

SERIE BC8100/MB8100

INSERTI PCBN
PER TORNITURA



SERIE BC8100

GRADI PCBN RIVESTITI PER LA TORNITURA DELL'ACCIAIO TEMPRATO



BC8105

MASSIMA PRECISIONE

Per taglio continuo

- Qualità eccellente della finitura superficiale e tolleranza ridotta per una lunga durata dell'utensile
- Per finiture superficiali fino a Rz 2.4 (Ra 0.6)



BC8110/MB8110

TORNITURA AD ALTA VELOCITÀ

Per taglio continuo e taglio leggermente interrotto

- Lunga durata e stabilità dell'utensile per finiture superficiali sotto Rz 6.3



BC8120/MB8120

APPLICAZIONI GENERICHE

Per taglio continuo e taglio medio interrotto

- Prima scelta per la sgrossatura e la prefinitura



BC8130/MB8130

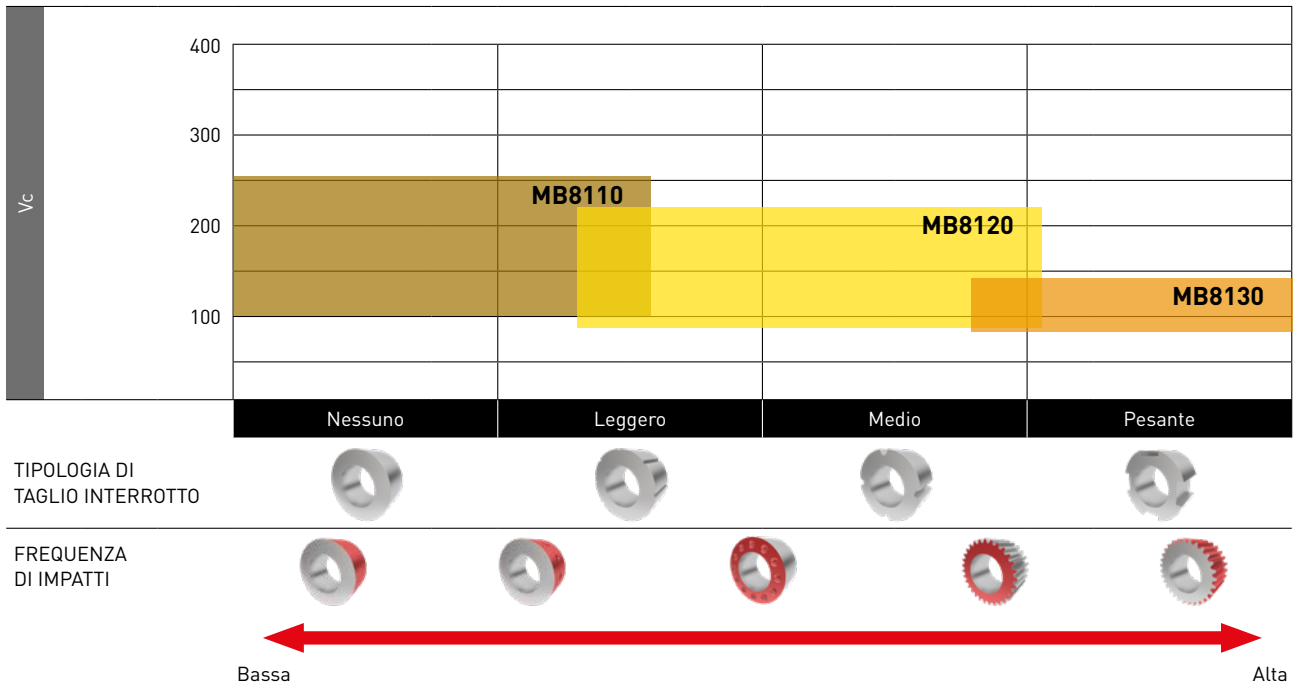
LAVORAZIONE GRAVOSA

Per applicazioni instabili e taglio pesante interrotto

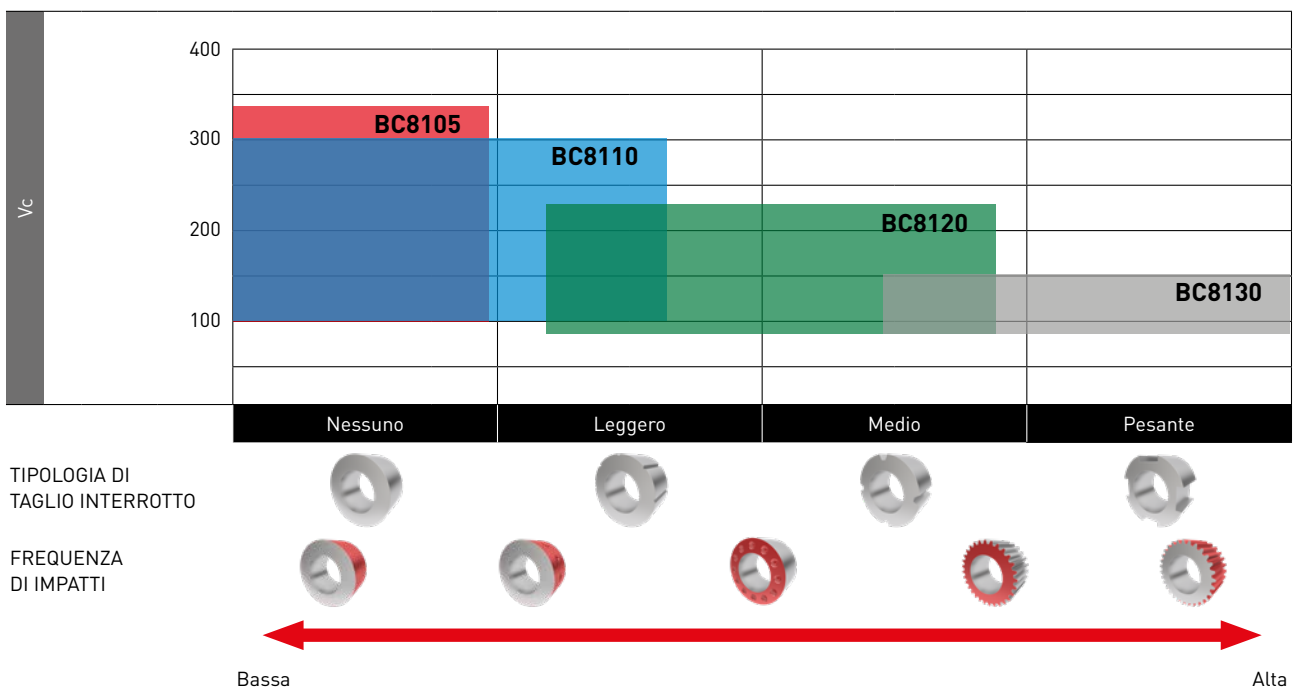
- Precisione della tolleranza mantenuta a fronte di un numero elevato di impatti

CAMPI APPLICATIVI

SERIE PCBN NON RIVESTITA MB8100



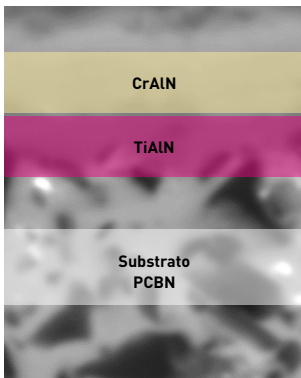
SERIE PCBN RIVESTITA BC8100



GRADI

NUOVO RIVESTIMENTO AVANZATO

BC8105



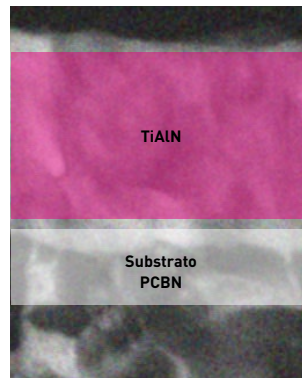
Il rivestimento con basso coefficiente di attrito evita l'incollamento dei trucioli e permette eccellenti finiture superficiali.

BC8110



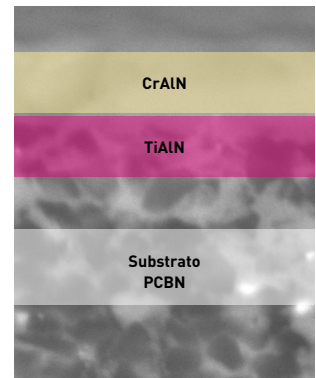
Maggiore durata dell'utensile durante la lavorazione ad alta velocità grazie all'elevata resistenza all'usura.

BC8120



L'elevata resistenza alla spellatura del rivestimento fornisce una maggiore durata dell'utensile.

BC8130



Altamente resistente alla scheggiatura e alla spellatura del rivestimento.

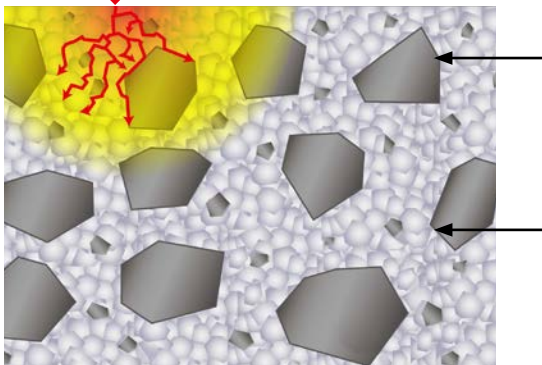
TECNOLOGIA OTTIMIZZATA DEL SUBSTRATO

SERIE BC8100 / MB8100

Forza di taglio



La dispersione radiale delle forze contribuisce a evitare scheggiature improvvise

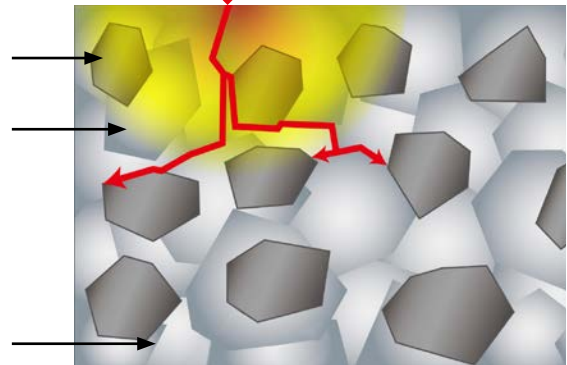


CONVENZIONALE

Forza di taglio



La dispersione delle forze in direzione lineare può causare scheggiature improvvise

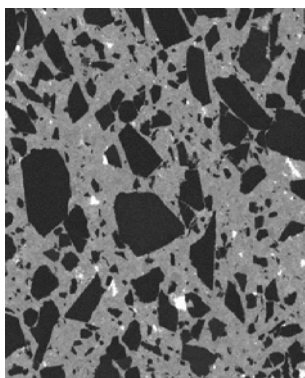


Il nuovo legante a ultra micro-particelle per inserti PCBN rivestiti e non rivestiti previene lo sviluppo di fratture lineari, evitando cedimenti improvvisi.

SERIE PCBN NON RIVESTITA

MB8100

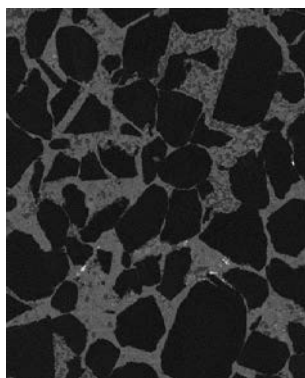
MB8110



Per taglio continuo

MB8110 è caratterizzato da un'eccellente resistenza all'usura ed è perciò ideale per il taglio continuo.

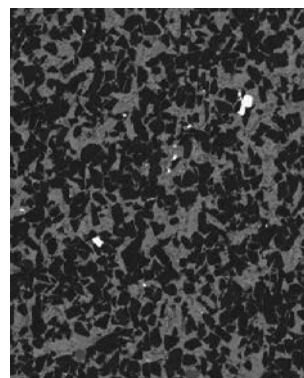
MB8120



Per taglio generico

MB8120 fornisce un'eccellente resistenza all'usura e alla scheggiatura ed è adatto per un'ampia gamma di applicazioni.

MB8130



Per taglio fortemente interrotto

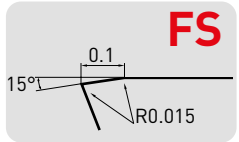
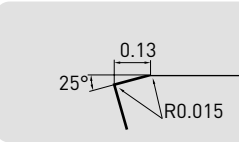

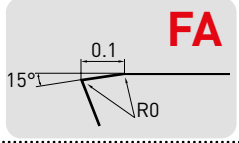
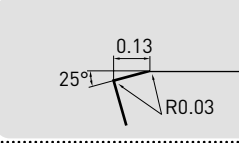
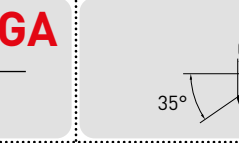
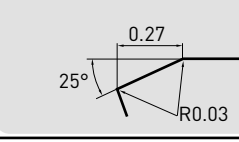
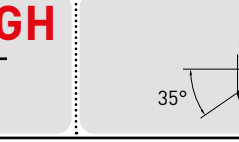




MB8130 è dotato della più alta resistenza alla scheggiatura ed è ideale per applicazioni instabili e lavorazioni con taglio fortemente interrotto.

