

FormCut



**Available in
PCD & CBN!**

threading



grooving



profiling



copying




**External holders available in
3/4", 1", & 1.25" sizes!**



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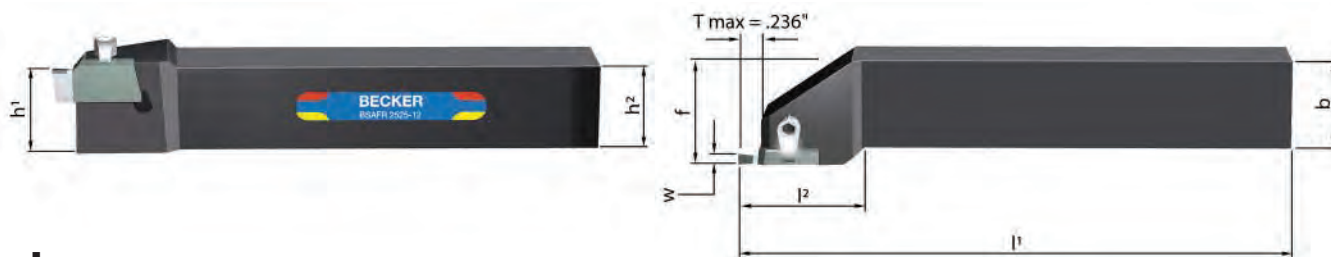
BECKER has developed the FormCut Grooving and Turning Tool System in PCD, CBN & MDC for High Precision Grooving, Groove and Turning, Profiling and Threading. The extremely rigid and precision machined insert pocket eliminates any micro-displacement and the tightest part tolerances can be achieved by using the full range precision ground FormCut-Indexable Inserts.

Using a special 6-axis CNC-grinding technique we achieve perfect reproducible macro and micro cutting edge geometries on all CBN FormCut Indexable Inserts.

Our absolutely rigid FormCut Tool System in conjunction with all ultrahard cutting materials is ideally suited for the highest precision in profiling, grooving, thread cutting. The cutting materials, MDC, PCD and CBN significantly extend the application possibilities for high tech machining in the HSC- and HPC- area.

Positive edges are offered in PCD and CBN. Only flat profiles are possible in MDC due to the highly complex and unusual polishing technology required.

Toolholder, external radial grooving



Inch

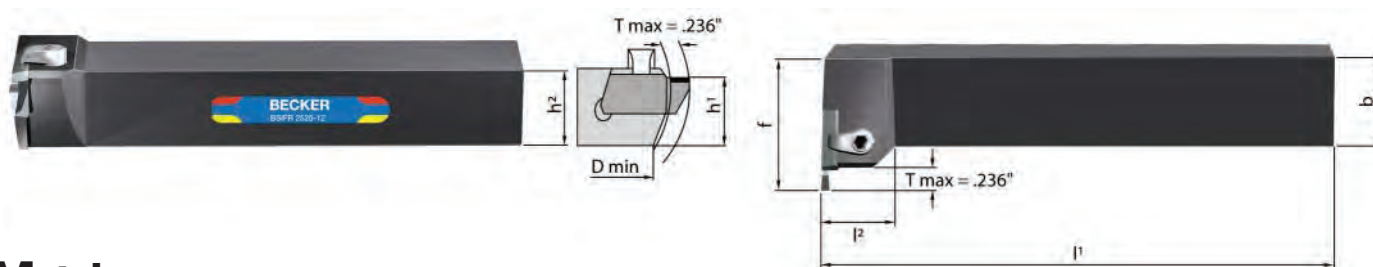
Designation Right hand	Designation Left hand	h ¹	h ²	b	f	l ¹	l ²
BSAFR-12-FC12	BSAFL-12-FC12	.750	.750	.750	1.000	5.00	1.250
BSAFR-16-FC12	BSAFL-16-FC12	1.000	1.000	1.000	1.250	6.00	1.250
BSAFR-20-FC12	BSAFL-20-FC12	1.250	1.250	1.250	1.500	6.00	1.250

Note: for "w" dimension, please refer to insert section

Metric

Designation Right hand	Designation Left hand	h ¹	h ²	b	f	l ¹	l ²
BSAFR-1616-12	BSAFL-1616-12	16	16	16	20	106	31
BSAFR-2020-12	BSAFL-2020-12	20	20	20	24	131	31
BSAFR-2525-12	BSAFL-2525-12	25	25	25	30	156	31
BSAFR-3225-12	BSAFL-3225-12	32	32	25	30	176	31

