

TAPPING UNITS

UNIT	PAGE	DRIVE	FEED	TAPPING CAPACITY		
				STEEL	ALUMINIUM/ BRASS	PLASTICS
LS22	28	Pneumatic 5-vane Motor	Lead screw	M8	M12	M12
BEG48	30	Electric Air Hydraulic	Controlled	M12	M20	M30
BEG55	32	Electric Hydraulic	Controlled	M16	M24	M30

TAPPING UNITS

E2 tapping units can be found throughout the world wherever a high level of productivity and precision is a priority. A long service life with excellent reliability and continued precision makes E2's tapping units a good investment.

E2 tapping units range from the most compact pneumatic units on the market to powerful electrically-operated units. Our lead screw units ensure a perfect tapping process with no risk of damaging the tap. These characteristics also apply to units equipped with multi-spindle heads.

Each tapping unit's details includes all the necessary information for selecting a suitable model based on the requirements set by your tapping application and the cutting data specified by your tap supplier. In addition to performance specifications, you will also find information on dimensions, necessary components and accessories.

To provide a quick summary, there are also guidelines for the capacities of the various models, based on conventional thread taps in the most common materials. For fluteless taps, as a rule of thumb, 50-100% greater torque and speed is required.

PNEUMATIC LEAD SCREW TAPPING UNIT LS 22

The LS 22 consists of a vane motor powered by compressed air, a planetary gearbox, lead screw, nut and a follower with cams to activate built-in switches. The design of the LS 22 is compact yet highly functional. The lead screw ensures high repeatability for threading operations.

- EXTREMELY COMPACT DESIGN
- SEALED LEAD SCREW
- LOW NOISE LEVEL
- SMART DEPTH CONTROL
- AVAILABLE IN ALL THREAD TYPES AS WELL AS LEFT HAND

