

# ISOTEST®

## High Voltage Holiday Detectors & Accessories for Coatings, Linings and Wrappings.



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### **Your confidence in the ORIGINAL**

For decades the ISOTEST® quality standard has been continuously refined by the ELMED engineering team.

No matter which application conditions you are facing you can experience the convincing results in kind of reliability of the test and safety for the operator.

With the original ISOTEST® accessories you will fulfil the high requirements defined for industrial use and construction sites.

Original ISOTEST® accessories: Just look for the ISOTEST® logo to be sure!

## ISOTEST® Testing Devices

Part-No.: 0113510001



### ISOTEST inspect 35 (set)

testing voltage adjustable from 5 – 35 kV in 0.1 kV steps

#### Scope of supply:

Testing device, instrument bag with shoulder strap, battery (SLA), charger 230 VAC, earth cable 10 m with clamping jaw and instrument plug, your choice of one piece testing electrode up to 500 mm, aluminium transport box, works and calibration certificate

Part-No.: 0118100011



### ISOTEST inspect 8.0 (set)

testing voltage adjustable from 0,5 – 8,0 kV in 0,5 kV steps

#### Scope of supply:

Testing device, instrument bag with shoulder strap, battery (SLA), charger 230 VAC, earth cable 10 m with clip and instrument plug, earth cable 15 m with clamping jaws on both ends, your choice of one piece testing electrode up to 500 mm, earthing foil set, aluminium transport box, works and calibration certificate

Part-No.: 0141000010



### ISOTEST 4S

testing voltage adjustable from 10 – 25 kV in 5 kV steps

#### Scope of supply:

Testing device, leather case with carrying and shoulder strap, battery (SLA), charger 230 VAC, grounding cable 10 m with clamping jaw and instrument plug, works and calibration certificate

Part-No.: 0141000001

Optionally available with safety shut-off function

Part-No.: 0141002010



### ISOTEST 4S plus

testing voltage 5 – 35 kV with 7 voltage steps of your choice

#### Scope of supply:

Testing device, leather case with carrying and shoulder strap, battery (SLA), charger 230 VAC, grounding cable 15 m with clamping jaw and instrument plug, works and calibration certificate

Part-No.: 0141002001

Optionally available with safety shut-off function

Part-No.: 0190000140



### ISOTEST HV

High-voltage-voltmeter for impulse voltage

#### Measuring range:

Impulse voltage: 5 – 35 kV

#### Scope of supply:

measuring instrument, battery set, measuring accessories, transport box, works and calibration certificate

## Accessories for Grounding

Proper grounding of the high-voltage testing instrument is an absolutely essential precondition for all high-voltage tests. The power circuit is closed through the grounding, i.e., the test instrument is first connected to the not-insulated, conductive section of the test object, and the test object is then connected to the grounding potential.

While testing with high-voltage instruments, a connection must be established under all circumstances with the grounding potential, with the help of suitable accessories.

### ISOTEST® instruments enable 3 different grounding forms:

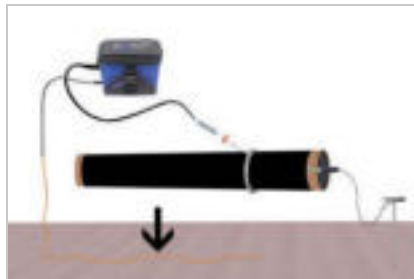
(Example: Grounding of a pipe with parent coating or field joint coating)

#### Direct Grounding



**Direct grounding** - The directly conductive connection between the testing instrument and the not-insulated section of the pipe to be tested is the most reliable form of grounding, and is to be preferred to all other options.

#### Indirect Grounding



**Indirect grounding** with the help of the trailing ground enables pipeline testing without obstructing cables, if direct grounding is not possible.

#### Phantom-Grounding (Capacitive Grounding)



The grounding collar or a special grounding film is used if a conductive connection with the object to be tested is not possible. The grounding collar is also recommended in case of bad-conducting or extremely dry soil. The grounding collar consists of a special, carbon infused rubber and it represents a form of **capacitive grounding** which can be implemented only while using pulse voltage.

