## ACCESSORIES, PARTS, & CONSUMABLES PRICE LIST – EFFECTIVE JANUARY, 2017





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Note: Prices and descriptions are subject to change without notice.

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TA Instruments® Modulated DSC® and MDSC® Tzero®

#### **TA Instruments Trademarks**

Q Series™ Integrity™ Smart Swap™ Modulated TGA™ MTGA™ Hi-Res™ Platinum™ Advantage™ Discovery DSC™

#### Other Manufacturers

Hastelloy <sup>®</sup>	Teflon®
Viton®	ThermoStar <sup>®</sup>
Kalrez®	Alumel®
Kel-F®	Excel®

# **Thermal Analysis**

#### **Discovery Series DSC Accessories**

972503.901	Discovery Finned Air Cooling System (FACS)
972507.901	Discovery Refrigerated Cooling System - RCS40 (120VAC/60Hz): for use with Discovery Series and Q Series DSC instruments
972507.902	Discovery Refrigerated Cooling System - RCS40 (230VAC/50Hz): for use with Discovery Series and Q Series DSC instruments
972007.901	Discovery Refrigerated Cooling System - RCS90 (120VAC/60Hz): for use with Discovery Series and Q Series DSC instruments
972007.902	Discovery Refrigerated Cooling System - RCS90 (230VAC/50Hz): for use with Discovery Series and Q Series DSC instruments
973757.901	Discovery Refrigerated Cooling System - RCS120 (220-230VAC/60Hz): for use with the Discovery DSC 2500/250/25 only
973757.902	Discovery Refrigerated Cooling System - RCS120 (220-230VAC/50Hz): for use with the Discovery DSC 2500/250/25 only
973900.901	Discovery LN Pump
973011.901	Accessory Kit, Discovery DSC 2500/250/25
973475.001	Discovery DSC 2500/250/25 Autosampler Tray (replacement autosampler tray)
973474.001	Discovery DSC 250/25 Manual Sample Tray (replacement manual sample tray)
972500.901	Discovery DSC Replacement Cell
972011.901	Accessory Kit, Discovery DSC

#### **QDSC** Accessories

970020.901	Q2000/Q1000 Replacement Cell
970520.901	Q200/Q20/AQ20/Q100/Q10 Replacement Cell Note: Requires separately priced installation by a TA Field Service Engineer.
970037.901	Finned Air Cooling System (FACS) Note: For programmed air cooling of Q Series DSC Cell from 725 °C to ambient temperature.
970036.901	Quench Cooling Accessory for FACS (also suitable for use with the Tzero Pressure DSC Cell (P/N: 970900.901)) Note: Assists FACS in rapid cooling of a DSC Cell to ambient temperature.

970347.901	Quench Cooling Accessory (QCA)
970347.901	(for quench cooling of DSC Cell to -180°C)
970400.901	Liquid Nitrogen Cooling System (LNCS) (85 - 264VAC; 50/60Hz.)
	Note: For programmed or quench cooling of Q Series DSC Cells from 550 °C to -180 °C. LNCS can be automatically refilled from an external LN2 source.
970425.901	LNCS DSC Purge Gas Purifier Unit
	Note: For removal of trace moisture in purge gases. Includes gas dryer unit and appropriate shut-off and bypass valving.
200266.001	RCS Dryer
	Note: For removal of trace moisture in purge gases.
970282.001	Inner Manual Lid
970283.001	Outer Manual Lid
970284.901	Manual Cell Cover
970900.901	Tzero Pressure DSC Cell
	(use with the Q2000 DSC module requires the Q Series PDSC Cell Shipping Accessory Kit (P/N: 970814.901))
970906.901	Tzero Pressure Cell Accessory Kit: required for installation of
	Tzero Pressure Cell (P/N: 970900.901) on a Q2000 DSC module. This kit is included within the Q Series PDSC Cell Shipping
	Accessory Kit (P/N: 970814.901)
970814.901	Q Series PDSC Cell Shipping Accessory Kit
	Note: For use with the Tzero Pressure DSC Cell (P/N: 970900.901)
	on a Q2000 DSC module. Includes Tzero Pressure Cell Accessory Kit (P/N: 970906.901).
970442.001	Inner Manual Lid (replacement part for QDSC Autolids II)
970464.001	Outer Lid (replacement part for QDSC Autolids II)
970441.001	Lift Rod (replacement part for QDSC Autolids II)
971126.901	DSC Autosampler Tray (replacement)

#### Discovery DSC and QDSC Photocalorimeter Accessory and Parts

935002.902	PCA Accessory Kit (replacement only) Note: TA supplied items required for photocalorimeter operation by customer who already has, or will separately obtain, the Novacure 2100 analyzer and appropriate dual light guide.
935002.903	PCA Accessory Kit (replacement only) Note: TA supplied items required for photocalorimeter operation by customer who already has, or will separately obtain, the Omnicure S-2000 analyzer and appropriate dual light guide.
935012.002	Dual Quartz Light Guide for PCA (-50 °C to 250 °C operation) Note: Requires RCS for subambient use.

935012.001	Dual Liquid Light Guide for PCA (-50 °C to 80 °C operation) Note: Requires RCS for subambient use.
972734.901	Discovery PCA Trigger Adapter: an adapter to convert USB communication from the Discovery products to RS232 communication for the PCA. This adapter is required for the Discovery DSC to communicate with the PCA and should be added to PCA orders for the Discovery DSC.
935014.901	PCA/UV External Filter Adapter Accessory Kit (allows use of external filters with the PCA P/N: 935000.901)
935009.005	Blank Filter Holder (for the Omnicure S-2000 with external filter adapter)
935009.001	Filter, External, 320 - 480 nm (for the Omnicure S-2000 with external filter adapter)
935009.002	Filter, External, 320 - 390 nm (for the Omnicure S-2000 with external filter adapter)
935009.004	Filter, External, 400 - 500 nm (for the Omnicure S-2000 with external filter adapter)
935009.003	Filter, External, 365 nm (for the Omnicure S-2000 with external filter adapter)
935013.001	PCA Air Filter Kit (pkg. of 10)
935018.901	PCA Longpass Filter, 390 nm (pkg. of 2)
935019.901	PCA Longpass Filter, 490 nm (pkg. of 2)
935015.901	Filter, Neutral Density, 1 %
935016.901	Filter, Neutral Density, 10 %
935021.001	Lamp, 100 W, Mercury (for the Novacure 2100)
935021.002	Lamp, 200 W, Mercury (for the Omincure S-2000)
935051.901	Universal Optical Accessory Kit
200700.001	Radiometer (R2000) (for use with either PCA)
	Tzero DSC Sample Press and Die Sets/Sample Pans and Lids
901600.901	Tzero Sample Press and Die Sets Kit Note: Includes a Tzero Press and die sets for Tzero Pans/Tzero Lids and Tzero Low-Mass Pans/Tzero Lids; Tzero Pans/Tzero Hermetic

Lids; and Standard Aluminum Pans/Lids; Standard Hermetic

Pans/Lids, respectively. The kit also includes one box each of

Tzero Pans (100) and Tzero Lids (100).

(for use in the Tzero Sample Press)

901608.901 DSC Standard Die Set (GREEN color)

901608.902	DSC Hermetic Die Set (WHITE color) (for use in the Tzero Sample Press)
901608.903	DSC Tzero Die Set ( BLACK color) (for use in the Tzero Sample Press)
901608.904	DSC Tzero Hermetic Die Set (BLUE color) (for use in the Tzero Sample Press)
901608.905	DSC High Volume Die Set (YELLOW color) (for use with the Tzero Sample Press and standard series high volume pans and lids)
972800.901	Tzero Powder Sample Preparation Kit
901670.901	Tzero Low-Mass Pans (pkg. of 100)
901671.901	Tzero Lids (pkg. of 100)
901683.901	Tzero Pans (pkg. of 100)
901684.901	Tzero Hermetic Lids (pkg. of 100)
901685.901	Tzero Hermetic Pinhole Lid (75 micron diameter pinhole) (pkg. of 50)
901697.901	Tzero Alodined Pans (pkg. of 100)
901698.901	Tzero Hermetic Alodined Lids (pkg. of 100)
	Standard Series DSC Sample Pans and Lids Note: (*) Indicates the pans and lids work with the Tzero or Standard DSC Press.
900760.901	Classic Aluminum Pans* (pkg. of 200) (higher sidewall compared to standard aluminum sample pans)
900786.901	Standard Aluminum Pans* (pkg. of 200)
900779.901	Standard Aluminum Lids* (pkg. of 200)
900793.901	Standard Aluminum Hermetic Pans* (pkg. of 200)
900794.901	Standard Aluminum Hermetic Lids* (pkg. of 200)
900860.901	Hermetic Lids with Pinhole* (pkg. of 50)
900796.901	Standard Coated Aluminum Hermetic Pans* (pkg. of 200)
900790.901	Standard Coated Aluminum Hermetic Lids* (pkg. of 200)
900808.901	High Pressure Sample Pan Kit

- Note: Includes crimping tool, 5 reusable stainless steel capsules, and 20 seals.
- 900815.901 High Pressure Capsules (pkg. of 5)
- 900814.901 High Pressure Capsule Seals (pkg. of 20)

900825.901	High Volume Sample Pan Kit Note: Includes metal bell jar and lid, high volume die sets for Tzero and older Standard Press plus 100 each pans, lids, and seals.
900825.902	High Volume Sample Pans, Lids, and Seals* (pkg. of 100)
900824.901	High Volume Sample Pan Die Set (for Standard DSC Press)
900870.901	Aluminum Sample Pans for SFI Samples (pkg. of 200)
900867.901	Copper Sample Pans (pkg. of 200)
900866.901	Gold Sample Pans* (pkg. of 10)
900868.901	Gold Lids* (pkg. of 10)
900871.901	Gold Sample Pans, Hermetic* (pkg. of 10)
900872.901	Gold Lids, Hermetic* (pkg. of 10)
900874.901	Graphite Sample Pans (pkg. of 10)
900873.901	Graphite Lids (pkg. of 10)
900578.901	Platinum Sample Pans (pkg. of 10)

#### **DSC Calibration Materials**

970345.901	Kit, Tzero Calibration, Sapphire
970370.901	Kit, MDSC Calibration, Sapphire
915060.901	DSC/DTA Certified Temperature Calibration Kit
915061.901	Replacement Certified Indium Reference Material (for P/N: 915060.901 kit)
900902.901	Indium Calibration Material (not certified)
900910.901	Tin Calibration Material (not certified)
900907.901	Zinc Calibration Material (not certified)
915079.902	Sapphire Specific Heat Material (0.13 inch OD x 0.020 inch height) Note: Compatible with all DSC and SDT Pans.
915079.901	Sapphire Specific Heat Material (0.16 inch OD x 0.020 inch height) Note: Compatible with all pans except Standard Series Hermetic Pans P/N: 900793.901; P/N: 900796.901; P/N: 900871.901.
915079.903	Sapphire Specific Heat Material (0.187 inch OD x 0.034 inch height, for DSC standard sample pans) Note: Compatible with all pans except Standard Series Hermetic Pans P/N: 900793.901; P/N: 900796.901; P/N: 900871.901.
970489.901	Adamantane Traceable Temperature and Enthalpy Calibration Material

#### QTGA Thermogravimetric Analyzer

953046.901	Evolved Gas Furnace (EGA) (for Q500 and Q50) Note: Recommended for evolved gas analysis with an MS or FTIR.
957352.901	TGA Aluminum Sealed Pan Kit (for use with TGA 5500/550, Discovery TGA & Q5000IR) Note: Consists of 100 pans, 100 lids, 30 bails, punch alignment tool, and dies for use with the Tzero and older standard presses.
957540.901	TGA Die Set Note: For use with the Tzero Press and the Sealed Aluminum Pan Kit P/N: 957352.901.
	TGA 5500/550/55, Discovery TGA and Q5000 IR TGA Sample Pans (also suitable for use with the TGA-HP and VTI-SA Sorption Analyzers)
957363.901	Sample Pans (also suitable for use with the TGA-HP
	Sample Pans (also suitable for use with the TGA-HP and VTI-SA Sorption Analyzers)
957362.901	Sample Pans (also suitable for use with the TGA-HP and VTI-SA Sorption Analyzers) Aluminum Sample Pans, 80 µL (pkg. of 100)
957363.901 957362.901 957329.903 957329.904	Sample Pans (also suitable for use with the TGA-HP and VTI-SA Sorption Analyzers) Aluminum Sample Pans, 80 µL (pkg. of 100) Aluminum Lids (pkg. of 100)
957362.901 957329.903	Sample Pans (also suitable for use with the TGA-HP and VTI-SA Sorption Analyzers) Aluminum Sample Pans, 80 µL (pkg. of 100) Aluminum Lids (pkg. of 100) Ceramic Sample Pans, 100 µL (pkg. of 3)
957362.901 957329.903 957329.904	Sample Pans (also suitable for use with the TGA-HP and VTI-SA Sorption Analyzers) Aluminum Sample Pans, 80 µL (pkg. of 100) Aluminum Lids (pkg. of 100) Ceramic Sample Pans, 100 µL (pkg. of 3) Ceramic Sample Pans, 250 µL (pkg. of 3)
957362.901 957329.903 957329.904 957207.903	Sample Pans (also suitable for use with the TGA-HP and VTI-SA Sorption Analyzers)Aluminum Sample Pans, 80 μL (pkg. of 100)Aluminum Lids (pkg. of 100)Ceramic Sample Pans, 100 μL (pkg. of 3)Ceramic Sample Pans, 250 μL (pkg. of 3)Platinum Sample Pans, 50 μL (pkg. of 3)

957364.901 Stainless Steel Bail (pkg. of 15)

#### Discovery TGA and Q5000 IR Replacement Parts

956075.901	EGA Furnace TGA 550/55
956291.901	Discovery TGA 5500 Upper Reflector Assembly
956210.901	Themocouple Sample TGA 5500/550/55
956328.901	Hangdown Hook Tare TGA 5500/550/55
956327.901	Hangdown Hook Sample TGA 5500/550/55
956011.901	Kit Accessory TGA 5500
956011.911	Kit Accessory TGA 550/55
957515.901	Loop Decoupler Kit (for use with all Discovery TGA's & Q5000 IR)
953260.901	TGA Heat Exchanger (for use with all Discovery & QTGA's) Note: Requires TGA Heat Exchanger Harness (P/N: 953176.901) for connection to the TGA Instrument.
953176.901	TGA Heat Exchanger Harness

(for use with the TGA Heat Exchanger (P/N: 953260.901))

952377.901	Heat Exchanger Conditioning Kit (fungicide)
952394.901	Sample Nickel Wire (not certified)
900905.901	Calcium Oxalate Monohydrate (1 gram)
957341.901	TGA Weight Set (Calibrated)
957202.001	Crimping Die Set (for use with older standard press)
957250.901	Discovery TGA/Q5000 IR Autosampler Dust Cover with Light Guard
957082.901	Hangdown Wire (Sample Wire for Q5000IR/Q5000SA/ Discovery TGA; Tare Wire for Q5000SA)
952040.901	Hangdown Wire (Tare Wire for Q5000IR and Discovery TGA; Sample Wire for Q500/Q50)
957381.001	Tube Load Q5000 IR Sample
957381.002	Tube Load Q5000 IR Reference
954399.901	Discovery TGA/Q5000 IR TGA Lower Furnace Assembly
957216.901	Tray Autosampler TGA - 10-position: (standard with Q5000 SA; option for Q5000 IR with Quartz Crucibles)
957099.901	Tray Autosampler TGA (TGA 5500/550, DTGA, Q5000IR TGA) - 25-position: (for use with platinum, ceramic, and aluminum sample pans)
954011.901	Discovery TGA Accessory Kit

## TGA Q5000 SA Sample Pans (also suitable for use with the TGA-HP and VTI-SA Sorption Analyzers)

957210.902	Quartz Sample Pans (pkg. of 3) (requires Autosampler Tray P/N: 957216.901)
957210.903	Quartz Sample Pans, Metal-Coated (pkg. of 3)
957207.903	Platinum Sample Pans, 50 µL (pkg. of 3) Note: Requires Tray Autosampler TGA - 25-Position P/N: 957099.901 for use with Q5000 SA.
957207.904	Platinum Sample Pans, 100 µL (pkg. of 3) Note: Requires Tray Autosampler TGA - 25-Position P/N: 957099.901 for use with Q5000 SA.

#### TGA Q5000 SA Replacement Parts

957216.901	Tray Autosampler Humidity Chamber - 10-position
957099.901	Tray Autosampler TGA (TGA 5500/550, DTGA, Q5000IR TGA) - 25-Position: (required for use with Platinum or Aluminum Pans)
057515 001	Lean Descupler Kit (for use with all Discovery TCA's & OE0001

957515.901 Loop Decoupler Kit (for use with all Discovery TGA's & Q5000 IR)

957082.901	Hangdown Wire (Sample Wire for Q5000IR/Q5000SA/ Discovery TGA; Tare Wire for Q5000SA)
953260.901	TGA Heat Exchanger (for use with all Discovery & QTGA's) Note: Requires TGA Heat Exchanger Harness (P/N: 953176.901) for connection to the TGA Instrument.
953176.901	TGA Heat Exchanger Harness (for use with the TGA Heat Exchanger (P/N: 953260.901))
952377.901	Heat Exchanger Conditioning Kit (fungicide)
957381.003	Tube Load Q5000 SA Sample/Reference
957156.901	Replacement Sensor Kit for Humidity Chamber
957400.901	TGA Calibration Set (Certified) (for Q5000 IR and Q5000 SA)

#### TGA Q500/Q50 Sample Pans (also suitable for use with the TGA-HP and VTI-SA Sorption Analyzers)

952323.902	Aluminum Sample Pans, 100 µL (pkg. of 12)
952018.907	Ceramic Sample Pans, 100 µL (pkg. of 3)
952018.909	Ceramic Sample Pans, 250 µL (pkg. of 3)
952018.910	Ceramic Sample Pans, 500 µL (pkg. of 3)
952018.908	Platinum Sample Pans, 50 µL (pkg. of 3)
952018.906	Platinum Sample Pans, 100 μL (pkg. of 3)



#### TGA Q500/Q50 Replacement Parts

952040.901	Hangdown Wire (Tare Wire for Q5000 IR and Discovery TGA; Sample Wire for Q500/Q50)
952040.902	Tare Hangdown Wire
952040.903	Tare Hangdown Wire - Short (for use in the latest TGA Q500/Q50 without a Tare Access Cover)
952110.001	Sample Hangdown Wire Tube
952256.901	Kapton Hangdown Loop (strip of 10)
953208.901	Sample Thermocouple for QTGA
952240.901	Auto TGA Q500 Multiple Sample Tray Kit (includes three additional sample trays)
952434.901	Furnace Tube (quartz) with Seal Kit and Instructions for the EGA Furnace
953032.901	Replacement TGA Q500/Q50 Furnace
953260.901	TGA Heat Exchanger (for use with all Discovery & QTGA's) Note: Requires TGA Heat Exchanger Harness (P/N: 953176.901) for connection to the TGA Instrument.
953176.901	TGA Heat Exchanger Harness (for use with the TGA Heat Exchanger (P/N: 953260.901))
952377.901	Heat Exchanger Conditioning Kit (fungicide)

#### All TGA's and SDT Q600 Calibration and Test Materials

952541.902	TGA ICTAC Curie Point Reference Materials Kit for Discovery TGA 5500, Discovery TGA , & Q5000IR Note: Includes 0.5 gram each of the six ICTAC certified materials listed below.
952541.901	TGA/SDT ICTAC Curie Point Reference Materials Kit with Magnet (for Discovery TGA 550/55, Q500/50, & Q600) Note: Includes 0.5 gram each of the six ICTAC certified materials listed below.
952500.901	Replacement ICTAC Certified Curie Point Reference Material 153 °C
952504.901	Replacement ICTAC Certified Curie Point Reference Material 357 °C
952508.901	Replacement ICTAC Certified Curie Point Reference Material 554 °C
952512.901	Replacement ICTAC Certified Curie Point Reference Material 746 °C
952516.901	Replacement ICTAC Certified Curie Point Reference Material 931 °C

952520.901Replacement ICTAC Certified Curie Point Reference Material 1116 °C952384.901TGA/SDT Temperature Calibration Kit (Alumel and Nickel Reference Materials)952385.901Replacement Certified Nickel Reference Material (for kit P/N: 952384.901)952398.901Replacement Certified Alumel Reference Material (for kit P/N: 952384.901)952398.901Replacement Certified Alumel Reference Material (for kit P/N: 952384.901)269931.001100 mg Class 1 Precision Weight for TGA Weight Calibration269931.0021 gram Class E2 Precision Weight for TGA Weight Calibration900905.901Calcium Oxalate Monohydrate (1 gram)		
(Alumel and Nickel Reference Materials)         952385.901       Replacement Certified Nickel Reference Material (for kit P/N: 952384.901)         952398.901       Replacement Certified Alumel Reference Material (for kit P/N: 952384.901)         269931.001       100 mg Class 1 Precision Weight for TGA Weight Calibration         269931.002       1 gram Class E2 Precision Weight for TGA Weight Calibration	952520.901	
(for kit P/N: 952384.901)952398.901Replacement Certified Alumel Reference Material (for kit P/N: 952384.901)269931.001100 mg Class 1 Precision Weight for TGA Weight Calibration269931.0021 gram Class E2 Precision Weight for TGA Weight Calibration	952384.901	
(for kit P/N: 952384.901)269931.001100 mg Class 1 Precision Weight for TGA Weight Calibration269931.0021 gram Class E2 Precision Weight for TGA Weight Calibration	952385.901	•
269931.002 1 gram Class E2 Precision Weight for TGA Weight Calibration	952398.901	•
	269931.001	100 mg Class 1 Precision Weight for TGA Weight Calibration
900905.901 Calcium Oxalate Monohydrate (1 gram)	269931.002	1 gram Class E2 Precision Weight for TGA Weight Calibration
	900905.901	Calcium Oxalate Monohydrate (1 gram)

#### SDT Q600 Sample Pans

960072.901	Alumina Sample Cups, 40 µL (pkg. of 3)
960070.901	Alumina Sample Cups, 90 µL (pkg. of 3)
961060.901	Alumina Sample Cups, Disposable, 90 µL (pkg. of 20)
960239.901	Alumina Lids, (pkg. of 3) (for use with P/N: 960070.901 and P/N: 961060.901)
960148.901	Platinum Sample Cups, 40 µL (pkg. of 3)
960149.901	Platinum Sample Cups, 110 μL (pkg. of 3)

#### SDT Q600 Replacement Parts

960034.901	Aluminum Oxide Reference Material, Calcined Alpha
960014.901	Calibration Weights Set
960017.901	Dual Beam Thermocouple Kit, SDT Q600
270198.015	O-Ring, Furnace Tube



#### QTMA Thermomechanical Analyzer

945050.901	TMA Film/Fiber Accessory Kit Note: Consists of film/fiber sample stage, film/fiber probe assembly, vial of cleaved aluminum balls, film clamp assemblies, film clamp fixture, jeweller's screwdriver, and film clamp screws.
944202.901	Dilatometer Accessory Kit Note: Consists of dilatometer probe assembly, three dilatometer sample vials, two vials of filling medium, and a vial of aluminum calibration standard.
944203.902	Flexure Accessory Kit (for Q400 use; supplied with Q400 EM) Note: Includes flexure probe assembly, flexure sample platform, and phase calibration fixture.
945300.901	Mechanical Cooling Accessory - MCA70 (120VAC/60Hz): for use with QNX-based Q400 and Q400 EM Note: For programmed or quench cooling of QNX-based Q400/Q400 EM TMA over temperature range of -70 °C to 400 °C. Sealed refrigeration system does not require liquid nitrogen.
945300.902	Mechanical Cooling Accessory - MCA70 (220VAC/50Hz): for use with QNX-based Q400 and Q400 EM Note: For programmed or quench cooling of QNX-based Q400/Q400 EM TMA over temperature range of -70 °C to 400 °C. Sealed refrigeration system does not require liquid nitrogen.

#### TMA Q400/Q400 EM Replacement Parts

944120.901	Sample Stage
944122.901	Standard Expansion Probe Assembly
944123.901	Macro-Expansion Probe Assembly
944124.901	Dilatometer Probe Assembly
941143.000	Dilatometer Sample Vial
944125.901	Hemispherical Probe Assembly
944126.901	Penetration Probe Assembly
944127.901	Flexure Probe Assembly
945045.901	3-Point Bending Calibration Fixture
941054.000	3-Point Bending Flexure Platform
944121.901	Film/Fiber Sample Holder
945051.901	Film/Fiber Probe Assembly
945052.901	Film/Fiber Upper Clamp
945053.901	Film/Fiber Lower Clamp
945054.001	Film Clamping Fixture
944330.901	Film Clamp Screws, #0-80 (pkg. of 10)

	941038.901	Vial of Cleaved Aluminum Balls (for Film/Fiber Probe)
	941148.901	Filling Medium (for Dilatometer Vial)
	944341.901	Protective Quartz Disc for Sample Stage (pkg. of 20)
	944344.902	TMA Thermocouple Kit

#### TMA Q400/Q400 EM Calibration Materials

	944217.901	Replacement Certified Aluminum Reference Material
	915061.901	Replacement Certified Indium Reference Material
	944206.901	TMA Certified Temperature and Dimension Calibration Kit

#### **OEM Instruments and Accessories**

	Q Series Instrument Accessory Kits
957574.901	Dual MS/FTIR Interface Kit for Discovery TGA or Q5000 IR Note: For use with TGA/MS Interface Kit, P/N: 957349.901.
920307.901	Dual Trigger Cable, MS/FTIR to QTGA
957481.901	Event Cable, FTIR
957468.901	FTIR Adaptor Kit for Discovery TGA 5500, Discovery TGA, or Q5000IR
271003.001	Wiley/NIST Mass Spectrometer Library
271002.002	Q600 Mass Spectrometer Interface Kit (without library)
271001.002	Discovery TGA 550/55, Q500/50 Mass Spectrometer Interface Kit (without library)
957349.901	Discovery TGA 5500, Discovery TGA, or Q5000IR Mass Spectrometer Interface Kit (without library)

970011.901	DSC Accessory Kit for Q2000/Q200 (supplied with Q2000/Q200 instrument)
970011.902	DSC Accessory Kit for Q20 (supplied with Q20 instrument)
970011.903	DSC Accessory Kit for Auto Q20 (supplied with Auto Q20 instrument)
957011.901	Q5000 IR Accessory Kit
957011.902	Q5000 SA Accessory Kit
952011.901	TGA Accessory Kit for Q500/Q50 (supplied with Q500/Q50 instruments) Note: Contains 1 package of 100 µL platinum pans.
961011.901	SDT Q600 Accessory Kit (included with SDT Q600 instrument)
944200.901	Accessory Kit Q400 (included with Q400/Q400 EM instruments)
944203.902	Accessory Kit, Flexure for the Q400 instrument

#### Common Thermal Analysis Tools and Accessories

910824.001	DSC Cell Cleaning Brush
259509.000	Spatula, Stainless Steel
259508.000	Tweezers, Brass
271580.001	Tweezers, Curved

#### **VTI-SA** Options

## Common Consumables for TGA-HP and VTI-SA Sorption Analyzers

## Sample Holders for TGA-HP and VTI-SA Sorption Analyzers

810026.901	Quartz Sample Holder (diameter = 12 mm) (for use with TGA-HP and VTI-SA)
810027.001	Quartz Sample Holder (flat bottom) (diameter = 12 mm) (for use with TGA-HP and VTI-SA)
810028.001	Aluminum Round Sample Holder (diameter = 12 mm; height = 5 mm) (for use with TGA-HP and VTI-SA)
810028.002	Aluminum Round Sample Holder (diameter = 25 mm; height = 5 mm) (for use with VTI-SA)
810029.001	Permeation Cell (diameter = 10 mm; height = 10 mm) (for use with VTI-SA)
820044.001	Aluminum Sample Holder, Glass Opening, Round (diameter = 12 mm) (for use with VTI-SA; requires P/N: 820047.001 Glass Covers)
820045.001	Aluminum Sample Holder, Glass Opening, Round (diameter = 25 mm) (for use with VTI-SA; requires P/N: 820048.001 Glass Covers)
820047.001	Glass Covers, 12 mm Diameter (pkg. of 700) (for use with P/N: 820044.001 Aluminum Sample Holder with Glass Opening)
820048.001	Glass Covers, 25 mm Diameter (pkg. of 160) (for use with P/N: 820045.001 Aluminum Sample Holder with Glass Opening)
820055.001	Alumina Crucible (OD = 12.7 mm, height = 25.4 mm) (for use with the TGA-HPs)
820055.002	Quartz Crucible Solid Bottom (OD = 12 mm, height = 27 mm) (for use with the TGA-HPs)

## Humidifier Wicks for SGA-100 and VTI-SA Sorption Analyzers

820346.901	SGA-100 Humidifier Wicks (pkg. of 30) (replacement humidifier wick consisting of a cotton wick over a supporting polypropylene rod)
820347.901	VTI-SA Humidifier Wicks (pkg. of 35) (replacement humidifier wick consisting of a cotton wick over a supporting polypropylene rod)
	Demonstration Materials for TGA-HP and VTI-SA Sorption Analyzers
820344.901	BPL Carbon Demonstration Material (demonstration material for use in the VTI-SA)
820345.901	NaCl Demonstration Material (demonstration material for use in the VTI-SA)
820343.901	PVP Demonstration Material (demonstration material for use in the VTI-SA)
820348.901	5A Zeolite Demonstration Material (demonstration material for use in the TGA-HP)

#### DHR and AR Series Software

	Installation and Peltier Kits
926019.001	Rheology Polymer Library for TRIOS: includes software for Molecular Weight Distribution Calculations
926018.001	LAOS and FT RHEOLOGY for TRIOS: Large Amplitude Oscillatory Shear and Fourier Transform Rheology Software for TRIOS
595100.901	Software Rheology Solutions Archive
595196.901	Software QCR/CSA II Script
925715.001	Enhanced Polymer Library for Advantage
925714.001	Software Advantage Navigator
926404.901	Advantage Software (Thermal and Rheology)

25000	0.001	DHR & AR Rheometer Filter/Regulator
40320	9.901	Air Cooled Peltier Circulator (110/220VAC; 50/60Hz): Note: For use with DHR & AR and ARES Rheometers
40325	8.901	Peltier Circulator Thermocube Model 10-300 (115/230VAC; 50/60Hz) and Fittings for Rheometers Note: For use with DHR, AR, and ARES-G2 Peltier Plate and Peltier Conceptric Outlader Systems, For use with DHR and AR UHR System

Concentric Cylinder Systems. For use with DHR and AR UHP System along with the Combined Manifold (P/N: 554104.901). NOT FOR USE WITH LASER FLASH, XENON FLASH, OR HEAT FLOW METER INSTRUMENTS.

