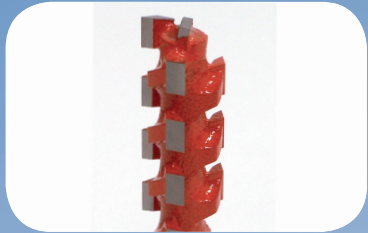
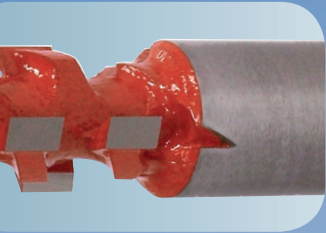
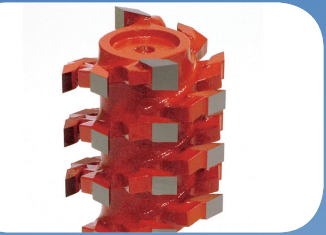
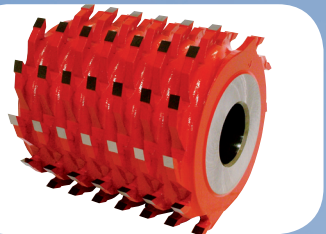


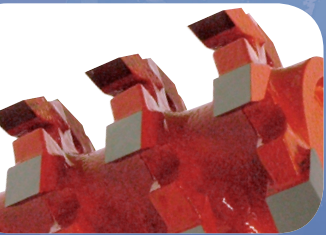
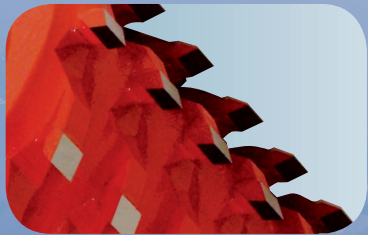
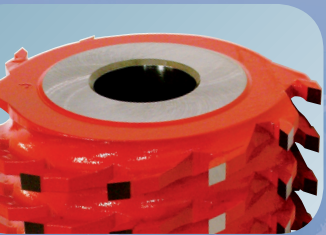
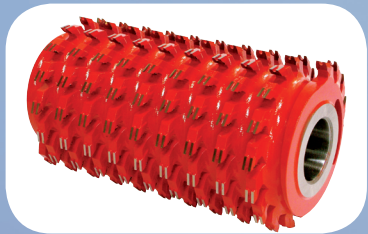
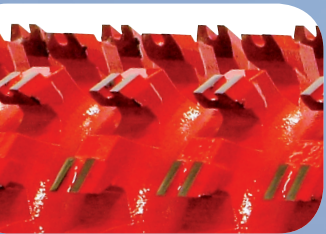
# freud<sup>®</sup> pro



*Utensili  
Saldobrasati  
a Settori  
Elicoidali*

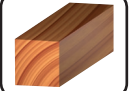




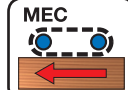
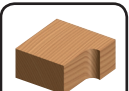



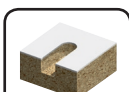
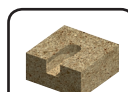





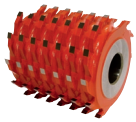
*Spiral Multicut  
Brazed Tools*





## Legenda dei simboli Explanation of symbols

	SPIANATURA - LEGNO PLANNING - WOOD		BATTUTA - LEGNO RABBETING - WOOD		AVANZAMENTO MANUALE MANUAL FEED
	FORATURA - LEGNO PLUNGING - WOOD		FORATURA - LAMINATO PLUNGING - LAMINATE		AVANZAMENTO MECCANICO AUTOMATIC FEED
	CONTORNATURA - LEGNO SIZING - WOOD		CONTORNATURA - LAMINATO E BILAMINATO SIZING - LAMINATE AND BILAMINATE		CONTORNATURA - TRUCIOLARE SIZING - CHIPBOARD
	FORATURA - LEGNO PLUNGING - WOOD		FORATURA - LAMINATO PLUNGING - LAMINATE		FORATURA - TRUCIOLARE PLUNGING - CHIPBOARD
	ROTAZIONE DESTRA RIGHT HAND		ROTAZIONE SINISTRA LEFT HAND		ROTAZIONE DESTRA E SINISTRA RIGHT HAND AND LEFT HAND



