

# **Elcometer Duct Deposit Measuring System**

Controlling ducting deposits and monitoring their build-up is essential to maintain hygiene standards and reduce fire risks in heating and ventilation systems.

The Elcometer 456 Duct Deposit Measuring System has been specifically designed to meet the requirements of the DTT (Deposit Thickness Test) in HVCA's (Heating & Ventilation Contractor's Association) Guide to Good Practice, for the measurement of dust and grease deposits within ventilation systems and kitchen ducts made of ferrous metals.

By using the Elcometer 456 Ferrous Top Gauge with the specially designed probe and duct cleaning templates, readings can be taken of the deposit thickness on a specific test area, before and after cleaning.

ElcoMaster™ software, supplied as standard with the Elcometer 456 Duct Deposit Measuring System includes a template designed specifically for reporting duct deposit measurements.













	Made for		
	<b>□</b> iPod	iPhone	☐iPad
(			

#### STANDARDS:

AS 2331.1.4, AS 3894.3-B, AS/NZS 1580.108.1, ASTM B 499, ASTM D 1186-B, ASTM D 1400, ASTM D 7091, ASTM E 376, ASTM G 12, BS 3900-C5-6B, BS 3900-C5-6A, BS 5411-11, BS 5411-3, BS 5599, DIN 50981, DIN 50984, ECCA T1, EN 13523-1, IMO MSC.215(82), IMO MSC.244 (83), ISO 1461, ISO 19840, ISO 2063, ISO 2360, ISO 2808-6A, ISO 2808-6B, ISO 2808-7C, ISO 2808-7D, ISO 2808-12, JIS K 5600-1-7, NF T30-124, SS 184159, SSPC PA 2, US Navy PPI 63101-000, US Navy NSI 009-32

### Technical Specification

Part Number	Description	Certificate
A456CDUCT	Elcometer 456 Duct Deposit Measuring System	0
Measurement Range	0 - 1500μm (0 - 60mils)	
Packing List	Elcometer 456 Top Separate Gauge, Ferrous duct probe, duct cleaning template, precision foil set 25μm, 50μm, 125μm, 250μm, 500μm, 1000μm, 2mm (x2), ElcoMaster™ software, batteries, wrist harness, carry case and operating instructions	

#### **Accessories**

T456CF2B	Elcometer 456 Duct Probe
T99913939	Duct Cleaning Template
T99022255-8	Precision Foil Set: Scale 2B; 0 - 5mm (0 - 200mils)
T99022255-8C	Certified Precision Foil Set: Scale 2B; 0 - 5mm (0 - 200mils)
T99913969	Ferrous Zero Plate
T99920130	USB Bluetooth® Transmitter/Receiver

**А**лматы (7273)495-231 Ангарск (3955)60-70-56 Архангельск (8182)63-90-72 Астрахань (8512)99-46-04 Барнаул (3852)73-04-60 Белгород (4722)40-23-64 Благовещенск (4162)22-76-07 Брянск (4832)59-03-52 Владивосток (423)249-28-31 Владикавказ (8672)28-90-48 Владимир (4922)49-43-18 Волгоград (844)278-03-48 Вологда (8172)26-41-59 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89

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Магнитогорск (3519)55-03-13 Москва (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41 Нижний Новгород (831)429-08-12 Новокузнецк (3843)20-46-81 Ноябрьск (3496)41-32-12 Новосибирск (3436)227-86-73 Омск (3812)21-46-40 Орел (4862)44-53-42

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Симферополь (3652)67-13-56 Смоленск (4812)29-41-54 Сочи (862)225-72-31 Ставрополь (8652)20-65-13 Ставрополь (8632)20-63-13 Сургут (3462)77-98-35 Сыктывкар (8212)25-95-17 Тамбов (4752)50-40-97 Тверь (4822)63-31-35

Ростов-на-Дону (863)308-18-15

Санкт-Петербург (812)309-46-40 Саратов (845)249-38-78 Севастополь (8692)22-31-93

Рязань (4912)46-61-64

Самара (846)206-03-16

Саранск (8342)22-96-24

Тольятти (8482)63-91-07 Томск (3822)98-41-53 Тvла (4872)33-79-87 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-5 Улан-Удэ (3012)59-97-51 Vda (347)229-48-12 Хабаровск (4212)92-98-04 **-lебоксары** (8352)28-53-07 Челябинск (351)202-03-61 Череповец (8202)49-02-64 Чита (3022)38-34-83 Якутск (4112)23-90-97 **Ярославль** (4852)69-52-93

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# **Elcometer 280** Pulsed DC Holiday Detector Inspection Kit

The Elcometer 280 is a 'stick type' holiday detector which has been designed to make pulsed DC high voltage holiday detection safer, easier and more reliable than ever before.

Using state of the art electronics, the Elcometer 280 allows users to inspect coatings - without connecting the earth return lead to the component substrate - ideal for inspecting large surfaces and pipelines.

The Elcometer 280 uses the high voltage pulsed DC technique to detect holidays in coatings - even if the coating is damp, dirty or slightly conductive.

From the two stage safety switch, bright LED's and screen icons signifying when the high voltage is on, to the extended ribbing to protect the user from spark creep, the Elcometer 280 sets the standard for high voltage measurement safety.



#### STANDARDS:

AS 3894.1, ANSI/AWWA C203, ANSI/AWWA C214, ASTM D4787, ASTM D5162, ISO 2746, ISO 29601, JIS G 3491, JIS G 3492, NACE RP0274, NACE SP0188, NACE SP0490, NACE TM0186, NACE TM0384

### Technical Specification

Part Number	Description
D280-T-KIT	Elcometer 280 Pulsed DC Holiday Detector Inspection Kit
Packing List	Elcometer 280 Pulsed DC Holiday Detector Gauge (Model T), 5m (16') trailing signal return lead, battery pack (2 supplied with Model T), battery charger with mains cables (UK, EUR & US), stainless steel rolling spring holder (supplied with Model T only), 250mm (9.8") probe extension shaft, shoulder strap and operating instructions - packed in a lightweight, rugged, wheeled transit case

### Accessories



#### Band brush probes



External 'C-type' wire brushes



Right angled wire brush probes



Right angled rubber probes



Internal circular wire pipe brush probes



**Grounding mats** 

# elcometes inspection equipment

# **Elcometer 270** Pinhole Detection Inspection Kit

Flcometer 270 Pinhole Detectors Inspection Kit utilises the wet sponge technique and has been designed to set a new standard for wet sponge detectors - a high quality, low voltage detector with similar accessories to a high voltage spark tester.

