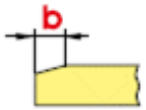
Nomenklatur

FM

8

8

Geometri



EF	Excellent Finishinig
FC	Finishing Cermet
FU	Finishing Universal
FM	Finishing Stainless Steel
WUP	Wiper Universal Positive
WU	Wiper Universal
MU	Medium Universal
MM	Medium Stainless Steel
MRU	Medium Roughing Universal
RU	Roughing Universal
RM	Roughing Stainless Steel
RPK	Roughing Steel Castiron
MPR	Medium Steel Round
R1	Roughing 1
R2	Roughing 2
R3	Roughing 3

P Stål

M Rostfritt Stål

K Gjutgods

N Icke-Järn legeringar

S Superlegeringar

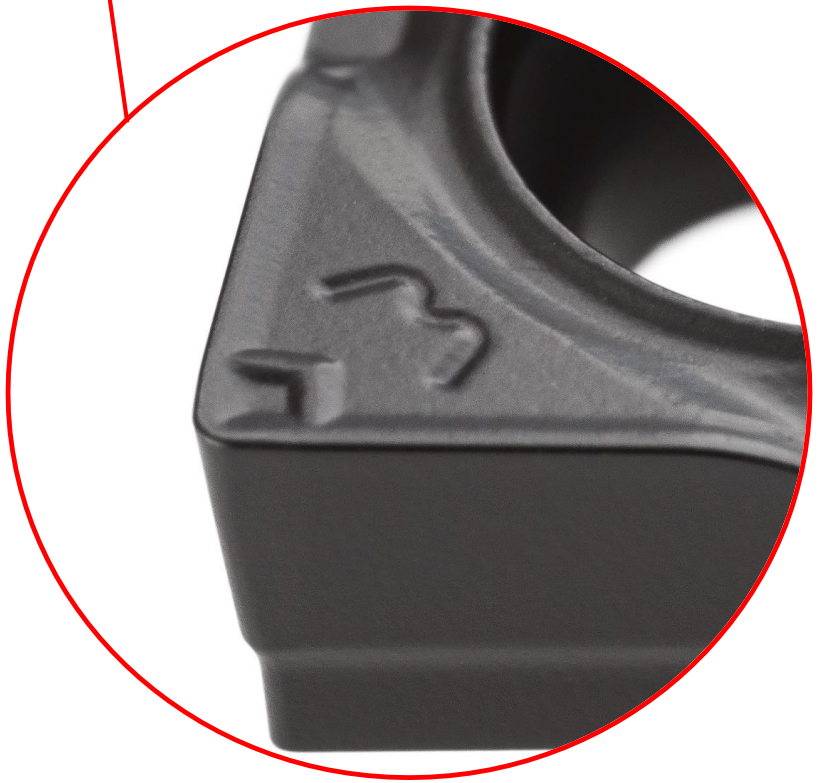
H Härdade material

General cutting parameters depending on the application

Work piece material		Type of treatment/alloy	Hardness HB	Coated carbide MK20P v_c [m/min]	Application Chip groove	Depth of cut and feed rate a_p [mm]	f [mm]
M	Stainless steel	Ferritic	200	150 – 200	EP	0.05 to 1.35	0.02 to 0.10
		Austenitic	180	120 – 200			
		Duplex	230 – 260	90 – 160			
		Martensitic	330	60 – 80			
K	Cast iron	Grey cast iron	180	120 – 160			
		Spheroidal	160	120 – 160			
		Malleable / Tempered iron	130	140 – 220			
N	Non Ferrous		100	100 – 400			
			130	100 – 400			
			90	100 – 600			
			100	100 – 400			
S	Exotic	Fe base	200	20 – 50			
		Nickel or Kobalt base	280	20 – 50			
		Nickel or Kobalt base	250	15 – 40			
		Nickel or Kobalt base		20 – 35			
		Titanium	Rm 440*	80 – 140			

		
Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
•	x	x

-WUP (Screw-On)



P M K

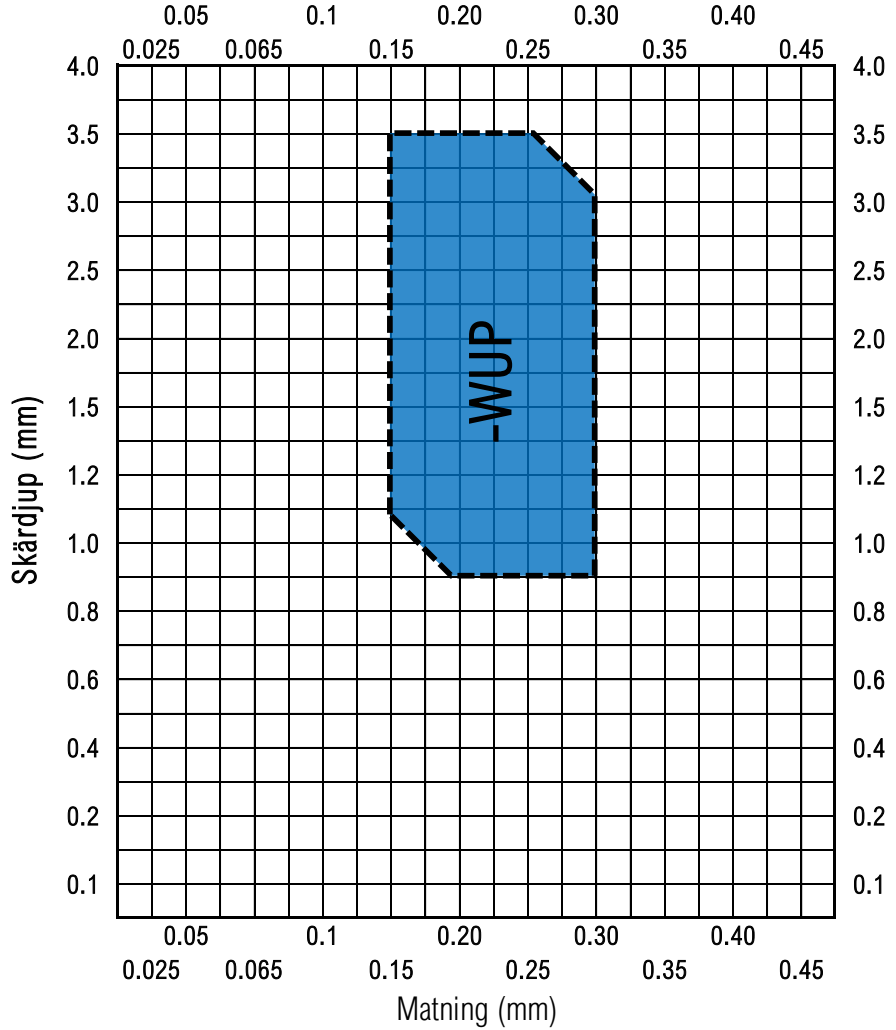
Spånbrytare –WUP

- Positiv Wiper-geometri
- Utmärkt ytfinhet

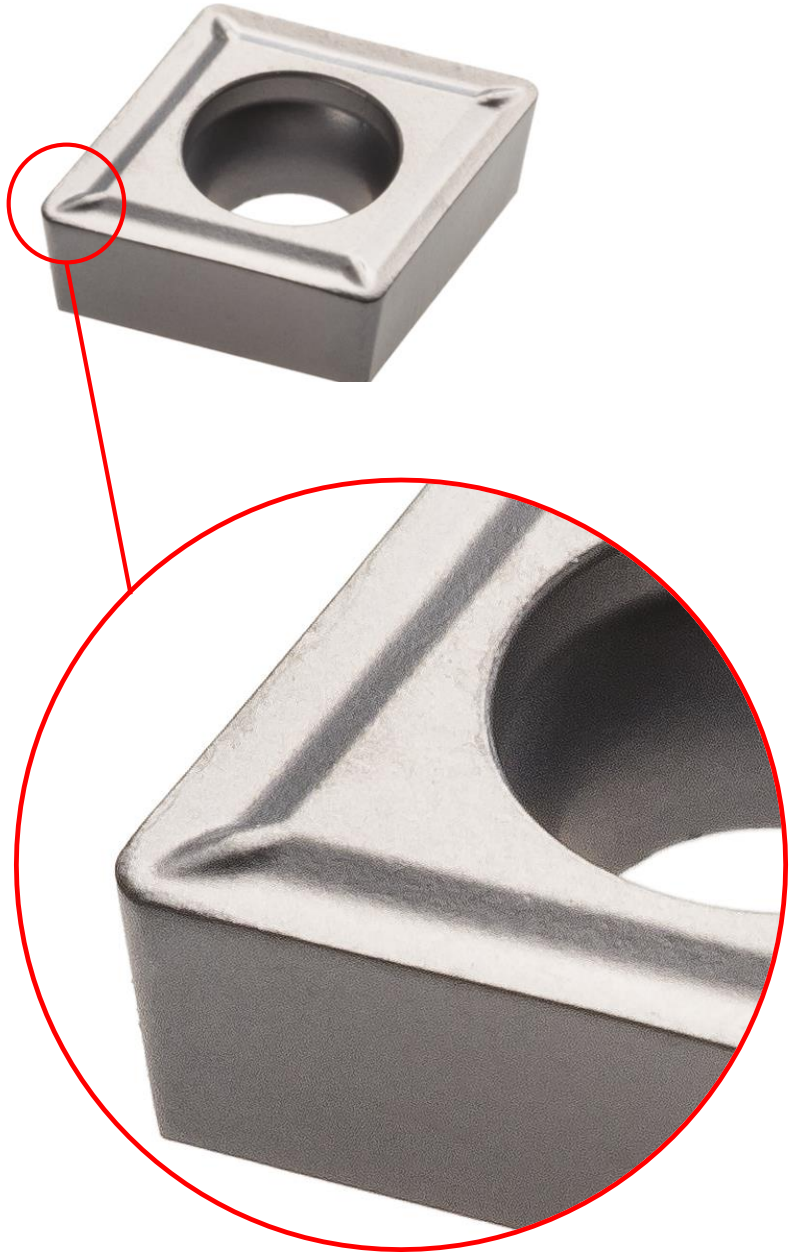
Sorter

- P25C
- MP35P

		
Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	○	X



-FC (Screw-On)



P M K H

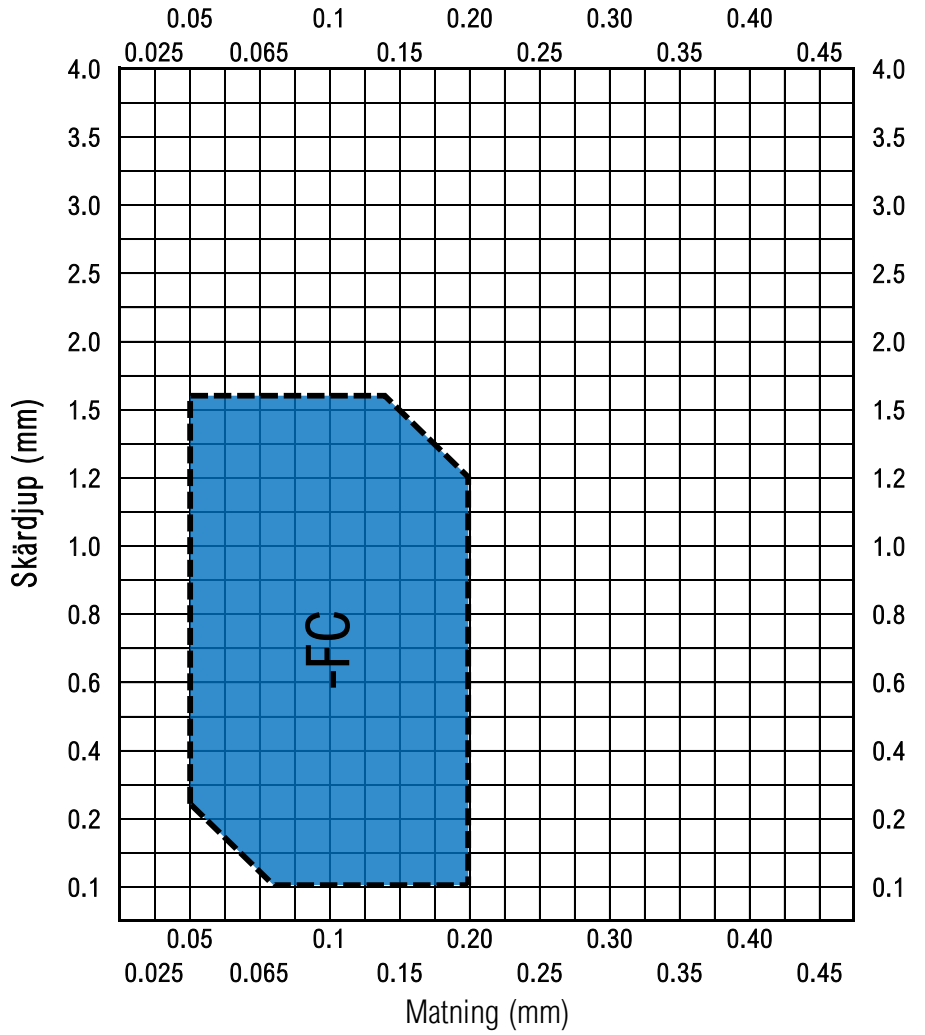
Spånbrytare –FC

- Lång förutsägbar livslängd
- Låg temperatur och tryck

Sorter

- PMH10T (Cermet)

		
Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	●	X



-MU (Screw-On)

