

SOLID CARBIDE END MILLS · LONG-NECK END MILLS FOR MOULDS

2-flute torus end mill with reinforced tapered neck

Torus end mill with reinforced tapered neck: the neck follows the draft angle of the walls, is more rigid and vibrates less in deep mould machining, up to 65 HRC.



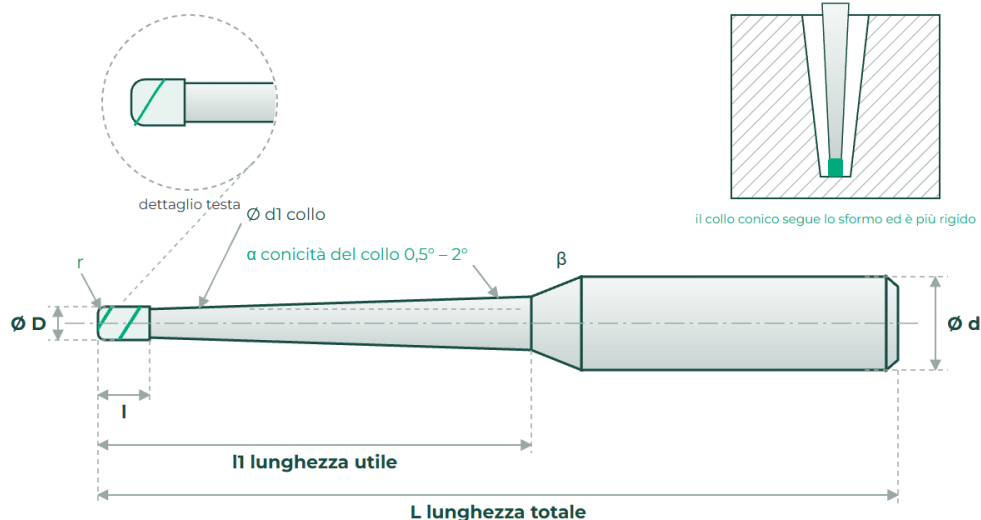
KEY DATA

Product type	Solid Carbide End Mills
ISO materials	P steel M stainless K cast iron N aluminium H hardened
Operation	Finishing · Semi-finishing
Online page	innot-it.com/en/prodotto/fresa-torica-collo-conico-rinforzato

Technical drawing

Fresa torica 2 taglienti a collo conico rinforzato

Pareti con sformo e grandi profondità · Ø 0,5 – 3 mm



Ø 0,5 – 3 mm

2 taglienti

collo conico 0,5° – 2°

fino a 65 HRC

INNOT

Features

Geometry	Torus (corner radius), 2 flutes
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Neck	Reinforced tapered: starts just below the cutting diameter and widens with a 0.5° to 2° taper up to the collar. It follows the wall draft and is more rigid than a cylindrical neck.
Diameters	Ø 0.5 – 3 mm in tight tolerance; intermediate diameters and above Ø3 custom made
Usable length	from 2 to 45 mm (up to 15 times the diameter)
Helix	30°, right-hand cut
Shank	Ø 6 h6 with tapered collar
Materials	Mould steels, quenched and tempered and hardened steels up to 65 HRC, stainless steels, cast irons, copper and aluminium
Construction	Ultra-fine grain solid carbide, coating chosen for the material (high-silicon coating for hardened steels)

Available sizes

Ø D	l cutting	Ø d1 neck	l1 usable	Radii r	Taper α	Ø d shank	L overall
Ø 0,5	0,75	0,45	2 – 14	0,05 · 0,1	0,5° · 1° · 1,5° · 2°	6	50
Ø 0,6	0,9	0,55	2 – 15	0,05 · 0,1	0,5° · 1° · 1,5° · 2°	6	50
Ø 0,8	1,2	0,75	4 – 20	0,1 · 0,2	0,5° · 1° · 1,5° · 2°	6	50 · 60
Ø 1	1,5	0,95	8 – 35	0,1 · 0,2 · 0,3	0,5° · 1° · 1,5° · 2°	6	60 · 78
Ø 1,2	1,8	1,15	10 – 40	0,1 · 0,2 · 0,3	0,5° · 1° · 1,5° · 2°	6	60 · 78
Ø 1,5	2,25	1,45	10 – 40	0,1 · 0,2 · 0,3 · 0,5	0,5° · 1° · 1,5° · 2°	6	60 · 78
Ø 2	3	1,9	10 – 45	0,1 · 0,2 · 0,3 · 0,5	0,5° · 1° · 1,5° · 2°	6	60 · 78
Ø 2,5	3,75	2,4	10 – 45	0,2 · 0,3 · 0,5 · 1	0,5° · 1° · 1,5° · 2°	6	60 · 78
Ø 3	4,5	2,9	10 – 45	0,1 · 0,2 · 0,3 · 0,5 · 0,8 · 1	0,5° · 1° · 1,5° · 2°	6	60 · 78

Dimensions in mm. For each diameter the usable lengths shown are available in 1 – 5 mm steps with four neck tapers. Other combinations, special radii and intermediate diameters custom made.

Why a tapered neck

- Mould walls almost always have a draft: the tapered neck follows it and reaches the bottom without touching the wall.
- A parità di lunghezza utile la sezione cresce verso il gambo: l'utensile flette meno, vibra meno e lascia una finitura migliore.
- Choose the taper closest to the draft of your walls: more taper, more rigidity.

Coatings and carbide

All coatings are available on this tool, also in custom versions:

● TiN
 ● TiCN
 ● TiAlN
 ● AlTiN
 ● AlCrN
 ● TiSiN
 ● AlTiSiN
 ● AlCrSiN
 ● CrN
 ● ZrN
 ● TiB2
 ● DLC
 ● ta-C
 ● CVD diamond
 ● Uncoated

[Compare coatings and carbide grades →](#)

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Cutting data are indicative starting values: adjust them to machine, clamping, tool overhang and workpiece material. Data and images may change without notice.