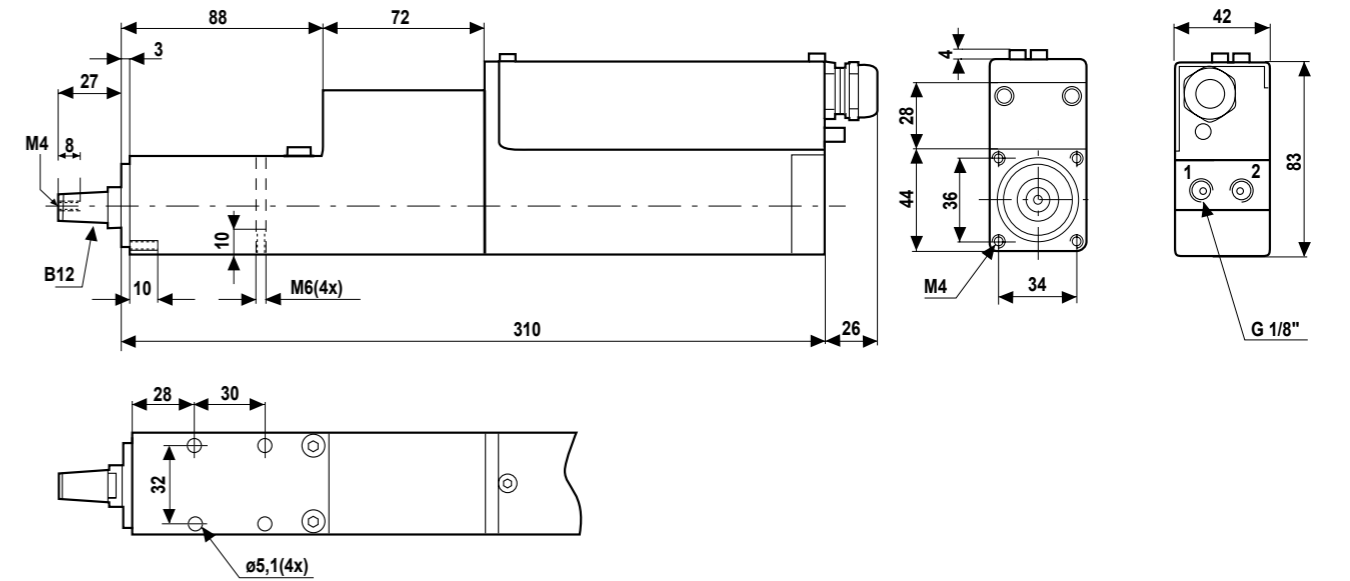


Guidlines for choice of unit [M-Thread]												
TAPPING UNIT	CAPACITY IN STEEL				CAPACITY IN ALUMINIUM/BRASS				CAPACITY IN PLASTICS			
No of Spindles	1	2	3	4	1	2	3	4	1	2	3	4
LS 223	M8	M6	M6	M5	M12	M10	M8	M8	M12	M12	M10	M10
LS 225	M6	M5	M5	M4	M12	M8	M6	M6	M12	M10	M8	M8
LS 226	M6	M5	M5	M4	M10	M8	M6	M6	M10	M8	M8	M6
LS 2213	M5	M4	M4	M3	M8	M6	M5	M5	M8	M8	M6	M5
LS 2221	M4	M3	M3	M2	M6	M5	M4	M4	M8	M6	M5	M4
LS 2228					M5				M6	M5		

Performance specifications at 6.3 Bar			
Power	0.16 kW	Depth accuracy +/-	0.01 mm
Stroke (max, 100% controlled)	51 mm	Working pressure range	6-7 Bar
Min. Center to Center Spacing		Air consumption	<0.3 Nm ³ /min
Single Spindle	42 mm	Sound level	70 dB(A)
Double-Spindle Head	11 mm		

TAPPING UNIT	SPEED (IDLE) [RPM]	SPEED (AT MAX OUTPUT) [RPM]	TORQUE (AT MIN STARTING) [NM]	TORQUE (AT MAX OUTPUT) [NM]
LS 223	240	140	13.4	10.8
LS 225	400	240	8.0	6.7
LS 226	540	310	5.9	5.0
LS 2213	1 050	650	3.0	2.4
LS 2221	1 750	1 050	1.8	1.5
LS 2228	2 400	1 390	1.3	1.1

Dimensions [mm]



You can download 2D CAD-drawings and 3D CAD-models on www.e2systems.com.

WEIGHT 4.6 KG

Necessary components

QUICK CHANGE CHUCK	TYPE	PAGE
	C12 for B12 Metric and Inches	47
TAP HOLDER	TYPE	PAGE
	T12 for C12 (B12) Metric and Inches	47
LIMIT SWITCHES	TYPE	PAGE
	Electric Pneumatic	51

Accessories

MULTI-SPINDLE HEADS	TYPE	PAGE
	Adjustable heads VH04, MBKV 402	38
CONTROLS	TYPE	PAGE
	Controls for LS 22 units Electric Pneumatic	51
MOUNTINGS	TYPE	PAGE
	Mountings for the LS22 units.	

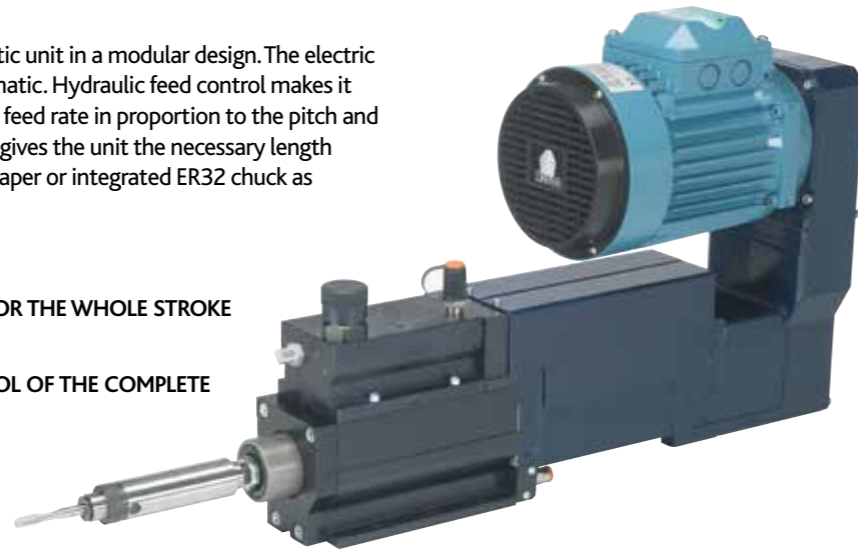
On www.e2systems.com you can find more information as well as the same information as above in imperial units.

