



Precision Glass Capillary Viscometers

ASTM Ubbelohde

Suitable for measuring transparent liquids. High precision & easy to use. Nominal overall length 283 mm; approximate sample volume 18 ml. Complete with ISO 17025 certificate of calibration.



Part No.	Size	Constant	Range (mm ² /s)
1643/01	O	0.001	0.3 to 1
1643/02	OC	0.003	0.6 to 3
1643/03	OB	0.005	1 to 5
1643/04	1	0.01	2 to 10
1643/05	1C	0.03	6 to 30
1643/06	1B	0.05	10 to 50
1643/07	2	0.1	20 to 100
1643/08	2C	0.3	60 to 300
1643/09	2B	0.5	100 to 500
1643/10	3	1.0	200 to 1,000
1643/11	3C	3.0	600 to 3,000
1643/12	3B	5.0	1,000 to 5,000
1643/13	4	10	2,000 to 10,000
1643/14	4C	30	6,000 to 30,000
1643/15	4B	50	10,000 to 50,000
1643/16	5	100	20,000 to 100,000

U-Tube Reverse Flow Viscometers

Suitable for measuring opaque liquids. Type BS/IP/RF. Nominal overall length 275 mm; approximate sample volume 12-25 ml. Complete with ISO 17025 certificate of calibration.



Part No.	Size	Constant	Range (mm ² /s)
1637/01	1	0.003	0.6 to 3
1637/02	2	0.01	2 to 10
1637/03	3	0.03	6 to 30
1637/04	4	0.1	20 to 100
1637/05	5	0.3	60 to 300
1637/06	6	1.0	200 to 1,000
1637/07	7	3.0	600 to 3,000
1637/08	8	10	2,000 to 10,000
1637/09	9	30	6,000 to 30,000
1637/10	10	100	20,000 to 100,000
1637/11	11	300	60,000 to 300,000

Cannon-Fenske Routine

Suitable for measuring transparent liquids. Calibration data stated at 40 & 100°C. Nominal overall length 250 mm; approximate sample volume 7 ml. Complete with ISO 17025 certificate of calibration.



Part No.	Size	Constant	Range (mm ² /s)
1634/01	25	0.002	0.5 to 2
1634/02	50	0.004	0.8 to 4
1634/03	75	0.008	1.6 to 8
1634/04	100	0.015	3 to 15
1634/05	150	0.035	7 to 35
1634/06	200	0.1	20 to 100
1634/07	300	0.25	50 to 250
1634/08	350	0.5	100 to 500
1634/09	400	1.2	240 to 1,200
1634/10	450	2.5	500 to 2,500
1634/11	500	8	1,600 to 8,000
1634/12	600	20	4,000 to 20,000
1634/13	650	50	10,000 to 50,000
1634/14	700	100	20,000 to 100,000

Cannon-Fenske Opaque

Suitable for measuring opaque liquids. Calibration data stated at 40 & 100°C. Nominal overall length 295 mm; approximate sample volume 12 ml. Complete with ISO 17025 certificate of calibration.



Part No.	Size	Constant	Range (mm ² /s)
1641/01	25	0.002	0.4 to 2
1641/02	50	0.004	0.8 to 4
1641/03	75	0.008	1.6 to 8
1641/04	100	0.015	3 to 15
1641/05	150	0.035	7 to 35
1641/06	200	0.1	20 to 100
1641/07	300	0.25	50 to 250
1641/08	350	0.5	100 to 500
1641/09	400	1.2	240 to 1,200
1641/10	450	2.5	500 to 2,500
1641/11	500	8	1,600 to 8,000
1641/12	600	20	4,000 to 20,000
1641/13	650	50	10,000 to 50,000
1641/14	700	100	20,000 to 100,000

PSL Rheotek offers a comprehensive range of precision calibrated glass capillary viscometers. Viscometers are made by our experienced glass blowers from high grade borosilicate glass tubing. PSL Rheotek viscometers are used by refinery, testing and research laboratories throughout the world and enjoy a high reputation for quality workmanship and accuracy of calibration.

Cannon-Ubbelohde Viscometers

Suitable for transparent liquids. Nominal overall length 335mm, approximate sample size 11 ml. Complete with ISO 17025 certificate of calibration.



Part No.	Size	Constant	Range (mm ² /s)
1647/01	25	0.002	0.5 to 2
1647/02	50	0.004	0.8 to 4.0
1647/03	75	0.008	1.6 to 8.0
1647/04	100	0.015	3 to 15
1647/05	150	0.035	7 to 35
1647/06	200	0.1	20 to 100
1647/07	300	0.25	50 to 250
1647/08	350	0.5	100 to 500
1647/09	400	1.2	240 to 1,200
1647/10	450	2.5	500 to 2,500
1647/11	500	8.0	1,600 to 8,000
1647/12	600	20	4,000 to 20,000
1647/13	650	45	9,000 to 45,000
1647/14	700	100	20,000 to 100,000

Suspended-Level Viscometers

Suitable for measuring transparent liquids. Type BS/IP/SL – Nominal overall length 330mm; approximate sample volume 22-40 ml. Complete with ISO 17025 certificate of calibration.