The Inspector's Kit does not include the main instrument: just add the model number to the order:

Model Description Elcometer 270/3 Pinhole Detector D270----3 (9V & 90V) Elcometer 270/4 Pinhole Detector

(9V, 67.5V & 90V)



#### STANDARDS:

AS 3894.2, ASTM D 5162-A, ASTM G6, ASTM G62-A, BS 7793-2, ISO 8289-A, ISO 14654, JIS K 6766, NACE RP 0188, NACE SP 0188, NACE TM0384

Technical	Spec	cifico	ation
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Model	Description
T27018191	Elcometer 270 Inspection Kit
Packing List	Separate wand handle & lead, roller wand, 10m (32') signal return cable, extension pieces, telescopic extension, belt clip, bottle of wetting agent, AA batteries, spare flat sponge, spare roller sponge

The kit does not include the main instrument; simply add the order number to the order.

#### Accessories

D270----4



Standard wand T27016867

A universal flat sponge to suit almost all applications

Spare flat sponge set Pack of 3 sponges; 150 x 60 x 25mm (6 x 2.3 x 1")

T27018050



Roller sponge wand

Ideal for large flat surface inspection

Spare roller sponge

T27016960

T27018051



Separate wand adaptor T27016999

with belt clip - converts the gauge into a separate pinhole detector

Telescopic wand adaptor with belt clip - extends to 1m(39"),

ideal for floors or high areas

T27016998

T27018024



Extension piece

T27016965

420mm (16.5") extensions to expand operators reach

Additional extension pieces can be connected to each other



Wetting agent

50ml (1.7floz) bottle - helps aid the fast detection of pinholes. Simply add to the water used to dampen the



Return cable - 4m (13')

supplied as standard, complete with

crocodile clip and plug

clip and connection plug

Return cable - 10m (32') supplied on a drum, complete with

T99916996

T99916954

# Surface Preparation - Cleanliness



### Elcometer 138/2 Surface Contamination Kit

Measuring the level of contaminants on a surface prior to application of the coating is essential to ensure the quality of the coating and that its optimum lifetime is achieved.

If the coating is applied to a contaminated surface, which is not properly prepared, it could fail prematurely resulting in costly recoating and high maintenance costs.

The Elcometer 138/2 Surface Contamination Kit provides the user with a means for testing invisible surface contaminants including:

pH

- iron
- chloride ions
- salts

#### STANDARDS:

AS 3894.6-A, AS 3894.6-D, SSPC Guide 15

Part Number	Description	Certificate
E1382	Elcometer 138/2 Surface Contamination Kit	•
Measuring Range	pH: 0pH to 14pH Iron: 3,10, 25, 50, 100, 250, 500mg/l Fe² Chloride: 30- 600μg/cm² (30 - 600ppm) Cl	
Dimensions	300 x 220 x 75mm (11 x 8.6 x 3")	
Weight	2.1kg (4.62lb)	
Packing List	100 x pH test strips, 100 x Iron test strips, 40 x Chloride test strips, 50 x Elcometer 1350 test patches, $3 \times 5$ ml (0.17fl oz) syringes, $3 \times 6$ ml (1fl oz) plastic beaker, carry operating instructions	

Accessories			
E135C25	Elcometer 135C Bresle Test Patch (Box of 25)	T13827259	Pure Water, 250ml (8.5fl oz) Bottle
E135C100	Elcometer 135C Bresle Test Patch (Box of 100)	T13820562	100 x pH Test Strips
T13818517	3 x 5ml (0.17fl oz) Syringes	T13820563	100 x Iron Test Strips
T13818518	3 x Needles	T13820564	40 x Chloride Test Strips
T13818519	Plastic Beaker, 30ml (1fl oz)		



## Elcometer 138 Abrasive Soluble Salt Test Kit – ASTM D4940

Abrasives used for blast cleaning surfaces can be contaminated with soluble salts due to the source or the re-use of the blasting media. This contamination can be transferred to the blast cleaned surface and result in accelerated corrosion conditions and also cause premature coating failure, if this contamination is not removed prior to applying the coating.

Testing abrasives on site for soluble salt contamination can be carried out quickly and easily using the Elcometer 138 Abrasive Soluble Salt Test Kit, according to the ASTM D4940 method. A measured volume of the abrasive is mixed with the same volume of water and agitated to allow any soluble salts to dissolve in the water. The resulting slurry is allowed to settle and the filtered water can then be tested using a conductivity meter. The Elcometer 138 Abrasive Soluble Salt Test Kit provides all that is needed to carry out the test in the field or in the laboratory.



### STANDARDS: ASTM D4940

Part Number	Description				
E138-A-CM	Elcometer 138 Abrasive Soluble Salt Test Kit with Elcometer 138 Conductivity Meter				
Measurement Range 0 - 19.99mS/cm (see Elcometer 138 Conductivity Meter for full specification)					
Accuracy	±2% of full scale (see Elcometer 138 Conductivity Meter for full specification)				
Dimensions	456 x 384 x 127mm (18 x 15.1 x 5") Weight 2.2kg (4lb 14oz)				
Packing List  Elcometer 138 Conductivity Meter, 1000ml (33.8 fl oz) bottle of pure distilled water, 100ml & 600m & 20.3 fl oz) glass beakers, 500ml (16.9fl oz) plastic measuring beaker, funnel, stirring rod, box filter papers, 1 x 14ml (0.47fl oz) standard 1413 μS/cm (1.413 mS/cm) calibration solution, 1 x (0.47fl oz) conditioning solution, 2 x CR2032 batteries, transit case and user guide					

Accessories	
E138-CM	Elcometer 138 Conductivity Meter
T13830628	Replacement Sensor for Conductivity Meter
T13830629-2	Standard 1413µS/cm Calibration Solution; 250ml (8.45fl oz) Bottle
T13827494	Pure Distilled Water 1000ml (33.8fl oz) Bottle
T13827495	Glass Beaker 100ml (3.4fl oz)
T13827496	Glass Beaker 600ml (20.3fl oz)
T13827498	Plastic Measuring Beaker 500ml (16.9fl oz)
T13827497	Funnel
T13827499	Stirring Rod
T13827500	Box of 100 Filter Papers



# **Elcometer Qualicoat Powder Coating Inspection Kit**

The Qualicoat Organisation brings together the ideals of several national coating associations into one quality label for the powder coating applied to aluminium architectural applications.

The aim of Qualicoat is to establish the minimum standard that plant installations, coating materials and finished products which have been powder coated must meet.