## Vantaggi degli utensili saldobrasati a settori elicoidali The advantages of spiral multicut brazed tools



**Energia**  
**Energy**

**-50%**



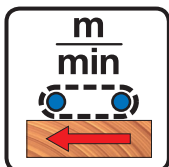
**Rumorosità**  
**Noise**

**-60%**



**Manutenzione**  
**Maintenance**

**-80%**



**Velocità di  
avanzamento**  
**Feed Rate**

**+250%**

Il frazionamento del tagliente, a parità di condizioni di lavoro, migliora notevolmente le prestazioni rispetto agli utensili tradizionali:

- ✓ diminuisce il consumo energetico grazie al minore contatto del tagliente con il pezzo da lavorare.
- ✓ grazie alla posizione spiroidale delle placchette limita le turbolenze dell'aria diminuendo notevolmente la rumorosità.
- ✓ abbatte i costi di manutenzione, poiché il minore sforzo durante il taglio prolunga la durata delle placchette e riduce gli interventi.
- ✓ la particolare geometria di questi utensili permette un significativo incremento della velocità di avanzamento.

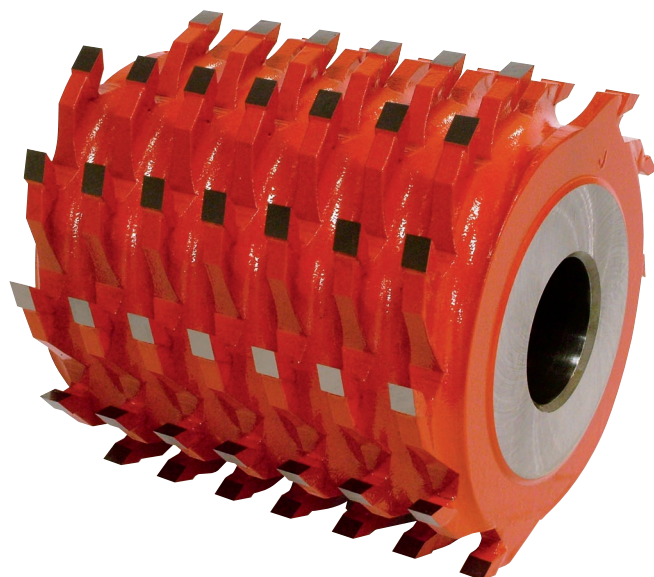
Fractioned cutting edges considerably improves the tools' performance, compared to traditional cutters.

- ✓ less contact between cutting edge and working material ensures energy saving.
- ✓ thanks to the spiroid position of the cutters it limits air turbulence considerably decreasing the noise level.
- ✓ It cuts down on maintenance costs, as the decreased effort during cutting extends the durability of the cutters and reduces maintenance work.
- ✓ Spiral cutting design allows a remarkable feed speed increase.

# Frese saldobrasate a settori elicoidali

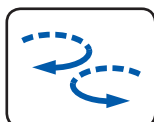
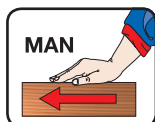
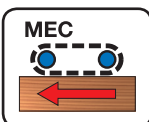
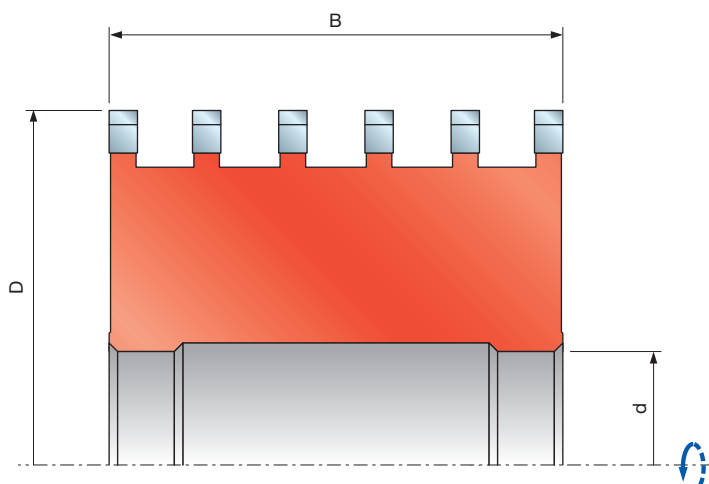
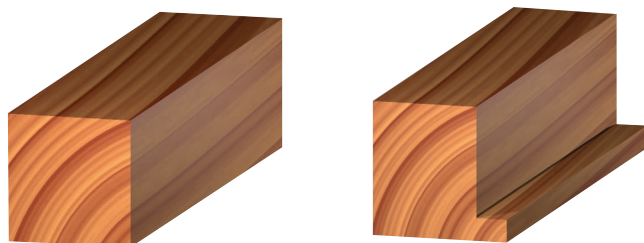
## Spiral multicut brazed cutters