Part No.	Size	Constant	Range (mm ² /s)
1625/01	1	0.01	3.5 to 10
1625/02	1A	0.03	6 to 30
1625/03	2	0.1	20 to 100
1625/04	2A	0.3	60 to 300
1625/05	3	1.0	200 to 1,000
1625/06	3A	3.0	600 to 3,000
1625/07	4	10	2,000 to 10,000
1625/08	4A	30	6,000 to 30,000
1625/09	5	100	20,000 to 100,000

Suspended-Level Viscometers, Shortened Form

Suitable for measuring transparent liquids. Type BS/IP/SL – Nominal overall length 250mm; approximate sample volume 10 ml. Complete with ISO 17025 certificate of calibration.



Part No.	Size	Constant	Range (mm ² /s)
1628/01	1	0.0008	1.05 min
1628/02	2	0.003	2.1 to 3
1628/03	3	0.01	3.8 to 10
1628/04	4	0.03	6 to 30
1628/05	5	0.10	20 to 100
1628/06	6	0.3	60 to 300
1628/07	7	1.0	200 to 1,000
1628/08	8	3.0	600 to 3,000
1628/09	9	10	2,000 to 10,000

Miniature Suspended-Level Viscometers

Suitable for measuring transparent liquids. Type BS/IP/MSL – Nominal overall length 345mm; approximate sample volume 4 ml. Complete with ISO 17025 certificate of calibration.



Part No.	Size	Constant	Range (mm ² /s)
1631/01	1	0.003	0.6 to 3
1631/02	2	0.01	2 to 10
1631/03	3	0.03	6 to 30
1631/04	4	0.1	20 to 100
1631/05	5	0.3	60 to 300
1635/06	6	1.0	200 to 1,000
1635/07	7	3.0	600 to 3,000

Viscometer calibration is performed on-site by our UKAS accredited ISO 17025 calibration laboratory. The PSL Calibration Laboratory maintains a master viscometer scale in accordance with ASTM D2162. All calibration data us directly traceable to international standards.

Cannon-Manning Vacuum Capillary Viscometer

Suitable for measuring the dynamic viscosity of bituminous binders. Nominal overall length 245 mm. Calibrated in accordance with EN 12596 and ASTM D2171.



Part No.	Size	Constant	Range (Pa.s)
1676/01	4	0.0002	0.0036 to 0.08
1676/02	5	0.0006	0.012 to 0.24
1676/03	6	0.002	0.036 to 0.8
1676/04	7	0.01	0.12 to 2.4
1676/05	8	0.02	0.36 to 8.0
1676/06	9	0.06	1.2 to 24
1676/07	10	0.2	3.6 to 80
1676/08	11	0.6	12 to 240
1676/09	12	2.0	36 to 800
1676/10	13	6.0	120 to 2400
1676/11	14	20.0	360 to 8000
Note: Nominal constant for bulb "B" is shown for illustration purposes.			

Asphalt Institute Vacuum Capillary Viscometer

Suitable for measuring the dynamic viscosity of bituminous binders. Nominal overall length 245 mm. Calibrated in accordance with EN 12596 and ASTM D2171.



Part No.	Size	Constant	Range (Pa.s)
1677/01	25	0.2	4.2 to 80
1677/02	50	0.8	18 to 320
1677/03	100	3.2	60 to 1280
1677/04	200	12.8	240 to 5200
1677/05	400	50	960 to 20000
1677/06	400Rc	50	960 to 140000
1677/07	800Rc	200	3800 to 580000
Note: Nominal constant for bulb "B" is shown for illustration purposes.			

Modified Koppers Vacuum Capillary Viscometer

Suitable for measuring the dynamic viscosity of bituminous binders. Nominal overall length 270 mm. Calibrated in accordance with EN 12596 and ASTM D2171.



Part No.	Size	Constant	Range (Pa.s)
1678/01	25	0.2	4.2 to 80
1678/02	50	0.8	18 to 320
1678/03	100	3.2	60 to 1280
1678/04	200	12.8	240 to 5200
1678/05	400	50	960 to 20000
Note: Nominal constant for bulb "B" is shown for illustration purposes.			

Vacuum System for bituminous binders

Complete with vacuum controller, vacuum pump, valve control module and glass bottle.

Part No.	Description
20700-01	Bitumen Vacuum System 240V / 50Hz
20700-02	Bitumen Vacuum System 110V / 60Hz



PSL Rheotek bitumen viscometers are suitable for measuring a wide range of liquid asphalts, bituminous binders and asphalt cements. For vacuum capillary viscometers, a bitumen vacuum system is available. Other accessories include viscometer bath, silicone bath oil and viscosity oil standards.

