC1004D	18,10	21,70	28,20
5	10	60	5	0,5	2	AVC1005D	19,60	24,50	31,80
6	10	60	6	1	2	AVC1006D	22,30	27,20	34,50
8	12	75	8	1	2	AVC1008D	31,50	37,40	45,60
10	18	75	10	1,5	2	AVC1010D	40,50	47,70	56,90
12	18	100	12	1,5	2	AVC1012D	62,90	71,90	82,20
16	24	100	16	2	2	AVC1016D	100,50	110,20	121,10
18	24	100	18	2	2	AVC1018D	125,00	136,50	148,70
20	38	104	20	2	2	AVC1020D	160,70	178,70	195,50

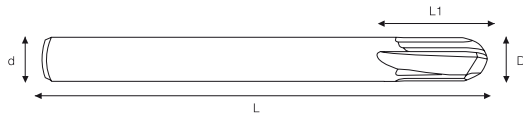
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese toriche Z2 elica diritta taglio al centro

Corner radius long/extra long series end mills 2 straight flutes center cutting

SERIES
AVC10LD



D h10	L1	L	d h6	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	100	2	0,5	2	AVC1002LD	15,80	19,80	27,60
3	8	100	3	0,5	2	AVC1003LD	19,70	23,70	31,50
4	10	100	4	0,5	2	AVC1004LD	21,20	25,90	33,00
4	10	150	4	0,5	2	AVC1004ELD	25,00	34,00	43,70
5	10	100	5	0,5	2	AVC1005LD	23,70	30,00	38,00
6	10	100	6	1	2	AVC1006LD	27,70	34,10	42,10
6	10	150	6	1	2	AVC1006ELD	34,50	45,70	56,70
8	12	100	8	1	2	AVC1008LD	36,70	44,20	53,60
8	12	150	8	1	2	AVC1008ELD	47,10	59,30	71,80
10	18	100	10	1,5	2	AVC1010LD	48,00	56,90	67,30
10	18	150	10	1,5	2	AVC1010ELD	62,90	76,80	90,50
12	18	150	12	1,5	2	AVC1012LD	84,20	98,10	107,80
16	24	150	16	2	2	AVC1016LD	136,10	151,80	166,80
18	24	150	18	2	2	AVC1018LD	168,30	187,80	205,40
20	38	150	20	2	2	AVC1020LD	210,90	237,80	260,70

A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese toriche Z2 scaricate elica diritta taglio al centro

Corner radius tapered end mills 2 straight flutes center cutting

SERIES
AVT10D



D h10	L1	L2	L	d h6	d1	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	12	60	6	1,9	0,5	2	AVT1002D	26,10	31,10	38,30
3	8	14	60	6	2,9	0,5	2	AVT1003D	26,10	31,10	38,30
4	10	18	60	6	3,9	0,5	2	AVT1004D	26,10	31,10	38,30
5	10	20	60	6	4,9	0,5	2	AVT1005D	26,10	31,10	38,30
6	10	24	60	6	5,9	1	2	AVT1006D	23,90	28,80	36,00
8	12	30	75	8	7,8	1	2	AVT1008D	33,70	39,60	47,90
10	18	30	75	10	9,6	1,5	2	AVT1010D	42,70	50,00	59,10
12	18	38	100	12	11,6	1,5	2	AVT1012D	65,20	74,10	84,50
16	24	44	100	16	15	2	2	AVT1016D	102,80	112,40	123,30
18	24	44	100	18	17	2	2	AVT1018D	127,20	138,80	150,90
20	38	58	104	20	19	2	2	AVT1020D	162,90	180,90	197,70

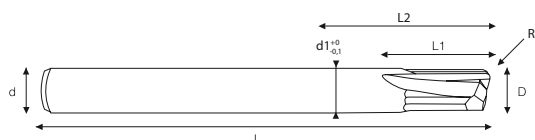
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese toriche Z2 scaricate elica diritta taglio al centro

Corner radius long/extra long series tapered end mills 2 straight flutes center cutting

SERIES
AVT10LD



D h10	L1	L2	L	d h6	d1	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	26	100	6	1,9	0,5	2	AVT1002LD	31,50	37,90	45,90
3	8	28	100	6	2,9	0,5	2	AVT1003LD	31,50	37,90	45,90
4	10	30	100	6	3,9	0,5	2	AVT1004LD	31,50	37,90	45,90
4	10	30	150	6	3,9	0,5	2	AVT1004ELD	38,30	49,50	60,50
5	10	30	100	6	4,9	0,5	2	AVT1005LD	31,50	37,90	45,90
6	10	30	100	6	5,9	1	2	AVT1006LD	29,30	35,60	43,70
6	10	30	150	6	5,9	1	2	AVT1006ELD	36,00	47,30	58,20
8	12	32	100	8	7,8	1	2	AVT1008LD	38,90	46,40	55,80
8	12	32	150	8	7,8	1	2	AVT1008ELD	49,40	61,50	74,10
10	18	38	100	10	9,6	1,5	2	AVT1010LD	50,20	59,20	69,50
10	18	38	150	10	9,6	1,5	2	AVT1010ELD	65,20	79,00	92,70
12	18	38	150	12	11,6	1,5	2	AVT1012LD	86,50	100,30	110,10
16	24	44	150	16	15	2	2	AVT1016LD	138,40	154,10	169,00
18	24	44	150	18	17	2	2	AVT1018LD	170,60	190,10	207,70
20	38	58	150	20	19	2	2	AVT1020LD	213,10	240,10	262,90

A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese raggiate Z2 elicoidali taglio al centro

Ball nose end mills 2 flutes center cutting

SERIES
AVC10R



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	60	2	2	AVC1002R	14,00	17,10	24,10
3	8	60	3	2	AVC1003R	17,20	20,30	27,30
4	10	60	4	2	AVC1004R	18,10	21,70	28,20
5	10	60	5	2	AVC1005R	19,60	24,50	31,80
6	10	60	6	2	AVC1006R	22,30	27,20	34,50
8	12	75	8	2	AVC1008R	31,50	37,40	45,60
10	18	75	10	2	AVC1010R	40,50	47,70	56,90
12	18	100	12	2	AVC1012R	62,90	71,90	82,20
16	24	100	16	2	AVC1016R	100,50	110,20	121,10
18	24	100	18	2	AVC1018R	125,00	136,50	148,70
20	38	104	20	2	AVC1020R	160,70	178,70	195,50

A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese raggiate Z2 elicoidali taglio al centro

Ball nose long series end mills 2 flutes center cutting

SERIES
AVC10LR



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	100	2	2	AVC1002LR	15,80	19,80	27,60
3	8	100	3	2	AVC1003LR	19,70	23,70	31,50
4	10	100	4	2	AVC1004LR	21,20	25,90	33,00
4	10	150	4	2	AVC1004ELR	25,00	34,00	43,70
5	10	100	5	2	AVC1005LR	23,70	30,00	38,00
6	10	100	6	2	AVC1006LR	27,70	34,10	42,10
6	10	150	6	2	AVC1006ELR	34,50	45,70	56,70
8	12	100	8	2	AVC1008LR	36,70	44,20	53,60
8	12	150	8	2	AVC1008ELR	47,10	59,30	71,80
10	18	100	10	2	AVC1010LR	48,00	56,90	67,30
10	18	150	10	2	AVC1010ELR	62,90	76,80	90,50
12	18	150	12	2	AVC1012LR	84,20	98,10	107,80
16	24	150	16	2	AVC1016LR	136,10	151,80	166,80
18	24	150	18	2	AVC1018LR	168,30	187,80	205,40
20	38	150	20	2	AVC1020LR	210,90	237,80	260,70

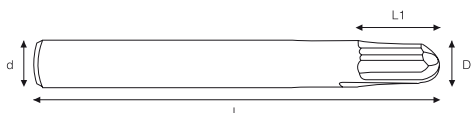
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese raggiate Z2 elica diritta taglio al centro

Ball nose end mills 2 straight flutes center cutting

SERIES
AVC10DR



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	60	2	2	AVC1002DR	14,00	17,10	24,10
3	8	60	3	2	AVC1003DR	17,20	20,30	27,30
4	10	60	4	2	AVC1004DR	18,10	21,70	28,20
5	10	60	5	2	AVC1005DR	19,60	24,50	31,80
6	10	60	6	2	AVC1006DR	22,30	27,20	34,50
8	12	75	8	2	AVC1008DR	31,50	37,40	45,60
10	18	75	10	2	AVC1010DR	40,50	47,70	56,90
12	18	100	12	2	AVC1012DR	62,90	71,90	82,20
16	24	100	16	2	AVC1016DR	100,50	110,20	121,10
18	24	100	18	2	AVC1018DR	125,00	136,50	148,70
20	38	104	20	2	AVC1020DR	160,70	178,70	195,50

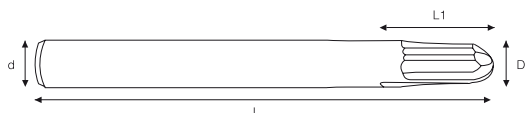
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese raggiate Z2 elica diritta taglio al centro

Ball nose long/extra long series 2 straight flutes center cutting

SERIES
AVC10LDR



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	100	2	2	AVC1002LDR	15,80	19,80	27,60
3	8	100	3	2	AVC1003LDR	19,70	23,70	31,50
4	10	100	4	2	AVC1004LDR	21,20	25,90	33,00
4	10	150	4	2	AVC1004ELDR	25,00	34,00	43,70
5	10	100	5	2	AVC1005LDR	23,70	30,00	38,00
6	10	100	6	2	AVC1006LDR	27,70	34,10	42,10
6	10	150	6	2	AVC1006ELDR	34,50	45,70	56,70
8	12	100	8	2	AVC1008LDR	36,70	44,20	53,60
8	12	150	8	2	AVC1008ELDR	47,10	59,30	71,80
10	18	100	10	2	AVC1010LDR	48,00	56,90	67,30
10	18	150	10	2	AVC1010ELDR	62,90	76,80	90,50
12	18	150	12	2	AVC1012LDR	84,20	98,10	107,80
16	24	150	16	2	AVC1016LDR	136,10	151,80	166,80
18	24	150	18	2	AVC1018LDR	168,30	187,80	205,40
20	38	150	20	2	AVC1020LDR	210,90	237,80	260,70

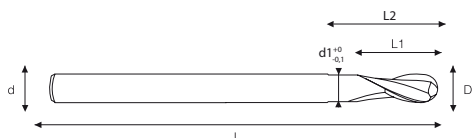
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese sferiche Z2 scaricate taglio al centro

Nosed tapered end mills 2 flutes center cutting

SERIES
AVR11



D h10	L1	L2	L	d h6	d1	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	12	60	6	1,9	2	AVR1102	26,10	31,10	38,30
3	8	14	60	6	2,9	2	AVR1103	26,10	31,10	38,30
4	10	18	60	6	3,9	2	AVR1104	26,10	31,10	38,30
5	10	20	60	6	4,9	2	AVR1105	26,10	31,10	38,30
6	10	24	60	6	5,9	2	AVR1106	23,90	28,80	36,00
8	12	30	75	8	7,8	2	AVR1108	33,70	39,60	47,90
10	18	30	75	10	9,6	2	AVR1110	42,70	50,00	59,10
12	18	38	100	12	11,6	2	AVR1112	65,20	74,10	84,50
16	24	44	100	16	15	2	AVR1116	102,80	112,40	123,30
18	24	44	100	18	17	2	AVR1118	127,20	138,80	150,90
20	38	58	104	20	19	2	AVR1120	162,90	180,90	197,70

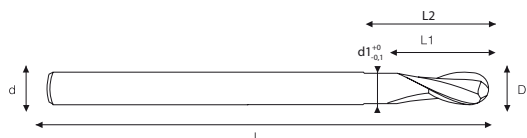
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese sferiche Z2 scaricate taglio al centro

Nosed long neck tapered end mills 2 flutes center cutting

SERIES
AVR11L



D h10	L1	L2	L	d h6	d1	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	40	100	6	1,9	2	AVR1102L	31,50	37,90	45,90
3	8	40	100	6	2,9	2	AVR1103L	31,50	37,90	45,90
4	10	40	100	6	3,9	2	AVR1104L	31,50	37,90	45,90
4	10	80	150	6	3,9	2	AVR1104EL	38,30	49,50	60,50
5	10	40	100	6	4,9	2	AVR1105L	31,50	37,90	45,90
6	10	40	100	6	5,9	2	AVR1106L	29,30	35,60	43,70
6	10	80	150	6	5,9	2	AVR1106EL	36,00	47,30	58,20
8	12	40	100	8	7,8	2	AVR1108L	38,90	46,40	55,80
8	12	80	150	8	7,8	2	AVR1108EL	49,40	61,50	74,10
10	18	40	100	10	9,6	2	AVR1110L	50,20	59,20	69,50
10	18	80	150	10	9,6	2	AVR1110EL	65,20	79,00	92,70
12	18	80	150	12	11,6	2	AVR1112L	86,50	100,30	110,10
16	24	80	150	16	15	2	AVR1116L	138,40	154,10	169,00
18	24	80	150	18	17	2	AVR1118L	170,60	190,10	207,70
20	38	80	150	20	19	2	AVR1120L	213,10	240,10	262,90

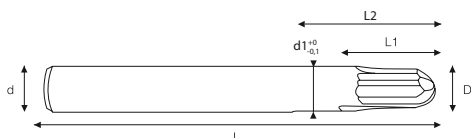
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese sferiche Z2 scaricate elica diritta taglio al centro

Nosed tapered end mills 2 straight flutes center cutting

SERIES
AVR11D



D h10	L1	L2	L	d h6	d1	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	12	60	6	1,9	2	AVR1102D	26,10	31,10	38,30
3	8	14	60	6	2,9	2	AVR1103D	26,10	31,10	38,30
4	10	18	60	6	3,9	2	AVR1104D	26,10	31,10	38,30
5	10	20	60	6	4,9	2	AVR1105D	26,10	31,10	38,30
6	10	24	60	6	5,9	2	AVR1106D	23,90	28,80	36,00
8	12	30	75	8	7,8	2	AVR1108D	33,70	39,60	47,90
10	18	30	75	10	9,6	2	AVR1110D	42,70	50,00	59,10
12	18	38	100	12	11,6	2	AVR1112D	65,20	74,10	84,50
16	24	44	100	16	15	2	AVR1116D	102,80	112,40	123,30
18	24	44	100	18	17	2	AVR1118D	127,20	138,80	150,90
20	38	58	104	20	19	2	AVR1120D	162,90	180,90	197,70

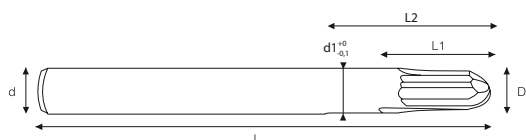
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese sferiche Z2 scaricate elica diritta taglio al centro

Nosed tapered long/extra long series 2 straight flutes center cutting

SERIES
AVR11LD



D h10	L1	L2	L	d h6	d1	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	6	26	100	6	1,9	2	AVR1102LD	31,50	37,90	45,90
3	8	28	100	6	2,9	2	AVR1103LD	31,50	37,90	45,90
4	10	30	100	6	3,9	2	AVR1104LD	31,50	37,90	45,90
4	10	30	150	6	3,9	2	AVR1104ELD	38,30	49,50	60,50
5	10	30	100	6	4,9	2	AVR1105LD	31,50	37,90	45,90
6	10	30	100	6	5,9	2	AVR1106LD	29,30	35,60	43,70
6	10	30	150	6	5,9	2	AVR1106ELD	36,00	47,30	58,20
8	12	32	100	8	7,8	2	AVR1108LD	38,90	46,40	55,80
8	12	32	150	8	7,8	2	AVR1108ELD	49,40	61,50	74,10
10	18	38	100	10	9,6	2	AVR1110LD	50,20	59,20	69,50
10	18	38	150	10	9,6	2	AVR1110ELD	65,20	79,00	92,70
12	18	38	150	12	11,6	2	AVR1112LD	86,50	100,30	110,10
16	24	44	150	16	15	2	AVR1116LD	138,40	154,10	169,00
18	24	44	150	18	17	2	AVR1118LD	170,60	190,10	207,70
20	38	58	150	20	19	2	AVR1120LD	213,10	240,10	262,90

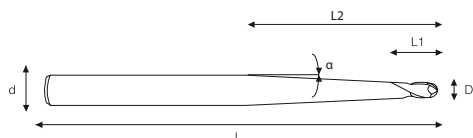
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese Z2 sferiche raccordo conico taglio al centro

Nosed tapered end mills 2 flutes center cutting

SERIES
AVRC11



D h10	L1	L2	L	d h6	α	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	4	30	75	6	4°	2	AVRC1102	28,40	33,30	40,50
3	4	30	75	6	3°	2	AVRC1103	28,40	33,30	40,50
4	5	30	75	6	2°	2	AVRC1104	26,10	31,10	38,30
5	6	30	75	6	1°	2	AVRC1105	26,10	31,10	38,30
6	8	28	75	10	4°	2	AVRC1106	38,30	45,50	54,60
8	12	38	100	10	2°	2	AVRC1108	49,50	58,40	68,80
10	15	35	100	12	2°	2	AVRC1110	76,50	85,40	95,80
12	15	35	100	16	3°	2	AVRC1112	111,80	121,40	132,30

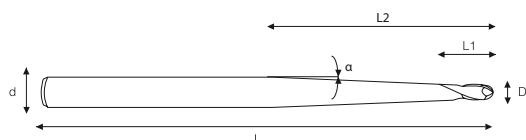
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese Z2 sferiche raccordo conico taglio al centro

Nosed tapered long series end mills 2 flutes center cutting

SERIES
AVRC11L



D h10	L1	L2	L	d h6	α	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	4	45	100	6	2,5°	2	AVRC1102L	33,80	40,10	46,00
3	4	45	100	6	3°	2	AVRC1103L	33,80	40,10	46,00
4	5	45	100	6	1,5°	2	AVRC1104L	30,00	36,30	42,20
5	6	45	100	6	0,7°	2	AVRC1105L	30,00	36,30	42,20
6	8	45	100	10	3°	2	AVRC1106L	52,50	61,40	68,90
8	12	65	150	10	2°	2	AVRC1108L	72,00	85,80	91,20
10	15	65	150	12	1°	2	AVRC1110L	97,80	111,60	117,00
12	15	65	150	16	2°	2	AVRC1112L	147,40	163,00	167,90

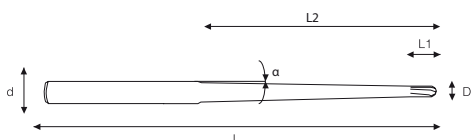
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese Z2 sferiche raccordo conico taglio al centro elica diritta

Nosed tapered end mills 2 straight flutes center cutting

SERIES
AVRC11D



D h10	L1	L2	L	d h6	α	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	4	30	75	6	4°	2	AVRC1102D	28,40	33,30	40,50
3	4	30	75	6	3°	2	AVRC1103D	28,40	33,30	40,50
4	5	30	75	6	2°	2	AVRC1104D	26,10	31,10	38,30
5	6	30	75	6	1°	2	AVRC1105D	26,10	31,10	38,30
6	8	28	75	10	4°	2	AVRC1106D	38,30	45,50	54,60
8	12	38	100	10	2°	2	AVRC1108D	49,50	58,40	68,80
10	15	35	100	12	2°	2	AVRC1110D	76,50	85,40	95,80
12	15	35	100	16	3°	2	AVRC1112D	111,80	121,40	132,30

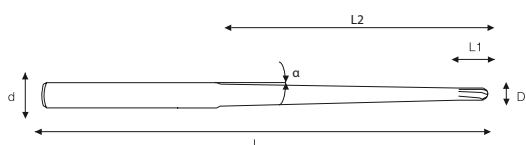
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	DLC

Frese Z2 sferiche raccordo conico taglio al centro elica diritta

Nosed tapered long series end mills 2 straight flutes center cutting

SERIES
AVRC11LD



D h10	L1	L2	L	d h6	α	Z	Code	€ uncoated	€ TiAlN	€ Advanced
2	4	45	100	6	2,5°	2	AVRC1102LD	33,80	40,10	46,00
3	4	45	100	6	3°	2	AVRC1103LD	33,80	40,10	46,00
4	5	45	100	6	1,5°	2	AVRC1104LD	30,00	36,30	42,20
5	6	45	100	6	0,7°	2	AVRC1105LD	30,00	36,30	42,20
6	8	45	100	10	3°	2	AVRC1106LD	52,50	61,40	68,90
8	12	65	150	10	2°	2	AVRC1108LD	72,00	85,80	91,20
10	15	65	150	12	1°	2	AVRC1110LD	97,80	111,60	117,000
12	15	65	150	16	2°	2	AVRC1112LD	147,40	163,00	167,90

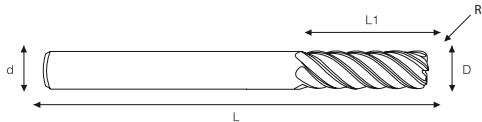
A richiesta rivestimento **DLC** per rame, ottone e graffite
DLC coating for copper, brass and graphite on request

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	○

Frese toriche multitagliente

Helix corner radius multi flutes end mills

SERIES
AVTM



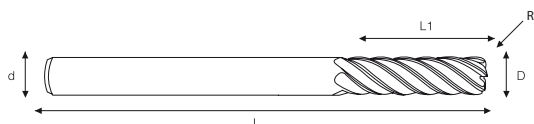
D h10	L1	L	d h6	Z	R	Code	€ uncoated	€ TiAlN	€ Advanced
6	20	60	6	6	1	AVTM06	35,60	40,20	46,90
8	25	80	8	6	1	AVTM08	45,60	52,60	61,40
10	30	80	10	6	1,5	AVTM10	58,40	66,70	76,40
12	35	100	12	6	1,5	AVTM12	79,80	88,20	97,90
16	40	100	16	6	2	AVTM16	114,50	123,50	133,70
18	40	100	18	6	2	AVTM18	136,90	147,70	159,00
20	40	104	20	6	2	AVTM20	165,90	182,70	198,30

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	○

Frese toriche multitagliente

Helix corner radius long series multi flutes end mills

SERIES
AVTML



D h10	L1	L	d h6	Z	R	Code	€ uncoated	€ TiAlN	€ Advanced
6	24	100	6	6	1	AVTM06L	42,60	48,60	56,00
8	32	100	8	6	1	AVTM08L	53,50	60,50	69,30
10	32	100	10	6	1,5	AVTM10L	66,00	74,30	84,00
12	50	150	12	6	1,5	AVTM12L	103,70	116,60	129,40
16	60	150	16	6	2	AVTM16L	155,70	170,30	184,30
18	60	150	18	6	2	AVTM18L	185,40	203,60	220,00
20	60	150	20	6	2	AVTM20L	222,70	247,90	269,20

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	○	○



Microfrese

Micro end mills



Microfrese Z2 gambo rinforzato

Micro end mills reinforced shank 2 flutes

SERIES
M



D	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
0,4	1	40	3	2	M04	21,50	24,60	26,30
0,5	1	40	3	2	M05	12,00	15,50	17,00
0,6	1,5	40	3	2	M06	12,00	15,50	17,00
0,8	2	40	3	2	M08	12,00	15,50	17,00
1	2,5	40	3	2	M1	12,00	15,50	17,00
1,2	3	40	3	2	M12	11,00	14,50	16,00
1,4	3,5	40	3	2	M14	11,00	14,50	16,00
1,5	4	40	3	2	M15	11,00	14,50	16,00
2	5	40	3	2	M2	10,00	13,50	15,00
2,5	8	40	3	2	M25	10,00	13,50	15,00
3	8	40	3	2	M3	10,00	13,50	15,00

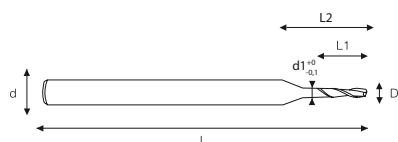
D	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
0,4	1	50	4	2	M404	24,50	26,80	28,30
0,5	1	50	4	2	M405	16,00	19,50	22,00
0,6	1,5	50	4	2	M406	16,00	19,50	22,00
0,8	2	50	4	2	M408	16,00	19,50	22,00
1	2,5	50	4	2	M41	16,00	19,50	22,00
1,2	3	50	4	2	M412	15,00	18,50	20,00
1,4	3,5	50	4	2	M414	15,00	18,50	20,00
1,5	4	50	4	2	M415	15,00	18,50	20,00
2	5	50	4	2	M42	14,00	17,50	19,00
2,5	8	50	4	2	M425	14,00	17,50	19,00
3	8	50	4	2	M43	14,00	17,50	19,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	●	●	●	○	○	●	●	○	○

Microfrese Z2 scaricate gambo rinforzato

Micro long series end mills reinforced shank 2 flutes

SERIES
ML



Micro
Gain

TYP N



DIN
6535
HA



D h10	L1	L2	L	d h6	d1	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
0,4	1	2	40	3	0,3	2	ML04	21,50	24,60	26,30
0,5	1	2,5	40	3	0,4	2	ML05	15,00	18,50	20,00
0,6	1,5	4	40	3	0,5	2	ML06	15,00	18,50	20,00
0,8	2	5	40	3	0,7	2	ML08	15,00	18,50	20,00
1	2,5	6	40	3	0,9	2	ML1	15,00	18,50	20,00
1,2	3	8	40	3	1,1	2	ML12	14,00	17,50	19,00
1,4	3,5	8	40	3	1,3	2	ML14	14,00	17,50	19,00
1,5	4	10	40	3	1,4	2	ML15	14,00	17,50	19,00
2	5	12	40	3	1,9	2	ML2	13,00	16,50	18,00
2,5	8	12	40	3	2,4	2	ML25	13,00	16,50	18,00
3	8	15	40	3	2,9	2	ML3	13,00	16,50	18,00

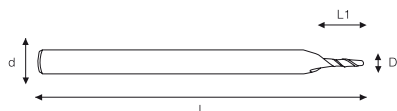
D h10	L1	L2	L	d h6	d1	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
0,4	1	2	50	4	0,3	2	ML404	24,50	26,80	28,30
0,5	1	2,5	50	4	0,4	2	ML405	19,00	22,50	24,00
0,6	1,5	4	50	4	0,5	2	ML406	19,00	22,50	24,00
0,8	2	5	50	4	0,7	2	ML408	19,00	22,50	24,00
1	2,5	6	50	4	0,9	2	ML41	19,00	22,50	24,00
1,2	3	8	50	4	1,1	2	ML412	18,00	21,50	23,00
1,4	3,5	8	50	4	1,3	2	ML414	18,00	21,50	23,00
1,5	4	10	50	4	1,4	2	ML415	18,00	21,50	23,00
2	5	12	50	4	1,9	2	ML42	17,00	20,50	22,00
2,5	8	12	50	4	2,4	2	ML425	17,00	20,50	22,00
3	8	15	50	4	2,9	2	ML43	17,00	20,50	22,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	●	○	○

Microfrese Z2 raggrate

Ball nose micro endmills 2 flutes

SERIES
MR



D	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
0,4	1	40	3	2	MR04	34,00	37,00	39,10
0,5	1	40	3	2	MR05	16,00	19,50	21,00
0,6	1,5	40	3	2	MR06	16,00	19,50	21,00
0,8	2	40	3	2	MR08	16,00	19,50	21,00
1	2,5	40	3	2	MR1	16,00	19,50	21,00
1,2	3	40	3	2	MR12	15,00	18,50	20,00
1,4	3,5	40	3	2	MR14	15,00	18,50	20,00
1,5	4	40	3	2	MR15	15,00	18,50	20,00
2	5	40	3	2	MR2	14,00	17,50	19,00
2,5	8	40	3	2	MR25	14,00	17,50	19,00
3	8	40	3	2	MR3	14,00	17,50	19,00

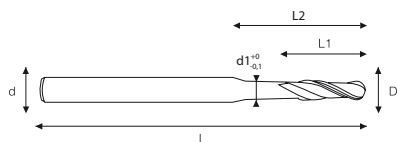
D	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
0,4	1	50	4	2	MR404	36,00	39,30	41,50
0,5	1	50	4	2	MR405	20,00	23,50	25,00
0,6	1,5	50	4	2	MR406	20,00	23,50	25,00
0,8	2	50	4	2	MR408	20,00	23,50	25,00
1	2,5	50	4	2	MR41	20,00	23,50	25,00
1,2	3	50	4	2	MR412	19,00	22,50	24,00
1,4	3,5	50	4	2	MR414	19,00	22,50	24,00
1,5	4	50	4	2	MR415	19,00	22,50	24,00
2	5	50	4	2	MR42	18,00	21,50	23,00
2,5	8	50	4	2	MR425	18,00	21,50	23,00
3	8	50	4	2	MR43	18,00	21,50	23,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	●	○	○

Microfresa Z2 scaricate gambo rinforzato

Micro ball nose long series end mills reinforced shank 2 flutes

SERIES
MRL



D h10	L1	L2	L	d h6	d1	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
0,4	1	2	40	3	0,3	2	MRL04	34,00	37,00	39,10
0,5	1	2,5	40	3	0,4	2	MRL05	19,00	22,50	24,00
0,6	1,5	4	40	3	0,5	2	MRL06	19,00	22,50	24,00
0,8	2	5	40	3	0,7	2	MRL08	19,00	22,50	24,00
1	2,5	6	40	3	0,9	2	MRL1	19,00	22,50	24,00
1,2	3	8	40	3	1,1	2	MRL12	18,00	21,50	23,00
1,4	3,5	8	40	3	1,3	2	MRL14	18,00	21,50	23,00
1,5	4	10	40	3	1,4	2	MRL15	18,00	21,50	23,00
2	5	12	40	3	1,9	2	MRL2	17,00	20,50	22,00
2,5	8	12	40	3	2,4	2	MRL25	17,00	20,50	22,00
3	8	15	40	3	2,9	2	MRL3	17,00	20,50	22,00

D h10	L1	L2	L	d h6	d1	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
0,4	1	2	50	4	0,3	2	MRL404	36,00	39,30	41,50
0,5	1	2,5	50	4	0,4	2	MRL405	23,00	26,50	28,00
0,6	1,5	4	50	4	0,5	2	MRL406	23,00	26,50	28,00
0,8	2	5	50	4	0,7	2	MRL408	23,00	26,50	28,00
1	2,5	6	50	4	0,9	2	MRL41	23,00	26,50	28,00
1,2	3	8	50	4	1,1	2	MRL412	22,00	25,50	27,00
1,4	3,5	8	50	4	1,3	2	MRL414	22,00	25,50	27,00
1,5	4	10	50	4	1,4	2	MRL415	22,00	25,50	27,00
2	5	12	50	4	1,9	2	MRL42	21,00	24,50	26,00
2,5	8	12	50	4	2,4	2	MRL425	21,00	24,50	26,00
3	8	15	50	4	2,9	2	MRL43	21,00	24,50	26,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	●	○	○



Settore aerospaziale

Aerospace

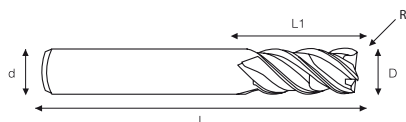


Frese elicoidali Z4 doppia gola taglio al centro

Helix corner radius end mills 4 flutes center cutting special tapered deep flute section

SERIES
NOVA

DUCCI



Ultrafine
Micro Gain

TYP N



DIN
6636
HA



D h10	L1	L	d h6	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
4	11	57	6	0,5	4	NOVA004R	27,50	32,40	39,70
6	13	57	6	0,5	4	NOVA006R	27,50	32,40	39,70
8	19	63	8	0,5	4	NOVA008R	36,20	42,10	50,40
10	22	72	10	1	4	NOVA010R	50,10	57,30	66,50
12	26	83	12	1	4	NOVA012R	67,20	76,10	86,50
14	26	83	14	1	4	NOVA014R	81,30	91,00	101,90
16	32	92	16	1	4	NOVA016R	105,10	114,70	125,60
18	32	92	18	1	4	NOVA018R	128,30	139,90	152,00
20	38	104	20	1	4	NOVA020R	164,20	182,20	199,00



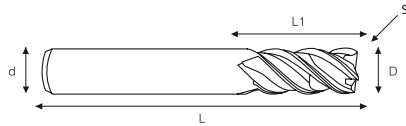
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	●	○	○	●	●	●	○

Frese elicoidali Z4 doppia gola taglio al centro

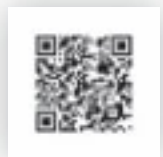
Helix chamfered end mills 4 flutes center cutting special tapered deep flute section

SERIES
NOVAS

DUCCI



D h10	L1	L	d h6	S 0,1 - 0,2 x 45°	Z	Code	€ uncoated	€ TiAlN	€ Advanced
4	11	57	6	0,1 - 0,2 x 45°	4	NOVA004S	25,50	30,40	37,70
6	13	57	6	0,1 - 0,2 x 45°	4	NOVA006S	25,50	30,40	37,70
8	19	63	8	0,1 - 0,2 x 45°	4	NOVA008S	33,20	39,10	47,40
10	22	72	10	0,1 - 0,2 x 45°	4	NOVA010S	46,10	53,30	62,50
12	26	83	12	0,1 - 0,2 x 45°	4	NOVA012S	62,20	71,10	81,50
14	26	83	14	0,1 - 0,2 x 45°	4	NOVA014S	76,30	86,00	96,90
16	32	92	16	0,1 - 0,2 x 45°	4	NOVA016S	99,10	108,70	119,60
18	32	92	18	0,1 - 0,2 x 45°	4	NOVA018S	122,30	133,90	146,00
20	38	104	20	0,1 - 0,2 x 45°	4	NOVA020S	158,20	176,20	193,00



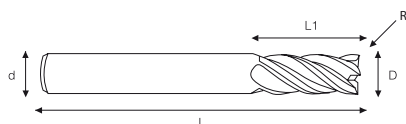
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	●	○	○	●	●	●	○

