

Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06

Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81

Киргизия (996)312-96-26-47

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижегород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16

Россия (495)268-04-70

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13

Казахстан (772)734-952-31

Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

<https://fanar.nt-rt.ru/> || frk@nt-rt.ru

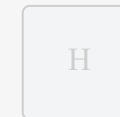
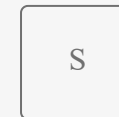
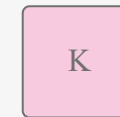
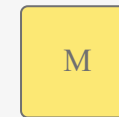
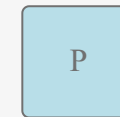
X-MILL

The X-MILL end mills are designed for machining steel and cast iron of a hardness of up to 35 HRC. They can also be used for machining stainless steel.

The range of mills includes 2- and 3-flute tools for making channels and simple operations, more versatile 4-flute tools in different lengths, and 5-flute end mills for finishing operations. The variable geometry reduces vibrations and improves the quality of the machined surface.




Application

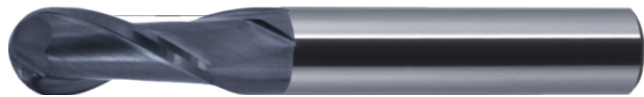


The X-MILL mills are available in many version – with rounded off corners and a ball nose.

Variants

| Designation | | Z - flute number | Variable geometry |
|-------------|--|------------------|-------------------|
| 230 |  | 2 | - |
| 230L |  | 2 | - |

B230



2

-

B230L



2

-

345/R345



3

v

440S/R440S



4

v

440N/R440N



4

v

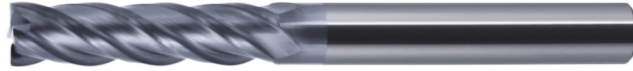
440NL/R440NL



4

v

430L/R430L



4

-

B440



4

v

540/R540



5

v

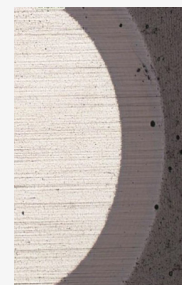
X-MILL 230



230




The range of general purpose tools for machining materials with a hardness of up to 35 HRC.

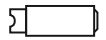
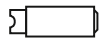
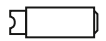
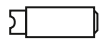
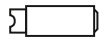
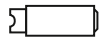
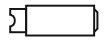
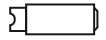
Protection

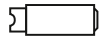
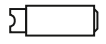
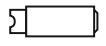
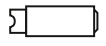
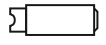
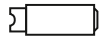
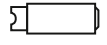


Tools are protected against wear and tear by AT coat developed by Fanar High Al content in AlTiN coat results in additional lubrication during the processing.

Dimensions

| Index | $\varnothing d_1$ | $\varnothing d_2 h_6$ | l_1 | l_2 | Z - flute number | End mill shank type |
|-----------------------|-------------------|-----------------------|-------|-------|------------------|---|
| M9-234X00-0010 | 1 | 4 | 50 | 3 | 2 |  |
| M9-234X00-0015 | 1,5 | 4 | 50 | 4 | 2 |  |
| M9-234X00-0020 | 2 | 4 | 50 | 6 | 2 |  |

| | | | | | | |
|-----------------------|-----|----|----|----|---|---|
| M9-234X00-0025 | 2,5 | 4 | 50 | 8 | 2 |  |
| M9-234X00-0030 | 3 | 4 | 50 | 8 | 2 |  |
| M9-234X00-0040 | 4 | 4 | 50 | 14 | 2 |  |
| M9-234X00-0050 | 5 | 6 | 50 | 16 | 2 |  |
| M9-234X00-0060 | 6 | 6 | 50 | 19 | 2 |  |
| M9-234X00-0070 | 7 | 8 | 58 | 19 | 2 |  |
| M9-234X00-0080 | 8 | 8 | 58 | 20 | 2 |  |
| M9-234X00-0090 | 9 | 10 | 72 | 22 | 2 |  |

| | | | | | | |
|-----------------------|----|----|-----|----|---|---|
| M9-234X00-0100 | 10 | 10 | 72 | 25 | 2 |  |
| M9-234X00-0110 | 11 | 12 | 73 | 25 | 2 |  |
| M9-234X00-0120 | 12 | 12 | 73 | 30 | 2 |  |
| M9-234X00-0140 | 14 | 14 | 83 | 35 | 2 |  |
| M9-234X00-0160 | 16 | 16 | 92 | 40 | 2 |  |
| M9-234X00-0180 | 18 | 18 | 100 | 45 | 2 |  |
| M9-234X00-0200 | 20 | 20 | 104 | 45 | 2 |  |

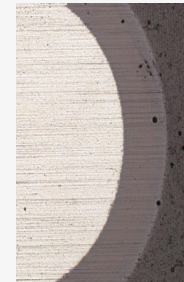
X-MILL 230L



230L




The range of general purpose tools for machining materials with a hardness of up to 35 HRC.

Protection



Tools are protected against wear and tear by AT coat developed by Fanar. High Al content in AlTiN coat results in additional lubrication during the processing.

Dimensions

| Index | $\varnothing d_1$ | $\varnothing d_2 h_6$ | l_1 | l_2 | Z - flute number | End mill shank type |
|------------------------|-------------------|-----------------------|-------|-------|------------------|---|
| M9-234X20-0060 | 6 | 6 | 75 | 15 | 2 |  |
| M9-234X20-0060A | 6 | 6 | 100 | 15 | 2 |  |
| M9-234X20-0080 | 8 | 8 | 100 | 20 | 2 |  |

M9-234X20-0100

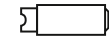
10

10

100

25

2



M9-234X20-0100A

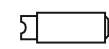
10

10

150

25

2



M9-234X20-0120

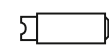
12

12

100

30

2



M9-234X20-0120A

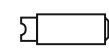
12

12

150

30

2



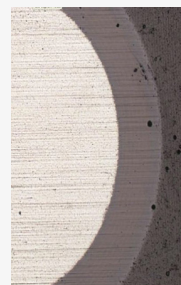
X-MILL B230



B230

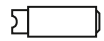
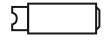
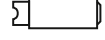
The range of general purpose tools for machining materials with a hardness of up to 35 HRC.









Protection



Tools are protected against wear and tear by AT coat developed by Fanar High Al content in AlTiN coat results in additional lubrication during the processing.