## DHR & AR Rheometer Peltier Plates, Geometries, and Accessories

#### Peltier Plate Temperature Options

533210.901	DHR & AR-Series Smart Swap Peltier Plate Note:Temperature Range = 200 °C. For AR-Series instruments require P/N: 533230.901.
533209.901	DHR & AR-Series Smart Swap Advanced Peltier Plate
546502.901	DHR & AR-Series Dual-Stage Smart Swap Peltier Plate Note: Temperature Range = -45 °C to 200 °C. For AR-Series instruments require P/N: 533232.901.
533211.901	DHR & AR-Series Stepped Peltier with Screw-in Plate Note: Temperature Range = 200 °C. For AR-Series instruments require P/N: 533230.901.
533212.901	DHR & AR-Series Smart Swap Disposable Stepped Peltier Plate Note: Temperature Range = 200 °C. For AR-Series instruments require Disposable Plate Shaft (P/N: 546319.901). For DHR/ARG2 requires Disposable Plate Shaft (P/N: 546320.901).

# Rheology - DHR & AR

547910.901	DHR & AR-Series Peltier Plate Immersion Cell Note: Attaches to DHR & AR-Series Smart Swap Peltier Plate. Allows testing of samples in parallel plate and cone and plate geometries while fully immersed in liquid.
547902.901	DHR, AR-Series, and ARES-G2 Peltier Camera Viewer Option Note: Camera viewer is NOT compatible with AR 2000 model.
547901.901	DHR & AR-Series Peltier Plate Camera Viewer Mounting Kit Note: Customer must supply USB Web camera. Camera viewer is NOT compatible with AR 2000 model.
533230.901	AR Quick-Connect Plumbing Adapter Note: Required for adapting newly purchased accessories to work with existing AR-Series instruments (includes 2 small male fittings)
533231.901	AR to DHR Quick-Connect Plumbing Adapter Note: Required for using existing accessories on a DHR instrument (includes 2 large male fittings)
533232.901	DHR to AR Dual-Stage Peltier Quick-Connect Plumbing Adapter Note: Required when using a Dual-Stage Peltier Plate (P/N: 546502.901) on an AR-Series instrument (includes 2 small male fittings for large bore tubing)
	DHR Quick Change Plate Holders and Quick Change Plates

402751.902	DHR & AR-Series, ARES-G2, APS, Quick Change Plate Holder
402751.901	DHR & AR-Series, ARES-G2, APS, Quick Change Disposable Plate Holder
402493.901	DHR, Hard Anodized Aluminum, 20 mm, Quick Change Plate
402491.901	DHR, Stainless Steel, 20 mm, Quick Change Plate
402492.901	DHR, Stainless Steel, Cross Hatched, 20 mm, Quick Change Plate
402494.901	DHR, Stainless Steel, Sandblasted, 20 mm, Quick Change Plate
402625.901	DHR, ARES-G2, APS, Stainless Steel, 8 mm, Quick Change Plate
402624.901	DHR, ARES-G2, APS, Stainless Steel, 25 mm, Quick Change Plate
402623.901	DHR, ARES-G2, APS, Stainless Steel, 40 mm, Quick Change Plate
402622.901	DHR, ARES-G2, APS, Stainless Steel, 50 mm, Quick Change Plate
402627.901	DHR, ARES-G2, APS, Stainless Steel, Cross Hatched, 8 mm, Quick Change Plate

402628.901	DHR, ARES-G2, APS, Stainless Steel, Cross Hatched, 25 mm, Quick Change Plate
402629.901	DHR, ARES-G2, APS, Stainless Steel, Cross Hatched, 40 mm, Quick Change Plate
402630.901	DHR, ARES-G2, APS, Hard Anodized Aluminum, 25 mm, Quick Change Plate
402631.901	DHR, ARES-G2, APS, Hard Anodized Aluminum, 40 mm, Quick Change Plate
402632.901	DHR, ARES-G2, APS, Hard Anodized Aluminum, 50 mm, Quick Change Plate
402633.901	DHR, ARES-G2, APS, Titanium, 25 mm, Quick Change Plate
402634.901	DHR, ARES-G2, APS, Titanium, 50 mm, Quick Change Plate
402770.901	DHR, ARES-G2, APS, Sandblasted, 25 mm, Quick Change Plate
402769.901	DHR, ARES-G2, APS, Sandblasted, 40 mm, Quick Change Plate
402681.901	DHR, ARES-G2, APS, Hard Anodized Aluminum, 42 mm Dia., 15 mm Edge Height, Immersion Cup: includes two removable sidewalls (one aluminum and one clear polycarbonate) for easy sample loading and trimming

#### DHR & AR-G2 Custom and **Standard Geometry Adapters**

532066.901	AR-XXX to DHR & AR-G2 Geometry Adapter Kit Note: For use only with standard Peltier Plate geometries.
545904.901	DHR & AR-G2 Rheometer Custom Geometry Adapter
545905.901	AR Rheometer Custom Geometry Adapter

#### **Stainless Steel Peltier Cone Geometries** with No Solvent Trap (NST) Note: Upper Cones for Use with Lower Peltier Plate.

511204.902	Stainless Steel, 20 mm, 1 deg Cone, NST
511206.902	Stainless Steel, 20 mm, 2 deg Cone, NST
511207.902	Stainless Steel, 20 mm, 4 deg Cone, NST

#### Note: Following Smart Swap geometries for use with DHR & AR-G2 only.

511204.906	DHR & AR-G2, Stainless Steel, 20 mm, 1 deg Cone, NST

511206.906 DHR & AR-G2, Stainless Steel, 20 mm, 2 deg Cone, NST

511207.906 DHR & AR-G2, Stainless Steel, 20 mm, 4 deg Cone, NST

#### **Stainless Steel Peltier Plate Geometries** with No Solvent Trap (NST)

Note: Upper Plates for use with Lower Peltier Plate.

511080.902	Stainless Steel, 8 mm Plate, NST
511200.902	Stainless Steel, 20 mm Plate, NST
511250.902	Stainless Steel, 25 mm Plate, NST
517080.902	Stainless Steel, Cross Hatched, 8 mm Plate, NST
517200.902	Stainless Steel, Cross Hatched, 20 mm Plate, NST
	Note: Following Smart Swap geometries for use with DHR & AR-G2 only.
511080.906	DHR & AR-G2, Stainless Steel, 8 mm Plate, NST

511080.906	DHR & AR-G2, Stainless Steel, 8 mm Plate, NST
511120.906	DHR & AR-G2, Stainless Steel, 12 mm Plate, NST
511200.906	DHR & AR-G2, Stainless Steel, 20 mm Plate, NST
511250.906	DHR & AR-G2, Stainless Steel, 25 mm Plate, NST
517080.906	DHR & AR-G2, Stainless Steel, Cross Hatched, 8 mm Plate, NST
517200.906	DHR & AR-G2, Stainless Steel, Cross Hatched, 20 mm Plate, NST
519080.906	DHR & AR-G2, Stainless Steel, Sandblasted, 8 mm Plate, NST
519250.906	DHR & AR-G2, Stainless Steel, Sandblasted, 25 mm Plate, NST

#### **Stainless Steel Peltier Cone Geometries** with Solvent Trap

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	Note: Upper Cones for use with Lower Peltier Plate.
511203.901	Stainless Steel, 20 mm, 0.5 deg Cone
511204.901	Stainless Steel, 20 mm, 1 deg Cone
511206.901	Stainless Steel, 20 mm, 2 deg Cone
511207.901	Stainless Steel, 20 mm, 4 deg Cone
511403.901	Stainless Steel, 40 mm, 0.5 deg Cone
511404.901	Stainless Steel, 40 mm, 1 deg Cone
511406.901	Stainless Steel, 40 mm, 2 deg Cone
511407.901	Stainless Steel, 40 mm, 4 deg Cone
511504.901	Stainless Steel, 50 mm, 1 deg Cone
511506.901	Stainless Steel, 50 mm, 2 deg Cone
511603.901	Stainless Steel, 60 mm, 0.5 deg Cone
511604.901	Stainless Steel, 60 mm, 1 deg Cone
511606.901	Stainless Steel, 60 mm, 2 deg Cone
511607.901	Stainless Steel, 60 mm, 4 deg Cone

#### Note: Following Smart Swap geometries for use with DHR & AR-G2 only.

511203.905	DHR & AR-G2, Stainless Steel, 20 mm, 0.5 deg Cone
511204.905	DHR & AR-G2, Stainless Steel, 20 mm, 1 deg Cone
511206.905	DHR & AR-G2, Stainless Steel, 20 mm, 2 deg Cone
511207.905	DHR & AR-G2, Stainless Steel, 20 mm, 4 deg Cone
511403.905	DHR & AR-G2, Stainless Steel, 40 mm, 0.5 deg Cone
511404.905	DHR & AR-G2, Stainless Steel, 40 mm, 1 deg Cone
511406.905	DHR & AR-G2, Stainless Steel, 40 mm, 2 deg Cone
511407.905	DHR & AR-G2, Stainless Steel, 40 mm, 4 deg Cone
511504.905	DHR & AR-G2, Stainless Steel, 50 mm, 1 deg Cone
511506.905	DHR & AR-G2, Stainless Steel, 50 mm, 2 deg Cone
511603.905	DHR & AR-G2, Stainless Steel, 60 mm, 0.5 deg Cone
511604.905	DHR & AR-G2, Stainless Steel, 60 mm, 1 deg Cone
511606.905	DHR & AR-G2, Stainless Steel, 60 mm, 2 deg Cone
511607.905	DHR & AR-G2, Stainless Steel, 60 mm, 4 deg Cone

## Stainless Steel Peltier Plate Geometries with Solvent Trap

Note: Upper Plates for use with Lower Peltier Plate.

511200.901	Stainless Steel, 20 mm Plate
511400.901	Stainless Steel, 40 mm Plate
511500.901	Stainless Steel, 50 mm Plate
511600.901	Stainless Steel, 60 mm Plate
517200.901	Stainless Steel, Cross Hatched, 20 mm Plate
517400.901	Stainless Steel, Cross Hatched, 40 mm Plate
519400.901	Stainless Steel, Sandblasted, 40 mm Plate

519600.901 Stainless Steel, Sandblasted, 60 mm Plate

#### Note: Following Smart Swap geometries for use with DHR & AR-G2 only.

511200.905	DHR & AR-G2, Stainless Steel, 20 mm Plate	

- 511400.905 DHR & AR-G2, Stainless Steel, 40 mm Plate
- 511500.905 DHR & AR-G2, Stainless Steel, 50 mm Plate
- 511600.905 DHR & AR-G2, Stainless Steel, 60 mm Plate
- 517200.905 DHR & AR-G2, Stainless Steel, Cross Hatched, 20 mm Plate

517400.905 DHR & AR-G2, Stainless Steel, Cross Hatched, 40 mm Plate

	517600.905	DHR & AR-G2, Stainless Steel, Cross Hatched, 60 mm Plate	
	519400.905	DHR & AR-G2, Stainless Steel, Sandblasted, 40 mm Plate	
	519600.905	DHR & AR-G2, Stainless Steel, Sandblasted, 60 mm Plate	

## Stainless Steel Peltier Cone Geometries with Composite Heat Break

Note: Upper Cones for use with Lower Peltier Plate.

512206.902	Stainless Steel, Composite HB, 20 mm, 2 deg Cone, NST
512206.901	Stainless Steel, Composite HB, 20 mm, 2 deg Cone
512207.902	Stainless Steel, Composite HB, 20 mm, 4 deg Cone, NST
512207.901	Stainless Steel, Composite HB, 20 mm, 4 deg Cone
512406.901	Stainless Steel, Composite HB, 40 mm, 2 deg Cone
512407.901	Stainless Steel, Composite HB, 40 mm, 4 deg Cone
512606.901	Stainless Steel, Composite HB, 60 mm, 2 deg Cone
512607.901	Stainless Steel, Composite HB, 60 mm, 4 deg Cone

#### Note: Following Smart Swap geometries for use with DHR & AR-G2 only.

	512206.906	DHR & AR-G2, Stainless Steel, Composite HB, 20 mm, 2 deg Cone, NST
	512206.905	DHR & AR-G2, Stainless Steel, Composite HB, 20 mm, 2 deg Cone
	512406.905	DHR & AR-G2, Stainless Steel, Composite HB, 40 mm, 2 deg Cone
	512407.905	DHR & AR-G2, Stainless Steel, Composite HB, 40 mm, 4 deg Cone
	512606.905	DHR & AR-G2, Stainless Steel, Composite HB, 60 mm, 2 deg Cone
	512607.905	DHR & AR-G2, Stainless Steel, Composite HB, 60 mm, 4 deg Cone

### Stainless Steel Peltier Plate Geometries with Composite Heat Break

	Note: Upper Plates for use with Lower Peltier Plate.
512080.902	Stainless Steel, Composite HB, 8 mm, NST
512200.902	Stainless Steel, Composite HB, 20 mm, NST
512200.901	Stainless Steel, Composite HB, 20 mm
512250.902	Stainless Steel, Composite HB, 25 mm, NST
512400.901	Stainless Steel, Composite HB, 40 mm
512600.901	Stainless Steel, Composite HB, 60 mm

#### Note: Following Smart Swap geometries for use with DHR & AR-G2 only.

	512080.906	DHR & AR-G2, Stainless Steel, Composite HB, 8 mm, NST
	512200.906	DHR & AR-G2, Stainless Steel, Composite HB, 20 mm, NST
	512200.905	DHR & AR-G2, Stainless Steel, Composite HB, 20 mm
	512250.906	DHR & AR-G2, Stainless Steel, Composite HB, 25 mm, NST
	512400.905	DHR & AR-G2, Stainless Steel, Composite HB, 40 mm
	512600.905	DHR & AR-G2, Stainless Steel, Composite HB, 60 mm

#### **Titanium Peltier Plate Geometries with Solvent Trap**

Note: Upper Plates/Cones for use with Lower Peltier Plate.

520400.901	Titanium, 40 mm Plate
520600.901	Titanium, 60 mm Plate
520404.901	Titanium, 40 mm, 1 deg Cone
520406.901	Titanium, 40 mm, 2 deg Cone
520407.901	Titanium, 40 mm, 4 deg Cone
520604.901	Titanium, 60 mm, 1 deg Cone
520606.901	Titanium, 60 mm, 2 deg Cone
520607.901	Titanium, 60 mm, 4 deg Cone

#### Note: Following Smart Swap geometries for use with DHR & AR-G2 only. Titanium geometries have stainless steel shaft.

520400.905	DHR & AR-G2, Titanium, 40 mm Plate
520600.905	DHR & AR-G2, Titanium, 60 mm Plate
520604.905	DHR & AR-G2, Titanium, 60 mm, 1 deg Cone
520606.905	DHR & AR-G2, Titanium, 60 mm, 2 deg Cone

#### Acrylic Peltier Cone Geometries with No Solvent Trap (NST)

Note: Upper Cones for use with Lower Peltier Plate. Maximum Use Temperature = 40  $^\circ \text{C}.$ 

516206.902	Acrylic, 20 mm, 2 deg Cone, NST
516204.902	Acrylic, 20 mm, 1 deg Cone, NST

516207.902 Acrylic, 20 mm, 4 deg Cone, NST

#### Acrylic Peltier Plate Geometries with No Solvent Trap (NST)

Note: Upper Plates for use with Lower Peltier Plate. Maximum Use Temperature = 40 °C.

516200.902 Acrylic, 20 mm Plate, NST

#### Acrylic Peltier Cone Geometries with Solvent Trap

Note: Upper Cones for use with Lower Peltier Plate. Maximum Use Temperature =  $40 \, ^{\circ}$ C.

516204.901	Acrylic, 20 mm, 1 deg Cone
516206.901	Acrylic, 20 mm, 2 deg Cone
516207.901	Acrylic, 20 mm, 4 deg Cone
516404.901	Acrylic, 40 mm, 1 deg Cone
516406.901	Acrylic, 40 mm, 2 deg Cone
516407.901	Acrylic, 40 mm, 4 deg Cone
516604.901	Acrylic, 60 mm, 1 deg Cone
516606.901	Acrylic, 60 mm, 2 deg Cone
516607.901	Acrylic, 60 mm, 4 deg Cone

#### Acrylic Peltier Plate Geometries with Solvent Trap

Note: Upper Plates for use with Lower Peltier Plate. Maximum Use Temperature =  $40 \,^{\circ}$ C.

516200.901	Acrylic, 20 mm Plate
516400.901	Acrylic, 40 mm Plate
516600.901	Acrylic, 60 mm Plate
518200.901	Acrylic, Cross Hatched, 20 mm Plate
518400.901	Acrylic, Cross Hatched, 40 mm Plate

#### 518400.901 Acrylic, Cross Hatched, 40 mm Plate

#### Hard Anodized Aluminum (HA AL) Peltier Cone Geometries with Solvent Trap Note: Upper Cones for use with Lower Peltier Plate. 513204.902 HA Aluminum, 20 mm, 1 deg Cone, NST HA Aluminum, 20 mm, 1 deg Cone 513204.901 513206.902 HA Aluminum, 20 mm, 2 deg Cone, NST 513206.901 HA Aluminum, 20 mm, 2 deg Cone 513207.902 HA Aluminum, 20 mm, 4 deg Cone, NST 513207.901 HA Aluminum, 20 mm, 4 deg Cone 513404.901 HA Aluminum, 40 mm, 1 deg Cone 513406.901 HA Aluminum, 40 mm, 2 deg Cone 513407.901 HA Aluminum, 40 mm, 4 deg Cone 513604.901 HA Aluminum, 60 mm, 1 deg Cone 513606.901 HA Aluminum, 60 mm, 2 deg Cone 513607.901 HA Aluminum, 60 mm, 4 deg Cone

#### Note: Following Smart Swap geometries for use with DHR & AR-G2 only.

513204.905	DHR & AR-G2, HA Aluminum, 20 mm, 1 deg Cone
513206.905	DHR & AR-G2, HA Aluminum, 20 mm, 2 deg Cone
513207.905	DHR & AR-G2, HA Aluminum, 20 mm, 4 deg Cone
513404.905	DHR & AR-G2, HA Aluminum, 40 mm, 1 deg Cone
513406.905	DHR & AR-G2, HA Aluminum, 40 mm, 2 deg Cone
513407.905	DHR & AR-G2, HA Aluminum, 40 mm, 4 deg Cone
513603.905	DHR & AR-G2, HA Aluminum, 60 mm, 0.5 deg Cone
513604.905	DHR & AR-G2, HA Aluminum, 60 mm, 1 deg Cone
513606.905	DHR & AR-G2, HA Aluminum, 60 mm, 2 deg Cone
513607.905	DHR & AR-G2, HA Aluminum, 60 mm, 4 deg Cone

#### Hard Anodized Aluminum (HA AL) Peltier Plate Geometries with Solvent Trap

Note: Upper Plate for use with Lower Peltier Plate.

	513200.901	HA Aluminum, 20 mm Plate
	513400.901	HA Aluminum, 40 mm Plate
	513600.901	HA Aluminum, 60 mm Plate
		Note: Following Smart Swap geometries for use with DHR & AR-G2 only.

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513200.905	DHR & AR-G2, HA Aluminum, 20 mm Plate	

- 513400.905 DHR & AR-G2, HA Aluminum, 40 mm Plate
- 513600.905 DHR & AR-G2, HA Aluminum, 60 mm Plate

#### Solvent Trap, Purge Gas, Thermal, and Lower Plate Covers for Peltier Plate

529613.901	Hard Anodized Split Solvent Trap Cover and Location Ring
531038.901	Advanced Peltier Plate Purge Gas Cover
531070.901	Hard Anodized Aluminum Solvent Trap for Advanced Peltier Plate
529612.901	Peltier Plate Purge Gas Cover and Location Ring
517105.901	Insulated Solvent Trap Cover and Location Ring (for standard Peltier Plate - not for use with Stepped Peltier)
531035.901	Insulated Solvent Trap for Advanced Peltier Plate (includes Solvent Trap Cover and Location Ring)
529750.901	25 mm Plate Insulating Thermal Cover for Peltier Plate
545941.901	AR-G2 Peltier Plate Draft Shield
533240.901	DHR Peltier Plate Draft Shield

<ul> <li>570059.901 Hard Anodized Aluminum Cover Plate (with Ring Adapter), Cross Hatched, 40 mm</li> <li>570011.901 Hard Anodized Aluminum Cover Plate (with Ring Adapter), Cross Hatched, 60 mm</li> <li>517040.901 Stainless Steel Cover Plate, Cross Hatched, 40 mm</li> <li>517060.901 Stainless Steel Cover Plate, Cross Hatched, 60 mm</li> <li>545430.901 Stainless Steel Peltier Plate Cover</li> <li>545431.901 Stainless Steel Peltier Plate Cover, Raised Center, 20 mm</li> <li>545433.901 Stainless Steel Peltier Plate Cover, Raised Center, 60 mm</li> <li>545435.901 Titanium Peltier Plate Cover, Raised Center, 40 mm</li> </ul>		
Cross Hatched, 60 mm517040.901Stainless Steel Cover Plate, Cross Hatched, 40 mm517060.901Stainless Steel Cover Plate, Cross Hatched, 60 mm545430.901Stainless Steel Peltier Plate Cover545431.901Stainless Steel Peltier Plate Cover, Raised Center, 20 mm545433.901Stainless Steel Peltier Plate Cover, Raised Center, 60 mm	570059.901	
517060.901Stainless Steel Cover Plate, Cross Hatched, 60 mm545430.901Stainless Steel Peltier Plate Cover545431.901Stainless Steel Peltier Plate Cover, Raised Center, 20 mm545433.901Stainless Steel Peltier Plate Cover, Raised Center, 60 mm	570011.901	
545430.901Stainless Steel Peltier Plate Cover545431.901Stainless Steel Peltier Plate Cover, Raised Center, 20 mm545433.901Stainless Steel Peltier Plate Cover, Raised Center, 60 mm	517040.901	Stainless Steel Cover Plate, Cross Hatched, 40 mm
545431.901       Stainless Steel Peltier Plate Cover, Raised Center, 20 mm         545433.901       Stainless Steel Peltier Plate Cover, Raised Center, 60 mm	517060.901	Stainless Steel Cover Plate, Cross Hatched, 60 mm
545433.901 Stainless Steel Peltier Plate Cover, Raised Center, 60 mm	545430.901	Stainless Steel Peltier Plate Cover
	545431.901	Stainless Steel Peltier Plate Cover, Raised Center, 20 mm
545435.901 Titanium Peltier Plate Cover, Raised Center, 40 mm	545433.901	Stainless Steel Peltier Plate Cover, Raised Center, 60 mm
	545435.901	Titanium Peltier Plate Cover, Raised Center, 40 mm

#### DHR and AR Rheometer Concentric Cylinders, Geometries, and Accessories

Note: HA AL = Hard Anodized Aluminum; SST = Stainless Steel.

#### Concentric Cylinder Jackets for DHR & AR-G2 and AR 2000

533201.901	DHR & AR-Series Smart Swap Concentric Cylinder Peltier Jacket Note: Does not include cup and rotor. Includes cover. For AR-Series instruments require P/N: 533230.901.
547310.901	DHR & AR-Series Smart Swap Concentric Cylinder Electrically Heated Jacket
547308.901	DHR & AR-Series Electrically Heated Jacket Air Cooling Option

#### DHR & AR-G2 Smart Swap Rotors for Concentric Cylinders

546011.901	DHR & AR-G2, HA Aluminum Conical DIN Rotor, Rad = 14 mm, Height = 42 mm
546016.901	DHR & AR-G2, HA Aluminum Recessed End Rotor, Rad = 14 mm, Height = 42 mm
546012.901	DHR & AR-G2, Stainless Steel, Conical DIN Rotor, Rad = 14 mm, Height = 42 mm
546009.901	DHR & AR-G2, Stainless Steel, Conical DIN Rotor, Sandblasted, Rad = 14 mm, Height = 42 mm
546017.901	DHR & AR-G2, Stainless Steel Recessed End Rotor, Rad = 14 mm, Height = 42 mm
545043.901	DHR & AG-G2, Stainless Steel, Conical Rotor, Rad = 7.5 mm (appropriate for measurements of crumb-rubber modified ashpalt)
546026.901	DHR & AR-G2, Stainless Steel Vaned Rotor, Rad = 14 mm, Height = 42 mm

546027.901	DHR & AR-G2, Wide Gap Vaned Rotor with Heat Break, Rad = 7.5 mm, Height = 38 mm
546048.901	DHR & AR-G2, Stainless Steel Double Gap Rotor, Inner Rad = 16 mm, Outer Rad = 17.5 mm, Height = 53 mm
546049.901	DHR & AR-G2, HA Aluminum Double Gap Rotor, Inner Rad = 16 mm, Outer Rad = 17.5 mm, Height = 53 mm
546021.901	AR-G2, Ver 1 HA Aluminum Double Gap Rotor, Inner Rad = 20.38 mm, Outer Rad = 21.96, Height = 59.5 mm
546022.901	AR-G2, Ver 1 Stainless Steel Double Gap Rotor, Inner Rad = 20.38 mm, Outer Rad = 21.96, Height = 59.5 mm
	AR 2000/AR 1XXX/AR 5XX Rotors for Concentric Cylinders
545012.001	HA Aluminum Conical DIN Rotor, Rad = 14 mm, Height = 42 mm
545023.001	HA Aluminum Recessed End Rotor, Rad = 14 mm, Height = 42 mm
545026.001	Stainless Steel, Conical DIN Rotor, Rad = 14 mm, Height = 42 mm
545027.001	Stainless Steel, Recessed End Rotor, Rad = 14 mm, Height = 42 mm
545025.001	Stainless Steel, Vaned Rotor, Rad = 14 mm, Height = 42 mm
545028.001	Wide Gap Vaned Rotor with Heat Break, Rad = 7.5 mm, Height = 38 mm
545662.001	HA Aluminum Double Gap Rotor, Inner Rad = 16 mm, Outer Rad = 17.5 mm, Height = 53 mm
545031.001	Ver 1 HA Aluminum Double Gap Rotor, Inner Rad = 20.38 mm, Outer Rad = 21.96, Height = 59.5 mm
545035.001	Ver 1 Stainless Steel, Double Gap Rotor, Inner Rad = 20.38 mm, Outer Rad = 21.96, Height = 59.5 mm
545660.001	Stainless Steel, Double Gap Rotor, Inner Rad = 16 mm, Outer Rad = 17.5 mm, Height = 53 mm

#### DHR & AR-G2/AR 2000/AR 1500 Peltier Concentric Cylinder Cups

545700.901	HA Aluminum Standard Concentric Cylinder Cup with Cap for DHR & AR-Series Peltier Jacket
545696.901	Stainless Steel Standard Concentric Cylinder Cup with Cap
546046.901	DHR & AR-G2, Stainless Steel, Single Gap Cup, Sandblasted, Rad = 15.2 mm

