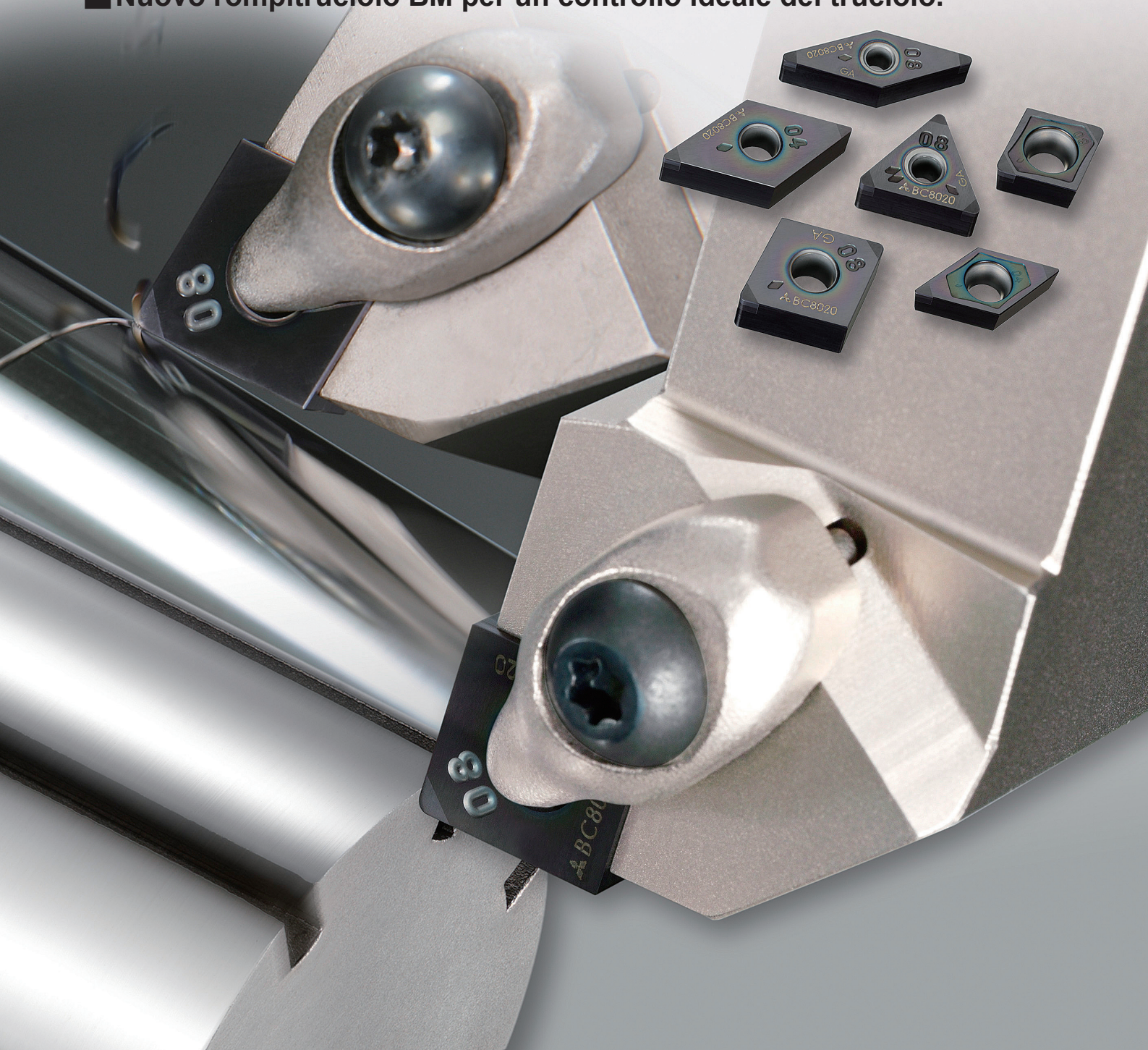


# Un nuovo grado CBN per rivoluzionare la lavorazione di acciai temprati.

- Anche in condizioni estreme, si riesce ad ottenere un'alta resistenza all'usura per lavorazioni più efficienti.
- Il tagliente tenace garantisce una lunga vita utensile anche in caso di taglio instabile o interrotto.
- Nuovo rompitruciolo BM per un controllo ideale del truciolo.