Frese toriche Z4 elica passo variabile taglio al centro

Helix corner radius end mills 4 flutes variable helix center cutting

SERIES
SILR

DUCCI



Ultrafine
Micro Gain

TYP N



DIN
6636
HA



D h10	L1	L	d h6	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
3	7	57	6	0,5	4	SIL0305RT	29,00	33,90	41,50
4	8	57	6	0,5	4	SIL0405RT	29,00	33,90	41,50
6	13	57	6	1	4	SIL061RT	29,00	33,90	41,50
8	19	63	8	1,5	4	SIL0815RT	40,20	46,10	54,40
8	19	63	8	2	4	SIL082RT	40,20	46,10	54,40
10	22	72	10	1,5	4	SIL1015RT	53,10	60,30	69,50
10	22	72	10	2	4	SIL102RT	53,10	60,30	69,50
12	26	83	12	1,5	4	SIL1215RT	69,20	78,10	88,50
12	26	83	12	2	4	SIL122RT	69,20	78,10	88,50
14	26	83	14	2	4	SIL142RT	85,60	95,30	106,10
16	26	92	16	2	4	SIL162RT	110,60	120,20	131,10
18	26	92	18	2	4	SIL182RT	130,00	141,60	153,70
20	32	104	20	2	4	SIL202RT	162,90	181,30	197,70

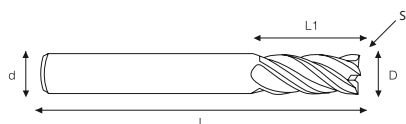
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	●	●	○

Frese smussate Z4 elica passo variabile taglio al centro

Helix chamfered end mills 4 flutes variable helix center cutting

SERIES
SIL

DUCCI



Ultrafine
Micro Gain

TYP N



DIN
6535
HA



D h10	L1	L	d h6	S 0,1 - 0,2 x 45°	Z	Code	€ uncoated	€ TiAlN	€ Advanced
3	7	57	6	0,1 - 0,2 x 45°	4	SIL0003T	26,00	30,00	37,00
4	8	57	6	0,1 - 0,2 x 45°	4	SIL0004T	26,00	30,00	37,00
6	13	57	6	0,1 - 0,2 x 45°	4	SIL0006T	26,00	30,00	37,00
8	19	63	8	0,1 - 0,2 x 45°	4	SIL0008T	35,70	41,60	49,90
10	22	72	10	0,1 - 0,2 x 45°	4	SIL0010T	48,60	55,80	65,00
12	26	83	12	0,1 - 0,2 x 45°	4	SIL0012T	65,30	74,30	84,60
14	26	83	14	0,1 - 0,2 x 45°	4	SIL0014T	81,10	90,80	101,60
16	26	92	16	0,1 - 0,2 x 45°	4	SIL0016T	103,80	113,50	124,40
18	26	92	18	0,1 - 0,2 x 45°	4	SIL0018T	122,50	134,10	146,20
20	32	104	20	0,1 - 0,2 x 45°	4	SIL0020T	158,40	176,80	193,20

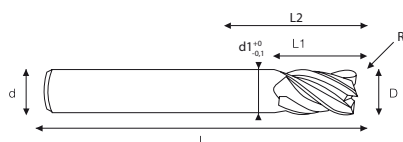
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	●	●	○

Frese Z4 elica passo variabile taglio al centro, lavorazione duplex e acciai

Helix corner radius end mills 4 flutes variable helix center cutting, duplex and alloy steels application

SERIES
DV

DUCCI



Ultrafine
Micro Gain

TYP N



DIN
6635
HA



D h10	L1	L2	L	d h6	d1	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
6	13	25	57	6	5,8	0,5	4	DV06R05	34,00	40,00	46,20
8	19	31	63	8	7,8	0,5	4	DV08R05	45,00	55,00	59,20
10	22	34	72	10	9,8	1	4	DV10R1	62,00	72,00	78,40
12	26	38	83	12	11,8	1	4	DV12R1	80,00	90,00	99,30
14	26	38	83	14	13,8	1	4	DV14R1	91,00	102,00	111,50
16	26	38	92	16	15,8	1	4	DV16R1	110,00	126,00	130,60
18	26	38	92	18	17,8	1	4	DV18R1	130,00	146,00	153,30
20	32	44	104	20	19,8	1	4	DV20R1	166,00	184,00	200,00



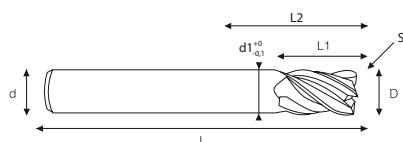
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	●	○	○	○	○	○	○

Frese Z4 elica passo variabile taglio al centro, lavorazione duplex e acciai

Helix chamfered end mills 4 flutes variable helix center cutting, duplex and alloy steels application

SERIES
DVS

DUCCI



Ultrafine
Micro Gain

TYP N



DIN
6636
HA



D h10	L1	L2	L	d h6	d1	S 0,1 - 0,2 x 45°	Z	Code	€ uncoated	€ TiAlN	€ Advanced
6	13	25	57	6	5,8	0,1 - 0,2 x 45°	4	DV06S	31,00	37,00	43,20
8	19	31	63	8	7,8	0,1 - 0,2 x 45°	4	DV08S	42,00	52,00	56,20
10	22	34	72	10	9,8	0,1 - 0,2 x 45°	4	DV10S	58,00	68,00	74,40
12	26	38	83	12	11,8	0,1 - 0,2 x 45°	4	DV12S	75,00	85,00	94,30
14	26	38	83	14	13,8	0,1 - 0,2 x 45°	4	DV14S	86,00	97,00	106,50
16	26	38	92	16	15,8	0,1 - 0,2 x 45°	4	DV16S	104,00	120,00	124,60
18	26	38	92	18	17,8	0,1 - 0,2 x 45°	4	DV18S	124,00	130,00	147,30
20	32	44	104	20	19,8	0,1 - 0,2 x 45°	4	DV20S	161,00	179,00	196,00

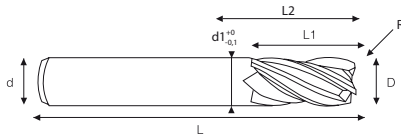
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	●	○	○	○	○	○	○

Frese Z4 elica passo variabile taglio al centro, lavorazione Inox

Helix corner radius end mills 4 flutes variable helix center cutting, stainless steel application

SERIES
IB

DUCCI



D h10	L1	L2	L	d h6	d1	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
6	13	25	57	6	5,8	0,5	4	IB06R05	34,00	40,00	46,20
8	19	31	63	8	7,8	0,5	4	IB08R05	45,00	55,00	59,20
10	22	34	72	10	9,8	1	4	IB10R1	62,00	72,00	78,40
12	26	38	83	12	11,8	1	4	IB12R1	80,00	90,00	99,30
14	26	38	83	14	13,8	1	4	IB14R1	91,00	102,00	111,50
16	26	38	92	16	15,8	1	4	IB16R1	110,00	126,00	130,60
18	26	38	92	18	17,8	1	4	IB18R1	130,00	146,00	153,30
20	32	44	104	20	19,8	1	4	IB20R1	166,00	184,00	200,00



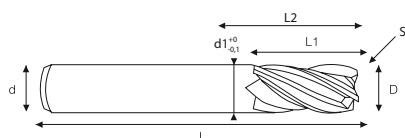
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	●	○	○	○	○	○	○

Frese Z4 elica passo variabile taglio al centro, lavorazione Inox

Helix chamfered end mills 4 flutes variable helix center cutting, stainless steel application

SERIES
IBS

DUCCI



Ultrafine
Micro Gain

TYP N



DIN
6636
HA



D h10	L1	L2	L	d h6	d1	S 0,1 - 0,2 x 45°	Z	Code	€ uncoated	€ TiAlN	€ Advanced
6	13	25	57	6	5,8	0,1 - 0,2 x 45°	4	IB06S	31,00	37,00	43,20
8	19	31	63	8	7,8	0,1 - 0,2 x 45°	4	IB08S	42,00	52,00	56,20
10	22	34	72	10	9,8	0,1 - 0,2 x 45°	4	IB10S	58,00	68,00	74,40
12	26	38	83	12	11,8	0,1 - 0,2 x 45°	4	IB12S	75,00	85,00	94,30
14	26	38	83	14	13,8	0,1 - 0,2 x 45°	4	IB14S	86,00	97,00	106,50
16	26	38	92	16	15,8	0,1 - 0,2 x 45°	4	IB16S	104,00	120,00	124,60
18	26	38	92	18	17,8	0,1 - 0,2 x 45°	4	IB18S	124,00	130,00	147,30
20	32	44	104	20	19,8	0,1 - 0,2 x 45°	4	IB20S	161,00	179,00	196,00

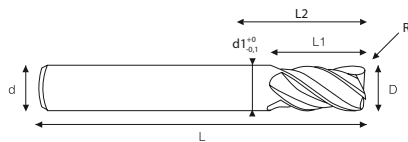
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	●	○	○	○	○	○	○

Frese Z4 elica passo variabile taglio al centro, lavorazione inconel e acciai alta resistenza

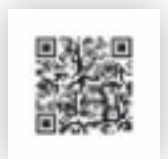
Helix corner radius end mills 4 flutes variable helix center cutting, inconel application and high resistance alloys

SERIES
IR

DUCCI



D h10	L1	L2	L	d h6	d1	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
6	13	25	57	6	5,8	0,5	4	IR06R05	34,00	40,00	46,20
8	19	31	63	8	7,8	0,5	4	IR08R05	45,00	55,00	59,20
10	22	34	72	10	9,8	1	4	IR10R1	62,00	72,00	78,40
12	26	38	83	12	11,8	1	4	IR12R1	80,00	90,00	99,30
14	26	38	83	14	13,8	1	4	IR14R1	91,00	102,00	111,50
16	26	38	92	16	15,8	1	4	IR16R1	110,00	126,00	130,60
18	26	38	92	18	17,8	1	4	IR18R1	130,00	146,00	153,30
20	32	44	104	20	19,8	1	4	IR20R1	166,00	184,00	200,00



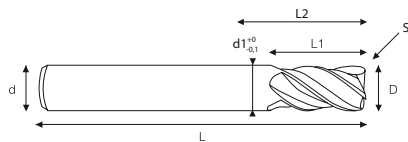
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	●	○

Frese Z4 elica passo variabile taglio al centro, lavorazione inconel e acciai alta resistenza

Helix chamfered end mills 4 flutes variable helix center cutting, inconel application and high resistance alloys

SERIES
IRS

DUCCI



D h10	L1	L2	L	d h6	d1	S 0,1 - 0,2 x 45°	Z	Code	€ uncoated	€ TiAlN	€ Advanced
6	13	25	57	6	5,8	0,1 - 0,2 x 45°	4	IR06S	31,00	37,00	43,20
8	19	31	63	8	7,8	0,1 - 0,2 x 45°	4	IR08S	42,00	52,00	56,20
10	22	34	72	10	9,8	0,1 - 0,2 x 45°	4	IR10S	58,00	68,00	74,40
12	26	38	83	12	11,8	0,1 - 0,2 x 45°	4	IR12S	75,00	85,00	94,30
14	26	38	83	14	13,8	0,1 - 0,2 x 45°	4	IR14S	86,00	97,00	106,50
16	26	38	92	16	15,8	0,1 - 0,2 x 45°	4	IR16S	104,00	120,00	124,60
18	26	38	92	18	17,8	0,1 - 0,2 x 45°	4	IR18S	124,00	130,00	147,30
20	32	44	104	20	19,8	0,1 - 0,2 x 45°	4	IR20S	161,00	179,00	196,00

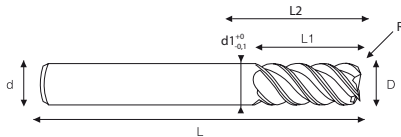
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	●	○

Frese Z4 taglio al centro, lavorazione titanio

Helix corner radius 55° end mills 4 flutes center cutting, titanium and exotic materials application

SERIES
TA

DUCCI



D h10	L1	L2	L	d h6	d1	R	Z	Code	€ uncoated	€ TiAlN	€ Advanced
6	13	25	57	6	5,8	0,5	4	TA06R05	34,00	40,00	46,20
8	19	31	63	8	7,8	0,5	4	TA08R05	45,00	55,00	59,20
10	22	34	72	10	9,8	1	4	TA10R1	62,00	72,00	78,40
12	26	38	83	12	11,8	1	4	TA12R1	80,00	90,00	99,30
14	26	38	83	14	13,8	1	4	TA14R1	91,00	102,00	111,50
16	26	38	92	16	15,8	1	4	TA16R1	110,00	126,00	130,60
18	26	38	92	18	17,8	1	4	TA18R1	130,00	146,00	153,30
20	32	44	104	20	19,8	1	4	TA20R1	166,00	184,00	200,00

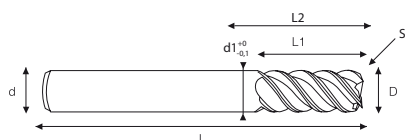


APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	●	○

Frese Z4 taglio al centro, lavorazione titanio

Helix chamfered 55° end mills 4 flutes center cutting, titanium and exotic materials application

SERIES
TAS



D h10	L1	L2	L	d h6	d1	S 0,1 - 0,2 x 45°	Z	Code	€ uncoated	€ TiAlN	€ Advanced
6	13	25	57	6	5,8	0,1 - 0,2 x 45°	4	TA06S	31,00	37,00	43,20
8	19	31	63	8	7,8	0,1 - 0,2 x 45°	4	TA08S	42,00	52,00	56,20
10	22	34	72	10	9,8	0,1 - 0,2 x 45°	4	TA10S	58,00	68,00	74,40
12	26	38	83	12	11,8	0,1 - 0,2 x 45°	4	TA12S	75,00	85,00	94,30
14	26	38	83	14	13,8	0,1 - 0,2 x 45°	4	TA14S	86,00	97,00	106,50
16	26	38	92	16	15,8	0,1 - 0,2 x 45°	4	TA16S	104,00	120,00	124,60
18	26	38	92	18	17,8	0,1 - 0,2 x 45°	4	TA18S	124,00	130,00	147,30
20	32	44	104	20	19,8	0,1 - 0,2 x 45°	4	TA20S	161,00	179,00	196,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	○	○	○	●	●	●	○

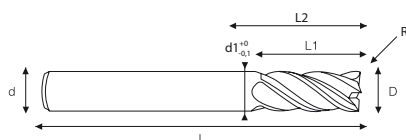
Frese Helicurve Z4 divisione irregolare 37°/40° toriche

Helicurve 4 flute corner chamfer radius unequal helix end mills high performances

SERIES
H4

NEW

DUCCI



Ultrafine
Micro Gain

TYP N



DIN
6635
HA



D	R	L1	L2	d1	L	d	Z	Code	€ uncoated	€ TiAlN	€ Advanced
6	0,5	13	36	5,8	60	6	4	H406R05	34,00	40,00	46,00
6	1	13	36	5,8	60	6	4	H406R1	34,00	40,00	46,00
8	0,5	19	36	7,8	63	8	4	H408R05	46,00	56,00	60,00
8	1	19	36	7,8	63	8	4	H408R1	46,00	56,00	60,00
8	1,5	19	36	7,8	63	8	4	H408R15	46,00	56,00	60,00
8	2	19	36	7,8	63	8	4	H408R2	46,00	56,00	60,00
8	3	19	36	7,8	63	8	4	H408R3	46,00	56,00	60,00
8	4	19	36	7,8	63	8	4	H408R4	46,00	56,00	60,00
10	1	22	40	9,5	75	10	4	H410R1	61,00	71,00	77,00
10	1,5	22	40	9,5	75	10	4	H410R15	61,00	71,00	77,00
10	2	22	40	9,5	75	10	4	H410R2	61,00	71,00	77,00
10	3	22	40	9,5	75	10	4	H410R3	61,00	71,00	77,00
10	4	22	40	9,5	75	10	4	H410R4	61,00	71,00	77,00
12	1	26	45	11,5	83	12	4	H412R1	81,00	90,00	99,00
12	1,5	26	45	11,5	83	12	4	H412R15	81,00	90,00	99,00
12	2	26	45	11,5	83	12	4	H412R2	81,00	90,00	99,00
12	3	26	45	11,5	83	12	4	H412R3	81,00	90,00	99,00
12	4	26	45	11,5	83	12	4	H412R4	81,00	90,00	99,00
16	1	32	48	15	100	16	4	H416R1	130,00	142,00	149,00
16	1,5	32	48	15	100	16	4	H416R15	130,00	142,00	149,00
16	2	32	48	15	100	16	4	H416R2	130,00	142,00	149,00
16	3	32	48	15	100	16	4	H416R3	130,00	142,00	149,00
16	4	32	48	15	100	16	4	H416R4	130,00	142,00	149,00
16	5	32	48	15	100	16	4	H416R5	130,00	142,00	149,00
16	6	32	48	15	100	16	4	H416R6	130,00	142,00	149,00
20	1	40	50	19	110	20	4	H420R1	200,00	215,00	225,00
20	1,5	40	50	19	110	20	4	H420R15	200,00	215,00	225,00
20	2	40	50	19	110	20	4	H420R2	200,00	215,00	225,00
20	3	40	50	19	110	20	4	H420R3	200,00	215,00	225,00
20	4	40	50	19	110	20	4	H420R4	200,00	215,00	225,00
20	5	40	50	19	110	20	4	H420R5	200,00	215,00	225,00
20	6	40	50	19	110	20	4	H420R6	200,00	215,00	225,00



APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	●	○	○	●	●	○	○

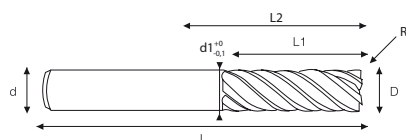
Frese Helicurve Z5 divisione irregolare 38° toriche

Helicurve 5 flute corner chamfer radius unequal helix end mills high performances

SERIES
H5

NEW

DUCCI



Ultrafine
Micro Grain

TYP N



DIN
6635
HA



D	R	L1	L2	d1	L	d	Z	Code	€ uncoated	€ TiAlN	€ Advanced
6	0,5	13	36	5,8	60	6	5	H506R05	39,00	45,00	51,00
6	1	13	36	5,8	60	6	5	H506R1	39,00	45,00	51,00
8	0,5	19	36	7,8	63	8	5	H508R05	52,00	62,00	66,00
8	1	19	36	7,8	63	8	5	H508R1	52,00	62,00	66,00
8	1,5	19	36	7,8	63	8	5	H508R15	52,00	62,00	66,00
8	2	19	36	7,8	63	8	5	H508R2	52,00	62,00	66,00
8	3	19	36	7,8	63	8	5	H508R3	52,00	62,00	66,00
8	4	19	36	7,8	63	8	5	H508R4	52,00	62,00	66,00
10	1	22	40	9,5	75	10	5	H510R1	66,00	76,00	82,00
10	1,5	22	40	9,5	75	10	5	H510R15	66,00	76,00	82,00
10	2	22	40	9,5	75	10	5	H510R2	66,00	76,00	82,00
10	3	22	40	9,5	75	10	5	H510R3	66,00	76,00	82,00
10	4	22	40	9,5	75	10	5	H510R4	66,00	76,00	82,00
12	1	26	45	11,5	83	12	5	H512R1	85,00	94,00	103,00
12	1,5	26	45	11,5	83	12	5	H512R15	85,00	94,00	103,00
12	2	26	45	11,5	83	12	5	H512R2	85,00	94,00	103,00
12	3	26	45	11,5	83	12	5	H512R3	85,00	94,00	103,00
12	4	26	45	11,5	83	12	5	H512R4	85,00	94,00	103,00
16	1	32	48	15	100	16	5	H516R1	144,00	156,00	163,00
16	1,5	32	48	15	100	16	5	H516R15	144,00	156,00	163,00
16	2	32	48	15	100	16	5	H516R2	144,00	156,00	163,00
16	3	32	48	15	100	16	5	H516R3	144,00	156,00	163,00
16	4	32	48	15	100	16	5	H516R4	144,00	156,00	163,00
16	5	32	48	15	100	16	5	H516R5	144,00	156,00	163,00
16	6	32	48	15	100	16	5	H516R6	144,00	156,00	163,00
20	1	40	50	19	110	20	5	H520R1	211,00	226,00	236,00
20	1,5	40	50	19	110	20	5	H520R15	211,00	226,00	236,00
20	2	40	50	19	110	20	5	H520R2	211,00	226,00	236,00
20	3	40	50	19	110	20	5	H520R3	211,00	226,00	236,00
20	4	40	50	19	110	20	5	H520R4	211,00	226,00	236,00
20	5	40	50	19	110	20	5	H520R5	211,00	226,00	236,00
20	6	40	50	19	110	20	5	H520R6	211,00	226,00	236,00



APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	●	○	○	●	●	○	○

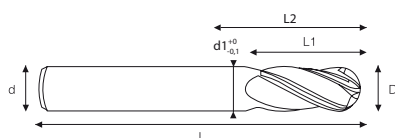
Frese Helicurve Z4 divisione irregolare 37°/40° raggiate

Helicurve 4 flute ball nose unequal helix end mills
high performances

SERIES
H4R

NEW

DUCCI



Ultrafine
Micro Gain

TYP N



DIN
6636
HA



D	L1	L2	d1	L	d	Z	Code	€ uncoated	€ TiAlN	€ Advanced
6	13	36	5,8	60	6	4	H4R06	34,00	40,00	46,00
8	19	36	7,8	63	8	4	H4R08	46,00	56,00	60,00
10	22	40	9,5	75	10	4	H4R10	61,00	71,00	77,00
12	26	45	11,5	83	12	4	H4R12	81,00	90,00	99,00
16	32	48	15	100	16	4	H4R16	130,00	142,00	149,00
20	40	50	19	110	20	4	H4R20	200,00	215,00	225,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	●	○	●	○	○	●	●	○	○

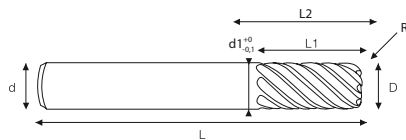
Frese Helicurve Z6 divisione irregolare 37°/40° toriche

Helicurve 6 flute corner chamfer radius unequal helix end mills high performances

SERIES
H6

NEW

DUCCI



D	R	L1	L2	d1	L	d	Z	Code	€ uncoated	€ TiAlN	€ Advanced
6	0,5	13	36	5,8	60	6	6	H606R05	43,50	49,50	54,50
6	1	13	36	5,8	60	6	6	H606R1	43,50	49,50	54,50
8	0,5	19	36	7,8	63	8	6	H608R05	56,50	66,50	70,50
8	1	19	36	7,8	63	8	6	H608R1	56,50	66,50	70,50
8	1,5	19	36	7,8	63	8	6	H608R15	56,50	66,50	70,50
8	2	19	36	7,8	63	8	6	H608R2	56,50	66,50	70,50
8	3	19	36	7,8	63	8	6	H608R3	56,50	66,50	70,50
8	4	19	36	7,8	63	8	6	H608R4	56,50	66,50	70,50
10	1	22	40	9,5	75	10	6	H610R1	71,50	81,50	87,50
10	1,5	22	40	9,5	75	10	6	H610R15	71,50	81,50	87,50
10	2	22	40	9,5	75	10	6	H610R2	71,50	81,50	87,50
10	3	22	40	9,5	75	10	6	H610R3	71,50	81,50	87,50
10	4	22	40	9,5	75	10	6	H610R4	71,50	81,50	87,50
12	1	26	45	11,5	83	12	6	H612R1	89,50	98,50	107,50
12	1,5	26	45	11,5	83	12	6	H612R15	89,50	98,50	107,50
12	2	26	45	11,5	83	12	6	H612R2	89,50	98,50	107,50
12	3	26	45	11,5	83	12	6	H612R3	89,50	98,50	107,50
12	4	26	45	11,5	83	12	6	H612R4	89,50	98,50	107,50
16	1	32	48	15	100	16	6	H616R1	148,00	160,00	160,00
16	1,5	32	48	15	100	16	6	H616R15	148,00	160,00	160,00
16	2	32	48	15	100	16	6	H616R2	148,00	160,00	160,00
16	3	32	48	15	100	16	6	H616R3	148,00	160,00	160,00
16	4	32	48	15	100	16	6	H616R4	148,00	160,00	160,00
16	5	32	48	15	100	16	6	H616R5	148,00	160,00	160,00
16	6	32	48	15	100	16	6	H616R6	148,00	160,00	160,00
20	1	40	50	19	110	20	6	H620R1	216,00	231,00	241,00
20	1,5	40	50	19	110	20	6	H620R15	216,00	231,00	241,00
20	2	40	50	19	110	20	6	H620R2	216,00	231,00	241,00
20	3	40	50	19	110	20	6	H620R3	216,00	231,00	241,00
20	4	40	50	19	110	20	6	H620R4	216,00	231,00	241,00
20	5	40	50	19	110	20	6	H620R5	216,00	231,00	241,00
20	6	40	50	19	110	20	6	H620R6	216,00	231,00	241,00



APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS

ACCIAI/STEEL

GHISA/CAST IRON

ACC.INOX/ STAINLESS STEEL

NON FERROSI/ NON FERROUS

LEGHE LEGGERE/ LIGHT ALLOYS

ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC

ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC

SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM

GRAFITE / GRAPHITE

●	○	●	○	○	●	●	○	○
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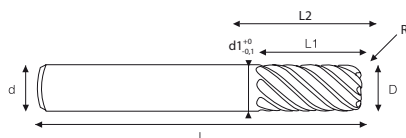
Frese Helicurve Z7 divisione irregolare 38°

Helicurve 7 flute corner chamfer radius unequal helix end mills high performances

SERIES
H7

NEW

DUCCI



Ultrafine
Micro Grain

TYP N



DIN
6635
HA



D	R	L1	L2	d1	L	d	Z	Code	€ uncoated	€ TiAlN	€ Advanced
6	0,5	13	36	5,8	60	6	7	H706R05	43,50	49,50	54,50
6	1	13	36	5,8	60	6	7	H706R1	43,50	49,50	54,50
8	0,5	19	36	7,8	63	8	7	H708R05	56,50	66,50	70,50
8	1	19	36	7,8	63	8	7	H708R1	56,50	66,50	70,50
8	1,5	19	36	7,8	63	8	7	H708R15	56,50	66,50	70,50
8	2	19	36	7,8	63	8	7	H708R2	56,50	66,50	70,50
8	3	19	36	7,8	63	8	7	H708R3	56,50	66,50	70,50
8	4	19	36	7,8	63	8	7	H708R4	56,50	66,50	70,50
10	1	22	40	9,5	75	10	7	H710R1	71,50	81,50	87,50
10	1,5	22	40	9,5	75	10	7	H710R15	71,50	81,50	87,50
10	2	22	40	9,5	75	10	7	H710R2	71,50	81,50	87,50
10	3	22	40	9,5	75	10	7	H710R3	71,50	81,50	87,50
10	4	22	40	9,5	75	10	7	H710R4	71,50	81,50	87,50
12	1	26	45	11,5	83	12	7	H712R1	89,50	98,50	107,50
12	1,5	26	45	11,5	83	12	7	H712R15	89,50	98,50	107,50
12	2	26	45	11,5	83	12	7	H712R2	89,50	98,50	107,50
12	3	26	45	11,5	83	12	7	H712R3	89,50	98,50	107,50
12	4	26	45	11,5	83	12	7	H712R4	89,50	98,50	107,50
16	1	32	48	15	100	16	7	H716R1	148,00	160,00	160,00
16	1,5	32	48	15	100	16	7	H716R15	148,00	160,00	160,00
16	2	32	48	15	100	16	7	H716R2	148,00	160,00	160,00
16	3	32	48	15	100	16	7	H716R3	148,00	160,00	160,00
16	4	32	48	15	100	16	7	H716R4	148,00	160,00	160,00
16	5	32	48	15	100	16	7	H716R5	148,00	160,00	160,00
16	6	32	48	15	100	16	7	H716R6	148,00	160,00	160,00
20	1	40	50	19	110	20	7	H720R1	216,00	231,00	241,00
20	1,5	40	50	19	110	20	7	H720R15	216,00	231,00	241,00
20	2	40	50	19	110	20	7	H720R2	216,00	231,00	241,00
20	3	40	50	19	110	20	7	H720R3	216,00	231,00	241,00
20	4	40	50	19	110	20	7	H720R4	216,00	231,00	241,00
20	5	40	50	19	110	20	7	H720R5	216,00	231,00	241,00
20	6	40	50	19	110	20	7	H720R6	216,00	231,00	241,00



APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	○	●	○	○	●	●	○	○

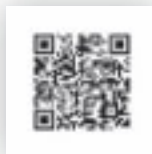
Frese Helicurve Z4 divisione irregolare 37°/40° toriche serie corta

Helicurve 4 flutes corner chamfer radius unequal helix short length end mills high performances

SERIES
H4S

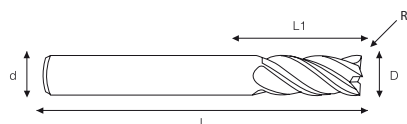
NEW

DUCCI



Ultrafine
Micro Gain

TYP N



DIN
6635
HA



D	R	L1	L	d	Z	Code	€ uncoated	€ TiAlN	€ Advanced
3	0,5	5	54	6	4	H4S03R05	30,00	34,50	38,00
4	0,5	7	54	6	4	H4S04R05	30,00	34,50	38,00
4	1	7	54	6	4	H4S04R1	30,00	34,50	38,00
5	0,5	8	54	6	4	H4S05R05	30,00	34,50	38,00
5	1	8	54	6	4	H4S05R1	30,00	34,50	38,00
6	0,5	9	54	6	4	H4S06R05	30,00	34,50	38,00
6	1	9	54	6	4	H4S06R1	30,00	34,50	38,00
8	0,5	12	60	8	4	H4S08R05	38,50	44,00	48,00
8	1	12	60	8	4	H4S08R1	38,50	44,00	48,00
8	1,5	12	60	8	4	H4S08R15	38,50	44,00	48,00
8	2	12	60	8	4	H4S08R2	38,50	44,00	48,00
8	3	12	60	8	4	H4S08R3	38,50	44,00	48,00
8	4	12	60	8	4	H4S08R4	38,50	44,00	48,00
10	1	15	66	10	4	H4S10R1	46,00	52,00	59,00
10	1,5	15	66	10	4	H4S10R15	46,00	52,00	59,00
10	2	15	66	10	4	H4S10R2	46,00	52,00	59,00
10	3	15	66	10	4	H4S10R3	46,00	52,00	59,00
10	4	15	66	10	4	H4S10R4	46,00	52,00	59,00
12	1	17	73	12	4	H4S12R1	70,00	76,00	84,00
12	1,5	17	73	12	4	H4S12R15	70,00	76,00	84,00
12	2	17	73	12	4	H4S12R2	70,00	76,00	84,00
12	3	17	73	12	4	H4S12R3	70,00	76,00	84,00
12	4	17	73	12	4	H4S12R4	70,00	76,00	84,00
16	1	21	82	16	4	H4S16R1	114,00	123,00	132,00
16	1,5	21	82	16	4	H4S16R15	114,00	123,00	132,00
16	2	21	82	16	4	H4S16R2	114,00	123,00	132,00
16	3	21	82	16	4	H4S16R3	114,00	123,00	132,00
16	4	21	82	16	4	H4S16R4	114,00	123,00	132,00
16	5	21	82	16	4	H4S16R5	114,00	123,00	132,00
16	6	21	82	16	4	H4S16R6	114,00	123,00	132,00
20	1	26	92	20	4	H4S20R1	175,00	188,00	198,00
20	1,5	26	92	20	4	H4S20R15	175,00	188,00	198,00
20	2	26	92	20	4	H4S20R2	175,00	188,00	198,00
20	3	26	92	20	4	H4S20R3	175,00	188,00	198,00
20	4	26	92	20	4	H4S20R4	175,00	188,00	198,00
20	5	26	92	20	4	H4S20R5	175,00	188,00	198,00
20	6	26	92	20	4	H4S20R6	175,00	188,00	198,00

ACCIAI TEMPRATI
< 50 HRC
HARDENED
STEELS < 50 HRC

ACCIAI TEMPRATI
> 50 HRC
HARDENED
STEELS > 50 HRC

SUPER LEGHE-
TITANIO
SUPER ALLOYS-
TITANIUM

GRAFITE /
GRAPHITE

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS

●	●	●	○	○	●	●	●	○
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Frese Helicurve Z5 divisione irregolare 38° toriche serie corta

Helicurve 5 flutes corner chamfer radius unequal helix
short length end mills high performances

SERIES
H5S

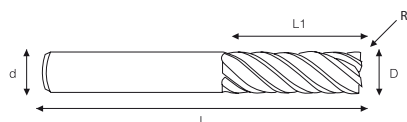
NEW

DUCCI



Ultrafine
Micro Grain

TYP N



DIN
6635
HA
HA



D	R	L1	L	d	Z	Code	€ uncoated	€ TiAlN	€ Advanced
3	0,5	5	54	6	5	H5S03R05	31,00	35,00	40,00
4	0,5	7	54	6	5	H5S04R05	31,00	35,00	40,00
4	1	7	54	6	5	H5S04R1	31,00	35,00	40,00
5	0,5	8	54	6	5	H5S05R05	31,00	35,00	40,00
5	1	8	54	6	5	H5S05R1	31,00	35,00	40,00
6	0,5	9	54	6	5	H5S06R05	35,00	39,00	41,50
6	1	9	54	6	5	H5S06R1	35,00	39,00	41,50
8	0,5	12	60	8	5	H5S08R05	42,00	48,00	52,00
8	1	12	60	8	5	H5S08R1	42,00	48,00	52,00
8	1,5	12	60	8	5	H5S08R15	42,00	48,00	52,00
8	2	12	60	8	5	H5S08R2	42,00	48,00	52,00
8	3	12	60	8	5	H5S08R3	42,00	48,00	52,00
8	4	12	60	8	5	H5S08R4	42,00	48,00	52,00
10	1	15	66	10	5	H5S10R1	52,00	58,50	62,50
10	1,5	15	66	10	5	H5S10R15	52,00	58,50	62,50
10	2	15	66	10	5	H5S10R2	52,00	58,50	62,50
10	3	15	66	10	5	H5S10R3	52,00	58,50	62,50
10	4	15	66	10	5	H5S10R4	52,00	58,50	62,50
12	1	17	73	12	5	H5S12R1	74,00	81,00	86,00
12	1,5	17	73	12	5	H5S12R15	74,00	81,00	86,00
12	2	17	73	12	5	H5S12R2	74,00	81,00	86,00
12	3	17	73	12	5	H5S12R3	74,00	81,00	86,00
12	4	17	73	12	5	H5S12R4	74,00	81,00	86,00
16	1	21	82	16	5	H5S16R1	121,00	130,00	135,00
16	1,5	21	82	16	5	H5S16R15	121,00	130,00	135,00
16	2	21	82	16	5	H5S16R2	121,00	130,00	135,00
16	3	21	82	16	5	H5S16R3	121,00	130,00	135,00
16	4	21	82	16	5	H5S16R4	121,00	130,00	135,00
16	5	21	82	16	5	H5S16R5	121,00	130,00	135,00
16	6	21	82	16	5	H5S16R6	121,00	130,00	135,00
20	1	26	92	20	5	H5S20R1	180,00	194,00	208,00
20	1,5	26	92	20	5	H5S20R15	180,00	194,00	208,00
20	2	26	92	20	5	H5S20R2	180,00	194,00	208,00
20	3	26	92	20	5	H5S20R3	180,00	194,00	208,00
20	4	26	92	20	5	H5S20R4	180,00	194,00	208,00
20	5	26	92	20	5	H5S20R5	180,00	194,00	208,00
20	6	26	92	20	5	H5S20R6	180,00	194,00	208,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	●	○	●	○	○	●	●	○	○

