GÜHRING

RT 100 VA

Metallo duro specifico per acciai inossidabili

Ricopertura a prova di usura TiAlN nanoA

Geometria specifica per acciai inossidabili

Forare acciai in modo semplice e sicuro!

Rendimenti eccellenti per

- usura
- durata di impiego
- stabilità

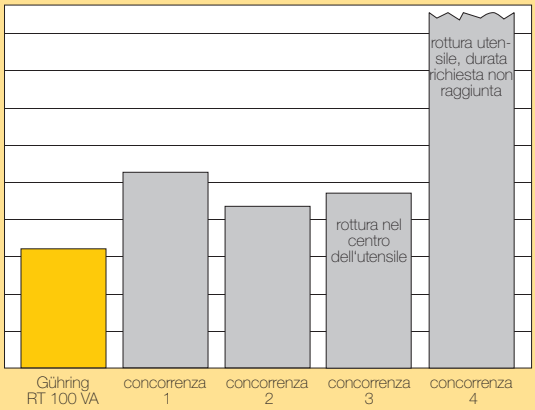
Esempi di risultati ottenuti lavorando con RT 100 VA

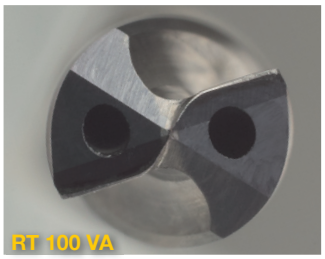
Articolo	8510	8511	8511	8611
Materiale	acciaio inossidabile	acciaio inossidabile	acciaio inossidabile	acciaio inossidabile
Designazione	X10CrNiS18-9	X5CrNi18 10	X6CrNiMoTi17-12-2	X6CrNiTi1810
Tipo di foro	cieco	passante	cieco	cieco
Macchina	a ciclo continuo	centro di lavoro	centro di lavoro	centro di lavoro

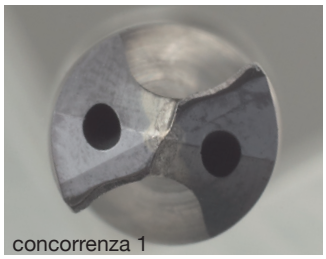
Segni di usura

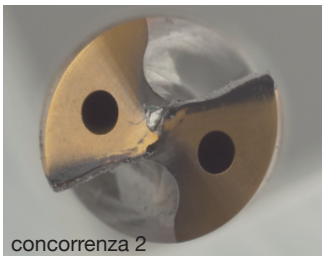
La RT 100 VA rispetto ad utensili della concorrenza ha una scarsa propensione all‘usura.
Il grafico sotto mostra lo sviluppo della larghezza dei segni di usura dopo 100 m di durata di impiego nella lavorazione di una piastra per uno scambiatore di calore in acciaio inossidabile X6CrNiMoTi17-12-2 (1.4571).
Mentre la RT 100 VA Gühring presenta l‘usura più limitata e nessuna rottura nel centro dell‘utensile, i valori di usura degli utensili concorrenti erano sensibilmente più elevati.
Inoltre, sono evidenti i segni di rottura nel centro. Un altro utensile della concorrenza non ha raggiunto la durata di impiego indicata, anzi si è rotto molto prima.

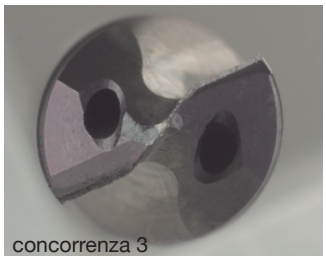
Sviluppo della larghezza dei segni di usura dopo 100 m di











RT 100 VA

Gühring ha sviluppato la RT 100 VA per la produzione di fori precisi in acciai inossidabili con massimi valori di taglio e lunghe durate di impiego.
La RT 100 VA raggiunge la sua eccezionale capacità di rendimento grazie a:

- metallo duro sviluppato specificatamente per la lavorazione di acciai inossidabili.
- La ricopertura TiAlN nanoA, estremamente resistente all'usura.
- La sua geometria specifica per la lavorazione di acciai inossidabili.

Gli elevati avanzamenti ottenibili con la RT 100 VA portano anche ad un'ottimale sottrazione di calore attraverso i trucioli; l'ottima refrigerazione attraverso i fori interni con taglio trasversale ampliato supportano lo scarico di calore e trucioli, evitando anche l'indurimento delle zone periferiche.

Il programma di vendita

Il programma standard Vi offre la RT 100 VA in quattro varianti:

Norma	Tipo	Forma codolo	Refrige-razione	Direzione taglio	Prof. di foro	Tolle-ranza	Raffigurazione utensili	Mat. tagliente	Tratt.su-perficie	Diametri	Articolo
DIN 6537 K	RT 100 VA	HA		R	3xD	m7		MD	TiAlN nanoA	3,00 - 20,00	8510
DIN 6537 K	RT 100 VA	HE		R	3xD	m7		MD	TiAlN nanoA	3,00 - 20,00	8610
DIN 6537 L	RT 100 VA	HA		R	5xD	m7		MD	TiAlN nanoA	3,00 - 20,00	8511
DIN 6537 L	RT 100 VA	HE		R	5xD	m7		MD	TiAlN nanoA	3,00 - 20,00	8611

Soluzioni speciali

Naturalmente noi forniamo anche utensili speciali con misura intermedie oppure come utensili a gradino in base alle richieste per le Vostre specifiche esigenze. Sono possibili soluzioni anche per profondità di foro superiori a 5xD. Vogliate utilizzare il modulo a pagina 15 o parlate direttamente con il nostro personale!

Consigli per l'utilizzo

Le velocità di taglio dovrebbero essere scelte in base al Navigator, tuttavia possono dipendere fortemente dalle rispettive cariche del materiale. Per questo motivo è indispensabile effettuare prove per scegliere la velocità di taglio ottimale.
Dato l'alto carico di lavoro, considerate bene la massima stabilità di macchina, serraggio pezzo e serraggio utensile. Scegliete sempre l'utensile più corto possibile per il Vostro lavoro.