P M

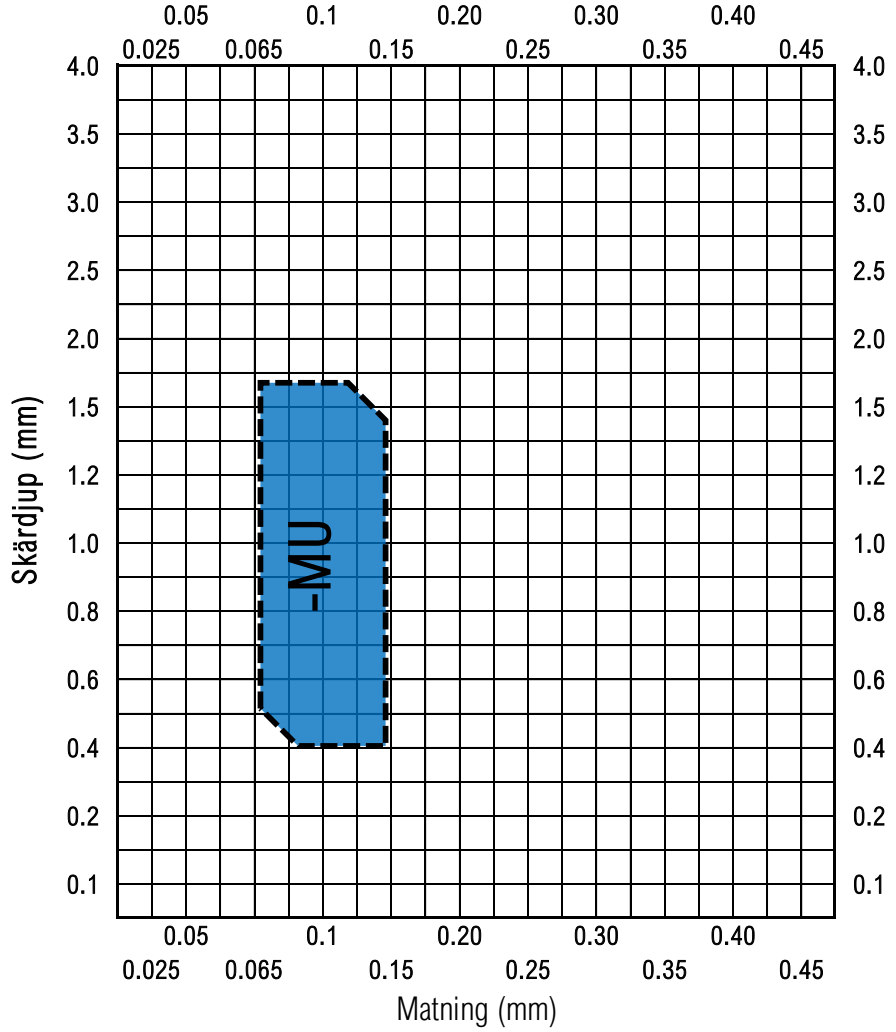
Spånbrytare –MU

- Utmärkt spånkontroll

Sorter

- P15C
- P25C
- P35C
- PMS25P

		
Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	○	X



-MRU (Screw-On)

P M K

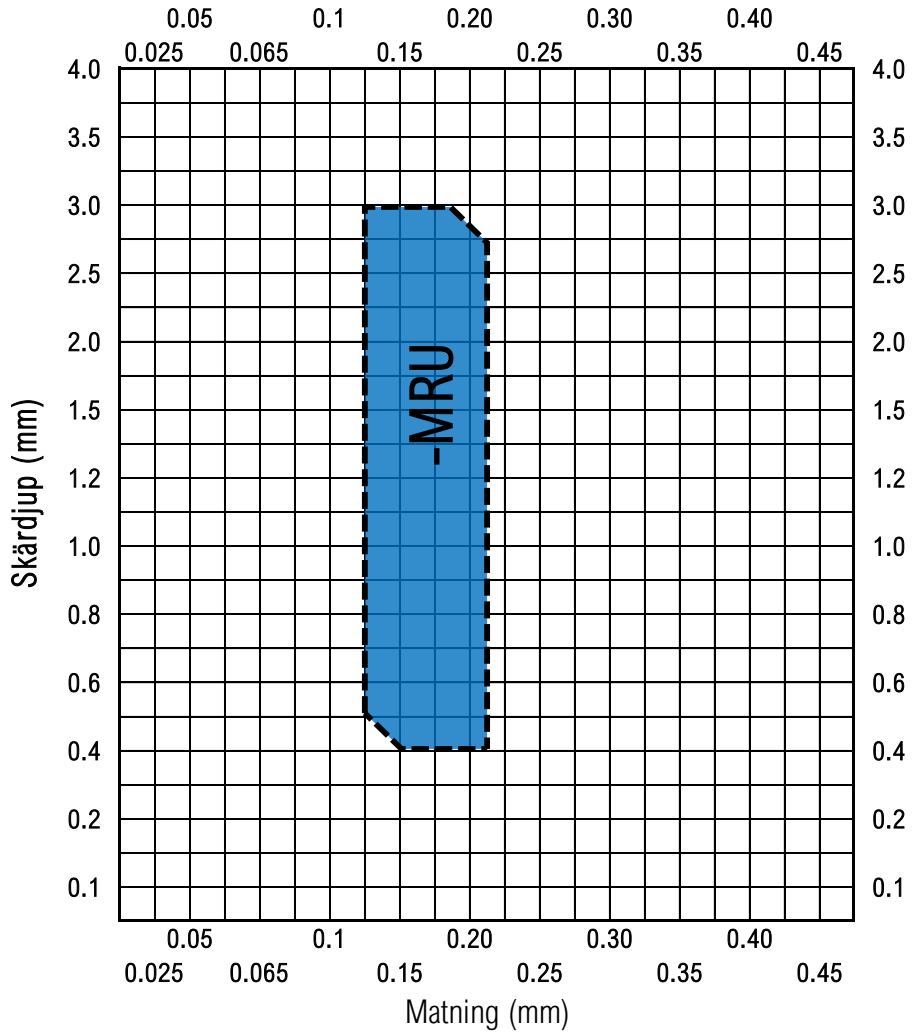
Spånbrytare –MRU

- Lång förutsägbar livslängd
- Låg temperatur och tryck

Sorter

- P15C
- P25C
- P35C
- KP20C
- PMS25P
- MP35P

Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	●	○



-FU (Screw-On)

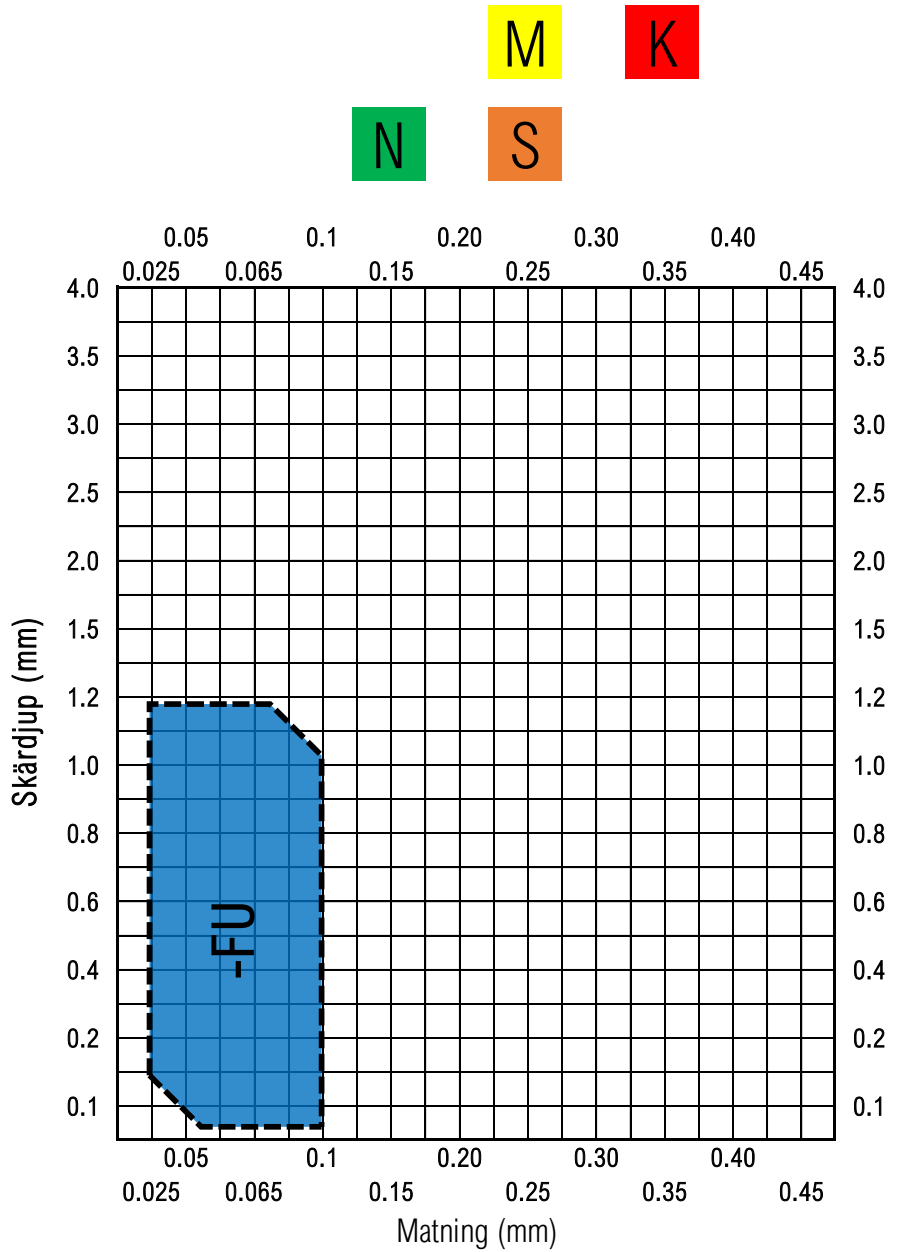
Spånbrytare –FU

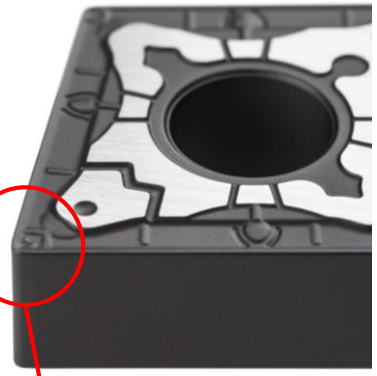
- Positiv spånvinkel

Sorter

- NK15W (Obelagd)

Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	●	○





P M K

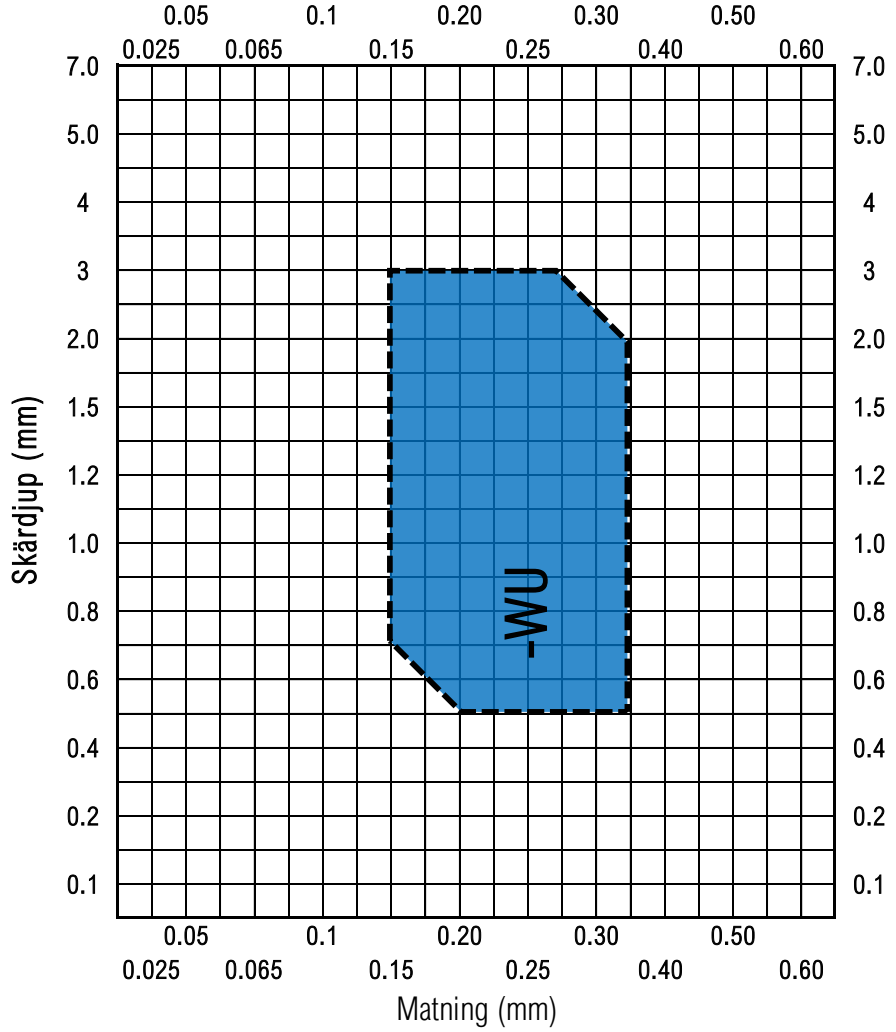
Spånbrytare –WU

- Wiper-geometri
- Utmärkt ytfinhet

Sorter

- P15C

Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	●	○



P M K

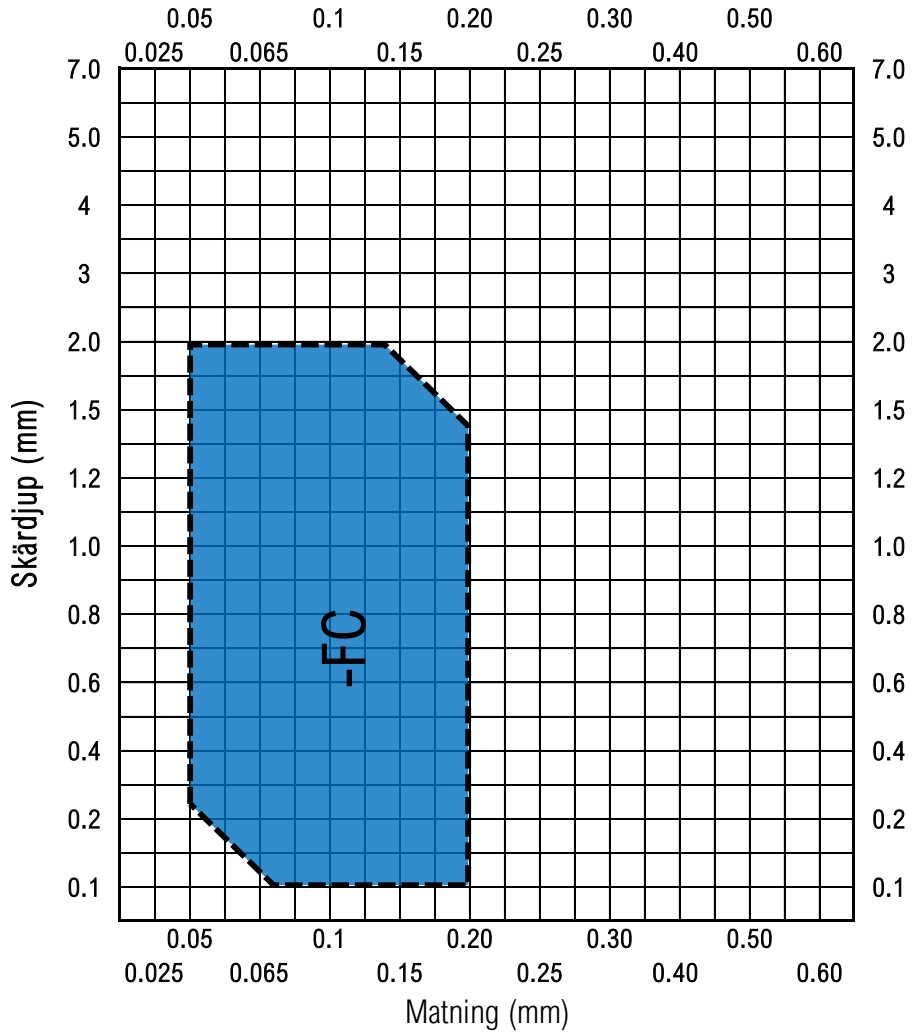
Spånbrytare –FC

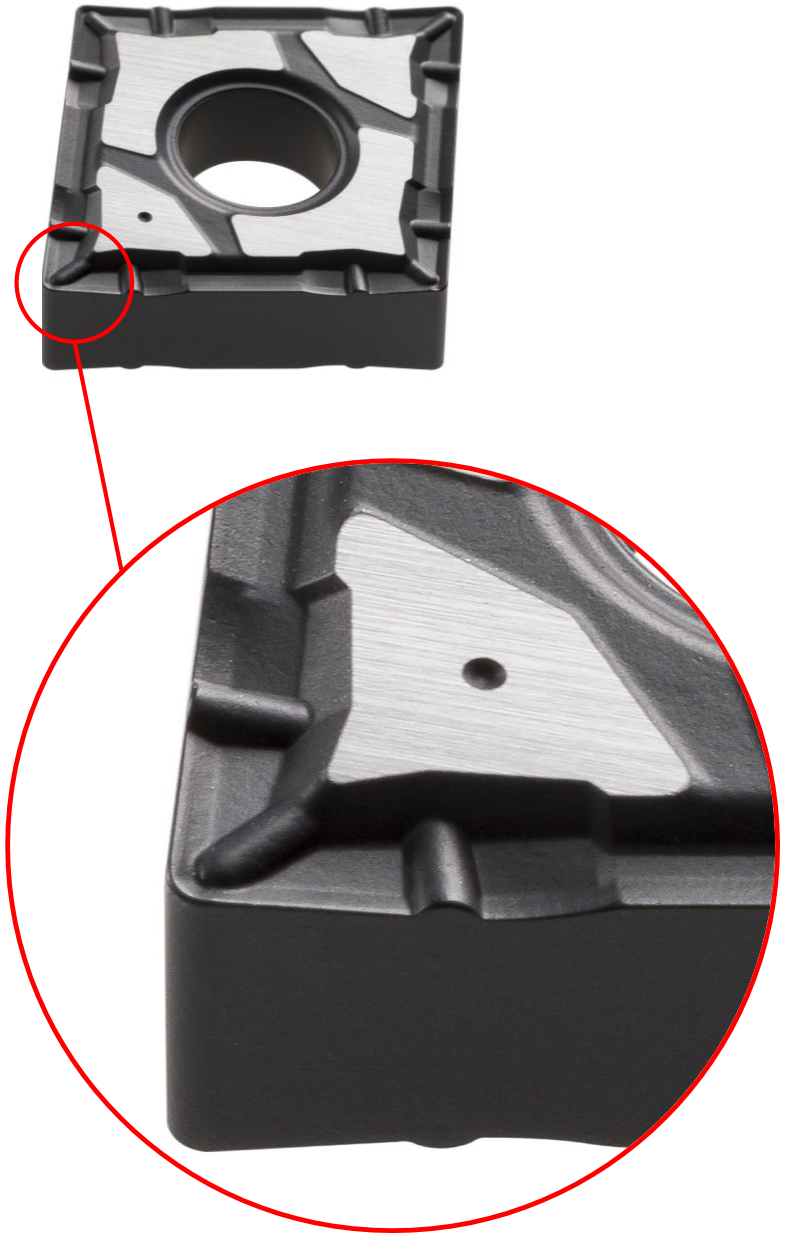
- Finsvarvning

Sorter

- PMH10T (Cermet)

Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	X	X





P M

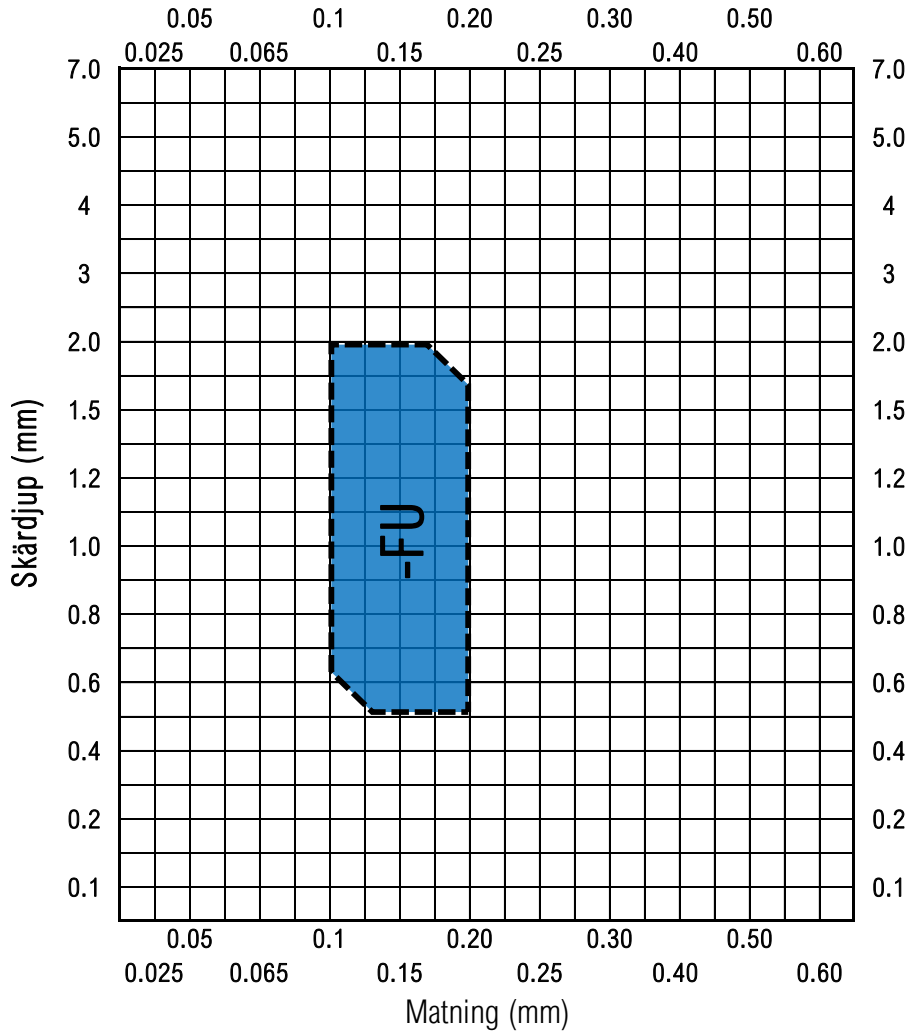
Spånbrytare –FC

- Lång förutsägbar livslängd
- Låg temperatur och tryck

Sorter

- P15C
- P25C

		
Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	○	X



-MRU

P K

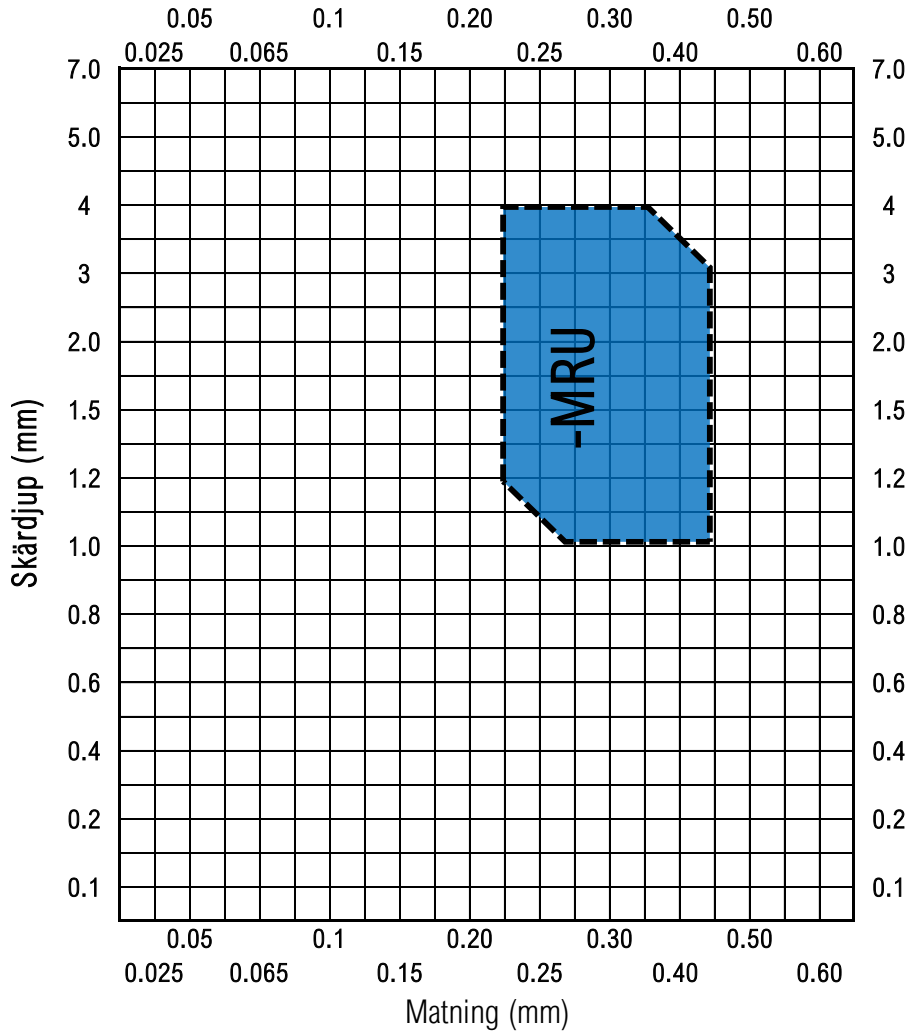
Spånbrytare –MRU

- Medium-/Grovsvarvning

Sorter

- P15C
- P25C
- P25CX
- P35C
- KP20C

Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	●	○



-RU (Roughing Universal)

P

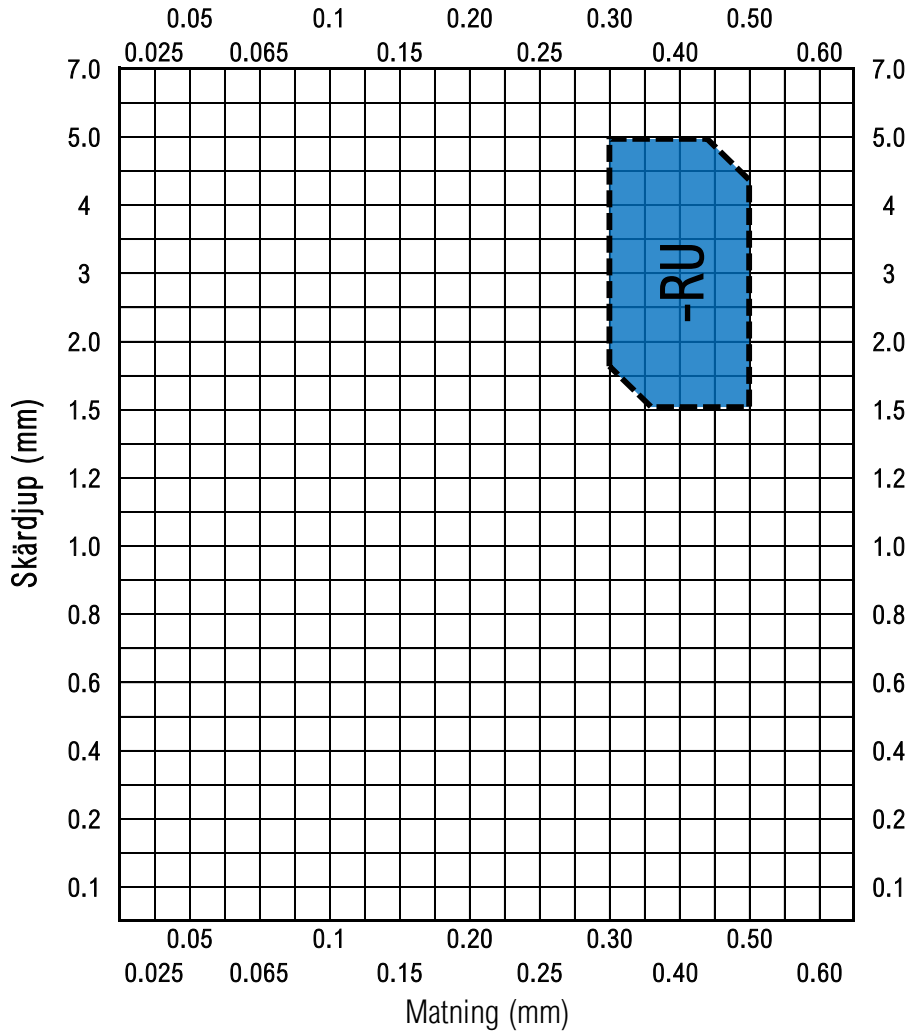
Spånbrytare –RU

- Grovsvarvning

Sorter

- P15C
- P25C
- P35C

		
Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	●	○



-FM (Finishing M (Stainless Steel))