Within this quality label, Qualicoat identifies a range of inspection requirements to be undertaken with regards to the quality control of powder coated products.

The Elcometer Qualicoat Powder Coating Inspection Kit provides the various test instrumentation required to meet the high standards of this organisation.

Measurement parameters include:

- Appearance
- Coating thickness
- Impact & deformation
- Adhesion
- Oven temperature







Contents			
Model	Description	Basic	Тор
Elcometer 480	Statistical Glossmeter: 60°	Model B	Model T
Elcometer 1506	Mandrel Bend Tester with 5mm and 8mm (0.20 and 0.31") Mandrels		
Elcometer 1615	Base Unit and Tube Assembly		
Elcometer 1615	Kit B: ISO 6272/2 and BS 6496		
Elcometer 1620	Manual Cupping Tester with Digital Gauge		
Elcometer 215	Oven Data Logger and Kit <sup>+</sup>	Standard	Тор
Elcometer 415	FNF Integral Digital Coating Thickness Gauge for smooth surfaces		
Elcometer 456	FNF Separate Digital Coating Thickness Gauge		Model T
Elcometer 456	Standard FNF 1 Probe, 0 - 1500µm		
Elcometer 1542	Cross Cut Set 6 x 1, 2, 3mm with ISO and ASTM Adhesive Tape		

Individual Instruments can be used in accordance with many other tests.

Please see individual Product Information Pages for details.

Technical Specification		
Part Number Basic	Тор	Description
YKITQUALICOAT-1B	YKITQUALICOAT-1T	Elcometer Qualicoat Powder Coatings Inspection Kit

<sup>&</sup>lt;sup>+</sup> A wide range of k-type temperature probes is available. These are not supplied in the Qualicoat Kits and must be ordered separately.



# **Elcometer Powder Coating Inspection Kit**

The Powder Coating Inspection Kit covers all eventualities in the powder inspection process, Elcometer has produced this kit to enable the inspection of powder coatings on all surfaces.

The digital Elcometer 415 is suitable for measuring the coating thickness on smooth surfaces and the Elcometer 1542, designed for testing the adhesion of the coating, is also included.

Measurement parameters include:

- Surface inspection
- Coating thickness
- Adhesion

#### STANDARDS:

AS 1580.408.4, AS/NZS 1580.108.1, ASTM B 499, ASTM D 7091, ASTM E 376, ISO 2360, ISO 2808-12, ISO 2808-7C, ISO 2808-7D, NF T30-124

Contents	
Model	Description
Elcometer 137	LED Illuminated Magnifier (x10)
Elcometer 415	Powder Coating Thickness Gauge
Elcometer 1542	Cross Hatch Cutter 6 x 2mm with ISO or ASTM Adhesive Tape

Individual Instruments can be used in accordance with many other tests.

Please see individual Product Information Pages for details.

Tachnical	Specification
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Part Number ISO Kit	ASTM Kit	Description
YKITPOWDER-1M	YKITPOWDER-1E	Elcometer Powder Coatings Inspection Kit
Dimensions		360 x 300 x 120mm (12.2 x 10.2 x 3.1")
Weight		580g (1.27lb)



# **Elcometer 131 Inspection Mirrors**

Ideal for inspecting difficult to access areas - inside pipes, behind corners, underneath inspection tanks, and other inaccessible or awkward areas.

Combined with the full range of test equipment from Elcometer, these high quality, robust mirrors help to provide a detailed examination of the component or project under inspection.





Part Number	Description
H1311A	Elcometer 131/1A Telescopic Inspection Mirror
Dimensions	Extends from 520mm (20.5") to 1500mm (59") Mirror diameter: 63mm (2.5")
Weight	650g (1.43lb)
Packing List	Elcometer 131 Inspection Mirror



Part Number	Description
H1311B	Elcometer 131/1B Telescopic Inspection Mirror
Dimensions	Extends from 165mm (6.5") to 925mm (36") Mirror diameter: 57mm (2.25")
Weight	100g (0.22lb)
Packing List	Elcometer 131 Inspection Mirror



Part Number	Description
H1311C	Elcometer 131/1C Telescopic Inspection Mirror
Dimensions	Extends from 165mm (6.5") to 750mm (29.5") Mirror diameter: 82mm (3.25")
Weight	100g (0.22lb)
Packing List	Elcometer 131 Inspection Mirror



Part Number	Description
H1312A	Elcometer 131/2A Illuminated Inspection Mirror (Battery Type 2 x LR14 C)
Dimensions	Mirror diameter: 63mm (2.5")
Weight	650g (1.43lb)
Packing List	Elcometer 131 Inspection Mirror



# **Elcometer Automotive Inspection Kit**

Produced specifically for the automotive aftermarket and Insurance Assessors, 3rd party consultants, body shops and used car sales, these kits provide an instant measure of the coating thickness of panels.

An illuminated magnifier is supplied to enable close inspection of bodywork.

Measurement parameters include:

- · Surface temperature
- Surface inspection
- Coating thickness



#### STANDARDS:

AS/NZS 1580.108.1, ASTM B 499, ASTM D 7091, ASTM E 376, ISO 2360, ISO 2808-12, ISO 2808-7C, ISO 2808-7D, NF T30-124

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Model	Description	Kit 1	Kit 2	Kit 3
Elcometer 137	LED Illuminated Magnifier (x10)			
Elcometer 311	Automotive Paint Meter		Model B	Model T
Elcometer 214L	Infrared Digital Laser Thermometer			

Individual Instruments can be used in accordance with many other tests.

Please see individual Product Information Pages for details.

Part Number	Description
YKIT-AUTOMOTIVE-1	Elcometer Automotive Inspection Kit 1
YKIT-AUTOMOTIVE-2	Elcometer Automotive Inspection Kit 2
YKIT-AUTOMOTIVE-3	Elcometer Automotive Inspection Kit 3
Dimensions	310 x 260 x 80mm (12.2 x 10.2 x 3.1")
Weight	Kit 1: 1kg (2.2lb) Kit 2: 1.5kg (3.3lb) Kit 3: 1.5kg (3.3lb)



# **Elcometer Protective Inspection Kit for Hazardous Areas**

The Elcometer Hazardous Area Inspection Kit is a protective coating inspection kit suitable for use in hazardous areas where electronic equipment is prohibited.

The kit provides all the tools required for the on-site inspection of a coating, including surface profile, dewpoint, relative humidity, both wet and dry film thickness and also adhesive testing.

