

Advanced
Engineering

Hitachi Tool

HITACHI
Inspire the Next

Indexable
Milling
+Modular Series

No. 324.2

ASM/AHU Mini

Shank & Modular Types

Indexable Side-Milling and High Feed End Mill

Available Grades:

JX-Coating

PTH-Coating

SD-DLC-Coating

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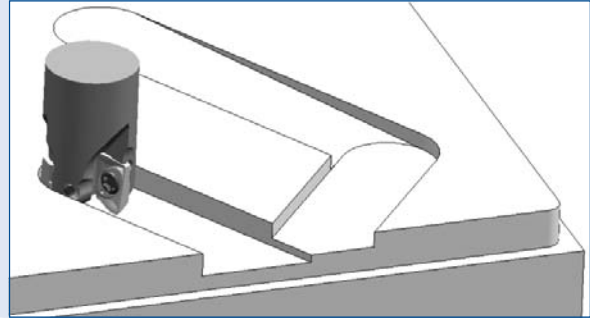
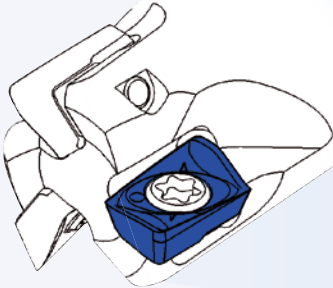
Indexable Milling Tools

ASM

The new ASM/AHU Mini has 2 kinds of insert shapes and applications:

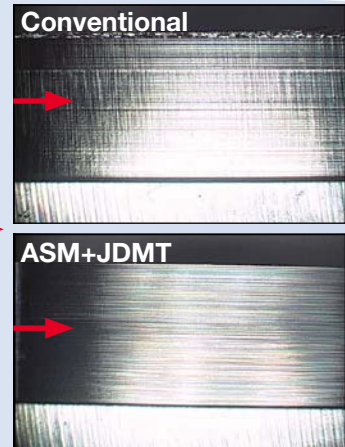
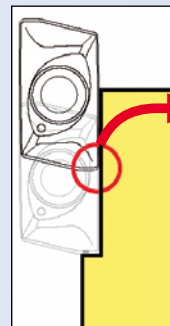
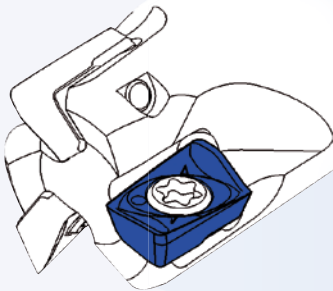
JDMT type insert for 90° cutting

JDMT Schneidplatte für 90° Bearbeitungen



JDMT type insert for 90° cutting

JDMT Schneidplatte für 90° Bearbeitungen



Example / Beispiel:

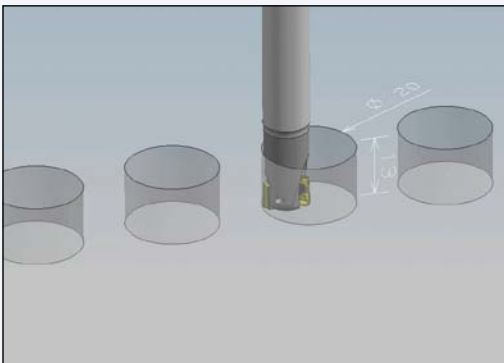
Material: 1.1213
Cutting conditions: $V_c = 200$ m/min, $f_z = 0.05$ mm/tooth,
 $a_p \times a_e = 5 \times 0.3$ mm, OH=25mm, Dry

Application: JDMT type insert

Anwendung: JDMT Schneidplatte

Example / Beispiel:

Mold parts
Material: 1.7223
Machine: HSK63A
OH=30mm, Dry



Solid Carbide End Mill (Ø 10; 2 Flutes)

$V_c = 180$ m/min, $f_z = 0.05$ mm/tooth
 $V_f = 560$ mm/min
 $a_p \times a_e = 0.5$ mm

ASM:

Ø 10; 2 Flutes
JDMT070204R (JX1020)