Wound around the pipe to be tested in the fitting size and tightened, one side of the collar is connected to the soil (grounding cable with grounding rod) and the other side is connected to the testing instrument.

## Grounding Stick

Part-No.: 0174200000

**Grounding Stick incl. 2 m Cable Assembly with C-Clamp**  
(clamping range up to 20 mm)



Part-No.: 0174200001

**Grounding Stick incl. 10 m Cable Assembly with C-Clamp**  
for large diameters pipes and tanks



## Ground Cable

Part-No.: 0174200002

**Ground Cable Assembly, 10 m**  
(for ISOTEST 3P, 4S and inspect)



**End connection:** Clamping jaw / Plug connector

Part-No.: 0174320000  
Fig. s.a.

**Ground Cable Assembly, 15 m**  
(for ISOTEST 3P, 4S and inspect)

**End connection:** Clamping jaw / Plug connector

Part-No.: 0174200100

**Ground Cable Assembly, 15 m - with Clamping Jaw at both ends**



Part-No.: 0174250020

**Ground Cable Assembly Y - Shaped**  
for simultaneously grounding of grounding electrodes and ISOTEST® testing device

**End connection:** clamping jaw – 6mm plug / 6mm plug  
**Length:** 10m / 2m – 2m

Part-No.: 0174250010

**Ground Cable Assembly Y - Shaped**  
for simultaneously grounding of test sample and ISOTEST® testing device

**End connection:** clamping jaw – clamping jaw / 6mm plug  
**Length:** 10m / 2m – 2m

## Trailing Ground

Part-No.: 0174120000



**Trailing Ground - Plug Connection Ø 6 mm, Length: 6 m**  
(for ISOTEST 3P, 4S and inspect)

The use of a trailing ground enables pipeline testing without obstructing cables, if direct grounding is not possible.

Part-No.: 0174120001  
Fig. s.a.

**Trailing Ground - Plug Connection Ø 6 mm, Length: 9 m**  
(for ISOTEST 3P, 4S and inspect)

## Grounding Collar



**Grounding Collar of Special Conductive Rubber**

For the grounding of fully coated pipes in which direct galvanic grounding is not possible.

The use of a grounding collar is also recommended in case of bad-conducting or extremely dry soil. Wound around the pipe to be tested in the fitting size and tightened, one side of the collar is connected to the soil (grounding cable with grounding rod) and the other side is connected to the testing instrument.

	NPS mm	NPS inch
Part-No.: 0174401020	type 1 for NPS 100 - 200	4 - 8
Part-No.: 0174402040	type 2 for NPS 200 - 400	8 - 16
Part-No.: 0174403060	type 3 for NPS 300 - 600	12 - 24
Part-No.: 0174450100	type 4 for NPS 500 - 1000	20 - 40
Part-No.: 0174410140	type 5 for NPS 1000 - 1400	40 - 56

## Brush Electrodes (for grounding only)



**Brush Electrodes (for grounding only)**

Special grounding accessories for valves and fittings to be tested not connected to ground potential.

**Design:**

Stainless steel brush electrode

**Attention: not appropriate for use as test electrode! (s. page 14)**

	NPS mm	NPS inch
Part-No.: 0165400025	NPS 25	1
Part-No.: 0165400032	NPS 32	1 ¼
Part-No.: 0165400040	NPS 40	1 ½
Part-No.: 0165400050	NPS 50	2
Part-No.: 0165400065	NPS 65	2 ½
Part-No.: 0165400080	NPS 80	3
Part-No.: 0165400100	NPS 100	4
Part-No.: 0165400125	NPS 125	5
Part-No.: 0165400150	NPS 150	6
Part-No.: 0165400175	NPS 175	7
Part-No.: 0165400200	NPS 200	8
Part-No.: 0165400250	NPS 250	10

## Batteries & Chargers

Part-No.: 0176110451



**Battery for ISOTEST IIT, RT, 3P, 4S and inspect**  
6V / 4.5Ah (SLA)

Part-No.: 0176200700

**Battery Fuses**  
(spare parts - 5 pieces)

Part-No.: 0172100000



**Charger**

**Supply voltage (wide-range-input):** 100 – 240 VAC / 50 – 60 Hz

Part-No.: 0172800012

**Charger (Car-Version)**

Fig. s.a.

