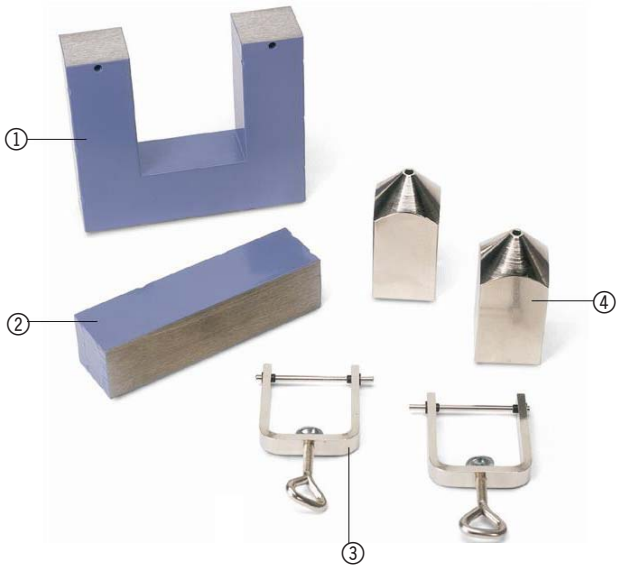
8497180 Transformer core with yoke and clamps

8497200 Pair of drilled pole pieces

Instruction Sheet

05/05 JH



① Transformer core (U-core) 2.

② Yoke (I-core)

③ Clamps for clamping the yoke (the bar that completes the ring) or pole pieces (8497200) firmly to the core.

④ Pair of drilled pole pieces

The transformer core with yoke and clamps are provided for use in conjunction with the accessories listed under item 4 of the instructions for assembling the demountable transformer.
The pole pieces are required for experiments on electromagnetism where a well-defined air gap is necessary (e.g. Waltenhofen's pendulum or investigations of paramagnetic and diamagnetic samples).

1. Safety instructions

- Polished surfaces should be kept free of dirt and grease.
- Transformer core, yoke and pole pieces should not be exposed to moisture.
- For transporting the U-core and yoke (I-core), make sure the clamps are firmly secured.
- During the experiment, the yoke or pole pieces should be firmly secured using the clamps.

2. Description, technical data

2.1 Transformer core 8497180

Transformer core and yoke made of high-quality, laminated iron for use in transformers, with two holes drilled for securing pole pieces or yoke with the aid of clamps.

Cross section of core:	40 mm x 40 mm
Height including yoke:	170 mm
Width:	150 mm
Material:	Laminated iron
Weight:	6 kg approx.

2.1.1 Scope of delivery:
Transformer core
Yoke
Clamps (pair)

2.2 Pair of drilled pole pieces 8497200

Pole pieces made of soft iron each with one plane and one conical end. The pole pieces have a bore drilled through the middle of them.

Cross section of core:	40 mm x 40 mm
Bore at conical end:	5 mm
Bore at plane end:	12 mm
Material:	Soft iron
Weight:	1.7 kg approx.

3. Operation

- The safety instructions for the coils must be observed at all times.
- Mount the primary and secondary coils on the core.
- Lay the polished side of the yoke or pole pieces on top of the U-core.
- Attach the clamps.
- Firmly secure the yoke or pole pieces with the clamps.

4. Example experiments

Step-up transformer

Waltenhofen's pendulum

Spark discharge along horn-shaped electrodes

Accessories for step-up transformer

Item	Cat. no.	Winding turns	Tap(s)
Mains coil 220 V	8497420	600	
Mains coil 115 V	Available on request	300	
High current coil for needle-point melting experiments	8497406	6	
Coil	8497410	72	6/30/54/66/72
Coil	8497430	600	200
Coil	8497440	1200	400
Coil	8497450	6000	2000
Melting ladle	8497310	1	
Coil with 5 winding turns High current coil for spot welding	8497320	5	
High-tension coil with horn-shaped spark electrodes	8497460	24000	

5. Cleaning, maintenance and storage

- Polished surfaces should be kept free of dirt and grease.
- Store in dry conditions.
- Remove any rust with fine steel wool or sandpaper.