I gradi PCBN rivestiti e non rivestiti sono prodotti utilizzando la tecnologia con legante a ultra micro-particelle.



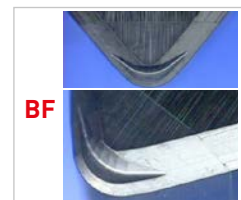
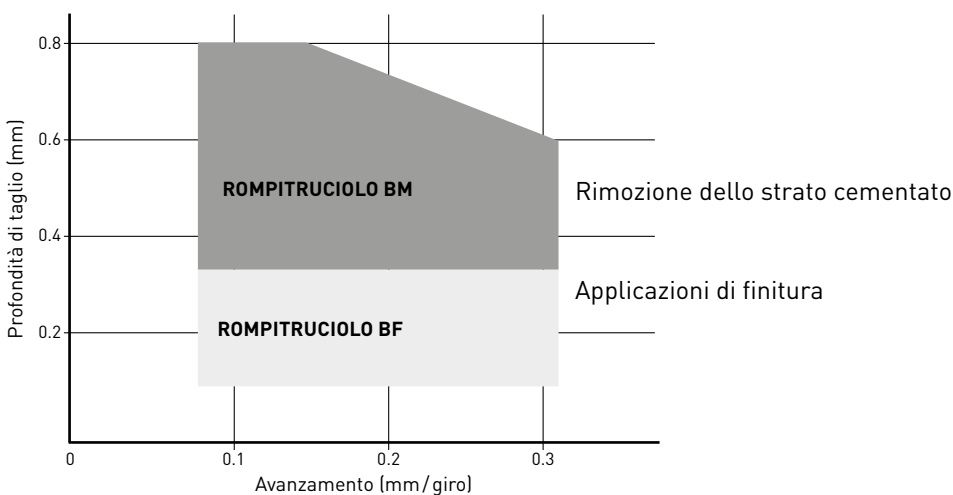
GEOMETRIA

PREPARAZIONE DEL TAGLIENTE

Per profondità di taglio molto ridotte	 FS	 GS	 TS	
Per lavorazione generica	 FA	 GA	 TA	
Taglio pesante interrotto		 GH	 TH	
Tipologia di taglio interrotto				
	Nessuno	Leggero	Medio	Pesante

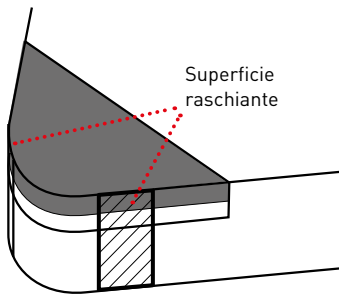
Diverse preparazioni del tagliente per tutte le applicazioni.

ROMPITRUCIOLO BM/BF



Sistema rompitruciolo per un eccellente controllo dei trucioli durante la finitura, la rimozione degli strati cementati e la lavorazione di materiali con strati alternati duri e morbidi.

INSERTO WIPER



MIGLIORE FINITURA SUPERFICIALE

Nelle stesse condizioni di lavorazione dei rompitruccioli convenzionali, ma con una velocità di avanzamento superiore, è possibile migliorare la finitura superficiale del pezzo da lavorare.

MIGLIORE EFFICIENZA

Velocità di avanzamento elevate consentono non soltanto di accorciare i tempi di lavorazione, ma anche di effettuare sia operazioni di sgrossatura che di finitura.

VITA UTENSILE PIÙ LUNGA

In condizioni di avanzamento elevato, si riduce il tempo necessario per eseguire la lavorazione del componente, con benefici sulla durata dell'inserto. Inoltre, l'elevata velocità di avanzamento riduce l'attrito, ritardando così la progressione dell'usura e prolungando la vita utensile.

MIGLIOR CONTROLLO DEI TRUCIOLI

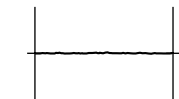
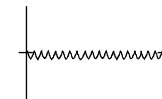
In condizioni di avanzamento elevato, i trucioli prodotti diventano più spessi e corti, consentendo così un migliore controllo dei trucioli stessi.

CONDIZIONI DI TAGLIO RACCOMANDATE E PRESTAZIONI

FINITURA AD ALTA PRECISIONE

Senza wiper

Con wiper



Ry=3.2 µm

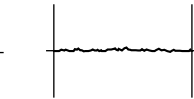
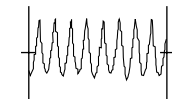
Ry=1.0 µm

Velocità di taglio: 100 m/min
Avanzamento: 0.1 mm/giro
Profondità di taglio: 0.1 mm
Taglio a secco

LAVORAZIONE AD AVANZAMENTO ELEVATO

Senza wiper

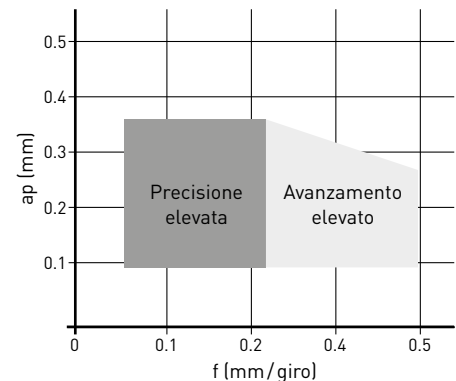
Con wiper



Ry=12.2 µm

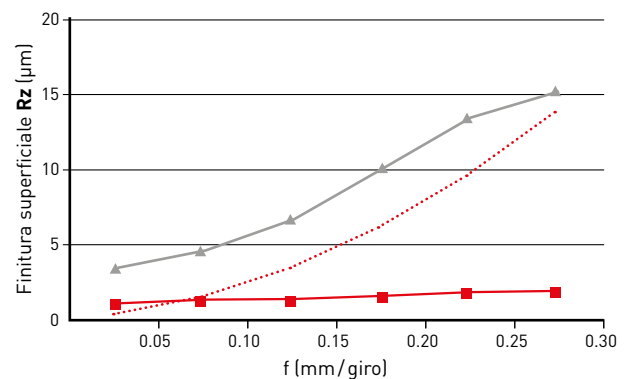
Ry=1.2 µm

Velocità di taglio: 100 m/min
Avanzamento: 0.3 mm/giro
Profondità di taglio: 0.1 mm
Taglio a secco



PRESTAZIONI DI TAGLIO

Inserto	NP-CNGA120408
Materiale da lavorare	Acciaio temprato (HRC60)
Modalità di taglio	Continuo
Vc (m/min)	120
f (mm/giro)	Vario
ap (mm)	0.1
Refrigerante	Taglio a secco



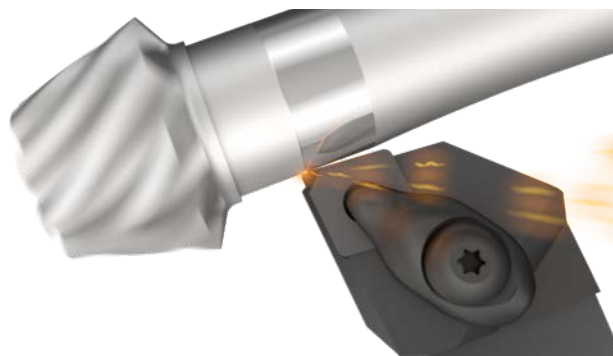
- Raschiante
- ▲ Senza wiper
- Rugosità superficiale finale teorica

BC8105

MASSIMA PRECISIONE

PER TAGLIO CONTINUO

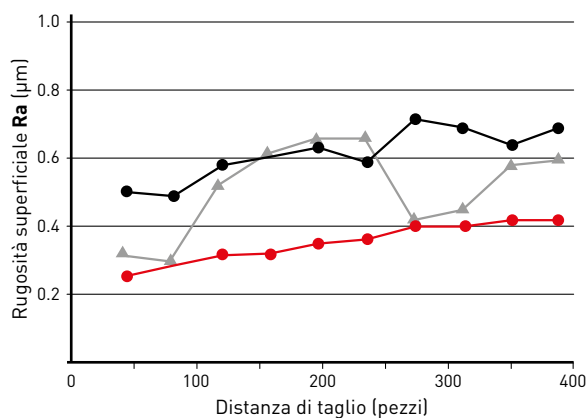
- Qualità eccellente della sgrossatura superficiale e tolleranza ridotta per una lunga durata dell'utensile
- per finiture superficiali fino a $Rz\ 2.4\ \mu\text{m}$ ($Ra\ 0.6\ \mu\text{m}$)



FINITURA SUPERFICIALE

Inserto	NP-DNGA150608GS2
Materiale da lavorare	34Mn5 (60 HRC)
Modalità di taglio	continuo
Vc (m/min)	176
f (mm/giro)	0.09
ap (mm)	0.15
Refrigerante	Emulsione

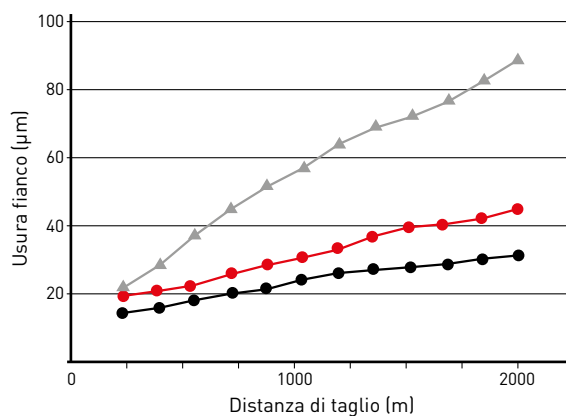
BC8105 costituisce la prima scelta per finiture superficiali migliori



VITA UTENSILE (USURA FIANCO)

Inserto	NP-CNGA120408GS2
Materiale da lavorare	42CrMo4 (60 HRC)
Modalità di taglio	continuo
Vc (m/min)	200
f (mm/giro)	0.05
ap (mm)	0.05
Refrigerante	Taglio a secco

Eccellente resistenza all'usura grazie alla tecnologia Miracle Sigma



BC8110

TORNITURA AD ALTA VELOCITÀ

PER TAGLIO CONTINUO

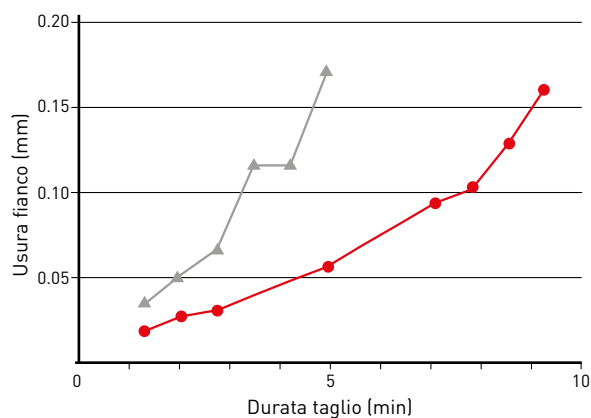
- Lunga durata e stabilità dell'utensile per finiture superficiali sotto $Rz\ 6.3\ \mu m$
- Copre un ampio campo di applicazioni per taglio continuo



VITA UTENSILE (USURA FIANCO)

Inserto	NP-CNGA120408GS2
Materiale da lavorare	42CrMo4 (60HRC)
Modalità di taglio	continuo
Vc (m/min)	250
f (mm/giro)	0.10
ap (mm)	0.2
Refrigerante	Taglio a secco

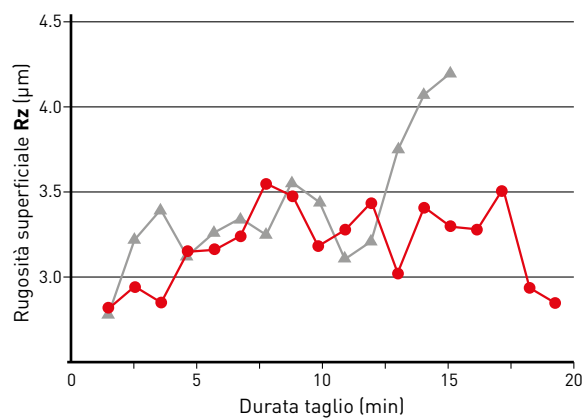
BC8110 costituisce la prima scelta per la finitura ad alta velocità



FINITURA SUPERFICIALE

Inserto	NP-CNGA120408GS2
Materiale da lavorare	42CrMo4 (60HRC)
Modalità di taglio	continuo
Vc (m/min)	250
f (mm/giro)	0.10
ap (mm)	0.2
Refrigerante	Taglio a secco

Qualità eccellente della finitura superficiale mantenuta durante lunghe applicazioni di taglio continuo



BC8120

APPLICAZIONI GENERICHE

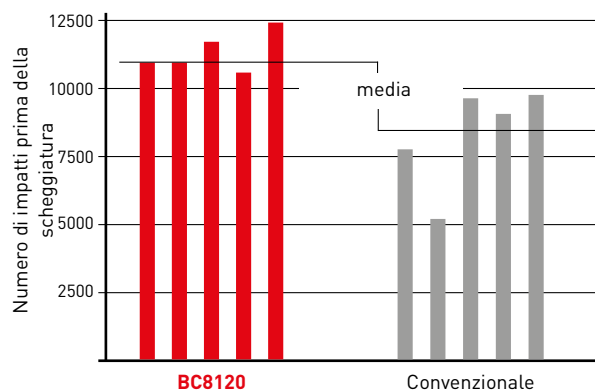
PER TAGLIO CONTINUO E TAGLIO LEGGERMENTE INTERROTTO

- Prima scelta per la sgrossatura e la prefinitura
- Copre un ampio campo di applicazioni, dalla lavorazione continua a quella leggermente interrotta.



