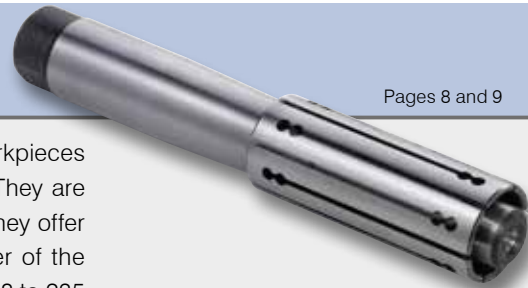




TEP

Pages 8 and 9

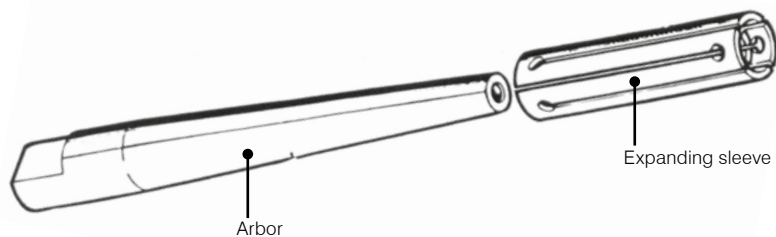


TEP mandrels, the most basic in the range of mandrels for mounting workpieces between centers, consist of a tapered arbor and an expanding sleeve. They are used mainly for turning, grinding, balancing and inspection operations. They offer a high degree of expansibility, 1.5 to 5 mm, depending on the diameter of the expanding sleeve, and can clamp workpieces with diameters ranging from 8 to 235 mm.

Clamping takes place as follows:

Place the workpiece in the center of the expanding sleeve, and slide the expanding sleeve until the workpiece is lightly clamped, then tap the rear end of the tapered arbor with a piece of wood to obtain tighter clamping.

To separate the workpiece from the expanding sleeve, hold the workpiece and expanding sleeve in one hand and tap the smaller end of the arbor.



When placing an order for arbors and expanding sleeves, please provide the order codes individually. They will be shipped without being assembled.

TEPN

Pages 10 and 11



TEPN mandrels are intended for turning, grinding, shaving and inspection operations.

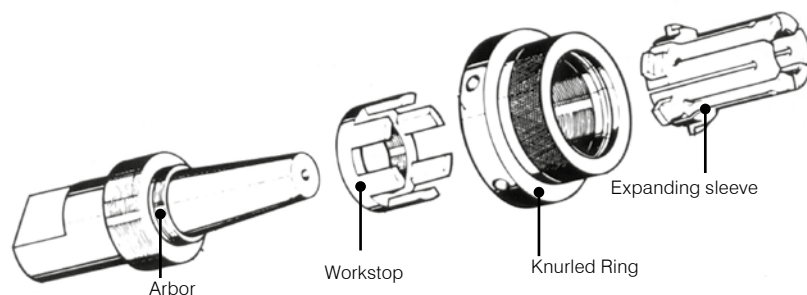
This type offers an expansibility of 0.5 to 1 mm depending on the diameter of the expanding sleeve, and can clamp workpieces with diameters ranging from an extremely small 5.5 mm to 79.7 mm. The knurled ring of the slotted expanding sleeve is fitted with a workstop used for positioning in the axial direction.

Clamping takes place as follows:

Tighten the expanding sleeve with the knurled ring to clamp the workpiece.

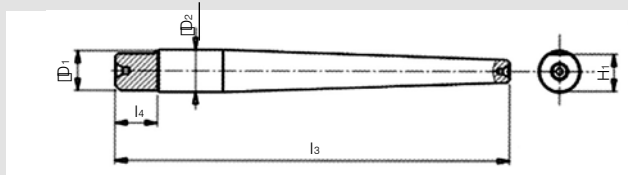
Expansion occurs as the expanding sleeve slides over the tapered arbor. The workpiece is firmly clamped as a result of this expansion of the expanding sleeve.

Due to the movement of the expanding sleeve over the tapered arbor, the workpiece is pressed against the workstop.

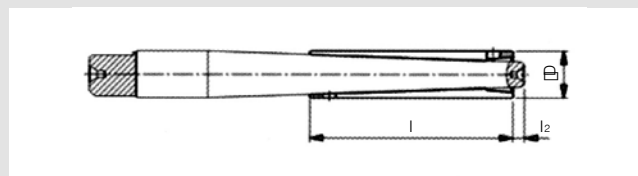


When placing an order for arbors and expanding sleeves, please provide the order codes individually. They will be shipped without being assembled.

■ ARBOR



■ EXPANDING SLEEVE



Subject to technical changes.
For more detailed information, please ask our customer service.

