

Dynisco Laboratory **Capillary Rheometer** (LCR)

LCR7000/7001/7002 Series

Offering Sophisticated Materials Characterization



VERSATILE

The new LCR7000 Series Capillary Rheometers offer many new features and will meet the demands of a 24-hour-a-day shop floor operation while maintaining the highest possible level of accuracy, repeatability and sensitivity. The LCR series rheometers are versatile and easy to use yet they offer the most sophisticated materials characterization, data analysis, and reporting capabilities. The LCR series can be used with a standard load cell and a barrel mounted pressure transducer.

SOPHISTICATED SOFTWARE

LAB KARS ("Kayeness Advanced Rheology Software") is the most powerful and easy to use rheological Windows[™]-based software package available. Just a few of its easily usable features include: Bagley and Rabinowitsch Corrections plus power law, Carreau, Modified Cross and polynomial viscosity models. With this software users can merge multiple data files from shear stress, shear rate, or thermal stability tests. The resident KARS SQC module can be used to quickly identify viscosity variations in different lots of material. A program for the correlation of melt viscosity to intrinsic viscosity, for PET and Nylon, is also included.

REAL-TIME DISPLAY

In addition to all of its other powerful features LAB KARS for Windows[™] provides a real time display of force or pressure versus time as a test progresses. This feature allows the operator to identify the steady state flow condition for the material. In addition, the presence of contamination, unmelted resin, or bubbles in the material may be identified from spikes in the force versus time curve.



Features

- All digital calibration
- Increased speed and force range
- Advanced electronics and software enable up to 45 shear stress or shear rate data points per test
- Unique algorithms for polymer melt stability
- Bi-directional communications enable test parameters to be downloaded from the PC
- Multiple barrel heating zones and adaptive PID temperature control algorithm provide precise and uniform heat up to 430C (500C optional for Model 7000 and 7001 only)
- Precision servo-drive motor and transducers enable tight control of stress and rate mode tests
- Tungsten carbide dies and a hardened and honed tool steel barrel ensure long years of service
- LAB KARS, advanced rheology software

LAB KARS Features

- Bagley and Rabinowitsch Corrections
- Carreau, Modified Cross, Power Law and Polynomial curve fits
- Arrehnius temperature fit
- Statistical error estimation
- Shear rate dependence
- Time at temperature relationship
- Critical shear stress
- Zero shear viscosity
- Intrinsic viscosity correlation

Specificatio	Specifications				
Model	Description:	Options for Special Requirements A comprehensive list of optional features provides for the testing of a wide range of materials. These include:			
LCR7000	LCR7000 capillary rheometer with load cell, with cleaning and operating tools and one tungsten carbide orifice.	Corrosion resistant alloy barrel for testing corrosive materials such as PVC Tungsten carbide dies with a broad range of diameters and L./D ratios provide a wide range of measurement capability Laser micrometer for accurate measurements of die swell as the extrudate exits the die			
LCR7001	LCR7001 capillary rheometer with load cell, barrel mounted pressure transducer and long barrel, includes cleaning and operating tools and three tungsten carbide orifices.	Corrosion resistant alloy barrel for testing corrosive materials such as PVC Tungsten carbide dies with a broad range of diameters and L./D ratios provide a wide range of measurement capability Melt pressure transducer mounted just above the die, eliminates frictional and barrel pressure effects Laser micrometer for accurate measurements of die swell as the extrudate exits the die			
LCR7002	LCR7002 dual bore capillary rheometer with barrel mounted pressure transducers, cleaning and operating tools and four tungsten carbide dies				



Rokoma B.V.

