



# Hand yokes

Portable Crack Detection Units



**Tiede**<sup>®</sup>

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## 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. This is done by simply removing the holding screws. 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.	071 310
Electrical supply	230 V
Frequency	50 Hz
Pole cross section	28 x 22 mm
Weight – hand yoke	3.2 kg
Pull-off strength	22 kg AC

## 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.	071 301
Electrical supply	230 V
Frequency	50 Hz
Pole cross section	28 x 22 mm
Weight – hand yoke	3.2 kg
Pull-off strength	22 kg AC

## KWM 42



The **cross yoke KWM 42** consists of two AC yokes displaced 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.	074 001
Electrical supply	42 V
Frequency	50 Hz
Pole cross section	27 x 27 mm
Weight – cross yoke	10.8 kg
Pull-off strength	16 kg AC
<b>Separate transformer</b>	3 x 400/42 V/50 Hz
Ref. No. (60 % ED)	074 102
Weight:	30 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 in vessels, tubes and closed containers.

Additionally the TWM/A is equipped with an exchangeable switch

### Technical data:

Ref. No. Type N	072 301
Ref. No. Type A	072 310
Electrical supply	42 V
Frequency	50 Hz
Pole cross section	28 x 22 mm
Weight – hand yoke	10.8 kg
Pull-off strength	22 kg AC
<b>Separate transformer VDE 0551</b>	230/42 V
Ref. No.	077 110
Weight:	7 kg

# Hand yokes

## Portable Crack Detection Units

### JWM 220



The AC hand yoke JWM 220 is small in size, light in weight, and therefore handy to use. Its magnetization output is adequate to satisfy the majority of test requirements. Articulated pole pieces with twinknuckle adjustment are mounted on the yoke as standard fittings to extend the range of test applications and to ensure the optimum development of the magnetic field within the test piece.

#### Technical data:

Ref. No.	075 001
Electrical supply	230 V
Frequency	50 Hz
Pole cross section	24 x 28 mm
Weight – hand yoke incl. mounted pole pieces	3.4 kg
Pull-off strength	10 kg AC

### TWM 220 E



The hand yoke TWM 220 E with replaceable switch and steplessly adjustable regulation is an AC unit and can be directly connected to a 230 V AC supply. Due to the replaceable switch no annoying work interruption will be necessary in case of a damaged switch. By means of the series built-in adjustable regulation device the field strength may be individually adjusted for the different workpieces to be tested.

#### Technical data:

Ref. No.	071 303
Electrical supply	230 V
Frequency	50 Hz
Pole cross section	28 x 22 mm
Weight – hand yoke	3.3 kg
Pull-off strength	22 kg AC

### BWM 220/12

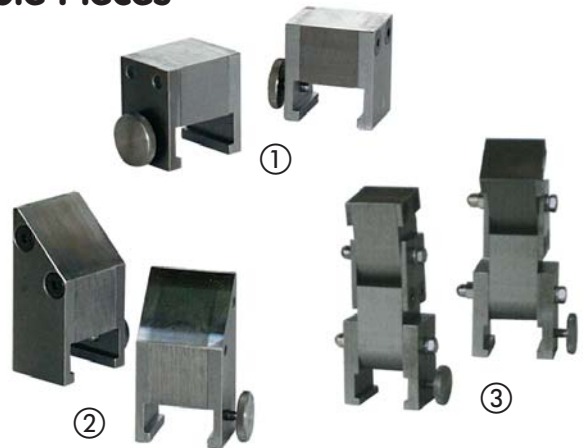


The AC hand yoke BWM 220/12 is of compact construction and is particularly suitable for testing in locations which are confined or difficult of access. The AC hand yoke BWM 220/12 is designed to be connected both to 230 V AC and also, in conjunction with a transformer to 12 V DC.

#### Technical data:

Ref. No.	073 301
Electrical supply	230 V
Frequency	50 Hz
by transformer	12 V =
Pole cross section	27 x 27 mm
Weight – hand yoke	2.9 kg
Pull-off strength	16 kg AC > 35 kg DC
<b>Transformer</b>	12 V
Ref. No.	077 120

### Pole Pieces



#### Pole Pieces for the hand yokes TWM 220 N, TMW 42 A/N, TWM 220 E, TWM 230 A und BWM 220/12

##### ① Protective poles to safeguard the pole areas

Ref. No. 077 002  
077 007 only BWM 220/12

##### ② 45° poles for fillet seam inspection

Ref. No. 077 003  
077 008 only BWM 220/12

##### ③ Articulated legs for inspection of angle pieces, tube bends and other uneven areas

Ref. No. 077 001  
077 006 only BWM 220/12

Further hand yokes on require. All yokes are available in 110 V or 220 V.





# Hand yokes

## Portable Crack Detection Units

### 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/E or TWM 42 A/N or TWM 230 A without transformer

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

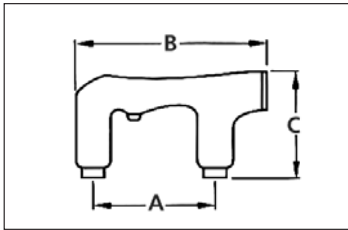
#### 1 UV spare bulb

#### 1 UV spare filter glass

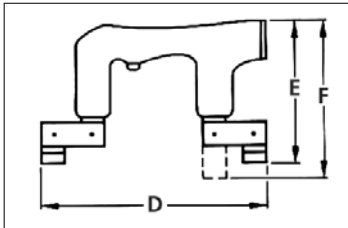
Ref. No. 136 001 (case without contents)



## Dimensions



Unit type	A mm	B mm	C mm
BWM 220/12	168	260	113
TWM 220 N	168	268	156
TWM 42 A/N	168	268	156
TWM 220 E	168	295	190
TWM 230 A	168	268	156

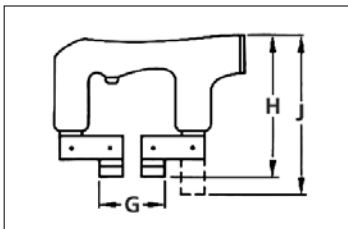


Unit type	D mm <sup>1)</sup>	E mm	F mm <sup>2)</sup>
BWM 220/12	285	162	204
JWM 220	285	134	179
TWM 220 N	285	202	247
TWM 42 A/N	285	202	247
TWM 220 E	285	236	281
TWM 230 A	285	202	247

<sup>1)</sup> Min. pole distance

<sup>2)</sup> Height in straight position

With adjustable poles: fix mounted at JWM 220, can be mounted to all other unit types (optional)

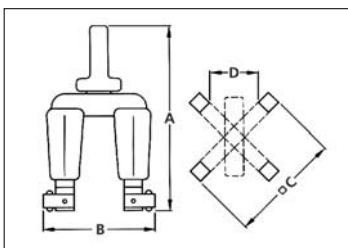


Unit type	G mm <sup>1)</sup>	H mm	J mm <sup>2)</sup>
BWM 220/12	105	162	204
JWM 220	105	134	179
TWM 220 N	105	202	247
TWM 42 A/N	105	202	247
TWM 220 E	105	236	281
TWM 230 A	105	202	247

<sup>1)</sup> Min. pole distance

<sup>2)</sup> Height in straight position

with adjustable poles: fix mounted at JWM 220, can be mounted to all other unit types (optional)



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

Tiede reserves the right to change at any time, without notice, the appearance or specification for product improvement or technical advancement.

