

Nuova C.U.M.E.T.

SilverPro



AKCIOVÉ CENY NA TK FRÉZY

Silver PRO



Precision in *movement!*

Certificato

Reg. N° IT-TO-012-4314-Q/23.11.2021

Il sistema di gestione

NUOVA C.U.M.E.T. SRL

Via Pomba, 29 – 10123 Torino

è valutato ed approvato nel rispetto dei requisiti di

ISO 9001:2015

Scopo della certificazione:

PROGETTAZIONE E PRODUZIONE DI UTENSILI STANDARD E SPECIALI IN
METALLO DURO INTEGRALE PER LA MECCANICA IN GENERALE

Sito lavorativo:

Via Torino, 502/BIS – 10032 Brandizzo (TO)

EA: 17



BORIS STOYANOV,

Direttore

Senza l'effettuazione degli audit di sorveglianza, questo certificato è valido fino al: 23.10.2022

Dopo l'esito positivo dell'audit di sorveglianza 1, AQ Cert emette l'Allegato 1 per espandere la validità fino al: 23.10.2023

Dopo l'esito positivo dell'audit di sorveglianza 2, AQ Cert emette l'Allegato 1 per espandere la validità fino al: 23.10.2024

La validità del certificato può essere verificata su italia.aqcert.org/check

Organismo di certificazione per i sistemi di gestione presso Alpha Quality Certification Ltd.

UIC: 200229912, Indirizzo di registrazione: Via Banat 19, 8° piano, 1407 Sofia, Bulgaria

Accreditamento di EA BAS, N° 9 OCC / 07.12.2020 - +35928628357 · office@aqcert.org · www.aqcert.org

Per informazioni in Italiano, contatto autorizzato per l'Italia +393478797694



Fresa a Divisione Irregolare-Elica Variabile in metallo duro integrale

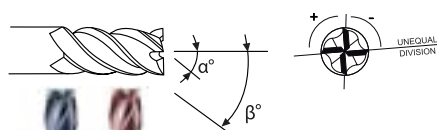
Solid carbide end mill, unequal division - Variable Helix

VHM-Torusfräser Ungleiche Drallwinkel-Ungleike Teilung - Fraise end carbur avec rayon d'angle, Irrégulière Division-Hélice Variable
 Фреза концевая твердосплавная с угловым радиусом с переменным углом наклона винтовой канавки
 Sk fréza s rohovým rádiusem a nerovnoměrným úhlem šroubovice - Variabilní helix



CODE	*d1 mm	d2 mm	CH mm	l1 mm	l2 mm	L mm	d3 mm	Z no.	Euro HYPER	Euro GOLD
400SVS.030	3	6	0.1x45°	9	12	57	2.8	4	17.00	17.00
400SVS.040	4	6	0.1x45°	11	16	57	3.8	4	17.00	17.00
400SVS.050	5	6	0.1x45°	13	20	57	4.8	4	17.00	17.00
400SVS.060	6	6	0.3x45°	13	23	57	5.8	4	15.00	15.00
400SVS.080	8	8	0.3x45°	22	32	63	7.8	4	21.00	21.00
400SVS.100	10	10	0.3x45°	25	34	72	9.8	4	32.00	32.00
400SVS.120	12	12	0.3x45°	27	42	83	11.8	4	39.00	39.00
400SVS.140	14	14	0.3x45°	30	45	83	13.8	4	54.23	54.23
400SVS.160	16	16	0.3x45°	34	49	92	15.8	4	68.00	68.00
400SVS.200	20	20	0.3x45°	40	55	104	19.8	4	108.00	108.00

*d1 ≤ ø 6 h9
 d1 ≤ ø20 f7



Example ø6mm:
GOLD = 400SVS.060
HYPER = 400SVS.060H

→ Help 15-16

GOLD
HRC <60

HYPER
HRC <50

GOLD
INOX
Stainless
Steel

GOLD
Ti- Ni
Alloy

MICRO
GRAIN

Nuova
CUMET
NORM

DIN 6535
Form HA

Variable

ANTI
VIBRA
TION

45°

Z 4

GOLD

Fresa Torica a Divisione Irregolare-Elica Variabile in metallo duro integrale

Solid carbide end mill, unequal division - Variable Helix

VHM-Torusfräser Ungleiche Drallwinkel-Ungleike Teilung - Fraise end carbur avec rayon d'angle, Irrégulière Division-Hélice Variable
 Фреза концевая твердосплавная с угловым радиусом с переменным углом наклона винтовой канавки
 Sk fréza s rohovým rádiusem a nerovnoměrným úhlem šroubovice - Variabilní helix



CODE	*d1 mm	d2 mm	Rp mm	l1 mm	l2 mm	L mm	d3 mm	Z no.	Euro HYPER	Euro GOLD
500RVS.030R05	3	6	0.5	10	13	57	2.8	4	19.00	19.00
500RVS.040R05	4	6	0.5	12	17	57	3.8	4	19.00	19.00
500RVS.050R05	5	6	0.5	13	20	57	4.8	4	19.00	19.00
500RVS.060R05	6	6	0.5	13	21	57	5.8	4	19.00	19.00
500RVS.060R1	6	6	1.0	13	21	57	5.8	4	19.00	19.00
500RVS.080R05	8	8	0.5	19	27	63	7.6	4	24.00	24.00
500RVS.080R1	8	8	1.0	19	27	63	7.6	4	24.00	24.00
500RVS08100R05	8	8	0.5	40	-	100	-	4	37.00	37.00
500RVS08100R1	8	8	1.0	22	-	100	-	4	37.00	37.00
500RVS08100R15	8	8	1.5	22	-	100	-	4	37.00	37.00
500RVS08100R2	8	8	2.0	22	-	100	-	4	37.00	37.00
500RVS.100R05	10	10	0.5	22	32	72	9.5	4	36.00	36.00
500RVS.100R1	10	10	1.0	22	32	72	9.5	4	36.00	36.00
500RVS10100R05	10	10	0.5	45	-	100	-	4	48.00	48.00
500RVS10100R1	10	10	1.0	25	-	100	-	4	48.00	48.00
500RVS10100R15	10	10	1.5	25	-	100	-	4	48.00	48.00
500RVS10100R2	10	10	2.0	25	-	100	-	4	48.00	48.00
500RVS.120R05	12	12	0.5	26	38	83	11.5	4	46.00	46.00
500RVS.120R1	12	12	1.0	26	38	83	11.5	4	46.00	46.00
500RVS12100R05	12	12	0.5	45	-	100	-	4	61.00	61.00
500RVS12100R1	12	12	1.0	27	-	100	-	4	61.00	61.00
500RVS12100R15	12	12	1.5	27	-	100	-	4	61.00	61.00
500RVS12100R2	12	12	2.0	27	-	100	-	4	61.00	61.00
500RVS.160R05	16	16	0.5	32	44	92	15.5	4	73.00	73.00
500RVS.160R1	16	16	1.0	32	44	92	15.5	4	73.00	73.00
500RVS.160R2	16	16	2.0	32	44	92	15.5	4	73.00	73.00
500RVS16100R05	16	16	0.5	45	-	100	-	4	98.00	98.00
500RVS16100R1	16	16	1.0	32	-	100	-	4	98.00	98.00
500RVS16100R2	16	16	2.0	32	-	100	-	4	98.00	98.00
500RVS.200R1	20	20	1.0	38	54	104	19.5	4	113.00	113.00
500RVS.200R2	20	20	2.0	38	54	104	19.5	4	113.00	113.00
500RVS.200R3	20	20	3.0	38	54	104	19.5	4	113.00	113.00
500RVS.200R4	20	20	4.0	38	54	104	19.5	4	113.00	113.00

*d1 ≤ ø 6 h9
 d1 ≤ ø20 f7

Example ø6mm:
GOLD = 500RVS.060R05
HYPER = 500RVS.060R05H

GOLD
HRC <60

HYPER
HRC <50

GOLD
INOX
Stainless
Steel

GOLD
Ti- Ni
Alloy

MICRO
GRAIN

Nuova
CUMET
NORM

DIN 6535
Form HA

Variable

ANTI
VIBRA
TION

Z 4

GOLD

→ Help 15-16

Fresa a Divisione Irregolare-Elica Variabile in metallo duro integrale

Solid carbide end mill, unequal division - Variable Helix

VHM-Torusfräser Ungleiche Drallwinkel-Ungleiche Teilung - Fraise end carbur avec rayon d'angle, Irrégulière Division-Hélice Variable
 Фреза концевая твердосплавная с угловым радиусом с переменным углом наклона винтовой канавки
 Sk fréza s rohovým rádiusem a nerovnomerným úhlem šroubovice - Variabilní helix



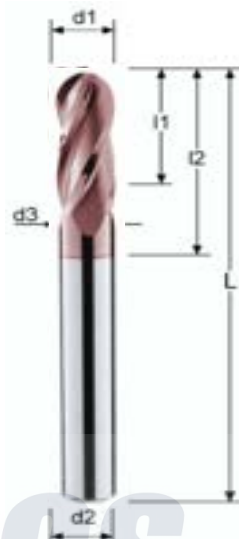
CODE	*d1 mm	d2 mm	R mm	l1 mm	l2 mm	L mm	d3 mm	Z no.	Euro HYPER	Euro GOLD
400RTVS.030	3	6	1.5	9	12	57	2.8	4	19.00	19.00
400RTVS.040	4	6	2	11	16	57	3.8	4	19.00	19.00
400RTVS.050	5	6	2.5	13	20	57	4.8	4	19.00	19.00
400RTVS.060	6	6	3	13	23	57	5.8	4	17.00	17.00
400RTVS.080	8	8	4	22	32	63	7.8	4	24.00	24.00
400RTVS.100	10	10	5	25	34	72	9.8	4	36.00	36.00
400RTVS.120	12	12	6	27	42	83	11.8	4	46.00	46.00
400RTVS.140	14	14	7	30	45	83	13.8	4	60.00	60.00
400RTVS.160	16	16	8	34	49	92	15.8	4	75.00	75.00
400RTVS.200	20	20	10	40	55	104	19.8	4	119.00	119.00

*d1 ≤ ø 6 h9
 d1 ≤ ø20 f7



→ Help 22

Example ø6mm:
GOLD = 400RTVS.060
HYPER = 400RTVS.060H



GOLD
HRC
<60

HYPER
HRC
<50

GOLD
INOX
Stainless
Steel

TI- Ni
Alloy

MICRO
GRAIN

Nuova
CUMET
NORM

DIN 6535
Form HA

40°

ANTI
VIBRA
TION

U

Z 4

GOLD

Fresa rompitruciolo antivibrante in metallo duro integrale

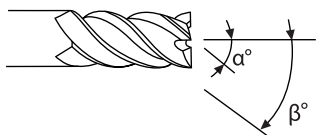
Solid carbide anti-vibration roughing end mill

VHM - Schruppfräser Schwingungsdämpfer - Fraise carbure à dégrossir à Haute Performance
 Фреза концевая твердосплавная для черновой обработки высокопроизводительная
 Sk hrubovací vysoce výkonná fréza



