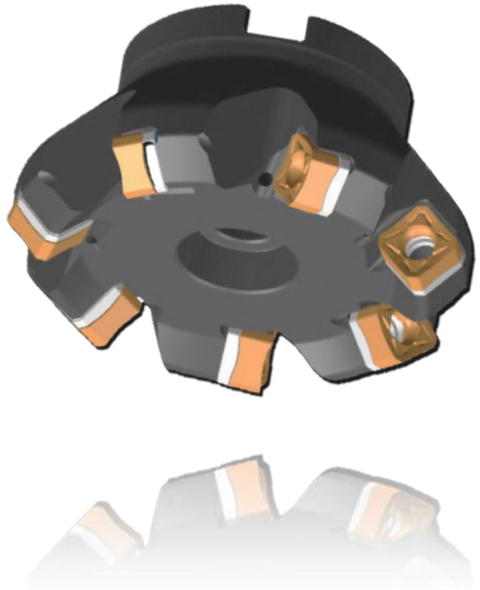
5 Double-Side 45°Face Milling

Double-Side 45°Face Milling

» Double-Side 45°Face Milling 【SNEU+MFB145&MFB245】

Introduction

- Double-side general 45°face milling;
- Thicker negative insert design, with high strength, to assure stability.
- GA4230 for steel ; GK4125 for cast iron .



Application

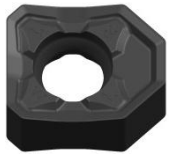
- Mainly for light to heavy cutting of general material.
- Used in the mechanical & mold industry.

Specification

- 4 grades: GA4230 GA4225 GK4215 GK2115;
- 5 geometries:GL GM GH NL GW;
- Diameter: Φ50-Φ315mm.

Double-Side 45°Face Milling

SNEU Series Geometry

Light cutting for general material	Medium cutting for general material	Rough cutting for general material	General cutting for aluminum alloys	Wiper insert
				
GL	GM	GH	NL	GW
				
Special edge shape with big rake angle and narrow edge width. Machining general material with low force and low feed.	Design with medium rake angle and edge width. Combine sharp with strength. Medium machining general material under general working conditions.	Small rake and big edge width with negative chamfer land improve edge strength. Heavy machining general material with big depth of cut, available for strong interruption machining too.	Sharp edge, larger rake angle and mirror polishing contribute to low cutting force and evacuation of chip. Suitable for general milling of nonferrous metal, such as aluminum, copper, etc.	Unique wiper edge contributes to high quality of surface finish and the improvement of feed. High quality surface finish can be achieved.

Double-Side 45°Face Milling

MFB145&MFB245 Body Feature

Arbor-Coarse Pitch	Arbor-Close Pitch	Arbor-Extra Close Pitch
		
• High rigidity, available for unstable working conditions; • Mainly used for machining with high feed, large depth of cut and larger chips; • First machining choice for carbon steel, alloy steel, stainless steel.	• High rigidity, suitable for general working conditions; • Mainly used for machining with medium feed, small depth of cut and chips; • First machining choice for high hardened steel, heat resisting alloy.	• Good rigidity, suitable for steady working conditions; • Mainly used for machining of low feed and small depth of cut ,small chips; • First choice for milling easy-chip-evacuation material, such as cast iron.

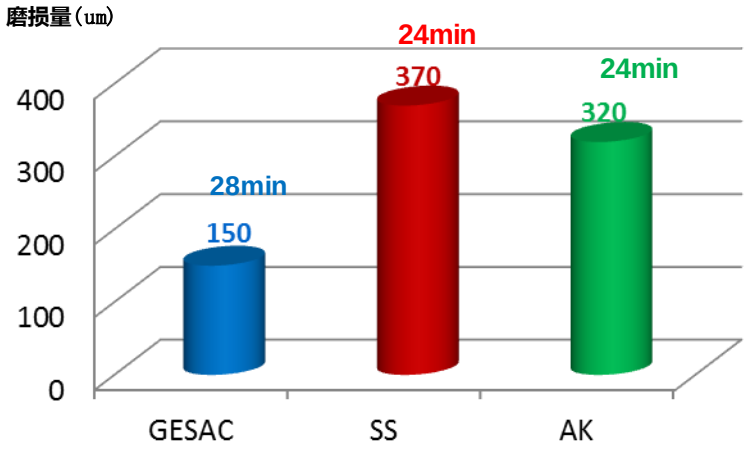
Recommended Cutting Data

Workpiece Materials		Materials Hardness	Grade	mm/min Recommended Cutting Speed	Light Cutting		Medium Cutting		Heavy Cutting	
					(mm/tooth)	Geometry	(mm/tooth)	Geometry	(mm/tooth)	Geometry
P	Low Carbon Steel (SS400–S10C)	≤HB180	GA4230 GA4225	250 (200-300)	0.15 (0.1-0.2)	GL	0.2 (0.1-0.3)	GM	0.3 (0.2-0.4)	GH
P	Carbon Steel Alloy Steel (S45C–SCM440)	HB180-280	GA4230 GA4225	220 (170-270)	0.15 (0.1-0.2)	GL	0.2 (0.1-0.3)	GM	0.3 (0.2-0.4)	GH
P	Carbon Steel Alloy Steel (S45C–SCM440)	HB280-350	GA4230	150 (100-200)	0.12 (0.1-0.15)	GL	0.15 (0.1-0.2)	GM	0.2 (0.15-0.25)	GH
M	Stainless Steel SUS304	≤HB280	GA4230 GA4225	180 (130-250)	0.15 (0.1-0.2)	GL	0.2 (0.1-0.3)	GM	--	--
K	Gray Cast Iron Nodular Cast Iron (FC250–FCD400)	≤HB350	GA4230 GA4225	180 (130-250)	0.15 (0.1-0.2)	GL	0.2 (0.1-0.3)	GM	0.3 (0.2-0.4)	GH
N	Aluminum	HB60-210	GN9125	800 (300-1000)	0.15 (0.1-0.2)	NL	0.2 (0.1-0.3)	NL	--	--
S	Heat-resistant Alloy	HRC25-35	GA4230	40 (20-50)	0.05 (0.05-0.1)	GL	0.1 (0.05-0.15)	GM	--	--

Double-Side 45°Face Milling

» Cutting Case1：Alloy Steel Face Milling

Tools	Double-Side 45° Face Milling
Specification	HNEX090516-KR-GK4125 HNEX090502-WC-GK4125
Workpiece	HT250（HB180-230）
Vc	180m/min
Fz	0.35mm/t
Ap	0.4mm
Cutting type	Face Milling
Coolant	Dry Cutting
Description	Under the same cutting condition, GESAC has smaller abrasion value.



Double-Side 45°Face Milling

» Cutting Case2：Cast Iron Face Milling

Tools	Double-Side 45° Face Milling
Specification	SNEU1206ANEN-GM-GK2115
Workpiece	HT250（HB180-230）
Vc	180m/min
Fz	0.35mm/t
Ap	0.4mm
Cutting type	Face Milling
Coolant	Dry Cutting
Description	Under the same cutting condition, GESAC has equal life to KT.