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
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
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
Красноярск (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
Новокузнецк (3843)20-46-81
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
Пермь (342)205-81-47
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 (8652)20-65-13
Сургут (3462)77-98-35
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)92-98-04
Чебоксары (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®
inspection equipment

# Elcometer 1615
## Variable Impact Tester

## Elcometer 1615 Variable Impact Tester

This simple to use gauge is ideal for evaluating the resistance of a coating to impact (elongation, cracking or peeling), and is suitable for use on both direct and indirect test methods.

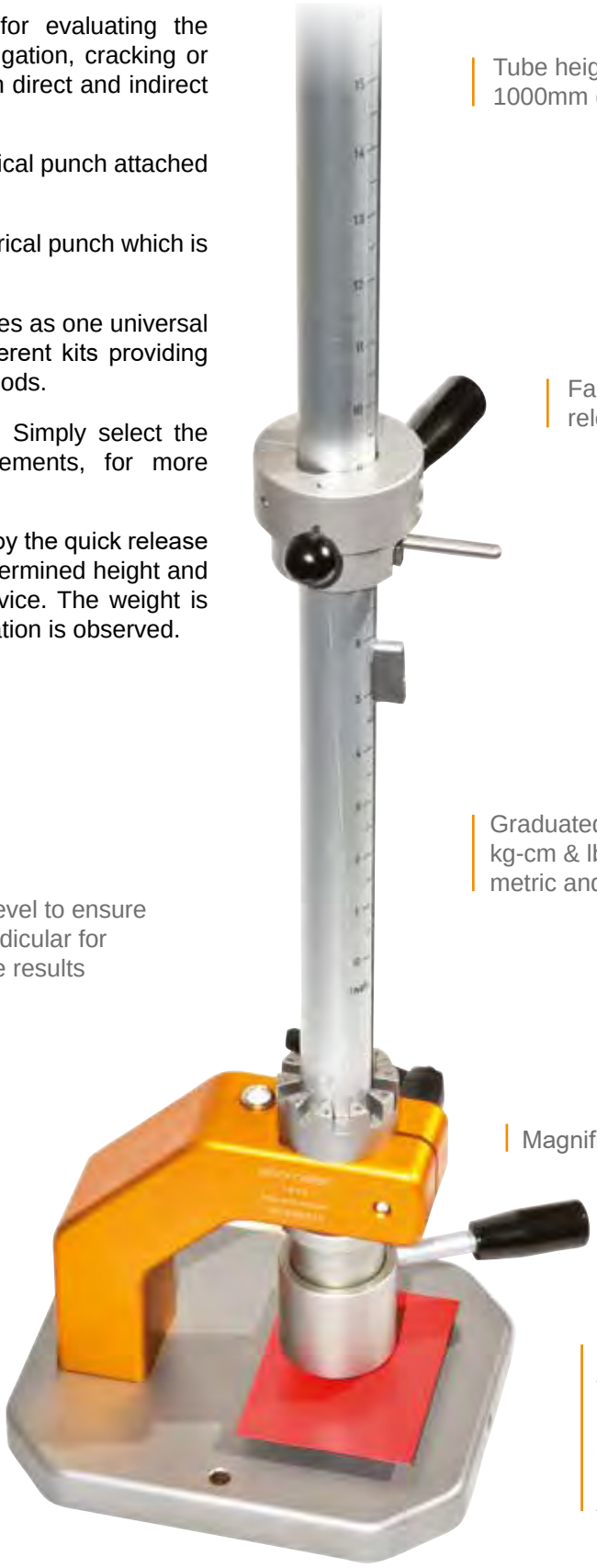
Direct: either a weight with a hemispherical punch attached falls on to a coated metal sheet.

Indirect: a weight falls on to a hemispherical punch which is resting on the coated metal sheet.

The Elcometer 1615 Impact Tester comes as one universal assembly with the option of seven different kits providing the functionality for various testing methods.

The base unit is common to all tests. Simply select the appropriate kit to meet your requirements, for more information see page 4.

The test specimen is fixed into position by the quick release clamp. The weight is lifted to the predetermined height and can be set by the adjustable collar device. The weight is then released and the resulting deformation is observed.



