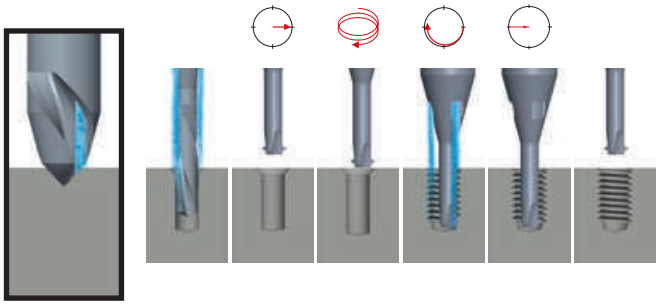
TABELLE D'UTILISATION — TABELLA D'IMPIEGO

Cycle de programmation pour mèches à centrer C315VS
Ciclo di programmazione per punte da centro C315VS



DC *Classification des matières*

DC Classificazione dei materiali

	Groupes de matières Gruppi di materiali		*Désignation des matières*	Designazione dei materiali	*Dureté* Durezza (HB)	*Résistance* Resistenza Rm (N/mm²)	*Lubrifiant* Lubrificante A (%)
10	*Aciers* Acciai	11	*Aciers de décolletage*	Acciai da tornitura	< 200	< 700	O E
		12	*Aciers de construction ou de cémentation*	Acciai da costruzione / da cementazione	< 200	< 700	O E
		13	*Aciers au carbone*	Acciai al carbonio	< 300	< 1000	O E
		14	*Aciers alliés < 850 N/mm²*	Acciai legati < 850 N/mm²	< 250	< 850	O E
		15	*Aciers alliés / traités > 850 - < 1150 N/mm²*	Acciai legati / trattati > 850 - < 1150 N/mm²	> 250	> 850	O E
		16	*Aciers haute résistance ≤ 44 HRC*	Acciai ad alta resistenza ≤ 44 HRC	> 250	> 850	O E
		17	*Aciers améliorés > 44 - ≤ 54 HRC*	Acciai bonificati > 44 - ≤ 54 HRC	> 410	> 1400	O E
		18	*Aciers trempés > 54 - ≤ 63 HRC*	Acciai temprati > 54 - ≤ 63 HRC	> 560	> 1980	
20	*Aciers inoxydables* Acciai inox	21	*Aciers inoxydables, soufrés*	Acciai inox, allo zolfo	< 250	< 850	O E
		22	*Austénitiques*	Acciai inox, austenitici	< 250	< 850	O E
		23	*Ferritiques et martensitiques < 850 N/mm²*	Ferritici e martensitici < 850 N/mm²	< 250	< 850	O E
		24	*Ferritiques et martensitiques > 850 - < 1150 N/mm²*	Ferritici e martensitici > 850 - < 1150 N/mm²	> 250	> 850	O E
30	*Fonte* Ghisa	31	*Fonte grise*	Ghisa grigia	< 250	< 850	O E
		32	*Fonte à graphite sphéroïdale et malléable*	Ghisa grafitica sferoidale e malleabile	< 250	< 850	O E
40	*Titane* Titanio	41	*Titane pur*	Titanio puro	< 250	< 850	O E
		42	*Alliage de titane*	Leghe di titanio	> 250	> 850	O E
50	*Nickel* Nickel	51	*Alliage de nickel 1 ≤ 850 N/mm²*	Leghe di nickel 1 ≤ 850 N/mm²	< 250	< 850	O E
		52	*Alliage de nickel 2 > 850 - ≤ 1150 N/mm²*	Leghe di nickel 2 > 850 - ≤ 1150 N/mm²	> 250	> 850	O E
		53	*Alliage de nickel 3 > 1150 - ≤ 1600 N/mm²*	Leghe di nickel 3 > 1150 - ≤ 1600 N/mm²	> 340	> 1150	O E
60	*Cuivre* Rame	61	*Cuivre pur (électrolytique)*	Rame puro (elettrolitico)	< 120	< 400	O E
		62	*Laiton, bronze (copeaux courts)*	Ottone, bronzo (trucioli corti)	< 200	< 700	O E
		63	*Laiton (copeaux longs)*	Ottone (trucioli lunghi)	< 200	< 700	O E
		64	*Laiton sans plomb*	Ottone senza piombo	< 220	< 700	O E
70	*Aluminium Magnésium* Alluminio Magnesio	71	*Al non allié*	Alluminio non legato	< 100	< 350	O E
		72	*Al allié Si < 1.5 %*	Leghe di alluminio Si < 1.5 %	< 150	< 500	O E
		73	*Al allié Si > 1.5 % - < 10 %*	Leghe di alluminio Si > 1.5 % - < 10 %	< 120	< 400	O E
		74	*Al allié Si > 10 %, alliages de magnésium*	Leghe di al. Si > 10 %, leghe di magnesio	< 120	< 400	O E
80	*Matières plastiques* Materie plastiche	81	*Matières thermoplastiques*	Materie termoplastiche	-	-	E
		82	*Matières duroplastiques*	Materie termoindurenti	-	-	E
		83	*Matières plastiques renforcées par fibres*	Materie plastiche rinforzate con fibre	-	-	E
90	*Métaux précieux* Metalli preziosi	91	*Or jaune*	Oro giallo	-	-	O E
		92	*Or rose*	Oro rosso	-	-	O E
		93	*Or blanc*	Oro bianco	-	-	O E
		94	*Argent*	Argento	-	-	O E