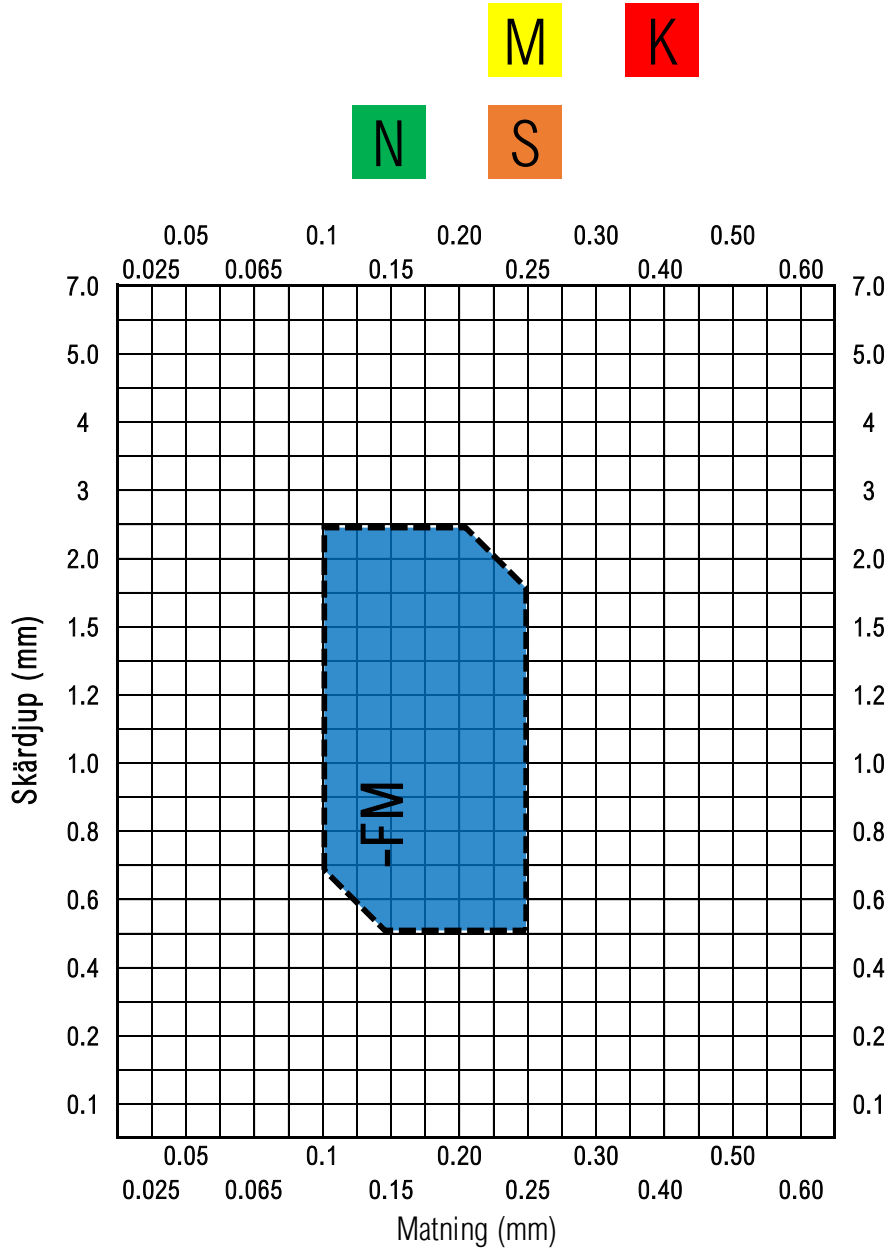
Spånbrytare –FM

- Finsvarvning

Sorter

- MK20P

Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	○	X



-MM (Medium M (Stainless Steel))

P M

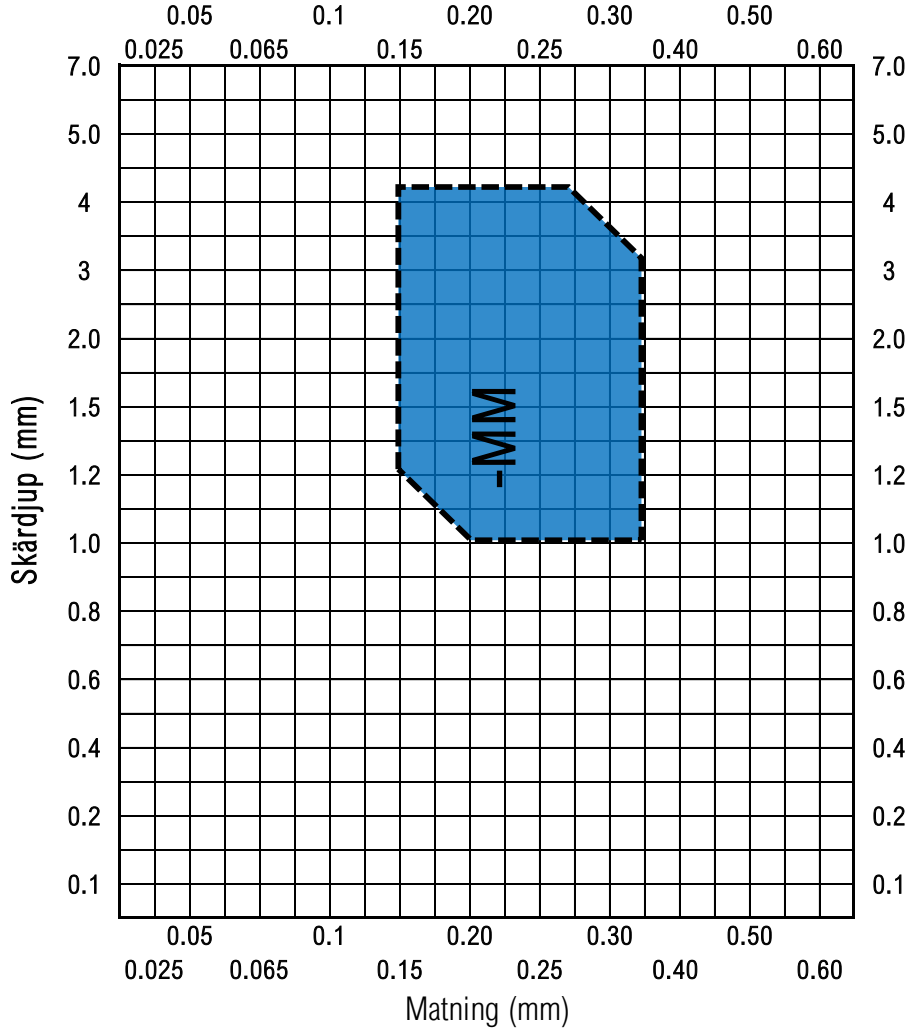
Spånbrytare –MM

- Medelgrov svarvning

Sorter

- PMS25P
- M20CX

		
Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	○	X



-RM (Roughing M (Stainless Steel))

Spånbrytning –RM

- Grovsvarvning

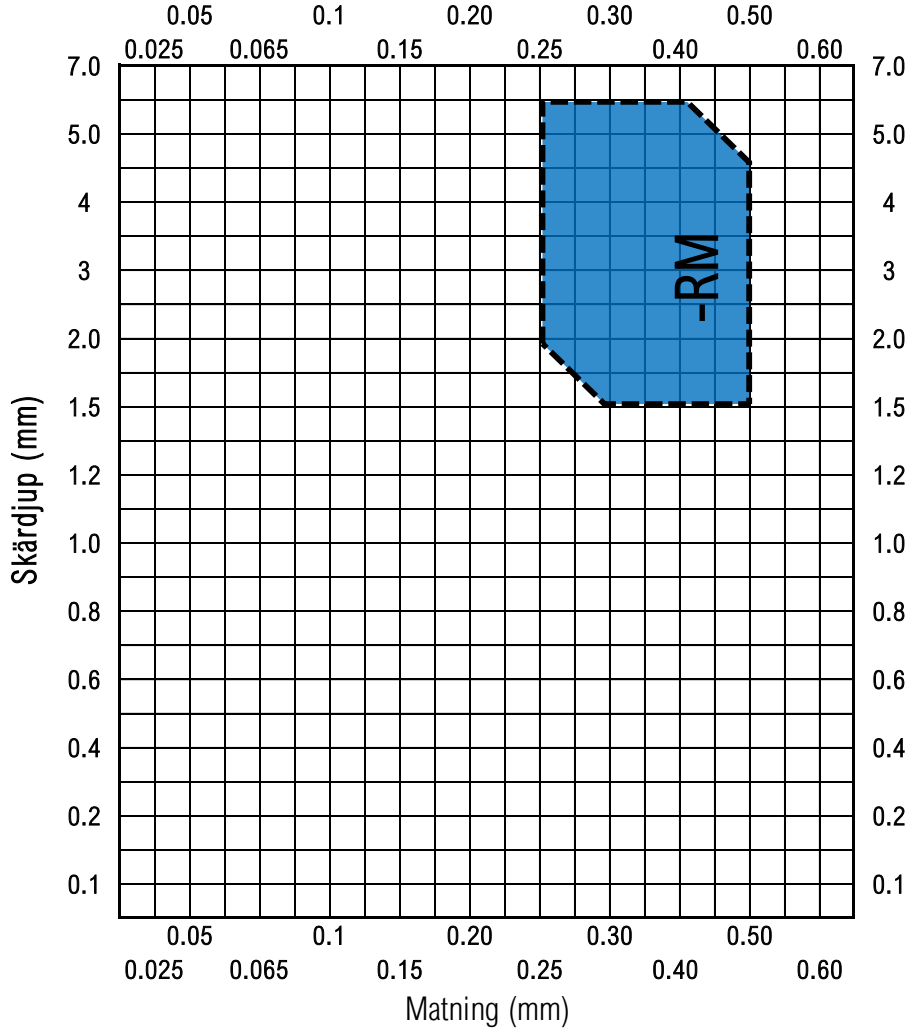
Sorter

- PMS25P

Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	●	○

M

S



-RPK (Roughing P (Steel) K (Cast Iron)

P K

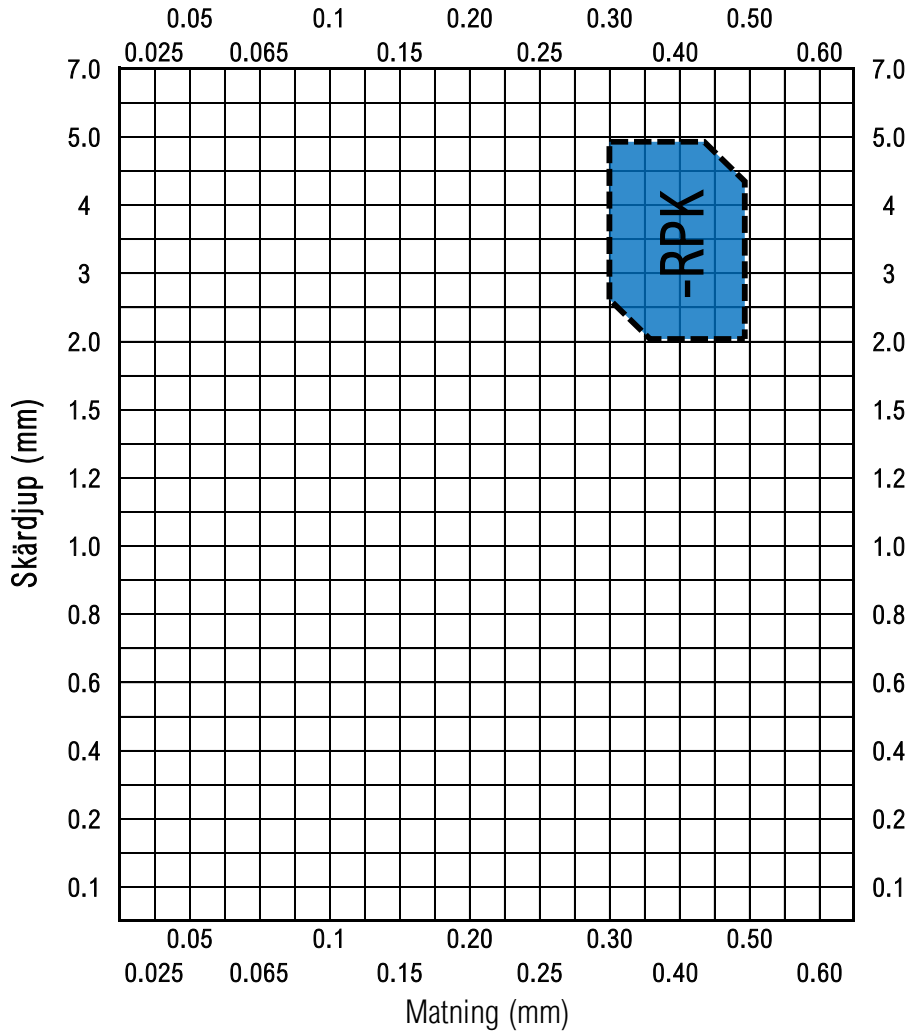
Spånbrytare –RPK

- Grovsvarvning

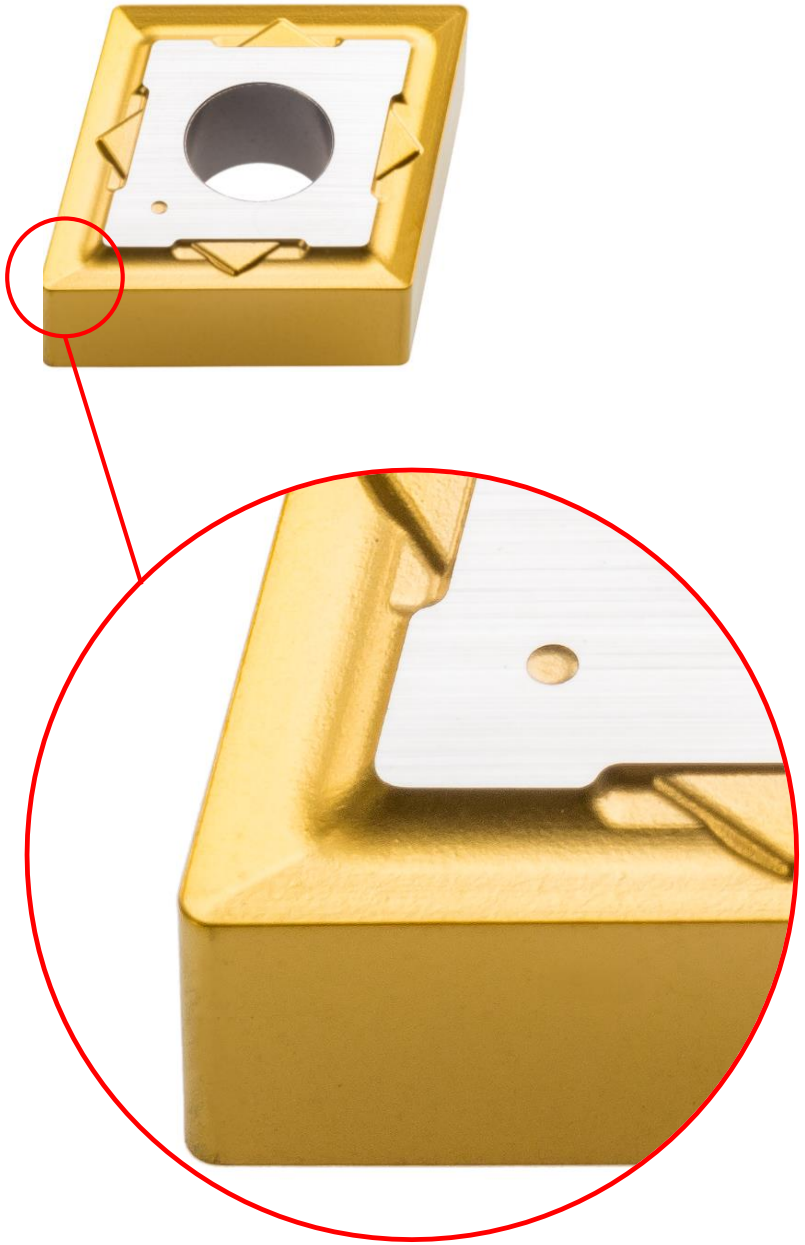
Sorter

- KP20C
- K10CX

 Konstant skärdjup	 Varierande skärdjup	 Intermittent bearbetning
●	○	X



-FS (Finsihing S (Super Alloys))