HA Aluminum Double Gap Concentric Cylinder Cup, 546050.901 Inner Rad = 15.1 mm, Outer Rad = 18.5 mm for DHR & AR-Series Peltier Jacket 545612.901 Ver 1 HA Aluminum Double Gap Concentric Cylinder Cup (Inner Rad = 20.00 mm, Outer Rad = 22.38 mm) for DHR & AR-Series Peltier Jacket 545613.901 Ver 1 Stainless Steel Double Gap Concentric Cylinder Cup (Inner Rad = 20.00 mm, Outer Rad = 22.38 mm) for DHR & AR-Series Peltier Jacket 546045.901 Stainless Steel Double Gap Concentric Cylinder Cup (Diameter = 30.4 mm, Outer Rad = 18.5 mm) for **DHR & AR-Series Peltier Jacket** 545626.001 Split Cover for DHR & AR-Series Smart Swap Peltier Concentric Cylinders 545615.901 HA Aluminum Large Diameter Concentric Cylinder Cup (Rad = 22 mm) for DHR & AR-Series Peltier Jacket 545642.001 Stainless Steel Blank Plug for DHR & AR-Series Peltier Jacket Double Gap Cup 545610.901 HA Aluminum Grooved Concentric Cylinder Cup for **DHR & AR-Series Peltier Jacket** 545666.901 HA Aluminum Starch Rotor Concentric Cylinder Cup (Rad = 18.5 mm) for DHR & AR-Series Peltier Jacket 545609.901 Peltier Concentric Cylinder Solvent Trap Note: Not for use with Double Wall Concentric Cylinder system. 547305.901 Stainless Steel Single-Piece Concentric Cylinder Cup 270323.007 High Temperature O-Ring for SST Double Gap Concentric Cylinder Cup 270323.008 High Temperature O-Ring for SST Standard Concentric Cylider Cup with Cap

#### **Circulators (Computer Controlled)**

500020.901	Computer Controlled Circulator, Model FP35HE US (for use with CSA II and AR 1000/AR550 Concentric Cylinders)
575004.901	Computer Controlled Circulator, Model FP35HE UK (for use with CSA II and AR 1000/AR550 Concentric Cylinders)

#### UHP Upper Heated Plates, EHP Electrically Heated Plates, Geometries, and Accessories

#### UHP and Dry Asphalt Systems

545803.901	DHR & AR-G2 Upper Heated Plate System (for use with Peltier Plate)
533213.901	Dry Asphalt System for DHR and AR-G2
545815.901	DHR & AR-G2 Upper Heated Plate Smart Swap Geometry Shaft and Heat Spreader
545801.901	AR 2000/AR 1500 Upper Heated Plate System (for use with Peltier Plate) Note: AR 2000 Instruments with serial numbers prior to 4F will require UHP Mounting Kit and Installation, P/N: 545805.901, at an additional cost (price includes installation by TA Service Engineer). Option requires Advantage Software (P/N: 926404.901). AR 2000 Rheometers with serial numbers 6D3066 and below require calibration cable P/N: 552025.001, sold separately.
545802.901	AR 2000/AR 1500 Dry Asphalt system Note: AR 2000 Instruments with serial numbers prior to 4F will require UHP Mounting Kit and Installation, P/N: 545805.901, at an additional cost (price includes installation by TA Service Engineer). Option requires Advantage Software (P/N: 926404.901). AR 2000 Rheometers with serial numbers 6D3066 and below require calibration cable P/N: 552025.001, sold separately.
545808.901	DHR & AR-Series UHP and Dry Asphalt Low Temperature Cooling Option Note: This cooling option is required when cooling with fluid circulator below temperatures of 5 °C. Customer must supply fluid circulator.
545807.901	DHR & AR-Series UHP and Dry Asphalt Standard Cooling Option Note: This cooling option is required when cooling with fluid circulator above temperatures of 5 °C. Customer must supply fluid circulator.
545809.901	DHR & AR-Series UHP and Dry Asphalt Vortex Cooler Note: Requires Low Temperature Cooling Option P/N: 545808.901.
545805.901	AR 2000 (ONLY) UHP/EHP/Dry Asphalt Mounting Kit and Installation
545810.901	AR 2000/AR 1500 UHP/EHP Upper Disposable Plate Holder Note: Plates sold separately, see ETC Disposable Plates section.
546201.901	DHR & AR-G2 Smart Swap UHP/EHP Upper Disposable Plate Holder Note: Not compatible with UTS.
545878.901	AR-G2 UHP Heat Flow Calibration Kit

545811.901	Replacement EHP, UHP, and Dry Asphalt System Geometry Shaft with Heat Spreader (for use with upper screw-in plates)
552025.001	AR 2000 (ONLY) Temperature Calibration Cable
554104.901	DHR & AR-Series Combined UHP and Peltier Manifold.
	Note: For use over temperature range of 5 °C to 90 °C. Requires
	chilling circulator with water circulation fluid controlled at 2 °C.
	EHP Electrically Heated Plate Kits
533206.901	DHR & AR-G2 Electrically Heated Plate System
	Note: Max Temperature = 400 °C. Includes 25 mm stainless steel plates
533207.901	DHR & AR-G2 Electrically Heated Disposable Plate System
	Note: Max Temperature = 400 °C. Includes five sets of 25 mm drip
	channel disposable plates.
546106.901	DHR & AR-G2 Add-On Disposable Plate Accessory for EHP
	Note: Includes parts necessary to convert Electrically Heated Plate System, P/N: 533206.901, for disposable plate use. Includes five sets
	of 25 mm drip channel disposable plates.
546104.901	AR 2000ex and AR 1500ex Electrically Heated Plate System
	Note: Max Temperature = 400 °C. Includes 25 mm stainless steel
	plates. AR 2000 Instruments with serial numbers prior to 4F
	will require UHP Mounting Kit and Installation, P/N: 545805.901, at an additional cost (price includes installation by TA Service
	Engineer). Option requires Advantage Software (P/N: 926404.901).
546105.901	AR 2000ex and AR 1500ex Electrically Heated Disposable Plate System
	Note: Max Temperature = 400 °C. Includes five sets of 25 mm
	drip channel disposable plates. AR 2000 Instruments with serial
	numbers prior to 4F will require UHP Mounting Kit and Installation, P/N: 545805.901, at an additional cost (price includes installation
	by TA Service Engineer). Option requires Advantage Software
	(P/N: 926404.901).
546107.901	AR 2000ex and AR 1500ex Add-On Disposable Plate Accessory for EHP
	Note: Includes parts necessary to convert Electrically Heated Plate
	System, P/N: 546104.901, for disposable plate use. Includes five sets
	of drip channel disposable plates.
546109.901	EHP Glass Purge Cover (maximum use temperature = 300 °C)
546127.901	DHR and AR EHP GCA Kit (cooling down to -70 °C)
991400.902	Gas Cooling Accessory for DMA Q800, AR-Series EHP, and DHR
546153.901	DHR & AR EHP-GCA Transformer (220/240VAC to 110/120VAC) (ROW)
546152.901	DHR & AR EHP-GCA Transformer (220/240VAC to 110/120VAC) (UK ONLY)
	$(220) 240 \text{ VAC IO I TO/ 120 \text{ VAC}} (OK OINLT)$

#### DHR & AR-G2 EHP and UHP Stainless Steel Smart Swap Upper (Upper Temperature Sensor) UTS Geometries

Note: UTS upper Smart Swap Geometries are for use with UTS Draw Rod and lower screw-in plates. UTS and UTS geometries are required for patented Active Temperature Control of upper plate. This feature is available only with TA Instruments DHR & AR-G2 EHP and UHP Temperature Systems.

	lemperature systems.
546202.901	DHR & AR-G2, Stainless Steel, 8 mm Upper UTS Plate (use with P/N: 546240.001)
546220.901	DHR & AR-G2, Stainless Steel, 20 mm Upper UTS Plate (use with P/N: 546261.001)
546203.901	DHR & AR-G2, Stainless Steel, 25 mm Upper UTS Plate (use with P/N: 546241.001)
546204.901	DHR & AR-G2, Stainless Steel, 40 mm Upper UTS Plate (use with P/N: 546242.001)
546210.901	DHR & AR-G2, Stainless Steel, 25 mm 0.1 Rad Upper UTS Cone (use with P/N: 546241.001)
546208.901	DHR & AR-G2, Stainless Steel, 25 mm 0.04 Rad Upper UTS Cone (use with P/N: 546241.001)
546206.901	DHR & AR-G2, Stainless Steel, 25 mm 0.02 Rad Upper UTS Cone (use with P/N: 546241.001)
546205.901	DHR & AR-G2, Stainless Steel, 25 mm 1 deg Upper UTS Cone (use with P/N: 546241.001)
546207.901	DHR & AR-G2, Stainless Steel, 25 mm 2 deg Upper UTS Cone (use with P/N: 546241.001)
546209.901	DHR & AR-G2, Stainless Steel, 25 mm 4 deg Upper UTS Cone (use with P/N: 546241.001)
546216.901	DHR & AR-G2, Stainless Steel, 40 mm 0.1 Rad Upper UTS Cone (use with P/N: 546242.001)
546214.901	DHR & AR-G2, Stainless Steel, 40 mm 0.04 Rad Upper UTS Cone (use with P/N: 546242.001)
546212.901	DHR & AR-G2, Stainless Steel, 40 mm 0.02 Rad Upper UTS Cone (use with P/N: 546242.001)
546211.901	DHR & AR-G2, Stainless Steel, 40 mm 1 deg Upper UTS Cone (use with P/N: 546242.001)
546213.901	DHR & AR-G2, Stainless Steel, 40 mm 2 deg Upper UTS Cone (use with P/N: 546242.001)
546215.901	DHR & AR-G2, Stainless Steel, 40 mm 4 deg Upper UTS Cone (use with P/N: 546242.001)
546014.901	DHR & AR-G2, Upper Temperature Sensor Draw Rod Note: For use with EHP and UHP temperature systems. Requires UTS geometries. UTS drawrod comes standard with EHP and UHP temperature systems ONLY.

#### Electrically Heated Plate, Upper Heated Plate, and Dry Asphalt System Screw-in Plates

	Note: Screw-in Parallel Plates for use with the following Systems: 1) DHR & AR-G2 EHP: Lower Plate only, 2) AR 2000/1500ex EHP upper and lower, 3) DHR & AR-G2, AR 2000 and AR 1500ex UHP with Standard Peltier Plate: Upper plate Only, and 4) DHR & AR-G2, AR 2000/ex and AR 1500ex Dry Asphalt System: For upper and lower use (two of these parts are required to replace both upper and lower). 4 mm, 8 mm, and 25 mm plates also compatible with Stepped Peltier. These plates are constructed with flats and are used with the flat plate removal wrench.
546241.001	Stainless Steel, 25 mm Screw-in Parallel Plate for EHP, UHP, and Dry Asphalt
546261.001	Stainless Steel, 20 mm Screw-in Parallel Plate for EHP, UHP, and Dry Asphalt
546242.001	Stainless Steel, 40 mm Screw-in Parallel Plate for EHP, UHP, and Dry Asphalt
546239.001	Stainless Steel, 4 mm Screw-in Parallel Plate for EHP, UHP, and Dry Asphalt
546240.001	Stainless Steel, 8 mm Screw-in Parallel Plate for EHP, UHP, and Dry Asphalt
546259.001	Stainless Steel, 8 mm Cross Hatched Screw-in Parallel Plate for EHP, UHP, and Dry Asphalt
546255.001	Stainless Steel, 25 mm Cross Hatched Screw-in Parallel Plate for EHP, UHP, and Dry Asphalt
546256.001	Stainless Steel, 40 mm Cross Hatched Screw-in Parallel Plate for EHP, UHP, and Dry Asphalt
546265.001	Stainless Steel, 8 mm Sandblasted Screw-in Parallel Plate for EHP, UHP, and Dry Asphalt
546266.001	Stainless Steel, 25 mm Sandblasted Screw-in Parallel Plate for EHP, UHP, and Dry Asphalt
546267.001	Stainless Steel, 40 mm Sandblasted Screw-in Parallel Plate for EHP, UHP, and Dry Asphalt
546248.001	Stainless Steel, 25 mm, 0.1 rad, Screw-in Cone for AR 2000/ex, AR 1500ex EHP, and UHP
546246.001	Stainless Steel, 25 mm, 0.04 rad, Screw-in Cone for AR 2000/ex, AR 1500ex EHP, and UHP
546244.001	Stainless Steel, 25 mm, 0.02 rad, Screw-in Cone for AR 2000/ex, AR 1500ex EHP, and UHP
546243.001	Stainless Steel, 25 mm, 1 deg, Screw-in Cone for AR 2000/ex, AR 1500ex EHP, and UHP
546245.001	Stainless Steel, 25 mm, 2 deg, Screw-in Cone for AR 2000/ex, AR 1500ex EHP, and UHP

546247.001	Stainless Steel, 25 mm, 4 deg, Screw-in Cone for AR 2000/ex, AR 1500ex EHP, and UHP
546254.001	Stainless Steel, 40 mm, 0.1 rad, Screw-in Cone for AR 2000/ex, AR 1500ex EHP, and UHP
546252.001	Stainless Steel, 40 mm, 0.04 rad, Screw-in Cone for AR 2000/ex, AR 1500ex EHP, and UHP
546250.001	Stainless Steel, 40 mm, 0.02 rad, Screw-in Cone for AR 2000/ex, AR 1500ex EHP, and UHP
546249.001	Stainless Steel, 40 mm, 1 deg, Screw-in Cone for AR 2000/ex, AR 1500ex EHP, and UHP
546251.001	Stainless Steel, 40 mm, 2 deg, Screw-in Cone for AR 2000/ex, AR 1500ex EHP, and UHP
546253.001	Stainless Steel, 40 mm, 4 deg, Screw-in Cone for AR 2000/ex, AR 1500ex EHP, and UHP

#### ETC Environmental Test Chamber, Air Chiller Systems, Kits, Geometries, and Gas Manifolds

ETC system requires the chamber and one or more Accessory Kits. The flow meter kit (P/N: 543311.901) is required if cooling accessory is not specified.

## ETC Environmental Test Chambers and Air Chiller Systems

543401.901	AR-G2 and AR 2000ex Environmental Test Chamber Note: Maximum Temperature = 600 °C.
533501.901	DHR Environmental Test Chamber (ETC) Note: Maximum Temperature = 600 °C.
543501.901	AR-G2 and AR 2000ex ETC Oven Camera Viewer Option
533208.901	DHR ETC Oven Camera Viewer Option
405001.901	ACS-2 Air Chiller System (220-230VAC/60 Hz) Note: Requires DHR ETC Air Chiller Panel (P/N: 404040.901) for operation
405001.902	ACS-2 Air Chiller System (220-230VAC/50 Hz) Note: Requires DHR ETC Air Chiller Panel (P/N: 404040.901) for operation
405000.901	ACS-3 Air Chiller System (220-230VAC/60 Hz) Note: Requires DHR ETC Air Chiller Panel (P/N: 404040.901) for operation
405000.902	ACS-3 Air Chiller System (220-230VAC/50 Hz) Note: Requires DHR ETC Air Chiller Panel (P/N: 404040.901) for operation
404040.901	DHR ETC Air Chiller Panel (for use with ACS-2 and ACS-3 Air Chiller Systems)

#### DHR & AR-G2 ETC Kits

543407.901	DHR & AR-G2 ETC Torsion Clamp Accessory Kit Note: Includes clamps for rectangular solid samples. Maximum Sample Size: Length = 50 mm, Width = 13 mm, Thickness = 5 mm.
547905.901	DHR & AR-G2 ETC Torsion Cylindrical Clamp Accessory Kit Note: Includes collets to accommodate rods 1.5, 3, and 4.5 mm in diameter. Maximum Sample Length = 40 mm.
543408.901	DHR & AR-G2 ETC Disposable Parallel Plate Accessory Kit
543406.901	DHR & AR-G2 ETC Parallel Plate Accessory Kit Note: Includes 25 mm stainless steel parallel plates. All other geometries purchased separately.
543409.901	DHR & AR-G2 ETC Pressure Sensitive Adhesives Accessory Kit Note: Includes 8 and 25 mm stainless steel parallel plates. All other geometries purchased separately.
543410.901	DHR & AR-G2 ETC Asphalt Parallel Plate Accessory Kit Note: Includes 8 and 25 mm stainless steel parallel plates and silicone asphalt molds.

#### DHR & AR-G2 ETC Stainless Steel Smart Swap Upper Single Piece Geometries

543602.901	DHR & AR-G2, Stainless Steel, 4 mm ETC Plate (use with P/N: 527040.904)
543601.901	DHR & AR-G2, Stainless Steel, 8 mm ETC Plate (use with P/N: 527080.904)
543606.901	DHR & AR-G2, Stainless Steel, 25 mm ETC Plate (use with P/N: 527250.904)
543611.901	DHR & AR-G2, Stainless Steel, 40 mm ETC Plate (use with P/N: 527400.903)
543641.901	DHR & AR-G2, Stainless Steel, 25 mm Cross Hatched ETC Plate (use with P/N: 527250.906)
543642.901	DHR & AR-G2, Stainless Steel, 40 mm Cross Hatched ETC Plate (use with P/N: 527400.905)
543651.901	DHR & AR-G2, Stainless Steel, 25 mm, 0.1 rad, ETC Cone (use with P/N: 527250.904)
543652.901	DHR & AR-G2, Stainless Steel, 25 mm, 0.04 rad, ETC Cone (use with P/N: 527250.904)
543661.901	DHR & AR-G2, Stainless Steel, 25 mm, 2 deg, ETC Cone (use with P/N: 527250.904)
543662.901	DHR & AR-G2, Stainless Steel, 25 mm, 4 deg, ETC Cone (use with P/N: 527250.904)

543671.901	DHR & AR-G2, Stainless Steel, 40 mm, 2 deg, ETC Cone (use with P/N: 527400.903)
543672.901	DHR & AR-G2, Stainless Steel, 40 mm, 4 deg, ETC Cone (use with P/N: 527400.903)
543681.901	DHR & AR-G2, Stainless Steel, Upper ETC Smart Swap Torsion Geometry
	AR 2000 ETC Kits
543307.901	AR 2000 ETC Torsion Clamp Accessory Kit Note: Includes clamps for rectangular solid samples. Maximum Sample Size: Length = 50 mm, Width = 13 mm, Thickness = 5 mm.
543708.901	AR 2000 ETC Disposable Parallel Plate Accessory Kit
543706.901	AR 2000 ETC Parallel Plate Accessory Kit Note: Includes 25 mm stainless steel parallel plates. All other geometries purchased separately.
543709.901	AR 2000 ETC Pressure Sensitive Adhesives Accessory Kit Note: Includes 8 and 25 mm stainless steel parallel plates. All other geometries purchased separately.
543710.901	AR 2000 ETC Asphalt Parallel Plate Accessory Kit Note: Includes 8 and 25 mm stainless steel parallel plates and silicone asphalt molds.
	AR 2000 ETC Stainless Steel Upper Single Piece Geometries
543329.901	AR 2000, Stainless Steel, 4 mm Upper ETC Plate (use with P/N: 527040.904)
543336.001	AR 2000, Stainless Steel, 8 mm Upper ETC Plate (use with P/N: 527080.904)
543330.001	AR 2000, Stainless Steel, 25 mm Upper ETC Plate (use with P/N: 527250.904)
543331.001	AR 2000, Stainless Steel, 40 mm Upper ETC Plate (use with P/N: 527400.903)
543337.001	AR 2000, Stainless Steel, 25 mm Cross Hatched ETC Plate (use with P/N: 527250.906)
543338.001	AR 2000, Stainless Steel, 40 mm Cross Hatched ETC Plate (use with P/N: 527400.905)
543351.001	AR 2000, Stainless Steel, 25 mm, 0.1 rad, ETC Cone (use with P/N: 527250.904)

543352.001	AR 2000, Stainless Steel, 25 mm, 0.04 rad, ETC Cone (use with P/N: 527250.904)
543361.001	AR 2000, Stainless Steel, 25 mm, 2 deg, ETC Cone (use with P/N: 527250.904)
543362.001	AR 2000, Stainless Steel, 25 mm, 4 deg, ETC Cone (use with P/N: 527250.904)
543371.001	AR 2000, Stainless Steel, 40 mm, 2 deg, ETC Cone (use with P/N: 527400.903)
543372.001	AR 2000, Stainless Steel, 40 mm, 4 deg, ETC Cone (use with P/N: 527400.903)
543339.901	AR 2000, Upper Torsion Shaft
	Stainless Steel Stepped (lower) and Non-Stepped (upper) Screw-in ETC Plates
	Note: For Use with Upper ETC Shaft (AR 2000 P/N: 543319.901, AR 1000/550 P/N: 543112.901). Parts compatible with ETM upper shaft.
527040.904	Stainless Steel, 4 mm Stepped Lower ETC Plate (use with single piece upper shaft/geometries, or use two of this part number if using upper screwed shaft)
527080.904	Stainless Steel, 8 mm Stepped Lower ETC Plate (use with single piece upper shaft/geometries, or use two of this part number if using upper screwed shaft)
527250.903	Stainless Steel, 25 mm Non-Stepped Upper ETC Plate (use with lower screw-in plate P/N: 527250.904)
527250.904	Stainless Steel, 25 mm Stepped Lower ETC Plate (use with single piece upper shaft/geometries, or use with upper screw-in plate P/N: 527250.903 and upper screwed shaft)
527400.903	Stainless Steel, 40 mm ETC Plate, use for upper and lower (use one with single piece upper shaft P/N: 543331.001, or two required if used with upper screwed shaft)
527250.905	Stainless Steel, Cross Hatched, 25 mm Non-Stepped Upper ETC Plate (use with lower screw-in plate P/N: 527250.906)
527250.906	Stainless Steel, Cross Hatched, 25 mm Stepped Lower ETC Plate (use with single piece upper shaft/geometries, or use with upper screw-in plate P/N: 527250.905 if using upper screwed shaft)
527400.905	Stainless Steel, Cross Hatched 40 mm ETC Plate, use for upper and lower (use with single piece upper shaft/geometries, or use two of this part number if using upper screwed shaft)

	Stepped (upper) ETC Plates Note: For use with upper ETC shaft (AR 2000 P/N: 543319.901, AR 1000/550 P/N: 543112.901) and/or lower ETC fixture.
526080.904	HA Aluminum, 8 mm Stepped Lower ETC Plate (2 required)
526250.903	HA Aluminum, 25 mm Non-Stepped Upper ETC Plate (use with P/N: 526250.904)
526250.904	HA Aluminum, 25 mm Stepped Lower ETC Plate (use with P/N: 526250.903)
526400.903	HA Aluminum, 40 mm ETC Plate, use for upper and lower (2 required)
	Aluminum Disposable Plates for ETC/EHP/UHP and Disposable Stepped Peltier
	Note: For use with upper ETC shaft (AR 2000 P/N: 543334.901, AR 1000/550 P/N: 543319.901) or ETM upper shaft.
543334.901	Upper Disposable Plate Shaft (for AR 2000/ex and AR 1500)
523250.927	Aluminum, 25 mm Disposable Plates (pkg. of 100)
523400.927	Aluminum, 40 mm Disposable Plates (pkg. of 100)
523080.937	Aluminum, 8 mm Disposable Plates (pkg. of 20)
523200.917	Aluminum, 20 mm Disposable Plates (pkg. of 10)
523250.937	Aluminum, 25 mm Disposable Plates (pkg. of 20)
523400.937	Aluminum, 40 mm Disposable Plates (pkg. of 20)
523250.928	Aluminum, 25 mm Disposable Plates (with Drip Channel) (pkg. of 100)
523250.938	Aluminum, 25 mm Disposable Plates (with Drip Channel) (pkg. of 20) Note: Required for EHP and UHP upper and lower systems.
	Stainless Steel Disposable Plates for ETC/EHP/UHP and Disposable Stepped Peltier
	Note: For use with upper ETC shaft (AR 2000 P/N: 543334.901, AR 1000/550 P/N: 543319.901) or ETM upper shaft.
527080.937	Stainless Steel, 8 mm Disposable Plates (pkg. of 20)
507050 027	Staiplass Staal 25 mm Dispasable Plates (pkg. of 20)

527250.937	Stainless Steel, 25 mm Disposable Plates (pkg. of 20)
527250.938	Stainless Steel, 25 mm Disposable Plates (with Drip Channel) (pkg. of 20) Note: Required for EHP and UHP upper and lower systems.

527400.937 Stainless Steel, 40 mm Disposable Plates (pkg. of 20)

#### **ETC/EHP** Accessories

543097.911	ETC Melt Rings for 25 mm Lower Stepped ETC Plate (pkg. of 50)
578904.001	Brass Scraper (for cleaning plates)
578905.001	Brass Brush (for cleaning plates)

#### ETC Flow Meter and Low Temp Kits for DHR & AR-G2/AR 2000/AR 1000/AR 550

543311.901	DHR & AR-Series ETC Flow Meter Kit
543313.901	DHR & AR-Series Low Temperature Fittings with LN2 Dewar
543312.901	DHR & AR-Series Low Temperature Fittings without LN2 Dewar

#### **AR-Series ETM/ETC Plates and Cones**

#### Aluminum Stepped Upper Cone Geometry for ETM (compatible with ETC)

Note: For use with upper ETC shaft (AR 2000 P/N: 543112.901, AR 1000/550 P/N: 543319.901). For correct operation cones require a matched plate (e.g. P/N: 523406.903 4 cm 2 deg cone requires P/N: 523400.903 4 cm plate).

523206.904	Aluminum, 20 mm, 2 deg Cone for ETC and ETM
523207.904	Aluminum, 20 mm, 4 deg Cone for ETC and ETM
526253.903	Aluminum, 25 mm, 0.5 deg Cone for ETC and ETM
526254.903	Aluminum, 25 mm, 1 deg Cone for ETC and ETM
526256.903	Aluminum, 25 mm, 2 deg Cone for ETC and ETM
526257.903	Aluminum, 25 mm, 4 deg Cone for ETC and ETM
523406.903	Aluminum, 40 mm, 2 deg Cone for ETC and ETM
523407.903	Aluminum, 40 mm, 4 deg Cone for ETC and ETM
523408.901	Aluminum, 40 mm, 5.6 deg Cone for ETC and ETM

#### Aluminum Stepped Plates Cone Geometry for ETM (compatible with ETC)

	Note: ETM stepped plates are compatible with ETC. However, they are NOT anodized and are only available in stepped version.
523200.904	Aluminum, 20 mm ETM Plate, Stepped (compatible with ETC)
523250.904	Aluminum, 25 mm ETM Plate, Stepped (compatible with ETC)
523400.903	Aluminum, 40 mm ETM Plate, Stepped (compatible with ETC)

#### **DHR & AR-Series Specialty Geometries and Accessories**

#### DHR Relative Humidity (RH) Accessories

547200.901	DHR-RH Accessory for Discovery Hybrid Rheometer
547208.901	DHR-RH Film/Fiber Tension Accessory Kit
547278.901	DHR-RH 3-Point Bending Accessory Kit
547279.901	DHR-RH Rectangular Torsion Clamp Accessory Kit
547207.901	DHR-RH Parallel Plate Accessory Kit
547210.901	DHR-RH Annular Ring Accessory
547211.901	DHR-RH Surface Diffusion Accessory

#### DHR Modular Microscope Accessory (MMA)

546810.901	DHR Modular Microscope Accessory (MMA)
546814.901	DHR Counter-Rotating Optics Plate Accessory
546812.901	DHR Optics Plate Thin Cover Glass Kit
546815.901	DHR MMA Piezo Scanner 100 µm
203274.001	DHR MMA Fluorescence Splitter
203273.001	DHR MMA Objective 20X Long Working Distance
203183.001	DHR MMA Objective 40X Long Working Distance
203135.001	DHR MMA Objective 20X Short Working Distance
203170.001	DHR MMA Objective 50X Short Working Distance, Oil
203171.001	DHR MMA Objective 100X Short Working Distance, Oil

#### **DHR Magneto-Rheology Accessory**

547100.901	DHR Magneto-Rheology Accessory
547106.901	DHR Magneto-Rheology Closed Loop Field Kit
547107.901	DHR Magneto-Rheology Extended Temperature Kit
547110.901	DHR Magneto-Rheology Parallel Plate, 20 mm, Stainless Steel
547111.901	DHR Magneto-Rheology Cone, 20 mm, 2 deg, Stainless Steel
547112.901	DHR Magneto-Rheology Lower Plate
547114.901	DHR Magneto-Rheology Field Probe
595007.901	Computer Controlled Circulator, Wide Range (115VAC/60Hz)
595007.902	Computer Controlled Circulator, Wide Range (230VAC/50Hz)
203349.001	Thermal C5 Low Temperature Circulator Fluid (-35 $^\circ$ C to 110 $^\circ$ C)
203350.001	Thermal C20S High Temperature Circulator Fluid (0 °C to 200 °C)

# DMA Mode for DHR Rheometers926021.001DMA Mode for DHR Rheometers533890.901DHR 3-Point Bending Clamp Accessory Kit533892.901DHR Cantilever Bending Clamp Accessory Kit533894.901DHR Film/Fiber Tension Accessory Kit