Consigli per l'impiego della punte Ratio RT 100 Gühring ad alto rendimento

Nelle pagine successive, che contengono programma di vendita e prezzi, troverete per ogni utensile i consigli per qualificarlo in base ai seguenti gruppi di impiego:

● ottimali
○ adatte solo a determinate condizioni
non adatte

Gruppi di impiego	Esempi di materiali
P	acciaio, acciaio legato in alta percentuale
M	acciaio inossidabile
K	ghisa grigia, ghisa sferoidale e ghisa temprata
N	alluminio ed altri metalli non ferrosi
S	leghe speciali, superleghe e leghe di titanio

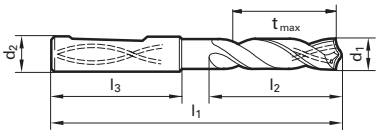
Pittogrammi v. pag. 14

DIN 6537 K | RT 100 VA | 3xD | R | m7

Per ordinare = articolo + codice

Articolo	8510	8610
P	●	●
M		
K		
N		
S	●	●
H		
Tratt. di superficie	TiAlN nanoA	TiAlN nanoA
Gruppo di sconto	121	121

$t_{max} = l_2 - 1{,}5 \times d_1$



Codice Nr.	d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	Disponibilità 8510	Disponibilità 8610
3,000	3,000		6,000	62,000	20,000	36,000	●	●
3,100	3,100		6,000	62,000	20,000	36,000	●	●
3,170	3,170	1/8	6,000	62,000	20,000	36,000	●	●
3,200	3,200		6,000	62,000	20,000	36,000	●	●
3,250	3,250		6,000	62,000	20,000	36,000	●	●
3,300	3,300		6,000	62,000	20,000	36,000	●	●
3,400	3,400		6,000	62,000	20,000	36,000	●	●
3,500	3,500		6,000	62,000	20,000	36,000	●	●
3,570	3,570	9/64	6,000	62,000	20,000	36,000	●	●
3,600	3,600		6,000	62,000	20,000	36,000	●	●
3,700	3,700		6,000	62,000	20,000	36,000	●	●
3,800	3,800		6,000	66,000	24,000	36,000	●	●
3,900	3,900		6,000	66,000	24,000	36,000	●	●
3,970	3,970	5/32	6,000	66,000	24,000	36,000	●	●
4,000	4,000		6,000	66,000	24,000	36,000	●	●
4,100	4,100		6,000	66,000	24,000	36,000	●	●
4,200	4,200		6,000	66,000	24,000	36,000	●	●
4,300	4,300		6,000	66,000	24,000	36,000	●	●
4,370	4,370	11/64	6,000	66,000	24,000	36,000	●	●
4,400	4,400		6,000	66,000	24,000	36,000	●	●
4,500	4,500		6,000	66,000	24,000	36,000	●	●
4,600	4,600		6,000	66,000	24,000	36,000	●	●
4,650	4,650		6,000	66,000	24,000	36,000	●	●
4,700	4,700		6,000	66,000	24,000	36,000	●	●
4,760	4,760	3/16	6,000	66,000	28,000	36,000	●	●
4,800	4,800		6,000	66,000	28,000	36,000	●	●
4,900	4,900		6,000	66,000	28,000	36,000	●	●
5,000	5,000		6,000	66,000	28,000	36,000	●	●
5,100	5,100		6,000	66,000	28,000	36,000	●	●
5,160	5,160	13/64	6,000	66,000	28,000	36,000	●	●
5,200	5,200		6,000	66,000	28,000	36,000	●	●
5,300	5,300		6,000	66,000	28,000	36,000	●	●
5,400	5,400		6,000	66,000	28,000	36,000	●	●
5,500	5,500		6,000	66,000	28,000	36,000	●	●
5,550	5,550		6,000	66,000	28,000	36,000	●	●
5,560	5,560	7/32	6,000	66,000	28,000	36,000	●	●
5,600	5,600		6,000	66,000	28,000	36,000	●	●
5,700	5,700		6,000	66,000	28,000	36,000	●	●
5,800	5,800		6,000	66,000	28,000	36,000	●	●

Pittogrammi v. pag. 14

RT 100 VA

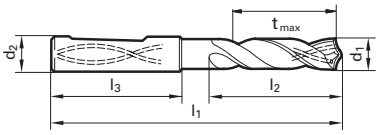
MD

DIN 6537 K | RT 100 VA | 3xD | R | m7

Per ordinare = articolo + codice

Articolo	HA	HE
	8510	8610
P		
M		
K		
N		
S		
H		
Tratt. di superficie	TiAlN nanoA	TiAlN nanoA
Gruppo di sconto	121	121

$t_{max} = l_2 - 1{,}5 \times d_1$



Codice Nr.	d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	Disponibilità HA	Disponibilità HE
5,900	5,900		6,000	66,000	28,000	36,000	●	●
5,950	5,950	15/64	6,000	66,000	28,000	36,000	●	●
6,000	6,000		6,000	66,000	28,000	36,000	●	●
6,100	6,100		8,000	79,000	34,000	36,000	●	●
6,200	6,200		8,000	79,000	34,000	36,000	●	●
6,300	6,300		8,000	79,000	34,000	36,000	●	●
6,350	6,350	1/4	8,000	79,000	34,000	36,000	●	●
6,400	6,400		8,000	79,000	34,000	36,000	●	●
6,500	6,500		8,000	79,000	34,000	36,000	●	●
6,600	6,600		8,000	79,000	34,000	36,000	●	●
6,700	6,700		8,000	79,000	34,000	36,000	●	●
6,750	6,750	17/64	8,000	79,000	34,000	36,000	●	●
6,800	6,800		8,000	79,000	34,000	36,000	●	●
6,900	6,900		8,000	79,000	34,000	36,000	●	●
7,000	7,000		8,000	79,000	34,000	36,000	●	●
7,100	7,100		8,000	79,000	41,000	36,000	●	●
7,140	7,140	9/32	8,000	79,000	41,000	36,000	●	●
7,200	7,200		8,000	79,000	41,000	36,000	●	●
7,300	7,300		8,000	79,000	41,000	36,000	●	●
7,400	7,400		8,000	79,000	41,000	36,000	●	●
7,500	7,500		8,000	79,000	41,000	36,000	●	●
7,540	7,540	19/64	8,000	79,000	41,000	36,000	●	●
7,600	7,600		8,000	79,000	41,000	36,000	●	●
7,700	7,700		8,000	79,000	41,000	36,000	●	●
7,800	7,800		8,000	79,000	41,000	36,000	●	●
7,900	7,900		8,000	79,000	41,000	36,000	●	●
7,940	7,940	5/16	8,000	79,000	41,000	36,000	●	●
8,000	8,000		8,000	79,000	41,000	36,000	●	●
8,100	8,100		10,000	89,000	47,000	40,000	●	●
8,200	8,200		10,000	89,000	47,000	40,000	●	●
8,300	8,300		10,000	89,000	47,000	40,000	●	●
8,330	8,330	21/64	10,000	89,000	47,000	40,000	●	●
8,400	8,400		10,000	89,000	47,000	40,000	●	●
8,500	8,500		10,000	89,000	47,000	40,000	●	●
8,600	8,600		10,000	89,000	47,000	40,000	●	●
8,700	8,700		10,000	89,000	47,000	40,000	●	●
8,730	8,730	11/32	10,000	89,000	47,000	40,000	●	●
8,800	8,800		10,000	89,000	47,000	40,000	●	●
8,900	8,900		10,000	89,000	47,000	40,000	●	●