Dimensions

| Index | $\varnothing d_1$ | $\varnothing d_2 h6$ | l_1 | l_2 | Z - flute number | End mill shank type |
|-----------------------|-------------------|----------------------|-------|-------|------------------|---|
| M9-234X0X-0010 | 1 | 4 | 50 | 2 | 2 |  |
| M9-234X0X-0015 | 1,5 | 4 | 50 | 3 | 2 |  |
| M9-234X0X-0020 | 2 | 4 | 50 | 4 | 2 |  |

| | | | | | | |
|-----------------------|-----|----|----|----|---|---|
| M9-234X0X-0025 | 2,5 | 4 | 50 | 5 | 2 |  |
| M9-234X0X-0030 | 3 | 4 | 50 | 6 | 2 |  |
| M9-234X0X-0040 | 4 | 4 | 50 | 8 | 2 |  |
| M9-234X0X-0050 | 5 | 6 | 50 | 10 | 2 |  |
| M9-234X0X-0060 | 6 | 6 | 50 | 12 | 2 |  |
| M9-234X0X-0080 | 8 | 8 | 58 | 16 | 2 |  |
| M9-234X0X-0100 | 10 | 10 | 72 | 20 | 2 |  |
| M9-234X0X-0120 | 12 | 12 | 73 | 24 | 2 |  |

M9-234X0X-0160

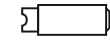
16

16

92

32

2



M9-234X0X-0180

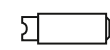
18

18

100

40

2



M9-234X0X-0200

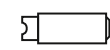
20

20

104

40

2



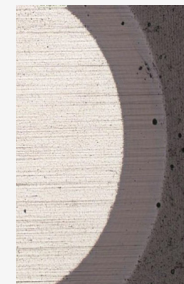
Solid carbide end mills X-MILL B230L



B230L




The range of general purpose tools for machining materials with a hardness of up to 35 HRC.






Protection



Tools are protected against wear and tear by AT coat developed by Fanar High Al content in AlTiN coat results in additional lubrication during the processing.

Dimensions

| Index | $\varnothing d_1$ | $\varnothing d_2 h_6$ | l_1 | l_2 | Z - flute number | End mill shank type |
|------------------------|-------------------|-----------------------|-------|-------|------------------|---|
| M9-234X2X-0060 | 6 | 6 | 75 | 12 | 2 |  |
| M9-234X2X-0060A | 6 | 6 | 100 | 12 | 2 |  |
| M9-234X2X-0080 | 8 | 8 | 100 | 16 | 2 |  |

| | | | | | | |
|------------------------|----|----|-----|----|---|---|
| M9-234X2X-0100 | 10 | 10 | 100 | 20 | 2 |  |
| M9-234X2X-0100A | 10 | 10 | 150 | 20 | 2 |  |
| M9-234X2X-0120 | 12 | 12 | 100 | 24 | 2 |  |
| M9-234X2X-0120A | 12 | 12 | 150 | 24 | 2 |  |
| M9-234X2X-0160 | 16 | 16 | 150 | 32 | 2 |  |

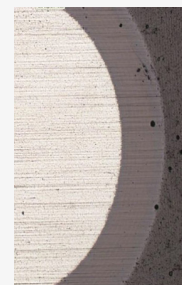
X-MILL 345/R345



345/R345




The range of general purpose tools for machining materials with a hardness of up to 35 HRC.









Protection



















Tools are protected against wear and tear by AT coat developed by Fanar High Al content in AlTiN coat results in additional lubrication during the processing.








Dimensions










| Index | $\varnothing d_1$ | $\varnothing d_2 h_6$ | l_1 | l_2 | R | Z - flute number | End mill shank type |
|-------------------------|-------------------|-----------------------|-------|-------|-----|------------------|---|
| M9-344X00-0030 | 3 | 6 | 57 | 8 | | 3 |  |
| M9-344X00-0030-B | 3 | 6 | 57 | 8 | | 3 |  |
| M9-344X0D-0030 | 3 | 6 | 57 | 8 | 0,3 | 3 |  |

| | | | | | | | |
|-------------------------|---|---|----|----|-----|---|---|
| M9-344X0D-0030-B | 3 | 6 | 57 | 8 | 0,3 | 3 |  |
| M9-344X00-0040 | 4 | 6 | 57 | 11 | | 3 |  |
| M9-344X00-0040-B | 4 | 6 | 57 | 11 | | 3 |  |
| M9-344X0D-0040 | 4 | 6 | 57 | 11 | 0,3 | 3 |  |
| M9-344X0D-0040-B | 4 | 6 | 57 | 11 | 0,3 | 3 |  |
| M9-344X00-0050 | 5 | 6 | 57 | 13 | | 3 |  |
| M9-344X00-0050-B | 5 | 6 | 57 | 13 | | 3 |  |
| M9-344X0D-0050 | 5 | 6 | 57 | 13 | 0,3 | 3 |  |

| | | | | | | | |
|-------------------------|---|---|----|----|-----|---|---|
| M9-344X0D-0050-B | 5 | 6 | 57 | 13 | 0,3 | 3 |  |
| M9-344X00-0060 | 6 | 6 | 57 | 13 | | 3 |  |
| M9-344X00-0060-B | 6 | 6 | 57 | 13 | | 3 |  |
| M9-344X01-0060 | 6 | 6 | 57 | 13 | 0,5 | 3 |  |
| M9-344X01-0060-B | 6 | 6 | 57 | 13 | 0,5 | 3 |  |
| M9-344X00-0080 | 8 | 8 | 63 | 19 | | 3 |  |
| M9-344X00-0080-B | 8 | 8 | 63 | 19 | | 3 |  |
| M9-344X01-0080 | 8 | 8 | 63 | 19 | 0,5 | 3 |  |

| | | | | | | | |
|-------------------------|----|----|----|----|-----|---|---|
| M9-344X01-0080-B | 8 | 8 | 63 | 19 | 0,5 | 3 |  |
| M9-344X03-0080 | 8 | 8 | 63 | 19 | 1 | 3 |  |
| M9-344X03-0080-B | 8 | 8 | 63 | 19 | 1 | 3 |  |
| M9-344X04-0080 | 8 | 8 | 63 | 19 | 1,5 | 3 |  |
| M9-344X04-0080-B | 8 | 8 | 63 | 19 | 1,5 | 3 |  |
| M9-344X00-0100 | 10 | 10 | 72 | 22 | | 3 |  |
| M9-344X00-0100-B | 10 | 10 | 72 | 22 | | 3 |  |
| M9-344X01-0100 | 10 | 10 | 72 | 22 | 0,5 | 3 |  |

| | | | | | | | |
|-------------------------|----|----|----|----|-----|---|---|
| M9-344X01-0100-B | 10 | 10 | 72 | 22 | 0,5 | 3 |  |
| M9-344X05-0100 | 10 | 10 | 72 | 22 | 2 | 3 |  |
| M9-344X05-0100-B | 10 | 10 | 72 | 22 | 2 | 3 |  |
| M9-344X00-0120 | 12 | 12 | 83 | 26 | | 3 |  |
| M9-344X00-0120-B | 12 | 12 | 83 | 26 | | 3 |  |
| M9-344X02-0120 | 12 | 12 | 83 | 26 | 0,7 | 3 |  |
| M9-344X02-0120-B | 12 | 12 | 83 | 26 | 0,7 | 3 |  |
| M9-344X05-0120 | 12 | 12 | 83 | 26 | 2 | 3 |  |

