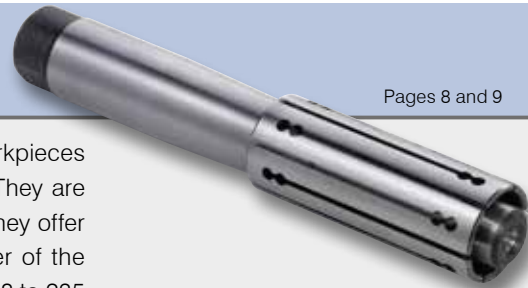




TEP

Pages 8 and 9

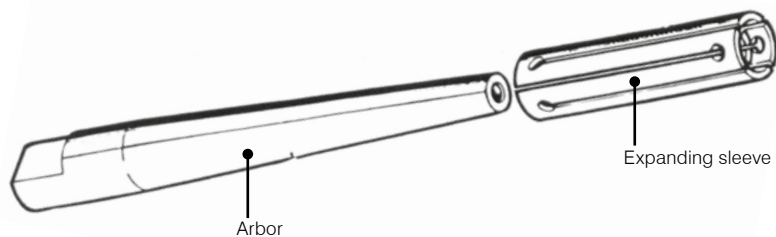


TEP mandrels, the most basic in the range of mandrels for mounting workpieces between centers, consist of a tapered arbor and an expanding sleeve. They are used mainly for turning, grinding, balancing and inspection operations. They offer a high degree of expansibility, 1.5 to 5 mm, depending on the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

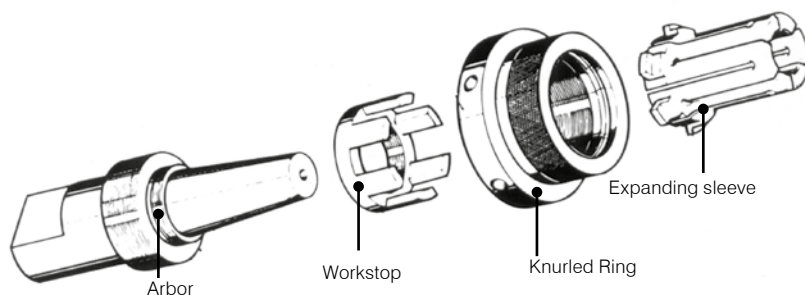
This type offers an expansibility of 0.5 to 1 mm depending on the diameter of the expanding sleeve, and can clamp workpieces with diameters ranging from an extremely small 5.5 mm to 79.7 mm. The knurled ring of the slotted expanding sleeve is fitted with a workstop used for positioning in the axial direction.

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.

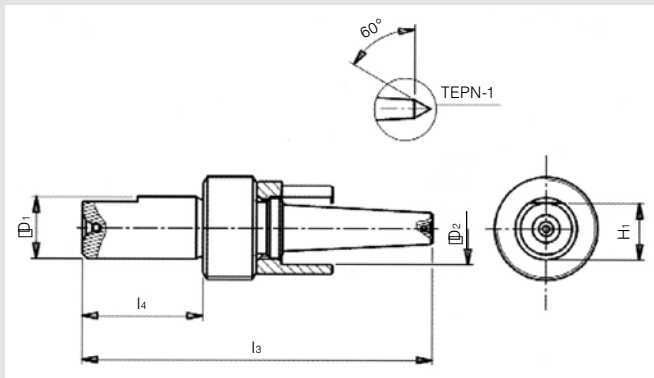
Due to the movement of the expanding sleeve over the tapered arbor, the workpiece is pressed against the workstop.



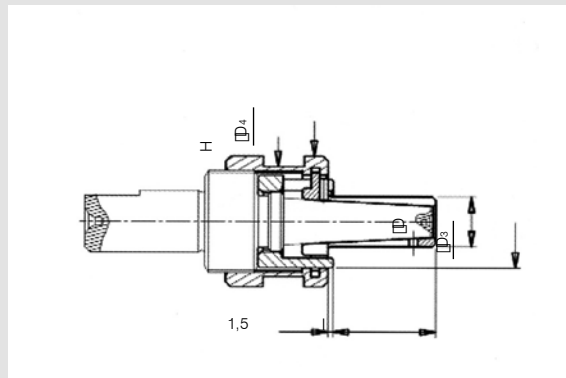
When placing an order for arbors and expanding sleeves, please provide the order codes individually. They will be shipped without being assembled.



■ ARBOR



■ EXPANDING SLEEVE (1)



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
TEPN-1	5,5 - 7,5	10	8,5	9,0	74,41	30	0,036
TEPN-2	7,5 - 9,5	12	10,5	11,0	78,5	30	0,057
TEPN-3	9,5 - 12,0	12	13,2	11,0	88,5	35	0,08
TEPN-4	12,0 - 15,0	14	16,0	12,5	96,5	35	0,13
TEPN-5	14,5 - 19,5	18	21,0	16,5	101,5	35	0,22
TEPN-6	19,5 - 25,0	20	26,0	18,0	112,5	40	0,394

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

Dimensions (mm)

