




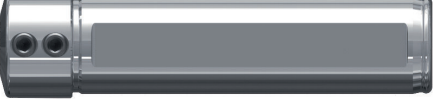



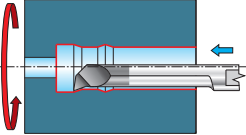




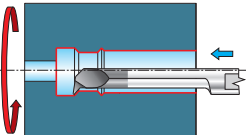



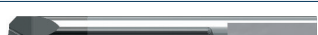
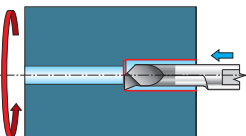



MINITOOOL



 **SAU**
QUALITY TOOLS ENGINEERING

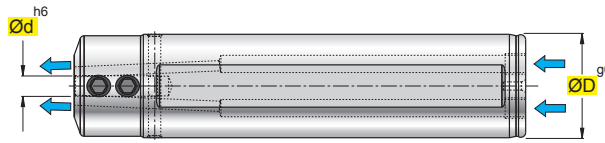
	ART.	Ød	ØD	Pag.
				
PORTAUTENSILI - TOOL HOLDER				
	S100-TS-04-...	4	12-25	8
	S100-TS-05-...	5	12-25	9
	S100-TS-06-...	6	12-25	10
	S100-TS-07-...	7	16-25	11

APPLICAZIONE - APPLICATION	ART.	ØD min	Ød	t max	Pag.
					
TORNITURA INTERNA - INTERNAL TURNING					
	 S101-04.9820-...015R/L	1,7-4,2	4	0,2-0,3	12
	 S101-05.9820-052-...020R/L	4,9-5,2	5	0,4-0,5	14
	 S101-06.9820-062-...020R/L	6,2	6	0,5	16
	 S101-07.9820-072-...020R/L	7,2	7	0,5	18
	 S101-04.9847-...-...R/L	3,2-4,2	4	0,4-0,8	20
	 S101-05.9847-052-...015R/L	5,2	5	1,0	20
	 S101-06.9847-062-...015R/L	6,2	5	1,8	20
	 S101-07.9847-072-40.020R/L	7,2	7	2,5	20
	 S101-05.9020-052-...020R/L	5,2	5	0,5	22

APPLICAZIONE - APPLICATION	ART.	ØD min	Ød	t max	Pag.		
SCANALATURA - GROOVING							
			S102-04...000R/L	2,0-4,2	4	0,4-0,8	24
			S102-05...000R/L	5,0-5,2	5	1,0	26
			S102-06...-062-...000R/L	6,2	6	1,8	28
			S102-07...-072-...000R/L	7,2	7	2,5	30
			S102-04.R100-042-15.050R/L	4,2	4	0,8	32
			S102-05.R...-052-20...R/L	5,2	5	1,0	32
			S102-06.R...-062-25...R/L	6,2	6	1,8	32
			S102-07.R...-072-30...R/L	7,2	7	2,5	32
PRETAGLIO E SMUSSATURA - PRE-PART-OFF AND CHAMFERING							
			S105-04.0100-037-...000R/L	3,7-4,2	4	0,7	34
			S105-05.0100-052-...000R/L	5,2	5	0,7	34
			S105-06.0100-062-...000R/L	6,2	6	0,7	34
SCANALATURA FRONTALE - FACE GROOVING							
			S103-06...-I62-15.015R/L	6,2	6	2-6	36
			S103-06...-E62-15.015R/L	6,2	6	2-6	38
			S103-06.R...-I62-15...R/L	6,2	6	2-4	40
			S103-06.R...-E62-15...R/L	6,2	6	2-4	42

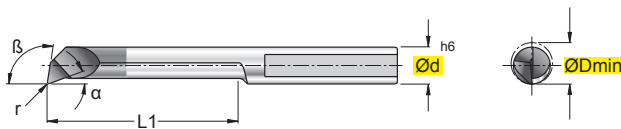
APPLICAZIONE - APPLICATION		ART.	ØD min 	Ød 	t max 	Pag.
SMUSSATURA - CHAMFERING						
		S101-06.00...-...020R/L	1	6	2,2-4,0	44
FILETTATURA (ISO PROFILO PARZIALE) - THREADING (ISO PARTIAL PROFILE)						
		S104-04.0060-042-15.050R	4,2	4	0,4	46
		S104-05.0060-048-...100R/L	4,8	5	0,7	46
		S104-06.0060-062-...R	6,2	6	0,84 0,98	46

DATI TECNICI - TECHNICAL DATA						
						49



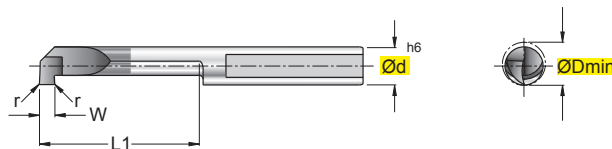
S	1	0	0	-	T	S	-	0	4	.	0	0	1	6
1								2			3			

- 1** COD. TIPOLOGIA ARTICOLO
COD. ITEM TYPE
- 2** Ød DIAMETRO ATTACCO "MINITOOL"
Ød "MINITOOL" ATTACHMENT DIAMETER
- 3** ØD DIAMETRO ATTACCO PORTA UTENSILE
ØD TOOL-HOLDER ATTACHMENT DIAMETER



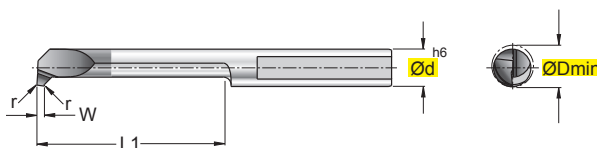
S	1	0	1	-	0	4	.	9	8	2	0	-	0	3	7	-	2	0	.	0	1	5	R
1			2		3	4		5			6		7		8								

- 1** COD. TIPOLOGIA ARTICOLO
COD. ITEM TYPE
- 2** Ød DIAMETRO ATTACCO "MINITOOL"
Ød "MINITOOL" ATTACHMENT DIAMETER
- 3** ANGOLO β TESTA
β ANGLE - HEAD
- 4** ANGOLO α TESTA
α ANGLE - HEAD
- 5** ØDmin DIAMETRO MINIMO DI ENTRATA
ØDmin MINIMUM PENETRATION DIAMETER
- 6** L1 PROFONDITÀ MASSIMA DI LAVORO
L1 MAXIMUM MACHINING DEPTH
- 7** r RAGGIO IN TESTA
r HEAD RADIUS
- 8** R/L DIREZIONE DI TAGLIO
R/L CUTTING DIRECTION



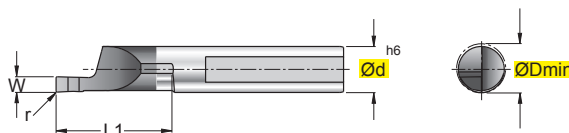
S	1	0	2	-	0	4	.	0	1	0	0	-	0	4	2	-	1	0	.	0	0	0	R
1			2		3	4		5			6		7		8								

- 1** COD. TIPOLOGIA ARTICOLO
COD. ITEM TYPE
- 2** Ød DIAMETRO ATTACCO "MINITOOL"
Ød "MINITOOL" ATTACHMENT DIAMETER
- 3** FORMA DELLA GOLA 0=PIANA R=SFERICA
SHAPE OF GROOVE 0=FLAT R=SPHERICAL
- 4** W LARGHEZZA SCANALATURA
W GROOVE WIDTH
- 5** ØDmin DIAMETRO MINIMO DI ENTRATA
ØDmin MINIMUM PENETRATION DIAMETER
- 6** L1 PROFONDITÀ MASSIMA DI LAVORO
L1 MAXIMUM MACHINING DEPTH
- 7** r RAGGIO IN TESTA
r HEAD RADIUS
- 8** R/L DIREZIONE DI TAGLIO
R/L CUTTING DIRECTION



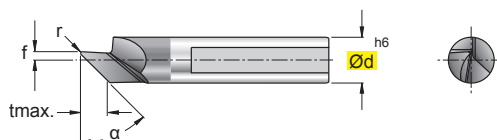
S 1 0 5 - 0 4 . 0 1 0 0 - 0 4 2 - 2 0 . 0 0 0 R
1 2 3 4 5 6 7 8

1 COD. TIPOLOGIA ARTICOLO COD. ITEM TYPE	2 Ød DIAMETRO ATTACCO "MINITOOL" Ød "MINITOOL" ATTACHMENT DIAMETER	3 FORMA DELLA GOLA 0=PIANA R=SFERICA SHAPE OF GROOVE 0=FLAT R=SPHERICAL
4 W LARGHEZZA SCANALATURA W GROOVE WIDTH	5 ØDmin DIAMETRO MINIMO DI ENTRATA ØDmin MINIMUM PENETRATION DIAMETER	6 L1 PROFONDITÀ MASSIMA DI LAVORO L1 MAXIMUM MACHINING DEPTH
7 r RAGGIO IN TESTA r HEAD RADIUS	8 R/L DIREZIONE DI TAGLIO R/L CUTTING DIRECTION	



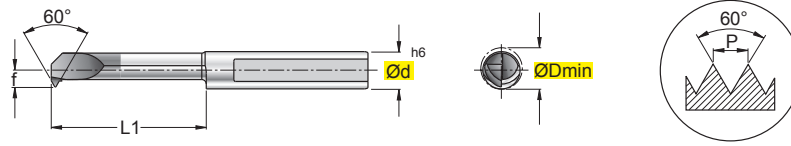
S 1 0 3 - 0 6 . 0 2 0 0 - I 6 2 - 1 5 . 0 1 5 R
1 2 3 4 5 6 7 8 9

1 COD. TIPOLOGIA ARTICOLO COD. ITEM TYPE	2 Ød DIAMETRO ATTACCO "MINITOOL" Ød "MINITOOL" ATTACHMENT DIAMETER	3 FORMA DELLA GOLA 0=PIANA R=SFERICA SHAPE OF GROOVE 0=FLAT R=SPHERICAL
4 W LARGHEZZA SCANALATURA W GROOVE WIDTH	5 TIPO TORNITURA I=INTERNA E=ESTERNA TURNING TYPE I=INTERNAL E=EXTERNAL	6 ØDmin DIAMETRO MINIMO DI ENTRATA ØDmin MINIMUM PENETRATION DIAMETER
7 L1 PROFONDITÀ MASSIMA DI ENTRATA L1 MAXIMUM PENETRATION DEPTH	8 r RAGGIO IN TESTA r HEAD RADIUS	9 R/L DIREZIONE DI TAGLIO R/L CUTTING DIRECTION



S 1 0 1 - 0 6 . 0 0 4 5 - 0 1 1 - 3 5 . 0 2 0 R
1 2 3 4 5 6 7

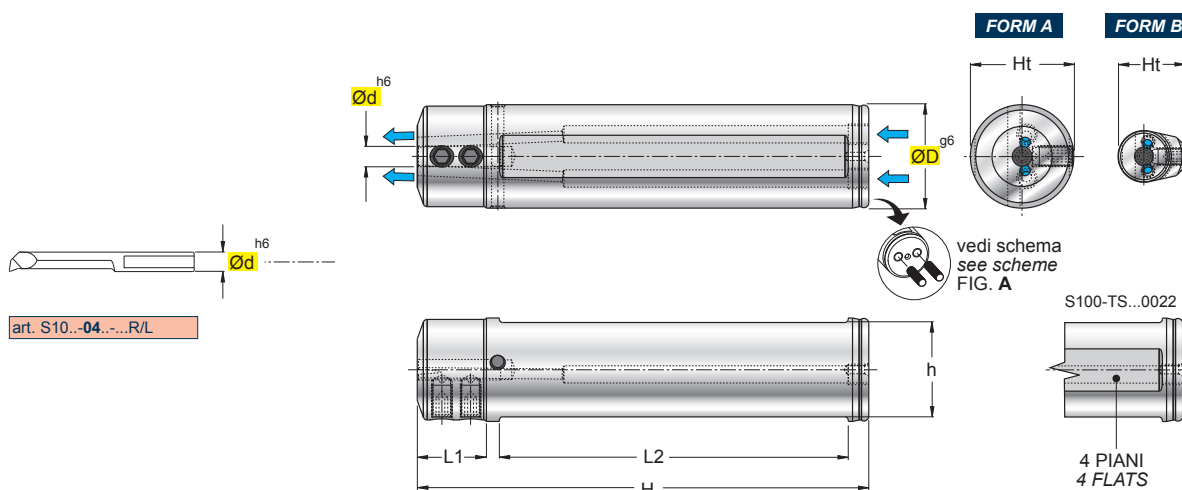
1 COD. TIPOLOGIA ARTICOLO COD. ITEM TYPE	2 Ød DIAMETRO ATTACCO "MINITOOL" Ød "MINITOOL" ATTACHMENT DIAMETER	3 ANGOLO α SMUSSATURA α ANGLE - CHAMFERING
4 f DISTANZA OLTRE CENTRO f OFF-CENTRE DISTANCE	5 tmax MASSIMA PROFONDITÀ DI LAVORO tmax MAXIMUM CUTTING DEPTH	6 r RAGGIO IN TESTA r HEAD RADIUS
7 R/L DIREZIONE DI TAGLIO R/L CUTTING DIRECTION		



S	1	0	4	-	0	6	.	0	0	6	0	-	0	6	2	-	2	5	.	1	2	5	R
	1				2				3				4				5			6			7

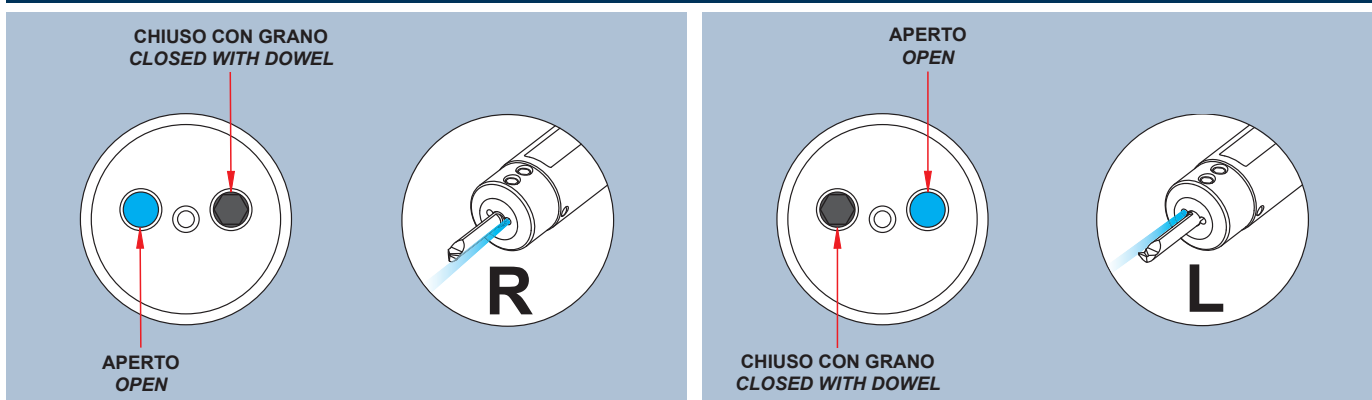
1	COD. TIPOLOGIA ARTICOLO COD. ITEM TYPE	2	Ød DIAMETRO ATTACCO "MINITOOL" Ød "MINITOOL" ATTACHMENT DIAMETER	3	60° ANGOLO FILETTO 60° THREAD ANGLE
4	ØDmin DIAMETRO MINIMO DI ENTRATA ØDmin MINIMUM PENETRATION DIAMETER	5	L1 PROFONDITÀ MASSIMA DI ENTRATA L1 MAXIMUM PENETRATION DEPTH	6	P(min) PASSO MINIMO P(min) MINIMUM PITCH
7	R/L DIREZIONE DI TAGLIO R/L CUTTING DIRECTION				

S100-TS-04-...

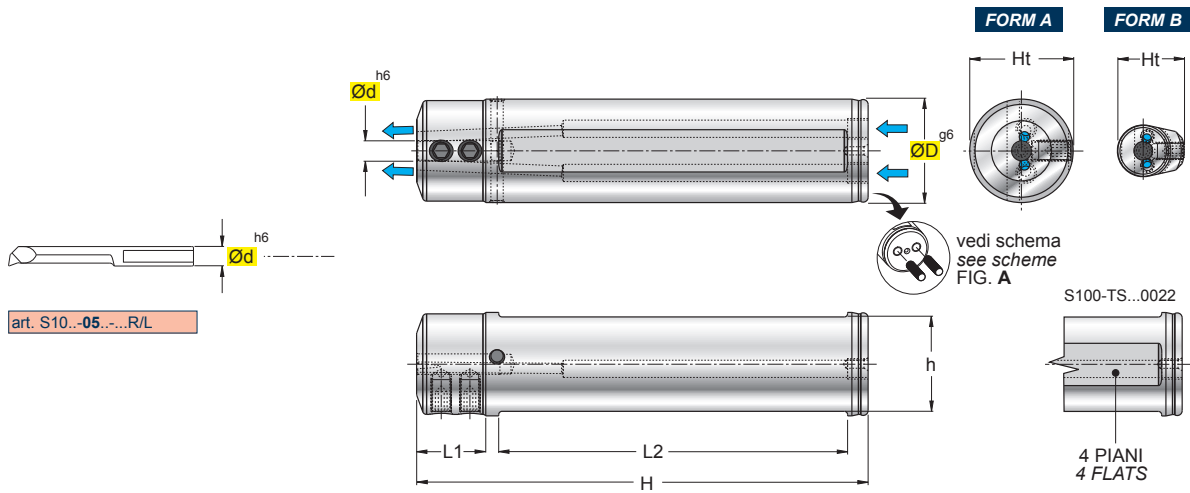


ART.	Prezzo Listino Price List €	FORM	(mm)							n°2 GR408C	n°1 GR304C	5002
			ØD	Ød	h	L1	L2	H	Ht			
S100-TS-04.0012	131,60	B	12	4	10	14	48	70	15,5	n°2 GR408C	n°1 GR304C	5002
S100-TS-04.0016	124,40	B	16	4	14	14	53	75	17,5	n°2 GR408C	n°1 GR404C	5002
S100-TS-04.0020	131,60	A	20	4	18	15	66	90	19,5	n°2 GR408C	n°1 GR505C	5002
S100-TS-04.0022	140,70	A	22	4	20	15	86	110	21,5	n°2 GR508C	n°1 GR505C	5025
S100-TS-04.0025	140,70	A	25	4	23	15	86	110	24,5	n°2 GR410C	n°1 GR505C	5002

(FIG. A) SCHEMA REFRIGERAZIONE - (FIG. A) COOLING DIAGRAM - (ABB. A) KÜHLSCHEMA - (FIG. A) SCHEMA REFRIGATION



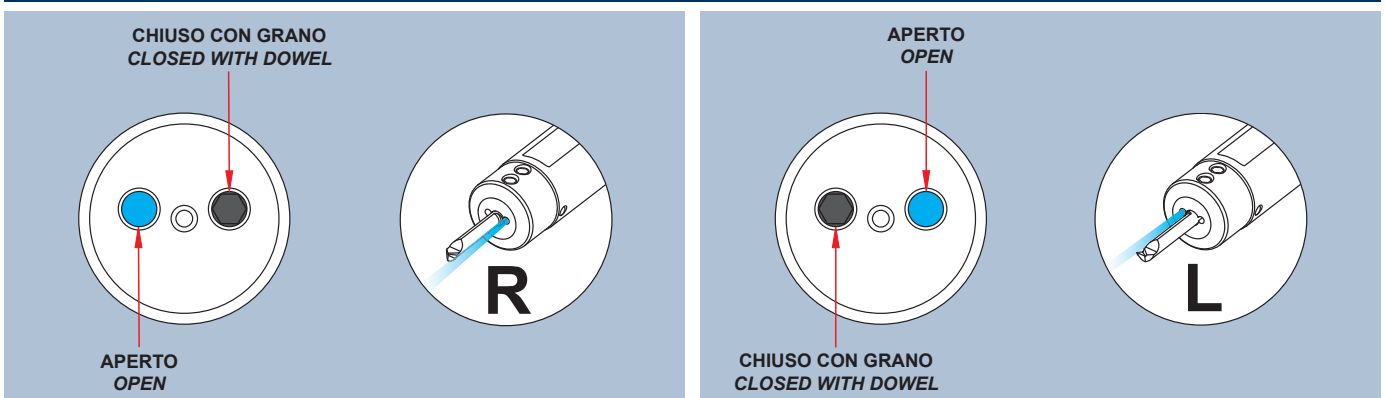
S100-TS-05-...



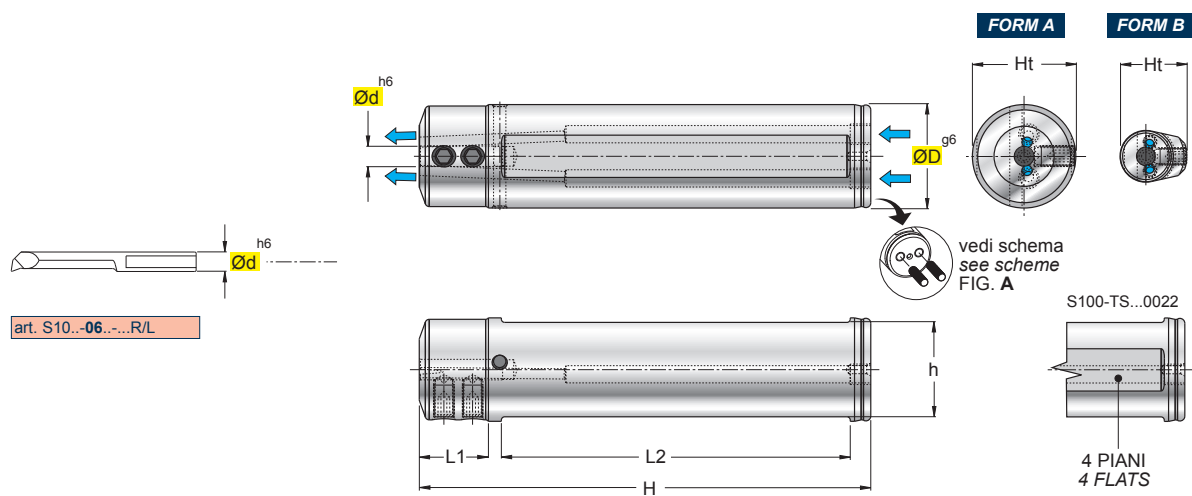
art. S10...05...R/L

ART.	Prezzo Listino Price List €	FORM	(mm)								n°2 GR508C	n°1 GR304C	5025
			ØD	Ød	h	L1	L2	H	Ht				
S100-TS-05.0012	131,60	B	12	5	10	15	47	70	16,0	n°2 GR508C	n°1 GR304C	5025	
S100-TS-05.0016	124,40	B	16	5	14	15	52	75	18,0	n°2 GR508C	n°1 GR404C	5025	
S100-TS-05.0020	131,60	A	20	5	18	15	66	90	19,5	n°2 GR508C	n°1 GR505C	5025	
S100-TS-05.0022	140,70	A	22	5	20	15	86	110	21,5	n°2 GR508C	n°1 GR505C	5025	
S100-TS-05.0025	140,70	A	25	5	23	15	86	110	24,5	n°2 GR510C	n°1 GR505C	5025	

(FIG. A) SCHEMA REFRIGERAZIONE - (FIG. A) COOLING DIAGRAM - (ABB. A) KÜHLSCHHEMA - (FIG. A) SCHEMA REFRIGERATION

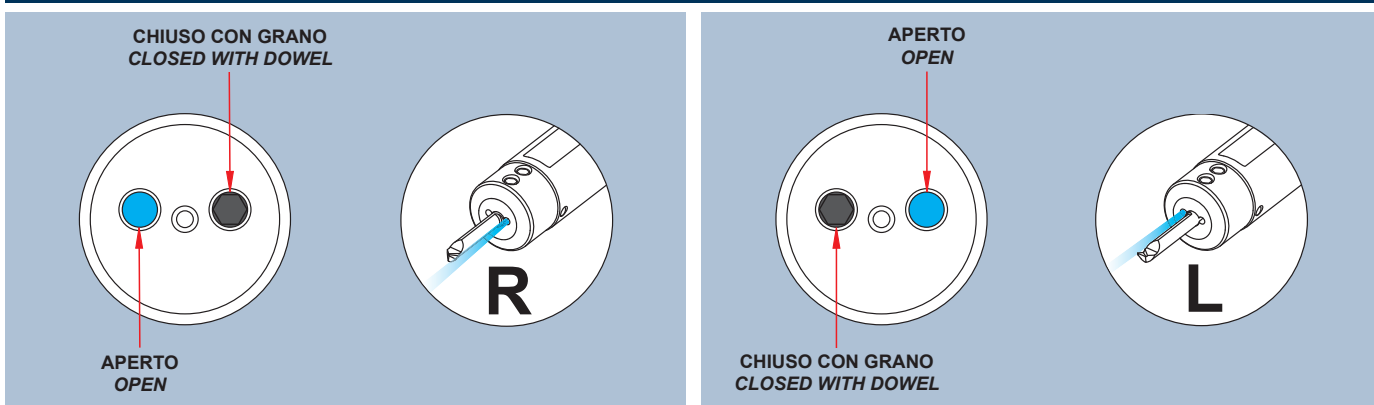


S100-TS-06-...