DMA Mode: DHR 3-Point Bending Clamp

#### **DHR & AR-G2 Immobilization Cell Accessory**

547920.901	DHR & AR-G2 Immobilization Cell Accessory
547962.001	Replacement Sieve for Immobilization Cell

#### DHR & AR-G2 Building Materials Cell

533246.901	DHR & AR-G2, Stainless Steel Building Materials Cell Cup
	with Slotted Cage

533247.901 DHR & AR-G2, Stainless Steel Building Materials Cell Paddle

533264.901 DHR & AR-G2, Replacement Stainless Steel Building Materials Cell Slotted Cage (use with P/N: 533246.901)

#### DHR & AR-G2 Tribo-Rheometry Accessory

533242.901	Tribo-Rheometry Accessory Base Kit
533279.901	DHR & AR-G2, Tribo-Rheometry Coupling Adapter, Short
533279.902	DHR & AR-G2, Tribo-Rheometry Coupling Adapter, Long
533273.901	Tribo-Rheometry, Single Ball Upper Geometry Holder, Medium
533273.902	Tribo-Rheometry, Single Ball Upper Geometry Holder, Short
533273.903	Tribo-Rheometry, Single Ball Upper Geometry Holder, Long
533283.901	Tribo-Rheometry, Ring on Plate Upper Geometry Holder
533290.901	Tribo-Rheometry, 3 Balls on Plate Upper Geometry Holder
533249.901	Tribo-Rheometry, 5/16" Truncated SST Balls (pkg. of 12)
533250.901	Tribo-Rheometry, 1/2" SST Balls (pkg. of 25)
533284.901	Tribo-Rheometry, Ring Upper Geometry (pkg. of 3)
533274.901	Tribo-Rheometry, Ball on 3 Balls Lower Geometry
533281.901	Tribo-Rheometry, SST Cup 45 mm Lower Geometry (pkg. of 2)
533282.901	Tribo-Rheometry, 3 Plates Lower Geometry
533291.901	Tribo-Rheometry, Ball on 3 Plates SST Test Plates (pkg. of 30)
523400.907	Aluminum, 40 mm Disposable Plate
533300.901	DHR & AR-G2, ETC, Tribo-Rheometry Lower Geometry Holder
531336.901	DHR & AR-G2 to AR 2000ex Tribo-Rheometry Geometry Adapter Sleeve
532080.901	DHR, ARES-G2, APS, Tribo-Rheometry Lower Geometry Holder

#### **DHR Optics Plate Accessory**

546800.901	Optics Plate Accessory
546800.902	Optics Plate Accessory with Camera
546801.901	Optics Plate Accessory Replacement Glass Plates and O-rings
546802.901	DHR & AR-G2, Stainless Steel, 40 mm Parallel Plate, Mirror Finish
546803.901	DHR & AR-G2, Stainless Steel, 40 mm Upper UTS Plate, Mirror Finish

## DHR Dielectric Accessory (for use with the HR-3, HR-2, and HR-1 Discovery Hybrid Rheometers)

546601.901	DHR Dielectric Accessory: requires appropriate geometries and customer-supplied LCR meter
546602.901	DHR 25 mm Upper Dielectric Geometry: for use with the DHR Dielectric Accessory (P/N: 546601.901)
546603.901	DHR 25 mm Lower Dielectric Geometry: for use with the DHR Dielectric Accessory (P/N: 546601.901)
546610.901	DHR Upper Dielectric Disposable Geometry: for use with the DHR Dielectric Accessory (P/N: 546601.901)
546615.901	DHR Lower Dielectric Disposable Geometry: for use with the DHR Dielectric Accessory (P/N: 546601.901)
613.04946	Keysight E4980A LCR Meter for ARES-G2, RSA-G2, and DHR DETA: frequency range: 20Hz. to 2MHz.; AC test signal (potential) 0.005 to 20 Volts (115/230VAC; 50/60Hz.)
203330.001	Keysight E4980AL/120 LCR Meter for ARES-G2, RSA-G2, and DHR DETA: frequency range: 20Hz to 1MHz; AC test signal (potential) 0.001 to 2 Volts (115/230VAC; 50/60Hz)
	DHR Electro-Rheology Accessory (for use with the HR-3, HR-2, and HR-1 Discovery Hybrid Rheometers)
546701.901	DHR Electro-Rheology Accessory (110VAC)
546701.902	DHR Electro-Rheology Accessory (220VAC)

546761.901DHR Electro-Rheology, Parallel Plate, 25 mm546705.901DHR Electro-Rheology, Parallel Plate, 40 mm

30 mm diameter

DHR Electro-Rheology, 25 mm DIN Rotor

595006.901 DHR Electro-Rheology Dress Cover Grounding Retro-Fit Kit

545630.902 DHR Electro-Rheology, Stainless Steel Concentric Cylinders Cup,

546762.901

#### **DHR & AR-Series Torsion Immersion**

545618.901	DHR & AR-Series Smart Swap Torsion Immersion Kit Note: Requires Peltier Fluid Jacket P/N: 533201.901.
	DHR & AR-Series Generic Container Holder
547004.901	DHR & AR-Series Generic Container Holder Note: Suitable for containers with OD in the range of 30 to 80 mm.
	DHR & AR-Series Blank Smart Swap Base
531056.901	DHR & AR-Series Blank Smart Swap Base
	DHR & AR-G2/AR 2000 Pressure Cell
533216.901	DHR & AR-G2/AR 2000 Pressure Cell DHR & AR-G2/AR2000 Pressure Cell High Temp: Note: Requires Smart Swap Peltier Concentric Cylinder Jacket P/N: 533201.901 or Smart Swap Electrically Heated Concentric Cylinder P/N: 547310.901. For AR-Series instruments require P/N: 533230.901
533216.901 402828.901	DHR & AR-G2/AR2000 Pressure Cell High Temp: Note: Requires Smart Swap Peltier Concentric Cylinder Jacket P/N: 533201.901 or Smart Swap Electrically Heated Concentric Cylinder

#### DHR & AR-Series Smart Swap Starch Pasting Cell and Replacement Parts

545723.001	Replacement Cup for Starch Pasting Cell
545701.901	AR 2000/ex and AR 1500, Starch Pasting Cell
545713.901	DHR & AR-G2, HA Aluminum Conical Rotor For Starch Pasting Cell
545712.901	DHR & AR-G2, Replacement Rotor for Starch Pasting Cell
545702.901	DHR & AR-G2, Starch Pasting Cell

- 545751.001 AR 2000/ex and AR 1500, Replacement Rotor for Starch Pasting Cell
- 545761.001 AR 2000/ex and AR 1500, HA Aluminum Conical Rotor For Starch Pasting Cell

#### **DHR & AR UV-Curing Option**

546301.901	DHR-3, DHR-2 & AR-Series, UV Light Guide Accessory without UV Light Source
533217.901	DHR-3, DHR-2 & AR-Series, 365 mm LED UV-Curing Accessory
	Note: For AR-Series instruments require P/N: 533230.901.

533218.901	DHR-3, DHR-2 & AR-Series, 455 mm LED Blue Light Curing Accessory
	Note: For AR-Series instruments require P/N: 533230.901.
546303.901	DHR-3, DHR-2 & AR-Series, UV Light Guide Accessory with UV Light Source
546384.901	UV-Curing Accessory Plate Rubber Ring Plate Guards
546319.901	AR 2000ex, Stainless Steel, Disposable Plate Shaft for UV Accessories
546320.901	DHR-3, DHR-2 & AR-G2, Stainless Steel, Smart Swap Disposable Plate Shaft for UV Accessories
403153.001	20 mm Quartz Plate for ARES and AR UV-Curing Option Note: For use with the upper plate fixture of ARES-UV option and the lower plate fixture of DHR/AR-UV option.
403064.901	20 mm diameter Disposable Acrylic Plates (pkg. of 10) Note: For use with the upper plate fixture of ARES-UV option and the lower plate fixture of DHR/AR-UV option.
200400.001	Replacement 5 mm diameter light guide for ARES and AR UV-Curing and Photo-Curing Options
935014.901	PCA/UV External Filter Adapter Accessory Kit (allows use of external filters with the PCA P/N: 935000.901)
935009.001	Filter, External, 320 - 480 nm (for the Omnicure S-2000 with external filter adapter)
935009.002	Filter, External, 320 - 390 nm (for the Omnicure S-2000 with external filter adapter)
935009.004	Filter, External, 400 - 500 nm (for the Omnicure S-2000 with external filter adapter)
935009.003	Filter, External, 365 nm (for the Omnicure S-2000 with external filter adapter)
	DHR & AR-Series Smart Swap Interfacial Rheology Systems and Accessories
545907.901	DHR-3, DHR-2 & AR-G2, Double Wall Ring Interfacial (DWR) Rheology System: includes DWR Pt/Ir Ring Geometry and Delrin Trough with fluid level monitor and fluid injection port. Note: Option requires standard Peltier Plate P/N: 533210.901. For AR-Series instruments require P/N: 533230.901.
545950.001	DHR-3, DHR-2 & AR-G2, Double Wall Ring, Platinum-Ir (replacement ring - does NOT include geometry holder)
545908.901	DHR-3, DHR-2 & AR-G2, Double Wall Ring Window Kit
545903.901	DHR & AR-G2, Smart Swap Interfacial Bicone Accessory

545909.901	DHR-3, DHR-2 & AR-G2, Double Wall Du Nouy Ring (DDR) Interfacial Rheology System
	Note: Option requires standard Peltier Plate P/N: 533210.901. For AR-Series instruments require P/N: 533230.901.
530021.001	DHR-3, DHR-2 & AR-G2, PT-IR Du Nouy Ring Geometry for Dynamic Interfacial System (replacement ring - does NOT include geometry holder)
545901.901	Interfacial Viscosity Bicone System for AR 2000/ex and AR 1500 Note: Includes 80 mm inner diameter Teflon cup, 68 mm diameter and 10 ° angle stainless steel bicone geometry, and cover.
545922.001	45 mm Diameter Teflon Interfacial Cup for AR-G2 and AR 2000
545931.001	34 mm 10 deg Stainless Steel Bicone Geometry
578155.001	Sample - Vessel 70 mm diameter (glass-cup)

#### DHR & AR-Series Smart Swap Asphalt Submersion Cell

554103.901	DHR & AR-Series Smart Swap Asphalt Submersion Cell

#### **Quartz Geometries**

524400.902 Quartz, 40 mm Parallel Plate (for AR 2000, AR 1000, and AR 550 Only)

#### **Ambient Disposable Plate System**

Note: Clip-on system for AR 1000 and AR 550 Peltier Plate; temperature is NOT controlled by the Peltier Plate.

545290.901	Upper Ambient Disposable Plate Shaft
545291.901	Lower Ambient Disposable Plate Holder
545299.901	Set of Ambient 40 mm Diameter Disposable Plates
545300.901	Disposable Plate R/T 20 mm

#### Air Supply Accessories From US (AR-Series and CSL)

250000.001	Filter/Regulator
250000.002	0.01 micron replacement filter element for use with P/N: 250000.001
250000.003	5 micron replacement filter element for use with P/N: 250000.001
500030.901	Membrane Compressed Air Dryer

#### Air Supply Accessories From UK (AR-Series and CSL)

545420.901	Replacement Oil Filter Element, Red (for use with P/N: 545415.901)
500030.901	Membrane Compressed Air Dryer
575016.901	AR-Series Oil-Free Compressor (240VAC/50Hz)

#### DHR & AR-G2 and AR 2000ex SALS Accessory

533222.901	DHR-3, DHR-2 & AR-Series SALS Accessory Note: For AR-Series instruments require P/N: 533230.901.
546418.901	Quartz 50 mm Plate
546417.901	DHR-3, DHR-2 & AR-G2 Quartz 50 mm Plate
546484.001	SALS Polystyrene Alignment Material
546483.001	SALS Neutral Density Filter Kit

#### DHR & AR-G2 and AR 2000ex SER3 and SER2 Universal Testing Platform

547906.901	SER3 Universal Testing Platform for DHR & AR
200974.002	SER3 and SER2 Standard Drum Pair for DHR & AR
200975.002	SER3 and SER2 Knurled Surface Drum Pair Set for DHR & AR
200976.002	SER3 and SER2 Rough Surface Drum Pair Set for DHR & AR
200977.002	Securing Clamps for DHR & AR SER3/2 and ARES-G2 SER3
	(pkg. of 6)
200978.001	(pkg. of 6) SER3 and SER2 Dual Blade Cutter Assembly

#### DHR & AR-G2 and AR Helical Tools

546018.901	DHR & AR-G2 Stainless Steel Helical Rotor
546019.901	AR Stainless Steel Helical Rotor
546093.001	Helical Cup, HA Aluminum (diameter = 34 mm, height = 50 mm)

#### **DHR Manifold Mounting Adapter**

533235.901 DHR Manifold Mounting Adapter

#### DHR & AR-Series, CSA, and CSA II Asphalt Accessories

#### **Cylindrical Torsion**

543033.001 Asphalt Cylindrical Torsion End Pieces

#### Automated Temperature Calibration

554024.901 DHR & AR-Series Automated Asphalt Temperature Calibration Kit Note: Requires PC with USB port and Rheology Advantage Software Version 5.7.

#### CSA and CSA II Accessories, DHR & AR Asphalt Submersion Cell

554003.901	Asphalt Submersion Cell Replacement Filter Material, 1 Package
554004.901	Replacement Asphalt Submersion Cell Plate Removal Tool

- 585062.901 Asphalt Submersion Cell Maintenance Kit
- 554012.901 Asphalt Submersion Cell Water Valve (48 volt)
- 554007.901 Asphalt Sample Molds, 1 Pair

#### Asphalt Submersion Cell Parallel Plates

Note: Screw-in Parallel Plates for use with following Systems: 1) CSA/CSA II: Lower Plate only, 2) DHR & AR-Series Asphalt Submersion Cell. These plates are constructed with four holes with plate removal.

554001.901	Stainless Steel, 8 mm Screw-in Parallel Plates for Asphalt Submersion Cell
554008.901	Stainless Steel, 12 mm Screw-in Parallel Plates for Asphalt

- Submersion Cell
- 554002.901 Stainless Steel, 25 mm Screw-in Parallel Plates for Asphalt Submersion Cell
- 554019.902 HA Aluminum, 8 mm Screw-in Parallel Plates for Asphalt Submersion Cell
- 554020.902 HA Aluminum, 25 mm Screw-in Parallel Plates for Asphalt Submersion Cell

#### Peltier, UHP, Dry Asphalt System Replacement Parts

952377.901	Fungicide for Peltier Reservoir
532067.901	DHR & AR-Rheometer Vibration Isolation Pads

#### Stainless Steel Sample Trimming Tools

545852.001	3 mm UHP Plate Trimming Tool (for use with Standard Peltier Plate)

545851.001 6 mm UHP Dry Asphalt System Trimming Tool (for use with Stepped Pettier)

#### **Standard Oils**

250024.001	Low Viscosity Standard Oil (S60) ~ 100 mPa.s (cP) @ 25 °C
250024.002	High Viscosity Standard Oil (S600) ~ 1100 mPa.s (cP) @ 25 $^\circ\text{C}$
201261.001	DSR Standard N2700000SP Standard Oil

#### **Rheology Text Books**

575105.901	A Handbook of Elementary Rheology, Howard A. Barnes
575103.901	Introduction to Rheology, H.A. Barnes, J.F. Hutton and K. Walters

discourse in the state





# **Rheology - ARES**

#### **ARES-G2** Software

	Note: TRIOS Software is included with ARES-G2 Base System.
402010.901	Orchestrator Polymer Library
926018.001	LAOS and FT RHEOLOGY for TRIOS: Large Amplitude Oscillatory Shear and Fourier Transform Rheology Software for TRIOS
926019.001	Rheology Polymer Library for TRIOS: includes software for Molecular Weight Distribution Calculations
251471.002	DSL Router with 4-Port Switch: for communication between an external controller and Thermal and Rheology instruments.

#### **ARES FCO Temperature Control Option**

#### **FCO Temperature Control System and Options**

401892.901	ARES-G2 and RSA-G2 Forced Convection Oven FCO
401041.901	ARES-G2 and RSA-G2 FCO LN2 Controller
401798.901	ARES to ARES-G2 LN2 Upgrade Kit
401711.901	ARES-G2 and RSA-G2 FCO Camera
401070.901	Heat Shield for ARES-G2 Forced Convection Oven
402164.901	ARES-G2 and RSA-G2 Chiller Panel Note: Requires Customer-Supplied Chiller.
405001.901	ACS-2 Air Chiller System (220-230VAC/60Hz) Note: Requires ARES-G2 & RSA-G2 FCO Air Chiller Panel (P/N: 404041.901) for operation.
405001.902	ACS-2 Air Chiller System (220-230VAC/50Hz) Note: Requires ARES-G2 & RSA-G2 FCO Air Chiller Panel (P/N: 404041.901) for operation.
405000.901	ACS-3 Air Chiller System (220-230VAC/60Hz) Note: Requires ARES-G2 & RSA-G2 FCO Air Chiller Panel (P/N: 404041.901) for operation.
405000.902	ACS-3 Air Chiller System (220-230VAC/50Hz) Note: Requires ARES-G2 & RSA-G2 FCO Air Chiller Panel (P/N: 404041.901) for operation.
404041.901	ARES-G2 & RSA-G2 FCO Air Chiller Panel (for use with ACS-2 and ACS-3 Air Chiller Systems)

#### FCO Geometry Bundles and Sample Preparation Kit

402319.901	ARES FCO Melt Rheology Geometry Bundle; includes: Torsion Rectangular Fixture (P/N: 403220.901) Stainless Steel, 25 mm parallel plates (two of P/N: 401981.901) Stainless Steel 25 mm 0.1 rad Cone (P/N: 402317.901) Note: Compatible with ARES Classic Instruments.
401035.901	ARES FCO Advanced Melt Rheology Add-On Geometry Bundle; includes: Designed for use with Melt Rheology Geometry Bundle Stainless Steel 50 mm Parallel Plates (two of P/N: 401968.901) Stainless Steel 25 mm Serrated Plates (two of P/N: 401.00512.1) Stainless Steel 50 mm 0.04 rad Cone (P/N: 401963.901) Note: Compatible with ARES Classic Instruments.
402323.901	ARES FCO Thermoset Testing Geometry Bundle; includes: Torsion Rectangular Fixture (P/N: 403220.901), Disposable Plate Fixture (two of P/N: 402303.901), One Pair 8 mm Aluminum Disposable Plates, One Pair 25 mm Aluminum Disposable Plates Note: Compatible with ARES Classic Instruments. Additional disposable plates sold separately.
402331.901	ARES-G2 Melt Sample Preparation Kit; includes: 8 mm, 25 mm punch and die set (to 3 mm thick), Aluminum scraping tool for trimming, sample Brass brush for cleaning plates, Precision knife for sample trimming, Polymer Pellet Melt Ring for 25 mm diameter, Upper Cones and Plates Note: Compatible with ARES Classic Instruments.
	FCO Torsion Rectangular and Torsion Cylindrical Geometries
403220.901	ARES-G2 Torsion Rectangular Clamp Set
402560.901	ARES-G2 Torsion Cylindrical Clamp Set (sample holder diameters: 1.5, 3, and 4.5 mm)
403220.902	ARES Classic Torsion Rectangular Clamp Set (Ver 1 through 8)
	FCO Specialty Fixtures
403165.901	ARES EVF, Extensional Viscosity Fixture Note: ARES Classic requires 2KFRT transducer.
403074.901	ARES EVF, Replacement Drum Pins, One Set

- 403076.901 ARES EVF, Sample Mold and Plates
- 708.01440 ARES Linear Tack Testing Tool

402333.901	ARES Recessed End Ambient Couette:		ARES-
	includes 25 mm diameter Titanium Bob, 27 mm diameter Stainless Steel Cup and PRT.	402328.901	ARES, Se for ARES
	Note: For ARES-G2 and ARES Classic Rheometers.		Upper F
402800.901	ARES-G2, Cone Partitioned Plate Geometry for FCO		0.04 rac
			and 32
	ARES-G2 Peltier Plate Temperature Control Option	402330.901	ARES, Se
			for ARES
	Peltier Plate Temperature Control System		diamete Titaniun
401014001			end Co
401014.901	ARES-G2 Smart Swap Peltier Plate		diamete
	Note: Requires Environmental Control Box (P/N: 401949.901) and appropriate Peltier Circulator.	401995.901	ARES, Se
401949.901	ARES-G2 Environmental Control Box		diamete Stainles
	Note: Required for Peltier Plate Temperature Control.	401004 001	
		401996.901	ARES, Se include
	ARES Solvent Trap Accessory and		Stainles
	Solvent Trap Geometries	401997.901	ARES, Se
402280.901	ARES Peltier Plate Solvent Trap Accessory	-01777.701	OD/27.9
	(requires use of solvent trap geometries)		Titaniun
	Note: For use with ARES Classic and ARES-G2 Smart Swap Peltier	708.01228	ARES, St
	Plates ONLY.		Sealed
	ARES Peltier Circulators for Peltier Systems	700.03464	ARES, St
	(Peltier Plate and APS)	708.01471	ARES, St
403209.901	Air Cooled Peltier Circulator (110/220VAC; 50/60Hz): for DHR & AR and ARES Rheometers	708.01472	ARES, St
403258.901	Peltier Circulator Thermocube Model 10-300		ARES-
	(115/230VAC; 50/60Hz) and Fittings for Rheometers		
	Note: For use with DHR, AR, and ARES-G2 Peltier Plate and Peltier		APS =
	Concentric Cylinder Systems. For use with DHR and AR UHP System	400500.001	
	along with the Combined Manifold (P/N: 554104.901). NOT FOR USE WITH LASER FLASH, XENON FLASH, OR HEAT FLOW METER INSTRUMENTS.	402500.901	ARES-G
	ARES-G2 Sealed Bath Temperature Control Option		APS C
	ARES-G2 Sected Bain temperature Control Option	402620.901	ARES-G
	ARES Computer Controlled Circulators Sealed Bath	402741.901	ARES-G2 (with er
403197.901	ARES, Computer Controlled Circulator (110VAC; 60Hz)	402641.901	ARES-G
	Note: Use for temperature control of Sealed Recirculating Bath		
	(P/N: 401015.901).	402684.901	ARES-G2 Double
403197.902	ARES, Computer Controlled Circulator (230VAC; 50Hz)		20000
	Note: Use for temperature control of Sealed Recirculating Bath (P/N: 401015.901).		

#### ARES-G2 Sealed Bath Geometry Bundles and Couettes

402328.901	ARES, Sealed Bath Fluid Rheology Geometry Bundle: for ARES-G2 and ARES Classic Rheometers: includes 50 mm Titanium Upper Plate and Stainless Lower Parallel Plate, Titanium Upper 50 mm 0.04 rad Cone, and recessed end Couette with 34 mm diameter Cup and 32 mm diameter Bob.
402330.901	ARES, Sealed Bath Advanced Fluids Rheology Geometry Bundle: for ARES-G2 and ARES Classic Rheometers: includes 25 mm diameter Titanium Upper Plate and Stainless Lower Parallel Plate, Titanium 25 mm diameter 0.04 rad Cone, and small volume recessed end Couette with 17 mm diameter Stainless Steel Cup and 16.5 mm diameter Titanium Bob.
401995.901	ARES, Sealed Bath Recessed End Couette: includes 32 mm diameter Titanium Bob with Recessed End and 34 mm diameter Stainless Steel Cup.
401996.901	ARES, Sealed Bath Small Volume Recessed End Couette: includes 16.5 mm diameter Titanium Bob and 17 mm diameter Stainless Steel Cup.
401997.901	ARES, Sealed Bath Double Wall Couette: includes 34 mm OD/27.95 mm ID Stainless Steel Cup; 32 mm OD/29.5 mm ID Titanium Bob.
708.01228	ARES, Stainless Steel 18 mm Vaned Bob: for use with Sealed Bath configured with lower 34 mm Stainless Steel Cup.
700.03464	ARES, Stainless Steel Double Wall Cup for Sealed Bath
708.01471	ARES, Stainless Steel, 25 mm Lower Plate for Sealed Bath
708.01472	ARES, Stainless Steel, 50 mm Lower Plate for Sealed Bath

#### ARES-G2 Advanced Peltier System (APS)

#### APS = Advanced Peltier System

102500.901
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#### **APS Cups**

402620.901	ARES-G2, APS, Hard Anodized Aluminum, 30 mm Dia., Cup
402741.901	ARES-G2, APS, Stainless Steel, 30 mm Dia., Cup (with embedded PRT)
402641.901	ARES-G2, APS, Hard Anodized Aluminum, 34 mm Dia., Cup
402684.901	ARES-G2, APS, Hard Anodized Aluminum, 34 mm Dia., Double Gap Cup

402684.902	ARES-G2, APS, Stainless Steel, 34 mm Dia., Double Gap Cup
402678.901	ARES-G2, APS, Hard Anodized Aluminum, 20 mm Dia., Cup
402681.901	ARES-G2, APS, Hard Anodized Aluminum, 42 mm Dia., 15 mm Edge Height, Immersion Cup: includes two removable sidewalls (one aluminum and one clear polycarbonate) for easy sample loading and trimming
	APS Bobs (for use with APS Cups)
402621.901	ARES-G2, APS, Stainless Steel, 27.7 mm Dia., DIN Bob
402673.901	ARES-G2, APS, Stainless Steel, 27.7 mm Dia., 41.5 mm Height, Recessed End Bob
402675.901	ARES-G2, APS, Stainless Steel, 27.7 mm Dia., 41.5 mm Height, Vane Bob
402682.901	ARES-G2, APS, Stainless Steel, 15 mm Dia., 38 mm Height, Wide Gap Vane Bob
402679.901	ARES-G2, APS, Stainless Steel, 18.6 mm Dia., 27.9 mm Height, Conical End DIN Bob
402680.901	ARES-G2, APS, Stainless Steel, 18.6 mm Dia., 27.9 mm Height, Recessed End Bob
402674.901	ARES-G2, APS, Titanium, 31.4 mm Dia., 47.1 mm Height, Recessed End Bob
402676.901	ARES-G2, APS, Titanium, Double Gap Bob: Inner Dia. = 29.4 mm, Outer Dia. = 32 mm, Height = 48 mm, Sample Volume = 9.4 mL
402676.902	ARES-G2, APS, Titanium, Narrow Gap Double Gap Bob: Inner Dia. = 28.6 mm, Outer Dia. = 33 mm, Height = 49.5 mm, Sample Volume = 5.0 mL
	APS Standard Flat Plate
402619.901	ARES-G2, APS, Standard Flat Plate

402619.901 ARES-G2, APS, Standard Flat Plate

#### APS Quick Change Plates (for use with APS Standard Flat Plate)

402625.901	,,
402624.901	DHR, ARES-G2, APS, Stainless Steel, 25 mm, Quick Change Plate

402623.901 DHR, ARES-G2, APS, Stainless Steel, 40 mm, Quick Change Plate

402622.901 DHR, ARES-G2, APS, Stainless Steel, 50 mm, Quick Change Plate

402627.901	DHR, ARES-G2, APS, Stainless Steel, Cross Hatched, 8 mm, Quick Change Plate
402628.901	DHR, ARES-G2, APS, Stainless Steel, Cross Hatched, 25 mm, Quick Change Plate
402629.901	DHR, ARES-G2, APS, Stainless Steel, Cross Hatched, 40 mm, Quick Change Plate
402630.901	DHR, ARES-G2, APS, Hard Anodized Aluminum, 25 mm, Quick Change Plate
402631.901	DHR, ARES-G2, APS, Hard Anodized Aluminum, 40 mm, Quick Change Plate
402632.901	DHR, ARES-G2, APS, Hard Anodized Aluminum, 50 mm, Quick Change Plate
402633.901	DHR, ARES-G2, APS, Titanium, 25 mm, Quick Change Plate
402634.901	DHR, ARES-G2, APS, Titanium, 50 mm, Quick Change Plate
402770.901	DHR, ARES-G2, APS, Sandblasted, 25 mm, Quick Change Plate
402769.901	DHR, ARES-G2, APS, Sandblasted, 40 mm, Quick Change Plate
402768.901	ARES-G2, APS, Sandblasted, 50 mm, Quick Change Plate
402751.902	DHR, ARES-G2, APS, Quick Change Plate Holder

402751.901 DHR, ARES-G2, APS, Quick Change Disposable Plate Holder

#### APS Quick Change Disposable Plates (for use with APS Standard Flat Plate)

402611.901	ARES-G2, APS, Aluminum, 8 mm, Quick Change Disposable Plate (pkg. of 20)
402612.901	ARES-G2, APS, Aluminum, 20 mm, Quick Change Disposable Plate (pkg. of 20)
402613.901	ARES-G2, APS, Aluminum, 25 mm, Quick Change Disposable Plate (pkg. of 20)
402751.901	DHR & AR-Series, ARES-G2, APS, Quick Change Disposable Plate Holder

#### **APS Solvent Trap Cover**

402515.901	ARES-G2, APS, Split Solvent Trap Cover for Cones and Parallel Plates
402691.901	ARES-G2, APS, Solvent Trap Cover for Concentric Cylinders

## ARES Solvent Trap - Heat Break Geometries (for use with Peltier Plate and APS)

#### ARES Solvent Trap - Heat Break Geometries: Parallel Plates

402677.903	ARES, Stainless Steel, Heat Break, Solvent Trap, 25 mm, Parallel Plate
402677.901	ARES, Stainless Steel, Heat Break, Solvent Trap, 40 mm, Parallel Plate
402677.902	ARES, Stainless Steel, Heat Break, Solvent Trap, 50 mm, Parallel Plate
402683.903	ARES, PPS, Solvent Trap, 25 mm, Parallel Plate
402683.901	ARES, PPS, Solvent Trap, 40 mm, Parallel Plate
402683.902	ARES, PPS, Solvent Trap, 50 mm, Parallel Plate

#### ARES Solvent Trap - Heat Break Geometries: Roughened Surface Plates

402767.903	ARES, Stainless Steel, Solvent Trap, Sandblasted, 25 mm, Parallel Plate
402767.901	ARES, Stainless Steel, Solvent Trap, Sandblasted, 40 mm, Parallel Plate
402767.902	ARES, Stainless Steel, Solvent Trap, Sandblasted, 50 mm, Parallel Plate
402766.902	ARES, Stainless Steel, Heat Break, Solvent Trap, Cross Hatched, 25 mm, Parallel Plate
402766.901	ARES, Stainless Steel, Heat Break, Solvent Trap, Cross Hatched, 40 mm, Parallel Plate
402766.903	ARES, Stainless Steel, Heat Break, Solvent Trap, Cross Hatched, 50 mm, Parallel Plate

#### **ARES Solvent Trap - Heat Break Geometries: Cones**

402761.901	ARES, Stainless Steel, Heat Break, Solvent Trap, 25 mm 1 deg Cone
402762.901	ARES, PPS, Solvent Trap, 25 mm, 1 deg Cone
402760.903	ARES, Stainless Steel, Heat Break, Solvent Trap, 40 mm, 1 deg Cone
402760.901	ARES, Stainless Steel, Heat Break, Solvent Trap, 40 mm, 2 deg Cone

402764.903	ARES, PPS, Solvent Trap, 40 mm, 1 deg Cone
402764.901	ARES, PPS, Solvent Trap, 40 mm, 2 deg Cone
402763.903	ARES, Stainless Steel, Heat Break, Solvent Trap, 50 mm, 1 deg Cone
402763.901	ARES, Stainless Steel, Heat Break, Solvent Trap, 50 mm, 2 deg Cone
402765.903	ARES, PPS, Solvent Trap, 50 mm, 1 deg Cone
402765.901	ARES, PPS, Solvent Trap, 50 mm, 2 deg Cone

#### **ARES Single Boxed Parallel Plate Geometries**

#### **Stainless Steel Parallel Plate Geometries**

	Note: For use with FCO (two required), Bath, and Peltier Temperature Systems.
401985.901	ARES, Stainless Steel, 8 mm Parallel Plate
401981.901	ARES, Stainless Steel, 25 mm Parallel Plate
402302.901	ARES, Stainless Steel, 40 mm Parallel Plate
401968.901	ARES, Stainless Steel, 50 mm Parallel Plate
401978.901	ARES, Stainless Steel, 25 mm Parallel Plate, Serrated
401647.901	ARES, Stainless Steel, Cross Hatched, 8 mm Plate
401667.901	ARES, Stainless Steel, Cross Hatched, 25 mm Plate
401687.901	ARES, Stainless Steel, Cross Hatched, 50 mm Plate

#### **Titanium Parallel Plate Geometries**

	Note: For use with FCO (two required), Bath, and Peltier Temperature Systems.
402309.901	Titanium, 25 mm Parallel Plate
402310.901	Titanium, 50 mm Parallel Plate

#### Polyphenylene Sulfide (PPS) Parallel Plate Geometries

Note: For use with Bath and Peltier Temperature Systems.

