

SOLID END MILLS

TOOL NAVI

HOW TO USE TOOL NAVI

3 steps to find the correct tool and cutting data.

STEP1 Chose work material, end mill type and cutting length

Work material

Carbon steel
Alloy steel
Cast iron

P

Hardened steel

H

INDEX

Square end mills	
Short flute (ap-1.5xD)	I008
Medium flute (ap-3xD)	I008
Long flute (ap-5xD)	I010
Short flute with neck (ap-30xD)	I010
Corner radius end mills	
Short / Medium flute (ap-3xD)	I011
Short flute with neck (ap-50xD)	I011
Ball nose end mills	
Short / Medium flute (ap-3xD)	I012
Short flute with neck (ap-70xD)	I013
Square end mills	
Short flute (ap-1.5xD)	I014
Medium flute (ap-3xD)	I014
Short flute with neck (ap-12xD)	I014

End mill type

Flute length (ap)

STEP2 Chose end mill

1st. Chose

SOLID END MILLS

TOOL NAVI

Product name	Coating	End mills	Size range	ap	Neck length	Flutes	Finish / Rough	Work materials	Page
P									
Square end mills									
Short flute (ap-1.5xD)									
MSSHV-E	MS		D6-20	1.5xD	-	4		PMS	I132
MSSHV-WE	MS		D6-20	1.5xD	-	4		PMS	I131
MS2ES	MS		D3-12	0.5-1xD	-	2		PMS	I068
MS2SS	MS		D0.1-12	1.5xD	-	2		PH	I036

Recommend

^{*1} F

^{*2} R

^{*1} Finish

^{*2} Rough

1st Recommend

2nd Recommend

STEP3 Chose size and cutting condition

End mill size

MSSHV

Coating: TiN, TiAlN, TiCN, TiSiN, TiZrN, TiHfN, TiNbN, TiTaB, TiZrB, TiHfB, TiNbB, TiTaB, TiZrB, TiHfB, TiNbB, TiTaB

Order Number

Order Number	D1	ap	L1	D2	L2	Flutes	Type
MSSHV05050505	5	5	54	5.05	50	5	1
MSSHV08080808	8	8	84	8.08	80	8	1
MSSHV12121212	12	12	124	12.12	120	12	1
MSSHV16161616	16	16	164	16.16	160	16	1
MSSHV20202020	20	20	204	20.20	200	20	1

Inventory maintained

I131

Cutting conditions

MSSHV

Coating: TiN, TiAlN, TiCN, TiSiN, TiZrN, TiHfN, TiNbN, TiTaB, TiZrB, TiHfB, TiNbB, TiTaB

RECOMMENDED CUTTING CONDITIONS

Shoulder milling

Material	Feed rate (mm/min)	Spindle speed (rpm)	Feed rate (mm/min)	Spindle speed (rpm)
Carbon steel	1000	2000	1000	2000
Aluminum	1000	2000	1000	2000
Cast iron	1000	2000	1000	2000
Stainless steel	1000	2000	1000	2000
Titanium	1000	2000	1000	2000

Inventory maintained

I133