TEST DI TAGLIO INTERROTTO

Inserto	NP-CNGA120408GA2
Materiale da lavorare	42CrMo4 (60 HRC)
Modalità di taglio	continuo
Vc (m/min)	250
f (mm/giro)	0.15
ap (mm)	0.1
Refrigerante	Taglio a secco



Condizioni del tagliente dopo 8.000 impatti



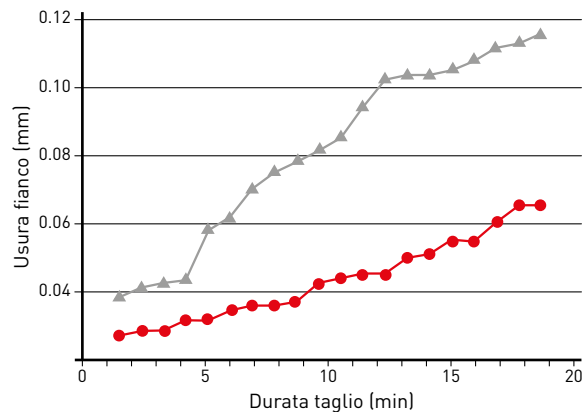
BC8120



Convenzionale

VITA UTENSILE (USURA FIANCO)

Inserto	NP-CNGA120408GA2
Materiale da lavorare	42CrMo4 (60 HRC)
Modalità di taglio	continuo
Vc (m/min)	150
f (mm/giro)	0.10
ap (mm)	0.2
Refrigerante	Taglio a secco



Tagliente dopo 15 min



BC8120



Convenzionale

Distacco

BC8130

LAVORAZIONE GRAVOSA

PER APPLICAZIONI INSTABILI E TAGLIO FORTEMENTE INTERROTTO

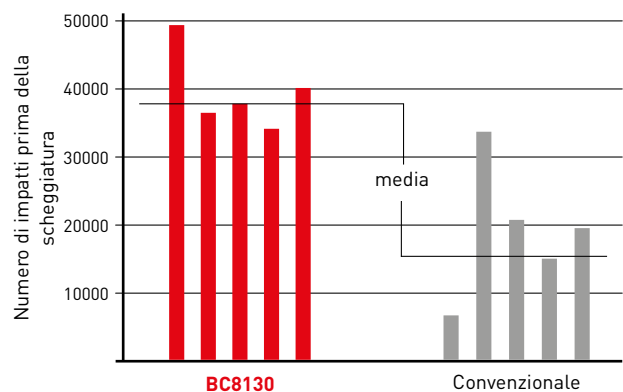
- Precisione della tolleranza mantenuta a fronte di un numero elevato di impatti



TAGLIO FORTEMENTE INTERROTTO (TEST DI LABORATORIO)

Inserto	NP-CNGA120408GA2
Materiale da lavorare	42CrMo4 (60 HRC)
Modalità di taglio	Fortemente interrotto
Vc (m/min)	250
f (mm/giro)	0.05
ap (mm)	0.1
Refrigerante	Taglio a umido

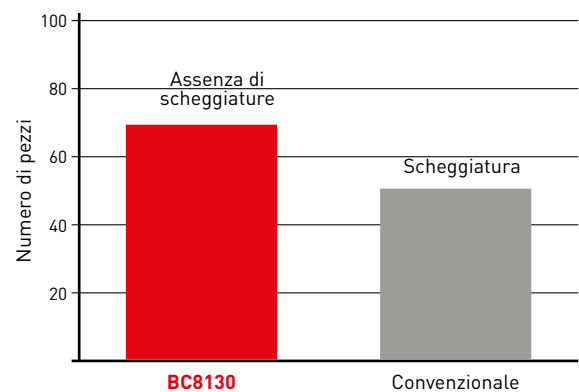
BC8130 assicura affidabilità fino a 30.000 impatti



TAGLIO FORTEMENTE INTERROTTO

Inserto	NP-CNGA120408TH2
Materiale da lavorare	C45 (58 HRC)
Modalità di taglio	Fortemente interrotto
Vc (m/min)	130
f (mm/giro)	0.08
ap (mm)	0.15
Refrigerante	Taglio a umido

Nessuna scheggiatura dopo la lavorazione di 70 pezzi



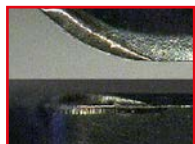
SERIE MB8100

GRADI PCBN NON RIVESTITI CON TECNOLOGIA CON LEGANTE A SUB-MICRON GRANA

VITA UTENSILE (USURA FIANCO)

Inserto	NP-CNGA120408GA2
Materiale da lavorare	JIS SCr420 (60HRC)
Modalità di taglio	Taglio esterno continuo
Vc (m/min)	250
f (mm/giro)	0.1
ap (mm)	0.2
Operazione	Taglio a secco

TAGLIENTE DOPO 180 SECONDI

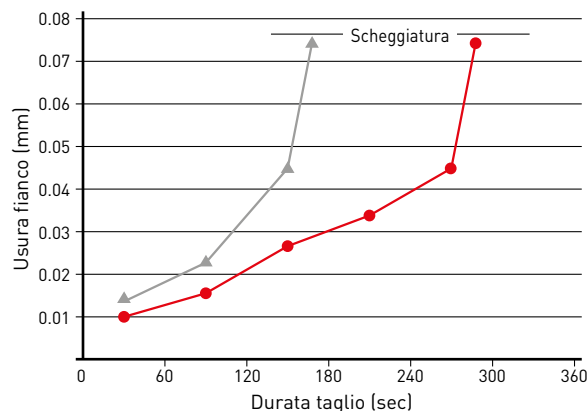


MB8110



Convenzionale

Usura elevata



LAVORAZIONE PESANTE

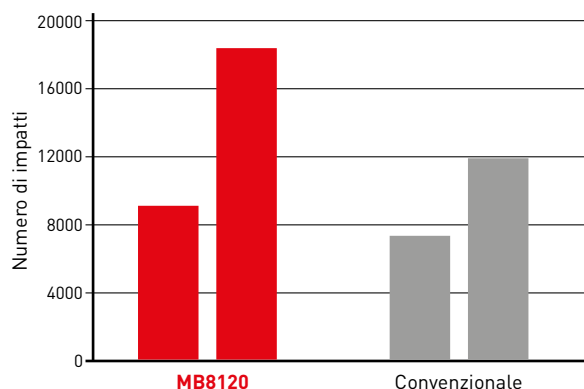
Inserto	NP-CNGA120408GA2
Materiale da lavorare	JIS SCr420 (60HRC)
Modalità di taglio	Taglio interrotto esterno
Vc (m/min)	250
f (mm/giro)	0.15
ap (mm)	0.1
Operazione	Taglio a secco



MB8120



Convenzionale



LAVORAZIONE PESANTE

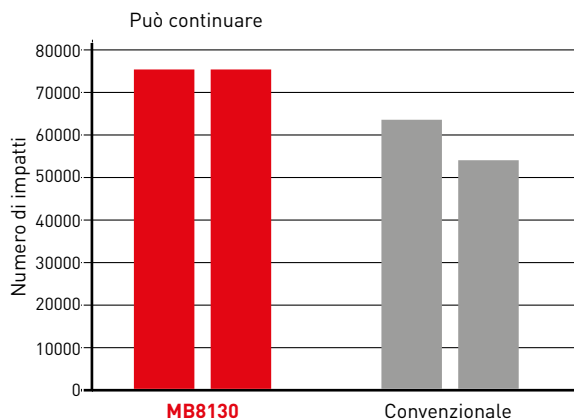
Inserto	NP-CNGA120408GA2
Materiale da lavorare	JIS SCr420 (60HRC)
Modalità di taglio	Taglio esterno fortemente interrotto
Vc (m/min)	150
f (mm/giro)	0.05
ap (mm)	0.1
Operazione	Taglio a umido



MB8130

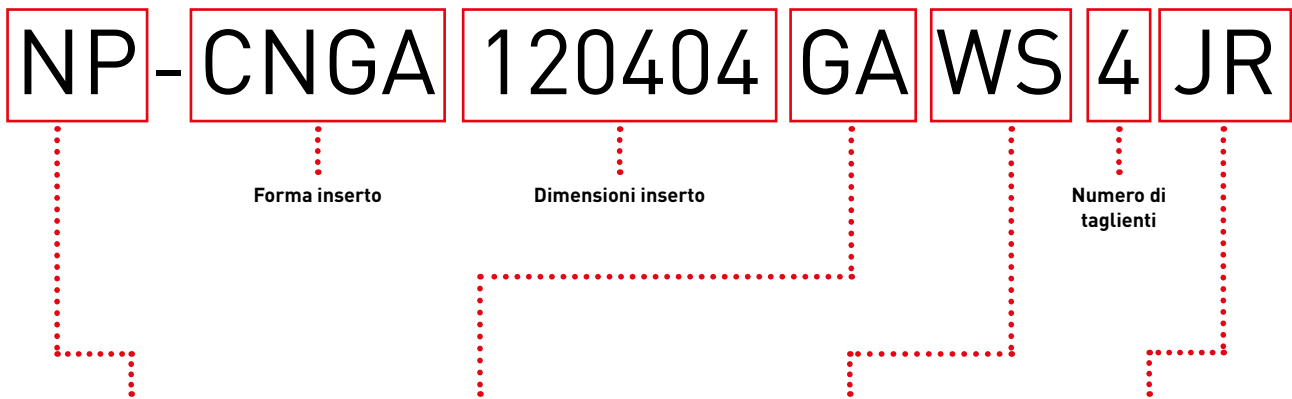


Convenzionale



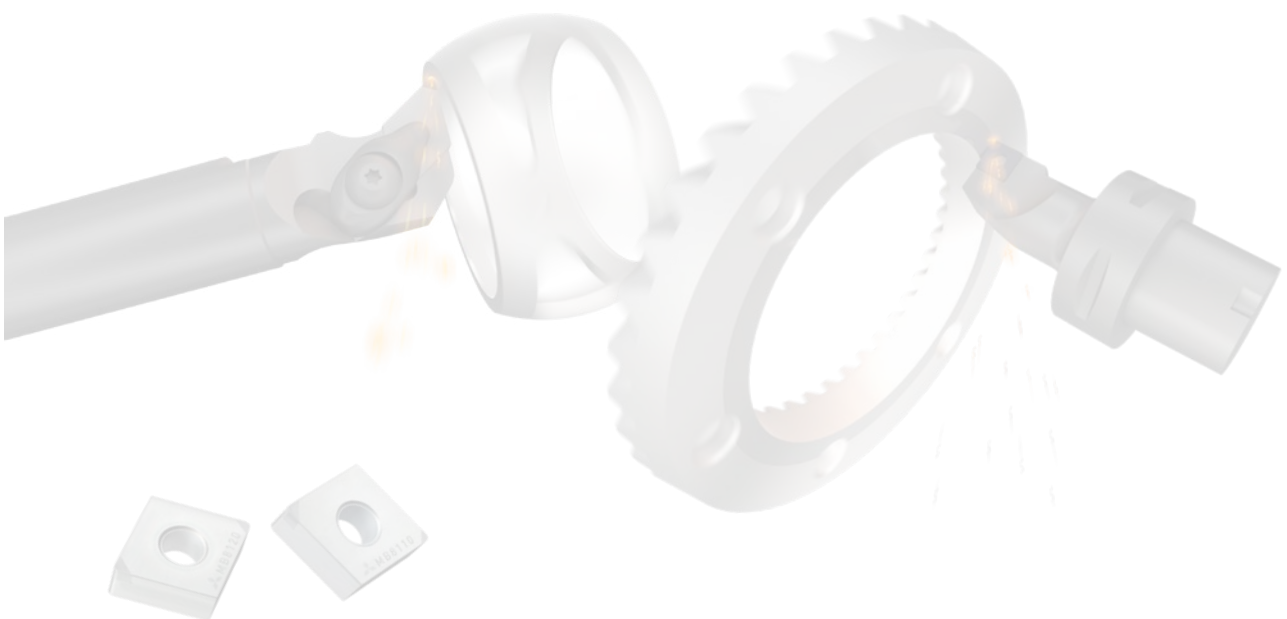
IDENTIFICAZIONE

PER INSERTI PCBN



Geometria inserto	Preparazione del tagliente	Raschiante	Direzione di taglio*										
NP Standard	GA Taglio continuo	WS FBWL Con wiper GBWL	<table border="1"> <thead> <tr> <th>Forma</th> <th>Simbolo</th> </tr> </thead> <tbody> <tr> <td></td> <td>JR</td> </tr> <tr> <td colspan="2">A destra</td> </tr> <tr> <td></td> <td>JL</td> </tr> <tr> <td colspan="2">A sinistra</td> </tr> </tbody> </table>	Forma	Simbolo		JR	A destra			JL	A sinistra	
Forma	Simbolo												
	JR												
A destra													
	JL												
A sinistra													
	FA FS Taglio generico	Nessun segno Senza wiper											
	TA TH Taglio interrotto												