O *Optimale avec huile de coupe* Ottimale con olio da taglio

O *Fonctionnelle avec huile de coupe* Funzionale con olio da taglio

E *Optimale avec émulsion* Ottimale con emulsione

E *Fonctionnelle avec émulsion* Funzionale con emulsione

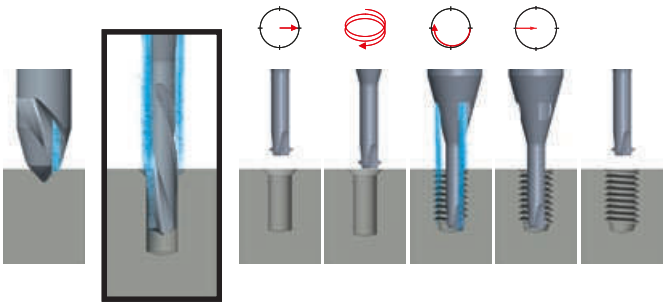
MÈCHES À CENTRER C315VS — PUNTE DA CENTRO C315VS

	Vc (m/min) Guide Line *Revêtu* Rivestito	C315VS						
								
		VS	VS	VS	VS	VS	VS	
		Avance f (mm/tour) / Avanzamento f (mm/giro)						
		Ø 1.40	Ø 2.00	Ø 3.00	Ø 4.00	Ø 6.00	Ø 8.00	
11	120	0.05	0.08	0.10	0.12	0.15	0.20	11
12	120	0.05	0.08	0.10	0.12	0.15	0.20	12
13	120	0.05	0.08	0.10	0.12	0.15	0.20	13
14	80	0.05	0.08	0.10	0.12	0.15	0.20	14
15	60	0.03	0.04	0.06	0.08	0.12	0.18	15
16	40	0.02	0.03	0.04	0.05	0.06	0.07	16
17	40	0.02	0.03	0.04	0.05	0.06	0.07	17
18								18
21	60	0.03	0.04	0.06	0.08	0.12	0.18	21
22	50	0.03	0.04	0.06	0.07	0.09	0.11	22
23	50	0.03	0.04	0.06	0.07	0.09	0.11	23
24	50	0.03	0.04	0.06	0.07	0.09	0.11	24
31	100	0.04	0.05	0.07	0.09	0.11	0.15	31
32	100	0.04	0.05	0.07	0.09	0.11	0.15	32
41	25	0.03	0.04	0.06	0.07	0.09	0.11	41
42	25	0.04	0.07	0.09	0.11	0.14	0.18	42
51	25	0.025	0.03	0.04	0.05	0.07	0.09	51
52	20	0.025	0.03	0.04	0.05	0.07	0.09	52
53	10	0.025	0.03	0.04	0.05	0.07	0.09	53
61	100	0.06	0.09	0.11	0.13	0.18	0.23	61
62	100	0.06	0.09	0.11	0.13	0.16	0.18	62
63	80	0.06	0.09	0.11	0.13	0.16	0.18	63
64	80	0.06	0.09	0.11	0.13	0.16	0.18	64
71	150	0.06	0.09	0.11	0.13	0.18	0.23	71
72	150	0.06	0.09	0.11	0.13	0.18	0.23	72
73	100	0.06	0.09	0.11	0.13	0.18	0.23	73
74	100	0.06	0.09	0.11	0.13	0.18	0.23	74
81	200	0.08	0.11	0.13	0.15	0.20	0.25	81
82	200	0.08	0.11	0.13	0.15	0.20	0.25	82
83	100	0.08	0.11	0.13	0.15	0.20	0.25	83
91	200	0.08	0.11	0.13	0.15	0.20	0.25	91
92	150	0.08	0.11	0.13	0.15	0.20	0.25	92
93	100	0.08	0.11	0.13	0.15	0.20	0.25	93
94	100	0.08	0.11	0.13	0.15	0.20	0.25	94

Les valeurs ci-dessus sont indicatives.
I valori sopracitati sono indicativi.