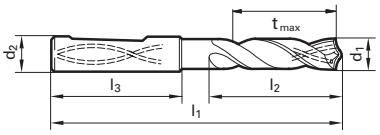
Pittogrammi v. pag. 14

DIN 6537 K | RT 100 VA | 3xD | R | m7

Per ordinare = articolo + codice

Articolo	8510	8610
P		
M		
K		
N		
S		
H		
Tratt. di superficie	TiAlN nanoA	TiAlN nanoA
Gruppo di sconto	121	121

$t_{max} = l_2 - 1{,}5 \times d_1$



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9,100	9,100		10,000	89,000	47,000	40,000	●	●
9,130	9,130	23/64	10,000	89,000	47,000	40,000	●	●
9,200	9,200		10,000	89,000	47,000	40,000	●	●
9,250	9,250		10,000	89,000	47,000	40,000	●	●
9,300	9,300		10,000	89,000	47,000	40,000	●	●
9,400	9,400		10,000	89,000	47,000	40,000	●	●
9,500	9,500		10,000	89,000	47,000	40,000	●	●
9,520	9,520	3/8	10,000	89,000	47,000	40,000	●	●
9,600	9,600		10,000	89,000	47,000	40,000	●	●
9,700	9,700		10,000	89,000	47,000	40,000	●	●
9,800	9,800		10,000	89,000	47,000	40,000	●	●
9,900	9,900		10,000	89,000	47,000	40,000	●	●
9,920	9,920	25/64	10,000	89,000	47,000	40,000	●	●
10,000	10,000		10,000	89,000	47,000	40,000	●	●
10,100	10,100		12,000	102,000	55,000	45,000	●	●
10,200	10,200		12,000	102,000	55,000	45,000	●	●
10,300	10,300		12,000	102,000	55,000	45,000	●	●
10,320	10,320	13/32	12,000	102,000	55,000	45,000	●	●
10,400	10,400		12,000	102,000	55,000	45,000	●	●
10,500	10,500		12,000	102,000	55,000	45,000	●	●
10,600	10,600		12,000	102,000	55,000	45,000	●	●
10,700	10,700		12,000	102,000	55,000	45,000	●	●
10,800	10,800		12,000	102,000	55,000	45,000	●	●
10,900	10,900		12,000	102,000	55,000	45,000	●	●
11,000	11,000		12,000	102,000	55,000	45,000	●	●
11,100	11,100		12,000	102,000	55,000	45,000	●	●
11,110	11,110	7/16	12,000	102,000	55,000	45,000	●	●
11,200	11,200		12,000	102,000	55,000	45,000	●	●
11,300	11,300		12,000	102,000	55,000	45,000	●	●
11,400	11,400		12,000	102,000	55,000	45,000	●	●
11,500	11,500		12,000	102,000	55,000	45,000	●	●
11,600	11,600		12,000	102,000	55,000	45,000	●	●
11,700	11,700		12,000	102,000	55,000	45,000	●	●
11,800	11,800		12,000	102,000	55,000	45,000	●	●
11,900	11,900		12,000	102,000	55,000	45,000	●	●
11,910	11,910	15/32	12,000	102,000	55,000	45,000	●	●
12,000	12,000		12,000	102,000	55,000	45,000	●	●
12,200	12,200		14,000	107,000	60,000	45,000	●	●

Pittogrammi v. pag. 14

RT 100 VA

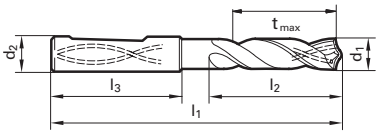
MD

DIN 6537 K | RT 100 VA | 3xD | R | m7

Per ordinare = articolo + codice

Articolo	8510	8610
P		
M		
K		
N		
S		
H		
Tratt. di superficie	TiAlN nanoA	TiAlN nanoA
Gruppo di sconto	121	121