Frese Helicurve Z6 divisione irregolare 37°/40° toriche serie corta

Helicurve 6 flutes corner chamfer radius unequal helix short length end mills high performances

SERIES
H6S

NEW

DUCCI



Ultrafine
Micro Gain

TYP N



DIN
6635
HA



D	R	L1	L	d	Z	Cod.	€ uncoated	€ TiAlN	€ Advanced
3	0,5	5	54	6	6	H6S03R05	32,00	38,00	43,00
4	0,5	7	54	6	6	H6S04R05	32,00	38,00	43,00
4	1	7	54	6	6	H6S04R1	32,00	38,00	43,00
5	0,5	8	54	6	6	H6S05R05	32,00	38,00	43,00
5	1	8	54	6	6	H6S05R1	32,00	38,00	43,00
6	0,5	9	54	6	6	H6S06R05	40,00	46,00	51,50
6	1	9	54	6	6	H6S06R1	40,00	46,00	51,50
8	0,5	12	60	8	6	H6S08R05	48,00	57,50	62,00
8	1	12	60	8	6	H6S08R1	48,00	57,50	62,00
8	1,5	12	60	8	6	H6S08R15	48,00	57,50	62,00
8	2	12	60	8	6	H6S08R2	48,00	57,50	62,00
8	3	12	60	8	6	H6S08R3	48,00	57,50	62,00
8	4	12	60	8	6	H6S08R4	48,00	57,50	62,00
10	1	15	66	10	6	H6S10R1	63,00	73,00	78,50
10	1,5	15	66	10	6	H6S10R15	63,00	73,00	78,50
10	2	15	66	10	6	H6S10R2	63,00	73,00	78,50
10	3	15	66	10	6	H6S10R3	63,00	73,00	78,50
10	4	15	66	10	6	H6S10R4	63,00	73,00	78,50
12	1	17	73	12	6	H6S12R1	82,00	92,00	100,50
12	1,5	17	73	12	6	H6S12R15	82,00	92,00	100,50
12	2	17	73	12	6	H6S12R2	82,00	92,00	100,50
12	3	17	73	12	6	H6S12R3	82,00	92,00	100,50
12	4	17	73	12	6	H6S12R4	82,00	92,00	100,50
16	1	21	82	16	6	H6S16R1	125,00	136,00	145,00
16	1,5	21	82	16	6	H6S16R15	125,00	136,00	145,00
16	2	21	82	16	6	H6S16R2	125,00	136,00	145,00
16	3	21	82	16	6	H6S16R3	125,00	136,00	145,00
16	4	21	82	16	6	H6S16R4	125,00	136,00	145,00
16	5	21	82	16	6	H6S16R5	125,00	136,00	145,00
16	6	21	82	16	6	H6S16R6	125,00	136,00	145,00
20	1	26	92	20	6	H6S20R1	185,00	198,00	212,00
20	1,5	26	92	20	6	H6S20R15	185,00	198,00	212,00
20	2	26	92	20	6	H6S20R2	185,00	198,00	212,00
20	3	26	92	20	6	H6S20R3	185,00	198,00	212,00
20	4	26	92	20	6	H6S20R4	185,00	198,00	212,00
20	5	26	92	20	6	H6S20R5	185,00	198,00	212,00
20	6	26	92	20	6	H6S20R6	185,00	198,00	212,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	●	●	○

Frese Helicurve Z7 divisione irregolare 38° toriche serie corta

Helicurve 7 flutes corner chamfer radius unequal helix short length end mills high performances

SERIES
H7S

NEW

DUCCI



Ultrafine
Micro Grain

TYP N



DIN
6635
HA



D	R	L1	L	d	Z	Code	€ uncoated	€ TiAlN	€ Advanced
3	0,5	5	54	6	7	H7S03R05	32,00	38,00	43,00
4	0,5	7	54	6	7	H7S04R05	32,00	38,00	43,00
4	1	7	54	6	7	H7S04R1	32,00	38,00	43,00
5	0,5	8	54	6	7	H7S05R05	32,00	38,00	43,00
5	1	8	54	6	7	H7S05R1	32,00	38,00	43,00
6	0,5	9	54	6	7	H7S06R05	40,00	46,00	51,50
6	1	9	54	6	7	H7S06R1	40,00	46,00	51,50
8	0,5	12	60	8	7	H7S08R05	48,00	57,50	62,00
8	1	12	60	8	7	H7S08R1	48,00	57,50	62,00
8	1,5	12	60	8	7	H7S08R15	48,00	57,50	62,00
8	2	12	60	8	7	H7S08R2	48,00	57,50	62,00
8	3	12	60	8	7	H7S08R3	48,00	57,50	62,00
8	4	12	60	8	7	H7S08R4	48,00	57,50	62,00
10	1	15	66	10	7	H7S10R1	63,00	73,00	78,50
10	1,5	15	66	10	7	H7S10R15	63,00	73,00	78,50
10	2	15	66	10	7	H7S10R2	63,00	73,00	78,50
10	3	15	66	10	7	H7S10R3	63,00	73,00	78,50
10	4	15	66	10	7	H7S10R4	63,00	73,00	78,50
12	1	17	73	12	7	H7S12R1	82,00	92,00	100,50
12	1,5	17	73	12	7	H7S12R15	82,00	92,00	100,50
12	2	17	73	12	7	H7S12R2	82,00	92,00	100,50
12	3	17	73	12	7	H7S12R3	82,00	92,00	100,50
12	4	17	73	12	7	H7S12R4	82,00	92,00	100,50
16	1	21	82	16	7	H7S16R1	125,00	136,00	145,00
16	1,5	21	82	16	7	H7S16R15	125,00	136,00	145,00
16	2	21	82	16	7	H7S16R2	125,00	136,00	145,00
16	3	21	82	16	7	H7S16R3	125,00	136,00	145,00
16	4	21	82	16	7	H7S16R4	125,00	136,00	145,00
16	5	21	82	16	7	H7S16R5	125,00	136,00	145,00
16	6	21	82	16	7	H7S16R6	125,00	136,00	145,00
20	1	26	92	20	7	H7S20R1	185,00	198,00	212,00
20	1,5	26	92	20	7	H7S20R15	185,00	198,00	212,00
20	2	26	92	20	7	H7S20R2	185,00	198,00	212,00
20	3	26	92	20	7	H7S20R3	185,00	198,00	212,00
20	4	26	92	20	7	H7S20R4	185,00	198,00	212,00
20	5	26	92	20	7	H7S20R5	185,00	198,00	212,00
20	6	26	92	20	7	H7S20R6	185,00	198,00	212,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE-TITANIO SUPER ALLOYS-TITANIUM	GRAFITE/ GRAPHITE
	●	○	●	○	○	●	●	○	○

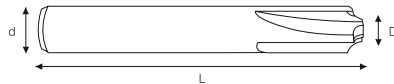
Frese di forma a quarto di cerchio concavo

Carbide quarter circle concave mill 4 edged milling cutter straight fluted

SERIES
38

NEW

DUCCI



Marc
Gar

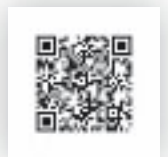


TYP N



D	R.	L	d	Z	Code	€	
						uncoated	TiAlN
3,2	0,4	50	4	4	3832004	24,00	28,00
5	0,5	58	6	4	3805005	29,00	32,50
4,8	0,6	58	6	4	3848006	29,00	32,50
4,4	0,8	58	6	4	3844008	29,00	32,50
4	1	58	6	4	380401	29,00	32,50
5	1,5	64	8	4	3805015	39,00	44,00
6	2	72	10	4	380602	54,00	59,00
5	2,5	72	10	4	3805025	54,00	59,00
6	3	74	12	4	380603	64,00	70,00
5	3,5	74	12	4	3805035	64,00	70,00
8	4	80	16	4	380804	82,00	88,00
7	4,5	80	16	4	3807045	82,00	88,00
6	5	80	16	4	380605	82,00	88,00
9	5,5	80	20	4	3809055	115,00	122,00
8	6	80	20	4	380806	115,00	122,00

Using: for rounding off and for deburring edges



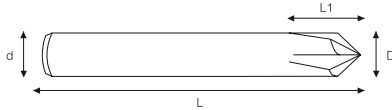
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	○	○	○	○

Frese per smussare

Chamfering carbide end mills

SERIES
53

DUCCI



Marc
Gar



TYP N



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	8	38	6	4	534506	10,80	15,40	16,20
8	11	43	8	4	534508	17,00	22,50	23,70
10	13	50	10	4	534510	24,00	30,80	32,40
12	15	60	12	4	534512	34,90	41,70	43,80

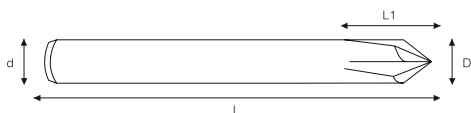
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	○	○	○	○	○

Frese per smussare

Chamfering carbide long series end mills

SERIES
53L

DUCCI



Marc
Gar



TYP N



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
6	8	60	6	4	534506L	13,60	18,20	19,10
8	11	70	8	4	534508L	22,30	27,80	29,20
10	13	75	10	4	534510L	31,00	37,70	39,60
12	15	75	12	4	534512L	40,90	47,60	50,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	○	○	○	○	○

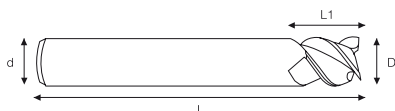
Frese Z3 forte torsione 55°

Hi-helix 3 flutes 55° solide carbide end mills hard cut

SERIES
57

NEW

DUCCI



Ultrafine
MacroGain

TYP N



DIN
6636
HA



D	L1	L	d	Z	Code	€		
						uncoated	TopTiAlN	Advanced
3	4	50	6	3	575503	22,00	28,00	35,00
4	5	54	6	3	575504	24,80	28,50	35,50
5	6	54	6	3	575505	29,70	32,00	40,00
6	7	54	6	3	575506	30,20	32,50	40,50
8	9	58	8	3	575508	35,70	40,00	48,00
10	11	66	10	3	575510	49,80	55,00	64,00
12	12	73	12	3	575512	60,50	67,00	76,50
14	14	75	14	3	575514	77,50	84,30	94,30
16	16	82	16	3	575516	98,00	105,00	117,00
18	18	84	18	3	575518	125,00	134,00	147,00
20	20	92	20	3	575520	157,90	169,00	182,50



APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	○	○	●	○

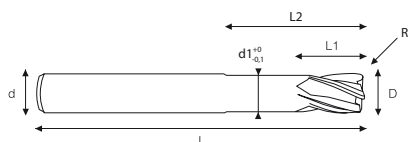
Frese Z4 toriche 25°

Solid carbide 4 flutes 25° corner radius end mills

SERIES
58

NEW

DUCCI



Ultrafine
MacroGain

TYP N



DIN
6635
HA



D	d1	L1	L2	L	d	R	Z	Code	€ uncoated	€ TopTiAlN	€ Advanced
3	2,8	4	9	57	6	0,5	4	582503	30,00	34,00	41,00
4	3,7	5	12	57	6	0,5	4	582504	30,00	34,00	41,00
5	4,6	6	15	57	6	0,5	4	582505	35,00	39,00	46,00
6	5,5	7	20	57	6	1	4	582506	35,00	39,00	46,00
8	7,4	9	26	63	8	1	4	582508	44,00	50,00	59,00
10	9,2	11	31	72	10	1,5	4	582510	57,50	64,00	73,50
12	11	12	37	83	12	1,5	4	582512	72,00	79,50	89,90
16	15	16	43	92	16	2	4	582516	112,00	122,00	134,00
20	19	20	53	104	20	2	4	582520	180,00	193,00	205,80
25	24	25	64	125	25	2,5	4	582525	288,00	308,00	331,00



APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	○	○	●	●	○	○

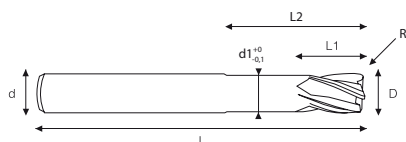
Frese Z4 toriche 25°

Solid carbide 4 flutes 25° corner radius long series end mills

SERIES
58L

NEW

DUCCI



Ultrafine
MacroGain

TYP N



DIN
6635
HA



D	d1	L1	L2	L	d	R	Z	Code	€ uncoated	€ TopTiAlN	€ Advanced
6	5,5	7	33	70	6	1	4	582506L	37,00	41,00	49,00
8	7,4	9	43	80	8	1	4	582508L	47,00	53,00	62,00
10	9,2	11	43	84	10	1,5	4	582510L	62,00	69,00	79,20
12	11	12	51	100	12	1,5	4	582512L	80,00	88,00	99,00
16	15	16	71	120	16	2	4	582516L	132,00	142,00	144,50
20	19	20	79	130	20	2	4	582520L	210,00	223,00	236,00
25	24	25	93	150	25	2,5	4	582525L	332,00	370,00	400,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	○	○	●	●	○	○

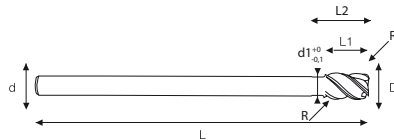
Frese Z4 toriche 45° gambo extralungo

Solid carbide 4 flutes corner radius extra long shank end mills

SERIES
59

NEW

DUCCI



Ultrafine
MacroGain

TYP N



DIN
6635
HA



D	d1	L1	L2	L	d	R	Z	Code	€ uncoated	€ TopTiAlN	€ Advanced
8	5,5	12	15	100	6	0,5	4	594508	67,00	73,00	81,00
10	7,5	15	20	130	8	1	4	594510	92,00	100,00	109,00
12	9,5	18	23	150	10	1	4	594512	122,00	133,00	142,50
14	11,5	21	26	160	12	1	4	594514	160,00	172,00	182,80
16	13,5	27	32	160	14	1	4	594516	187,50	200,00	212,00
20	17,5	33	38	200	18	1	4	594520	323,00	79,50	375,00



APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	○	○	●	●	○	○

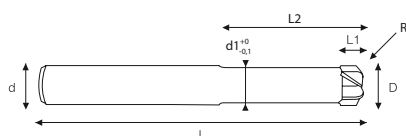
Frese Z4 toroidali

Solid carbide 4 flutes corner radius end mills

SERIES
60

NEW

DUCCI



D	d1	L1	L2	L	d	R	Z	Code	€ uncoated	€ TopTiAlN	€ Advanced
4	3,6	1,6	12	50	6	1	4	600104	30,00	34,00	42,00
6	5,4	2,5	21	57	6	1,5	4	601506	32,00	36,00	43,00
8	7,2	3,5	28	63	8	2	4	600208	41,00	46,00	53,80
10	9,2	4	35	72	10	2	4	600210	56,00	62,00	70,50
12	11	5	42	83	12	3	4	600312	76,00	85,00	94,50



APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	○	●	●	●	○



Punte - Alesatori

Drills - Reamers

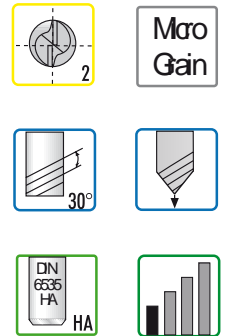
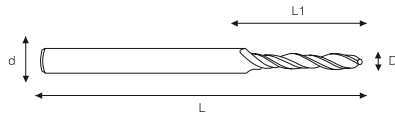


Micropunte gambo rinforzato

Microdrills reinforced shank

SERIES
MP

DUCCI



D h10	L1	L	d h6	Z	Code	€ uncoated	€ TiAlN	€ TopTiAlN
0,5	7	40	3	2	MP05	16,90	20,30	21,40
0,6	7	40	3	2	MP06	16,90	20,30	21,40
0,7	7	40	3	2	MP07	16,90	20,30	21,40
0,8	7	40	3	2	MP08	16,90	20,30	21,40
0,9	7	40	3	2	MP09	16,90	20,30	21,40
1	7	40	3	2	MP1	14,90	18,30	19,30
1,1	9	40	3	2	MP11	14,90	18,30	19,30
1,2	9	40	3	2	MP12	14,90	18,30	19,30
1,3	9	40	3	2	MP13	14,90	18,30	19,30
1,4	9	40	3	2	MP14	14,90	18,30	19,30
1,5	9	40	3	2	MP15	14,90	18,30	19,30
1,6	12	40	3	2	MP16	14,90	18,30	19,30
1,7	12	40	3	2	MP17	14,90	18,30	19,30
1,8	12	40	3	2	MP18	14,90	18,30	19,30
1,9	12	40	3	2	MP19	14,90	18,30	19,30
2	12	40	3	2	MP2	14,30	17,70	18,60

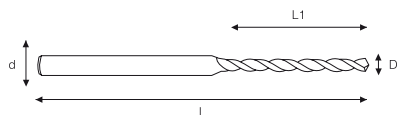
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	●	●	●	●	○

Micropunte gambo rinforzato

Microdrills reinforced shank

SERIES
MPL

DUCCI

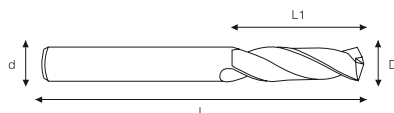


Macro
Gain



D h10	L1	L	d h6	Z	Cod.	€ uncoated	€ TiAlN	€ TopTiAlN
0,5	8	50	3	2	MPL05	19,50	22,90	24,10
0,6	8	50	3	2	MPL06	19,50	22,90	24,10
0,7	10	50	3	2	MPL07	19,50	22,90	24,10
0,8	10	50	3	2	MPL08	19,50	22,90	24,10
0,9	12	50	3	2	MPL09	19,50	22,90	24,10
1	12	50	3	2	MPL1	17,50	20,90	22,00
1,1	16	50	3	2	MPL11	17,50	20,90	22,00
1,2	16	50	3	2	MPL12	17,50	20,90	22,00
1,3	16	50	3	2	MPL13	17,50	20,90	22,00
1,4	20	50	3	2	MPL14	17,50	20,90	22,00
1,5	20	50	3	2	MPL15	17,50	20,90	22,00
1,6	20	50	3	2	MPL16	17,50	20,90	22,00
1,7	20	50	3	2	MPL17	17,50	20,90	22,00
1,8	22	50	3	2	MPL18	17,50	20,90	22,00
1,9	22	50	3	2	MPL19	17,50	20,90	22,00
2	24	50	3	2	MPL2	16,90	20,30	21,40

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	○	●	●	●	●	○



D h6	L1	L	Code	€ uncoated	€ TiAIN
1	6	26	4001	7,20	10,40
1,1	7	28	40011	7,20	10,40
1,2	8	30	40012	7,20	10,40
1,3	8	30	40013	7,20	10,40
1,4	9	32	40014	7,20	10,40
1,5	9	32	40015	7,20	10,40
1,6	10	34	40016	7,90	11,00
1,7	10	34	40017	7,90	11,00
1,8	11	36	40018	7,90	11,00
1,9	11	36	40019	7,90	11,00
2	12	38	4002	7,60	10,50
2,1	12	38	40021	7,90	11,30
2,2	13	40	40022	8,00	11,40
2,3	13	40	40023	8,00	11,40
2,4	14	43	40024	8,20	11,60
2,5	14	43	40025	8,20	11,60
2,6	14	43	40026	8,50	11,90
2,7	16	46	40027	8,70	12,10
2,8	16	46	40028	8,70	12,10
2,9	16	46	40029	8,70	12,10
3	16	46	4003	8,70	12,10
3,1	18	49	40031	9,30	12,70
3,2	18	49	40032	9,30	12,70
3,3	18	49	40033	9,30	12,70
3,4	20	52	40034	9,70	13,10
3,5	20	52	40035	9,70	13,10
3,6	20	52	40036	10,10	13,50
3,7	20	52	40037	10,10	13,50
3,8	22	55	40038	12,00	15,40
3,9	22	55	40039	12,00	15,40
4	22	55	4004	12,00	15,40
4,1	22	55	40041	12,80	17,40
4,2	22	55	40042	12,80	17,40
4,3	24	58	40043	13,10	17,70
4,4	24	58	40044	13,10	17,70

D h6	L1	L	Code	€ uncoated	€ TiAIN
4,5	24	58	40045	13,10	17,70
4,6	24	58	40046	13,60	18,20
4,7	24	58	40047	13,60	18,20
4,8	26	62	40048	14,00	18,60
4,9	26	62	40049	14,00	18,60
5	26	62	4005	14,50	19,20
5,1	26	62	40051	15,60	20,20
5,2	26	62	40052	15,60	20,20
5,3	26	62	40053	15,60	20,20
5,4	28	66	40054	17,00	21,60
5,5	28	66	40055	17,00	21,60
5,6	28	66	40056	18,50	23,20
5,7	28	66	40057	18,50	23,20
5,8	28	66	40058	18,50	23,20
5,9	28	66	40059	18,50	23,20
6	28	66	4006	18,50	23,20
6,1	31	70	40061	19,90	25,50
6,2	31	70	40062	19,90	25,50
6,3	31	70	40063	19,90	25,50
6,4	31	70	40064	19,90	25,50
6,5	31	70	40065	19,90	25,50
6,6	31	70	40066	20,90	26,40
6,7	31	70	40067	20,90	26,40
6,8	34	74	40068	22,90	28,40
6,9	34	74	40069	22,90	28,40
7	34	74	4007	22,90	28,40
7,1	34	74	40071	24,40	29,90
7,2	34	74	40072	24,40	29,90
7,3	34	74	40073	24,40	29,90
7,4	34	74	40074	24,40	29,90
7,5	34	74	40075	24,40	29,90
7,6	37	79	40076	27,60	34,60
7,7	37	79	40077	27,60	34,60
7,8	37	79	40078	27,60	34,60
7,9	37	79	40079	27,60	34,60

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	○	○	○	○	○	○

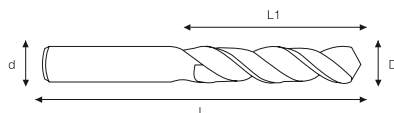
D h6	L1	L	Code	€ uncoated	€ TiAIN
8	37	79	4008	27,60	34,60
8,1	37	79	40081	29,10	37,50
8,2	37	79	40082	29,10	37,50
8,3	37	79	40083	29,10	37,50
8,4	37	79	40084	29,10	37,50
8,5	37	79	40085	29,10	37,50
8,6	40	84	40086	33,10	41,50
8,7	40	84	40087	33,10	41,50
8,8	40	84	40088	33,10	41,50
8,9	40	84	40089	33,10	41,50
9	40	84	4009	33,10	41,50
9,1	40	84	40091	35,00	43,30
9,2	40	84	40092	35,00	43,30
9,3	40	84	40093	35,00	43,30
9,4	40	84	40094	35,00	43,30
9,5	40	84	40095	35,00	43,30
9,6	43	89	40096	38,90	47,30
9,7	43	89	40097	38,90	47,30
9,8	43	89	40098	38,90	47,30
9,9	43	89	40099	38,90	47,30
10	43	89	4010	38,90	47,30
10,1	43	89	40101	40,90	48,70
10,2	43	89	40102	40,90	48,70
10,3	43	89	40103	40,90	48,70
10,4	43	89	40104	40,90	48,70
10,5	43	89	40105	40,90	48,70
10,6	47	95	40106	49,20	57,00
10,7	47	95	40107	49,20	57,00
10,8	47	95	40108	49,20	57,00
10,9	47	95	40109	49,20	57,00
11	47	95	4011	49,20	57,00
11,1	47	95	40111	51,10	58,90
11,2	47	95	40112	51,10	58,90
11,3	47	95	40113	51,10	58,90
11,4	47	95	40114	51,10	58,90
11,5	47	95	40115	51,10	58,90
11,6	47	95	40116	56,30	64,10
11,7	47	95	40117	56,30	64,10
11,8	47	95	40118	56,30	64,10
11,9	47	95	40119	56,30	64,10
12	51	102	4012	58,90	68,80
12,1	51	102	40121	63,40	74,40
12,2	51	102	40122	63,40	74,40
12,3	51	102	40123	63,40	74,40
12,4	51	102	40124	63,40	74,40

D h6	L1	L	Code	€ uncoated	€ TiAIN
12,5	51	102	40125	63,40	74,40
12,6	51	102	40126	65,80	76,80
12,7	51	102	40127	65,80	76,80
12,8	51	102	40128	65,80	76,80
12,9	51	102	40129	65,80	76,80
13	51	102	4013	65,80	76,80
13,1	54	107	40131	74,40	85,30
13,2	54	107	40132	74,40	85,30
13,3	54	107	40133	74,40	85,30
13,4	54	107	40134	74,40	85,30
13,5	54	107	40135	74,40	85,30
13,6	54	107	40136	77,90	88,90
13,7	54	107	40137	77,90	88,90
13,8	54	107	40138	77,90	88,90
13,9	54	107	40139	77,90	88,90
14	54	107	4014	77,90	88,90
14,1	56	111	40141	88,10	99,00
14,2	56	111	40142	88,10	99,00
14,3	56	111	40143	88,10	99,00
14,4	56	111	40144	88,10	99,00
14,5	56	111	40145	88,10	99,00
14,6	56	111	40146	88,10	99,00
14,7	56	111	40147	88,10	99,00
14,8	56	111	40148	88,10	99,00
14,9	56	111	40149	88,10	99,00
15	56	111	4015	88,10	99,00
15,1	58	115	40151	99,90	110,80
15,2	58	115	40152	99,90	110,80
15,3	58	115	40153	99,90	110,80
15,4	58	115	40154	99,90	110,80
15,5	58	115	40155	99,90	110,80
15,6	58	115	40156	99,90	110,80
15,7	58	115	40157	99,90	110,80
15,8	58	115	40158	99,90	110,80
15,9	58	115	40159	99,90	110,80
16	58	115	4016	99,90	110,80
16,5	60	119	40165	111,70	124,30
17	60	119	4017	111,70	124,30
17,5	62	123	40175	129,00	141,60
18	62	123	4018	129,00	141,60
18,5	64	127	40185	141,70	157,30
19	64	127	4019	141,70	157,30
19,5	66	131	40195	162,40	178,00
20	66	131	4020	162,40	178,00

Punte Z2 DIN 6539 per alluminio

Drills 2 flutes DIN 6539 aluminium application

SERIES
AL40



D h6	L1	L	Code	€ uncoated	€ TiAlN
2	12	38	AL4002	7,60	10,50
2,1	12	38	AL40021	7,90	11,30
2,2	13	40	AL40022	8,00	11,40
2,3	13	40	AL40023	8,00	11,40
2,4	14	43	AL40024	8,20	11,60
2,5	14	43	AL40025	8,20	11,60
2,6	14	43	AL40026	8,50	11,90
2,7	16	46	AL40027	8,70	12,10
2,8	16	46	AL40028	8,70	12,10
2,9	16	46	AL40029	8,70	12,10
3	16	46	AL4003	8,70	12,10
3,1	18	49	AL40031	9,30	12,70
3,2	18	49	AL40032	9,30	12,70
3,3	18	49	AL40033	9,30	12,70
3,4	20	52	AL40034	9,70	13,10
3,5	20	52	AL40035	9,70	13,10
3,6	20	52	AL40036	10,10	13,50
3,7	20	52	AL40037	10,10	13,50
3,8	22	55	AL40038	12,00	15,40
3,9	22	55	AL40039	12,00	15,40
4	22	55	AL4004	12,00	15,40
4,1	22	55	AL40041	12,80	17,40
4,2	22	55	AL40042	12,80	17,40
4,3	24	58	AL40043	13,10	17,70
4,4	24	58	AL40044	13,10	17,70
4,5	24	58	AL40045	13,10	17,70
4,6	24	58	AL40046	13,60	18,20
4,7	24	58	AL40047	13,60	18,20
4,8	26	62	AL40048	14,00	18,60
4,9	26	62	AL40049	14,00	18,60
5	26	62	AL4005	14,50	19,20
5,1	26	62	AL40051	15,60	20,20
5,2	26	62	AL40052	15,60	20,20
5,3	26	62	AL40053	15,60	20,20
5,4	28	66	AL40054	17,00	21,60

D h6	L1	L	Code	€ uncoated	€ TiAlN
5,5	28	66	AL40055	17,00	21,60
5,6	28	66	AL40056	18,50	23,20
5,7	28	66	AL40057	18,50	23,20
5,8	28	66	AL40058	18,50	23,20
5,9	28	66	AL40059	18,50	23,20
6	28	66	AL4006	18,50	23,20
6,1	31	70	AL40061	19,90	25,50
6,2	31	70	AL40062	19,90	25,50
6,3	31	70	AL40063	19,90	25,50
6,4	31	70	AL40064	19,90	25,50
6,5	31	70	AL40065	19,90	25,50
6,6	31	70	AL40066	20,90	26,40
6,7	31	70	AL40067	20,90	26,40
6,8	34	74	AL40068	22,90	28,40
6,9	34	74	AL40069	22,90	28,40
7	34	74	AL4007	22,90	28,40
7,1	34	74	AL40071	24,40	29,90
7,2	34	74	AL40072	24,40	29,90
7,3	34	74	AL40073	24,40	29,90
7,4	34	74	AL40074	24,40	29,90
7,5	34	74	AL40075	24,40	29,90
7,6	37	79	AL40076	27,60	34,60
7,7	37	79	AL40077	27,60	34,60
7,8	37	79	AL40078	27,60	34,60
7,9	37	79	AL40079	27,60	34,60
8	37	79	AL4008	27,60	34,60
8,1	37	79	AL40081	29,10	37,50
8,2	37	79	AL40082	29,10	37,50
8,3	37	79	AL40083	29,10	37,50
8,4	37	79	AL40084	29,10	37,50
8,5	37	79	AL40085	29,10	37,50
8,6	40	84	AL40086	33,10	41,50
8,7	40	84	AL40087	33,10	41,50
8,8	40	84	AL40088	33,10	41,50
8,9	40	84	AL40089	33,10	41,50

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	○	○	○	○	●	○	○	○	○

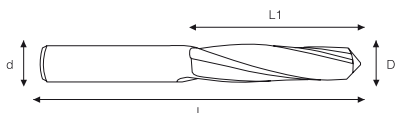
D h6	L1	L	Code	€ uncoated	€ Tia IN
9	40	84	aL4009	33,10	41,50
9,1	40	84	aL40091	35,00	43,30
9,2	40	84	aL40092	35,00	43,30
9,3	40	84	aL40093	35,00	43,30
9,4	40	84	aL40094	35,00	43,30
9,5	40	84	aL40095	35,00	43,30
9,6	43	89	aL40096	38,90	47,30
9,7	43	89	aL40097	38,90	47,30
9,8	43	89	aL40098	38,90	47,30
9,9	43	89	aL40099	38,90	47,30
10	43	89	aL4010	38,90	47,30
10,1	43	89	aL40101	40,90	48,70
10,2	43	89	aL40102	40,90	48,70
10,3	43	89	aL40103	40,90	48,70
10,4	43	89	aL40104	40,90	48,70
10,5	43	89	aL40105	40,90	48,70
10,6	47	95	aL40106	49,20	57,00
10,7	47	95	aL40107	49,20	57,00
10,8	47	95	aL40108	49,20	57,00
10,9	47	95	aL40109	49,20	57,00
11	47	95	aL4011	49,20	57,00
11,1	47	95	aL40111	51,10	58,90
11,2	47	95	aL40112	51,10	58,90
11,3	47	95	aL40113	51,10	58,90
11,4	47	95	aL40114	51,10	58,90
11,5	47	95	aL40115	51,10	58,90
11,6	47	95	aL40116	56,30	64,10
11,7	47	95	aL40117	56,30	64,10
11,8	47	95	aL40118	56,30	64,10
11,9	47	95	aL40119	56,30	64,10
12	51	102	aL4012	58,90	68,80
12,1	51	102	aL40121	63,40	74,40
12,2	51	102	aL40122	63,40	74,40
12,3	51	102	aL40123	63,40	74,40
12,4	51	102	aL40124	63,40	74,40
12,5	51	102	aL40125	63,40	74,40
12,6	51	102	aL40126	65,80	76,80
12,7	51	102	aL40127	65,80	76,80
12,8	51	102	aL40128	65,80	76,80
12,9	51	102	aL40129	65,80	76,80
13	51	102	aL4013	65,80	76,80
13,1	54	107	aL40131	74,40	85,30
13,2	54	107	aL40132	74,40	85,30
13,3	54	107	aL40133	74,40	85,30
13,4	54	107	aL40134	74,40	85,30
13,5	54	107	aL40135	74,40	85,30
13,6	54	107	aL40136	77,90	88,90
13,7	54	107	aL40137	77,90	88,90
13,8	54	107	aL40138	77,90	88,90

D h6	L1	L	Code	€ uncoated	€ Tia IN
13,9	54	107	aL40139	77,90	88,90
14	54	107	aL4014	77,90	88,90
14,1	56	111	aL40141	88,10	99,00
14,2	56	111	aL40142	88,10	99,00
14,3	56	111	aL40143	88,10	99,00
14,4	56	111	aL40144	88,10	99,00
14,5	56	111	aL40145	88,10	99,00
14,6	56	111	aL40146	88,10	99,00
14,7	56	111	aL40147	88,10	99,00
14,8	56	111	aL40148	88,10	99,00
14,9	56	111	aL40149	88,10	99,00
15	56	111	aL4015	88,10	99,00
15,1	58	115	aL40151	99,90	110,80
15,2	58	115	aL40152	99,90	110,80
15,3	58	115	aL40153	99,90	110,80
15,4	58	115	aL40154	99,90	110,80
15,5	58	115	aL40155	99,90	110,80
15,6	58	115	aL40156	99,90	110,80
15,7	58	115	aL40157	99,90	110,80
15,8	58	115	aL40158	99,90	110,80
15,9	58	115	aL40159	99,90	110,80
16	58	115	aL4016	99,90	110,80
16,5	60	119	aL40165	111,70	124,30
17	60	119	aL4017	111,70	124,30
17,5	62	123	aL40175	129,00	141,60
18	62	123	aL4018	129,00	141,60
18,5	64	127	aL40185	141,70	157,30
19	64	127	aL4019	141,70	157,30
19,5	66	131	aL40195	162,40	178,00
20	66	131	aL4020	162,40	178,00