| | | | | | | | |
|-------------------------|----|----|----|----|-----|---|---|
| M9-344X05-0120-B | 12 | 12 | 83 | 26 | 2 | 3 |  |
| M9-344X00-0140 | 14 | 14 | 83 | 26 | | 3 |  |
| M9-344X00-0140-B | 14 | 14 | 83 | 26 | | 3 |  |
| M9-344X02-0140 | 14 | 14 | 83 | 26 | 0,7 | 3 |  |
| M9-344X02-0140-B | 14 | 14 | 83 | 26 | 0,7 | 3 |  |
| M9-344X00-0160 | 16 | 16 | 92 | 32 | | 3 |  |
| M9-344X00-0160-B | 16 | 16 | 92 | 32 | | 3 |  |
| M9-344X03-0160 | 16 | 16 | 92 | 32 | 1 | 3 |  |
| M9-344X03-0160-B | 16 | 16 | 92 | 32 | 1 | 3 |  |

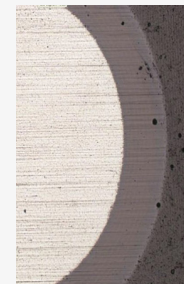
X-MILL 440S/R440S



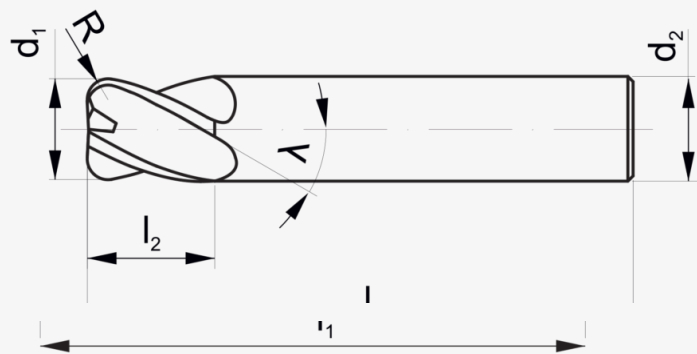
440S/R440S

The range of general purpose tools for machining materials with a hardness of up to 35 HRC.

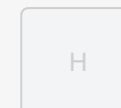
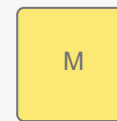
Protection



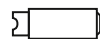
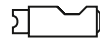
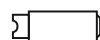
Tools are protected against wear and tear by AT coat developed by Fanar. High Al content in AlTiN coat results in additional lubrication during the processing.



Application



Dimensions

| Index | $\varnothing d_1$ | $\varnothing d_2 h_6$ | l_1 | l_2 | R | Z - flute number | End mill shank type |
|-------------------------|-------------------|-----------------------|-------|-------|-----|------------------|---|
| M9-444X10-0030 | 3 | 6 | 54 | 7 | | 4 |  |
| M9-444X10-0030-B | 3 | 6 | 54 | 7 | | 4 |  |
| M9-444X1D-0030 | 3 | 6 | 54 | 7 | 0,3 | 4 |  |

| | | | | | | | |
|-------------------------|---|---|----|---|-----|---|---|
| M9-444X1D-0030-B | 3 | 6 | 54 | 7 | 0,3 | 4 |  |
|-------------------------|---|---|----|---|-----|---|---|

| | | | | | | | |
|-----------------------|---|---|----|---|--|---|---|
| M9-444X10-0040 | 4 | 6 | 54 | 8 | | 4 |  |
|-----------------------|---|---|----|---|--|---|---|

| | | | | | | | |
|-------------------------|---|---|----|---|--|---|---|
| M9-444X10-0040-B | 4 | 6 | 54 | 8 | | 4 |  |
|-------------------------|---|---|----|---|--|---|---|









| | | | | | | | |
|-----------------------|---|---|----|---|-----|---|---|
| M9-444X1D-0040 | 4 | 6 | 54 | 8 | 0,3 | 4 |  |
|-----------------------|---|---|----|---|-----|---|---|









| | | | | | | | |
|-------------------------|---|---|----|---|-----|---|---|
| M9-444X1D-0040-B | 4 | 6 | 54 | 8 | 0,3 | 4 |  |
|-------------------------|---|---|----|---|-----|---|---|









| | | | | | | | |
|-----------------------|---|---|----|----|--|---|---|
| M9-444X10-0050 | 5 | 6 | 54 | 10 | | 4 |  |
|-----------------------|---|---|----|----|--|---|---|





| | | | | | | | |
|-------------------------|---|---|----|----|--|---|---|
| M9-444X10-0050-B | 5 | 6 | 54 | 10 | | 4 |  |
|-------------------------|---|---|----|----|--|---|---|









| | | | | | | | |
|-----------------------|---|---|----|----|-----|---|---|
| M9-444X1D-0050 | 5 | 6 | 54 | 10 | 0,3 | 4 |  |
|-----------------------|---|---|----|----|-----|---|---|

| | | | | | | | |
|-------------------------|---|---|----|----|-----|---|---|
| M9-444X1D-0050-B | 5 | 6 | 54 | 10 | 0,3 | 4 |  |
| M9-444X10-0060 | 6 | 6 | 54 | 10 | | 4 |  |
| M9-444X10-0060-B | 6 | 6 | 54 | 10 | | 4 |  |
| M9-444X11-0060 | 6 | 6 | 54 | 10 | 0,5 | 4 |  |
| M9-444X11-0060-B | 6 | 6 | 54 | 10 | 0,5 | 4 |  |
| M9-444X10-0080 | 8 | 8 | 58 | 12 | | 4 |  |
| M9-444X10-0080-B | 8 | 8 | 58 | 12 | | 4 |  |
| M9-444X11-0080 | 8 | 8 | 58 | 12 | 0,5 | 4 |  |

| | | | | | | | |
|-------------------------|----|----|----|----|-----|---|---|
| M9-444X11-0080-B | 8 | 8 | 58 | 12 | 0,5 | 4 |  |
| M9-444X13-0080 | 8 | 8 | 58 | 12 | 1,0 | 4 |  |
| M9-444X13-0080-B | 8 | 8 | 58 | 12 | 1,0 | 4 |  |
| M9-444X10-0100 | 10 | 10 | 66 | 14 | | 4 |  |
| M9-444X10-0100-B | 10 | 10 | 66 | 14 | | 4 |  |
| M9-444X11-0100 | 10 | 10 | 66 | 14 | 0,5 | 4 |  |
| M9-444X11-0100-B | 10 | 10 | 66 | 14 | 0,5 | 4 |  |
| M9-444X13-0100 | 10 | 10 | 66 | 14 | 1,0 | 4 |  |