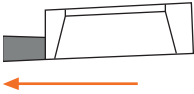
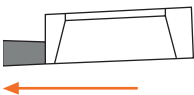
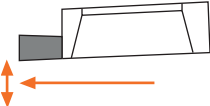
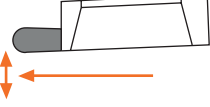
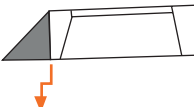
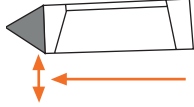
Toolholder, internal radial grooving



Metric

Designation Right hand	Designation Left hand	h ¹	h ²	b	f	l ¹	l ²	D min.
BSIFR-1616-12	BSIFL-1616-12	16	16	16	28	100	18	50
BSIFR-2020-12	BSIFL-2020-12	20	20	20	32	125	18	72
BSIFR-2525-12	BSIFL-2525-12	25	25	25	37	150	18	110
BSIFR-3225-12	BSIFL-3225-12	32	32	25	37	170	18	110

Note: for right hand toolholders use right hand inserts, for left hand toolholders use left hand inserts only

Using our FormCut Geometries		
Type	Insert Outline	Application
BFSP R/L		High precision grooving, developed to hold the tightest tolerances and produce superior finish surfaces on the groove flanks. An axial feed cannot be used. HSC and HPC.
BFSN R/L BFIN R/L		Normal grooving at the usual tolerances and with a good surface quality. Axial feed is possible in the HSC-range using MDC and PDC cutting materials
BFSV R/L BFIV R/L		Grooving and turning. Axial feeds with the usual feed rates.
BFRV R/L		Copying and profiling with an extraordinary surface quality and narrowest of tolerances.
BFDV R/L BFDV R/L-wiper		Profiling as well as side and face turning with the best surface quality.
BFTV R/L		Partial profile for American UN and ISO metric threads. MDC, PDC and CBN cutting materials are most suitable for high-tech threads.



BFSP Right or left hand, external, high precision grooving

Insert	Designation	Dimensions			PDC-S	PDC	PDC-L	MDC	
		W	T	r	DP			DM	
<p>Right hand external shown</p>	BFSP2.5-02R/L	.098	.157	.008		■			
	BFSP3.0-02R/L	.118	.197	.008		■			
	BFSP3.0-04R/L	.118	.197	.016		■			
	BFSP3.5-02R/L	.138	.197	.008		■			
	BFSP3.5-04R/L	.138	.197	.016		■			
	BFSP4.0-03R/L	.157	.236	.012		■			
	BFSP4.0-05R/L	.157	.236	.020		■			
	BFSP4.5-03R/L	.177	.236	.012		■			
	BFSP4.5-05R/L	.177	.236	.020		■			
	BFSP5.0-03R/L	.197	.236	.012		■			
BFSP5.0-05R/L	.197	.236	.020		■				

Tolerance on "W" = +.0004"

Ordering Example: 10 pcs. BFSP2.5-02R PDC (Right Hand)



BFSN Right or left hand, external, grooving

Insert	Designation	Dimensions			PDC-S	PDC	PDC-L	MDC	
		W	T	r	DP			DM	
<p>Right hand external shown</p>	BFSN 2.5-02R/L	.098	.157	.008		■			
	BFSN 3.0-02R/L	.118	.236	.008		■			
	BFSN 3.0-04R/L	.118	.236	.016		■			
	BFSN 3.5-02R/L	.138	.236	.008		■			
	BFSN 4.0-02R/L	.157	.236	.008		■			
	BFSN 4.0-04R/L	.157	.236	.016		■			
	BFSN 4.5-02R/L	.177	.236	.008		■			
	BFSN 5.0-02R/L	.197	.236	.008		■			
	BFSN 5.0-04R/L	.197	.236	.016		■			

Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFSN2.5-02R PDC (Right Hand)

Inserts



BFSV Right or left hand, external, grooving & turning

Insert	Designation	Dimensions			PDC-S	PDC	PDC-L	MDC		
		W	T	r	DP			DM		
<p>Right hand external shown</p>	BFSV3.0-02R/L	.118	.236	.008		■				
	BFSV3.0-04R/L	.118	.236	.016		■				
	BFSV3.5-02R/L	.138	.236	.008		■				
	BFSV3.5-04R/L	.138	.236	.016		■				
	BFSV4.0-02R/L	.157	.236	.008		■				
	BFSV4.0-05R/L	.157	.236	.020		■				
	BFSV4.5-02R/L	.177	.236	.008		■				
	BFSV4.5-05R/L	.177	.236	.020		■				
	BFSV5.0-02R/L	.197	.236	.008		■				
	BFSV5.0-06R/L	.197	.236	.024		■				

Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFSV3.0-02R PDC (Right Hand)



BFIN Right or left hand, internal, grooving

Insert	Designation	Dimensions			PDC-S	PDC	PDC-L	MDC		
		W	T	r	DP			DM		
<p>Left hand internal shown</p>	BFIN 2.5-02R/L	.098	.157	.008		■				
	BFIN 3.0-02R/L	.118	.236	.008		■				
	BFIN 3.0-04R/L	.118	.236	.016		■				
	BFIN 3.5-02R/L	.138	.236	.008		■				
	BFIN 4.0-02R/L	.157	.236	.008		■				
	BFIN 4.0-04R/L	.157	.236	.016		■				
	BFIN 4.5-02R/L	.177	.236	.008		■				
	BFIN 5.0-02R/L	.197	.236	.008		■				
	BFIN 5.0-04R/L	.197	.236	.016		■				

Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFIN2.5-02R PDC (Right Hand)

Inserts - PCD



BFIV Right or left hand, internal, grooving & turning

Insert	Designation	Dimensions			PDC-S	PDC	PDC-L	MDC	
		W	T	r	DP			DM	
<p>Left hand internal shown</p>	BFIV3.0-02R/L	.118	.236	.008		■			
	BFIV3.0-04R/L	.118	.236	.016		■			
	BFIV3.5-02R/L	.138	.236	.008		■			
	BFIV3.5-04R/L	.138	.236	.016		■			
	BFIV4.0-02R/L	.157	.236	.008		■			
	BFIV4.0-05R/L	.157	.236	.020		■			
	BFIV4.5-02R/L	.177	.236	.008		■			
	BFIV4.5-05R/L	.177	.236	.020		■			
	BFIV5.0-02R/L	.197	.236	.008		■			
BFIV5.0-06R/L	.197	.236	.024		■				

Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFIV3.0-02R PDC (Right Hand)



BFRV Right or left hand, external, copying

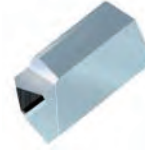
Insert	Designation	Dimensions			PDC-S	PDC	PDC-L	MDC	
		W	T	r	DP			DM	
<p>Right hand external shown</p>	BFRV 3.0- /L	.118	.236	.059		■			
	BFRV3.5R/L	.138	.236	.069		■			
	BFRV4.0R/L	.157	.236	.079		■			
	BFRV4.5R/L	.177	.236	.089		■			
	BFRV5.0R/L	.197	.236	.098		■			

Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFIV3.0-02R PDC (Right Hand)

Inserts - PCD

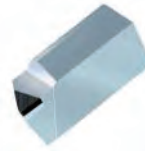
BFDV Right or left hand, external, profiling



Insert	Designation	Dimensions			PDC-S	PDC	PDC-L	MDC		
		W	T	r	DP			DM		
<p>Right hand external shown</p>	BFDV0.2R/L	.197	.197	.008		■				
	BFDV0.4R/L	.197	.197	.016		■				
	BFDV0.8R/L	.197	.197	.031		■				
	BFDV1.2R/L	.197	.197	.047		■				

Ordering Example: 10 pcs. BFDV0.2R PDC (Right Hand)

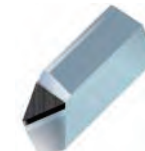
BFDV Right or left hand, external, side & face turning, wiper edge



Insert	Designation	Dimensions			PDC-S	PDC	PDC-L	MDC		
		W	T	r	DP			DM		
<p>Right hand external shown</p>	BFDV0.2R/LW	.197	.197	.008		■				
	BFDV0.4R/LW	.197	.197	.016		■				
	BFDV0.8R/LW	.197	.197	.031		■				

Ordering Example: 10 pcs. BFDV0.2RW PDC (Right Hand)

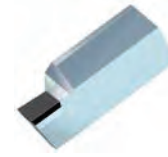
BFTV Right or left hand, external, threading, partial profile