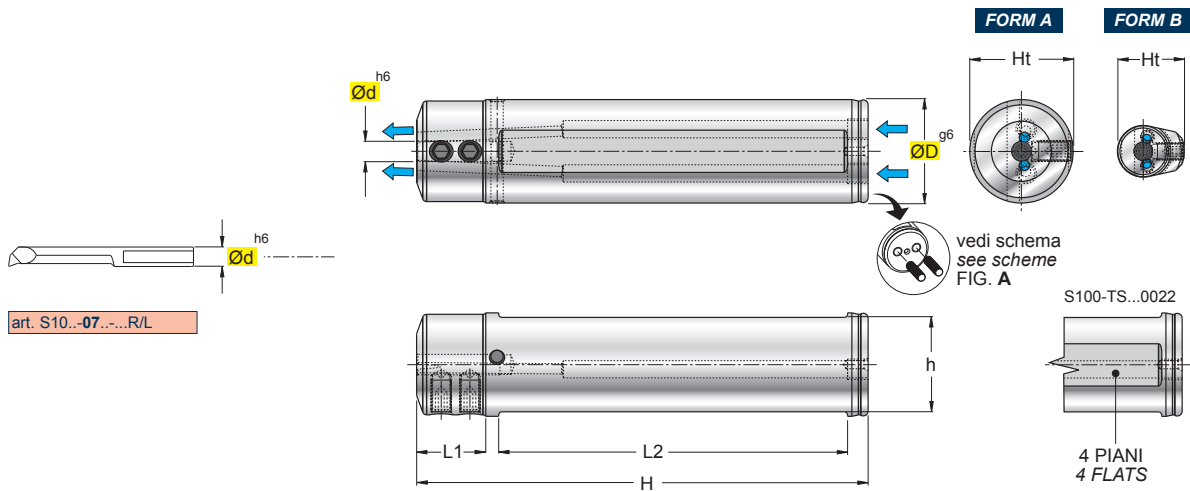


ART.	Prezzo Listino Price List €	FORM	(mm)							GR508C	GR304C	5025
			ØD	Ød	h	L1	L2	H	Ht			
S100-TS-06.0012	131,60	B	12	6	10	15	47	70	16,5	n°2 GR508C	n°1 GR304C	5025
S100-TS-06.0016	124,40	B	16	6	14	15	55	78	18,5	n°2 GR508C	n°1 GR404C	5025
S100-TS-06.0020	131,60	A	20	6	18	15	66	90	19,5	n°2 GR508C	n°1 GR505C	5025
S100-TS-06.0022	140,70	A	22	6	20	15	86	110	21,5	n°2 GR508C	n°1 GR505C	5025
S100-TS-06.0025	140,70	A	25	6	23	15	85	110	24,5	n°2 GR510C	n°1 GR505C	5025

(FIG. A) SCHEMA REFRIGERAZIONE - (FIG. A) COOLING DIAGRAM - (ABB. A) KÜHLSCHHEMA - (FIG. A) SCHEMA REFRIGERATION



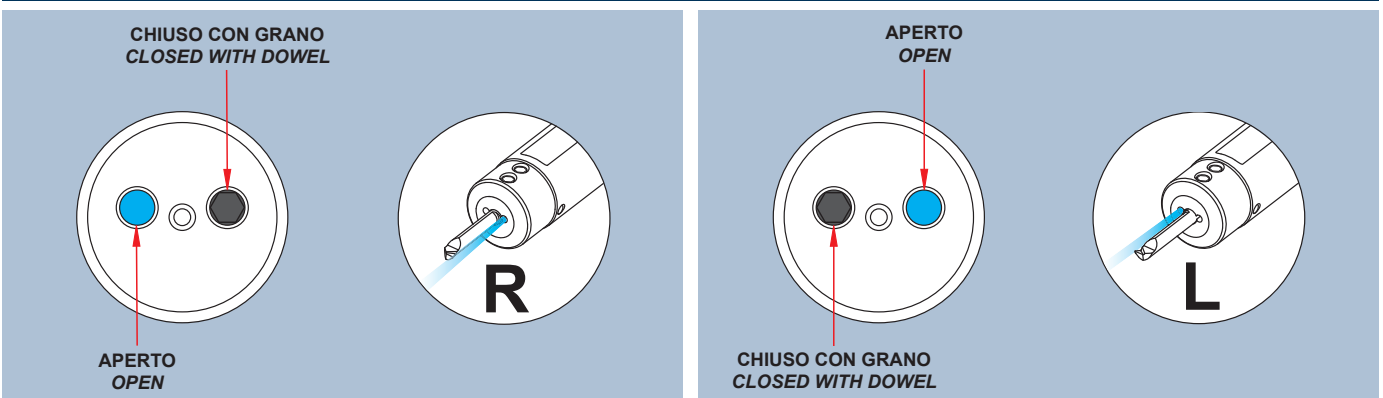
S100-TS-07-...



art. S10...07...R/L

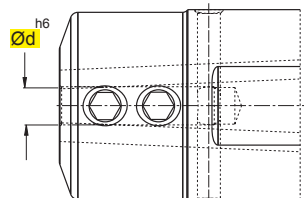
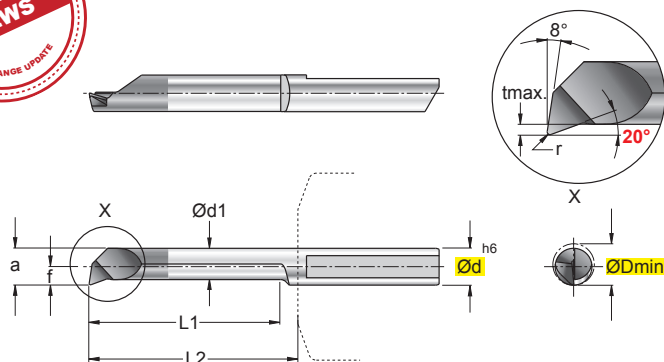
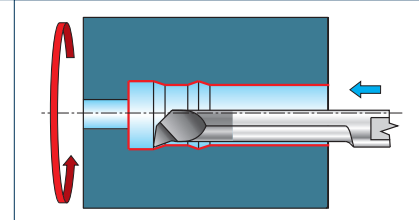
ART.	Prezzo Listino Price List €	FORM	(mm)							n°2 GR508C	n°1 GR404C	5025		
			ØD	Ød	h	L1	L2	H	Ht					
S100-TS-07.0016	124,40	B	16	7	14	15	55	78	19,0	n°2 GR508C	n°1 GR404C	5025		
S100-TS-07.0020	131,60	A	20	7	18	15	66	90	22,0	n°2 GR508C	n°1 GR505C	5025		
S100-TS-07.0022	140,70	A	22	7	20	15	86	110	21,7	n°2 GR508C	n°1 GR505C	5025		
S100-TS-07.0025	140,70	A	25	7	23	15	86	110	24,5	n°2 GR510C	n°1 GR505C	5025		

(FIG. A) SCHEMA REFRIGERAZIONE - (FIG. A) COOLING DIAGRAM - (ABB. A) KÜHLSCHHEMA - (FIG. A) SCHEMA REFRIGERATION



S101-04.9820-...R/L

Tornitura Interna - Internal Turning



art. S100-TS-04..

In figura utensile destro - Right-hand shown

ART.		Prezzo Listino Price List €	(mm)										P	M	K	N	S	H	HW		HC	
			ØDmin	Ød	Ød1	f	a	tmax	r	L1	L2	NON RIV. CEMENTED CARBIDE GRADES							RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS			
												N3635							F7835			
S101-04.9820-017-06.010R/L	New	36,30	1,7	4	1,05	0,7	1,45	0,2	0,10	06	13	●	●	○	●	○		■		■		
		38,90										●	●	○	●	○		■		■		
S101-04.9820-017-09.010R/L	New	37,50	1,7	4	1,05	0,7	1,45	0,2	0,10	09	13	●	●	○	●	○		■		■		
		40,00										●	●	○	●	○		■		■		
S101-04.9820-022-06.010R/L	New	36,30	2,2	4	1,55	0,95	1,95	0,2	0,10	06	13	●	●	○	●	○		■		■		
		38,90										●	●	○	●	○		■		■		
S101-04.9820-022-09.010R/L	New	37,50	2,2	4	1,55	0,95	1,95	0,2	0,10	09	13	●	●	○	●	○		■		■		
		40,00										●	●	○	●	○		■		■		
S101-04.9820-022-13.010R/L	New	40,10	2,2	4	1,55	0,95	1,95	0,2	0,10	13	18	●	●	○	●	○		■		■		
		42,60										●	●	○	●	○		■		■		
* S101-04.9820-027-10.005R/L	New	41,30	2,7	4	2,05	1,2	2,45	0,2	0,05	10	13	●	●	○	●	○		■		■		
		43,80										●	●	○	●	○		■		■		
S101-04.9820-027-10.015R/L	New	37,50	2,7	4	2,05	1,2	2,45	0,2	0,15	10	13	●	●	○	●	○		■		■		
		40,00										●	●	○	●	○		■		■		
* S101-04.9820-027-15.005R/L	New	44,10	2,7	4	2,05	1,2	2,45	0,2	0,05	15	18	●	●	○	●	○		■		■		
		46,60										●	●	○	●	○		■		■		
S101-04.9820-027-15.015R/L	New	40,10	2,7	4	2,05	1,2	2,45	0,2	0,15	15	18	●	●	○	●	○		■		■		
		42,60										●	●	○	●	○		■		■		
S101-04.9820-030-20.015R/L	New	48,20	3,0	4	2,35	1,35	2,75	0,2	0,15	20	23	●	●	○	●	○		■		■		
		50,80										●	●	○	●	○		■		■		
* S101-04.9820-030-25.005R/L	New	58,20	3,0	4	2,35	1,35	2,75	0,2	0,05	25	28	●	●	○	●	○		■		■		
		60,70										●	●	○	●	○		■		■		
S101-04.9820-032-10.015R/L		37,10	3,2	4	2,55	1,45	2,95	0,2	0,15	10	13	●	●	○	●	○		■		■		
		39,70										●	●	○	●	○		■		■		
* S101-04.9820-032-15.005R/L	New	44,20	3,2	4	2,55	1,45	2,95	0,2	0,05	15	18	●	●	○	●	○		■		■		
		46,70										●	●	○	●	○		■		■		
S101-04.9820-032-15.015R/L		40,20	3,2	4	2,55	1,45	2,95	0,2	0,15	15	18	●	●	○	●	○		■		■		
		42,70										●	●	○	●	○		■		■		
* S101-04.9820-032-20.005R/L	New	52,30	3,2	4	2,55	1,45	2,95	0,2	0,05	20	23	●	●	○	●	○		■		■		
		54,80										●	●	○	●	○		■		■		
S101-04.9820-032-20.015R/L		48,20	3,2	4	2,55	1,45	2,95	0,2	0,15	20	23	●	●	○	●	○		■		■		
		50,80										●	●	○	●	○		■		■		
S101-04.9820-037-10.015R/L		37,80	3,7	4	3,05	1,7	3,45	0,2	0,15	10	13	●	●	○	●	○		■		■		
		40,30										●	●	○	●	○		■		■		
S101-04.9820-037-15.015R/L		40,10	3,7	4	3,05	1,7	3,45	0,2	0,15	15	18	●	●	○	●	○		■		■		
		42,60										●	●	○	●	○		■		■		
S101-04.9820-037-20.015R/L		45,80	3,7	4	3,05	1,7	3,45	0,2	0,15	20	23	●	●	○	●	○		■		■		
		48,30										●	●	○	●	○		■		■		
S101-04.9820-037-25.015R/L		51,80	3,7	4	3,05	1,7	3,45	0,2	0,15	25	28	●	●	○	●	○		■		■		
		54,30										●	●	○	●	○		■		■		

ART.	Prezzo Listino Price List	(mm)											P	M	K	N	S	H	HW		HC	
		ØDmin	Ød	Ød1	f	a	tmax	r	L1	L2	NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS										
* S101-04.9820-042-10.005R/L New	41,60 44,20	4,2	4	3,45	1,95	3,95	0,3	0,05	10	13	●	●	○	●	○		■		■			
S101-04.9820-042-10.015R/L	37,80 40,30	4,2	4	3,45	1,95	3,95	0,3	0,15	10	13	●	●	○	●	○		■		■			
* S101-04.9820-042-15.005R/L New	44,10 46,60	4,2	4	3,45	1,95	3,95	0,3	0,05	15	18	●	●	○	●	○		■		■			
S101-04.9820-042-15.015R/L	40,10 42,60	4,2	4	3,45	1,95	3,95	0,3	0,15	15	18	●	●	○	●	○		■		■			
* S101-04.9820-042-20.005R/L New	49,60 52,20	4,2	4	3,45	1,95	3,95	0,3	0,05	20	23	●	●	○	●	○		■		■			
S101-04.9820-042-20.015R/L	45,70 48,20	4,2	4	3,45	1,95	3,95	0,3	0,15	20	23	●	●	○	●	○		■		■			
* S101-04.9820-042-25.005R/L New	52,30 54,80	4,2	4	3,45	1,95	3,95	0,3	0,05	25	28	●	●	○	●	○		■		■			
S101-04.9820-042-25.015R/L	48,20 50,80	4,2	4	3,45	1,95	3,95	0,3	0,15	25	28	●	●	○	●	○		■		■			
S101-04.9820-042-30.005R/L New	54,80 57,30	4,2	4	3,45	1,95	3,95	0,3	0,05	30	33	●	●	○	●	○		■		■			

* DISPONIBILE DA NOVEMBRE 2021 -
 * AVAILABLE FROM NOVEMBER 2021
 * AB NOVEMBER 2021 LIEFERBAR -
 * DISPONIBILE À PARTIR DE NOVEMBRE 2021

Parametri di lavoro - Machining parameters
Schnittdaten - Paramètres de travail

MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fn mm
			N3635	F7835		
P ACCIAIO NON LEGATO - NOT ALLOY STEEL	1-5	125-300		80-200		0,02-0,08
	6-9	180-350		80-170		0,02-0,08
	10-11	200-325		60-110		0,02-0,08
	12-13	200-240		50-100		0,02-0,08
M INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230		20-80		0,02-0,08
K GHISA GRIGIA - GREY CAST IRON	15-16	180-260	30-90	30-150		0,02-0,08
K GHISA SFEROIDALE - SPHEROIDAL GRAPHITE	17-18	160-250	25-80	30-130		0,02-0,08
	19-20	130-230	30-90	30-100		0,02-0,08
N ALLUMINIO E SUE LEGHE - ALUMINIUM	21-25	60-130	80-150			0,02-0,08
	26-28	90-110	50-110			0,02-0,08
	29-30	/	20-100			0,02-0,08
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31-35	200-320		30-80		0,005-0,05
	36-37	400-1050 ¹⁾		30-80		0,005-0,05
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\text{ØD} \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

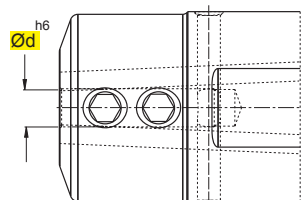
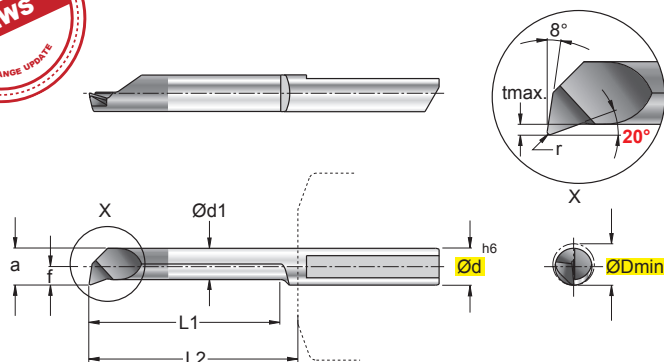
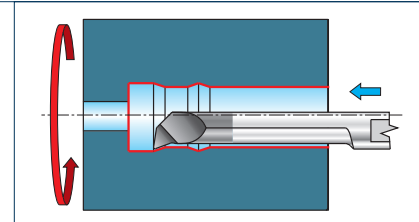
Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES

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S101-05.9820-...R/L

Tornitura Interna - Internal Turning



art. S100-TS-05..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List (mm)	ØDmin	Ød	Ød1	f	a	tmax	r	L1	L2	P	M	K	N	S	H	HW		HC	
																	NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS	N3635	F7835
* S101-05.9820-049-20.020R/L New	48,30 50,90	4,9	5	3,95	2,45	4,65	0,4	0,2	20	23	●	●	○	●	○		■		■	
* S101-05.9820-049-25.020R/L New	53,60 56,10	4,9	5	3,95	2,45	4,65	0,4	0,2	25	28	●	●	○	●	○		■		■	
* S101-05.9820-049-30.020R/L New	61,80 64,40	4,9	5	3,95	2,45	4,65	0,4	0,2	30	33	●	●	○	●	○		■		■	
* S101-05.9820-049-35.020R/L New	67,10 69,60	4,9	5	3,95	2,45	4,65	0,4	0,2	35	38	●	●	○	●	○		■		■	
* S101-05.9820-049-40.020R/L New	75,90 78,50	4,9	5	3,95	2,45	4,65	0,4	0,2	40	43	●	●	○	●	○		■		■	
* S101-05.9820-052-10.005R/L New	38,20 40,70	5,2	5	4,25	2,45	4,95	0,5	0,05	10	13	●	●	○	●	○		■		■	
S101-05.9820-052-10.020R/L	33,40 35,90	5,2	5	4,25	2,45	4,95	0,5	0,2	10	13	●	●	○	●	○		■		■	
* S101-05.9820-052-15.005R/L New	41,40 43,90	5,2	5	4,25	2,45	4,95	0,5	0,05	15	18	●	●	○	●	○		■		■	
S101-05.9820-052-15.020R/L	35,40 38,00	5,2	5	4,25	2,45	4,95	0,5	0,2	15	18	●	●	○	●	○		■		■	
* S101-05.9820-052-20.005R/L New	46,10 48,60	5,2	5	4,25	2,45	4,95	0,5	0,05	20	23	●	●	○	●	○		■		■	
S101-05.9820-052-20.020R/L	42,10 44,70	5,2	5	4,25	2,45	4,95	0,5	0,2	20	23	●	●	○	●	○		■		■	
S101-05.9820-052-25.020R/L	47,40 49,90	5,2	5	4,25	2,45	4,95	0,5	0,2	25	28	●	●	○	●	○		■		■	
* S101-05.9820-052-30.005R/L New	57,40 60,00	5,2	5	4,25	2,45	4,95	0,5	0,05	30	33	●	●	○	●	○		■		■	
S101-05.9820-052-30.020R/L	53,50 56,00	5,2	5	4,25	2,45	4,95	0,5	0,2	30	33	●	●	○	●	○		■		■	
S101-05.9820-052-35.020R/L	58,80 61,30	5,2	5	4,25	2,45	4,95	0,5	0,2	35	38	●	●	○	●	○		■		■	
S101-05.9820-052-40.020R/L	67,60 70,10	5,2	5	4,25	2,45	4,95	0,5	0,2	40	43	●	●	○	●	○		■		■	

* DISPONIBILE DA NOVEMBRE 2021 -
 * AVAILABLE FROM NOVEMBER 2021
 * AB NOVEMBER 2021 LIEFERBAR -
 * DISPONIBLE À PARTIR DE NOVEMBRE 2021