CODE	d1h11 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro
T2201S03050	3	6	8	50	3	18.00
T2201S04050	4	6	12	50	3	18.00
T2201S05050	5	6	15	50	3	18.00
T2201S06050	6	6	16	50	4	18.00
T2201S08060	8	8	22	60	4	24.00
T2201S10070	10	10	25	72	4	36.00
T2201S10100	10	10	45	100	4	55.00
T2201S12075	12	12	27	75	4	46.00
T2201S12100	12	12	45	100	4	70.00
T2201S16092	16	16	30	92	4	76.30
T2201S20100	20	20	40	104	4	115.00

→ Help 19



HRC
< 50

CAST
IRON

INOX
Stainless
Steel

TI-Alloy

NI-Alloy

MICRO
GRAIN

Nuova
CUMET
NORM

DIN 6535
Form HA

Variable

ANTI
VIBRA
TION

45°

Z 3

Z 4

03-05

06-020

HYPER

Fresa rompitruciolo in metallo duro integrale

Solid carbide roughing end mill

VHM - Schruppfräser - Fraise carbure profil ébauche

Фреза концевая твердосплавная для черновой обработки - Sk hrubovací fréza



CODE	d1h11 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro
T2203S03050	3	6	8	50	3	17.00
T2203S04050	4	6	12	50	3	17.00
T2203S05050	5	6	15	50	3	17.00
T2203S06050	6	6	20	50	4	16.00
T2203S08060	8	8	22	60	4	22.50
T2203S10070	10	10	25	72	4	31.00
T2203S12075	12	12	27	75	4	42.00
T2203S16092	16	16	30	92	4	66.00
T2203S20100	20	20	40	104	4	109.52

→ Help 19



HRC < 50	CAST IRON	TI-Alloy
N		
MICRO GRAIN	Nuova CUMET NORM	DI 6535 Form HA
20°	HSC	
45°		
(+)	Z 3	Z 4
	03-05	06-020
Z 5	025	03 - 012
	014 - 025	
HYPER		

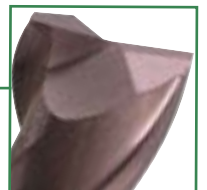


Fresa testa piana in metallo duro integrale

Solid carbide flat nose end mill

VHM - Schaftfräser - Fraise carbure à bout plat

Фреза концевая твердосплавная с прямым зубом - Sk rohová fréza



CODE	d1h9 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro HYPER GOLD
201S.010.4	1	4	2	50	2	8.00
201S.010	1	6	2.5	50	2	12.00
201S.015.4	1.5	4	3	50	2	8.00
201S.015	1.5	6	4	50	2	12.00
201S.020.4	2	4	4	50	2	8.00
201S.020	2	6	6	50	2	12.00
201S.025	2.5	6	6	50	2	12.00
201S.030.4	3	4	6	50	2	8.00
201S.030	3	6	7	50	2	12.00
201S.035	3.5	6	7	50	2	12.00
201S.040	4	6	8	50	2	12.00
201S.045	4.5	6	9	50	2	12.00
201S.050	5	6	10	50	2	12.00
201S.055	5.5	6	10	50	2	12.00
201S.060	6	6	12	50	2	10.00

→ Help 20-21



GOLD	HYPER	GOLD
HRC < 60	HRC < 50	CAST IRON
N		
MICRO GRAIN	Nuova CUMET NORM	DI 6535 Form HA
HSC		30°
(+)	Z 2	GOLD

Example ø6mm:
GOLD = 201S.060
HYPER = 201S.060H



Fresa testa sferica in metallo duro integrale

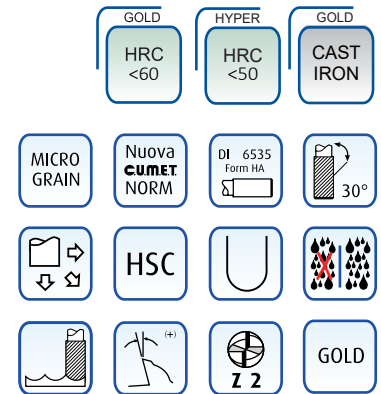
Solid carbide ball nose end mill

VHM - Radiusfräser - Fraise carbure à bout hémisphérique
Фреза концевая твердосплавная полусферическая - Sk kulová fréza



CODE	d1h9 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro HYPER GOLD
201RS.010.4	1	4	2	50	2	9.90
201RS.010	1	6	2.5	50	2	13.50
201RS.015.4	1.5	4	3	50	2	9.90
201RS.015	1.5	6	4	50	2	13.50
201RS.020.4	2	4	4	50	2	9.90
201RS.020	2	6	6	50	2	13.50
201RS.025	2.5	6	6	50	2	13.50
201RS.030.4	3	4	6	50	2	9.90
201RS.030	3	6	7	50	2	13.50
201RS.035	3.5	6	7	50	2	13.50
201RS.040	4	6	8	50	2	13.50
201RS.045	4.5	6	9	50	2	13.50
201RS.050	5	6	10	50	2	13.50
201RS.055	5.5	6	10	50	2	13.50
201RS.060	6	6	12	50	2	12.00

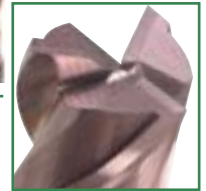
→ Help22



Fresa testa piana in metallo duro integrale

Solid carbide flat nose end mill

VHM - Schafffräser - Fraise carbure à bout plat
Фреза концевая твердосплавная с прямым зубом - Sk rohč

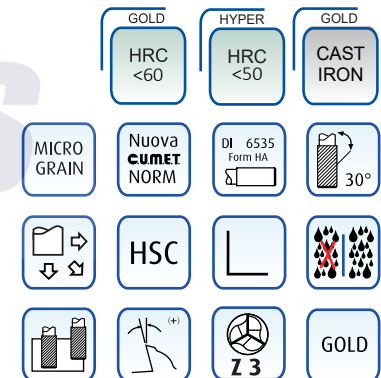


CODE	d1h9 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro HYPER GOLD
301S.010.4	1	4	2	50	3	8.00
301S.010	1	6	2.5	50	3	12.00
301S.015.4	1.5	4	3	50	3	8.00
301S.015	1.5	6	4	50	3	12.00
301S.020.4	2	4	5	50	3	8.00
301S.020	2	6	6	50	3	12.00
301S.025	2.5	6	6	50	3	12.00
301S.030.4	3	4	7	50	3	8.00
301S.030	3	6	7	50	3	12.00
301S.035	3.5	6	7	50	3	12.00
301S.040	4	6	8	50	3	12.00
301S.045	4.5	6	9	50	3	12.00
301S.050	5	6	10	50	3	12.00
301S.055	5.5	6	10	50	3	12.00
301S.060	6	6	12	50	3	10.00

→ Help 20-21



Example ø6mm:
GOLD = 201RS.060
HYPER = 201RS.060H



Fresa testa piana in metallo duro integrale

Solid carbide flat nose end mill

VHM - Schafffräser - Fraise carbure à bout plat
Фреза концевая твердосплавная с прямым зубом - Sk rohová fréza

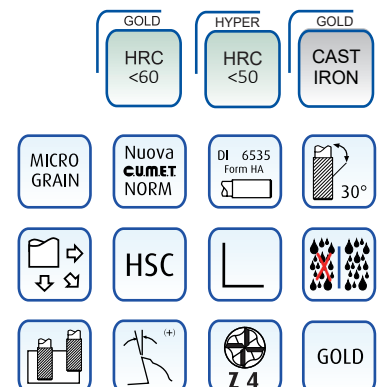


CODE	d1h9 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro HYPER GOLD
401S.010.4	1	4	2	50	4	8.00
401S.010	1	6	2.5	50	4	12.00
401S.015.4	1.5	4	3	50	4	8.00
401S.015	1.5	6	4	50	4	12.00
401S.020.4	2	4	5	50	4	8.00
401S.020	2	6	6	50	4	12.00
401S.025	2.5	6	6	50	4	12.00
401S.030.4	3	4	7	50	4	8.00
401S.030	3	6	7	50	4	12.00
401S.035	3.5	6	7	50	4	12.00
401S.040	4	6	8	50	4	12.00
401S.045	4.5	6	9	50	4	12.00
401S.050	5	6	10	50	4	12.00
401S.055	5.5	6	10	50	4	12.00
401S.060	6	6	12	50	4	10.00

→ Help 20-21



Example ø6mm:
GOLD = 401S.060
HYPER = 401S.060H



Fresa testa sferica in metallo duro integrale

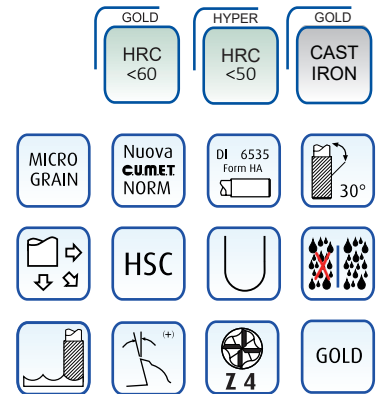
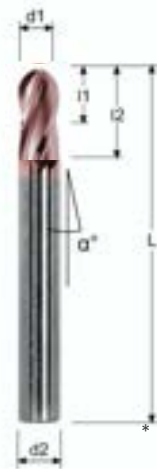
Solid carbide ball nose end mill

VHM - Radiusfräser - Fraise carbure à bout hémisphérique
Фреза концевая твердосплавная полусферическая - Sk kulová fréza



CODE	d1h9 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro HYPER GOLD
401RS.010	1	6	3	50	4	12.00
401RS.015	1.5	6	4	50	4	12.00
401RS.020	2	6	6	50	4	12.00
401RS.025	2.5	6	6	50	4	12.00
401RS.030	3	6	7	50	4	12.00
401RS.035	3.5	6	7	50	4	12.00
401RS.040	4	6	10	50	4	12.00
401RS.045	4.5	6	10	50	4	12.00
401RS.050	5	6	14	50	4	12.00
401RS.055	5.5	6	14	50	4	12.00
401RS.060	6	6	15	50	4	10.00

→ Help 22



Example ø6mm:

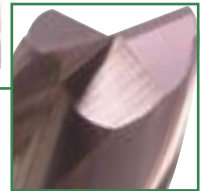
*d1 ≤ ø 6 h9

d1 ≤ ø20 f7

Example ø6mm:

GOLD = 401RS.060

HYPER = 401RS.060H



Fresa testa piana in metallo duro integrale

Solid carbide flat nose end mill

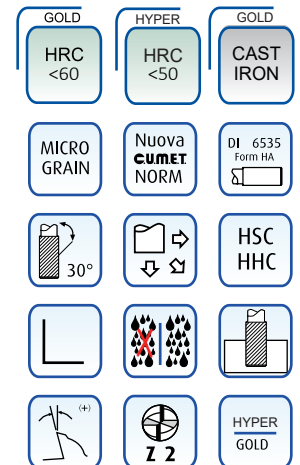
VHM - Schafffräser - Fraise carbure à bout plat
Фреза концевая твердосплавная с плоским торцом - Sk rohová fréza

CODE	d1 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro HYPER	Euro GOLD
200TS.030	3	3	8	40	2	7.08	7.08
200TS.040	4	4	10	50	2	7.89	7.89
200TS.050	5	5	12	50	2	8.95	8.95
200TS.060	6	6	12	50	2	10.00	10.00
200TS.080	8	8	20	60	2	15.50	15.50
200TS.100	10	10	22	72	2	22.61	22.61
200TS.120	12	12	25	75	2	32.54	32.54
200TS.140	14	14	30	85	2	49.00	49.00
200TS.160	16	16	30	92	2	52.00	52.00
200TS.200	20	20	40	100	2	85.00	85.00