When requesting a quote or ordering, please state: Model, Limit switches, Ø and □ for the tap holder, pitch, and if it is to be used in Lubrication-free operation.

ELECTRO PNEUMATIC TAPPING UNIT BEG 48

The BEG 48-series is a flexible electro-pneumatic unit in a modular design. The electric motor runs the spindle, while the feed is pneumatic. Hydraulic feed control makes it possible to use rapid advance and to adjust the feed rate in proportion to the pitch and the rpm. A tapping collect or a tapping spindle gives the unit the necessary length compensation. The series is available with JT2 taper or integrated ER32 chuck as well as with multi-spindle heads.

- COMPACT YET FLEXIBLE DESIGN
- MODULAR HYDRAULIC FEED CONTROL FOR THE WHOLE STROKE
- SMART DEPTH CONTROL
- LINEAR TRANSDUCER FOR TOTAL CONTROL OF THE COMPLETE CYCLE (OPTIONAL)



Guidlines for choice of unit [M-Thread]

TAPPING UNIT	CAPACITY IN STEEL				CAPACITY IN ALUMINIUM/BRASS				CAPACITY IN PLASTICS			
No of Spindles	1	2	3	4	1	2	3	4	1	2	3	4
BEG 481	M6	M5	M4	M3	M10	M8	M8	M6	M14	M8	M8	M8
BEG 484	M8	M6	M5	M5	M14	M10	M8	M8	M16	M14	M12	M10
BEG 487	M12	M8	M6	M6	M20	M14	M12	M10	M30	M20	M20	M16

Performance specifications at 6.3 Bar

Thrust (max.)	1 650–2 000 N	Depth accuracy +/-	0.01 mm
Stroke (max. 100% controlled)	100 mm	Rapid advance rate (max.)	10 m/min
Min. Center to Center Spacing		Controlled feed rate	>0.04 m/min
Single Spindle	90 mm	Air consumption	2.8 U/100mm
Double-Spindle Head	12 mm	Sound level	<85 dB(A)

Motor and Transmission specifications

No of Poles	TAPPING UNIT/MOTOR AT V380-420(Y)/220-240(Δ)50HZ [kW]		
	BEG481	BEG484	BEG487
2	0.55	1.1	2.2
4	0.37	0.75	1.5
6	0.25	0.55	1.1
8			0.55

• Motor specifications shown in the tables are valid for 380–420V(Y) /220–240V(Δ) (±5%), 50 Hz. These motors can also be used at 440–480 V(Y) (±5%), 60 Hz. If so the rpm will increase by ~20% and the power by ~15% relative to the data for 50Hz. E2 also offers motors for other voltages and frequencies. Please state voltage and frequency when requesting a quote or ordering.

• The torque at the spindle for a specific rpm is calculated as: $M = (P_{[kW]} \times 9500) / \text{rpm}$