$V_c = 180$ m/min, $f_z = 0.05$ mm/tooth
 $V_f = 560$ mm/min
 $a_p = 0.5$ mm

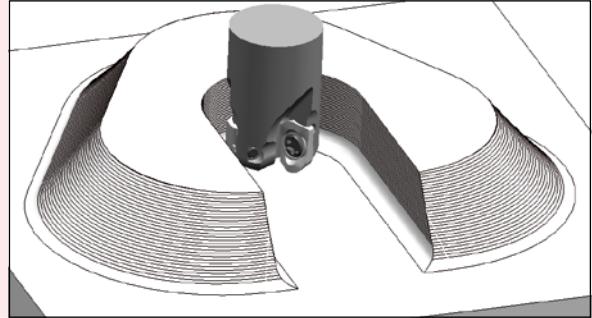
Tool life = 3h

Indexable Milling Tools

Die 2 verschiedenen Schneidplatten-Formen und Anwendungsbereiche des neuen ASM/AHU Mini:

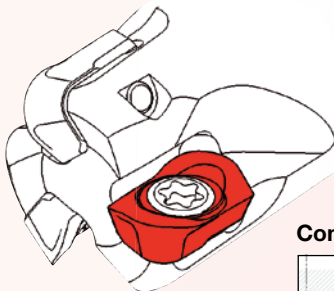
EDMT type insert for high feed cutting

EDMT Schneidplatte für hohe Vorschübe



EDMT type insert for high feed cutting

EDMT Schneidplatte für hohe Vorschübe

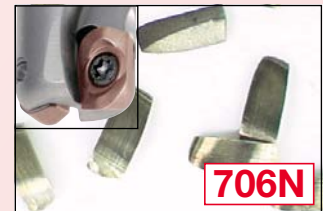
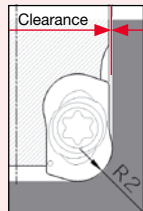
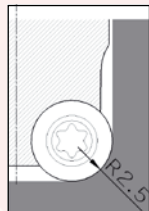


Conventional

ASM

EDMT Standard type insert „T“

Low cutting force type insert



Example/Beispiel:

Material: 1.1213
Cutting conditions:
 $V_c = 100 \text{ m/min}$,
 $f_z = 0.8 \text{ mm/tooth}$,
 $a_p \times a_e = 0.3 \times 6 \text{ mm}$, Dry

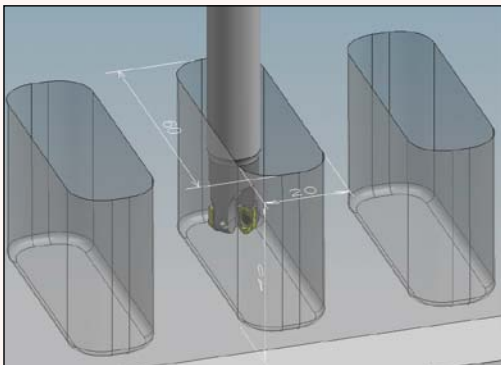
Application: EDMT type insert

Anwendung: EDMT Schneidplatte

Example/Beispiel:

Mold parts

Material: 1.1213
Machine: HSK63A
OH=85mm, Dry



Solid Carbide End Mill (Ø 12; 2 Flutes)

$V_c = 60 \text{ m/min}$, $f_z = 0.06 \text{ mm/tooth}$
 $V_f = 200 \text{ mm/min}$
 $a_p \times a_e = 0.5 \times 8.4 \text{ mm}$
Q = 0.8 cm³/min

ASM:

Ø 12; 3 Flutes

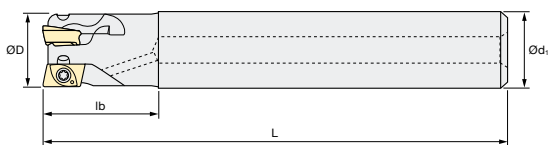
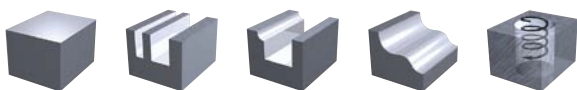
EDMT070220R-T (JX1020)

$V_c = 160 \text{ m/min}$, $f_z = 0.8 \text{ mm/tooth}$
 $V_f = 10,188 \text{ mm/min}$
 $a_p = 0.5 \times 8.4 \text{ mm}$
Q = 25.7 cm³/min

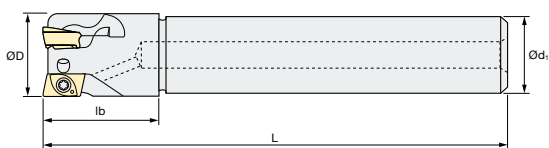
Indexable Milling Tools

ASM I Shank Type (Short/Long)