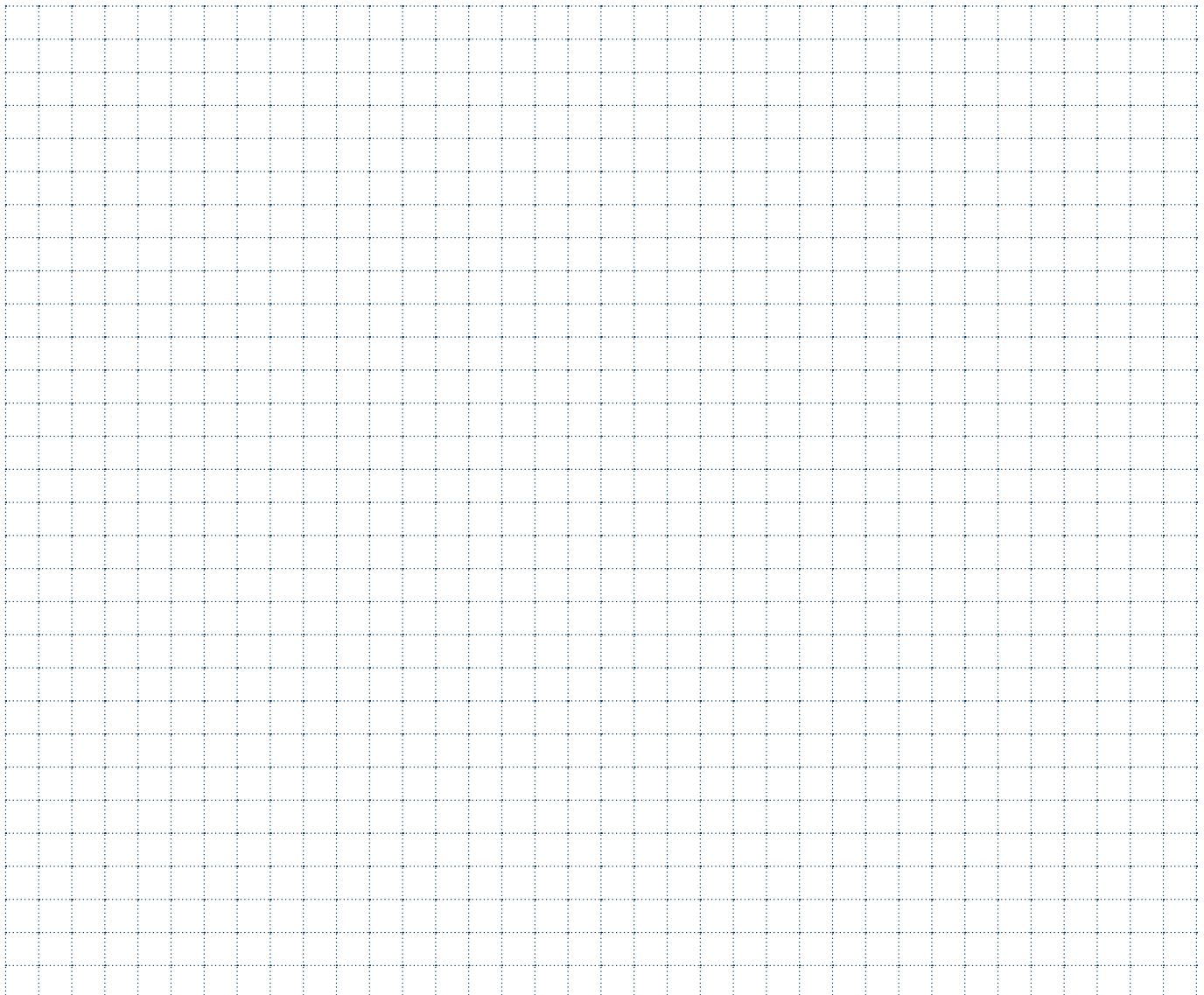
MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fn mm
			N3635	F7835		
P ACCIAIO NON LEGATO - NOT ALLOY STEEL ACCIAIO POCO LEGATO - LOW ALLOY STEEL ACCIAIO ALTO LEGATO - ALLOY STEEL INOX MARTENS. - STAINLESS STEEL MART	1-5	125-300		80-200		0,02-0,08
	6-9	180-350		80-170		0,02-0,08
	10-11	200-325		60-110		0,02-0,08
	12-13	200-240		50-100		0,02-0,08
M INOX AUST. DUPLEX - STAINLESS STEEL AUST GHISA GRIGIA - GREY CAST IRON	14.1-14.2	180-230		20-80		0,02-0,08
	15-16	180-260	30-90	30-150		0,02-0,08
K GHISA SFEROIDALE - SPHEROIDAL GRAPHITE GHISA MALLEABILE - MALLEABLE CAST IRON	17-18	160-250	25-80	30-130		0,02-0,08
	19-20	130-230	30-90	30-100		0,02-0,08
N ALLUMINIO E SUE LEGHE - ALUMINIUM RAME E SUE LEGHE - COPPER NON METALLICI - PLASTICS	21-25	60-130	80-150			0,02-0,08
	26-28	90-110	50-110			0,02-0,08
	29-30	/	20-100			0,02-0,08
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY TITANIO E SUE LEGHE - TITANIUM	31-35	200-320		30-80		0,005-0,05
	36-37	400-1050 ¹⁾		30-80		0,005-0,05
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

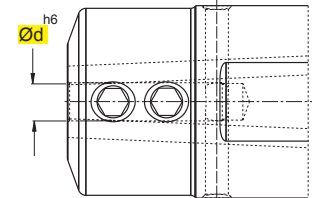
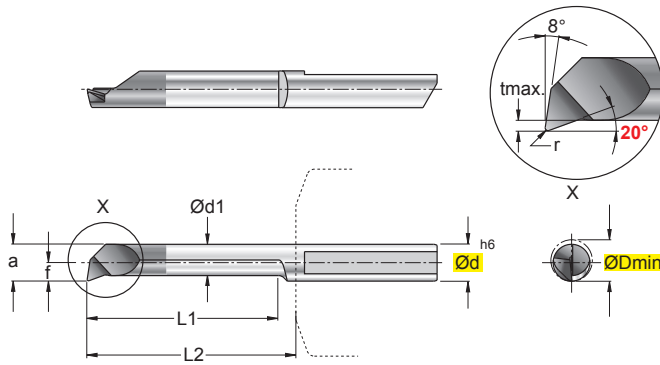
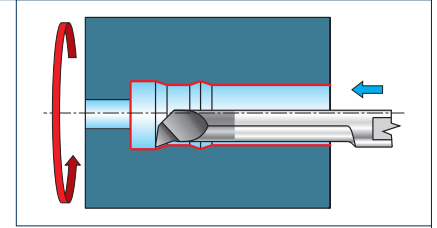
Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES





S101-06.9820-...R/L

Tornitura Interna - Internal Turning



art. S100-TS-06..

In figura utensile destro - Right-hand shown

ART.	 	Prezzo Listino Price List €	(mm)									P	M	K	N	S	H	HW		HC	
			ØDmin	Ød	Ød1	f	a	tmax	r	L1	L2							NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS	N3635	F7835
S101-06.9820-062-15.020R/L		36,00 38,60	6,2	6	5,25	2,95	5,95	0,5	0,2	15	18	●	●	○	●	○		■		■	
S101-06.9820-062-20.020R/L		42,50 45,10	6,2	6	5,25	2,95	5,95	0,5	0,2	20	23	●	●	○	●	○		■		■	
S101-06.9820-062-25.020R/L		48,00 50,50	6,2	6	5,25	2,95	5,95	0,5	0,2	25	28	●	●	○	●	○		■		■	
S101-06.9820-062-30.020R/L		54,10 56,60	6,2	6	5,25	2,95	5,95	0,5	0,2	30	33	●	●	○	●	○		■		■	
S101-06.9820-062-35.020R/L		59,40 61,90	6,2	6	5,25	2,95	5,95	0,5	0,2	35	38	●	●	○	●	○		■		■	
S101-06.9820-062-40.020R/L		68,30 70,80	6,2	6	5,25	2,95	5,95	0,5	0,2	40	43	●	●	○	●	○		■		■	

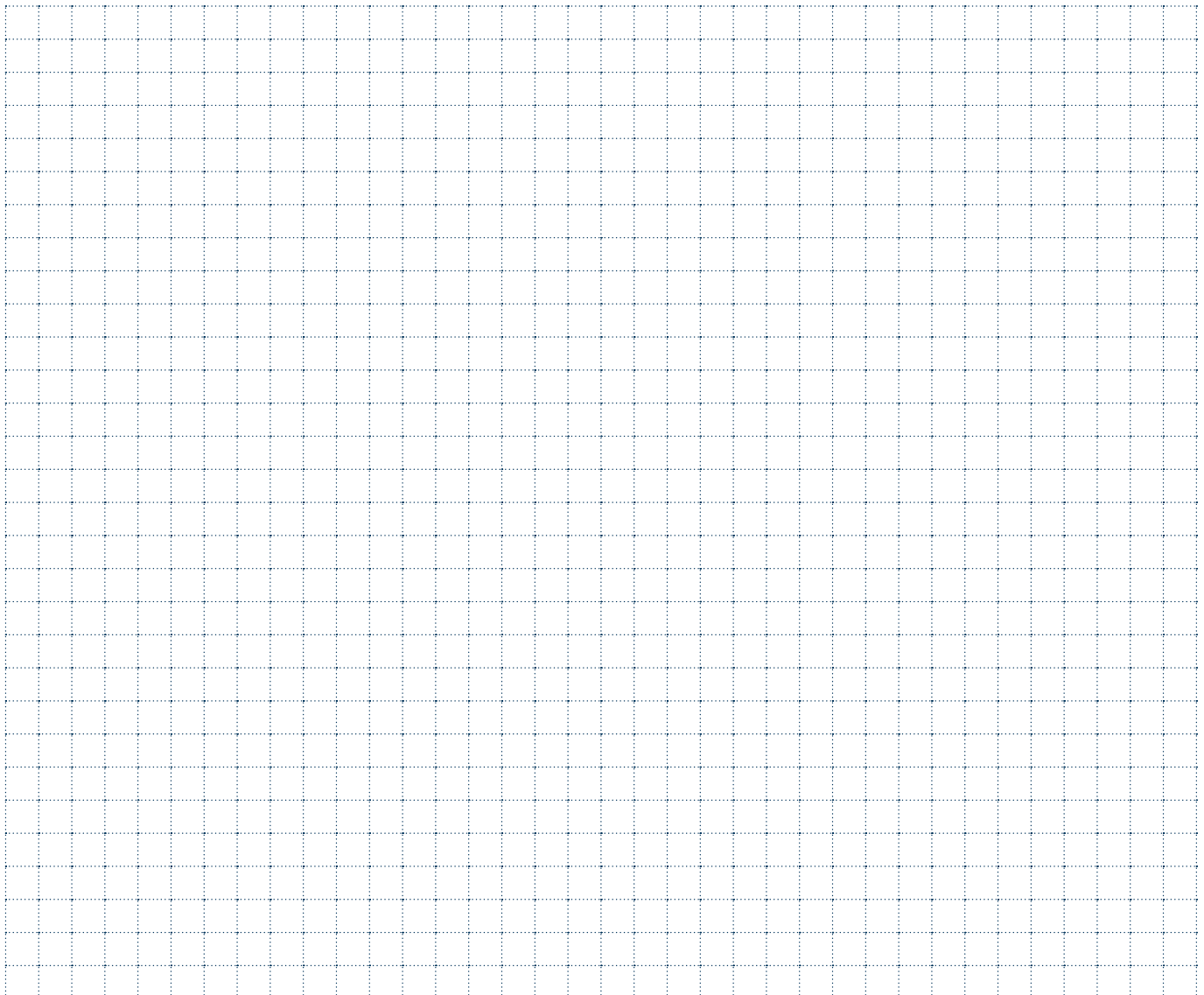
MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fn mm
			N3635	F7835		
P ACCIAIO NON LEGATO - NOT ALLOY STEEL ACCIAIO POCO LEGATO - LOW ALLOY STEEL ACCIAIO ALTO LEGATO - ALLOY STEEL INOX MARTENS. - STAINLESS STEEL MART	1-5	125-300		80-200		0,02-0,08
	6-9	180-350		80-170		0,02-0,08
	10-11	200-325		60-110		0,02-0,08
	12-13	200-240		50-100		0,02-0,08
M INOX AUST. DUPLEX - STAINLESS STEEL AUST GHISA GRIGIA - GREY CAST IRON	14.1-14.2	180-230		20-80		0,02-0,08
	15-16	180-260	30-90	30-150		0,02-0,08
K GHISA SFEROIDALE - SPHEROIDAL GRAPHITE GHISA MALLEABILE - MALLEABLE CAST IRON	17-18	160-250	25-80	30-130		0,02-0,08
	19-20	130-230	30-90	30-100		0,02-0,08
N ALLUMINIO E SUE LEGHE - ALUMINIUM RAME E SUE LEGHE - COPPER NON METALLICI - PLASTICS	21-25	60-130	80-150			0,02-0,08
	26-28	90-110	50-110			0,02-0,08
	29-30	/	20-100			0,02-0,08
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY TITANIO E SUE LEGHE - TITANIUM	31-35	200-320		30-80		0,005-0,05
	36-37	400-1050 ¹⁾		30-80		0,005-0,05
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

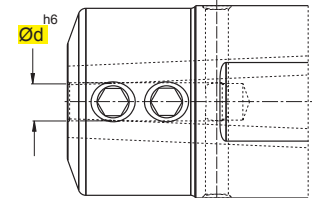
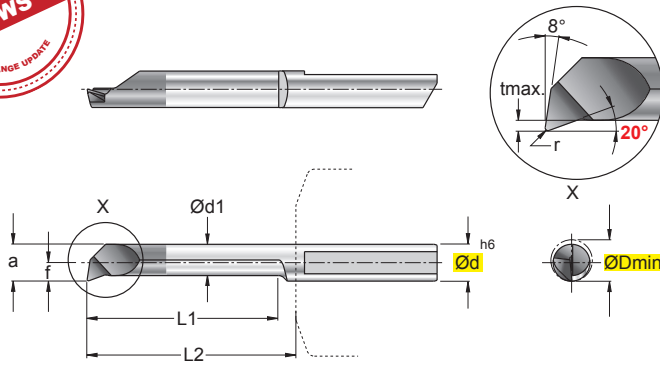
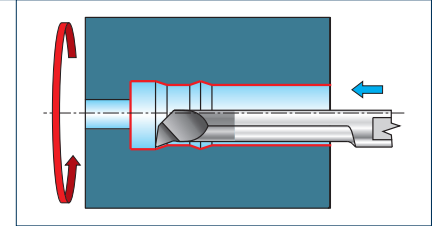
Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES



S101-07.9820-...R/L

Tornitura Interna - Internal Turning



art. S100-TS-07..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List (mm)											P	M	K	N	S	H	HW		HC			
		L	R	€	ØDmin	Ød	Ød1	f	a	tmax	r							L1	L2	NON RIV. CEMENTED CARBIDE GRADES		RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS	
																				N3635	F7835		
S101-07.9820-072-25.020R/L	51,50 54,00		7,2	7	6,25	3,45	6,95	0,5	0,2	25	28	●	●	○	●	○		■		■			
S101-07.9820-072-30.020R/L	57,40 60,00		7,2	7	6,25	3,45	6,95	0,5	0,2	30	33	●	●	○	●	○		■		■			
S101-07.9820-072-35.020R/L	63,30 65,90		7,2	7	6,25	3,45	6,95	0,5	0,2	35	38	●	●	○	●	○		■		■			
S101-07.9820-072-40.020R/L	69,40 72,00		7,2	7	6,25	3,45	6,95	0,5	0,2	40	43	●	●	○	●	○		■		■			
S101-07.9820-072-45.020R/L New	75,40 78,00		7,2	7	6,25	3,45	6,95	0,5	0,2	45	48	●	●	○	●	○		■		■			
S101-07.9820-072-50.020R/L	81,40 83,90		7,2	7	6,25	3,45	6,95	0,5	0,2	50	53	●	●	○	●	○		■		■			

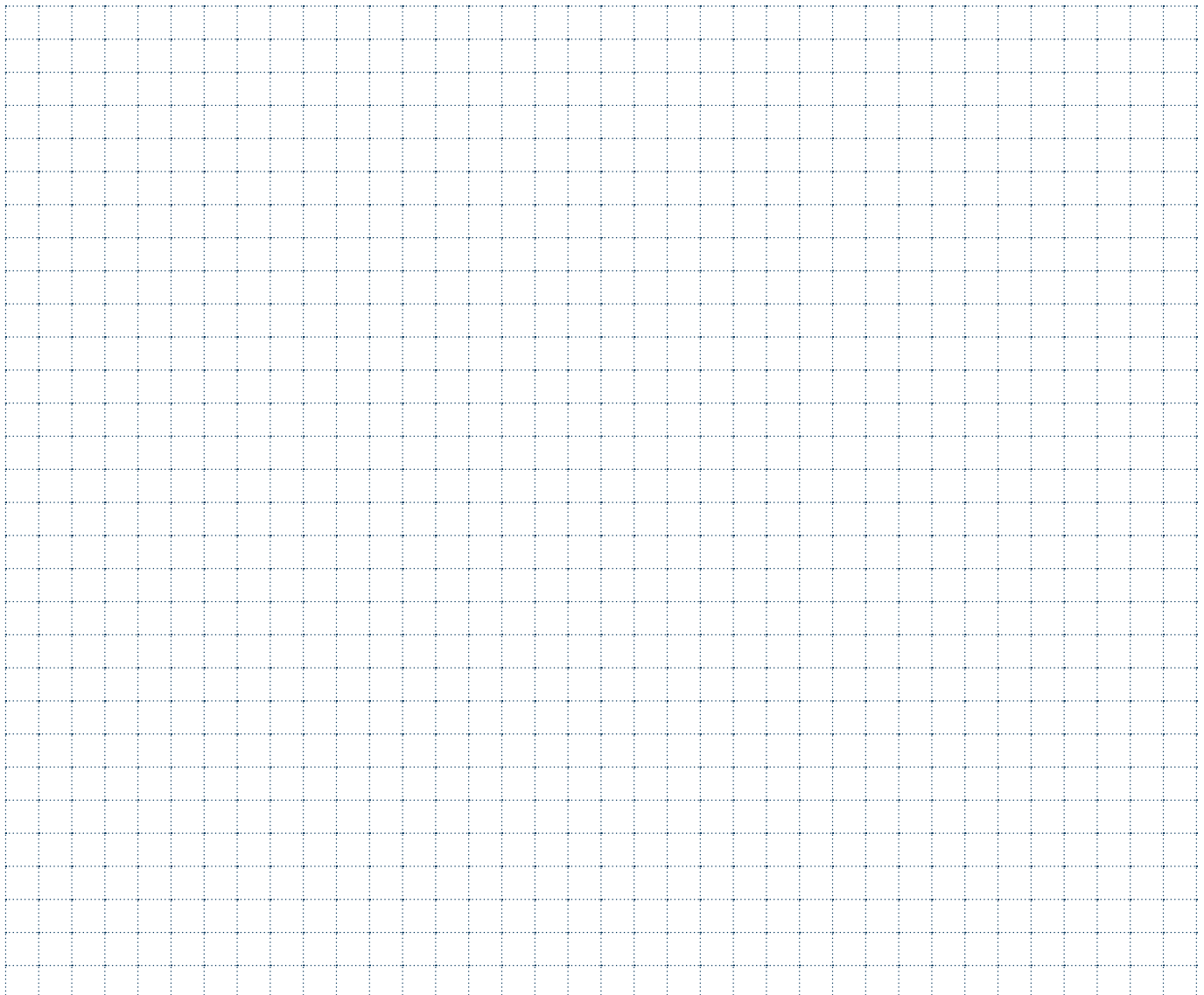
MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fn mm
			N3635	F7835		
P ACCIAIO NON LEGATO - NOT ALLOY STEEL ACCIAIO POCO LEGATO - LOW ALLOY STEEL ACCIAIO ALTO LEGATO - ALLOY STEEL INOX MARTENS. - STAINLESS STEEL MART	1-5	125-300		80-200		0,02-0,08
	6-9	180-350		80-170		0,02-0,08
	10-11	200-325		60-110		0,02-0,08
	12-13	200-240		50-100		0,02-0,08
M INOX AUST. DUPLEX - STAINLESS STEEL AUST GHISA GRIGIA - GREY CAST IRON	14.1-14.2	180-230		20-80		0,02-0,08
	15-16	180-260	30-90	30-150		0,02-0,08
K GHISA SFEROIDALE - SPHEROIDAL GRAPHITE GHISA MALLEABILE - MALLEABLE CAST IRON	17-18	160-250	25-80	30-130		0,02-0,08
	19-20	130-230	30-90	30-100		0,02-0,08
N ALLUMINIO E SUE LEGHE - ALUMINIUM RAME E SUE LEGHE - COPPER NON METALLICI - PLASTICS	21-25	60-130	80-150			0,02-0,08
	26-28	90-110	50-110			0,02-0,08
	29-30	/	20-100			0,02-0,08
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY TITANIO E SUE LEGHE - TITANIUM	31-35	200-320		30-80		0,005-0,05
	36-37	400-1050 ¹⁾		30-80		0,005-0,05
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

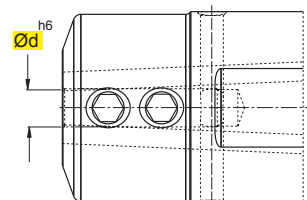
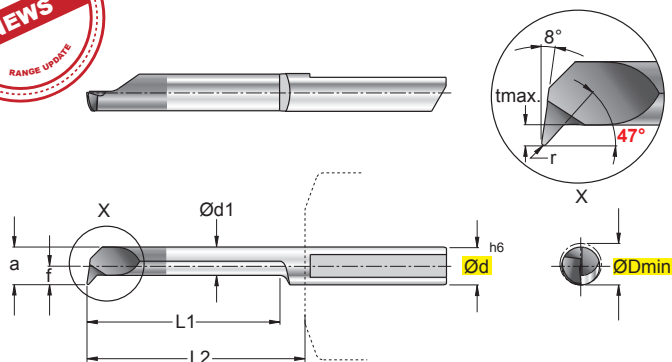
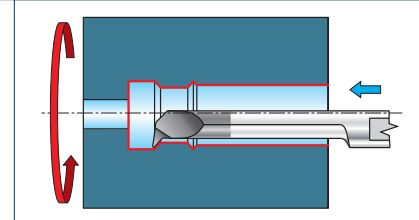
Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES



S101-...9847-...R/L

Tornitura Interna - Internal Turning



art. S100-TS-..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List (mm)											P	M	K	N	S	H	HW		HC		
		R	€	ØDmin	Ød	Ød1	f	a	tmax	r	L1							L2	NON RIV. CEMENTED CARBIDE GRADES		RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS	
																			N3635	F7835		
S101-04.9847-022-10.010R/L New	38,40 40,90	2,2	4	1,35	0,95	1,95	0,4	0,1	10	13	●	●	○	●	○		■		■			
S101-04.9847-027-15.010R/L New	41,00 43,50	2,7	4	1,75	1,2	2,45	0,5	0,1	15	18	●	●	○	●	○		■		■			
S101-04.9847-032-15.010R/L	38,30 40,80	3,2	4	2,15	1,45	2,95	0,6	0,1	15	18	●	●	○	●	○		■		■			
S101-04.9847-042-20.015R/L	41,10 43,60	4,2	4	2,95	1,95	3,95	0,8	0,15	20	23	●	●	○	●	○		■		■			
S101-05.9847-052-15.015R/L	40,30 42,80	5,2	5	3,75	2,45	4,95	1,0	0,15	15	18	●	●	○	●	○		■		■			
S101-05.9847-052-25.015R/L	45,20 47,70	5,2	5	3,75	2,45	4,95	1,0	0,15	25	28	●	●	○	●	○		■		■			
S101-06.9847-062-20.015R/L	40,30 42,80	6,2	6	3,95	2,95	5,95	1,8	0,15	20	23	●	●	○	●	○		■		■			
S101-06.9847-062-30.015R/L	51,50 54,00	6,2	6	3,95	2,95	5,95	1,8	0,15	30	33	●	●	○	●	○		■		■			
S101-07.9847-072-40.020R/L	75,80 78,40	7,2	7	4,15	3,45	6,95	2,5	0,2	40	43	●	●	○	●	○		■		■			

