

ETT Series

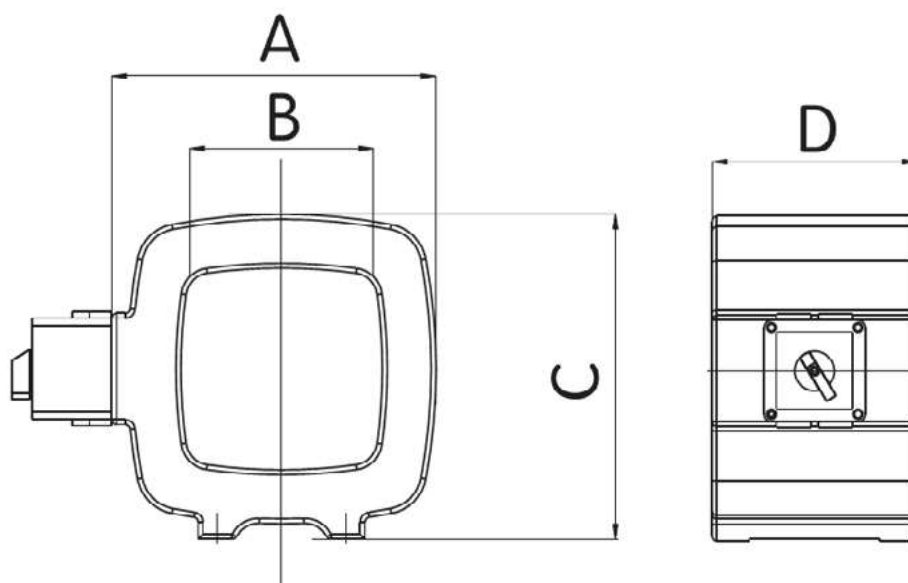
Tabletop Demagnetisation Tunnels

The demagnetisation tunnels of the ETT series are designed for tabletop use. The spool current is activated by an ON/OFF switch. The ETT series conforms to IEC Protection Class II (double insulated).



PRODUCT PROPERTIES AND PART NUMBERS

		ETT 150	ETT 350	ETT 550
Part number		101155	101355	101555
Field strength	kA/m	13.5 kA/m	10 kA/m	6.2 kA/m
Mains connection	V	400	400	400
Current consumption	I (A)	1.6	8.5	12
Power consumption	kVA	0.7	3.4	4.8
Frequency	Hz	50	50	50
Measurement A	mm	260	480	680
Measurement B	mm	150	350	550
Measurement C	mm	260	475	695
Measurement D	mm	166	325	325



ETT Series

Demagnetisation is an important component of electromagnetic crack testing. Residual magnetism in test samples is an issue for many users and the industry demands increasingly better demagnetisation values.

Where workpieces are subjected to a magnetic field due to a magnetisation process - as part of a testing method, processing, or from magnetic lifting equipment - a residual magnetic field will remain in the component after the field-generating source has been disabled (remanence), which must be neutralised. Eliminating this magnetic residue will help avoid negative effects during later processing or when using the workpieces.

The demagnetisation of AC-supplied spools that have a frequency of 50 Hz, occurs by way of the slow retraction of the test object from the field-filled space of the demagnetisation spool, in direction of the spool axis.

At the start of demagnetisation, the field strength must be at least equal to the field strength of the magnetisation. Similarly, the entire area for demagnetisation must be captured. While a field saturation depth of approx. 2mm can be expected in magnetic particle testing with alternating magnetic field, for components that were manipulated with lifting equipment, the entire cross section of the test object must be covered. In the latter case, demagnetisation is achieved with an increased field saturation depth, whereby the field intensity is decreased with low-frequency AC or reversing DC current.

The most important basis for achieving good demagnetisation results is:

- for parts that were **AC**-magnetised: demagnetisation at 50 or 60 Hz AC or low-frequency AC.
- for parts that were **DC**-magnetised: demagnetisation with low-frequency AC only (e.g. 16 2/3 Hz).