402311.901	ARES, PPS, 25 mm Upper Plate; Maximum Temperature = $150 \text{ °C}$
402312.901	ARES, PPS, 40 mm Upper Plate; Maximum Temperature = 150 °C
402313.901	ARES, PPS, 50 mm Upper Plate; Maximum Temperature = $150  ^\circ \text{C}$

#### **ARES Cone Geometries**

#### **Stainless Steel Upper Cones**

	Note: For use with FCO, Bath, and Peltier Temperature Systems.
402305.901	ARES, Stainless Steel, 8 mm 0.1 rad Cone (5.73 deg)
401977.901	ARES, Stainless Steel, 25 mm 0.02 rad Cone (1.15 deg)
401976.901	ARES, Stainless Steel, 25 mm 0.04 rad Cone (2.29 deg)
402317.901	ARES, Stainless Steel, 25 mm 0.1 rad Cone (5.73 deg)
401965.901	ARES, Stainless Steel, 50 mm 0.02 rad Cone (1.15 deg)
401963.901	ARES, Stainless Steel, 50 mm 0.04 rad Cone (2.29 deg)

#### **Titanium Upper Cones**

#### Note: For use with FCO, Bath, and Peltier Temperature Systems.

401972.901	ARES, Titanium, 25 mm 0.02 rad Cone (1.15 deg)
401975.901	ARES, Titanium, 25 mm 0.04 rad Cone (2.29 deg)
401973.901	ARES, Titanium, 25 mm 0.1 rad Cone (5.73 deg)
401964.901	ARES, Titanium, 50 mm 0.02 rad Cone (1.15 deg)
401962.901	ARES, Titanium, 50 mm 0.04 rad Cone (2.29 deg)

#### Polyphenylene Sulfide (PPS) Cone Geometries

Note: For use with Bath and Peltier Temperature Systems.

402314.901	ARES, PPS, 25 mm 0.1 rad Cone; Maximum Temperature = 150 °C
402315.901	ARES, PPS, 50 mm 0.04 rad Cone; Maximum Temperature = 150 °C

#### **ARES Disposable Plate Fixtures and Accessories**

#### Stainless Steel Disposable Plate Fixture

Note: For use with FCO (two required), Bath, and Peltier Temperature Systems.

402303.901 ARES, Stainless Steel, Disposable Plate Fixture Note: Two required for use with FCO Temperature System. Requires Disposable Plates.

#### Aluminum and Stainless Steel Disposable Plates

700.01294.17 Aluminum, 8 mm Disposable Plates, 10 Pair (20	pieces)
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700.01294.3	Aluminum, 25 mm Disposable Plates, 10 Pair (	20 pieces)
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700.01294.4 Aluminum, 40 mm Disposable Plates, 10 Pair (20 pieces)

700.01294.5	Aluminum, 50 mm Disposable Plates, 10 Pair (20 pieces)
700.01294.11	Serrated Aluminum, 8 mm Disposable Plates, 1 pair (2 Pieces)
700.01294.6	Serrated Aluminum, 25 mm Disposable Plates, 1 pair (2 Pieces)
700.01294.7	Serrated Aluminum, 50 mm Disposable Plates, 1 pair (2 Pieces)
700.01295.9	Stainless Steel, 8 mm Disposable Plates, 10 Pair (20 pieces)
700.01295.3	Stainless Steel, 25 mm Disposable Plates, 10 Pair (20 pieces)
700.01295.4	Stainless Steel, 40 mm Disposable Plates, 10 Pair (20 pieces)
700.01295.5	Stainless Steel, 50 mm Disposable Plates, 10 Pair (20 pieces)
700.01295.6	Serrated Stainless Steel, 25 mm Disposable Plates, 1 pair (2 Pieces)
700.02678	Aluminum, 42 mm Disposable Cup, (1 piece)
700.02648	Disposable Plate Sample Mold, 25 mm
402739.901	Aluminum, 25 mm Disposable Plates with Drip Channel (pkg. of 20)

#### **Aluminum Disposable Cones**

	700.02451.2	Aluminum, 25 mm 0.02 rad (1.15 deg) Disposable Cone, (10 pieces)
	700.02451.1	Aluminum, 25 mm 0.1 rad (5.73 deg) Disposable Cone, (10 pieces)
	700.02451.3	Aluminum, 50 mm 0.04 rad (2.29 deg) Disposable Cone, (10 pieces)

#### **ARES Miscellaneous Fixtures and Accessories**

#### **ARES** Asphalt Accessories

554007.901 Asphalt Sample Molds, 1 Pair

#### **ARES Air and Calibration Accessories**

700.02657.2	ARES, RSA, and TAM Air Dryer
250000.006	Oil Filter Removal Element (Norgren)
613.06406	Replacement F73G 5 micron Filter Element for Air Dryer
700.00437.1	AirTable
700.01011	PDMS, 2 oz
700.01016	Silicone Oil, 1000 cP
400.02589	Steel Reference Standard

#### **ARES Universal Testing Platform**

403090.001	SER3 Universal Testing Platform for ARES/ARES-G2
200974.003	SER3 Standard Drum Pair Set for ARES-G2/ARES Rheometers
200975.003	SER3 Knurled Surface Drum Pair Set for ARES-G2/ARES Rheometers
200976.003	SER3 Rough Surface Drum Pair Set for ARES-G2/ARES Rheometers
200977.002	Securing Clamps for DHR & AR SER3/2 and ARES-G2 SER3 (pkg. of 6)
200978.001	SER3 and SER2 Dual Blade Cutter Assembly
200979.001	Razor Blades for SER3 and SER2 Dual Blade Cutter Assembly (pkg. of 50)
200974.001	SER2 Standard Drum Pair Set for ARES Rheometers
200975.001	SER2 Knurled Surface Drum Pair Set for ARES Rheometers
200976.001	SER2 Rough Surface Drum Pair Set for ARES Rheometers
200977.001	SER2 Securing Clamps for ARES Rheometers (pkg. of 6)

#### **ARES Helical Mixer Geometry**

401827.901 ARES Stainless Steel Helical Rotor

#### **ARES DETA: Dielectric Thermal Analysis Options**

402551.901	ARES-G2 and RSA-G2 DETA Accessory Kit (LCR Meter not included): Requires two ARES 25 mm DETA Geometries (P/N: 402553.901) and customer-supplied Keysight E4980A LCR Meter (P/N: 613.04946), Keysight E4980AL LCR Meter (P/N: 203330.001), or Keysight 4285A LCR Meter (P/N: 201259.001).
402553.901	ARES 25 mm DETA Geometry: for use with the ARES DETA option (P/N: 402551.901)
404000.901	ARES-G2, Disposable DETA Geometry: for use with the ARES DETA option (P/N: 402551.901)
613.04946	Keysight E4980A LCR Meter for ARES-G2, RSA-G2, and DHR DETA: frequency range: 20Hz. to 2MHz.; AC test signal (potential) 0.005 to 20 Volts (115/230VAC; 50/60Hz.)
201259.001	Keysight 4285A LCR Meter for ARES-G2 and RSA-G2: frequency range: 75kHz. to 30MHz.; AC test signal (potential) 0.005 to 10 Volts (115/230VAC; 50/60Hz.)
203330.001	Keysight E4980AL/120 LCR Meter for ARES-G2, RSA-G2, and DHR DETA: frequency range: 20 Hz to 1 MHz; AC test signal (potential) 0.001 to 2 Volts (115/230V; 50/60 Hz)

#### **ARES UV-Curing Options**

401177.901	ARES-G2 UV-Curing Option without Light Source
401177.902	ARES-G2 UV-Curing Option with Light Source
935014.901	PCA/UV External Filter Adapter Accessory Kit (allows use of external filters with the PCA P/N: 935000.901)
935009.001	Filter, External, 320 - 480 nm (for the Omnicure S-2000 with external filter adapter)
935009.002	Filter, External, 320 - 390 nm (for the Omnicure S-2000 with external filter adapter)
935009.004	Filter, External, 400 - 500 nm (for the Omnicure S-2000 with external filter adapter)
935009.003	Filter, External, 365 nm (for the Omnicure S-2000 with external filter adapter)

#### **ARES Draft Shield**

402735.901 ARES-G2 Draft Shield

#### **ARES Electro-Rheological Analysis Option**

401940.901	ARES Electro-Rheological Analysis Accessory for ARES-G2 (110VAC)
401940.902	ARES Electro-Rheological Analysis Accessory for ARES-G2 (220VAC)
402754.901	ARES-G2, Electro-Rheology, Stainless Steel, 25 mm, Upper Plate Note: These plates are for upper use only and are not compatible with the FCO.
402752.901	ARES-G2, Electro-Rheology, Stainless Steel, 50 mm, Upper Plate Note: These plates are for upper use only and are not compatible with the FCO.
	ARES Interfacial (DWR) Rheology System
402820.901	ARES-G2, Double Wall Ring Interfacial (DWR) Rheology System: includes DWR Pt/Ir Ring Geometry and Delrin Trough, which mounts on the APS Flat Plate. Note: Requires APS Flat Plate (P/N: 402619.901) and APS Jacket (P/N: 402500.901).

#### **ARES Motor Boost Accessory**

404008.901 Motor Boost Accessory for ARES-G2

#### ARES Orthogonal Superposition (OSP) Accessory

402805.901	ARES-G2, OSP Upgrade Kit
402796.901	ARES-G2, APS, Titanium, OSP Slotted Double Gap Bob
402796.902	ARES-G2, APS, Titanium, OSP Slotted Narrow Gap Double Bob
402782.901	ARES-G2, APS, HA AL, 34 mm Dia., OSP Slotted Double Gap Cup
708.01458	ARES Linear Film/Fiber Testing Tool (for use with ARES-G2 and ARES Classic Instruments configured with 2KFRTN transducers)
532069.901	ARES-G2, 3-Point Bending Geometry
532070.901	ARES-G2, Cantilever Bending Geometry

#### ARES-G2 Tribo-Rheometry Accessory

533242.901	Tribo-Rheometry Accessory Base Kit
532078.901	ARES-G2, Tribo-Rheometry Coupling Adapter, Long
532078.902	ARES-G2, Tribo-Rheometry Coupling Adapter, Short
533273.901	Tribo-Rheometry, Single Ball Upper Geometry Holder, Medium
533273.902	Tribo-Rheometry, Single Ball Upper Geometry Holder, Short
533273.903	Tribo-Rheometry, Single Ball Upper Geometry Holder, Long
533283.901	Tribo-Rheometry, Ring on Plate Upper Geometry Holder
533290.901	Tribo-Rheometry, 3 Balls on Plate Upper Geometry Holder
533249.901	Tribo-Rheometry, 5/16" Truncated SST Balls (pkg. of 12)
533250.901	Tribo-Rheometry, 1/2" SST Balls (pkg. of 25)
533284.901	Tribo-Rheometry, Ring Upper Geometry (pkg. of 3)
533274.901	Tribo-Rheometry, Ball on 3 Balls Lower Geometry
533281.901	Tribo-Rheometry, SST Cup 45 mm Lower Geometry
533282.901	Tribo-Rheometry, 3 Plates Lower Geometry
533291.901	Tribo-Rheometry, Ball on 3 Plates SST Test Plates (pkg. of 30)
523400.907	Aluminum, 40 mm Disposable Plate
532079.901	ARES-G2, FCO, Tribo-Rheometry Lower Geometry Holder
500000 001	

532080.901 ARES-G2, APS, Tribo-Rheometry Lower Geometry Holder

#### ARES - CLASSIC ONLY (includes ARES, ARES-LS1, ARES-LS2, ARES-RDA, ARES-RFS, and ARES-HT)

#### **ARES UV-Curing and Photo-Curing Accessories**

403153.001	Upper 20 mm Quartz Plate for ARES UV-Option Note: For use with ARES UV-Curing Option and Photo-Curing Option upper plate fixture.
403171.002	Lower 20 mm Stainless Steel Plate for ARES UV-Option Note: For use with ARES UV-Curing Option and Photo-Curing Option upper quartz plate and fixture.
403064.901	Package of 10 disposable 20 mm diameter acrylic plates for use with ARES UV-Curing Option and Photo-Curing Option upper plate fixture Note: Not for use with standard disposable plate fixture.
403065.901	Package of 10 disposable 20 mm diameter aluminum plates for ARES disposable plate fixture Note: For use with ARES UV-Curing and Photo-Curing Option upper quartz plate and fixture.
200400.001	Replacement 5 mm diameter light guide for ARES and AR UV-Curing and Photo-Curing Options
403170.001	Replacement remote radiometer/dosimeter for ARES UV-Curing Option
708.01442	ARES Optical Parallel Plate for OAM; includes 38.1 mm upper and lower glass parallel plates

#### **ARES FCO Temperature Control Option**

700.03382.6	ARES Classic FCO Liquid Nitrogen Controller Option
403164.901	ARES Classic and RSA III Mechanical Chiller Panel & Interface.
	Note: Requires customer-supplied chiller. This product is built to order.

# **Rubber Testing**

#### **RPA flex Options**

471200.901	Stress Relaxation Option for RPA flex
471200.902	Frequency Sweep Option for RPA flex
471200.903	Strain Sweep and LAOS Option for RPA flex
471200.904	Non-Linearity Measurement Option for RPA flex
471200.905	Advanced Oscillation Option for RPA flex

#### **MV one Options**

473100.901	Variable Rate Option for MV one Mooney Viscometer (0.1 to 10 RPM)
473200.901	Large Mooney MV one Viscometer Rotor (D = 38.1 mm)
473210.901	Small Mooney MV one Viscometer Rotor (D = 30.48 mm)

#### Sample Cutter

474000.901	RPA and MDR Volumetric Sample Cutter
474000.902	Mooney Volumetric Sample Cutter

#### Sample Cutter Options

474050.901	RPA and MDR Volumetric Sample Cutter Die Set
474060.901	Mooney Volumetric Sample Cutter Die Set
474017.001	RPA-MDR Sample Cutter Blade - 34 mm
474018.001	Mooney Sample Cutter Blade - 45 mm

#### Automated Hardness/Density Tester

474100.901	Automated Hardness Tester
474200.901	Automated Density Tester

#### Automated Hardness/Density Tester Options

- 474253.001 20 Sample Magazine
- 474253.002 30 Sample Magazine

#### System Options/Accessories

474300.901	Air Cooling System
474320.901	Torque Standard (TA Instruments Certified Torque Standard for Calibrating RPA and MDR Instruments)
474340.901	Standard Die Seal (pkg. of 10) (for use with MDR instruments only)
474350.901	Long Life Die Seal (pkg. of 10) (for use with RPA and MDR instruments)
474370.901	Mooney Lower Die O-Rings (pkg. of 10) (for use in the MV one Mooney Viscometer)
202889.001	Die/Rotor Cleaning Brush
202890.001	Die/Rotor Metal Cleaning Pick
202891.001	Film Roll - Polyester
202891.002	Film Sheets - Polyester (Qty. 1000 sheets)
202891.003	Film Roll - Polyamide
202928.131	Gloves - High Temperature
202928.100	Fan Filter (pkg. of 5)
470505.901	Autoloader Clamp Bar Pads (includes set of 10 gaskets, wrench, and Allen key)

#### **Scarabeus Software Options**

471201.901	Scarabeus Quality Systems (SQS) Software
202928.183	Five-User SQL Database Workgroup License
202928.184	Six-User Expandable SQL Database Hardware Server License: Note: Requires Hardware Server operating Windows Server version to be provided by the customer.
202928.185	Unlimited User 5GB SQL Database Virtual Server License
202928.186	Ten-User Add-On SQL Database Hardware Server License: Note: Requires SQL Database Hardware Server License (P/N: 202928.184).

#### **RSA-G2** Temperature Options

401892.901	RSA-G2 Forced Convection Oven FCO
401711.901	ARES-G2 and RSA-G2 FCO Camera
402164.901	ARES-G2 and RSA-G2 Chiller Panel Note: Requires Customer to Purchase Polycold PGC 152 Mechanical Chiller directly from Polycold. This product is built to order.
401041.901	ARES-G2 and RSA-G2 FCO LN2 Controller Option
405001.901	ACS-2 Air Chiller System (220-230VAC; 60Hz) Note: Requires ARES-G2 & RSA-G2 FCO Air Chiller Panel (P/N: 404041.901) for operation.
405001.902	ACS-2 Air Chiller System (220-230VAC; 50Hz) Note: Requires ARES-G2 & RSA-G2 FCO Air Chiller Panel (P/N: 404041.901) for operation.
405000.901	ACS-3 Air Chiller System (220-230VAC; 60Hz) Note: Requires ARES-G2 & RSA-G2 FCO Air Chiller Panel (P/N: 404041.901) for operation.
405000.902	ACS-3 Air Chiller System (220-230VAC; 50Hz) Note: Requires ARES-G2 & RSA-G2 FCO Air Chiller Panel (P/N: 404041.901) for operation.
404041.901	ARES-G2 & RSA-G2 FCO Air Chiller Panel (for use with ACS-2 and ACS-3 Air Chiller Systems)
	RSA-G2 and RSA III Geometries

#### RSA-G2 and RSA III Geometries

708.01456	RSA 3-Point Bending Geometry
708.01446	RSA Cantilever Bending Geometry
708.01455	RSA Film/Fiber Geometry
708.01464	RSA Parallel Plate Compression Geometry
708.01466.1	8 mm diameter Plates for RSA Parallel Plate Compression Geometry
708.01466.2	15 mm diameter Plates for RSA Parallel Plate Compression Geometry
708.01466.3	25 mm diameter Plates for RSA Parallel Plate Compression Geometry
708.01461	RSA Shear Sandwich Geometry
708.01465	RSA Contact Lens Geometry Probe and Lens Holder
402198.901	RSA Immersion Geometry and Installation Kit Note: Includes Tension and 15 mm diameter Compression Fixtures. Also includes 10 mm, 15 mm, and 20 mm 3-point bending fixtures. Compatible with the RSA-G2 and the RSA III. Use with the RSA III also requires the RSA III Immersion Tool Installation Kit (P/N: 402724.901), available separately (requires installation by a TA Instruments Serivce Engineer, priced separately).

#### 402724.901 RSA III Immersion Tool Installation Kit Note: Installation kit necessary for updating the RSA III FCO when using the RSA Immersion Geometry (P/N: 402198.901). This kit requires installation by a TA Instruments Service Engineer, priced separately. **Miscellaneous Accessories** 251471.002 DSL Router with 4-Port Switch (for communication between an external controller and Thermal and Rheology instruments) 700.02657.2 ARES, RSA, and TAM Air Dryer 708.01457 Adapters for RSA2 Tools **RSA III Software** 402010.901 Orchestrator Polymer Library **RSA-G2 DETA: Dielectric Thermal Analysis Options** 402551.901 ARES-G2 and RSA-G2 DETA Accessory Kit Note: (LCR Meter not included): Requires two RSA-G2 25 mm DETA Geometries (P/N: 402614.901) and customer-supplied Keysight E4980A LCR Meter (P/N: 613.04946), Keysight E4980AL LCR Meter (P/N: 203330.001), or Keysight 4285A LCR Meter (P/N: 201259.001). 402614.901 RSA-G2 25 mm DETA Geometry: for use with the RSA-G2 DETA option (P/N: 402551.901) 404005.901 RSA-G2, Disposable DETA Geometry: for use with the RSA-G2 DETA option (P/N: 402551.901) 613.04946 Keysight E4980A LCR Meter for ARES-G2 and RSA-G2 DETA: frequency range: 20Hz. to 2MHz.; AC test signal (potential) 0.005 to 20 Volts (115/230VAC; 50/60Hz) 201259.001 Keysight 4285A LCR Meter for ARES-G2 and RSA-G2: frequency range: 75kHz. to 30MHz.; AC test signal (potential) 0.005 to 10 Volts (115/230VAC; 50/60Hz) Keysight E4980AL/120 LCR Meter for ARES-G2, RSA-G2, 203330.001 and DHR DETA: frequency range: 20Hz to 1MHz; AC test signal (potential) 0.001 to 2 Volts (115/230VAC; 50/60Hz)

RSA-G

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# DMA Q800

#### DMA Q800 Accessories

985700.901	DMA-RH (Relative Humidity) Accessory for DMA Q800
991400.902	Gas Cooling Accessory - Auto Tank Fill (for cooling to -150 °C)
984350.901	Air Compressor Accessory (for use with DMA Q800 only)
985011.901	Accessory Kit, DMA Q800 (supplied with the DMA Q800 module)
405001.901	ACS-2 Air Chiller System (220-230VAC; 60Hz) Note: Requires Q800 DMA Air Chiller Panel (P/N: 986300.901) for operation.
405001.902	ACS-2 Air Chiller System (220-230VAC; 50Hz) Note: Requires Q800 DMA Air Chiller Panel (P/N: 986300.901) for operation.
405000.901	ACS-3 Air Chiller System (220-230VAC; 60Hz) Note: Requires Q800 DMA Air Chiller Panel (P/N: 986300.901) for operation.
405000.902	ACS-3 Air Chiller System (220-230VAC; 50Hz) Note: Requires Q800 DMA Air Chiller Panel (P/N: 986300.901) for operation.
986300.901	Q800 DMA Air Chiller Panel (for use with ACS-2 and ACS-3 Air Chiller Systems)
004210 001	

986310.901 Nitrogen Purge Cooler



#### DMA Q800 Clamp Kits

984048.901	8 mm Single/Dual Cantilever Clamp Kit
984047.901	20 mm Single/Dual Cantilever Clamp Kit
984015.901	35 mm Single/Dual Cantilever Clamp Kit (supplied with DMA Q800 module)
984026.901	3-point Bending Clamp Kit (5, 10, and 15 mm lengths)
984014.901	3-point Bending Clamp Kit (20 and 50 mm lengths)
985178.901	Submersion 3-point Bending Kit (5, 10, and 15 mm lengths)
984018.901	Parallel Plate Compression Clamp Kit (includes 15 and 40 mm plates)
984022.901	Penetration Clamp Kit
985016.901	Film/Fiber Tension Clamp Kit
984023.901	Specialty Fiber Tension Clamp Kit
984017.901	Shear Sandwich Clamp Kit
985067.901	Submersion Compression Clamp Kit
985068.901	Submersion Film/Fiber Tension Clamp Kit
985069.901	3-point Bending Clamp Kit (50 mm, low friction)
985070.901	3-point Bending Clamp Kit (20 mm, low friction)
984486.901	Film Cutting Kit
985164.901	Powder Kit (for use with 35 mm Cantilever Clamp Kit P/N: 984015.901)
985018.901	DMA-RH Accessory Clamp Kit for DMA Q800: specifically for use with the DMA-RH accessory - kit includes clamp components for 10 mm 3-pt bending, penetration, and 15 mm compression clamps.

