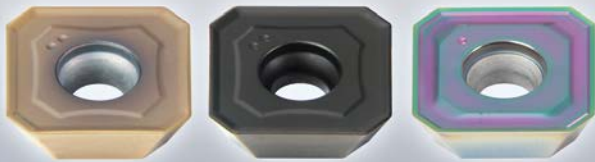


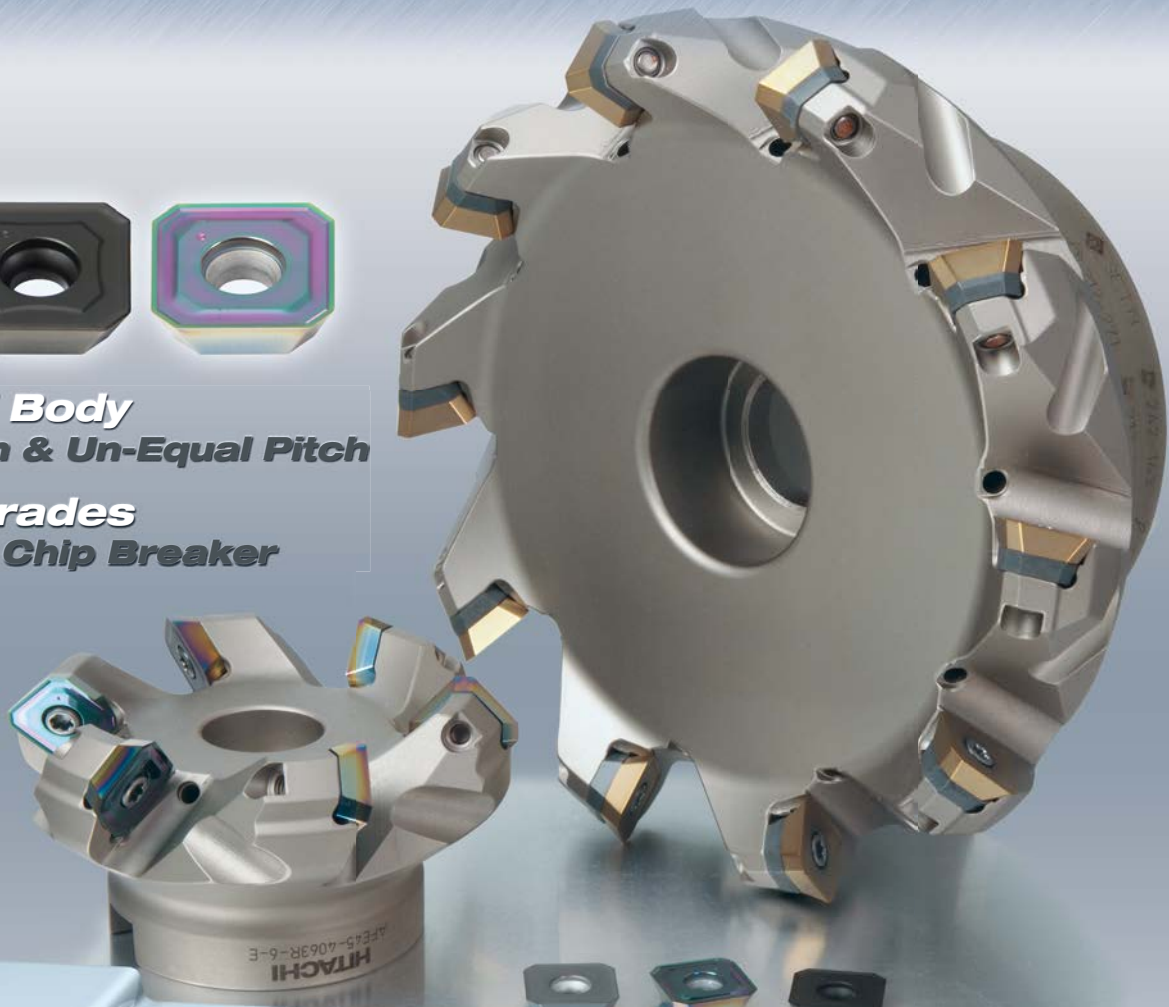
# **AFE45** Face Mill

**D 50 ~ D 250 · Face Milling Cutter HRC 60**



**8 Sizes of Body**  
× Equal Pitch & Un-Equal Pitch

**7 Insert Grades**  
× 3 Types of Chip Breaker



**Indexable Milling Tools**

**AFE45 | Face Mill**

<b>Q max</b> High Efficient	<b>Jet</b> Air Hole	<b>▽</b> Roughing	<b>▽▽</b> Semi-Finishing	<b>HRC</b> 60	<b>No. of Teeth</b> 4-14
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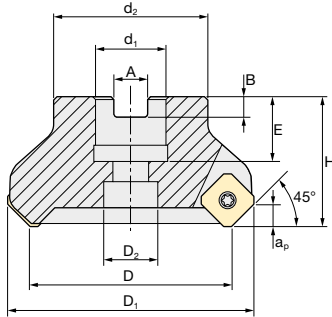


Fig. 1

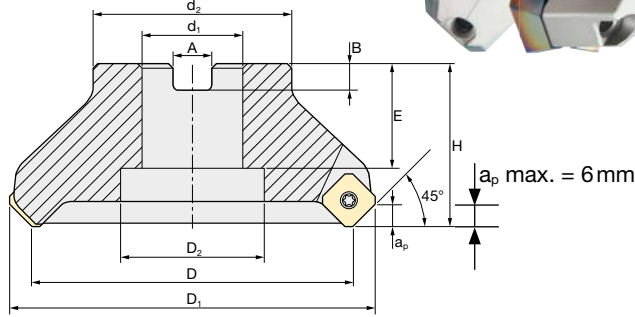


Fig. 2

Torque on screw <b>3 Nm</b>	Tolerance D1: 0/-0.4mm (min.)
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ID Code	Item Code	Z	D	D1	d1	D2	d2	A	B	H	E	ap	Carbide Seat	Coolant hole	Fig.
FH193	<b>AFE45-4050R-4-UE</b>	4	<b>50</b>	63.4	22	18	48	10.4	6.3	40	20	6	-	•	1
FH194	<b>AFE45-4050R-5-E</b>	5													
FH195	<b>AFE45-4063R-5-UE</b>	5	<b>63</b>	76.6	27	20	58	12.4	7	50	22				
FH196	<b>AFE45-4063R-6-E</b>	6													