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|-------------------------|----|----|----|----|-----|---|---|
| M9-444X13-0100-B | 10 | 10 | 66 | 14 | 1,0 | 4 |  |
| M9-444X14-0100 | 10 | 10 | 66 | 14 | 1,5 | 4 |  |
| M9-444X14-0100-B | 10 | 10 | 66 | 14 | 1,5 | 4 |  |
| M9-444X10-0120 | 12 | 12 | 73 | 16 | | 4 |  |
| M9-444X10-0120-B | 12 | 12 | 73 | 16 | | 4 |  |
| M9-444X11-0120 | 12 | 12 | 73 | 16 | 0,5 | 4 |  |
| M9-444X11-0120-B | 12 | 12 | 73 | 16 | 0,5 | 4 |  |
| M9-444X12-0120 | 12 | 12 | 73 | 16 | 0,7 | 4 |  |

| | | | | | | | |
|-------------------------|----|----|----|----|-----|---|---|
| M9-444X12-0120-B | 12 | 12 | 73 | 16 | 0,7 | 4 |  |
| M9-444X13-0120 | 12 | 12 | 73 | 16 | 1,0 | 4 |  |
| M9-444X13-0120-B | 12 | 12 | 73 | 16 | 1,0 | 4 |  |
| M9-444X10-0140 | 14 | 14 | 75 | 18 | | 4 |  |
| M9-444X10-0140-B | 14 | 14 | 75 | 18 | | 4 |  |
| M9-444X11-0140 | 14 | 14 | 75 | 18 | 0,5 | 4 |  |
| M9-444X11-0140-B | 14 | 14 | 75 | 18 | 0,5 | 4 |  |
| M9-444X10-0160 | 16 | 16 | 82 | 22 | | 4 |  |

| | | | | | | | |
|-------------------------|----|----|----|----|-----|---|---|
| M9-444X10-0160-B | 16 | 16 | 82 | 22 | | 4 |  |
| M9-444X11-0160 | 16 | 16 | 82 | 22 | 0,5 | 4 |  |
| M9-444X11-0160-B | 16 | 16 | 82 | 22 | 0,5 | 4 |  |
| M9-444X13-0160 | 16 | 16 | 82 | 22 | 1,0 | 4 |  |
| M9-444X13-0160-B | 16 | 16 | 82 | 22 | 1,0 | 4 |  |
| M9-444X15-0160 | 16 | 16 | 82 | 22 | 2,0 | 4 |  |
| M9-444X15-0160-B | 16 | 16 | 82 | 22 | 2,0 | 4 |  |
| M9-444X10-0200 | 20 | 20 | 92 | 26 | | 4 |  |

M9-444X10-0200-B

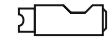
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92

26

4



M9-444X13-0200

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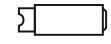
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92

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1,0

4



M9-444X13-0200-B

20

20

92

26

1,0

4



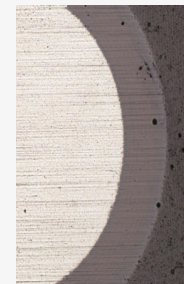
X-MILL 440N/R440N



440N/R440N



The range of general purpose tools for machining materials with a hardness of up to 35 HRC.









Protection



















Tools are protected against wear and tear by AT coat developed by Fanar High Al content in AlTiN coat results in additional lubrication during the processing.









Dimensions









| Index | $\varnothing d_1$ | $\varnothing d_2 h_6$ | d_3 | l_1 | l_2 | l_3 | R | Z - flute number | End mill shank type |
|-----------------------|-------------------|-----------------------|-------|-------|-------|-------|---|------------------|---|
| M9-444XA0-0010 | 1 | 4 | | 50 | 3 | | | 4 |  |
| M9-444XA0-0015 | 1,5 | 4 | | 50 | 4 | | | 4 |  |




| | | | | | | | |
|-------------------------|-----|---|----|----|-----|---|---|
| M9-444XA0-0020 | 2 | 4 | 50 | 6 | | 4 |  |
| M9-444XA0-0025 | 2,5 | 4 | 50 | 8 | | 4 |  |
| M9-444XA0-0030 | 3 | 6 | 57 | 8 | | 4 |  |
| M9-444XA0-0030-B | 3 | 6 | 57 | 8 | | 4 |  |
| M9-444XAD-0030 | 3 | 6 | 57 | 8 | 0,3 | 4 |  |
| M9-444XAD-0030-B | 3 | 6 | 57 | 8 | 0,3 | 4 |  |
| M9-444XA0-0040 | 4 | 6 | 57 | 11 | | 4 |  |
| M9-444XA0-0040-B | 4 | 6 | 57 | 11 | | 4 |  |









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|-------------------------|---|---|-----|----|----|----|-----|---|---|
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| M9-444XAD-0040-B | 4 | 6 | | 57 | 11 | | 0,3 | 4 |  |
| M9-444XA0-0050 | 5 | 6 | | 57 | 13 | | | 4 |  |
| M9-444XA0-0050-B | 5 | 6 | | 57 | 13 | | | 4 |  |
| M9-444XAD-0050 | 5 | 6 | | 57 | 13 | | 0,3 | 4 |  |
| M9-444XAD-0050-B | 5 | 6 | | 57 | 13 | | 0,3 | 4 |  |
| M9-444XA0-0060 | 6 | 6 | 5,5 | 57 | 13 | 21 | | 4 |  |
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






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|-------------------------|---|---|-----|----|----|----|-----|---|---|
| M9-444XA1-0060 | 6 | 6 | 5,5 | 57 | 13 | 21 | 0,5 | 4 |  |
| M9-444XA1-0060-B | 6 | 6 | 5,5 | 57 | 13 | 21 | 0,5 | 4 |  |
| M9-444XA3-0060 | 6 | 6 | 5,5 | 57 | 13 | 21 | 1,0 | 4 |  |
| M9-444XA3-0060-B | 6 | 6 | 5,5 | 57 | 13 | 21 | 1,0 | 4 |  |
| M9-444XA0-0080 | 8 | 8 | 7,5 | 63 | 19 | 27 | | 4 |  |
| M9-444XA0-0080-B | 8 | 8 | 7,5 | 63 | 19 | 27 | | 4 |  |
| M9-444XA1-0080 | 8 | 8 | 7,5 | 63 | 19 | 27 | 0,5 | 4 |  |
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






| | | | | | | | | | |
|-------------------------|----|----|-----|----|----|----|-----|---|---|
| M9-444XA3-0080 | 8 | 8 | 7,5 | 63 | 19 | 27 | 1,0 | 4 |  |
| M9-444XA3-0080-B | 8 | 8 | 7,5 | 63 | 19 | 27 | 1,0 | 4 |  |
| M9-444XA5-0080 | 8 | 8 | 7,5 | 63 | 19 | 27 | 2,0 | 4 |  |
| M9-444XA5-0080-B | 8 | 8 | 7,5 | 63 | 19 | 27 | 2,0 | 4 |  |
| M9-444XA0-0100 | 10 | 10 | 9,2 | 72 | 22 | 32 | | 4 |  |
| M9-444XA0-0100-B | 10 | 10 | 9,2 | 72 | 22 | 32 | | 4 |  |
| M9-444XA1-0100 | 10 | 10 | 9,2 | 72 | 22 | 32 | 0,5 | 4 |  |
| M9-444XA1-0100-B | 10 | 10 | 9,2 | 72 | 22 | 32 | 0,5 | 4 |  |









