



# Test Equipment for Lab and Production

## *Product Catalog*



Mineral oil/ Bitumen/  
Lubricants



Polymer Materials



Surface/ Paint/  
Coating



Pipes



Other Materials/  
Service Strength

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## Mineral oil/ Bitumen/ Lubricants

### Penetration

#### Digital automated Penetrometer

Digital, automatic penetrometer with microcontroller and surface detection for determination of ductility/ stiffness of ductile and elastic masses (lubricating grease, salves, creams, pastes, bitumen) via penetration.

Standard: ASTM D5, ASTM D217, ASTM D937, ASTM D1321, ASTM D1403, ASTM D5329, ASTM D7342, DIN 51579, DIN 51580, EN 1426, EN 13179-2, EN 13880-3, ISO 2137, IP 50, IP 179, IP 310, IP 376, DAB 10-V.5.8.1



#### Digital Penetrometer

Digital penetrometer with microcontroller for determination of ductility/ stiffness of ductile and elastic masses (lubricating grease, salves, creams, pastes, bitumen) via penetration.

Standard: ASTM D5, ASTM D217, ASTM D937, ASTM D1321, ASTM D1403, ASTM D5329, ASTM D7342, DIN 51579, DIN 51580, EN 1426, EN 13179-2, EN 13880-3, ISO 2137, IP 50, IP 179, IP 310, IP 376, DAB 10-V.5.8.1



#### Analog semi-automatic Penetrometer

Analog, semi-automatic penetrometer with microcontroller for determination of ductility/ stiffness of ductile and elastic masses (lubricating grease, salves, creams, pastes, bitumen) via penetration.

Standard: ASTM D5, ASTM D217, ASTM D937, ASTM D1321, ASTM D1403, ASTM D5329, ASTM D7342, DIN 51579, DIN 51580, EN 1426, EN 13179-2, EN 13880-3, ISO 2137, IP 50, IP 179, IP 310, IP 376, DAB 10-V.5.8.1



#### Analog Penetrometer

Analog, manual penetrometer with microcontroller for determination of ductility/ stiffness of ductile and elastic masses (lubricating grease, salves, creams, pastes, bitumen) via penetration.

Standard: ASTM D5, ASTM D217, ASTM D937, ASTM D1321, ASTM D1403, ASTM D5329, ASTM D7342, DIN 51579, DIN 51580, EN 1426, EN 13179-2, EN 13880-3, ISO 2137, IP 50, IP 179, IP 310, IP 376, DAB 10-V.5.8.1



#### Digital semi-automatic Penetrometer

Digital, semi-automatic Penetrometer with microcontroller for determination of ductility/ stiffness of ductile and elastic masses (lubricating grease, salves, creams, pastes, bitumen) via penetration.

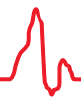
Standard: ASTM D5, ASTM D217, ASTM D937, ASTM D1321, ASTM D1403, ASTM D5329, ASTM D7342, DIN 51579, DIN 51580, EN 1426, EN 13179-2, EN 13880-3, ISO 2137, IP 50, IP 179, IP 310, IP 376, DAB 10-V.5.8.1



#### Penetration accessories

A comprehensive range of accessories for all instruments for the needle penetration, cone penetration and other test methods are available. Please contact us.





## Flammability

### Pensky Martens Flashpoint, automatic

Fully-Automatic determination of the flash point of petro-chemical products corresponding to the Pensky Martens methode with closed cup.

Standard: ASTM D93 (A+B), ASTM D6751, AASHTO T73, AASTO T172, ISO 15267, IP 34 (A+B), ISO 2719 (A+B), NF M 07-019, EN 22719 (A+B), JIS K 2265



### Pensky Martens Flashpoint, semi-automatic

Semi-Automatic determination of the flash point of petro-chemical products corresponding to the Pensky Martens methode with closed cup.

Standard: ASTM D93 (A+B), ASTM D6751, AASHTO T73, AASTO T172, ISO 15267, IP 34 (A+B), ISO 2719 (A+B), NF M 07-019, EN 22719 (A+B), JIS K 2265



### Abel Flashpoint, automatic

Fully-automatic determination of the flash point of petro-chemical and other easily inflammable products corresponding to the Abel methode with closed cup.

Standard: ISO 1516, ISO 1523, ISO 13736, EN 924, IP 170, IP 491, IP 492, NF T66-009



### Abel Flashpoint, semi-automatic

Semi-automatic determination of the flash point of petro-chemical and other easily inflammable products corresponding to the Abel methode with closed cup.

Standard: ISO 1516, ISO 1523, ISO 13736, EN 924, IP 170, IP 491, IP 492, NF T66-009



### Abel Flashpoint, manual

Manual determination of the flash point of petro-chemical and other easily inflammable products corresponding to the Abel method with closed cup.

Standard: ISO 1516, ISO 1523, ISO 13736, EN 924, IP 170, IP 491, IP 492, NF T66-009

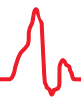


### Cleveland Flashpoint, automatic

Fully-automatic determination of the flash- and firepoint of petrochemical products corresponding to the Cleveland Open Cup (COC) method.