Physical Specifications (LCR7000)			
Standards:	DIN ISO 11433, DIN 53014, DIN 54811, ASTM D3835		
Barrel:	I = 7.0" (162mm)		
	$\emptyset = 0.376" \pm 0.0002" (9.55mm \pm 0.005mm)$		
Drive System:	DC Servomotor		
Piston Speed:	0.03 to 600mm/min		
Dynamic Range:	20,000:1		
Testing Force:	10 kN standard (resolution 0.2N), 15 kN (optional)		
Force Measurement:	Load cell, barrel mounted pressure transducer (optional)		
Dies:	Tungsten carbide capillary, many L/D ratios available		
Die Swell Measurement:	Laser-Micrometer (optional)		
Temperature Range:	up to 430°C Standard		
Temperature Control:	4-zone electric heater		
Temperature Sensor:	4-wire Platinum RTD		
Temperature Control:	Adaptive PID-temperature-control-algorithm with 0.1°C resolution		
Temperature Accuracy:	±0.2°C at 0.50" (13mm)		
Ambient Temperature:	20 to 30°C		
Relative Humidity:	20% to 80%		
Voltage:	10% of Nominal Voltage		
Power Supply:	115/230Vac, 50/60Hz		
Power Consumption:	750W max, 200W typical		
Data Processing System:	PC-based		
System Software:	LAB KARS for Windows™ (Kayeness Advanced Rheology Software)		
Options and Accessories			
D7052DS2	Laser micrometer die swell measuring system		
GP8000C	Personal computer with LAB KARS for Windows software installed		
GP7984C	Color Printer		
8052-97K	Barrel cleaning kit – 110V		
8052-97KE	Barrel cleaning kit – 230V		
GRAN	High speed mini granulator		
BTP1000A	Barrel temperature calibration kit – 110V		
BTP100AHV	Barrel temperature calibration kit - 230V		
8052-65BG	Barrel bore verification kit		
D7992	Electronic load cell calibration kit		

Physical Specifications (LCR7001)			
Standards:	DIN ISO 11433, DIN 53014, DIN 54811, ASTM D3835		
Barrel:	I = 7.88" (200mm)		
	$\emptyset = 0.376" \pm 0.0002" (9.55mm \pm 0.005mm)$		
Drive System:	DC Servomotor		
Piston Speed:	0.03 to 600mm/min		
Dynamic Range:	20,000:1		
Testing Force:	10 kN standard (resolution 0.2N) per bore		
Force Measurement:	Barrel mounted pressure transducers (2)		
Dies:	Tungsten carbide capillary, many L/D ratios available		
Temperature Range:	up to 430°C Standard		
Temperature Control:	4-zone electric heater		
Temperature Sensor:	4-wire Platinum RTD		
Temperature Control:	Adaptive PID-temperature-control-algorithm with 0.1°C resolution		
Temperature Accuracy:	±0.2°C at 0.50" (13mm)		
Ambient Temperature:	20 to 30°C		
Relative Humidity:	20% to 80%		
Voltage:	10% of Nominal Voltage		
Power Supply:	115/230Vac, 50/60Hz		
Power Consumption:	750W max, 200W typical		
Data Processing System:	PC-based		
System Software:	LAB KARS for Windows™ (Kayeness Advanced Rheology Software)		
Options and Accessories			
D7052DS2	Laser micrometer die swell measuring system		
GP8000C	Personal computer with LAB KARS for Windows software installed		
GP7984C	Color Printer		
8052-155	Pressure transducer port cleaning kit		
8052-97K	Barrel cleaning kit – 110V		
8052-97KE	Barrel cleaning kit – 230V		
GRAN	High speed mini granulator		
BTP1000A	Barrel temperature calibration kit – 110V		
BTP100AHV	Barrel temperature calibration kit - 230V		
8052-65BG	Barrel bore verification kit		
D7992	Electronic load cell calibration kit		