$t_{max} = l_2 - 1{,}5 \times d_1$



Codice Nr.	d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	8510 Disponibilità	8610 Disponibilità
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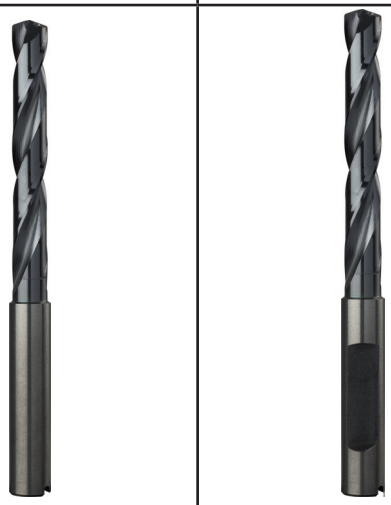
12,700	12,700	1/2	14,000	107,000	60,000	45,000	●	●
12,800	12,800		14,000	107,000	60,000	45,000	●	●
13,000	13,000		14,000	107,000	60,000	45,000	●	●
13,300	13,300		14,000	107,000	60,000	45,000	●	●
13,500	13,500		14,000	107,000	60,000	45,000	●	●
13,700	13,700		14,000	107,000	60,000	45,000	●	●
14,000	14,000		14,000	107,000	60,000	45,000	●	●
14,200	14,200		16,000	115,000	65,000	48,000	●	●
14,290	14,290	9/16	16,000	115,000	65,000	48,000	●	●
14,300	14,300		16,000	115,000	65,000	48,000	●	●
14,500	14,500		16,000	115,000	65,000	48,000	●	●
14,700	14,700		16,000	115,000	65,000	48,000	●	●
15,000	15,000		16,000	115,000	65,000	48,000	●	●
15,200	15,200		16,000	115,000	65,000	48,000	●	●
15,300	15,300		16,000	115,000	65,000	48,000	●	●
15,500	15,500		16,000	115,000	65,000	48,000	●	●
15,700	15,700		16,000	115,000	65,000	48,000	●	●
16,000	16,000		16,000	115,000	65,000	48,000	●	●
16,300	16,300		18,000	123,000	73,000	48,000	●	●
16,500	16,500		18,000	123,000	73,000	48,000	●	●
16,900	16,900		18,000	123,000	73,000	48,000	●	●
17,000	17,000		18,000	123,000	73,000	48,000	●	●
17,300	17,300		18,000	123,000	73,000	48,000	●	●
17,500	17,500		18,000	123,000	73,000	48,000	●	●
18,000	18,000		18,000	123,000	73,000	48,000	●	●
18,500	18,500		20,000	131,000	79,000	50,000	●	●
18,900	18,900		20,000	131,000	79,000	50,000	●	●
19,000	19,000		20,000	131,000	79,000	50,000	●	●
19,050	19,050	3/4	20,000	131,000	79,000	50,000	●	●
19,300	19,300		20,000	131,000	79,000	50,000	●	●
19,500	19,500		20,000	131,000	79,000	50,000	●	●
20,000	20,000		20,000	131,000	79,000	50,000	●	●

Pittogrammi v. pag. 14

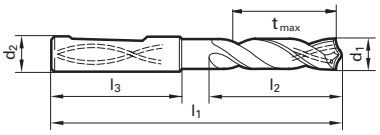
DIN 6537 L | RT 100 VA | 5xD | R | m7

Per ordinare = articolo + codice

Articolo	8511	8611
P		
M		
K		
N		
S		
H		
Tratt. di superficie	TiAlN nanoA	TiAlN nanoA
Gruppo di sconto	121	121



$t_{max} = l_2 - 1{,}5 \times d_1$



Codice Nr.	d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	HA 8511 Disponibilità	HE 8611 Disponibilità
3,000	3,000		6,000	66,000	28,000	36,000	●	●
3,100	3,100		6,000	66,000	28,000	36,000	●	●
3,170	3,170	1/8	6,000	66,000	28,000	36,000	●	●
3,200	3,200		6,000	66,000	28,000	36,000	●	●
3,250	3,250		6,000	66,000	28,000	36,000	●	●
3,300	3,300		6,000	66,000	28,000	36,000	●	●
3,400	3,400		6,000	66,000	28,000	36,000	●	●
3,500	3,500		6,000	66,000	28,000	36,000	●	●
3,570	3,570	9/64	6,000	66,000	28,000	36,000	●	●
3,600	3,600		6,000	66,000	28,000	36,000	●	●
3,700	3,700		6,000	66,000	28,000	36,000	●	●
3,800	3,800		6,000	74,000	36,000	36,000	●	●
3,900	3,900		6,000	74,000	36,000	36,000	●	●
3,970	3,970	5/32	6,000	74,000	36,000	36,000	●	●
4,000	4,000		6,000	74,000	36,000	36,000	●	●
4,100	4,100		6,000	74,000	36,000	36,000	●	●
4,200	4,200		6,000	74,000	36,000	36,000	●	●
4,300	4,300		6,000	74,000	36,000	36,000	●	●
4,370	4,370	11/64	6,000	74,000	36,000	36,000	●	●
4,400	4,400		6,000	74,000	36,000	36,000	●	●
4,500	4,500		6,000	74,000	36,000	36,000	●	●
4,600	4,600		6,000	74,000	36,000	36,000	●	●
4,650	4,650		6,000	74,000	36,000	36,000	●	●
4,700	4,700		6,000	74,000	36,000	36,000	●	●
4,760	4,760	3/16	6,000	82,000	44,000	36,000	●	●
4,800	4,800		6,000	82,000	44,000	36,000	●	●
4,900	4,900		6,000	82,000	44,000	36,000	●	●
5,000	5,000		6,000	82,000	44,000	36,000	●	●
5,100	5,100		6,000	82,000	44,000	36,000	●	●
5,160	5,160	13/64	6,000	82,000	44,000	36,000	●	●
5,200	5,200		6,000	82,000	44,000	36,000	●	●
5,300	5,300		6,000	82,000	44,000	36,000	●	●
5,400	5,400		6,000	82,000	44,000	36,000	●	●
5,500	5,500		6,000	82,000	44,000	36,000	●	●
5,550	5,550		6,000	82,000	44,000	36,000	●	●
5,560	5,560	7/32	6,000	82,000	44,000	36,000	●	●
5,600	5,600		6,000	82,000	44,000	36,000	●	●
5,700	5,700		6,000	82,000	44,000	36,000	●	●
5,800	5,800		6,000	82,000	44,000	36,000	●	●

Pittogrammi v. pag. 14

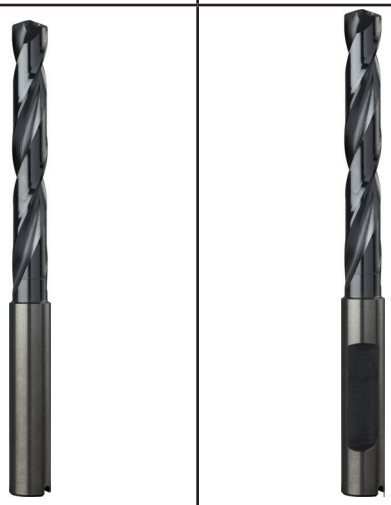
RT 100 VA

MD

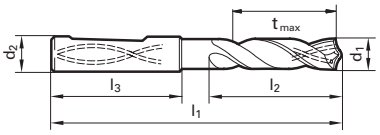
DIN 6537 L | RT 100 VA | 5xD | m7

Per ordinare = articolo + codice

Articolo	8511	8611
P		
M		
K		
N		
S		
H		
Tratt. di superficie	TiAlN nanoA	TiAlN nanoA
Gruppo di sconto	121	121