#### DMA Q800 Replacement Parts

259508.000	Brass Tweezers
270962.002	Telescoping Gauge (for 17 mm single cantilever clamps)
985199.901	Control Thermocouple (90 mm length)
985199.902	Sample Thermocouple (130 mm length)
984370.901	Furnace Inlet Ferrule/Spring Kit (pkg. of 5)
270976.002	Filter/Regulator with Auto Drain
270975.001	Filter Replacement, Auto Drain Regulator
985078.001	Dual Cantilever Clamp Screen
985078.002	Film/Fiber Tension Clamp Screen
985052.901	Thermocouple Baffle





# DMA Q800 Calibration and Test Materials

900902.901	Indium Temperature Calibration Sample
900907.901	Zinc Temperature Calibration Sample
984310.901	Indium Wire, Film/Fiber Temperature Calibration (pkg. of 10 pieces, 38 mm length)
980228.902	Glass Support Cloth (0.2 mm thick, 33 m length)
982161.902	ABS Sample (3.18 mm thick, 61 mm length) (pkg. of 5)
982161.903	ABS Sample (3.18 mm thick, 36 mm length) (pkg. of 5)
982165.903	Polycarbonate Sample (1.6 mm thick, 36 mm length) (pkg. of 5)
982165.904	Polycarbonate Sample (0.79 mm thick, 36 mm length) (pkg. of 5)
984309.901	Polyethylene Terephthalate (PET) Film (38 mm length) (pkg. of 10)
984313.901	PET Fiber (910 mm length)
984308.001	DMA Calibration Standard 0.005 inch thick
984308.002	DMA Calibration Standard 0.010 inch thick
984308.003	DMA Calibration Standard 0.020 inch thick
984308.004	DMA Calibration Standard 0.030 inch thick
982166.003	Compliance Sample - Dual Cantilever
982166.004	Compliance Sample - Single Cantilever
984331.901	Film/Fiber Tension Clamp Calibration Kit

# Microcalorimetry - TAM Systems

#### TAM IV/III Thermostat and Calorimeter Accessories

700.02657.2	Air Dryer for ARES, RSA, and TAM
320101	Lifting Tool, Nanocalorimeter
320140	Lifting Tool, Nanocalorimeter, for Heat Seal Ampoule
320601	Lifting Tool, Minicalorimeter
320640	Lifting Tool, Minicalorimeter, for Heat Seal Ampoule
604931.901	Battery Lifting Tool, 20 mL Calorimeter
322001	Lifting Tool, 20 mL Calorimeter
604226.901	Lifting Tool, Macrocalorimeter
604227.901	Macrocalorimeter Battery Lifter
611085.901	Low Temperature Kit for TAM IV

#### TAM Air

	TAM Air Thermostat Accessories
323906	TAM Air, Lifting Tool
311407	TAM Air, Top Lid (pkg. of 1): two lids required for each channel of the TAM Air Thermostat
605111.001	TAM Air Top Lid Plug 100 mL (pkg. of 1)

#### TAM Air Ampoules and Accessories 20 mL

3350-2	TAM Air, Start-Up Kit, 20 mL
334601	Lifting Eyelet for HDPE Plastic Ampoules, 20 mL (pkg. of 1)
3346-5	HDPE Plastic Ampoules, 20 mL, with Screw-Cap (pkg. of 1000) (Temperature range: 5 °C to 50 °C)
3455	TAM Air, Admix Ampoule, 20 mL, without Motor
3456-1	TAM Air, Admix Ampoule, 20 mL, with Motor (115VAC; 50/60Hz)
3456-2	TAM Air, Admix Ampoule, 20 mL, with Motor (230VAC; 50/60Hz)
345630	Stirrer, Disposable, for Admix Ampoule, 20 mL (pkg. of 50)
345622	Syringe, for use with the Admix Ampoule
345623	Injection Needle, for use with the Admix Ampoule

#### TAM Air Ampoules and Accessories 125 mL

605160.901	TAM Air, Start-Up Kit, 125 mL Disposable Glass Ampoule
604579.901	TAM Air, Start-Up Kit, 125 mL Disposable Glass Ampoules for Wet Samples
604580.901	Metal Lid for 125 mL Polished Glass Ampoule
604736.901	Polished Glass Ampoules for Wet Samples, 125 mL (pkg. of 20)
604589.901	O-Ring for Metal Lid for 125 mL Polished Glass Ampoule (pkg. of 2)

#### Static Ampoules 4 mL Calorimeters

2277-301.3	Ampoule, Hastelloy, 4 mL, with Threaded Cap (pkg. of 2)
2277-301	Ampoule, Stainless Steel, 4 mL, with Threaded Cap (pkg. of 2)
2277-302	Ampoules, Glass, Disposable, 3 mL, Start-Up Kit
24.20.0401	Ampoule, Glass, Disposable, 4 mL (pkg. of 485)
2502-11	Ampoule, Glass, 1 mL, with Circlip Cap (pkg. of 1)
2502-12	Ampoule, Hastelloy, 1 mL, with Circlip Cap (pkg. of 1)
2502-10	Ampoule, Stainless Steel, 1 mL, with Circlip Cap (pkg. of 1)
2502-41	Ampoule, Glass, 4 mL, with Circlip Cap (pkg. of 1)
3323	Ampoule, Glass 4 mL with Hastelloy Circlip Cap (pkg. of 1)
2502-42	Ampoule, Hastelloy, 4 mL, with Circlip Cap (pkg. of 1)
3320	Ampoule, Hastelloy, 4 mL, with Thread/O-Ring Cap (pkg. of 1)
2502-40	Ampoule, Stainless Steel, 4 mL, with Circlip Cap (pkg. of 1)
3320-1	Ampoule, Stainless Steel, 4 mL, with Thread/O-Ring Cap (pkg. of 1)
3325	Ampoules, Heat Seal, 5 mL (pkg. of 324)
3330-4	Start-Up Kit, 4 mL (with 12 Eyelets)
3330-3	Start-Up Kit, 4 mL (with 50 Eyelets)
86.33.0400	Aluminum Caps, Sealing Discs, Glass Ampoules, 3 and 4 mL (pkg. of 100)
95.53.1015	Ampoules, Glass, Disposable, 3 mL (pkg. of 100)

#### Consumables and Accessories 4 mL Calorimeters

2421-020	Centering Tool, Disposable Glass Ampoule, 4 mL
202255.001	Decapper Tool (11 mm): a decapping tool for the 3 and 4 mL disposable glass ampoules (P/N: 95.53.1015) and P/N: 24.20.0401) used in the TAM
2422-000	Cap Adjustment Tool
2421-032	Hygrostat, Micro, 0.2 mL (pkg. of 100)
2421-033	Hygrostat, Micro, 0.3 mL (pkg. of 100)
2252-460	Lifting Eyelet, Ampoule, 1 mL
2421-060	Lifting Eyelet, Ampoules, Glass, 3 mL
2421-010	Lifting Eyelet, Ampoules, Glass, 4 and 20 mL
2250-420	Ampoule Seal, PTFE, 1 and 4 mL (pkg. of 5)
2277-305	Seal Discs, PTFE, 4 mL, Threaded Cap (pkg. of 100)
3339	Cap, Crimping Tool, Ampoules, 3 and 4 mL
2277-315	Clamping Tool with Safety Lock
604877.901	Circlip Ampoule Lid Complete, 4 mL
84.25.1201	Circlip, 12 mm (pkg. of 1) (for Circlip Ampoule)
84.39.1001.1	O-Ring, 10.4 x 1.0 mm Nitrile (pkg. of 1) (for Circlip Ampoule)
84.39.1001.2	O-Ring, 10.4 x 1.0 mm EPDM (pkg. of 1) (for Circlip Ampoule)
84.39.1001.3	O-Ring, 10.4 x 1.0 mm Viton (pkg. of 1) (for Circlip Ampoule)
84.39.1001.4	O-Ring, 10.4 x 1.0 mm Kalrez (pkg. of 1) (for Circlip Ampoule)
2277-307	Steel Ampoule Key: a locking tool to facilitate the sealing of 4 mL threaded cap ampoules (P/N: 2277-301 and P/N: 2277-301.3)

#### Static Ampoules 20 mL Calorimeters

2602-21	Ampoule, Glass, 20 mL, with Circlip Cap (pkg. of 1)
24.60.2001	Ampoule, Glass, Disposable, 20 mL (pkg. of 113)
3343	Ampoule, Glass/Hastelloy, 20 mL, with Hastelloy Circlip Cap (pkg. of 1)
2602-22	Ampoule, Hastelloy, 20 mL, with Circlip Cap (pkg. of 1)
2277-309	Ampoule, Stainless Steel, 20 mL, with Threaded Cap (pkg. of 1)
3340-1	Ampoule, Stainless Steel, 20 mL, with Threaded O-ring Cap
2602-20	Ampoule, Stainless Steel, 20 mL, with Circlip Cap (pkg. of 1)
2606-21	Start-Up Kit, Disposable Glass Ampoules, 20 mL
86.33.2000	Aluminum Caps, Sealing Discs, Glass Ampoules, 20 mL (pkg. of 100)

#### **Consumables and Accessories 20 mL Calorimeters** 2461-020 Centering Tool, Disposable Glass Ampoule, 20 mL 202255.002 Decapper Tool (20 mm): a decapping tool for the 20 mL disposable glass ampoules (P/N: 24.26.2001) used in the TAM and the TAM Air 2254-420 Ampoule Seal, PTFE, 20 mL (pkg. of 5) 2277-312 PTFE Seal Discs, Threaded Cap, 20 mL (pkg. of 50) 2277-315 Clamping Tool with Safety Lock 2421-010 Lifting Eyelet, Glass Ampoules, 4 and 20 mL 2462-000 Cap Crimping Tool, Glass Ampoules, 20 mL 604878.901 Circlip Ampoule Lid Complete, 20 mL 84.25.2501 Circlip, 25 mm (pkg. of 1) (for Circlip Ampoule) 84.39.2201.1 O-Ring, 22.1 x 1.6 mm Nitrile (pkg. of 1) (for Circlip Ampoule) 84.39.2201.2 O-Ring, 22.1 x 1.6 mm EPDM (pkg. of 1) (for Circlip Ampoule) 84.39.2201.3 O-Ring, 22.1 x 1.6 mm Viton (pkg. of 1) (for Circlip Ampoule)

#### 84.39.2201.4 O-Ring, 22.1 x 1.6 mm Kalrez (pkg. of 1) (for Circlip Ampoule)

#### Ampoules, Consumables, and Accessories Macrocalorimeter

604328.901	Start-Up Kit Glass Ampoule for the Macrocalorimeter
604334.901	125 mL Glass Ampoule (pkg. of 20)
604331.901	Lifting Hook for 125 mL Glass Ampoule (pkg. of 1): for use with the Glass Ampoule, 125 mL (P/N: 604334.901)
604329.901	Macrocalorimeter, 18650 Battery Adapter Kit
604353.901	C-Cell Battery Adapter Kit
604352.901	D-Cell Battery Adapter Kit
604562.901	125 mL Stainless Steel Ampoule
604584.001	Circlip Plier for 125 mL Stainless Steel Ampoule
604565.001	Viton O-Ring for 125 mL Stainless Steel Ampoule (pkg. of 1)
604563.001	Circlip Ring for 125 mL Stainless Steel Ampoule (pkg. of 1)
604580.901	Metal Lid for 125 mL Polished Glass Ampoule
604736.901	125 mL Polished Glass Ampoules for Wet Samples (pkg. of 20)
604589.901	O-Ring for Metal Lid for 125 mL Polished Glass Ampoule (pkg. of 2)

604951.901 Battery Ampoule, Stainless Steel, 20 mL, Circlip

# Ampoules and Consumables Solution Calorimeter

Reaction Vessel, Glass, 25 mL, with Bridge Plugs Reaction Vessel, Glass, 100 mL, with Bridge Plugs Titration Vessel, Glass, 25 mL, with Bridge Plugs
Titration Vessel Glass 25 mL with Bridge Plugs
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Titration Vessel, Glass, 100 mL, with Bridge Plugs
Bridge Plug, Temperature XX °C (XX = desired isothermal temperature (15 °C up to 80 °C), specify when ordering) (example part number for 15 °C: 22.25.1615)
Crushing Ampoules, 1 mL, with Stopper (pkg. of 50)
Crushing Ampoules, 1 mL, Heat Seal with Filling Tube 2 mm
Stirrer, 18 K Gold, 25 mL
Stirrer, 18 K Gold, 100 mL
O-Ring for SolCal in Kalrez

# Consumables and Accessories 1 mL/4 mL Micro Reaction Systems

22.50.1200	Shaft, Complete, Perfusion, 1 and 4 mL
22.50.1200.3	Shaft, Complete, Perfusion, Hastelloy, 1 and 4 mL
22.50.1230.1	Shaft, Lower, Perfusion, 18K Gold, 4 mL
604056.901	Shaft, Complete, Stainless Steel, Titration, 1 mL Titration Ampoule (P/N: 3410-1)
604061.901	Shaft, Complete, Hastelloy, for 1 mL Titration Ampoule (P/N: 3410)
611177.901	Shaft, Complete, Titration, 18K Gold, 1 mL, Titration Ampoule (P/N: 3410-1)
22.51.1200	Shaft, Complete, Titration, 1 and 4 mL
22.51.1200.1	Shaft, Complete, Titration, 18K Gold, 1 and 4 mL
22.51.1200.3	Shaft, Complete, Titration, Hastelloy, 1 and 4 mL
22.51.1230.1	Shaft, Lower, Titration, 18K Gold, 4 mL
2250-420	Ampoule Seal, PTFE, 1 and 4 mL (pkg. of 5)
2250-452	Reaction Vessel, Glass, 4 mL
2250-453	Reaction Vessel, Hastelloy, 4 mL
2250-450	Reaction Vessel, Stainless Steel, 4 mL
2250-500	Stirrer, Turbine, Kel-F, 4 mL

2250-502	Stirrer, Turbine, Kel-F with 18K Gold Shaft, 4 mL
2250-503	Stirrer, Turbine, Hastelloy, 4 mL
2250-501	Stirrer, Turbine, Stainless Steel, 4 mL
2250-510	Stirrer, Paddle, 18K Gold, 4 mL
2250-520	Propeller, 18K Gold, 4 mL
604295.901	Secondary Propeller, Gold, 4 mL (for use with P/N: 2250-520 Propeller, 18K Gold, 4 mL)
604425.901	Stirrer, Double Propeller, Gold, 4 mL
2250-990	Kalrez Kit, Ampoule, Perfusion, 1 and 4 mL
2250-991	Kalrez Kit, Ampoule, Titration, 1 and 4 mL
2252-452	Reaction Vessel, Glass, 1 mL
2252-453	Reaction Vessel, Hastelloy, 1 mL
2252-450	Reaction Vessel, Stainless Steel, 1 mL
2252-511	Stirrer, Propeller, 18K Gold, 1 mL
340151	Propeller, Hastelloy, 1 mL
2252-530	Stirrer, Turbine, Kel-F, 1 mL
2255-990	Kalrez Kit, Ampoule, RH Perfusion, 1 and 4 mL
2255-991	Kalrez Kit, Ampoule, RH Perfusion/Titration, 1 and 4 mL
3520	Stirrer Holder for Glass Plates (with pkg. of 10 Glass Plates)
2256-510	Cell Culture Glasses (pkg. of 10)
2256-520	Matrix Cartridge
84.25.1201	Circlip, 12 mm (pkg. of 1) (for Circlip Ampoule)
84.39.1001.1	O-Ring, 10.4 x 1.0 mm Nitrile (pkg. of 1) (for Circlip Ampoule)
84.39.1001.2	O-Ring, 10.4 x 1.0 mm EDPM (pkg. of 1) (for Circlip Ampoule)
84.39.1001.3	O-Ring, 10.4 x 1.0 mm Viton (pkg. of 1) (for Circlip Ampoule)
84.39.1001.4	O-Ring, 10.4 x 1.0 mm Kalrez (pkg. of 1) (for Circlip Ampoule)
22.50.6000	Rubber Stopper for Titration Ampoule
604769.901	Cannula, Disposable (0.8 x 80 mm)
604771.901	MRS Reaction Vessel Circlip Plier
22.50.0500	Perfusion Tubing Complete
22.55.2110	Blind Plug RH Perfusion Ampoule (pkg. of 1)
605240.901	Gas Perfusion Insert
2251-990	Titration Preparation Kit

#### Consumables and Accessories 20 mL Micro Reaction Systems

22.54.1230.1	Shaft, Lower, Perfusion, 18K Gold, 20 mL
22.54.1231.1	Shaft, Lower, Titration, 18K Gold, 20 mL
22.64.1200	Shaft, Complete, Perfusion, 20 mL
22.64.1200.3	Shaft, Complete, Perfusion, Hastelloy, 20 mL
22.64.1201	Shaft, Complete, Titration, 20 mL
22.64.1201.3	Shaft, Complete, Titration, Hastelloy, 20 mL
345600.12	Shaft, Complete, Micro Solution Ampoule, TAM III & TAM IV
2254-420	Ampoule Seal, PTFE, 20 mL (pkg. of 5)
2254-452	Reaction Vessel, Glass, 20 mL
334305	Reaction Vessel, Glass/Hastelloy, 20 mL
2254-453	Reaction Vessel, Hastelloy, 20 mL
2254-450	Reaction Vessel, Stainless Steel, 20 mL
2265-650	Stirrer, Stainless Steel Turbine/Gold Propeller (used with 20 mL Microsolution Ampoule)
2254-503	Stirrer, Turbine, Hastelloy, 20 mL
2254-500	Stirrer, Turbine, PEEK, 20 mL
2254-510	Stirrer, Paddle, 18K Gold, 20 mL
2254-511	Stirrer, Paddle, Stainless Steel, 20 mL
2264-990	Kalrez Kit, Perfusion Ampoule, 20 mL
2264-991	Kalrez Kit, Titration Ampoule, 20 mL
2265-621	Sample Cartridge, 20 µL, Channel 1
2265-622	Sample Cartridge, 20 µL, Channel 2
2265-623	Sample Cartridge, 20 µL, Channel 3
2265-641	Sample Cartridge, 40 µL, Channel 1
2265-642	Sample Cartridge, 40 µL, Channel 2
2265-643	Sample Cartridge, 40 µL, Channel 3
22.65.9011	Loading Tube, Cartridge, 20 µL
22.65.9010	Loading Tube, Cartridge, 40 µL
22.65.9000	Loading Tool
2269-990	Kalrez Kit, Ampoule, RH Perfusion, 20 mL
2269-991	Kalrez Kit, Ampoule, RH Perfusion/Titration, 20 mL

84.25.2501	Circlip 25 mm (pkg. of 1) (for Circlip Ampoule)
84.33.0503	Blind Plug (pkg. of 1)
22.55.2110	Blind Plug RH Perfusion Ampoule (pkg. of 1)
84.39.2201.1	O-Ring, 22.1 x 1.6 mm Nitrile (pkg. of 1) (for Circlip Ampoule)
84.39.2201.2	O-Ring, 22.1 x 1.6 mm EPDM (pkg. of 1) (for Circlip Ampoule)
84.39.2201.3	O-Ring, 22.1 x 1.6 mm Viton (pkg. of 1) (for Circlip Ampoule)
84.39.2201.4	O-Ring, 22.1 x 1.6 mm Kalrez (pkg. of 1) (for Criclip Ampoule)
84.39.0111.4	O-Ring, 1.15 x 1.0 mm Kalrez (pkg. of 1)
22.50.0500	Perfusion Tubing Complete
2251-990	Titration Preparation Kit

#### Micro Reaction Pressure Systems

322820	Evacuation Station
322821	Extension Cable for use with the 4 mL or 20 mL Vacuum/Pressure Ampoules
3348-1	Ampoule, High Pressure, 20 mL (designed to hold pressures up to 10 bar)
334804	Sintered Filters, 20 µM, used with 4 mL and 20 mL Vacuum/Pressure Ampoules

# TAM IV/III Auxiliary Equipment

6310-001	Power Supply, Single Channel (115VAC; 60Hz)
6310-002	Power Supply, Single Channel (230VAC; 50/60Hz)
6311-001	Stirrer Power Supply (1.5 to 12 VDC, USA)
6311-002	Stirrer Power Supply (5 to 12 VDC, EURO)
604202.001	Digital Block Heater 110V (accepts the 4 mL, 20 mL, and 100 mL Block Inserts)
604201.001	Digital Block Heater 220V (accepts the 4 mL, 20 mL, and 100 mL Block Inserts)
604187.001	Block Insert, 4 mL (used with Digital Block Heater 110VAC (P/N: 604202.001) or Digital Block Heater 220VAC (P/N: 604201.001))
604203.001	Block Insert, 20 mL (used with Digital Block Heater 110VAC (P/N: 604202.001) or Digital Block Heater 220VAC (P/N: 604201.001))
604939.901	Block Insert, 100 mL

# Auxiliary Equipment Consumables and Accessories

6140-009	Syringe, 100 µL with Cannula, 18K Gold (for use in the precision syringe pump purchased before 2006)
6140-008	Syringe, 100 µL with Cannula, Stainless Steel (for use in the precision syringe pump purchased before 2006)
6140-011	Syringe, 250 µL with Cannula, 18K Gold (for use in the precision syringe pump purchased before 2006)
6140-010	Syringe, 250 µL with Cannula, Stainless Steel (for use in the precision syringe pump purchased before 2006)
6140-013	Syringe, 500 µL with Cannula, 18K Gold (for use in the precision syringe pump purchased before 2006)
6140-012	Syringe, 500 µL with Cannula, Stainless Steel (for use in the precision syringe pump purchased before 2006)
6140-015	Syringe, 1 mL with Cannula, 18K Gold (for use in the precision syringe pump purchased before 2006)

6140-014	Syringe, 1 mL with Cannula, Stainless Steel (for use in the precision syringe pump purchased before 2006)
604650.001	Syringe, 1 mL with Removable Needle
6140-017	Syringe, 2.5 mL with Cannula, 18K Gold
6140-016	Syringe, 2.5 mL with Cannula, Stainless Steel
604647.001	Syringe 100 µL with Removable Needle
604648.001	Syringe 250 µL with Removable Needle
604649.001	Syringe 500 µL with Removable Needle
604768.901	Cannula for Removable Syringes in Gold
604767.901	Cannula for Removable Syringes in Stainless Steel
604997.901	Cannula for Removable Syringes in Stainless Steel 24 GA
6141-044	Tubing for Peristaltic Pump (pkg. of 6)







125 mL Stainless Steel



# Microcalorimetry - Nano Systems

### Nano DSC System

	Nano DSC System Accessories and Consumables
602000.921	Nano DSC Capillary Cell Accessory Kit
6300-11	Nano DSC Cylindrical Cell Accessory Kit
602198.901	Nano Diffenential Scanning Calorimeter (Nano DSC) Test Kit (contains water sample, glycine sample buffer, and lysozyme sample)
6326	Complete Degassing Station (110/230VAC; 50/60Hz)
601800.901	Cell Cleaning Station
601829.901	Cleaning Station Accessory Kit
99552110	Clear Plastic Vacuum Dome (for Complete Degassing Station (P/N: 6326))
603028	Vacuum Connection Hose Assembly (for Complete Degassing Station (P/N: 6326))
603050.901	96-well Plate Adapter for Degassing Station
6111	Vinyl Caps (pkg. of 20) (for Capillary Cell) (recommended capillary cell consumable spare)
6312	Pressure Cap O-Ring (pkg. of 2) (recommended capillary cell consumable spare)
6313	Pressure Cap
6114	Tubing, Monosil, 2 feet (pkg. of 2) (recommended capillary cell consumable spare)
6115	Micropipetter (500 - 2500 µL) for Capillary Cell
6116	Pipetter Tips, used with Micropipetter (500 - 2500 μL) (P/N: 6115) (pkg. of 100)
6317	Cylindrical Cell Cleaning Tool
6118	O-Ring for Cylindrical Cell Cleaning Tool (pkg. of 4) (recommended cylindrical cell consumable spare)
6119	Syringe, 1 mL (for Cylindrical Cell) (recommended cylindrical cell consumable spare)
6120	Syringe Needle (5 inch) (for Cylindrical Cell) (recommended cylindrical cell consumable spare)
602035.001	AutoSampler Cable External (for connection of the Nano DSC AutoSampler Interface to the Nano DSC Instrument)

602214.901	AutoSampler Cable External (for connection of the Nano DSC AutoSampler Interface (P/N: 602216.901) to the Nano DSC Instrument (P/N: 602000.901))
602067.901	AutoSampler Solvent Inlet Assembly (pkg. of 5)
602068.901	AutoSampler Waste Line Assembly (pkg. of 2)
602069.901	AutoSampler Interface Tubing Assembly (pkg. of 1)
602071.001	96 Deep Well Plate (sample volume = 1.64 mL) (pkg. of 1) (for use with the Nano DSC AutoSampler)
602072.001	Sealing Mat 96 Well (pkg. of 1) (for use with the Nano DSC AutoSampler)
99555610	Cable, USB, 6 Ft. (pkg. of 1) (used to connect the Nano DSC AutoSampler to the computer)

# Affinity ITC System

# Affinity ITC System - Accessories and Consumables

601800.901	Cell Cleaning Station
601829.901	Cleaning Station Accessory Kit
601700.901	Affinity ITC Auto 96-Well Plate (1.64 mL) (pkg of 10)
601701.901	Affinity ITC Auto 96-Well Plate (2.0 mL) (pkg of 10)
601740.901	Affinity ITC LV Accessory Kit
601751.901	Affinity ITC SV Accessory Kit
601753.901	Affinity ITC Injection Syringe Assembly (250 µL)
601756.901	Affinity ITC LV Injection Cannula
601757.901	Affinity ITC SV Injection Cannula
601675.901	Affinity ITC LV Stirring Paddle Assembly
601676.901	Affinity ITC SV Stirring Paddle Assembly
601758.901	Affinity ITC Sample Load Adapter
601759.901	Affinity ITC Titrant Handling Needle
601760.901	Affinity ITC Auto LV Cell Fill/Wash Needle
601761.901	Affinity ITC Auto SV Cell Fill/Wash Needle
601762.901	Affinity ITC Autosampler Sample Loop
601763.901	Affinity ITC Sample Transfer Line Kit

	Nano ITC System Accessories and Consumables	
921	Nano ITC Low Volume Accessory Kit	

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601000.921	Nano ITC Low Volume Accessory Kit
601001.921	Nano ITC Standard Volume Accessory Kit
601863.901	Nano & Affinity ITC Test Kit: contains DDI H2O, Ca2+ and EDTA in 10 mM MES buffer, pH 6.0.
99552090	Teflon-Coated Stir Rod for 1 mL Conical Vials
99552100	Teflon-Coated Round Stir Rod (3 mm x 6.35 mm)
99552102	Teflon-Coated Round Stir Rod (8 mm x 25 mm)
73714210	Vacuum Flask, Side Arm, 1000 mL
4801	1L Side-Arm Vacuum Flask Accessory (Glass)
5312	O-Ring for Nano ITC Titration Buret (pkg. of 2)
5317	Stainless Steel Cleaning Tool (for the Nano ITC Standard Volume (1 mL) Instrument)
601028.901	Stainless Steel Cleaning Tool (for the Nano ITC Low Volume (190 µL) Instrument)
5319	Vacuum Cup Replacement for Cleaning Tool for Titration Cell (P/N: 5317)
5342	Cell Filling Syringe for Nano ITC Standard Volume Instrument (recommended consumable spares)
5343	Filling Syringe Needle for Nano ITC Standard Volume (pkg. of 3) (recommended consumable spares)
5344	Titration Syringe with Needle (100 µL) (recommended spare for the Nano Standard Volume (1 mL) instrument.)
	Note: Not for use with the Nano ITC Low Volume (190 µL) instrument.
5345	Titration Syringe with Needle (250 µL) (recommended spare for the Nano Standard Volume (1 mL) instrument.)
	Note: Not for use with the Nano ITC Low Volume (190 $\mu$ L) instrument.
305155610	Dummy ITC Needle (for use in the reference cell of the Nano ITC Standard Volume (1 mL) instrument)
601029.901	Dummy ITC Needle (for use in the reference cell of the Nano ITC Low Volume (190 $\mu L)$ instrument)
5346	Titration Syringe with Needle (50 μL) (recommended spare for Nano ITC Low Volume (190 μL) instrument.)

<ul> <li>5347 Cell Filling Syringe with Needle (0.5 mL) (recommended spare for the Nano ITC Low Volume (190 μL) instrument.) Note: Not recommended for use with the Nano ITC Standard Volume (1 mL) instrument.</li> <li>5348 Cell Filling Syringe (0.5 mL) (recommended spare for the Nano ITC Low Volume (190 μL) instrument.)</li> <li>5349 Filling Syringe Needle (pkg. of 3) (recommended spare for the Nano ITC Low Volume (190 μL) instrument.) Note: Not recommended for the Nano ITC Standard Volume (1 mL) instrument.</li> <li>601169.901 Nano ITC Standard Buret Handle . Note: Not for use with organic solvents</li> <li>601220.901 Nano ITC Organic Solvent Buret Handle Note: For use with the Nano ITC when using organic solvents.</li> <li>601234.901 Nano ITC Buret and Syringe Stand Kit</li> <li>601277.001 Titration Syringe Plunger, 50 μL</li> <li>601278.001 Titration Syringe Plunger, 250 μL</li> <li>601274.901 Titration Syringe with Needle, 50 μL (Organic Solvent Compatible)</li> <li>601276.901 Titration Syringe with Needle, 250 μL (Organic Solvent Compatible)</li> </ul>		
<ul> <li>Nano ITC Low Volume (190 µL) instrument.)</li> <li>5349</li> <li>Filling Syringe Needle (pkg. of 3) (recommended spare for the Nano ITC Low Volume (190 µL) instrument.)</li> <li>Note: Not recommended for the Nano ITC Standard Volume (1 mL) instrument.</li> <li>601169.901</li> <li>Nano ITC Standard Buret Handle .</li> <li>Note: Not for use with organic solvents</li> <li>601220.901</li> <li>Nano ITC Organic Solvent Buret Handle</li> <li>Note: For use with the Nano ITC when using organic solvents.</li> <li>601234.901</li> <li>Nano ITC Buret and Syringe Stand Kit</li> <li>601221.001</li> <li>Nano ITC Buret O-Rings (Kalrez) (pkg. of 1)</li> <li>601277.001</li> <li>Titration Syringe Plunger, 50 µL</li> <li>601279.001</li> <li>Titration Syringe Plunger, 250 µL</li> <li>601274.901</li> <li>Titration Syringe with Needle, 50 µL (Organic Solvent Compatible)</li> <li>601275.901</li> <li>Titration Syringe with Needle, 100 µL (Organic Solvent Compatible)</li> </ul>	5347	(recommended spare for the Nano ITC Low Volume (190 µL) instrument.) Note: Not recommended for use with the Nano ITC Standard Volume
<ul> <li>Nano ITC Low Volume (190 µL) instrument.) Note: Not recommended for the Nano ITC Standard Volume (1 mL) instrument.</li> <li>601169.901 Nano ITC Standard Buret Handle . Note: Not for use with organic solvents</li> <li>601220.901 Nano ITC Organic Solvent Buret Handle Note: For use with the Nano ITC when using organic solvents.</li> <li>601234.901 Nano ITC Buret and Syringe Stand Kit</li> <li>601221.001 Nano ITC Buret O-Rings (Kalrez) (pkg. of 1)</li> <li>601277.001 Titration Syringe Plunger, 50 µL</li> <li>601279.001 Titration Syringe Plunger, 250 µL</li> <li>601274.901 Titration Syringe with Needle, 50 µL (Organic Solvent Compatible)</li> <li>601275.901 Titration Syringe with Needle, 100 µL (Organic Solvent Compatible)</li> </ul>	5348	
Note: Not for use with organic solvents601220.901Nano ITC Organic Solvent Buret Handle Note: For use with the Nano ITC when using organic solvents.601234.901Nano ITC Buret and Syringe Stand Kit601221.001Nano ITC Buret O-Rings (Kalrez) (pkg. of 1)601277.001Titration Syringe Plunger, 50 µL601278.001Titration Syringe Plunger, 100 µL601279.001Titration Syringe Plunger, 250 µL601274.901Titration Syringe with Needle, 50 µL (Organic Solvent Compatible)601275.901Titration Syringe with Needle, 100 µL (Organic Solvent Compatible)	5349	Nano ITC Low Volume (190 µL) instrument.) Note: Not recommended for the Nano ITC Standard Volume (1 mL)
Note: For use with the Nano ITC when using organic solvents.601234.901Nano ITC Buret and Syringe Stand Kit601221.001Nano ITC Buret O-Rings (Kalrez) (pkg. of 1)601277.001Titration Syringe Plunger, 50 µL601278.001Titration Syringe Plunger, 100 µL601279.001Titration Syringe Plunger, 250 µL601274.901Titration Syringe with Needle, 50 µL (Organic Solvent Compatible)601275.901Titration Syringe with Needle, 100 µL (Organic Solvent Compatible)	601169.901	
<ul> <li>601221.001 Nano ITC Buret O-Rings (Kalrez) (pkg. of 1)</li> <li>601277.001 Titration Syringe Plunger, 50 μL</li> <li>601278.001 Titration Syringe Plunger, 100 μL</li> <li>601279.001 Titration Syringe Plunger, 250 μL</li> <li>601274.901 Titration Syringe with Needle, 50 μL (Organic Solvent Compatible)</li> <li>601275.901 Titration Syringe with Needle, 100 μL (Organic Solvent Compatible)</li> </ul>	601220.901	5
<ul> <li>601277.001 Titration Syringe Plunger, 50 μL</li> <li>601278.001 Titration Syringe Plunger, 100 μL</li> <li>601279.001 Titration Syringe Plunger, 250 μL</li> <li>601274.901 Titration Syringe with Needle, 50 μL (Organic Solvent Compatible)</li> <li>601275.901 Titration Syringe with Needle, 100 μL (Organic Solvent Compatible)</li> </ul>	601234.901	Nano ITC Buret and Syringe Stand Kit
<ul> <li>601278.001 Titration Syringe Plunger, 100 μL</li> <li>601279.001 Titration Syringe Plunger, 250 μL</li> <li>601274.901 Titration Syringe with Needle, 50 μL (Organic Solvent Compatible)</li> <li>601275.901 Titration Syringe with Needle, 100 μL (Organic Solvent Compatible)</li> </ul>	601221.001	Nano ITC Buret O-Rings (Kalrez) (pkg. of 1)
601279.001Titration Syringe Plunger, 250 μL601274.901Titration Syringe with Needle, 50 μL (Organic Solvent Compatible)601275.901Titration Syringe with Needle, 100 μL (Organic Solvent Compatible)	601277.001	Titration Syringe Plunger, 50 µL
601274.901Titration Syringe with Needle, 50 μL (Organic Solvent Compatible)601275.901Titration Syringe with Needle, 100 μL (Organic Solvent Compatible)	601278.001	Titration Syringe Plunger, 100 µL
601275.901 Titration Syringe with Needle, 100 μL (Organic Solvent Compatible)	601279.001	Titration Syringe Plunger, 250 µL
	601274.901	Titration Syringe with Needle, 50 µL (Organic Solvent Compatible)
601276.901 Titration Syringe with Needle, 250 μL (Organic Solvent Compatible)	601275.901	Titration Syringe with Needle, 100 µL (Organic Solvent Compatible)
	601276.901	Titration Syringe with Needle, 250 $\mu L$ (Organic Solvent Compatible)

