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Hand Yokes

Mobile Crack Detection Units

The portable **MAGNAFLUX hand yokes of brand TIEDE** serve as testing units especially to check ferromagnetic parts when burn marks or annealing must not occur. When checking for wear, at revisions as well as for uncomplicated test tasks to be completed quickly the hand yokes are the perfect testing units.

TWM 220 N

The **TWM 220 N** hand yoke is an AC current instrument that can be directly connected to a 230 V AC supply. In conjunction with adjustable pole pieces it is ideally suited for testing uneven surfaces, tube bends,angle pieces etc.

Technical data	
Ref. No.	071301
Electrical supply	230 V
Frequency	50 Hz
Pole cross section	28 x 22 mm
Weight - hand yoke	3.2 kg
Pull-off strength	18 kg AC

TWM 230 A

The **TWM 230 A** hand yoke is of similar construction to the TWM-N type, however, the switch on this model can be exchanged when it becomes worn, or faulty. We have also introduced a special switching circuit so that the yoke is switched on when the AC current is passing through zero, thereby greatly extending the life of the switch and the yoke.

Technical data	
Ref. No.	071310
Electrical supply	230 V
Frequency	50 Hz
Pole cross section	28 x 22 mm
Weight - hand yoke	3.2 kg
Pull-off strength	18 kg AC

KWM 42

The **cross yoke KWM 42** consists of two AC yokes dis-placed by 90° so that both longitudinal and transverse cracks can be detected in one single operation. Two castors on each magnetic pole maintain a constant air gap
and enable the yoke to be moved easily over the test surface.The KWM 42 is powered by a 3-phase supply through a separate transformer.

Technical data	
Ref. No.	074001
Electrical supply	42 V
Frequency	50 Hz
Pole cross section	27 x 27 mm
Weight - cross yoke	10.8 kg
Pull-off strength	17 kg AC
Separate transformer	3 x 400 / 42 V / 50 Hz
Ref. No. (60 % ED)	074020
Weight transformer	23.6 kg

TWM 42 A/N

The AC hand yoke **TWM 42 A/N** operates at 42 V supplied from a separate transformer which is connected to a 230 V AC supply. This satisfies the VDE safety regulations so that the TWM 42 A/N can be used for testing invessels, tubes and closed containers.
Additionally the TWM/A is equipped with an exchangeable switch

Technical data	
Ref. No.	072301
Ref. No.	072310
Electrical supply	42 V
Frequency	50 Hz
Pole cross section	28 x 22 mm
Weight - cross yoke	3.5 kg
Pull-off strength	17 kg AC
Separate transformer VDE 0551	230 / 42 V
Ref. No.	077110
Weight transformer	7 kg

JWM 230

NEW

The **hand magnet JWM 230** is small in size, light in weight, and therefore handy to use. Its magnetization output is adequate to satisfy the majority of test requirments. Articulated pole pieces with twinknuckle adjustments may be mounted on the yoke to extend the range of test applications and to ensure the optimum development of the magnetic field within the test piece.
The hand magnet JWM 230 is a 230 V/AC as well as a 12 V/DC one. The DC connection needs a 12 V/DC transformer.

Protective poles can be mounted to both poles on the hand magnet (refer to the accessories description in section right side).

Note:
Caused by the new design, the JWM 230 can only be operated with one pole of the attachments. It is NOT possible to operate the yoke without any pole attachment.

***) one of these items is a MUST!**

Technical data	
Ref. No.	075002
Electrical supply	230 VAC / 12 VDC
Frequency	50 Hz
Pole cross section	23 x 27 mm
Weight - hand yoke	2.9 kg
Pull-off strength	5-16 kg AC/20-30 kg DC