Punte Z2 DIN 6539 per ottone

Drills 2 flutes DIN 6539 brass application

SERIES
OT40



D h6	L1	L	Code	€ uncoated	€ Tia IN
2	12	38	OT4002	7,60	10,50
2,1	12	38	OT40021	7,90	11,30
2,2	13	40	OT40022	8,00	11,40
2,3	13	40	OT40023	8,00	11,40
2,4	14	43	OT40024	8,20	11,60
2,5	14	43	OT40025	8,20	11,60
2,6	14	43	OT40026	8,50	11,90
2,7	16	46	OT40027	8,70	12,10
2,8	16	46	OT40028	8,70	12,10
2,9	16	46	OT40029	8,70	12,10
3	16	46	OT4003	8,70	12,10
3,1	18	49	OT40031	9,30	12,70
3,2	18	49	OT40032	9,30	12,70
3,3	18	49	OT40033	9,30	12,70
3,4	20	52	OT40034	9,70	13,10
3,5	20	52	OT40035	9,70	13,10
3,6	20	52	OT40036	10,10	13,50
3,7	20	52	OT40037	10,10	13,50
3,8	22	55	OT40038	12,00	15,40
3,9	22	55	OT40039	12,00	15,40
4	22	55	OT4004	12,00	15,40
4,1	22	55	OT40041	12,80	17,40
4,2	22	55	OT40042	12,80	17,40
4,3	24	58	OT40043	13,10	17,70
4,4	24	58	OT40044	13,10	17,70
4,5	24	58	OT40045	13,10	17,70
4,6	24	58	OT40046	13,60	18,20
4,7	24	58	OT40047	13,60	18,20
4,8	26	62	OT40048	14,00	18,60
4,9	26	62	OT40049	14,00	18,60
5	26	62	OT4005	14,50	19,20
5,1	26	62	OT40051	15,60	20,20
5,2	26	62	OT40052	15,60	20,20
5,3	26	62	OT40053	15,60	20,20
5,4	28	66	OT40054	17,00	21,60

D h6	L1	L	Code	€ uncoated	€ Tia IN
5,5	28	66	OT40055	17,00	21,60
5,6	28	66	OT40056	18,50	23,20
5,7	28	66	OT40057	18,50	23,20
5,8	28	66	OT40058	18,50	23,20
5,9	28	66	OT40059	18,50	23,20
6	28	66	OT4006	18,50	23,20
6,1	31	70	OT40061	19,90	25,50
6,2	31	70	OT40062	19,90	25,50
6,3	31	70	OT40063	19,90	25,50
6,4	31	70	OT40064	19,90	25,50
6,5	31	70	OT40065	19,90	25,50
6,6	31	70	OT40066	20,90	26,40
6,7	31	70	OT40067	20,90	26,40
6,8	34	74	OT40068	22,90	28,40
6,9	34	74	OT40069	22,90	28,40
7	34	74	OT4007	22,90	28,40
7,1	34	74	OT40071	24,40	29,90
7,2	34	74	OT40072	24,40	29,90
7,3	34	74	OT40073	24,40	29,90
7,4	34	74	OT40074	24,40	29,90
7,5	34	74	OT40075	24,40	29,90
7,6	37	79	OT40076	27,60	34,60
7,7	37	79	OT40077	27,60	34,60
7,8	37	79	OT40078	27,60	34,60
7,9	37	79	OT40079	27,60	34,60
8	37	79	OT4008	27,60	34,60
8,1	37	79	OT40081	29,10	37,50
8,2	37	79	OT40082	29,10	37,50
8,3	37	79	OT40083	29,10	37,50
8,4	37	79	OT40084	29,10	37,50
8,5	37	79	OT40085	29,10	37,50
8,6	40	84	OT40086	33,10	41,50
8,7	40	84	OT40087	33,10	41,50
8,8	40	84	OT40088	33,10	41,50
8,9	40	84	OT40089	33,10	41,50

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	○	○	○	●	○	○	○	○	○

Punte Z2 DIN 6539 per ottone

Drills 2 flutes DIN 6539 brass application

SERIES
OT40



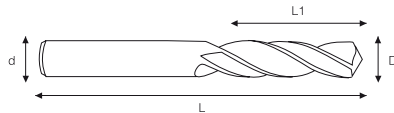
D h6	L1	L	Code	€ uncoated	€ Tia IN
9	40	84	OT4009	33,10	41,50
9,1	40	84	OT40091	35,00	43,30
9,2	40	84	OT40092	35,00	43,30
9,3	40	84	OT40093	35,00	43,30
9,4	40	84	OT40094	35,00	43,30
9,5	40	84	OT40095	35,00	43,30
9,6	43	89	OT40096	38,90	47,30
9,7	43	89	OT40097	38,90	47,30
9,8	43	89	OT40098	38,90	47,30
9,9	43	89	OT40099	38,90	47,30
10	43	89	OT4010	38,90	47,30
10,1	43	89	OT40101	40,90	48,70
10,2	43	89	OT40102	40,90	48,70
10,3	43	89	OT40103	40,90	48,70
10,4	43	89	OT40104	40,90	48,70
10,5	43	89	OT40105	40,90	48,70
10,6	47	95	OT40106	49,20	57,00
10,7	47	95	OT40107	49,20	57,00
10,8	47	95	OT40108	49,20	57,00
10,9	47	95	OT40109	49,20	57,00
11	47	95	OT4011	49,20	57,00
11,1	47	95	OT40111	51,10	58,90
11,2	47	95	OT40112	51,10	58,90
11,3	47	95	OT40113	51,10	58,90
11,4	47	95	OT40114	51,10	58,90
11,5	47	95	OT40115	51,10	58,90
11,6	47	95	OT40116	56,30	64,10
11,7	47	95	OT40117	56,30	64,10
11,8	47	95	OT40118	56,30	64,10
11,9	47	95	OT40119	56,30	64,10
12	51	102	OT4012	58,90	68,80
12,1	51	102	OT40121	63,40	74,40
12,2	51	102	OT40122	63,40	74,40
12,3	51	102	OT40123	63,40	74,40
12,4	51	102	OT40124	63,40	74,40
12,5	51	102	OT40125	63,40	74,40
12,6	51	102	OT40126	65,80	76,80
12,7	51	102	OT40127	65,80	76,80
12,8	51	102	OT40128	65,80	76,80
12,9	51	102	OT40129	65,80	76,80
13	51	102	OT4013	65,80	76,80
13,1	54	107	OT40131	74,40	85,30
13,2	54	107	OT40132	74,40	85,30
13,3	54	107	OT40133	74,40	85,30
13,4	54	107	OT40134	74,40	85,30
13,5	54	107	OT40135	74,40	85,30
13,6	54	107	OT40136	77,90	88,90
13,7	54	107	OT40137	77,90	88,90
13,8	54	107	OT40138	77,90	88,90

D h6	L1	L	Code	€ uncoated	€ Tia IN
13,9	54	107	OT40139	77,90	88,90
14	54	107	OT4014	77,90	88,90
14,1	56	111	OT40141	88,10	99,00
14,2	56	111	OT40142	88,10	99,00
14,3	56	111	OT40143	88,10	99,00
14,4	56	111	OT40144	88,10	99,00
14,5	56	111	OT40145	88,10	99,00
14,6	56	111	OT40146	88,10	99,00
14,7	56	111	OT40147	88,10	99,00
14,8	56	111	OT40148	88,10	99,00
14,9	56	111	OT40149	88,10	99,00
15	56	111	OT4015	88,10	99,00
15,1	58	115	OT40151	99,90	110,80
15,2	58	115	OT40152	99,90	110,80
15,3	58	115	OT40153	99,90	110,80
15,4	58	115	OT40154	99,90	110,80
15,5	58	115	OT40155	99,90	110,80
15,6	58	115	OT40156	99,90	110,80
15,7	58	115	OT40157	99,90	110,80
15,8	58	115	OT40158	99,90	110,80
15,9	58	115	OT40159	99,90	110,80
16	58	115	OT4016	99,90	110,80
16,5	60	119	OT40165	111,70	124,30
17	60	119	OT4017	111,70	124,30
17,5	62	123	OT40175	129,00	141,60
18	62	123	OT4018	129,00	141,60
18,5	64	127	OT40185	141,70	157,30
19	64	127	OT4019	141,70	157,30
19,5	66	131	OT40195	162,40	178,00
20	66	131	OT4020	162,40	178,00

Punte Z2 DIN 6539 doppia guida per ottone

Double guide drills 2 flutes DIN 6539 brass application

SERIES
DG40



D h6	L1	L	Code	€ uncoated	€ Tia IN
3,5	20	52	DG40035	10,70	14,40
3,6	20	52	DG40036	11,10	14,80
3,7	20	52	DG40037	11,10	14,80
3,8	22	55	DG40038	13,20	16,90
3,9	22	55	DG40039	13,20	16,90
4	22	55	DG4004	13,20	16,90
4,1	22	55	DG40041	14,10	19,10
4,2	22	55	DG40042	14,10	19,10
4,3	24	58	DG40043	14,40	19,40
4,4	24	58	DG40044	14,40	19,40
4,5	24	58	DG40045	14,40	19,40
4,6	24	58	DG40046	14,90	20,00
4,7	24	58	DG40047	14,90	20,00
4,8	26	62	DG40048	15,40	20,40
4,9	26	62	DG40049	15,40	20,40
5	26	62	DG4005	16,00	21,10
5,1	26	62	DG40051	17,10	22,20
5,2	26	62	DG40052	17,10	22,20
5,3	26	62	DG40053	17,10	22,20
5,4	28	66	DG40054	18,70	23,80
5,5	28	66	DG40055	18,70	23,80
5,6	28	66	DG40056	20,40	25,50
5,7	28	66	DG40057	20,40	25,50
5,8	28	66	DG40058	20,40	25,50
5,9	28	66	DG40059	20,40	25,50
6	28	66	DG4006	20,40	25,50
6,1	31	70	DG40061	21,90	28,00
6,2	31	70	DG40062	21,90	28,00
6,3	31	70	DG40063	21,90	28,00
6,4	31	70	DG40064	21,90	28,00
6,5	31	70	DG40065	21,90	28,00
6,6	31	70	DG40066	23,00	29,10
6,7	31	70	DG40067	23,00	29,10
6,8	34	74	DG40068	25,10	31,20
6,9	34	74	DG40069	25,10	31,20

D h6	L1	L	Code	€ uncoated	€ Tia IN
7	34	74	DG4007	25,10	31,20
7,1	34	74	DG40071	26,80	32,90
7,2	34	74	DG40072	26,80	32,90
7,3	34	74	DG40073	26,80	32,90
7,4	34	74	DG40074	26,80	32,90
7,5	34	74	DG40075	26,80	32,90
7,6	37	79	DG40076	30,30	38,00
7,7	37	79	DG40077	30,30	38,00
7,8	37	79	DG40078	30,30	38,00
7,9	37	79	DG40079	30,30	38,00
8	37	79	DG4008	30,30	38,00
8,1	37	79	DG40081	32,00	41,20
8,2	37	79	DG40082	32,00	41,20
8,3	37	79	DG40083	32,00	41,20
8,4	37	79	DG40084	32,00	41,20
8,5	37	79	DG40085	32,00	41,20
8,6	40	84	DG40086	36,50	45,70
8,7	40	84	DG40087	36,50	45,70
8,8	40	84	DG40088	36,50	45,70
8,9	40	84	DG40089	36,50	45,70
9	40	84	DG4009	36,50	45,70
9,1	40	84	DG40091	38,50	47,70
9,2	40	84	DG40092	38,50	47,70
9,3	40	84	DG40093	38,50	47,70
9,4	40	84	DG40094	38,50	47,70
9,5	40	84	DG40095	38,50	47,70
9,6	43	89	DG40096	42,80	52,00
9,7	43	89	DG40097	42,80	52,00
9,8	43	89	DG40098	42,80	52,00
9,9	43	89	DG40099	42,80	52,00
10	43	89	DG4010	42,80	52,00
10,1	43	89	DG40101	45,00	53,60
10,2	43	89	DG40102	45,00	53,60
10,3	43	89	DG40103	45,00	53,60
10,4	43	89	DG40104	45,00	53,60

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	○	○	○	●	○	○	○	○	○

Punte Z2 DIN 6539 doppia guida per ottone

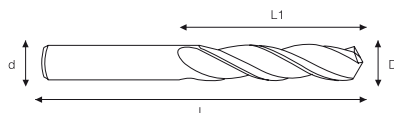
Double guide drills 2 flutes DIN 6539 brass application

SERIES
DG40



D h6	L1	L	Code	€ uncoated	€ Tia IN
10,5	43	89	DG40105	45,00	53,60
10,6	47	95	DG40106	54,10	62,60
10,7	47	95	DG40107	54,10	62,60
10,8	47	95	DG40108	54,10	62,60
10,9	47	95	DG40109	54,10	62,60
11	47	95	DG4011	54,10	62,60
11,1	47	95	DG40111	56,20	64,80
11,2	47	95	DG40112	56,20	64,80
11,3	47	95	DG40113	56,20	64,80
11,4	47	95	DG40114	56,20	64,80
11,5	47	95	DG40115	56,20	64,80
11,6	47	95	DG40116	61,90	70,50
11,7	47	95	DG40117	61,90	70,50
11,8	47	95	DG40118	61,90	70,50
11,9	47	95	DG40119	61,90	70,50
12	51	102	DG4012	69,80	81,80
12,1	51	102	DG40121	69,80	81,80
12,2	51	102	DG40122	69,80	81,80
12,3	51	102	DG40123	69,80	81,80
12,4	51	102	DG40124	69,80	81,80
12,5	51	102	DG40125	69,80	81,80
12,6	51	102	DG40126	72,40	84,40
12,7	51	102	DG40127	72,40	84,40
12,8	51	102	DG40128	72,40	84,40
12,9	51	102	DG40129	72,40	84,40
13	51	102	DG4013	72,40	84,40
13,1	54	107	DG40131	81,80	93,90
13,2	54	107	DG40132	81,80	93,90
13,3	54	107	DG40133	81,80	93,90
13,4	54	107	DG40134	81,80	93,90
13,5	54	107	DG40135	81,80	93,90
13,6	54	107	DG40136	85,70	97,70
13,7	54	107	DG40137	85,70	97,70

D h6	L1	L	Code	€ uncoated	€ Tia IN
13,8	54	107	DG40138	85,70	97,70
13,9	54	107	DG40139	85,70	97,70
14	54	107	DG4014	85,70	97,70
14,1	56	111	DG40141	96,90	108,90
14,2	56	111	DG40142	96,90	108,90
14,3	56	111	DG40143	96,90	108,90
14,4	56	111	DG40144	96,90	108,90
14,5	56	111	DG40145	96,90	108,90
14,6	56	111	DG40146	96,90	108,90
14,7	56	111	DG40147	96,90	108,90
14,8	56	111	DG40148	96,90	108,90
14,9	56	111	DG40149	96,90	108,90
15	56	111	DG4015	96,90	108,90
15,1	58	115	DG40151	109,90	121,90
15,2	58	115	DG40152	109,90	121,90
15,3	58	115	DG40153	109,90	121,90
15,4	58	115	DG40154	109,90	121,90
15,5	58	115	DG40155	109,90	121,90
15,6	58	115	DG40156	109,90	121,90
15,7	58	115	DG40157	109,90	121,90
15,8	58	115	DG40158	109,90	121,90
15,9	58	115	DG40159	109,90	121,90
16	58	115	DG4016	109,90	121,90
16,5	60	119	DG40165	122,90	136,70
17	60	119	DG4017	122,90	136,70
17,5	62	123	DG40175	141,90	155,80
18	62	123	DG4018	141,90	155,80
18,5	64	127	DG40185	155,80	173,00
19	64	127	DG4019	155,80	173,00
19,5	66	131	DG40195	178,60	195,80
20	66	131	DG4020	178,60	195,80
19,5	66	131	OT40195	162,40	178,00
20	66	131	OT4020	162,40	178,00



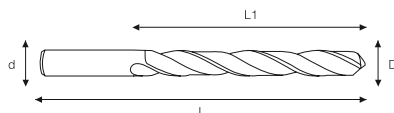
D h6	L1	L	Code	€ uncoated	€ Tia IN
2	12	38	4102	9,30	12,30
2,1	12	38	41021	9,60	13,00
2,2	13	40	41022	9,70	13,10
2,3	13	40	41023	9,70	13,10
2,4	14	43	41024	10,30	13,70
2,5	14	43	41025	10,30	13,70
2,6	14	43	41026	10,60	14,00
2,7	16	46	41027	10,70	14,10
2,8	16	46	41028	10,70	14,10
2,9	16	46	41029	10,70	14,10
3	16	46	4103	10,70	14,10
3,1	18	49	41031	11,40	14,80
3,2	18	49	41032	11,40	14,80
3,3	18	49	41033	11,40	14,80
3,4	20	52	41034	12,00	15,40
3,5	20	52	41035	12,00	15,40
3,6	20	52	41036	12,40	15,80
3,7	20	52	41037	12,40	15,80
3,8	22	55	41038	13,50	16,90
3,9	22	55	41039	13,50	16,90
4	22	55	4104	13,50	16,90
4,1	22	55	41041	14,30	18,90
4,2	22	55	41042	14,30	18,90
4,3	24	58	41043	15,20	19,80
4,4	24	58	41044	15,20	19,80
4,5	24	58	41045	15,20	19,80
4,6	24	58	41046	15,70	20,30
4,7	24	58	41047	15,70	20,30
4,8	26	62	41048	16,10	20,70
4,9	26	62	41049	16,10	20,70
5	26	62	4105	16,10	20,70
5,1	26	62	41051	17,10	21,70
5,2	26	62	41052	17,10	21,70
5,3	26	62	41053	17,10	21,70
5,4	28	66	41054	18,90	23,50

D h6	L1	L	Code	€ uncoated	€ Tia IN
5,5	28	66	41055	18,90	23,50
5,6	28	66	41056	19,90	24,50
5,7	28	66	41057	19,90	24,50
5,8	28	66	41058	19,90	24,50
5,9	28	66	41059	19,90	24,50
6	28	66	4106	19,90	24,50
6,1	31	70	41061	22,10	27,60
6,2	31	70	41062	22,10	27,60
6,3	31	70	41063	22,10	27,60
6,4	31	70	41064	22,10	27,60
6,5	31	70	41065	22,10	27,60
6,6	31	70	41066	23,00	28,60
6,7	31	70	41067	23,00	28,60
6,8	34	74	41068	25,20	30,70
6,9	34	74	41069	25,20	30,70
7	34	74	4107	25,20	30,70
7,1	34	74	41071	26,70	32,20
7,2	34	74	41072	26,70	32,20
7,3	34	74	41073	26,70	32,20
7,4	34	74	41074	26,70	32,20
7,5	34	74	41075	26,70	32,20
7,6	37	79	41076	30,80	37,80
7,7	37	79	41077	30,80	37,80
7,8	37	79	41078	30,80	37,80
7,9	37	79	41079	30,80	37,80
8	37	79	4108	30,80	37,80
8,1	37	79	41081	32,40	40,70
8,2	37	79	41082	32,40	40,70
8,3	37	79	41083	32,40	40,70
8,4	37	79	41084	32,40	40,70
8,5	37	79	41085	32,40	40,70
8,6	40	84	41086	36,00	44,40
8,7	40	84	41087	36,00	44,40
8,8	40	84	41088	36,00	44,40
8,9	40	84	41089	36,00	44,40

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	●	●	○	●	○	○	○	○	○

D h6	L1	L	Code	€ uncoated	€ Tia IN
9	40	84	4109	36,00	44,40
9,1	40	84	41091	37,90	46,20
9,2	40	84	41092	37,90	46,20
9,3	40	84	41093	37,90	46,20
9,4	40	84	41094	37,90	46,20
9,5	40	84	41095	37,90	46,20
9,6	43	89	41096	42,80	51,20
9,7	43	89	41097	42,80	51,20
9,8	43	89	41098	42,80	51,20
9,9	43	89	41099	42,80	51,20
10	43	89	4110	42,80	51,20
10,1	43	89	41101	45,40	53,80
10,2	43	89	41102	45,40	53,80
10,3	43	89	41103	45,40	53,80
10,4	43	89	41104	45,40	53,80
10,5	43	89	41105	45,40	53,80
10,6	47	95	41106	55,30	63,70
10,7	47	95	41107	55,30	63,70
10,8	47	95	41108	55,30	63,70
10,9	47	95	41109	55,30	63,70
11	47	95	4111	55,30	63,70
11,1	47	95	41111	57,40	65,80
11,2	47	95	41112	57,40	65,80
11,3	47	95	41113	57,40	65,80
11,4	47	95	41114	57,40	65,80
11,5	47	95	41115	57,40	65,80
11,6	47	95	41116	62,90	71,20
11,7	47	95	41117	62,90	71,20
11,8	47	95	41118	62,90	71,20
11,9	47	95	41119	62,90	71,20
12	51	102	4112	67,60	78,30
12,1	51	102	41121	71,20	83,00
12,2	51	102	41122	71,20	83,00
12,3	51	102	41123	71,20	83,00
12,4	51	102	41124	71,20	83,00
12,5	51	102	41125	71,20	83,00
12,6	51	102	41126	73,70	85,50
12,7	51	102	41127	73,70	85,50
12,8	51	102	41128	73,70	85,50
12,9	51	102	41129	73,70	85,50

D h6	L1	L	Code	€ uncoated	€ Tia IN
13	51	102	4113	73,70	85,50
13,1	54	107	41131	84,00	95,80
13,2	54	107	41132	84,00	95,80
13,3	54	107	41133	84,00	95,80
13,4	54	107	41134	84,00	95,80
13,5	54	107	41135	84,00	95,80
13,6	54	107	41136	87,70	99,50
13,7	54	107	41137	87,70	99,50
13,8	54	107	41138	87,70	99,50
13,9	54	107	41139	87,70	99,50
14	54	107	4114	87,70	99,50
14,1	56	111	41141	98,60	110,40
14,2	56	111	41142	98,60	110,40
14,3	56	111	41143	98,60	110,40
14,4	56	111	41144	98,60	110,40
14,5	56	111	41145	98,60	110,40
14,6	56	111	41146	98,60	110,40
14,7	56	111	41147	98,60	110,40
14,8	56	111	41148	98,60	110,40
14,9	56	111	41149	98,60	110,40
15	56	111	4115	98,60	110,40
15,1	58	115	41151	111,10	122,90
15,2	58	115	41152	111,10	122,90
15,3	58	115	41153	111,10	122,90
15,4	58	115	41154	111,10	122,90
15,5	58	115	41155	111,10	122,90
15,6	58	115	41156	111,10	122,90
15,7	58	115	41157	111,10	122,90
15,8	58	115	41158	111,10	122,90
15,9	58	115	41159	111,10	122,90
16	58	115	4116	111,10	122,90
16,5	60	119	41165	125,00	138,50
17	60	119	4117	125,00	138,50
17,5	62	123	41175	143,90	157,40
18	62	123	4118	143,90	157,40
18,5	64	127	41185	161,30	178,10
19	64	127	4119	161,30	178,10
19,5	66	131	41195	183,40	200,20
20	66	131	4120	183,40	200,20



D h6	L1	L	Code	€ uncoated	€ Tia IN
0,5	7	28	39005	8,90	12,00
0,6	7	28	39006	8,90	12,00
0,7	9	28	39007	7,90	11,00
0,8	10	30	39008	7,90	11,00
0,9	11	32	39009	7,90	11,00
1	12	34	3901	7,90	11,00
1,1	14	36	39011	8,80	11,90
1,2	16	38	39012	8,80	11,90
1,3	16	38	39013	8,80	11,90
1,4	18	40	39014	8,80	11,90
1,5	18	40	39015	8,80	11,90
1,6	20	43	39016	8,80	11,90
1,7	20	43	39017	8,80	11,90
1,8	22	46	39018	12,00	15,10
1,9	22	46	39019	12,00	15,10
2	24	49	3902	11,60	14,30
2,1	24	49	39021	11,90	14,60
2,2	27	53	39022	12,10	15,20
2,3	27	53	39023	12,10	15,20
2,4	30	57	39024	12,30	15,40
2,5	30	57	39025	12,30	15,40
2,6	30	57	39026	12,70	15,80
2,7	33	61	39027	14,80	18,00
2,8	33	61	39028	14,80	18,00
2,9	33	61	39029	14,80	18,00
3	33	61	3903	14,80	18,00
3,1	35	65	39031	15,50	18,60
3,2	35	65	39032	15,50	18,60
3,3	35	65	39033	15,50	18,60
3,4	39	70	39034	15,70	18,90
3,5	39	70	39035	15,70	18,90
3,6	39	70	39036	16,20	19,40
3,7	39	70	39037	16,20	19,40
3,8	43	75	39038	17,10	20,30
3,9	43	75	39039	17,10	20,30

D h6	L1	L	Code	€ uncoated	€ Tia IN
4	43	75	3904	17,10	20,30
4,1	43	75	39041	18,10	22,40
4,2	43	75	39042	18,10	22,40
4,3	47	80	39043	18,90	24,30
4,4	47	80	39044	18,90	24,30
4,5	47	80	39045	18,90	24,30
4,6	47	80	39046	19,50	25,00
4,7	47	80	39047	19,50	25,00
4,8	52	86	39048	21,00	26,50
4,9	52	86	39049	21,00	26,50
5	52	86	3905	21,00	26,50
5,1	52	86	39051	22,30	27,80
5,2	52	86	39052	22,30	27,80
5,3	52	86	39053	22,30	27,80
5,4	57	93	39054	23,10	28,60
5,5	57	93	39055	23,10	28,60
5,6	57	93	39056	24,40	29,90
5,7	57	93	39057	24,40	29,90
5,8	57	93	39058	24,40	29,90
5,9	57	93	39059	24,40	29,90
6	57	93	3906	24,40	29,90
6,1	63	101	39061	27,10	35,10
6,2	63	101	39062	27,10	35,10
6,3	63	101	39063	27,10	35,10
6,4	63	101	39064	27,10	35,10
6,5	63	101	39065	27,10	35,10
6,6	63	101	39066	28,40	36,40
6,7	63	101	39067	28,40	36,40
6,8	69	109	39068	30,90	38,90
6,9	69	109	39069	30,90	38,90
7	69	109	3907	30,90	38,90
7,1	69	109	39071	33,00	41,00
7,2	69	109	39072	33,00	41,00
7,3	69	109	39073	33,00	41,00
7,4	69	109	39074	33,00	41,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	●	●	●	●	○	●	○	○	○

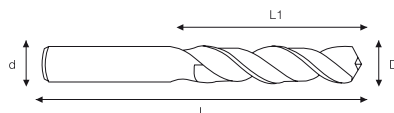
D h6	L1	L	Code	€ uncoated	€ Tia IN
7,5	69	109	39075	33,00	41,00
7,6	75	117	39076	38,90	47,00
7,7	75	117	39077	38,90	47,00
7,8	75	117	39078	38,90	47,00
7,9	75	117	39079	38,90	47,00
8	75	117	3908	38,90	47,00
8,1	75	117	39081	41,00	51,00
8,2	75	117	39082	41,00	51,00
8,3	75	117	39083	41,00	51,00
8,4	75	117	39084	41,00	51,00
8,5	75	117	39085	41,00	51,00
8,6	81	125	39086	48,40	58,30
8,7	81	125	39087	48,40	58,30
8,8	81	125	39088	48,40	58,30
8,9	81	125	39089	48,40	58,30
9	81	125	3909	48,40	58,30
9,1	81	125	39091	52,80	62,80
9,2	81	125	39092	52,80	62,80
9,3	81	125	39093	52,80	62,80
9,4	81	125	39094	52,80	62,80
9,5	81	125	39095	52,80	62,80
9,6	87	133	39096	59,50	69,50
9,7	87	133	39097	59,50	69,50
9,8	87	133	39098	59,50	69,50
9,9	87	133	39099	59,50	69,50
10	87	133	3910	59,50	69,50
10,1	87	133	39101	67,10	77,00
10,2	87	133	39102	67,10	77,00
10,3	87	133	39103	67,10	77,00
10,4	87	133	39104	67,10	77,00
10,5	87	133	39105	67,10	77,00
10,6	87	133	39106	74,00	84,70
10,7	87	133	39107	74,00	84,70
10,8	94	142	39108	79,00	91,90
10,9	94	142	39109	79,00	91,90
11	94	142	3911	79,00	91,90
11,1	94	142	39111	82,10	95,00
11,2	94	142	39112	82,10	95,00
11,3	94	142	39113	82,10	95,00
11,4	94	142	39114	82,10	95,00
11,5	94	142	39115	82,10	95,00
11,6	94	142	39116	87,30	100,20
11,7	94	142	39117	87,30	100,20
11,8	94	142	39118	87,30	100,20
11,9	101	151	39119	90,90	103,80
12	101	151	3912	90,90	103,80
12,1	101	151	39121	97,00	111,70
12,2	101	151	39122	97,00	111,70
12,3	101	151	39123	97,00	111,70

D h6	L1	L	Code	€ uncoated	€ Tia IN
12,4	101	151	39124	97,00	111,70
12,5	101	151	39125	97,00	111,70
12,6	101	151	39126	100,80	115,40
12,7	101	151	39127	100,80	115,40
12,8	101	151	39128	100,80	115,40
12,9	101	151	39129	100,80	115,40
13	101	151	3913	100,80	115,40
13,1	108	160	39131	116,10	130,70
13,2	108	160	39132	116,10	130,70
13,3	108	160	39133	116,10	130,70
13,4	108	160	39134	116,10	130,70
13,5	108	160	39135	116,10	130,70
13,6	108	160	39136	123,70	138,30
13,7	108	160	39137	123,70	138,30
13,8	108	160	39138	123,70	138,30
13,9	108	160	39139	123,70	138,30
14	108	160	3914	123,70	138,30
14,1	114	169	39141	142,60	157,30
14,2	114	169	39142	142,60	157,30
14,3	114	169	39143	142,60	157,30
14,4	114	169	39144	142,60	157,30
14,5	114	169	39145	142,60	157,30
14,6	114	169	39146	142,60	157,30
14,7	114	169	39147	142,60	157,30
14,8	114	169	39148	142,60	157,30
14,9	114	169	39149	142,60	157,30
15	114	169	3915	142,60	157,30
15,1	120	178	39151	166,50	181,10
15,2	120	178	39152	166,50	181,10
15,3	120	178	39153	166,50	181,10
15,4	120	178	39154	166,50	181,10
15,5	120	178	39155	166,50	181,10
15,6	120	178	39156	166,50	181,10
15,7	120	178	39157	166,50	181,10
15,8	120	178	39158	166,50	181,10
15,9	120	178	39159	166,50	181,10
16	120	178	3916	166,50	181,10
16,5	125	184	39165	193,10	220,40
17	125	184	3917	193,10	220,40
17,5	130	191	39175	212,30	239,50
18	130	191	3918	212,30	239,50
18,5	135	198	39185	234,20	276,60
19	135	198	3919	234,20	276,60
19,5	140	205	39195	266,50	308,80
20	140	205	3920	266,50	308,80

Punte Z2 DIN 338 per alluminio

Drills 2 flutes DIN 338 aluminium application

SERIES
a L39



D h6	L1	L	Code	€ uncoated	€ Tia IN
2	24	49	a L3902	11,60	14,30
2,1	24	49	a L39021	11,90	14,60
2,2	27	53	a L39022	12,10	15,20
2,3	27	53	a L39023	12,10	15,20
2,4	30	57	a L39024	12,30	15,40
2,5	30	57	a L39025	12,30	15,40
2,6	30	57	a L39026	12,70	15,80
2,7	33	61	a L39027	14,80	18,00
2,8	33	61	a L39028	14,80	18,00
2,9	33	61	a L39029	14,80	18,00
3	33	61	a L3903	14,80	18,00
3,1	35	65	a L39031	15,50	18,60
3,2	35	65	a L39032	15,50	18,60
3,3	35	65	a L39033	15,50	18,60
3,4	39	70	a L39034	15,70	18,90
3,5	39	70	a L39035	15,70	18,90
3,6	39	70	a L39036	16,20	19,40
3,7	39	70	a L39037	16,20	19,40
3,8	43	75	a L39038	17,10	20,30
3,9	43	75	a L39039	17,10	20,30
4	43	75	a L3904	17,10	20,30
4,1	43	75	a L39041	18,10	22,40
4,2	43	75	a L39042	18,10	22,40
4,3	47	80	a L39043	18,90	24,30
4,4	47	80	a L39044	18,90	24,30
4,5	47	80	a L39045	18,90	24,30
4,6	47	80	a L39046	19,50	25,00
4,7	47	80	a L39047	19,50	25,00
4,8	52	86	a L39048	21,00	26,50
4,9	52	86	a L39049	21,00	26,50
5	52	86	a L3905	21,00	26,50
5,1	52	86	a L39051	22,30	27,80
5,2	52	86	a L39052	22,30	27,80
5,3	52	86	a L39053	22,30	27,80
5,4	57	93	a L39054	23,10	28,60

D h6	L1	L	Code	€ uncoated	€ Tia IN
5,5	57	93	a L39055	23,10	28,60
5,6	57	93	a L39056	24,40	29,90
5,7	57	93	a L39057	24,40	29,90
5,8	57	93	a L39058	24,40	29,90
5,9	57	93	a L39059	24,40	29,90
6	57	93	a L3906	24,40	29,90
6,1	63	101	a L39061	27,10	35,10
6,2	63	101	a L39062	27,10	35,10
6,3	63	101	a L39063	27,10	35,10
6,4	63	101	a L39064	27,10	35,10
6,5	63	101	a L39065	27,10	35,10
6,6	63	101	a L39066	28,40	36,40
6,7	63	101	a L39067	28,40	36,40
6,8	69	109	a L39068	30,90	38,90
6,9	69	109	a L39069	30,90	38,90
7	69	109	a L3907	30,90	38,90
7,1	69	109	a L39071	33,00	41,00
7,2	69	109	a L39072	33,00	41,00
7,3	69	109	a L39073	33,00	41,00
7,4	69	109	a L39074	33,00	41,00
7,5	69	109	a L39075	33,00	41,00
7,6	75	117	a L39076	38,90	47,00
7,7	75	117	a L39077	38,90	47,00
7,8	75	117	a L39078	38,90	47,00
7,9	75	117	a L39079	38,90	47,00
8	75	117	a L3908	38,90	47,00
8,1	75	117	a L39081	41,00	51,00
8,2	75	117	a L39082	41,00	51,00
8,3	75	117	a L39083	41,00	51,00
8,4	75	117	a L39084	41,00	51,00
8,5	75	117	a L39085	41,00	51,00
8,6	81	125	a L39086	48,40	58,30
8,7	81	125	a L39087	48,40	58,30
8,8	81	125	a L39088	48,40	58,30
8,9	81	125	a L39089	48,40	58,30