Tube height 1000mm (39”)

Fast and safe weight release mechanism

Graduated tube engraved in both kg-cm & lb-inch (1m, 39” height) metric and imperial units

Integrated bubble level to ensure the tester is perpendicular for repeatable accurate results

Stop collar with 10 settings between 2mm and 15mm (0.08 and 0.60”) to change the depth of impact when working in accordance with ISO Standards, supplied with Kits A, D and F

Magnifier x10

Rapid fix sample clamp; the test sample can be secured or released by a simple twist of the clamp handle supplied with Kits A, D and F

Heavy-duty, passivated base plate and anodised arm to prevent rusting

# Variable Impact Tester

## Elcometer 1615

**Variable Impact Tester Kits**
The Elcometer 1615 Variable Impact Testers are designed to meet a wide range of National and International Standards. Simply select the appropriate kit from page 4 and attach the punch, die and accessories to the base unit.

Interchangeable dies - enable the user to match the die to the size of the relevant punch to conform to the required Standard or method.



Please see page 4 for the list of available kits and page 6 for the full range of accessories

**STANDARDS:**
ASTM D 2794, ASTM D 5420, AS/NZS 1580.406.1, BS 6496:1984, BS 3900-E13, ECCA T5, EN 12206-1:2004, EN 13523-5, ISO 6272:1993, ISO 6272-1, ISO 6272-2, JIS K 5600-5-3:1999, NF T30-017:1989

## Technical Specification

| Part Number | Description |
|---|---|
| K0001615M201 | Elcometer 1615 Impact Tester Universal Base Unit and Tube |
| Weight | 10.6kg (23.34lb) |
| Dimensions | 1460 x 200 x 165mm (57.5 x 8.0 x 6.5”) |
| Packing List | Elcometer 1615 Impact Tester with passivated base, integrated bubble leveller, graduated tube, collar release mechanism, magnifier (x6), 4mm Allen key, operating instructions and carry case |

## Elcometer 1615

# Elcometer Impact Tester Kits

In order to test a sample in accordance with a specified standard, a number of kits have been created to provide a single Impact Tester which, by using the appropriate kit, allow the user to work in accordance with a wide range of National and International standards.

| Part Number | Description | Certificate |
|---|---|---|
| KT001615KITA | Elcometer Impact Tester Kit A | ○ |

**Kit A:** Falling 1kg (2.2lb) weight with a 20mm (0.79”) punch; 27mm (1.06”) die with fixing screw; sample clamp with two fixing screws; stop collar*; 3mm (0.12”) and 4mm (0.16”) hexagonal wrench

**STANDARDS:**
ISO 6272:1993, EN 13523, JIS K 5600-5-3, DIN EN ISO 6272-1

| Part Number | Description | Certificate |
|---|---|---|
| KT001615KITB | Elcometer Impact Tester Kit B | ○ |

**Kit B:** Falling 1kg (2.2lb) weight with static indenter with 15.9mm (0.6”) punch; 12.7mm (0.5”) punch; 16.3mm (0.64”) die with fixing screw; 3mm (0.12”) hexagonal wrench

**STANDARDS:**
ASTM D 2794, BS EN ISO 6272-2, ISO 6272-2 :2002, Qualicoat

| Part Number | Description | Certificate |
|---|---|---|
| KT001615KITC | Elcometer Impact Tester Kit C | ○ |

**Kit C:** Falling 2lb (908g) weight with static indenter with 15.9mm (0.6”) punch; 16.3mm (0.64”) die with fixing screw; 3mm (0.12”) hexagonal wrench

**STANDARDS:**
ASTM D 2794, ASTM D 5420, BS6496:1984, EN 12206-1

| Part Number | Description | Certificate |
|---|---|---|
| KT001615KITD | Elcometer Impact Tester Kit D | ○ |

**Kit D:** Falling 1kg (2.2lb) weight with 20mm (0.79”) punch and stop key; 27mm (1.06”) die with fixing screw; stop collar*; sample clamp with fixing screws; 3mm (0.12”) and 4mm (0.16”) hexagonal wrench

**STANDARDS:**
ISO 6272-1, BS EN ISO 6272-1, NF EN ISO 6272-1

* Values: 2, 3, 4, 5, 6, 7, 8, 9, 10 & 15mm (0.08, 0.12, 0.16, 0.20, 0.24, 0.28, 0.31, 0.35, 0.39 & 0.60”)

○ Optional Calibration Certificate available.