* Angolo tagliente 93°



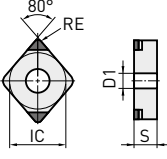
CNGA, CNGM

INSERTI NEGATIVI (CON FORO)

Codice ordinazione	BC8105	BC8110	BC8120	BC8130	MB8110	MB8120	MB8130	ZEFF	IC	S	RE	D1	Geometria
NP-CNGA120404GA4			●	●		★		4	12.7	4.76	0.4	5.16	
NP-CNGA120408GA4			●	●		★		4	12.7	4.76	0.8	5.16	
NP-CNGA120412GA4			●	●		★		4	12.7	4.76	1.2	5.16	
NP-CNGA120404GS4	●	●						4	12.7	4.76	0.4	5.16	
NP-CNGA120408GS4	●	●						4	12.7	4.76	0.8	5.16	
NP-CNGA120412GS4	●	●						4	12.7	4.76	1.2	5.16	
NP-CNGA120404GH4		★	★	●				4	12.7	4.76	0.4	5.16	
NP-CNGA120408GH4		★	★	●				4	12.7	4.76	0.8	5.16	
NP-CNGA120412GH4		★	★	●				4	12.7	4.76	1.2	5.16	
NP-CNGA120404FS4	●	★	★		★			4	12.7	4.76	0.4	5.16	
NP-CNGA120408FS4	●	★	★		★			4	12.7	4.76	0.8	5.16	
NP-CNGA120412FS4	●	★	★		★			4	12.7	4.76	1.2	5.16	
NP-CNGA120404TA4			★	●		★	★	4	12.7	4.76	0.4	5.16	
NP-CNGA120408TA4			●	●		★	★	4	12.7	4.76	0.8	5.16	
NP-CNGA120412TA4			★	●		★	★	4	12.7	4.76	1.2	5.16	
NP-CNGA120404TS4		★						4	12.7	4.76	0.4	5.16	
NP-CNGA120408TS4		★						4	12.7	4.76	0.8	5.16	
NP-CNGA120412TS4		★						4	12.7	4.76	1.2	5.16	
NP-CNGA120404TH4			★	●			★	4	12.7	4.76	0.4	5.16	
NP-CNGA120408TH4			★	●			★	4	12.7	4.76	0.8	5.16	
NP-CNGA120412TH4			★	●			★	4	12.7	4.76	1.2	5.16	
NP-CNGA120404FSWS4	W	★	★	★		★		4	12.7	4.76	0.4	5.16	
NP-CNGA120408FSWS4	W	★	★	★		★		4	12.7	4.76	0.8	5.16	
NP-CNGA120412FSWS4	W	★	★	★		★		4	12.7	4.76	1.2	5.16	
NP-CNGA120404GAWS4	W			●	●		★	4	12.7	4.76	0.4	5.16	
NP-CNGA120408GAWS4	W			●	●		★	4	12.7	4.76	0.8	5.16	
NP-CNGA120412GAWS4	W			●	●		★	4	12.7	4.76	1.2	5.16	
NP-CNGA120404GSWS4	W	●	●					4	12.7	4.76	0.4	5.16	
NP-CNGA120408GSWS4	W	●	●					4	12.7	4.76	0.8	5.16	
NP-CNGA120412GSWS4	W	●	●					4	12.7	4.76	1.2	5.16	
NP-CNGA120402GA2				★			★	2	12.7	4.76	0.2	5.16	
NP-CNGA120404GA2			●	●		●		2	12.7	4.76	0.4	5.16	
NP-CNGA120408GA2			●	●		●		2	12.7	4.76	0.8	5.16	
NP-CNGA120412GA2			●	●		●		2	12.7	4.76	1.2	5.16	
NP-CNGA120402GS2		★						2	12.7	4.76	0.2	5.16	
NP-CNGA120404GS2	●	●						2	12.7	4.76	0.4	5.16	
NP-CNGA120408GS2	●	●						2	12.7	4.76	0.8	5.16	
NP-CNGA120412GS2	●	●						2	12.7	4.76	1.2	5.16	
NP-CNGA120404GH2		★	★	●				2	12.7	4.76	0.4	5.16	
NP-CNGA120408GH2		★	★	●				2	12.7	4.76	0.8	5.16	
NP-CNGA120412GH2		●	★	●				2	12.7	4.76	1.2	5.16	
NP-CNGA120402FS2		★				★		2	12.7	4.76	0.2	5.16	
NP-CNGA120404FS2	●	●	●		●			2	12.7	4.76	0.4	5.16	
NP-CNGA120408FS2	●	●	●		●			2	12.7	4.76	0.8	5.16	
NP-CNGA120412FS2	●	●	●		★			2	12.7	4.76	1.2	5.16	
NP-CNGA120404TA2			●	●		★	●	2	12.7	4.76	0.4	5.16	
NP-CNGA120408TA2			●	●		★	●	2	12.7	4.76	0.8	5.16	
NP-CNGA120412TA2			●	●		★	●	2	12.7	4.76	1.2	5.16	
NP-CNGA120404TS2		●						2	12.7	4.76	0.4	5.16	
NP-CNGA120408TS2		●						2	12.7	4.76	0.8	5.16	
NP-CNGA120412TS2		●						2	12.7	4.76	1.2	5.16	
NP-CNGA120404TH2			★	●			●	2	12.7	4.76	0.4	5.16	
NP-CNGA120408TH2			★	●			●	2	12.7	4.76	0.8	5.16	
NP-CNGA120412TH2			★	●			●	2	12.7	4.76	1.2	5.16	
NP-CNGA120404FBWL2	W	★	★	★		★		2	12.7	4.76	0.4	5.16	
NP-CNGA120408FBWL2	W	●	★	★		★		2	12.7	4.76	0.8	5.16	
NP-CNGA120412FBWL2	W	★	★	★		★		2	12.7	4.76	1.2	5.16	
NP-CNGA120404GBWL2	W	★	★	★			★	2	12.7	4.76	0.4	5.16	

B: Rompitruciolo W: Wiper



Codice ordinazione		BC8105	BC8110	BC8120	BC8130	MB8110	MB8120	MB8130	ZEFF	IC	S	RE	D1	Geometria
NP-CNGA120408GBWL2	W	★	★	★			★		2	12.7	4.76	0.8	5.16	
NP-CNGA120412GBWL2	W	★	★	★			★		2	12.7	4.76	1.2	5.16	
NP-CNGA120404FSWS2	W	★	★	★		★			2	12.7	4.76	0.4	5.16	
NP-CNGA120408FSWS2	W	●	●	★		★			2	12.7	4.76	0.8	5.16	
NP-CNGA120412FSWS2	W	★	★	★		★			2	12.7	4.76	1.2	5.16	
NP-CNGA120404GAWS2	W			●	●		★		2	12.7	4.76	0.4	5.16	
NP-CNGA120408GAWS2	W			●	●		★		2	12.7	4.76	0.8	5.16	
NP-CNGA120412GAWS2	W			●	●		★		2	12.7	4.76	1.2	5.16	
NP-CNGA120404GSWS2	W	●	★						2	12.7	4.76	0.4	5.16	
NP-CNGA120408GSWS2	W	●	●						2	12.7	4.76	0.8	5.16	
NP-CNGA120412GSWS2	W	●	★						2	12.7	4.76	1.2	5.16	
BM-CNGM120404TA2	B			●					2	12.7	4.76	0.4	5.16	
BM-CNGM120408TA2	B		★						2	12.7	4.76	0.8	5.16	
BM-CNGM120412TA2	B			●					2	12.7	4.76	1.2	5.16	
BF-CNGM120404TS2	B		●						2	12.7	4.76	0.4	5.16	
BF-CNGM120408TS2	B		●						2	12.7	4.76	0.8	5.16	
BF-CNGM120412TS2	B		●						2	12.7	4.76	1.2	5.16	

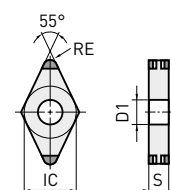
B: Rompitruciolo W: Wiper



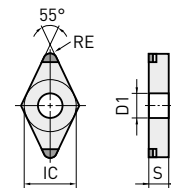
DNGA, DNGM

INSERTI NEGATIVI (CON FORO)

Codice ordinazione	BC8105	BC8110	BC8120	BC8130	MB8110	MB8120	MB8130	ZEFF	IC	S	RE	D1	Geometria
NP-DNGA150404GA4			★	★		★		4	12.7	4.76	0.4	5.16	
NP-DNGA150408GA4			★	★		★		4	12.7	4.76	0.8	5.16	
NP-DNGA150412GA4			★	★		★		4	12.7	4.76	1.2	5.16	
NP-DNGA150604GA4			●	●		★		4	12.7	6.35	0.4	5.16	
NP-DNGA150608GA4			●	●		★		4	12.7	6.35	0.8	5.16	
NP-DNGA150612GA4			●	●		★		4	12.7	6.35	1.2	5.16	
NP-DNGA150404GS4	★	★						4	12.7	4.76	0.4	5.16	
NP-DNGA150408GS4	★	★						4	12.7	4.76	0.8	5.16	
NP-DNGA150412GS4	★	★						4	12.7	4.76	1.2	5.16	
NP-DNGA150604GS4	●	●						4	12.7	6.35	0.4	5.16	
NP-DNGA150608GS4	●	●						4	12.7	6.35	0.8	5.16	
NP-DNGA150612GS4	●	●						4	12.7	6.35	1.2	5.16	
NP-DNGA150404GH4		★	★	★				4	12.7	4.76	0.4	5.16	
NP-DNGA150408GH4		★	★	★				4	12.7	4.76	0.8	5.16	
NP-DNGA150412GH4		★	★	★				4	12.7	4.76	1.2	5.16	
NP-DNGA150604GH4		★	★	●				4	12.7	6.35	0.4	5.16	
NP-DNGA150608GH4		★	★	●				4	12.7	6.35	0.8	5.16	
NP-DNGA150612GH4		★	★	●				4	12.7	6.35	1.2	5.16	
NP-DNGA150404FS4	★	★	★		★			4	12.7	4.76	0.4	5.16	
NP-DNGA150408FS4	★	★	★		★			4	12.7	4.76	0.8	5.16	
NP-DNGA150412FS4	★	★	★		★			4	12.7	4.76	1.2	5.16	
NP-DNGA150604FS4	●	★			★			4	12.7	6.35	0.4	5.16	
NP-DNGA150608FS4	●	★			★			4	12.7	6.35	0.8	5.16	
NP-DNGA150612FS4	●	★			★			4	12.7	6.35	1.2	5.16	
NP-DNGA150404TA4			★	★		★	★	4	12.7	4.76	0.4	5.16	
NP-DNGA150408TA4			★	★		★	★	4	12.7	4.76	0.8	5.16	
NP-DNGA150412TA4			★	★		★	★	4	12.7	4.76	1.2	5.16	
NP-DNGA150604TA4			★	●		★		4	12.7	6.35	0.4	5.16	
NP-DNGA150608TA4			★	●		★		4	12.7	6.35	0.8	5.16	
NP-DNGA150612TA4			★	●		★		4	12.7	6.35	1.2	5.16	
NP-DNGA150404TS4		★						4	12.7	4.76	0.4	5.16	
NP-DNGA150408TS4		★						4	12.7	4.76	0.8	5.16	
NP-DNGA150412TS4		★						4	12.7	4.76	1.2	5.16	
NP-DNGA150604TS4		★						4	12.7	6.35	0.4	5.16	
NP-DNGA150608TS4		★						4	12.7	6.35	0.8	5.16	
NP-DNGA150612TS4		★						4	12.7	6.35	1.2	5.16	
NP-DNGA150404TH4			★	★			★	4	12.7	4.76	0.4	5.16	
NP-DNGA150408TH4			★	★			★	4	12.7	4.76	0.8	5.16	
NP-DNGA150412TH4			★	★			★	4	12.7	4.76	1.2	5.16	
NP-DNGA150604TH4			★	★				4	12.7	6.35	0.4	5.16	
NP-DNGA150608TH4			★	★				4	12.7	6.35	0.8	5.16	
NP-DNGA150612TH4			★	★				4	12.7	6.35	1.2	5.16	