The products contained in this kit are not tested and approved for use in Hazardous Areas. Site Management should be consulted before this kit is used.

Measurement parameters include:

- Surface inspection
- Surface profile
- Surface contamination
- Climatic conditions
- Coating thickness
- Adhesion

The products contained in this kit are not tested and approved for use in Hazardous Areas. Site Management should be consulted before this kit is used.



#### STANDARDS

AS 1580.408.4, AS 2331.1.3, AS 3894.3-A, AS 3894.5, AS 3894.9, AS/NZS 1580.107.3, AS/NZS 1580.108.1, ASTM B 499, ASTM D 2200, ASTM D 3359-B, ASTM D 4414-A, ASTM D 4417-A, ASTM D 4417-C, ASTM G 12, BS 3900-C5-6A, BS 3900-C5-7B, BS 3900-E6, BS 5411-11, BS 7079-C5, DIN 50981, ECCA T6, EN 13523-6, IMO MSC.215(82), IMO MSC.244(83), ISO 16276-2, ISO 2178, ISO 2409, ISO 2808-1A, ISO 2808-6A, ISO 2808-7A, ISO 2808-7B, ISO 8501-1, ISO 8503-1, ISO 8502-5, ISO 8503-2, ISO 8503-5, JIS K 5600-1-7, JIS K 5600-5-6, NACE RP0287, NF T30-038, NF T 30-124, NF T30-125, SS 55900, SSPC Guide 15, SSPC-PA2, SSPC VIS 1, SSPC VIS 2, SSPC VIS 3, SSPC VIS 4, SSPC VIS 5, US Navy NSI 009-32, US Navy PPI 63101-000

### Contents

Model	Description
Elcometer 128	Pictorial Standards <sup>1</sup>
Elcometer 125	Surface Comparator, Grit
Elcometer 125	Surface Comparator, Shot
Elcometer 122	Testex Tape, Coarse
Elcometer 122	Testex Tape, Extra Coarse
Elcometer 124	Testex Dial Thickness Gauge
Elcometer 131/1C	Telescopic Inspection Mirror
Elcometer 134	Chlor*Test Surface Testing Kit
Elcometer 113	Magnetic Thermometer °C (°F)
Elcometer 116	Whirling Hygrometer °C (Metric), Sling Hygrometer °F (Imperial)
Elcometer 114	Dewpoint Calculator
Elcometer 112	Hexagonal Wet Film Comb: 25 -3000μm (1 - 120mils)
Elcometer 211	Thickness Gauge
Elcometer 107	Cross Hatch Full Kit - ISO (ASTM) Tape, Brush & Eye Glass

<sup>&</sup>lt;sup>1</sup>Swedish Rust Standard ISO 8501, SIS055900 supplied in Metric Kit, US Standard SSPC VIS 1-01 and VIS-3 supplied in Imperial Kit



# **Elcometer Protective Inspection Kit for Hazardous Areas**

Technical Specification		
Part Number Metric	Imperial	Description
YKIT-HAZARD-1M	YKIT-HAZARD-1E	Elcometer Hazardous Area Inspection Kit
Dimensions		495 x 420 x 175mm (19.49 x 16.54 x 6.89")



# **Elcometer Protective Coating Inspection Kit 6**

The Elcometer Protective Coatings Inspection Kit 6 is a comprehensive kit which incorporates all the key gauges and inspection accessories required to assess a structure before, during and after coating has been applied.

### Measurement parameters include:

- Material thickness
- Surface inspection
- Weld inspection
- Surface cleanliness
- Surface profile
- · Climatic conditions
- · Coating thickness
- Adhesion
- Pinhole detection





#### STANDARDS:

AS 1580.108.2, AS 1580.408.4, AS 2331.1.4, AS 3894.2, AS 3894.3-B, AS 3894.6-A, AS 3894.6-C, AS 3894.6-D, AS 3894.9, AS/NZS 1580.107.3, AS/NZS 1580.108.1, ASTM B 499, ASTM D 1186-B, ASTM D 1400, ASTM D 2200, ASTM D 3359-B, ASTM D 4138-A, ASTM D 4414-A, ASTM D 4417-C, ASTM D 5162-A, ASTM D 7091, ASTM E 376, ASTM E 797, ASTM G 12, ASTM G6, ASTM G62-A, BS 3900-C5-5B, BS 3900-C5-6A, BS 3900-C5-6B, BS 3900-E6, BS 5411-11, BS 5411-3, BS 5599, BS 7079-B4, BS 7079-C5, BS 7793-2, DIN 50981, DIN 50984, DIN 50986, ECCA T1, ECCA T6, EN 13523-1, EN 13523-6, EN 15317, IMO MSC.215(82), IMO MSC.244(83), ISO 1461, ISO 14654, ISO 16276-2, ISO 19840, ISO 2663, ISO 2360, ISO 2409, ISO 2808-12, ISO 2808-1A, ISO 2808-5B, ISO 2808-6A, ISO 2808-6B, ISO 2808-7B, ISO 2808-7C, ISO 2808-7D, ISO 8289-A, ISO 8501-1, ISO 8502-3, ISO 8502-4, ISO 8502-9, ISO 8503-5, JIS K 5600-1-7, JIS K 6766, NACE RP0188, NACE RP0287, NACE SP0188, NACE TM0384, NFT30-038, NFT30-123, NFT30-124, NFT30-125, SANS 5772, SS 184159, SS 55900, SSPC Guide 15, SSPC PA 2, SSPC VIS 1, SSPC VIS 3, SSPC VIS 4, SSPC VIS 5, US Navy NSI 009-32, US Navy PPI 63101-000

#### Contents

Model	Description	Kit 6
Elcometer MTG2	Material Thickness Gauge	
Elcometer 128	Pictorial Standards <sup>1</sup>	
Elcometer 131/1C	Telescopic Inspection Mirror	
Elcometer 137	LED Illuminated Magnifier	
Elcometer 144	Paint Safe Marker Pens (Pack of 3)	
Elcometer 147	Weld Gauge	
Elcometer 142	Dust Tape Test Kit	
Elcometer 138	Bresle Salt Kit <sup>2</sup>	
Elcometer 138/2	Surface Contamination Kit	
Elcometer 122	Testex Tape, Coarse & Extra Coarse	
Elcometer 124	Thickness Gauge	
Elcometer 224	Digital Surface Profile Separate Gauge & Standard Separate Probe	Model T
Elcometer 319	Digital Dewpoint Meter, with Magnetic Surface Probe	Тор
Elcometer 112	Hexagonal Wet Film Comb: 25 - 3000µm (1 - 120mils)	
Elcometer 456	Separate Digital Coating Thickness Gauge with F2 Standard Probe	Ferrous Model T
Elcometer 121	Paint Inspection Gauge (Top) with Cross Hatch Cutters 6 x 1, 2 & 3mm & ISO (ASTM) Adhesive Tape	Тор
Elcometer 270	Pinhole Detector (9, 67.5 & 90V)	