# Elcometer Impact Tester Kits



| Part Number | Description | Certificate |
|---|---|---|
| KT001615KITE | Elcometer Impact Tester Kit E | ○ |

**Kit E:** Falling 400g (0.9lb) weight with 23mm (0.90”) punch; 22mm (0.87”) die with fixing screw; 3mm (0.12”) hexagonal wrench

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**STANDARDS:**
NF T30-017:1989

| Part Number | Description | Certificate |
|---|---|---|
| KT001615KITF | Elcometer Impact Tester Kit F | ○ |

**Kit F:** Falling 1kg (2.2lb) weight with a 20mm (0.79”) punch; 27mm (1.06”) die with fixing screw; Falling 1kg (2.2lb) weight with 12.7mm (0.5”) punch; sample clamp with two fixing screws; 16.3mm (0.64”) die with fixing screw; stop collar*; static indenter with 15.9mm (0.6”) punch; 3mm (0.12”) hexagonal wrench; 4mm (0.16”) hexagonal wrench

**STANDARDS:**
ASTM D 2794, BS EN ISO 6272, DIN EN ISO 6272-1, EN 13523-5, ISO 6272, Qualicoat 2006, SN EN ISO 6272-1

| Part Number | Description | Certificate |
|---|---|---|
| KT001615KITG | Elcometer Impact Tester Kit G | ○ |

**Kit G:** Falling 1kg (2.2lb) weight with a 15.9mm (0.62”) static indenter with handle and punch; 12.7mm (0.5”) static indenter with handle and punch; 16.3mm (0.64”) die with fixing screw; guide bracket with two fixing screws; 3mm (0.12”) hexagonal wrench; 4mm (0.16”) hexagonal wrench

Additional 1kg (2.2lb) weights are available as an optional extra.

**STANDARDS:**
BS EN ISO 6272-2:2011

**For a full range of kits, dies and other accessories to meet a wide range of National and International Standards see page 4**

○ Optional Calibration Certificate available.

## Elcometer 1615

# Variable Impact Tester Accessories

The following range of accessories have been designed to help you evaluate the resistance of a coating to impact (elongation, cracking or peeling) when used in conjunction with the Elcometer 1615 Variable Impact tester.

Punches are universal and can be used either fitted to a falling weight or as a punch resting on the sample.

### Accessories

| | | Suitable for Kit | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | F | G |
| KT001615N201 | Additional 1kg (2.2lb) Falling Weight, 24.6mm (0.97 ) Diameter | | | | ■ | | | |
| KT001615N221 | Additional 1kg (2.2lb) Falling Weight, 25.0mm (0.98 ) Diameter | ■ | | | | | ■ | ■ |
| KT001615N226 | 20mm (0.79”) Diameter Punch (Outside Diameter 25mm) | ■ | | | | | ■ | |
| KT001615N215 | 12.7mm (0.5”) Diameter Punch | | ■ | | | | ■ | |
| KT001615N205 | 15.9mm (0.6”) Diameter Punch | | ■ | ■ | | | ■ | |
| KT001615N206 | 20mm (0.79”) Diameter Punch (Outside Diameter 24.6mm) | | | | ■ | | | |
| KT001615N207 | 23mm (0.9”) Diameter Punch | | | | | ■ | | |
| KT001615N216 | Static Indenter with 12.7mm/0.5” Diameter Punch | | | | | | | ■ |
| KT001615N217 | Static Indenter with 15.9mm/0.6” Diameter Punch | | | | | | | ■ |
| KT001615N208 | Stop Ring Collar | ■ | | | ■ | | ■ | |
| KT001615N209 | Sample Clamp Mechanism | ■ | | | ■ | | ■ | |
| KT001615N210 | Weight Release Mechanism | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| KT001615N211 | Replacement Graduated Tube | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| KT001615N212 | 16.3mm (0.64”) Die | | ■ | ■ | | | ■ | |
| KT001615N232 | 16.3mm (0.64”) Die (with 1.5mm Radius) | | | | | | | ■ |
| KT001615N213 | 22mm (0.87”) Die | | | | | ■ | | |
| KT001615N214 | 27mm (1.06”) Die | ■ | | | ■ | | ■ | |

# Elcometer 1506 Cylindrical Mandrel Bend Tester

The Elcometer 1506 is similar in use to the Elcometer 1510, being a very robust mechanical unit for determining the elasticity, adhesion and elongation properties of cured coatings on sheet metal.