*d1 ≤ ø 6 h9

d1 ≤ ø20 f7

→ Help 20-21



Example ø6mm:

GOLD = 200TS.060

HYPER = 200TS.060H



Solid carbide ball nose end mill

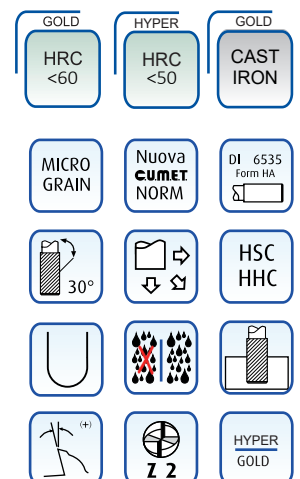
VHM - Radiusfräser - Fraise carbure à bout hémisphérique
Фреза концевая твердосплавная полусферическая - Sk kulová fréza

CODE	d1 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro HYPER	Euro GOLD
200RTS.030	3	3	8	40	2	8.50	8.50
200RTS.040	4	4	10	50	2	9.47	9.47
200RTS.050	5	5	12	50	2	11.00	11.00
200RTS.060	6	6	12	50	2	12.00	12.00
200RTS.080	8	8	20	60	2	18.60	18.60
200RTS.100	10	10	22	72	2	27.00	27.00
200RTS.120	12	12	25	75	2	38.00	38.00
200RTS.160	16	16	30	92	2	62.40	62.40
200RTS.200	20	20	40	100	2	98.40	98.40

*d1 ≤ ø 6 h9

d1 ≤ ø20 f7

→ Help 22



Example ø6mm:

GOLD = 200RTS.060

HYPER = 200RTS.060H



Fresa testa piana in metallo duro integrale

Solid carbide flat nose end mill

VHM - Schaftfräser - Fraise carbure à bout plat

Фреза концевая твердосплавная с плоским торцом - Sk rohová fréza



CODE	d1 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro HYPER	Euro GOLD
300TS.030	3	3	12	40	3	7.08	7.08
300TS.040	4	4	16	50	3	7.89	7.89
300TS.050	5	5	20	50	3	8.95	8.95
300TS.060	6	6	20	50	3	10.00	10.00
300TS.080	8	8	22	60	3	15.50	15.50
300TS.100	10	10	25	72	3	22.61	22.61
300TS.120	12	12	27	75	3	32.54	32.54
300TS.160	16	16	30	92	3	52.00	52.00
300TS.200	20	20	40	100	3	85.00	85.00

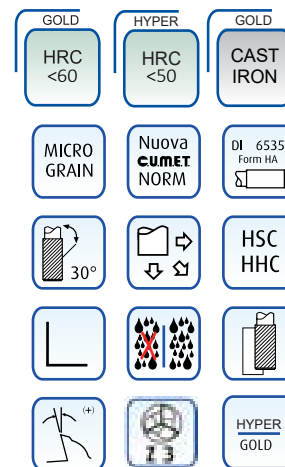
*d1 ≤ ø 6 h9
d1 ≤ ø20 f7

→ Help 20-21

Example ø6mm:

GOLD = 300TS.060

HYPER = 300TS.060H



Fresa testa piana in metallo duro integrale

Solid carbide flat nose end mill

VHM - Schaftfräser - Fraise carbure à bout plat

Фреза концевая твердосплавная с плоским торцом - Sk rohová fréza



CODE	d1 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro HYPER	Euro GOLD
400TS.030	3	3	12	40	4	7.08	7.08
400TS.040	4	4	16	50	4	7.89	7.89
400TS.050	5	5	20	50	4	8.95	8.95
400TS.060	6	6	20	50	4	10.00	10.00
400TS.080	8	8	22	60	4	15.50	15.50
400TS.100	10	10	25	72	4	22.61	22.61
400TS.120	12	12	27	75	4	32.54	32.54
400TS.140	14	14	30	85	4	49.00	49.00
400TS.160	16	16	30	92	4	52.00	52.00
400TS.200	20	20	40	100	4	85.00	85.00

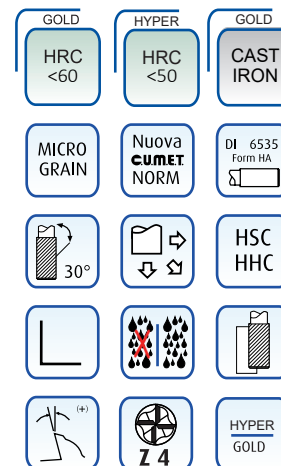
*d1 ≤ ø 6 h9
d1 ≤ ø20 f7

→ Help 20-21

Example ø6mm:

GOLD = 400TS.060

HYPER = 400TS.060H

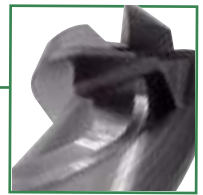


Fresa Torica in metallo duro integrale

Solid carbide corner radius end mill

VHM-torusfräser - Fraise carbure pour cuivre avec rayon d'angle

Фреза концевая твердосплавная с угловым радиусом для меди - Sk fréza s rohovým rádiusem



CODE	*d1 mm	d2 mm	Rp mm	l1 mm	l2 mm	L mm	d3 mm	Z no.	Euro HYPER GOLD
400RPS.030R05	3	4	0.5	9	-	50	-	4	12.00
400RPS.040R05	4	4	0.5	12	-	50	-	4	12.00
400RPS.050R05	5	6	0.5	15	-	50	-	4	14.00
400RPS.060R05	6	6	0.5	18	-	50	-	4	14.00
400RPS.060R1	6	6	1.0	18	-	50	-	4	14.00
400RPS.080R05	8	8	0.5	22	-	60	-	4	20.04
400RPS.080R1	8	8	1.0	22	-	60	-	4	20.04
400RPS.100R05	10	10	0.5	25	-	72	-	4	28.20
400RPS.100R1	10	10	1.0	25	-	72	-	4	28.20
400RPS.120R05	12	12	0.5	27	-	75	-	4	37.00
400RPS.120R1	12	12	1.0	27	-	75	-	4	37.00
400RPS.120R2	12	12	2.0	27	-	75	-	4	37.00
400RPS.160R1	16	16	1.0	32	-	92	-	4	76.00
400RPS.160R2	16	16	2.0	32	-	92	-	4	76.00
400RPS.200R1	20	20	1.0	40	-	100	-	4	115.00
400RPS.200R2	20	20	2.0	40	-	100	-	4	115.00

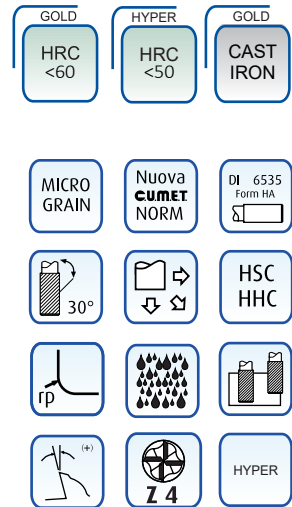
*d1=h9

→ Help20-21

Example ø6mm:

GOLD = 400RPS.060R05

HYPER = 400RPS.060R05H



Fresa testa sferica in metallo duro integrale

Solid carbide ball nose end mill

VHM - Radiusfräser - Fraise carbure à bout hémisphérique

Фреза концевая твердосплавная полусферическая - Sk kulová fréza



CODE	d1 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro HYPER	Euro GOLD
400RTS.030	3	3	12	50	4	9.90	9.90
400RTS.040	4	4	16	50	4	11.20	11.20
400RTS.050	5	5	20	50	4	12.70	12.70
400RTS.060	6	6	20	50	4	13.60	13.60
400RTS.080	8	8	22	60	4	20.04	20.04
400RTS.100	10	10	25	72	4	28.20	28.20
400RTS.120	12	12	27	75	4	40.00	40.00
400RTS.160	16	16	30	92	4	76.00	76.00
400RTS.200	20	20	40	100	4	115.00	115.00

*d1 ≤ ø 6 h9

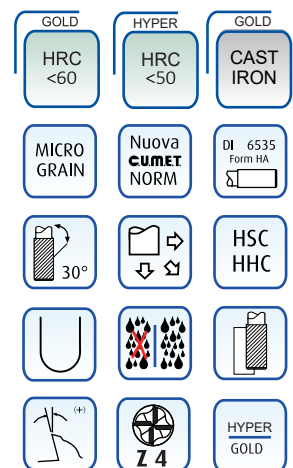
d1 ≤ ø20 f7

→ Help22

Example ø6mm:

GOLD = 400RTS.060

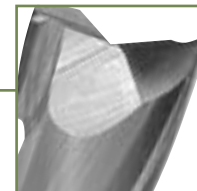
HYPER = 400RTS.060H



Fresa testa torcia antivibrante ad alto avanzamento in metallo duro integrale

Solid carbide corner radius end mill high feed

VHM- Stirn RadiusFräser High feed - Fraise carbure avec rayon d'angle à Haute avancement
Sk vysokorychlostní fréza s rohovým rádiusem



CODE	*d1 mm	d2h6 mm	rp-CH mm	l1 mm	l2 mm	L mm	d3 mm	Z no.	Euro
Y703S.030	3	6	0.05x45°	3	10	60	5.8	2	18.00
Y703S.030.03	3	6	0.3	3	10	60	5.8	2	18.00
Y703S.040	4	6	0.05x45°	3	10	60	5.8	2	18.00
Y703S.040.05	4	6	0.5	3	10	60	5.8	2	18.00
Y703S.050.05	5	6	0.5	3	10	60	5.8	2	18.00
Y703S.060	6	6	0.05x45°	6	18	60	5.8	2	18.00
Y703S.060.05	6	6	0.5	6	18	60	5.8	2	18.00
Y703S.080	8	8	0.05x45°	8	24	75	7.8	2	29.00
Y703S.080.05	8	8	0.5	8	24	75	7.8	2	29.00
Y703S.100	10	10	0.05x45°	10	30	80	9.7	2	40.00
Y703S.100.05	10	10	0.5	10	30	80	9.7	2	40.00
Y703S.120	12	12	0.05x45°	12	36	100	11.7	2	60.00
Y703S.120.05	12	12	0.5	12	36	100	11.7	2	60.00
Y703S.160	16	16	0.05x45°	16	50	100	15.5	2	90.00
Y703S.160.05	16	16	0.5	16	50	100	15.5	2	90.00
Y703S.200	20	20	0.05x45°	20	60	100	19.5	2	135.00
Y703S.200.1	20	20	1.0	20	60	100	19.5	2	135.00

*d1 ≤ ø 6 h9
d1 ≤ ø20 f7

→ Help 18



AL Alloy

MICRO GRAIN

Nuova CUMET NORM

DIN 6535 Form HA

10°

HSC

45°

UNCOATED

Z 2

LAPPED

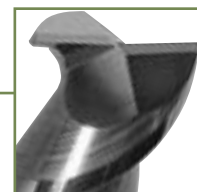


Fresa Alufast ad alto avanzamento testa piana in metallo duro itegrale

Alufast solid carbide high feed flat nose end mill

VHM-Alufast Gesenkfräser - Fraise carbure Alufast à bout plat
Sk rohová fréza alufast