Insert	Designation	Dimensions			PDC-S	PDC	PDC-L	MDC		
		W	T	r	DP			DM		
<p>Right hand external shown</p>	BFTV0.10R/L	.197	.197	.0040		■				
	BFTV0.14R/L	.197	.197	.0055		■				
	BFTV0.18R/L	.197	.197	.0071		■				
	BFTV0.21R/L	.197	.197	.0083		■				
	BFTV0.25R/L	.197	.197	.0098		■				
	BFTV0.28R/L	.197	.197	.0110		■				
	BFTV0.36R/L	.197	.197	.0142		■				
	BFTV0.43R/L	.197	.197	.0169		■				

Ordering Example: 10 pcs. BFTV0.10R PDC (Right Hand)

Inserts - CBN



BFSN Right or left hand, external, grooving

Insert	Designation	Dimensions			PBC-10	PBC-15	PBC-17	PBC-20	PBC-25	PBC-30	PBC-40
		W	T	r	BH			BL			
	BFSN 2.5-02R/LF	.098	.118	.008	■				■		■
	BFSN 2.5-02R/LT	.098	.118	.008	■				■		■
	BFSN 3.0-02R/LF	.118	.236	.008	■				■		■
	BFSN 3.0-02R/LT	.118	.236	.008	■	■	■	■	■	■	■
	BFSN 3.5-02R/LF	.138	.236	.008	■				■		■
	BFSN 3.5-02R/LT	.138	.236	.008	■				■		■
	BFSN 4.0-02R/LF	.157	.236	.008	■				■		■
	BFSN 4.0-04R/LF	.157	.236	.016	■				■		■
	BFSN 4.0-02R/LT	.157	.236	.008	■	■	■	■	■	■	■
	BFSN 4.0-04R/LT	.157	.236	.016	■	■	■	■	■	■	■
	BFSN 4.5-02R/LT	.177	.236	.008	■				■		■
	BFSN 5.0-02R/LT	.197	.236	.008	■		■	■	■	■	■
BFSN 5.0-04R/LT	.197	.236	.016	■		■	■	■	■	■	

Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFSN2.5-02RF PBC-10 (Right Hand)



BFSN Right or left hand, external, grooving

Insert	Designation	Dimensions			SBC1	SB10	SB25	SB40
		W	T	r	BH		BL	
	BFSN 2.5-02R/LF	.098	.157	.008			■	
	BFSN 2.5-04R/LF	.098	.157	.016			■	
	BFSN 3.0-02R/LF	.118	.236	.008			■	
	BFSN 3.0-04R/LF	.118	.236	.016			■	
	BFSN 3.0-02R/LT	.118	.236	.008	■	■	■	■
	BFSN 3.0-04R/LT	.118	.236	.016	■	■	■	■
	BFSN 3.5-02R/LF	.138	.236	.008			■	
	BFSN 3.5-04R/LF	.138	.236	.016			■	
	BFSN 3.5-02R/LT	.138	.236	.008			■	
	BFSN 3.5-04R/LT	.138	.236	.016			■	
	BFSN 4.0-04R/LT	.157	.236	.016	■	■	■	■
	BFSN 4.5-04R/LT	.177	.236	.016			■	
BFSN 5.0-04R/LT	.197	.236	.016	■	■	■	■	

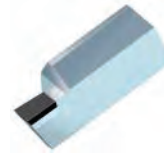
Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFSN2.5-02RF SBC1 (Right Hand)

Note: BFSN-2.5-02RE: \underline{E} = sharp cutting edge, \underline{I} = T-Land

Inserts - CBN

BFSV Right or left hand, external, grooving & turning



Insert	Designation	Dimensions			PBC-10	PBC-15	PBC-17	PBC-20	PBC-25	PBC-30	PBC-40
		W	T	r	BH			BL			
<p>Right hand external shown</p>	BFSV3.0-02R/LF	.118	.236	.008	■				■		■
	BFSV3.0-04R/LF	.118	.236	.016	■				■		■
	BFSV3.0-02R/LT	.118	.236	.008	■	■	■	■	■	■	■
	BFSV3.0-04R/LT	.118	.236	.016	■	■	■	■	■	■	■
	BFSV3.5-02R/LF	.138	.236	.008					■		■
	BFSV3.5-04R/LF	.138	.236	.016					■		■
	BFSV3.5-02R/LT	.138	.236	.008	■				■		■
	BFSV3.5-04R/LT	.138	.236	.016	■				■		■
	BFSV4.0-02R/LF	.157	.236	.008	■				■		■
	BFSV4.0-05R/LF	.157	.236	.020	■				■		■
	BFSV4.0-02R/LT	.157	.236	.008	■	■	■	■	■	■	■
	BFSV4.0-05R/LT	.157	.236	.020	■	■	■	■	■	■	■
	BFSV4.5-02R/LT	.177	.236	.008	■				■		■
	BFSV4.5-05R/LT	.177	.236	.020	■				■		■
	BFSV5.0-02R/LF	.197	.236	.008	■						
	BFSV5.0-06R/LF	.197	.236	.024	■						
	BFSV5.0-02R/LT	.197	.236	.008	■	■	■	■	■	■	■
BFSV5.0-06R/LT	.197	.236	.024	■	■	■	■	■	■	■	

Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFSV3.0-02RF PBC-10 (Right Hand)

BFSV Right or left hand, external, grooving & turning



Insert	Designation	Dimensions			SBC1	SB10	SB25	SB40
		W	T	r	BH		BL	
<p>Right hand external shown</p>	BFSV3.0-04R/LF	.118	.236	.016			■	
	BFSV3.0-06R/LF	.118	.236	.024			■	
	BFSV3.0-04R/LT	.118	.236	.016		■	■	■
	BFSV3.0-06R/LT	.118	.236	.024		■	■	■
	BFSV3.5-04R/LF	.138	.236	.016			■	
	BFSV3.5-06R/LF	.138	.236	.024			■	
	BFSV3.5-04R/LT	.138	.236	.016			■	■
	BFSV3.5-06R/LT	.138	.236	.024			■	■
	BFSV4.0-04R/LT	.157	.236	.016		■	■	■
	BFSV4.0-08R/LT	.157	.236	.031		■	■	■
	BFSV4.5-04R/LT	.177	.236	.016			■	■
	BFSV4.5-08R/LT	.177	.236	.031			■	■
	BFSV5.0-04R/LT	.197	.236	.016		■	■	■
	BFSV5.0-08R/LT	.197	.236	.031		■	■	■

Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFSV3.0-04RF SBC1 (Right Hand)

Note: BFSN-2.5-02RF: F = sharp cutting edge, I = T-Land

Inserts - CBN



BFIN Right or left hand, internal, grooving

Insert	Designation	Dimensions			PBC-10	PBC-15	PBC-17	PBC-20	PBC-25	PBC-30	PBC-40
		W	T	r	BH		BL				
	BFIN 2.5-02R/LF	.098	.118	.008	■				■		■
	BFIN 2.5-02R/LT	.098	.118	.008	■				■		■
	BFIN 3.0-02R/LF	.118	.236	.008	■				■		■
	BFIN 3.0-02R/LT	.118	.236	.008	■	■	■	■	■	■	■
	BFIN 3.5-02R/LF	.138	.236	.008	■				■		■
	BFIN 3.5-02R/LT	.138	.236	.008	■				■		■
	BFIN 4.0-02R/LF	.157	.236	.008	■	■			■		■
	BFIN 4.0-04R/LF	.157	.236	.016	■	■			■		■
	BFIN 4.0-02R/LT	.157	.236	.008	■		■	■	■	■	■
	BFIN 4.0-04R/LT	.157	.236	.016	■		■	■	■	■	■
	BFIN 4.5-02R/LT	.177	.236	.008	■				■		■
	BFIN 5.0-02R/LF	.197	.236	.008	■		■	■	■	■	■
	BFIN 5.0-04R/LT	.197	.236	.016	■		■	■	■	■	■

Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFIN 2.5-02RF PBC-10 (Right Hand)



BFIN Right or left hand, internal, grooving

Insert	Designation	Dimensions			SBC1	SBT0	SB25	SB40
		W	T	r	BH		BL	
	BFIN 2.5-02R/LF	.098	.157	.008				■
	BFIN 2.5-04R/LF	.098	.157	.016				■
	BFIN 3.0-02R/LF	.118	.236	.008				■
	BFIN 3.0-04R/LF	.118	.236	.016				■
	BFIN 3.0-02R/LT	.118	.236	.008	■	■	■	■
	BFIN 3.0-04R/LT	.118	.236	.016	■	■	■	■
	BFIN 3.5-02R/LF	.138	.236	.008				■
	BFIN 3.5-04R/LF	.138	.236	.016				■
	BFIN 3.5-02R/LT	.138	.236	.008				■
	BFIN 3.5-04R/LT	.138	.236	.016				■
	BFIN 4.0-04R/LT	.157	.236	.016	■	■	■	■
	BFIN 4.5-04R/LT	.177	.236	.016				■
	BFIN 5.0-04R/LT	.197	.236	.016	■	■	■	■

Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFIN 2.5-02RF SBC1 (Right Hand)

