

Type EF Tool Applications: Internal and external fillets

Features

- For use with CNC-controlled or conventional lathes
- Complete processing in one setting
- Symmetrical construction allows either right- or left-hand operation
- Rotates in either direction

EF45

- Deep rolling with the plunge-in process
- One suspended roller
- Rolling force monitored by a dial gauge or sensor

EF90

- Deep rolls external thread root radii
- Deep rolls within the machine's thread cycle
- Axial floating roller compensates for marginal positioning errors
- Automatic roller angle alignment
- No conversion necessary to machine either right- or left-handed threads
- Roller made to fit component's thread root radius
- Integrated pre-loading mechanism, no further X-axis adjustment necessary

Basic tool design

Type EF deep rolling tools consist of a tool body equipped with a shank, a spring assembly that allows the roller head to move with no play and very low friction, and a dial gauge that indicates the burnishing force as measured by spring deflection. An optional device transmits the values by cable or wireless signal to an external indicator.

The roller head is attached to the flexible, spring-loaded section of the tool body. The flexible roller retainer moves in response to the radial or axial rolling forces on either side of the tool.

EF45

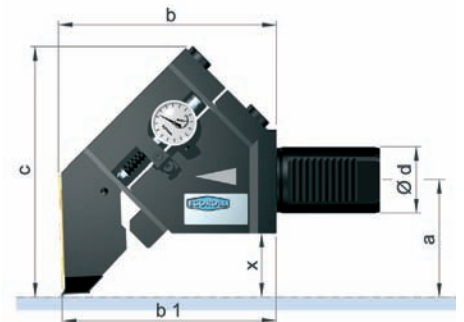
The roller is guided by a cage and supported by a support body with large-scale needle bearings.

EF90

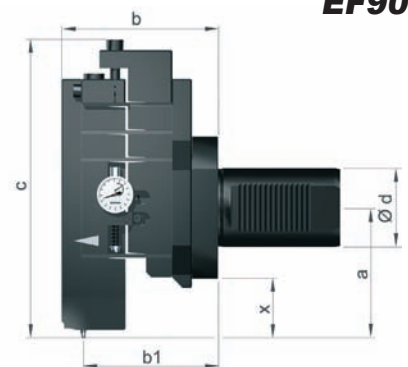
The roller is suspended within the roller retainer with a slide bearing bolt. In addition, the roller mount swings such that the roller automatically adjusts to the thread pitch. A set screw limits the roller's pivoting angle.



EF45



EF90



Tool type	Max. rolling force (kN)	Max. machining radius (mm)	Max. yield strength (N/mm ²)	Machining diameter (mm)	Main dimensions (mm)					Shank Ø d (mm)
					a	b	c	b ₁	x	
EF45-17	10	1.2	1400	10-250	71	133	152	130	38	≥ VDI 40
EF45-21	20	4.0		≥ 40						
EF90		1.6			100	120	228	103	45	