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	○	●	○	○	○	○

Punte Z2 DIN 338 per alluminio

Drills 2 flutes DIN 338 aluminium application

SERIES
a L39



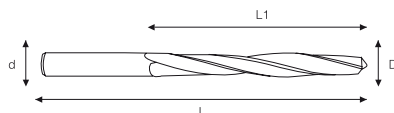
D h6	L1	L	Code	€ uncoated	€ Tia IN
9	81	125	aL3909	48,40	58,30
9,1	81	125	aL39091	52,80	62,80
9,2	81	125	aL39092	52,80	62,80
9,3	81	125	aL39093	52,80	62,80
9,4	81	125	aL39094	52,80	62,80
9,5	81	125	aL39095	52,80	62,80
9,6	81	133	aL39096	59,50	69,50
9,7	81	133	aL39097	59,50	69,50
9,8	81	133	aL39098	59,50	69,50
9,9	81	133	aL39099	59,50	69,50
10	87	133	aL3910	59,50	69,50
10,1	87	133	aL39101	67,10	77,00
10,2	87	133	aL39102	67,10	77,00
10,3	87	133	aL39103	67,10	77,00
10,4	87	133	aL39104	67,10	77,00
10,5	87	133	aL39105	67,10	77,00
10,6	87	133	aL39106	74,00	84,70
10,7	87	133	aL39107	74,00	84,70
10,8	94	142	aL39108	79,00	91,90
10,9	94	142	aL39109	79,00	91,90
11	94	142	aL3911	79,00	91,90
11,1	94	142	aL39111	82,10	95,00
11,2	94	142	aL39112	82,10	95,00
11,3	94	142	aL39113	82,10	95,00
11,4	94	142	aL39114	82,10	95,00
11,5	94	142	aL39115	82,10	95,00
11,6	94	142	aL39116	87,30	100,20
11,7	94	142	aL39117	87,30	100,20
11,8	101	142	aL39118	87,30	100,20
11,9	101	151	aL39119	90,90	103,80
12	101	151	aL3912	90,90	103,80
12,1	101	151	aL39121	97,00	111,70
12,2	101	151	aL39122	97,00	111,70
12,3	101	151	aL39123	97,00	111,70
12,4	101	151	aL39124	97,00	111,70
12,5	101	151	aL39125	97,00	111,70
12,6	101	151	aL39126	100,80	115,40
12,7	101	151	aL39127	100,80	115,40
12,8	101	151	aL39128	100,80	115,40
12,9	101	151	aL39129	100,80	115,40

D h6	L1	L	Code	€ uncoated	€ Tia IN
13	101	151	aL3913	100,80	115,40
13,1	108	160	aL39131	116,10	130,70
13,2	108	160	aL39132	116,10	130,70
13,3	108	160	aL39133	116,10	130,70
13,4	108	160	aL39134	116,10	130,70
13,5	108	160	aL39135	116,10	130,70
13,6	108	160	aL39136	123,70	138,30
13,7	108	160	aL39137	123,70	138,30
13,8	108	160	aL39138	123,70	138,30
13,9	108	160	aL39139	123,70	138,30
14	108	160	aL3914	123,70	138,30
14,1	114	169	aL39141	142,60	157,30
14,2	114	169	aL39142	142,60	157,30
14,3	114	169	aL39143	142,60	157,30
14,4	114	169	aL39144	142,60	157,30
14,5	114	169	aL39145	142,60	157,30
14,6	114	169	aL39146	142,60	157,30
14,7	114	169	aL39147	142,60	157,30
14,8	114	169	aL39148	142,60	157,30
14,9	114	169	aL39149	142,60	157,30
15	114	169	aL3915	142,60	157,30
15,1	120	178	aL39151	166,50	181,10
15,2	120	178	aL39152	166,50	181,10
15,3	120	178	aL39153	166,50	181,10
15,4	120	178	aL39154	166,50	181,10
15,5	120	178	aL39155	166,50	181,10
15,6	120	178	aL39156	166,50	181,10
15,7	120	178	aL39157	166,50	181,10
15,8	120	178	aL39158	166,50	181,10
15,9	120	178	aL39159	166,50	181,10
16	120	178	aL3916	166,50	181,10
16,5	125	184	aL39165	193,10	220,40
17	125	184	aL3917	193,10	220,40
17,5	130	191	aL39175	212,30	239,50
18	130	191	aL3918	212,30	239,50
18,5	135	198	aL39185	234,20	276,60
19	135	198	aL3919	234,20	276,60
19,5	140	205	aL39195	266,50	308,80
20	140	205	aL3920	266,50	308,80

Punte Z2 DIN 338 per ottone

Drills 2 flutes DIN338 brass application

SERIES
OT39



D h6	L1	L	Code	€ uncoated	€ Tia IN
2	24	49	OT3902	11,60	14,30
2,1	24	49	OT39021	11,90	14,60
2,2	27	53	OT39022	12,10	15,20
2,3	27	53	OT39023	12,10	15,20
2,4	30	57	OT39024	12,30	15,40
2,5	30	57	OT39025	12,30	15,40
2,6	30	57	OT39026	12,70	15,80
2,7	33	61	OT39027	14,80	18,00
2,8	33	61	OT39028	14,80	18,00
2,9	33	61	OT39029	14,80	18,00
3	33	61	OT3903	14,80	18,00
3,1	35	65	OT39031	15,50	18,60
3,2	35	65	OT39032	15,50	18,60
3,3	35	65	OT39033	15,50	18,60
3,4	39	70	OT39034	15,70	18,90
3,5	39	70	OT39035	15,70	18,90
3,6	39	70	OT39036	16,20	19,40
3,7	39	70	OT39037	16,20	19,40
3,8	43	75	OT39038	17,10	20,30
3,9	43	75	OT39039	17,10	20,30
4	43	75	OT3904	17,10	20,30
4,1	43	75	OT39041	18,10	22,40
4,2	43	75	OT39042	18,10	22,40
4,3	47	80	OT39043	18,90	24,30
4,4	47	80	OT39044	18,90	24,30
4,5	47	80	OT39045	18,90	24,30
4,6	47	80	OT39046	19,50	25,00
4,7	47	80	OT39047	19,50	25,00
4,8	52	86	OT39048	21,00	26,50
4,9	52	86	OT39049	21,00	26,50
5	52	86	OT3905	21,00	26,50
5,1	52	86	OT39051	22,30	27,80
5,2	52	86	OT39052	22,30	27,80
5,3	52	86	OT39053	22,30	27,80
5,4	57	93	OT39054	23,10	28,60

D h6	L1	L	Code	€ uncoated	€ Tia IN
5,5	57	93	OT39055	23,10	28,60
5,6	57	93	OT39056	24,40	29,90
5,7	57	93	OT39057	24,40	29,90
5,8	57	93	OT39058	24,40	29,90
5,9	57	93	OT39059	24,40	29,90
6	57	93	OT3906	24,40	29,90
6,1	63	101	OT39061	27,10	35,10
6,2	63	101	OT39062	27,10	35,10
6,3	63	101	OT39063	27,10	35,10
6,4	63	101	OT39064	27,10	35,10
6,5	63	101	OT39065	27,10	35,10
6,6	63	101	OT39066	28,40	36,40
6,7	63	101	OT39067	28,40	36,40
6,8	69	109	OT39068	30,90	38,90
6,9	69	109	OT39069	30,90	38,90
7	69	109	OT3907	30,90	38,90
7,1	69	109	OT39071	33,00	41,00
7,2	69	109	OT39072	33,00	41,00
7,3	69	109	OT39073	33,00	41,00
7,4	69	109	OT39074	33,00	41,00
7,5	69	109	OT39075	33,00	41,00
7,6	75	117	OT39076	38,90	47,00
7,7	75	117	OT39077	38,90	47,00
7,8	75	117	OT39078	38,90	47,00
7,9	75	117	OT39079	38,90	47,00
8	75	117	OT3908	38,90	47,00
8,1	75	117	OT39081	41,00	51,00
8,2	75	117	OT39082	41,00	51,00
8,3	75	117	OT39083	41,00	51,00
8,4	75	117	OT39084	41,00	51,00
8,5	75	117	OT39085	41,00	51,00
8,6	81	125	OT39086	48,40	58,30
8,7	81	125	OT39087	48,40	58,30
8,8	81	125	OT39088	48,40	58,30
8,9	81	125	OT39089	48,40	58,30

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	○	○	○	○	○

Punte Z2 DIN 338 per ottone

Drills 2 flutes DIN338 brass application

SERIES
OT39



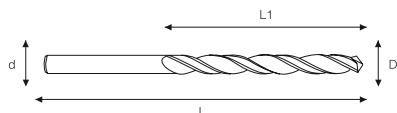
D h6	L1	L	Code	€ uncoated	€ Tia IN
9	81	125	OT3909	48,40	58,30
9,1	81	125	OT39091	52,80	62,80
9,2	81	125	OT39092	52,80	62,80
9,3	81	125	OT39093	52,80	62,80
9,4	81	125	OT39094	52,80	62,80
9,5	81	125	OT39095	52,80	62,80
9,6	81	133	OT39096	59,50	69,50
9,7	81	133	OT39097	59,50	69,50
9,8	81	133	OT39098	59,50	69,50
9,9	81	133	OT39099	59,50	69,50
10	87	133	OT3910	59,50	69,50
10,1	87	133	OT39101	67,10	77,00
10,2	87	133	OT39102	67,10	77,00
10,3	87	133	OT39103	67,10	77,00
10,4	87	133	OT39104	67,10	77,00
10,5	87	133	OT39105	67,10	77,00
10,6	87	133	OT39106	74,00	84,70
10,7	87	133	OT39107	74,00	84,70
10,8	94	142	OT39108	79,00	91,90
10,9	94	142	OT39109	79,00	91,90
11	94	142	OT3911	79,00	91,90
11,1	94	142	OT39111	82,10	95,00
11,2	94	142	OT39112	82,10	95,00
11,3	94	142	OT39113	82,10	95,00
11,4	94	142	OT39114	82,10	95,00
11,5	94	142	OT39115	82,10	95,00
11,6	94	142	OT39116	87,30	100,20
11,7	94	142	OT39117	87,30	100,20
11,8	101	142	OT39118	87,30	100,20
11,9	101	151	OT39119	90,90	103,80
12	101	151	OT3912	90,90	103,80
12,1	101	151	OT39121	97,00	111,70
12,2	101	151	OT39122	97,00	111,70
12,3	101	151	OT39123	97,00	111,70
12,4	101	151	OT39124	97,00	111,70
12,5	101	151	OT39125	97,00	111,70
12,6	101	151	OT39126	100,80	115,40
12,7	101	151	OT39127	100,80	115,40
12,8	101	151	OT39128	100,80	115,40
12,9	101	151	OT39129	100,80	115,40

D h6	L1	L	Code	€ uncoated	€ Tia IN
13	101	151	OT3913	100,80	115,40
13,1	108	160	OT39131	116,10	130,70
13,2	108	160	OT39132	116,10	130,70
13,3	108	160	OT39133	116,10	130,70
13,4	108	160	OT39134	116,10	130,70
13,5	108	160	OT39135	116,10	130,70
13,6	108	160	OT39136	123,70	138,30
13,7	108	160	OT39137	123,70	138,30
13,8	108	160	OT39138	123,70	138,30
13,9	108	160	OT39139	123,70	138,30
14	108	160	OT3914	123,70	138,30
14,1	114	169	OT39141	142,60	157,30
14,2	114	169	OT39142	142,60	157,30
14,3	114	169	OT39143	142,60	157,30
14,4	114	169	OT39144	142,60	157,30
14,5	114	169	OT39145	142,60	157,30
14,6	114	169	OT39146	142,60	157,30
14,7	114	169	OT39147	142,60	157,30
14,8	114	169	OT39148	142,60	157,30
14,9	114	169	OT39149	142,60	157,30
15	114	169	OT3915	142,60	157,30
15,1	120	178	OT39151	166,50	181,10
15,2	120	178	OT39152	166,50	181,10
15,3	120	178	OT39153	166,50	181,10
15,4	120	178	OT39154	166,50	181,10
15,5	120	178	OT39155	166,50	181,10
15,6	120	178	OT39156	166,50	181,10
15,7	120	178	OT39157	166,50	181,10
15,8	120	178	OT39158	166,50	181,10
15,9	120	178	OT39159	166,50	181,10
16	120	178	OT3916	166,50	181,10
16,5	125	184	OT39165	193,10	220,40
17	125	184	OT3917	193,10	220,40
17,5	130	191	OT39175	212,30	239,50
18	130	191	OT3918	212,30	239,50
18,5	135	198	OT39185	234,20	276,60
19	135	198	OT3919	234,20	276,60
19,5	140	205	OT39195	266,50	308,80
20	140	205	OT3920	266,50	308,80

Punte Z2 DIN 338 doppia guida per ottone

Double guide drills 2 flutes DIN 338 brass application

SERIES
DG39



D h6	L1	L	Code	€ uncoated	€ Tia IN
3,5	39	70	DG39035	17,30	20,80
3,6	39	70	DG39036	17,80	21,30
3,7	39	70	DG39037	17,80	21,30
3,8	43	75	DG39038	18,80	22,30
3,9	43	75	DG39039	18,80	22,30
4	43	75	DG3904	18,80	22,30
4,1	43	75	DG39041	19,90	24,60
4,2	43	75	DG39042	19,90	24,60
4,3	47	80	DG39043	20,70	26,80
4,4	47	80	DG39044	20,70	26,80
4,5	47	80	DG39045	20,70	26,80
4,6	47	80	DG39046	21,50	27,50
4,7	47	80	DG39047	21,50	27,50
4,8	52	86	DG39048	23,20	29,20
4,9	52	86	DG39049	23,20	29,20
5	52	86	DG3905	23,20	29,20
5,1	52	86	DG39051	24,60	30,60
5,2	52	86	DG39052	24,60	30,60
5,3	52	86	DG39053	24,60	30,60
5,4	57	93	DG39054	25,40	31,40
5,5	57	93	DG39055	25,40	31,40
5,6	57	93	DG39056	26,80	32,80
5,7	57	93	DG39057	26,80	32,80
5,8	57	93	DG39058	26,80	32,80
5,9	57	93	DG39059	26,80	32,80
6	57	93	DG3906	26,80	32,80
6,1	63	101	DG39061	29,80	38,70
6,2	63	101	DG39062	29,80	38,70
6,3	63	101	DG39063	29,80	38,70
6,4	63	101	DG39064	29,80	38,70
6,5	63	101	DG39065	29,80	38,70
6,6	63	101	DG39066	31,20	40,10
6,7	63	101	DG39067	31,20	40,10
6,8	69	109	DG39068	32,50	41,30
6,9	69	109	DG39069	34,00	42,80

D h6	L1	L	Code	€ uncoated	€ Tia IN
7	69	109	DG3907	34,00	42,80
7,1	69	109	DG39071	36,30	45,10
7,2	69	109	DG39072	36,30	45,10
7,3	69	109	DG39073	36,30	45,10
7,4	69	109	DG39074	36,30	45,10
7,5	69	109	DG39075	36,30	45,10
7,6	75	117	DG39076	42,80	51,70
7,7	75	117	DG39077	42,80	51,70
7,8	75	117	DG39078	42,80	51,70
7,9	75	117	DG39079	42,80	51,70
8	75	117	DG3908	42,80	51,70
8,1	75	117	DG39081	45,10	56,10
8,2	75	117	DG39082	45,10	56,10
8,3	75	117	DG39083	45,10	56,10
8,4	75	117	DG39084	45,10	56,10
8,5	75	117	DG39085	45,10	56,10
8,6	81	125	DG39086	53,20	64,20
8,7	81	125	DG39087	53,20	64,20
8,8	81	125	DG39088	53,20	64,20
8,9	81	125	DG39089	53,20	64,20
9	81	125	DG3909	53,20	64,20
9,1	81	125	DG39091	58,10	69,00
9,2	81	125	DG39092	58,10	69,00
9,3	81	125	DG39093	58,10	69,00
9,4	81	125	DG39094	58,10	69,00
9,5	81	125	DG39095	58,10	69,00
9,6	81	133	DG39096	65,50	76,40
9,7	81	133	DG39097	65,50	76,40
9,8	81	133	DG39098	65,50	76,40
9,9	81	133	DG39099	65,50	76,40
10	87	133	DG3910	65,50	76,40
10,1	87	133	DG39101	73,80	84,70
10,2	87	133	DG39102	73,80	84,70
10,3	87	133	DG39103	73,80	84,70
10,4	87	133	DG39104	73,80	84,70

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	○	○	●	○	○	○	○	○

Punte Z2 DIN 338 doppia guida per ottone

Double guide drills 2 flutes DIN 338 brass application

SERIES
DG39



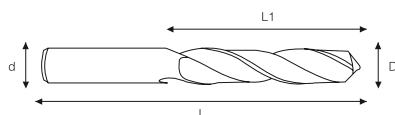
D h6	L1	L	Code	€ uncoated	€ Tia IN
10,5	87	133	DG39105	73,80	84,70
10,6	87	133	DG39106	81,40	93,20
10,7	87	133	DG39107	81,40	93,20
10,8	94	142	DG39108	86,90	101,10
10,9	94	142	DG39109	86,90	101,10
11	94	142	DG39111	86,90	101,10
11,1	94	142	DG39111	90,30	104,50
11,2	94	142	DG39112	90,30	104,50
11,3	94	142	DG39113	90,30	104,50
11,4	94	142	DG39114	90,30	104,50
11,5	94	142	DG39115	90,30	104,50
11,6	94	142	DG39116	96,10	110,30
11,7	94	142	DG39117	96,10	110,30
11,8	94	142	DG39118	96,10	110,30
11,9	101	151	DG39119	100,00	114,20
12	101	151	DG3912	100,00	114,20
12,1	101	151	DG39121	104,60	120,70
12,2	101	151	DG39122	104,60	120,70
12,3	101	151	DG39123	104,60	120,70
12,4	101	151	DG39124	104,60	120,70
12,5	101	151	DG39125	104,60	120,70
12,6	101	151	DG39126	110,90	127,00
12,7	101	151	DG39127	110,90	127,00
12,8	101	151	DG39128	110,90	127,00
12,9	101	151	DG39129	110,90	127,00
13	101	151	DG3913	110,90	127,00
13,1	108	160	DG39131	127,70	143,80
13,2	108	160	DG39132	127,70	143,80
13,3	108	160	DG39133	127,70	143,80
13,4	108	160	DG39134	127,70	143,80
13,5	108	160	DG39135	127,70	143,80
13,6	108	160	DG39136	136,00	152,10
13,7	108	160	DG39137	136,00	152,10

D h6	L1	L	Code	€ uncoated	€ Tia IN
13,8	108	160	DG39138	136,00	152,10
13,9	108	160	DG39139	136,00	152,10
14	108	160	DG3914	136,00	152,10
14,1	114	169	DG39141	156,90	173,00
14,2	114	169	DG39142	156,90	173,00
14,3	114	169	DG39143	156,90	173,00
14,4	114	169	DG39144	156,90	173,00
14,5	114	169	DG39145	156,90	173,00
14,6	114	169	DG39146	156,90	173,00
14,7	114	169	DG39147	156,90	173,00
14,8	114	169	DG39148	156,90	173,00
14,9	114	169	DG39149	156,90	173,00
15	114	169	DG3915	156,90	173,00
15,1	120	178	DG39151	183,10	199,20
15,2	120	178	DG39152	183,10	199,20
15,3	120	178	DG39153	183,10	199,20
15,4	120	178	DG39154	183,10	199,20
15,5	120	178	DG39155	183,10	199,20
15,6	120	178	DG39156	183,10	199,20
15,7	120	178	DG39157	183,10	199,20
15,8	120	178	DG39158	183,10	199,20
15,9	120	178	DG39159	183,10	199,20
16	120	178	DG3916	183,10	199,20
16,5	125	184	DG39165	212,40	242,40
17	125	184	DG3917	212,40	242,40
17,5	130	191	DG39175	233,50	263,50
18	130	191	DG3918	233,50	263,50
18,5	135	198	DG39185	257,60	304,30
19	135	198	DG3919	257,60	304,30
19,5	140	205	DG39195	293,10	339,70
20	140	205	DG3920	293,10	339,70

Punte gambo rinforzato 3xD

Reinforced shank drills 3xD

SERIES
42



D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
3	20	62	6	4203	21,80	26,40
3,1	20	62	6	42031	21,80	26,40
3,2	20	62	6	42032	21,80	26,40
3,3	20	62	6	42033	21,80	26,40
3,4	20	62	6	42034	21,80	26,40
3,5	20	62	6	42035	21,80	26,40
3,6	20	62	6	42036	21,80	26,40
3,7	20	62	6	42037	21,80	26,40
3,8	24	66	6	42038	21,80	26,40
3,9	24	66	6	42039	21,80	26,40
4	24	66	6	4204	21,80	26,40
4,1	24	66	6	42041	21,80	26,40
4,2	24	66	6	42042	21,80	26,40
4,3	24	66	6	42043	21,80	26,40
4,4	24	66	6	42044	21,80	26,40
4,5	24	66	6	42045	21,80	26,40
4,6	24	66	6	42046	21,80	26,40
4,7	24	66	6	42047	21,80	26,40
4,8	28	66	6	42048	21,80	26,40
4,9	28	66	6	42049	21,80	26,40
5	28	66	6	4205	21,80	26,40
5,1	28	66	6	42051	21,80	26,40
5,2	28	66	6	42052	21,80	26,40
5,3	28	66	6	42053	21,80	26,40
5,4	28	66	6	42054	21,80	26,40
5,5	28	66	6	42055	21,80	26,40
5,6	28	66	6	42056	21,80	26,40
5,7	28	66	6	42057	21,80	26,40
5,8	28	66	6	42058	21,80	26,40
5,9	28	66	6	42059	21,80	26,40
6	28	66	6	4206	18,50	23,20
6,1	34	79	8	42061	30,80	37,80
6,2	34	79	8	42062	30,80	37,80
6,3	34	79	8	42063	30,80	37,80
6,4	34	79	8	42064	30,80	37,80

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
6,5	34	79	8	42065	30,80	37,80
6,6	34	79	8	42066	30,80	37,80
6,7	34	79	8	42067	30,80	37,80
6,8	34	79	8	42068	30,80	37,80
6,9	34	79	8	42069	30,80	37,80
7	34	79	8	4207	30,80	37,80
7,1	41	79	8	42071	30,80	37,80
7,2	41	79	8	42072	30,80	37,80
7,3	41	79	8	42073	30,80	37,80
7,4	41	79	8	42074	30,80	37,80
7,5	41	79	8	42075	30,80	37,80
7,6	41	79	8	42076	30,80	37,80
7,7	41	79	8	42077	30,80	37,80
7,8	41	79	8	42078	30,80	37,80
7,9	41	79	8	42079	30,80	37,80
8	41	79	8	4208	27,60	34,60
8,1	47	89	10	42081	44,10	52,50
8,2	47	89	10	42082	44,10	52,50
8,3	47	89	10	42083	44,10	52,50
8,4	47	89	10	42084	44,10	52,50
8,5	47	89	10	42085	44,10	52,50
8,6	47	89	10	42086	44,10	52,50
8,7	47	89	10	42087	44,10	52,50
8,8	47	89	10	42088	44,10	52,50
8,9	47	89	10	42089	44,10	52,50
9	47	89	10	4209	44,10	52,50
9,1	47	89	10	42091	44,10	52,50
9,2	47	89	10	42092	44,10	52,50
9,3	47	89	10	42093	44,10	52,50
9,4	47	89	10	42094	44,10	52,50
9,5	47	89	10	42095	44,10	52,50
9,6	47	89	10	42096	44,10	52,50
9,7	47	89	10	42097	44,10	52,50
9,8	47	89	10	42098	44,10	52,50
9,9	47	89	10	42099	44,10	52,50

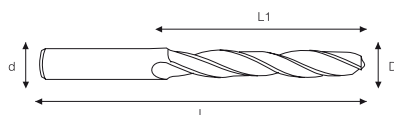
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	●	●	○	●	○

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
10	47	89	10	4210	38,90	47,30
10,1	55	102	12	42101	67,60	78,30
10,2	55	102	12	42102	67,60	78,30
10,3	55	102	12	42103	67,60	78,30
10,4	55	102	12	42104	67,60	78,30
10,5	55	102	12	42105	67,60	78,30
10,6	55	102	12	42106	67,60	78,30
10,7	55	102	12	42107	67,60	78,30
10,8	55	102	12	42108	67,60	78,30
10,9	55	102	12	42109	67,60	78,30
11	55	102	12	4211	67,60	78,30
11,1	55	102	12	42111	67,60	78,30
11,2	55	102	12	42112	67,60	78,30
11,3	55	102	12	42113	67,60	78,30
11,4	55	102	12	42114	67,60	78,30
11,5	55	102	12	42115	67,60	78,30
11,6	55	102	12	42116	67,60	78,30
11,7	55	102	12	42117	67,60	78,30
11,8	55	102	12	42118	67,60	78,30
11,9	55	102	12	42119	67,60	78,30
12	55	102	12	4212	61,80	72,50
12,5	60	107	14	42125	89,70	101,50
12,8	60	107	14	42128	89,70	101,50
13	60	107	14	4213	89,70	101,50
13,5	60	107	14	42135	89,70	101,50
13,8	60	107	14	42138	89,70	101,50
14	60	107	14	4214	82,00	93,80
14,5	65	115	16	42145	115,00	126,80
14,8	65	115	16	42148	115,00	126,80
15	65	115	16	4215	115,00	126,80
15,5	65	115	16	42155	115,00	126,80
15,8	65	115	16	42158	115,00	126,80
16	65	115	16	4216	107,30	119,10
16,5	73	123	18	42165	145,70	159,30
16,8	73	123	18	42168	145,70	159,30
17	73	123	18	4217	145,70	159,30
17,5	73	123	18	42175	145,70	159,30
17,8	73	123	18	42178	145,70	159,30
18	73	123	18	4218	138,00	151,60
18,5	79	131	20	42185	181,50	198,30
18,8	79	131	20	42188	181,50	198,30
19	79	131	20	4219	181,50	198,30
19,5	79	131	20	42195	181,50	198,30
19,8	79	131	20	42198	181,50	198,30
20	79	131	20	4220	173,80	190,60

Punte con fori di lubrificazione 3xD

Through coolant drills 3xD

SERIES
45



D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
4	24	66	6	4504	32,00	36,90
4,1	24	66	6	45041	32,00	36,90
4,2	24	66	6	45042	32,00	36,90
4,3	24	66	6	45043	32,00	36,90
4,4	24	66	6	45044	32,00	36,90
4,5	24	66	6	45045	32,00	36,90
4,6	24	66	6	45046	32,00	36,90
4,7	24	66	6	45047	32,00	36,90
4,8	28	66	6	45048	32,00	36,90
4,9	28	66	6	45049	32,00	36,90
5	28	66	6	4505	32,00	36,90
5,1	28	66	6	45051	32,00	36,90
5,2	28	66	6	45052	32,00	36,90
5,3	28	66	6	45053	32,00	36,90
5,4	28	66	6	45054	32,00	36,90
5,5	28	66	6	45055	32,00	36,90
5,6	28	66	6	45056	32,00	36,90
5,7	28	66	6	45057	32,00	36,90
5,8	28	66	6	45058	32,00	36,90
5,9	28	66	6	45059	32,00	36,90
6	28	66	6	4506	29,70	34,70
6,1	34	79	8	45061	51,00	58,50
6,2	34	79	8	45062	51,00	58,50
6,3	34	79	8	45063	51,00	58,50
6,4	34	79	8	45064	51,00	58,50
6,5	34	79	8	45065	51,00	58,50
6,6	34	79	8	45066	51,00	58,50
6,7	34	79	8	45067	51,00	58,50
6,8	34	79	8	45068	51,00	58,50
6,9	34	79	8	45069	51,00	58,50
7	34	79	8	4507	51,00	58,50
7,1	41	79	8	45071	51,00	58,50
7,2	41	79	8	45072	51,00	58,50
7,3	41	79	8	45073	51,00	58,50
7,4	41	79	8	45074	51,00	58,50

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
7,5	41	79	8	45075	51,00	58,50
7,6	41	79	8	45076	51,00	58,50
7,7	41	79	8	45077	51,00	58,50
7,8	41	79	8	45078	51,00	58,50
7,9	41	79	8	45079	51,00	58,50
8	41	79	8	4508	48,70	56,20
8,1	47	89	10	45081	67,00	76,00
8,2	47	89	10	45082	67,00	76,00
8,3	47	89	10	45083	67,00	76,00
8,4	47	89	10	45084	67,00	76,00
8,5	47	89	10	45085	67,00	76,00
8,6	47	89	10	45086	67,00	76,00
8,7	47	89	10	45087	67,00	76,00
8,8	47	89	10	45088	67,00	76,00
8,9	47	89	10	45089	67,00	76,00
9	47	89	10	4509	67,00	76,00
9,1	47	89	10	45091	67,00	76,00
9,2	47	89	10	45092	67,00	76,00
9,3	47	89	10	45093	67,00	76,00
9,4	47	89	10	45094	67,00	76,00
9,5	47	89	10	45095	67,00	76,00
9,6	47	89	10	45096	67,00	76,00
9,7	47	89	10	45097	67,00	76,00
9,8	47	89	10	45098	67,00	76,00
9,9	47	89	10	45099	67,00	76,00
10	47	89	10	4510	62,50	71,50
10,1	55	102	12	45101	106,70	118,20
10,2	55	102	12	45102	106,70	118,20
10,3	55	102	12	45103	106,70	118,20
10,4	55	102	12	45104	106,70	118,20
10,5	55	102	12	45105	106,70	118,20
10,6	55	102	12	45106	106,70	118,20
10,7	55	102	12	45107	106,70	118,20
10,8	55	102	12	45108	106,70	118,20
10,9	55	102	12	45109	106,70	118,20

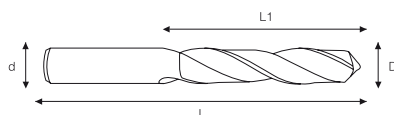
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	●	●	○	●	○

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
11	55	102	12	4511	106,70	118,20
11,1	55	102	12	45111	106,70	118,20
11,2	55	102	12	45112	106,70	118,20
11,3	55	102	12	45113	106,70	118,20
11,4	55	102	12	45114	106,70	118,20
11,5	55	102	12	45115	106,70	118,20
11,6	55	102	12	45116	106,70	118,20
11,7	55	102	12	45117	106,70	118,20
11,8	55	102	12	45118	106,70	118,20
11,9	55	102	12	45119	106,70	118,20
12	55	102	12	4512	102,20	113,70
12,5	60	107	14	45125	135,80	148,40
12,8	60	107	14	45128	135,80	148,40
13	60	107	14	4513	135,80	148,40
13,5	60	107	14	45135	135,80	148,40
13,8	60	107	14	45138	135,80	148,40
14	60	107	14	4514	129,00	141,70
14,5	65	115	16	45145	220,50	233,20
14,8	65	115	16	45148	220,50	233,20
15	65	115	16	4515	220,50	233,20
15,5	65	115	16	45155	220,50	233,20
15,8	65	115	16	45158	220,50	233,20
16	65	115	16	4516	213,80	226,40
16,5	73	123	18	45165	291,80	306,30
16,8	73	123	18	45168	291,80	306,30
17	73	123	18	4517	291,80	306,30
17,5	73	123	18	45175	291,80	306,30
17,8	73	123	18	45178	291,80	306,30
18	73	123	18	4518	285,00	299,50
18,5	79	131	20	45185	346,90	364,90
18,8	79	131	20	45188	346,90	364,90
19	79	131	20	4519	346,90	364,90
19,5	79	131	20	45195	346,90	364,90
19,8	79	131	20	45198	346,90	364,90
20	79	131	20	4520	342,40	360,40

Punte gambo rinforzato 5xD

Reinforced shank drills 5xD

SERIES
43



D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
3	28	66	6	4303	21,80	26,40
3,1	28	66	6	43031	21,80	26,40
3,2	28	66	6	43032	21,80	26,40
3,3	28	66	6	43033	21,80	26,40
3,4	28	66	6	43034	21,80	26,40
3,5	28	66	6	43035	21,80	26,40
3,6	28	66	6	43036	21,80	26,40
3,7	28	66	6	43037	21,80	26,40
3,8	36	74	6	43038	25,80	31,70
3,9	36	74	6	43039	25,80	31,70
4	36	74	6	4304	25,80	31,70
4,1	36	74	6	43041	25,80	31,70
4,2	36	74	6	43042	25,80	31,70
4,3	36	74	6	43043	25,80	31,70
4,4	36	74	6	43044	25,80	31,70
4,5	36	74	6	43045	25,80	31,70
4,6	36	74	6	43046	25,80	31,70
4,7	36	74	6	43047	25,80	31,70
4,8	44	82	6	43048	25,80	31,70
4,9	44	82	6	43049	25,80	31,70
5	44	82	6	4305	25,80	31,70
5,1	44	82	6	43051	25,80	31,70
5,2	44	82	6	43052	25,80	31,70
5,3	44	82	6	43053	25,80	31,70
5,4	44	82	6	43054	25,80	31,70
5,5	44	82	6	43055	25,80	31,70
5,6	44	82	6	43056	25,80	31,70
5,7	44	82	6	43057	25,80	31,70
5,8	44	82	6	43058	25,80	31,70
5,9	44	82	6	43059	25,80	31,70
6	44	82	6	4306	22,50	28,40
6,1	53	91	8	43061	39,00	46,00
6,2	53	91	8	43062	39,00	46,00
6,3	53	91	8	43063	39,00	46,00
6,4	53	91	8	43064	39,00	46,00