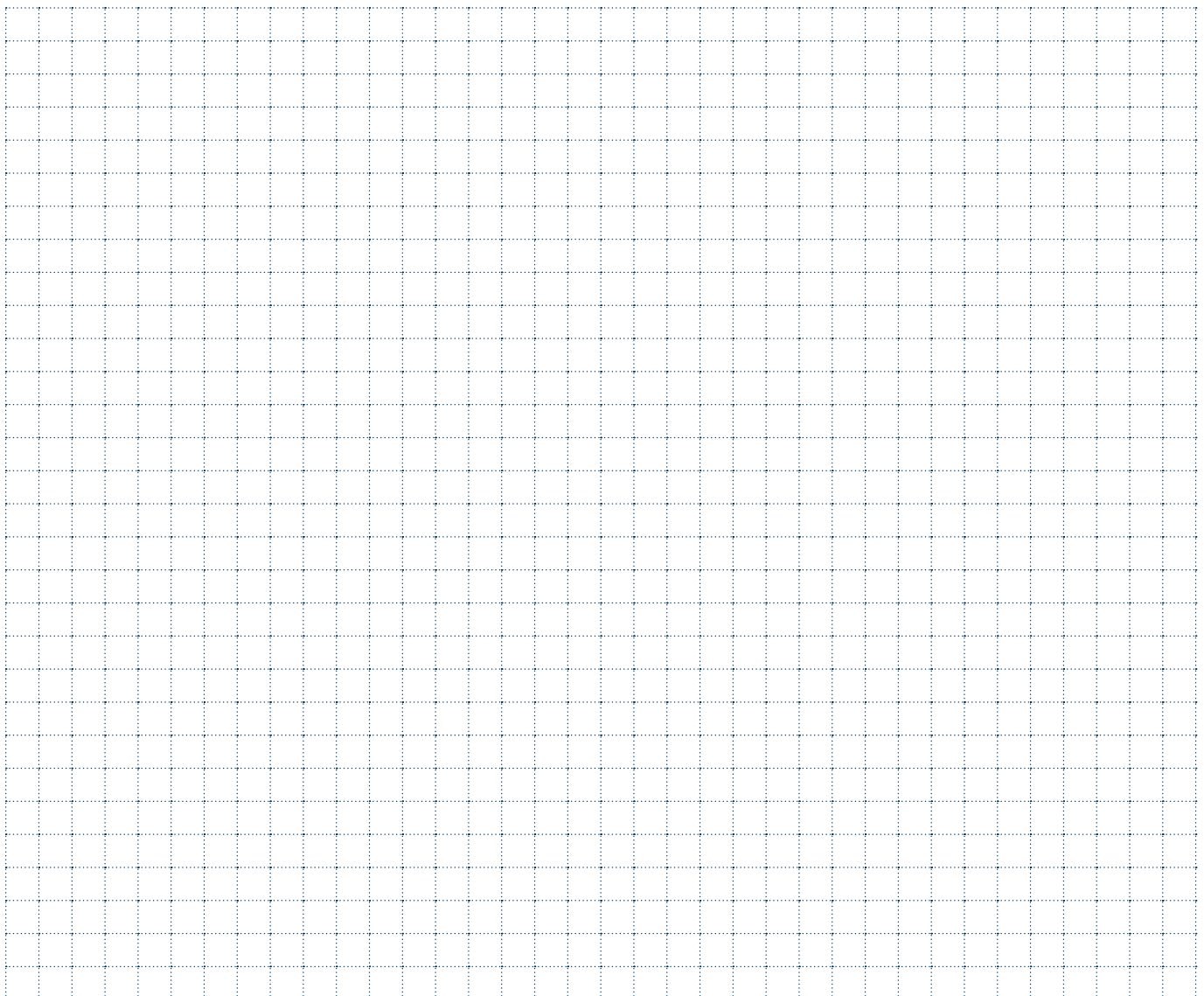
	MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fn mm
				N3635	F7835		
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	1-5	125-300		80-200		0,02-0,08
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL	6-9	180-350		80-170		0,02-0,08
	ACCIAIO ALTO LEGATO - ALLOY STEEL	10-11	200-325		60-110		0,02-0,08
	INOX MARTENS. - STAINLESS STEEL MART	12-13	200-240		50-100		0,02-0,08
M	INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230		20-80		0,02-0,08
K	GHISA GRIGIA - GREY CAST IRON	15-16	180-260	30-90	30-150		0,02-0,08
	GHISA SFEROIDALE - SPHEROIDAL GRAPHITE	17-18	160-250	25-80	30-130		0,02-0,08
	GHISA MALLEABILE - MALLEABLE CAST IRON	19-20	130-230	30-90	30-100		0,02-0,08
N	ALLUMINIO E SUE LEGHE - ALUMINIUM	21-25	60-130	80-150			0,02-0,08
	RAME E SUE LEGHE - COPPER	26-28	90-110	50-110			0,02-0,08
	NON METALLICI - PLASTICS	29-30	/	20-100			0,02-0,08
S	LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31-35	200-320		30-80		0,005-0,05
	TITANIO E SUE LEGHE - TITANIUM	36-37	400-1050 ¹⁾		30-80		0,005-0,05
H	ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

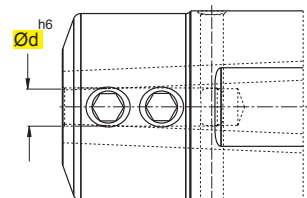
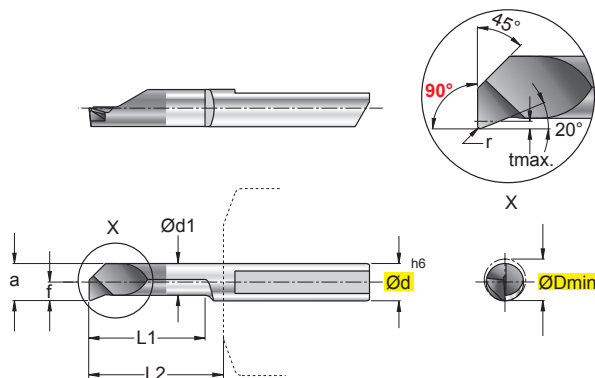
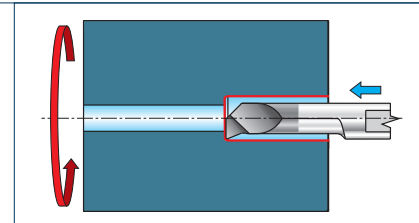
NOTE - NOTES



S101-05.9020-052...020R/L

Tornitura Interna - Internal Turning

NEW



art. S100-TS-05..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List €	(mm)										P	M	K	N	S	H	HW		HC	
		ØDmin	Ød	Ød1	f	a	tmax	r	L1	L2	N3635							F7835			
S101-05.9020-052-10.020R/L	37,00 39,60	5,2	5	4,25	2,45	4,95	0,5	0,2	10	13	●	●	○	●	○		■		■		
S101-05.9020-052-15.020R/L	39,00 41,50	5,2	5	4,25	2,45	4,95	0,5	0,2	15	18	●	●	○	●	○		■		■		
S101-05.9020-052-20.020R/L	45,40 47,90	5,2	5	4,25	2,45	4,95	0,5	0,2	20	23	●	●	○	●	○		■		■		

	MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fn mm
				N3635	F7835		
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	1-5	125-300		80-200		0,02-0,08
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL	6-9	180-350		80-170		0,02-0,08
	ACCIAIO ALTO LEGATO - ALLOY STEEL	10-11	200-325		60-110		0,02-0,08
	INOX MARTENS. - STAINLESS STEEL MART	12-13	200-240		50-100		0,02-0,08
M	INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230		20-80		0,02-0,08
K	GHISA GRIGIA - GREY CAST IRON	15-16	180-260	30-90	30-150		0,02-0,08
	GHISA SFEROIDALE - SPHEROIDAL GRAPHITE	17-18	160-250	25-80	30-130		0,02-0,08
	GHISA MALLEABILE - MALLEABLE CAST IRON	19-20	130-230	30-90	30-100		0,02-0,08
N	ALLUMINIO E SUE LEGHE - ALUMINIUM	21-25	60-130	80-150			0,02-0,08
	RAME E SUE LEGHE - COPPER	26-28	90-110	50-110			0,02-0,08
	NON METALLICI - PLASTICS	29-30	/	20-100			0,02-0,08
S	LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31-35	200-320		30-80		0,005-0,05
	TITANIO E SUE LEGHE - TITANIUM	36-37	400-1050 ¹⁾		30-80		0,005-0,05
H	ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED

n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS

fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION

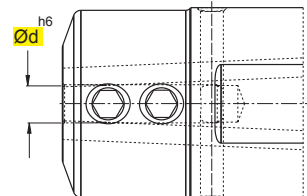
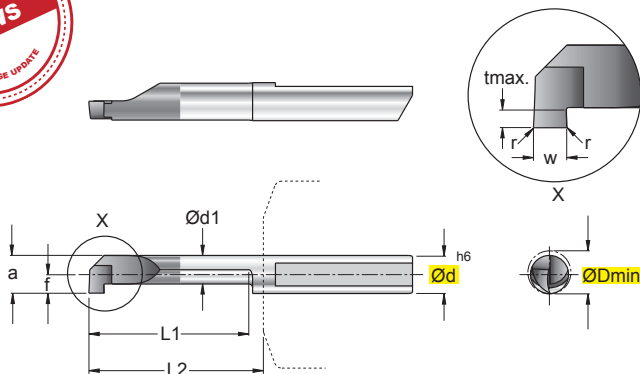
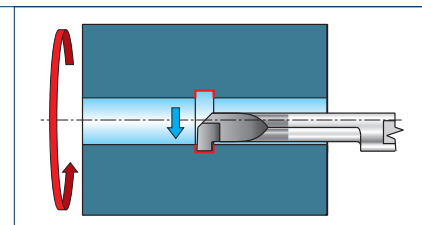
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES

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S102-04...-...R/L

Scanalatura - Grooving



art. S100-TS-04..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List (mm)	ØDmin	Ød	Ød1	f	a	tmax	r	w	L1	L2	P	M	K	N	S	H	HW		HC	
																		N3635	F7835	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS	
* S102-04.0050-020-09.000R/L New	44,40 46,90	2,0	4	1,15	0,85	1,75	0,4	-	0,5	9	13	●	●	○	●	○		■		■	
S102-04.0070-030-08.000R/L	40,30 42,80	3,0	4	1,95	1,35	2,75	0,6	-	0,7	8	13	●	●	○	●	○		■		■	
S102-04.0079-042-10.000R/L New	37,60 40,10	4,2	4	2,95	1,95	3,95	0,8	-	0,79	10	13	●	●	○	●	○		■		■	
S102-04.0100-042-10.000R/L	37,60 40,10	4,2	4	2,95	1,95	3,95	0,8	-	1,0	10	13	●	●	○	●	○		■		■	
* S102-04.0100-042-15.000R/L New	43,20 45,80	4,2	4	2,95	1,95	3,95	0,8	-	1,0	15	18	●	●	○	●	○		■		■	
S102-04.0100-042-20.000R/L	47,40 49,90	4,2	4	2,95	1,95	3,95	0,8	-	1,0	20	23	●	●	○	●	○		■		■	

🇮🇹 * DISPONIBILE DA NOVEMBRE 2021 - 🇬🇧 * AVAILABLE FROM NOVEMBER 2021
🇩🇪 * AB NOVEMBER 2021 LIEFERBAR - 🇫🇷 * DISPONIBLE À PARTIR DE NOVEMBRE 2021

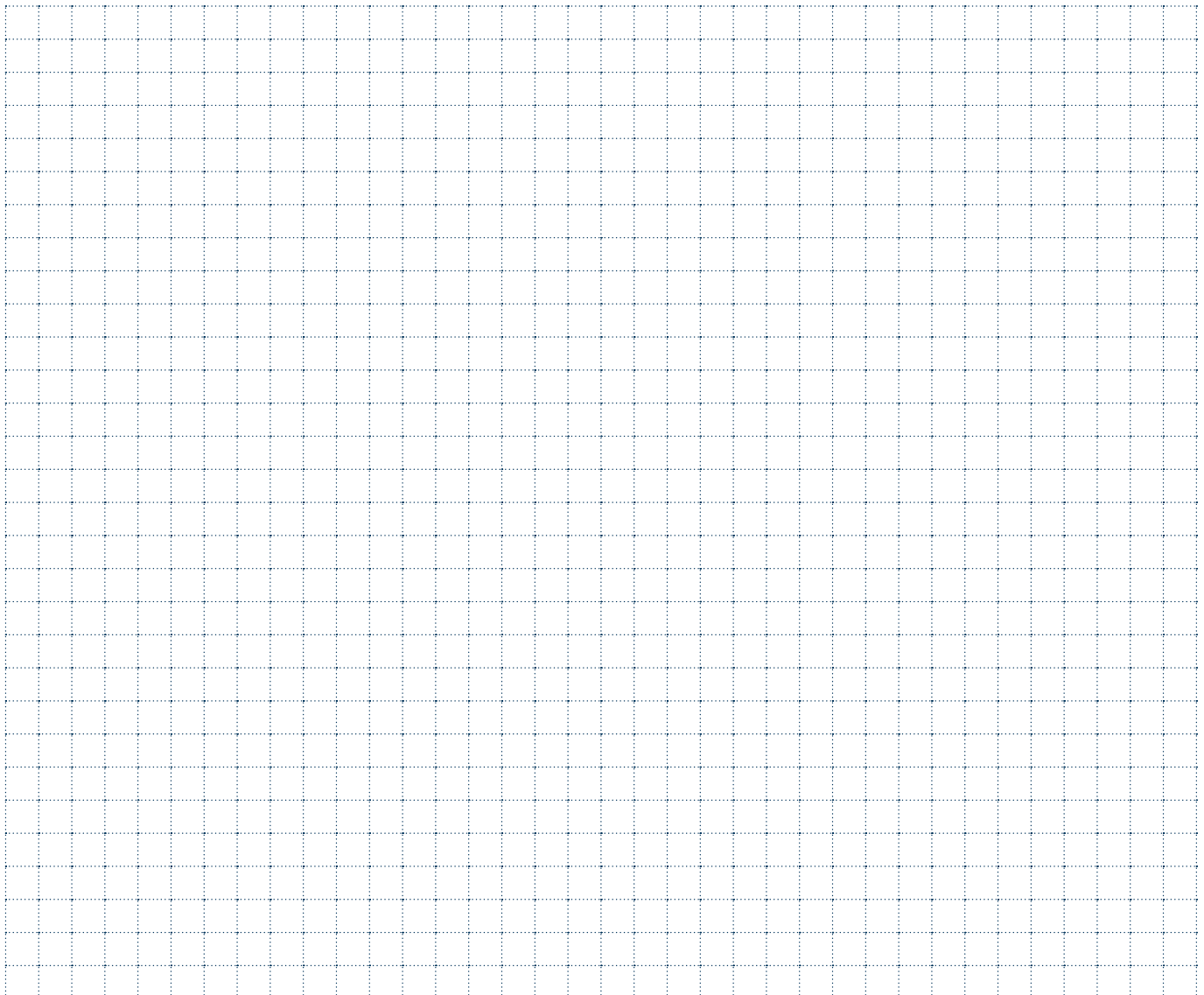
MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fn mm
			N3635	F7835		
P ACCIAIO NON LEGATO - NOT ALLOY STEEL ACCIAIO POCO LEGATO - LOW ALLOY STEEL ACCIAIO ALTO LEGATO - ALLOY STEEL INOX MARTENS. - STAINLESS STEEL MART	1-5	125-300		80-160		0,01-0,03
	6-9	180-350		80-110		0,01-0,03
	10-11	200-325		60-100		0,01-0,03
	12-13	200-240		50-100		0,01-0,03
M INOX AUST. DUPLEX - STAINLESS STEEL AUST GHISA GRIGIA - GREY CAST IRON	14.1-14.2	180-230		20-80		0,01-0,03
	15-16	180-260	30-90	30-150		0,01-0,03
K GHISA SFEROIDALE - SPHEROIDAL GRAPHITE GHISA MALLEABILE - MALLEABLE CAST IRON	17-18	160-250	25-80	30-130		0,01-0,03
	19-20	130-230	30-90	30-100		0,01-0,03
N ALLUMINIO E SUE LEGHE - ALUMINIUM RAME E SUE LEGHE - COPPER NON METALLICI - PLASTICS	21-25	60-130	80-150			0,01-0,03
	26-28	90-110	50-110			0,01-0,03
	29-30	/	20-80			0,01-0,03
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY TITANIO E SUE LEGHE - TITANIUM	31-35	200-320		30-80		0,01-0,03
	36-37	400-1050 ¹⁾		30-80		0,01-0,03
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

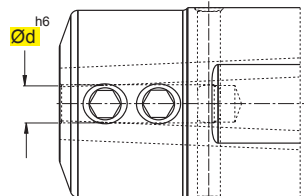
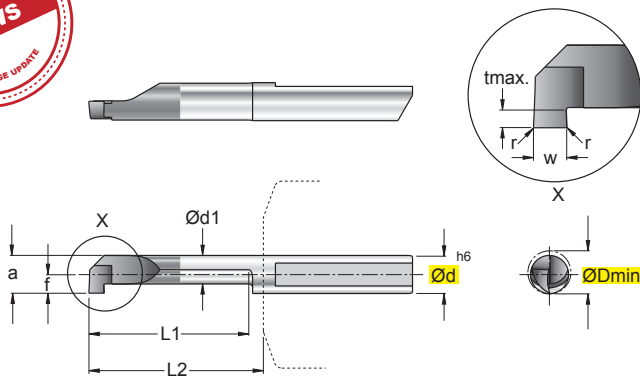
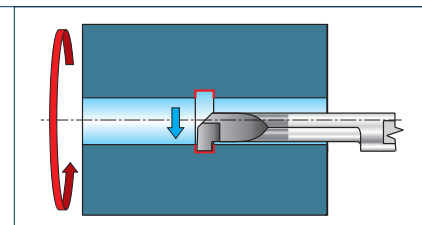
- Vc** = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES



S102-05...-...R/L

Scanalatura - Grooving



art. S100-TS-05..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List (mm)																HW	HC		
		€	ØDmin	Ød	Ød1	f	a	tmax	r	^{+0,03} ₀ w	L1	L2	P	M	K	N	S	H	N3635	F7835
S102-05.0150-050-10.000R/L	35,60 38,20	5,0	5	3,30	1,9	4,40	1,0	-	1,5	10	13	●	●	○	●	○		■		■
S102-05.0079-052-10.000R/L	35,60 38,20	5,2	5	3,75	2,45	4,95	1,0	-	0,79	10	13	●	●	○	●	○		■		■
S102-05.0079-052-20.000R/L	46,70 49,20	5,2	5	3,75	2,45	4,95	1,0	-	0,79	20	23	●	●	○	●	○		■		■
S102-05.0100-052-10.000R/L	35,60 38,20	5,2	5	3,75	2,45	4,95	1,0	-	1,0	10	13	●	●	○	●	○		■		■
S102-05.0100-052-15.000R/L	41,40 43,90	5,2	5	3,75	2,45	4,95	1,0	-	1,0	15	18	●	●	○	●	○		■		■
S102-05.0100-052-20.000R/L	46,70 49,20	5,2	5	3,75	2,45	4,95	1,0	-	1,0	20	23	●	●	○	●	○		■		■
S102-05.0100-052-30.000R/L	58,00 60,50	5,2	5	3,75	2,45	4,95	1,0	-	1,0	30	33	●	●	○	●	○		■		■
S102-05.0150-052-10.000R/L	35,60 38,20	5,2	5	3,75	2,45	4,95	1,0	-	1,5	10	13	●	●	○	●	○		■		■
S102-05.0150-052-15.000R/L <i>New</i>	41,40 43,90	5,2	5	3,75	2,45	4,95	1,0	-	1,5	15	18	●	●	○	●	○		■		■
S102-05.0150-052-20.000R/L	46,70 49,20	5,2	5	3,75	2,45	4,95	1,0	-	1,5	20	23	●	●	○	●	○		■		■
S102-05.0150-052-25.000R/L	52,10 54,60	5,2	5	3,75	2,45	4,95	1,0	-	1,5	25	28	●	●	○	●	○		■		■
S102-05.0150-052-30.000R/L	58,00 60,50	5,2	5	3,75	2,45	4,95	1,0	-	1,5	30	33	●	●	○	●	○		■		■
S102-05.0150-052-35.000R/L	64,00 66,60	5,2	5	3,75	2,45	4,95	1,0	-	1,5	35	38	●	●	○	●	○		■		■
S102-05.0200-052-10.000R/L	35,60 38,20	5,2	5	3,75	2,45	4,95	1,0	-	2,0	10	13	●	●	○	●	○		■		■
S102-05.0200-052-15.000R/L	41,40 43,90	5,2	5	3,75	2,45	4,95	1,0	-	2,0	15	18	●	●	○	●	○		■		■
S102-05.0200-052-20.000R/L	46,70 49,20	5,2	5	3,75	2,45	4,95	1,0	-	2,0	20	23	●	●	○	●	○		■		■
* S102-05.0200-052-25.000R/L <i>New</i>	52,10 54,60	5,2	5	3,75	2,45	4,95	1,0	-	2,0	25	28	●	●	○	●	○		■		■
S102-05.0200-052-30.000R/L	58,00 60,50	5,2	5	3,75	2,45	4,95	1,0	-	2,0	30	33	●	●	○	●	○		■		■

🇮🇹 * DISPONIBILE DA NOVEMBRE 2021 - 🇬🇧 * AVAILABLE FROM NOVEMBER 2021
 🇩🇪 * AB NOVEMBER 2021 LIEFERBAR - 🇫🇷 * DISPONIBLE À PARTIR DE NOVEMBRE 2021

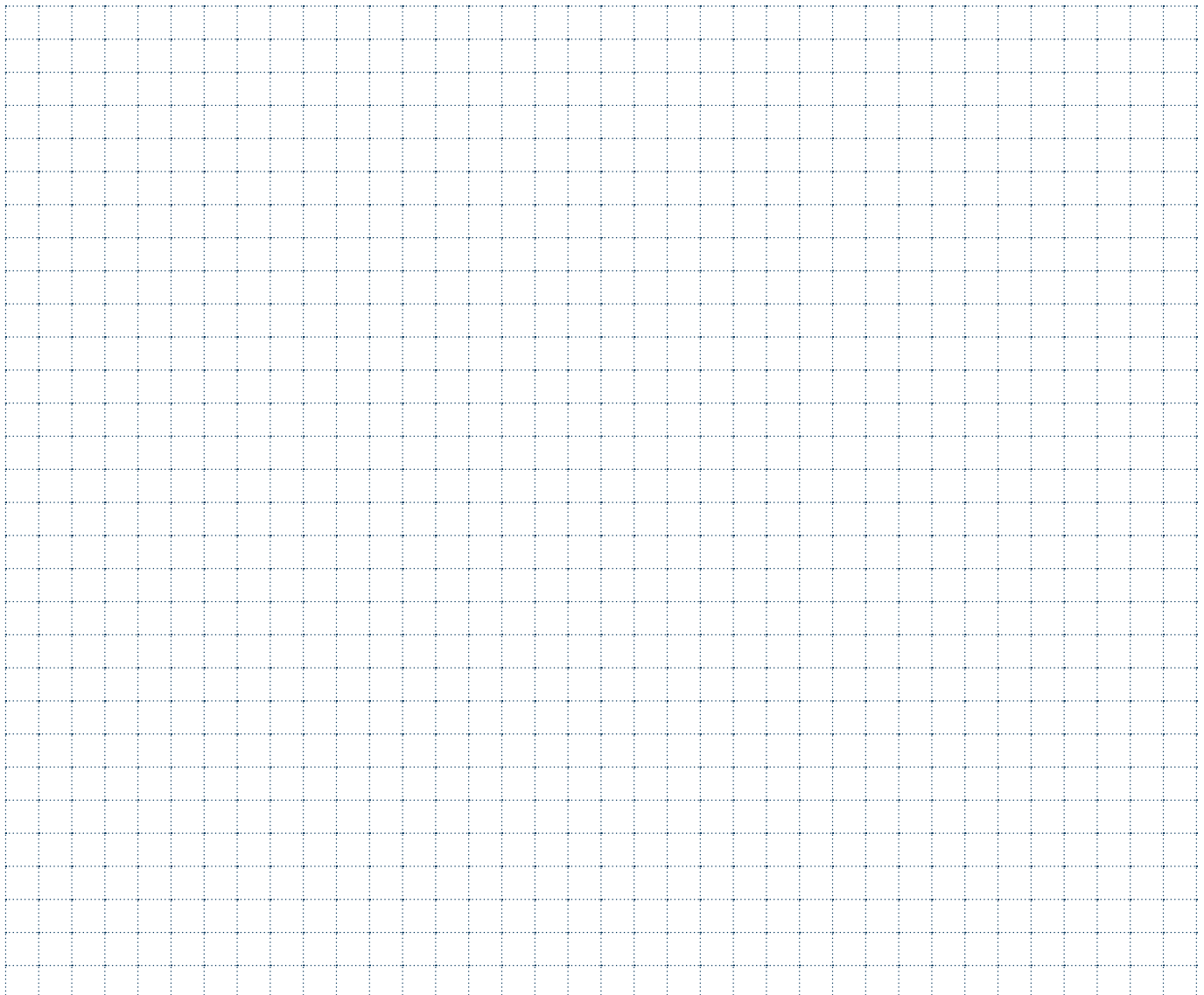
MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fn mm
			N3635	F7835		
P ACCIAIO NON LEGATO - NOT ALLOY STEEL ACCIAIO POCO LEGATO - LOW ALLOY STEEL ACCIAIO ALTO LEGATO - ALLOY STEEL INOX MARTENS. - STAINLESS STEEL MART	1-5	125-300		80-160		0,01-0,03
	6-9	180-350		80-110		0,01-0,03
	10-11	200-325		60-100		0,01-0,03
	12-13	200-240		50-100		0,01-0,03
M INOX AUST. DUPLEX - STAINLESS STEEL AUST GHISA GRIGIA - GREY CAST IRON	14.1-14.2	180-230		20-80		0,01-0,03
	15-16	180-260	30-90	30-150		0,01-0,03
K GHISA SFEROIDALE - SPHEROIDAL GRAPHITE GHISA MALLEABILE - MALLEABLE CAST IRON	17-18	160-250	25-80	30-130		0,01-0,03
	19-20	130-230	30-90	30-100		0,01-0,03
N ALLUMINIO E SUE LEGHE - ALUMINIUM RAME E SUE LEGHE - COPPER NON METALLICI - PLASTICS	21-25	60-130	80-150			0,01-0,03
	26-28	90-110	50-110			0,01-0,03
	29-30	/	20-80			0,01-0,03
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY TITANIO E SUE LEGHE - TITANIUM	31-35	200-320		30-80		0,01-0,03
	36-37	400-1050 ¹⁾		30-80		0,01-0,03
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