**FB60M**  
**FB61M**



### Application

For use on spindle moulders and moulding machines.  
The cutters with HW infills are laid out on 12 or 16 housings in a spiroid fashion.  
Designed for strong wood removal with high feed rate and clear finish on softwood, hardwood and glued panels.



-50%



-60%



-80%



+250%

D = Diametro  
d = Foro

B = Spessore Taglio  
Z = Numero di Denti

**freud**  
**pro**

D = Diameter  
d = Bore

B = Cutting Thickness  
Z = Number of Teeth

Dimensioni Standard / Standard Dimensions				
D mm	B mm	d mm	Z	CODICE CODE
100	120	35	12	FB60M AB3P
100	180	35	12	FB60M BB3P
125	120	35	12	FB60M CB3P
• 125	120	40	12	FB60M CC3P
• 125	150	35	12	FB60M DB3P
• 125	150	40	12	FB60M DC3P
• 125	180	35	12	FB60M EB3P
• 125	180	40	12	FB60M EC3P
• 125	230	40	12	FB60M FC3P
• 140	120	40	12	FB60M GC3P
• 140	180	40	12	FB60M HC3P
• 140	230	40	12	FB60M IC3P

• Disponibile a magazzino / Stock items

### Impiego

Per l'utilizzo su macchine scorniciatrici e toupie.  
Le placchette con riporti in HW sono disposte su 12 o 16 sedi ad andamento spiroidale. L'utensile è particolarmente adatto a lavorazioni di spianatura con forti avanzamenti e profonde asportazioni, con buona finitura su legni teneri, duri ed incollati.

## Versione leggera

### Light version

Dimensioni Standard / Standard Dimensions				
D mm	B mm	d mm	Z	CODICE CODE
125	180	35	12	FB61M EB3P
• 125	180	40	12	FB61M EC3P
• 125	230	40	12	FB61M FC3P
• 140	180	40	12	FB61M GC3P
• 140	230	40	12	FB61M IC3P

• Disponibile a magazzino / Stock items

### Impiego

Per l'utilizzo su macchine di struttura leggera, scorniciatrici e toupie.  
Le placchette con riporti in HW sono disposte su 12 o 16 sedi ad andamento spiroidale, l'utensile è realizzato con corpo alleggerito.  
Particolarmente adatto a lavorazioni di spianatura con forti avanzamenti e profonde asportazioni, con buona finitura su legni teneri, duri ed incollati.

### Application

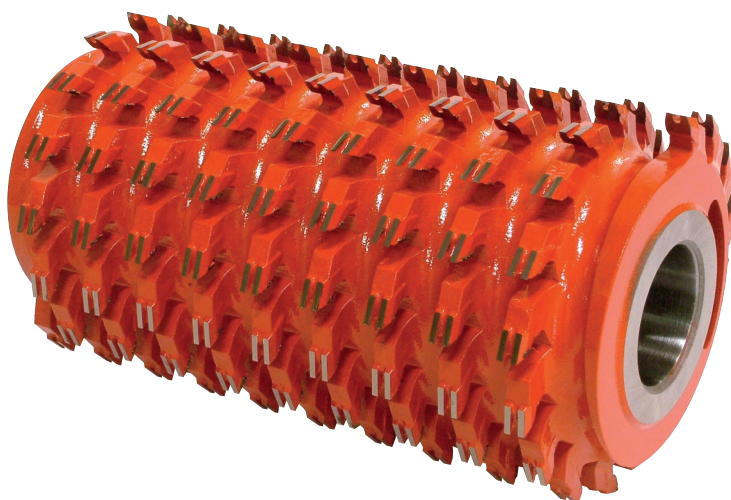
For use on machines with light structure, on moulders and spindle moulders. The cutters with HW infills are laid out on 12 or 16 housings in a spiroid fashion, the tool is made with a lightened body.  
Designed for strong wood removal with high feed rate and clear finish on softwood, hardwood and glued panels.