The frame has a bending lever with height-adjustable rollers and a sliding vice for clamping the sample which means the test pieces are bent perfectly and regularly on decreasing mandrels until the desired effect can be observed.

The instrument can be adjusted to the diameter of the mandrel used as the mandrels are easily changed.

A wide range of metric and imperial mandrels are available. Mandrel sets or individual mandrels should be ordered separately - please see page 2.

**STANDARDS:**
AS/NZS 1580.402.1, ASTM D 2485, ASTM D 522-B, ASTM D 1737, ISO 1519-2, JIS K 5600-5-1

# Elcometer 1506 Cylindrical Mandrel Bend Tester

## Technical Specification

| Part Number | Description |
|---|---|
| K1506M201 | Elcometer 1506 Cylindrical Mandrel Bend Tester |
| Test Piece Width | Maximum: 64mm (2.5”) |
| Test Piece Length | Maximum: 80 to 100mm (3.15 to 3.93”) depending on the size of the mandrel used |
| Dimensions | 320 x 135 x 130mm (12.6 x 5.3 x 5.1”) |
| Weight | 4.3kg (9.5lb) |
| Packing List | Elcometer 1506 Cylindrical Mandrel Bend Tester and operating instructions |

## Accessories

| | |
|---|---|
| KT001506P201 | Elcometer 1506 Metric Mandrel Set, 2 to 32mm (one of each of the Metric Mandrels below) |
| KTUS1506P201 | Elcometer 1506 Imperial Mandrel Set, 1/8 to 1” (one of each of the Imperial Mandrels below) |

| | Metric | | Imperial |
|---|---|---|---|
| KT001506F002 | 2mm Mandrel | KTUS1506F022 | ⅛” Mandrel |
| KT001506F003 | 3mm Mandrel | KTUS1506F023 | ¼” Mandrel |
| KT001506F004 | 4mm Mandrel | KTUS1506F024 | ⅜” Mandrel |
| KT001506F005 | 5mm Mandrel | KTUS1506F025 | ½” Mandrel |
| KT001506F006 | 6mm Mandrel | KTUS1506F026 | ⅝” Mandrel |
| KT001506F007 | 8mm Mandrel | KTUS1506F027 | ¾” Mandrel |
| KT001506F014 | 10mm Mandrel | KTUS1506F028 | 1.0” Mandrel |
| KT001506F015 | 12mm Mandrel | | |
| KT001506F016 | 13mm Mandrel | | |
| KT001506F017 | 16mm Mandrel | | |
| KT001506F018 | 19mm Mandrel | | |
| KT001506F019 | 20mm Mandrel | | |
| KT001506F020 | 25mm Mandrel | | |
| KT001506F021 | 32mm Mandrel | | |

# Elcometer 1620 Cupping Tester

This robust and user-friendly tester is used for assessing the cupping ability of coatings applied to metal sheets up to 1.2mm (0.05") thick.

The Elcometer 1620 has a 27mm (1.06") diameter hardened steel die in a clamping device and a 20mm (0.79") diameter punch. A hand-rotated crank and reduction drive moves the punch progressively into the sample.

The Elcometer 1620 has a digital gauge with an illuminated magnifier to accurately view the resultant damage and provides accurate readings of the cupping depth on an integrated gauge. Direct viewing of the fissures, cracks and tears in the coating of up to 10µm (0.4mil) can be viewed through the supplied x10 illuminated magnifying glass.