Standard: ASTM D92, FTM 791-1103, IP 36, ISO 2592, JIS K2265-4, AASHTO T48

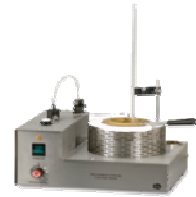




### Cleveland Flashpoint, semi-automatic

Semi-automatic determination of the flash- and firepoint of petrochemical products corresponding to the Cleveland Open Cup (COC) method.

Standard: ASTM D92, FTM 791-1103, IP 36, ISO 2592, JIS K2265-4, AASHTO T48



### Setaflash-Tester, Serie 8, automatic, 300°C

Determination of the flash-point and classification of mineral oil, bio-diesel, color, glue, resolvent or other flammable substances.

Standard: ASTM D3278, ASTM D3828, ASTM D7236, ASTM E502, BS 3900 Part A13, BS 6664 Parts 3 & 4, CHIPS Regulations, EPA 1020 A & B, IP 523, IP 524, IP 534, ISO 3679, ISO 3680, UN Class 3 Non-viscous Flammable Liquids



### Setaflash-Tester, Serie 3, semi-automatic, closed cup

Determination of the flash-point and classification of mineral oil, bio-diesel, color, glue, resolvent or other flammable substances.

Standard: ASTM D1655, ASTM D3278, ASTM D3828, ASTM E502, BS 3900 Part A13, BS 6664 Parts 3 & 4, BS EN 456, CHIPS Regulations, DEF STAN 91-91, EPA 1020 A & B, IP 303 (obs), IP 523, IP 524, ISO 3679, ISO 3680, UN Class 3 Non-viscous Flammable Liquids



### Setaflash-Tester, Serie 3, semi-automatic, open cup

Determination of the fire-point of mineral oil, color and resolvent.

Standard: ASTM D4206, ISO 9038, BS 3900-A11, UN Class 3 L.3, CFR 49-173.120



### Ignition Temperature, semi-automatic

Determination of the ignition temperature or original and liquid substances.

Standard: EN 14522, DIN 51794, CEI 79-4, NF T20-037, NF T20-036, 79/831/EWG, IEC 79-4

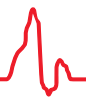


### BAM friction apparatus

The Friction Tester is used to determine the sensitivity to friction of solid, liquid or pasty substances according to the BAM method.

Standard: BAM Methode





## Fuel

### OBA, Oxidation Stability of Fuel

Determination of the oxidation stability of fuel under influence of oxygen (Induction-Method.)

Standard: ASTM D525, ASTM D873, BS 2000 Parts 40 & 138, EN 7536, FTM 791 3352, FTM 791 3354, IP 138, IP 40, ISO 7536, JIS K2287, NF M07-012, NF M07-013



### OBA, Oxidation Vessel

An oxidation pressure vessel with a safety burst disc assembly and discharge tube.

Standard: ASTM D525, D873, IP 40, IP 38



### Corrosion Tester for Non-Freeze Liquid

Test of corrosion of non-freeze liquids in the presence of metals.

Standard: ASTM D1384



### Copper-Corrosion Test

Test of corrosion of copper through aviation fuel, combustibles and lubricants.

Standard: ASTM D130, ASTM D4048, EN ISO 2160, IP 154, DIN 51811, ASTM D4048, IP 112



### Freezing Point Apparatus, automatic, -80 °C

Determining the freezing point of aviation fuels and motor benzols.

Standard: ASTM D1177, ASTM D1655, ASTM D2386, ASTM D5901, ASTM D5972, IP 16, IP 435, IP 528, IP 529, ISO 3013

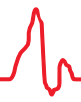


### Freezing Point Cryostat, manual

Determination of the freezing point.

Standard: DIN 51 421, ASTM D2386-7, IP 16/68





### Non-freezing Liquid Freezing Point Apparatus, manual

Determining the freezing point of non-freezing liquids.

Standard: ASTM D1177, NF T78-102



### Solidification Point of Benzene, manuell

Determining the freezing point of benzol.

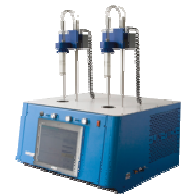
Standard: ASTM D852



### Cloud-Point Apparatus, automatic

Determination of Cloud-Point of mineral oils and fuels.

Standard: ASTM D2 500, ASTM D5771, ASTM D5772, ASTM D5773, DIN 51597, IP219. IP 444, IP445, IP 446, ISO 3015



### Pour-Point Apparatus, automatic

Pour-Point of petroleum products, crude oils, motor and engine oils, additives, lubricating oils, ...

Standard: ASTM D97, ASTM D5853, ASTM D5950, IP 15, IP 441, ISO 3016



### Cloud- and Pour-Point Apparatur, automatic

Cloud-Point of petroleum products and biodiesel fuels. Pour-Point of petroleum products, crude oils, motor and engine oils, additives, lubricating oils, ...

Standard: ASTM D2500, ASTM D5771, ASTM D5772, ASTM D5773, DIN 51597, IP219. IP 444, IP445, IP 446, ISO 3015, ASTM D97, ASTM D5853, ASTM D5950, IP 15, IP 441, ISO 3016

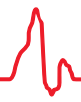


### Compakt-Cryostat (CAPP), manual

Determination of Cloud- and Pour-Point of mineral oil and fuels with 4 separately controlled test baths.