Grado CBN rivestito per la lavorazione di acciai temprati

# BC8020

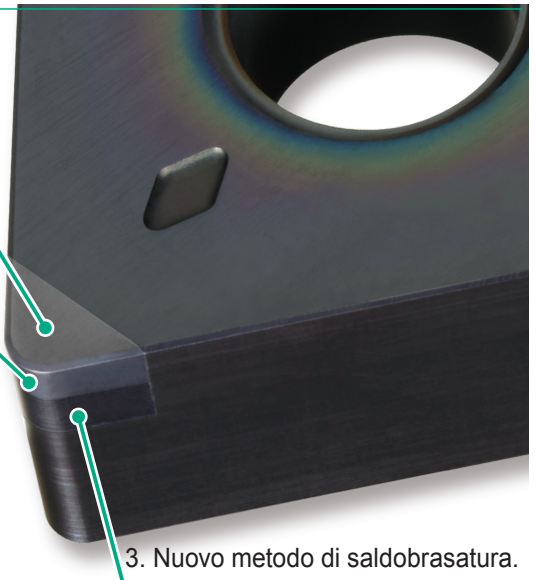
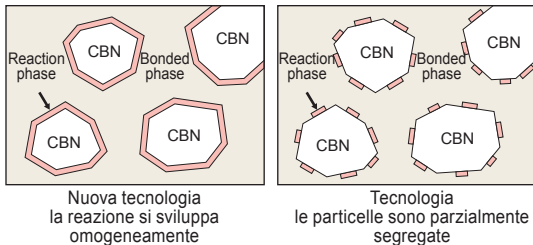
## Caratteristiche

### Eccellente resistenza all'usura

Il nuovo inserto CBN, con un tagliente più duro e più resistente alla craterizzazione, in combinazione con un rivestimento ceramico, garantisce una maggiore vita utensile e una maggiore efficienza.

### Taglienti affidabili

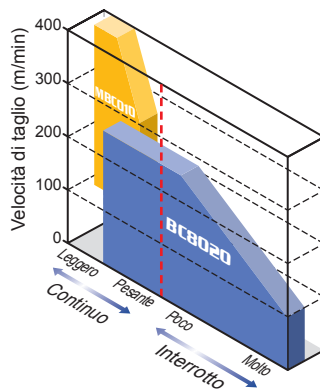
1. Contiene particelle di CBN molto dure.
2. Utilizza l'esclusiva tecnica di rivestimento a particelle attive Mitsubishi



### Ampio spettro di applicazioni

- Nelle lavorazioni su acciaio temprato si può usare sia per il taglio continuo che interrotto.
- L'alta resistenza all'usura rende possibili grandi profondità di taglio.

### Gamma di applicazioni

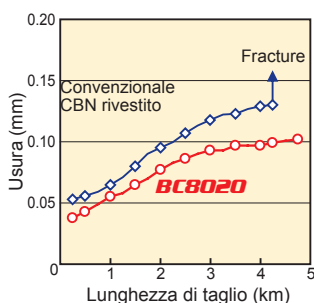


### Parametri di taglio raccomandati

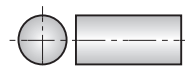
Materiale	Tipo di taglio	Velocità di taglio (m/min)				Max fz (mm/rev)	Max ap (mm)	Refrigerante
		50	100	200	300			
Acciaio temprato	Taglio continuo	[Bar chart showing range from ~70 to 250]				-0.3	-0.8	Wet, Dry
	Taglio interrotto	[Bar chart showing range from ~50 to 150]				-0.2	-0.3	Dry

## Performance di taglio

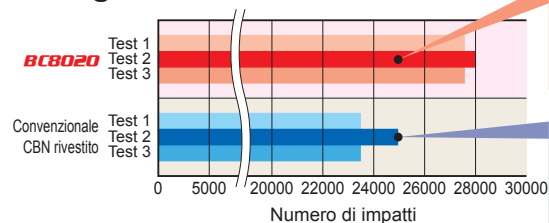
### Taglio continuo



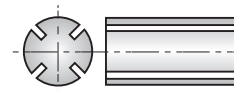
<Parametri di taglio>  
 Pezzo : Acciaio temprato (60HRC)  
 Inserto : NP-CNGA120408GA  
 Velocità di taglio: 180m/min  
 Avanzam. : 0.1mm/rev  
 Prof. di taglio 0.1mm (Dry)