$t_{max} = l_2 - 1{,}5 \times d_1$



Codice Nr.	d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	8511	8611
5,900	5,900		6,000	82,000	44,000	36,000	●	●
5,950	5,950	15/64	6,000	82,000	44,000	36,000	●	●
6,000	6,000		6,000	82,000	44,000	36,000	●	●
6,100	6,100		8,000	91,000	53,000	36,000	●	●
6,200	6,200		8,000	91,000	53,000	36,000	●	●
6,300	6,300		8,000	91,000	53,000	36,000	●	●
6,350	6,350	1/4	8,000	91,000	53,000	36,000	●	●
6,400	6,400		8,000	91,000	53,000	36,000	●	●
6,500	6,500		8,000	91,000	53,000	36,000	●	●
6,600	6,600		8,000	91,000	53,000	36,000	●	●
6,700	6,700		8,000	91,000	53,000	36,000	●	●
6,750	6,750	17/64	8,000	91,000	53,000	36,000	●	●
6,800	6,800		8,000	91,000	53,000	36,000	●	●
6,900	6,900		8,000	91,000	53,000	36,000	●	●
7,000	7,000		8,000	91,000	53,000	36,000	●	●
7,100	7,100		8,000	91,000	53,000	36,000	●	●
7,140	7,140	9/32	8,000	91,000	53,000	36,000	●	●
7,200	7,200		8,000	91,000	53,000	36,000	●	●
7,300	7,300		8,000	91,000	53,000	36,000	●	●
7,400	7,400		8,000	91,000	53,000	36,000	●	●
7,500	7,500		8,000	91,000	53,000	36,000	●	●
7,540	7,540	19/64	8,000	91,000	53,000	36,000	●	●
7,600	7,600		8,000	91,000	53,000	36,000	●	●
7,700	7,700		8,000	91,000	53,000	36,000	●	●
7,800	7,800		8,000	91,000	53,000	36,000	●	●
7,900	7,900		8,000	91,000	53,000	36,000	●	●
7,940	7,940	5/16	8,000	91,000	53,000	36,000	●	●
8,000	8,000		8,000	91,000	53,000	36,000	●	●
8,100	8,100		10,000	103,000	61,000	40,000	●	●
8,200	8,200		10,000	103,000	61,000	40,000	●	●
8,300	8,300		10,000	103,000	61,000	40,000	●	●
8,330	8,330	21/64	10,000	103,000	61,000	40,000	●	●
8,400	8,400		10,000	103,000	61,000	40,000	●	●
8,500	8,500		10,000	103,000	61,000	40,000	●	●
8,600	8,600		10,000	103,000	61,000	40,000	●	●
8,700	8,700		10,000	103,000	61,000	40,000	●	●
8,730	8,730	11/32	10,000	103,000	61,000	40,000	●	●
8,800	8,800		10,000	103,000	61,000	40,000	●	●
8,900	8,900		10,000	103,000	61,000	40,000	●	●

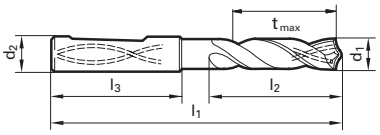
Pittogrammi v. pag. 14

DIN 6537 L | RT 100 VA | 5xD | R | m7

Per ordinare = articolo + codice

Articolo	8511	8611
P		
M		
K		
N		
S		
H		
Tratt. di superficie	TiAlN nanoA	TiAlN nanoA
Gruppo di sconto	121	121

$t_{max} = l_2 - 1{,}5 \times d_1$



Codice Nr.	d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	Disponibilità 8511	Disponibilità 8611
9,000	9,000		10,000	103,000	61,000	40,000	●	●
9,100	9,100		10,000	103,000	61,000	40,000	●	●
9,130	9,130	23/64	10,000	103,000	61,000	40,000	●	●
9,200	9,200		10,000	103,000	61,000	40,000	●	●
9,250	9,250		10,000	103,000	61,000	40,000	●	●
9,300	9,300		10,000	103,000	61,000	40,000	●	●
9,400	9,400		10,000	103,000	61,000	40,000	●	●
9,500	9,500		10,000	103,000	61,000	40,000	●	●
9,520	9,520	3/8	10,000	103,000	61,000	40,000	●	●
9,600	9,600		10,000	103,000	61,000	40,000	●	●
9,700	9,700		10,000	103,000	61,000	40,000	●	●
9,800	9,800		10,000	103,000	61,000	40,000	●	●
9,900	9,900		10,000	103,000	61,000	40,000	●	●
9,920	9,920	25/64	10,000	103,000	61,000	40,000	●	●
10,000	10,000		10,000	103,000	61,000	40,000	●	●
10,100	10,100		12,000	118,000	71,000	45,000	●	●
10,200	10,200		12,000	118,000	71,000	45,000	●	●
10,300	10,300		12,000	118,000	71,000	45,000	●	●
10,320	10,320	13/32	12,000	118,000	71,000	45,000	●	●
10,400	10,400		12,000	118,000	71,000	45,000	●	●
10,500	10,500		12,000	118,000	71,000	45,000	●	●
10,600	10,600		12,000	118,000	71,000	45,000	●	●
10,700	10,700		12,000	118,000	71,000	45,000	●	●
10,800	10,800		12,000	118,000	71,000	45,000	●	●
10,900	10,900		12,000	118,000	71,000	45,000	●	●
11,000	11,000		12,000	118,000	71,000	45,000	●	●
11,100	11,100		12,000	118,000	71,000	45,000	●	●
11,110	11,110	7/16	12,000	118,000	71,000	45,000	●	●
11,200	11,200		12,000	118,000	71,000	45,000	●	●
11,300	11,300		12,000	118,000	71,000	45,000	●	●
11,400	11,400		12,000	118,000	71,000	45,000	●	●
11,500	11,500		12,000	118,000	71,000	45,000	●	●
11,600	11,600		12,000	118,000	71,000	45,000	●	●
11,700	11,700		12,000	118,000	71,000	45,000	●	●
11,800	11,800		12,000	118,000	71,000	45,000	●	●
11,900	11,900		12,000	118,000	71,000	45,000	●	●
11,910	11,910	15/32	12,000	118,000	71,000	45,000	●	●
12,000	12,000		12,000	118,000	71,000	45,000	●	●
12,200	12,200		14,000	124,000	77,000	45,000	●	●