Barrel: I = 7.88" (200mm) Ø = 0.376" ±0.0002" (9.55mm ±0.005mm) Drive System: DC Servomotor Dynamic Range: 20,000:1 Testing Force: 10 kN standard (resolution 0.2N), 15 kN (optional) Force Measurement: Load cell, barrel mounted pressure transducer (optional) Dies: Tungsten carbide capillary, many L/D ratios available Die Swell Measurement: Laser-Micrometer (optional) Temperature Range: up to 430°C Standard Temperature Control: 4-zone electric heater Temperature Sensor: 4-wire Platinum RTD Temperature Control: Adaptive PID-temperature-control-algorithm with 0.1°C resolution Temperature Accuracy: ±0.2°C at 0.50" (13mm) Ambient Temperature: 20 to 30°C Relative Humidity: 20% to 80% Voltage: 10% of Nominal Voltage Power Supply: 115/230Vac, 50/60Hz Power Consumption: 750W max, 200W typical Data Processing System: PC-based System Software: LAB KARS for Windows* (Kayeness Advanced Rheology Software) Options and Accessories GP7984C Color Printer S052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit - 110V B8052-97K Barrel cleaning kit - 230V B17100AHV Barrel temperature calibration kit - 230V B052-65BG Barrel bore verification kit	Physical Specifications (LCR7002)				
φ = 0.376" ±0.0002" (9.55mm ±0.005mm) Drive System: DC Servomotor Piston Speed: 0.03 to 600mm/min Dynamic Range: 20,000:1 Testing Force: 10 kN standard (resolution 0.2N), 15 kN (optional) Force Measurement: Load cell, barrel mounted pressure transducer (optional) Dies: Tungsten carbide capillary, many L/D ratios available Die Swell Measurement: Laser-Micrometer (optional) Temperature Range: up to 430°C Standard Temperature Control: 4-zone electric heater Temperature Sensor: 4-wire Platinum RTD Temperature Accuracy: ±0.2°C at 0.50° (13mm) Ambient Temperature: 20 to 30°C Relative Humidity: 20% to 80% Voltage: 10% of Nominal Voltage Power Supply: 115/230Vac, 50/60Hz Power Consumption: 750W max, 200W typical Data Processing System: PC-based System Software: LAB KARS for Windows" (Kayeness Advanced Rheology Software) Options and Accessories GR9800C GP7984C Color Printer 8052-155 Pressure transducer p	Standards:	DIN ISO 11433, DIN 53014, DIN 54811, ASTM D3835			
Drive System: DC Servomotor Piston Speed: 0.03 to 600mm/min Dynamic Range: 20,000:1 Testing Force: 10 kN standard (resolution 0.2N), 15 kN (optional) Force Measurement: Load cell, barrel mounted pressure transducer (optional) Dies: Tungsten carbide capillary, many L/D ratios available Die Swell Measurement: Laser-Micrometer (optional) Temperature Range: Up to 430°C Standard Temperature Control: Adaptive Plot-temperature-control-algorithm with 0.1°C resolution Temperature Accuracy: 4-wire Platinum RTD Temperature Accuracy: 4-0.2°C at 0.50" (13mm) Ambient Temperature: 20 to 30°C Relative Humidity: 20% to 80% Voltage: 10% of Nominal Voltage Power Supply: 115/230Vac, 50/60Hz Power Consumption: Data Processing System: PC-based System Software: LAB KARS for Windows" (Kayeness Advanced Rheology Software) Options and Accessories GP800C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer Resource Tansducer port cleaning kit 8052-97K Barrel cleaning kit – 110V Barrel temperature calibration kit – 110V BTP100AHV Barrel temperature calibration kit – 230V Barrel temperature calibration kit – 230V Barrel bore verification kit	Barrel:	I = 7.88" (200mm)			