TABELLE D'UTILISATION — TABELLA D'IMPIEGO

Cycle de programmation pour mèches FZ315VS
Ciclo di programmazione per punte elicoidali FZ315VS



DC *Classification des matières* — DC Classificazione dei materiali

	Groupes de matières Gruppi di materiali		*Désignation des matières*	Designazione dei materiali	*Dureté* Durezza (HB)	*Résistance* Resistenza Rm (N/mm²)	*Lubrifiant* Lubrificante A (%)
10	*Aciers* Acciai	11	*Aciers de décolletage*	Acciai da tornitura	< 200	< 700	O E
		12	*Aciers de construction ou de cémentation*	Acciai da costruzione / da cementazione	< 200	< 700	O E
		13	*Aciers au carbone*	Acciai al carbonio	< 300	< 1000	O E
		14	*Aciers alliés < 850 N/mm²*	Acciai legati < 850 N/mm²	< 250	< 850	O E
		15	*Aciers alliés / traités > 850 - < 1150 N/mm²*	Acciai legati / trattati > 850 - < 1150 N/mm²	> 250	> 850	O E
		16	*Aciers haute résistance ≤ 44 HRC*	Acciai ad alta resistenza ≤ 44 HRC	> 250	> 850	O E
		17	*Aciers améliorés > 44 - ≤ 54 HRC*	Acciai bonificati > 44 - ≤ 54 HRC	> 410	> 1400	O E
		18	*Aciers trempés > 54 - ≤ 63 HRC*	Acciai temprati > 54 - ≤ 63 HRC	> 560	> 1980	
20	*Aciers inoxydables* Acciai inox	21	*Aciers inoxydables, soufrés*	Acciai inox, allo zolfo	< 250	< 850	O E
		22	*Austénitiques*	Acciai inox, austenitici	< 250	< 850	O E
		23	*Ferritiques et martensitiques < 850 N/mm²*	Ferritici e martensitici < 850 N/mm²	< 250	< 850	O E
		24	*Ferritiques et martensitiques > 850 - < 1150 N/mm²*	Ferritici e martensitici > 850 - < 1150 N/mm²	> 250	> 850	O E
30	*Fonte* Ghisa	31	*Fonte grise*	Ghisa grigia	< 250	< 850	O E
		32	*Fonte à graphite sphéroïdale et malléable*	Ghisa grafitica sferoidale e malleabile	< 250	< 850	O E
40	*Titane* Titanio	41	*Titane pur*	Titanio puro	< 250	< 850	O E
		42	*Alliage de titane*	Leghe di titanio	> 250	> 850	O E
50	*Nickel* Nickel	51	*Alliage de nickel 1 ≤ 850 N/mm²*	Leghe di nickel 1 ≤ 850 N/mm²	< 250	< 850	O E
		52	*Alliage de nickel 2 > 850 - ≤ 1150 N/mm²*	Leghe di nickel 2 > 850 - ≤ 1150 N/mm²	> 250	> 850	O E
		53	*Alliage de nickel 3 > 1150 - ≤ 1600 N/mm²*	Leghe di nickel 3 > 1150 - ≤ 1600 N/mm²	> 340	> 1150	O E
60	*Cuivre* Rame	61	*Cuivre pur (électrolytique)*	Rame puro (elettrolitico)	< 120	< 400	O E
		62	*Laiton, bronze (copeaux courts)*	Ottone, bronzo (trucioli corti)	< 200	< 700	O E
		63	*Laiton (copeaux longs)*	Ottone (trucioli lunghi)	< 200	< 700	O E
		64	*Laiton sans plomb*	Ottone senza piombo	< 220	< 700	O E
70	*Aluminium Magnésium* Alluminio Magnesio	71	*Al non allié*	Alluminio non legato	< 100	< 350	O E
		72	*Al allié Si < 1.5 %*	Leghe di alluminio Si < 1.5 %	< 150	< 500	O E
		73	*Al allié Si > 1.5 % - < 10 %*	Leghe di alluminio Si > 1.5 % - < 10 %	< 120	< 400	O E
		74	*Al allié Si > 10 %, alliages de magnésium*	Leghe di al. Si > 10 %, leghe di magnesio	< 120	< 400	O E
80	*Matières plastiques* Materie plastiche	81	*Matières thermoplastiques*	Materie termoplastiche	-	-	E
		82	*Matières duroplastiques*	Materie termoindurenti	-	-	E
		83	*Matières plastiques renforcées par fibres*	Materie plastiche rinforzate con fibre	-	-	E
90	*Métaux précieux* Metalli preziosi	91	*Or jaune*	Oro giallo	-	-	O E
		92	*Or rose*	Oro rosso	-	-	O E
		93	*Or blanc*	Oro bianco	-	-	O E
		94	*Argent*	Argento	-	-	O E