Part Number		Description
Metric	Imperial	
YKIT-PROTECTIVE-6M	YKIT-PROTECTIVE-6E	Elcometer Protective Coatings Kit 6
Dimensions	575 x 475 x 205mm (22.64 x 18.70 x 8.0)	7")

<sup>1</sup> Swedish Rust Standard ISO 8501, SIS055900 supplied in Metric Kit, US Standard SSPC VIS 1-01 and VIS-3 supplied in Imperial Kit

<sup>&</sup>lt;sup>2</sup> Supplied with Elcometer 135C Bresle Test Patches (x50)



# **Elcometer Protective Coating Inspection Kit 5**

A more comprehensive kit than kits 1-4, the Elcometer Protective Coatings Inspection Kit 5 expands the range of instruments available to the protective coatings inspector.

#### Measurement parameters include:

- Material thickness
- Surface profile
- Surface inspection
- · Climatic conditions
- Weld inspection
- Coating thickness
- Surface cleanliness
- Adhesion





#### STANDARDS:

AS 1580.108.2, AS 1580.408.4, AS 2331.1.4, AS 3894.3-B, AS 3894.6-A, AS 3894.6-C, AS 3894.6-D, AS 3894.9, AS/NZS 1580.107.3, AS/NZS 1580.108.1, ASTM B 499, ASTM D 1186-B, ASTM D 1400, ASTM D 2200, ASTM D 3359-B, ASTM D 4138-A, ASTM D 4414-A, ASTM D 4417-C, ASTM D 7091, ASTM E 376, ASTM E 797, ASTM G 12, BS 3900-C5-5B, BS 3900-C5-6A, BS 3900-C5-6B, B

#### Contents

Model	Description	Kit 5
Elcometer MTG2	Material Thickness Gauge	
Elcometer 128	Pictorial Standards <sup>1</sup>	
Elcometer 131/1C	Telescopic Inspection Mirror	
Elcometer 137	LED Illuminated Magnifier	
Elcometer 144	Paint Safe Marker Pens (Pack of 3)	
Elcometer 147	Weld Gauge	
Elcometer 142	Dust Tape Test Kit	
Elcometer 138	Bresle Salt Kit <sup>2</sup>	
Elcometer 138/2	Surface Contamination Kit	
Elcometer 122	Testex Tape, Coarse & Extra Coarse	
Elcometer 124	Thickness Gauge	
Elcometer 224	Digital Surface Profile Separate Gauge & Standard Separate Probe	Model T
Elcometer 319	Digital Dewpoint Meter, with Magnetic Surface Probe	Тор
Elcometer 112	Hexagonal Wet Film Comb: 25 - 3000µm (1 - 120mils)	
Elcometer 456	Separate Digital Coating Thickness Gauge with F2 Standard Probe	Ferrous Model T
Elcometer 121	Paint Inspection Gauge with Cross Hatch Cutters 6 x 1, 2 & 3mm and ISO (ASTM) Adhesive Tape	Тор
ElcoMaster®	Data Management Software & USB Cable	

Part Number		Description
Metric	Imperial	
YKIT-PROTECTIVE-5M	YKIT-PROTECTIVE-5E	Elcometer Protective Coatings Inspection Kit 5
Dimensions		575 x 475 x 205mm (22.64 x 18.70 x 8.07")

<sup>1</sup> Swedish Rust Standard ISO 8501, SIS055900 supplied in Metric Kit, US Standard SSPC VIS 1-01 and VIS-3 supplied in Imperial Kit

<sup>&</sup>lt;sup>2</sup> Supplied with Elcometer 135C Bresle Test Patches (x50)



# **Elcometer Protective Coating Inspection Kit 4**

The Elcometer Protective Coatings Inspection Kit 4 provides a range of test equipment to help an inspector assess a substrate prior to the application of a coating.

Measurement parameters include:

- Surface inspection
- Weld inspection
- Surface cleanliness
- · Climatic conditions
- Surface profile
- · Coating thickness





#### STANDARDS:

AS 2331.1.4, AS 3894.3-B, AS 3894.6-A, AS 3894.6-C, AS 3894.9, AS/NZS 1580.107.3, AS/NZS 1580.108.1, ASTM B 499, ASTM D 1186-B, ASTM D 1400, ASTM D 2200, ASTM D 4414-A, ASTM D 4417-C, ASTM D 7091, ASTM E 376, ASTM G 12, BS 3900-C5-6A, BS 3900-C5-6B, BS 5411-11, BS 5411-3, BS 5599, BS 7079-B4, BS 7079-C5, DIN 50981, DIN 50984, ECCA T1, EN 13523-1, IMO MSC.215(82), IMO MSC.244(83), ISO 1461, ISO 19840, ISO 2063, ISO 2360, ISO 2808-12, ISO 2808-1A, ISO 2808-6A, ISO 2808-6B, ISO 2808-7B, ISO 2808-7C, ISO 2808-7D, ISO 8501-1, ISO 8502-3, ISO 8502-4, ISO 8502-6, ISO 8502-9, ISO 8503-5, JIS K 5600-1-7, NACE RP0287, NF T30-124, NF T30-125, SANS 5772, SS 184159, SS 55900, SSPC Guide 15, SSPC PA 2, SSPC VIS 1, SSPC VIS 2, SSPC VIS 3, SSPC VIS 4, SSPC VIS 5, US Navy NSI 009-32, US Navy PPI 63101-000

#### Contents

Model	Description
Elcometer 128	Pictorial Standards <sup>1</sup>
Elcometer 131/1C	Telescopic Inspection Mirror
Elcometer 144	Paint Safe Marker Pens (Pack of 3)
Elcometer 147	Weld Gauge
Elcometer 142	Dust Tape Test Kit
Elcometer 138	Bresle Salt Kit <sup>2</sup>
Elcometer 319	Digital Dewpoint Meter with Magnetic Surface Probe Top
Elcometer 224	Integral Digital Surface Profile Integral Gauge Model T
Elcometer 112	Hexagonal Wet Film Comb: 25 - 3000µm (1 - 120mils)
Elcometer 456	Separate Digital Coating Thickness Gauge with F2 Standard Probe, Ferrous Model T
ElcoMaster®	Data Management Software & USB Cable