### Taglio interrotto



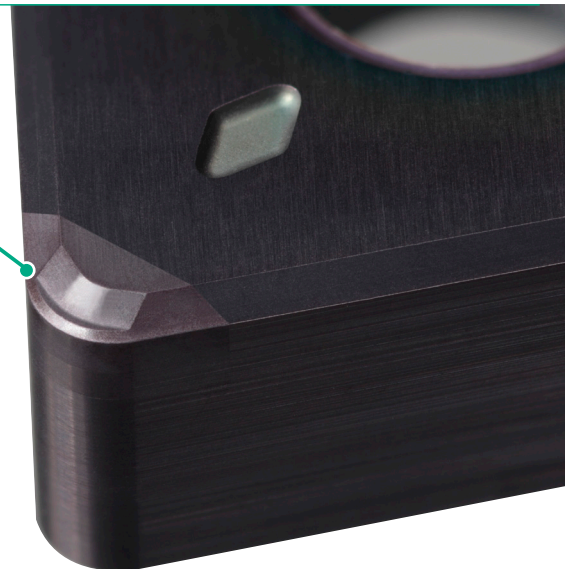
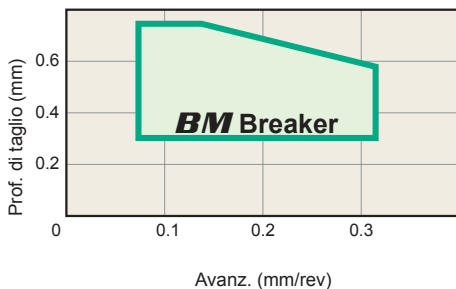
<Parametri di taglio>  
 Pezzo : Acciaio temprato (60HRC)  
 Inserto : NP-CNGA120408GA  
 Velocità di taglio: 150m/min  
 Avanzam. : 0.15mm/rev  
 Prof. di taglio 0.15mm (Dry)



## Inserto con rompitruciolo

### Caratteristiche

- Controllo efficiente del truciolo nella rimozione degli strati esterni temprati.
- Previene l'allungamento del truciolo.



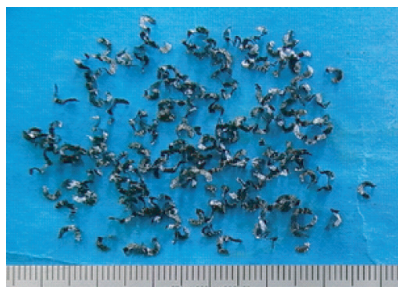
### Parametri di taglio consigliati

Pezzo da lavorare	Tipo di taglio	Velocità di taglio (m/min)				Max fz (mm/rev)	Max ap (mm)	Refrigerante
		50	100	200	300			
Acciaio temprato	Taglio continuo		-----			-0.3	-0.6 -0.8	Dry Wet

## Performance di taglio

### Resistenza all'usura

- Geometria del truciolo con grado-rompitruciolo BC8020-BM



<Parametri di taglio>  
 Pezzo : Acciaio temprato (60HRC)  
 Inserto : BM-CNGM120408TA  
 Vel. di taglio : 180m/min  
 Avanz. : 0.2mm/rev  
 Prof. di taglio: 0.5mm  
 Taglio continuo (Wet)

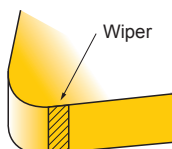


## Inserto raschiante

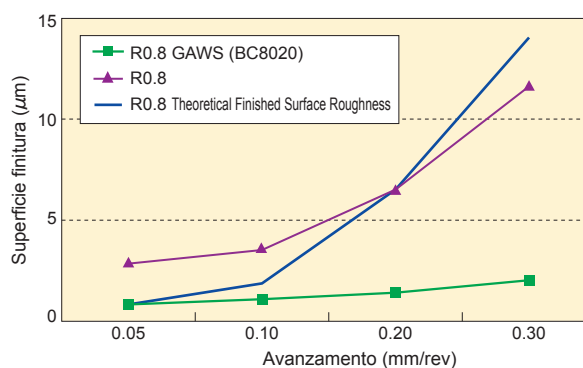
### Caratteristiche

- Ottiene una migliore superficie di finitura ad alti avanzamenti.
- Accorcia i tempi di lavorazione

### NP-CNGA120408GAWS4



### Superficie di finitura


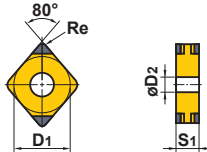

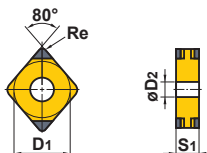

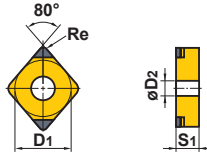

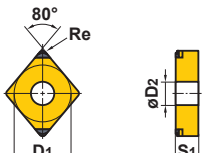

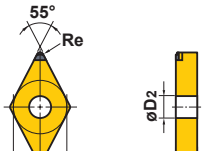

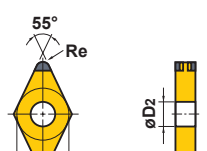


<Parametri di taglio>  
 Pezzo : Acciaio temprato (HRC60) Prof. di taglio: 0.1mm  
 Inserto : NP-CNGA120408GAWS4 Taglio a secco  
 Vel. di taglio : 120m/min