O *Optimale avec huile de coupe* Ottimale con olio da taglio

O *Fonctionnelle avec huile de coupe* Funzionale con olio da taglio

E *Optimale avec émulsion* Ottimale con emulsione

E *Fonctionnelle avec émulsion* Funzionale con emulsione

MÈCHES FZ315VS — PUNTE ELICOIDALI FZ315VS

FZ315VS

	Vc (m/min) Guide Line Ø 0.58 - 2.0 Revêtu Rivestito	Avance f (mm/tour) Avanzamento f (mm/giro) Ø0.58-0.82	Ø0.83-1.07	Ø1.08-1.46	Ø1.47-2.0	Q1	Qx	
11	40 - 60	0.02-0.035	0.03-0.045	0.04-0.055	0.05-0.065	$1xd_1$-$4xd_1$	$1xd_1$-$2xd_1$	11
12	40 - 60	0.02-0.035	0.03-0.045	0.04-0.055	0.05-0.065	$1xd_1$-$4xd_1$	$1xd_1$-$2xd_1$	12
13	35 - 55	0.015-0.025	0.025-0.035	0.035-0.045	0.045-0.055	$1xd_1$-$4xd_1$	$1xd_1$-$2xd_1$	13
14	35 - 55	0.015-0.025	0.025-0.035	0.035-0.045	0.045-0.055	$1xd_1$-$4xd_1$	$1xd_1$-$2xd_1$	14
15	35 - 55	0.015-0.025	0.025-0.035	0.035-0.045	0.045-0.055	$1xd_1$-$4xd_1$	$1xd_1$-$2xd_1$	15
16	35 - 55	0.015-0.025	0.025-0.035	0.035-0.045	0.045-0.055	$1xd_1$-$4xd_1$	$1xd_1$-$2xd_1$	16
17	30 - 45	0.015-0.025	0.025-0.035	0.035-0.045	0.045-0.055	$1xd_1$-$4xd_1$	$1xd_1$-$2xd_1$	17
18								18
21	30 - 45	0.015-0.025	0.025-0.035	0.035-0.045	0.045-0.055	$1xd_1$-$4xd_1$	$1xd_1$-$2xd_1$	21
22	30 - 45	0.015-0.025	0.025-0.035	0.035-0.045	0.045-0.055	$1xd_1$-$4xd1$	$1xd_1$-$2xd_1$	22
23	35 - 50	0.02-0.025	0.025-0.035	0.04-0.05	0.05-0.065	$1xd_1$-$4xd_1$	$1xd_1$-$2xd_1$	23
24	35 - 50	0.02-0.025	0.025-0.035	0.04-0.05	0.05-0.065	$1xd_1$-$4xd_1$	$1xd_1$-$2xd_1$	24
31	50 - 80	0.025-0.045	0.045-0.065	0.065-0.085	0.085-0.10	$4xd_1$-$8xd_1$	$4xd_1$	31
32	40 - 70	0.025-0.045	0.045-0.065	0.065-0.085	0.085-0.10	$4xd_1$-$8xd_1$	$4xd_1$	32
41	15 - 25	0.005-0.02	0.015-0.045	0.04-0.06	0.055-0.07	$1/2xd_1$-$1xd_1$	$1/4xd_1$-$1/2xd_1$	41
42	15 - 25	0.005-0.02	0.015-0.045	0.04-0.06	0.055-0.07	$1/2xd_1$-$1xd_1$	$1/4xd_1$-$1/2xd_1$	42
51	15 - 25	0.005-0.02	0.02-0.025	0.025-0.035	0.035-0.05	$1/2xd_1$-$1xd_1$	$1/2xd_1$	51
52	15 - 25	0.015-0.02	0.02-0.025	0.025-0.035	0.035-0.05	$1/2xd_1$-$1xd_1$	$1/2xd_1$	52
53	15 - 25	0.005-0.01	0.01-0.02	0.02-0.03	0.03-0.04	$1/2xd_1$-$1xd_1$	$1/2xd_1$	53
61	50 - 80	0.05-0.08	0.06-0.10	0.08-0.12	0.12-0.15	$4xd_1$-$8xd_1$	$4xd_1$	61
62	50 - 80	0.05-0.08	0.06-0.10	0.08-0.12	0.12-0.15	$4xd_1$-$8xd_1$	$4xd_1$	62
63	50 - 80	0.05-0.08	0.06-0.10	0.08-0.12	0.12-0.15	$4xd_1$-$8xd_1$	$4xd_1$	63
64	50 - 80	0.05-0.08	0.06-0.1	0.08-0.12	0.12-0.15	$4xd_1$-$8xd_1$	$4xd_1$	64
71	50 - 80	0.05-0.08	0.06-0.10	0.08-0.12	0.12-0.15	$2xd_1$-$3xd_1$	$3xd_1$	71
72	50 - 80	0.05-0.08	0.06-0.10	0.08-0.12	0.12-0.15	$2xd_1$-$3xd_1$	$3xd_1$	72
73	50 - 80	0.05-0.08	0.06-0.10	0.08-0.12	0.12-0.15	$2xd_1$-$3xd_1$	$3xd_1$	73
74	50 - 80	0.05-0.08	0.06-0.10	0.08-0.12	0.12-0.15	$2xd_1$-$3xd_1$	$3xd_1$	74
81	50 - 80	0.05-0.08	0.06-0.10	0.08-0.12	0.12-0.15	$4xd_1$-$8xd_1$	$4xd_1$	81
82	50 - 80	0.05-0.08	0.06-0.10	0.08-0.12	0.12-0.15	$4xd_1$-$8xd_1$	$4xd_1$	82
83	40 - 60	0.02-0.035	0.03-0.045	0.04-0.055	0.05-0.065	$2xd_1$-$3xd_1$	$3xd_1$	83
91	50 - 80	0.02-0.035	0.03-0.045	0.04-0.055	0.05-0.065	$2xd_1$-$3xd_1$	$3xd_1$	91
92	50 - 80	0.02-0.035	0.03-0.045	0.04-0.055	0.05-0.065	$2xd_1$-$3xd_1$	$3xd_1$	92
93	40 - 60	0.02-0.035	0.03-0.045	0.04-0.055	0.05-0.065	$2xd_1$-$3xd_1$	$3xd_1$	93
94	40 - 60	0.02-0.035	0.03-0.045	0.04-0.055	0.05-0.065	$2xd_1$-$3xd_1$	$3xd_1$	94