# Frese saldobrasate a settori elicoidali

## Spiral multicut brazed cutters

# FB70M

# FB71M



**Con placchette scanalate**  
**Made with chip-breaker tips**

### Application

For use on moulders.

The cutters with HW infills are laid out on 16 spiroid shaped housings with a single start.

The tool, with grooved profile of the cutters, is ideal for heavy wood removal without chips even against the vein, where a good finish is not required.

Dimensioni / Dimensions are in mm				CODICE CODE
D	B	d	Z	
100	80	35	16	FB70M AB3P
100	100	35	16	FB70M BB3P
100	110	35	16	FB70M CB3P
100	120	35	16	FB70M DB3P
100	140	35	16	FB70M EB3P
100	160	35	16	FB70M FB3P
100	180	35	16	FB70M HB3P

● Disponibile a magazzino / Stock items

Dimensioni / Dimensions are in mm				CODICE CODE
D	B	d	Z	
120	80	35	16	FB71M AB3P
120	100	35	16	FB71M BB3P
120	110	35	16	FB71M CB3P
120	120	35	16	FB71M DB3P
120	140	35	16	FB71M EB3P
120	160	35	16	FB71M FB3P
120	170	35	16	FB71M GB3P
120	180	35	16	FB71M HB3P

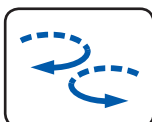
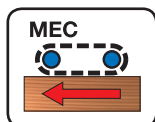
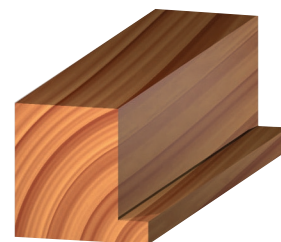
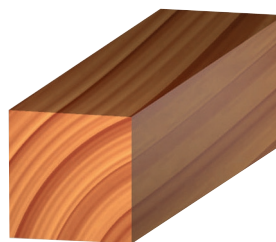
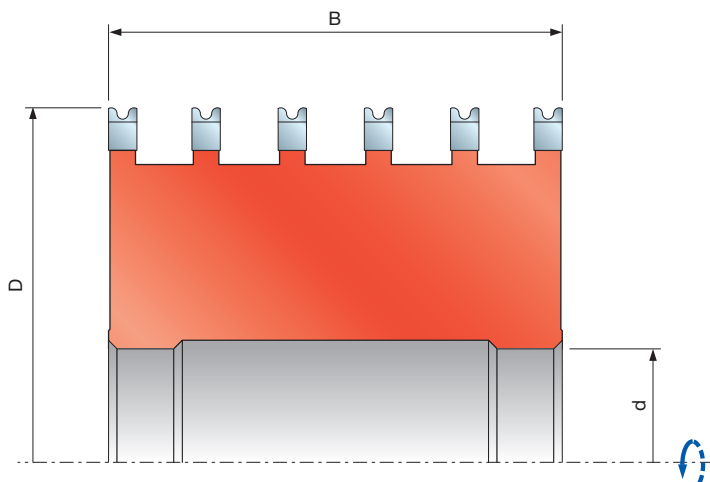
● Disponibile a magazzino / Stock items

### Impiego

Per l'utilizzo su macchine contornatrici.

Le placchette con riporti in HW sono disposte su 16 sedi ad andamento spiroidale con un unico principio.

L'utensile, con profilo delle placchette scanalato, è particolarmente indicato per eseguire forti asportazioni senza scheggiature anche in controvena, dove non sia richiesta buona finitura.