Note: BFSN-2.5-02RF: \underline{F} = sharp cutting edge, \underline{I} = T-Land

Inserts - CBN

BFIV Right or left hand, internal, grooving & turning



Insert	Designation	Dimensions			PBC-10	PBC-15	PBC-17	PBC-20	PBC-25	PBC-30	PBC-40
		W	T	r	BH			BL			
	BFIV3.0-02R/LF	.118	.236	.008	■				■		■
	BFIV3.0-04R/LF	.118	.236	.016	■				■		■
	BFIV3.0-02R/LT	.118	.236	.008	■	■	■	■	■	■	■
	BFIV3.0-04R/LT	.118	.236	.016	■	■	■	■	■	■	■
	BFIV3.5-02R/LF	.138	.236	.008					■		■
	BFIV3.5-04R/LF	.138	.236	.016					■		■
	BFIV3.5-02R/LT	.138	.236	.008	■				■		■
	BFIV3.5-04R/LT	.138	.236	.016	■				■		■
	BFIV4.0-02R/LF	.157	.236	.008	■	■			■		■
	BFIV4.0-05R/LF	.157	.236	.020	■	■			■		■
	BFIV4.0-02R/LT	.157	.236	.008	■		■	■	■	■	■
	BFIV4.0-05R/LT	.157	.236	.020	■		■	■	■	■	■
	BFIV4.5-02R/LT	.177	.236	.008	■				■		■
	BFIV4.5-05R/LT	.177	.236	.020	■				■		■
	BFIV5.0-02R/LF	.197	.236	.008	■						
	BFIV5.0-06R/LF	.197	.236	.024	■						
	BFIV5.0-02R/LT	.197	.236	.008	■	■	■	■	■	■	■
BFIV5.0-06R/LT	.197	.236	.024	■	■	■	■	■	■	■	

Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFIV3.0-02RF PBC-10 (Right Hand)

BFIV Right or left hand, internal, grooving & turning



Insert	Designation	Dimensions			SBC1	SB10	SB25	SB40
		W	T	r	BH		BL	
	BFIV3.0-04R/LF	.118	.236	.016			■	
	BFIV3.0-06R/LF	.118	.236	.024				
	BFIV3.0-04R/LT	.118	.236	.016		■	■	■
	BFIV3.0-06R/LT	.118	.236	.024				
	BFIV3.5-04R/LF	.138	.236	.016				■
	BFIV3.5-06R/LF	.138	.236	.024				
	BFIV3.5-04R/LT	.138	.236	.016				■
	BFIV3.5-06R/LT	.138	.236	.024				■
	BFIV4.0-04R/LT	.157	.236	.016		■	■	■
	BFIV4.0-08R/LT	.157	.236	.031				
	BFIV4.5-04R/LT	.177	.236	.016				■
	BFIV4.5-08R/LT	.177	.236	.031				■
	BFIV5.0-04R/LT	.197	.236	.016		■	■	■
	BFIV5.0-08R/LT	.197	.236	.031				

Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFIV3.0-04RF SBC1 (Right Hand)

Note: BFSN-2.5-02RF: F= sharp cutting edge, I= T-Land

Inserts - CBN



BFRV Right or left hand, external, copying

Insert	Designation	Dimensions			PBC-10	PBC-15	PBC-17	PBC-20	PBC-25	PBC-30	PBC-40
		W	T	r	BH			BL			
	BFRV3.0R/LF	.118	.236	.059	■				■		■
	BFRV3.0R/LT	.118	.236	.059	■	■	■	■	■	■	■
	BFRV3.5R/LF	.138	.236	.069					■		■
	BFRV3.5R/LT	.138	.236	.069	■				■		■
	BFRV4.0R/LF	.157	.236	.079	■				■		■
	BFRV4.0R/LT	.157	.236	.079	■	■	■	■	■	■	■
	BFRV4.5R/LF	.177	.236	.089							■
	BFRV4.5R/LT	.177	.236	.089	■				■		■
	BFRV5.0R/LF	.197	.236	.098	■						■
	BFRV5.0R/LT	.197	.236	.098	■	■	■	■	■	■	■

Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFRV3.0RF PBC-10 (Right Hand)