FH198	<b>AFE45-4080R-6-UE</b>	6	<b>80</b>	93.5	32	26.5	78	14.4	8	25					
FH199	<b>AFE45-4080R-8-E</b>	8													
FH201	<b>AFE45-4100R-7-UE</b>	7	<b>100</b>	113.5	40	32.5	90	16.4	9	29					
FH202	<b>AFE45-4100R-9-E</b>	9													
FH204	<b>AFE45-4125R-8-UE</b>	8	<b>125</b>	138.5	40	56	114	25.7	14	39					
FH205	<b>AFE45-4125R-10-E</b>	10													
FH206	<b>AFE45-4160R-9-UE</b>	9	<b>160</b>	173.5	60*	61	145	25.7	14	39					
FH207	<b>AFE45-4160R-11-E</b>	11													
FH208	<b>AFE45-4200R-10-UE</b>	10	<b>200</b>	213.5	60*	61	145	25.7	14	39					
FH209	<b>AFE45-4200R-12-E</b>	12													
FH210	<b>AFE45-4250R-14-E</b>	14	<b>250</b>	263.4			160								

\* + Screws

Inserts
SE..T13T3AGTN SEET13T3AG..N-S

	<b>Parts</b>	<b>Screw</b>		<b>Wrench (15IP)</b>	
	<b>Type</b>	<b>ID-Code</b>	<b>Item-Code</b>	<b>ID-Code</b>	<b>Item-Code</b>
D 50-80	ET062	<b>242-143 Short</b>	ET061	<b>490-150</b>	

	<b>Parts</b>	<b>Screw</b>		<b>Wrench (15IP)</b>	
	<b>Type</b>	<b>ID-Code</b>	<b>Item-Code</b>	<b>ID-Code</b>	<b>Item-Code</b>
D 100-250	ET060	<b>242-143</b>	ET061	<b>490-150</b>	