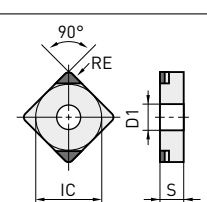
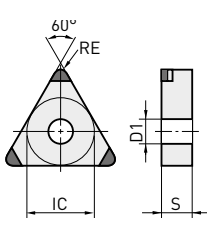
Codice ordinazione	BC8105	BC8110	BC8120	BC8130	MB8110	MB8120	MB8130	ZEFF	IC	S	RE	D1	Geometria
NP-DNGA110408GA2			●	●		●		2	9.53	4.76	0.8	3.81	
NP-DNGA150402GA2			★					2	12.7	4.76	0.2	5.16	
NP-DNGA150404GA2			★	★		★		2	12.7	4.76	0.4	5.16	
NP-DNGA150408GA2			★	★		★		2	12.7	4.76	0.8	5.16	
NP-DNGA150412GA2			★	★		★		2	12.7	4.76	1.2	5.16	
NP-DNGA150602GA2			★					2	12.7	6.35	0.2	5.16	
NP-DNGA150604GA2			●	●		●		2	12.7	6.35	0.4	5.16	
NP-DNGA150608GA2			●	●		●		2	12.7	6.35	0.8	5.16	
NP-DNGA150612GA2			●	●		●		2	12.7	6.35	1.2	5.16	
NP-DNGA150402GS2		★						2	12.7	4.76	0.2	5.16	
NP-DNGA150404GS2	★	★						2	12.7	4.76	0.4	5.16	
NP-DNGA150408GS2	★	★						2	12.7	4.76	0.8	5.16	
NP-DNGA150412GS2	★	★						2	12.7	4.76	1.2	5.16	
NP-DNGA150604GS2	●	●						2	12.7	6.35	0.4	5.16	
NP-DNGA150608GS2	●	●						2	12.7	6.35	0.8	5.16	
NP-DNGA150612GS2	●	●						2	12.7	6.35	1.2	5.16	
NP-DNGA150404GH2		★	★	★				2	12.7	4.76	0.4	5.16	
NP-DNGA150408GH2		★	★	★				2	12.7	4.76	0.8	5.16	
NP-DNGA150412GH2		★	★	★				2	12.7	4.76	1.2	5.16	
NP-DNGA150604GH2		★	★	●				2	12.7	6.35	0.4	5.16	
NP-DNGA150608GH2		★	★	●				2	12.7	6.35	0.8	5.16	
NP-DNGA150612GH2		★	★	●				2	12.7	6.35	1.2	5.16	
NP-DNGA150402FS2		★				★		2	12.7	4.76	0.2	5.16	
NP-DNGA150404FS2	★	★	★			★		2	12.7	4.76	0.4	5.16	
NP-DNGA150408FS2	★	★	★			★		2	12.7	4.76	0.8	5.16	
NP-DNGA150412FS2	★	★	★			★		2	12.7	4.76	1.2	5.16	
NP-DNGA150604FS2	●	●	●			★		2	12.7	6.35	0.4	5.16	
NP-DNGA150608FS2	●	●	●			★		2	12.7	6.35	0.8	5.16	
NP-DNGA150612FS2	●	●	●			★		2	12.7	6.35	1.2	5.16	
NP-DNGA150404TA2			★	★		★	●	2	12.7	4.76	0.4	5.16	
NP-DNGA150408TA2			★	★		★	●	2	12.7	4.76	0.8	5.16	
NP-DNGA150412TA2			★	★		★	★	2	12.7	4.76	1.2	5.16	
NP-DNGA150604TA2			●	●		★		2	12.7	6.35	0.4	5.16	
NP-DNGA150608TA2			●	●		●		2	12.7	6.35	0.8	5.16	
NP-DNGA150612TA2			●	●		★		2	12.7	6.35	1.2	5.16	
NP-DNGA150404TS2		★						2	12.7	4.76	0.4	5.16	
NP-DNGA150408TS2		★						2	12.7	4.76	0.8	5.16	
NP-DNGA150412TS2		★						2	12.7	4.76	1.2	5.16	
NP-DNGA150604TS2		●						2	12.7	6.35	0.4	5.16	
NP-DNGA150608TS2		●						2	12.7	6.35	0.8	5.16	
NP-DNGA150612TS2		●						2	12.7	6.35	1.2	5.16	
NP-DNGA150404TH2			★	★			★	2	12.7	4.76	0.4	5.16	
NP-DNGA150408TH2			★	★			★	2	12.7	4.76	0.8	5.16	
NP-DNGA150412TH2			★	★			★	2	12.7	4.76	1.2	5.16	
NP-DNGA150604TH2			★	★				2	12.7	6.35	0.4	5.16	
NP-DNGA150608TH2			★	★				2	12.7	6.35	0.8	5.16	
NP-DNGA150612TH2			★	★				2	12.7	6.35	1.2	5.16	
NP-DNGA150404GAWS2JR	W		★			★		2	12.7	4.76	0.4	5.16	
NP-DNGA150404GAWS2JL	W		★			★		2	12.7	4.76	0.4	5.16	
NP-DNGA150408GAWS2JR	W		★			★		2	12.7	4.76	0.8	5.16	
NP-DNGA150408GAWS2JL	W		★			★		2	12.7	4.76	0.8	5.16	
NP-DNGA150604GAWS2JR	W		●			★		2	12.7	6.35	0.4	5.16	
NP-DNGA150604GAWS2JL	W		●			★		2	12.7	6.35	0.4	5.16	
NP-DNGA150608GAWS2JR	W		●			★		2	12.7	6.35	0.8	5.16	
NP-DNGA150608GAWS2JL	W		●			★		2	12.7	6.35	0.8	5.16	
BF-DNGM150404TS2	B	●						2	12.7	4.76	0.4	5.16	
BF-DNGM150408TS2	B	●						2	12.7	4.76	0.8	5.16	
BF-DNGM150412TS2	B	●						2	12.7	4.76	1.2	5.16	
BM-DNGM150404TA2	B		★					2	12.7	4.76	0.4	5.16	
BM-DNGM150408TA2	B		★					2	12.7	4.76	0.8	5.16	
BM-DNGM150412TA2	B		★					2	12.7	4.76	1.2	5.16	
BM-DNGM150604TA2	B		●					2	12.7	6.35	0.4	5.16	
BM-DNGM150608TA2	B		●					2	12.7	6.35	0.8	5.16	
BM-DNGM150612TA2	B		●					2	12.7	6.35	1.2	5.16	



B: Rompitruciolo **W:** Wiper

SNGA, TNGA, TNGM

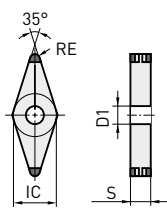
INSERTI NEGATIVI (CON FORO)

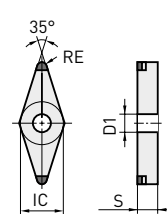
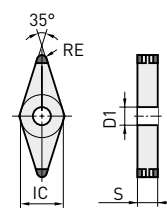
Codice ordinazione	BC8105	BC8110	BC8120	BC8130	MB8110	MB8120	MB8130	ZEFF	IC	S	RE	D1	Geometria
NP-SNGA120408GA2			●	★		★		2	12.7	4.76	0.8	5.16	
NP-SNGA120412GA2			★	★		★		2	12.7	4.76	1.2	5.16	
NP-TNGA160404GA6			●	●		★		6	9.53	4.76	0.4	3.81	
NP-TNGA160408GA6			●	●		★		6	9.53	4.76	0.8	3.81	
NP-TNGA160412GA6			●	●		★		6	9.53	4.76	1.2	3.81	
NP-TNGA160404GS6	●	●						6	9.53	4.76	0.4	3.81	
NP-TNGA160408GS6	●	●						6	9.53	4.76	0.8	3.81	
NP-TNGA160412GS6	●	●						6	9.53	4.76	1.2	3.81	
NP-TNGA160404GH6		★	★	★				6	9.53	4.76	0.4	3.81	
NP-TNGA160408GH6		★	★	★				6	9.53	4.76	0.8	3.81	
NP-TNGA160412GH6		★	★	★				6	9.53	4.76	1.2	3.81	
NP-TNGA160404FS6	●	★	★		★			6	9.53	4.76	0.4	3.81	
NP-TNGA160408FS6	●	★	★		★			6	9.53	4.76	0.8	3.81	
NP-TNGA160412FS6	●	★	★		★			6	9.53	4.76	1.2	3.81	
NP-TNGA160404TA6			★	●		★	★	6	9.53	4.76	0.4	3.81	
NP-TNGA160408TA6			★	●		★	★	6	9.53	4.76	0.8	3.81	
NP-TNGA160412TA6			★	●		★	★	6	9.53	4.76	1.2	3.81	
NP-TNGA160404TS6		★						6	9.53	4.76	0.4	3.81	
NP-TNGA160408TS6		★						6	9.53	4.76	0.8	3.81	
NP-TNGA160412TS6		★						6	9.53	4.76	1.2	3.81	
NP-TNGA160404TH6			★	★			★	6	9.53	4.76	0.4	3.81	
NP-TNGA160408TH6			★	●			★	6	9.53	4.76	0.8	3.81	
NP-TNGA160412TH6			★	●			★	6	9.53	4.76	1.2	3.81	
NP-TNGA160402GA3			★			★		3	9.53	4.76	0.2	3.81	
NP-TNGA160404GA3			●	●		★		3	9.53	4.76	0.4	3.81	
NP-TNGA160408GA3			●	●		●		3	9.53	4.76	0.8	3.81	
NP-TNGA160412GA3			★	●		★		3	9.53	4.76	1.2	3.81	
NP-TNGA160402GS3		★						3	9.53	4.76	0.2	3.81	
NP-TNGA160404GS3	●	★						3	9.53	4.76	0.4	3.81	
NP-TNGA160408GS3	●	★						3	9.53	4.76	0.8	3.81	
NP-TNGA160412GS3	●	★						3	9.53	4.76	1.2	3.81	
NP-TNGA160404GH3		★	★	●				3	9.53	4.76	0.4	3.81	
NP-TNGA160408GH3		★	★	●				3	9.53	4.76	0.8	3.81	
NP-TNGA160412GH3		★	★	●				3	9.53	4.76	1.2	3.81	
NP-TNGA160402FS3		★			★			3	9.53	4.76	0.2	3.81	
NP-TNGA160404FS3	●	●	●		★			3	9.53	4.76	0.4	3.81	
NP-TNGA160408FS3	●	●	●		★			3	9.53	4.76	0.8	3.81	
NP-TNGA160412FS3	●	●	●		★			3	9.53	4.76	1.2	3.81	
NP-TNGA160404TA3			●	●		●	●	3	9.53	4.76	0.4	3.81	
NP-TNGA160408TA3			●	●		●	★	3	9.53	4.76	0.8	3.81	
NP-TNGA160412TA3			●	●		●	★	3	9.53	4.76	1.2	3.81	
NP-TNGA160404TS3		●						3	9.53	4.76	0.4	3.81	
NP-TNGA160408TS3		●						3	9.53	4.76	0.8	3.81	
NP-TNGA160412TS3		●						3	9.53	4.76	1.2	3.81	
NP-TNGA160404TH3			★	★			★	3	9.53	4.76	0.4	3.81	
NP-TNGA160408TH3			★	★			★	3	9.53	4.76	0.8	3.81	
NP-TNGA160412TH3			★	★			★	3	9.53	4.76	1.2	3.81	
BM-TNGM160408TA3	B		●					3	9.53	4.76	0.8	3.81	
BM-TNGM160412TA3	B		●					3	9.53	4.76	1.2	3.81	

B: Rompitruciolo W: Wiper

VNGA

INSERTI NEGATIVI (CON FORO)