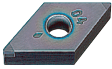
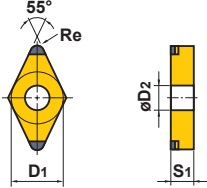
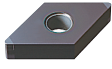
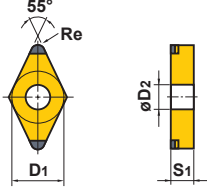

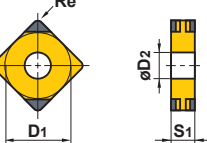

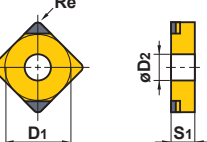
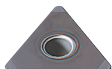
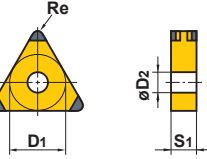
# Grado CBN rivestito per lavorazioni di acciaio temprato

## ● Insetti negativi

Onatura : GA :Taglio generico FS :Taglio continuo TA :Taglio interrotto

Forma	Descrizione	Stock	Dimensioni (mm)				Geometria
			D1	S1	Re	D2	
 Multi tagliente Due lati	<b>NP-CNGA120404GA4</b>	●	12.7	4.76	0.4	5.16	
	<b>120408GA4</b>	●	12.7	4.76	0.8	5.16	
	<b>120412GA4</b>	●	12.7	4.76	1.2	5.16	
	<b>120404FS4</b>	★	12.7	4.76	0.4	5.16	
	<b>120408FS4</b>	★	12.7	4.76	0.8	5.16	
	<b>120412FS4</b>	★	12.7	4.76	1.2	5.16	
	<b>120404TA4</b>	★	12.7	4.76	0.4	5.16	
	<b>120408TA4</b>	★	12.7	4.76	0.8	5.16	
	<b>120412TA4</b>	★	12.7	4.76	1.2	5.16	
 Multi tagliente Due lati	<b>NP-CNGA120404GAWS4</b>	★	12.7	4.76	0.4	5.16	
	<b>120408GAWS4</b>	★	12.7	4.76	0.8	5.16	
	<b>120412GAWS4</b>	★	12.7	4.76	1.2	5.16	
	<b>120404GSWS4</b>	●	12.7	4.76	0.4	5.16	
	<b>120408GSWS4</b>	●	12.7	4.76	0.8	5.16	
	<b>120412GSWS4</b>	●	12.7	4.76	1.2	5.16	
 Multi tagliente Un lato	<b>NP-CNGA120404GA2</b>	★	12.7	4.76	0.4	5.16	
	<b>120408GA2</b>	★	12.7	4.76	0.8	5.16	
	<b>120412GA2</b>	★	12.7	4.76	1.2	5.16	
	<b>120404FS2</b>	●	12.7	4.76	0.4	5.16	
	<b>120408FS2</b>	●	12.7	4.76	0.8	5.16	
	<b>120412FS2</b>	●	12.7	4.76	1.2	5.16	
	<b>120404TA2</b>	●	12.7	4.76	0.4	5.16	
	<b>120408TA2</b>	●	12.7	4.76	0.8	5.16	
<b>120412TA2</b>	●	12.7	4.76	1.2	5.16		
 Multi tagliente Un lato	<b>BM-CNGM120408TA2</b>	●	12.7	4.76	0.4	5.16	
	<b>120412TA2</b>	●	12.7	4.76	0.8	5.16	
 Multi tagliente Un lato	<b>BM-DNGM150408TA2</b>	★	12.7	4.76	0.8	5.16	
	<b>150412TA2</b>	★	12.7	4.76	1.2	5.16	
	<b>150608TA2</b>	●	12.7	6.35	0.8	5.16	
	<b>150612TA2</b>	●	12.7	6.35	1.2	5.16	
 Multi tagliente Due lati	<b>NP-DNGA150404GA4</b>	★	12.7	4.76	0.4	5.16	
	<b>150408GA4</b>	★	12.7	4.76	0.8	5.16	
	<b>150412GA4</b>	★	12.7	4.76	1.2	5.16	
	<b>150604GA4</b>	●	12.7	6.35	0.4	5.16	
	<b>150608GA4</b>	●	12.7	6.35	0.8	5.16	
	<b>150612GA4</b>	●	12.7	6.35	1.2	5.16	
	<b>150404FS4</b>	★	12.7	4.76	0.4	5.16	
	<b>150408FS4</b>	★	12.7	4.76	0.8	5.16	
	<b>150412FS4</b>	★	12.7	4.76	1.2	5.16	
	<b>150404TA4</b>	★	12.7	4.76	0.4	5.16	
	<b>150408TA4</b>	★	12.7	4.76	0.8	5.16	
	<b>150412TA4</b>	★	12.7	4.76	1.2	5.16	