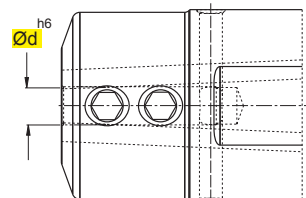
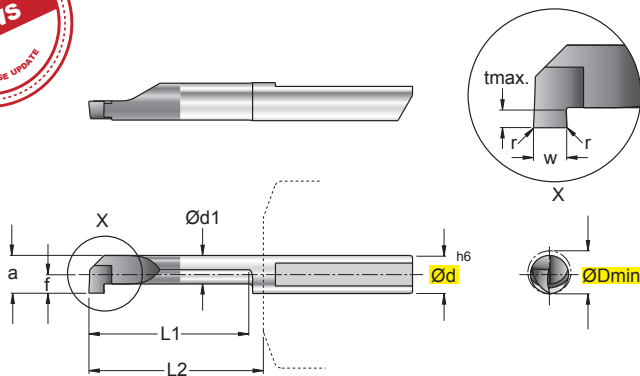
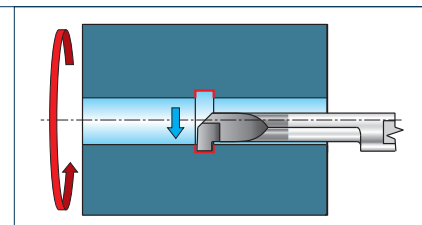
Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES



S102-06...-...R/L

Scanalatura - Grooving



art. S100-TS-06..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List €	(mm)										P	M	K	N	S	H	HW		HC	
		ØDmin	Ød	Ød1	f	a	tmax	r	w	L1	L2							NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS	N3635	F7835
																		^{+0,03} ₀			
S102-06.0100-062-10.000R/L	36,70 39,30	6,2	6	3,95	2,95 5,95	1,8	-	1,0	10	13	●	●	○	●	○		■		■		
S102-06.0100-062-15.000R/L	42,40 45,00	6,2	6	3,95	2,95 5,95	1,8	-	1,0	15	18	●	●	○	●	○		■		■		
S102-06.0100-062-20.000R/L New	47,90 50,40	6,2	6	3,95	2,95 5,95	1,8	-	1,0	20	23	●	●	○	●	○		■		■		
S102-06.0100-062-25.000R/L	53,40 55,90	6,2	6	3,95	2,95 5,95	1,8	-	1,0	25	28	●	●	○	●	○		■		■		
S102-06.0100-062-35.000R/L	64,60 67,10	6,2	6	3,95	2,95 5,95	1,8	-	1,0	35	38	●	●	○	●	○		■		■		
S102-06.0150-062-10.000R/L New	36,70 39,30	6,2	6	3,95	2,95 5,95	1,8	-	1,5	10	13	●	●	○	●	○		■		■		
S102-06.0150-062-15.000R/L	42,40 45,00	6,2	6	3,95	2,95 5,95	1,8	-	1,5	15	18	●	●	○	●	○		■		■		
S102-06.0150-062-20.000R/L New	47,90 50,40	6,2	6	3,95	2,95 5,95	1,8	-	1,5	20	23	●	●	○	●	○		■		■		
S102-06.0150-062-25.000R/L	53,40 55,90	6,2	6	3,95	2,95 5,95	1,8	-	1,5	25	28	●	●	○	●	○		■		■		
S102-06.0150-062-35.000R/L	64,60 67,10	6,2	6	3,95	2,95 5,95	1,8	-	1,5	35	38	●	●	○	●	○		■		■		
S102-06.0200-062-10.000R/L New	36,70 39,30	6,2	6	3,95	2,95 5,95	1,8	-	2,0	10	13	●	●	○	●	○		■		■		
S102-06.0200-062-15.000R/L	42,40 45,00	6,2	6	3,95	2,95 5,95	1,8	-	2,0	15	18	●	●	○	●	○		■		■		
S102-06.0200-062-20.000R/L	47,90 50,40	6,2	6	3,95	2,95 5,95	1,8	-	2,0	20	23	●	●	○	●	○		■		■		
S102-06.0200-062-25.000R/L	53,40 55,90	6,2	6	3,95	2,95 5,95	1,8	-	2,0	25	28	●	●	○	●	○		■		■		
S102-06.0200-062-30.000R/L New	59,60 62,10	6,2	6	3,95	2,95 5,95	1,8	-	2,0	30	33	●	●	○	●	○		■		■		
S102-06.0200-062-35.000R/L	64,60 67,10	6,2	6	3,95	2,95 5,95	1,8	-	2,0	35	38	●	●	○	●	○		■		■		

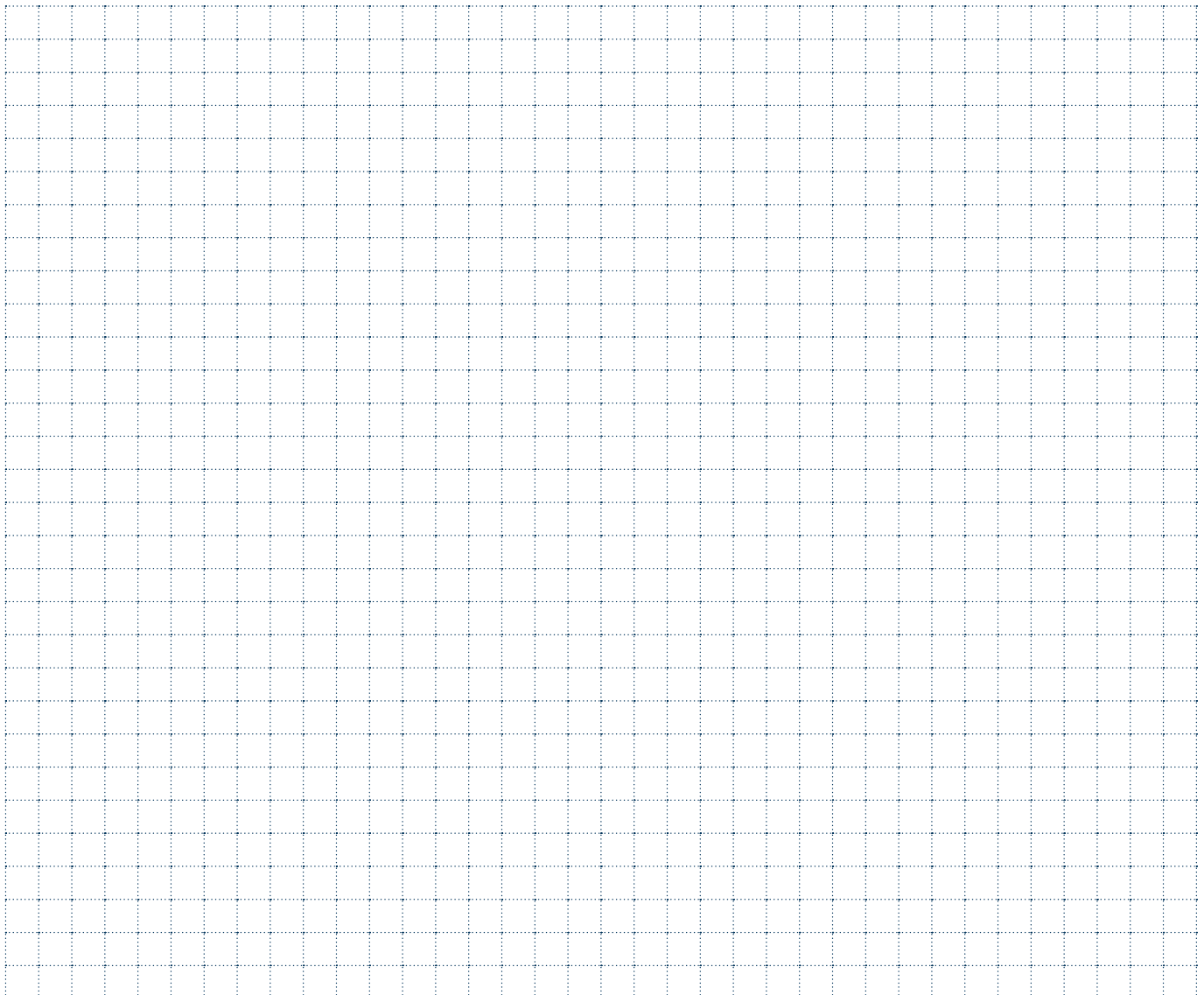
MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min				fn mm
			N3635	F7835			
P ACCIAIO NON LEGATO - NOT ALLOY STEEL ACCIAIO POCO LEGATO - LOW ALLOY STEEL ACCIAIO ALTO LEGATO - ALLOY STEEL INOX MARTENS. - STAINLESS STEEL MART	1-5	125-300		80-160			0,01-0,03
	6-9	180-350		80-110			0,01-0,03
	10-11	200-325		60-100			0,01-0,03
	12-13	200-240		50-100			0,01-0,03
M INOX AUST. DUPLEX - STAINLESS STEEL AUST GHISA GRIGIA - GREY CAST IRON	14.1-14.2	180-230		20-80			0,01-0,03
	15-16	180-260	30-90	30-150			0,01-0,03
K GHISA SFEROIDALE - SPHEROIDAL GRAPHITE GHISA MALLEABILE - MALLEABLE CAST IRON	17-18	160-250	25-80	30-130			0,01-0,03
	19-20	130-230	30-90	30-100			0,01-0,03
N ALLUMINIO E SUE LEGHE - ALUMINIUM RAME E SUE LEGHE - COPPER NON METALLICI - PLASTICS	21-25	60-130	80-150				0,01-0,03
	26-28	90-110	50-110				0,01-0,03
	29-30	/	20-80				0,01-0,03
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY TITANIO E SUE LEGHE - TITANIUM	31-35	200-320		30-80			0,01-0,03
	36-37	400-1050 ¹⁾		30-80			0,01-0,03
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾					

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

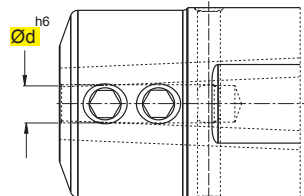
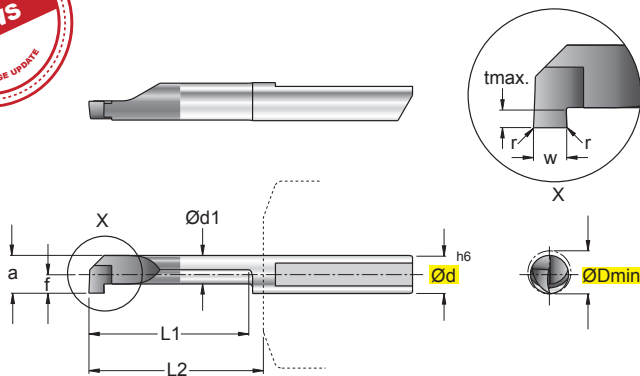
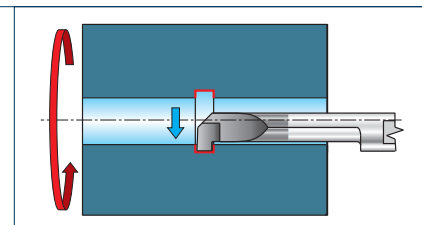
- Vc** = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES



S102-07...-...R/L

Scanalatura - Grooving



art. S100-TS-07..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List (mm)	ØDmin	Ød	Ød1	f	a	tmax	r	^{+0,03} ₀ w	L1	L2	P	M	K	N	S	H	HW		HC	
																		NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS	N3635	F7835
S102-07.0100-072-15.000R/L	44,10 46,60	7,2	7	4,25	3,45	6,95	2,5	-	1,0	15	18	●	●	○	●	○		■		■	
S102-07.0100-072-20.000R/L New	49,80 52,40	7,2	7	4,25	3,45	6,95	2,5	-	1,0	20	23	●	●	○	●	○		■		■	
S102-07.0100-072-25.000R/L	55,60 58,20	7,2	7	4,25	3,45	6,95	2,5	-	1,0	25	28	●	●	○	●	○		■		■	
S102-07.0100-072-35.000R/L	67,30 69,80	7,2	7	4,25	3,45	6,95	2,5	-	1,0	35	38	●	●	○	●	○		■		■	
S102-07.0150-072-10.000R/L New	38,30 40,80	7,2	7	4,25	3,45	6,95	2,5	-	1,5	10	13	●	●	○	●	○		■		■	
S102-07.0150-072-15.000R/L	44,10 46,60	7,2	7	4,25	3,45	6,95	2,5	-	1,5	15	18	●	●	○	●	○		■		■	
* S102-07.0150-072-20.000R/L New	49,80 52,40	7,2	7	4,25	3,45	6,95	2,5	-	1,5	20	23	●	●	○	●	○		■		■	
S102-07.0150-072-25.000R/L	55,60 58,20	7,2	7	4,25	3,45	6,95	2,5	-	1,5	25	28	●	●	○	●	○		■		■	
* S102-07.0150-072-30.000R/L New	61,40 63,90	7,2	7	4,25	3,45	6,95	2,5	-	1,5	30	33	●	●	○	●	○		■		■	
S102-07.0150-072-35.000R/L	67,30 69,80	7,2	7	4,25	3,45	6,95	2,5	-	1,5	35	38	●	●	○	●	○		■		■	
S102-07.0150-072-40.000R/L New	73,00 75,50	7,2	7	4,25	3,45	6,95	2,5	-	1,5	40	43	●	●	○	●	○		■		■	
S102-07.0157-072-10.000R/L	38,30 40,80	7,2	7	4,25	3,45	6,95	2,5	-	1,57	10	13	●	●	○	●	○		■		■	
S102-07.0200-072-10.000R/L	38,30 40,80	7,2	7	4,25	3,45	6,95	2,5	-	2,0	10	13	●	●	○	●	○		■		■	
S102-07.0200-072-15.000R/L	44,10 46,60	7,2	7	4,25	3,45	6,95	2,5	-	2,0	15	18	●	●	○	●	○		■		■	
S102-07.0200-072-20.000R/L	49,80 52,40	7,2	7	4,25	3,45	6,95	2,5	-	2,0	20	23	●	●	○	●	○		■		■	
S102-07.0200-072-25.000R/L	55,60 58,20	7,2	7	4,25	3,45	6,95	2,5	-	2,0	25	28	●	●	○	●	○		■		■	
S102-07.0200-072-30.000R/L	61,40 63,90	7,2	7	4,25	3,45	6,95	2,5	-	2,0	30	33	●	●	○	●	○		■		■	
S102-07.0200-072-35.000R/L	67,30 69,80	7,2	7	4,25	3,45	6,95	2,5	-	2,0	35	38	●	●	○	●	○		■		■	

🇮🇹 * DISPONIBILE DA NOVEMBRE 2021 - 🇬🇧 * AVAILABLE FROM NOVEMBER 2021
 🇩🇪 * AB NOVEMBER 2021 LIEFERBAR - 🇫🇷 * DISPONIBLE À PARTIR DE NOVEMBRE 2021

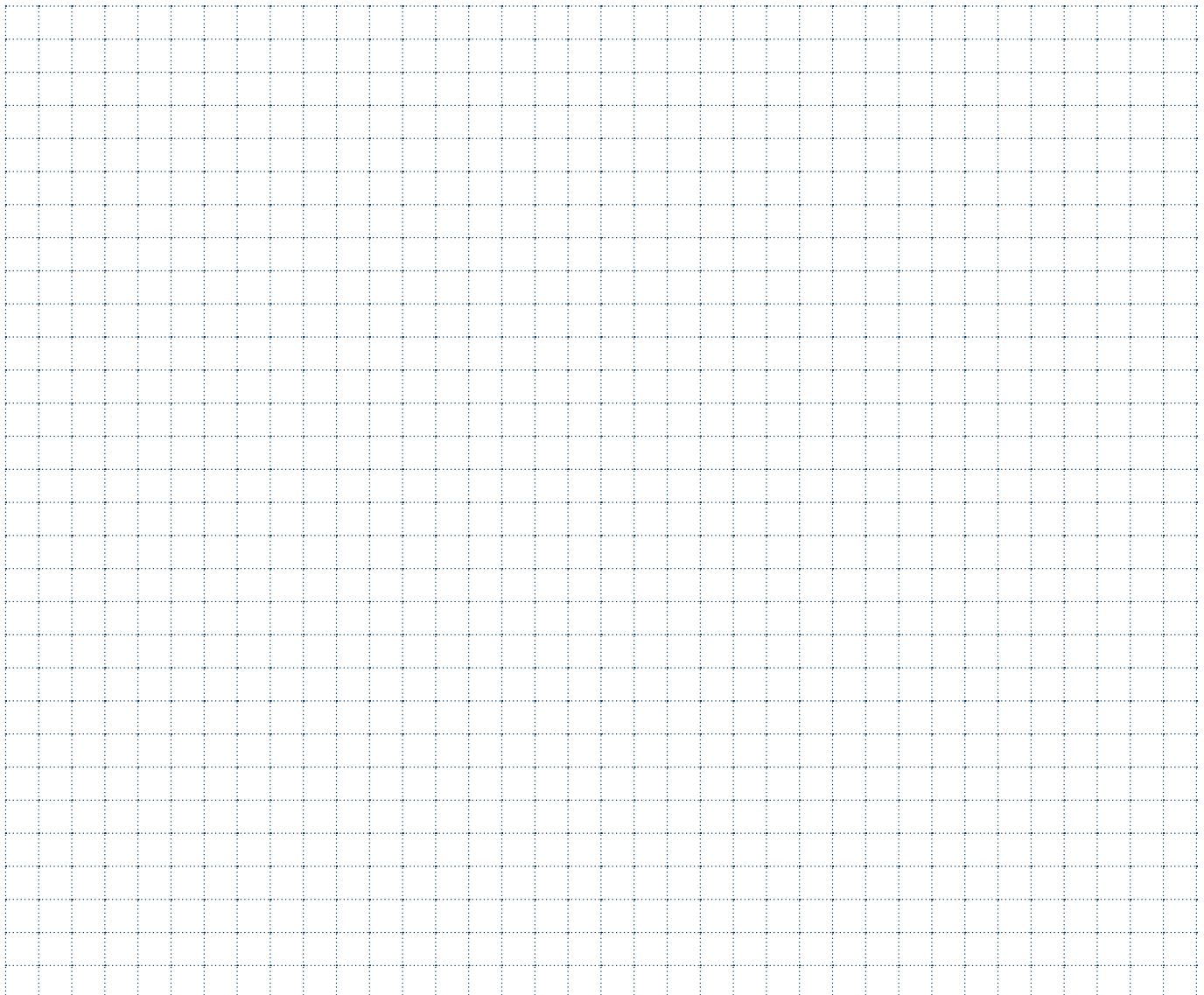
MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min				fn mm
			N3635	F7835			
P ACCIAIO NON LEGATO - NOT ALLOY STEEL ACCIAIO POCO LEGATO - LOW ALLOY STEEL ACCIAIO ALTO LEGATO - ALLOY STEEL INOX MARTENS. - STAINLESS STEEL MART	1-5	125-300		80-160			0,01-0,03
	6-9	180-350		80-110			0,01-0,03
	10-11	200-325		60-100			0,01-0,03
	12-13	200-240		50-100			0,01-0,03
M INOX AUST. DUPLEX - STAINLESS STEEL AUST GHISA GRIGIA - GREY CAST IRON	14.1-14.2	180-230		20-80			0,01-0,03
	15-16	180-260	30-90	30-150			0,01-0,03
K GHISA SFEROIDALE - SPHEROIDAL GRAPHITE GHISA MALLEABILE - MALLEABLE CAST IRON	17-18	160-250	25-80	30-130			0,01-0,03
	19-20	130-230	30-90	30-100			0,01-0,03
N ALLUMINIO E SUE LEGHE - ALUMINIUM RAME E SUE LEGHE - COPPER NON METALLICI - PLASTICS	21-25	60-130	80-150				0,01-0,03
	26-28	90-110	50-110				0,01-0,03
	29-30	/	20-80				0,01-0,03
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY TITANIO E SUE LEGHE - TITANIUM	31-35	200-320		30-80			0,01-0,03
	36-37	400-1050 ¹⁾		30-80			0,01-0,03
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾					

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

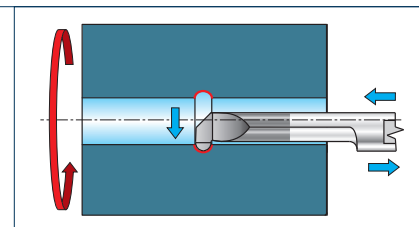
Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES

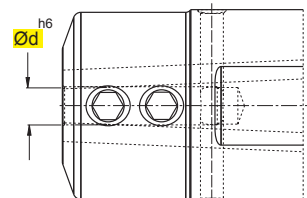
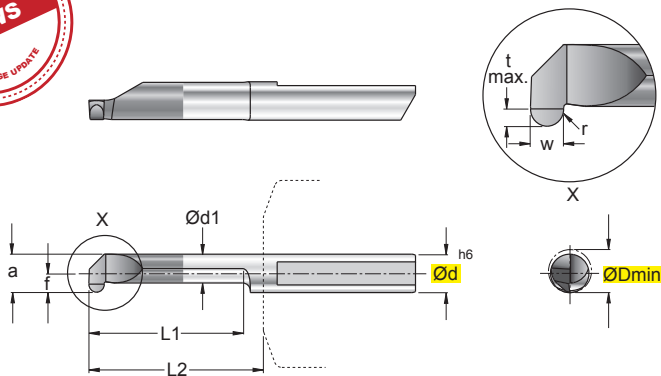


S102-...R...-...R/L

Scanalatura - Grooving



NEW



art. S100-TS-..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List €	(mm)										P	M	K	N	S	H	HW		HC	
		ØDmin	Ød	Ød1	f	a	tmax	r	^{+0,03} ₀ w	L1	L2							N3635	F7835		
S102-04.R100-042-15.050R/L New	44,40 46,90	4,2	4	2,95	1,95	3,95	0,8	0,5	1	15	18	●	●	●	●	○		■		■	
S102-05.R100-052-20.050R/L	45,20 47,70	5,2	5	3,75	2,45	4,95	1,0	0,5	1	20	23	●	●	●	●	○		■		■	
S102-05.R200-052-20.100R/L	45,20 47,70	5,2	5	3,75	2,45	4,95	1,0	1,0	2	20	23	●	●	●	●	○		■		■	
S102-06.R100-062-25.050R/L	52,80 55,30	6,2	6	3,95	2,95	5,95	1,8	0,5	1	25	28	●	●	●	●	○		■		■	
S102-06.R150-062-25.075R/L New	52,80 55,30	6,2	6	3,95	2,95	5,95	1,8	0,75	1,5	25	28	●	●	●	●	○		■		■	
S102-06.R200-062-20.100R/L New	52,80 55,30	6,2	6	3,95	2,95	5,95	1,8	1,0	2	20	23	●	●	●	●	○		■		■	
S102-06.R200-062-25.100R/L	54,70 57,20	6,2	6	3,95	2,95	5,95	1,8	1,0	2	25	28	●	●	●	●	○		■		■	
S102-07.R100-072-30.050R/L New	62,60 65,20	7,2	7	4,25	3,45	6,95	2,5	0,5	1	30	33	●	●	●	●	○		■		■	
S102-07.R150-072-30.075R/L New	62,60 65,20	7,2	7	4,25	3,45	6,95	2,5	0,75	1,5	30	33	●	●	●	●	○		■		■	
S102-07.R200-072-30.100R/L New	62,60 65,20	7,2	7	4,25	3,45	6,95	2,5	1,0	2	30	33	●	●	●	●	○		■		■	

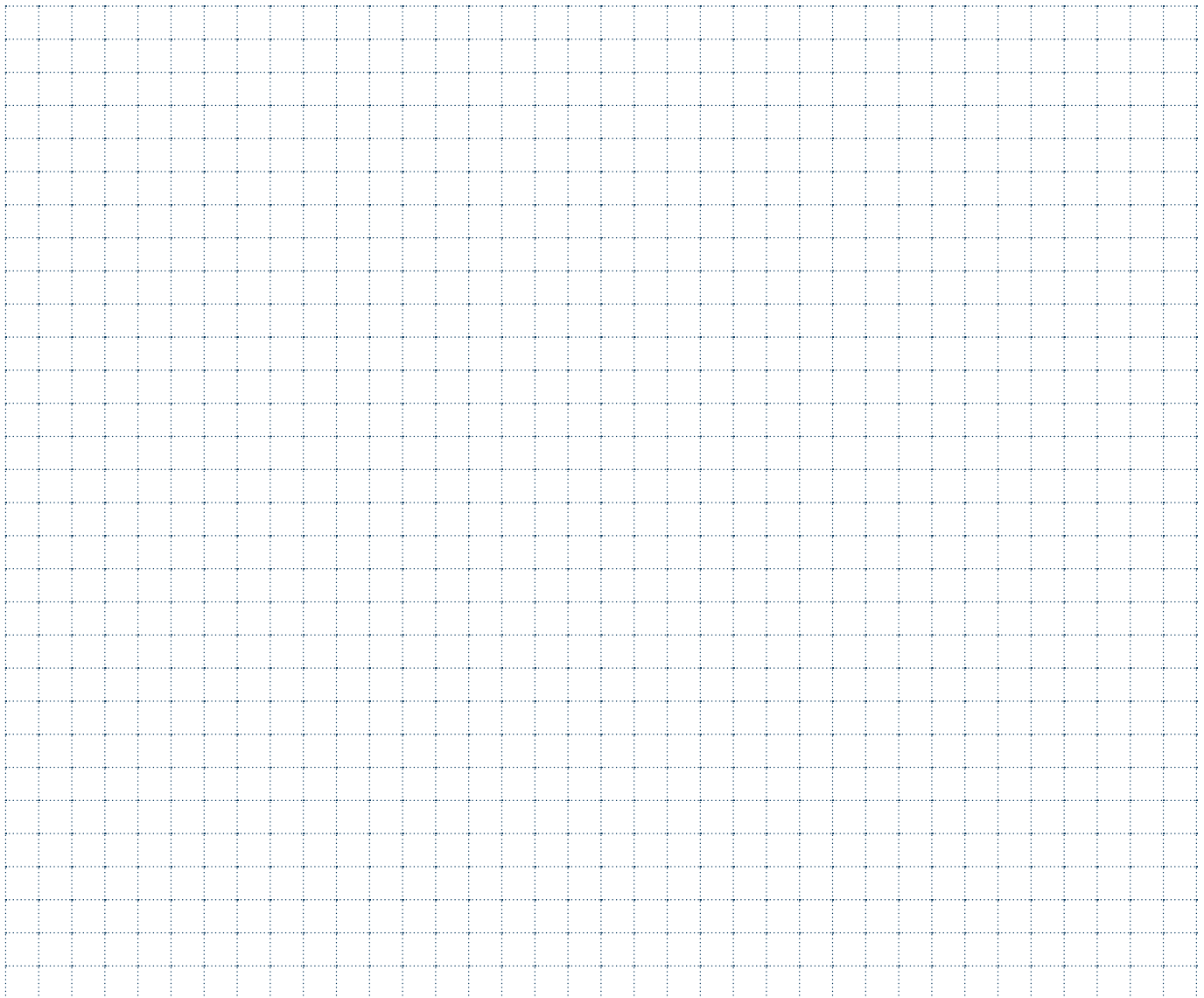
MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fn mm
			N3635	F7835		
P ACCIAIO NON LEGATO - NOT ALLOY STEEL	1-5	125-300		80-160		0,01-0,03
	6-9	180-350		80-110		0,01-0,03
	10-11	200-325		60-100		0,01-0,03
	12-13	200-240		50-100		0,01-0,03
M INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230		20-80		0,01-0,03
K GHISA GRIGIA - GREY CAST IRON	15-16	180-260	30-90	30-150		0,01-0,03
	17-18	160-250	25-80	30-130		0,01-0,03
	19-20	130-230	30-90	30-100		0,01-0,03
N ALLUMINIO E SUE LEGHE - ALUMINIUM	21-25	60-130	80-150			0,01-0,03
	26-28	90-110	50-110			0,01-0,03
	29-30	/	20-80			0,01-0,03
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31-35	200-320		30-80		0,01-0,03
	36-37	400-1050 ¹⁾		30-80		0,01-0,03
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

- Vc** = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

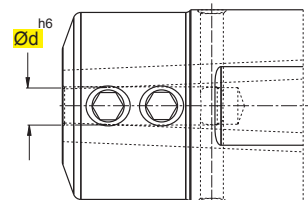
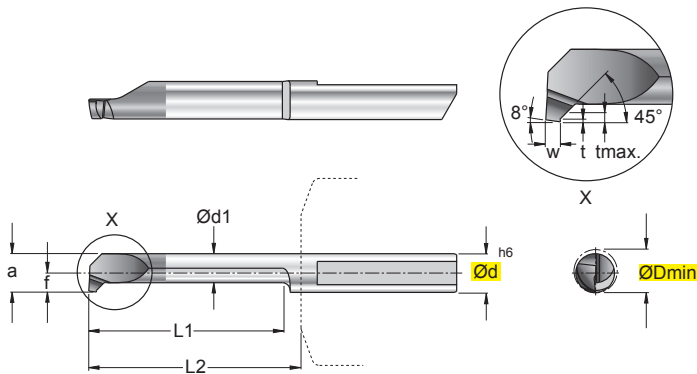
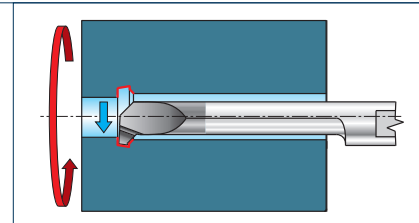
NOTE - NOTES



S105-...0100-...000R/L

**Pretaglio e smussatura
Pre-part-Off and Chamfering**

NEW



art. S100-TS...

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List €	(mm)											P	M	K	N	S	H	HW		HC		
		ØDmin	Ød	Ød1	f	a	t	tmax	w	L1	L2	L							R	NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOURVERTS	N3635	F7835
																				NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOURVERTS		
S105-04.0100-037-10.000R/L	38,60 41,10	3,7	4	2,45	1,7	3,45	0,2	0,7	1	10	13	●	●	○	●	○	■	■	■	■			
S105-04.0100-037-15.000R/L	43,90 46,50	3,7	4	2,45	1,7	3,45	0,2	0,7	1	15	18	●	●	○	●	○	■	■	■	■			
S105-04.0100-042-20.000R/L	48,70 51,30	4,2	4	2,95	1,95	3,95	0,2	0,7	1	20	23	●	●	○	●	○	■	■	■	■			
S105-05.0100-052-15.000R/L	44,40 46,90	5,2	5	3,75	2,45	4,95	0,2	0,7	1	15	18	●	●	○	●	○	■	■	■	■			
S105-05.0100-052-20.000R/L	49,60 52,20	5,2	5	3,75	2,45	4,95	0,2	0,7	1	20	23	●	●	○	●	○	■	■	■	■			
S105-05.0100-052-25.000R/L	55,00 57,60	5,2	5	3,75	2,45	4,95	0,2	0,7	1	25	28	●	●	○	●	○	■	■	■	■			
S105-05.0100-052-30.000R/L	60,40 62,90	5,2	5	3,75	2,45	4,95	0,2	0,7	1	30	33	●	●	○	●	○	■	■	■	■			
S105-06.0100-062-30.000R/L	61,00 63,50	6,2	6	3,95	2,95	5,95	0,2	0,7	1	30	33	●	●	○	●	○	■	■	■	■			
S105-06.0100-062-40.000R/L	71,70 74,20	6,2	6	3,95	2,95	5,95	0,2	0,7	1	40	43	●	●	○	●	○	■	■	■	■			

■ DISPONIBILI - IN STOCK - LIEFERBAR - DISPONIBLES / ■ NEW
●● APPLICAZIONE CONSIGLIATA-RECOMMENDED APPLICATION
EMPFOLLENER EINSATZ - APPLICATION CONSEILLÉE

□ A RICHIESTA - ON REQUEST - AUF ANFRAGE - SUR DEMANDE / □ NEW
○● APPLICAZIONE POSSIBILE - POSSIBLE APPLICATION
MÖGLICHE ANWENDUNG - APPLICATION POSSIBLE

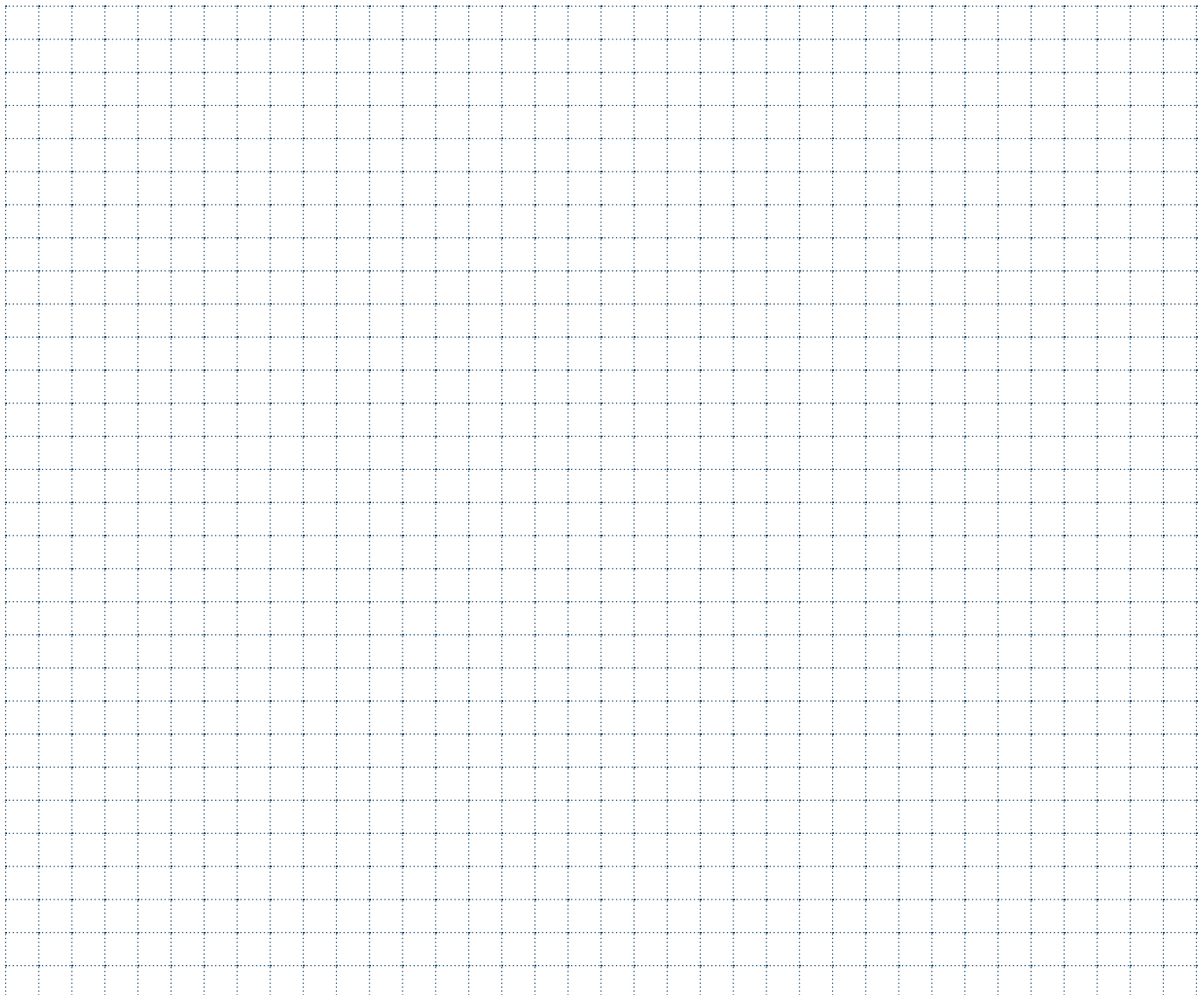
MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fz mm
			N3635	F7835		
P ACCIAIO NON LEGATO - NOT ALLOY STEEL ACCIAIO POCO LEGATO - LOW ALLOY STEEL ACCIAIO ALTO LEGATO - ALLOY STEEL INOX MARTENS. - STAINLESS STEEL MART	1-5	125-300		80-160		0,01-0,03
	6-9	180-350		80-110		0,01-0,03
	10-11	200-325		60-100		0,01-0,03
	12-13	200-240		50-100		0,01-0,03
M INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230		20-80		0,01-0,03
K GHISA GRIGIA - GREY CAST IRON GHISA SFEROIDALE - SPHEROIDAL GRAPHITE GHISA MALLEABILE - MALLEABLE CAST IRON	15-16	180-260	30-90	30-150		0,01-0,03
	17-18	160-250	25-80	30-130		0,01-0,03
	19-20	130-230	30-90	30-100		0,01-0,03
N ALLUMINIO E SUE LEGHE - ALUMINIUM RAME E SUE LEGHE - COPPER NON METALLICI - PLASTICS	21-25	60-130	80-150			0,01-0,03
	26-28	90-110	50-110			0,01-0,03
	29-30	/	20-80			0,01-0,03
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY TITANIO E SUE LEGHE - TITANIUM	31-35	200-320		30-80		0,01-0,03
	36-37	400-1050 ¹⁾		30-80		0,01-0,03
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

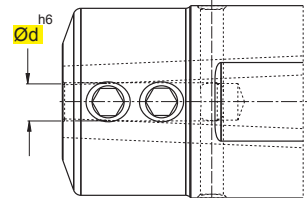
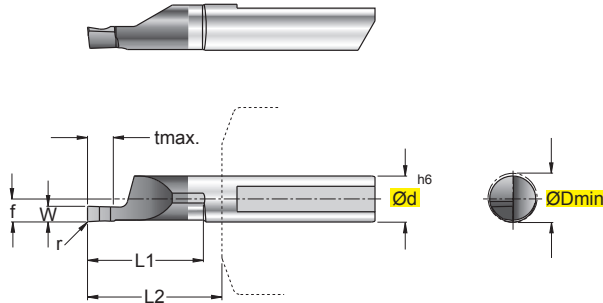
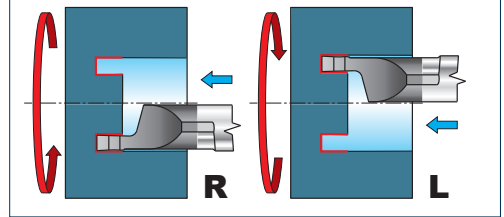
Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES



S103-06...-I62-15.015R/L

Scanalatura Frontale - Face Grooving



art. S100-TS-06..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List €	Ø (mm)		f	tmax	r	w ^{+0,05 0}	L1	L2	P	M	K	N	S	H	HW		HC	
		ØDmin	Ød													N3635	F7835	NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS
S103-06.0100-I62-15.015R/L	55,70 58,30	6,2	6	2,95	2	0,15	1,0	15	18	●	●	○	●	○		■		■	
S103-06.0150-I62-15.015R/L	55,70 58,30	6,2	6	2,95	3	0,15	1,5	15	18	●	●	○	●	○		■		■	
S103-06.0200-I62-15.015R/L	55,70 58,30	6,2	6	2,95	4	0,15	2,0	15	18	●	●	○	●	○		■		■	
S103-06.0239-I62-15.015R/L	55,70 58,30	6,2	6	2,95	5	0,15	2,39	15	18	●	●	○	●	○		■		■	
S103-06.0250-I62-15.015R/L	55,70 58,30	6,2	6	2,95	5	0,15	2,5	15	18	●	●	○	●	○		■		■	
S103-06.0300-I62-15.015R/L	55,70 58,30	6,2	6	2,95	6	0,15	3,0	15	18	●	●	○	●	○		■		■	

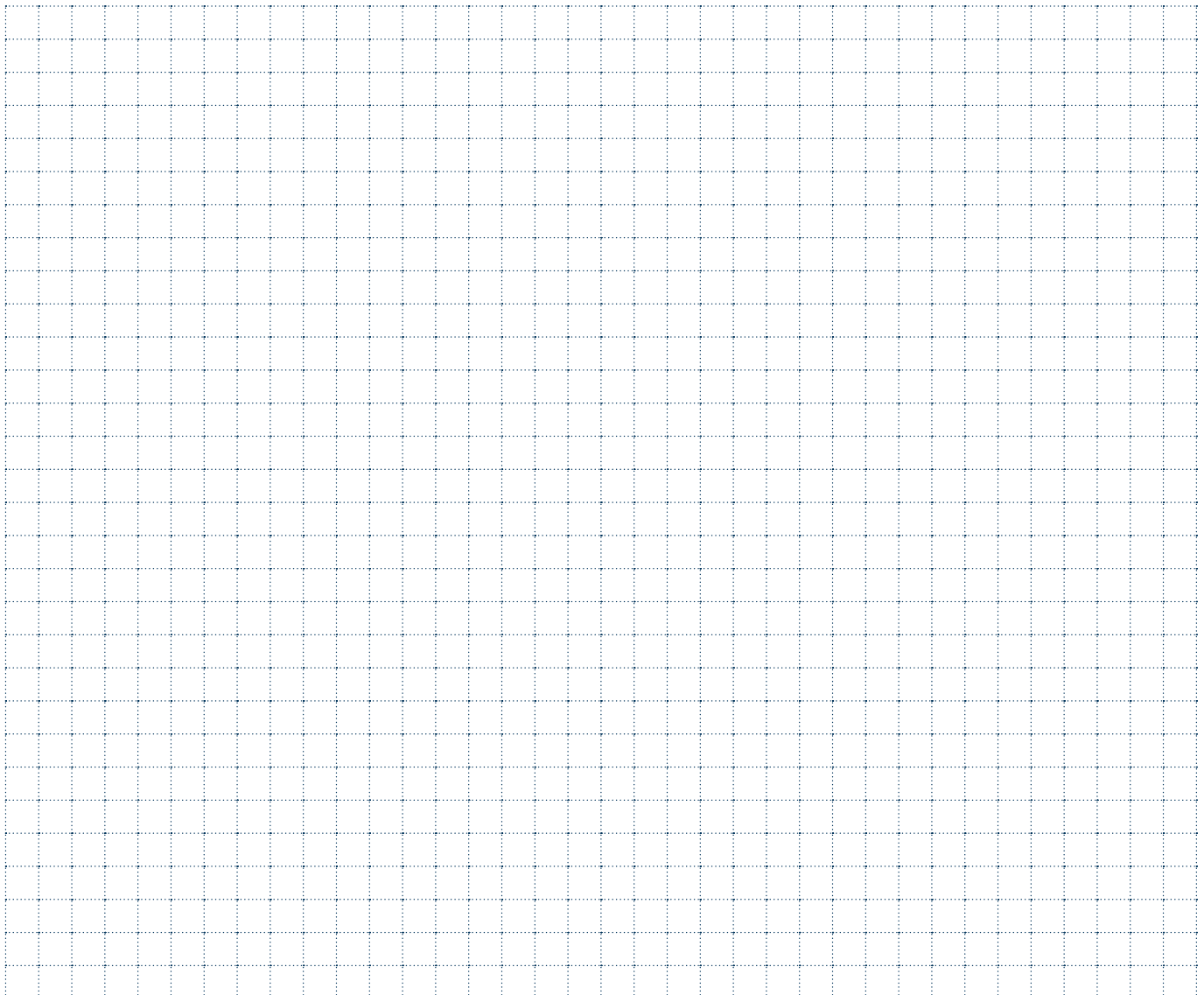
MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fn mm
			N3635	F7835		
P ACCIAIO NON LEGATO - NOT ALLOY STEEL ACCIAIO POCO LEGATO - LOW ALLOY STEEL ACCIAIO ALTO LEGATO - ALLOY STEEL INOX MARTENS. - STAINLESS STEEL MART	1-5	125-300		80-160		0,01-0,05
	6-9	180-350		80-110		0,01-0,05
	10-11	200-325		60-100		0,01-0,05
	12-13	200-240		50-100		0,01-0,05
M INOX AUST. DUPLEX - STAINLESS STEEL AUST GHISA GRIGIA - GREY CAST IRON	14.1-14.2	180-230		20-80		0,01-0,05
	15-16	180-260	30-90	30-150		0,01-0,05
K GHISA SFEROIDALE - SPHEROIDAL GRAPHITE GHISA MALLEABILE - MALLEABLE CAST IRON	17-18	160-250	25-80	30-130		0,01-0,05
	19-20	130-230	30-90	30-100		0,01-0,05
N ALLUMINIO E SUE LEGHE - ALUMINIUM RAME E SUE LEGHE - COPPER NON METALLICI - PLASTICS	21-25	60-130	80-150			0,01-0,05
	26-28	90-110	50-110			0,01-0,05
	29-30	/	20-80			0,01-0,05
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY TITANIO E SUE LEGHE - TITANIUM	31-35	200-320		30-80		0,01-0,05
	36-37	400-1050 ¹⁾		30-80		0,01-0,05
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