# Multi-Cell DSC System Accessories and Components

600072.901	MC DSC Accessory Kit
600088.901	MC DSC Gas Flow Meter (for use with MC DSC P/N: 600000.901)
600086.001	MC DSC Gas Flow Meter Stand (only for use with MC DSC Gas Flow Meter P/N: 600088.901)
4129	Gas Regulator (0 to 4000 psi/0 to 15 psi) Note: North American use ONLY
4130	Second User Ampoule Kit (pkg. of 4)
4171	High Pressure Ampoule Kit for MC DSC (pkg. of 4)
4175	Batch Mixing Ampoule Kit (pkg. of 3)
4176	Probe Accessible Cells (pkg. of 4)
200266.001	RCS Gas Dryer Note: Also for use with the Multi-Cell DSC System

#### Thermophysical Parts and Accessories (DXF, DLF, DTC, and DHD Instruments)

# Xenon and Laser Flash Parts and Accessories (DXF and DLF)

201786.001	Flash Diffusivity Circulator Model 10-300 for 500 °C - 1600 °C Furnaces
202315.001	Vacuum Module for DXF-500/900 & DLF-1200/1600 (includes vacuum pump, thermocouple, and gauge)
853024.901	In-Plane Test Kit for DXF-200 for thermal diffusivity determination in the X-Y plane (includes analysis software)
853107.901	In-Plane Test Kit, 25.4 mm OD, for use with DXF-500/900 & DLF-1200
202316.001	Graphite Spray Paint (10 oz. can) for DXF/DLF Sample Preparation
202417.001	Graphite Brush-on Paint
853161.901	Silver Paint (1 oz. Vial) for DXF-200 Sample Preparation
202419.001	Laser Coolant (1 Liter Bottle) for DLF-2 Laser Module Note: NOT for use with the DLF-1600.
853103.901	Carousel Assembly, Graphite (for FL5000 and old EM-2800)
853127.901	Carousel Assembly, Graphite, 6-Position, 12.7 mm (for FL5000/Old EM-2800)
853126.001	Carousel Assembly, Alumina, 4-Position, 16 mm (for FL-4010/Old EM-1600)
856305.901	Carousel Assembly, Alumina, 6-Position, 12.7 mm (for FL-4010/Old EM-1600)
853771.901	Liquid Cell, Aluminum (1.0" OD) for DXF-200 (Previously DXF & EM-200) Note: NOT for use with DXF-500 or DXF-900 models.
853133.901	Melt Capsule, Molybdeum, 16 mm OD (for FL-4010)

# Xenon and Laser Flash - Reference Materials

#### **Alumina Reference Materials**

853155.001	Alumina Reference 8 mm Square x 3.175 mm Thick
853156.001	Alumina Reference (with data) 10 mm Square x 3.175 mm Thick
853154.001	Alumina Reference (with data) 12.7 mm OD x 3.175 mm Thick

# Thermophysical

#### **Vespel Reference Materials**

853809.901	Vespel Reference (with data) 8 mm Square x 1.27 mm Thick
853810.901	Vespel Reference (with data) 10 mm Square x 1.27 mm Thick
853811.901	Vespel Reference (with data) 12.7 mm Square x 1.27 mm Thick
853813.901	Vespel Reference (with data) 8 mm OD x 1.27 mm Thick
853814.901	Vespel Reference (with data) 10 mm OD x 1.27 mm Thick
853152.901	Vespel Reference (with data) 12.7 mm OD x 1.27 mm Thick
853812.901	Vespel Reference (with data) 25.4 mm OD x 1.27 mm Thick

#### **Electrolytic Iron Reference Materials**

853815.901	Electrolytic Iron Reference (with data) 8 mm Square x 2.54 mm Thick
853816.901	Electrolytic Iron Reference (with data) 10 mm Square x 2.54 mm Thick
853817.901	Electrolytic Iron Reference (with data) 12.7 mm Square x 2.54 mm Thick
853818.901	Electrolytic Iron Reference (with data) 8 mm OD x 2.54 mm Thick
853819.901	Electrolytic Iron Reference (with data) 10 mm OD x 2.54 mm Thick
853145.901	Electrolytic Iron Reference (with data) 12.7 mm OD x 2.54 mm Thick
853146.901	Electrolytic Iron Reference (with data) 25.4 mm OD x 2.54 mm Thick
	OFHC Copper Reference Materials

853820.901	OFHC Copper Reference (with data) 8 mm Square x 5.08 mm Thick
853821.901	OFHC Copper Reference (with data) 10 mm Square x 5.08 mm Thick
853822.901	OFHC Copper Reference (with data) 12.7 mm Square x 5.08 mm Thick
853824.901	OFHC Copper Reference (with data) 8 mm OD x 5.08 mm Thick
853825.901	OFHC Copper Reference (with data) 10 mm OD x 5.08 mm Thick
853147.901	OFHC Copper Reference (with data) 12.7 mm OD x 5.08 mm Thick
853823.901	OFHC Copper Reference (with data) 25.4 mm OD x 5.08 mm Thick

# Molybdenum Reference Materials

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853826.901	Molybdenum Reference (with data) 8 mm Square x 3.175 mm Thick
853827.901	Molybdenum Reference (with data) 10 mm Square x 3.175 mm Thick
853828.901	Molybdenum Reference (with data) 12.7 mm Square x 3.175 mm Thick
853830.901	Molybdenum Reference (with data) 8 mm OD x 3.175 mm Thick
853831.901	Molybdenum Reference (with data) 10 mm OD x 3.175 mm Thick
853157.901	Molybdenum Reference (with data) 12.7 mm OD x 3.175 mm Thick
853829.901	Molybdenum Reference (with data) 25.4 mm OD x 3.175 mm Thick
	Stainless Steel Reference Materials
853832.901	Stainless Steel Reference (with data) 8 mm Square x 1.58 mm Thick
853833.901	Stainless Steel Reference (with data) 10 mm Square x 1.58 mm Thick
853834.901	Stainless Steel Reference (with data) 12.7 mm Square x 1.58 mm Thick
853835.901	Stainless Steel Reference (with data) 8 mm OD x 1.58 mm Thick
853836.901	Stainless Steel Reference (with data) 10 mm OD x 1.58 mm Thick
853143.901	Stainless Steel Reference (with data) 12.7 mm OD x 1.58 mm Thick
952144 001	Staiplass Staal Deference (with data) 25.4 mm OD v 1.58 mm Thick

853144.901 Stainless Steel Reference (with data) 25.4 mm OD x 1.58 mm Thick

#### Thermographite Reference Materials

853805.901	Thermographite Reference (with data) 8 mm Square x 3.175 mm Thick
853137.901	Thermographite Reference (with data) 10 mm Square x 3.175 mm Thick
853139.901	Thermographite Reference (with data) 12.7 mm Square x 3.175 mm Thick
853837.901	Thermographite Reference (with data) 8 mm OD x 3.175 Thick
853136.901	Thermographite Reference (with data) 10 mm OD x 3.175 mm Thick
853135.901	Thermographite Reference (with data) 12.7 mm OD, 3.175 mm Thick
853142.901	Thermographite Reference (with data) 25.4 mm OD x 3.175 mm Thick

# Xenon and Laser Flash - Sample Holders

#### **DXF-200 Sample Holders**

Adapter Ring, Aluminum, 25.4 mm Diameter to 8 mm Diameter, DXF-200 Adapter Ring, Aluminum, 25.4 mm Diameter to 8 mm Square,
DXF-200
Adapter Ring, Aluminum, 25.4 mm Diameter to 10 mm Diameter, DXF-200
Adapter Ring, Aluminum, 25.4 mm Diameter to 10 mm Square, DXF-200
Adapter Ring, Aluminum, 25.4 mm Diameter to 12.7 mm Diameter, DXF-200
Adapter Ring, Aluminum, 25.4 mm Diameter to 12.7 mm Square, DXF-200

#### DXF-500/900 & DLF-1200 Sample Holders

856292.901	Sample Isolator Ring Set, 8 mm OD/SQ, DXF-500/900 & DLF-1200
856293.901	Sample Isolator Ring Set, 10 mm OD/SQ, DXF-500/900 & DLF-1200
853642.901	Sample Isolator Ring Set, 12.7 mm OD/SQ, DXF-500/900 & DLF-1200
856333.901	Sample Holder, Mullite, 8 mm Diameter, DXF-500/900 & DLF-1200
856334.901	Sample Holder, Mullite, 8 mm Square, DXF-500/900 & DLF-1200
856335.901	Sample Holder, Mullite, 10 mm Diameter, DXF-500/900 & DLF-1200
856336.901	Sample Holder, Mullite, 10 mm Square, DXF-500/900 & DLF-1200
853473.901	Sample Holder, Mullite, 12.7 mm Diameter, DXF-500/900 & DLF-1200
856337.901	Sample Holder, Mullite, 12.7 mm Square, DXF-500/900 & DLF-1200
856338.901	Sample Holder, Mullite, 25.4 mm Square, DXF-500/900 & DLF-1200
856289.901	Sample Holder - Single Block, 4-Position, Mullite, 8 mm Diameter, DXF-500/900 & DLF-1200
856291.901	Sample Holder - Single Block, 4-Position, Mullite, 8 mm Square, DXF-500/900 & DLF-1200
856285.901	Sample Holder - Single Block, 4-Position, Mullite, 10 mm Diameter, DXF-500/900 & DLF-1200
856287.901	Sample Holder - Single Block, 4-Position, Mullite, 10 mm Square, DXF-500/900 & DLF-1200
853698.901	Sample Holder - Single Block, 4-Position, Mullite, 12.7 mm Diameter, DXF-500/900 & DLF-1200
856283.901	Sample Holder - Single Block, 4-Position, Mullite, 12.7 mm Square, DXF-500/900 & DLF-1200

853699.901	Sample Holder - Single Block, 2-Position, Mullite, 25.4 mm Diameter,DXF-500/900 & DLF-1200
856298.901	Sample Holder - Single Block, 4-Position, Mullite, 8 mm Diameter, plus Ring, DXF-500/900 & DLF-1200
856298.902	Sample Holder - Single Block, 4-Position, Mullite, 8 mm Square, plus Ring, DXF-500/900 & DLF-1200
856297.901	Sample Holder - Single Block, 4-Position, Mullite, 10 mm Diameter, plus Ring, DXF-500/900 & DLF-1200
856297.902	Sample Holder - Single Block, 4-Position, Mullite, 10 mm Square, plus Ring, DXF-500/900 & DLF-1200
856296.901	Sample Holder - Single Block, 4-Position, Mullite, 12.7 mm Diameter, plus Ring, DXF-500/900 & DLF-1200
856296.902	Sample Holder - Single Block, 4-Position, Mullite, 12.7 mm Square, plus Ring, DXF-500/900 & DLF-1200

## **EM-1600 Sample Holders**

116794.001	Adapter Ring, Molybdenum, 8 mm Diameter, EM-1600
853132.901	Adapter Ring, Molybdenum, 8 mm Square, EM-1600
116791.001	Adapter Ring, Molybdenum, 10 mm Diameter, EM-1600
116795.001	Adapter Ring, Molybdenum, 10 mm Square, EM-1600 (4-position only)
116790.001	Adapter Ring, Molybdenum, 12.7 mm Diameter, EM-1600

#### **EM-2800** Sample Holders

116797.001	Adapter Ring, Graphite, 8 mm Diameter, EM-2800
116798.001	Adapter Ring, Graphite, 8 mm Square, EM-2800
116796.001	Adapter Ring, Graphite, 10 mm Diameter, EM-2800

# Thermal Conductivity Parts and Accessories (DTC Instruments)

854135.001	Heat Transfer Compound, Jar, DTC-25/DTC-300
854100.901	Paste Cell, 50.8 mm OD, DTC-25/DTC-300
854101.901	Liquid Cell, 50.8 mm OD, DTC-25/DTC-300
854154.901	Liquid Cell Seal Kit (pkg. of 4) (for use in the DTC-300 Thermal Conductivity Meter)
854330.901	Polymer thru the Melt Cell DTC-25/300
854203.901	Spacer Seal Ring Kit for Polymer thru the Melt Cell DTC-25/300 (P/N: 854330.901)

Thermal Conductivity Chiller/Circulator202610.001Chiller/Circulator, 6L Reservoir, 120VAC<br/>(for use with the DTC-25 Thermal Conductivity Meter)202611.001Chiller/Circulator, 6L Reservoir, 240VAC<br/>(for use with the DTC-25 Thermal Conductivity Meter)202612.001Chiller/Circulator, 13L Reservoir, 120VAC<br/>(for use with the DTC-300 Thermal Conductivity Meter)202442.001Chiller/Circulator, 13L Reservoir, 240VAC<br/>(for use with the DTC-300 Thermal Conductivity Meter)

#### **Thermal Conductivity Stack Modules**

854108.901	Stack Module, Low Range, 0.0005 - 0.01 m2*K/W
854266.901	Stack Module, Mid Range, 0.002 - 0.02 m2*K/W
854111.901	Stack Module, High Range, 0.01 - 0.05 m2*K/W

#### **Thermal Conductivity Reference Materials**

#### **Thermal Conductivity Reference Material Sets**

854325.901	DTC-25/300 Low-Resistance Material Reference Set
854326.901	DTC-300 Mid-Resistance Reference Material Set
854327.901	DTC-300 High-Resistance Reference Material Set
854201.901	DTC-25/300 Vespel Reference Material Set (with data)

#### Thermal Conductivity Stainless Steel Reference Materials

854122.901	Stainless Steel Reference (with data) 25.4 mm OD x 3.175 mm Thick
854121.901	Stainless Steel Reference 25.4 mm OD x 6.35 mm Thick
854120.901	Stainless Steel Reference 25.4 mm OD x 12.7 mm Thick
854119.901	Stainless Steel Reference (with data) 50.8 mm OD x 6.35 mm Thick
854118.901	Stainless Steel Reference (with data) 50.8 mm OD x 12.7 mm Thick
854117.901	Stainless Steel Reference (with data) 50.8 mm OD x 19.05 mm Thick
854114.901	Stainless Steel Reference 50.8 mm OD x 15.88 mm Thick
854115.901	Stainless Steel Reference (with data) 50.8 mm OD x 25.4 mm Thick

# Thermal Conductivity Vespel Reference Materials

854130.901	Vespel Reference (with data) 25.4 mm square x 6.35 mm Thick
854126.901	Vespel Reference (with data) 50.8 mm OD x 1.58 mm Thick
854150.001	Vespel Reference (with data) 50.8 mm OD x 2.54 mm Thick
854131.901	Vespel Reference (with data) 50.8 mm OD x 3.175 mm Thick
854151.001	Vespel Reference (with data) 50.8 mm OD x 4.76 mm Thick
854129.901	Vespel Reference (with data) 50.8 mm OD x 6.35 mm Thick
854132.901	Vespel Reference (with data) 50.8 mm OD x 9.525 mm Thick
854152.001	Vespel Reference (with data) 50.8 mm OD x 12.7 mm Thick
854153.001	Vespel Reference (with data) 50.8 mm OD x 19.05 mm Thick

#### **DIL805** Quenching Dilatometer - Major Options

863160.901	Alpha Measuring Head for DIL805 Dilatometer: for use with DIL805A Quenching Dilatometer (P/N: 863001.901); DIL805A/D Quenching and Deformation Dilatometer (P/N: 863002.901); and DIL805A/D/T Quenching, Deformation, and Tension Dilatometer (P/N: 863003.901)
863170.901	Sub-Zero Module for DIL805 Dilatometer (requires Alpha Measuring Head (P/N: 863160.901)): for use with DIL805A Quenching Dilatometer (P/N: 863001.901); DIL805A/D Quenching and Deformation Dilatometer (P/N: 863002.901); and DIL805A/D/T Quenching, Deformation, and Tension Dilatometer (P/N: 863003.901)
863180.901	Thermocouple Placement Apparatus for DIL805: for use with DIL805A Quenching Dilatometer (P/N: 863001.901); DIL805A/D Quenching and Deformation Dilatometer (P/N: 863002.901); and DIL805A/D/T Quenching, Deformation, and Tension Dilatometer (P/N: 863003.901)
863190.901	Optical Kit - Quenching Module for DIL805: for use with DIL805A Quenching Dilatometer (P/N: 863001.901); DIL805A/D Quenching and Deformation Dilatometer (P/N: 863002.901); and DIL805A/D/T Quenching, Deformation, and Tension Dilatometer
863220.901	Optical Kit - Deformation Module for DIL805: for use with DIL805A/D Quenching and Deformation Dilatometer (P/N: 863002.901) and DIL805A/D/T Quenching, Deformation, and Tension Dilatometer (P/N: 863003.901)
863230.901	Optical Kit - Tension and Compression Module DIL805: for use with DIL805A/D/T Quenching, Deformation, and Tension Dilatometer (P/N: 863003.901)

863240.901	Optical Kit - Alpha Measuring Head for DIL805: for use with the Alpha Measuring Head (P/N: 863160.901)
863359.901	Optical Measuring System for DIL805
863015.901	Extension Unit for DIL805
863406.901	Standard Reference Material Platinum (Dia. = 4 mm; Length = 10 mm ) with Thermocouple for DIL805 Alpha
863403.901	Function Generator for DIL805 Tension and Compression (Software for up to 3000 Strain/Force Cycles - only for DIL Tension Mode)
863209.901	Software - Temperature Function Generator for DIL805A (Software for up to 3000 Temperature Cycles - only for Quenching Mode)
863394.901	Drawer Cabinet for DIL805 only
863381.901	Circulating Cooler (water-to-air) for DIL805
863381.902	Circulating Cooler (water-to-water) for DIL805

# DIL805 Quenching Dilatometer - System Components

#### DIL805 Quenching Dilatometer - System Components -Measuring Systems

863343.901	Dilatometer Measuring System DIL805A (AI2O3, Type S)
863540.901	Dilatometer Measuring System DIL805A (Fused Silica, Type K) for DIL805 up to S/N: 6925
863342.901	Dilatometer Measuring System DIL805A (Fused Silica, Type S)
863344.901	Dilatometer Measuring System DIL805D (AI2O3, Type S)
863345.901	Dilatometer Measuring System DIL805D (Fused Silica, Type S)
863341.901	Dilatometer Measuring System DIL805T Tension and Compression (Type S)
863340.901	Dilatometer Measuring System Alpha Measuring Head (Al2O3, Type S)
863401.901	Dilatometer Measuring System Alpha Measuring Head (Fused Silica, Type K)
863339.901	Dilatometer Measuring System Alpha Measuring Head (Fused Silica, Type S)

## DIL805 Quenching Dilatometer - System Components -Transmission Rods

	Iransmission Rods
863426.002	Transmission Rod Solid Al2O3 (Dia. = 4 mm, Length = 133.5 mm) for DIL805
863497.002	Transmission Rod Solid Fused Silica (Dia. = 3 mm, Length = 133.5 mm) for DIL805
863266.001	Transmission Rod Al2O3 (Dia. = 4 mm; Length = 100.5 mm) for DIL805T
863265.001	Transmission Rod Fused Silica (Dia. = 4 mm; Length = 100.5 mm) for DIL805T
863420.003	Transmission Rod Fused Silica (Length = 113.5 mm) for DIL805
863420.002	Transmission Rod Fused Silica (Dia. = 4 mm; Length = 123.5 mm) for DIL805
863421.001	Transmission Rod Fused Silica (Dia. = 3 mm; Length = 163.5 mm) for DIL805A/805L
863414.001	Transmission Rod with hole for gas Fused Silica (Dia. = 4 mm; Length = 145 mm) for DIL805 Alpha
863426.001	Transmission Rod with hole for gas Al2O3 (Dia. = 4 mm; Length = 133.5 mm) for DIL805A/805L
863420.001	Transmission Rod with hole for gas Fused Silica (Dia. = 4 mm; Length = 133.5 mm) for DIL805A/805L
863427.001	Transmission Rod Al2O3 (Dia. = 3 mm; Length = 163.5 mm) for DIL805A/805L
863262.001	Transmission Rod Al2O3 (Dia. = 4 mm; Length = 145 mm) for DIL805 Alpha
863497.001	Transmission Rod Solid Fused Silica (Dia. = 2 mm; Length = 133.5 mm) for DIL805A/805L
863560.901	Transmission Rod Solid Fused Silica (Dia. = 2 mm, Length = 145 mm) for DIL805 Alpha
863560.902	Transmission Rod Solid Fused Silica (Dia. = 3 mm, Length = 145 mm) for DIL805 Alpha
863505.001	Transmission Rod Solid Fused Silica (Dia. = 2 mm; Length = 126.5 mm) for DIL805A S/N: 4013
863525.001	Transmission Rod Solid Fused Silica (Dia. = 2 mm; Length = 138 mm) for DIL805A S/N: 4013
863541.001	Transmission Rod Fused Silica (Dia. = 4 mm; Length = 133.5 mm) for DIL805A instruments up to S/N: 6925

Transmission Rod Fused Silica (Dia. = 4 mm; Length = 163.5 mm) for DIL805A instruments up to S/N: 6925
Heating Ring Mo for DIL805A
Heating Ring Pt for DIL805A
Molybdenum Disk (Dia. = 8 mm; Thickness = 0.1 mm) for DIL805D

# DIL805 Quenching Dilatometer - System Components -Sample Supports

863600.901	Clamping Device for Flat Samples for DIL805T
863267.001	Spacer Ring (for 9 mm tension tests) for DIL805T
863503.001	Sample Support (M7) Right for DIL805T
863504.001	Sample Support (M7) Left for DIL805T
863428.002	Opposite Support Solid Al2O3 (Dia. = 4 mm) for DIL805
863496.002	Opposite Support Solid Fused Silica (Dia. = 3 mm) for DIL805
863263.001	Opposite Support Al2O3 (Length = 64 mm; OD = 4 mm) for DIL805 Alpha
863446.001	Opposite Support Fused Silica (Length = 64 mm; OD = 4 mm) for DIL805 Alpha
863413.001	Holder for Opposite Support Fused Silica (including compression spring and clamping bar) for DIL805 Alpha
863561.001	Opposite Support Solid Fused Silica (Dia. = 2 mm, Length = 64 mm) for DIL805 Alpha
863561.002	Opposite Support Solid Fused Silica (Dia. = 3 mm, Length = 64 mm) for DIL805 Alpha
863446.002	Opposite Support (Dia. = 4 mm; Shifted 7 mm) for DIL805 Alpha Optical
863422.003	Opposite Support Fused Silica (Length = 55.5 mm) for DIL805
863422.002	Opposite Support Fused Silica (Length = 65.5 mm) for DIL805
863428.001	Opposite Support Al2O3 (Dia. = 4 mm) for DIL805A/805L
863422.001	Opposite Support Fused Silica (Dia. = 4 mm) for DIL805A/805L
863415.001	Opposite Support with Hose Connection Fused Silica (OD = 4 mm; Length = 64 mm) for DIL805 Sub-Zero
863543.001	Opposite Support with Hose Connection Fused Silica (Dia. = 4 mm; Length = 63.5 mm) for DIL805A Sub-Zero instruments up to S/N: 6925
863496.001	Opposite Support Solid Fused Silica (Dia. = 2 mm) for DIL805A
863506.001	Opposite Support Fused Silica (Dia. = 8 mm) for DIL805A instrument S/N: 40135

#### DIL805 Quenching Dilatometer - System Components -Induction Coils

	Induction Colls
863306.901	Induction Coil for DIL805 (Dia. = 16 mm; Height = 82 mm; Length = 30 mm)
863306.902	Induction Coil for DIL806 (Dia. = 16 mm; Height = 82 mm; Length = 50 mm)
863303.901	Induction Coil for DIL805HR (Dia. = 20 mm; Height = 82 mm; Length = 35 mm)
863302.901	Induction Coil for DIL805T (Dia. = 20 mm; Height = 82 mm; Length = 30 mm)
863295.901	Induction Coil for Flat Samples for DIL805T (Dia. = 38 mm; Height = 61 mm)
863299.901	Induction Coil for Flat Samples for DIL805T (Dia. = 27 mm; Height = 79 mm)
863498.901	Induction Coil for DIL805A Teflon (Dia. = 7 mm; Height = 82 mm; Length = 30 mm)
863530.001	Induction Coil for DIL805DSC (Dia. = 22 mm; Height = 82 mm; Length = 50 mm)
863531.001	Induction Coil for DIL805A Optic (Dia. = 16 mm; Height = 82 mm; Length = 30 mm)
863532.001	Induction Coil for DIL805D Optic (Dia. = 16 mm; Height = 82 mm; Length = 30 mm)
863533.001	Induction Coil for DIL805T Optic (Dia. = 20 mm; Height = 82 mm; Length = 30 mm)
863534.001	Induction Coil for DIL805 Alpha Optic (Dia. = 16 mm; Height = 75 mm; Length = 30 mm)
863536.003	Induction Coil for DIL805T (Dia. = 20 mm; Height = 67 mm; Length = 16 mm)
863536.002	Induction Coil for DIL805T (Dia. = 20 mm; Height = 67 mm; Length = 60 mm)
863302.903	Induction Coil for DIL805T (Dia. = 20 mm; Height = 82 mm; Length = 16 mm)
863535.001	Induction Coil for DIL805 (Dia. = 16 mm; Height = 67 mm; Length = 30 mm) for DIL805 instruments up to S/N: 6925
863537.001	Induction Coil for DIL805A Teflon (Dia. = 7 mm; Height = 67 mm; Length = 30 mm) for DIL805 instruments up to S/N: 6925
863539.001	Induction Coil for DIL805DSC (Dia. = 22 mm; Height = 90 mm; Length = 50 mm) for DIL805 instruments up to S/N: 6925

863538.001	Induction Coil for DIL805HR (Dia. = 20 mm; Height = 67 mm; Length = 35 mm) for DIL805 instruments up to S/N: 6925
863536.001	Induction Coil for DIL805T (Dia. = 20 mm; Height = 67 mm; Length = 30 mm) for DIL805 instruments up to S/N: 6925
863803.901	Induction Coil for TTS820 (Dia. = 35 mm; Length = 72 mm; 8 windings; A = 4x4 rectangular copper wire 4x4 mm)
	DIL805 Quenching Dilatometer - System Components - Deformation Punches
202585.001	•
	Deformation Punches
202584.001	Deformation Punches Deformation Punch Left Al2O3
202584.001 202586.001	Deformation Punches Deformation Punch Left Al2O3 Deformation Punch Right Al2O3
202585.001 202584.001 202586.001 863432.001 202703.001	Deformation Punches         Deformation Punch Left Al2O3         Deformation Punch Right Al2O3         Deformation Punch Left Fused Silica
202584.001 202586.001 863432.001	Deformation PunchesDeformation Punch Left Al2O3Deformation Punch Right Al2O3Deformation Punch Left Fused SilicaDeformation Punch Right Fused Silica

#### DIL801/802/803/801L/802L/803L/806/TMA801/STA/ STD812 Instruments - System Components

#### DIL80X Series Dilatometers - System Components -Options

863377.901	Dewar for LN2 (0.5 bar) (for sub-zero furnaces)
863380.001	Circulation Thermostat for DIL and STA Measuring Head
863391.001	Water Supply Module
863393.001	Gas Supply Module
863386.001	Vacuum Unit for 10 <sup>-2</sup> mbar