Codice ordinazione	BC8105	BC8110	BC8120	BC8130	MB8110	MB8120	MB8130	ZEFF	IC	S	RE	D1	Geometria
NP-VNGA160404GA4			●	●		★		4	9.53	4.76	0.4	3.81	
NP-VNGA160408GA4			●	●		★		4	9.53	4.76	0.8	3.81	
NP-VNGA160412GA4			●	●		★		4	9.53	4.76	1.2	3.81	
NP-VNGA160404GS4	●	★						4	9.53	4.76	0.4	3.81	
NP-VNGA160408GS4	●	●						4	9.53	4.76	0.8	3.81	
NP-VNGA160412GS4		★						4	9.53	4.76	1.2	3.81	
NP-VNGA160404GH4		★	★	★				4	9.53	4.76	0.4	3.81	
NP-VNGA160408GH4		★	★	★				4	9.53	4.76	0.8	3.81	
NP-VNGA160412GH4		★	★	★				4	9.53	4.76	1.2	3.81	
NP-VNGA160404FS4	●	★	★		★			4	9.53	4.76	0.4	3.81	
NP-VNGA160408FS4	●	★	★		★			4	9.53	4.76	0.8	3.81	
NP-VNGA160412FS4			★					4	9.53	4.76	1.2	3.81	
NP-VNGA160404TA4			★	●		★		4	9.53	4.76	0.4	3.81	
NP-VNGA160408TA4			★	●		★		4	9.53	4.76	0.8	3.81	
NP-VNGA160412TA4			★	●		★		4	9.53	4.76	1.2	3.81	
NP-VNGA160404TS4		★						4	9.53	4.76	0.4	3.81	
NP-VNGA160408TS4		★						4	9.53	4.76	0.8	3.81	
NP-VNGA160404TH4			★	★				4	9.53	4.76	0.4	3.81	
NP-VNGA160408TH4			★	★				4	9.53	4.76	0.8	3.81	
NP-VNGA160412TH4			★	★				4	9.53	4.76	1.2	3.81	
NP-VNGA160402GA2			●			★		2	9.53	4.76	0.2	3.81	
NP-VNGA160404GA2			●	●		●		2	9.53	4.76	0.4	3.81	
NP-VNGA160408GA2			●	●		●		2	9.53	4.76	0.8	3.81	
NP-VNGA160412GA2			★	★		★		2	9.53	4.76	1.2	3.81	
NP-VNGA160402GS2		★						2	9.53	4.76	0.2	3.81	
NP-VNGA160404GS2	●	●						2	9.53	4.76	0.4	3.81	
NP-VNGA160408GS2	●	●						2	9.53	4.76	0.8	3.81	
NP-VNGA160412GS2		★						2	9.53	4.76	1.2	3.81	
NP-VNGA160404GH2		★	★	★				2	9.53	4.76	0.4	3.81	
NP-VNGA160408GH2		★	★	★				2	9.53	4.76	0.8	3.81	
NP-VNGA160412GH2		★	★	★				2	9.53	4.76	1.2	3.81	
NP-VNGA160402FS2		★			★			2	9.53	4.76	0.2	3.81	
NP-VNGA160404FS2	●	★	●		★			2	9.53	4.76	0.4	3.81	
NP-VNGA160408FS2	●	★	●		★			2	9.53	4.76	0.8	3.81	
NP-VNGA160412FS2			★					2	9.53	4.76	1.2	3.81	
NP-VNGA160404TA2			●	●		●		2	9.53	4.76	0.4	3.81	
NP-VNGA160408TA2			●	●		★		2	9.53	4.76	0.8	3.81	
NP-VNGA160412TA2			★	★		★		2	9.53	4.76	1.2	3.81	
NP-VNGA160404TS2		★						2	9.53	4.76	0.4	3.81	
NP-VNGA160408TS2		★						2	9.53	4.76	0.8	3.81	
NP-VNGA160404TH2			★	★				2	9.53	4.76	0.4	3.81	
NP-VNGA160408TH2			★	★				2	9.53	4.76	0.8	3.81	
NP-VNGA160412TH2			★	★				2	9.53	4.76	1.2	3.81	



WNGA

INSERTI NEGATIVI (CON FORO)

Codice ordinazione	BC8105	BC8110	BC8120	BC8130	MB8110	MB8120	MB8130	ZEFF	IC	S	RE	D1	Geometria
NP-WNGA080408GS6	★	●						6	12.7	4.76	0.8	5.16	
NP-WNGA080408FS6	★	★						6	12.7	4.76	0.8	5.16	
NP-WNGA080408TS6		★						6	12.7	4.76	0.8	5.16	
NP-WNGA080408GA3			★	★				3	12.7	4.76	0.8	5.16	
NP-WNGA080408GS3	★	★						3	12.7	4.76	0.8	5.16	
NP-WNGA080408GH3		★	★	★				3	12.7	4.76	0.8	5.16	
NP-WNGA080408FS3	★	★	★					3	12.7	4.76	0.8	5.16	
NP-WNGA080408TA3			★	★				3	12.7	4.76	0.8	5.16	
NP-WNGA080408TS3		★						3	12.7	4.76	0.8	5.16	
NP-WNGA080408TH3			★	★				3	12.7	4.76	0.8	5.16	
NP-WNGA080408GSWS3	W	●						3	12.7	4.76	0.8	5.16	

B: Rompitruciolo W: Wiper



CCGW 7°, CCGT 7°

INSERTI POSITIVI (CON FORO)

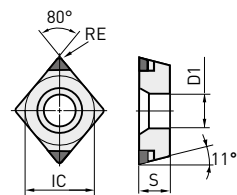
Codice ordinazione	BC8105	BC8110	BC8120	BC8130	MB8110	MB8120	MB8130	ZEFF	IC	S	RE	D1	Geometria
NP-CCGW060202GA2			●			●		2	6.35	2.38	0.2	2.8	
NP-CCGW060204GA2			●	●		●		2	6.35	2.38	0.4	2.8	
NP-CCGW060208GA2			●	●		●		2	6.35	2.38	0.8	2.8	
NP-CCGW09T302GA2			●			●		2	9.53	3.97	0.2	4.4	
NP-CCGW09T304GA2			●	●		●		2	9.53	3.97	0.4	4.4	
NP-CCGW09T308GA2			●	●		●		2	9.53	3.97	0.8	4.4	
NP-CCGW060202GS2	★	★						2	6.35	2.38	0.2	2.8	
NP-CCGW060204GS2	●	●						2	6.35	2.38	0.4	2.8	
NP-CCGW060208GS2	●	●						2	6.35	2.38	0.8	2.8	
NP-CCGW09T302GS2	★	★						2	9.53	3.97	0.2	4.4	
NP-CCGW09T304GS2	●	●						2	9.53	3.97	0.4	4.4	
NP-CCGW09T308GS2	●	●						2	9.53	3.97	0.8	4.4	
NP-CCGW09T304GH2		★	★	●				2	9.53	3.97	0.4	4.4	
NP-CCGW09T308GH2		★	★	●				2	9.53	3.97	0.8	4.4	
NP-CCGW060202FS2		●			●			2	6.35	2.38	0.2	2.8	
NP-CCGW060204FS2		●			●			2	6.35	2.38	0.4	2.8	
NP-CCGW060208FS2		●			●			2	6.35	2.38	0.8	2.8	
NP-CCGW09T302FS2	★	●			●			2	9.53	3.97	0.2	4.4	
NP-CCGW09T304FS2	●	●	●		●			2	9.53	3.97	0.4	4.4	
NP-CCGW09T308FS2	●	●	●		●			2	9.53	3.97	0.8	4.4	
NP-CCGW060204TA2				●			★	2	6.35	2.38	0.4	2.8	
NP-CCGW060208TA2				●			★	2	6.35	2.38	0.8	2.8	
NP-CCGW09T304TA2			●	●		★	★	2	9.53	3.97	0.4	4.4	
NP-CCGW09T308TA2			●	●		★	★	2	9.53	3.97	0.8	4.4	
NP-CCGW09T304TH2			★	●			★	2	9.53	3.97	0.4	4.4	
NP-CCGW09T308TH2			★	●			★	2	9.53	3.97	0.8	4.4	
NP-CCGW09T304FBWL2	W	★	★	★		★		2	9.525	3.97	0.4	4.4	
NP-CCGW09T308FBWL2	W	★	★	★		★		2	9.525	3.97	0.8	4.4	
NP-CCGW09T304GBWL2	W	★	★	★			★	2	9.525	3.97	0.4	4.4	
NP-CCGW09T308GBWL2	W	★	★	★			★	2	9.525	3.97	0.8	4.4	
NP-CCGW09T304FSWS2	W	●	★	★		★		2	9.53	3.97	0.4	4.4	
NP-CCGW09T308FSWS2	W	●	★	★		★		2	9.53	3.97	0.8	4.4	
NP-CCGW09T304GAWS2	W		●	●		★		2	9.53	3.97	0.4	4.4	
NP-CCGW09T308GAWS2	W		●	●		★		2	9.53	3.97	0.8	4.4	
NP-CCGW09T304GSWS2	W	●	●					2	9.53	3.97	0.4	4.4	
NP-CCGW09T308GSWS2	W	●	●					2	9.53	3.97	0.8	4.4	
BF-CCGT09T304TS2	B		●					2	9.53	3.97	0.4	4.4	
BF-CCGT09T308TS2	B		●					2	9.53	3.97	0.8	4.4	
BM-CCGT09T304TA2	B		●					2	9.53	3.97	0.4	4.4	
BM-CCGT09T308TA2	B		●					2	9.53	3.97	0.8	4.4	
NP-CCGW03S102GS		●						1	3.57	1.39	0.2	2.0	
NP-CCGW03S104GS		●						1	3.57	1.39	0.4	2.0	
NP-CCGW04T002GS		●						1	4.37	1.79	0.2	2.4	
NP-CCGW04T004GS		●						1	4.37	1.79	0.4	2.4	
NP-CCGW03S102FS		●			★			1	3.57	1.39	0.2	2.0	
NP-CCGW03S104FS		●			●			1	3.57	1.39	0.4	2.0	
NP-CCGW04T002FS		●			●			1	4.37	1.79	0.2	2.4	
NP-CCGW04T004FS		●			●			1	4.37	1.79	0.4	2.4	

B: Rompitruciolo W: Wiper

CPGB 11°

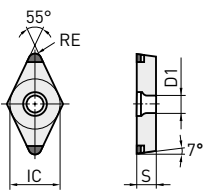
INSERTI POSITIVI (CON FORO)

Codice ordinazione	BC8105	BC8110	BC8120	BC8130	MB8110	MB8120	MB8130	ZEFF	IC	S	RE	D1	Geometria
NP-CPGB080204GA2			●	●				2	7.94	2.38	0.4	3.5	
NP-CPGB080208GA2			●	●				2	7.94	2.38	0.8	3.5	
NP-CPGB080212GA2			★	★				2	7.94	2.38	1.2	3.5	
NP-CPGB090302GA2			★					2	9.53	3.18	0.2	4.5	
NP-CPGB090304GA2			●	●				2	9.53	3.18	0.4	4.5	
NP-CPGB090308GA2			●	●				2	9.53	3.18	0.8	4.5	
NP-CPGB090312GA2			★	★				2	9.53	3.18	1.2	4.5	
NP-CPGB080204GS2	●	★						2	7.94	2.38	0.4	3.5	
NP-CPGB080208GS2	●	★						2	7.94	2.38	0.8	3.5	
NP-CPGB090302GS2	★	★						2	9.53	3.18	0.2	4.5	
NP-CPGB090304GS2	●	★						2	9.53	3.18	0.4	4.5	
NP-CPGB090308GS2	●	★						2	9.53	3.18	0.8	4.5	
NP-CPGB080204FS2		★						2	7.94	2.38	0.4	3.5	
NP-CPGB080208FS2		★						2	7.94	2.38	0.8	3.5	
NP-CPGB090302FS2	★	★						2	9.53	3.18	0.2	4.5	
NP-CPGB090304FS2	●		★					2	9.53	3.18	0.4	4.5	
NP-CPGB090308FS2	●		★					2	9.53	3.18	0.8	4.5	
NP-CPGB090312FS2			★					2	9.53	3.18	1.2	4.5	
NP-CPGB080204TA2				★				2	7.94	2.38	0.4	3.5	
NP-CPGB080208TA2				★				2	7.94	2.38	0.8	3.5	
NP-CPGB080212TA2				★				2	7.94	2.38	1.2	3.5	
NP-CPGB090304TA2			★	★				2	9.53	3.18	0.4	4.5	
NP-CPGB090308TA2			★	★				2	9.53	3.18	0.8	4.5	
NP-CPGB090312TA2			★	★				2	9.53	3.18	1.2	4.5	



DCGW 7°, DCGT 7°

INSERTI POSITIVI (CON FORO)