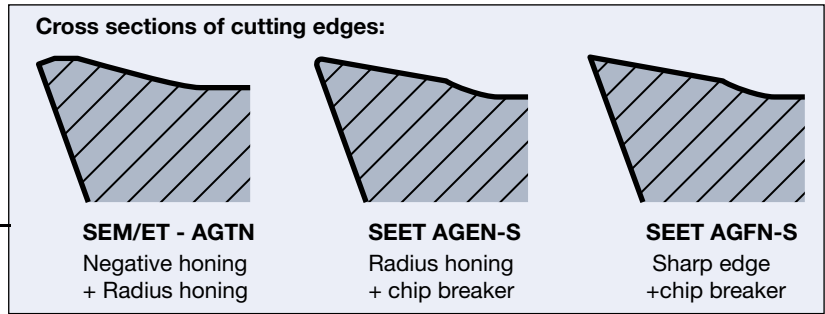
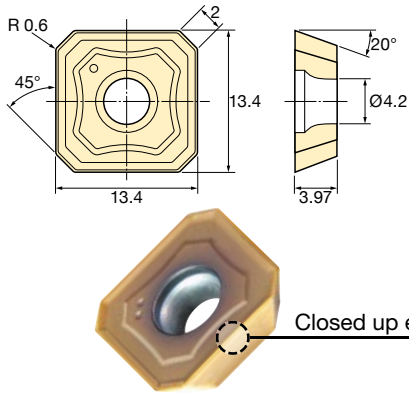
	<b>Parts</b>	<b>Carbide Seat</b>		<b>Screw for Seat</b>		<b>Wrench for Seat (H3.5)</b>	
	<b>Type</b>	<b>ID-Code</b>	<b>Item-Code</b>	<b>ID-Code</b>	<b>Item-Code</b>	<b>ID-Code</b>	<b>Item-Code</b>
D 100-250	ET058	<b>212-271</b>	ET059	<b>212-280</b>	ET057	<b>100-230</b>	

\* The seat must be installed so that the surface indicated by \* is facing the outside of the cutter.

\* In consideration of reducing environmental loads, the screwdriver and wrench for seat are now sold separately to avoid sending unnecessary duplicate tools. We hope you will understand our reasoning.