Standard: ASTM D2500. ASTM D5771, ASTM D5772, ASTM D5773, DIN 51597, IP219. IP 444, IP445, IP 446, ISO 3015, ASTM D97, ASTM D5853, ASTM D5950, IP 15, IP 441, ISO 3016





### Cold-Filter-Plugging Point (CFPP) Apparatus, automatic

Measurement of the cold filter plugging point for diesel, bio-diesel and fuel oil.

Standard: ASTM D6371, ASTM D4539, BS 2000 Part 309, BS 6188, EN 116, IP 309



### Cold-Filter-Plugging Point (CFPP) Apparatus, manual

Measurement of the cold filter plugging point for diesel, bio-diesel and fuel oil.

Standard: ASTM D6371, ASTM D4539, BS 2000 Part 309, BS 6188, EN 116, IP 309



### Digital Conductivity Test, portable

Measurement of the electrical conductivity of fuels, lubricants or similar fluids with low conductivity.

Standard: ASTM D2624, IP 274



### Smoke Point Apparatus

Determination of the smoke point of aviation fuels in terms of maximum flame height.

Standard: ASTM D1322, IP 57, ISO 3014



### Vapour Pressure Test, automatic

Determination of the vapour pressure characteristics of fuel, fuel-oxygen-blends, crude oil, resins and other chemicals.

Standard: ASTM D5188, ASTM D5191, ASTM D6377, ASTM D6378, ASTM D6897, ASTM D323, ASTM D4953, ASTM D5190, ASTM D5482, EN 13016-1+2, IP 394, IP 409, IP 481



### Carbon Residue Apparatus, Micro-Method, semi-automatic

Measurement of coke remainder to determine carbonisation tendencies of mineral oil.

Standard: ASTM D4530, IP398, ISO 10370



### Carbon Residue Apparatus, Conradsen, manual

Measurement of coke remainder to determine carbonisation tendencies of mineral oil.

Standard: ASTM D189-IP 13, ASTM D2416, BS 2000 Part 13, DIN 51551, FTM 791 5001, ISO 6615, JIS K2270, NF T60-116





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### Carbon Residue Apparatus, Ramsbottom method

Determination of carbon residue after flashing and pyrolysis of an oil sample.

Standard: ASTM D524, IP 14, ISO 4262



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### SSAFCON Sampler

SSAFCON is a monitoring system for portable line sampling of aviation turbine fuel to determine particulate contamination and colour ratings.

Standard: ASTM D2276, IP 216, FTM 791 3008



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### H2S Analyser

Determination of Hydrogen Sulfide in Fuel Oil.

Standard: ASTM D7621, IP 570/12A, ISO 8217, Rapid Liquid Phase Extraction Method



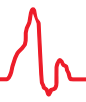
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### Apparatus for FIA Analysis

Determines volume % of saturates, olefins and aromatics in petroleum fractions.

Standard: ASTM D1319, IP 156, ISO 3837





## Bitumen

### Softeningpoint, automatic

Automatic determination of softening point of bitumen, bitumen-blends, resin and thermoplastic glues.

Standard: ASTM D36, ASTM D28, EN 1238, EN 1427, EN 13179-1, ISO 4625-1 AASHTO T 53



### Softeningpoint, manual

Manual determination of softening point of bitumen, bitumen-blends, resin and thermoplastic glues.

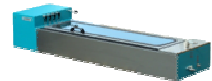
Standard: ASTM D36, ASTM D28, EN 1238, EN 1427, EN 13179-1, ISO 4625-1 AASHTO T 53



### Ductility Test, automatic, 1500 mm

Measurement of deformation of bitumen and elastomere and plastmere modified bitumen.

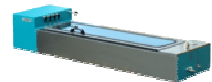
Standard: ASTM D113, AASHTO T 51, ASTM D5892, ASTM D6084, AASHTO T 301, EN 13398, AASHTO T 300, EN 13589, EN 13703, IP 515 IP 516, IP 520



### Ductility Test, automatic, 1000 mm

Measurement of deformation of bitumen and elastomere and plastmere modified bitumen.

Standard: ASTM D113, AASHTO T 51, ASTM D5892, ASTM D6084, AASHTO T 301, EN 13398, AASHTO T 300, EN 13589, EN 13703, IP 515 IP 516, IP 520



### Fraas Tester, automatic

Automatic determination of the deformation limits of bitumen at low temperatures.

Standard: EN 12593, IP 80, DIN 52012



### Fraas Tester, manual

Manual determination of the deformation limits of bitumen at low temperatures.

Standard: EN 12593, IP 80, DIN 52012



### Thinfilml Rolltest, RTFOT

Determination of the ageing of adhesive agents in road building under influence of heat and air.

Standard: ASTM D2872, EN 12607-1





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### PAV, Pressure Aging Vessel

Simulation of the long-term ageing of bitumen adhesive agents.

Standard: EN 14769



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### Bending-Beam-Rheometer, CBBR

Test system for determination of flexural creep stiffness of asphalt binder at low temperatures.

Standard: DIN EN 14771, ASTM D6648, NF T66-062, AASHTO TP1, AASHTO T313, SHRP 1002, SHRP B-002



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### Dynamic Shear Rheometer

Measurement of linear rheological behaviour of adhesive agents under sinusoidal fatigue at different temperatures.

Standard: ASTM P 246, AASHTO TP5, EN 12591, NF T65-001, SHRP B-003, SHRP 1007



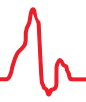
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### Road Tar Viscosimeter, manual

Viscosity measurement of bitumen.