Q max High Efficient	Jet Air Hole	▽ Roughing	▽▽ Semi-Finishing	▽▽▽ Finishing	HRC 45 (50)	No. of Teeth 1 ~ 5
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Standard type



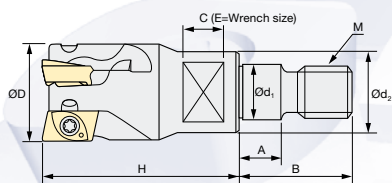
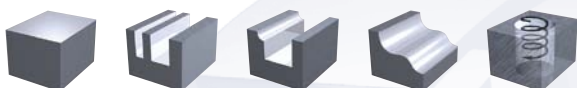
Undercut type

Maximum torque on screw:
0.5 Nm

Shank Type		ID Code	Item Code	Flutes	ØD	L	lb	Ød ₁	Shape	Inserts
Short	FH116	ASM-0708S10R-1	1	8	75	16	10	Standard type	JDMT0702..R EDMT070220R (-T)	
	FH117	ASM-0710S10R-2	2	10	80	20	10			
	FH118	ASM-0712S12R-3	3	12	80	20	12	Undercut type		
	FH119	ASM-0714S12R-3	3	14	80	20	12			
	FH120	ASM-0716S16R-4	4	16	90	25	16	Standard type		
	FH121	ASM-0717S16R-4	4	17	115	20	16	Undercut type		
	FH122	ASM-0720S20R-5	5	20	105	25	20	Standard type		
FH123	ASM-0721S20R-5	5	21	140	20	20	Undercut type			
Long	FH124	ASML-0716S16R-4	4	16	115	50	16	Standard type		
	FH125	ASML-0720S20R-5	5	20	140	60	20			

ASM I Modular

Q max High Efficient	Jet Air Hole	▽ Roughing	▽▽ Semi-Finishing	▽▽▽ Finishing	HRC 45 (50)	No. of Teeth 1 ~ 8
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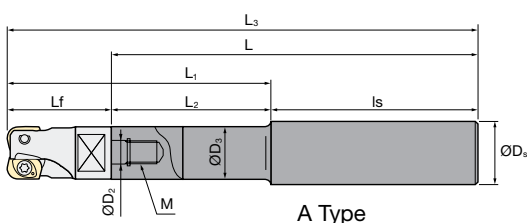
Ø 16 - 32
with Airhole

Maximum torque on screw:
0.5 Nm

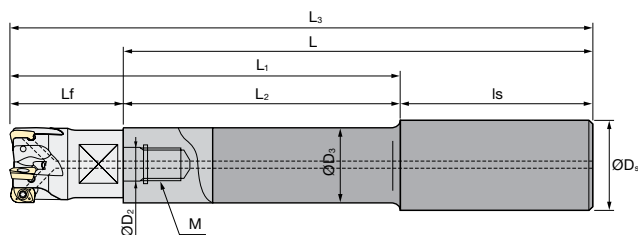
Modular Type		ID Code	Item Code	Flutes	ØD	H	Ød ₁	M	Ød ₂	A	B	C	E	Inserts
Without Airhole	FH126	ASMM-0708R-1	1	8	20	6.5	M6	9.8	5.5	14.5	5	7	JDMT0702..R EDMT070220R (-T)	
	FH127	ASMM-0710R-2	2	10	20	6.5	M6	9.4	5.5	14.5	5	7		
	FH128	ASMM-0712R-3	3	12	20	6.5	M6	9.8	5.5	14.5	5	7		
With Airhole	FH129	ASMM-0716R-4	4	16	25	8.5	M8	12.8	5.5	17	8	10		
	FH130	ASMM-0720R-5	5	20	30	10.5	M10	17.8	5.5	19	10	15		
	FH135	ASMM-0725R-6	6	25	30	12.5	M12	20.8	5.5	22	10	17		
	FH136	ASMM-0732R-8	8	32	30	17	M16	28.8	6	23	12	22		