Part Number		Description
Metric	Imperial	
YKIT-PROTECTIVE-4M	YKIT-PROTECTIVE-4E	Elcometer Protective Coatings Kit 4
Dimensions		495 x 420 x 175mm (19.49 x 16.54 x 6.89")

<sup>1</sup> Swedish Rust Standard ISO 8501, SIS055900 supplied in Metric Kit, US Standard SSPC VIS 1-01 and VIS-3 supplied in Imperial Kit

<sup>&</sup>lt;sup>2</sup> Supplied with Elcometer 135C Bresle Test Patches (x50)



# **Elcometer Protective Coating Inspection Kit 1, 2 & 3**

The Elcometer Protective Coatings Inspection Kits 1, 2 & 3 provide the tools required for the on-site inspection of a coating, including surface profile, dewpoint, relative humidity, both wet and dry film thickness and adhesive testing.

Available as metric or imperial kits and housed in a sturdy, lightweight carry case, Elcometer Protective Coatings Inspection Kits are invaluable to the operator in the field to ensure the coating is, or has been, applied correctly.

### **Protective Inspection Kit 1**

An entry level inspection kit containing profile, climate, wet and dry film thickness.

#### **Protective Inspection Kit 2**

Like the Protective Inspection Kit 1 but with the addition of the Elcometer 224 digital surface profile gauge with data collection functionality and the Elcometer 319 digital dewpoint meter. Reports via ElcoMaster® can include data from both profile and climate inspections as well as dry film thickness.

#### **Protective Inspection Kit 3**

A comprehensive digital inspection kit providing gauges with data collection functionality for profile, climatic conditions and dry film thickness.

It comes complete with ElcoMaster® data management software with Bluetooth® communication to PC and Android™ Mobile Apps for instant data analysis and reporting for paperless quality assurance.

Measurement parameters include:

- Surface profile
- Surface temperature
- Climatic conditions
- Coating thickness
- Adhesion

Kit 1

Kit 2

Kit 3





#### STANDARDS:

AS 1580.408.4, AS 2331.1.4, AS 3894.3-B, AS 3894.9, AS/NZS 1580.107.3, AS/NZS 1580.108.1, ASTM B 499, ASTM D 1186-B, ASTM D 1400, ASTM D 3359-B, ASTM D 4414-A, ASTM D 4417-B, ASTM D 4417-C, ASTM D 7091, ASTM E 376, ASTM G 12, BS 3900-C5-6B, BS 3900-C5-6A, BS 3900-C5-7B, BS 3900-E6, BS 7079-C5, BS 5411-11, BS 5411-3, BS 5599, BS 7079-B4, DIN 50981, DIN 50984, ECCA T1, ECCA T6, EN 13523-1, EN 13523-6, IMO MSC.215(82), IMO MSC.244(83), ISO 1461, ISO 16276-2, ISO 19840, ISO 2063, ISO 2360, ISO 2409, ISO 2808-1A, ISO 2808-6A, ISO 2808-6B, ISO 2808-7B, ISO 2808-7C, ISO 2808-7D, ISO 2808-12, ISO 8502-4, ISO 8503-5, JIS K 5600-1-7, JIS K 5600-5-6, NACE RP0287, NF T30-038, NF T30-124, NF T30-125, SANS 5772, SS 184159, SSPC PA 2, US Navy NSI 009-32, US Navy PPI 63101-000



# **Elcometer Protective Coating Inspection Kit 1, 2 & 3**

Contents						
		Kit 1	Kit 2		Kit 3	
Model	Description		Standard	Тор	Standard	Тор
Elcometer 122	Testex Tape, Coarse & Extra Coarse					
Elcometer 124	Thickness Gauge					
Elcometer 224	Digital Surface Profile Gauge		Model B Integral	Model T Separate	Model B Integral	Model T Separate
Elcometer 224	Standard Separate Probe					
Elcometer 212	Digital Thermometer °C (°F) with Surface Probe					
Elcometer 116	Whirling Hygrometer °C (Metric), Sling Hygrometer °F (Imperial)					
Elcometer 114	Dewpoint Calculator					
Elcometer 319	Digital Dewpoint Meter		Standard	Тор	Standard	Тор
Elcometer 112	Hexagonal Wet Film Comb 25 - 3000µm (1 - 120mils)					
Elcometer 115	Wet Film Comb (Set of 4)					
Elcometer 456	Integral Digital Coating Thickness Gauge, 0 - 1500µm (0 - 60mils)	Ferrous Model B				
Elcometer 456	Separate Digital Coating Thickness Gauge		Ferrous Model S	Ferrous Model S	Dual FNF Model T	Dual FNF Model T
Elcometer 456	Standard Separate Probe, 0 - 1500µm (0 - 60mils)		Ferrous	Ferrous	Dual FNF	Dual FNF
Elcometer 107	Cross Hatch Full Kit1					
ElcoMaster®	Data Management Software & USB Cable					

<sup>&</sup>lt;sup>1</sup> Kit 1: supplied with 6 x 1mm and 6 x 2mm cutters, Kits 2 & 3 Metric: supplied with 6 x 2mm cutter, Kits 2 & 3 Imperial: supplied with 6 x 1mm cutter

Technical Specification				
Part Number Metric	Imperial	Description		
YKIT-PROTECTIVE-1M	YKIT-PROTECTIVE-1E	Elcometer Protective Inspection Kit 1		
YKIT-PROTECTIVE-2SM	YKIT-PROTECTIVE-2SE	Elcometer Protective Inspection Kit 2 Standard		
YKIT-PROTECTIVE-2TM	YKIT-PROTECTIVE-2TE	Elcometer Protective Inspection Kit 2 Top		
YKIT-PROTECTIVE-3SM	YKIT-PROTECTIVE-3SE	Elcometer Protective Inspection Kit 3 Standard		
YKIT-PROTECTIVE-3TM	YKIT-PROTECTIVE-3TE	Elcometer Protective Inspection Kit 3 Top		
Dimensions	Kit 1	456 x 384 x 110mm (17.95 x 15.12 x 4.33")		
	Kit 2	456 x 384 x 127mm (17.95 x 15.12 x 5.00")		
	Kit 3	456 x 384 x 127mm (17.95 x 15.12 x 5.00")		

If the kit that you require is not listed above, Elcometer will be happy to discuss your requirements and create one to suit your particular needs.