BFRV Right or left hand, external, copying

Insert	Designation	Dimensions			SBC1	SB10	SB25	SB40
		W	T	r	BH		BL	
	BFRV3.0R/LF	.118	.236	.059			■	
	BFRV3.0R/LT	.118	.236	.059	■	■		■
	BFRV3.5R/LT	.138	.236	.069	■	■	■	■
	BFRV4.0R/LF	.157	.236	.079			■	
	BFRV4.0R/LT	.157	.236	.079	■	■	■	■
	BFRV4.5R/LT	.177	.236	.089	■	■	■	■
	BFRV5.0R/LF	.197	.236	.098			■	
	BFRV5.0R/LT	.197	.236	.098	■	■	■	■

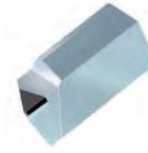
Tolerance on "W" = +.0016"

Ordering Example: 10 pcs. BFRV3.0RF SBC1 (Right Hand)

Note: BFSN-2.5-02RE: \underline{F} = sharp cutting edge, \underline{I} = T-Land

Inserts - CBN

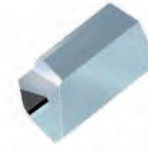
BFDV Right or left hand, external, profiling



Insert	Designation	Dimensions			PBC-10	PBC-15	PBC-17	PBC-20	PBC-25	PBC-30	PBC-40
		W	T	r	BH			BL			
<p>Right hand external shown</p>	BFDV0.2R/LF	.197	.197	.008	■				■		■
	BFDV0.2R/LT	.197	.197	.008	■	■	■	■	■	■	■
	BFDV0.4R/LF	.197	.197	.016	■				■		■
	BFDV0.4R/LT	.197	.197	.016	■	■	■	■	■	■	■
	BFDV0.8R/LF	.197	.197	.031	■				■		■
	BFDV0.8R/LT	.197	.197	.031	■	■	■	■	■	■	■
	BFDV1.2R/LF	.197	.197	.047	■				■		■
	BFDV1.2R/LT	.197	.197	.047	■	■	■	■	■	■	■

Ordering Example: 10 pcs. BFDV0.2RF PBC-10 (Right Hand)

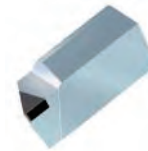
BFDV Right or left hand, external, side & face turning wiper edge



Insert	Designation	Dimensions			PBC-10	PBC-15	PBC-17	PBC-20	PBC-25	PBC-30	PBC-40
		W	T	r	BH			BL			
<p>Right hand external shown</p>	BFDV0.2R/LWF	.197	.197	.008	■				■		■
	BFDV0.2R/LWT	.197	.197	.008	■	■	■	■	■	■	■
	BFDV0.4R/LWF	.197	.197	.016	■				■		■
	BFDV0.4R/LWT	.197	.197	.016	■	■	■	■	■	■	■
	BFDV0.8R/LWF	.197	.197	.031	■				■		■
	BFDV0.8R/LWT	.197	.197	.031	■	■	■	■	■	■	■

Ordering Example: 10 pcs. BFDV0.2RWF PBC-10 (Right Hand)

BFDV Right or left hand, external, profiling

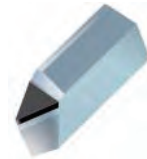


Insert	Designation	Dimensions			SBC1	SB10	SB25	SB40
		W	T	r	BH		BL	
<p>Right hand external shown</p>	BFDV0.2R/LF	.197	.197	.008			■	
	BFDV0.2R/LT	.197	.197	.008	■	■		■
	BFDV0.4R/LF	.197	.197	.016			■	
	BFDV0.4R/LT	.197	.197	.016	■	■		■
	BFDV0.8R/LF	.197	.197	.031			■	
	BFDV0.8R/LT	.197	.197	.031	■	■		■
	BFDV1.2R/LF	.197	.197	.047			■	
	BFDV1.2R/LT	.197	.197	.047	■	■		■

Ordering Example: 10 pcs. BFDV0.2RF SBC1 (Right Hand)