FZ315VS

	Vc (m/min) Guide Line Ø 2.01 - 5.4 Revêtu Rivestito	Avance f (mm/tour) Avanzamento f (mm/giro) Ø2.01-3.05	Ø3.06-4.5	Ø4.51-5.4	Qx	
11	80 - 110	0.07-0.12	0.12-0.18	0.18-0.23		11
12	80 - 110	0.07-0.12	0.12-0.17	0.17-0.22		12
13	70 - 100	0.07-0.12	0.12-0.17	0.17-0.22		13
14	70 - 100	0.07-0.12	0.12-0.17	0.17-0.22		14
15	70 - 100	0.07-0.12	0.12-0.17	0.17-0.22		15
16	70 - 100	0.07-0.10	0.10-0.14	0.14-0.17		16
17	60 - 80	0.07-0.10	0.10-0.15	0.14-0.18		17
18						18
21	60 - 80	0.045-0.055	0.055-0.07	0.07-0.10		21
22	60 - 80	0.045-0.055	0.055-0.07	0.07-0.10		22
23	60 - 80	0.05-0.065	0.05-0.065	0.06-0.09		23
24	60 - 80	0.05-0.065	0.05-0.065	0.06-0.09		24
31	90 - 130	0.10-0.15	0.15-0.20	0.20-0.25		31
32	80 - 120	0.10-0.14	0.14-0.18	0.18-0.23		32
41	30 - 40	0.055-0.07	0.055-0.07	0.055-0.07	$1/3xd_1$-$1/2xd_1$	41
42	30 - 40	0.055-0.07	0.055-0.07	0.055-0.07	$1/3xd_1$-$1/2xd_1$	42
51	30 - 40	0.035-0.05	0.035-0.05	0.05-0.08		51
52	30 - 40	0.035-0.05	0.035-0.05	0.05-0.08		52
53	30 - 40	0.03-0.04	0.03-0.04	0.04-0.06		53
61	130 - 180	0.12-0.15	0.15-0.20	0.20-0.25		61
62	130 - 180	0.12-0.15	0.15-0.20	0.20-0.25		62
63	80 - 110	0.12-0.15	0.14-0.18	0.18-0.23		63
64	80 - 110	0.12-0.15	0.14-0.18	0.18-0.23		64
71	130 - 180	0.12-0.15	0.15-0.20	0.20-0.25		71
72	130 - 180	0.12-0.15	0.15-0.20	0.20-0.25		72
73	100 - 130	0.12-0.15	0.14-0.18	0.18-0.23		73
74	100 - 130	0.12-0.15	0.14-0.18	0.18-0.23		74
81	130 - 180	0.12-0.15	0.15-0.20	0.20-0.25		81
82	130 - 180	0.12-0.15	0.15-0.20	0.20-0.25		82
83	80 - 120	0.07-0.12	0.12-0.18	0.18-0.23		83
91	130 - 180	0.07-0.12	0.12-0.17	0.17-0.22		91
92	130 - 180	0.07-0.12	0.12-0.17	0.17-0.22		92
93	80 - 110	0.07-0.12	0.12-0.17	0.17-0.22		93
94	80 - 110	0.07-0.12	0.12-0.17	0.17-0.22		94

Les valeurs ci-dessus sont indicatives.
I valori sopracitati sono indicativi.