HIGH FEED



CODE	*d1 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro
755S.030	3	6	9	57	2	13.00
755S.040	4	6	12	57	2	13.00
755S.050	5	6	15	57	2	13.00
755S.060	6	6	18	57	2	12.00
755S.080	8	8	20	63	2	20.40
755S.100	10	10	25	70	2	28.40
755S.120	12	12	25	75	2	35.80
755S.160	16	16	32	92	2	69.40
755S.200	20	20	40	100	2	112.00

*d1 ≤ ø 6 h9
d1 ≤ ø20 h7

→ Help 17



Aluminium

MICRO GRAIN

DIN NORM

DIN 6535 Form HA

55°

HSC

OIL AIR

UNCOATED

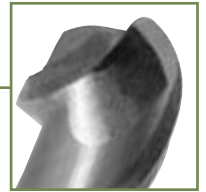
Z 2

Fresa testa sferica 3D in metallo duro integrale

Solid carbide 3D ball nose end mill

VHM - 3D Radiusfräser - Fraise carbure 3D hémisphérique

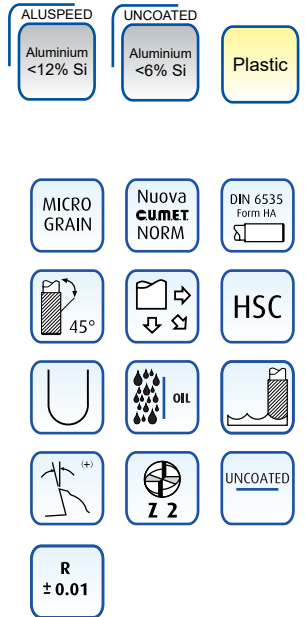
Фреза концевая твердосплавная полусферическая 3D - Sk 3D kulová fréza



Code UNCOATED	*d1 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro
700SRS.030	3	6	10	75	2	19.70
700SRS.040	4	6	10	75	2	19.70
700SRS.060	6	6	15	100	2	20.30
700SRS.080	8	8	20	100	2	29.40
700SRS.100	10	10	25	100	2	40.00
700SRS.120	12	12	25	100	2	53.00
700SRS.160	16	16	30	100	2	79.00
700SRS.200	20	20	30	100	2	119.00

*d1 ≤ ø 6 h9
d1 ≤ ø20 f7

→ Help 22

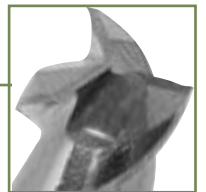


Fresa testa piana in metallo duro integrale

Solid carbide flat nose end mill

VHM - Gesenkfräser - Fraise carbure à bout plat

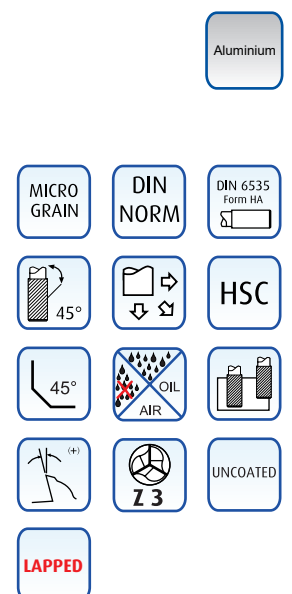
Фреза концевая твердосплавная с плоским торцом - Sk rohová fréza



CODE	*d1 mm	d2h6 mm	CH mm	l1 mm	L mm	Z no.	Euro
456S.030	3	6	0.05	10	57	3	14.90
456S.040	4	6	0.05	15	57	3	14.90
456S.050	5	6	0.05	18	57	3	14.90
456S.060	6	6	0.05	20	57	3	13.30
456S.080	8	8	0.05	25	63	3	20.70
456S.100	10	10	0.05	25	72	3	28.40
456S.120	12	12	0.05	30	83	3	40.80
456S.160	16	16	0.05	32	92	3	69.40
456S.200	20	20	0.05	38	100	3	112.00

*d1 ≤ ø 6 h9
d1 ≤ ø20 f7

→ Help 17

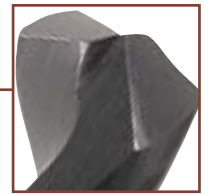


Punta ad alte prestazioni in metallo duro integrale

Solid carbide high performance twist drill

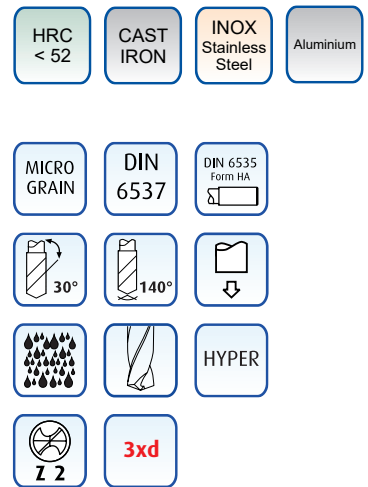
VHM - Hochleistungsböhler - Foret carbure à haut performance

Сверло спиральное твердосплавное высокопроизводительное - Sk vysoce výkonný vrták



CODE	d1m7 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro
122T...	3.0-3.7	6	20	60	2	21.04
122T...	3.8-4.7	6	24	66	2	21.04
122T...	4.8-6.0	6	28	66	2	21.04
122T...	6.1-7.0	8	34	79	2	33.21
122T...	7.1-8.0	8	41	79	2	33.21
122T...	8.1-10	10	45	89	2	46.25
122T...	10.1-12	12	55	102	2	60.40
122T...	12.2-14	14	60	107	2	85.40
122T...	14.5-16	16	65	115	2	101.70
122T...	16.5-18	18	73	123	2	132.93
122T...	18.5-20	20	79	131	2	162.90

Order Example:
Ø6.3=122T.063



Punta ad alte prestazioni in metallo duro integrale

Solid carbide high performance twist drill

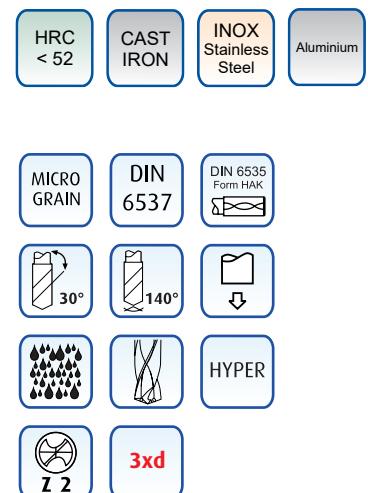
VHM - Hochleistungsböhler - Foret carbure à haut performance

Сверло спиральное твердосплавное высокопроизводительное - Sk vysoce výkonný vrták



CODE	d1m7 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro
122F...	3.0-3.7	6	20	60	2	31.56
122F...	3.8-4.7	6	24	66	2	31.56
122F...	4.8-6.0	6	28	66	2	31.56
122F...	6.1-7.0	8	34	79	2	43.95
122F...	7.1-8.0	8	41	79	2	43.95
122F...	8.1-10	10	45	89	2	54.35
122F...	10.1-12	12	55	102	2	79.10
122F...	12.2-14	14	60	107	2	104.04
122F...	14.5-16	16	65	115	2	126.25
122F...	16.5-18	18	73	123	2	176.65
122F...	18.5-20	20	79	131	2	220.35

Order Example:
Ø6.3=122F.063



Punta ad alte prestazioni in metallo duro integrale

Solid carbide high performance twist drill

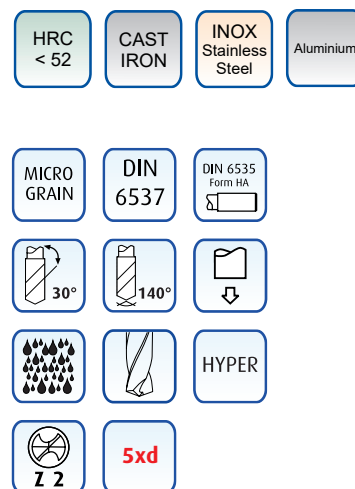
VHM - Hochleistungsbohrer - Foret carbure à haut performance

Сверло спиральное твердосплавное высокопроизводительное - Sk vysoce výkonný vrták



CODE	d1m7 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro
122TL...	0.5-0.9	3	10	50	2	27.10
122TL...	1.0-1.5	3	12	55	2	27.10
122TL...	1.6-2.0	3	16	55	2	27.10
122TL...	2.1-2.9	3	21	57	2	27.10
122TL...	3.0-3.7	6	28	66	2	31.79
122TL...	3.8-4.7	6	36	74	2	31.79
122TL...	4.8-6.0	6	44	82	2	31.79
122TL...	6.1-8.0	8	53	91	2	39.74
122TL...	8.1-10	10	61	103	2	50.95
122TL...	10.1-12	12	71	118	2	76.76
122TL...	12.2-14	14	77	124	2	93.92
122TL...	14.5-16	16	83	133	2	118.01
122TL...	16.5-18	18	93	143	2	149.58
122TL...	18.5-20	20	101	153	2	187.84

Order Example:
Ø6.3=122TL.063



Punta ad alte prestazioni in metallo duro integrale

Solid carbide high performance twist drill

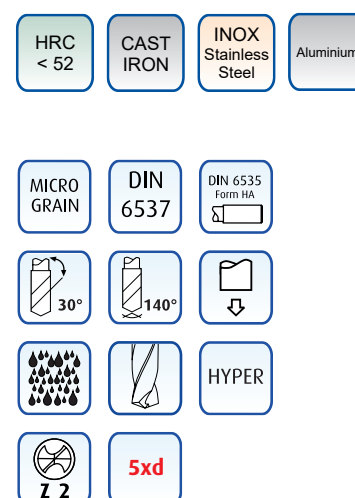
VHM - Hochleistungsbohrer - Foret carbure à haut performance

Сверло спиральное твердосплавное высокопроизводительное - Sk vysoce výkonný vrták



CODE	d1m7 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro
122FL...	1.0-1.5	3	12	50	2	36.12
122FL...	1.6-2.0	3	16	55	2	36.12
122FL...	2.1-2.9	3	21	55	2	36.12
122FL...	3.0-3.7	6	28	57	2	39.02
122FL...	3.8-4.7	6	36	66	2	39.02
122FL...	4.8-6.0	6	44	74	2	39.02
122FL...	6.1-8.0	8	53	82	2	56.31
122FL...	8.1-10	10	61	91	2	65.06
122FL...	10.1-12	12	71	103	2	90.12
122FL...	12.2-14	14	77	118	2	116.18
122FL...	14.5-16	16	83	124	2	152.63
122FL...	16.5-18	18	93	133	2	208.08
122FL...	18.5-20	20	101	143	2	247.46

Order Example:
Ø6.3=122FL.063



Punta **BEST** ad alte prestazioni in metallo duro integrale

Solid carbide **BEST** performance twist drill

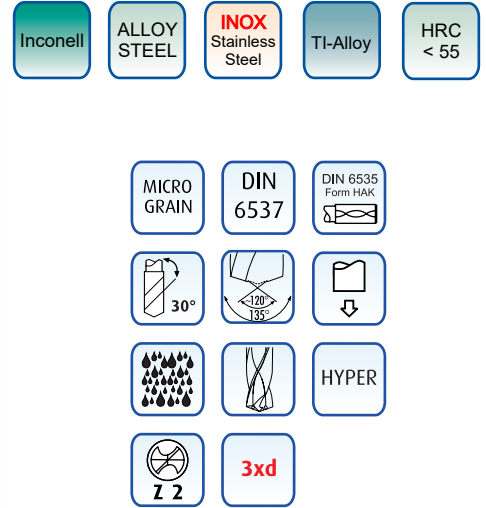
VHM - **BEST** Hochleistungsbohrer - Foret carbure **BEST** à haut performance