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| M9-444XA3-0100 | 10 | 10 | 9,2 | 72 | 22 | 32 | 1,0 | 4 |  |
| M9-444XA3-0100-B | 10 | 10 | 9,2 | 72 | 22 | 32 | 1,0 | 4 |  |
| M9-444XA5-0100 | 10 | 10 | 9,2 | 72 | 22 | 32 | 2,0 | 4 |  |
| M9-444XA5-0100-B | 10 | 10 | 9,2 | 72 | 22 | 32 | 2,0 | 4 |  |
| M9-444XA0-0120 | 12 | 12 | 11 | 83 | 26 | 38 | | 4 |  |
| M9-444XA0-0120-B | 12 | 12 | 11 | 83 | 26 | 38 | | 4 |  |
| M9-444XA1-0120 | 12 | 12 | 11 | 83 | 26 | 38 | 0,5 | 4 |  |
| M9-444XA1-0120-B | 12 | 12 | 11 | 83 | 26 | 38 | 0,5 | 4 |  |









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|-------------------------|----|----|----|----|----|----|-----|---|---|
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| M9-444XA2-0120-B | 12 | 12 | 11 | 83 | 26 | 38 | 0,7 | 4 |  |
| M9-444XA3-0120 | 12 | 12 | 11 | 83 | 26 | 38 | 1 | 4 |  |
| M9-444XA3-0120-B | 12 | 12 | 11 | 83 | 26 | 38 | 1,0 | 4 |  |
| M9-444XA4-0120 | 12 | 12 | 11 | 83 | 26 | 38 | 1,5 | 4 |  |
| M9-444XA4-0120-B | 12 | 12 | 11 | 83 | 26 | 38 | 1,5 | 4 |  |
| M9-444XA5-0120 | 12 | 12 | 11 | 83 | 26 | 38 | 2 | 4 |  |
| M9-444XA5-0120-B | 12 | 12 | 11 | 83 | 26 | 38 | 2,0 | 4 |  |

| | | | | | | | | | |
|-------------------------|----|----|----|----|----|----|-----|---|---|
| M9-444XA7-0120 | 12 | 12 | 11 | 83 | 26 | 38 | 3 | 4 |  |
| M9-444XA7-0120-B | 12 | 12 | 11 | 83 | 26 | 38 | 3,0 | 4 |  |
| M9-444XA0-0140 | 14 | 14 | 13 | 83 | 26 | 38 | | 4 |  |
| M9-444XA0-0140-B | 14 | 14 | 13 | 83 | 26 | 38 | | 4 |  |
| M9-444XA1-0140 | 14 | 14 | 13 | 83 | 26 | 38 | 0,5 | 4 |  |
| M9-444XA1-0140-B | 14 | 14 | 13 | 83 | 26 | 38 | 0,5 | 4 |  |
| M9-444XA2-0140 | 14 | 14 | 13 | 83 | 26 | 38 | 0,7 | 4 |  |
| M9-444XA2-0140-B | 14 | 14 | 13 | 83 | 26 | 38 | 0,7 | 4 |  |

| | | | | | | | | | |
|-------------------------|----|----|----|----|----|----|-----|---|---|
| M9-444XA3-0140 | 14 | 14 | 13 | 83 | 26 | 38 | 1 | 4 |  |
| M9-444XA3-0140-B | 14 | 14 | 13 | 83 | 26 | 38 | 1,0 | 4 |  |
| M9-444XA5-0140 | 14 | 14 | 13 | 83 | 26 | 38 | 2 | 4 |  |
| M9-444XA5-0140-B | 14 | 14 | 13 | 83 | 26 | 38 | 2,0 | 4 |  |
| M9-444XA0-0160 | 16 | 16 | 15 | 92 | 32 | 44 | | 4 |  |
| M9-444XA0-0160-B | 16 | 16 | 15 | 92 | 32 | 44 | | 4 |  |
| M9-444XA1-0160 | 16 | 16 | 15 | 92 | 32 | 44 | 0,5 | 4 |  |
| M9-444XA1-0160-B | 16 | 16 | 15 | 92 | 32 | 44 | 0,5 | 4 |  |

| | | | | | | | | | |
|-------------------------|----|----|----|----|----|----|-----|---|---|
| M9-444XA3-0160 | 16 | 16 | 15 | 92 | 32 | 44 | 1 | 4 |  |
| M9-444XA3-0160-B | 16 | 16 | 15 | 92 | 32 | 44 | 1,0 | 4 |  |
| M9-444XA5-0160 | 16 | 16 | 15 | 92 | 32 | 44 | 2 | 4 |  |
| M9-444XA5-0160-B | 16 | 16 | 15 | 92 | 32 | 44 | 2,0 | 4 |  |
| M9-444XA7-0160 | 16 | 16 | 15 | 92 | 32 | 44 | 3 | 4 |  |
| M9-444XA7-0160-B | 16 | 16 | 15 | 92 | 32 | 44 | 3,0 | 4 |  |
| M9-444XA0-0180 | 18 | 18 | 17 | 92 | 32 | 44 | | 4 |  |
| M9-444XA0-0180-B | 18 | 18 | 17 | 92 | 32 | 44 | | 4 |  |

| | | | | | | | | | |
|--------------------------|----|----|----|-----|----|----|-----|---|---|
| M9-444XA3-0180 | 18 | 18 | 17 | 92 | 32 | 44 | 1 | 4 |  |
| M9-444XA3-0180-B | 18 | 18 | 17 | 92 | 32 | 44 | 1,0 | 4 |  |
| M9-444XA0-0200 | 20 | 20 | 19 | 104 | 38 | 55 | | 4 |  |
| M9-444XA0-0200A | 20 | 20 | 19 | 104 | 45 | 55 | | 4 |  |
| M9-444XA0-0200-B | 20 | 20 | 19 | 104 | 38 | 55 | | 4 |  |
| M9-444XA0-0200A-B | 20 | 20 | 19 | 104 | 45 | 55 | | 4 |  |
| M9-444XA3-0200 | 20 | 20 | 19 | 104 | 38 | 55 | 1 | 4 |  |
| M9-444XA3-0200A | 20 | 20 | 19 | 104 | 45 | 55 | 1 | 4 |  |