Piston Speed: 0.03 to 600mm/min Dynamic Range: 20,000:1 Testing Force: 10 kN standard (resolution 0.2N), 15 kN (optional) Force Measurement: Load cell, barrel mounted pressure transducer (optional) Dies: Tungsten carbide capillary, many L/D ratios available Die Swell Measurement: Laser-Micrometer (optional) Temperature Range: up to 430°C Standard Temperature Control: 4-zone electric heater Temperature Sensor: 4-wire Platinum RTD Temperature Control: Adaptive PID-temperature-control-algorithm with 0.1°C resolution Temperature Accuracy: ±0.2°C at 0.50" (13mm) Ambient Temperature: 20 to 30°C Relative Humidity: 20% of Nominal Voltage Power Supply: 115/230Vac, 50/60Hz Power Consumption: 750W max, 200W typical Data Processing System: PC-based System Software: LAB KARS for Windows" (Kayeness Advanced Rheology Software) Options and Accessories GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit Barrel cleaning kit – 110V 8052-97KE Barrel cleaning kit – 230V Barrel temperature calibration kit – 110V BTP100AHV Barrel temperature calibration kit – 230V Barrel temperature calibration kit		$\emptyset = 0.376'' \pm 0.0002'' (9.55 \text{mm} \pm 0.005 \text{mm})$			
Dynamic Range: 20,000:1 Testing Force: 10 kN standard (resolution 0.2N), 15 kN (optional) Force Measurement: Load cell, barrel mounted pressure transducer (optional) Dies: Tungsten carbide capillary, many L/D ratios available Die Swell Measurement: Laser-Micrometer (optional) Temperature Range: up to 430°C Standard Temperature Control: 4-zone electric heater Temperature Sensor: 4-wire Platinum RTD Temperature Control: Adaptive PID-temperature-control-algorithm with 0.1°C resolution Temperature Accuracy: ±0.2°C at 0.50" (13mm) Ambient Temperature: 20 to 30°C Relative Humidity: 20% of Nominal Voltage Power Supply: 115/230Vac, 50/60Hz Power Consumption: 750W max, 200W typical Data Processing System: PC-based System Software: LAB KARS for Windows" (Kayeness Advanced Rheology Software) Options and Accessories GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit – 110V 8052-97KE Barrel cleaning kit – 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 230V 8052-65BG Barrel bore verification kit	Drive System:	DC Servomotor			
Testing Force: 10 kN standard (resolution 0.2N), 15 kN (optional) Force Measurement: Load cell, barrel mounted pressure transducer (optional) Dies: Tungsten carbide capillary, many L/D ratios available Die Swell Measurement: Laser-Micrometer (optional) Temperature Range: up to 430°C Standard Temperature Control: 4-zone electric heater Temperature Sensor: 4-wire Platinum RTD Temperature Control: Adaptive PID-temperature-control-algorithm with 0.1°C resolution Temperature Accuracy: ±0.2°C at 0.50" (13mm) Ambient Temperature: 20 to 30°C Relative Humidity: 20% to 80% Voltage: 10% of Nominal Voltage Power Supply: 115/230Vac, 50/60Hz Power Consumption: 750W max, 200W typical Data Processing System: PC-based System Software: LAB KARS for Windows" (Kayeness Advanced Rheology Software) Options and Accessories GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit – 110V 8052-97KE Barrel cleaning kit – 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 230V 8052-65BG Barrel bore verification kit	Piston Speed:	0.03 to 600mm/min			
Force Measurement: Dies: Tungsten carbide capillary, many L/D ratios available Die Swell Measurement: Laser-Micrometer (optional) Temperature Range: up to 430°C Standard 4-zone electric heater Temperature Sensor: 4-wire Platinum RTD Temperature Control: Adaptive PID-temperature-control-algorithm with 0.1°C resolution Temperature Accuracy: 4-0.2°C at 0.50" (13mm) Ambient Temperature: 20 to 30°C Relative Humidity: 20% to 80% Voltage: 10% of Nominal Voltage Power Supply: 115/230Vac, 50/60Hz Power Consumption: Data Processing System: PC-based System Software: LAB KARS for Windows* (Kayeness Advanced Rheology Software) Options and Accessories GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-95K Barrel cleaning kit – 110V 8052-97KE Barrel cleaning kit – 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 230V BTP100AHV Barrel bore verification kit	Dynamic Range:	20,000:1			