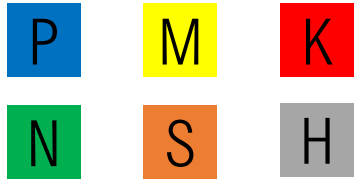
Spånbrytare –FS

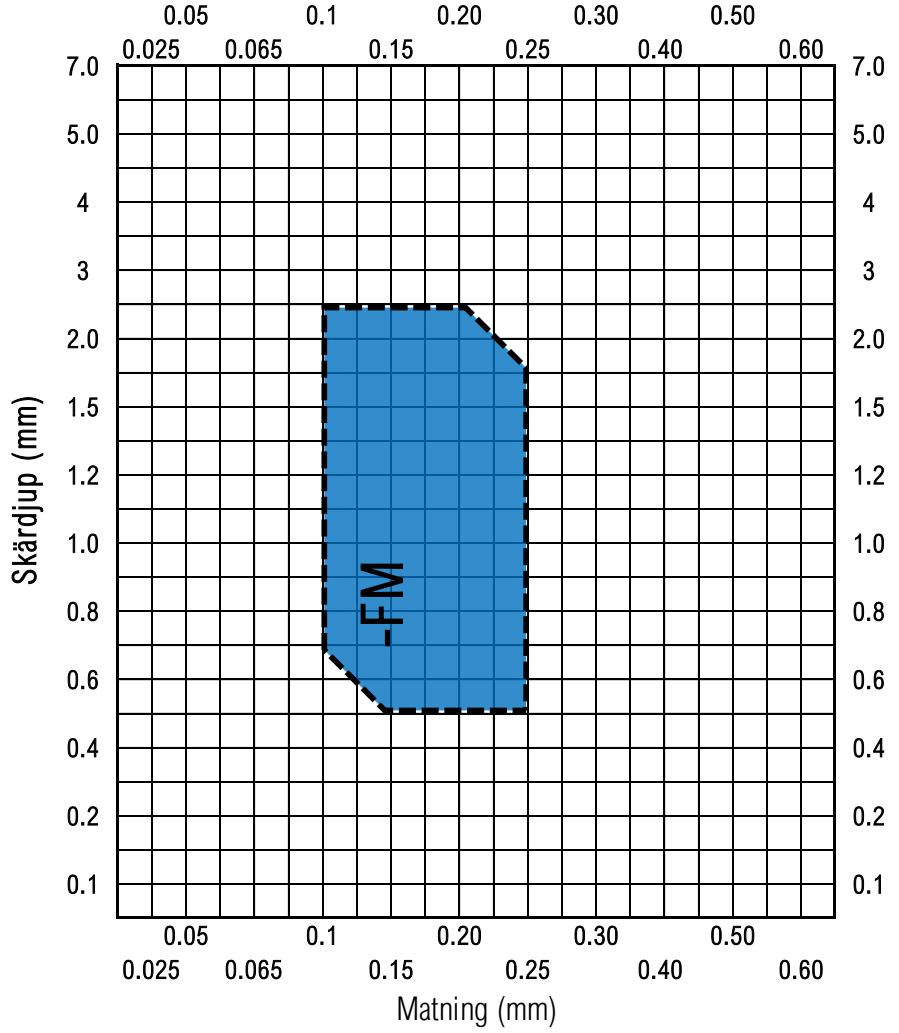
- Semifin-/finsvarvning

Sorter

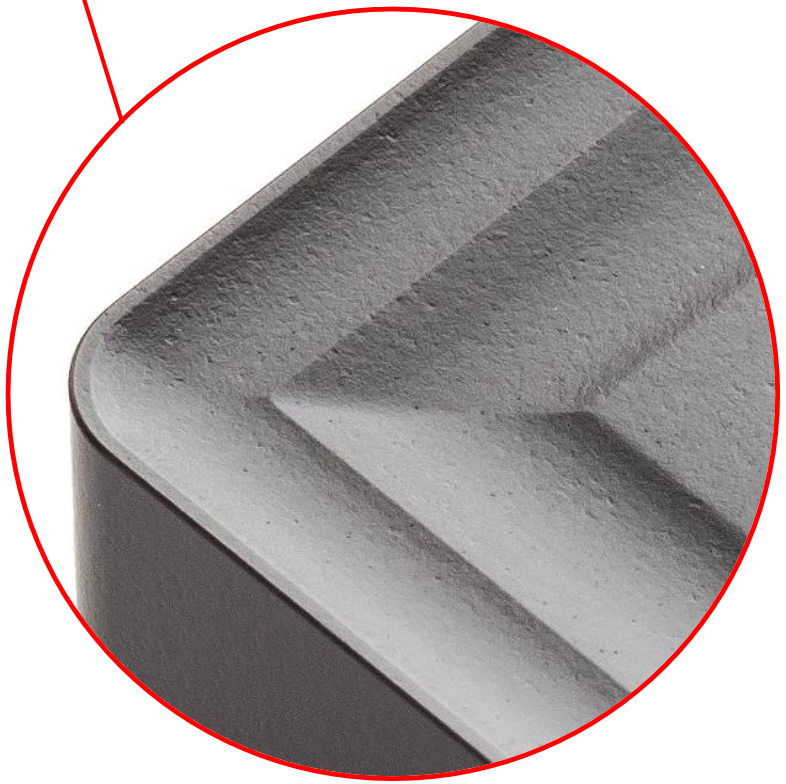
- SM10P
- S15P

		
Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	○	X





-STC



P M K

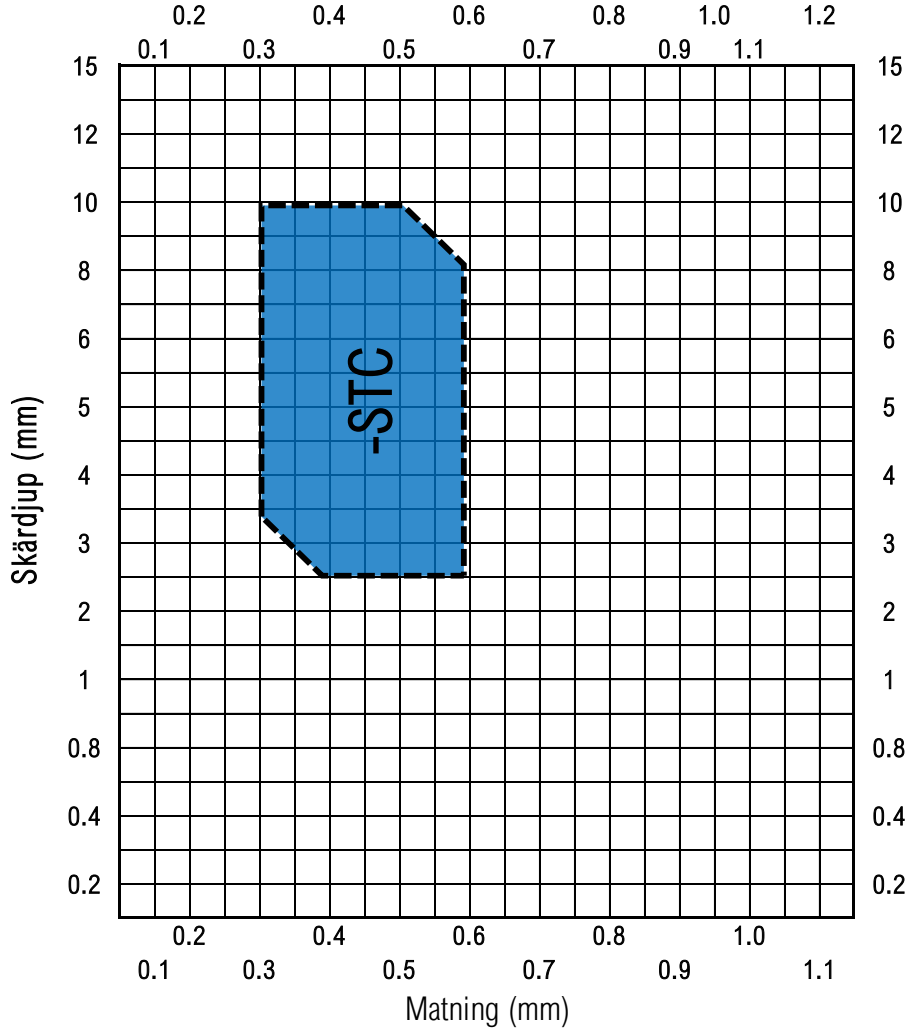
Spånbrytare –STC

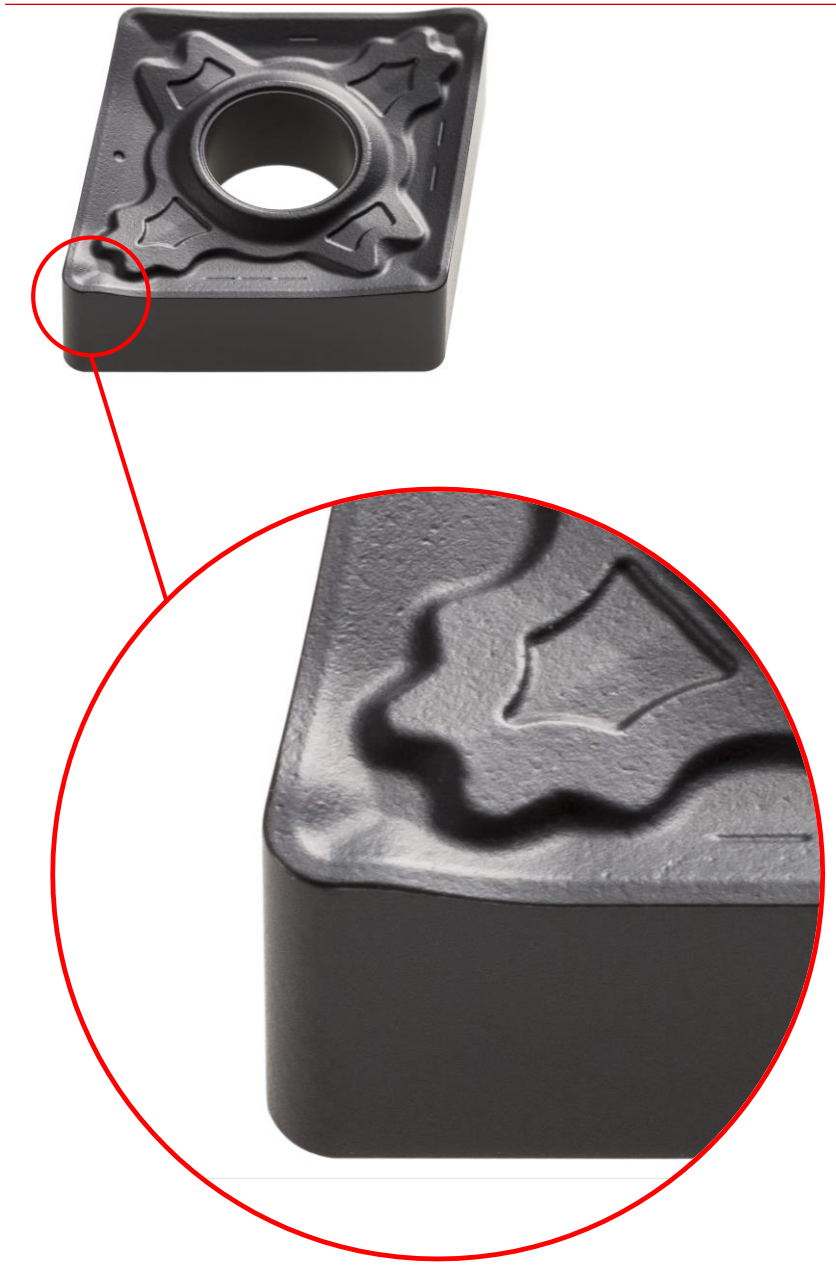
- Grovsvarvning
- Plungning av stora faser (skäreggen likformad)