U-Tube Viscometers

Suitable for measuring transparent liquids. Type BS/U - Nominal overall length 300 mm, approximate sample volume 13-40 ml. Complete with ISO 17025 certificate of calibration.



Part No.	Size	Constant	Range (mm ² /s)
1619/00	O	0.001	0.3 to 1
1619/01	A	0.003	0.9 to 3
1619/02	B	0.01	2.0 to 10
1619/03	C	0.03	6 to 30
1619/04	D	0.1	20 to 100
1619/05	E	0.3	60 to 300
1619/06	F	1.0	200 to 1,000
1619/07	G	3.0	600 to 3,000
1619/08	H	10	2,000 to 10,000

Cannon Manning Semi-Micro Viscometers

Type ASTM – Suitable for transparent liquids. Nominal overall length 275 mm; approximate sample volume 1 ml. Complete with ISO 17025 certificate of calibration.



Part No.	Size	Constant	Range (mm ² /s)
1659/01	25	0.002	0.4 to 2.0
1659/02	50	0.004	0.8 to 4.0
1659/03	75	0.008	1.6 to 8.0
1659/04	100	0.015	3 to 15
1659/05	150	0.035	7 to 35
1659/06	200	0.1	20 to 100
1659/07	300	0.25	50 to 250
1659/08	350	0.5	100 to 500
1659/09	400	1.2	240 to 1,200
1659/10	450	2.5	500 to 2,500
1659/11	500	8.0	1,600 to 8,000
1659/12	600	20	4,000 to 20,000

Miniature U-Tube Viscometers

Suitable for measuring transparent liquids. Type BS/U/M - Nominal overall length 250 mm, approximate sample volume 4 ml. Complete with ISO 17025 certificate of calibration.



Part No.	Size	Constant	Range (mm ² /s)
1622/01	M1	0.001	0.2 to 1
1622/02	M2	0.005	1 to 5
1622/03	M3	0.015	3 to 15
1622/04	M4	0.04	8 to 40
1622/05	M5	0.1	20 to 100

Zeitfuchs Cross-Arm Viscometers

Type ASTM – Nominal overall length 305 mm; approximate sample volume up to 3 ml. Complete with ISO 17025 certificate of calibration.



Part No.	Size	Constant	Range (mm ² /s)
1663/01	1	0.003	0.6 to 3
1663/02	2	0.01	2 to 10
1663/03	3	0.03	6 to 30
1663/04	4	0.1	20 to 100
1663/05	5	0.3	60 to 300
1663/06	6	1.0	200 to 1,000
1663/07	7	3.0	600 to 3,000
1663/08	8	10	2,000 to 10,000
1663/09	9	30	6,000 to 30,000
1663/10	10	100	20,000 to 100,000

PSL Rheotek glass capillary viscometers are suitable for a wide range of applications. Applicable petroleum testing methods include ASTM D445, D446, D2162, D2170, D2171, ISO 3104 & ISO3105. Other applications include polymers, cellulose, blood and plasma.

Viscometer Baths and Chillers

TCB-7 Viscometer Bath
Part No. 20402



Visibility Bath
Part No. 20405



Chiller

Part No. REP00190/KT, includes connection kit.



Metal Viscometer Holders and Bench Stand

Part No.	Specifications
1850/A1	Universal Viscometer Holder
1818/A1	U-Tube Viscometer Holder Size O to F
1818/A2	U-Tube Viscometer Holder Size G & H
1821/A1	Min. U-Tube Viscometer Holder Size M1 to M4
1824/A1	Suspended-Level Viscometer Holder Size 1 to 4
1824/A2	Suspended-Level Viscometer Holder Size 4A & 5
1827/A1	Suspended-Level Short Form Viscometer Holder
1833/A1	Cannon-Fenske Routine Viscometer Holder
1836/A1	U-Tube Reverse Flow Viscometer Holder
1840/A1	Cannon-Fenske Opaque Viscometer Holder
1842/A1	Ubbelohde Viscometer Holder Size 0 to 4
1842/A2	Ubbelohde Viscometer Holder Size 4C to 5
1862/A1	Zeitfuchs Viscometer Holder
1876/A1	Cannon-Manning Vacuum Viscometer Holder
1877/A1	Asphalt Institute Vacuum Viscometer Holder
1890/A1	Master Ubbelohde Viscometer holder



Viscometer Bench Stand
Part No. 20430

Metal Viscometer Holder
Part No. See above

Digital Reference Thermometers



F100 Precision Digital Thermometer
Part No. F100/A

Plastic & Rubber Viscometer Holders

Part No.	Specifications
1934/A1	Plastic holder for CF Routine & Opaque
1943/A1	Plastic holder for ASTM Ubbelohde (sizes O to 4)

Part No.	Specifications
1976/A1	Rubber holder for Cannon-Manning Vacuum
1977/A1	Rubber holder for Asphalt Institute Vacuum



Plastic Viscometer Holder
Part No. See above