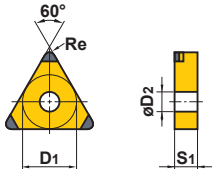

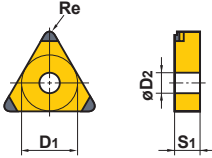

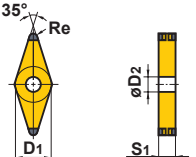

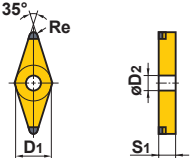

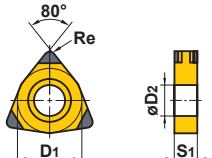

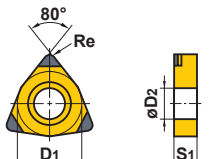
● : Inventario mantenuto. ★ : Inventario mantenuto in Giappone.

Forma	Descrizione		Dimensioni (mm)				Geometria
			D1	S1	Re	D2	
NEW PETIT CUT    Multi tagliente Un lato	<b>NP-DNGA150404GA2</b>	★	12.7	4.76	0.4	5.16	
	<b>150408GA2</b>	★	12.7	4.76	0.8	5.16	
	<b>150412GA2</b>	★	12.7	4.76	1.2	5.16	
	<b>150404FS2</b>	★	12.7	4.76	0.4	5.16	
	<b>150408FS2</b>	★	12.7	4.76	0.8	5.16	
	<b>150412FS2</b>	★	12.7	4.76	1.2	5.16	
	<b>150604FS2</b>	●	12.7	6.35	0.4	5.16	
	<b>150608FS2</b>	●	12.7	6.35	0.8	5.16	
	<b>150612FS2</b>	●	12.7	6.35	1.2	5.16	
	<b>150404TA2</b>	★	12.7	4.76	0.4	5.16	
	<b>150408TA2</b>	★	12.7	4.76	0.8	5.16	
	<b>150412TA2</b>	★	12.7	4.76	1.2	5.16	
	<b>150604TA2</b>	●	12.7	6.35	0.4	5.16	
	<b>150608TA2</b>	●	12.7	6.35	0.8	5.16	
	<b>150612TA2</b>	●	12.7	6.35	1.2	5.16	
NEW PETIT CUT (Wiper)    Multi tagliente Due lati	<b>NP-DNGA150604GSWS2JR</b>	●	12.7	6.35	0.4	5.16	
	<b>150604GSWS2JL</b>	●	12.7	6.35	0.4	5.16	
	<b>150608GSWS2JR</b>	●	12.7	6.35	0.8	5.16	
	<b>150608GSWS2JL</b>	●	12.7	6.35	0.8	5.16	
NEW PETIT CUT    Multi tagliente Due lati	<b>NP-SNGA120408GA4</b>	●	12.7	4.76	0.8	5.16	
	<b>120412GA4</b>	●	12.7	4.76	1.2	5.16	
NEW PETIT CUT    Multi tagliente Un lato	<b>NP-SNGA120408TA2</b>	●	12.7	4.76	0.8	5.16	
	<b>120412TA2</b>	●	12.7	4.76	1.2	5.16	
NEW PETIT CUT    Multi tagliente Due lati	<b>NP-TNGA160404GA6</b>	●	9.525	4.76	0.4	3.81	
	<b>160408GA6</b>	●	9.525	4.76	0.8	3.81	
	<b>160412GA6</b>	●	9.525	4.76	1.2	3.81	
	<b>160404FS6</b>	★	9.525	4.76	0.4	3.81	
	<b>160408FS6</b>	★	9.525	4.76	0.8	3.81	
	<b>160412FS6</b>	★	9.525	4.76	1.2	3.81	
	<b>160404TA6</b>	★	9.525	4.76	0.4	3.81	
	<b>160408TA6</b>	★	9.525	4.76	0.8	3.81	
<b>160412TA6</b>	★	9.525	4.76	1.2	3.81		