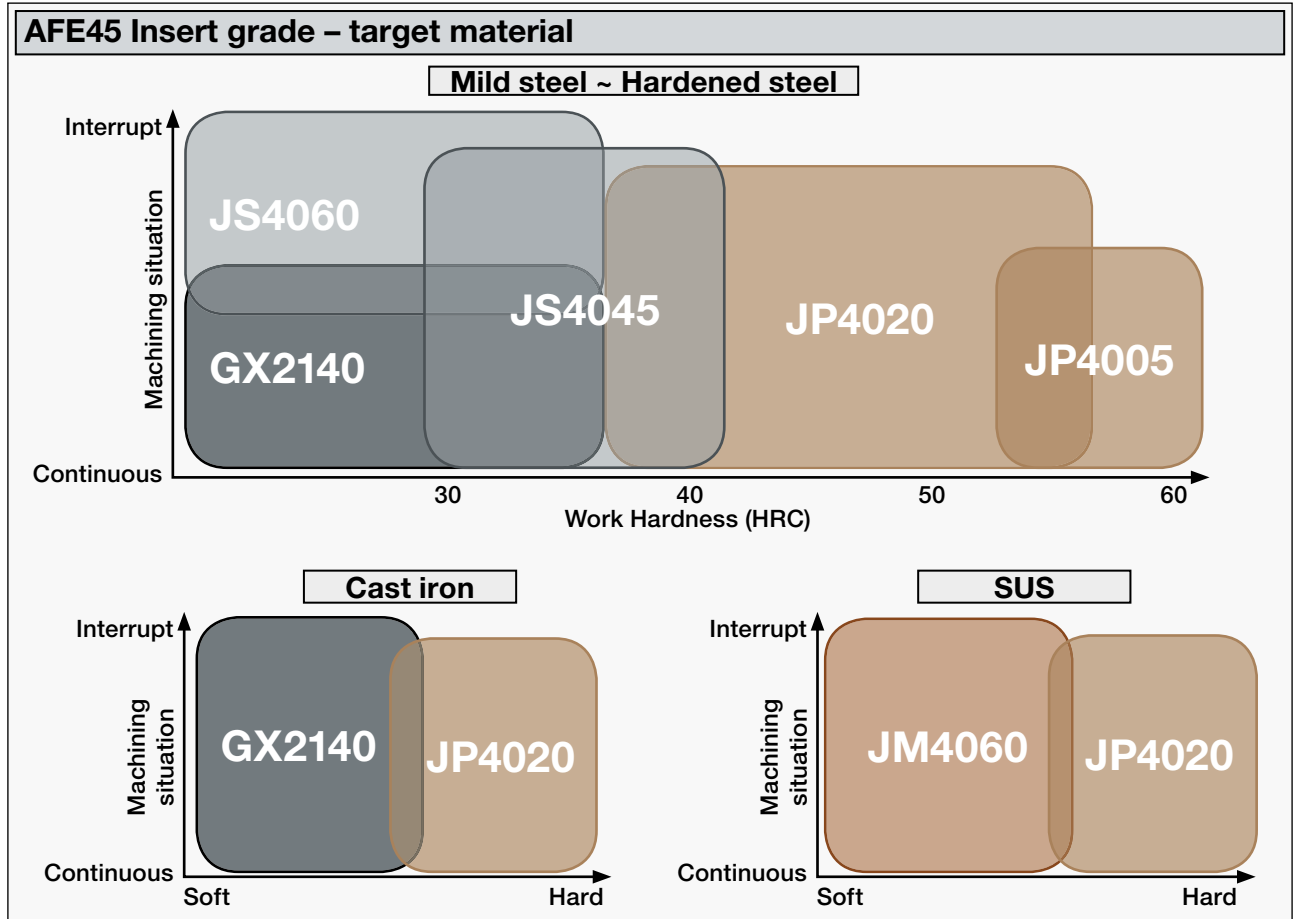
**Indexable Milling Tools**

**INSERTS AFE45 | Face Mill AFE45 Type**



		Target Hardness of Workpiece							
		Grade							
		SD5010	GX2140	JM4060	JS4045	JS4060	JP4020	JP4005	
Grade Info	Target material	Aluminium	Mild steel Cast iron	SUS	General steel	Mild steel	Hardened steel Cast iron SUS	Hardened steel	
	Coolant	Emulsion Mist Air-blow	Air-blow	Emulsion Mist Air-blow	Air-blow	Emulsion Mist Air-blow	Emulsion Mist Air-blow	Emulsion Mist Air-blow	
Item Code	Tolerance Class	Target hardness		ID-Code					
			35HRC >	-	> 30HRC	35HRC >	> 40HRC	> 50HRC	
<b>SEMT13T3AGTN</b>	<b>M</b>	Negative honing + chip breaker		WF250		WF220	WF219		
<b>SEET13T3AGTN</b>	<b>E</b>	Negative honing + chip breaker		WF246	WF247	WF249	WF218	WF217	
<b>SEET13T3AGEN-S</b>	<b>E</b>	Radius honing + chip breaker			WF244	WF245		WF215	
<b>SEET13T3AGFN-S</b>	<b>E</b>	Sharp edge + chip breaker	WF216						

SD5010: DLC coated grade for Aluminium



## Indexable Milling Tools

### AFE45 | Face Mill

#### Tool Features AFE45 Face Mill

**Low cutting force due to unique insert geometry**

High-rake insert provides lower cutting force than conventional face milling cutter



**Body:**

**E or UE**

Each body has Equal-pitch type and Unequal-pitch type.

UE type is recommended to avoid vibration.

e.x. long OH, less-rigid clamping, small spindle and so on.

(D250 has only E type)

**No. of Flutes**

Equal pitch types are set as multi flute type.

Keep dia, change UE to E for increase cutting volume.

Change D, change from E to UE for avoid vibration with keeping cutting volume...

as you want.

**Carbide Seat**

Bigger than D 100 are with Carbide Seat for body protection.

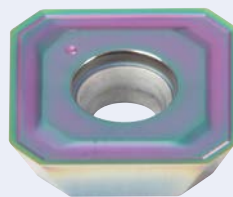
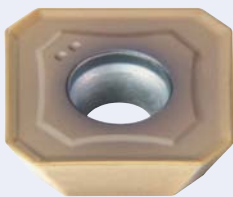


**Indexable Milling Tools**

**AFE45** | Face Mill



**Inserts:**  
From Aluminium to hardened steel,  
roughing to finishing, 3 types of insert  
shape & wide grade line-up will adapt  
to multi usage.



Always up to date: Please check our P50 QuickFinder



**Product Range**

Solid Carbide End Mills



Indexable Milling Tools



WHNSB Drills



Milling Chucks



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