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
6,5	53	91	8	43065	39,00	46,00
6,6	53	91	8	43066	39,00	46,00
6,7	53	91	8	43067	39,00	46,00
6,8	53	91	8	43068	39,00	46,00
6,9	53	91	8	43069	39,00	46,00
7	53	91	8	4307	39,00	46,00
7,1	53	91	8	43071	39,00	46,00
7,2	53	91	8	43072	39,00	46,00
7,3	53	91	8	43073	39,00	46,00
7,4	53	91	8	43074	39,00	46,00
7,5	53	91	8	43075	39,00	46,00
7,6	53	91	8	43076	39,00	46,00
7,7	53	91	8	43077	39,00	46,00
7,8	53	91	8	43078	39,00	46,00
7,9	53	91	8	43079	39,00	46,00
8	53	91	8	4308	33,80	40,80
8,1	61	103	10	43081	54,80	65,60
8,2	61	103	10	43082	54,80	65,60
8,3	61	103	10	43083	54,80	65,60
8,4	61	103	10	43084	54,80	65,60
8,5	61	103	10	43085	54,80	65,60
8,6	61	103	10	43086	54,80	65,60
8,7	61	103	10	43087	54,80	65,60
8,8	61	103	10	43088	54,80	65,60
8,9	61	103	10	43089	54,80	65,60
9	61	103	10	4309	54,80	65,60
9,1	61	103	10	43091	54,80	65,60
9,2	61	103	10	43092	54,80	65,60
9,3	61	103	10	43093	54,80	65,60
9,4	61	103	10	43094	54,80	65,60
9,5	61	103	10	43095	54,80	65,60
9,6	61	103	10	43096	54,80	65,60
9,7	61	103	10	43097	54,80	65,60
9,8	61	103	10	43098	54,80	65,60
9,9	61	103	10	43099	54,80	65,60

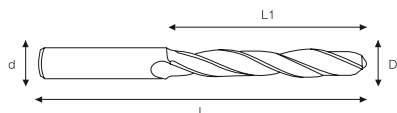
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	●	●	○	●	●	●	○	●	○

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
10	61	103	10	4310	49,10	59,80
10,1	71	118	12	43101	77,80	88,50
10,2	71	118	12	43102	77,80	88,50
10,3	71	118	12	43103	77,80	88,50
10,4	71	118	12	43104	77,80	88,50
10,5	71	118	12	43105	77,80	88,50
10,6	71	118	12	43106	77,80	88,50
10,7	71	118	12	43107	77,80	88,50
10,8	71	118	12	43108	77,80	88,50
10,9	71	118	12	43109	77,80	88,50
11	71	118	12	4311	77,80	88,50
11,1	71	118	12	43111	77,80	88,50
11,2	71	118	12	43112	77,80	88,50
11,3	71	118	12	43113	77,80	88,50
11,4	71	118	12	43114	77,80	88,50
11,5	71	118	12	43115	77,80	88,50
11,6	71	118	12	43116	77,80	88,50
11,7	71	118	12	43117	77,80	88,50
11,8	71	118	12	43118	77,80	88,50
11,9	71	118	12	43119	77,80	88,50
12	71	118	12	4312	73,90	84,60
12,5	77	124	14	43125	104,50	116,30
12,8	77	124	14	43128	104,50	116,30
13	77	124	14	4313	104,50	116,30
13,5	77	124	14	43135	104,50	116,30
13,8	77	124	14	43138	104,50	116,30
14	77	124	14	4314	98,70	110,50
14,5	83	133	16	43145	130,80	142,60
14,8	83	133	16	43148	130,80	142,60
15	83	133	16	4315	130,80	142,60
15,5	83	133	16	43155	130,80	142,60
15,8	83	133	16	43158	130,80	142,60
16	83	133	16	4316	126,90	138,70
16,5	93	143	18	43165	165,80	184,00
16,8	93	143	18	43168	165,80	184,00
17	93	143	18	4317	165,80	184,00
17,5	93	143	18	43175	165,80	184,00
17,8	93	143	18	43178	165,80	184,00
18	93	143	18	4318	161,90	180,10
18,5	101	153	20	43185	220,60	245,80
18,8	101	153	20	43188	220,60	245,80
19	101	153	20	4319	220,60	245,80
19,5	101	153	20	43195	220,60	245,80
19,8	101	153	20	43198	220,60	245,80
20	101	153	20	4320	216,80	242,00

Punte con fori di lubrificazione 5xD

Through coolant drills 5xD

SERIES
46



D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
4	36	74	6	4604	40,40	46,80
4,1	36	74	6	46041	40,40	46,80
4,2	36	74	6	46042	40,40	46,80
4,3	36	74	6	46043	40,40	46,80
4,4	36	74	6	46044	40,40	46,80
4,5	36	74	6	46045	40,40	46,80
4,6	36	74	6	46046	40,40	46,80
4,7	36	74	6	46047	40,40	46,80
4,8	44	82	6	46048	40,40	46,80
4,9	44	82	6	46049	40,40	46,80
5	44	82	6	4605	40,40	46,80
5,1	44	82	6	46051	40,40	46,80
5,2	44	82	6	46052	40,40	46,80
5,3	44	82	6	46053	40,40	46,80
5,4	44	82	6	46054	40,40	46,80
5,5	44	82	6	46055	40,40	46,80
5,6	44	82	6	46056	40,40	46,80
5,7	44	82	6	46057	40,40	46,80
5,8	44	82	6	46058	40,40	46,80
5,9	44	82	6	46059	40,40	46,80
6	44	82	6	4606	35,90	42,30
6,1	53	91	8	46061	58,50	66,00
6,2	53	91	8	46062	58,50	66,00
6,3	53	91	8	46063	58,50	66,00
6,4	53	91	8	46064	58,50	66,00
6,5	53	91	8	46065	58,50	66,00
6,6	53	91	8	46066	58,50	66,00
6,7	53	91	8	46067	58,50	66,00
6,8	53	91	8	46068	58,50	66,00
6,9	53	91	8	46069	58,50	66,00
7	53	91	8	4607	58,50	66,00
7,1	53	91	8	46071	58,50	66,00
7,2	53	91	8	46072	58,50	66,00
7,3	53	91	8	46073	58,50	66,00
7,4	53	91	8	46074	58,50	66,00

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
7,5	53	91	8	46075	58,50	66,00
7,6	53	91	8	46076	58,50	66,00
7,7	53	91	8	46077	58,50	66,00
7,8	53	91	8	46078	58,50	66,00
7,9	53	91	8	46079	58,50	66,00
8	53	91	8	4608	54,00	61,50
8,1	61	103	10	46081	80,90	92,30
8,2	61	103	10	46082	80,90	92,30
8,3	61	103	10	46083	80,90	92,30
8,4	61	103	10	46084	80,90	92,30
8,5	61	103	10	46085	80,90	92,30
8,6	61	103	10	46086	80,90	92,30
8,7	61	103	10	46087	80,90	92,30
8,8	61	103	10	46088	80,90	92,30
8,9	61	103	10	46089	80,90	92,30
9	61	103	10	4609	80,90	92,30
9,1	61	103	10	46091	80,90	92,30
9,2	61	103	10	46092	80,90	92,30
9,3	61	103	10	46093	80,90	92,30
9,4	61	103	10	46094	80,90	92,30
9,5	61	103	10	46095	80,90	92,30
9,6	61	103	10	46096	80,90	92,30
9,7	61	103	10	46097	80,90	92,30
9,8	61	103	10	46098	80,90	92,30
9,9	61	103	10	46099	80,90	92,30
10	61	103	10	4610	74,10	85,60
10,1	71	118	12	46101	144,80	156,20
10,2	71	118	12	46102	144,80	156,20
10,3	71	118	12	46103	144,80	156,20
10,4	71	118	12	46104	144,80	156,20
10,5	71	118	12	46105	144,80	156,20
10,6	71	118	12	46106	144,80	156,20
10,7	71	118	12	46107	144,80	156,20
10,8	71	118	12	46108	144,80	156,20
10,9	71	118	12	46109	144,80	156,20

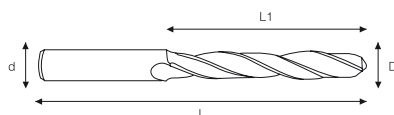
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	●	●	○	●	●	●	○	●	○

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
11	71	118	12	4611	144,80	156,20
11,1	71	118	12	46111	144,80	156,20
11,2	71	118	12	46112	144,80	156,20
11,3	71	118	12	46113	144,80	156,20
11,4	71	118	12	46114	144,80	156,20
11,5	71	118	12	46115	144,80	156,20
11,6	71	118	12	46116	144,80	156,20
11,7	71	118	12	46117	144,80	156,20
11,8	71	118	12	46118	144,80	156,20
11,9	71	118	12	46119	144,80	156,20
12	71	118	12	4612	140,30	151,70
12,5	77	124	14	46125	187,90	200,50
12,8	77	124	14	46128	187,90	200,50
13	77	124	14	4613	187,90	200,50
13,5	77	124	14	46135	187,90	200,50
13,8	77	124	14	46138	187,90	200,50
14	77	124	14	4614	178,90	191,50
14,5	83	133	16	46145	227,30	239,90
14,8	83	133	16	46148	227,30	239,90
15	83	133	16	4615	227,30	239,90
15,5	83	133	16	46155	227,30	239,90
15,8	83	133	16	46158	227,30	239,90
16	83	133	16	4616	220,50	233,20
16,5	93	143	18	46165	303,00	322,60
16,8	93	143	18	46168	303,00	322,60
17	93	143	18	4617	303,00	322,60
17,5	93	143	18	46175	303,00	322,60
17,8	93	143	18	46178	303,00	322,60
18	93	143	18	4618	294,00	313,60
18,5	101	153	20	46185	360,40	387,40
18,8	101	153	20	46188	360,40	387,40
19	101	153	20	4619	360,40	387,40
19,5	101	153	20	46195	360,40	387,40
19,8	101	153	20	46198	360,40	387,40
20	101	153	20	4620	353,70	380,60

Punte con fori di lubrificazione 8xD

Through coolant drills 8xD

SERIES
49



D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
4	43	81	6	4904	45,80	52,20
4,1	43	81	6	49041	45,80	52,20
4,2	43	81	6	49042	45,80	52,20
4,3	43	81	6	49043	45,80	52,20
4,4	43	81	6	49044	45,80	52,20
4,5	43	81	6	49045	45,80	52,20
4,6	43	81	6	49046	45,80	52,20
4,7	43	81	6	49047	45,80	52,20
4,8	57	95	6	49048	45,80	52,20
4,9	57	95	6	49049	45,80	52,20
5	57	95	6	4905	45,80	52,20
5,1	57	95	6	49051	45,80	52,20
5,2	57	95	6	49052	45,80	52,20
5,3	57	95	6	49053	45,80	52,20
5,4	57	95	6	49054	45,80	52,20
5,5	57	95	6	49055	45,80	52,20
5,6	57	95	6	49056	45,80	52,20
5,7	57	95	6	49057	45,80	52,20
5,8	57	95	6	49058	45,80	52,20
5,9	57	95	6	49059	45,80	52,20
6	57	95	6	4906	41,30	47,70
6,1	76	114	8	49061	70,70	80,00
6,2	76	114	8	49062	70,70	80,00
6,3	76	114	8	49063	70,70	80,00
6,4	76	114	8	49064	70,70	80,00
6,5	76	114	8	49065	70,70	80,00
6,6	76	114	8	49066	70,70	80,00
6,7	76	114	8	49067	70,70	80,00
6,8	76	114	8	49068	70,70	80,00
6,9	76	114	8	49069	70,70	80,00
7	76	114	8	4907	70,70	80,00
7,1	76	114	8	49071	70,70	80,00
7,2	76	114	8	49072	70,70	80,00
7,3	76	114	8	49073	70,70	80,00
7,4	76	114	8	49074	70,70	80,00

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
7,5	76	114	8	49075	70,70	80,00
7,6	76	114	8	49076	70,70	80,00
7,7	76	114	8	49077	70,70	80,00
7,8	76	114	8	49078	70,70	80,00
7,9	76	114	8	49079	70,70	80,00
8	76	114	8	4908	66,20	75,50
8,1	95	142	10	49081	113,40	127,20
8,2	95	142	10	49082	113,40	127,20
8,3	95	142	10	49083	113,40	127,20
8,4	95	142	10	49084	113,40	127,20
8,5	95	142	10	49085	113,40	127,20
8,6	95	142	10	49086	113,40	127,20
8,7	95	142	10	49087	113,40	127,20
8,8	95	142	10	49088	113,40	127,20
8,9	95	142	10	49089	113,40	127,20
9	95	142	10	4909	113,40	127,20
9,1	95	142	10	49091	113,40	127,20
9,2	95	142	10	49092	113,40	127,20
9,3	95	142	10	49093	113,40	127,20
9,4	95	142	10	49094	113,40	127,20
9,5	95	142	10	49095	113,40	127,20
9,6	95	142	10	49096	113,40	127,20
9,7	95	142	10	49097	113,40	127,20
9,8	95	142	10	49098	113,40	127,20
9,9	95	142	10	49099	113,40	127,20
10	95	142	10	4910	108,90	122,70
10,1	114	162	12	49101	156,60	170,40
10,2	114	162	12	49102	156,60	170,40
10,3	114	162	12	49103	156,60	170,40
10,4	114	162	12	49104	156,60	170,40
10,5	114	162	12	49105	156,60	170,40
10,6	114	162	12	49106	156,60	170,40
10,7	114	162	12	49107	156,60	170,40
10,8	114	162	12	49108	156,60	170,40
10,9	114	162	12	49109	156,60	170,40

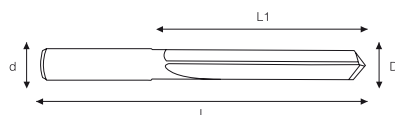
APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	●	●	●	○	●	○

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
11	114	162	12	4911	156,60	170,40
11,1	114	162	12	49111	156,60	170,40
11,2	114	162	12	49112	156,60	170,40
11,3	114	162	12	49113	156,60	170,40
11,4	114	162	12	49114	156,60	170,40
11,5	114	162	12	49115	156,60	170,40
11,6	114	162	12	49116	156,60	170,40
11,7	114	162	12	49117	156,60	170,40
11,8	114	162	12	49118	156,60	170,40
11,9	114	162	12	49119	156,60	170,40
12	114	162	12	4912	152,10	165,90
12,5	133	178	14	49125	211,50	227,20
12,8	133	178	14	49128	211,50	227,20
13	133	178	14	4913	211,50	227,20
13,5	133	178	14	49135	211,50	227,20
13,8	133	178	14	49138	211,50	227,20
14	133	178	14	4914	207,00	222,70
14,5	152	203	16	49145	296,30	319,00
14,8	152	203	16	49148	296,30	319,00
15	152	203	16	4915	296,30	319,00
15,5	152	203	16	49155	296,30	319,00
15,8	152	203	16	49158	296,30	319,00
16	152	203	16	4916	289,50	312,30
16,5	171	222	18	49165	533,50	568,80
16,8	171	222	18	49168	533,50	568,80
17	171	222	18	4917	533,50	568,80
17,5	171	222	18	49175	533,50	568,80
17,8	171	222	18	49178	533,50	568,80
18	171	222	18	4918	526,80	562,10
18,5	190	243	20	49185	655,00	706,00
18,8	190	243	20	49188	655,00	706,00
19	190	243	20	4919	655,00	706,00
19,5	190	243	20	49195	655,00	706,00
19,8	190	243	20	49198	655,00	706,00
20	190	243	20	4920	632,50	683,50

Punte gambo rinforzato con fori di lubrificazione elica diritta per ghisa e ottone 3xD

Reinforced shank straight flutes drills with through coolant 3xD, cast iron and brass application

SERIES
47



D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
4	24	66	6	4704	32,00	36,90
4,1	24	66	6	47041	32,00	36,90
4,2	24	66	6	47042	32,00	36,90
4,3	24	66	6	47043	32,00	36,90
4,4	24	66	6	47044	32,00	36,90
4,5	24	66	6	47045	32,00	36,90
4,6	24	66	6	47046	32,00	36,90
4,7	24	66	6	47047	32,00	36,90
4,8	28	66	6	47048	32,00	36,90
4,9	28	66	6	47049	32,00	36,90
5	28	66	6	4705	32,00	36,90
5,1	28	66	6	47051	32,00	36,90
5,2	28	66	6	47052	32,00	36,90
5,3	28	66	6	47053	32,00	36,90
5,4	28	66	6	47054	32,00	36,90
5,5	28	66	6	47055	32,00	36,90
5,6	28	66	6	47056	32,00	36,90
5,7	28	66	6	47057	32,00	36,90
5,8	28	66	6	47058	32,00	36,90
5,9	28	66	6	47059	32,00	36,90
6	28	66	6	4706	29,70	34,70
6,1	34	79	8	47061	47,80	55,00
6,2	34	79	8	47062	47,80	55,00
6,3	34	79	8	47063	47,80	55,00
6,4	34	79	8	47064	47,80	55,00
6,5	34	79	8	47065	47,80	55,00
6,6	34	79	8	47066	47,80	55,00
6,7	34	79	8	47067	47,80	55,00
6,8	34	79	8	47068	47,80	55,00
6,9	34	79	8	47069	47,80	55,00
7	34	79	8	4707	47,80	55,00
7,1	41	79	8	47071	47,80	55,00
7,2	41	79	8	47072	47,80	55,00
7,3	41	79	8	47073	47,80	55,00
7,4	41	79	8	47074	47,80	55,00

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
7,5	41	79	8	47075	47,80	55,00
7,6	41	79	8	47076	47,80	55,00
7,7	41	79	8	47077	47,80	55,00
7,8	41	79	8	47078	47,80	55,00
7,9	41	79	8	47079	47,80	55,00
8	41	79	8	4708	43,00	50,80
8,1	47	89	10	47081	65,00	74,00
8,2	47	89	10	47082	65,00	74,00
8,3	47	89	10	47083	65,00	74,00
8,4	47	89	10	47084	65,00	74,00
8,5	47	89	10	47085	65,00	74,00
8,6	47	89	10	47086	65,00	74,00
8,7	47	89	10	47087	65,00	74,00
8,8	47	89	10	47088	65,00	74,00
8,9	47	89	10	47089	65,00	74,00
9	47	89	10	4709	65,00	74,00
9,1	47	89	10	47091	65,00	74,00
9,2	47	89	10	47092	65,00	74,00
9,3	47	89	10	47093	65,00	74,00
9,4	47	89	10	47094	65,00	74,00
9,5	47	89	10	47095	65,00	74,00
9,6	47	89	10	47096	65,00	74,00
9,7	47	89	10	47097	65,00	74,00
9,8	47	89	10	47098	65,00	74,00
9,9	47	89	10	47099	65,00	74,00
10	47	89	10	4710	60,80	69,70
10,1	55	102	12	47101	93,00	104,00
10,2	55	102	12	47102	93,00	104,00
10,3	55	102	12	47103	93,00	104,00
10,4	55	102	12	47104	93,00	104,00
10,5	55	102	12	47105	93,00	104,00
10,6	55	102	12	47106	93,00	104,00
10,7	55	102	12	47107	93,00	104,00
10,8	55	102	12	47108	93,00	104,00
10,9	55	102	12	47109	93,00	104,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	●	○	●	●	○	○	○	○

Punte gambo rinforzato con fori di lubrificazione elica dritta per ghisa e ottone 3xD

Reinforced shank straight flutes drills with through coolant 3xD, cast iron and brass application

SERIES
47

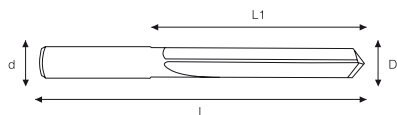
DUCCI

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
11	55	102	12	4711	93,00	104,00
11,1	55	102	12	47111	93,00	104,00
11,2	55	102	12	47112	93,00	104,00
11,3	55	102	12	47113	93,00	104,00
11,4	55	102	12	47114	93,00	104,00
11,5	55	102	12	47115	93,00	104,00
11,6	55	102	12	47116	93,00	104,00
11,7	55	102	12	47117	93,00	104,00
11,8	55	102	12	47118	93,00	104,00
11,9	55	102	12	47119	93,00	104,00
12	55	102	12	4712	88,50	99,90
12,5	60	107	14	47125	119,00	132,00
12,8	60	107	14	47128	119,00	132,00
13	60	107	14	4713	119,00	132,00
13,5	60	107	14	47135	119,00	132,00
13,8	60	107	14	47138	119,00	132,00
14	60	107	14	4714	114,70	127,00
14,5	65	115	16	47145	185,00	198,00
14,8	65	115	16	47148	185,00	198,00
15	65	115	16	4715	185,00	198,00
15,5	65	115	16	47155	185,00	198,00
15,8	65	115	16	47158	185,00	198,00
16	65	115	16	4716	178,50	191,00
16,5	73	123	18	47165	215,00	230,00
16,8	73	123	18	47168	215,00	230,00
17	73	123	18	4717	215,00	230,00
17,5	73	123	18	47175	215,00	230,00
17,8	73	123	18	47178	215,00	230,00
18	73	123	18	4718	208,50	223,00
18,5	79	131	20	47185	254,00	272,00
18,8	79	131	20	47188	254,00	272,00
19	79	131	20	4719	254,00	272,00
19,5	79	131	20	47195	254,00	272,00
19,8	79	131	20	47198	254,00	272,00
20	79	131	20	4720	246,00	264,00

Punte con fori di lubrificazione elica diritta per ghisa e ottone 5xD

Reinforced shank straight flutes drills with through coolant 5xD, cast iron and brass application

SERIES
48



D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
4	36	74	6	4804	40,10	46,50
4,1	36	74	6	48041	40,10	46,50
4,2	36	74	6	48042	40,10	46,50
4,3	36	74	6	48043	40,10	46,50
4,4	36	74	6	48044	40,10	46,50
4,5	36	74	6	48045	40,10	46,50
4,6	36	74	6	48046	40,10	46,50
4,7	36	74	6	48047	40,10	46,50
4,8	44	82	6	48048	40,10	46,50
4,9	44	82	6	48049	40,10	46,50
5	44	82	6	4805	40,10	46,50
5,1	44	82	6	48051	40,10	46,50
5,2	44	82	6	48052	40,10	46,50
5,3	44	82	6	48053	40,10	46,50
5,4	44	82	6	48054	40,10	46,50
5,5	44	82	6	48055	40,10	46,50
5,6	44	82	6	48056	40,10	46,50
5,7	44	82	6	48057	40,10	46,50
5,8	44	82	6	48058	40,10	46,50
5,9	44	82	6	48059	40,10	46,50
6	44	82	6	4806	35,60	42,00
6,1	53	91	8	48061	53,30	60,80
6,2	53	91	8	48062	53,30	60,80
6,3	53	91	8	48063	53,30	60,80
6,4	53	91	8	48064	53,30	60,80
6,5	53	91	8	48065	53,30	60,80
6,6	53	91	8	48066	53,30	60,80
6,7	53	91	8	48067	53,30	60,80
6,8	53	91	8	48068	53,30	60,80
6,9	53	91	8	48069	53,30	60,80
7	53	91	8	4807	53,30	60,80
7,1	53	91	8	48071	53,30	60,80
7,2	53	91	8	48072	53,30	60,80
7,3	53	91	8	48073	53,30	60,80
7,4	53	91	8	48074	53,30	60,80

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
7,5	53	91	8	48075	53,30	60,80
7,6	53	91	8	48076	53,30	60,80
7,7	53	91	8	48077	53,30	60,80
7,8	53	91	8	48078	53,30	60,80
7,9	53	91	8	48079	53,30	60,80
8	53	91	8	4808	48,80	56,30
8,1	61	103	10	48081	73,60	85,10
8,2	61	103	10	48082	73,60	85,10
8,3	61	103	10	48083	73,60	85,10
8,4	61	103	10	48084	73,60	85,10
8,5	61	103	10	48085	73,60	85,10
8,6	61	103	10	48086	73,60	85,10
8,7	61	103	10	48087	73,60	85,10
8,8	61	103	10	48088	73,60	85,10
8,9	61	103	10	48089	73,60	85,10
9	61	103	10	4809	73,60	85,10
9,1	61	103	10	48091	73,60	85,10
9,2	61	103	10	48092	73,60	85,10
9,3	61	103	10	48093	73,60	85,10
9,4	61	103	10	48094	73,60	85,10
9,5	61	103	10	48095	73,60	85,10
9,6	61	103	10	48096	73,60	85,10
9,7	61	103	10	48097	73,60	85,10
9,8	61	103	10	48098	73,60	85,10
9,9	61	103	10	48099	73,60	85,10
10	61	103	10	4810	66,90	78,30
10,1	71	118	12	48101	119,30	130,70
10,2	71	118	12	48102	119,30	130,70
10,3	71	118	12	48103	119,30	130,70
10,4	71	118	12	48104	119,30	130,70
10,5	71	118	12	48105	119,30	130,70
10,6	71	118	12	48106	119,30	130,70
10,7	71	118	12	48107	119,30	130,70
10,8	71	118	12	48108	119,30	130,70
10,9	71	118	12	48109	119,30	130,70

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE/ GRAPHITE
	○	●	○	●	●	○	○	○	○

Punte con fori di lubrificazione elica dritta per ghisa e ottone 5xD

Reinforced shank straight flutes drills with through coolant 5xD, cast iron and brass application

SERIES
48

DUCCI

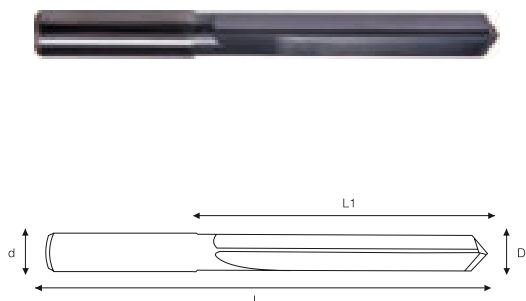
D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
11	71	118	12	4811	119,30	130,70
11,1	71	118	12	48111	119,30	130,70
11,2	71	118	12	48112	119,30	130,70
11,3	71	118	12	48113	119,30	130,70
11,4	71	118	12	48114	119,30	130,70
11,5	71	118	12	48115	119,30	130,70
11,6	71	118	12	48116	119,30	130,70
11,7	71	118	12	48117	119,30	130,70
11,8	71	118	12	48118	119,30	130,70
11,9	71	118	12	48119	119,30	130,70
12	71	118	12	4812	110,30	121,70
12,5	77	124	14	48125	154,00	166,70
12,8	77	124	14	48128	154,00	166,70
13	77	124	14	4813	154,00	166,70
13,5	77	124	14	48135	154,00	166,70
13,8	77	124	14	48138	154,00	166,70
14	77	124	14	4814	145,00	157,70
14,5	83	133	16	48145	183,00	195,60
14,8	83	133	16	48148	183,00	195,60
15	83	133	16	4815	183,00	195,60
15,5	83	133	16	48155	183,00	195,60
15,8	83	133	16	48158	183,00	195,60
16	83	133	16	4816	176,30	188,90
16,5	93	143	18	48165	215,30	234,80
16,8	93	143	18	48168	215,30	234,80
17	93	143	18	4817	215,30	234,80
17,5	93	143	18	48175	215,30	234,80
17,8	93	143	18	48178	215,30	234,80
18	93	143	18	4818	208,50	228,00
18,5	101	153	20	48185	255,70	282,60
18,8	101	153	20	48188	255,70	282,60
19	101	153	20	4819	255,70	282,60
19,5	101	153	20	48195	255,70	282,60
19,8	101	153	20	48198	255,70	282,60
20	101	153	20	4820	251,20	278,10

Punte con fori di lubrificazione elica diritta per ghisa e ottone 8xD

Through coolant straight flute drills designed for cast iron and brass application 8xD

SERIES
49D

DUCCI



D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
4	43	81	6	4904D	47,60	54,00
4,1	43	81	6	49041D	47,60	54,00
4,2	43	81	6	49042D	47,60	54,00
4,3	43	81	6	49043D	47,60	54,00
4,4	43	81	6	49044D	47,60	54,00
4,5	43	81	6	49045D	47,60	54,00
4,6	43	81	6	49046D	47,60	54,00
4,7	43	81	6	49047D	47,60	54,00
4,8	57	95	6	49048D	47,60	54,00
4,9	57	95	6	49049D	47,60	54,00
5	57	95	6	4905D	47,60	54,00
5,1	57	95	6	49051D	47,60	54,00
5,2	57	95	6	49052D	47,60	54,00
5,3	57	95	6	49053D	47,60	54,00
5,4	57	95	6	49054D	47,60	54,00
5,5	57	95	6	49055D	47,60	54,00
5,6	57	95	6	49056D	47,60	54,00
5,7	57	95	6	49057D	47,60	54,00
5,8	57	95	6	49058D	47,60	54,00
5,9	57	95	6	49059D	47,60	54,00
6	57	95	6	4906D	43,10	49,50
6,1	76	114	8	49061D	62,10	71,30
6,2	76	114	8	49062D	62,10	71,30
6,3	76	114	8	49063D	62,10	71,30
6,4	76	114	8	49064D	62,10	71,30
6,5	76	114	8	49065D	62,10	71,30
6,6	76	114	8	49066D	62,10	71,30
6,7	76	114	8	49067D	62,10	71,30
6,8	76	114	8	49068D	62,10	71,30
6,9	76	114	8	49069D	62,10	71,30
7	76	114	8	4907D	62,10	71,30
7,1	76	114	8	49071D	62,10	71,30
7,2	76	114	8	49072D	62,10	71,30
7,3	76	114	8	49073D	62,10	71,30
7,4	76	114	8	49074D	62,10	71,30

D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
7,5	76	114	8	49075D	62,10	71,30
7,6	76	114	8	49076D	62,10	71,30
7,7	76	114	8	49077D	62,10	71,30
7,8	76	114	8	49078D	62,10	71,30
7,9	76	114	8	49079D	62,10	71,30
8	76	114	8	4908D	57,60	66,80
8,1	95	142	10	49081D	100,30	114,20
8,2	95	142	10	49082D	100,30	114,20
8,3	95	142	10	49083D	100,30	114,20
8,4	95	142	10	49084D	100,30	114,20
8,5	95	142	10	49085D	100,30	114,20
8,6	95	142	10	49086D	100,30	114,20
8,7	95	142	10	49087D	100,30	114,20
8,8	95	142	10	49088D	100,30	114,20
8,9	95	142	10	49089D	100,30	114,20
9	95	142	10	4909D	100,30	114,20
9,1	95	142	10	49091D	100,30	114,20
9,2	95	142	10	49092D	100,30	114,20
9,3	95	142	10	49093D	100,30	114,20
9,4	95	142	10	49094D	100,30	114,20
9,5	95	142	10	49095D	100,30	114,20
9,6	95	142	10	49096D	100,30	114,20
9,7	95	142	10	49097D	100,30	114,20
9,8	95	142	10	49098D	100,30	114,20
9,9	95	142	10	49099D	100,30	114,20
10	95	142	10	4910D	93,60	107,40
10,1	114	160	12	49101D	132,80	146,60
10,2	114	160	12	49102D	132,80	146,60
10,3	114	160	12	49103D	132,80	146,60
10,4	114	160	12	49104D	132,80	146,60
10,5	114	160	12	49105D	132,80	146,60
10,6	114	160	12	49106D	132,80	146,60
10,7	114	160	12	49107D	132,80	146,60
10,8	114	160	12	49108D	132,80	146,60
10,9	114	160	12	49109D	132,80	146,60

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	○	●	○	●	●	○	○	○	○

Punte con fori di lubrificazione elica diritta per ghisa e ottone 8xD

Through coolant straight flute drills designed for cast iron and brass application 8xD

SERIES
49D

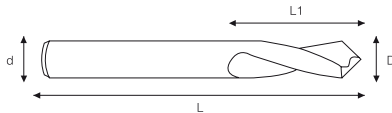
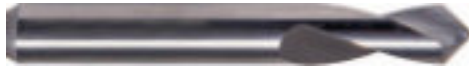


D h7	L1	L	d h6	Code	€ uncoated	€ Tia IN
11	114	160	12	4911D	132,80	146,60
11,1	114	160	12	49111D	132,80	146,60
11,2	114	160	12	49112D	132,80	146,60
11,3	114	160	12	49113D	132,80	146,60
11,4	114	160	12	49114D	132,80	146,60
11,5	114	160	12	49115D	132,80	146,60
11,6	114	160	12	49116D	132,80	146,60
11,7	114	160	12	49117D	132,80	146,60
11,8	114	160	12	49118D	132,80	146,60
11,9	114	160	12	49119D	132,80	146,60
12	114	160	12	4912D	128,30	142,10
12,5	133	178	14	49125D	176,10	191,70
12,8	133	178	14	49128D	176,10	191,70
13	133	178	14	4913D	176,10	191,70
13,5	133	178	14	49135D	176,10	191,70
13,8	133	178	14	49138D	176,10	191,70
14	133	178	14	4914D	171,60	187,20
14,5	152	203	16	49145D	242,40	265,10
14,8	152	203	16	49148D	242,40	265,10
15	152	203	16	4915D	242,40	265,10
15,5	152	203	16	49155D	242,40	265,10
15,8	152	203	16	49158D	242,40	265,10
16	152	203	16	4916D	231,10	253,90
16,5	171	222	18	49165D	385,50	420,80
16,8	171	222	18	49168D	385,50	420,80
17	171	222	18	4917D	385,50	420,80
17,5	171	222	18	49175D	385,50	420,80
17,8	171	222	18	49178D	385,50	420,80
18	171	222	18	4918D	374,20	409,50
18,5	190	243	20	49185D	482,00	533,00
18,8	190	243	20	49188D	482,00	533,00
19	190	243	20	4919D	482,00	533,00
19,5	190	243	20	49195D	482,00	533,00
19,8	190	243	20	49198D	482,00	533,00
20	190	243	20	4920D	459,50	510,50

Punte a centrare per CNC 90°

Center drills CNC 90°

SERIES
33



Macro
Gain



90°



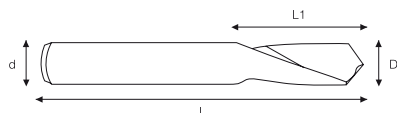
D h6	L1	L	α	Code	€ uncoated
3	12	40	90°	339003	7,30
4	12	40	90°	339004	8,90
5	16	50	90°	339005	11,70
6	16	50	90°	339006	13,30
8	20	60	90°	339008	20,30
10	22	70	90°	339010	28,20
12	22	70	90°	339012	40,50
14	25	75	90°	339014	58,50
16	28	80	90°	339016	73,20
20	30	100	90°	339020	127,90