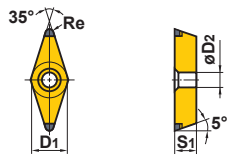
# Grado CBN rivestito per lavorazioni di acciaio temprato

## ● Insetti negativi

Onatura : GA :Taglio generico FS :Taglio continuo TA :Taglio interrotto

Forma	Descrizione	Stock	Dimensioni (mm)				Geometria
			D1	S1	Re	D2	
 Multi tagliente Un lato	<b>NP-TNGA160404GA3</b>	★	9.525	4.76	0.4	3.81	
	<b>160408GA3</b>	★	9.525	4.76	0.8	3.81	
	<b>160412GA3</b>	★	9.525	4.76	1.2	3.81	
	<b>160404FS3</b>	●	9.525	4.76	0.4	3.81	
	<b>160408FS3</b>	●	9.525	4.76	0.8	3.81	
	<b>160412FS3</b>	●	9.525	4.76	1.2	3.81	
	<b>160404TA3</b>	●	9.525	4.76	0.4	3.81	
	<b>160408TA3</b>	●	9.525	4.76	0.8	3.81	
	<b>160412TA3</b>	●	9.525	4.76	1.2	3.81	
 Multi tagliente Un lato	<b>BM-TNGM160408TA3</b>	●	9.525	4.76	0.8	3.81	
	<b>160412TA3</b>	●	9.525	4.76	1.2	3.81	
 Multi tagliente Due lati	<b>NP-VNGA160404GA4</b>	●	9.525	4.76	0.4	3.81	
	<b>160408GA4</b>	●	9.525	4.76	0.8	3.81	
	<b>160412GA4</b>	●	9.525	4.76	1.2	3.81	
	<b>160404FS4</b>	★	9.525	4.76	0.4	3.81	
	<b>160408FS4</b>	★	9.525	4.76	0.8	3.81	
	<b>160412FS4</b>	★	9.525	4.76	1.2	3.81	
	<b>160404TA4</b>	★	9.525	4.76	0.4	3.81	
 Multi tagliente Un lato	<b>NP-VNGA160404GA2</b>	★	9.525	4.76	0.4	3.81	
	<b>160408GA2</b>	★	9.525	4.76	0.8	3.81	
	<b>160404FS2</b>	●	9.525	4.76	0.4	3.81	
	<b>160408FS2</b>	●	9.525	4.76	0.8	3.81	
	<b>160404TA2</b>	●	9.525	4.76	0.4	3.81	
 Multi tagliente Due lati	<b>NP-WNGA080408GA6</b>	●	12.7	4.76	0.8	5.16	
 Multi tagliente Un lato	<b>NP-WNGA080408GA3</b>	★	12.7	4.76	0.8	5.16	
	<b>080408FS3</b>	●	12.7	4.76	0.8	5.16	
	<b>080408TA3</b>	●	12.7	4.76	0.8	5.16	


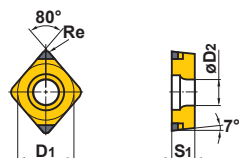

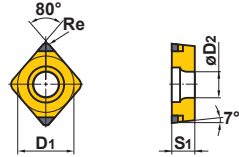

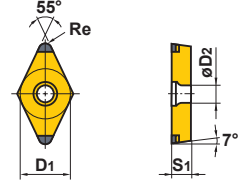

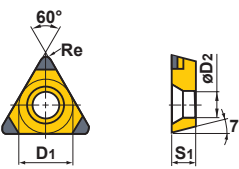

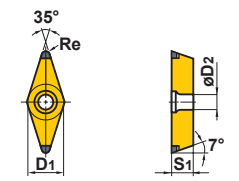
## ● 5° Insetti positivi

Forma	Descrizione	Stock	Dimensioni (mm)				Geometria
			D1	S1	Re	D2	
 Multi tagliente Un lato	<b>NP-VBGW110304GA2</b>	●	6.35	3.18	0.4	2.85	
	<b>160404GA2</b>	●	9.525	4.76	0.4	4.43	
	<b>160408GA2</b>	●	9.525	4.76	0.8	4.43	
	<b>110304FS2</b>	●	6.35	3.18	0.4	2.85	
	<b>160404FS2</b>	●	9.525	4.76	0.4	4.43	
	<b>160408FS2</b>	●	9.525	4.76	0.8	4.43	
	<b>160408TA2</b>	●	9.525	4.76	0.8	4.43	

● :Inventario mantenuto. ★ : Inventario mantenuto in Giappone.