**Supply voltage:** 12 VDC

Part-No.: 0172800024

**Charger (Car-Version)**

Fig. s.a.

**Supply voltage:** 24 VDC

## Transport Box

Part-No.: 0177200002



**ISOTEST® Transport Box**

for ISOTEST 3P, 4S and inspect, aluminium storage compartment for testing device and accessories.

**Dimensions:** 667 x 350 x 340 mm (W x H x D)

## Testing Electrodes

First class components meet every quality standard!

ISOTEST® testing electrodes are available for all common pipe diameters respectively in many different sizes.

### Flat Brush Electrodes



#### Flat Brass Brush Electrodes

Fit for all-purpose application, e.g. for the inspection of tanks and containers.

**Type:**

High quality full brass brushes, extremely robust and durable for best possible testing results.

#### Length mm

Part-No.: 0162100050	<b>50</b>
Part-No.: 0162100100	<b>100</b>
Part-No.: 0162100150	<b>150</b>
Part-No.: 0162100200	<b>200</b>
Part-No.: 0162100250	<b>250</b>
Part-No.: 0162100300	<b>300</b>
Part-No.: 0162100350	<b>350</b>
Part-No.: 0162100400	<b>400</b>
Part-No.: 0162100450	<b>450</b>
Part-No.: 0162100500	<b>500</b>
Part-No.: 0162100550	<b>550</b>
Part-No.: 0162100600	<b>600</b>
Part-No.: 0162100700	<b>700</b>
Part-No.: 0162100800	<b>800</b>
Part-No.: 0162100900	<b>900</b>
Part-No.: 0162101000	<b>1000</b>

Long trimming on request



#### Flat Brush Electrodes of Stainless Steel

Fit for all-purpose application, e.g. for the inspection of tanks and containers.

**Type:**

High quality stainless steel brushes, extremely robust and durable for best possible testing results.

#### Length mm

Part-No.: 0162500200	<b>200</b>
Part-No.: 0162500300	<b>300</b>
Part-No.: 0162500400	<b>400</b>





#### Flat Brass Brush Electrodes with Angle Adjustment

Adjustable up to 90°, particularly made for convenient inspection of large surfaces without operator fatigue.

#### Type:

High quality full brass brushes, extremely robust and durable for best possible testing results.

	Length mm
Part-No.: 0167100050	50
Part-No.: 0167100100	100
Part-No.: 0167100150	150
Part-No.: 0167100200	200
Part-No.: 0167100250	250
Part-No.: 0167100300	300
Part-No.: 0167100350	350
Part-No.: 0167100400	400
Part-No.: 0167100450	450
Part-No.: 0167100500	500
Part-No.: 0167100550	550
Part-No.: 0167100600	600
Part-No.: 0167100700	700
Part-No.: 0167100800	800
Part-No.: 0167100900	900
Part-No.: 0167101000	1000

Long trimming on request



#### Flat Brush Electrodes of Stainless Steel with Angle Adjustment

Adjustable up to 90°, particularly made for convenient inspection of large surfaces without operator fatigue.

#### Type:

High quality stainless steel brushes, extremely robust and durable for best possible testing results.

	Length mm
Part-No.: 0162600200	200
Part-No.: 0162600300	300
Part-No.: 0162600400	400



#### Flat Electrode of Conductive Rubber

Flat electrodes made of special conductive rubber are particularly designed for testing objects with a delicate or thin surface e.g. paint, varnish etc.