Sorter

- P25C

Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	●	○





P M K

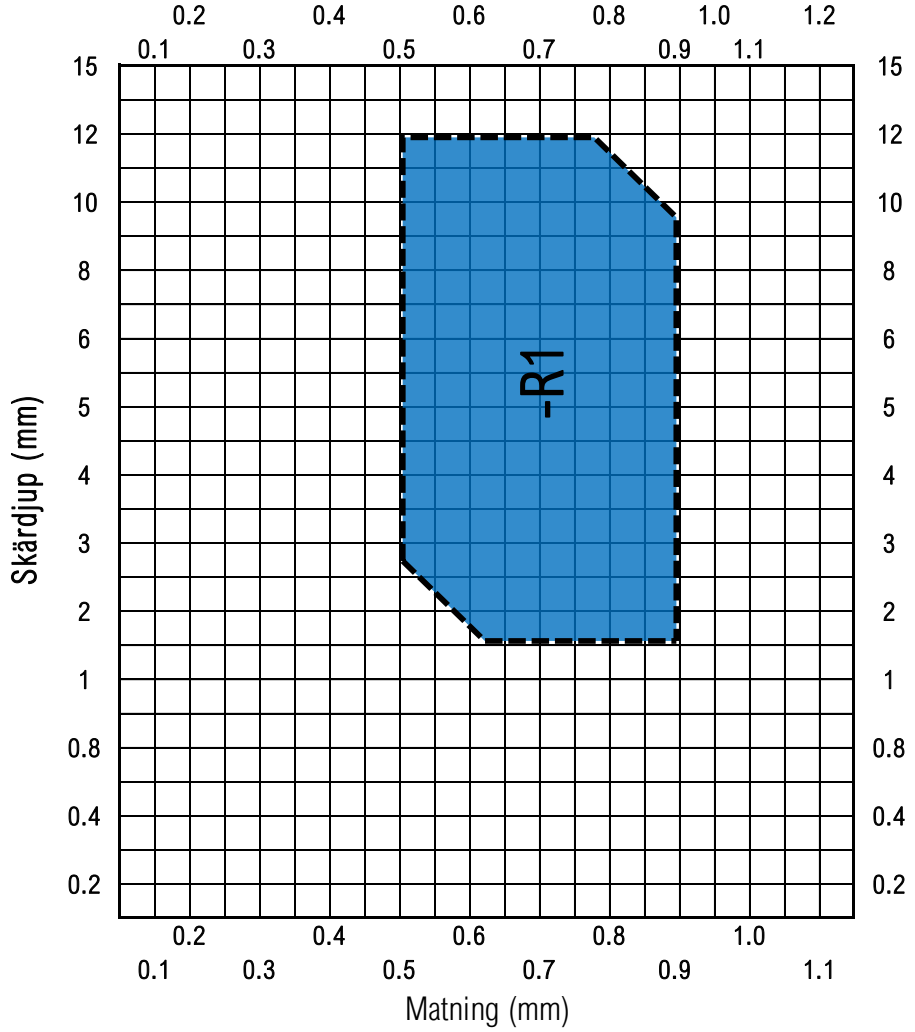
Spånbrytare –R1

- Grovsvarvning

Sorter

- P15C
- P25C
- P35C

Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	●	○



P M K

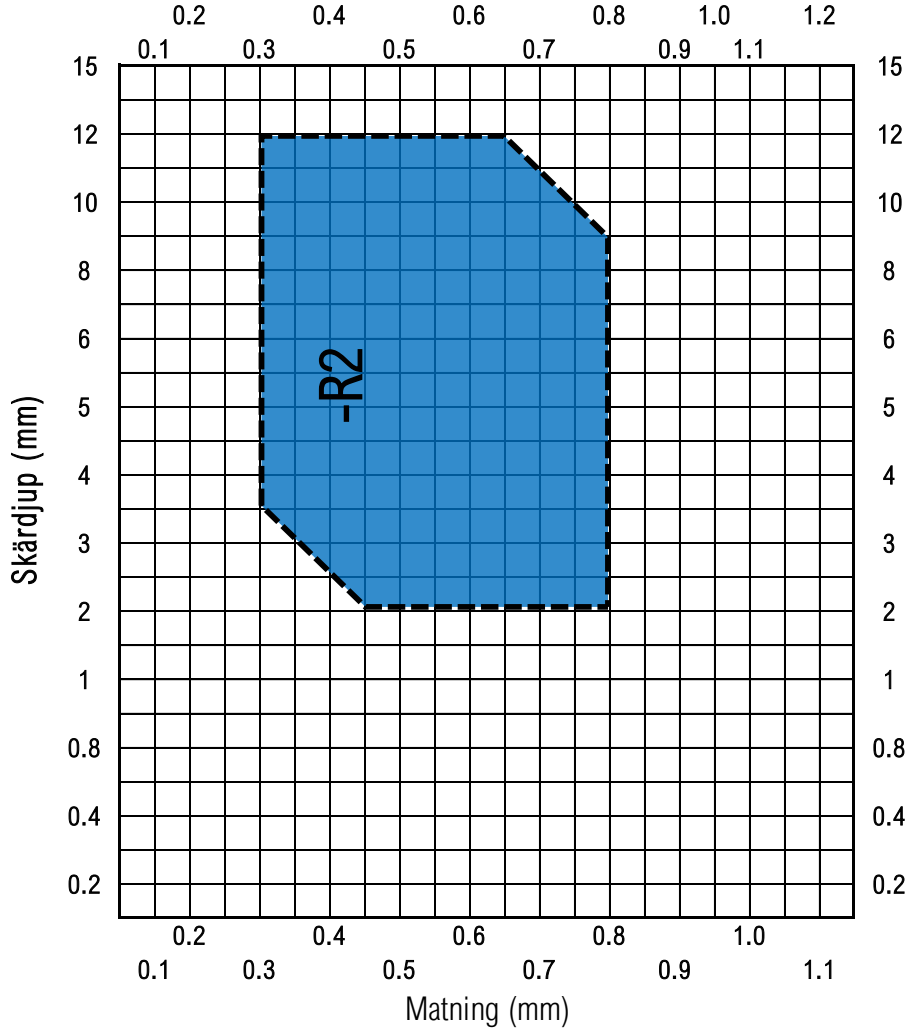
Spånbrytare –R2

- Grovsvarvning ”Heavy Duty”

Sorter

- P15C
- P25C
- P35C

		
Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	●	○



P M K

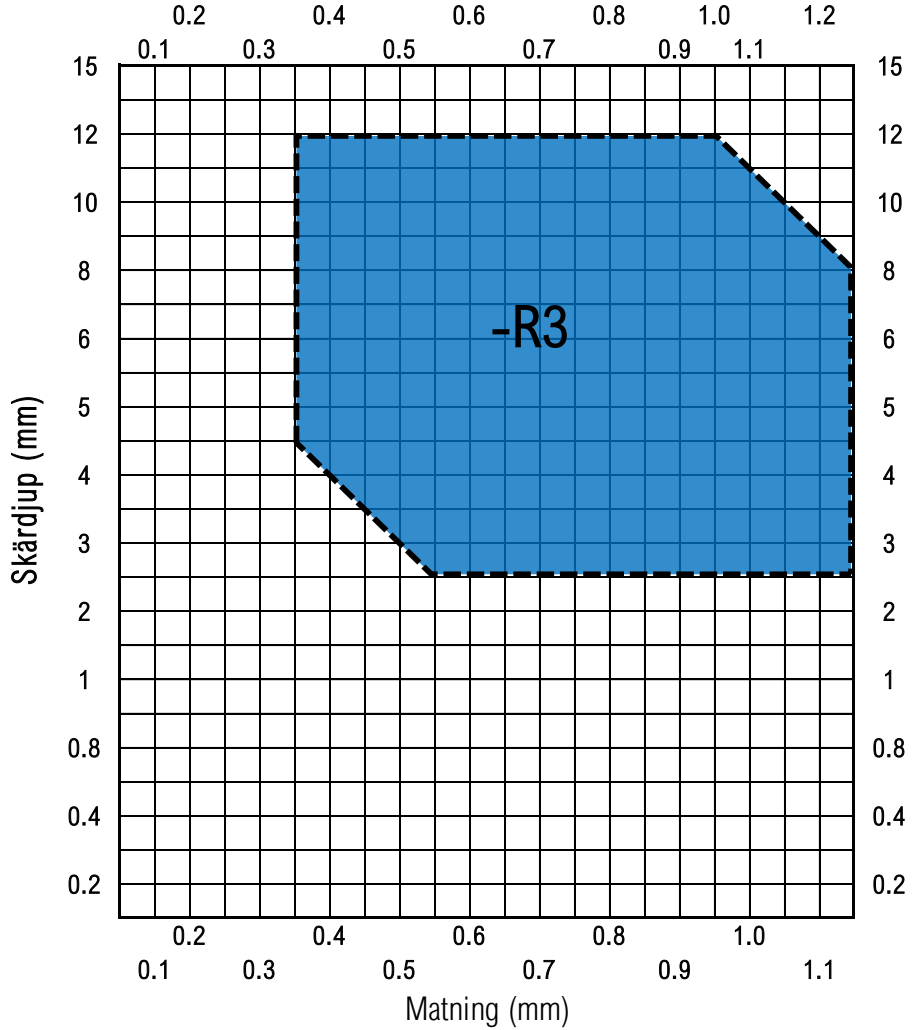
Spånbrytare –R3

- Grovsvarvning ”Heavy Duty”

Sorter

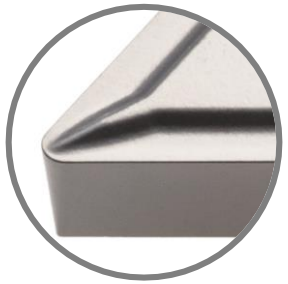
- P15C
- P25C
- P35C

		
Konstant skärdjup	Varierande skärdjup	Intermittent bearbetning
●	●	●



Positiva skär för stål

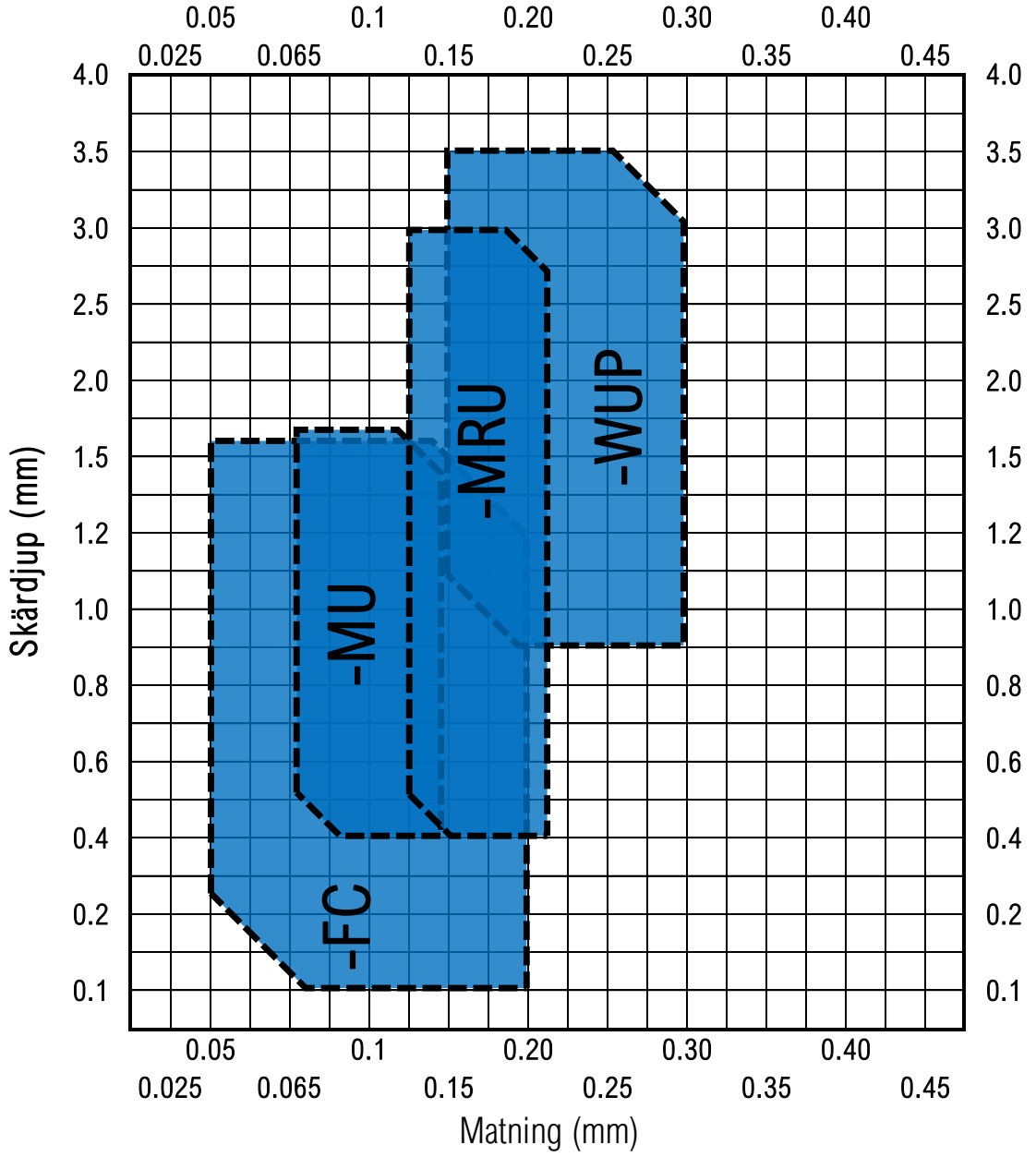
-WUP
f_n: 0.15 - 0.3 mm
a_p: 1.0 – 3.5 mm