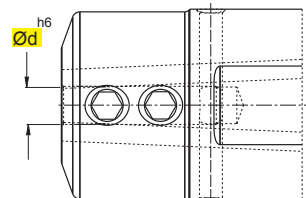
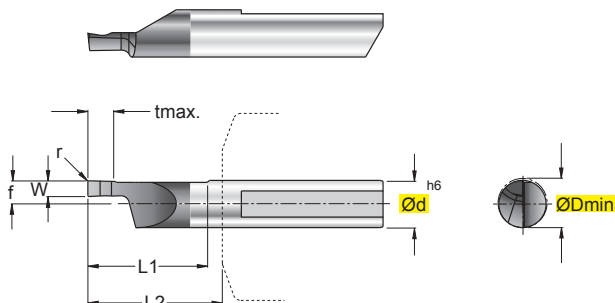
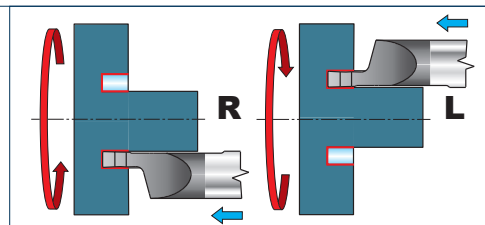
$$Vf = fn \cdot n = \text{mm/min}$$

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES



S103-06...-E62-15.015R/L Scanalatura Frontale - Face Grooving



art. S100-TS-06..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List €	(mm)								P	M	K	N	S	H	HW		HC	
		ØDmin	Ød	f	tmax	r	^{+0.05} / ₀ w	L1	L2							NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS		
S103-06.0100-E62-15.015R/L	55,70 58,30	6,2	6	2,95	2	0,15	1,0	15	18	●	●	○	●	○		■		■	
S103-06.0150-E62-15.015R/L	55,70 58,30	6,2	6	2,95	3	0,15	1,5	15	18	●	●	○	●	○		■		■	
S103-06.0200-E62-15.015R/L	55,70 58,30	6,2	6	2,95	4	0,15	2,0	15	18	●	●	○	●	○		■		■	
S103-06.0239-E62-15.015R/L	55,70 58,30	6,2	6	2,95	5	0,15	2,39	15	18	●	●	○	●	○		■		■	
S103-06.0250-E62-15.015R/L	55,70 58,30	6,2	6	2,95	5	0,15	2,5	15	18	●	●	○	●	○		■		■	
S103-06.0300-E62-15.015R/L	55,70 58,30	6,2	6	2,95	6	0,15	3,0	15	18	●	●	○	●	○		■		■	

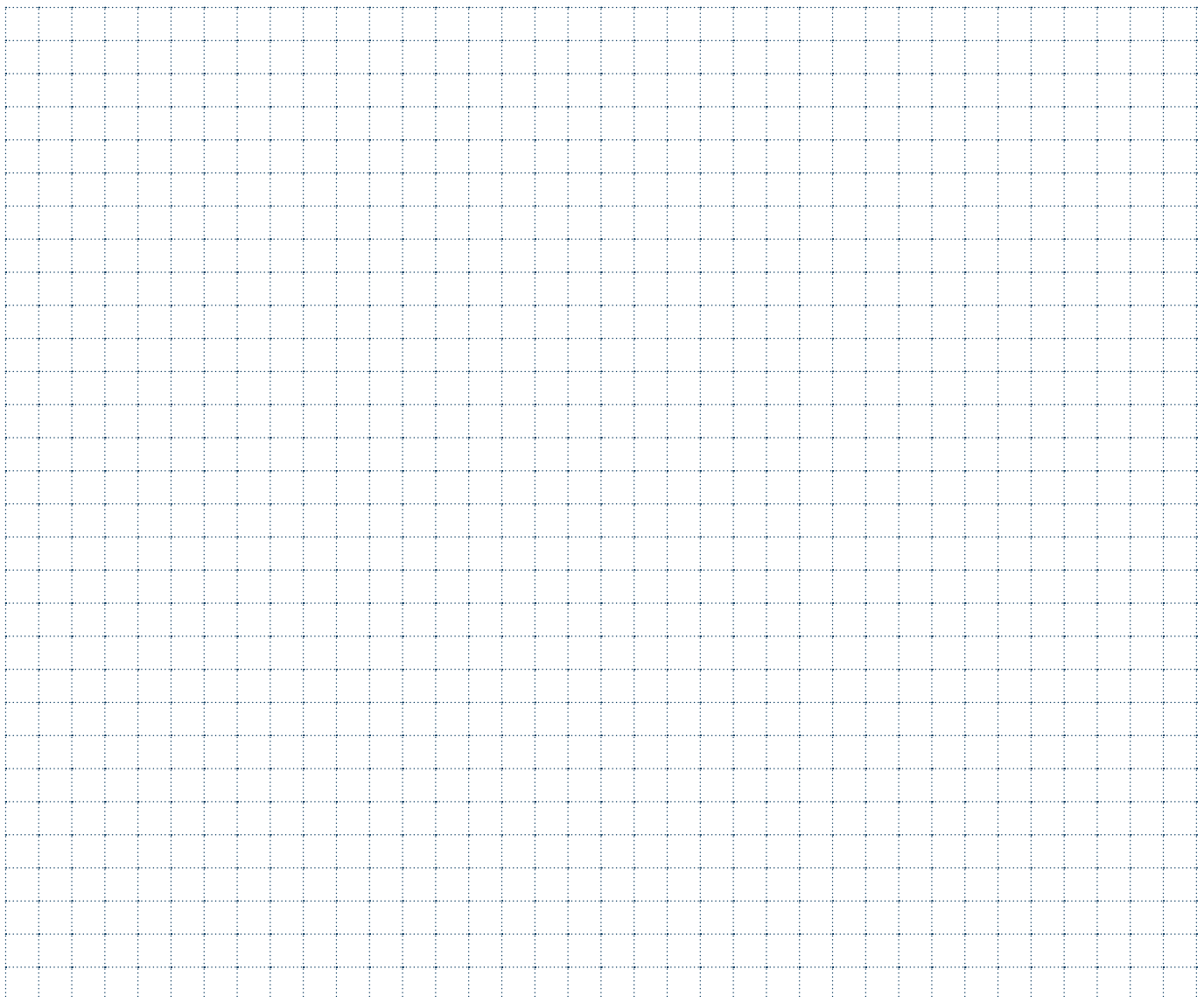
MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fn mm
			N3635	F7835		
P ACCIAIO NON LEGATO - NOT ALLOY STEEL ACCIAIO POCO LEGATO - LOW ALLOY STEEL ACCIAIO ALTO LEGATO - ALLOY STEEL INOX MARTENS. - STAINLESS STEEL MART	1-5	125-300		80-160		0,01-0,05
	6-9	180-350		80-110		0,01-0,05
	10-11	200-325		60-100		0,01-0,05
	12-13	200-240		50-100		0,01-0,05
M INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230		20-80		0,01-0,05
K GHISA GRIGIA - GREY CAST IRON GHISA SFEROIDALE - SPHEROIDAL GRAPHITE GHISA MALLEABILE - MALLEABLE CAST IRON	15-16	180-260	30-90	30-150		0,01-0,05
	17-18	160-250	25-80	30-130		0,01-0,05
	19-20	130-230	30-90	30-100		0,01-0,05
N ALLUMINIO E SUE LEGHE - ALUMINIUM RAME E SUE LEGHE - COPPER NON METALLICI - PLASTICS	21-25	60-130	80-150			0,01-0,05
	26-28	90-110	50-110			0,01-0,05
	29-30	/	20-80			0,01-0,05
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY TITANIO E SUE LEGHE - TITANIUM	31-35	200-320		30-80		0,01-0,05
	36-37	400-1050 ¹⁾		30-80		0,01-0,05
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

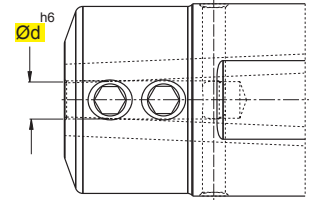
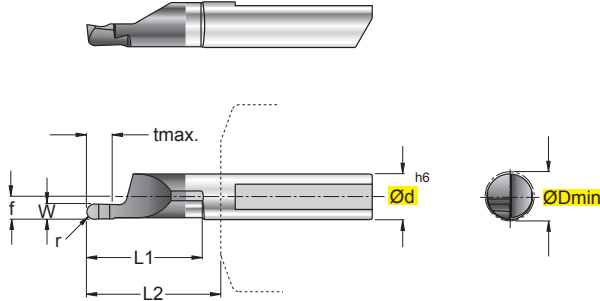
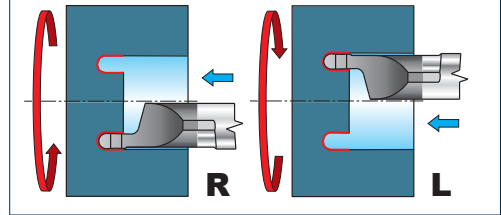
- Vc** = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES



S103-06.R...-I62-15...R/L

Scanalatura Frontale - Face Grooving



art. S100-TS-06..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List €	(mm)									P	M	K	N	S	H	HW		HC		
		ØDmin	Ød	f	tmax	r	w ^{+0.05/0}	L1	L2	N3635							F7835	NON RIV. CEMENTED CARBIDE GRADES		RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS	
S103-06.R100-I62-15.050R/L	56,80 59,40	6,2	6	2,95	2	0,5	1	15	18	●	●	○	●	○		■		■			
S103-06.R160-I62-15.080R/L	56,80 59,40	6,2	6	2,95	3	0,8	1,6	15	18	●	●	○	●	○		■		■			
S103-06.R200-I62-15.100R/L	56,80 59,40	6,2	6	2,95	4	1,0	2	15	18	●	●	○	●	○		■		■			

MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fn mm
			N3635	F7835		
P ACCIAIO NON LEGATO - NOT ALLOY STEEL ACCIAIO POCO LEGATO - LOW ALLOY STEEL ACCIAIO ALTO LEGATO - ALLOY STEEL INOX MARTENS. - STAINLESS STEEL MART	1-5	125-300		80-160		0,01-0,05
	6-9	180-350		80-110		0,01-0,05
	10-11	200-325		60-100		0,01-0,05
	12-13	200-240		50-100		0,01-0,05
M INOX AUST. DUPLEX - STAINLESS STEEL AUST GHISA GRIGIA - GREY CAST IRON	14.1-14.2	180-230		20-80		0,01-0,05
	15-16	180-260	30-90	30-150		0,01-0,05
K GHISA SFEROIDALE - SPHEROIDAL GRAPHITE GHISA MALLEABILE - MALLEABLE CAST IRON	17-18	160-250	25-80	30-130		0,01-0,05
	19-20	130-230	30-90	30-100		0,01-0,05
N ALLUMINIO E SUE LEGHE - ALUMINIUM RAME E SUE LEGHE - COPPER NON METALLICI - PLASTICS	21-25	60-130	80-150			0,01-0,05
	26-28	90-110	50-110			0,01-0,05
	29-30	/	20-80			0,01-0,05
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY TITANIO E SUE LEGHE - TITANIUM	31-35	200-320		30-80		0,01-0,05
	36-37	400-1050 ¹⁾		30-80		0,01-0,05
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

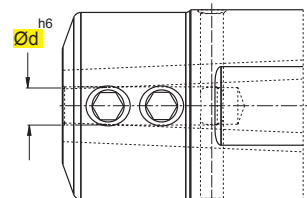
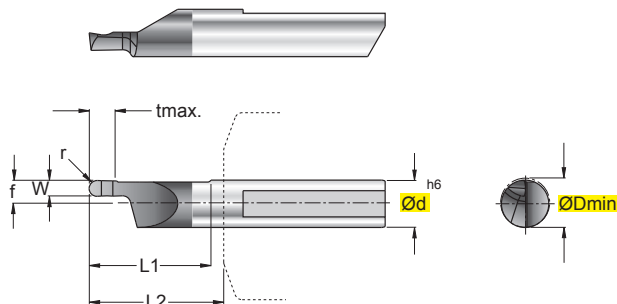
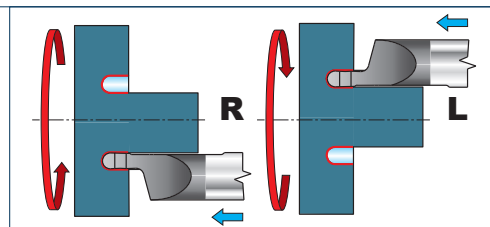
$$Vf = fn \cdot n = \text{mm/min}$$

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES

Grid area for notes.

S103-06.R...-E62-15...R/L Scanalatura Frontale - Face Grooving



art. S100-TS-06..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List €	(mm)									P	M	K	N	S	H	HW		HC	
		ØDmin	Ød	f	tmax	r	$w \begin{smallmatrix} +0.05 \\ 0 \end{smallmatrix}$	L1	L2	NON RIV. CEMENTED CARBIDE GRADES							RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS			
S103-06.R100-E62-15.050R/L	56,80 59,40	6,2	6	2,95	2	0,5	1	15	18	●	●	○	●	○		■		■		
S103-06.R160-E62-15.080R/L	56,80 59,40	6,2	6	2,95	3	0,8	1,6	15	18	●	●	○	●	○		■		■		
S103-06.R200-E62-15.100R/L	56,80 59,40	6,2	6	2,95	4	1,0	2	15	18	●	●	○	●	○		■		■		

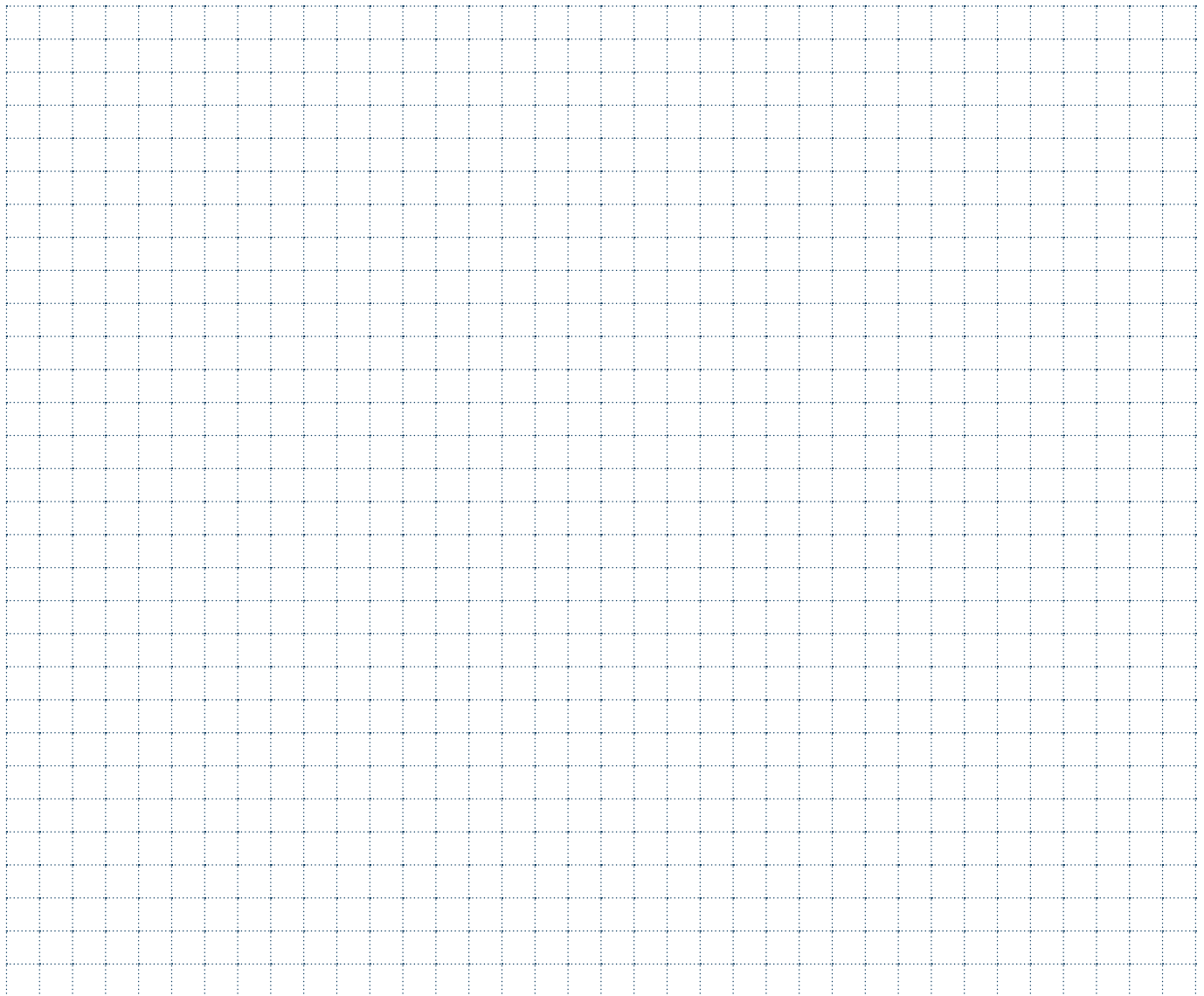
MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			fn mm
			N3635	F7835		
P ACCIAIO NON LEGATO - NOT ALLOY STEEL ACCIAIO POCO LEGATO - LOW ALLOY STEEL ACCIAIO ALTO LEGATO - ALLOY STEEL INOX MARTENS. - STAINLESS STEEL MART	1-5	125-300		80-160		0,01-0,05
	6-9	180-350		80-110		0,01-0,05
	10-11	200-325		60-100		0,01-0,05
	12-13	200-240		50-100		0,01-0,05
M INOX AUST. DUPLEX - STAINLESS STEEL AUST GHISA GRIGIA - GREY CAST IRON	14.1-14.2	180-230		20-80		0,01-0,05
	15-16	180-260	30-90	30-150		0,01-0,05
K GHISA SFEROIDALE - SPHEROIDAL GRAPHITE GHISA MALLEABILE - MALLEABLE CAST IRON	17-18	160-250	25-80	30-130		0,01-0,05
	19-20	130-230	30-90	30-100		0,01-0,05
N ALLUMINIO E SUE LEGHE - ALUMINIUM RAME E SUE LEGHE - COPPER NON METALLICI - PLASTICS	21-25	60-130	80-150			0,01-0,05
	26-28	90-110	50-110			0,01-0,05
	29-30	/	20-80			0,01-0,05
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY TITANIO E SUE LEGHE - TITANIUM	31-35	200-320		30-80		0,01-0,05
	36-37	400-1050 ¹⁾		30-80		0,01-0,05
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

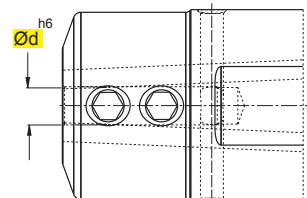
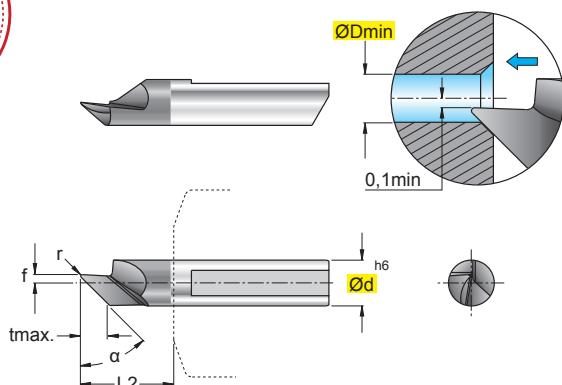
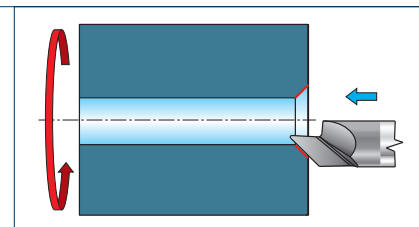
- Vc** = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES



S101-06...-...020R/L

Smussatura - Chamfering
30° - 45° - 60°



art. S100-TS-06..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List	(mm)								P	M	K	N	S	H	HW		HC	
		ØDmin	Ød	f	r	α	tmax	L2	NON RIV. CEMENTED CARBIDE GRADES							RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS			
* S101-06.0030-017-22.020R/L New	56,40 59,00	1	6	1,7	0,2	30	2,2	13	●	●	○	●	○		■		■		
S101-06.0045-011-35.020R/L	55,70 58,30	1	6	1,1	0,2	45	3,5	13	●	●	○	●	○		■		■		
S101-06.0060-005-40.020R/L	55,70 58,30	1	6	0,5	0,2	60	4,0	13	●	●	○	●	○		■		■		