Indexable Milling Tools

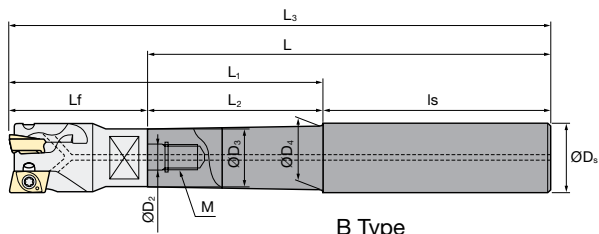
ASM | Carbide Shanks for Modular Mills



A Type



C Type



B Type

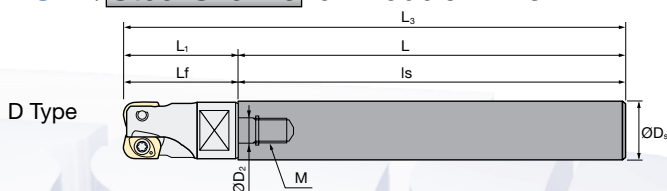
Carbide Shank

	ID Code	Item Code	ØD ₂	M	L ₃	L	L _f	L ₂	L ₁	Is	ØD ₃	ØD _s	ØD ₄	Type	Cutter body
Without Airhole	FH137	ASC10-6.5-74-24	6.5	M6	94	74	20	24	44	50	9.3	10	-	A	Ø8, Ø10
	FH138	ASC10-6.5-114-49			134	114		49	69	65					
	FH139	ASC12-6.5-74-24			94	74		24	44	50					
	FH140	ASC12-6.5-129-64			149	129		64	84	65					
With Airhole	FH141	ASC16-8.5-95-30	8.5	M8	120	95	25	30	55	65	14.5	16	15.5	B	Ø16
	FH142	ASC16-8.5-140-75			165	140		75	100	65					
	FH143	ASC20-10.5-120-50	10.5	M10	150	120	30	50	80	70	18	20	-	C	Ø20
	FH144	ASC20-10.5-220-50			250	220				170					
	FH145	ASC25-12.5-145-65	175	145	65	95		80	23	25	200				
	FH146	ASC25-12.5-265-65	295	265				80							
	FH147	ASC32-17-160-80	17	M16	190	160	80	110	80	28	32	-	-	-	Ø32
	FH148	ASC32-17-310-80			340	310			230						

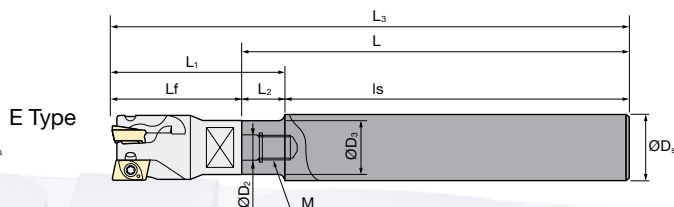
1. SUPER Lock milling chucks or shrink-fit holders can be used.
2. Please note that the dimensions for L₃, L_f, and L₁ may be different when attached to other modular-type holders such as ASRM, AHUM, ARPFM, BCFM, ABPFM, etc.

1. SUPER Lock Aufnahmen oder Schrumpffutter können verwendet werden.
2. Bitte beachten Sie, dass die Maße für L₃, L_f, und L₁ abweichen können, wenn andere modulare Aufnahmen verwendet werden, wie z.B. ASRM, AHUM, ARPFM, BCFM, ABPFM, usw.

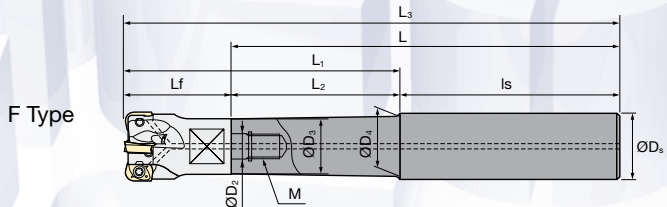
ASM | Steel Shanks for Modular Mills



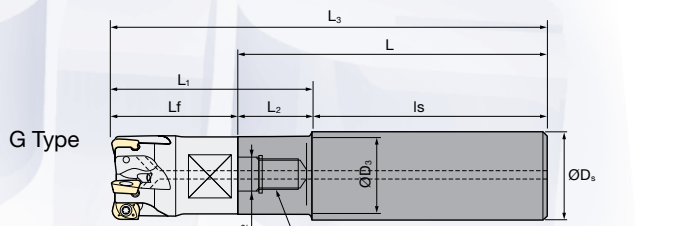
D Type



E Type



F Type



G Type

Steel Shank

	ID Code	Item Code	ØD ₂	M	L ₃	L	L _f	L ₂	L ₁	Is	ØD ₃	ØD _s	ØD ₄	Type	Cutter body
Without Airhole	FH131	AS10-6.5-74-0	6.5	M6	94	74	20	-	20	74	-	10	-	D	Ø10
	FH132	AS12-6.5-84-4	6.5		104	84		4	24	80	11	12	-	-	E
With Airhole	FH133	AS16-8.5-95-15	8.5	M8	120	95	25	15	40	80	14.5	16	15.5	F	Ø16
	FH134	AS20-10.5-100-20	10.5	M10	130	100	30	20	50	80	18	20	-	G	Ø20

1. SUPER Lock milling chucks can be used.
2. Please note that the dimensions for L₃, L_f, and L₁ may be different when attached to other modular-type holders such as ASRM, AHUM, ARPFM, BCFM, ABPFM, etc.