-FC
f_n: 0.05 - 0.20 mm
a_p: 0.1 – 1.65 mm

-MU
f_n: 0.07 - 0.14 mm
a_p: 0.5 – 2.25 mm

-MRU
f_n: 0.12 - 0.21 mm
a_p: 0.5 – 3.0 mm



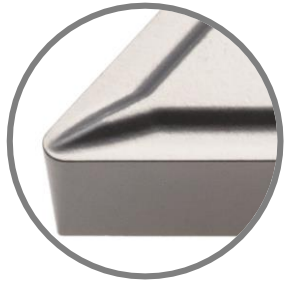
Positiva skär för rostfritt stål

-EF
f_n: 0.02 - 0.10 mm
a_p: 0.05 – 1.35 mm

-WUP
f_n: 0.15 - 0.3 mm
a_p: 1.0 – 3.5 mm

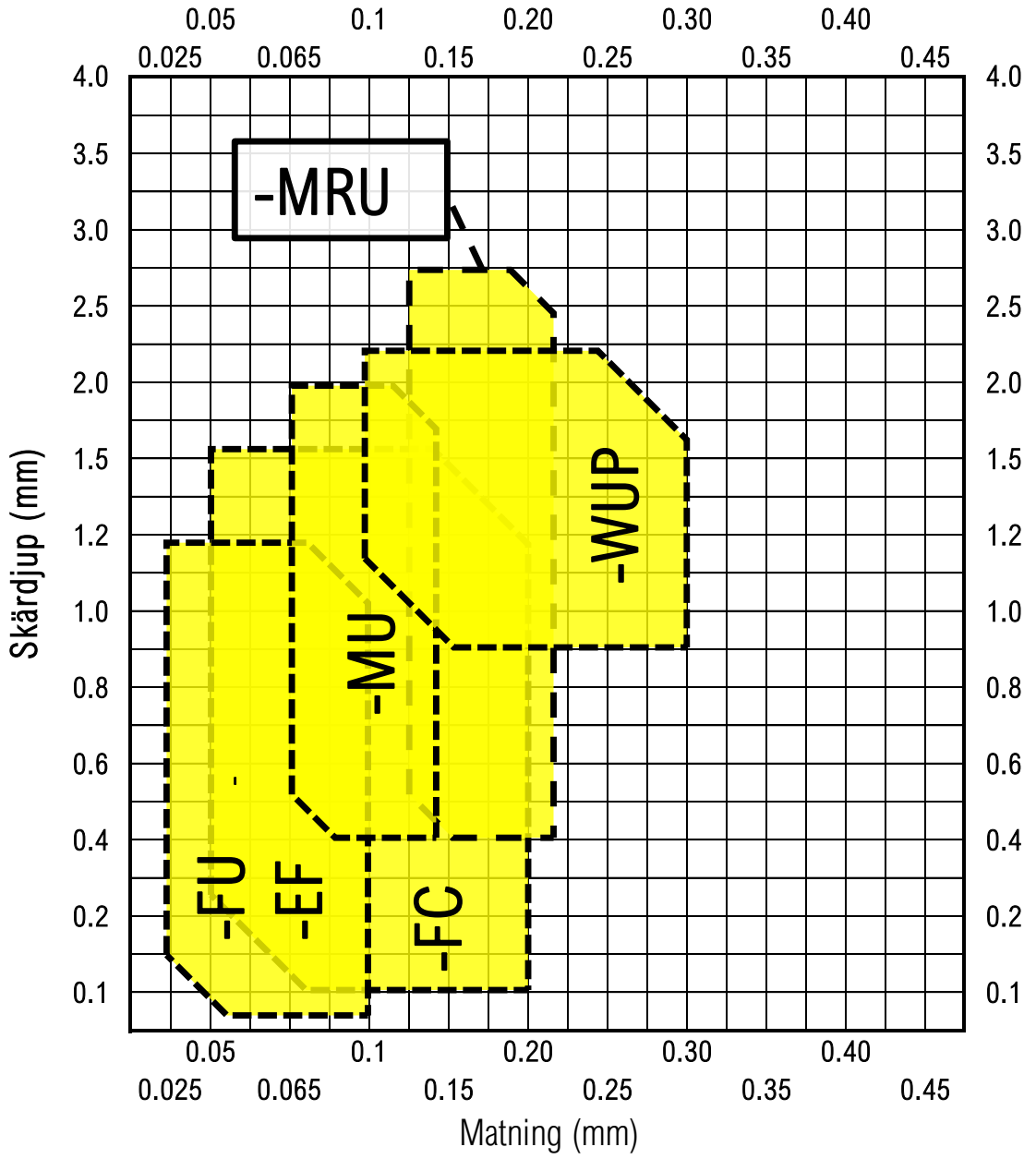
-FU
f_n: 0.02 - 0.10 mm
a_p: 0.05 – 1.35 mm

-MU
f_n: 0.07 - 0.14 mm
a_p: 0.5 – 2.25 mm

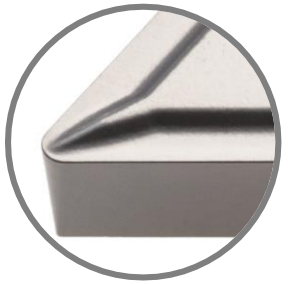


-FC
f_n: 0.05 - 0.20 mm
a_p: 0.1 – 1.65 mm

-MRU
f_n: 0.12 - 0.21 mm
a_p: 0.5 – 3.0 mm



Positiva skär för gjutgods



-FC

f_n: 0.05 - 0.20 mm/varv

a_p: 0.1 – 1.65 mm

-WUP

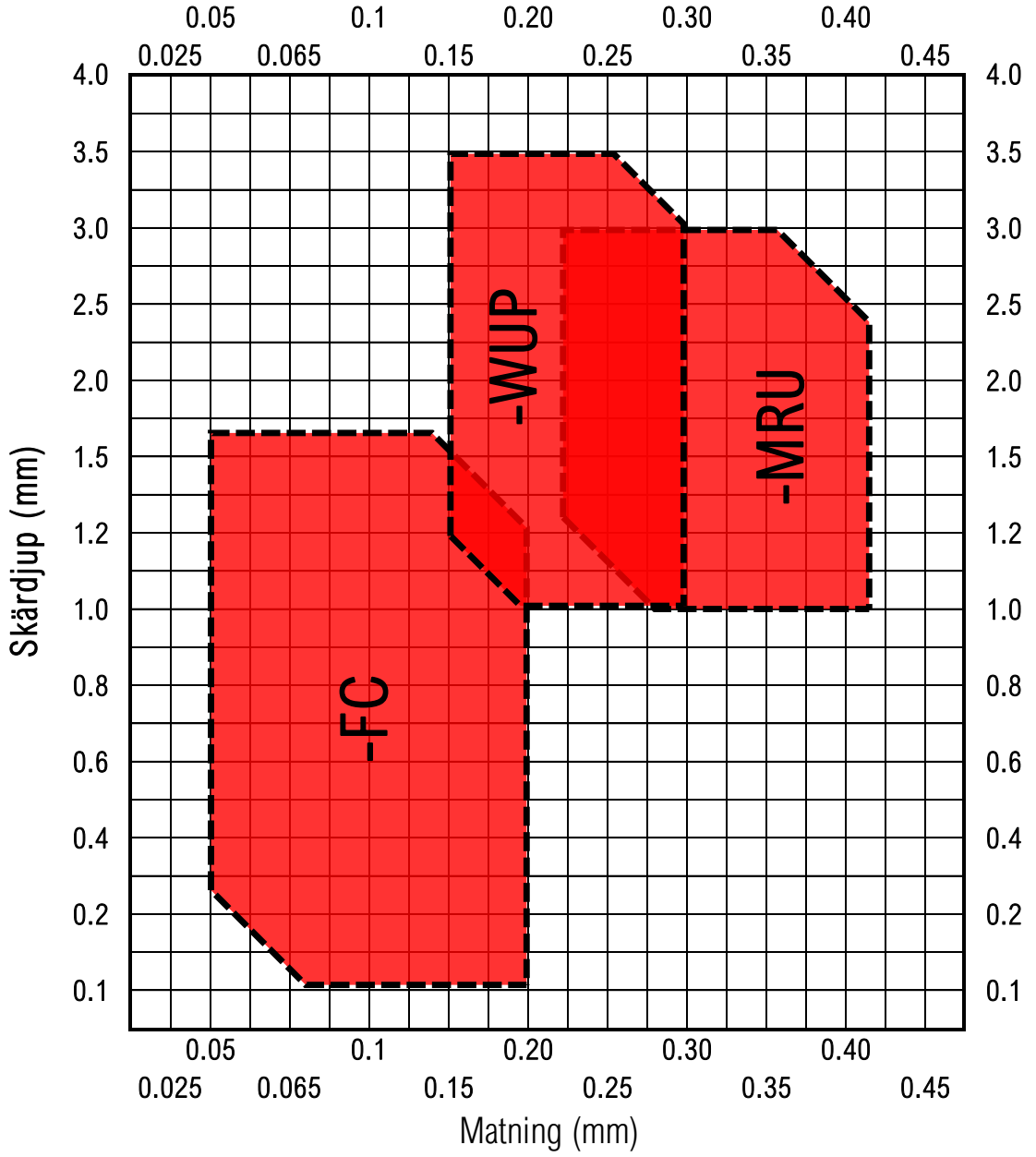
f_n: 0.15 - 0.3 mm/varv

a_p: 1.0 – 3.5 mm

-MRU

f_n: 0.12 - 0.21 mm/varv

a_p: 0.5 – 3.0 mm

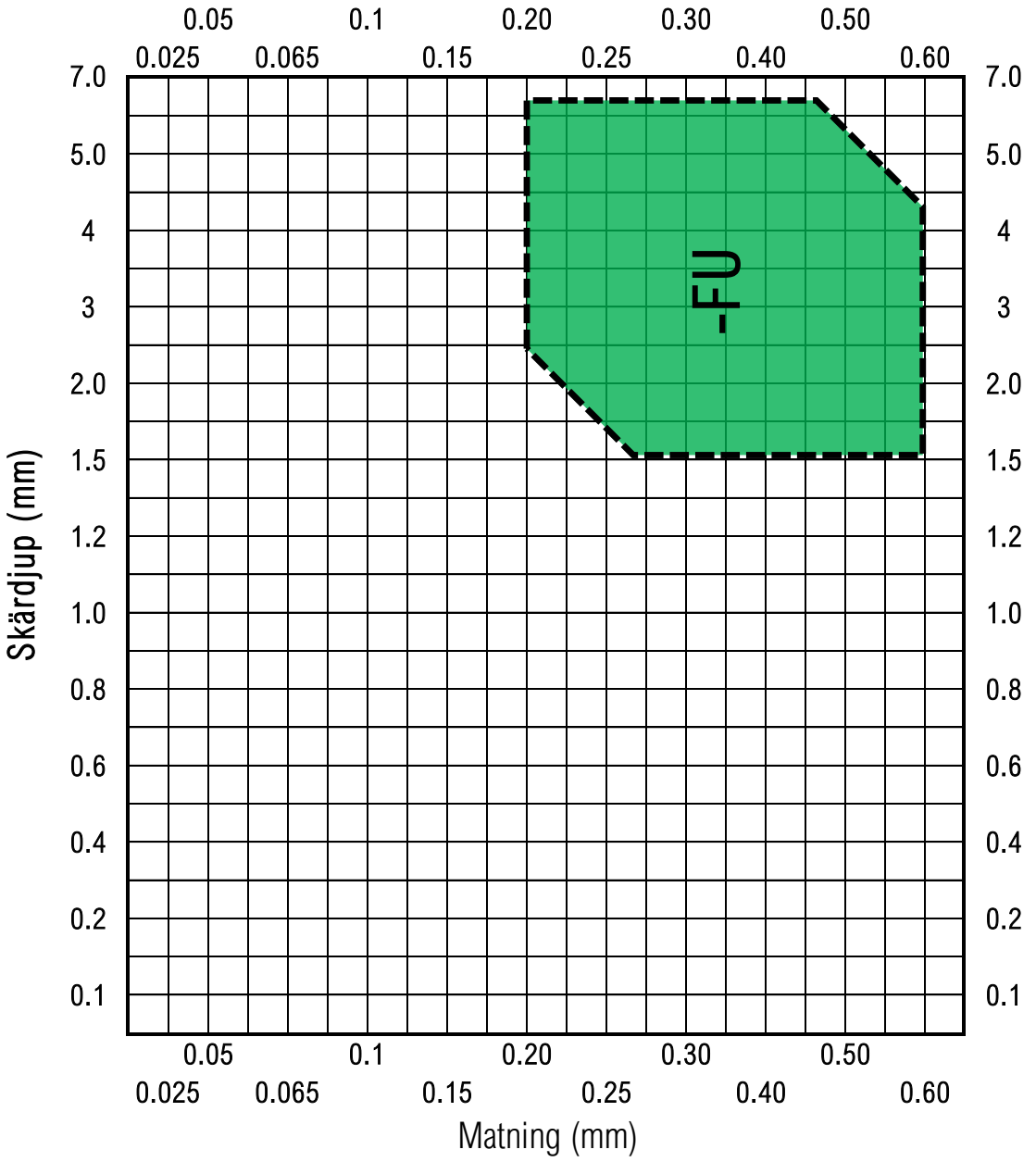


Positiva skär för Icke-järn legeringar

-FU

f_n: 0.02 - 0.10 mm

a_p: 0.05 – 1.35 mm



Negativa skär för stål

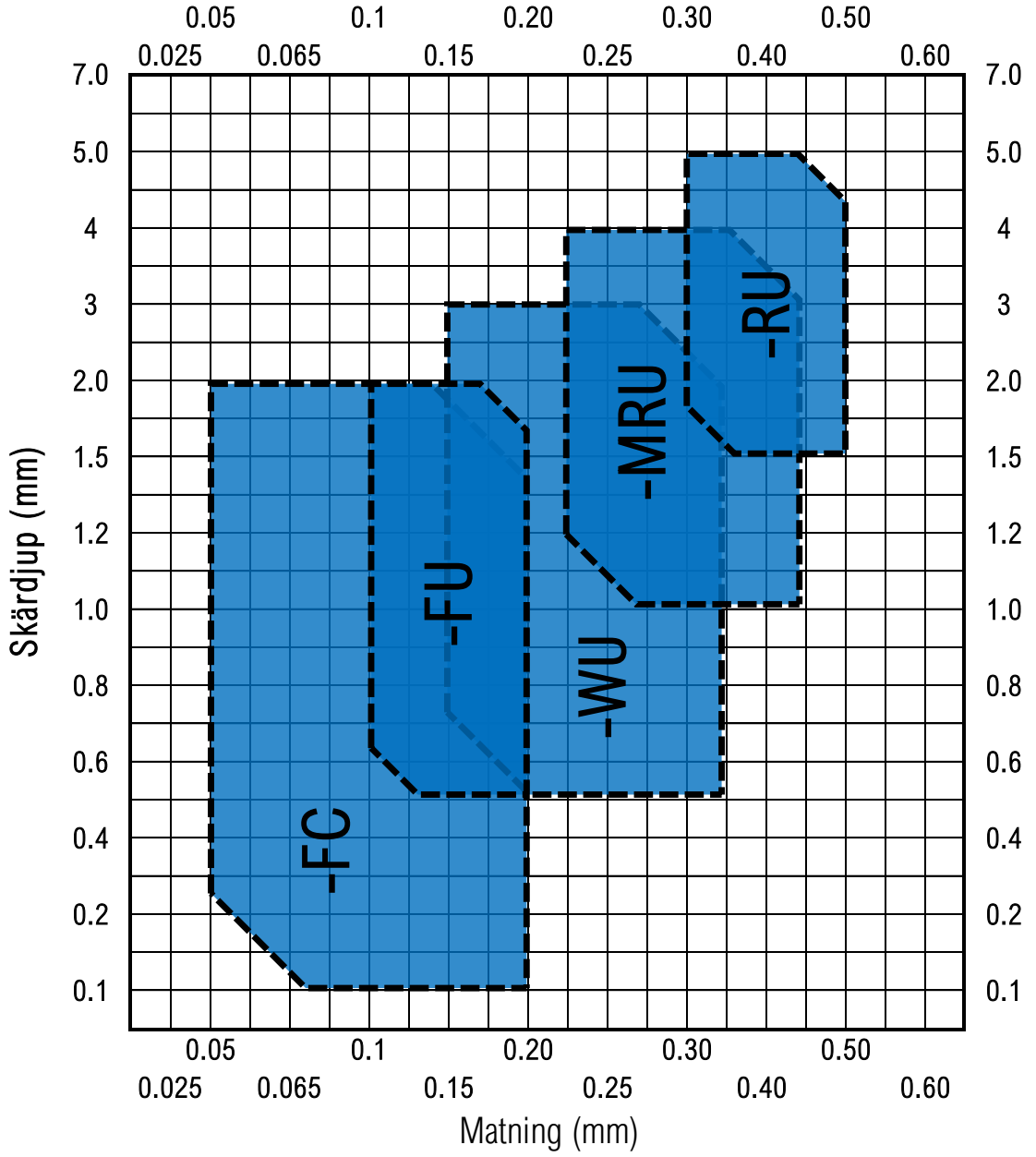
-FC
f_n: 0.05 - 0.20 mm
a_p: 0.1 – 2.0 mm