	Length mm
Part-No.: 0162200050	50
Part-No.: 0162200100	100
Part-No.: 0162200150	150
Part-No.: 0162200200	200
Part-No.: 0162200250	250
Part-No.: 0162200300	300
Part-No.: 0162200350	350
Part-No.: 0162200400	400
Part-No.: 0162200450	450
Part-No.: 0162200500	500
Part-No.: 0162200550	550
Part-No.: 0162200600	600



#### Flat Electrode of Conductive Rubber with Angle Adjustment

adjustable up to 90°, are particularly made for convenient inspection of delicate or thin film coatings without operator fatigue.

#### Length mm

Part-No.: 0167200050	<b>50</b>
Part-No.: 0167200100	<b>100</b>
Part-No.: 0167200150	<b>150</b>
Part-No.: 0167200200	<b>200</b>
Part-No.: 0167200250	<b>250</b>
Part-No.: 0167200300	<b>300</b>
Part-No.: 0167200350	<b>350</b>
Part-No.: 0167200400	<b>400</b>
Part-No.: 0167200450	<b>450</b>
Part-No.: 0167200500	<b>500</b>
Part-No.: 0167200550	<b>550</b>
Part-No.: 0167200600	<b>600</b>

## Wire Rake & Paint Brush Electrodes



#### Wire Rake Electrodes

Wire rake electrodes are suitable for almost every application, for example: testing of tanks, containers and fittings.

#### Model:

Made of stainless steel, extremely robust and durable for maximum inspection reliability.

#### Trimming mm

Part-No.: 0168100000	<b>100</b>
Part-No.: 0168200000	<b>200</b>



#### Paint Brush Electrodes

Testing electrodes 'paint brush' type are designed for surfaces difficult to access, e.g. drill-holes

#### Trimming mm

Part-No.: 0166015100	<b>100</b>
Part-No.: 0166015200	<b>200</b>

## Pipeline Coils / Spring Electrodes



### Pipeline Coils / Spring Electrodes

The easiest and fastest way to check even longer pipe sections. Before burying the pipe the complete pipe surface can be checked with spring electrodes in a single work process.

ISOTEST® spring electrodes have excellent rolling characteristics and therefore guarantee accurate and reliable test results.

**Model:** made of corrosion-resistant stainless steel, Ø 33 mm

	NPS mm	NPS inch
Part-No.: 0161000080	80	3
Part-No.: 0161000100	100	4
Part-No.: 0161000125	125	5
Part-No.: 0161000150	150	6
Part-No.: 0161000200	200	8
Part-No.: 0161000250	250	10
Part-No.: 0161000300	300	12
Part-No.: 0161000350	350	14
Part-No.: 0161000400	400	16
Part-No.: 0161000450	450	18
Part-No.: 0161000500	500	20
Part-No.: 0161000550	550	22
Part-No.: 0161000600	600	24
Part-No.: 0161000650	650	26
Part-No.: 0161000700	700	28
Part-No.: 0161000750	750	30
Part-No.: 0161000800	800	32
Part-No.: 0161000850	850	34
Part-No.: 0161000900	900	36
Part-No.: 0161000950	950	38
Part-No.: 0161001000	1000	40
Part-No.: 0161001050	1050	42
Part-No.: 0161001100	1100	44
Part-No.: 0161001150	1150	46
Part-No.: 0161001200	1200	48
Part-No.: 0161001400	1400	56

Part-No.: 0176000000



### Guiding Fork

You always need a guiding fork when testing with pipeline coils / spring electrodes.



#### **SlimLine spring electrodes for testing large-diameter pipes**

The SlimLine spring electrodes reduce the electric load of the ISOTEST® testing device, especially when testing large-diameter pipes.

Because of this stable test voltages are guaranteed even for pipes with a diameter up to 1600 mm (64"). The excellent rolling characteristics allow a comfortable and reliable test of the entire pipe coating in one single work process.