-50%



-60%



-80%



+250%

D = Diametro  
d = Foro

B = Spessore Taglio  
Z = Numero di Denti

**freud**  
**pro**

D = Diameter  
d = Bore

B = Cutting Thickness  
Z = Number of Teeth

# Punte multitaglienti elicoidali per contornare

## Spiral multicut router bits for sizing

**PB60M**  
**PB70M**



D mm	h mm	A mm	Z	CODICE CODE
50	60	20x50	8	PB60M CA3P
50	60	CM2 Ø30	8	PB60M CB3P
50	60	CM3 Ø30	8	PB60M CC3P

● Disponibile a magazzino / Stock items

### Impiego

Per l'utilizzo su pantografi.

La particolare disposizione delle placchette con riporti in HW, su sedi ad andamento spiroidale, permette una notevole diminuzione della rumorosità e dell'assorbimento di energia e garantisce un notevole incremento della velocità di avanzamento.

La punta è particolarmente indicata per le lavorazioni di spianatura e battenti, in fase di sgrossatura, su legni teneri, duri, truciolari, compensati etc.

### Application

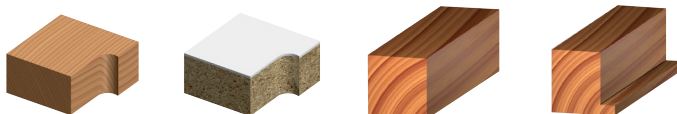
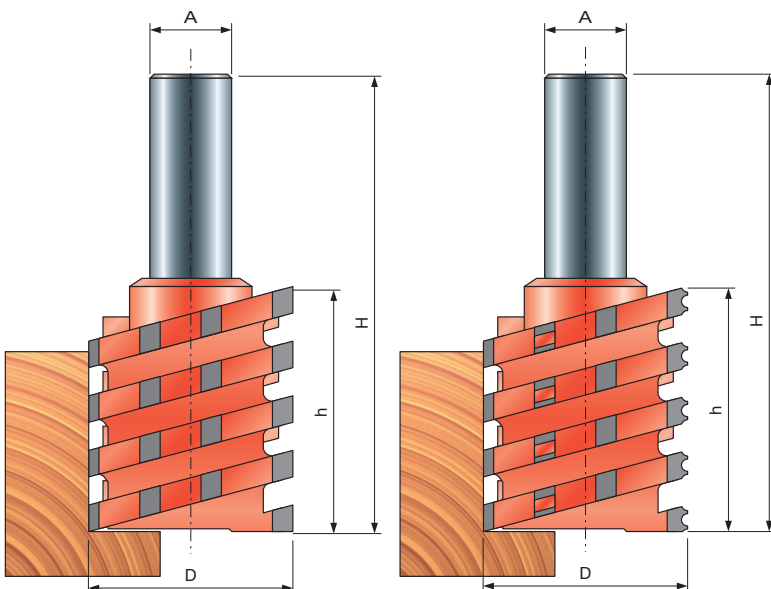
For use on overhead CNC machines

The particular layout of the cutters with HW infills, on spirioid shaped housings, considerably decreases the noise level and absorbtion of energy and guarantees a significant increase in the forward movement speed.

Suitable for roughing operations on planing and rebating of soft and hardwood, chipboard and wood composites.

Placchette piane  
Flat cutters

Placchette piane e scanalate  
Flat and grooved cutters



## Con placchette scanalate

### Made with chip-breaker tips

D mm	h mm	A mm	Z	CODICE CODE
50	60	20x50	8	PB70M CA3P
50	60	CM2 Ø30	8	PB70M CB3P
50	60	CM3 Ø30	8	PB70M CC3P

### Impiego

Per l'utilizzo su pantografi.

Le placchette con riporti in HW sono disposte su sedi spiriodali ed applicate, alternativamente piane e scanalate, su due principi elicoidali.

La punta è particolarmente indicata per le lavorazioni di spianatura e battenti su legni teneri, duri, truciolari, compensati etc. Ideale per forti asportazioni in totale assenza di truciolo.

### Application

For use on overhead CNC machines.

The cutters with HW infills are laid out on spirioid housings and applied, alternately flat and grooved, on two helical starts. Designed for planing and rebating on soft and hardwood, chipboard and wood composites.