Order Code	D	D ₃	D ₄	H	I	Expansibility	Maximum Torque Nm
TN55-1 TN60-1 TN65-1 TN70-1	5,5 6,0 6,5 7,0	10,8	19,5	17	12	0,5	1,5
TN75-2 TN80-2 TN85-2 TN90-2	7,5 8,0 8,5 9,0	13,8	23,0	19	16	0,5	5
TN95-3 TN100-3 TN105-3 TN110-3 TN115-3	9,5 10,0 10,5 11,0 11,5	16,8	28,0	22	20	0,5	9
TN120-4 TN125-4 TN130-4 TN135-4 TN140-4 TN145-4	12,0 12,5 13,0 13,5 14,0 14,5	20,8	31,0	27	26	0,5	14
TN145-5 TN150-5 TN155-5 TN160-5 TN165-5 TN170-5 TN175-5 TN180-5 TN185-5 TN190-5	14,5 15,0 15,5 16,0 16,5 17,0 17,5 18,0 18,5 19,0	26,8	38,0	32	30	0,5	23
TN195-6 TN200-6 TN205-6 TN210-6 TN215-6 TN220-6 TN225-6 TN230-6 TN235-6 TN240-6 TN245-6	19,5 20,0 20,5 21,0 21,5 22,0 22,5 23,0 23,5 24,0 24,5	31,8	47,0	41	36	0,5	55

1) The expanding sleeve is shipped with the knurled ring fitted.

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

Dimensions (mm)

Expanding Mandrels between centers



TEPN

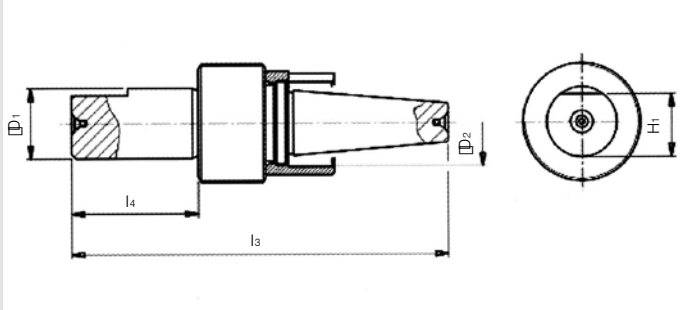
■ Clamping range Ø24.7 to 79,7 mm

tobler

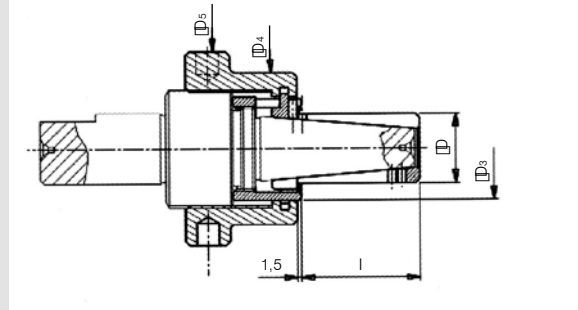
Expanding Mandrels TOBLER



■ ARBOR



■ EXPANDING SLEEVE (1)



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
TEPN-7	24,7 - 29,7	25	31,0	22,5	134,0	45	0,613
TEPN-8	29,7 - 34,7	30	36,0	28,5	142,5	50	0,828
TEPN-9	34,7 - 39,7	40	41,0	37,0	154,0	55	1,283
TEPN-10	39,7 - 44,7	40	46,0	37,0	164,5	60	1,533
TEPN-11	44,7 - 54,7	45	55,5	42,0	195,0	67	2,298
TEPN-12	54,7 - 64,7	50	65,5	47,0	206,5	67	3,454
TEPN-13	64,7 - 79,7	50	83,0	47,0	219,5	67	4,857

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

Ask for quotations for price and delivery of TEPN-12 and TEPN-13.

Order Code	D	D ₃	D ₄	D ₅	l	Expansibility	Maximum Torque Nm
TN247-7 TN257-7 TN267-7 TN277-7 TN287-7	24,7 25,7 26,7 27,7 28,7	36,8	54,0	69	42,5	1	80
TN297-8 TN307-8 TN317-8 TN327-8 TN337-8	29,7 30,7 31,7 32,7 33,7	41,8	57,5	72	46,0	1	100
TN347-9 TN357-9 TN367-9 TN377-9 TN387-9	34,7 35,7 36,7 37,7 38,7	47,8	66,0	79	52,5	1	120
TN397-10 TN407-10 TN417-10 TN427-10 TN437-10	39,7 40,7 41,7 42,7 43,7	52,8	74,0	87	58,0	1	150
TN447-11 TN457-11 TN467-11 TN477-11 TN487-11 TN497-11 TN507-11 TN517-11 TN527-11 TN537-11	44,7 45,7 46,7 47,7 48,7 49,7 50,7 51,7 52,7 53,7	61,8	83,0	96	76,0	1	200
TN547-12 TN557-12 TN567-12 TN577-12 TN587-12 TN597-12 TN607-12 TN617-12 TN627-12 TN637-12	54,7 55,7 56,7 57,7 58,7 59,7 60,7 61,7 62,7 63,7	71,8	93,0	107	85,0	1	250
TN647-13 TN657-13 TN667-13 TN677-13 TN687-13 TN697-13 TN707-13 TN717-13 TN727-13 TN737-13 TN747-13 TN757-13 TN767-13 TN777-13 TN787-13	64,7 65,7 66,7 67,7 68,7 69,7 70,7 71,7 72,7 73,7 74,7 75,7 76,7 77,7 78,7	90,8	108,0	130	96,0	1	270

1) The expanding sleeve is shipped with the knurled ring fitted. Dimensions (mm)

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