Codice ordinazione	BC8105	BC8110	BC8120	BC8130	MB8110	MB8120	MB8130	ZEFF	IC	S	RE	D1	Geometria
NP-DCGW070202GA2			●			●		2	6.35	2.38	0.2	2.8	
NP-DCGW070204GA2			●	●		●		2	6.35	2.38	0.4	2.8	
NP-DCGW070208GA2				●				2	6.35	2.38	0.8	2.8	
NP-DCGW11T302GA2			●			●		2	9.53	3.97	0.2	4.4	
NP-DCGW11T304GA2			●	●		●		2	9.53	3.97	0.4	4.4	
NP-DCGW11T308GA2			●	●		●		2	9.53	3.97	0.8	4.4	
NP-DCGW070202GS2	●	●						2	6.35	2.38	0.2	2.8	
NP-DCGW070204GS2	●	●						2	6.35	2.38	0.4	2.8	
NP-DCGW070208GS2	●	●						2	6.35	2.38	0.8	2.8	
NP-DCGW11T302GS2	●	●						2	9.53	3.97	0.2	4.4	
NP-DCGW11T304GS2	●	●						2	9.53	3.97	0.4	4.4	
NP-DCGW11T308GS2	●	●						2	9.53	3.97	0.8	4.4	
NP-DCGW11T304GH2		★	★	●				2	9.53	3.97	0.4	4.4	
NP-DCGW11T308GH2		★	★	●				2	9.53	3.97	0.8	4.4	
NP-DCGW070202FS2		●			●			2	6.35	2.38	0.2	2.8	
NP-DCGW070204FS2		●	●		●			2	6.35	2.38	0.4	2.8	
NP-DCGW070208FS2		★			★			2	6.35	2.38	0.8	2.8	
NP-DCGW11T302FS2	●	●			●			2	9.53	3.97	0.2	4.4	
NP-DCGW11T304FS2	●	●	●		●			2	9.53	3.97	0.4	4.4	
NP-DCGW11T308FS2	●	●	●		●			2	9.53	3.97	0.8	4.4	
NP-DCGW070204TA2			●	●		●	●	2	6.35	2.38	0.4	2.8	
NP-DCGW070208TA2				●			★	2	6.35	2.38	0.8	2.8	
NP-DCGW11T304TA2			★	●		★	●	2	9.53	3.97	0.4	4.4	
NP-DCGW11T308TA2			★	●		★	●	2	9.53	3.97	0.8	4.4	
NP-DCGW11T304TH2			★	●		●	●	2	9.53	3.97	0.4	4.4	
NP-DCGW11T308TH2			★	●		●	●	2	9.53	3.97	0.8	4.4	
BM-DCGT11T304TA2	B		●					2	9.53	3.97	0.4	4.4	
BM-DCGT11T308TA2	B		●					2	9.53	3.97	0.8	4.4	
BF-DCGT11T304TS2	B	●						2	9.53	3.97	0.4	4.4	
BF-DCGT11T308TS2	B	●						2	9.53	3.97	0.8	4.4	

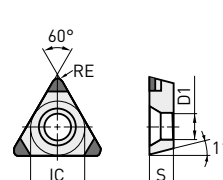
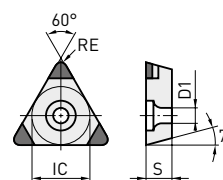
B: Rompitruciolo W: Wiper



TCGW 7°, TPGB 11°

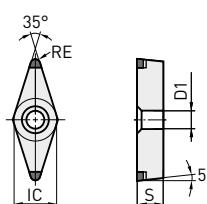
INSERTI POSITIVI (CON FORO)

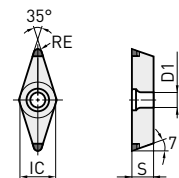
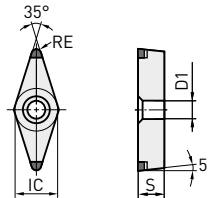
Codice ordinazione	BC8105	BC8110	BC8120	BC8130	MB8110	MB8120	MB8130	ZEFF	IC	S	RE	D1	Geometria
NP-TCGW090204GS3		★						3	5.56	2.38	0.4	2.5	
NP-TCGW090208GS3		★						3	5.56	2.38	0.8	2.5	
NP-TCGW110202GS3		★						3	6.35	2.38	0.2	2.8	
NP-TCGW110204GS3		★						3	6.35	2.38	0.4	2.8	
NP-TCGW110208GS3		★						3	6.35	2.38	0.8	2.8	
NP-TCGW130304GS3		★						3	7.94	3.18	0.4	3.4	
NP-TCGW130308GS3		★						3	7.94	3.18	0.8	3.4	
NP-TCGW16T304GS3		★						3	9.53	3.97	0.4	4.4	
NP-TCGW16T308GS3		★						3	9.53	3.97	0.8	4.4	
NP-TPGB080204GA3				●				3	4.76	2.38	0.4	2.4	
NP-TPGB080208GA3				●				3	4.76	2.38	0.8	2.4	
NP-TPGB090204GA3			★	●		●		3	5.56	2.38	0.4	2.9	
NP-TPGB090208GA3			★	●		★		3	5.56	2.38	0.8	2.9	
NP-TPGB110302GA3			★			★		3	6.35	3.18	0.2	3.4	
NP-TPGB110304GA3			●	●		●		3	6.35	3.18	0.4	3.4	
NP-TPGB110308GA3			●	●		●		3	6.35	3.18	0.8	3.4	
NP-TPGB160304GA3			●	★		★		3	9.53	3.18	0.4	4.4	
NP-TPGB160308GA3			●	★		★		3	9.53	3.18	0.8	4.4	
NP-TPGB080204GS3	★	★						3	4.76	2.38	0.4	2.4	
NP-TPGB080208GS3	★	★						3	4.76	2.38	0.8	2.4	
NP-TPGB090204GS3	★	★						3	5.56	2.38	0.4	2.9	
NP-TPGB090208GS3	★	★						3	5.56	2.38	0.8	2.9	
NP-TPGB110302GS3	★	★						3	6.35	3.18	0.2	3.4	
NP-TPGB110304GS3	★	★						3	6.35	3.18	0.4	3.4	
NP-TPGB110308GS3	★	★						3	6.35	3.18	0.8	3.4	
NP-TPGB160304GS3	★	★						3	9.53	3.18	0.4	4.4	
NP-TPGB160308GS3	★	★						3	9.53	3.18	0.8	4.4	
NP-TPGB160304GH3		★	★	★				3	9.53	3.18	0.4	4.4	
NP-TPGB160308GH3		★	★	★				3	9.53	3.18	0.8	4.4	
NP-TPGB110302FS3	★	★			★			3	6.35	3.18	0.2	3.4	
NP-TPGB110304FS3	★	★	●		●			3	6.35	3.18	0.4	3.4	
NP-TPGB110308FS3	★	★	●		●			3	6.35	3.18	0.8	3.4	
NP-TPGB160304FS3			●					3	9.53	3.18	0.4	4.4	
NP-TPGB160308FS3			●					3	9.53	3.18	0.8	4.4	
NP-TPGB080204TA3				★		●		3	4.76	2.38	0.4	2.4	
NP-TPGB080208TA3				★		★		3	4.76	2.38	0.8	2.4	
NP-TPGB090204TA3				★		●		3	5.56	2.38	0.4	2.9	
NP-TPGB090208TA3				★		★		3	5.56	2.38	0.8	2.9	
NP-TPGB110304TA3			★	●		●	●	3	6.35	3.18	0.4	3.4	
NP-TPGB110308TA3			★	●		★	★	3	6.35	3.18	0.8	3.4	
NP-TPGB160304TA3			★	●		★	★	3	9.53	3.18	0.4	4.4	
NP-TPGB160308TA3			★	●		★	★	3	9.53	3.18	0.8	4.4	
NP-TPGB160304TH3			★	★		★		3	9.53	3.18	0.4	4.4	
NP-TPGB160308TH3			★	★		★		3	9.53	3.18	0.8	4.4	



VBGW 5°, VCGW 7°

INSERTI POSITIVI (CON FORO)

Codice ordinazione	BC8105	BC8110	BC8120	BC8130	MB8110	MB8120	MB8130	ZEFF	IC	S	RE	D1	Geometria
NP-VBGW110302GA2			●			★		2	6.35	3.18	0.2	2.9	
NP-VBGW110304GA2			●	●		★		2	6.35	3.18	0.4	2.9	
NP-VBGW110308GA2			★	★		★		2	6.35	3.18	0.8	2.9	
NP-VBGW160402GA2			★			★		2	9.53	4.76	0.2	4.4	
NP-VBGW160404GA2			●	●		★		2	9.53	4.76	0.4	4.4	
NP-VBGW160408GA2			●	●		★		2	9.53	4.76	0.8	4.4	
NP-VBGW110302GS2	★	★						2	6.35	3.18	0.2	2.9	
NP-VBGW110304GS2	★	★						2	6.35	3.18	0.4	2.9	
NP-VBGW110308GS2	★	★						2	6.35	3.18	0.8	2.9	
NP-VBGW160402GS2	★	●						2	9.53	4.76	0.2	4.4	
NP-VBGW160404GS2	●	●						2	9.53	4.76	0.4	4.4	
NP-VBGW160408GS2	●	●						2	9.53	4.76	0.8	4.4	
NP-VBGW160404GH2		★	★	★				2	9.53	4.76	0.4	4.4	
NP-VBGW160408GH2		★	★	●				2	9.53	4.76	0.8	4.4	
NP-VBGW110302FS2		●				★		2	6.35	3.18	0.2	2.9	
NP-VBGW110304FS2		★				★		2	6.35	3.18	0.4	2.9	
NP-VBGW110308FS2		★				★		2	6.35	3.18	0.8	2.9	
NP-VBGW160402FS2		★				★		2	9.53	4.76	0.2	4.4	
NP-VBGW160404FS2			●					2	9.53	4.76	0.4	4.4	
NP-VBGW160408FS2			●					2	9.53	4.76	0.8	4.4	
NP-VBGW110304TA2						★		2	6.35	3.18	0.4	2.9	
NP-VBGW110308TA2						★		2	6.35	3.18	0.8	2.9	
NP-VBGW160404TA2			●	★		★		2	9.53	4.76	0.4	4.4	
NP-VBGW160408TA2			★	★		★		2	9.53	4.76	0.8	4.4	
NP-VBGW160404TH2			★	★				2	9.53	4.76	0.4	4.4	
NP-VBGW160408TH2			★	★				2	9.53	4.76	0.8	4.4	
NP-VCGW160404GA2			●	●				2	9.53	4.76	0.4	4.4	
NP-VCGW160408GA2			●	●				2	9.53	4.76	0.8	4.4	
NP-VCGW160404GS2	●	●						2	9.53	4.76	0.4	4.4	
NP-VCGW160408GS2	●	●						2	9.53	4.76	0.8	4.4	
NP-VCGW160404GH2		★	★	★				2	9.53	4.76	0.4	4.4	
NP-VCGW160408GH2		★	★	★				2	9.53	4.76	0.8	4.4	
NP-VCGW160404FS2		●	●			★		2	9.53	4.76	0.4	4.4	
NP-VCGW160408FS2		●	●			★		2	9.53	4.76	0.8	4.4	
NP-VCGW160404TA2			★	★				2	9.53	4.76	0.4	4.4	
NP-VCGW160408TA2			★	★				2	9.53	4.76	0.8	4.4	
NP-VCGW160404TS2		★						2	9.53	4.76	0.4	4.4	
NP-VCGW160408TS2		★						2	9.53	4.76	0.8	4.4	
NP-VCGW160404TH2			★	★				2	9.53	4.76	0.4	4.4	
NP-VCGW160408TH2			★	★				2	9.53	4.76	0.8	4.4	



CONDIZIONI DI TAGLIO RACCOMANDATE

BC8100

Materiale	Grado	Modalità di taglio	Vc	f	ap	Refrigerante
H Acciaio temprato (acciaio trattato termicamente, ecc.)	BC8105	Taglio continuo		-0.15	-0.20	Secco, umido
	BC8110	Taglio continuo		-0.20	-0.35	
	BC8120	Taglio continuo		-0.30	-0.80	
		Taglio interrotto		-0.20	-0.30	
	BC8130	Interrotto		-0.20	-0.30	

50 100 150 200 250 300

MB8100

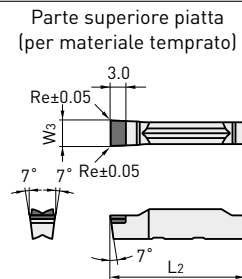
Materiale	Grado	Modalità di taglio	Vc	f	ap	Refrigerante
H Acciai temprati (acciai trattati termicamente)	MB8110	Taglio esterno continuo		-0.20	-0.30	Secco, umido
	MB8120	Taglio esterno continuo		-0.20	-0.50	
		Esterno Taglio interrotto		-0.20	-0.30	
	MB8130	Esterno Taglio interrotto		-0.20	-0.30	