Сверло спиральное твердосплавное высокопроизводительное - Sk vysoce výkonný vrták



CODE	d1m7 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro
123F...	3.0-3.7	6	20	60	2	41.75
123F...	3.8-4.7	6	24	66	2	41.75
123F...	4.8-6.0	6	28	66	2	41.75
123F...	6.1-7.0	8	34	79	2	50.10
123F...	7.1-8.0	8	41	79	2	50.10
123F...	8.1-10	10	45	89	2	60.95
123F...	10.1-12	12	55	102	2	79.32
123F...	12.3-14	14	60	107	2	116.73
123F...	14.2-16	16	65	115	2	142.78
123F...	16.5-18	18	73	123	2	195.39
123F...	18.5-20	20	79	131	2	248.83

Order Example:
Ø6.3=123F.063



Punta **BEST** ad alte prestazioni in metallo duro integrale

Solid carbide **BEST** performance twist drill

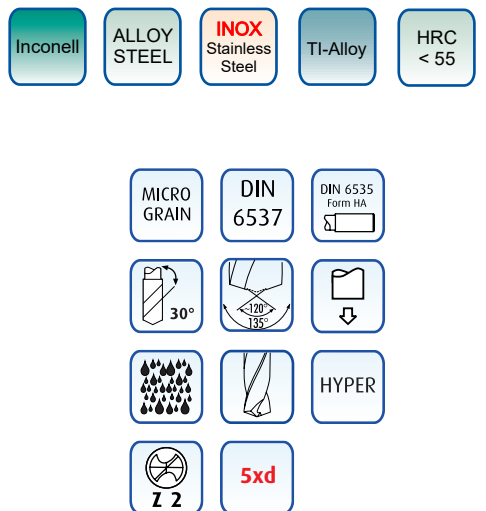
VHM - **BEST** Hochleistungsbohrer - Foret carbure **BEST** à haut performance

Сверло спиральное твердосплавное высокопроизводительное - Sk vysoce výkonný vrták



CODE	d1m7 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro
123FL...	3.0-3.7	6	28	57	2	52.72
123FL...	3.8-4.7	6	36	66	2	52.72
123FL...	4.8-6.0	6	44	74	2	52.72
123FL...	6.1-8.0	8	53	82	2	62.62
123FL...	8.1-10	10	61	91	2	75.98
123FL...	10.1-12	12	71	103	2	98.53
123FL...	12.2-14	14	77	118	2	144.98
123FL...	14.5-16	16	83	124	2	177.85
123FL...	16.5-18	18	93	133	2	243.82
123FL...	18.5-20	20	101	143	2	308.95

Order Example:
Ø6.3=123FL.063





Punta **BEST** ad alte prestazioni in metallo duro integrale

Solid carbide **BEST** performance twist drill

VHM - **BEST** Hochleistungsböhrer - Foret carbure **BEST** à haut performance

Сверло спиральное твердосплавное высокопроизводительное - Sk vysoce výkonný vrták

CODE	d1m7 mm	d2h6 mm	l1 mm	L mm	Z no.	Euro
123FALX...	3.0-3.7	6	34	72	2	75.15
123FALX...	3.8-4.6	6	43	86	2	75.15
123FALX...	4.7-6.0	6	57	95	2	78.49
123FALX...	6.1-8.0	8	76	114	2	116.90
123FALX...	8.1-10	10	95	142	2	148.63
123FALX...	10.1-12	12	114	162	2	198.73
123FALX...	12.5-14	14	133	178	2	265.53
123FALX...	14.5-16	16	152	203	2	345.69
123FALX...	16.5-18	18	171	222	2	459.25
123FALX...	18.5-20	20	190	243	2	571.14

Order Example:
Ø6.3=123FALX.063



Inconel

ALLOY STEEL

INOX
Stainless Steel

Ti-Alloy

HRC < 55

MICRO GRAIN

DIN 6537

DIN 6535 Form HA

30°

120°
135°

↓

HYPER

Z 2

8xd



Sets

400SVS PAGE 1

SET400SVS.681012 **Euro 107.00**
6mm | 8mm | 10mm | 12mm

500RVS PAGE 1

SET500RVS.681012R05 **Euro 125.00**
SET500RVS.681012R1 **Euro 125.00**
6mm | 8mm | 10mm | 12mm

T2201S PAGE 2

SETT2203S.681012 **Euro 124.00**
6mm | 8mm | 10mm | 12mm

T2203S PAGE 2

SETT2203S.681012 **Euro 111.50**
6mm | 8mm | 10mm | 12mm

201S PAGE 3

SET201S.123456S4 **Euro 58.00**
1mm SHANK 4 | 2mm SHANK 4 | 3mm SHANK 4 | 4mm | 5mm | 6mm
SET201S.123456S6 **Euro 70.00**
1mm SHANK 6 | 2mm SHANK 6 | 3mm SHANK 6 | 4mm | 5mm | 6mm

201RS PAGE 3

SET201RS.123456S4 **Euro 68.40**
1mm SHANK 4 | 2mm SHANK 4 | 3mm SHANK 4 | 4mm | 5mm | 6mm
SET201RS.123456S6 **Euro 79.20**
1mm SHANK 6 | 2mm SHANK 6 | 3mm SHANK 6 | 4mm | 5mm | 6mm

401S PAGE 4

SET401S.123456S4 **Euro 58.00**
1mm SHANK 4 | 2mm SHANK 4 | 3mm SHANK 4 | 4mm | 5mm | 6mm
SET401S.123456S6 **Euro 70.00**
1mm SHANK 6 | 2mm SHANK 6 | 3mm SHANK 6 | 4mm | 5mm | 6mm

755S PAGE 7

SET755S.681012 **Euro 96.60**
6mm | 8mm | 10mm | 12mm

456S PAGE 8

SET456S.681012 **Euro 103.20**
6mm | 8mm | 10mm | 12mm

Y703S PAGE 7

SETY703S.681012CH0.05 **Euro 147.00**
SETY703S.681012R05 **Euro 147.00**
6mm | 8mm | 10mm | 12mm

400RPS PAGE 6

SET400RPS.681012R05 **Euro 100.00**
SET400RPS.681012R1 **Euro 100.00**
6mm | 8mm | 10mm | 12mm

XMD SET LIME ROTATIVE - ROTARY FILES SET

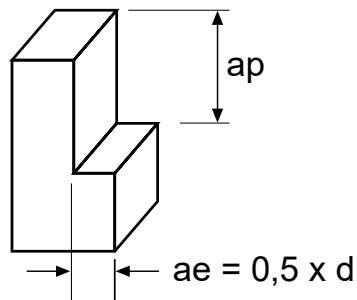
XMD203-3 N°20PCS 3mm STANDARD CUT 03 **Euro 97.00**
XMD203-4 N°20PCS 3mm DIAMOND CUT 04 **Euro 116.40**
XMD203-6 N°20PCS 3mm DOUBLE CUT 06 **Euro 97.00**



Parametri di taglio

Cutting speed

Richtwerte - Paramètres - Режимы обработки - Řežná rychlost



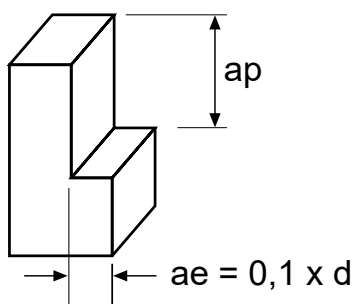
CODE: 400SV - 500RV - T2201 ROUGHING

MATERIAL	APPLICATION	VC m/min	ROUGHING								
			FZ mm/tooth								
			Ø 3	Ø 4	Ø 6	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20
Construction steel 500 N/mm ²	$ap=1xd$	170-200	0.024	0.028	0.041	0.058	0.073	0.09	0.1	0.11	0.13
	$ap=2xd$ ($ae=0.25xd$)	110-130	0.016	0.021	0.027	0.035	0.044	0.052	0.058	0.063	0.08
Construction steel 510-800 N/mm ²	$ap=1xd$	160-188	0.022	0.026	0.036	0.052	0.066	0.085	0.093	0.1	0.12
	$ap=2xd$	100-125	0.015	0.02	0.031	0.042	0.05	0.058	0.065	0.071	0.09
Tooling steel 850-1000 N/mm ²	$ap=1xd$	70-90	0.016	0.021	0.029	0.042	0.053	0.063	0.071	0.079	0.097
	$ap=2xd$ ($ae=0.25xd$)	80-100	0.01	0.015	0.025	0.032	0.039	0.048	0.053	0.058	0.073
Stainless steel 850 N/mm ²	$ap=1xd$	95-115	0.019	0.024	0.039	0.053	0.065	0.079	0.087	0.095	0.11
Tooling steel <60 HRC	$ap=1xd$	45-55	0.015	0.02	0.031	0.042	0.05	0.059	0.065	0.071	0.09
Super Alloy 850-1000 N/mm ²	$ap=1xd$	150-185	0.019	0.024	0.039	0.053	0.065	0.079	0.087	0.095	0.11
	$ap=2xd$ ($ae=0.25xd$)	95-120	0.01	0.015	0.027	0.035	0.044	0.052	0.058	0.063	0.08
Super Alloy 1000-1200 N/mm ²	$ap=1xd$	125-150	0.013	0.02	0.033	0.047	0.059	0.072	0.08	0.088	0.1
	$ap=2xd$ ($ae=0.25xd$)	80-100	0.01	0.015	0.025	0.032	0.039	0.048	0.052	0.058	0.073
Inconell 1200 N/mm ²	$ap=1xd$	56-70	0.013	0.02	0.033	0.047	0.059	0.072	0.08	0.088	0.1
Cast iron 240 HB	$ap=1xd$	220-270	0.022	0.026	0.036	0.052	0.066	0.085	0.093	0.1	0.12
	$ap=2xd$ ($ae=0.25xd$)	140-170	0.015	0.02	0.031	0.042	0.05	0.058	0.065	0.071	0.09
Cast iron <300 HB	$ap=1xd$	115-140	0.019	0.024	0.039	0.053	0.065	0.079	0.087	0.095	0.11
	$ap=2xd$ ($ae=0.25xd$)	130-160	0.01	0.016	0.027	0.064	0.044	0.052	0.058	0.063	0.08
Titanium <850 N/mm ²	$ap=1xd$	90-110	0.013	0.02	0.033	0.047	0.059	0.072	0.08	0.088	0.01
	$ap=2xd$ ($ae=0.25xd$)	60-70	0.01	0.015	0.025	0.032	0.039	0.048	0.053	0.058	0.073
Titanium 850-1200 N/mm ²	$ap=1xd$	75-90	0.016	0.021	0.029	0.042	0.053	0.063	0.071	0.079	0.097
	$ap=2xd$ ($ae=0.25xd$)	50-60	0.01	0.015	0.024	0.032	0.038	0.046	0.05	0.054	0.066
Aluminium	$ap=1xd$ $ap=2xd$ ($ae=0.25xd$)	500-650	0.016	0.021	0.029	0.042	0.053	0.063	0.071	0.079	0.097
Copper	$ap=1xd$	210-260	0.022	0.026	0.036	0.052	0.066	0.085	0.093	0.1	0.12
	$ap=2xd$ ($ae=0.25xd$)	140-171	0.015	0.02	0.031	0.042	0.05	0.059	0.065	0.071	0.09