TABELLE D'UTILISATION — TABELLA D'IMPIEGO

Classification des matières — Classificazione dei materiali

	Groupes de matières Gruppi di materiali		*Désignation des matières*	Designazione dei materiali	*Dureté* Durezza (HB)	*Résistance* Resistenza Rm (N/mm²)	*Lubrifiant* Lubrificante A (%)
10	*Aciers* Acciai	11	*Aciers de décolletage*	Acciai da tornitura	< 200	< 700	O E
		12	*Aciers de construction ou de cémentation*	Acciai da costruzione / da cementazione	< 200	< 700	O E
		13	*Aciers au carbone*	Acciai al carbonio	< 300	< 1000	O E
		14	*Aciers alliés < 850 N/mm²*	Acciai legati < 850 N/mm²	< 250	< 850	O E
		15	*Aciers alliés / traités > 850 - < 1150 N/mm²*	Acciai legati / trattati > 850 - < 1150 N/mm²	> 250	> 850	O E
		16	*Aciers haute résistance ≤ 44 HRC*	Acciai ad alta resistenza ≤ 44 HRC	> 250	> 850	
		17	*Aciers améliorés > 44 - ≤ 54 HRC*	Acciai bonificati > 44 - ≤ 54 HRC	> 410	> 1400	
		18	*Aciers trempés > 54 - ≤ 63 HRC*	Acciai temprati > 54 - ≤ 63 HRC	> 560	> 1980	
20	*Aciers inoxydables* Acciai inox	21	*Aciers inoxydables, soufrés*	Acciai inox, allo zolfo	< 250	< 850	O E
		22	*Austénitiques*	Acciai inox, austenitici	< 250	< 850	O E
		23	*Ferritiques et martensitiques < 850 N/mm²*	Ferritici e martensitici < 850 N/mm²	< 250	< 850	O E
		24	*Ferritiques et martensitiques > 850 - < 1150 N/mm²*	Ferritici e martensitici > 850 - < 1150 N/mm²	> 250	> 850	O E
30	*Fonte* Ghisa	31	*Fonte grise*	Ghisa grigia	< 250	< 850	
		32	*Fonte à graphite sphéroïdale et malléable*	Ghisa grafitica sferoidale e malleabile	< 250	< 850	
40	*Titane* Titanio	41	*Titane pur*	Titanio puro	< 250	< 850	O E
		42	*Alliage de titane*	Leghe di titanio	> 250	> 850	
50	*Nickel* Nickel	51	*Alliage de nickel 1 ≤ 850 N/mm²*	Leghe di nickel 1 ≤ 850 N/mm²	< 250	< 850	O E
		52	*Alliage de nickel 2 > 850 - ≤ 1150 N/mm²*	Leghe di nickel 2 > 850 - ≤ 1150 N/mm²	> 250	> 850	
		53	*Alliage de nickel 3 > 1150 - ≤ 1600 N/mm²*	Leghe di nickel 3 > 1150 - ≤ 1600 N/mm²	> 340	> 1150	
60	*Cuivre* Rame	61	*Cuivre pur (électrolytique)*	Rame puro (elettrolitico)	< 120	< 400	O E
		62	*Laiton, bronze (copeaux courts)*	Ottone, bronzo (trucioli corti)	< 200	< 700	
		63	*Laiton (copeaux longs)*	Ottone (trucioli lunghi)	< 200	< 700	O E
		64	*Laiton sans plomb*	Ottone senza piombo	< 220	< 700	O E
70	*Aluminium Magnésium* Alluminio Magnesio	71	*Al non allié*	Alluminio non legato	< 100	< 350	O E
		72	*Al allié Si < 1.5 %*	Leghe di alluminio Si < 1.5 %	< 150	< 500	O E
		73	*Al allié Si > 1.5 % - < 10 %*	Leghe di alluminio Si > 1.5 % - < 10 %	< 120	< 400	O E
		74	*Al allié Si > 10 %, alliages de magnésium*	Leghe di al. Si > 10 %, leghe di magnesio	< 120	< 400	
80	*Matières plastiques* Materie plastiche	81	*Matières thermoplastiques*	Materie termoplastiche	-	-	
		82	*Matières duroplastiques*	Materie termoindurenti	-	-	
		83	*Matières plastiques renforcées par fibres*	Materie plastiche rinforzate con fibre	-	-	
90	*Métaux précieux* Metalli preziosi	91	*Or jaune*	Oro giallo	-	-	
		92	*Or rose*	Oro rosso	-	-	
		93	*Or blanc*	Oro bianco	-	-	O E
		94	*Argent*	Argento	-	-	O E

O *Optimale avec huile de coupe* Ottimale con olio da taglio

O *Fonctionnelle avec huile de coupe* Funzionale con olio da taglio

E *Optimale avec émulsion* Ottimale con emulsione

E *Fonctionnelle avec émulsion* Funzionale con emulsione

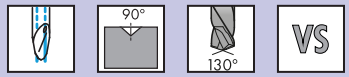
MÈCHES F286VS — PUNTE ELICOIDALI F286VS

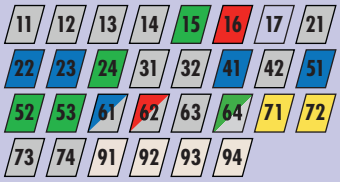
	Vc (m/min) Guide Line *Revêtu* Rivestito	F286VS						
								