**STANDARDS:**
BS 3900 E4, DIN 53156, DIN 53232, ECCA T6, EN 13523-6, ISO 1520, JIS K 5600-5-2, NBN T22-104, NF T30-019

## Technical Specification

| Part Number | Description | Gauge Type | Certificate |
|---|---|---|---|
| K0001620M004 | Elcometer 1620/4 Manual Cupping Tester | Digital (mm, mils) | ○ |
| Dimensions | 300 x 240 x 500mm (12 x 10 x 20") | | |
| Weight | 24kg (53lb) | | |
| Packing List | Elcometer 1620 Cupping Tester, gauge, gauge holder, zero setting sheet, illuminated 10x magnifying glass with magnet and operating instructions | | |

# Elcometer 1510 Conical Mandrel Bend Tester

The Elcometer 1510 Bend Tester is a mechanical tester used to determine the effects of bending on the elasticity, adhesion and elongation properties of cured coatings on sheet metal.

The frame has a bending lever with a roller which pivots on a steel conical mandrel with a diameter from 3.2 - 38.1mm (0.12 - 1.5”). A graduation indicates the mandrel diameter in both mm and inches.

The specimen can be bent on part of, or along, the entire length of the mandrel, and the results (cracks) corresponding to different test diameters can be observed in a single operation. This is ideal for use in conjunction with the cylindrical mandrel, as it identifies the stop point for more focused testing.

As the instrument is machined out of a solid block of steel, the particularly robust and rigid construction provides excellent resistance to wear and provides long service life. A large, sturdy anodised base, which can be permanently fixed to a workstation, ensures stability during testing.

**STANDARDS:**
ASTM D 522-A, BS 3900-E11, ISO 6860

## Technical Specification

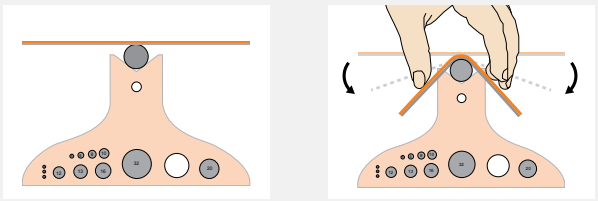
| Part Number | Description | Certificate |
|---|---|---|
| K0001510M001 | Elcometer 1510 Conical Mandrel Bend Tester | ○ |
| Diameter Range | 3.2 - 38.1mm (0.1 x 1.5”) | |
| Sample Size | 180 x 100 x 0.8mm (7 x 4 x 0.03”) | |
| Dimensions | 325 x 350 x100mm (12.8 x 13.8 x 4”) | |
| Weight | 9kg (20lb) | |
| Packing List | Elcometer 1510 Conical Mandrel Bend Tester and operating instructions | |

# Elcometer 1500 Cylindrical Mandrel on a Stand

The Elcometer 1500 is a simple instrument for determining the elasticity, adhesion and cracking of dry paint on flat specimens, consisting of a mandrel support which also serves as a test stand.

Coated metal sheets, maximum 150mm (5.9”) in length x 100mm (3.93”) wide, are manually and successively bent around mandrels of decreasing diameter until cracks appear.


How to use the Cylindrical Mandrel on a Stand



**STANDARDS:**

AS/NZS 1580.402.1, ASTM D 2485, ASTM D 522-B, ASTM D 1737, BS 3900-E1, DIN 53152, ISO 1519-1, JIS K 5600-5-1, NF T30-040

## Technical Specification

| Part Number | Description |
|---|---|
| K0001500M002 | Elcometer 1500/2 Metric Set of 13 Cylindrical Mandrels on a stand from 2 to 32mm |
| K0US1500M001 | Elcometer 1500/1 Imperial Set of 7 Mandrels from ⅛” to 1” |
| Mandrel Size | Metric Version: 2, 3, 4, 5, 6, 8, 10, 12, 13, 16, 20, 25, and 32mm |
| | Imperial Version: ⅛, ¼, ⅜, ½, ⅝, ¾, 1” |
| Dimensions | 178 x 138 x 145mm (7 x 5.3 x 5.7”) |
| Weight | 3.3kg (7.26lb) |
| Packing List | Set of 7 mandrels (Elcometer 1500/1), Set of 13 mandrels (Elcometer 1500/2) and operating instructions |