Standard: DIN EN 12846, EN 13357, IP 72 - IP 502





## Lubricants

### Grease Worker, electrical

Conditioning of lubricating grease for the determination of Walk penetration.

Standard: ASTM D217, IP 50, ISO 2137, NF T60-132; FTM 791 311, JIS K2220, ASTM D7342



### Grease Worker, manual

Conditioning of lubricating grease for the determination of Walk penetration.

Standard: ASTM D217, IP 50, ISO 2137, NF T60-132; FTM 791 311, JIS K2220, ASTM D7342



### Micro-Grease Worker, manual

Conditioning of lubricating grease for the determination of Walk penetration.

Standard: ASTM D1403, IP 310, ISO 2137



### Roll Stability Tester

Conditioning of lubricating grease similar to a ball or roller bearing.

Standard: ASTM D1831 / MIL-G-10924



### EMCOR Tester

Determination of the anticorrosiveness of lubricants in presence of water.

Standard: ASTM D6138, DIN 51802, IP 220, ISO 11007



### BRUGGER-Test

Determination of resilience of lubricants at mixed and dry friction.

Standard: DIN 51 347-1+2

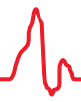


### High-Temperature Dropping Point Apparatus, manual

Determination of dripping point of lubricant grease in a wide range of temperatures.

Standard: ASTM D2265, ISO 6299





### Dropping Point Apparatus, manual

Determination of the temperature where the transition of a lubricant grease from semi-solid to fluid.

Standard: ASTM D566, IP 132, DIN 51 801, FTM 791 1421, ISO 2176, JIS K2220, NF T60-102



### Noack Vaporisation Tester VP 4000

Determination of evaporation loss of lubrication oil at high temperatures.

Standard: ASTM D5800-A, CEC I-40-A-A93, IP 421-B



### Existent GUM Soli Block Bath, manual

Determination of the lubricant oil content in fuel via Jet Evaporation method.

Standard: ASTM D381-IP 131, BS 2000 Part 131, BS 4348 (obs), DIN 51 784, FTM 791 3302, IP 540, ISO 6246, JIS K2261, NF M07-004



### Grease Separation Apparatus

Determination of grease separation at static conditions.

Standard: DIN 51 817, IP 121 BS 2000 Part 121



### Foam Tester

Determination of foam building characteristics of lubricating oils.

Standard: ASTM D892, ASTM D6082, IP 146, ISO 6247, FTM 791 3211



### Herschel De-Emulsification, semi-automatic

Test of the de-emulsification of mineral oil and synthetic oil. Herschel-test determines the pace of separation of oil from water.

Standard: ASTM D1401, DIN 51599, ISO 6614

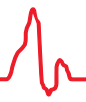


### Impinger Prüfapparatur, Air Release Value Apparatus, semi-automatic

Determination of air release value apparatus of lubricating oils and hydraulic fluids.

Standard: ASTM D3427, BS 2000 Part 313, DIN 51 381, IP 313, ISO 9120, NF T60-149





### Oxidation/Ageing - TOST Apparatus

Determination of ageing-behaviour of steam turbine and hydraulic oils.

Standard: ASTM D943, ASTM D2274, ASTM D4310, IP 388, ISO 4263



### Anticorrosive Tester - TOR

Test of the characteristics of anticorrosives for steam turbine, hydraulic and gear oils.

Standard: ASTM D665, ASTM D3603, ASTM D5534, IP 135, ISO 7120, FTM 791-4011



### Norma Hoffmann Oxidation Bomb

Determination of the oxidationstability of lubricating oils under static conditions.

Standard: ASTM D942, BS 2000 Part 142, IP 142



### Cold-Cranking-Simulator, CCS 2100



### Mini-Rotary Viscometer, CMRV 4500F

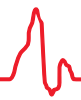
Standard: ASTM D3829, ASTM D4684



### Mini-Rotary Viscometer, CMRV 5000F

Standard: ASTM D3829, ASTM D4684





### Canon HTHS Capillary-Viscometer

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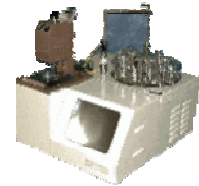
Standard: ASTM D5481, ASTM D4741



### HTHS Viscosimeter

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Standard: ASTM D4741, IP 370



### Low Temperature Viscometer Bath, -50°C

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Determination of the eddy viscosity of gear oil at low temperatures with a Brookfield viscosimeter.

Standard: ASTM D 2983, DIN 51368, IP 267-B



### Water Washout Tester

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Determination of water washout characteristics of lubricating greases.

Standard: ASTM D1264, IP 215, ISO 11009, DIN 51807

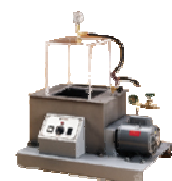


### Water Spray Apparatus

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Resistance of lubricating greases to water spray.

