

## MS33000160











**Type:** Micro-milling cutter

d1	d2	l1	l2
1,60	3,00	39	4,80


















Coolant holes	Cut	Spiral angle	Cutting edges Z
No	Right	30°	3

Coated	Coating type	Material	Material type	Norm
Yes	ALCRONOS	MD	SMG SP	TUSA

## Machinable Materials

Cod.	Material type	Machinability	Cutting speed Vc	Advancement per revolution fn
		<b>Recommended</b> <b>Part.</b> <b>recommended</b> <b>Not</b> <b>recommended</b>	(m/min)	(mm/dente)
<b>P01</b>	Unalloyed steels up to 800 N/mm2		60 : 90	0.015 - 0.030
<b>P02</b>	Low alloy steels from 800 N/mm2 to 1100 N/mm2		60 : 90	0.015 - 0.030
<b>P03</b>	Highly alloyed steels from 1100 N/mm2 to 1400 N/mm2		40 : 60	0.015 - 0.030
<b>M01</b>	Ferritic stainless steels		50 : 70	0.010 - 0.030
<b>M02</b>	Martensitic stainless steels		50 : 70	0.010 - 0.030
<b>M03</b>	Martensitic stainless steels - PH		50 : 70	0.010 - 0.030
<b>M04</b>	Austenitic stainless steels		50 : 70	0.010 - 0.030
<b>K01</b>	Gray/lamellar cast iron		90 : 120	0.020 - 0.040
<b>K02</b>	Nodular/nodular cast iron		90 : 120	0.020 - 0.040
<b>N01</b>	Drawn aluminum alloys		200 : 250	0.020 - 0.040
<b>N02</b>	Die-cast aluminum alloys		200 : 250	0.020 - 0.040
<b>N03</b>	Copper		140 : 180	0.020 - 0.040
<b>N04</b>	Brass - Bronze		140 : 180	0.020 - 0.040
<b>N05</b>	Lead-free brass		110 : 160	0.020 - 0.040
<b>S01</b>	Super alloys (Inconel - Hastelloy - Nimonic)		30 : 50	0.015 - 0.03
<b>S02</b>	Pure titanium (Grade 2 - Grade 4)		25 : 35	0.015 - 0.03
<b>S03</b>	Titanium alloys (Grade 5)		30 : 50	0.015 - 0.03
<b>S04</b>	Cobalt Chrome Alloys		30 : 50	0.015 - 0.03
<b>H01</b>	Hardened steels up to 55 HRC		25 : 35	0.004-0.006

## Machinable Materials

Cod.	Material type	Machinability	Cutting speed Vc	Advancement per revolution fn
		<b>Recommended</b> <b>Part.</b> <b>recommended</b> <b>Not</b> <b>recommended</b>	(m/min)	(mm/dente)
<b>P01</b>	Unalloyed steels up to 800 N/mm2		60 : 90	0.015 - 0.030
<b>P02</b>	Low alloy steels from 800 N/mm2 to 1100 N/mm2		60 : 90	0.015 - 0.030
<b>P03</b>	Highly alloyed steels from 1100 N/mm2 to 1400 N/mm2		40 : 60	0.015 - 0.030
<b>M01</b>	Ferritic stainless steels		50 : 70	0.010 - 0.030
<b>M02</b>	Martensitic stainless steels		50 : 70	0.010 - 0.030
<b>M03</b>	Martensitic stainless steels - PH		50 : 70	0.010 - 0.030
<b>M04</b>	Austenitic stainless steels		50 : 70	0.010 - 0.030
<b>K01</b>	Gray/lamellar cast iron		90 : 120	0.020 - 0.040
<b>K02</b>	Nodular/nodular cast iron		90 : 120	0.020 - 0.040
<b>N01</b>	Drawn aluminum alloys		200 : 250	0.020 - 0.040
<b>N02</b>	Die-cast aluminum alloys		200 : 250	0.020 - 0.040
<b>N03</b>	Copper		140 : 180	0.020 - 0.040
<b>N04</b>	Brass - Bronze		140 : 180	0.020 - 0.040
<b>N05</b>	Lead-free brass		110 : 160	0.020 - 0.040
<b>S01</b>	Super alloys (Inconel - Hastelloy - Nimonic)		30 : 50	0.015 - 0.03
<b>S02</b>	Pure titanium (Grade 2 - Grade 4)		25 : 35	0.015 - 0.03
<b>S03</b>	Titanium alloys (Grade 5)		30 : 50	0.015 - 0.03
<b>S04</b>	Cobalt Chrome Alloys		30 : 50	0.015 - 0.03
<b>H01</b>	Hardened steels up to 55 HRC		25 : 35	0.004-0.006
<b>H02</b>	Hardened steels from 55 HRC		-	-