| | | | | | | | | | |
|--------------------------|----|----|----|-----|----|----|-----|---|---|
| M9-444XA3-0200-B | 20 | 20 | 19 | 104 | 38 | 55 | 1,0 | 4 |  |
| M9-444XA3-0200A-B | 20 | 20 | 19 | 104 | 45 | 55 | 1,0 | 4 |  |
| M9-444XA5-0200A | 20 | 20 | 19 | 104 | 45 | 55 | 2 | 4 |  |
| M9-444XA5-0200A-B | 20 | 20 | 19 | 104 | 45 | 55 | 2,0 | 4 |  |
| M9-444XA0-0250 | 25 | 25 | 24 | 122 | 55 | 66 | | 4 |  |
| M9-444XA0-0250-B | 25 | 25 | 24 | 122 | 55 | 66 | | 4 |  |
| M9-444XA3-0250 | 25 | 25 | 24 | 122 | 55 | 66 | 1 | 4 |  |
| M9-444XA3-0250-B | 25 | 25 | 24 | 122 | 55 | 66 | 1,0 | 4 |  |

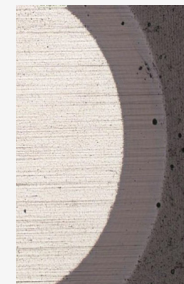
X-MILL 440NL/R440NL



440NL/R440NL



The range of general purpose tools for machining materials with a hardness of up to 35 HRC.









Protection



















Tools are protected against wear and tear by AT coat developed by Fanar High Al content in AlTiN coat results in additional lubrication during the processing.









Dimensions









| Index | $\varnothing d_1$ | $\varnothing d_2 h_6$ | d_3 | l_1 | l_2 | l_3 | R | Z - flute number | End mill shank type |
|-------------------------|-------------------|-----------------------|-------|-------|-------|-------|---|------------------|---|
| M9-444XG0-0030 | 3 | 6 | 2,7 | 57 | 7 | 17 | | 4 |  |
| M9-444XG0-0030-B | 3 | 6 | 2,7 | 57 | 7 | 17 | | 4 |  |









| | | | | | | | | | |
|-------------------------|---|---|-----|----|----|----|-----|---|---|
| M9-444XGD-0030 | 3 | 6 | 2,7 | 57 | 7 | 17 | 0,3 | 4 |  |
| M9-444XGD-0030-B | 3 | 6 | 2,7 | 57 | 7 | 17 | 0,3 | 4 |  |
| M9-444XG0-0040 | 4 | 6 | 3,7 | 63 | 8 | 22 | | 4 |  |
| M9-444XG0-0040-B | 4 | 6 | 3,7 | 63 | 8 | 22 | | 4 |  |
| M9-444XGD-0040 | 4 | 6 | 3,7 | 63 | 8 | 22 | 0,3 | 4 |  |
| M9-444XGD-0040-B | 4 | 6 | 3,7 | 63 | 8 | 22 | 0,3 | 4 |  |
| M9-444XG0-0050 | 5 | 6 | 4,7 | 67 | 10 | 27 | | 4 |  |
| M9-444XG0-0050-B | 5 | 6 | 4,7 | 67 | 10 | 27 | | 4 |  |

| | | | | | | | | | |
|-------------------------|---|---|-----|----|----|----|-----|---|---|
| M9-444XGD-0050 | 5 | 6 | 4,7 | 67 | 10 | 27 | 0,3 | 4 |  |
| M9-444XGD-0050-B | 5 | 6 | 4,7 | 67 | 10 | 27 | 0,3 | 4 |  |
| M9-444XG0-0060 | 6 | 6 | 5,5 | 74 | 10 | 32 | | 4 |  |
| M9-444XG0-0060-B | 6 | 6 | 5,5 | 74 | 10 | 32 | | 4 |  |
| M9-444XG1-0060 | 6 | 6 | 5,5 | 74 | 10 | 32 | 0,5 | 4 |  |
| M9-444XG1-0060-B | 6 | 6 | 5,5 | 74 | 10 | 32 | 0,5 | 4 |  |
| M9-444XG3-0060 | 6 | 6 | 5,5 | 74 | 10 | 32 | 1,0 | 4 |  |
| M9-444XG3-0060-B | 6 | 6 | 5,5 | 74 | 10 | 32 | 1,0 | 4 |  |

| | | | | | | | | | |
|-------------------------|----|----|-----|-----|----|----|-----|---|---|
| M9-444XG0-0080 | 8 | 8 | 7,5 | 90 | 12 | 46 | | 4 |  |
| M9-444XG0-0080-B | 8 | 8 | 7,5 | 90 | 12 | 46 | | 4 |  |
| M9-444XG1-0080 | 8 | 8 | 7,5 | 90 | 12 | 46 | 0,5 | 4 |  |
| M9-444XG1-0080-B | 8 | 8 | 7,5 | 90 | 12 | 46 | 0,5 | 4 |  |
| M9-444XG3-0080 | 8 | 8 | 7,5 | 90 | 12 | 46 | 1,0 | 4 |  |
| M9-444XG3-0080-B | 8 | 8 | 7,5 | 90 | 12 | 46 | 1,0 | 4 |  |
| M9-444XG0-0100 | 10 | 10 | 9,2 | 102 | 14 | 55 | | 4 |  |
| M9-444XG0-0100-B | 10 | 10 | 9,2 | 102 | 14 | 55 | | 4 |  |

| | | | | | | | | | |
|-------------------------|----|----|-----|-----|----|----|-----|---|---|
| M9-444XG1-0100 | 10 | 10 | 9,2 | 102 | 14 | 55 | 0,5 | 4 |  |
| M9-444XG1-0100-B | 10 | 10 | 9,2 | 102 | 14 | 55 | 0,5 | 4 |  |
| M9-444XG3-0100 | 10 | 10 | 9,2 | 102 | 14 | 55 | 1,0 | 4 |  |
| M9-444XG3-0100-B | 10 | 10 | 9,2 | 102 | 14 | 55 | 1,0 | 4 |  |
| M9-444XG6-0100 | 10 | 10 | 9,2 | 102 | 14 | 55 | 2,5 | 4 |  |
| M9-444XG6-0100-B | 10 | 10 | 9,2 | 102 | 14 | 55 | 2,5 | 4 |  |
| M9-444XG0-0120 | 12 | 12 | 11 | 117 | 16 | 64 | | 4 |  |
| M9-444XG0-0120-B | 12 | 12 | 11 | 117 | 16 | 64 | | 4 |  |