1. SUPER Lock Aufnahmen können verwendet werden.
2. Bitte beachten Sie, dass die Maße für L₃, L_f, und L₁ abweichen können, wenn andere modulare Fräshalter verwendet werden, wie z.B. ASRM, AHUM, ARPFM, BCFM, ABPFM, usw.

For further information about Modular Chucks please see our brochure Indexable Modular Series No. 328

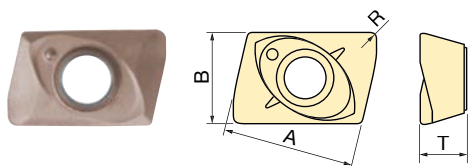
Weitere Informationen über Modulare Werkzeugaufnahmen finden Sie in unserem Prospekt Indexable Modular Series No. 328



Indexable Milling Tools

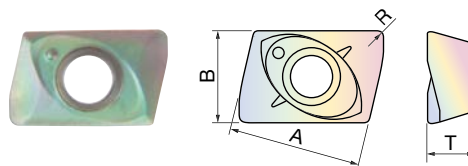
INSERTS ASM/AHU | Mini

JDMT07020..R



Insert with 5 mm flute length for shoulder cutting
($a_{p \max} = 5.0 \text{ mm}$)

JDMT07020..R DLC Coated

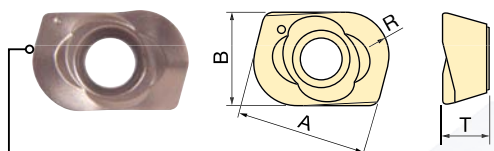


Insert with 5 mm flute length for shoulder cutting
($a_{p \max} = 5.0 \text{ mm}$)

ID Code	Item Code	Tolerance Class	Grade			Size			
			JX1020	PTH30E	SD5010	A	B	R	T
WF665	JDMT070202R JX1020	M	•			6.4	4.3	0.2	2.45
WF666	JDMT070202R PTH30E			•					
WF671	JDMT070202R SD5010				•				
WF667	JDMT070204R JX1020		•						
WF668	JDMT070204R PTH30E			•					
WF672	JDMT070204R SD5010				•				
WF669	JDMT070208R JX1020		•						
WF670	JDMT070208R PTH30E			•					
WF673	JDMT070208R SD5010				•				

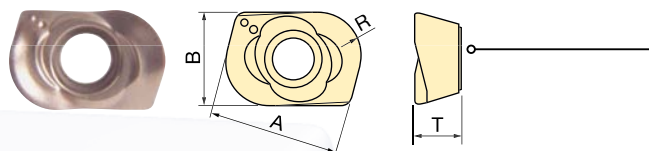
JX1020	JX Coating
PTH30E	TH Coating
SD5010	DLC Coating

EDMT070220R - **T** Standard Type



Insert with 2.0 mm corner R for low-depth, high-feed-rate cutting ($a_{p \max} = 0.3 \text{ mm}$)

EDMT070220R Low-resistance breaker type



Insert with 2.0 mm corner R for low-depth, high-feed-rate cutting ($a_{p \max} = 0.3 \text{ mm}$)

ID Code	Item Code	Tolerance Class	Grade			Size				Shape
			JX1020	PTH30E	SD5010	A	B	R	T	
WF663	EDMT070220R JX1020	M	•			6.4	4.3	2	2.5	Low-resistance type
WF664	EDMT070220R-T JX1020		•							Standard type

JX1020	JX Coating
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Parts	Clamp Screw	Wrench
	ID-Code ET052	ID-Code ET053
	Item-Code 240-140	Item-Code 106-T6

Indexable Milling Tools



Product Range

Solid Carbide End Mills

micro**EndMill**

CBN
Cubic Boron Nitride

HD
COATING

Epoch21

MINIATURE

3D-Cut

Indexable Milling Tools

Indexable
Milling

ESM Speed End Mills

EMC Power Drills

ESM
SPEED

Milling Chucks

Milling
Chucks

Available Grades:

JX-Coating

PTH-Coating

SD-DLC-Coating

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