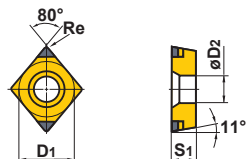

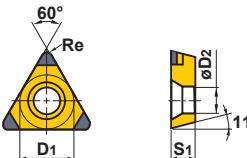
● 7° Inerti positivi

Forma	Descrizione	Stock	Dimensioni (mm)				Geometria
			D1	S1	Re	D2	
 Multi tagliente Un lato	<b>NP-CCGW060202GA2</b>	●	6.35	2.38	0.2	2.8	
	<b>060204GA2</b>	●	6.35	2.38	0.4	2.8	
	<b>09T302GA2</b>	★	9.525	3.97	0.2	4.4	
	<b>09T304GA2</b>	●	9.525	3.97	0.4	4.4	
	<b>09T308GA2</b>	●	9.525	3.97	0.8	4.4	
	<b>060204GN2</b>	●	6.35	2.38	0.4	2.8	
	<b>09T304GN2</b>	●	9.525	3.97	0.4	4.4	
	<b>09T308GN2</b>	●	9.525	3.97	0.8	4.4	
	<b>060202FS2</b>	●	6.35	2.38	0.2	2.8	
	<b>060204FS2</b>	●	6.35	2.38	0.4	2.8	
	<b>09T302FS2</b>	★	9.525	3.97	0.2	4.4	
	<b>09T304FS2</b>	●	9.525	3.97	0.4	4.4	
	<b>09T308FS2</b>	●	9.525	3.97	0.8	4.4	
	<b>09T304TA2</b>	●	9.525	3.97	0.4	4.4	
	<b>09T308TA2</b>	●	9.525	3.97	0.8	4.4	
<b>09T304TN2</b>	●	9.525	3.97	0.4	4.4		
<b>09T308TN2</b>	●	9.525	3.97	0.8	4.4		
 Multi tagliente Un lato	<b>NP-CCGW09T304GSWS2</b>	●	9.525	3.97	0.4	4.4	
	<b>09T308GSWS2</b>	●	9.525	3.97	0.8	4.4	
 Multi tagliente Un lato	<b>NP-DCGW070202GA2</b>	●	6.35	2.38	0.2	2.8	
	<b>070204GA2</b>	●	6.35	2.38	0.4	2.8	
	<b>070208GA2</b>	●	6.35	2.38	0.8	2.8	
	<b>11T302GA2</b>	★	9.525	3.97	0.2	4.4	
	<b>11T304GA2</b>	●	9.525	3.97	0.4	4.4	
	<b>11T308GA2</b>	●	9.525	3.97	0.8	4.4	
	<b>070204GN2</b>	●	6.35	2.38	0.4	2.8	
	<b>11T304GN2</b>	●	9.525	3.97	0.4	4.4	
	<b>11T308GN2</b>	●	9.525	3.97	0.8	4.4	
	<b>070202FS2</b>	●	6.35	2.38	0.2	2.8	
	<b>070204FS2</b>	●	6.35	2.38	0.4	2.8	
	<b>11T302FS2</b>	★	9.525	3.97	0.2	4.4	
	<b>11T304FS2</b>	●	9.525	3.97	0.4	4.4	
	<b>11T308FS2</b>	●	9.525	3.97	0.8	4.4	
	<b>11T304TA2</b>	●	9.525	3.97	0.4	4.4	
<b>11T308TA2</b>	●	9.525	3.97	0.8	4.4		
<b>11T304TN2</b>	●	9.525	3.97	0.4	4.4		
<b>11T308TN2</b>	●	9.525	3.97	0.8	4.4		
 Multi tagliente Un lato	<b>NP-TCGW090204GA3</b>	●	5.56	2.38	0.4	2.5	
	<b>090208GA3</b>	●	5.56	2.38	0.8	2.5	
	<b>110204GA3</b>	●	6.35	2.38	0.4	2.8	
	<b>110208GA3</b>	●	6.35	2.38	0.8	2.8	
	<b>16T304GA3</b>	●	9.525	3.97	0.4	4.4	
	<b>16T308GA3</b>	●	9.525	3.97	0.8	4.4	
	<b>090204FS3</b>	●	5.56	2.38	0.4	2.5	
	<b>110204FS3</b>	●	6.35	2.38	0.4	2.8	
<b>16T304FS3</b>	●	9.525	3.97	0.4	4.4		
 Multi tagliente Un lato	<b>NP-VCGW160404GA2</b>	●	9.525	4.76	0.4	4.4	
	<b>160408GA2</b>	●	9.525	4.76	0.8	4.4	
	<b>160404FS2</b>	●	9.525	4.76	0.4	4.4	
	<b>160408FS2</b>	★	9.525	4.76	0.8	4.4	
	<b>160408TA2</b>	●	9.525	4.76	0.8	4.4	