| | | | | | | | | | |
|-------------------------|----|----|----|-----|----|----|-----|---|---|
| M9-444XG1-0120 | 12 | 12 | 11 | 117 | 16 | 64 | 0,5 | 4 |  |
| M9-444XG1-0120-B | 12 | 12 | 11 | 117 | 16 | 64 | 0,5 | 4 |  |
| M9-444XG3-0120 | 12 | 12 | 11 | 117 | 16 | 64 | 1,0 | 4 |  |
| M9-444XG3-0120-B | 12 | 12 | 11 | 117 | 16 | 64 | 1,0 | 4 |  |
| M9-444XG0-0160 | 16 | 16 | 15 | 141 | 22 | 87 | | 4 |  |
| M9-444XG0-0160-B | 16 | 16 | 15 | 141 | 22 | 87 | | 4 |  |
| M9-444XG1-0160 | 16 | 16 | 15 | 141 | 22 | 87 | 0,5 | 4 |  |
| M9-444XG1-0160-B | 16 | 16 | 15 | 141 | 22 | 87 | 0,5 | 4 |  |

| | | | | | | | | | |
|-------------------------|----|----|----|-----|----|-----|-----|---|---|
| M9-444XG3-0160 | 16 | 16 | 15 | 141 | 22 | 87 | 1,0 | 4 |  |
| M9-444XG3-0160-B | 16 | 16 | 15 | 141 | 22 | 87 | 1,0 | 4 |  |
| M9-444XG5-0160 | 16 | 16 | 15 | 141 | 22 | 87 | 2,0 | 4 |  |
| M9-444XG5-0160-B | 16 | 16 | 15 | 141 | 22 | 87 | 2,0 | 4 |  |
| M9-444XG0-0200 | 20 | 20 | 19 | 164 | 26 | 110 | | 4 |  |
| M9-444XG0-0200-B | 20 | 20 | 19 | 164 | 26 | 110 | | 4 |  |
| M9-444XG3-0200 | 20 | 20 | 19 | 164 | 26 | 110 | 1,0 | 4 |  |
| M9-444XG3-0200-B | 20 | 20 | 19 | 164 | 26 | 110 | 1,0 | 4 |  |

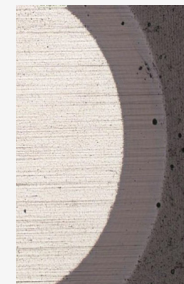
X-MILL 430L/R430L



430L/R430L




The range of general purpose tools for machining materials with a hardness of up to 35 HRC.









Protection


















Tools are protected against wear and tear by AT coat developed by Fanar High Al content in AlTiN coat results in additional lubrication during the processing.

Dimensions

| Index | $\varnothing d_1$ | $\varnothing d_2 h_6$ | l_1 | l_2 | R | Z - flute number | End mill shank type |
|-----------------------|-------------------|-----------------------|-------|-------|-----|------------------|---|
| M9-434X20-0020 | 2 | 4 | 50 | 15 | | 4 |  |
| M9-434X20-0030 | 3 | 4 | 50 | 20 | | 4 |  |
| M9-434X2D-0030 | 3 | 4 | 50 | 20 | 0,3 | 4 |  |

| | | | | | | | |
|-------------------------|---|---|----|----|-----|---|---|
| M9-434X20-0040 | 4 | 4 | 75 | 25 | | 4 |  |
| M9-434X2D-0040 | 4 | 4 | 75 | 25 | 0,3 | 4 |  |
| M9-434X20-0050 | 5 | 6 | 75 | 30 | | 4 |  |
| M9-434X20-0050-B | 5 | 6 | 75 | 30 | | 4 |  |
| M9-434X2D-0050 | 5 | 6 | 75 | 30 | 0,3 | 4 |  |
| M9-434X20-0060 | 6 | 6 | 75 | 30 | | 4 |  |
| M9-434X20-0060-B | 6 | 6 | 75 | 30 | | 4 |  |
| M9-434X21-0060 | 6 | 6 | 75 | 30 | 0,5 | 4 |  |

| | | | | | | | |
|-------------------------|----|----|-----|----|-----|---|---|
| M9-434X20-0080 | 8 | 8 | 100 | 40 | | 4 |  |
| M9-434X20-0080-B | 8 | 8 | 100 | 40 | | 4 |  |
| M9-434X21-0080 | 8 | 8 | 100 | 40 | 0,5 | 4 |  |
| M9-434X20-0100 | 10 | 10 | 100 | 40 | | 4 |  |
| M9-434X20-0100-B | 10 | 10 | 100 | 40 | | 4 |  |
| M9-434X21-0100 | 10 | 10 | 100 | 40 | 0,5 | 4 |  |
| M9-434X20-0120 | 12 | 12 | 100 | 45 | | 4 |  |
| M9-434X20-0120-B | 12 | 12 | 100 | 45 | | 4 |  |

| | | | | | | | |
|-------------------------|----|----|-----|----|-----|---|---|
| M9-434X22-0120 | 12 | 12 | 100 | 45 | 0,7 | 4 |  |
| M9-434X20-0160 | 16 | 16 | 150 | 60 | | 4 |  |
| M9-434X20-0160-B | 16 | 16 | 150 | 60 | | 4 |  |
| M9-434X23-0160 | 16 | 16 | 150 | 60 | 1,0 | 4 |  |
| M9-434X20-0200 | 20 | 20 | 150 | 60 | | 4 |  |
| M9-434X20-0200-B | 20 | 20 | 150 | 60 | | 4 |  |
| M9-434X23-0200 | 20 | 20 | 150 | 60 | 1,0 | 4 |  |

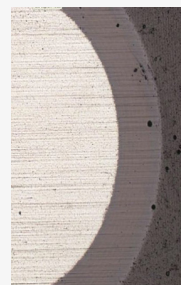
X-MILL B440



B440




The range of general purpose tools for machining materials with a hardness of up to 35 HRC.









Protection



Tools are protected against wear and tear by AT coat developed by Fanar High Al content in AlTiN coat results in additional lubrication during the processing.