Parametri di taglio

Cutting speed

Richtwerte - Paramètres - Режимы обработки - Řežná rychlost



CODE: 400SV - 500RV - FINISHING

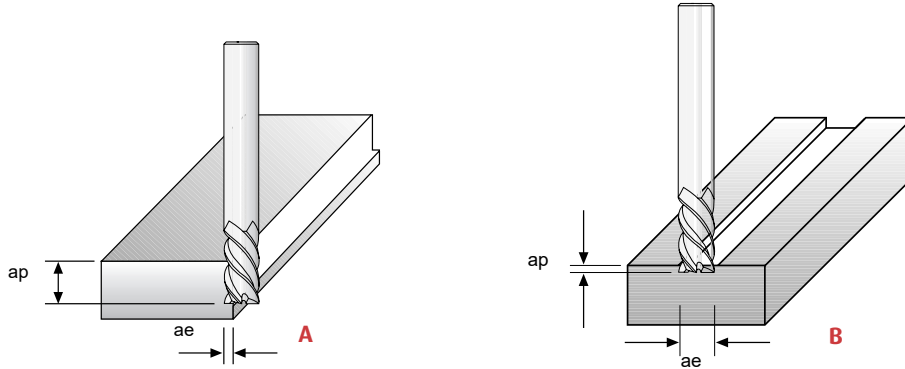
MATERIAL	APPLICATION	VC m/min	FINISHING								
			FZ mm/tooth								
			Ø 3	Ø 4	Ø 6	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20
Construction steel 500 N/mm ²	ap=1xd	210-250	0.01	0.015	0.025	0.032	0.039	0.048	0.053	0.058	0.073
	ap=2xd	140-170	0.01	0.015	0.025	0.032	0.039	0.048	0.053	0.058	0.073
Construction steel 510-800 N/mm ²	ap=1xd	190-230	0.013	0.039	0.033	0.047	0.059	0.072	0.08	0.088	0.1
	ap=2xd	125-155	0.01	0.015	0.024	0.032	0.038	0.046	0.05	0.054	0.066
Tooling steel 850-1000 N/mm ²	ap=1xd	160-200	0.015	0.02	0.031	0.042	0.05	0.059	0.065	0.071	0.09
	ap=2xd	100-125	0.004	0.007	0.013	0.019	0.025	0.03	0.034	0.038	0.045
Stainless steel 850 N/mm ²	ap=1xd	70-90	0.016	0.021	0.029	0.042	0.053	0.063	0.071	0.079	0.097
Tempered steel <60 HRC	ap=1xd	60-75	0.007	0.016	0.017	0.024	0.03	0.036	0.041	0.045	0.057
Super Alloy 850-1000 N/mm ²	ap=1xd	180-230	0.016	0.021	0.029	0.042	0.053	0.063	0.071	0.079	0.097
	ap=2xd	120-140	0.007	0.016	0.017	0.024	0.03	0.036	0.041	0.045	0.057
Super Alloy 1000-1200 N/mm ²	ap=1xd	155-190	0.015	0.02	0.031	0.042	0.05	0.059	0.065	0.071	0.09
	ap=2xd	100-125	0.004	0.007	0.013	0.019	0.025	0.03	0.034	0.038	0.045
Inconell	ap=1xd	70-90	0.015	0.02	0.031	0.042	0.05	0.059	0.065	0.071	0.09
Cast iron 240 HB	ap=1xd	255-313	0.013	0.02	0.033	0.047	0.059	0.072	0.08	0.088	0.1
	ap=2xd	180-220	0.01	0.015	0.024	0.032	0.038	0.046	0.05	0.054	0.065
Cast iron <300 HB	ap=1xd	250-313	0.016	0.021	0.029	0.042	0.053	0.063	0.071	0.079	0.097
	ap=2xd	160-200	0.007	0.011	0.017	0.024	0.03	0.036	0.041	0.045	0.057
Titanium <850 N/mm ²	ap=1xd	120-145	0.015	0.02	0.031	0.042	0.05	0.059	0.065	0.071	0.09
	ap=2xd	80-95	0.004	0.007	0.013	0.019	0.025	0.03	0.034	0.038	0.045
Titanium Alloy	ap=1xd	100-120	0.01	0.015	0.027	0.035	0.044	0.052	0.058	0.063	0.08
	ap=2xd	60-75	0.003	0.006	0.011	0.016	0.021	0.026	0.029	0.032	0.038
Aluminium	ap=2xd	600-740	0.015	0.02	0.031	0.042	0.05	0.059	0.065	0.071	0.09
Copper	ap=2xd	180-220	0.01	0.015	0.027	0.035	0.044	0.052	0.058	0.063	0.08

Parametri di taglio

Cutting speed

Richtwerte - Paramètres

Режимы обработки - Řežná rychlost



CODE: 755

Slot Milling B							
MATERIAL	Aluminium Alloy - АЛЮМИНИЙ						
HARDNESS							
Ø	Vc	Fz	n	Vf Min.	Vf Max	ae	ap
	m/min	mm	min/'	mm/min	mm/min	mm	mm
3	200	0.024	21231	1000	1200	3.0	3.0
4	250	0.025	19904	1000	1200	4.0	4.0
5	300	0.026	19108	1000	1200	5.0	5.0
6	400	0.066	21231	2800	4000	6.0	6.0
8	400	0.094	15924	3000	4000	8.0	8.0
10	400	0.141	12739	3600	4500	10.0	10.0
12	400	0.170	10616	3600	4500	12.0	12.0
16	450	0.201	8957	3600	4500	16.0	16.0
20	450	0.223	7166	3200	4300	20.0	20.0

CODE: 456

MATERIAL	Side Milling A						Slot Milling B					
	Aluminium Alloy - АЛЮМИНИЙ						Aluminium Alloy - АЛЮМИНИЙ					
HARDNESS												
Ø	Vc	Fz	n	Vf	ae	ap	Vc	Fz	n	Vf	ae	ap
	m/min	mm	min/'	mm/min	mm	mm	m/min	mm	min/'	mm/min	mm	mm
3	550	0.045	58400	7880	1.20	3.6	450	0.030	47800	4300	3	1
4	550	0.060	43770	7880	1.60	4.8	450	0.040	35900	4300	4	2
5	550	0.075	35015	7880	2.00	6.0	450	0.055	28700	4725	5	2
6	550	0.100	29200	8760	2.40	7.2	450	0.070	23900	5015	6	2
8	550	0.120	21900	7890	3.20	9.6	450	0.085	17900	4656	8	3
10	550	0.150	17510	7890	4.00	12.0	450	0.105	14300	4510	10	4
12	550	0.180	14600	7890	4.80	14.4	450	0.125	11940	4475	12	5
16	550	0.190	10950	6235	6.40	19.2	450	0.135	9000	3625	16	6
20	550	0.225	8760	5900	8.00	24.0	450	0.160	7160	3435	20	8

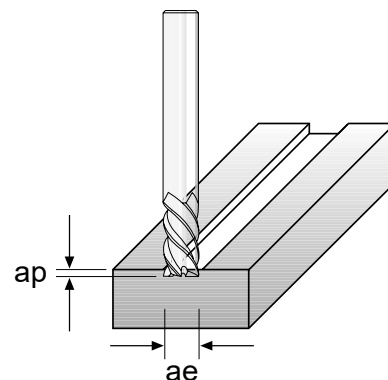
Parametri di taglio

Cutting speed

Richtwerte - Paramètres - Режимы обработки - Řežná rychlost

CODE: Y703 ROUGHING HIGH SPEED CUTTING

MATERIAL	Aluminium - АЛЮМИНИЙ				Copper - МЕДЬ			
HARDNESS								
Ø	Vc	Fz	ae	ap	Vc	Fz	ae	ap
3	500	0.021	1 x d	0.5 x d	300	0.015	1 x d	0.5 x d
4	500	0.028	1 x d	0.5 x d	300	0.016	1 x d	0.5 x d
5	500	0.035	1 x d	0.5 x d	300	0.020	1 x d	0.5 x d
6	500	0.045	1 x d	0.5 x d	300	0.024	1 x d	0.5 x d
8	500	0.056	1 x d	0.5 x d	300	0.032	1 x d	0.5 x d
10	500	0.070	1 x d	0.5 x d	300	0.040	1 x d	0.5 x d
12	500	0.084	1 x d	0.5 x d	300	0.048	1 x d	0.5 x d
16	500	0.112	1 x d	0.5 x d	300	0.064	1 x d	0.5 x d



CODE: Y703 ROUGHING HIGH SPEED CUTTING

MATERIAL	Thermo Plastic - ТЕРМО ПЛАСТИК							
HARDNESS	Soft				Harder			
Ø	Vc	Fz	ae	ap	Vc	Fz	ae	ap
3	500	0.021	1 x d	0.5 x d	300	0.013	1 x d	0.5 x d
4	500	0.028	1 x d	0.5 x d	300	0.020	1 x d	0.5 x d
5	500	0.033	1 x d	0.5 x d	300	0.026	1 x d	0.5 x d
6	500	0.042	1 x d	0.5 x d	300	0.030	1 x d	0.5 x d
8	500	0.056	1 x d	0.5 x d	300	0.040	1 x d	0.5 x d
10	500	0.060	1 x d	0.5 x d	300	0.051	1 x d	0.5 x d
12	500	0.084	1 x d	0.5 x d	300	0.060	1 x d	0.5 x d
16	500	0.112	1 x d	0.5 x d	300	0.075	1 x d	0.5 x d

Y703: +30%

CODE: Y703 FINISHING HIGH SPEED CUTTING

MATERIAL	Aluminium - АЛЮМИНИЙ				Copper - МЕДЬ			
HARDNESS								
Ø	Vc	Fz	ae	ap	Vc	Fz	ae	ap
3	500	0.021	1 x d	0.050 x d	300	0.015	1 x d	0.030 x d
4	500	0.028	1 x d	0.050 x d	300	0.016	1 x d	0.030 x d
5	500	0.035	1 x d	0.050 x d	300	0.020	1 x d	0.030 x d
6	500	0.045	1 x d	0.050 x d	300	0.024	1 x d	0.030 x d
8	500	0.056	1 x d	0.050 x d	300	0.032	1 x d	0.030 x d
10	500	0.070	1 x d	0.050 x d	300	0.040	1 x d	0.030 x d
12	500	0.084	1 x d	0.050 x d	300	0.048	1 x d	0.030 x d
16	500	0.112	1 x d	0.050 x d	300	0.064	1 x d	0.030 x d

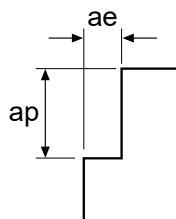
CODE: Y703 FINISHING HIGH SPEED CUTTING

MATERIAL	Thermo Plastic - ТЕРМО ПЛАСТИК							
HARDNESS	Soft				Harder			
Ø	Vc	Fz	ae	ap	Vc	Fz	ae	ap
3	500	0.021	1 x d	0.030 x d	300	0.013	1 x d	0.020 x d
4	500	0.028	1 x d	0.030 x d	300	0.016	1 x d	0.020 x d
5	500	0.035	1 x d	0.030 x d	300	0.020	1 x d	0.020 x d
6	500	0.045	1 x d	0.030 x d	300	0.024	1 x d	0.020 x d
8	500	0.056	1 x d	0.030 x d	300	0.032	1 x d	0.020 x d
10	500	0.070	1 x d	0.030 x d	300	0.040	1 x d	0.020 x d
12	500	0.084	1 x d	0.030 x d	300	0.048	1 x d	0.020 x d
16	500	0.128	1 x d	0.030 x d	300	0.064	1 x d	0.020 x d