# **Elcometer Blasting Inspection Kits**

The Elcometer Blasting Inspection Kit is a surface preparation inspection kit providing a range of inspection equipment to test surface profile and surface contamination of blasted profiles.

An Elcometer 456 Gauge and probe can also be supplied. (Order separately if required.)

Measurement parameters include:

- Surface assessment
   Surface profile
- Blast equipment inspection Surface contamination

#### STANDARDS:

AS 3894.6-A, AS 3894.6-C, AS 3894.6-D, ASTM D 2200, ASTM D 4417-A, ASTM D 4417-B, ASTM D 4417-C, BS 7079-C5, IMO MSC.215(82), IMO MSC.244(83), ISO 8501-1, ISO 8502-3, ISO 8502-5, ISO 8502-6, ISO 8502-9, ISO 8503-1, ISO 8503-2, ISO 8503-5, NACE RP0287, SANS 5772, SS 55900, SSPC Guide 15, SSPC VIS 1, SSPC VIS 2, SSPC VIS 3, SSPC VIS 4, SSPC VIS 5, US Navy NSI 009-32, US Navy PPI 63101-000

#### Contents

Model	Description	Kit 1	Kit 2
Elcometer 128	Pictorial Standards <sup>1</sup>		
Elcometer 102	Needle Pressure Gauge		
Elcometer 103	Blast Nozzle Gauge		
Elcometer 125	Surface Comparator, Grit		
Elcometer 125	Surface Comparator, Shot		
Elcometer 122	Testex Tape, Coarse		
Elcometer 122	Testex Tape, Extra Coarse		
Elcometer 124	Testex Dial Thickness Gauge		
Elcometer 224	Surface Profile Separate Gauge, Model T		
Elcometer 224	Standard Separate Probe		
Elcometer 142	Dust Tape Test Kit		
Elcometer 134	Chlor*Test Surface Testing Kit		
Elcometer 134	Chlor*Test Abrasive Testing Kit		
Elcometer 134	Chlor*Test Water Testing Kit		
Elcometer 138	Bresle Salt Kit <sup>2</sup>		
Elcometer 138/2	Surface Contamination Kit		
ElcoMaster®	Data Management Software & USB Cable		

<sup>&</sup>lt;sup>1</sup>Swedish Rust Standard ISO 8501, SIS055900 supplied in Metric Kit US Standard SSPC VIS 1-01 and VIS-3 supplied in Imperial Kit

Part Number		Description
Metric	Imperial	
YKIT-BLAST-1M	YKIT-BLAST-1E	Elcometer Blasting Inspection Kit 1
YKIT-BLAST-2M	YKIT-BLAST-2E	Elcometer Blasting Inspection Kit 2
Dimensions	Kit 1	495 x 420 x 175mm (19.49 x 16.54 x 6.89")
	Kit 2	575 x 475 x 205mm (22.64 x 18.70 x 8.07")

<sup>&</sup>lt;sup>2</sup> Supplied with Elcometer 135C Bresle Test Patches (x50)

# Surface Preparation - Cleanliness



### Elcometer 138 Bresle Salt Kit

It is essential that the level of contaminants on a surface is measured prior to application of the coating to ensure the quality of the coating and that its optimum lifetime is achieved.

If the coating is applied to a contaminated surface, which is not properly prepared, it could fail prematurely resulting in costly re-coating and high maintenance costs.

The Elcometer 138 Bresle Kits include the Elcometer 138 Bresle Salt Meter. This lightweight, portable meter measures the conductivity of the test sample using a single drop, then automatically converts this to show the density of salts, negating the need for the user to do a manual calculation when working in accordance with ISO 8502-6 or ISO 8502-9.

E138-1C - Elcometer 138 Bresle Salt Kit featuring the NEW Elcometer 135C Bresle Test Patches

E138-1 - Elcometer 138 Bresle Salt Kit with the ORIGINAL Elcometer 135B Bresle Test Patches

#### STANDARDS:

AS 3894.6-A, IMO MSC.215 (82), IMO MSC.244 (83), ISO 8502-6, ISO 8502-9, SSPC Guide 15, US Navy NSI 009-32, US Navy PPI 63101-000

Technical Specific	ation	
Part Number	Description	Certificate
E138-1C	Elcometer 138 Bresle Salt Kit with Elcometer 138 Bresle Salt Meter and Elcometer 135C Bresle Test Patches	•
E138-1C-CM	Elcometer 138 Bresle Salt Kit with Elcometer 138 Conductivity Meter and Elcometer 135C Bresle Test Patches	•
E138-1	Elcometer 138 Bresle Salt Kit with Elcometer 138 Bresle Salt Meter and Elcometer 135B Bresle Patches	
E138-1-CM	Elcometer 138 Bresle Salt Kit with Elcometer 138 Conductivity Meter and Elcometer 135B Bresle Patches	
Measurement Range	E138-1, E138-1C: ISO Mode: 0 - 2399μg/cm² IMO Mode : 0 - 2199μg/cm² E138-1-CM, E138-1C-CM: 0 - 19.99mS/cm	
Accuracy*	±2% full scale (for each range)	
Dimensions	393 x 331 x 95mm (15.5 x 13 x 3.7") Weight 1.4kg (3lb 1oz)	
Packing List	Box of 25 Elcometer 135C Bresle Test Patches (E138-1C) or Elcometer 135B Bresle (E138-1), Elcometer 138 Bresle Salt Meter (E138-1C or E138-1) or Elcometer 138 Commeter (E138-1-CM or E138-1C-CM) & Sensor, 250ml (8.45fl oz) bottle of standard calibration solution with certificate, 14ml (0.47fl oz) bottle of conditioning solution, 250ml bottle of pure water, 3 x 5ml (0.17fl oz) syringes, 3 x blunt needles, 30ml (1fl oz) plast 2 x CR2032 batteries (supplied fitted to the Elcometer 138), transit case and user guide	onductivity 84µS/cm I (8.5fl oz)