Standard: ASTM D4049



### Tester for Total Sediment Content in Residual Fuel Oils

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Standard: ASTM D4870, ISO 10307-1, ISO 10307-2, IP 375, IP 390-A

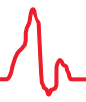


### Extraction Apparatus

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Standard: ASTM D437, IP 53, ISO 3735, FTM 791-3002





### Rotating Bomb Oxidation Tester

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Standard: ASTM D2112, ASTM D2272, ASTM D4742, IP 229



### Freezing Point Apparatus

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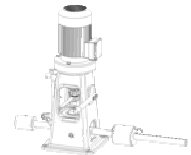
Standard: ASTM D938, IP 76, ISO 2207



### Four-Ball machine

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Standard: ASTM D2266, ASTM D2596, ASTM D2783, CEC L-45--T-93, DIN 51359, EN ISO 20623, FTM79 1-6503



### Drop Point Apparatus according to Ubbelohde

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Standard: DIN 51801-Teil 2

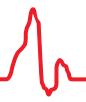


### Oil Test Centrifuge

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Standard: ASTM D91, ASTM D893, ASTM D1290, ASTM D1796, ASTM D1966, ASTM D2273, ASTM D2709, ASTM D2711, ASTM D4007, ASTM D5546, IP 359, ISO 3734, ISO 9030, DIN 51793





## Other

### Color Measurement, automatic

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Measurement according to Saybolt, ASTM, Pt-Co, Hazen, APHA, CIE and Gardner color index.

Standard: ASTM D6166, ASTM D6045, ASTM D1500, ASTM D1544, ASTM D1209, ASTM D156, ISO 2049, IP 196



### Apparatus to determine Oil Content

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Determination of oil content of mineral oil paraffines.

Standard: ASTM D3235, ASTM D721-IP 158, FTM 791 5431, DIN 51531, NF T60-120



### Viscotester

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Rotational viscometer controlled revolution and deformation.

Standard: DIN 53 018, DIN 53 019, ISO 3219, GOST 26 581



### Falling Ball and Capillary Viscometer

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### Viscometer and Temperingbaths

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Baths for tempering of capillary viscometer, areometer and pycnometer.



### Density Measurement

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### Karl-Fischer Titrator, Coulometric

For Coulometric determination of water in petroleum products.

Standard: ASTM D1533, ASTM D4377, ASTM D 4928, ASTM D6304, EN 61 000-3-2, EN 61 000-3-3, IP 356, ISO 10 337, ISO 12 937



### Karl-Fischer Titrator, Volumetrisch

For Volumetric determination of water in petroleum products.

Standard: ASTM D1533, ASTM D4377, ASTM D 4928, ASTM D6304, EN 61 000-3-2, EN 61 000-3-3, IP 356, ISO 10 337, ISO 12 937



### TAN Titrator



### TAN\_TBN Titrator



### PCB Check

Provides a fast test for PCB (max. 50 ppm).



### Freeze Valve Methode

Determinandation of the moisture of propan or similar liquids after Freeze Valve method.

Standard: ASTM D2713, IP 395, ISO 13758



### Sampling Devices

Sampling of fluids and semi-solids.

Standard: ASTM D923, ASTM D4057, ASTM D4177, DIN 51750, EN 58, ISO 3170





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#### Hand Refractometer



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#### Automatic Refractometer



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#### Referencematerial (e.g. flash point, CAPP, viscosity)



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#### Metal specimen



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#### Measurement Accessories



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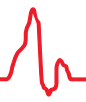
#### Cold-, Heat-, Conditioning Cabinet-, Incineration Furnace



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#### Electronic Mixer





### Brookfield Viskosimeter, LVDV-II+ Pro

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### Vacuum-pump with mini-compressor

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The vacuum pump is intended for the extraction of gases and steam.

Standard: DIN EN 61010-1, DIN EN 61000-3-2/3, DIN EN 55014-1/2





## Polymer Materials

### Specimen Preparation

#### Automatic Notch Milling Machine

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The automatic notch milling machine is used to cut norm conform notches in polymer specimen.

Standard: ISO 179, ISO 180, ISO 8256, ASTM D256, ASTM D6110



#### CNC-specimen cutter

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The CNC specimen cutter mills norm conform specimen fully automated for Charpy-, Izod-Tests and more.

Standard: ASTM D256, ASTM D6110, EN ISO 179, EN ISO 180, EN ISO 8256



#### Manual Toggle Press

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The manual toggle press allows an exact and effort-saving cutting-out of specimen with forces up to 25 kN.



#### Pneumatic Toggle Press

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The pneumatic toggle press allows an exact and effort-saving cutting-out of specimen with forces up to 60 kN.



#### Tempering chambers

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The heating and cooling chambers can be used for tempering in-between -40°C and +250°C.

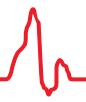


#### Drying Chambers

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The drying chambers dry the specimen via active dehydration.





### Glas Dehydrator

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The glas dehydrator dries the specimen via absorption.



### Aching Furnace

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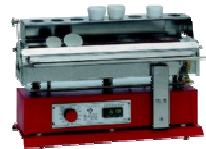
The furnace allows drying, pre-heating and furning-off with a temperature up to 1100 °C.



### Rapid Incinerator

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The rapid incinerator allows drying, pre-heating and furning-off with a temperature up to 950 °C.



### Sandbaths

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Electical sandbaths with variable temperature control with or without a thermostatic regulator.





## HDT-Heat Distortion/ VICAT-Softening Temperature

### Eco-Vicat (oilfree)

The ECO enables to measure the vicat-softeningtemperature clean and oilfree.

