

④ New HF (High Feed) Inserts

Millstar's new HF insert is designed for High Speed and High Feed machining. The HF is designed to run at high cutting speeds and feed rates with shallow depth of cut. The NEW curved geometry allows the chip to flow up and out of the cut quickly and smoothly allowing for the use of heavy chip loads. The geometry of the new HF insert generates cutting forces upward, toward the spindle, which helps eliminate vibration and deflection, allowing for very



high chip loads. The HF insert is designed to fit into Millstar's standard flat holders, style 4 (CYF, TAF and CBCYF) making these holders more versatile than ever.

The HF insert can be used in the following applications: Roughing, semi-finish of all softer materials. Nickel-based alloys and Stainless steel alloys (XRN coated) to pre-heat treated Tool steels (TLN coated). It can be used for roughing and semi-finishing of heat-treated materials up to 48 HRC.

Tool Ordering No.	Diameter D	Corner Radius A	Corner Radius B	Length D1	Step Over Ae	Depth of Cut Ap	Feed per Tooth Fz
HF-0375...	0.375	0.0155	0.1180	0.0125	0.28	0.016	.010-.020
HF-0500...	0.500	0.0315	0.1575	0.0203	0.375	0.019	.012-.022
HF-0625...	0.625	0.0470	0.1970	0.0235	0.46	0.025	.016-.028
HF-0750...	0.750	0.0625	0.2360	0.0315	0.56	0.030	.020-.035
HF-1000...	1.000	0.0755	0.2755	0.0345	0.75	0.039	.022-.040

.. After the part number please indicate TLN, XRN or HSN when ordering.



④ New TOBD-NF Back Draft Inserts for Non-Ferrous Materials

Millstar's new TOBD-NF insert is specifically designed for high speed and high feed roughing of Aluminum, but also has the versatility to be used for fine finishing as well. This unique cutting edge design allows the chips to flow freely up the flute allowing higher speeds and feeds. The TOBD-NF comes in diameters from 1/2 inch (12mm) up to 1 inch (25mm) and fits into our standard flat type tool holders making the holders more versatile than ever.



Tool Ordering No.	Diameter D	L	R
TOBD-0500-NF-NA	0.500	0.377	0.125
TOBD-0625-NF-NA	0.625	0.433	0.125
TOBD-0750-NF-NA	0.750	0.518	0.125
TOBD-1000-NF-NA	1.000	0.716	0.125

DISCLAIMER

Today's metalcutting operations are performed on high horsepower, high spindle speed CNC machines. These operations generate high temperatures, cutting forces and flying chips. Today's metalcutting tools can generally hold up under these conditions but they may also chip and fly apart. Adequate protection for workers is a must. All machine guards and protective equipment should be in place at all times. Grinding carbide, ceramic and other modern materials can create dusts and mists that should be collected by proper equipment.

Overexposure to dusts and mists can be a hazard to one's health. Dusts and mists can irritate existing skin and/or pulmonary conditions. Adequate respiratory, eye protection and ventilation should be used during grinding and workers should avoid prolonged contact with dusts and mists.

A safe environment must be provided as metalcutting is not just the holder and inserts. The machine, workpiece, clamping method cutting conditions all play a part in today's metal cutting environment.

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HF-10...	10	0,698	3,000	0,266	7,5	0,4	0,25-0,5
HF-12...	12	1,000	4,000	0,426	9	0,48	0,3-0,55
HF-16...	16	1,295	5,000	0,596	12	0,64	0,4-0,71
HF-20...	20	1,498	6,000	0,775	15	0,8	0,5-0,89
HF-25...	25	1,905	7,000	0,900	18,75	1	0,56-1,0

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Tool Ordering No.	Diameter D	L	R
TOBD-12-NF-NA	12,0	9,2	3,0
TOBD-16-NF-NA	16,0	11,25	3,0
TOBD-20-NF-NA	20,0	13,15	3,0
TOBD-25-NF-NA	25,0	18,25	3,0

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