Pittogrammi v. pag. 14

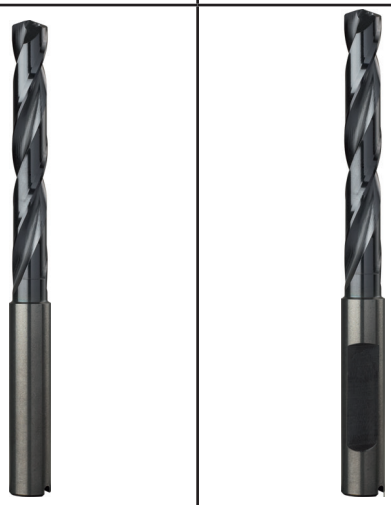
RT 100 VA

MD

DIN 6537 L | RT 100 VA | 5xD | m7

Per ordinare = articolo + codice

Articolo	8511	8611
P		
M		
K		
N		
S		
H		
Tratt. di superficie	TiAlN nanoA	TiAlN nanoA
Gruppo di sconto	121	121



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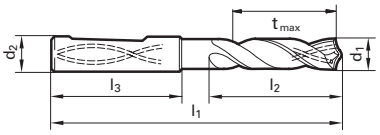


Codice Nr.	d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	Disponibilità 8511	Disponibilità 8611
12,500	12,500		14,000	124,000	77,000	45,000	●	●
12,700	12,700	1/2	14,000	124,000	77,000	45,000	●	●
12,800	12,800		14,000	124,000	77,000	45,000	●	●
13,000	13,000		14,000	124,000	77,000	45,000	●	●
13,300	13,300		14,000	124,000	77,000	45,000	●	●
13,500	13,500		14,000	124,000	77,000	45,000	●	●
13,700	13,700		14,000	124,000	77,000	45,000	●	●
14,000	14,000		14,000	124,000	77,000	45,000	●	●
14,200	14,200		16,000	133,000	83,000	48,000	●	●
14,290	14,290	9/16	16,000	133,000	83,000	48,000	●	●
14,300	14,300		16,000	133,000	83,000	48,000	●	●
14,500	14,500		16,000	133,000	83,000	48,000	●	●
14,700	14,700		16,000	133,000	83,000	48,000	●	●
15,000	15,000		16,000	133,000	83,000	48,000	●	●
15,200	15,200		16,000	133,000	83,000	48,000	●	●
15,300	15,300		16,000	133,000	83,000	48,000	●	●
15,500	15,500		16,000	133,000	83,000	48,000	●	●
15,700	15,700		16,000	133,000	83,000	48,000	●	●
16,000	16,000		16,000	133,000	83,000	48,000	●	●
16,300	16,300		18,000	143,000	93,000	48,000	●	●
16,500	16,500		18,000	143,000	93,000	48,000	●	●
16,900	16,900		18,000	143,000	93,000	48,000	●	●
17,000	17,000		18,000	143,000	93,000	48,000	●	●
17,300	17,300		18,000	143,000	93,000	48,000	●	●
17,500	17,500		18,000	143,000	93,000	48,000	●	●
18,000	18,000		18,000	143,000	93,000	48,000	●	●
18,500	18,500		20,000	153,000	101,000	50,000	●	●
18,900	18,900		20,000	153,000	101,000	50,000	●	●
19,000	19,000		20,000	153,000	101,000	50,000	●	●
19,050	19,050	3/4	20,000	153,000	101,000	50,000	●	●
19,300	19,300		20,000	153,000	101,000	50,000	●	●
19,500	19,500		20,000	153,000	101,000	50,000	●	●
20,000	20,000		20,000	153,000	101,000	50,000	●	●

Pittogrammi v. pag. 14

Consigli generali:
Macchine ad alto rendimento, mandrini con poco gioco, attacchi utensili con allineamento preciso, errore di coassialità dell'utensile serrato max. 0,02 mm, alta preessione del refrigerante. Consigliamo l'impiego di mandrini ad espansione idraulica o mandrini di calettamento.

Consigli per la refrigerazione:
Consigliamo di refrigerare con emulsione od olio. In alternativa, a ben precise condizioni, si può lavorare anche con aria. Tuttavia, al posto dell'aria, noi consiglieremmo sempre l'impiego di nebulizzazione, dato che gli utensili sono particolarmente adatti per essa. Con l'impiego di nebulizzazione consigliamo l'uso delle estremità conica dei codoli specifica nonchè dei relativi mandrini Gühring per nebulizzazione. I nostri tecnici sono a Vostra disposizione per consigliarvi.

Ø punta mm	Colonne avanzamento								
	1	2	3	4	5	6	7	8	9
	f (mm/giro)								
2,50	0,025	0,032	0,040	0,050	0,063	0,080	0,100	0,125	0,160
3,15	0,032	0,040	0,050	0,063	0,080	0,100	0,125	0,160	0,160
4,00	0,040	0,050	0,063	0,080	0,100	0,125	0,160	0,200	0,200
5,00	0,040	0,050	0,063	0,080	0,100	0,125	0,160	0,200	0,250
6,30	0,050	0,063	0,080	0,100	0,125	0,160	0,200	0,250	0,315
8,00	0,063	0,080	0,100	0,125	0,160	0,200	0,250	0,315	0,315
10,00	0,080	0,100	0,125	0,160	0,200	0,250	0,315	0,400	0,400
12,50	0,080	0,100	0,125	0,160	0,200	0,250	0,315	0,400	0,500
16,00	0,100	0,125	0,160	0,200	0,250	0,315	0,400	0,500	0,630
20,00	0,125	0,160	0,200	0,250	0,315	0,400	0,500	0,630	0,630
25,00	0,160	0,200	0,250	0,315	0,400	0,500	0,630	0,800	0,800