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Temperature Range: Temperature Control: 4-zone electric heater 4-wire Platinum RTD Temperature Control: Adaptive PID-temperature-control-algorithm with 0.1°C resolution Temperature Accuracy: ±0.2°C at 0.50" (13mm) Ambient Temperature: 20 to 30°C Relative Humidity: 20% to 80% Voltage: 10% of Nominal Voltage Power Supply: 115/230Vac, 50/60Hz Power Consumption: 750W max, 200W typical Data Processing System: PC-based System Software: LAB KARS for Windows" (Kayeness Advanced Rheology Software) Options and Accessories GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit – 110V 8052-97KE Barrel cleaning kit – 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 110V BTP100AHV Barrel bore verification kit	Dies:	Tungsten carbide capillary, many L/D ratios available			
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Temperature Control: Adaptive PID-temperature-control-algorithm with 0.1°C resolution Temperature Accuracy: ±0.2°C at 0.50" (13mm) Ambient Temperature: 20 to 30°C Relative Humidity: 20% to 80% Voltage: 10% of Nominal Voltage Power Supply: 115/230Vac, 50/60Hz Power Consumption: 750W max, 200W typical Data Processing System: PC-based System Software: LAB KARS for Windows (Kayeness Advanced Rheology Software) Options and Accessories GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit – 110V 8052-97KE Barrel cleaning kit – 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 110V BTP100AHV Barrel temperature calibration kit – 230V	Temperature Control:	4-zone electric heater			
Temperature Accuracy: ±0.2°C at 0.50" (13mm) Ambient Temperature: 20 to 30°C Relative Humidity: 20% to 80% Voltage: 10% of Nominal Voltage Power Supply: 115/230Vac, 50/60Hz Power Consumption: 750W max, 200W typical Data Processing System: PC-based System Software: LAB KARS for Windows" (Kayeness Advanced Rheology Software) Options and Accessories GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit – 110V 8052-97KE Barrel cleaning kit – 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 110V BTP100AHV Barrel temperature calibration kit – 230V	Temperature Sensor:	4-wire Platinum RTD			
Ambient Temperature: 20 to 30°C Relative Humidity: 20% to 80% Voltage: 10% of Nominal Voltage Power Supply: 115/230Vac, 50/60Hz Power Consumption: 750W max, 200W typical Data Processing System: PC-based System Software: LAB KARS for Windows" (Kayeness Advanced Rheology Software) Options and Accessories GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit – 110V 8052-97KE Barrel cleaning kit – 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 110V BTP100AHV Barrel temperature calibration kit - 230V BTP100AHV Barrel bore verification kit	Temperature Control:	Adaptive PID-temperature-control-algorithm with 0.1°C resolution			
Relative Humidity: 20% to 80% Voltage: 10% of Nominal Voltage Power Supply: 115/230Vac, 50/60Hz Power Consumption: 750W max, 200W typical Data Processing System: PC-based System Software: LAB KARS for Windows" (Kayeness Advanced Rheology Software) Options and Accessories GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit – 110V 8052-97KE Barrel cleaning kit – 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 110V BTP100AHV Barrel temperature calibration kit - 230V BARREL SOM Barrel bore verification kit BARREL SOM Barrel bore verification kit	Temperature Accuracy:	±0.2°C at 0.50" (13mm)			
Voltage: 10% of Nominal Voltage Power Supply: 115/230Vac, 50/60Hz Power Consumption: 750W max, 200W typical Data Processing System: PC-based System Software: LAB KARS for Windows" (Kayeness Advanced Rheology Software) Options and Accessories GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit – 110V 8052-97KE Barrel cleaning kit – 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 110V BTP100AHV Barrel temperature calibration kit – 230V Barrel temperature calibration kit – 230V Barrel bore verification kit	Ambient Temperature:	20 to 30°C			