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	●	●	○	○	●	○

Punte a centrare per CNC 120°

Center drills CNC 120°

SERIES
34



**Macro
Gain**



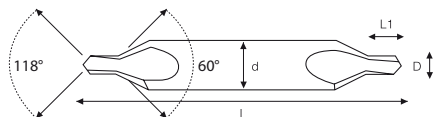
D h6	L1	L	α	Code	€ uncoated
3	12	40	120°	3412003	7,30
4	12	40	120°	3412004	8,90
5	16	50	120°	3412005	11,70
6	16	50	120°	3412006	13,30
8	20	60	120°	3412008	20,30
10	22	70	120°	3412010	28,20
12	22	70	120°	3412012	40,50
14	25	75	120°	3412014	58,50
16	28	80	120°	3412016	73,20
20	30	100	120°	3412020	127,90

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	●	●	○	○	●	○

Punte a Centrare 60°

Double center drills CNC 60°

SERIES
D34



Macro
Gain



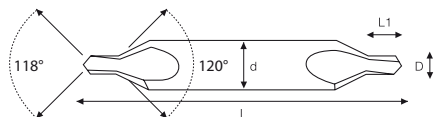
D h10	L1	L	d h6	α	Code	€ uncoated
2	2,9	40	5	60°	D34602	22,10
2,5	3,6	50	6,3	60°	D346025	25,50
3,15	4,4	60	8	60°	D3460315	35,10
4	5,6	70	10	60°	D34604	50,20
5	6,9	70	12,5	60°	D34605	63,50
6,3	8,8	80	16	60°	D346063	93,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	○	○	○	○	○	○

Punte a Centrare 120°

Double center drills CNC 120°

SERIES
D34

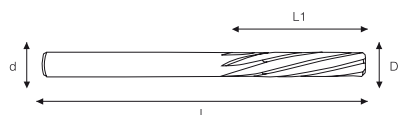


Macro
Gain



D h10	L1	L	d h6	α	Code	€ uncoated
2	2,9	40	5	120°	D341202	22,10
2,5	3,6	50	6,3	120°	D3412025	25,50
3,15	4,4	60	8	120°	D34120315	35,10
4	5,6	70	10	120°	D341204	50,20
5	6,9	70	12,5	120°	D341205	63,50
6,3	8,8	80	16	120°	D3412063	93,00

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	○	○	○	○	○	○	○



Macro
Gain



D H7	L1	L	d H7	Z	Code	€ uncoated
1	5	40	1	4	D3501L	22,00
1,1	7	40	1,1	4	D35011L	22,00
1,2	7	40	1,2	4	D35012L	22,00
1,3	7	40	1,3	4	D35013L	22,00
1,4	8	40	1,4	4	D35014L	22,00
1,5	8	43	1,5	4	D35015L	22,00
1,6	9	43	1,6	4	D35016L	22,00
1,7	10	43	1,7	4	D35017L	22,00
1,8	10	43	1,8	4	D35018L	22,00
1,9	10	43	1,9	4	D35019L	22,00
2	11	49	2	4	D3502L	9,00
2,1	11	49	2,1	4	D35021L	11,60
2,2	12	53	2,2	4	D35022L	11,90
2,3	12	53	2,3	4	D35023L	11,90
2,4	14	57	2,4	4	D35024L	12,10
2,5	14	57	2,5	4	D35025L	12,10
2,6	14	57	2,6	4	D35026L	12,50
2,7	15	61	2,7	4	D35027L	12,80
2,8	15	61	2,8	4	D35028L	12,80
2,9	15	61	2,9	4	D35029L	12,80
3	15	61	3	4	D3503L	12,80
3,1	16	65	3,1	4	D35031L	14,20
3,2	16	65	3,2	4	D35032L	14,20
3,3	16	65	3,3	4	D35033L	14,20
3,4	18	70	3,4	4	D35034L	14,50
3,5	18	70	3,5	4	D35035L	14,50
3,6	18	70	3,6	4	D35036L	15,30
3,7	18	70	3,7	4	D35037L	15,30
3,8	19	75	3,8	4	D35038L	15,60
3,9	19	75	3,9	4	D35039L	15,60
4	19	75	4	4	D3504L	15,60
4,1	19	75	4,1	4	D35041L	18,10
4,2	19	75	4,2	4	D35042L	18,10
4,3	21	80	4,3	4	D35043L	18,60
4,4	21	80	4,4	4	D35044L	18,60

D H7	L1	L	d H7	Z	Code	€ uncoated
4,5	21	80	4,5	4	D35045L	18,60
4,6	21	80	4,6	4	D35046L	19,40
4,7	21	80	4,7	4	D35047L	19,40
4,8	23	86	4,8	4	D35048L	20,00
4,9	23	86	4,9	4	D35049L	20,00
5	23	86	5	4	D3505L	20,00
5,1	23	86	5,1	4	D35051L	22,20
5,2	23	86	5,2	4	D35052L	22,20
5,3	23	86	5,3	4	D35053L	22,20
5,4	26	93	5,4	4	D35054L	23,00
5,5	26	93	5,5	4	D35055L	23,00
5,6	26	93	5,6	4	D35056L	26,00
5,7	26	93	5,7	4	D35057L	26,00
5,8	26	93	5,8	4	D35058L	26,00
5,9	26	93	5,9	4	D35059L	26,00
6	26	93	6	6	D3506L	26,00
6,1	26	93	6,1	6	D35061L	28,00
6,2	26	93	6,2	6	D35062L	28,00
6,3	26	93	6,3	6	D35063L	28,00
6,4	26	93	6,4	6	D35064L	28,00
6,5	28	101	6,5	6	D35065L	29,00
6,6	28	101	6,6	6	D35066L	31,00
6,7	28	101	6,7	6	D35067L	31,00
6,8	31	109	6,8	6	D35068L	34,00
6,9	31	109	6,9	6	D35069L	34,00
7	31	109	7	6	D3507L	34,00
7,1	31	109	7,1	6	D35071L	36,70
7,2	31	109	7,2	6	D35072L	36,70
7,3	31	109	7,3	6	D35073L	36,70
7,4	31	109	7,4	6	D35074L	36,70
7,5	33	117	7,5	6	D35075L	38,20
7,6	33	117	7,6	6	D35076L	40,90
7,7	33	117	7,7	6	D35077L	40,90
7,8	33	117	7,8	6	D35078L	40,90
7,9	33	117	7,9	6	D35079L	40,90

APPLICAZIONI CONSIGLIATE / RECOMMENDED APPLICATIONS	ACCIAI/STEEL	GHISA/CAST IRON	ACC.INOX/ STAINLESS STEEL	NON FERROSI/ NON FERROUS	LEGHE LEGGERE/ LIGHT ALLOYS	ACCIAI TEMPRATI < 50 HRC HARDENED STEELS < 50 HRC	ACCIAI TEMPRATI > 50 HRC HARDENED STEELS > 50 HRC	SUPER LEGHE- TITANIO SUPER ALLOYS- TITANIUM	GRAFITE / GRAPHITE
	●	●	●	●	●	●	○	●	○

D H7	L1	L	d H7	Z	Code	€ uncoated
8	33	117	8	6	D3508L	40,90
8,1	33	117	8,1	6	D35081L	45,60
8,2	33	117	8,2	6	D35082L	45,60
8,3	33	117	8,3	6	D35083L	45,60
8,4	33	117	8,4	6	D35084L	45,60
8,5	33	117	8,5	6	D35085L	45,60
8,6	36	125	8,6	6	D35086L	53,00
8,7	36	125	8,7	6	D35087L	53,00
8,8	36	125	8,8	6	D35088L	53,00
8,9	36	125	8,9	6	D35089L	53,00
9	36	125	9	6	D3509L	53,00
9,1	36	125	9,1	6	D35091L	57,00
9,2	36	125	9,2	6	D35092L	57,00
9,3	36	125	9,3	6	D35093L	57,00
9,4	36	125	9,4	6	D35094L	57,00
9,5	36	125	9,5	6	D35095L	57,00
9,6	38	133	9,6	6	D35096L	62,30
9,7	38	133	9,7	6	D35097L	62,30
9,8	38	133	9,8	6	D35098L	62,30
9,9	38	133	9,9	6	D35099L	62,30
10	38	133	10	6	D3510L	62,30
10,1	38	133	10,1	6	D35101L	66,60
10,2	38	133	10,2	6	D35102L	66,60
10,3	38	133	10,3	6	D35103L	66,60
10,4	38	133	10,4	6	D35104L	66,60
10,5	38	133	10,5	6	D35105L	66,60
10,6	38	133	10,6	6	D35106L	70,80
10,7	41	142	10,7	6	D35107L	76,40
10,8	41	142	10,8	6	D35108L	76,40
10,9	41	142	10,9	6	D35109L	76,40
11	41	142	11	6	D3511L	76,40
11,1	41	142	11,1	6	D35111L	80,00
11,2	41	142	11,2	6	D35112L	80,00
11,3	41	142	11,3	6	D35113L	80,00
11,4	41	142	11,4	6	D35114L	80,00
11,5	41	142	11,5	6	D35115L	80,00

D H7	L1	L	d H7	Z	Code	€ uncoated
11,6	41	142	11,6	6	D35116L	85,30
11,7	41	142	11,7	6	D35117L	85,30
11,8	41	142	11,8	6	D35118L	85,30
11,9	44	151	11,9	6	D35119L	90,00
12	44	151	12	6	D3512L	90,00
12,5	44	151	12,5	6	D35125L	98,10
13	44	151	13	6	D3513L	106,70
14	47	160	14	8	D3514L	127,20
15	52	162	15	8	D3515L	142,40
16	54	170	16	8	D3516L	166,10
18	56	182	18	8	D3518L	207,30
20	60	195	20	8	D3520L	269,00

Tolleranza H7 micron = 0,001mm

Tolerance H7 micron = 0,001mm

Diametro	>= 1 <= 3	> 3 <= 6	> 6 <= 10	>10 <= 18	>18 <= 30
H7	+10/0	+12/0	+15/0	+18/0	+21/0

es \varnothing 6 = 6,012 MAX

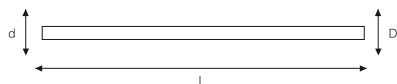
Cilindretti rettificati h6 lunghezza 50/100 mm

Grounded carbide rods 50/100 mm

SERIES

31

DUCCI



More
Gain



D h6	L	Code	€ uncoated
2	50	310250	3,00
2	100	3102100	6,00
3	50	310350	3,50
3	100	3103100	7,00
4	50	310450	4,50
4	100	3104100	8,00
5	50	310550	6,00
5	100	3105100	12,00
6	50	310650	7,50
6	100	3106100	15,00
7	100	3107100	20,00
8	100	3108100	23,00
9	100	3109100	27,00
10	100	3110100	32,00
11	100	3111100	39,00
12	100	3112100	45,50
13	100	3113100	51,50
14	100	3114100	61,00
15	100	3115100	68,00
16	100	3116100	76,00
17	100	3117100	84,00
18	100	3118100	92,50
19	100	3119100	102,00
20	100	3120100	116,50

A richiesta possibili Diametri e Lunghezze diverse
Different diameters and lengths on request

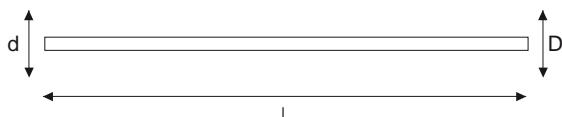
Cilindretti rettificati h6 lungheza 320mm

Grounded carbide rods 320 mm

SERIES

C

DUCCI



Micro
Gain



D h6	L	Code	€ uncoated
2	320	C02	15,00
2,5	320	C025	18,00
3	320	C03	20,00
3,5	320	C035	22,50
4	320	C04	25,00
4,5	320	C045	30,00
5	320	C05	33,00
5,5	320	C055	38,60
6	320	C06	44,00
6,5	320	C065	48,50
7	320	C07	53,00
7,5	320	C075	60,00
8	320	C08	67,70
8,5	320	C085	74,50
9	320	C09	81,00
9,5	320	C095	89,00
10	320	C10	97,00
10,5	320	C105	108,00
11	320	C11	117,50
11,5	320	C115	125,00

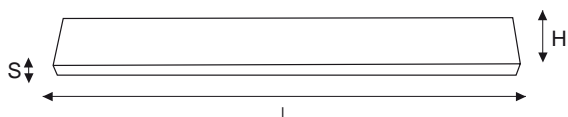
D h6	L	Code	€ uncoated
12	320	C12	138,00
12,5	320	C125	147,00
13	320	C13	156,00
14	320	C14	184,00
15	320	C15	206,00
16	320	C16	229,00
17	320	C17	254,00
18	320	C18	280,00
19	320	C19	307,00
20	320	C20	351,00
21	320	C21	393,00
22	320	C22	435,00
23	320	C23	468,00
24	320	C24	503,00
25	320	C25	540,00
26	320	C26	582,00
27	320	C27	627,00
28	320	C28	673,00
29	320	C29	721,00
30	320	C30	766,00

A richiesta possibili Diametri e Lunghezze diverse
Different diameters and lengths on request

Barrette rettangolari / quadre grezze

Blank square rectangular carbide rods

SERIES
BG



S	H	L	Code
1,5	3	330	BG153330
1,5	4	330	BG154330
1,5	6	330	BG156330
1,5	8	330	BG158330
2	2	330	BG22330
2	4	330	BG24330
2	5	330	BG25330
2	6	330	BG26330
2	7	330	BG27330
2	8	330	BG28330
2	9	330	BG29330
2	10	330	BG210330
2	12	330	BG212330
2	14	330	BG214330
2	16	330	BG216330
2	18	330	BG218330
2	20	330	BG220330
3	3	330	BG33330
3	5	330	BG35330
3	6	330	BG36330
3	7	330	BG37330
3	8	330	BG38330
3	10	330	BG310330
3	12	330	BG312330
3	14	330	BG314330
3	16	330	BG316330
3	18	330	BG318330
3	20	330	BG320330
3	22	330	BG322330
3	25	330	BG325330
3	30	330	BG330330
4	4	330	BG44330
4	5	330	BG45330
4	6	330	BG46330
4	8	330	BG48330
4	10	330	BG410330

S	H	L	Code
4	12	330	BG412330
4	14	330	BG414330
4	16	330	BG416330
4	18	330	BG418330
4	20	330	BG420330
4	22	330	BG422330
4	25	330	BG425330
4	30	330	BG430330
5	5	330	BG55330
5	7	330	BG57330
5	8	330	BG58330
5	10	330	BG510330
5	12	330	BG512330
5	14	330	BG514330
5	16	330	BG516330
5	18	330	BG518330
5	20	330	BG520330
5	25	330	BG525330
5	30	330	BG530330
5	32	330	BG532330
6	6	330	BG66330
6	8	330	BG68330
6	10	330	BG610330
6	12	330	BG612330
6	14	330	BG614330
6	16	330	BG616330
6	18	330	BG618330
6	20	330	BG620330
6	25	330	BG625330
6	30	330	BG630330
8	8	330	BG88330
10	10	330	BG1010330
12	12	330	BG1212330
14	14	330	BG1414330
16	16	330	BG1616330

Prezzo a richiesta
Price upon request



Frese rotative in metallo duro

Solid carbide burrs



a

Lavorazioni: alluminio - plastica - gomma dura
Application: aluminium - plastic - hard rubber



C

Lavorazioni: acciai temperati
Application: hardened steels



D

Lavorazioni: inox - ghise
Application: stainless steel - cast iron



F

Lavorazioni: universali
Application: universal

Parametri - *Cutting data*

V = M/min

A 800 / 1000

C 500 / 650

D 500 / 650

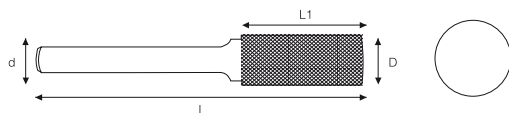
F 350 / 500


Forma cilindrica senza taglio in testa


Cylinder shape without end cut


SERIES
81


DUCCI



 A
Alluminio
Aluminium

 C
Medio
Medium

 D
Diamante
Diamond

 F
Incrociato
Double

D h6	L1	L	d	Code a	Code C	Code D	Code F
4	14	50	6	a 8146	C8146	D8146	F8146
6	18	50	6	a 8166	C8166	D8166	F8166
8	18	63	6	a 8186	C8186	D8186	F8186
10	20	65	6	a 81106	C81106	D81106	F81106
12	25	70	6	a 81126	C81126	D81126	F81126
16	25	70	6	a 81166	C81166	D81166	F81166
20	25	70	6	a 81206	C81206	D81206	F81206

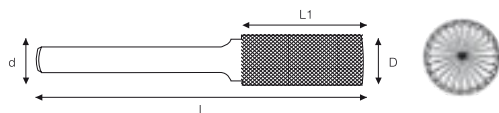
Prezzi netti speciali per quantitativi su richiesta
Special net price on request for quantity

Forma cilindrica con taglio in testa

Cylinder Shape with end cut

SERIES
82

DUCCI



A
Alluminio
Aluminium



C
Medio
Medium



D
Diamante
Diamond



F
Incrociato
Double

D h6	L1	L	d	Code a	Code C	Code D	Code F
4	14	50	6	a 8246	C8246	D8246	F8246
6	18	50	6	a 8266	C8266	D8266	F8266
8	18	63	6	a 8286	C8286	D8286	F8286
10	20	65	6	a 82106	C82106	D82106	F82106
12	25	70	6	a 82126	C82126	D82126	F82126
16	25	70	6	a 82166	C82166	D82166	F82166
20	25	70	6	a 82206	C82206	D82206	F82206

Prezzi netti speciali per quantitativi su richiesta
Special net price on request for quantity


Forma a raggio con punta tonda


Tree shape


SERIES
83


DUCCI



 A
Alluminio
Aluminium

 C
Medio
Medium

 D
Diamante
Diamond

 F
Incrociato
Double

D h6	L1	L	d	Code a	Code C	Code D	Code F
4	14	50	6	a 8346	C8346	D8346	F8346
6	18	50	6	a 8366	C8366	D8366	F8366
8	16	61	6	a 8386	C8386	D8386	F8386
10	20	65	6	a 83106	C83106	D83106	F83106
12	25	70	6	a 83126	C83126	D83126	F83126
16	28	73	6	a 83166	C83166	D83166	F83166
20	35	80	6	a 83206	C83206	D83206	F83206

Prezzi netti speciali per quantitativi su richiesta
Special net price on request for quantity

Forma cilindrica testa sferica

Cylinder shape radius end

SERIES
84



A
Alluminio
Aluminium



C
Medio
Medium



D
Diamante
Diamond



F
Incrociato
Double

D h6	L1	L	d	Code a	Code C	Code D	Code F
4	14	50	6	a 8446	C8446	D8446	F8446
6	18	50	6	a 8466	C8466	D8466	F8466
8	18	63	6	a 8486	C8486	D8486	F8486
10	20	65	6	a 84106	C84106	D84106	F84106
12	25	70	6	a 84126	C84126	D84126	F84126
16	25	70	6	a 84166	C84166	D84166	F84166
20	25	70	6	a 84206	C84206	D84206	F84206


Prezzi netti speciali per quantitativi su richiesta
Special net price on request for quantity


Forma conica a punta


Cone shape

SERIES
85



 A
Alluminio
Aluminium

 C
Medio
Medium

 D
Diamante
Diamond

 F
Incrociato
Double

D h6	L1	L	d	Code a	Code C	Code D	Code F
4	12	50	6	a 8546	C8546	D8546	F8546
6	18	50	6	a 8566	C8566	D8566	F8566
8	15	60	6	a 8586	C8586	D8586	F8586
10	18	63	6	a 85106	C85106	D85106	F85106
12	20	65	6	a 85126	C85126	D85126	F85126
16	22	67	6	a 85166	C85166	D85166	F85166
20	24	69	6	a 85206	C85206	D85206	F85206


Prezzi netti speciali per quantitativi su richiesta
Special net price on request for quantity


Forma a raggio con punta aguzza


Tree shape pointed end


SERIES
86



 A
Alluminio
Aluminium

 C
Medio
Medium

 D
Diamante
Diamond

 F
Incrociato
Double

D h6	L1	L	d	Code a	Code C	Code D	Code F
4	14	50	6	a 8646	C8646	D8646	F8646
6	18	50	6	a 8666	C8666	D8666	F8666
8	16	63	6	a 8686	C8686	D8686	F8686
10	20	65	6	a 86106	C86106	D86106	F86106
12	25	70	6	a 86126	C86126	D86126	F86126
16	28	73	6	a 86166	C86166	D86166	F86166
20	40	85	6	a 86206	C86206	D86206	F86206

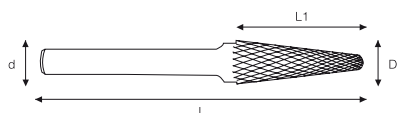
Prezzi netti speciali per quantitativi su richiesta
Special net price on request for quantity


Forma conica punta tonda


Taper shape, radius end


SERIES
87


DUCCI



 A
Alluminio
Aluminium

 C
Medio
Medium

 D
Diamante
Diamond

 F
Incrociato
Double

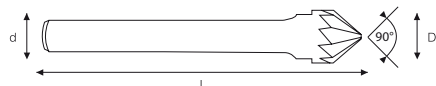
D h6	L1	L	d	Code a	Code C	Code D	Code F
4	14	50	6	a 8746	C8746	D8746	F8746
6	20	50	6	a 8766	C8766	D8766	F8766
8	24	69	6	a 8786	C8786	D8786	F8786
10	28	73	6	a 87106	C87106	D87106	F87106
12	30	75	6	a 87126	C87126	D87126	F87126
16	38	83	6	a 87166	C87166	D87166	F87166
20	42	87	6	a 87206	C87206	D87206	F87206

Prezzi netti speciali per quantitativi su richiesta
Special net price on request for quantity

Forma conica 90°

Cone shape 90°

SERIES
88



A
Alluminio
Aluminium



C
Medio
Medium



D
Diamante
Diamond



F
Incrociato
Double

D h6	L	d	Code a	Code C	Code D	Code F
4	50	6	a 8846	C8846	D8846	F8846
6	50	6	a 8866	C8866	D8866	F8866
8	53	6	a 8886	C8886	D8886	F8886
10	54	6	a 88106	C88106	D88106	F88106
12	56	6	a 88126	C88126	D88126	F88126
16	59	6	a 88166	C88166	D88166	F88166
20	62	6	a 88206	C88206	D88206	F88206

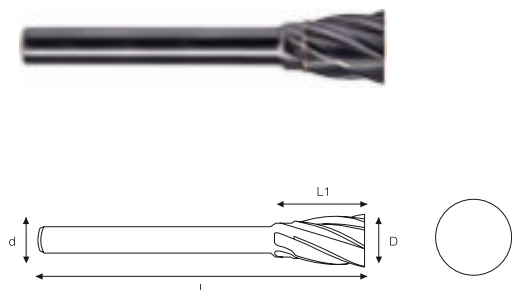
Prezzi netti speciali per quantitativi su richiesta
Special net price on request for quantity


Forma conica rovescia 15° senza taglio in testa


Inverted cone shape 15° without end cut


SERIES
89

DUCCI



 A
Alluminio
Aluminium

 C
Medio
Medium

 D
Diamante
Diamond

 F
Incrociato
Double

D h6	L1	L	d	Code a	Code C	Code D	Code F
4	4	50	6	a 8946	C8946	D8946	F8946
6	6	50	6	a 8966	C8966	D8966	F8966
8	8	53	6	a 8986	C8986	D8986	F8986
10	10	55	6	a 89106	C89106	D89106	F89106
12	12	57	6	a 89126	C89126	D89126	F89126
16	16	60	6	a 89166	C89166	D89166	F89166
20	20	65	6	a 89206	C89206	D89206	F89206

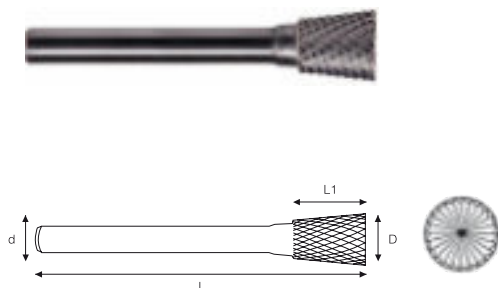
Prezzi netti speciali per quantitativi su richiesta
Special net price on request for quantity


Forma conica rovescia 15° con taglio in testa


Inverted cone shape 15° with end cut


SERIES
90


DUCCI



 A
Alluminio
Aluminium

 C
Medio
Medium

 D
Diamante
Diamond

 F
Incrociato
Double

D h6	L1	L	d	Code a	Code C	Code D	Code F
4	4	50	6	a 9046	C9046	D9046	F9046
6	6	50	6	a 9066	C9066	D9066	F9066
8	8	53	6	a 9086	C9086	D9086	F9086
10	10	55	6	a 90106	C90106	D90106	F90106
12	12	57	6	a 90126	C90126	D90126	F90126
16	16	60	6	a 90166	C90166	D90166	F90166
20	20	65	6	a 90206	C90206	D90206	F90206

Prezzi netti speciali per quantitativi su richiesta
Special net price on request for quantity

Forma ovale

Oval shape

SERIES
91

DUCCI



A
Alluminio
Aluminium



C
Medio
Medium



D
Diamante
Diamond



F
Incrociato
Double

D h6	L1	L	d	Code a	Code C	Code D	Code F
4	6	50	6	a9146	C9146	D9146	F9146
6	9	50	6	a9166	C9166	D9166	F9166
8	14	59	6	a9186	C9186	D9186	F9186
10	16	61	6	a91106	C91106	D91106	F91106
12	20	65	6	a91126	C91126	D91126	F91126
16	25	70	6	a91166	C91166	D91166	F91166
20	25	70	6	a91206	C91206	D91206	F91206

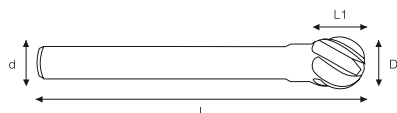
Prezzi netti speciali per quantitativi su richiesta
Special net price on request for quantity

Forma sferica

Ball shape

SERIES
92

DUCCI



A
Alluminio
Aluminium



C
Medio
Medium



D
Diamante
Diamond



F
Incrociato
Double

D h6	L1	L	d	Code a	Code C	Code D	Code F
4	3,5	50	6	a 9246	C9246	D9246	F9246
6	5	50	6	a 9266	C9266	D9266	F9266
8	7	52	6	a 9286	C9286	D9286	F9286
10	9	54	6	a 92106	C92106	D92106	F92106
12	11	56	6	a 92126	C92126	D92126	F92126
16	15	60	6	a 92166	C92166	D92166	F92166
20	18	63	6	a 92206	C92206	D92206	F92206

Prezzi netti speciali per quantitativi su richiesta
Special net price on request for quantity

Materiali di base / Raw material

Micro Grain Metallo duro integrale micrograna
Micrograin solid carbide

Ultrafine Micro Grain Metallo duro integrale ultramicrograna
Extra-fine micrograin solid carbide

Codoli / Shanks

DN 6535 HA Cilindrico
Straight

HB Weldon

Geometrie / Geometry

TYP N Taglienti a fine
Finishing cutting edge profile

TYP W Taglienti a fine per materiali teneri e malleabili
Finishing cutting edge profile for light alloys

TYP N-R Taglienti a sgrossare
Roughing cutting edge profile

HSC Geometria per acciai temprati ad alta velocità
High speed machining

Lughezze / Length

Corta
Short

Normale
Normal

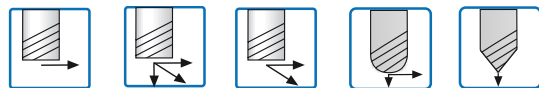
Lunga
Long

Extralunga
Extralong

Denti / Teeth

Z1 Z2 Z3 Z4 Z5 Z6 Z7 Z8 Z2 con fori di lubrificazione interna
internal coolant

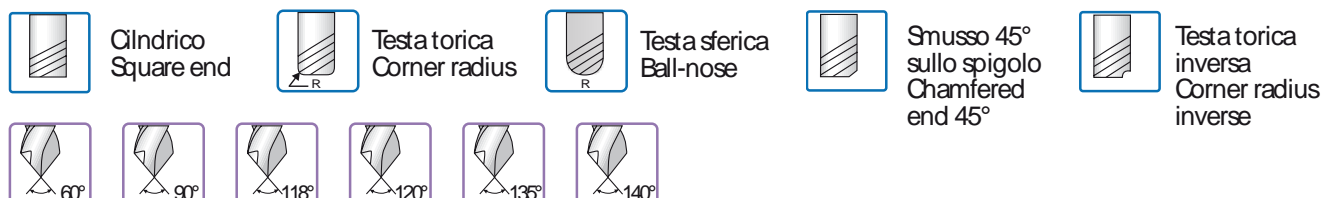
Direzione di lavorazione / Machining direction



angolo d'elica / Helix angle



Geometria Frontale / Frontal Geometry



Descrizione	Composizione	Temp. max di utilizzo ° c	Durezza HV 0,05	Coeff. di attrito	Spessore riv. in µ	Applicazioni
TIALN	Nitruro di Alluminio e Titanio	800	3500	0,4	1-2	Acciai (legati, non legati e inossidabili) <50 HRC, ghisa
TOP TIALN	Nitruro di Alluminio e Titanio	800	3700	0,4	1-2	Acciai (legati, non legati e inossidabili) >50 HRC, ghisa
ALU	Nitruro di Alluminio e Titanio	800	3700	0,1	1-2	Alluminio e sue leghe (Si<12%)
ADVANCED	Base di Alluminio e Titanio	850	4000	0,1	1-3	Acciai temprati e superleghe >50 HRC, lavorazioni ad alta velocità e/o a secco
DLC a richiesta	Carbonio	500	5300	0,1	0,05-3	Leghe di alluminio (Si>12%) e rame, metalli preziosi, compositi di plastica e grafite

Altri rivestimenti a richiesta

N.B.: Tutti i dati tecnici inseriti nel presente catalogo sono indicativi. La Dueci Srl si riserva la facoltà di modificarli in qualsiasi momento senza preavviso alcuno. La Dueci Srl inoltre non si assume alcuna responsabilità per eventuali danni causati nell'impiego dei dati contenuti nella presente pubblicazione.

Description	Composition	Highest temp. of use ° c	Hardness HV 0,05	Coef. of friction	Coating thickness µ	Applications
TIALN	Alu and Titanium Nitriding	800	3500	0,4	1-2	Steels (alloys, plain and stainless) <50 HRC, cast iron
TOP TIALN	Alu and Titanium Nitriding	800	3700	0,4	1-2	Steels (alloys, plain and stainless) >50 HRC, cast iron
ALU	Alu and Titanium Nitriding	800	3700	0,1	1-2	Aluminium alloys Si<12%
ADVANCED	Alu and Titanium component	850	4000	0,1	1-3	Structural and Hardened Steels, Super Alloys >50 HRC, high speed application and/or dry
DLC on request	Carbon	500	5300	0,1	0,05-3	Aluminium Alloys (Si>12%) and Copper, precious metals, plastics and graphite

Other coatings on request

N.B.: All technical data in this catalogue is a guideline. Dueci Srl reserves the right to modify it at any time, without any notice. Furthermore, Dueci Srl assumes no liability for any damage caused in use of the data contained in this publication.

LINEa STa NDa RD

STANDARD LINE

Grado Grade	WC Incl. Doping %	Co %	Grana Grain size micron	Densità Density g/cm ³	Durezza Hardness HRA	Durezza Hardness HV30	Resistenza alla flessione Transverse rupture strenght N/mm2
K10	90	10,0	Micro Grain	14,42	92,1	1620	3700

Grado adatto alla lavorazione di acciai anche non temprati, specie quando la durezza è minore di 40 HRC. Idoneo alla lavorazione di leghe di alluminio, alluminio magnesio, ghisa, materiali non ferrosi.

Suitable for steels manufacturing including non tempered steels with hardness up to 40 HRC. For aluminium alloys, aluminium magnesium, cast iron, non-ferrous material.

HSC

Grado Grade	WC Incl. Doping %	Co %	Grana Grain size micron	Densità Density g/cm ³	Durezza Hardness HRA	Durezza Hardness HV30	Resistenza alla flessione Transverse rupture strenght N/mm2
K12	88	12	Ultra-fine	14,20	92,5	1730	4500

Adatto alla lavorazione, sia in sgrossatura che in finitura, di acciai con durezza comprese tra i 40 ed i 55 HRC, acciai per trattamenti superficiali, nichel e leghe di nichel. Adatto alla lavorazione di finitura con microfresa su acciai.

Suitable for finishing processing and roughing of steels with hardness between 40 and 55 HRC, steels for surface treatments, nickel and nickel alloys. Suitable for manufacturing with micro end mills on steels applications.