Standard: DIN EN ISO 306, (DIN 53460)



### HDT/ Vicat Basic Series

Basic is a manual starter series for measurement of the vicat-softeningtemperature and the HDT heat deflection temperature.

Standard: DIN EN ISO 75, ASTM D648, (DIN 53461), DIN EN ISO 306, ASTM D1525 , (DIN 53460)



### HDT/ Vicat Compact Series

Compact is a semi-automatic series for measurement of the vicat-softeningtemperature and the HDT heat deflection temperature.

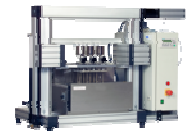
Standard: DIN EN ISO 75, ASTM D648, (DIN 53461), DIN EN ISO 306, ASTM D1525 , (DIN 53460)



### HDT/ Vicat IC (Integrated Cooling)

IC is a series with integrated cooling automatically measureing the vicat-softeningtemperature and the HDT heat deflection temperature.

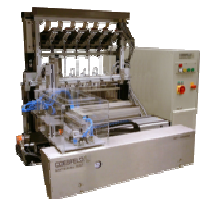
Standard: DIN EN ISO 75, ASTM D648, (DIN 53461), DIN EN ISO 306, ASTM D1525 , (DIN 53460)



### HDT Automat

The HDT automat allows a fully automated 24/7 measurement of the HDT heat deflection temperature.

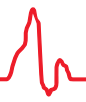
Standard: DIN EN ISO 75, ASTM D648, (DIN 53461)



### External Oil Cooling Unit

The external oil cooling unit reaches for systems of Basic and Compact series back to start temperature in short time after measurement.





## Dynamic Test

### DeMattia Test stand 32

Test stand to dynamic fatigue tests on DeMattia specimen with 32 measuring stations with and without temperature control.

Standard: DIN ISO 132



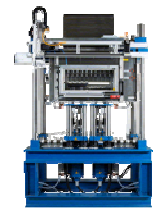
### Coesfeld Tear Analyser (Hydraulic)

The hydraulic Tear Analyser measures fatigue and crack propagation on 1x10 elastomers with the system BAYER.



### Coesfeld Tear Analyser (Electro)

The electromotoric Tear Analyser measures fatigue and crack propagation on 2x5 elastomer specimen with the system BAYER.



### Coesfeld Tear Analyser (Fitting)

The Tear Analyser can be fitted to on any dynamic measuring test stand for 1x1 elastomer specimen.



### Biaxial Test stand

The biaxial test stand measures fatigue and crack propagation via four synchronised electromotoric direct drives.



### Fatigue Tester (force and travel)

The test stand allows to measure force as well as travel controlled long time loading for fatigue to failure measurements via one or more electro drives.



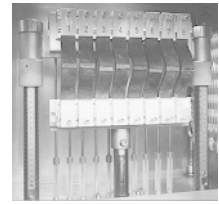


### Fatigue Tester (travel)

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Test stand for dynamic long time loading with tensile, pressure, bending and shearing under influence of temperature.

Standard: DIN 53 504, DIN 53 359, DIN 53 522, ASTM D430, ASTM D813, DIN EN ISO 132,  
DIN EN ISO 133





## Static Test

### Creep Tester (mechanical)

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Mechanical creep testrig for manual tests.

Standard: DIN EN ISO 899-1/ -2



### Creep Tester (electro drive)

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Electromotrical driven creep testrig for fully automated tests.

Standard: DIN EN ISO 899-1/ -2



### Universal Testing Machine (UTM)

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Universal test machine for tensile, compression and bending tests with 3kN, 5kN, 10kN and 10kN test force, different travel and clear width with diverse accessories.

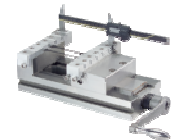


### Tensiontest

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Manual tension tester for 6 S2 bars.

Standard: DIN ISO 2285



### Compressiontest

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Manual compression tester for 4 samples form I and II.

Standard: DIN ISO 815 (former DIN 53 517), DIN EN ISO 1856



### Shorehardness Tester

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Durometer for measuring hardness of elastomeres, plastics and non-metalic materials.

Standard: DIN ISO 7619, DIN EN ISO 868, NF EN ISO 868, ASTM D2240 (DIN 53505)





### Digital Universal Hardnesstester

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Digital universal hardnesstester according to Vickers, Brinell, Rockwell, Knoop and ball indentation.

Standard: DIN EN ISO 6507 (Vickers), DIN EIN ISO (Brinell), DIN EN ISO 6508 (Rockwell), HK1 (Knoop), DIN ISO 2039 (Kugeldruckhärte)



### Ball Indentation Test

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Manual ball indentation test apparatus.

Standard: DIN ISO 2039 T1



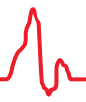
### Thickness Gauge

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Thickness gauge according to ISO 23529 for materials with a hardness of  $\geq 35$  IRHD.

Standard: ISO 23529





## Impact Strength

### Impact Tester Primus (up to 333J)

---

Impact tester with 1 or 1.7 meters drop height for manual, automatic as well as non-instrumented and instrumented drop tests.

Standard: DIN EN ISO 6603, ISO 7765, ASTM 4272, ASTM D1709, DIN 30 670, ASTM G 14, DIN 53 373, ISO4651, DIN EN 477

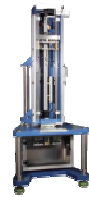


### Impact Tester Magnus (up to 785J)

---

Robust, automated and fully instrumented impact tester built in a stellframe with drop heights of 1 and 2 meters with optional tempering chamber, anit-rebound system, acceleration unit and more.