Refrigerante:
O Aria
● Olio
◐ Emulsione

Materiali	Esempi di materiali, **nuove designazioni** (tra parentesi quelle precedenti) *numeri in grassetto = numero materiale a DIN EN*	Resistenza MPa (N/mm²) Durezza	Refrigerante
Acciai da costruzione in generale	**1.0035** S185(St33),**1.0486** P275N(StE285),**1.0345** P235GH(H1),**1.0425** P265GH(H2) **1.0050** E295 (St50-2), **1.0070** E360 (St70-2), **1.8937** P500NH (WStE500)	≤500 >500-850	◐ ◐
Acciai automatici	**1.0718** 11SMnPb30 (9SMnPb28), **1.0736** 11SMn37 (9SMn36) **1.0727** 46S20 (45S20), **1.0728** (60S20), **1.0757** 46SPb20 (45SPb20)	≤850 850-1000	◐ ◐
Acciai da bonifica non legati	**1.0402** C22, **1.1178** C30E (Ck30) **1.0503** C45, **1.1191** C45E (Ck45) **1.0601** C60, **1.1221** C60E (Ck60)	≤ 700 700-850 850-1000	◐ ◐ ◐
Acciai da bonifica legati	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4 **1.5710** 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	850-≤1000 1000-1200	◐ ◐
	1.0301 (C10), **1.1121** C10E (Ck10)	≤750	◐
Acciai da cementazione legati	**1.7043** 38Cr4 **1.5752** 15NiCr13 (15NiCr13), **1.7131** 16MnCr5, **1.7264** 20CrMo5	850-≤1000 1000-1200	● ●
Acciai nitrurati	**1.8504** 34CrAl6 **1.8519** 31CrMoV9, **1.8550** 34CrAlNi7	≥850-≤1000 >1000-1200	◐ ●
Acciai utensili	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9 **1.2080** X210Cr12, **1.2083** X42Cr13, **1.2419** 105WCr6, **1.2767** X45NiCrMo4	≤850 >850-1000	◐ ●
	1.3243 S 6-5-2-5, **1.3343** S 6-5-2, **1.3344** S 6-5-3	≥650-1000	●
	1.5026 55Si7, **1.7176** 55Cr3, **1.8159** 51CrV4 (51CrV4)	≤330 HB	●
Acciai inossidabili, allo zolfo austenitici	**1.4005** X12CrS13, **1.4104** X14CrMoS17, **1.4105** X6CrMoS17, **1.4305** X8CrNiS18-9 **1.4301** X5CrNi18-10 (V2A), **1.4541** X6CrNiTi18-10, **1.4571** X6CrNiMoTi 17-12-2 (V4A) **1.4057** X20CrNi 17 2 (X17CrNi16-2), **1.4122** X39CrMo17-1, **1.4521** X2CrMoTi18-2	≤850 ≤850 ≤850	● ● ●
	–	≤40-48 HRC >48-60 HRC	● ●
	Nimonic, Inconel, Monel, Hastelloy	≤1200	●
Ghise	**0.6010** EN-GJL-100(GG10), **0.6020** EN-GJL-200(GG20) **0.6025** EN-GJL-250(GG25), **0.6035** EN-GJL-350(GG35)	≤240 HB <300 HB	◐○ ◐○
Nuove ghise GGV	**EN-GJV250 (GGV25)**, **EN-GJV350** (GGV35) **EN-GJV400** (GGV40), **EN-GJV500** (GGV50), SiMo 6	≤220 HB <300 HB	◐○ ◐○
Nuove ghise ADI	**EN-GJS-800-8** (ADI800), **EN-GJS-1000-5** (ADI1000) **EN-GJS-1200-2** (ADI1200), **EN-GJS-1400-1** (ADI1400)	800-1000 1200-1400	◐○ ◐○
Ghise sferoidali, ghise temprate	**0.7050** EN-GJS-500-7(GGG50), **0.8035** EN-GJMW-350-4(GTW35) **0.7070** EN-GJS-700-2(GGG70), **0.8170** EN-GJMB-700-2(GTS70)	≤240 HB <300 HB	◐ ◐
	–	≤350 HB	◐
Titanio e leghe di titanio	**3.7024** Ti99,5, **3.7114** TiAl5Sn2,5, **3.7124** TiCu2 **3.7154** TiAl6Zr5, **3.7165** TiAl6V4, **3.7184** TiAl4Mo4Sn2,5, - TiAl8Mo1V1	≤850 >850-1200	● ●
	3.0255 Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400	◐
	3.0615 AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤450	◐
Leghe alu-ghisa ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9 **3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600 ≤600	◐ ◐
	3.5200 MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05** G-MgAl6Zn1	≤450	○
	2.0070 SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤400	◐
Ottone, a truciolo corto	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2 **2.0250** CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600 ≤600	◐ ◐
Bronzi, a truciolo corto	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn **2.0790** CuNi18Zn19Pb	≤600 >600-850	◐● ●
Bronzi, a truciolo lungo	**2.0916** CuAl5, **2.0960** CuAl9Mn, **2.1050** CuSn10 **2.0980** CuAl11Ni, **2.1247** CuBe2	≤850 >850-1000	● ●

Mat. tagliente	MD	MD	MD	MD
Tipo di MD	K	K	K	K
Tipo	RT 100 VA	RT 100 VA	RT 100 VA	RT 100 VA
Tratt. di super-	TiAlN nanoA	TiAlN nanoA	TiAlN nanoA	TiAlN nanoA
Refrigerazione	■	■	■	■
Art. DIN 6537 HA R	**8510**	**8510**	**8511**	**8511**
Art. DIN 6537 HE R	**8610**	**8610**	**8611**	**8611**
per Ø	d1 ≤ 10 mm	d1 > 10 mm	d1 ≤ 10 mm	d1 > 10 mm

v_c m/min	Numero colonna avanzamento	v_c m/min	Numero colonna avanzamento	v_c m/min	Numero colonna avanzamento	v_c m/min	Numero colonna avanzamento
80	**5**	*80*	**5**	*80*	**5**	*80*	**5**
60	**3**	*90*	**2**	*60*	**3**	*90*	**2**
80	**5**	*80*	**5**	*80*	**5**	*80*	**5**
30	**2**	*30*	**2**	*30*	**2**	*30*	**2**
35	2	*35*	2	*35*	2	*35*	2