FORMuLe

$$V_c = (\pi \times D \times N) / 1000$$

$$n = (V_c \times 1000) / (\pi \times D)$$

$$V_f = f_z \times Z \times n$$

$$f = f_z \times Z \times n$$

$$f_z = V_f / Z \times n$$

V_c: Velocità di taglio m/1'

V_c: Cutting speed m/1'

n: numero giri dell'utensile

n: rotation number

V_f: Velocità di avanzamento mm/min

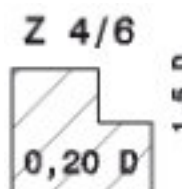
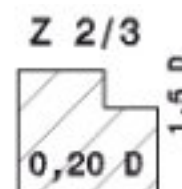
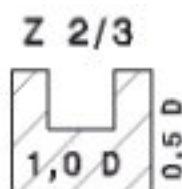
V_f: Feed speed mm/min

f_z: Avanzamento per dente mm

f_z: Feed per tooth mm

f: Avanzamento per giro mm

f: Feed per revolution mm



Materiali Materials	VeLOCITa' DI TaGLIO CuTTING SPeeD Vc=mt/min (uncoated)	fz=a Va NZa MeNTO PeR DeNTe mm					
		fz=FeeD PeR TOOTH mm					
		Diametro-Diameter D (mm)					
		1-4	4-8	8-12	12-16	16-20	
GHISA/CAST IRON	GRIGIA-MALLEABILE GREY-MALLEABLE	60-100	0,01-0,03	0,03-0,06	0,06-0,08	0,08-0,09	0,09-0,10
ACCIAI/STEEL	NON LEGATI UNALLOYED	80-100	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,05	0,05-0,06
	BASSO LEGATI LOW ALLOYED	50-80	0,009-0,01	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,05
	LEGATI HIGH ALLOYED	30-50	0,008-0,01	0,01-0,015	0,015-0,02	0,02-0,03	0,03-0,05
ACCIAI INOSSIDABILI- LEGHE SPECIALI / STAINLESS STEEL- SPECIAL ALLOYS	FERRITICI/MARTENSITICI FERRITIC/MARTENSITIC	40-60	0,01-0,02	0,02-0,04	0,04-0,06	0,06-0,08	0,08-0,10
	AUSTENITICI - AUSTENITIC	30-50	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,05	0,05-0,06
	DUPLEX	20-40	0,01-0,02	0,02-0,04	0,04-0,06	0,06-0,08	0,08-0,10
NON FERROSI / LEGHE LEGGERE NON FERROUS / LIGHT ALLOYS	RAME / OTTONE / BRONZO COPPER / BRASS / BRONZE	60-150	0,01-0,02	0,02-0,04	0,04-0,06	0,06-0,08	0,08-0,10
	ALLUMINIO (Si <12%) ALUMINIUM (Si <12%)	180-300	0,01-0,02	0,02-0,05	0,05-0,08	0,08-0,12	0,12-0,15
	ALLUMINIO (Si >12%) ALUMINIUM (Si >12%)	140-180	0,01-0,015	0,015-0,04	0,04-0,06	0,06-0,10	0,10-0,12
	TERMOPLASTICI THERMOPLASTIC	90-150	0,01-0,03	0,03-0,05	0,05-0,08	0,08-0,10	0,10-0,12
TI-SUPER LEGHE- HRSA/TITANIUM- SUPER ALLOYS- HRSA	TI / SUPER ALLOYS HRSA	20-50	0,01-0,03	0,03-0,04	0,04-0,05	0,05-0,06	0,06-0,08

CON RIVESTIMENTO TIALN/TOPTIALN
WITH TIALN/TOPTIALN COATING

VC CONSIGLIATO + 30/50%
VC RECOMMENDED + 30/50%

FORMuLe

SERIE LUNGA

VC CONSIGLIATO - 20%
FZ CONSIGLIATO -40%

$$Vc = (\pi \times D \times N)/1000$$

$$n = (Vc \times 1000)/(\pi \times D)$$

SERIE EXTRA LUNGA

VC CONSIGLIATO - 20%
FZ CONSIGLIATO -60%

$$Vf = fz \times Z \times n$$

LONG SERIES

VC RECOMMENDED - 20%
FZ RECOMMENDED - 40%

$$f = fz \times Z \times n$$

$$fz = Vf / Z \times n$$

EXTRA LONG SERIES

VC RECOMMENDED - 20%
FZ RECOMMENDED - 60%

Materiali Materials	VeLOCITA' DI TaGLIO CuTTING SPeeD Vc=mt/min (RIV. a DVa NCeD)	fz=a Va NZa MeNTO PeR DeNTe mm					
		fz=FeeD PeR TOOTH mm					
		Diametro-Diameter D (mm)					
		1-4	4-8	8-12	12-16	16-20	
GHISA/CAST IRON	GRIGIA-MALLEABILE GREY-MALLEABLE	200-350	0,01-0,04	0,04-0,10	0,10-0,14	0,14-0,16	0,16-0,20
ACCIAI/STEEL	NON LEGATI UNALLOYED	200-500	0,008-0,01	0,01-0,04	0,04-0,08	0,08-0,12	0,12-0,16
	BASSO LEGATI LOW ALLOYED	180-400	0,008-0,01	0,01-0,04	0,04-0,08	0,08-0,12	0,12-0,16
	LEGATI HIGH ALLOYED	180-300	0,008-0,01	0,01-0,04	0,04-0,08	0,08-0,12	0,12-0,16
ACCIAI INOSSIDABILI- LEGHE SPECIALI / STAINLESS STEEL- SPECIAL ALLOYS	FERRITICI/MARTENSITICI FERRITIC/MARTENSITIC	120-300	0,01-0,03	0,03-0,08	0,08-0,10	0,10-0,14	0,14-0,18
	AUSTENITICI - AUSTENITIC	100-150	0,01-0,03	0,03-0,08	0,08-0,10	0,10-0,14	0,14-0,18
	DUPLEX	50-80	0,01-0,03	0,03-0,08	0,08-0,10	0,10-0,14	0,14-0,18
ACCIAI TEMPRATI HARDENED STEEL	≤ 50 HRC	150-250	0,01-0,03	0,03-0,08	0,08-0,12	0,12-0,14	0,14-0,18
	≤ 65 HRC	70-120	0,01-0,03	0,03-0,08	0,08-0,12	0,12-0,14	0,14-0,18
Ti-SUPER LEGHE- HRSA/TITANIUM- SUPER ALLOYS- HRSA	TI / SUPER ALLOYS HRSA	70-160	0,01-0,04	0,04-0,10	0,10-0,14	0,14-0,16	0,16-0,20

Materiali Materials	VeLOCITa' DI TaGLIO CuTTING SPeeD Vc=mt/min (uncoated)	a v=aVa NZa MeNTO a L GIRO mm/g					
		a v=FeeD PeR ReVOLuTION mm/g					
		Diametro-Diameter D (mm)					
		1-4	4-8	8-12	12-16	16-20	
GHISA/CAST IRON	GRIGIA-MALLEABILE GREY-MALLEABLE	70-120	0,03-0,05	0,05-0,07	0,07-0,10	0,10-0,14	0,14-0,18
ACCIAI/STEEL	NON LEGATI UNALLOYED	80-100	0,01-0,04	0,04-0,06	0,06-0,08	0,08-0,12	0,12-0,16
	BASSO LEGATI LOW ALLOYED	80-90	0,01-0,03	0,03-0,05	0,05-0,07	0,07-0,08	0,08-0,10
	LEGATI HIGH ALLOYED	30-50	0,02-0,03	0,03-0,04	0,04-0,06	0,06-0,08	0,08-0,10
ACCIAI INOSSIDABILI- LEGHE SPECIALI / STAINLESS STEEL- SPECIAL ALLOYS	FERRITICI/MARTENSITICI FERRITIC/MARTENSITIC	25-40	0,01-0,02	0,02-0,05	0,05-0,08	0,08-0,10	0,10-0,12
	AUSTENITICI - AUSTENITIC	20-40	0,01-0,02	0,02-0,04	0,04-0,08	0,08-0,10	0,10-0,12
	DUPLEX	60-100	0,03-0,06	0,06-0,10	0,10-0,15	0,15-0,18	0,18-0,20
NON FERROSI / LEGHE LEGGERE NON FERROUS / LIGHT ALLOYS	RAME / OTTONE / BRONZO COPPER / BRASS / BRONZE	100-150	0,04-0,06	0,06-0,10	0,10-0,14	0,14-0,16	0,16-0,20
	ALLUMINIO (Si <12%) ALUMINIUM (Si<12%)	50-80	0,02-0,04	0,04-0,06	0,06-0,09	0,09-0,12	0,12-0,14
	ALLUMINIO (Si >12%) ALUMINIUM (Si>12%)	80-140	0,03-0,04	0,04-0,06	0,06-0,08	0,08-0,12	0,12-0,16
	TERMOPLASTICI THERMOPLASTIC	30-50	0,01-0,02	0,02-0,04	0,04-0,08	0,08-0,10	0,10-0,12
TI-SUPER LEGHE- HRSA/TITANIUM- SUPER ALLOYS- HRSA	TI / SUPER ALLOYS HRSA	20-50	0,01-0,03	0,03-0,04	0,04-0,05	0,05-0,06	0,06-0,08

PER PUNTE FORATE E RIVESTITE VT CONSIGLIATO +20/30%

FOR COATED AND TROUGH COOLANT DRILLS VT RECOMMENDED +20/30%



Materiali Materials	VeLOCITa' DI TaGLIO CuTTING SPeeD Vc=mt/min (uncoated)	av=aVa NZa MeNTO a L GIRO mm/g					
		av=FeeD PeR ReVOLuTION mm/g					
		Diametro-Diameter D (mm)					
		1-4	4-8	8-12	12-16	16-20	
GHISA/CAST IRON	GRIGIA-MALLEABILE GREY-MALLEABLE	10-15	0,10-0,20	0,20-0,25	0,25-0,30	0,30-0,35	0,35-0,40
ACCIAI/STEEL	NON LEGATI UNALLOYED	10-15	0,07-0,12	0,12-0,16	0,16-0,25	0,25-0,30	0,30-0,35
	BASSO LEGATI LOW ALLOYED	8-12	0,07-0,10	0,10-0,13	0,13-0,20	0,20-0,25	0,25-0,30
	LEGATI HIGH ALLOYED	8-10	0,03-0,05	0,05-0,08	0,08-0,10	0,10-0,13	0,13-0,15
NON FERROSI / LEGHE LEGGERE NON FERROUS / LIGHT ALLOYS	RAME / OTTONE / BRONZO COPPER / BRASS / BRONZE	15-40	0,07-0,15	0,15-0,20	0,20-0,30	0,30-0,35	0,35-0,40
	ALLUMINIO (Si <12%) ALUMINIUM (Si <12%)	20-35	0,15-0,20	0,20-0,25	0,25-0,30	0,30-0,35	0,35-0,40
	ALLUMINIO (Si >12%) ALUMINIUM (Si >12%)	10-20	0,07-0,10	0,10-0,15	0,15-0,20	0,20-0,25	0,25-0,30
	TERMOPLASTICI THERMOPLASTIC	15-30	0,07-0,10	0,10-0,15	0,15-0,20	0,20-0,25	0,25-0,30

Materiali Materials		VeLOCITA' DI TaGLIO CuTTING SPeeD Vc=mt/min (RIV. a DVa NCeD)	fz=a Va NZa MeNTO PeR DeNTe mm				
			fz=FeeD PeR TOOTH mm				
			Diametro-Diameter D (mm)				
			1-4	4-8	8-12	12-16	16-20
GHISA/CAST IRON	GRIGIA-SFEROIDALE/GREY-SPHEROIDAL	160-200	0,03-0,05	0,05-0,07	0,07-0,09	0,09-0,11	0,11-0,13
ACCIAI/STEEL	NON LEGATI/PLAIN	140-180	0,03-0,05	0,05-0,07	0,07-0,09	0,09-0,11	0,11-0,13
	BASSO LEGATI/LOW ALLOYED	110-130	0,02-0,04	0,04-0,06	0,06-0,08	0,08-0,10	0,10-0,12
	LEGATI/HIGH ALLOYED	90-100	0,015-0,025	0,025-0,035	0,035-0,05	0,05-0,07	0,07-0,09
ACCIAI INOSSIDABILI- LEGHE SPECIALI / STAINLESS STEEL- SPECIAL ALLOYS	FERRITICI/MARTENSITICI - FERRITIC/ MARTENSITIC	100-120	0,015-0,025	0,025-0,035	0,035-0,05	0,05-0,07	0,07-0,09
	AUSTENITICI - AUSTENITIC	80-100	0,015-0,02	0,02-0,03	0,03-0,04	0,04-0,06	0,06-0,08
	DUPLEX	50-60	0,010-0,02	0,02-0,03	0,03-0,04	0,04-0,05	0,05-0,07
ACCIAI TEMPRATI HARDENED STEEL	≤ 50 HRC	60-70	0,015-0,025	0,025-0,035	0,035-0,05	0,05-0,07	0,07-0,09
TI-SUPER LEGHE- HRSA/TITANIUM- SUPER ALLOYS- HRSA	TI / SUPER ALLOYS / HRSA	40-70	0,02-0,03	0,03-0,04	0,04-0,05	0,05-0,06	0,06-0,07

**PARAMETRI PER FRESE RIVESTITE
RECOMMENDED DATA FOR COATED END MILLS**

PER FRESE NON RIVESTITE VC CONSIGLIATO -50%/60%
FOR UNCOATED END MILLS VC RECOMMENDED -50%/60%

Materiali Materials		VeLOCITa' DI TaGLIO CuTTING SPeeD Vc=mt/min (uncoated)	fz=a Va NZa MeNTO PeR DeNte mm				
			fz=FeeD PeR TOOTH mm				
			Diametro-Diameter D (mm)				
			1-4	4-8	8-12	12-16	16-20
GHISA/CAST IRON	GRIGIA-MALLEABILE/GREY-MALLEABLE	60-100	0,01-0,03	0,03-0,06	0,06-0,08	0,08-0,09	0,09-0,10
ACCIAI/STEEL	NON LEGATI/UNALLOYED	80-100	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,05	0,05-0,06
	BASSO LEGATI/LOW ALLOYED	50-80	0,009-0,01	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,05
	LEGATI/HIGH ALLOYED	30-50	0,008-0,01	0,01-0,015	0,015-0,02	0,02-0,03	0,03-0,05
ACCIAI INOSSIDABILI- LEGHE SPECIALI / STAINLESS STEEL- SPECIAL ALLOYS	FERRITICI/MARTENSITICI - FERRITIC/ MARTENSITIC	40-60	0,01-0,02	0,02-0,04	0,04-0,06	0,06-0,08	0,08-0,10
	AUSTENITICI - AUSTENITIC	30-50	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,05	0,05-0,06
	DUPLEX	20-40	0,01-0,02	0,02-0,04	0,04-0,06	0,06-0,08	0,08-0,10
NON FERROSI / LEGHE LEGGERE NON FERROUS / LIGHT ALLOYS	RAME/OTTONE/BRONZO-COPPER/ BRASS/BRONZE	60-150	0,01-0,02	0,02-0,04	0,04-0,06	0,06-0,08	0,08-0,10
	ALLUMINIO (Si <12%) / ALUMINIUM (Si<12%)	180-300	0,01-0,02	0,02-0,05	0,05-0,08	0,08-0,12	0,12-0,15
	ALLUMINIO (Si >12%) / ALUMINIUM (Si>12%)	140-180	0,01-0,015	0,015-0,04	0,04-0,06	0,06-0,10	0,10-0,12
	TERMOPLASTICI/THERMOPLASTIC	90-150	0,01-0,03	0,03-0,05	0,05-0,08	0,08-0,10	0,10-0,12
ACCIAI TEMPRATI / HARDENED STEEL	≤ 50 HRC	50-60	0,01-0,025	0,025-0,03	0,03-0,04	0,04-0,05	0,05-0,06
Ti-SUPER LEGHE- HRSA/TITANIUM- SUPER ALLOYS- HRSA	TI / SUPER ALLOYS / HRSA	20-50	0,01-0,03	0,03-0,04	0,04-0,05	0,05-0,06	0,06-0,08

CON RIVESTIMENTO TIALN
WITH TIALN COATING

VC CONSIGLIATO + 30/50%
VC RECOMMENDED + 30/50%
FZ RECOMMENDED - 40%

FORMuLe

$$Vc = (\pi \times D \times N) / 1000$$

EXTRA LONG SERIES

VC RECOMMENDED - 20%
FZ RECOMMENDED - 60%

$$n = (Vc \times 1000) / (\pi \times D)$$

$$Vf = fz \times Z \times n$$

$$f = fz \times Z \times n$$

$$fz = Vf / Z \times n$$

Caratteristiche tecniche: Frese multifunzione ideali per i centri di lavoro e macchine a controllo numerico. Consentono di realizzare lavorazioni multiple combinate, riducendo i tempi di messa a punto ed i cicli di lavoro. Diverse funzioni: smussi longitudinali, centratura, foratura, incisione, svasatura, scanalatura a "V", lavorazione per interpolazione, scontornatura.

Technical characteristics: Multifunction end mills ideal for machine centres and CN processing machines. They allow to produce multiple machining process, they allow to reduce the machine set-up time and the work cycle. Different operations: longitudinal chamfers, centering, drilling, engraving, chamfering, V-Grooving, interpolation drilling, countouring.

Materiali Materials		VeLOCITa' DI TaGLIO CuTTING SPeeD Vc=mt/min (uncoated)	fz=a Va NZa MeNTO PeR DeNTe mm				
			fz=FeeD PeR TOOTH mm				
			Diametro-Diameter D (mm)				
			1-4	4-8	8-12	12-16	16-20
GHISA/CAST IRON	GRIGIA-MALLEABILE/GREY-MALLEABLE	60-100	0,01-0,03	0,03-0,06	0,06-0,08	0,08-0,09	0,09-0,10
ACCIAI/STEEL	NON LEGATI/UNALLOYED	80-100	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,05	0,05-0,06
	BASSO LEGATI/LOW ALLOYED	50-80	0,009-0,01	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,05
	LEGATI/HIGH ALLOYED	30-50	0,008-0,01	0,01-0,015	0,015-0,02	0,02-0,03	0,03-0,05
ACCIAI INOSSIDABILI- LEGHE SPECIALI / STAINLESS STEEL- SPECIAL ALLOYS	FERRITICI/MARTENSITICI - FERRITIC/ MARTENSITIC	40-60	0,01-0,02	0,02-0,04	0,04-0,06	0,06-0,08	0,08-0,10
	AUSTENITICI - AUSTENITIC	30-50	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,05	0,05-0,06
	DUPLEX	20-40	0,01-0,02	0,02-0,04	0,04-0,06	0,06-0,08	0,08-0,10
NON FERROSI / LEGHE LEGGERE NON FERROUS / LIGHT ALLOYS	RAME/OTTONE/BRONZO-COPPER/ BRASS/BRONZE	60-150	0,01-0,02	0,02-0,04	0,04-0,06	0,06-0,08	0,08-0,10
	ALLUMINIO (Si <12%) / ALUMINIUM (Si<12%)	180-300	0,01-0,02	0,02-0,05	0,05-0,08	0,08-0,12	0,12-0,15
	ALLUMINIO (Si >12%) / ALUMINIUM (Si>12%)	140-180	0,01-0,015	0,015-0,04	0,04-0,06	0,06-0,10	0,10-0,12
	TERMOPLASTICI/THERMOPLASTIC	90-150	0,01-0,03	0,03-0,05	0,05-0,08	0,08-0,10	0,10-0,12
ACCIAI TEMPRATI / HARDENED STEEL	≤ 50 HRC	50-60	0,01-0,025	0,025-0,03	0,03-0,04	0,04-0,05	0,05-0,06
Ti-SUPER LEGHE- HRSA/TITANIUM- SUPER ALLOYS- HRSA	TI / SUPER ALLOYS / HRSA	20-50	0,01-0,03	0,03-0,04	0,04-0,05	0,05-0,06	0,06-0,08

CON RIVESTIMENTO TIALN
WITH TIALN COATING

VC CONSIGLIATO + 30%
VC RECOMMENDED + 30%

Caratteristiche tecniche:

Divisione irregolare per ridurre la risonanza nelle lavorazioni di acciai inox, leghe HRSA, titanio e sue leghe.
Eliche differenziate per ridurre le vibrazioni nei percorsi utensile anche complessi.
Taglio interrotto per ridurre la dimensione del truciolo.

Technical characteristics: Unequal pitch to reduce resonance when machining stainless steel, HRSA alloys, Titanium and Titanium alloys.

Unequal helix to reduce vibrations even in complex tool paths.
Interrupted cut to reduce chip size.

Materiali Materials		VeLOCITa' DI Ta GLIO Cu TTING SPeeD Vc=mt/min (coated)	fz=aVa NZa MeNTO mm/dente				
			fz=FeeD mm/tooth				
			Diametro-Diameter D (mm)				
			8	10	12	16	20
GHISA/CAST IRON	GRIGIA-SFEROIDALE/GREY-SPHEROIDAL	130-160	0,03-0-04	0,04-0,06	0,06-0,07	0,07-0,09	0,09-0,12
ACCIAI/STEEL	NON LEGATI/PLAIN	130-160	0,03-0-04	0,04-0,06	0,06-0,07	0,07-0,09	0,09-0,12
	BASSO LEGATI/LOW ALLOYED	110-120	0,02-0,035	0,035-0,05	0,05-0,06	0,06-0,07	0,07-0,10
	LEGATI/HIGH ALLOYED	70-90	0,02-0,03	0,03-0,04	0,04-0,05	0,05-0,06	0,06-0,07
NON FERROUS / LIGHT ALLOYS	ALLUMINIO NON LEGATO/ UNALLOYED ALUMINIUM	300-350	0,02-0,03	0,03-0,05	0,04-0,06	0,06-0,10	0,07-0,14
	ALLUMINIO (Si <12%) / ALUMINIUM (Si<12%)	200-300	0,02-0,03	0,03-0,05	0,04-0,06	0,06-0,10	0,07-0,14
ACCIAI INOSSIDABILI- LEGHE SPECIALI STAINLESS STEEL- SPECIAL ALLOYS	FERRITICI/MARTENSITICI - FERRITIC/ MARTENSITIC	100-120	0,03-0-04	0,04-0,05	0,05-0,06	0,06-0,07	0,07-0,08
	AUSTENITICI - AUSTENIC	60-80	0,02-0,03	0,03-0,04	0,04-0,05	0,05-0,06	0,06-0,07
	DUPLEX	50-60	0,02-0,03	0,03-0,04	0,04-0,05	0,05-0,06	0,06-0,07
ACCIAI TEMPRATI / HARDENED STEEL	≤ 50 HRC	50-70	0,02-0,03	0,03-0,04	0,04-0,05	0,05-0,06	0,06-0,07
Ti-SUPER LEGHE- HRSA/TITANIUM- SUPER ALLOYS- HRSA	TI / SUPER ALLOYS / HRSA	40-60	0,02-0,03	0,03-0,04	0,04-0,05	0,05-0,06	0,06-0,07

Materiali Materials		VeLOCITa' DI TaGLIO CuTTING SPeeD Vc=mt/min (coated)	fz=aVa NZa MeNTO mm/dente				
			fz=FeeD mm/tooth				
			Diametro-Diameter D (mm)				
			3-6	6-8	8-12	12-16	16-20
GHISA/CAST IRON	GRIGIA-SFEROIDALE/GREY-SPHEROIDAL	100-130	0,005-0,01	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,06
ACCIAI/STEEL	NON LEGATI/PLAIN	100-130	0,005-0,01	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,06
	BASSO LEGATI/LOW ALLOYED	90-120	0,005-0,01	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,06
	LEGATI/HIGH ALLOYED	80-100	0,005-0,01	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,06
ACCIAI INOSSIDABILI- LEGHE SPECIALI STAINLESS STEEL- SPECIAL ALLOYS	FERRITICI/MARTENSITICI - FERRITIC/ MARTENSITIC	60-80	0,005-0,01	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,06
	AUSTENITICI - AUSTENITIC	40-60	0,005-0,01	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,06
	DUPLEX	30-50	0,005-0,01	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,06
Ti-SUPER LEGHE- HRSA/TITANIUM- SUPER ALLOYS- HRSA	TI / SUPER ALLOYS / HRSA	40-70	0,005-0,01	0,01-0,02	0,02-0,03	0,03-0,04	0,04-0,06

Frese toriche per acciai bonificati, temprati e ghise
Toric end mills for steel, hardened steel and cast iron

Materiali Materials		VeLOCITA' DI TaGLIO CuTTING SPeeD Vc=mt/min (coated)	fz=a Va NZa MeNTO mm/dente				
			fz=FeeD mm/tooth				
			Diametro-Diameter D (mm)				
			4-6	6-10	10-16	16-20	20-25
GHISA/CAST IRON	AUSTENITICI - AUSTENITIC	90-110	0,01-0,025	0,025-0,03	0,03-0,04	0,04-0,05	0,05-0,06
ACCIAI/STEEL	NON LEGATI/PLAIN	80-110	0,01-0,025	0,025-0,03	0,03-0,04	0,04-0,05	0,05-0,06
	BASSO LEGATI/LOW ALLOYED	90-110	0,01-0,025	0,025-0,03	0,03-0,04	0,04-0,05	0,05-0,06
	LEGATI/HIGH ALLOYED	80-100	0,01-0,025	0,025-0,03	0,03-0,04	0,04-0,05	0,05-0,06
ACCIAI TEMPRATI / HARDENED STEEL	AUSTENITICI - AUSTENITIC	50-60	0,01-0,025	0,025-0,03	0,03-0,04	0,04-0,05	0,05-0,06
	AUSTENITICI - AUSTENITIC	40-50	0,01-0,025	0,025-0,03	0,03-0,04	0,04-0,05	0,05-0,06

SERIE LUNGA VC CONSIGLIATO - 20%
FZ CONSIGLIATO - 20%

LONG SERIES VC RECOMMENDED - 20%
FZ RECOMMENDED - 20%

Materiali Materials		VeLOCITA' DI TaGLIO CuTTING SPeeD Vc=mt/min (coated)	fz=aVa NZa MeNTO mm/dente				
			fz=FeeD mm/tooth				
			Diametro-Diameter D (mm)				
			8-10	10-12	12-14	14-16	16-20
GHISA/CAST IRON	GRIGIA-SFEROIDALE/GREY-SPHEROIDAL	100-130	0,01-0,02	0,02-0,03	0,03-0,05	0,05-0,06	0,06-0,07
ACCIAI/STEEL	NON LEGATI/PLAIN	100-130	0,01-0,02	0,02-0,03	0,03-0,05	0,05-0,06	0,06-0,07
	BASSO LEGATI/LOW ALLOYED	90-120	0,01-0,02	0,02-0,03	0,03-0,05	0,05-0,06	0,06-0,07
	LEGATI/HIGH ALLOYED	80-100	0,01-0,02	0,02-0,03	0,03-0,05	0,05-0,06	0,06-0,07
ACCIAI INOSSIDABILI- LEGHE SPECIALI STAINLESS STEEL- SPECIAL ALLOYS	FERRITICI/MARTENSITICI - FERRITIC/ MARTENSITIC	60-80	0,01-0,02	0,02-0,03	0,03-0,05	0,05-0,06	0,06-0,07
	AUSTENITICI - AUSTENITIC	40-60	0,01-0,02	0,02-0,03	0,03-0,05	0,05-0,06	0,06-0,07
	DUPLEX	30-50	0,01-0,02	0,02-0,03	0,03-0,05	0,05-0,06	0,06-0,07
ACCIAI TEMPRATI / HARDENED STEEL	≤ 50 HRC	50-60	0,01-0,02	0,02-0,03	0,03-0,05	0,05-0,06	0,06-0,07
	≥ 50 HRC	40-50	0,01-0,02	0,02-0,03	0,03-0,05	0,05-0,06	0,06-0,07

Materiali Materials		VeLOCITa' DI TaGLIO CuTTING SPeeD Vc=mt/min (coated)	fz=aVa NZa MeNTO mm/dente				
			fz=FeeD mm/tooth				
			Diametro-Diameter D (mm)				
			4	6	8	10	12
GHISA/CAST IRON	GRIGIA-SFEROIDALE/GREY-SPHEROIDAL	150-200	0,1-0,2	0,2-0,3	0,3-0,4	0,4-0,5	0,5-0,6
ACCIAI/STEEL	NON LEGATI/PLAIN	180-250	0,1-0,2	0,2-0,3	0,3-0,4	0,4-0,5	0,5-0,6
	BASSO LEGATI/LOW ALLOYED	150-200	0,1-0,2	0,2-0,3	0,3-0,4	0,4-0,5	0,5-0,6
	LEGATI/HIGH ALLOYED	130-180	0,1-0,2	0,2-0,3	0,3-0,4	0,4-0,5	0,5-0,6
ACCIAI INOSSIDABILI- LEGHE SPECIALI STAINLESS STEEL- SPECIAL ALLOYS	FERRITICI/MARTENSITICI - FERRITIC/ MARTENSITIC	120-160	0,1-0,2	0,2-0,3	0,3-0,4	0,4-0,5	0,5-0,6
	AUSTENITICI - AUSTENITIC	60-100	0,1-0,2	0,2-0,3	0,3-0,4	0,4-0,5	0,5-0,6
	DUPLEX	50-70	0,1-0,2	0,2-0,3	0,3-0,4	0,4-0,5	0,5-0,6
ACCIAI TEMPRATI / HARDENED STEEL	≤ 50 HRC	90-120	0,1-0,2	0,2-0,3	0,3-0,4	0,4-0,5	0,5-0,6
	≥ 50 HRC	60-100	0,1-0,2	0,2-0,3	0,3-0,4	0,4-0,5	0,5-0,6
Ti-SUPER LEGHE- HRSA/TITANIUM- SUPER ALLOYS- HRSA	TI / SUPER ALLOYS / HRSA	30-50	0,1-0,2	0,2-0,3	0,3-0,4	0,4-0,5	0,5-0,6

Tolleranze	Diametri Ø					
	Da 1 a 3	Oltre 3 a 6	Oltre 6 a 10	Oltre 10 a 18	Oltre 18 a 30	Oltre 30 a 50
d 9	-20 / -45	-30 / -60	-40 / -76	-50 / -93	-65 / -117	-80 / -174
d 11	-20 / -80	-30 / -105	-40 / -130	-50 / -160	-65 / -195	-80 / -240
e 8	-14 / -28	-20 / -38	-25 / -47	-32 / -59	-40 / -73	-50 / -89
f 6	-6 / -12	-10 / -18	-13 / -22	-16 / -27	-20 / -33	-25 / -41
f 7	-6 / -16	-10 / -22	-13 / -28	-16 / -34	-20 / -41	-25 / -50
f 8	-6 / -20	-10 / -28	-13 / -35	-16 / -43	-20 / -53	-25 / -64
f 9	-6 / -31	-10 / -40	-13 / -49	-16 / -59	-20 / -72	-25 / -87
h 6	0 / -6	0 / -8	0 / -9	0 / -11	0 / -13	0 / -16
h 7	0 / -10	0 / -12	0 / -15	0 / -18	0 / -21	0 / -25
h 8	0 / -14	0 / -18	0 / -22	0 / -27	0 / -33	0 / -39
h 10	0 / -40	0 / -48	0 / -58	0 / -70	0 / -84	0 / -100
h 11	0 / -60	0 / -75	0 / -90	0 / -110	0 / -130	0 / -160
h 12	0 / -100	0 / -120	0 / -150	0 / -180	0 / -210	0 / -250
j.s 11	+30 / -30	+38 / -37	+45 / -45	+55 / -55	+65 / -65	+80 / -80
j.s 14	+125 / -125	+150 / -150	+180 / -180	+215 / -215	+260 / -260	+310 / -310
m 7	+2 / +12	+4 / +16	+6 / +21	+7 / +25	+8 / +29	+9 / +34
H 7	+10 / 0	+12 / 0	+15 / 0	+18 / 0	+21 / 0	+25 / 0
H 8	+14 / 0	+18 / 0	+22 / 0	+27 / 0	+33 / 0	+39 / 0
H 9	+25 / 0	+30 / 0	+36 / 0	+43 / 0	+52 / 0	+62 / 0
H 11	+60 / 0	+75 / 0	+90 / 0	+110 / 0	+130 / 0	+160 / 0
H 12	+100 / 0	+120 / 0	+150 / 0	+180 / 0	+210 / 0	+250 / 0
K 10	+40 / 0	+48 / 0	+58 / 0	+70 / 0	+84 / 0	+100 / 0
K 11	+60 / 0	+75 / 0	+90 / 0	+110 / 0	+130 / 0	+190 / 0
K 12	+90 / 0	+120 / 0	+150 / 0	+180 / 0	+210 / 0	+250 / 0
K 16	+600 / 0	+750 / 0	+900 / 0	+1100 / 0	+1300 / 0	+1600 / 0

ORDINI

Gli ordini devono essere confermati per iscritto e sono intesi salvo ns. approvazione. Per le lavorazioni speciali su richiesta del cliente non sono ammessi annullamenti degli ordini dopo i 3 giorni lavorativi dalla conferma degli stessi.

TeRMINI DI CONSeGNa

La consegna è intesa in giorni lavorativi decorrenti dalla data di accettazione dell'ordine. Resta comunque indicativa e subordinata a imprevisti di lavorazione.

SPeDIZIONI

La merce, salvo espressa pattuizione contraria, viene fornita franco ns. stabilimento; essa viaggia sempre in ogni caso ad esclusivo rischio e pericolo del committente.

PReZZI

I prezzi indicati si intendono IVA esclusa e sono suscettibili di variazione senza necessità di preavviso da parte nostra. Non vi è importo minimo di fatturazione. Per le fatture di importo inferiore a € 50,00 verranno addebitate spese di incasso per ricevute bancarie.

Pa Ga MeNTI

Tutti i pagamenti devono essere effettuati presso la ns. sede. Non sono ammessi sconti od arrotondamenti se non conteggiati in fattura. In caso di ritardo nel pagamento decorreranno gli interessi commerciali nella misura del saggio ufficiale di sconto aumentato di tre punti, nonché delle spese bancarie sostenute.

Ga Ra NZIa

In normale uso. Provvederemo a sostituire gratuitamente gli utensili da noi riconosciuti difettosi. Non si risponde per utensili che presentino una normale usura, segni di manomissione o errato impiego.

ReCLa MI

Dovranno pervenire per iscritto entro 8 giorni dal ricevimento della merce. Non si accettano resi se non preventivamente autorizzati.

FORO COMPeTeNTe

Per ogni controversia viene riconosciuta la esclusiva competenza del Foro di Brescia.

Pu RCHa Se ORDeRS

Purchase orders are subjected to our company's approval and have to be placed by written manner. As far as concern special tailor-made tools, we do not accept cancellation of the order after 3 working days from the date of the order.

DeLIVeRY TeRMS

Confirmed delivery date is to be intended in working days and from the date of the confirmation. It is anyhow approximative and subjected to any unexpected production's inconveniences.

SHIPMeNTS

Goods are on Ex-Works term basis unless otherwise specified and agreed with our company. Goods are shipped at customer's risk during transportation.

PRICeS

Prices are VAT excluded and we reserve the right to subject them on variation without prior notice. No minimum order value for invoice. Invoice amounting to less than € 50,00 we will debit bank charges and handling costs.

PaYMeNT

All payments shall be made to our office or bank details provided. Discount or rounded-off figures will not be accepted unless otherwise agreed between the parties. In the event of delayed payment commercial interest shall be applied with an increase of 3% from the official rate and we will charge bank expenses incurred.

Wa RRa NTY

On proper usage. The goods approved from our company to be default will be replaced free of charge. The Warranty does not include misuse of the items or goods supplied.

CLa IMS

All claims shall be issued by written manner to our company within 8 days from receipt of the same. We shall not accept return not agreed or formally authorized from our company.

COuRT OF COMPeTeNT JuRISDICTION

The Court of Brescia (Italy) shall have the exclusive jurisdiction of any controversy.

Tipografia **BATAN**

Settembre 2016