

Klein®

S I S T E M I



NEW



Tornado®

DUST & CHIP EXTRACTION NUT

REMOVES MDF AND CHIPBOARD DUST, PREVENTING THEIR ACCUMULATION ON THE WORKPIECE

Recommended for Nesting and Routing operations

Significantly reduces "clean up" time during the working process

Suitable for every collet chucks with standard router bits

Replaces the standard clamping nut

Available for ER32 - ER40 - ER25 - EOC25 (DIN 6388) spring collets

Improves air quality in the workplace



Working
without Tornado



Working
with Tornado



Easy to mount like a
standard clamping nut

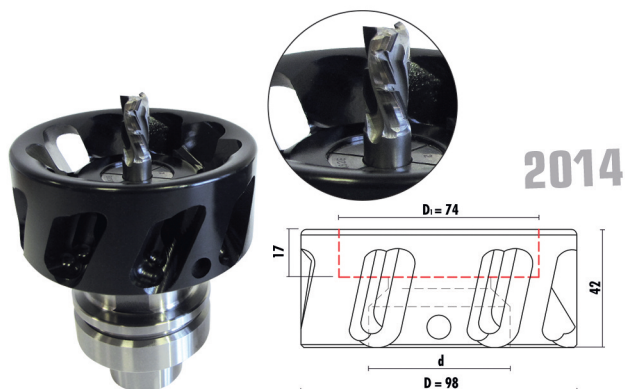
WHAT WE HAVE IMPROVED

Smaller diameter: from 98 to 92 mm in order to be mounted on every CNC router/machining centre

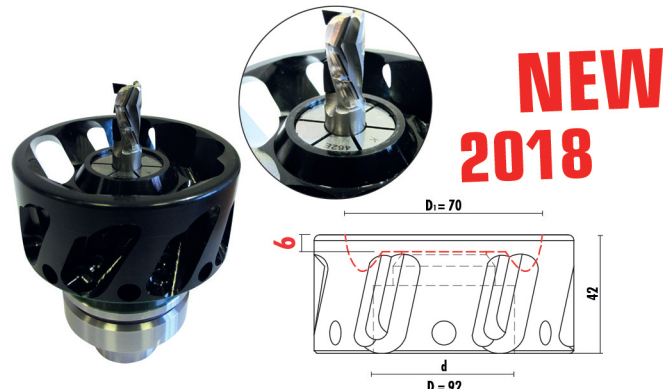
Tools and collets are now **closer to the workpiece** thus a greater extraction ability and less risk of breakage

More holes for tightening: thanks to 9 holes the clamping is easier

Special surface coating against wear and corrosion, for a much better chips' evacuation



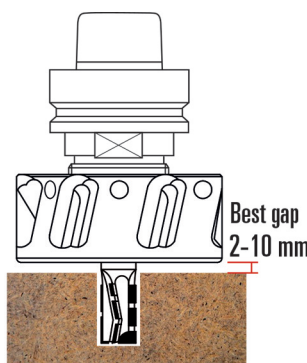
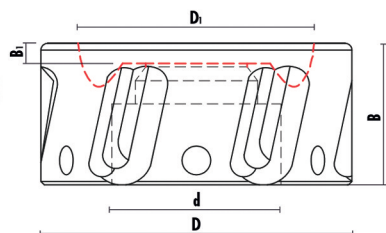
2014



**NEW
2018**

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Art. T139 - DUST & CHIP EXTRACTION NUT



- Tool body in light alloy
- Optimal gap between Tornado® and material is 2 mm (0.078"). It works properly up to 10 mm (0.38").
- Maximum speed rotation up to 20.000 RPM
- Balanced at G2,5

Item	Type	D	D1	B	B1	d	Rot.
T139.501.RK	DIN6499 (ER32)	92	70	40	6	M 40x1,5	RH
T139.502.RK	DIN6499 (ER40)	92	70	42	6	M 50x1,5	RH
T139.503.RK	DIN6499 (ER25)	92	70	42	6	M 32x1,5	RH
T139.522.RK	DIN6388 (EOC25)	92	70	42	6	M 48x2	RH
T139.581.RK	DIN6499 (ER32)	80	64	42	6	M 40x1,5	RH

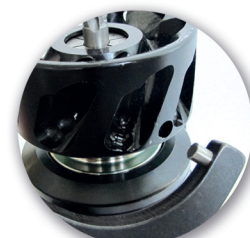
Art. Z052 - TORQUE WRENCHES



Item	Type	L	Nm (Draw.1)	Nm (Draw.2)
Z052.722.N	DIN6499 (ER25)	480	40-55	80-90
Z052.723.N	DIN6499 (ER32)	480	66-70	120-130
Z052.724.N	DIN6499 (ER40)	480	110-120	190-200
Z052.728.N	DIN6388 (EOC25)	480	110-120	190-200

Draw. ① Collets as per drawing n. 1 must be tightened by setting the minimum torque value and rotating the handle counterclockwise.

Draw. ② Collets as per drawing n. 2 must be tightened by setting the maximum torque value and rotating the handle clockwise.



Art. X139 - DUST & CHIP EXTRACTION NUT SET

Item	Description	Type
X139.501.RK	T139.501.RK + Z052.315.N	DIN6499 (ER32)
X139.502.RK	T139.502.RK + Z052.315.N	DIN6499 (ER40)
X139.503.RK	T139.503.RK + Z052.315.N	DIN6499 (ER25)
X139.522.RK	T139.522.RK + Z052.315.N	DIN6388 (EOC25)
X139.581.RK	T139.581.RK + Z052.314.N	DIN6499 (ER32)



- Complete with:
n° 1 extraction nut
n° 1 hook wrench:
Ø 92= key 95/100
Ø 80= key 80/90
- Carton box

Art. X139 - DUST & CHIP EXTRACTION NUT SET

Item	Description
X139.990.RK	T139.501.RK + T139.502.RK + Z052.315.N



- Complete with:
n° 2 extraction nuts (ER32 - ER40)
n° 1 hook wrench 95/100
- Carton box