Note: BFSN-2.5-02RF: \underline{F} = sharp cutting edge, \underline{I} = T-Land

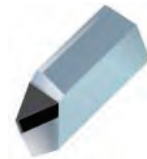
Inserts - CBN



BFTV Right or left hand, external, threading, partial profile

Insert	Designation	Dimensions			PBC-10	PBC-15	PBC-17	PBC-20	PBC-25	PBC-30	PBC-40
		W	T	r	BH			BL			
<p>Right hand external shown</p>	BFTV0.10R/LT	.197	.197	.0040	■	■	■	■	■	■	■
	BFTV0.14R/LT	.197	.197	.0055	■	■	■	■	■	■	■
	BFTV0.18R/LF	.197	.197	.0071	■				■	■	■
	BFTV0.18R/LT	.197	.197	.0071	■	■	■	■	■	■	■
	BFTV0.21R/LF	.197	.197	.0083	■				■	■	■
	BFTV0.21R/LT	.197	.197	.0083	■	■	■	■	■	■	■
	BFTV0.25R/LF	.197	.197	.0098	■				■	■	■
	BFTV0.25R/LT	.197	.197	.0098	■	■	■	■	■	■	■
	BFTV0.28R/LF	.197	.197	.0110	■				■	■	■
	BFTV0.28R/LT	.197	.197	.0110	■	■	■	■	■	■	■
	BFTV0.36R/LT	.197	.197	.0142	■				■	■	■
	BFTV0.43R/LT	.197	.197	.0169	■		■	■	■	■	■

Ordering Example: 10 pcs. BFTV0.10RT PBC-10 (Right Hand)



BFTV Right or left hand, external, threading, partial profile

Insert	Designation	Dimensions			SBC1	SB10	SB25	SB40
		W	T	r	BH		BL	
<p>Right hand external shown</p>	BFTV0.10R/LT	.197	.197	.0040		■	■	■
	BFTV0.14R/LT	.197	.197	.0055		■	■	■
	BFTV0.18R/LF	.197	.197	.0071			■	
	BFTV0.18R/LT	.197	.197	.0071	■	■	■	■
	BFTV0.21R/LF	.197	.197	.0083			■	
	BFTV0.21R/LT	.197	.197	.0083	■	■	■	■
	BFTV0.25R/LF	.197	.197	.0098			■	
	BFTV0.25R/LT	.197	.197	.0098	■	■	■	■
	BFTV0.28R/LF	.197	.197	.0110			■	
	BFTV0.28R/LT	.197	.197	.0110	■	■	■	■
	BFTV0.36R/LT	.197	.197	.0142	■	■	■	■
	BFTV0.43R/LT	.197	.197	.0169	■	■	■	■

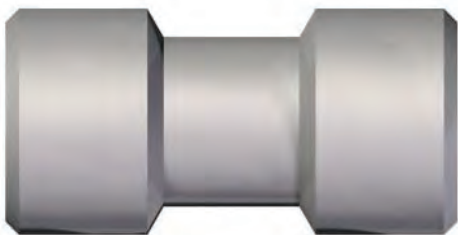
Ordering Example: 10 pcs. BFTV0.10RT SBC1 (Right Hand)

Note: BFSN-2.5-02RE: F= sharp cutting edge, I= T-Land

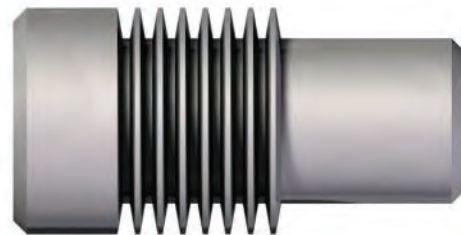
Threading Profile Ranges

Size of radius for American UN & metric ISO-threads			
size of radius	UN TPI Metric Pitch (max.)	UN TPI Metric Pitch (min.)	UN TPI Metric Pitch (average.)
r = .0040	32 TPI P = .80	36 TPI P = .69	34 TPI P = .75
r = .0055	22 TPI P = 1.12	27 TPI P = .97	24 TPI P = 1.00
r = .0071	18 TPI P = 1.44	20 TPI P = 1.25	19 TPI P = 1.35
r = .0083	15 TPI P = 1.68	17 TPI P = 1.46	16 TPI P = 1.55
r = .0098	12.7 TPI P = 2.00	14.6 TPI P = 1.74	13 TPI P = 1.87
r = .0110	11.33 TPI P = 2.24	13 TPI P = 1.95	12 TPI P = 2.10
r = .0142	8.5 TPI P = 2.99	10.16 TPI P = 2.50	9.5 TPI P = 2.70
r = .0169	7.4 TPI P = 3.44	8.5 TPI P = 2.99	8 TPI P = 3.20

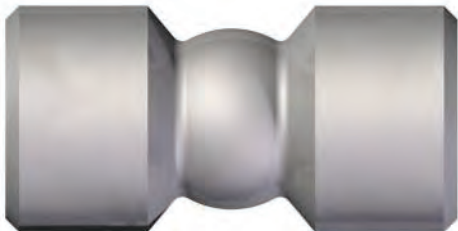
Profiling



Threading



Copying



Grooving