Power Supply: 115/230Vac, 50/60Hz Power Consumption: 750W max, 200W typical Data Processing System: PC-based System Software: LAB KARS for Windows™ (Kayeness Advanced Rheology Software) Options and Accessories GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit − 110V 8052-97KE Barrel cleaning kit − 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit − 110V BTP100AHV Barrel temperature calibration kit − 230V	Relative Humidity:	20% to 80%			
Power Consumption: 750W max, 200W typical Data Processing System: PC-based System Software: LAB KARS for Windows™ (Kayeness Advanced Rheology Software) Options and Accessories GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit − 110V 8052-97KE Barrel cleaning kit − 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit − 110V BTP100AHV Barrel temperature calibration kit − 230V 8052-65BG Barrel bore verification kit	Voltage:	10% of Nominal Voltage			
Data Processing System: System Software: Coptions and Accessories GP8000C GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit − 110V 8052-97KE Barrel cleaning kit − 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit − 110V BTP100AHV Barrel temperature calibration kit − 230V	Power Supply:	115/230Vac, 50/60Hz			
System Software: Characteristics Color Printer Colo	Power Consumption:	750W max, 200W typical			
Options and Accessories GP8000C Personal computer with LAB KARS for Windows software installed GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit – 110V 8052-97KE Barrel cleaning kit – 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 110V BTP100AHV Barrel temperature calibration kit – 230V 8052-65BG Barrel bore verification kit	Data Processing System:	PC-based			
GP8000C GP8000C GP7984C Color Printer 8052-155 Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit – 110V 8052-97KE Barrel cleaning kit – 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 110V Barrel temperature calibration kit – 230V Barrel temperature calibration kit – 120V Barrel temperature calibration kit – 120V Barrel temperature calibration kit – 230V	System Software:	LAB KARS for Windows™ (Kayeness Advanced Rheology Software)			
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Pressure transducer port cleaning kit 8052-97K Barrel cleaning kit – 110V 8052-97KE Barrel cleaning kit – 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 110V BTP100AHV Barrel temperature calibration kit - 230V Barrel temperature calibration kit - 230V Barrel temperature calibration kit - 230V	GP8000C	Personal computer with LAB KARS for Windows software installed			
Barrel cleaning kit – 110V Bo52-97KE Barrel cleaning kit – 230V High speed mini granulator BTP1000A Barrel temperature calibration kit – 110V BTP100AHV Barrel temperature calibration kit - 230V Barrel temperature calibration kit - 230V	GP7984C	Color Printer			
Barrel cleaning kit – 230V GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 110V BTP100AHV Barrel temperature calibration kit - 230V Bosse-65BG Barrel bore verification kit	8052-155	Pressure transducer port cleaning kit			
GRAN High speed mini granulator BTP1000A Barrel temperature calibration kit – 110V BTP100AHV Barrel temperature calibration kit - 230V Bosse-65BG Barrel bore verification kit	8052-97K	Barrel cleaning kit – 110V			
BTP1000A Barrel temperature calibration kit – 110V BTP100AHV Barrel temperature calibration kit - 230V 8052-65BG Barrel bore verification kit	8052-97KE	Barrel cleaning kit – 230V			
BTP100AHV Barrel temperature calibration kit - 230V 8052-65BG Barrel bore verification kit	GRAN	High speed mini granulator			
8052-65BG Barrel bore verification kit	BTP1000A	Barrel temperature calibration kit – 110V			
	BTP100AHV	Barrel temperature calibration kit - 230V			
D7992 Electronic load cell calibration kit	8052-65BG	Barrel bore verification kit			
	D7992	Electronic load cell calibration kit			



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Refer to www.dynisco.com for access to Operator Manual and other support documentation.

DSLCR7000SERIES 0316

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