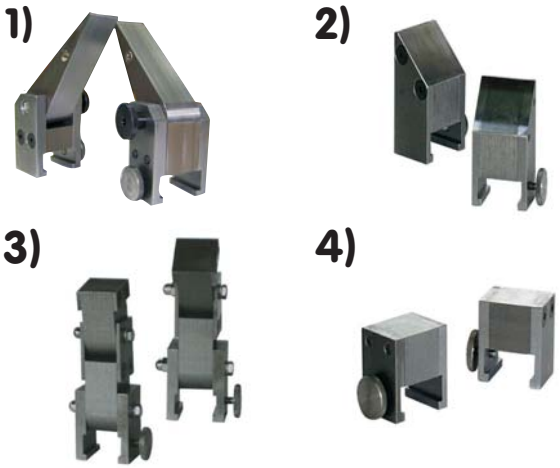
Suitable accessories for the JWM 230:	
Transformer for 12V-DC-operation	
Ref. No.	077120
Adapter cabel	
Ref. No.	077501
Pole Pieces	
Ref. No.	*)

MAG-1

The **MAG-1 magnet** is ideal for the effective magnetization of components for crack detection, particularly where the use of electromagnetic yokes is impractical or prohibited for safety reasons. The hinged arms and rotating angled pole pieces facilitate the local inspection of a diverse range of components such as critical welds and automotive components.

Technical data	
Ref. No.	076051
Magnet material	Neodymium Iron Boron
Relevant specification	BS 6072
Poles	35 mm
Weight - hand yoke	3.02 kg
Pull-off strength	> 18 kg

*)Pole Pieces



Pole Pieces for the hand yokes JWM 230, TWM 42 A/N, TWM 220 and TWM 230 A.

1) **Articulated legs for fillet seam inspection**
Ref. No. 077004

2) **45° poles for fillet seam inspection**
Ref. No. 077003

3) **Articulated legs for inspection of angle pieces, tube bends and other uneven areas**
Ref. No. 077001

4) **Protective poles to safeguard the pole areas**
Ref. No. 077002

Hand yokes

Carrying case

For **hand yokes, UV lights and accessories.**
Carrying case made from wear-resistant plastic material to hold the following equipment:

1 AC hand yoke
TWM 220 N, TWM 230 A, BWM 220/12, JWM 220 or TWM 42 A/N (without transformer)

1 portable UV light
with standard transformer (no isolating transformer)

1 UV spare bulb

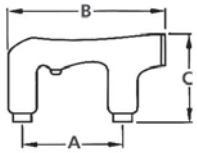
1 UV spare filter glass

1 set of pole pieces each

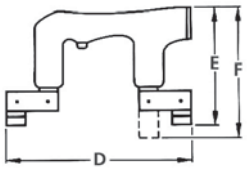
Ref. No. 136001
(case without contents)

Ref. No. 136005
(case without contents) same as Ref. No. 136001 but suitable for transportation/storage of **Labino portable UV-lights** instead of portable UV-lights.

Dimensions

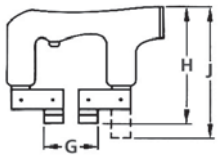


Unit type	A mm	B mm	C mm
JWM 230	167	270	117
TWM 220 N	168	268	158
TWM 42 A/N	168	268	158
TWM 230 A	168	268	158
MAG-1	200	200	177



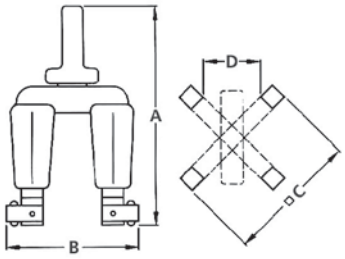
Unit type	D mm[1)]	E mm	F mm[2)]
JWM 230	285	159	207
TWM 220 N	285	202	250
TWM 42 A/N	285	202	250
TWM 230 A	285	202	250

[1)] min. pole distance [2)] Height in straight position
with adjustable poles: fix mounded at JWM 220, can be moundedt to all other TWM unit types (optional).



Unit type	G mm[1)]	H mm	J mm[2)]
JWM 230	105	159	207
TWM 220 N	105	202	250
TWM 42 A/N	105	202	250
TWM 230 A	105	202	250

[1)] min. pole distance [2)] Height in straight position
with adjustable poles: fix mounded at JWM 220, can be moundedt to all other TWM unit types (optional).



Unit type	A mm	B mm	C mm	D mm
KWM 42	320	205	195	80