Order Code	Workpiece diameter range	D ₁	D ₂	H ₁	l ₃	l ₄	kg
TEP-1	8,0 - 10,5		8	6,5	75	9	0,02
TEP-2	10,0 - 12,5		10	8,5	110	9	0,051
TEP-3	12,0 - 15,0		12	10,0	125	9	0,085
TEP-4	14,0 - 17,0		14	12,0	140	16	0,13
TEP-5	16,0 - 20,0		16	14,0	150	16	0,18
TEP-6	19,0 - 23,0		19	17,0	170	16	0,275
TEP-7	22,0 - 26,0		21	18,5	175	20	0,35
TEP-8	25,0 - 37,0		25	22,5	225	20	0,65
TEP-9	35,0 - 47,0		33	30,5	225	20	1,3
TEP-10	45,0 - 59,0	44	45	42,0	300	29,9	2,97
TEP-11	55,0 - 70,0	52	53	50,0	300	29,9	4,685
TEP-12	68,0 - 85,0	63	64	61,0	350	29,9	7,45
TEP-13	80,0 - 105,0	66	76	62,0	350	36	10,5
TEP-14	105,0 - 140,0	75	99	72,0	400	40	20,2

When placing an order, please specify the order code and quantity.. Dimensions (mm)

Order Code	D	l	l ₂	Expansibility
TEP80-1 TEP90-1	8 9	40	3	1,5
TEP100-2 TEP110-2	10 11	45	3	1,5
TEP120-3 TEP130-3	12 13	60	4	2,0
TEP140-4 TEP150-4	14 15	70	4	2,0
TEP160-5 TEP170-5 TEP180-5	16 17 18	70	4	2,0
TEP190-6 TEP200-6 TEP210-6	19 20 21	80	4	2,0
TEP220-7 TEP230-7 TEP240-7	22 23 24	80	4	2,0
TEP250-8 TEP260-8 TEP280-8 TEP300-8 TEP320-8 TEP340-8	25 26 28 30 32 34	100	4	3,0
TEP350-9 TEP360-9 TEP380-9 TEP400-9 TEP420-9 TEP440-9	35 36 38 40 42 44	100	5	3,0
TEP450-10 TEP480-10 TEP500-10 TEP520-10 TEP540-10	45 48 50 52 54	125	5	5,0
TEP550-11 TEP580-11 TEP600-11 TEP620-11 TEP650-11	55 58 60 62 65	135	5	5,0
TEP680-12 TEP700-12 TEP720-12 TEP750-12 TEP780-12 TEP800-12	68 70 72 75 78 80	150	5	5,0
TEP800-13 TEP850-13 TEP900-13 TEP950-13 TEP1000-13	80 85 90 95 100	150	5	5,0
TEP1050-14 TEP1100-14 TEP1150-14 TEP1200-14 TEP1250-14 TEP1300-14 TEP1350-14	105 110 115 120 125 130 135	170	5	5,0

When placing an order, please specify the order code and quantity. Dimensions (mm)

Expanding Mandrels between centers



TEP

Expanding Mandrels TOBLER

■ Clamping range Ø135 to 235 mm



Order Code	Workpiece diameter range	D ₁	D ₂	H ₁	l ₃	l ₄	kg
TEP-15	135,0 - 185,0	80	124	76	442	42	19,6
TEP-16	185,0 - 235,0	80	145,5	76	442	42	28,5

When placing an order, please specify the order code and quantity. Dimensions (mm)
 Ask for quotations for price and delivery of TEP-15 and TEP-16.

Order Code	D	l	l ₂	Expansibility
TEP1350-15	135	180	50	5
TEP1400-15	140			
TEP1450-15	145			
TEP1500-15	150			
TEP1550-15	155			
TEP1600-15	160			
TEP1650-15	165			
TEP1700-15	170			
TEP1750-15	175			
TEP1800-15	180			
TEP1850-16	185	200	40	5
TEP1900-16	190			
TEP1950-16	195			
TEP2000-16	200			
TEP2050-16	205			
TEP2100-16	210			
TEP2150-16	215			
TEP2200-16	220			
TEP2250-16	225			
TEP2300-16	230			

When placing an order, please specify the order code and quantity. Dimensions (mm)

TEP Mandrel Box Set

If you have a TEP mandrel you don't have to spend time and effort preparing individual gripping tools.

The most commonly used sizes of TEP mandrel have been brought together in a set of two types, which are offered in a robust toolbox to protect them.

TEP mandrels are suited to inspection and grinding operations where the workpiece is mounted between centers.

Guaranteed accuracy within stipulated expansion range: 0.01 mm (T.I.R.)

The two types of TEP arbor / expanding sleeve set can accommodate workpiece diameters from 12 to 55 mm.

TEP-A: Diameters from 12 to 25 mm

TEP-B: Diameters from 25 to 55 mm ⁽¹⁾

(1) In order to cover all of the workpiece diameters that can be handled with TEP mandrels, both of the sets TEP 280-8 and TEP 380-9 are required. Even exceptional applications can be covered by using either the TEP 250-8 or TEP 350-9 expanding sleeve at the maximum expansion.



It is taken for granted that every workstation where inspection and grinding are performed has a set of angle gauges and other measuring instruments, and the workstations should be equipped with sets of TEP mandrels too.

Because of their versatility, reliability and high accuracy, TEP mandrels are indispensable for inspection and grinding operations in which the workpiece is held between centres.

Order Code	Contents of the set			kg
	Workpiece diameter range	Arbor	Expanding sleeve	
TEP-A	12 - 25	TEP-3	TEP120-3	2,2
		TEP-4	TEP140-4	
		TEP-5	TEP160-5 TEP180-5	
		TEP-6	TEP200-6	
		TEP-7	TEP220-7 TEP240-7	

Order Code	Contents of the set			kg
	Workpiece diameter range	Arbor	Expanding sleeve	
TEP-B	25 - 28 30 - 33	TEP-8	TEP250-8 TEP300-8	8,2
	35 - 38 40 - 43	TEP-9	TEP350-9 TEP400-9	
	45 - 50 50 - 55	TEP-10	TEP450-10 TEP500-10	

When placing an order, please specify the order code and quantity.