🇮🇹 * DISPONIBILE DA NOVEMBRE 2021 - 🇬🇧 * AVAILABLE FROM NOVEMBER 2021

🇩🇪 * AB NOVEMBER 2021 LIEFERBAR - 🇫🇷 * DISPONIBLE À PARTIR DE NOVEMBRE 2021

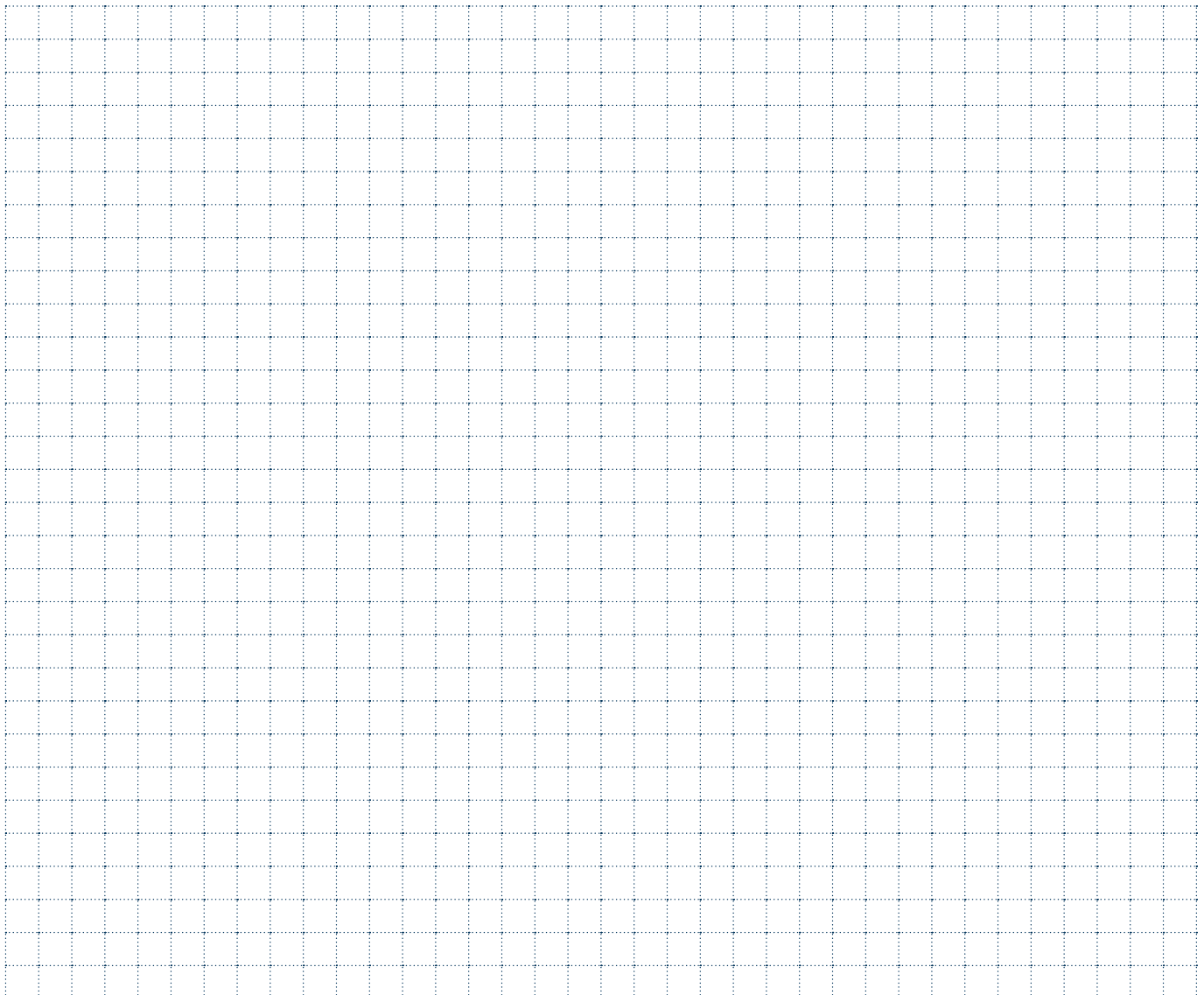
MATERIALI - MATERIALS	VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min				fn mm
			N3635	F7835			
P ACCIAIO NON LEGATO - NOT ALLOY STEEL ACCIAIO POCO LEGATO - LOW ALLOY STEEL ACCIAIO ALTO LEGATO - ALLOY STEEL INOX MARTENS. - STAINLESS STEEL MART	1-5	125-300		80-160			0,01-0,05
	6-9	180-350		80-110			0,01-0,05
	10-11	200-325		60-100			0,01-0,05
	12-13	200-240		50-100			0,01-0,05
M INOX AUST. DUPLEX - STAINLESS STEEL AUST GHISA GRIGIA - GREY CAST IRON	14.1-14.2	180-230		20-80			0,01-0,05
	15-16	180-260	30-90	30-150			0,01-0,05
K GHISA SFEROIDALE - SPHEROIDAL GRAPHITE GHISA MALLEABILE - MALLEABLE CAST IRON	17-18	160-250	25-80	30-130			0,01-0,05
	19-20	130-230	30-90	30-100			0,01-0,05
N ALLUMINIO E SUE LEGHE - ALUMINIUM RAME E SUE LEGHE - COPPER NON METALLICI - PLASTICS	21-25	60-130	80-150				0,01-0,05
	26-28	90-110	50-110				0,01-0,05
	29-30	/	20-80				0,01-0,05
S LEGHE RESIST. CALORE - HIG. TEMP. ALLOY TITANIO E SUE LEGHE - TITANIUM	31-35	200-320		30-80			0,01-0,05
	36-37	400-1050 ¹⁾		30-80			0,01-0,05
H ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾					

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

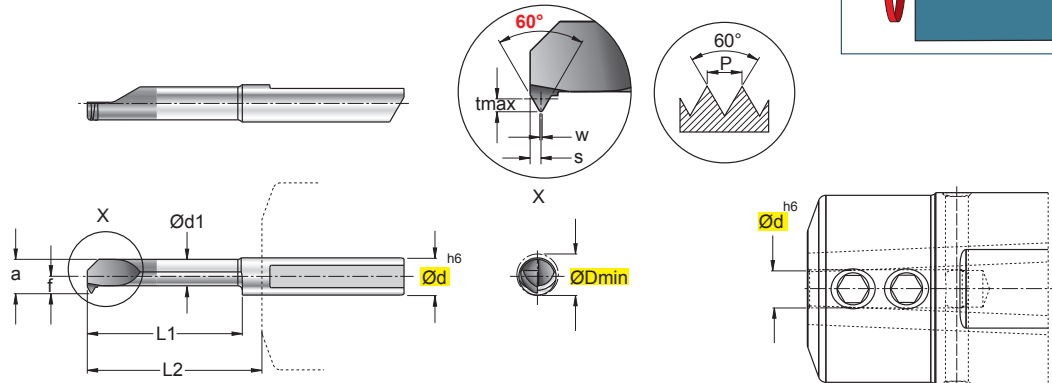
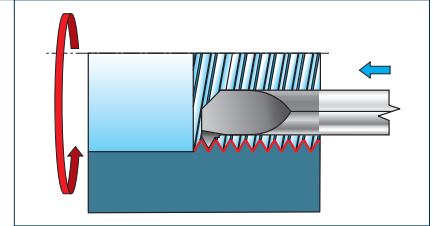
Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

NOTE - NOTES



S104-...0060-...R/L

Filettatura ISO Profilo Parziale
ISO Threading, Partial Profile



art. S100-TS-..

In figura utensile destro - Right-hand shown

ART.	Prezzo Listino Price List €	(mm)											P	M	K	N	S	H	HW		HC	
		ØDmin	Ød	P(min)	P(max)	Ød1	f	a	tmax	s	w	L1							L2	NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS	
S104-04.0060-042-15.050R	42,40 45,00	4,2	4	0,50	0,70	2,95	1,95	3,95	0,4	0,35	0,06	15	18	●	●	●	○	○	■			■
S104-05.0060-048-15.100R/L	41,60 44,20	4,8	5	1,00	1,25	3,55	2,25	4,55	0,7	0,55	0,12	15	18	●	●	●	○	○	■			■
S104-05.0060-048-20.100R/L	47,90 50,40	4,8	5	1,00	1,25	3,55	2,25	4,55	0,7	0,55	0,12	20	23	●	●	●	○	○	■			■
S104-06.0060-062-15.125R	42,50 45,10	6,2	6	1,25	1,50	3,95	2,95	5,95	0,84	0,75	0,16	15	18	●	●	●	○	○	■			■
S104-06.0060-062-25.125R	54,80 57,30	6,2	6	1,25	1,50	3,95	2,95	5,95	0,84	0,75	0,16	25	28	●	●	●	○	○	■			■
S104-06.0060-062-15.150R	42,50 45,10	6,2	6	1,50	1,75	3,95	2,95	5,95	0,98	0,80	0,18	15	18	●	●	●	○	○	■			■
S104-06.0060-062-25.150R	54,80 57,30	6,2	6	1,50	1,75	3,95	2,95	5,95	0,98	0,80	0,18	25	28	●	●	●	○	○	■			■

MATERIALI - MATERIALS		VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min			
				N3635	F7835		
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	1-5	125-300		80-160		
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL	6-9	180-350		80-110		
	ACCIAIO ALTO LEGATO - ALLOY STEEL	10-11	200-325		60-100		
	INOX MARTENS. - STAINLESS STEEL MART	12-13	200-240		50-100		
M	INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230		20-80		
	GHISA GRIGIA - GREY CAST IRON	15-16	180-260	30-90	30-150		
K	GHISA SFEROIDALE - SPHEROIDAL GRAPHITE	17-18	160-250	25-80	30-130		
	GHISA MALLEABILE - MALLEABLE CAST IRON	19-20	130-230	30-90	30-100		
N	ALLUMINIO E SUE LEGHE - ALUMINIUM	21-25	60-130	80-150			
	RAME E SUE LEGHE - COPPER	26-28	90-110	50-110			
	NON METALLICI - PLASTICS	29-30	/	20-80			
S	LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31-35	200-320		30-80		
	TITANIO E SUE LEGHE - TITANIUM	36-37	400-1050 ¹⁾		30-80		
H	ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾				

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

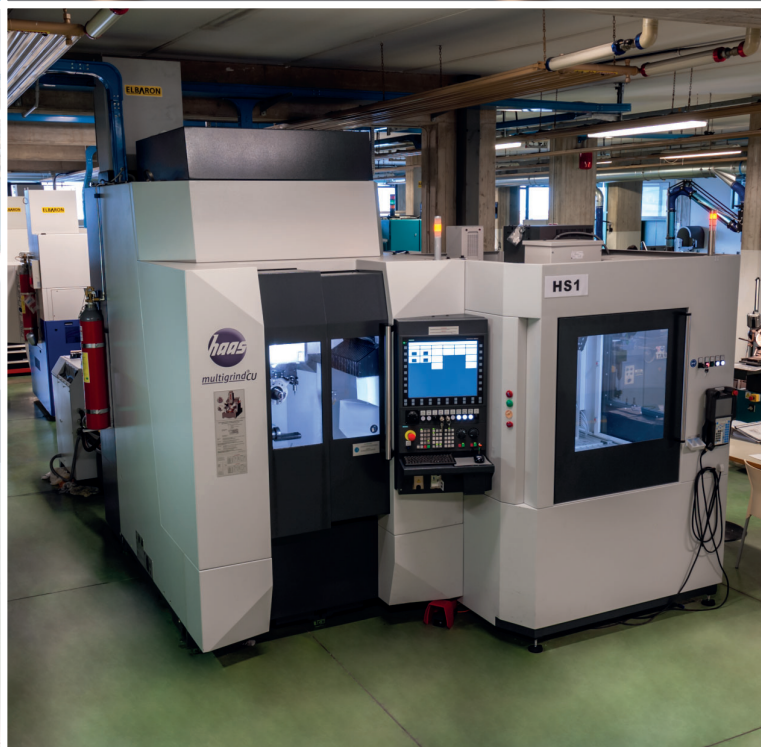
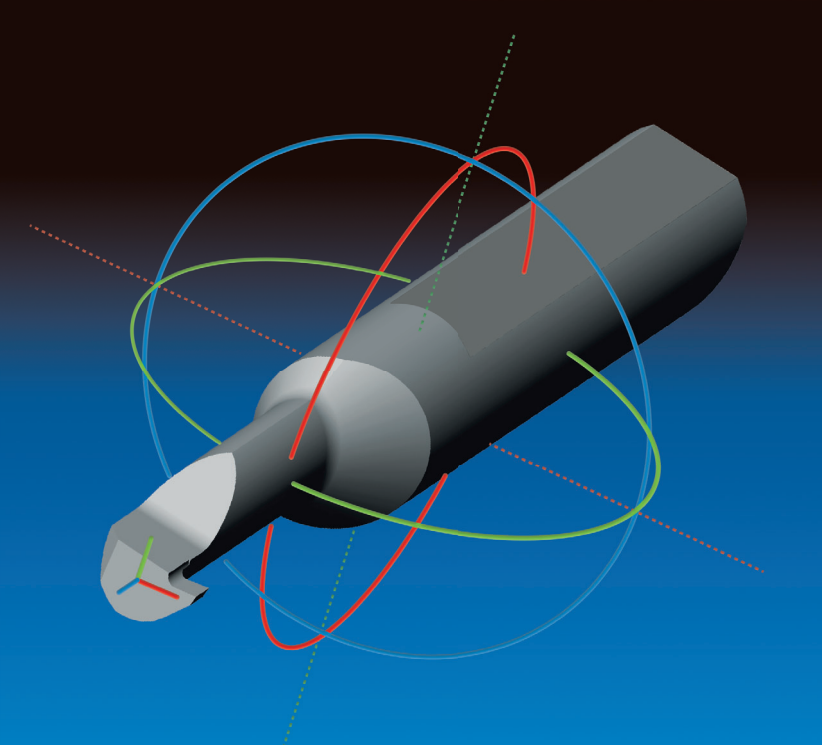
PASSO - PITCH		NUMERO DI PASSATE - NUMBER OF PASSES								
		P (Resistenza alla trazione N/mm ²) - (Tensile strenght N/mm ²)					M	K	N	S
mm	Gg/TPI	400-500	500-700	700-850	850-1150	>1150				
0,5	48	5	5	5	5	8	8	5	8	5
0,8	32	6	6	6	6	8	8	6	8	6
1	24	7	7	7	7	8	8	7	8	7
1,25	20-19	8	8	8	8	10	10	8	10	8
1,5	16	10	10	10	10	12	12	10	12	10
1,75	14	12	12	12	12	14	14	12	14	12
2	12-11	13	13	13	13	15	15	13	15	13
2,5	10	15	15	16	16	18	18	16	18	15
3,0-3,5	8	16	16	17	17	20	20	17	20	16

IL NUMERO DI PASSATE E' UN VALORE DA CONSIDERARE PURAMENTE INDICATIVO
THE NUMBER OF PASSES IS TO BE CONSIDERED PURELY INDICATIVE

LE PASSATE DI FINITURA NON SONO CONSIDERATE IN TABELLA
THE FINISHING PASSES ARE NOT INCLUDED IN THE CHART

NOTE - NOTES

<p>Area for notes or additional information, represented by a dotted grid.</p>
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Panoramica qualità - General view - Qualitätsübersicht - Vue d'ensemble qualité

DIN ISO 513	P ACCIAI STEELS STAHL ACIERS					M ACCIAI INOSSIDABILI STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE				K GHISE CAST IRON GRAUGUSS FONTE GRISE					N NON FERROSI NONFERROUS NICHTEISENMA PAS FERREUX				S MAT.DIFFICILI DIFFICULT MATERIAL SCHWIERIGE MATERIEN MAT.DIFFICILES					H MATERIALI DURI HARD MATERIALS HARTE MATERIEN MATÉRIAUX DURS					
	01	10	20	30	40	50	10	20	30	40	01	10	20	30	40	10	20	30	40	01	10	20	30	40	10	20	30	40	
HW																													
HC																													
TENACITÀ - TOUGHNESS - ZÄHIGKEIT - TÉNACITÉ																													
RESISTENZA ALL'USURA - RESISTANCE TO WEAR - VERSCHLEISSFESTIGKEIT - RÉSISTANCE À L'USURE																													
AVANZAMENTO - FEED - VORSCHUB - AVANCE																													
VELOCITÀ - SPEED - GESCHWINDIGKEIT - VITESSE																													
HT CERMET										HW METALLO DURO NON RICOPERTO UNCOATED CARBIDE UNBESCHICHTETES HARTMETALL MÉTAL DUR PAS RECOUVERT										HC METALLO DURO RICOPERTO COATED CARBIDE BESCHICHTETES HARTMETALL MÉTAL DUR RECOUVERT									

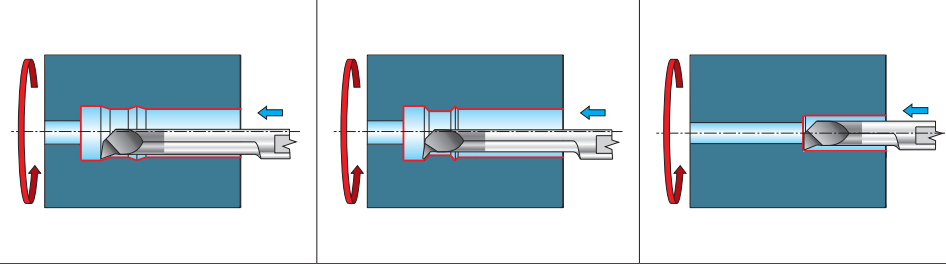
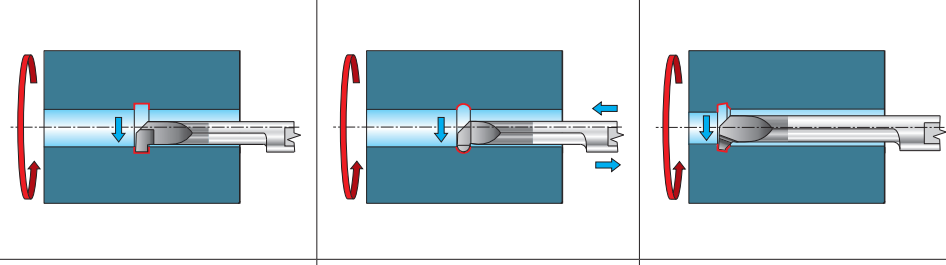
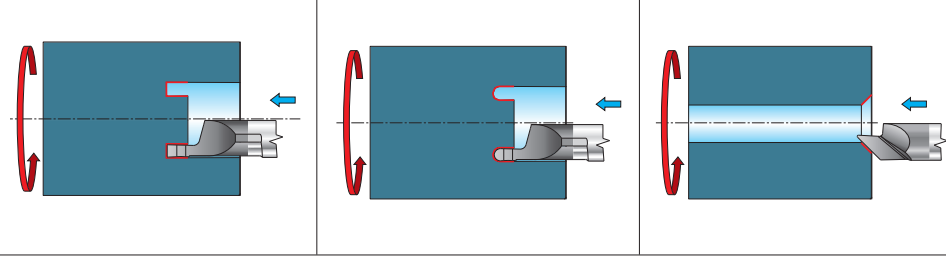
Impiego delle qualità - Application of the grade - Einsatz der verschiedenen sorten - Utilisation de les qualités

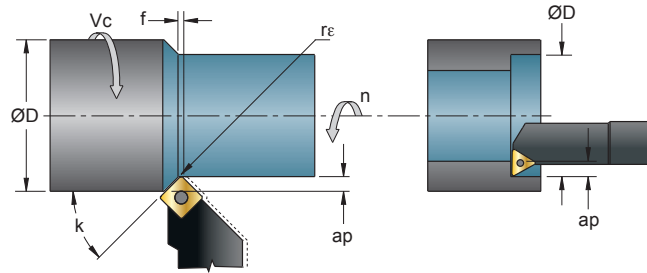
SHG	DIN ISO 513	MATERIALE - MATERIAL MATERIALIEN - MATÉRIAUX						QUICK PICK	INDICAZIONI - USO
		P ACCIAI STEELS STAHL ACIER	M ACCIAI INOX STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE	K GHISA CAST IRON GRAUGUSS FONTE GRISE	N NON FERROSI NONFERROUS MAT. NICHTEISENMATERIALIEN	S MAT.DIFFICILI DIFFICULT MATERIAL SCHWIERIGE MATERIEN MAT.DIFFICILES	H MATERIALI DURI HARD MATERIALS HARTE MATERIEN MATÉRIAUX DURS		
N3635	HW K30-40 N30-40			○	●			 Tenacità + Toughness -	 INDICAZIONI - USO - QUALITÀ ADATTA PER MATERIALI NON FERROSI - METALLO DURO DI ALTA TENACITÀ, IDEALE ANCHE IN CONDIZIONI DI TAGLIO DIFFICILI - GRADE SUITABLE FOR NON-FERROUS MATERIALS - VERY TOUGH HARD METAL, IDEALLY SUITED ALSO UNDER DIFFICULT CUTTING CONDITIONS
F7835	HC P30-40 M30-40 K30-40 PVD S30-40 H30-40	●	●	●		○		 Tenacità + Toughness -	- BUONA RESISTENZA ALL'USURA - ELEVATA STABILITÀ ALLO SHOCK TERMICO - MOLTO TENACE, ADATTO ANCHE IN CONDIZIONI DI TAGLIO DIFFICILI - GOOD RESISTANCE TO WEAR - HIGH THERMAL SHOCK RESISTANCE - VERY TOUGH, ALSO SUITABLE UNDER DIFFICULT CUTTING CONDITIONS

- APPLICAZIONE CONSIGLIATA
RECOMMENDED APPLICATION
EMPFOHLENER EINSATZ
APPLICATION CONSEILLÉE
- APPLICAZIONE POSSIBILE
POSSIBLE APPLICATION
MÖGLICHE ANWENDUNG
APPLICATION POSSIBLE
- APPLICAZIONE CONSIGLIATA
RECOMMENDED APPLICATION
EMPFOHLENER EINSATZ
APPLICATION CONSEILLÉE
- APPLICAZIONE POSSIBILE
POSSIBLE APPLICATION
MÖGLICHE ANWENDUNG
APPLICATION POSSIBLE

**PARAMETRI DI TAGLIO - CUTTING DATA
SCHNITTPARAMETER - PARAMETRES DE COUPE**

MATERIALI - MATERIALS		VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min		
				N3635	F7835	
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	1-5	125-300		80-160	
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL	6-9	180-350		80-110	
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S	LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31-35	200-320		30-80	
	TITANIO E SUE LEGHE - TITANIUM	36-37	400-1050 ¹⁾		30-80	
H	ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾			

LAVORAZIONI MACHINING			AVANZAMENTO f (mm/giro) FEED f (mm/rev.)
COPIATURA COPY			0,02 - 0,08
SCANALATURA GROOVING			0,01 - 0,03
SCANALATURA FRONTALE FACE GROOVING			0,01 - 0,05



	
ap (mm) = PROFONDITÀ DI TAGLIO	= CUTTING DEPTH
d (mm) = DIAMETRO DEL PEZZO	= WORKPIECE DIAMETER
fn (mm) = AVANZAMENTO AL GIRO	= FEED / REV.
h (mm) = SPESSORE DEL TRUCIOLO	= CHIP THICKNESS
k (°) = ANGOLO DI ATTACCO	= CUTTING ANGLE
Kc (N/mm ²) = FORZA DI TAGLIO SPECIFICA	= SPECIFIC CUTTING FORCE
Kc1.1 (N/mm ²) = FORZA DI STRAPPAMENTO SPECIFICA DEL MATERIALE LAVORATO	= SPECIFIC TEARING FORCE OF MACHINED MATERIAL
mc = ESPONENTE DI INCREMENTO DELLA FORZA DI TAGLIO	= CUTTING FORCE INCREMENT
n (giri/min - min ⁻¹) = NUMERO DI GIRI AL MINUTO	= NUMBER OF REVOLUTIONS / MIN'
Pc (KW) = POTENZA ASSORBITA	= ABSORBED POWER
Q (cm ³ /min) = VOLUME DEL TRUCIOLO ASPORTATO	= VOLUME OF CHIP REMOVED
rε (mm) = RAGGIO DI PUNTA DELL' INSERTO	= INSERT CORNER RADIUS
Vc (m/min) = VELOCITÀ DI TAGLIO	= CUTTING SPEED
η (0,7-0,85) = RENDIMENTO MECCANICO DELLA MACCHINA	= MECHANICAL EFFICIENCY OF THE MACHINE

$$Vc \text{ (m/min)} = \frac{D \cdot 3,14 \cdot n}{1000}$$

$$n \text{ (giri/min - min}^{-1}\text{)} = \frac{Vc \cdot 1000}{D \cdot 3,14}$$

$$h \text{ (mm)} = fn \cdot \sin k$$

$$Kc \text{ (N/mm}^2\text{)} \approx \frac{Kc1.1}{h^{mc}}$$

- APPROSSIMATA: NON TIENE CONTO DELL'ANGOLO DI TAGLIO
 - APPROXIMATE VALUE: CUTTING ANGLE NOT TAKEN INTO CONSIDERATION

$$Pc \text{ (KW)} = \frac{Vc \cdot fn \cdot ap \cdot Kc}{60.000 \cdot \eta}$$

$$Q \text{ (cm}^3\text{/min)} = Vc \cdot fn \cdot ap$$



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