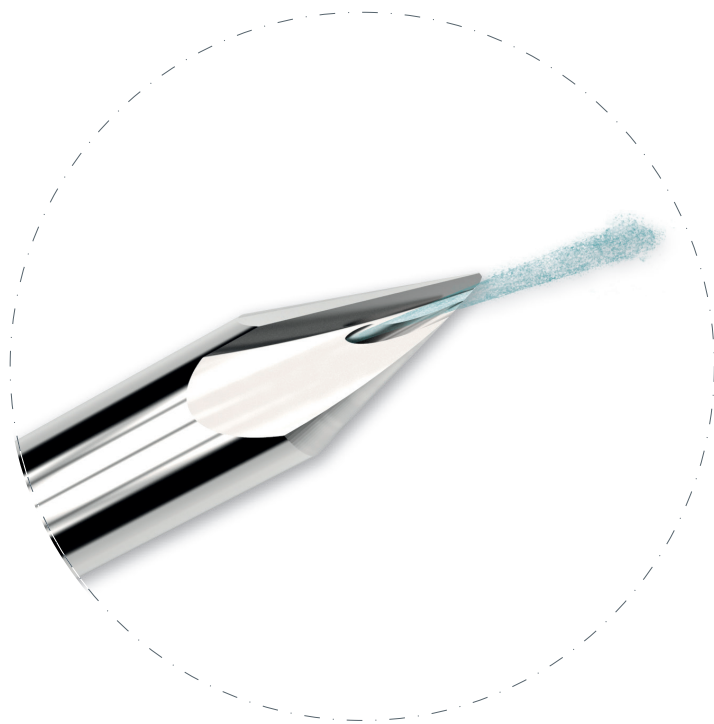


ENGRAVING MILL WITH COOLANT HOLES

**Increased durability and perfect surface
finish thanks to thru coolant**



**REF 119-3H :
flat tip**

**REF 119-3RH :
radius on tip**



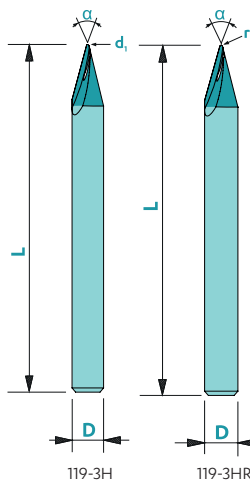
119-3H 119-3RH

Engraving mill with coolant holes - 3/4



Material	n [rpm]	Ap	Uncoated	Coated	Rec. Coating*
Steel < 700 N/mm ²	25 - 40'000	0.05 - 0.40	☐	■	Tisi (BQ)
Steel > 700 N/mm ²	20 - 40'000	0.05 - 0.30	-	■	Tisi (BQ)
Stainless steel	20 - 30'000	0.05 - 0.30	-	☐	Tisi (BQ)
Cast iron	25 - 40'000	0.05 - 0.40	☐	■	Tisi (BQ)
Copper	20 - 40'000	0.05 - 0.40	☐	■	Solo (DA)
Brass - Bronze	25 - 40'000	0.05 - 0.40	■	■	Solo (DA)
Aluminium	25 - 40'000	0.05 - 0.50	☐	■	Solo (DA)
Gold - Silver	20 - 40'000	0.05 - 0.40	■	☐	Solo (DA)
Platinum - Palladium	-	-	-	-	-
Superalloys	-	-	☐	■	-
Titanium	25 - 40'000	0.05 - 0.40	☐	■	RICO (ZB)

not adapted - adapted ☐ highly adapted ■



Tolerances	119-3H:	119-3RH:
	d ₁ : +/- 0.01	r: +/- 0.005
	D: h5	D: h5

⌀ 0.01

REF 119-3H - flat tip

Article number: 119-3Ha##d#.##
Example: End mill ref. 119-3H with 25° angle and tip diameter 0.05 mm: 119-3Ha25d0.05

α^*	d ₁ **	D	L
15-45°	0.02-0.09	3	33
15-45°	0.10-0.30	3	33
50-140°	0.02-0.09	3	33
50-140°	0.10-0.30	3	33

*Available angles: every 5° between 15° and 45°; every 10° between 50° and 140°

**Available radius: every 0.01 mm between 0.02 and 0.09 mm; every 0.05 mm between 0.10 and 0.30 mm

Other dimensions (angle, radius, shank) upon request

REF 119-3RH - radius on tip

Article number: 119-3RHa##r#.##
Example: End mill ref. 119-3RH with 25° angle and radius 0.05 mm: 119-3RH25r0.05

α^*	r**	D	L
15-45°	0.02-0.09	3	33
15-45°	0.10-0.30	3	33
50-140°	0.02-0.09	3	33
50-140°	0.10-0.30	3	33

*Available angles: every 5° between 15° and 45°; every 10° between 50° and 140°

**Available radius: every 0.01 mm between 0.02 and 0.09 mm; every 0.05 mm between 0.10 and 0.30 mm

Other dimensions (angle, radius, shank) upon request

Available uncoated or coated

λ 0°

CARB

If $\alpha < 30^\circ$, a double cone applies

* Prices for coatings: contact us!

To order a coated tool, add the 2-letter coating code to the article number