Dimensions

| Index | $\varnothing d_1$ | $\varnothing d_2 h6$ | l_1 | l_2 | R | Z - flute number | End mill shank type |
|-----------------------|-------------------|----------------------|-------|-------|-----|------------------|---|
| M9-444X1X-0030 | 3 | 6 | 54 | 7 | 1,5 | 4 |  |
| M9-444X1X-0040 | 4 | 6 | 54 | 8 | 2,0 | 4 |  |
| M9-444X1X-0050 | 5 | 6 | 54 | 10 | 2,5 | 4 |  |

| | | | | | | | |
|-----------------------|----|----|----|----|------|---|---|
| M9-444X1X-0060 | 6 | 6 | 54 | 10 | 3,0 | 4 |  |
| M9-444X1X-0080 | 8 | 8 | 58 | 12 | 4,0 | 4 |  |
| M9-444X1X-0100 | 10 | 10 | 66 | 14 | 5,0 | 4 |  |
| M9-444X1X-0120 | 12 | 12 | 73 | 16 | 6,0 | 4 |  |
| M9-444X1X-0140 | 14 | 14 | 75 | 18 | 7,0 | 4 |  |
| M9-444X1X-0160 | 16 | 16 | 82 | 22 | 8,0 | 4 |  |
| M9-444X1X-0180 | 18 | 18 | 84 | 24 | 9,0 | 4 |  |
| M9-444X1X-0200 | 20 | 20 | 92 | 26 | 10,0 | 4 |  |

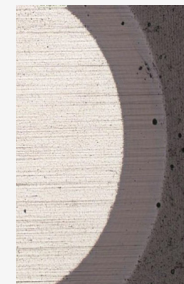
X-MILL 540/R540



540/R540




The range of general purpose tools for machining materials with a hardness of up to 35 HRC.









Protection



















Tools are protected against wear and tear by AT coat developed by Fanar. High Al content in AlTiN coat results in additional lubrication during the processing.









Dimensions









| Index | $\varnothing d_1$ | $\varnothing d_2 h6$ | l_1 | l_2 | R | Z - flute number | End mill shank type |
|-------------------------|-------------------|----------------------|-------|-------|-----|------------------|---|
| M9-544X00-0060 | 6 | 6 | 57 | 13 | | 4 |  |
| M9-544X00-0060-B | 6 | 6 | 57 | 13 | | 4 |  |
| M9-544X01-0060 | 6 | 6 | 57 | 13 | 0,5 | 5 |  |






| | | | | | | | |
|-------------------------|---|---|----|----|-----|---|---|
| M9-544X01-0060-B | 6 | 6 | 57 | 13 | 0,5 | 5 |  |
| M9-544X00-0080 | 8 | 8 | 63 | 19 | | 4 |  |
| M9-544X00-0080-B | 8 | 8 | 63 | 19 | | 4 |  |
| M9-544X01-0080 | 8 | 8 | 63 | 19 | 0,5 | 5 |  |
| M9-544X01-0080-B | 8 | 8 | 63 | 19 | 0,5 | 5 |  |
| M9-544X03-0080 | 8 | 8 | 63 | 19 | 1,0 | 5 |  |
| M9-544X03-0080-B | 8 | 8 | 63 | 19 | 1,0 | 5 |  |
| M9-544X04-0080 | 8 | 8 | 63 | 19 | 1,5 | 5 |  |

| | | | | | | | |
|-------------------------|----|----|----|----|-----|---|---|
| M9-544X04-0080-B | 8 | 8 | 63 | 19 | 1,5 | 5 |  |
| M9-544X05-0080 | 8 | 8 | 63 | 19 | 2,0 | 5 |  |
| M9-544X05-0080-B | 8 | 8 | 63 | 19 | 2,0 | 5 |  |
| M9-544X00-0100 | 10 | 10 | 72 | 22 | | 4 |  |
| M9-544X00-0100-B | 10 | 10 | 72 | 22 | | 4 |  |
| M9-544X01-0100 | 10 | 10 | 72 | 22 | 0,5 | 5 |  |
| M9-544X01-0100-B | 10 | 10 | 72 | 22 | 0,5 | 5 |  |
| M9-544X06-0100 | 10 | 10 | 72 | 22 | 2,5 | 5 |  |

| | | | | | | | |
|-------------------------|----|----|----|----|-----|---|---|
| M9-544X06-0100-B | 10 | 10 | 72 | 22 | 2,5 | 5 |  |
| M9-544X00-0120 | 12 | 12 | 83 | 26 | | 4 |  |
| M9-544X00-0120-B | 12 | 12 | 83 | 26 | | 4 |  |
| M9-544X01-0120 | 12 | 12 | 83 | 26 | 0,5 | 5 |  |
| M9-544X01-0120-B | 12 | 12 | 83 | 26 | 0,5 | 5 |  |
| M9-544X02-0120 | 12 | 12 | 83 | 26 | 0,7 | 5 |  |
| M9-544X02-0120-B | 12 | 12 | 83 | 26 | 0,7 | 5 |  |
| M9-544X03-0120 | 12 | 12 | 83 | 26 | 1,0 | 5 |  |

| | | | | | | | |
|-------------------------|----|----|----|----|-----|---|---|
| M9-544X03-0120-B | 12 | 12 | 83 | 26 | 1,0 | 5 |  |
| M9-544X00-0140 | 14 | 14 | 83 | 26 | | 4 |  |
| M9-544X00-0140-B | 14 | 14 | 83 | 26 | | 4 |  |
| M9-544X01-0140 | 14 | 14 | 83 | 26 | 0,5 | 5 |  |
| M9-544X01-0140-B | 14 | 14 | 83 | 26 | 0,5 | 5 |  |
| M9-544X00-0160 | 16 | 16 | 92 | 32 | | 4 |  |
| M9-544X00-0160-B | 16 | 16 | 92 | 32 | | 4 |  |
| M9-544X01-0160 | 16 | 16 | 92 | 32 | 0,5 | 5 |  |

| | | | | | | | |
|-------------------------|----|----|----|----|-----|---|---|
| M9-544X01-0160-B | 16 | 16 | 92 | 32 | 0,5 | 5 |  |
| M9-544X03-0160 | 16 | 16 | 92 | 32 | 1,0 | 5 |  |
| M9-544X03-0160-B | 16 | 16 | 92 | 32 | 1,0 | 5 |  |
| M9-544X05-0160 | 16 | 16 | 92 | 32 | 2,0 | 5 |  |
| M9-544X05-0160-B | 16 | 16 | 92 | 32 | 2,0 | 5 |  |
| M9-544X00-0180 | 18 | 18 | 92 | 32 | | 4 |  |
| M9-544X00-0180-B | 18 | 18 | 92 | 32 | | 4 |  |
| M9-544X03-0180 | 18 | 18 | 92 | 32 | 1,0 | 5 |  |

| | | | | | | | |
|-------------------------|----|----|-----|----|-----|---|---|
| M9-544X03-0180-B | 18 | 18 | 92 | 32 | 1,0 | 5 |  |
| M9-544X00-0200 | 20 | 20 | 104 | 38 | | 4 |  |
| M9-544X00-0200-B | 20 | 20 | 104 | 38 | | 4 |  |
| M9-544X03-0200 | 20 | 20 | 104 | 38 | 1,0 | 5 |  |
| M9-544X03-0200-B | 20 | 20 | 104 | 38 | 1,0 | 5 |  |

Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06

Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
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