Standard: DIN EN ISO 6603, ISO 7765, ASTM 4272, ASTM D1709, DIN 30 670, ASTM G 14, DIN 53 373, ISO4651, DIN EN 477



### High Speed Impact Tester (up to 50m/s)

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High speed impact tester with drop speed up to 50m/s.



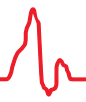
### Pendulums (5-50J)

---

Pendulum for plastics with analog or digital display.

Standard: DIN 51 222, ISO 442 and EN ISO 179, DIN 50 115, DIN 53 453, DIN 53 448 (Charpy)





## Abrasion/ Friction

### Abrasion-Tester

System to determination of the resistance of elastomerers with regard to the loss of abrasion.

Standard: DIN 53 516, ISO 4649



### Friction and Peel Tester

Tester to measure the static and kinetic coefficient of friction, seal strength, and peel properties of plastic film, paper, paperboard, adhesives, labels and packaging materials.

Standard: ASTM D1894, D4521, D3330, TAPPI T816, ISO 8295



### Frictiontester UTM

Frictiontester based on UPM with precise heating.



### Dynamic friction tester

Dynamic friction tester for tribologic examination of rubber samples on exchangeable friction partners.





## Raw Material

### Pourability

Measuring system for determination of pourability plastics in form powder or granulate.

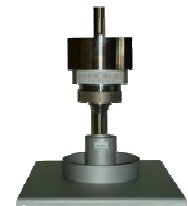
Standard: DIN EN ISO 6186, ASTM D1895



### Flotation and Apparent Density

Measuring system for simultaneous measurement of flotation and apperent density of plastic granules.

Standard: DIN EN ISO 6186, ASTM D1895



### Apparent Density

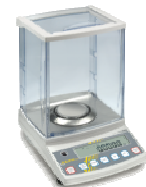
Measuring system for determination of aparanty density of flowing materials in form of powder or granulate.

Standard: DIN EN ISO 60, ASTM D1895



### Density Precision Scale

Analytical scale with accessories for density determination of liquids and solids.



### Density Pycnometer

Fully automated, micro-controller based pycnotmeter for determination of the envelope density of original substances.



### Density Gradient Column

Density measuring system after three-column priniciple.

Standard: DIN 1306, DIN 53 479, DIN 55 990, DIN 53 243





### Melt-Mass-Flow-Rate (MFR)

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This compact instrument is designed for measuring the flow properties of plastics to Method A.

Standard: ISO 1133, ASTM D1238/ Method A, DIN 30 670



### Melt-Mass-Flow-Rate (MFR) and Melt-Volume-Rate (MVR)

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Instrument designed to measure mass and volume flow rates.

Standard: ISO 1133, ASTM D1238/ Method A, B, C and D, DIN 30 670



### MPM Meltingpoint

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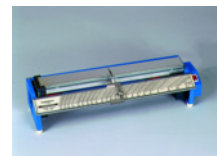
For measuring the melting point of powdery substances in glass capillaries.

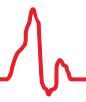


### Kofler Heatbench

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For melting point determination/ Observation of decomposition processes/ observation of volatility/  
Determination of softening point of synthetic resin.





## Other

### FiVer Fibre Analysis

Determination of fiber length distribution with FiVer



### Quartz-Tube-Dilatometer

Quartz tube dilatometer to determine the thermal expansion coefficient of plastics with 1 or 3 measuring stations.

Standard: DIN 53 752



### Dry-Sieving

Digital dry-sieving machine for test sieves with 200 or 203 mm diameter.

Standard: DIN 66 165, DIN 66 141, DIN 66 143, DIN 66 144, DIN 66 145, ISO 2395, ISO 2591-1, ISO 3310, ISO/DIS 9045



### Moisture Analyzer

Measuring the absolute value of the water content in solid samples.



### Moisture/ Dry Weight

Analytical moisture analyzer for fully automatic determination of the moisture content or dry weight of samples.

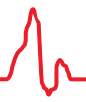


### Fogging Test

The 'fogging test' is designed to determine the out-gassing rate of certain material from soft PVC, Textilien oder Leder.

Standard: DIN 7520, ISO 6452/2000





### Gas Permeability Tester

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For automatic gas permeability measurements of plastic foils and coated papers with dry and damp gas, such as oxygen, nitrogen, carbon dioxide, noble gas or mixtures of such gases, in the temperature range  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  according to the manometric metho

Standard: ISO/DIS 15105-1, ASTM D1434-M, DIN 53536



### Water Vapour Permeability

---

For determination of the water vapour permeability of various packing materials, e. g. plastic foils, combination foils and wax, hotmelt or plastic coated papers, temperature range  $-20\ldots+60^{\circ}\text{C}$ .

Standard: ISO 15106-3

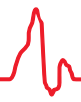


### Chamfer

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Automized chamfer.





## Surface/ Paint/ Coating

### Cathodic Disbonding

Test the adhesion of plastic coating on steel.

Standard: DIN 30 670, DIN EN ISO 15711, ASTM G-8, ASTM G-42



### Resistance Measurement TO

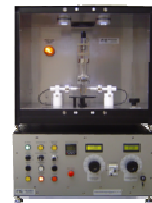
Tera ohm meter for measurement of volume, surface, bleeder resistance, small currents and cable resistance.