50 100 150 200 250

GY1G

INSERTI PER SISTEMA DI SCANALATURA GY

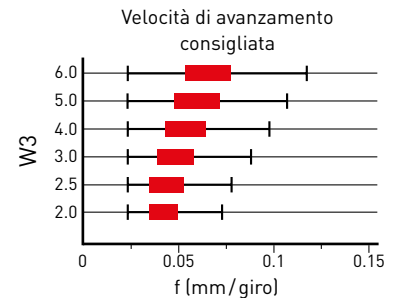
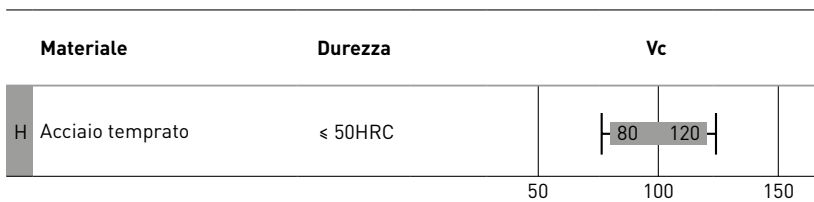
Codice ordinazione	BC8110	W3	Tolleranza	Re	L2
GY1G0200D020N-GFGS	●	2.00	±0.03	0.2	20.70
GY1G0239E020N-GFGS	●	2.39	±0.03	0.2	20.70
GY1G0250E020N-GFGS	●	2.50	±0.03	0.2	20.70
GY1G0300F020N-GFGS	●	3.00	±0.03	0.2	20.70
GY1G0318F020N-GFGS	●	3.18	±0.03	0.2	20.70
GY1G0400G020N-GFGS	●	4.00	±0.03	0.2	25.65
GY1G0475H020N-GFGS	●	4.75	±0.03	0.2	25.65
GY1G0500H020N-GFGS	●	5.00	±0.03	0.2	25.65
GY1G0600J020N-GFGS	●	6.00	±0.03	0.2	25.65



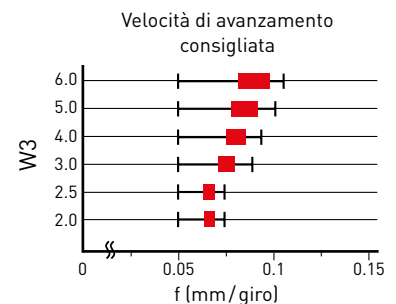
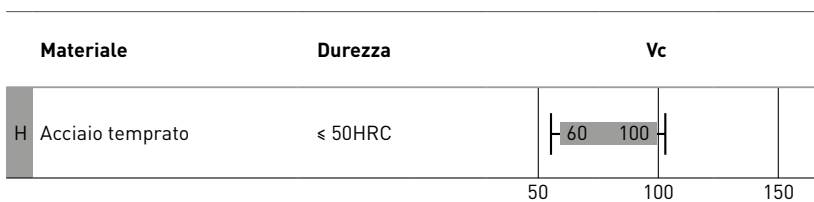
1. Quando si raggiunge il diametro minimo del foro "D1" per la scanalatura interna, ridurre l'avanzamento del 20 %.

CONDIZIONI DI TAGLIO CONSIGLIATE

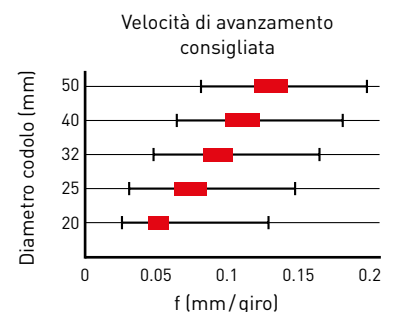
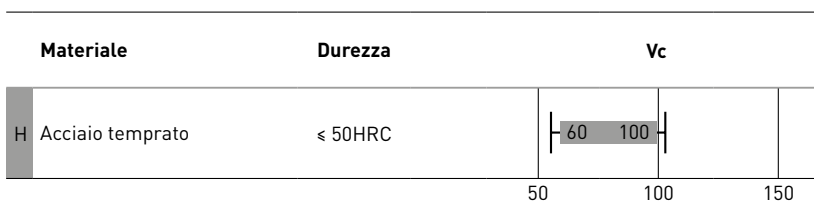
PER SCANALATURA ESTERNA



PER SCANALATURA FRONTALE



PER SCANALATURA INTERNA

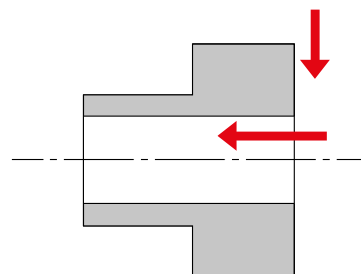
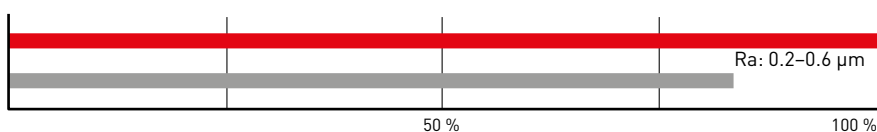


■ : 1a area consigliata

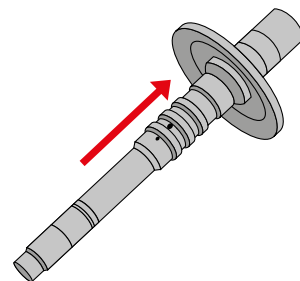
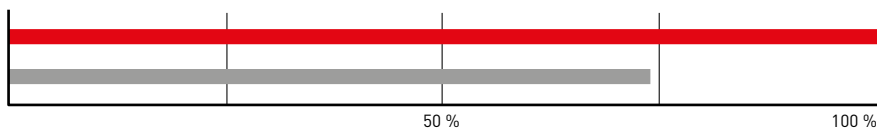
ESEMPI DI APPLICAZIONE

BC8105

Inserto	NP-DCGW11T308GS2
Materiale da lavorare	20CrMo2-2 (58-60 HRC)
Modalità di taglio	Esterno/frontale, continuo
Velocità di taglio Vc (m/min)	165
Avanzamento f (mm/giro)	0.085
Profondità di taglio ap (mm)	0.1
Refrigerante	Taglio a secco
Risultato	Quantità di pezzi lavorati: 80

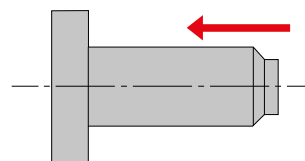
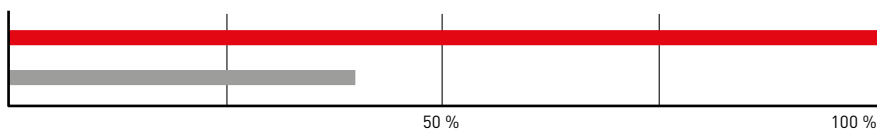


Inserto	NP-CNGA120408GSWS2
Materiale da lavorare	S55CHT (55-65 HRC)
Modalità di taglio	Esterno, continuo
Velocità di taglio Vc (m/min)	160
Avanzamento f (mm/giro)	0.35
Profondità di taglio ap (mm)	0.15
Refrigerante	Taglio a secco
Risultato	Quantità di pezzi lavorati: 134

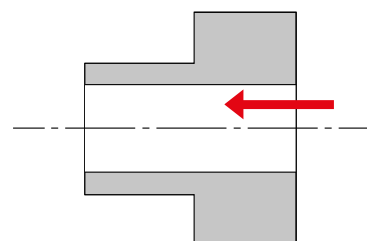
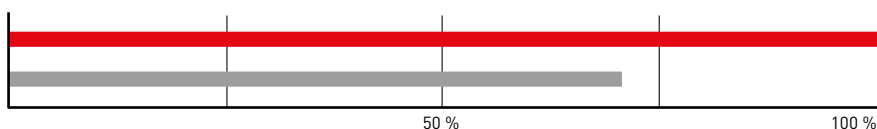


BC8110

Inserto	NP-DNGA150404FS2
Materiale da lavorare	S55CHT (55-65HRC)
Modalità di taglio	Esterno, continuo
Velocità di taglio Vc (m/min)	160
Avanzamento f (mm/giro)	0.20
Profondità di taglio ap (mm)	0.20
Refrigerante	Taglio a umido
Risultato	Quantità di pezzi lavorati: 500

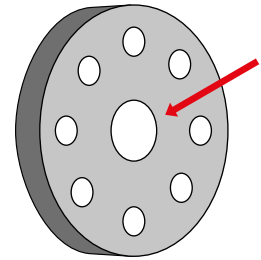
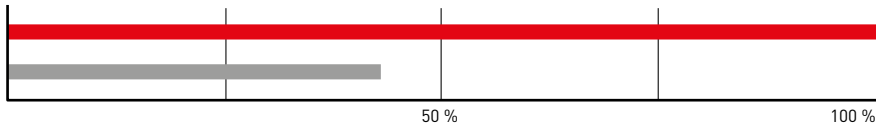


Inserto	NP-CCGW09T308GS2
Materiale da lavorare	16MnCr5 (60-65HRC)
Modalità di taglio	Interno, continuo
Velocità di taglio Vc (m/min)	110
Avanzamento f (mm/giro)	0.15
Profondità di taglio ap (mm)	0.20
Refrigerante	Taglio a secco
Risultato	Quantità di pezzi lavorati: 3.500

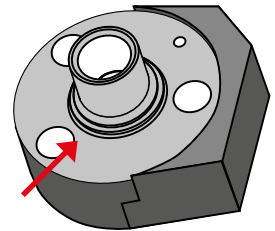
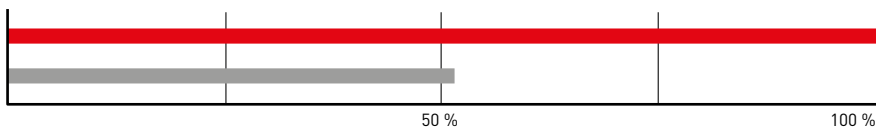


BC8120

Inserto	NP-CNGA120408TA2
Materiale da lavorare	SUJ (50HRC)
Modalità di taglio	Frontale, interrotto
Velocità di taglio Vc (m/min)	130
Avanzamento f (mm/giro)	0.08
Profondità di taglio ap (mm)	0.50
Refrigerante	Taglio a umido
Risultato	Quantità di pezzi lavorati: 110

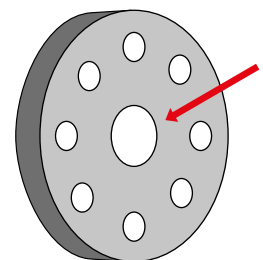
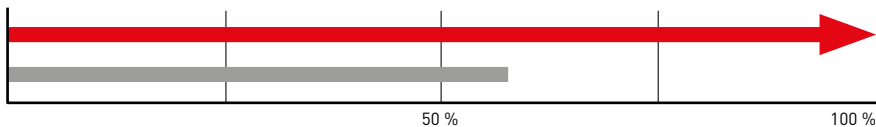


Inserto	NP-CNGA120408GA2
Materiale da lavorare	CAC403 (55-58HRC)
Modalità di taglio	Frontale, interrotto
Velocità di taglio Vc (m/min)	150
Avanzamento f (mm/giro)	0.15
Profondità di taglio ap (mm)	0.10
Refrigerante	Taglio a secco
Risultato	Quantità di pezzi lavorati: 150

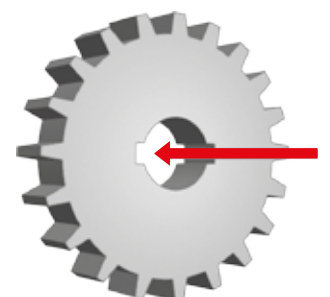
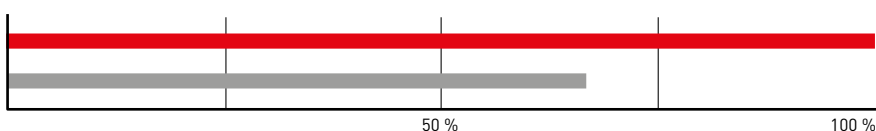


BC8130

Inserto	NP-CNGA120408TH2
Materiale da lavorare	S45C (58 HRC)
Modalità di taglio	Frontale, interrotto
Velocità di taglio Vc (m/min)	130
Avanzamento f (mm/giro)	0.08
Profondità di taglio ap (mm)	0.15
Refrigerante	Taglio a umido
Risultato	Quantità di pezzi lavorati: 70 (assenza di fratture)



Inserto	NP-CCGW09T308TN2
Materiale da lavorare	16MnCrS5 (58-60 HRC)
Modalità di taglio	Interno, interrotto
Velocità di taglio Vc (m/min)	159-175
Avanzamento f (mm/giro)	0.11
Profondità di taglio ap (mm)	0.12
Refrigerante	Taglio a secco
Risultato	Quantità di pezzi lavorati: 170



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