-MRU
f_n: 0.22 - 0.44 mm
a_p: 1.0 – 4.0 mm

-FU
f_n: 0.10 - 0.20 mm
a_p: 0.5 – 2.0 mm

-RU
f_n: 0.30 - 0.50 mm
a_p: 1.5 – 5.0 mm

-WU
f_n: 0.15 - 0.35 mm
a_p: 0.5 – 3.0 mm



Negativa skär för rostfritt stål

-FM

f_n: 0.10 - 0.25 mm

a_p: 0.5 – 2.5 mm

-MM

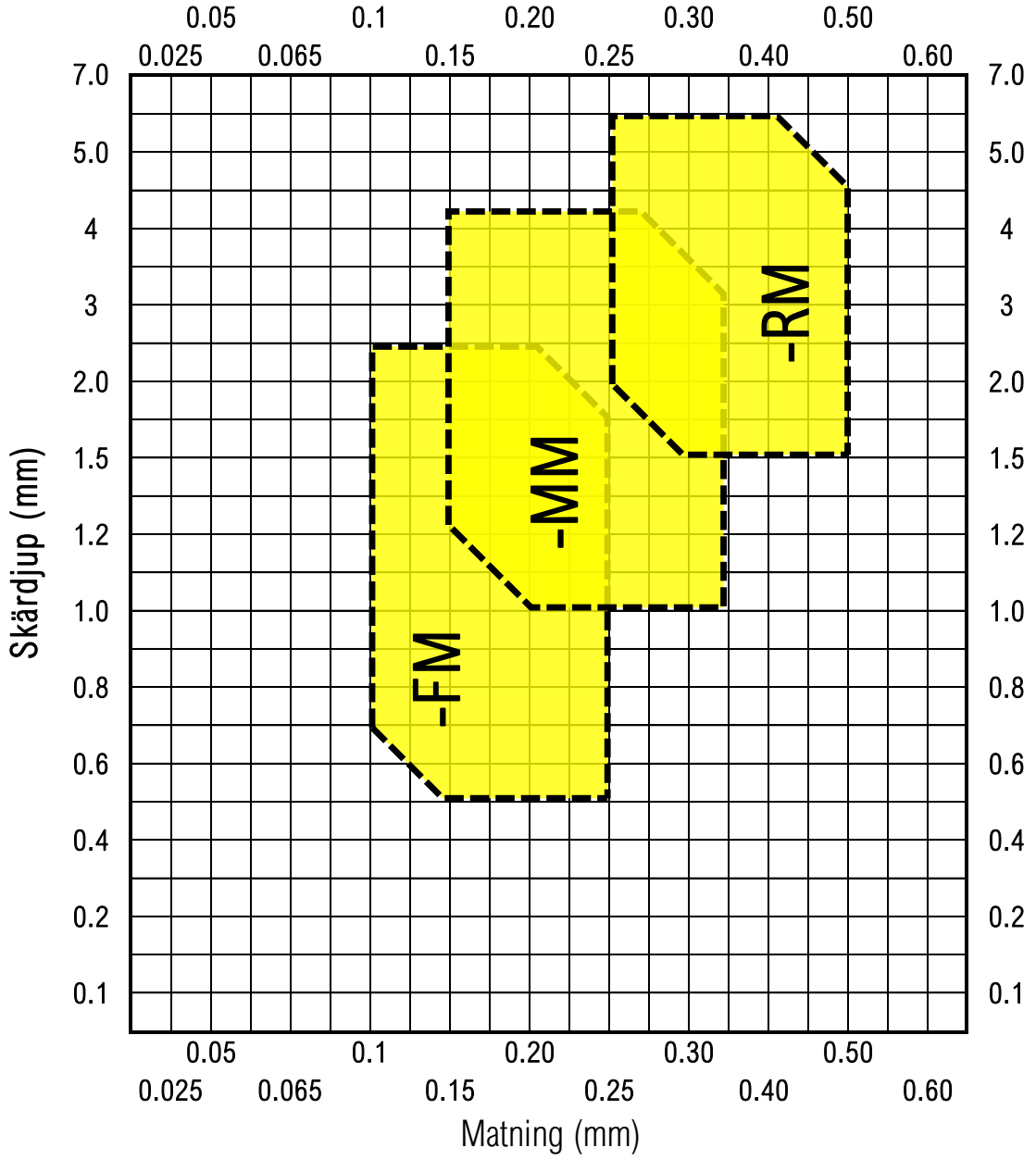
f_n: 0.22 - 0.40 mm

a_p: 1.0 – 4.2 mm

-RM

f_n: 0.25 - 0.50 mm

a_p: 1.5 – 6.0 mm



Negativa skär för gjutgods

-MRU

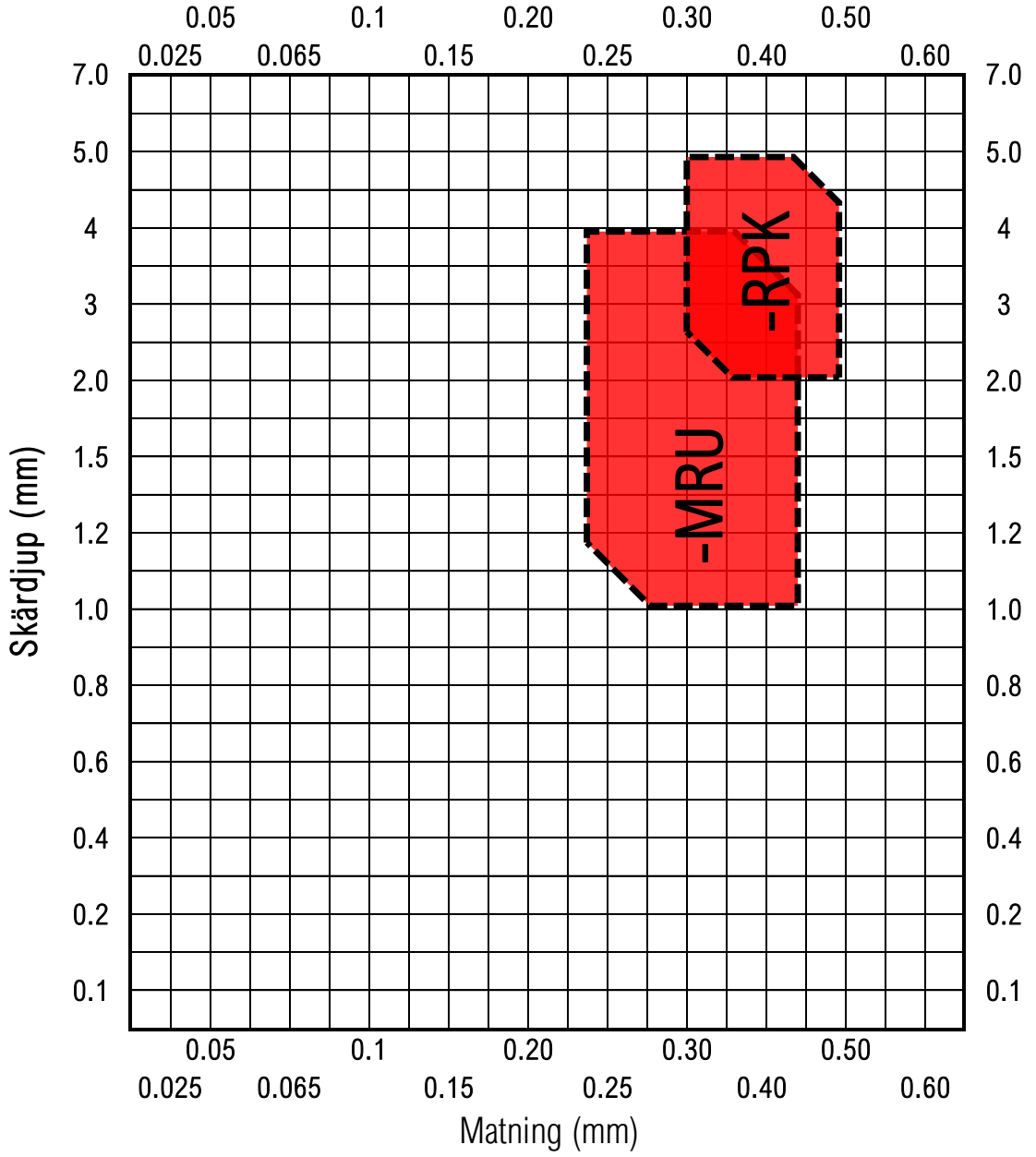
f_n: 0.22 - 0.44 mm

a_p: 1.0 – 4.0 mm

-RPK

f_n: 0.25 - 0.50 mm

a_p: 2.0 – 4.8 mm

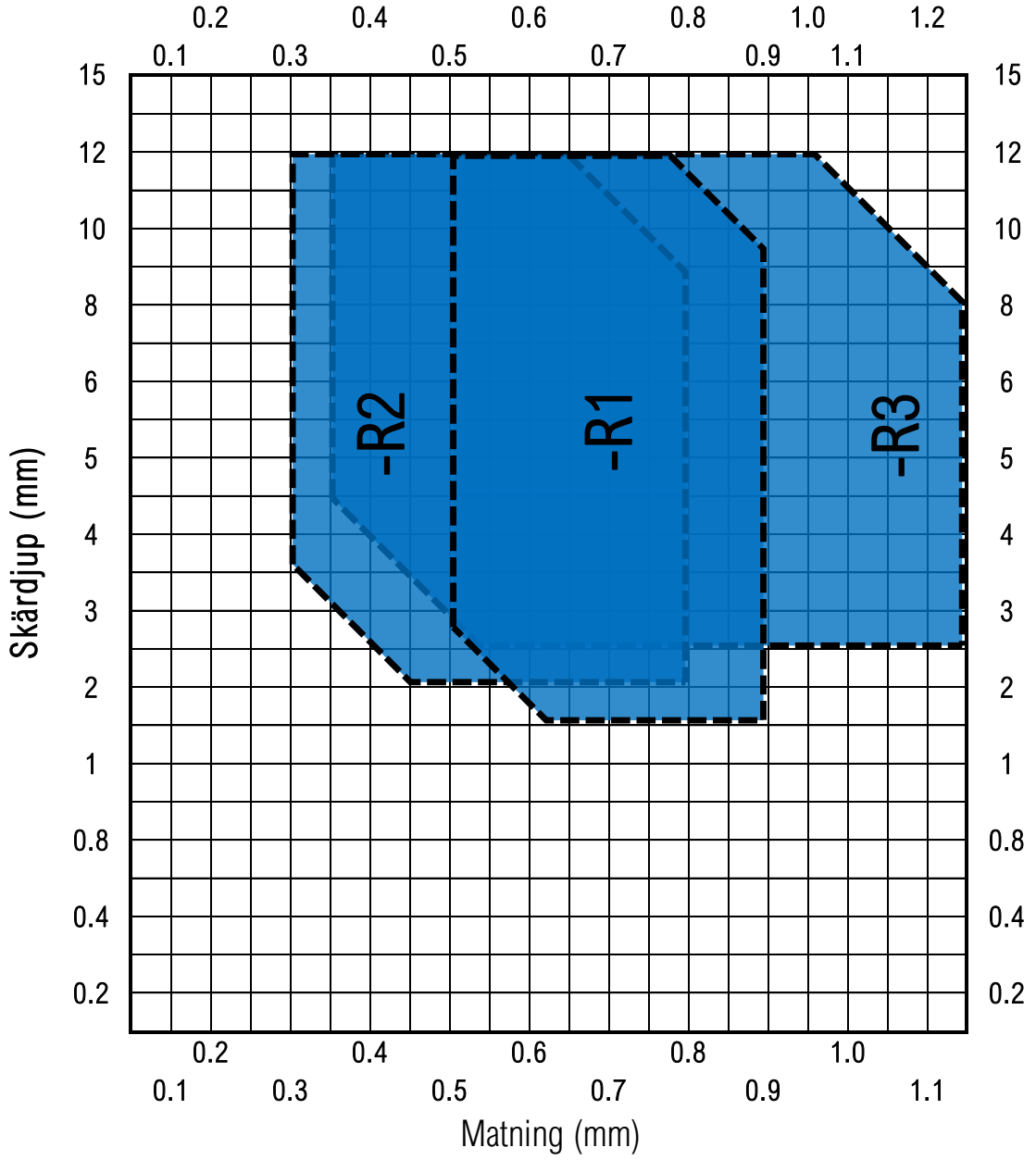


Enkelsidiga skär för Heavy Duty

-R1
f_n: 0.50 - 0.90 mm
a_p: 1.5 – 12.0 mm

-R2
f_n: 0.30 - 0.80 mm
a_p: 2.0 – 12.0 mm

-R3
f_n: 0.35 - 1.20 mm
a_p: 2.5 – 12.0 mm



Dubbelsidiga skär för Heavy Duty

-RPK

f_n: 0.60 - 1.00 mm

a_p: 3.2 – 7.6 mm

-MPR

f_n: 0.60 - 1.00 mm

a_p: 3.2 – 7.6 mm