Pittogrammi

Materiale tagliente	MD
	metallo duro integrale a grana ultra
Norma	DIN 6537 K DIN 6537 L
	a DIN
Tipo	RT 100 VA
Refrigerazione	
	con fori refrigerazione
Direzione di taglio	R
	destra
Profondità di foro	3xD 5xD
	prof. foro massima, basata sul diametro nominale
Tolleranza	m7
	Tolleranza del foro
Forma del codolo	HA HE
	a DIN 6535

☐ **Ordine** ☐ **Richiesta**

Nome / eventuale numero cliente

numero ordine

via/numero civico

Telefono

mail

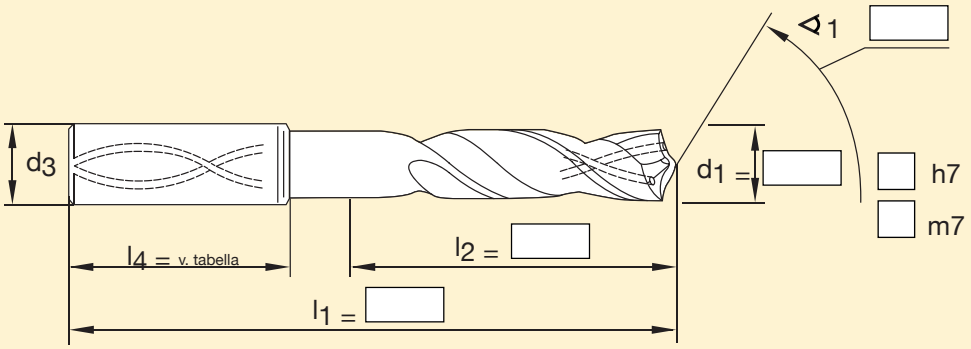
Data

Firma

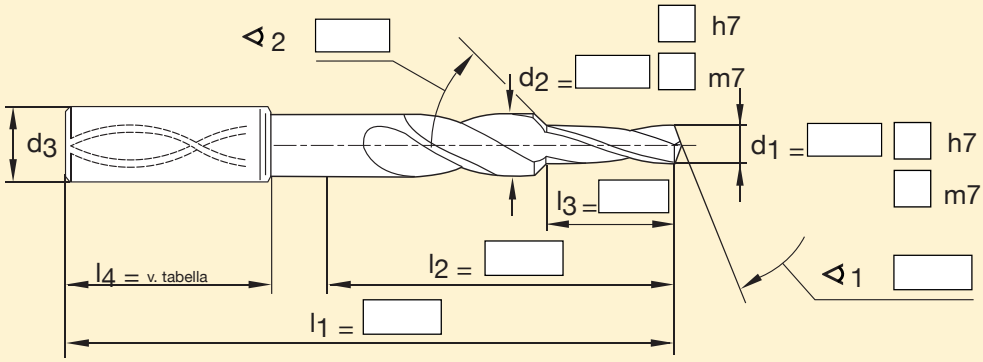
Tipo di utensile

RT 100 VA (elicoidale)

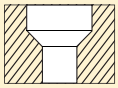
Dimensioni



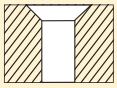
Esecuzione a gradini



Lavorazione



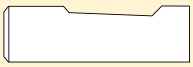
foro gradinato



foratura e svasatura

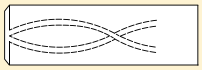
Forma del codolo

HA



HE

Fori refrigerazione



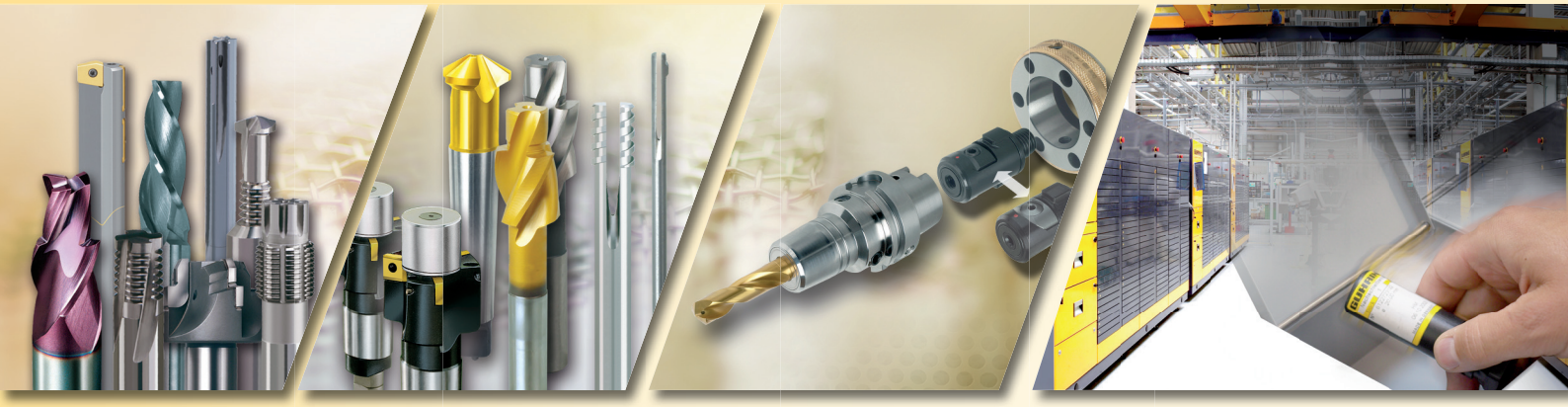
si

no

Ricopertura

☐ nanoA ☐ lucida

FORATURA MASCHIATURA FRESARTURA ALESATURA PKD



UTENSILI SPECIALI SVASATURA SISTEMI MODULARI SERVICE

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