Suitable for strong great removal without chipping.



-50%



-60%



-80%



+250%

D = Diametro  
A = Attacco

h = Lunghezza Taglio  
Z = Numero Taglienti

**freud**  
**pro**

D = Diameter  
A = Shank

h = Cutting Length  
Z = Number of Cutting Edges

# Punte multitaglienti elicoidali per forare e contornare

## Spiral multicut router bits for sizing and drilling

# PB60M



D mm	h mm	A mm	Z	CODICE CODE
20	45	20x50	3	PB60M AA3P
20	45	CM2 Ø20	3	PB60M AB3P
20	45	CM3 Ø30	3	PB60M AC3P
20	45	12x35	3	PB60M AD3P
30	60	CM2 Ø20	6	PB60M BA3P
30	60	CM2 Ø30	6	PB60M BB3P
30	60	CM3 Ø30	6	PB60M BC3P
30	60	20x50	6	PB60M BD3P

● Disponibile a magazzino / Stock items

### Impiego

Per l'utilizzo su pantografi.

La particolare disposizione delle placchette con riporti in HW, su sedi ad andamento spiroidale, permette una notevole diminuzione della rumorosità e dell'assorbimento di energia e garantisce un notevole incremento della velocità di avanzamento.

La punta è particolarmente indicata per forature e contornature su legni teneri, duri, truciolari, compensati etc, con media finitura.

### Application

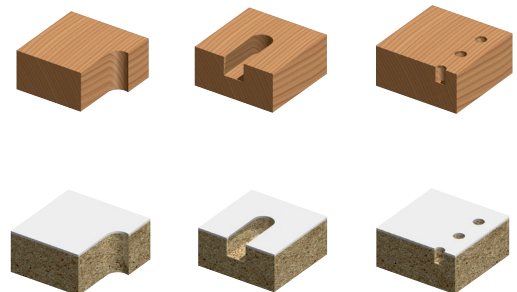
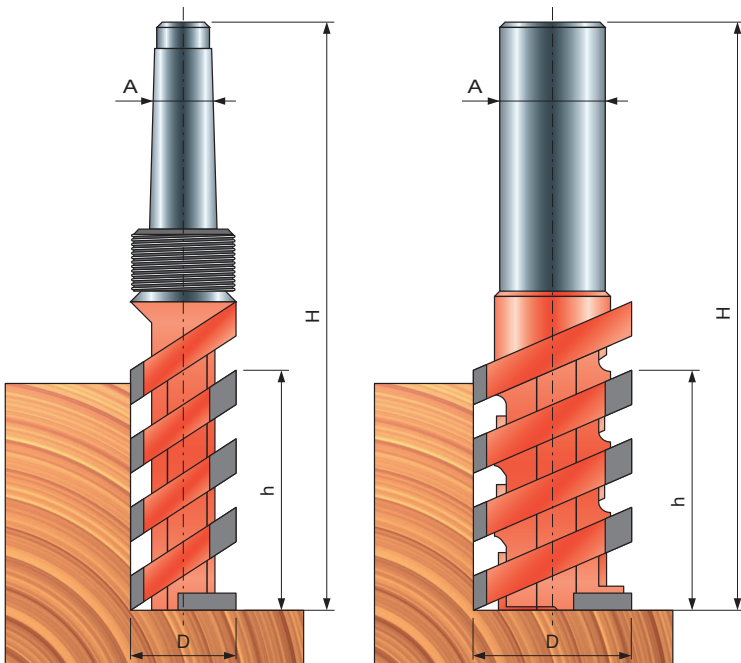
For use on overhead CNC machines

The particular layout of the cutters with HW infills, on spiroid shaped housings, considerably decreases the noise level and absorption of energy and guarantees a significant increase in the forward movement speed.

Suitable to make holes with medium finish on softwood, hardwood, chipboard and wood composites.

Attacco / Shank  
CM2 - CM3

Attacco / Shank  
20x50



-50%



-60%



-80%



+250%

D = Diametro  
A = Attacco

h = Lunghezza Taglio  
Z = Numero Taglienti

**freud**  
**pro**

D = Diameter  
A = Shank

h = Cutting Length  
Z = Number of Cutting Edges