# Grado CBN rivestito per lavorazione di acciaio temprato

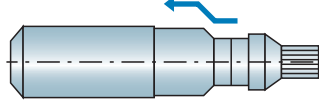
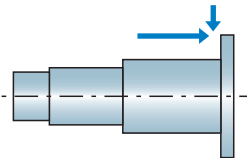
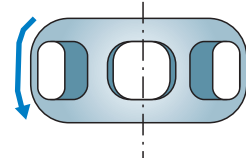
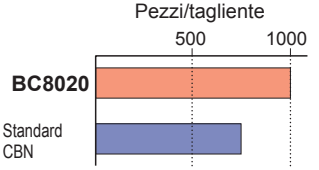
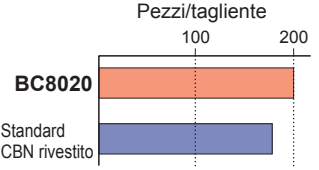
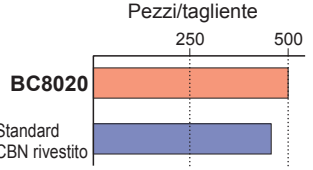
## ● 11° Insetti positivi

Onatura : GA :Taglio generico FS :Taglio continuo TA :Taglio interrotto

Forma	Descrizione	Stock	Dimensioni (mm)				Geometria
			D1	S1	Re	D2	
 Multi tagliente Un lato	<b>NP-CPGB080204GA2</b>	●	7.94	2.38	0.4	3.5	
	<b>080208GA2</b>	●	7.94	2.38	0.8	3.5	
	<b>090304GA2</b>	●	9.525	3.18	0.4	4.5	
	<b>090308GA2</b>	●	9.525	3.18	0.8	4.5	
	<b>080204FS2</b>	●	7.94	2.38	0.4	3.5	
	<b>080208FS2</b>	●	7.94	2.38	0.8	3.5	
	<b>090304FS2</b>	●	9.525	3.18	0.4	4.5	
	<b>090308FS2</b>	●	9.525	3.18	0.8	4.5	
 Multi tagliente Un lato	<b>NP-TPGB110304GA3</b>	●	6.35	3.18	0.4	3.4	
	<b>110308GA3</b>	●	6.35	3.18	0.8	3.4	
	<b>160304GA3</b>	●	9.525	3.18	0.4	4.4	
	<b>160308GA3</b>	●	9.525	3.18	0.8	4.4	
	<b>110304FS3</b>	●	6.35	3.18	0.4	3.4	
	<b>110308FS3</b>	●	6.35	3.18	0.8	3.4	
	<b>160304FS3</b>	●	9.525	3.18	0.4	4.4	
	<b>160308FS3</b>	●	9.525	3.18	0.8	4.4	

● : Inventario mantenuto.

## Esempi di applicazione

Inserto	<b>BM-DNGM150408TA2</b>	<b>NP-CNGA120408GA</b>	<b>NP-TNGA160416TA</b>	
	Acciaio temprato (60HRC)			
Pezzo				
Componente	Parte cambio	Albero	Parte giunto	
Parametri di taglio	Velocità di taglio (m/min)	130	130	120
	Avanz. (mm/rev)	0.12	0.15	0.15
	Prof. di taglio (mm)	0.15	0.15	0.15
Refrigerante	Dry	Wet	Dry	
Risultati	Pezzi/tagliente 500 1000  Standard CBN	Pezzi/tagliente 100 200  Standard CBN rivestito	Pezzi/tagliente 250 500  Standard CBN rivestito	
	Per CBN standard, fine vita utensile a 500 pezzi, mentre con BC8020 si ha lavorazione stabile fino a 1000 pezzi.	Un normale CBN rivestito lavora 180 pezzi mentre con il BC8020 è stato possibile lavorare 200 pezzi in ottima stabilità.	La fine vita per un CBN convenzionale è 450 pezzi, mentre il BC8020 è riuscito a lavorare fino a 500 pezzi.	



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