**Model:** Made of corrosion-resistant stainless steel, Ø 21mm

	<b>NPS mm</b>	<b>NPS inch</b>
Part-No.: 0161201050	<b>1050</b>	<b>42</b>
Part-No.: 0161201100	<b>1100</b>	<b>44</b>
Part-No.: 0161201150	<b>1150</b>	<b>46</b>
Part-No.: 0161201200	<b>1200</b>	<b>48</b>
Part-No.: 0161201400	<b>1400</b>	<b>56</b>
Part-No.: 0161201500	<b>1500</b>	<b>60</b>
Part-No.: 0161201600	<b>1600</b>	<b>64</b>

Part-No.: 0176000100



#### **SlimLine connector for SlimLine spring electrodes**

You always need a SlimLine connector when testing with SlimLine spring electrodes.

#### **Safe Choice of Testing Electrodes**

In order to provide for a safe and trouble-free testing it is compulsory to consider all testing conditions and procedures before choosing the necessary accessories and the right size and type of the testing electrodes. The user is responsible for the right choice of accessories and electrode size, for their proper use as well as their related maintenance.

## Semicircular Electrodes



### Semicircular Electrodes

Semicircular brushes are dense brass brushes of high quality and longevity extremely robust for maximum measuring safety. Only the overall contact between surface and electrode guarantees correct testing results.

	NPS mm	NPS inch
Part-No.: 0163000050	50	2
Part-No.: 0163000075	75	3
Part-No.: 0163000080	80	3
Part-No.: 0163000100	100	4
Part-No.: 0163000125	125	5
Part-No.: 0163000150	150	6
Part-No.: 0163000200	200	8
Part-No.: 0163000250	250	10
Part-No.: 0163000300	300	12
Part-No.: 0163000350	350	14
Part-No.: 0163000400	400	16
Part-No.: 0163000500	500	20
Part-No.: 0163000600	600	24
Part-No.: 0163000700	700	28
Part-No.: 0163000800	800	32
Part-No.: 0163000900	900	36
Part-No.: 0163001000	1000	40

Special sizes? No problem, ☎ Just call!

Part-No.: 0181000000



### Insulating Handle

An additional insulating handle is needed when working with semicircular electrodes for pipes above DN 500 / NPS 20 inch.

## Brush Electrodes for Internally Coated Pipes



### Brush Electrodes for Internally Coated Pipes

The brush electrodes are drawn through the pipe during the pore test with the help of a high-voltage extension cable or an insulated extension bar.

High-voltage extension cables are available in 4m and 7m lengths.

Extension bars are available in 0,5m and 1m lengths.

#### Design:

brush electrode with two sections of stainless steel and a nylon-reinforced trimming in the middle section.

	NPS mm	NPS inch
Part-No.: 0165300025	25	1
Part-No.: 0165300032	32	1 ¼
Part-No.: 0165300040	40	1 ½
Part-No.: 0165300050	50	2
Part-No.: 0165300065	65	2 ½
Part-No.: 0165300080	80	3
Part-No.: 0165300100	100	4
Part-No.: 0165300125	125	5
Part-No.: 0165300150	150	6
Part-No.: 0165300175	175	7
Part-No.: 0165300200	200	8
Part-No.: 0165300250	250	10



### Extension Cable Assembly for High-Voltage Testing of Internally Coated Pipes

The brush electrodes are drawn through the pipe during the pore test with the help of a high-voltage extension cable.

High-voltage extension cables are available in 4m and 7m lengths.

	Length
Part-No.: 0176000004	4 m
Part-No.: 0176000007	7 m

## Insulated Extension Bars



### Insulated Extension Bars

To extend the probe for applications where a long reach is required.

Extension bars can be combined up to 3 m.

You always need one section with electrode chuck.

Part-No.: 0177500000	<b>Extension Bar 500 mm with electrode chuck</b>
Part-No.: 0177600000	<b>Extension Bar 1000 mm with electrode chuck</b>
Part-No.: 0177100000	<b>Extension Bar 500 mm without electrode chuck</b>
Part-No.: 0177200000	<b>Extension Bar 1000 mm without electrode chuck</b>