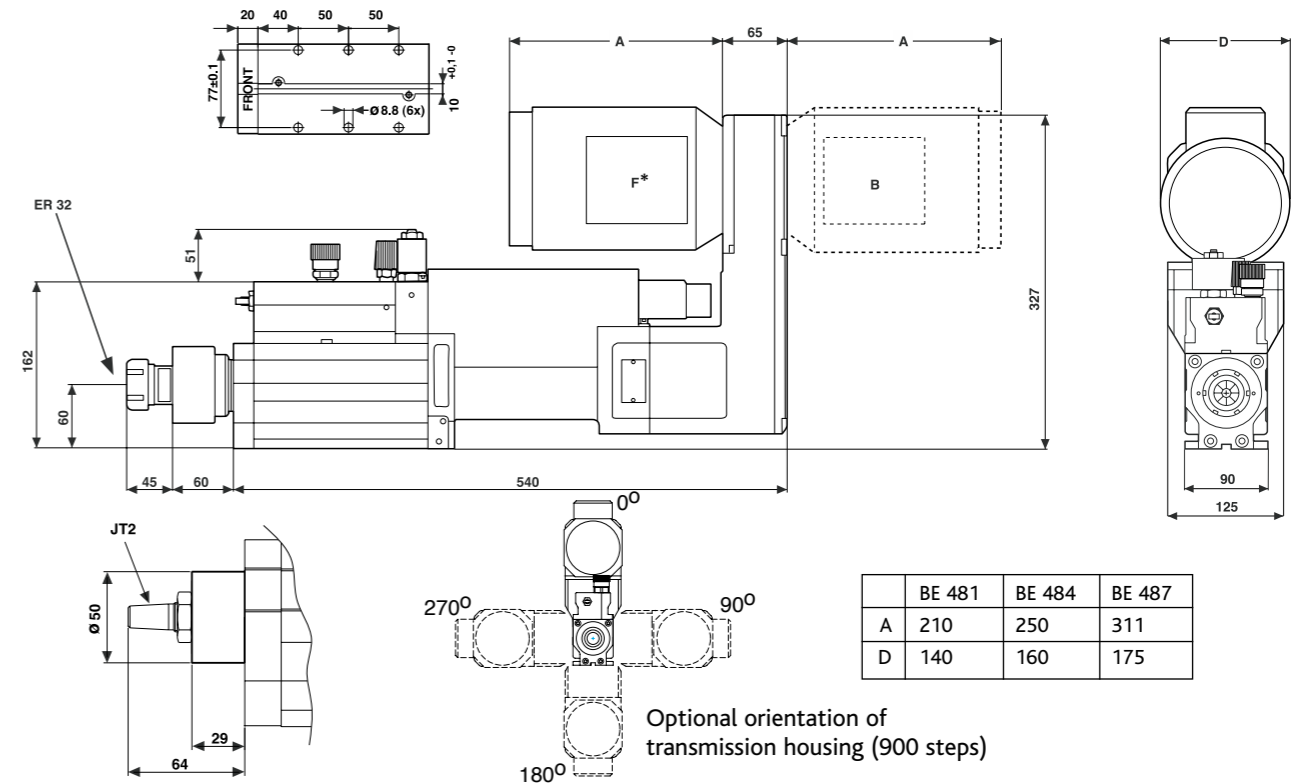
No of Poles	SPINDEL RPM AT GEAR RATIO AT 50HZ														
	2.5:1	2:1:1	1.8:1	1.6:1	1.4:1	1.2:1	1:1	1:1.2	1:1.4	1:1.6	1:1.8	1:2:1	1:2.5		
2	1130*	1350	1580	1750											
4	560*	670	780	860	1030	1190	1390	1620	1880						
6	360*	440	510	560	670	780	910	1060	1230	1470	1630	1900			
8	270*	330	380	420	500	580	680	790	920	1100	1210	1420	1730*		

30 *Not available for BEG487

E2 does not recommend tapping with a floating holding at higher speeds than 2000 rpm. Maximum speed is lower when tapping a deep or blind hole and/or using a large thread.

Dimensions

[mm]



Optional orientation of transmission housing (900 steps)

*Front mount is not possible at BE487 with linear transducer

You can download 2D CAD-drawings and 3D CAD-models on www.e2systems.com.

WEIGHT 29-40 KG

Necessary components

TAPPING ATTACHMENTS	TYPE	PAGE
	Length compensation up to 10 mm	47
	Integrated ER32 chuck with length compensating collets M4-M12	
	Length compensation up to: 25 mm Tapping spindle GS12E M4-M16 (JT2) 40 mm Tapping spindle GS24E M8-M30 (ER32+B18/ø16 taper shank)	47
TAP HOLDERS	TYPE	PAGE
	ER32 collets with length compensation M4-M12	47
	T12 for GS12E T24 for GS24E	47
LIMIT SWITCHES	TYPE	PAGE
	Electric switches Pneumatic switches Inductive switches or Linear Transducer	51

Accessories

MULTI-SPINDLE HEADS	TYPE	PAGE
	Adjustable heads VH04-, VH06-, VH08-, VH10-, MBK V40-,	38
CONTROLS	TYPE	PAGE
	Controls for BEG 48-units with Electric switches Pneumatic switches Inductive switches or Linear Transducer	51

On www.e2systems.com you can find more information as well as the same information as above in imperial units.

When requesting a quote or ordering, please state: **Model, Chuck (collet size), Limit Switches, Spindle rpm, Motor Power, Front or Backward Motor orientation, Float compensation required (if known) as well as Ø and □ for the tap holder.**