		VS	VS	VS	VS	VS	VS	
		Avance f (mm/tour) / Avanzamento f (mm/giro)						
		Ø 0.8 - 1.2	Ø 1.21 - 3.0	Ø 3.01 - 6.0	Ø 6.01 - 8.5	Ø 8.51 - 11.0	Ø 11.02 - 14.0	
11	70 - 90	0.015-0.025	0.015-0.025	0.035-0.045	0.11-0.13	0.15-0.17	0.18-0.22	11
12	70 - 90	0.10-0.20	0.015-0.025	0.035-0.045	0.11-0.13	0.15-0.17	0.18-0.22	12
13	70 - 90	0.10-0.20	0.015-0.025	0.035-0.045	0.11-0.13	0.15-0.17	0.18-0.22	13
14	70 - 90	0.10-0.20	0.015-0.025	0.035-0.045	0.11-0.13	0.15-0.17	0.18-0.22	14
15	60 - 80	0.10-0.20	0.015-0.025	0.035-0.045	0.07-0.09	0.11-0.13	0.15-0.17	15
16								16
17								17
18								18
21	40 - 60	0.008-0.012	0.015-0.02	0.035-0.04	0.075-0.085	0.095-0.105	0.15-0.16	21
22	40 - 60	0.008-0.012	0.015-0.02	0.035-0.04	0.075-0.085	0.095-0.105	0.15-0.16	22
23	40 - 60	0.008-0.012	0.015-0.02	0.035-0.04	0.075-0.085	0.095-0.105	0.15-0.16	23
24	40 - 60	0.008-0.012	0.015-0.02	0.035-0.04	0.075-0.085	0.095-0.105	0.15-0.16	24
31								31
32								32
41	40 - 80	0.003-0.006	0.008-0.012	0.01-0.018	0.025-0.03	0.055-0.06	0.075-0.085	41
42								42
51	30 - 50	0.008-0.012	0.015-0.02	0.035-0.04	0.075-0.085	0.095-0.105	0.11-0.13	51
52								52
53								53
61	70 - 150	0.15-0.25	0.035-0.045	0.055-0.065	0.11-0.13	0.15-0.17	0.18-0.22	61
62								62
63	70 - 150	0.15-0.25	0.035-0.045	0.055-0.065	0.11-0.13	0.15-0.17	0.18-0.22	63
64	70 - 150	0.15-0.25	0.035-0.045	0.055-0.065	0.11-0.13	0.15-0.17	0.18-0.22	64
71	100 - 160	0.025-0.035	0.045-0.055	0.075-0.085	0.15-0.17	0.22-0.26	0.30-0.34	71
72	100 - 160	0.025-0.035	0.045-0.055	0.075-0.085	0.15-0.17	0.22-0.26	0.30-0.34	72
73	60 - 130	0.02-0.03	0.035-0.045	0.055-0.065	0.11-0.13	0.16-0.20	0.22-0.26	73
74								74
81								81
82								82
83								83
91								91
92								92
93	40 - 60	0.008-0.012	0.015-0.02	0.035-0.04	0.075-0.085	0.095-0.105	0.15-0.16	93
94	40 - 60	0.008-0.012	0.015-0.02	0.035-0.04	0.075-0.085	0.095-0.105	0.15-0.16	94

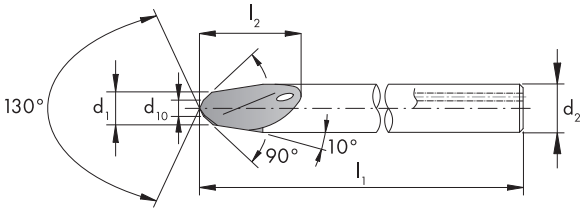
Les valeurs ci-dessus sont indicatives.
I valori sopracitati sono indicativi.

C

C315VS





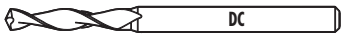


C315VS			
			

Ø d_1	l_1 mm	l_2 mm	d_2 h6 mm	d_{10} mm		ID
1.4	40	6	3	0.5	2	● 182872
2	40	6.2	3	1	2	● 182873
3	40	6.3	3	1.5	2	● 182874
4	50	8	4	2	2	● 190331
6	60	12	6	3	2	● 190332
8	70	16	8	4	2	● 190333

Mèches en carbure monobloc
Punte elicoidali in metallo duro integrale

VHM CAR



h6

FZ

FZ315VS

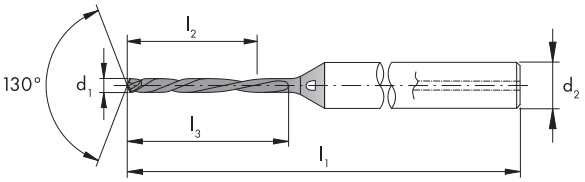

VS

FZ315VS



VS

11 12 13 14 15 16 17 21
22 23 24 31 32 41 42 51
52 53 61 62 63 64 71 72
73 74 91 92 93 94