Parametri di taglio

Cutting speed

Richtwerte - Paramètres - Режимы обработки - Řežná rychlost



$$ae = 0,5 \times d$$

$$ap = 1 \times d$$

CODE: T2203

MATERIAL	HARDNESS	Ø									
		Ø 3.0		Ø 4.0		Ø 5.0		Ø 6.0		Ø 8.0	
		Vc	Fz	Vc	Fz	Vc	Fz	Vc	Fz	Vc	Fz
Non Alloy Steel	< 500 N/mm	80-140	0.023	80-140	0.023	80-140	0.033	80-140	0.033	80-140	0.045
	< 700 N/mm	70-120	0.023	120	0.023	120	0.033	120	0.033	120	0.045
	< 800 N/mm	70-120	0.023	70-120	0.023	70-120	0.033	70-120	0.033	70-120	0.045
Alloy Steel	< 1000 N/mm	50-85	0.014	50-85	0.014	80-85	0.022	50-85	0.022	50-85	0.280
	< 1200 N/mm	40-70	0.013	40-70	0.013	40-70	0.020	40-70	0.020	40-70	0.025
High Alloy Steel	< 1000 N/mm	50-85	0.014	50-85	0.014	80-85	0.022	50-85	0.022	50-85	0.280
	< 1200 N/mm	40-70	0.013	40-70	0.013	40-70	0.020	40-70	0.020	40-70	0.025
Steel	< 50 HRC	35-45	0.013	35-45	0.013	35-45	0.015	35-45	0.015	35-45	0.015
	< 65 HRC	30-40	0.010	30-40	0.010	30-40	0.012	30-40	0.012	30-40	0.012
Stainless Steel	< 700 HRC	55-90	0.015	55-90	0.015	55-90	0.025	55-90	0.025	55-90	0.030
	< 850 HRC	45-85	0.012	45-85	0.012	45-85	0.017	45-85	0.017	45-85	0.025
Cast Iron	< 180 HB	70-130	0.010	70-130	0.020	70-130	0.030	70-130	0.030	70-130	0.040
	< 180 HB	60-100	0.010	60-100	0.020	60-100	0.030	60-100	0.030	60-100	0.040
Titanium		55-75	0.008	55-75	0.016	55-75	0.024	55-75	0.024	55-75	0.032
Inconel		50-70	0.090	50-70	0.090	50-70	0.015	50-70	0.015	50-70	0.015
Graphyte		100-200	0.014	100-200	0.014	100-200	0.014	100-200	0.028	100-200	0.056

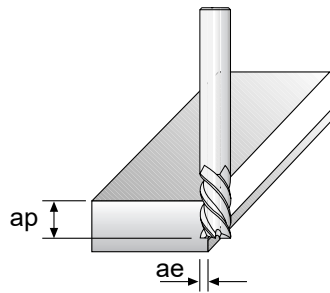
MATERIAL	HARDNESS	Ø							
		Ø 10.0		Ø 12.0		Ø 14 - 16		Ø 18 - 20	
		Vc	Fz	Vc	Fz	Vc	Fz	Vc	Fz
Non Alloy Steel	< 500 N/mm	80-140	0.060	80-140	0.080	80-140	0.100	80-140	0.120
	< 700 N/mm	120	0.060	120	0.080	120	0.100	120	0.120
	< 850 N/mm	70-120	0.060	70-120	0.080	70-120	0.100	70-120	0.120
Alloy Steel	< 1000 N/mm	50-85	0.035	50-85	0.045	50-85	0.060	50-85	0.080
	< 1200 N/mm	40-70	0.030	40-70	0.040	40-70	0.055	40-70	0.065
High Alloy Steel	< 1000 N/mm	50-85	0.035	50-85	0.045	50-85	0.060	50-85	0.080
	< 1200 N/mm	40-70	0.030	40-70	0.040	40-70	0.055	40-70	0.065
Steel	< 50 HRC	35-45	0.030	35-45	0.030	35-45	0.040	35-45	0.065
	< 65 HRC	30-40	0.020	30-40	0.020	30-40	0.030	30-40	0.050
Stainless Steel	< 700 HRC	55-90	0.040	55-90	0.050	55-90	0.055	55-90	0.090
	< 850 HRC	45-85	0.032	45-85	0.045	45-85	0.060	45-85	0.075
Cast Iron	< 180 HB	70-130	0.050	70-130	0.060	70-130	0.080	70-130	0.100
	< 180 HB	60-100	0.050	60-100	0.060	60-100	0.080	60-100	0.100
Titanium		55-75	0.040	55-75	0.050	55-75	0.060	55-75	0.070
Inconel		50-70	0.030	50-70	0.030	50-70	0.050	50-70	0.060
Graphyte		100-200	0.056	100-200	0.084	100-200	0.084	100-200	0.140

Parametri di taglio

Cutting speed

Richtwerte - Paramètres

Режимы обработки - Řežná rychlost



For finishing:

$ae < 0,02 - 0,03 \times d$

$ap < 0,8 \times d$

$Vc = 1,2 \times Vc$ (Parameter List)

$Fz = 0,7 \times Vc$ (Parameter List)

CODE:200T - 201T - 300T - 301T - 400T - 401T - 400RP

MATERIAL	Steel - СТАЛЬ											
	< 170 HRC				< 50 HRC				HRC 48 - 56			
HARDNESS												
Ø	Vc	Fz	ae	ap	Vc	Fz	ae	ap	Vc	Fz	ae	ap
1 - 3	130	0.012	0.2 x d	1 x d	110	0.013	0.1 x d	1 x d	60	0.010	0.05 x d	0.010 x d
4	130	0.024	0.2 x d	1 x d	110	0.026	0.1 x d	1 x d	60	0.020	0.05 x d	0.010 x d
5	130	0.024	0.2 x d	1 x d	110	0.026	0.1 x d	1 x d	60	0.020	0.05 x d	0.010 x d
6	130	0.024	0.2 x d	1 x d	110	0.026	0.1 x d	1 x d	60	0.020	0.05 x d	0.010 x d
8	130	0.048	0.2 x d	1 x d	110	0.052	0.1 x d	1 x d	60	0.040	0.05 x d	0.010 x d
10	130	0.048	0.2 x d	1 x d	110	0.052	0.1 x d	1 x d	60	0.040	0.05 x d	0.010 x d
12	130	0.072	0.2 x d	1 x d	110	0.078	0.1 x d	1 x d	60	0.060	0.05 x d	0.010 x d
14 - 18	130	0.072	0.2 x d	1 x d	110	0.078	0.1 x d	1 x d	60	0.060	0.05 x d	0.010 x d
20 - 25	130	0.120	0.2 x d	1 x d	110	0.130	0.1 x d	1 x d	60	0.100	0.05 x d	0.010 x d



MATERIAL	Cast Iron - ЧУГУН								Copper - МЕДЬ			
	Nodulaire - ЧУГУН				Lamellaire - ЛАМЕЛАР							
HARDNESS												
Ø	Vc	Fz	ae	ap	Vc	Fz	ae	ap	Vc	Fz	ae	ap
1 - 3	110	0.013	0.1 x d	1 x d	120	0.017	0.2 x d	1 x d	200	0.009	1 x d	0.3 x d
4	110	0.026	0.1 x d	1 x d	120	0.034	0.2 x d	1 x d	200	0.018	1 x d	0.3 x d
5	110	0.026	0.1 x d	1 x d	120	0.034	0.2 x d	1 x d	200	0.018	1 x d	0.3 x d
6	110	0.026	0.1 x d	1 x d	120	0.034	0.2 x d	1 x d	200	0.018	1 x d	0.3 x d
8	110	0.052	0.1 x d	1 x d	120	0.068	0.2 x d	1 x d	200	0.036	1 x d	0.3 x d
10	110	0.052	0.1 x d	1 x d	120	0.068	0.2 x d	1 x d	200	0.036	1 x d	0.3 x d
12	110	0.078	0.1 x d	1 x d	120	0.102	0.2 x d	1 x d	200	0.054	1 x d	0.3 x d
14 - 18	110	0.078	0.1 x d	1 x d	120	0.102	0.2 x d	1 x d	200	0.054	1 x d	0.3 x d
20 - 25	110	0.130	0.1 x d	1 x d	120	0.170	0.2 x d	1 x d	200	0.090	1 x d	0.3 x d

MATERIAL	Titanium - ТИТАН				Stainless Steel - НЕРЖАВЕЮЩАЯ СТАЛЬ				Super Alloy - СУПЕР СПЛАВ			
HARDNESS												
Ø	Vc	Fz	ae	ap	Vc	Fz	ae	ap	Vc	Fz	ae	ap
1 - 3	80	0.011	0.1 x d	1 x d	70	0.012	0.1 x d	1 x d	30	0.012	0.08 x d	1 x d
4	80	0.023	0.1 x d	1 x d	70	0.024	0.1 x d	1 x d	30	0.024	0.08 x d	1 x d
5	80	0.023	0.1 x d	1 x d	70	0.024	0.1 x d	1 x d	30	0.024	0.08 x d	1 x d
6	80	0.023	0.1 x d	1 x d	70	0.024	0.1 x d	1 x d	30	0.024	0.08 x d	1 x d
8	80	0.046	0.1 x d	1 x d	70	0.047	0.1 x d	1 x d	30	0.048	0.08 x d	1 x d
10	80	0.046	0.1 x d	1 x d	70	0.047	0.1 x d	1 x d	30	0.048	0.08 x d	1 x d
12	80	0.068	0.1 x d	1 x d	70	0.071	0.1 x d	1 x d	30	0.072	0.08 x d	1 x d
14 - 18	80	0.068	0.1 x d	1 x d	70	0.071	0.1 x d	1 x d	30	0.072	0.08 x d	1 x d
20 - 25	80	0.114	0.1 x d	1 x d	70	0.118	0.1 x d	1 x d	30	0.120	0.08 x d	1 x d

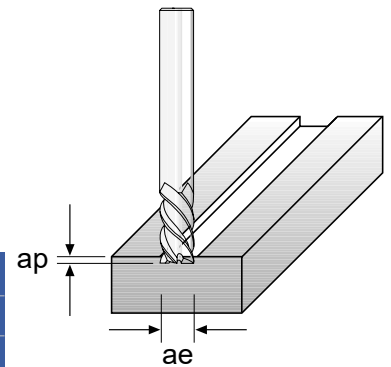
Parametri di taglio

Cutting speed

Richtwerte - Paramètres - Режимы обработки - Řežná rychlost

CODE:200T - 201T - 300T - 301T - 400T - 401T - 400RP

MATERIAL	Steel - СТАЛЬ							
HARDNESS	< 170 HB				< 50HRC			
Ø	Vc	Fz	ae	ap	Vc	Fz	ae	ap
1-3	110	0.008	1 x d	0.1 x d	90	0.007	1 x d	0.1 x d
4	110	0.016	1 x d	0.1 x d	90	0.012	1 x d	0.1 x d
5	110	0.016	1 x d	0.1 x d	90	0.012	1 x d	0.1 x d
6	110	0.016	1 x d	0.1 x d	90	0.012	1 x d	0.1 x d
8	110	0.032	1 x d	0.1 x d	90	0.024	1 x d	0.1 x d
10	110	0.032	1 x d	0.1 x d	90	0.024	1 x d	0.1 x d
12	110	0.048	1 x d	0.1 x d	90	0.036	1 x d	0.1 x d
14 - 18	110	0.048	1 x d	0.1 x d	90	0.036	1 x d	0.1 x d
20 - 25	110	0.080	1 x d	0.1 x d	90	0.060	1 x d	0.1 x d