#### DIL80X Series Dilatometers - System Components -Measuring Systems

863329.901	Dilatometer Measuring System DIL801 (AI2O3, Type B)
863328.901	Dilatometer Measuring System DIL801 (Al2O3, Type S)
863326.901	Dilatometer Measuring System DIL801 (Fused Silica, Type K)
863327.901	Dilatometer Measuring System DIL801 (Fused Silica, Type S)
863399.901	Dilatometer Measuring System DIL801 (Graphite, 2300 °C)

Dilatometer Measuring System DIL802 (Al2O3, Type B) Dilatometer Measuring System DIL802 (Al2O3, Type S) Dilatometer Measuring System DIL802 (Fused Silica, Type K)
Dilatometer Measuring System DIL802 (Fused Silica, Type K)
Dilatometer Measuring System DIL802 (Fused Silica, Type S)
Dilatometer Measuring System DIL802 (Graphite, Type B)
Dilatometer Measuring System DIL803 (Al2O3, Type B)
Dilatometer Measuring System DIL803 (Al2O3, Type S)
Dilatometer Measuring System DIL803 (Fused Silica, Type K)
Dilatometer Measuring System DIL803 (Fused Silica, Type S)
Dilatometer Measuring System DIL801L (AI2O3, Type B)
Dilatometer Measuring System DIL801L (AI2O3, Type S)
Dilatometer Measuring System DIL801L (Al2O3,Type S) (Diameter = 11 mm; Length = 275 mm)
Dilatometer Measuring System DIL801L (Fused Silica, Type K)
Dilatometer Measuring System DIL801L (Fused Silica, Type S)
Dilatometer Measuring System - DIL801L, (Fused Silica, Type S) HDR (Diameter = 11.6mm), Rod (Diameter = 7mm)
Dilatometer Measuring System - DIL801L, (Fused Silica,Type S) HDR (Diameter = 16mm), Rod (Diameter = 10mm)
Dilatometer Measuring System - DIL801L, (Fused Silica,Type S) HDR (Diameter = 25mm), Rod (Diameter = 15mm)
Dilatometer Measuring System DIL802L (Al2O3, Type B)
Dilatometer Measuring System DIL802L (AI2O3, Type S)
Dilatometer Measuring System DIL802L (Al2O3, Type S) Dilatometer Measuring System DIL802L (Fused Silica, Type K)
Dilatometer Measuring System DIL802L (Fused Silica, Type K)
Dilatometer Measuring System DIL802L (Fused Silica, Type K) Dilatometer Measuring System DIL802L (Fused Silica, Type S)
Dilatometer Measuring System DIL802L (Fused Silica, Type K) Dilatometer Measuring System DIL802L (Fused Silica, Type S) Dilatometer Measuring System DIL803L (Al2O3, Type B)
Dilatometer Measuring System DIL802L (Fused Silica, Type K)Dilatometer Measuring System DIL802L (Fused Silica, Type S)Dilatometer Measuring System DIL803L (Al2O3, Type B)Dilatometer Measuring System DIL803L (Al2O3, Type S)Dilatometer Measuring System DIL803L (Al2O3, Type S)Dilatometer Measuring System DIL803L (Al2O3, Type S)
Dilatometer Measuring System DIL802L (Fused Silica, Type K) Dilatometer Measuring System DIL802L (Fused Silica, Type S) Dilatometer Measuring System DIL803L (Al2O3, Type B) Dilatometer Measuring System DIL803L (Al2O3, Type S) Dilatometer Measuring System DIL803L (Al2O3) (Diameter = 20 mm)
Dilatometer Measuring System DIL802L (Fused Silica, Type K)Dilatometer Measuring System DIL802L (Fused Silica, Type S)Dilatometer Measuring System DIL803L (Al2O3, Type B)Dilatometer Measuring System DIL803L (Al2O3, Type S)Dilatometer Measuring System DIL803L (Al2O3, Type S)Dilatometer Measuring System DIL803L (Al2O3)(Diameter Measuring System DIL803L (Al2O3)Dilatometer Measuring System DIL803L (Al2O3)Dilatometer Measuring System DIL803L (Al2O3)Dilatometer Measuring System DIL803L (Al2O3)Dilatometer Measuring System DIL803L (Fused Silica, Type K)
Dilatometer Measuring System DIL802L (Fused Silica, Type K)Dilatometer Measuring System DIL802L (Fused Silica, Type S)Dilatometer Measuring System DIL803L (Al2O3, Type B)Dilatometer Measuring System DIL803L (Al2O3, Type S)Dilatometer Measuring System DIL803L (Al2O3, Type S)Dilatometer Measuring System DIL803L (Al2O3)(Diameter = 20 mm)Dilatometer Measuring System DIL803L (Fused Silica, Type K)Dilatometer Measuring System DIL803L (Fused Silica, Type S)
Dilatometer Measuring System DIL802L (Fused Silica, Type K)Dilatometer Measuring System DIL802L (Fused Silica, Type S)Dilatometer Measuring System DIL803L (Al2O3, Type B)Dilatometer Measuring System DIL803L (Al2O3, Type S)Dilatometer Measuring System DIL803L (Al2O3, Type S)Dilatometer Measuring System DIL803L (Al2O3)(Diameter Measuring System DIL803L (Al2O3)Dilatometer Measuring System DIL803L (Fused Silica, Type K)Dilatometer Measuring System DIL803L (Fused Silica, Type S)Dilatometer Measuring System DIL803L (Fused Silica, Type S)Dilatometer Measuring System DIL803L (Fused Silica, Type S)Dilatometer Measuring System DIL803L (Fused Silica, Type S)

863411.901	Dilatometer Measuring System TMA801 (Al2O3, Type S)
863831.901	Dilatometer Measuring System TMA813 (Al2O3, Type B)
863468.001	Fused Silica Rod for Dilatometer Measuring System (P/N: 863351.001 and P/N: 863352.001) (Dia. = 2 mm) for DIL806 only
863472.001	Al2O3 Rod for Dilatometer Measuring System (P/N: 863353.001) (Diameter = 2 mm) for DIL806 only
863637.901	Inert Samples, Fused Silica (Length = 10, 20, 25, 50 mm) for DIL802/802L only)
863638.901	Inert Samples, Al2O3 (Length = 10, 20, 25, 50 mm) for DIL802/802L only)
	DIL80X Series Dilatometers - System Components - Protection Tubes
863349.001	Dilatometer Protection Tube Al2O3 (Diameter = 28 mm; Length = 304 mm) for DIL801/802/803
863348.001	Dilatometer Protection Tube Fused Silica (Diameter = 31 mm; Length = 309 mm) for DIL801/802/803
863350.001	Dilatometer Protection Tube Al2O3 (Diameter = 21 mm; Length = 296 mm) for Furnace P/N: 863368.901
863463.001	Convection-Protection Tube Fused Silica for DIL801L/802L/803L
863635.901	Dilatometer Protection Tube Al2O3 (for Graphite Furnace) for DIL80X
863507.001	Protection Tube Al2O3 (ID = 28 mm; Length = 354 mm) for DIL801/802/803
863509.001	Protection Tube Al2O3 (ID = 21 mm; Length = 336 mm) for TMA801
	DIL80X Series Dilatometers - System Components - Furnaces
863376.901	Furnace -160 °C up to 700 °C for DIL
863690.901	Furnace 1000 °C Water Cooled (with fan) for DIL801/802/803 and DIL801L/802L/803L
863366.901	Furnace 1350 °C for DIL
863366.902	Furnace 1350 °C for DIL (up to S/N: 5144)
863367.901	Furnace 1500 °C for DIL
863368.901	Furnace Max. 1720 °C for DIL

#### DIL80X Series Dilatometers - System Components -Transmission Rods

863632.901	Transmission Rod Al2O3 (Dia. = 4 mm; Length = 270 mm) for DIL801L
863500.001	Transmission Rod Al2O3 (Dia. = 4 mm; Length = 282.5 mm) for DIL801L
863464.001	Transmission Rod Al2O3 (Dia. = 4 mm; Length = 345 mm) for DIL801L/802L/803L
863455.001	Transmission Rod Al2O3 (Dia. = 4 mm; Length = 384 mm) for DIL801/802/803
863277.001	Transmission Rod Fused Silica (Dia. = 4 mm; Length = 384 mm) for DIL801/802/803
863276.001	Transmission Rod Fused Silica (Dia. = 4 mm; Length = 345 mm) for DIL801L/802L/803L
863460.001	Transmission Rod Glassy Carbon (Dia. = 4 mm; Length = 384 mm) for DIL801/802
863461.001	Transmission Rod Glassy Carbon (Dia. = 4 mm: Length = 367 mm) for DIL802 only
863285.001	Transmission Rod Al2O3 (Dia. = 3 mm; Length = 367 mm) for DIL802 only
863286.001	Transmission Rod Al2O3 (Dia. = 3 mm; Length = 384 mm) for DIL802 only
863458.001	Transmission Rod Al2O3 (Dia. = 4 mm; Length = 367 mm) for DIL802 only
863466.001	Transmission Rod Al2O3 (Dia. = 4 mm; Length = 328 mm) for DIL802L only
863476.901	Transmission Rod Fused Silica (Length = 297.5 mm) for DIL801L
863465.001	Transmission Rod Fused Silica (Dia. = 4 mm; Length = 328 mm) for DIL802L only
863449.001	Transmission Rod Fused Silica (Dia. = 4 mm; Length = 367 mm) for DIL802 only
863636.901	Transmission Rod Fused Silica (Dia. = 4 mm; Length = 384 mm) with End Plate for DIL801 only
863278.001	Transmission Rod Fused Silica Penetration (Dia. = 1 mm; Length = 345 mm) for DIL801 only

#### DIL80X Series Dilatometers - System Components -Reference Materials

863382.904	Dilatometer Reference Material Borosilicate Glass (10 mm) for DIL80X instruments
863382.903	Dilatometer Reference Material Borosilicate Glass (20 mm) for DIL80X instruments
863382.902	Dilatometer Reference Material Borosilicate Glass (25 mm) for DIL80X instruments
863586.004	Dilatometer Reference Material Platinum (Dia. = 3 mm; Length = 10 mm) for DIL80X instruments
863586.003	Dilatometer Reference Material Platinum (Dia. = 3 mm; Length = 20 mm) for DIL80X instruments
863586.002	Dilatometer Reference Material Platinum (Dia. = 3 mm; Length = 25 mm) for DIL80X instruments
863586.001	Dilatometer Reference Material Platinum (Dia. = 3 mm; Length = 50 mm) for DIL80X instruments
863382.901	Standard Reference Material Borosilicate Glass (6.4 mm Square; Length = 50 mm) for DIL801/802/803 and DIL801L/802L/803L
863585.001	Standard Reference Material Fused Silica (Dia. = 5 mm; Length = 10 mm) for DIL801/802/803 and DIL801L/802L/803L
863585.002	Standard Reference Material Fused Silica (Dia. = 5 mm; Length = 20 mm) for DIL801/802/803 and DIL801L/802L/803L
863585.003	Standard Reference Material Fused Silica (Dia. = 5 mm; Length = 25 mm) for DIL801/802/803 and DIL801L/802L/803L
863585.004	Standard Reference Material Fused Silica (Dia. = 5 mm; Length = 50 mm) for DIL801/802/803 and DIL801L/802L/803L
863275.001	Standard Reference Material Sapphire (Dia. = 5 mm; Length = 10 mm) for DIL801/802/803 and DIL801L/802L/803L
863275.004	Standard Reference Material Sapphire (Dia. = 5 mm; Length = 20 mm) for DIL801/802/803 and DIL801L/802L/803L
863275.002	Standard Reference Material Sapphire (Dia. = 5 mm; Length = 25 mm) for DIL801/802/803 and DIL801L/802L/803L

- 863275.003 Standard Reference Material Sapphire (Dia. = 5 mm; Length = 30 mm) for DIL801/802/803 and DIL801L/802L/803L
- 863409.901 Standard Reference Material Sapphire (Dia. = 5 mm; Length = 50 mm) for DIL801/802/803 and DIL801L/802L/803L

#### DIL80X Series Dilatometers - System Components -Sample Holders

863291.001	Container for Measurement of Pastes and Powders Al2O3 for DIL801/802 and DIL801L/802L
863631.901	Sample Holder Al2O3 (Dia. = 11 mm; Length = 275 mm) for DIL801L
863454.001	Sample Holder Al2O3 (ID = 14 mm; Length = 350 mm) for DIL801/802/803 and DIL801L/802L/803L
863527.001	Sample Holder Al2O3 (ID = 20 mm; Length = 350 mm) for DIL801/802/803 and DIL801L/802L/803L
863475.901	Sample Holder Fused Silica (Length = 262.5 mm) for DIL801L
863274.001	Sample Holder Fused Silica (ID = 16 mm; Length = 350 mm) for DIL801/802/803 and DIL801L/802L/803L
863274.002	Sample Holder Fused Silica (Dia. = 11 mm; Length = 350 mm) for DIL801/801L
863556.901	Sample Holder Fused Silica (Dia. = 25 mm; Length = 350 mm) for DIL801/802/803 and DIL801L/802L/803L
863646.901	Sample Holder Fused Silica (Dia. = 11.6 mm; Length = 330 mm) for DIL807
863459.001	Sample Holder Graphite (ID = 20 mm; Length = 350 mm) for DIL801/802
863499.001	Sample Holder with Fin Al2O3 (Dia. = 4 mm; Length = 262.5 mm) for DIL801L only
863284.001	Sample Holder Al2O3 with Slot for Thermocouple (ID = 12 mm; Length = 350 mm) for DIL801/802
863553.001	Sample Holder Al2O3 with Slot for Thermocouple (Dia. = 14 mm; Length = 350 mm) for DIL801/802/803
863510.001	Sample Holder Al2O3 with Slot for Thermocouple (Dia. = 12 mm; Length = 350 mm) for TMA801 only
863273.001	Sample Support for Fused Silica Sample Holder (ID = 16 mm) for round samples up to 6 mm diameter
863508.001	Sample Support for Fused Silica Sample Holder (ID = 16 mm) for square samples 4 mm on edge

863457.001	Sample Support for Al2O3 Sample Holder (ID = 12 mm) for round samples up to 4.5 mm diameter
863502.001	Sample Support Platinum Wire for Fin Sample Holder for DIL801L
863529.001	Sample Support for Al2O3 Sample Holder (ID = 20 mm) for round samples up to 8 mm diameter
863634.001	End Plate for Al2O3 Sample Holder (Dia. = 11 mm) for DIL801L
863290.001	End Plate for Al2O3 Sample Holder (Dia. = 12 mm) for DIL801/802
863456.001	End Plate for Al2O3 Sample Holder (Dia. = 14 mm)
863528.001	End Plate for Al2O3 Sample Holder (ID = 20 mm)
863462.001	End Plate for Graphite Sample Holder (ID = 20 mm)

#### DIL80X Series Dilatometers - System Components -Protection Discs/Windows

863570.001	Protection Disc Al2O3 (Dia. = 5 mm) for DIL80X instruments
863493.001	Protection Disc Al2O3 (Dia. = 6 mm) for DIL80X instruments
863570.002	Protection Disc Al2O3 (Dia. = 10 mm) for DIL80X instruments
863570.003	Protection Disc Al2O3 (Dia. = 12 mm) for DIL80X instruments
863571.001	Protection Disk Fused Silica (Dia. = 6 mm) for DIL80X instruments
863571.002	Protection Disk Fused Silica (Dia. = 10 mm): for DIL80X instruments
863571.003	Protection Disk Fused Silica (Dia. = 12 mm): for DIL80X instruments
863572.001	Protection Window Fused Silica (44 x 12 x 2 mm) for DIL805, DIL806, and STD812
863573.001	Protection Window Fused Silica (35 x 16 x 2 mm) for DIL805 and STD812
863801.001	Protection Window Fused Silica (Dia. = 28.5 mm; Thickenss = 4 mm) for STD812
863802.001	Protection Window Fused Silica (44 x 16 x 2 mm) for STD812
	DI 821 and DI 822 Vertical Dilatometer

#### DIL821 and DIL822 Vertical Dilatometer -System Components

863733.901	Dilatometer Measuring System DIL821 (Al2O3, Type B)
863732.901	Dilatometer Measuring System DIL821 (Al2O3, Type S)
863731.901	Dilatometer Measuring System DIL821 (Fused Silica, Type S)
863743.901	Dilatometer Measuring System DIL822 (Al2O3, Type B)
863742.901	Dilatometer Measuring System DIL822 (Al2O3, Type S)
863741.901	Dilatometer Measuring System DIL822 (Fused Silica, Type S)

863763.901	Sample Holder Al2O3 Type B for DIL821/822
863762.901	Sample Holder Al2O3 Type S for DIL821/822
863761.901	Sample Holder Fused Silica Type S for DIL821/822
863752.901	Transmission Rod Al2O3 (Dia. = 4 mm; Length = 294 mm) for DIL821/822
863751.901	Transmission Rod Fused Silica (Dia. = 4 mm; Length = 294 mm) for DIL821/822
	DIL821HT and DIL822HT High Temperature Vertical Dilatometer - System Components
863770.901	Dilatometer Measuring System DIL821HT (Al2O3, Type B) 1700 °C
863771.901	Dilatometer Measuring System DIL821HT (Graphite, Type C) 2000 °C
863772.901	Dilatometer Measuring System DIL821HT (Graphite) 2300 °C
863780.901	Dilatometer Measuring System DIL822HT (AI2O3, Type B) 1700 °C
863781.901	Dilatometer Measuring System DIL822HT (Graphite, Type C) 2000 °C
863782.901	Dilatometer Measuring System DIL822HT (Graphite) 2300 °C
863785.901	Transmission Rod Al2O3 (Dia. = 4 mm; Length = 326 mm) for DIL821HT/822HT
863786.901	Transmission Rod Glassy Carbon (Dia. = 4 mm; Length = 326 mm) for DIL821HT/822HT
863790.901	Sample Holder Al2O3 Type B for DIL821HT/822HT
863791.901	Sample Holder Graphite Type C for DIL821HT/822HT
863792.901	Sample Holder Graphite for DIL821HT/822HT
863793.001	End Plate for Graphite Sample Holder (Dia. = 14 mm) for DIL821HT/822HT
863795.901	Protection Tube AI2O3 for DIL821HT/822HT
863796.901	Protection Tube Glassy Carbon for DIL821HT/822HT
863381.903	Circulating Cooler for DIL82XHT High Temperature Vertical Dilatometer

# **Optical Dilatometry**

# DIL806, Misura 3, 860 Series - System Components -Furnaces

863374.901	Furnace -150 °C up to 600 °C (Inert Gas, Vacuum) for DIL806
863372.901	Furnace 900 °C (Inert Gas, Vacuum) for DIL806
863370.901	Furnace 1400 °C (Inert Gas, Vacuum) for DIL806



870807.901 M3 FURNACE, 1600 °C, MAX HR 50 °C/MIN

871811.901 86X FURNACE, 1650 °C, MAX HR 100 °C/MIN

#### **DIL806 - System Components - Reference Materials**

863580.001	Standard Reference Material Borosilicate Glass (Dia. = 10 mm) for DIL806 only
863405.901	Standard Reference Material Fused Silica (Dia. = 10 mm) for DIL806 only
863405.902	Standard Reference Material Fused Silica (Dia. = 20 mm) for DIL806 only
863407.901	Standard Reference Material Sapphire (Dia. = 10 mm) for DIL806 only
863407.902	Standard Reference Material Sapphire (Dia. = 20 mm) for DIL806 only

#### **DIL 806 - Parts and Consumables**

863471.001 Sample Platform Al2O3 (21 x 11 x 2 mm) for DIL806 only	
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- 863467.001 Sample Platform Fused Silica (21 x 11 x 2 mm) for DIL806 only
- 863620.901 Thin Film Holder for DIL806

#### Misura3, ODP 868 and HM 867 System Components -Parts and Consumables

871100.901	150X Sample Holding Plates, 10 x 8 x 1 mm
871101.901	30X Sample Holding Plates, 60 x 8 x 1 mm
871102.901	5X Sample Holding Plates, 80 x 8 x 1 mm
871150.901	2X Sample Holding Rod, (Diameter = 3 x 145 mm)
871151.901	2X Sample Hold. Rod With Holes, (Diameter = 3 x 130 mm)
863557.901	Sample Holder Fs D 14 mm L 350 mm Dil80X
863558.001	Sample Support For Fs Holder D 14 mm
871250.001	Shaped Quartz Glass Op. Sheet, 65 x 40 x 1 mm
871251.001	Quartz Glass Op. Sheet, 84 x 38 x 1 mm
871252.001	Quartz Glass Op. Sheet Diffu. 84 x 38 x 1mm
871300.901	Srm738 5 x 5 x 15 mm
871301.901	Srm738 5 x 5 x 50 mm
871305.001	Al2O3 Rod (Diameter = 3 x 85 mm) For Flex Correction

871310.901	Shaped Au Wire 3 mm Mp 1064 °C
871311.901	Shaped Pd Wire 3 mm Mp 1554 °C
871350.901	Handle Punch For (Diameter = $2 \times 3 \text{ mm And} = 3 \times 3 \text{ mm}$ )
871360.001	Pneumatic Press To Realize Specimens
871361.001	Die For 5 x 5 x 15 mm Samples
871362.001	Die For 5 x 5 x 50 mm Samples
871200.901	Sample Thermocouple Type S, L = 110 mm
871210.901	Furnace Thermocouple Type S, L = 130 mm
871211.901	Furnace Thermocouple Type B, L = 90 mm

#### Simultaneous Thermal Analyzer -**STA Instrument System Components**

#### STA Instruments - System Components -Measuring Systems

862921.901	DTA701 Measuring System (Dia. = 6 mm, Type S)
864801.901	DTA703 Measuring System (Dia. = 6 mm, Type B)
864800.901	DTA703 Measuring System (Dia. = 6 mm, Type S)
864240.901	STA502 Measuring System (Dia. = 9 mm, Type S) (for Disk Furnace)
864107.901	STA503 Measuring System (Dia. = 6 mm, Type B)
864108.901	STA503 Measuring System (Dia. = 6 mm, Type S)
864221.901	STA504 Measuring System (Dia. = 6 mm, Type B)
864222.901	STA504 Measuring System (Dia. = 6 mm, Type K)
864220.901	STA504 Measuring System (Dia. = 6 mm, Type S)
864224.901	STA504 Measuring System (Dia. = 9 mm, Type S)
864124.901	STA504 TG Measuring System (Dia. = 9 mm, Type S)
864225.901	STA504 TG Measuring System (Dia. = 17 mm, Type S)
864109.901	TGA503 Measuring System (Dia. = 6 mm, Type S)

#### STA Instruments - System Components - Furnaces

864253.901	Furnace -160 °C up to 700 °C (for STA and TGA 504)
864254.901	Furnace max. 1100 °C (for STA and TGA 504)
864255.901	Furnace max. 1500 °C (for STA and TGA 504)
864256.901	Furnace max. 1700 °C (for STA and TGA 504)

### STA Instruments - System Components - Crucibles

864305.001	Crucible Al2O3 (OD = 6 mm; Height = 2.5 mm)
864305.003	Crucible Al2O3 (OD = 6 mm; Height = 7.5 mm)
864305.002	Crucible Al2O3 (OD = 9 mm; Height = 5 mm)
864304.001	Crucible Al2O3 (OD = 9 mm; Height = 10 mm)
864303.001	Crucible Al2O3 (OD = 17 mm; Height = 10 mm)
864307.001	Crucible Lid Al2O3 (for Crucible OD = 6 mm)
864307.003	Crucible Lid Al2O3 (for Crucible OD = 9 mm)
864307.002	Crucible Lid with Hole Al2O3 (for Crucible OD = $6$ mm)
864306.001	Crucible Platinum (OD = 6 mm; Height = 2 mm)
864306.002	Crucible Platinum (OD = 6 mm; Height = 3.5 mm)
864306.003	Crucible Platinum (OD = 9 mm; Height = 5 mm)
864306.004	Crucible Platinum (OD = 9 mm; Height = 10 mm)
864308.001	Crucible Lid Platinum (for Crucible OD = 6 mm)
864308.002	Crucible Lid Platinum (for Crucible OD = 9 mm)

#### STA Instruments - System Components -Reference Materials

864301.901	STA and DTA Reference Material (128 °C - 430 °C)
864302.901	STA and DTA Reference Material (156 °C - 1064 °C)

# **Rotational Viscometer - System Components**

#### VIS403 and VIS403HF Rotational Viscometer Instruments - System Components

862302.901	Induction Coil (Dia. = 40 mm; Length = 90 mm) for VIS403HF
862912.001	Rotor Pt/Rh (Dia. = 9 mm) for VIS403 and VIS403HF
862912.002	Rotor (Dia. = 19 mm) for VIS403 and VIS403HF
862900.901	Beam Bending Measuring System Fused Silica for VIS401
862901.901	Upper Beam Bending Fused Silica for VIS401
862902.901	Lower Beam Bending Fused Silica for VIS401
862904.001	Sample Support without Center Notch Fused Silica for VIS401
862916.001	Measuring Crucible for VIS403
862916.002	Measuring Crucible Pt/Au 65 mm for VIS403 (Dia. = 23 mm; Height = 65 mm) (Pt 95%/Au 5%)
862911.001	Measuring Crucible Pt/Rh 80/20 for VIS403HF

863400.001	Holder for Measuring Crucible without hole for VIS403
862915.001	Holder for Measuring Crucible with hole for VIS403
862401.901	Holder for 195 mm Measuring Crucible for VIS403HF
862334.901	Reference Material Lime Soda Glass for VIS403 and VIS403HF
862335.901	Reference Material Borosoliciate Glass for VIS403 and VIS403HF

#### Thermophysical Computer

202568.001	Thermophysical Computer for DIL, STA, VIS Instruments
113996.901	Thermophysical Computer for DLF, DXF, DHD, DTC, DVD Instruments
863195.901	Computer Upgrade/Replacement for DIL805A/D



# **Cooling Options**

880300.901	Neslab TF900 (110VAC, 60Hz)
880300.902	Neslab TF900 (220VAC, 50Hz)
880300.903	Neslab TF900 (208VAC, 60Hz)
880310.901	ThermoCube 400 (110VAC, 60Hz)
880310.902	ThermoCube 400 (220VAC, 50Hz)

# Calibration Materials, Options, and Miscellaneous Accessories

880400.901	EPS 8" Calibration Standard
880410.901	EPS 12" Calibration Standard
880420.901	EPS 24" Calibration Standard
880430.901	EPS 24" with Surround Insulation for 30" x 30"
880440.901	EPS 24" with Surround Insulation for 41" x 30"
880460.901	Pyrex Two Thickness Reference Standard (set of 2)
880470.901	Perspex Two Thickness Reference Standard (set of 2)
880480.901	Vespel Two Thickness Reference Standard (set of 2)
880510.901	Pyroceram Two Thickness Reference Standard (set of 2)
880511.901	Polycarbonate Two Thickness Reference Standard (set of 2)
880512.901	NIST 1450d Reference Material (8" x 8")
880513.901	NIST 1450d Reference Material (12' x 12")
880514.901	NIST 1450d Reference Material (24" x 24")
880536.901	NIST 1453 Expanded Polystyrene Board (8" x 8") (includes NIST Certificate of Analysis) for FOX 200 Heat Flow Meter
880537.901	NIST 1453 Expanded Polystyrene Board (12" x 12") (includes NIST Certificate of Analysis) for FOX 304 and FOX 314 Heat Flow Meter
880538.901	NIST 1453 Expanded Polystyrene Board (24" x 24") (includes NIST Certificate of Analysis ) for FOX 600 Series Heat Flow Meter
880540.901	NIST 1453 Expanded Polystyrene Board with Surround Insulation (30" x 30") (includes NIST Certificate of Analysis) for FOX 800 Heat Flow Meter
880539.901	NIST 1453 Expanded Polystyrene Board with Surround Insulation (41" x 30") (includes NIST Certificate of Analysis) for FOX 1000 Heat Flow Meter

880515.901	IRMM-440 Reference Material (8" x 8")
880516.901	IRMM-440 Reference Material (12" x 12")
880517.901	IRMM-440 Reference Material (24" x 24")
880532.901	Specific Heat Capacity Software for FOX Heat Flow Meter instruments
880518.901	FOX 50 High Temperature Liquid Cell Package
880519.901	Pyrex Disc, 1 / 8 inch (3 mm) Thick, for use with the FOX 50 Liquid Cell
880530.901	FOX 50 10 mm Transducer Active Area Option
880534.901	FOX 200/314 Lower Limit Extended Temperature Option
880529.901	FOX 200/314 Upper Limit Extended Temperature Option
880531.901	FOX 600/801/1000 High Output Thicker Transducer Option
880533.901	FOX 600/801/1000 L High Output Thicker Transducer Option (larger sensor area)
880528.901	FOX 50 Rubber Mat Set (2.5" diameter)
880527.901	FOX 200 Rubber Mat Set (8" x 8")
880526.901	FOX 314 Rubber Mat Set (12" x 12")
880525.901	FOX 600 Rubber Mat Set (24" x 24")
880535.901	FOX 801 Rubber Mat Set (30" x 30")

Calibration Materials





AMERICAS

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