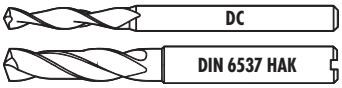
FZ315VS	FZ315VS		
			

Ø d_1	D_1 mm	l_1 mm	l_2 mm	l_3 mm	d_2 h6 mm		ID
0.58	M0.8	42	4.6	5.7	3	2	● 182863
0.59	S0.8	42	4.7	5.8	3	2	● 188023
0.65	M0.9	45	5.2	6.4	3	2	● 182864
0.67	S0.9	45	5.4	6.6	3	2	● 188024
0.7	M1	45	5.6	6.9	3	2	● 182865
0.74	S1	45	5.9	7.3	3	2	● 188025
0.9	M1.2	45	7.2	8.8	3	2	● 182866
0.94	S1.2	48	7.5	9.2	3	2	● 188026
1.05	M1.4	48	8.4	10.3	3	2	● 182867
1.09	S1.4	48	8.7	10.7	3	2	● 188027
1.19	M1.6	48	9.5	11.7	3	2	● 182868
1.39	M1.8	52	11.1	13.6	4	2	● 182869
1.54	M2	55	12.3	15.1	4	2	● 182870
1.98	M2.5	55	15.8	19.4	4	2	● 182871

Ø d_1	D_1 mm	l_1 mm	l_2 mm	l_3 mm	d_2 h6 mm		ID
2.15	UNC4	63	12.9	19.4	4	2	● 190326
2.45	M3	65	14.7	22.1	4	2	● 190321
2.65	UNC6	68	15.9	23.9	4	2	● 190327
2.85	M3.5	68	17.1	25.7	4	2	● 190322
3.25	M4	74	19.5	29.3	6	2	● 190323
3.95	UNF10	78	23.7	35.6	6	2	● 190329
4.1	M5	80	24.6	36.9	6	2	● 190324
4.9	M6	84	29.4	44.1	6	2	● 190325
5	UNC1/4	84	30	45	6	2	● 190328
5.4	UNF1/4	88	32.4	48.6	6	2	● 190330

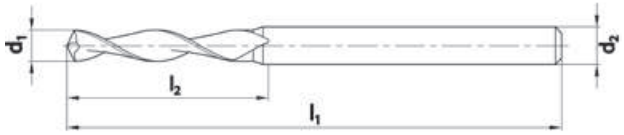
Mèches en carbure monobloc
Punte elicoidali in metallo duro integrale

VHM CAR

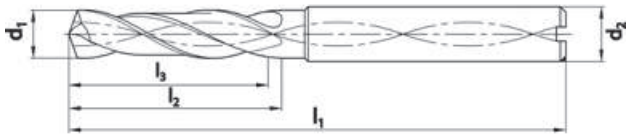


HBK HEK

sur demande
auf Anfrage
on request
su richiesta
sobre pedido
по заказу

	F313VS	F285VS	F286VS
F313VS R30 130° VS — 11 12 13 14 15 21 22 23 24 41 61 63 71 72 73 74			
F285VS F286VS R30 140° VS — 11 12 13 14 15 21 22 23 24 41 51 61 71 72 73 74 93 94			
			

Ø d_1 (h_7)	d_2 (h_6) mm	l_1 mm	l_2 mm			ID
0.88	3	38	8	2	M1	● 158515
0.9	3	38	10	2	*M1.2	● 159419
1.08	3	38	10	2	M1.2	● 158516
1.25	3	38	12	2	M1.4	● 158517
1.45	3	38	12	2	M1.6	● 158518
1.65	3	38	12	2	M1.8	● 158519
1.8	3	38	12	2	M2	● 158520
1.95	3	38	12	2	UNC2-56	● 158521
2.3	3	38	16	2	M2.5	● 158522
2.55	3	38	16	2	UNC4-40	● 158523
2.8	3	38	16	2	M3	● 158524
					*GWi5000	



Ø d_1 (m_7)	d_2 (h_6) mm	l_1 mm	l_2 mm	l_3 mm			ID
3.25	6	62	20	14	2	M3.5	● 158527
3.7	6	62	20	14	2	M4	● 158528
4.65	6	66	24	17	2	M5	● 158532
5.55	6	66	28	20	2	M6	● 158534
7.4	8	79	41	29	2	M8	● 158540
9.3	10	89	47	35	2	M10	● 158544
11.2	12	102	55	40	2	M12	● 158546

Ø d_1 (m_7)	d_2 (h_6) mm	l_1 mm	l_2 mm	l_3 mm			ID
3.3	6	66	28	23	2	M4	● 160989
4.2	6	74	36	29	2	M5	● 160990
5	6	82	44	35	2	M6	● 160991
6.8	8	91	53	43	2	M8	● 160992
8.5	10	103	61	49	2	M10	● 160993
10.2	12	118	71	56	2	M12	● 160994