For finishing:
 $ae < 0,02 - 0,03 \times d$
 $ap < 0,8 \times d$
 $Vc = 1,2 \times Vc$ (Parameter List)
 $Fz = 0,7 \times Vc$ (Parameter List)

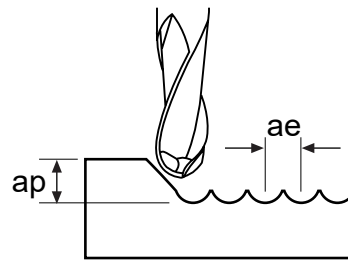
MATERIAL	Steel - СТАЛЬ				Cast Iron							
HARDNESS	HRC 48 - 56				Nodulaire - ЧУГУН				Lamellaire - ЛАМЕЛАР			
Ø	Vc	Fz	ae	ap	Vc	Fz	ae	ap	Vc	Fz	ae	ap
1-3	40	0.006	1 x d	0.05 x d	90	0.006	1 x d	0.1 x d	100	0.009	1 x d	0.2 x d
4	40	0.008	1 x d	0.05 x d	90	0.013	1 x d	0.1 x d	100	0.018	1 x d	0.2 x d
5	40	0.008	1 x d	0.05 x d	90	0.013	1 x d	0.1 x d	100	0.018	1 x d	0.2 x d
6	40	0.008	1 x d	0.05 x d	90	0.013	1 x d	0.1 x d	100	0.018	1 x d	0.2 x d
8	40	0.016	1 x d	0.05 x d	90	0.026	1 x d	0.1 x d	100	0.036	1 x d	0.2 x d
10	40	0.016	1 x d	0.05 x d	90	0.026	1 x d	0.1 x d	100	0.036	1 x d	0.2 x d
12	40	0.024	1 x d	0.05 x d	90	0.038	1 x d	0.1 x d	100	0.054	1 x d	0.2 x d
14 - 18	40	0.024	1 x d	0.05 x d	90	0.038	1 x d	0.1 x d	100	0.054	1 x d	0.2 x d
20 - 25	40	0.040	1 x d	0.05 x d	90	0.064	1 x d	0.1 x d	100	0.090	1 x d	0.2 x d

MATERIAL	Titanium - ТИТАН				Copper - МЕДЬ				Stainless Steel - НЕРЖАВЕЮЩАЯ СТАЛЬ			
HARDNESS												
Ø	Vc	Fz	ae	ap	Vc	Fz	ae	ap	Vc	Fz	ae	ap
3	60	0.006	1 x d	0.1 x d	200	0.009	1 x d	0.3 x d	50	0.006	1 x d	0.1 x d
4	60	0.013	1 x d	0.1 x d	200	0.018	1 x d	0.3 x d	50	0.013	1 x d	0.1 x d
5	60	0.013	1 x d	0.1 x d	200	0.018	1 x d	0.3 x d	50	0.013	1 x d	0.1 x d
6	60	0.013	1 x d	0.1 x d	200	0.018	1 x d	0.3 x d	50	0.013	1 x d	0.1 x d
8	60	0.026	1 x d	0.1 x d	200	0.036	1 x d	0.3 x d	50	0.026	1 x d	0.1 x d
10	60	0.026	1 x d	0.1 x d	200	0.036	1 x d	0.3 x d	50	0.026	1 x d	0.1 x d
12	60	0.038	1 x d	0.1 x d	200	0.054	1 x d	0.3 x d	50	0.038	1 x d	0.1 x d
14 - 18	60	0.038	1 x d	0.1 x d	200	0.054	1 x d	0.3 x d	50	0.038	1 x d	0.1 x d
20 - 25	60	0.064	1 x d	0.1 x d	200	0.090	1 x d	0.3 x d	50	0.064	1 x d	0.1 x d

Parametri di taglio

Cutting speed

Richtwerte - Paramètres - Режимы обработки - Řežná rychlost



For finishing:
 $ae < 0,02 - 0,03 \times d$
 $ap < 0,8 \times d$
 $Vc = 1,2 \times Vc$ (Parameter List)
 $Fz = 0,7 \times Vc$ (Parameter List)

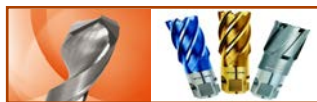
CODE: 700SR - 200RT - 201R - 400RT STANDARD CUTTING SPEED

MATERIAL	Steel - СТАЛЬ											
HARDNESS	< 170 HB				< 50 HRC				< 60 HRC			
Ø	Vc	Fz	ae	ap	Vc	Fz	ae	ap	Vc	Fz	ae	ap
1 - 3	140	0.016	0.03 x d	0.03 x d	120	0.016	0.03 x d	0.03 x d	70	0.014	0.03 x d	0.03 x d
4	140	0.032	0.03 x d	0.03 x d	120	0.032	0.03 x d	0.03 x d	70	0.028	0.03 x d	0.03 x d
6	140	0.032	0.03 x d	0.03 x d	120	0.032	0.03 x d	0.03 x d	70	0.028	0.03 x d	0.03 x d
8	140	0.064	0.03 x d	0.03 x d	120	0.064	0.03 x d	0.03 x d	70	0.056	0.03 x d	0.03 x d
10	140	0.064	0.03 x d	0.03 x d	120	0.064	0.03 x d	0.03 x d	70	0.056	0.03 x d	0.03 x d
12 - 18	140	0.096	0.03 x d	0.03 x d	120	0.096	0.03 x d	0.03 x d	70	0.084	0.03 x d	0.03 x d
20 - 25	140	0.160	0.03 x d	0.03 x d	120	0.160	0.03 x d	0.03 x d	70	0.140	0.03 x d	0.03 x d

MATERIAL	Aluminium - Copper - МЕДЬ				Titanium - ТИТАН				Stainless Steel - НЕРЖАВЕЮЩАЯ СТАЛЬ			
HARDNESS	< 170 HB				< 50 HRC				< 60 HRC			
Ø	Vc	Fz	ae	ap	Vc	Fz	ae	ap	Vc	Fz	ae	ap
1 - 3	350	0.020	0.03 x d	0.03 x d	90	0.014	0.03 x d	0.03 x d	80	0.015	0.03 x d	0.03 x d
4	350	0.040	0.03 x d	0.03 x d	90	0.028	0.03 x d	0.03 x d	80	0.030	0.03 x d	0.03 x d
6	350	0.040	0.03 x d	0.03 x d	90	0.028	0.03 x d	0.03 x d	80	0.030	0.03 x d	0.03 x d
8	350	0.080	0.03 x d	0.03 x d	90	0.057	0.03 x d	0.03 x d	80	0.060	0.03 x d	0.03 x d
10	350	0.080	0.03 x d	0.03 x d	90	0.057	0.03 x d	0.03 x d	80	0.060	0.03 x d	0.03 x d
12 - 18	350	0.120	0.03 x d	0.03 x d	90	0.085	0.03 x d	0.03 x d	80	0.090	0.03 x d	0.03 x d
20 - 25	350	0.200	0.03 x d	0.03 x d	90	0.142	0.03 x d	0.03 x d	80	0.150	0.03 x d	0.03 x d

MATERIAL	Super Alloy - СУПЕР СПЛАВ				Cast Iron - ЧУГУН							
HARDNESS					Lamellaire - ЛАМЕЛАР				Nodulaire - ЧУГУН			
Ø	Vc	Fz	ae	ap	Vc	Fz	ae	ap	Vc	Fz	ae	ap
1 - 3	40	0.015	0.03 x d	0.03 x d	130	0.019	0.03 x d	0.03 x d	120	0.015	0.03 x d	0.03 x d
4	40	0.030	0.03 x d	0.03 x d	130	0.038	0.03 x d	0.03 x d	120	0.030	0.03 x d	0.03 x d
6	40	0.030	0.03 x d	0.03 x d	130	0.038	0.03 x d	0.03 x d	120	0.030	0.03 x d	0.03 x d
8	40	0.060	0.03 x d	0.03 x d	130	0.076	0.03 x d	0.03 x d	120	0.060	0.03 x d	0.03 x d
10	40	0.060	0.03 x d	0.03 x d	130	0.076	0.03 x d	0.03 x d	120	0.060	0.03 x d	0.03 x d
12 - 18	40	0.090	0.03 x d	0.03 x d	130	0.114	0.03 x d	0.03 x d	120	0.090	0.03 x d	0.03 x d
20 - 25	40	0.150	0.03 x d	0.03 x d	130	0.190	0.03 x d	0.03 x d	120	0.150	0.03 x d	0.03 x d

V NAŠEJ PONUKE NÁJDETE:



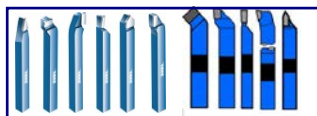
Vrtáky, výhrubníky, výstružníky, záhlbníky z HSS, HSSE, HSS-PM, TK



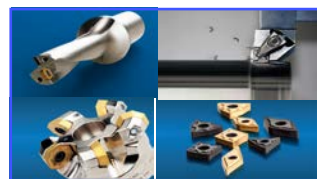
Frézy z HSS, HSSE, HSS-PM, TK Frézy vysokovýkonné pre CNC obrábanie kalených ocelí, hliníku, grafitu, diamantové frézy



Závitníky, závitové čeluste, závitorezné hlavy, závitové sady HSSE, HSS-PM, TK



Sústružnicke nože s plátkami, radekáTK, HSS, HSSCo



Nástroje pre frézovanie s vymeniteľnými plátkami - frézy valcové, čelné, uhlové

Nástroje pre sústruženie s vymeniteľnými plátkami



CNC držiaky, púzdra, upínače, zveráky.....

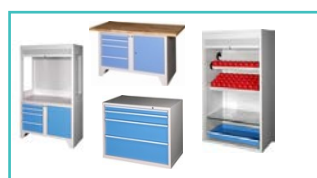
Upínacie púzdra , zveráky, skľučovadlá, trne, držiaky, vyvrtávacie hlavy....



Posuvné meradlá, mikrometre, číselníkové odchytkomery, základné mierky, závitové, valčekové kalibre, dutinomery



Brúsky na vrtáky do kovu od 2 do 52 mm, na vrtáky do dreva, na frézy.....



Dielenský kovový nábytok - pracovné stoly, zásuvkové skrine, chemické skrine, skrine pre CNC nástroje, nástrojárske stoly



Ostatné: technologická strojárka kalkulačka, 3D tastery, OPTIMATOR - zvárací ventil pre úsporu plynu

Ak v uvedenom sortimente nenájdete čo hľadáte, neváhajte nás kontaktovať.



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