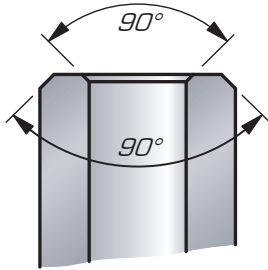


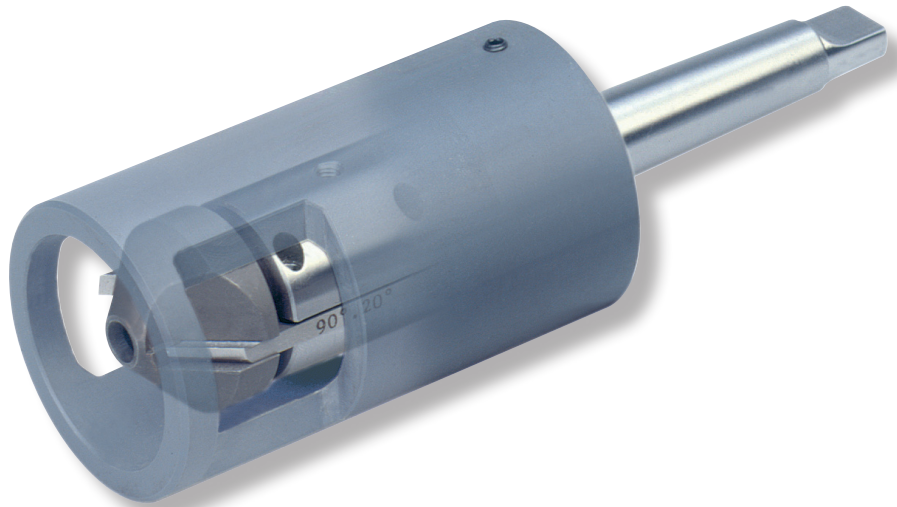
Inner / Outer Devices

Simultaneously chamfers

the **Inside and Outside**
of tube ends



KOPAL TUBE



KOPAL TUBE Devices

Without cutting blade ⚠

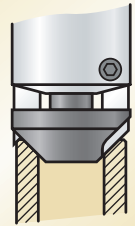
Standard pilot

Tube diameter Inner	Outer	Model	Attach.	A	B	90° Ref.
12 to 24	14 to 24	K 1	Ø 12.7 CM 2	Ø 46	90	04-060 04-050
15 to 27	18 to 30	K 2	Ø 12.7 CM 2	Ø 58	105	04-080 04-070
20 to 30	24 to 36	K 3	Ø 12.7 CM 2	Ø 61	110	04-100 04-090
29 to 40	34 to 45	K 4	Ø 12.7 CM 2	Ø 67	112	04-120 04-110
40 to 48	46 to 56	K 5	Ø 12.7 CM 2	Ø 82	120	04-140 04-130

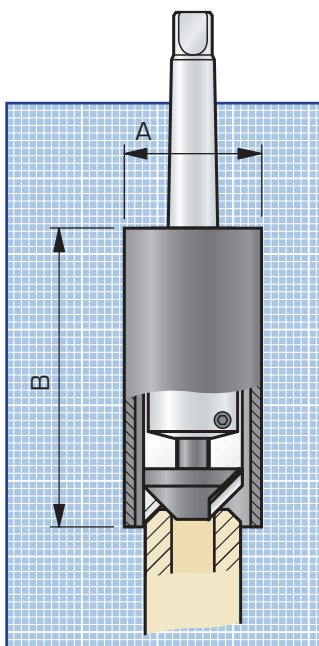
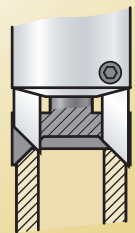
Use

These units are supplied with 2 removable pilot cones

Larger inner chamfer than outer chamfer.
Use the inner cone to centre the workpiece.



Larger outer chamfer than inner chamfer.
Use the outer cone to centre the workpiece.

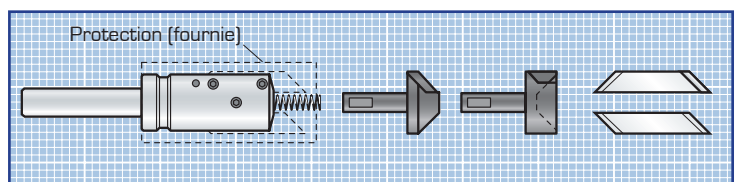


HSS Blades
14° and 20° cutting angles



The blades can be adjusted independently so **the chamfers can therefore have different values.**

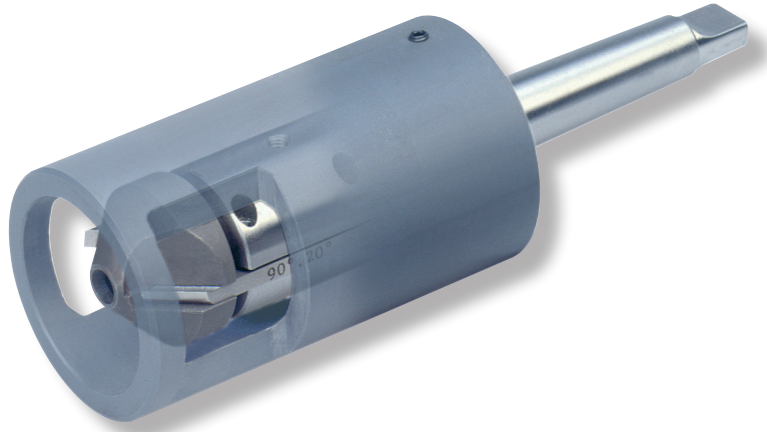
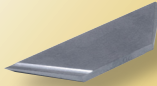
The HSS blades are sharpened with cutting angles of: 14° and 20°, to be specified on ordering.



Inner / Outer Devices

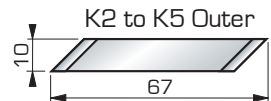
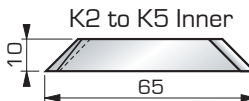
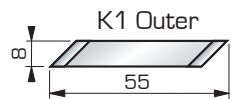
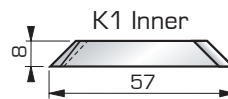
Cutting blades

● **HSS blade - 0° to 25°**
for most usual materials



Blade for KOPAL Tube

14° cutting angle for devices :	Inner HSS	Outer HSS
K 1	04-300	04-310
K 2 to K 5s	04-320	04-330
20° cutting angle for device :	Inner HSS	Outer HSS
K 1	04-303	04-313
K 2 to K 5	04-323	04-333



Recommended cutting speed

between 10 and 20 m/min.

exemple : Ø 10 mm	320 to 640 rpm
Ø 15 mm	210 to 420 rpm
Ø 20 mm	160 to 320 rpm
Ø 30 mm	110 to 220 rpm
Ø 40 mm	80 to 160 rpm
Ø 60 mm	55 to 110 rpm

$$Rpm = \frac{\text{cutting speed} \times 1000}{\text{Diameter} \times 3.14}$$

Lubricate with cutting fluid or soluble oil to ensure long life for the blade's cutting edge and slow down erosion of the pilot cone.

Material	Brass Bronze Cast iron Heat-resistant stainless steel	Steel Special bronze Perspex	Soft steel Copper AU 4 G Plastic Stainless steel	Aluminium Soft iron Sheet metal
Cutting angle	0° HSS Carbure	14° HSS	20° HSS	25° HSS