### Elcometer 138 Bresle Salt Kit

Accessories	
E135C25	Elcometer 135C Bresle Test Patch (Box of 25)
E135C100	Elcometer 135C Bresle Test Patch (Box of 100)
E135B	Bresle Patches (Box of 25)
T13830629-1	Standard 84µS/cm Calibration Solution, 250ml (8.45fl oz) Bottle
T13830629-2	Standard 1413µS/cm Calibration Solution, 250ml (8.45fl oz) Bottle
T13827352-1	Standard 447 µS/cm (0.447 mS/cm) Calibration Solution – 4 x 20ml (0.74fl oz) Single Use Pouches
T13827352-2	Standard 1413 µS/cm (1.413 mS/cm) Calibration Solution – 4 x 20ml (0.74fl oz) Single Use Pouches
T13827352-3	Standard 15000 µS/cm (15 mS/cm) Calibration Solution – 4 x 20ml (0.74fl oz) Single Use Pouches
T13827259	Pure Water 250ml (8.5fl oz) Bottle
T13818517	3 x 5ml (0.17fl oz) Syringes
T13818518	3 x Needles
T13818519	Plastic Beaker 30ml (1fl oz)
E138-BSM	Elcometer 138 Bresle Salt Meter
E138-CM	Elcometer 138 Conductivity Meter
T13823928	Replacement Sensor for Bresle Salt Meter and Conductivity Meter

### Measuring salt contamination using the Bresle method in accordance with ISO 8502-6/ISO 8502-9



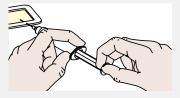
Remove protective backing and foam centre from the patch.

Apply the patch to surface and press firmly around perimeter to achieve a complete seal - ensuring that a minimum amount of air is trapped within the test compartment.



Fill the syringe with 3.0ml of pure water. Insert the syringe into the patch through its foam perimeter, at a 30° angle, so that it passes through the foam into the test compartment.

Inject the water into the test compartment. If necessary remove the remaining air within the compartment.



During an agreed period of time, without removing the needle - withdraw and re-inject the solution back into the patch, at least four times.



At the end of the period extract as much solution as possible.

Remove the syringe from the patch and measure the conductivity of the solution using a suitable Conductivity Meter such as the Elcometer 138.



# **Elcometer Digital Inspection Kits**

These digital inspection kits have been specifically designed to undertake the three principal inspection requirements in the Protective and Industrial Coatings Industry – climate, surface profile and dry film thickness.

Ideal for 'paperless' quality assurance systems the kits come complete with ElcoMaster® Data Management Software for professional reporting and analysis.

Two inspection kits are available (Basic & Top) to meet your specific needs.

Measurement parameters include:

- · Surface profile
- · Climatic conditions
- Coating thickness





#### STANDARDS:

AS 2331.1.4, AS 3894.3-B, AS/NZS 1580.108.1, ASTM B 499, ASTM D 1186-B, ASTM D 1400, ASTM D 4417-B, ASTM D 7091, ASTM E 376, ASTM G 12, BS 3900-C5-6B, BS 3900-C5-6A, BS 5411-11, BS 5411-3, BS 5599, DIN 50981, BS 7079-B4, DIN 50984, ECCA T1, EN 13523-1, IMO MSC.215(82), IMO MSC.244 (83), ISO 1461, ISO 19840, ISO 2063, ISO 2360, ISO 2808-6A, ISO 2808-6B, ISO 2808-7C, ISO 2808-7D, ISO 2808-12, ISO 8502-4, JIS K 5600-1-7, NF T30-124, SANS 5772, SS 184159, SSPC PA 2, US Navy PPI 63101-000, US Navy NSI 009-32

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Model	Description	Basic	Тор
Elcometer 224	Integral Digital Surface Profile Gauge	Model B	Model T
Elcometer 319	Digital Dewpoint Meter	Standard	Тор
Elcometer 319	External Magnetic Surface Probe		
Elcometer 456	Ferrous/FNF Separate Coating Thickness Gauge	Model B	Model T
Elcometer 456	Ferrous/FNF Standard Separate Probe: Scale 1		•
Elcometer 456	Ferrous/FNF PINIP Probe: Scale 1		
ElcoMaster®	Data Management Software and USB Cable		

### Technical Specification

Part Number	Description
YKIT-DIGITAL-B	Elcometer Basic Digital Inspection Kit (F)
YKIT-DIGITAL-T	Elcometer Top Digital Inspection Kit (F)
YKIT-DIGITALFNF-B	Elcometer Basic Digital Inspection Kit (FNF)
YKIT-DIGITALFNF-T	Elcometer Top Digital Inspection Kit (FNF)

Алматы (7273)495-231 Ангарск (3955)60-70-56 Архангельск (8182)63-90-72 Астрахань (8512)99-46-04 Барнаул (3852)73-04-60 Белгород (4722)40-23-64 Благовещенск (4162)22-76-07 Брянск (4832)59-03-52 Владивосток (423)249-28-31 Владикавказ (8672)28-90-48 Владимир (4922)49-43-18 Волгоград (844)278-03-48 Волоград (844)278-03-48 Волоград (8172)26-41-59 Воронеж (473)204-51-73 Екатеринфорг (343)384-55-89

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Иваново (4932)77-34-06 Ижевск (3412)26-03-58 Иркутск (395)279-98-46 Казань (843)206-01-48 Калининград (4012)72-03-81 Калуга (4842)92-23-67 Кемерово (3842)65-04-62 Киров (8332)68-02-04 Коломна (4966)23-41-49 Кострома (4942)77-07-48 Краснодар (861)203-40-90 Краснораск (391)204-63-61 Курск (4712)77-13-04 Курган (3522)50-90-47 Липецк (4742)52-20-81 Магнитогорск (3519)55-03-13 Москва (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41 Нижний Новгород (831)429-08-12 Ноябрьск (3496)41-32-12 Новосибирск (383)227-86-73 Омск (3812)21-46-40 Орел (4862)44-53-42 Оренбург (3532)37-68-04 Пенза (8412)22-31-16 Петрозаводск (8142)55-98-37 Псков (8112)59-10-37 Ростов-на-Дону (863)308-18-15 Рязань (4912)46-61-64 Самара (846)206-03-16 Санкт-Петербург (812)309-46-40 Саратов (845)249-38-78 Севастополь (8692)22-31-93 Саранск (8342)22-96-24 Симферополь (3652)67-13-56 Смоленск (4812)29-41-54 Сочи (862)225-72-31 Ставрополь (852)20-65-13 Суртут (3462)87-98-35 Сыктывкар (8212)25-95-17 Тамбов (4752)50-40-97 Тверь (4822)63-31-35 Тольятти (8482)63-91-07 Томск (3822)98-41-53 Тула (4872)33-79-87 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-59 Улан-Удэ (3012)59-97-51 Уфа (347)229-48-12 Хабаровск (4212)29-98-04 Чебоксары (8352)28-53-07 Челябинск (351)202-03-61 Череповец (8202)49-02-64 Чита (302)38-34-83 Якутск (4112)23-90-97

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