### Tracking Current CT

Determination of the proof (PTI) and the comparative (CTI) tracking indices of solid insulating materials.

Standard: DIN EN 60112



### Coating Continuity

Instrument for confidential measurement of continuity of coatings via pulsating high-voltage.

Standard: DIN 30670, DIN 55670, DIN 28055, DIN 30670, DIN 4681, DIN 28063, DIN EN 10329, DIN EN 14430, DVGW Arbeitsblatt G462/I, DVGW Arbeitsblatt W400-2



### Coating Thickness Meter

To measure all non-magnetic coatings on steel and non-conductive layer on non-ferrous metals and non-magnetic steel.

Standard: ISO 2178, ISO 2360



### Gel Time Measurment GT16/20

Intruments for determination of gel time and hardening charakteristics of powder coating and resin.

Standard: DIN 55 990, DIN 16 916, EN ISO 8130-6, ASTM D3451, ASTM D3532, ASTM D4217, CAN/CSA-Z245.20





### Gel Time Measurement GA1/ GA2

Instruments for the determination of the gel time of reaction resins.

Standard: DIN 16 945, DIN 16 916



### Film Formation with Temperature Gradient Plate

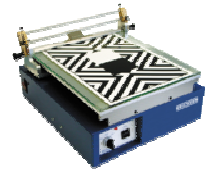
Temperature gradient plate for measuring the Minimum Film Forming Temperature , MFFT of polymer dispersion.

Standard: ISO 2115, ASTM D2354



### Film Applicator

Driven film applicator for the application of coatings of an even and defined thickness onto different plane surfaces.



### Degreasing Baths

Degreasing Baths are used to remove anticorrosion agents on testing metal sheets.

Standard: EN 10 130, EN 10 152, EN 10 142



### Gauge tester

Test appliance for determining the scratch resistance of coated specimen.



### Gauge Tester

All-purpose cutter for automatic scratching in surfaces with high precision and reproducibility.

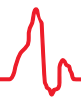
Standard: DIN EN ISO 7253, EN ISO 2409, EN ISO 17872, ISO 1518, ASTM D3359, GME 60 280, VW PV 3952, VDA 621



### Wear Resistance Tester

Test appliance for determining the wear resistance of plastic coatings.





## Pipes – DIN 30 670

### Penetrometer for Pipes

Penetrometer to measure the indentation hardness of polymeric coated pipes and formed parts under influence of weight and temperature.

Standard: DIN 30 670, DIN 30 671, DIN 30 672, DIN 30 674, DIN 30 678, EN 10 285, EN 10 286, EN 10 287, EN 10 288, EN 10 329, ASTM G17



### Coating Thickness Meter

To measure all non-magnetic coatings on steel and non-conductive layer on non-ferrous metals and non-magnetic steel.

Standard: ISO 2178, ISO 2360



### Coating Continuity

Instrument for confidential measurement of continuity of coatings via pulsating high-voltage.

Standard: DIN 30670, DIN 55670, DIN 28055, DIN 30670, DIN 4681, DIN 28063, DIN EN 10329, DIN EN 14430, DVGW Arbeitsblatt G462/I, DVGW Arbeitsblatt W400-2



### Mobile Tension Tester MTT

Mobile Tension Tester for measurement of the peeling resistance of polymer coatings on steel pipes.

Standard: DIN 30 670, DIN 30 672, DIN 30 674, DIN 30 678, EN 10 285, EN 10 329, prEN ISO 21 809-1, CAN/CSA Z245.21



### Mobile Impact Tester for Pipes

Mobile impact test for pipes and pipe segments.

Standard: DIN 30 670, DIN 53 373, ASTM G14



### Cathodic Disbonding

Test the adhesion of plastic coating on steel.

Standard: DIN 30 670, DIN EN ISO 15711, ASTM G-8, ASTM G-42





## Gauge tester

---

Test appliance for determining the scratch resistance of coated specimen.





## Other Materials and Service Strength

We provide customized solutions in all of our fields of application. Depending on the material or product to be tested more or less individual approaches are required. In order to fulfill your individual demands at its best we make use of our decades lasting experiences. Our test engineering is a combination of machine construction, control technique, automatization, software development and finally linking our systems to your data base.

Contact us. We will be happy to discuss your application.



# Coesfeld Materialtest

## *the more intelligent solution ...*

Force, temperature, velocity, acceleration, travel, energy - if it has to do with the accurate generation and precise measurement of physical quantities on material, it is our core expertise.

Since our establishment in 1968 as a technical service organisation we have successively expanded our activities to order related production and consequently to small batch series. Today our machines are successfully installed all over the world. This is a indication for our continuity and reliability on the one hand; on the other hand it is a proof of our aims to always find the optimal solution for our customers.

At Coesfeld, we have managed to optimize the relation of supplier network, vertical integration, core competences, costs of production and process reliability.

Goal oriented and pragmatic processes form our organisation. This approach is formulated in our ISO 9001 certified Quality Management System covering our production, service and calibration services, which are performed by our ISO/IEC 17025:2005 accredited calibration laboratory CaLab.

That is why we are confident to claim that we will provide you the more intelligent solution. We will be happy to demonstrate this to you.

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