



## Parts and Supplies Catalog



### Parts and Supplies for:

**Coulometers:** Models CM5017, CM5017O, CM5017S, CM5016, and older models CM5010, CM5011, CM5012, CM5014, CM5014S, CM5015, CM5015O, and CM5015S

**Acidification Modules:** Models CM5030, CM5130, CM5230, and CM5330

**Furnace Modules:** Models CM5020, CM5120, CM5300 and CM5600

**Autosampler Modules:** Models CM5200, CM5240, CM5370, and CM5390

UIC offers additional instrumentation, equipment and services for applications in:

- Geology
- Oceanography
- Marine and freshwater research
- Environmental Analysis
- Cleanliness Verification

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# CO<sub>2</sub> Coulometers



Model CM5010 CO<sub>2</sub> Coulometer, c. 1975 - The Model CM5010 has either a light blue or gray case with analog meters. This model is obsolete.

Model CM5011 CO<sub>2</sub> Coulometer, c. 1985 - The Model CM5011 has a gray or black cabinet with off-white front panels. This model utilizes LCD panel meters and thumbwheel selector switches. The CM5011 is obsolete unit.



Model CM5012 CO<sub>2</sub> Coulometer, c. 1991 – The Model CM5012 has an off-white cabinet with a black, cast aluminum front. This model utilizes LED panel meters, thumbwheel selector switches and has an enclosed cell compartment. The CM5012 is obsolete unit.

Model CM5014 CO<sub>2</sub> Coulometer, c. 1999 - The Model CM5014 has an off-white cabinet with a black, cast aluminum front. This model utilizes an integrated keyboard and plasma-dot display. Like the CM5012, the CM5014 also has an enclosed cell compartment. The CM5014 is obsolete unit.



Model CM5015 CO<sub>2</sub> Coulometer, c. 2008 - The Model CM5015 has an off-white cabinet with a blue, cast aluminum front. This model utilizes a 10" LCD touch screen. Like the CM5012 and CM5014, the CM5015 also has an enclosed cell compartment. This model is now obsolete, but all original or alternate parts are still available.

Model CM5015O, c. 2014 – Oceanographic CO<sub>2</sub> Coulometer with CM5011 Emulation, 50 mA optimization and open cell compartment. For Dissolved Carbon Dioxide (DIC) in Sea Water measurements. CM5015O is used with SOMMA or VINDTA instruments. This model is now obsolete, but all original or alternate parts are still available.



Model CM5016, c. 2013 – Dual CO<sub>2</sub>/ SO<sub>2</sub> Coulometer with open cell compartments for highly accurate, absolute determination of carbon and/or sulfur in any CO<sub>2</sub>/SO<sub>2</sub>/H<sub>2</sub>S-containing gas stream. The Model CM5016 has an off-white cabinet with a blue, cast aluminum front and is a current full-production model.

Model CM5017 CO<sub>2</sub> Coulometer, c. 2016 - This model has detached touch screen that is larger than in CM5015. It has a keyboard for easier data entry and open Cell Compartment. Instrument is supplied with an external open style cell compartment and associated Cell assembly for ease of use. The CM5017 is the current full-production model.



Model CM5017O, c. 2016 – Oceanographic CO<sub>2</sub> Coulometer with CM5011 Emulation, 50 mA optimization and open cell compartment. For Dissolved Carbon Dioxide (DIC) in Sea Water measurements. CM5017O is used with SOMMA or VINDTA instruments. New, fast-responding touch screen and CM5011 Emulation as standard and only program. The CM5017O is the current full-production model.



## SO<sub>2</sub> Coulometers

Model CM3200 SO<sub>2</sub> Coulometer, c. 1985 - The Model CM3200 has a gray or black cabinet with off-white front panels. This model utilizes LCD panel meters and thumbwheel selector switches. The CM3200 is no longer in production.



Model CM5014S SO<sub>2</sub> Coulometer, c. 2002 - The Model CM5014S has an off-white cabinet with a black, cast aluminum front. This model utilizes an integrated keyboard and plasma-dot display. The CM5014S is no longer in production.



Model CM5015S SO<sub>2</sub> Coulometer, c. 2009 - The Model CM5015S has an off-white cabinet with a blue, cast aluminum front. This model utilizes 10" LCD touch screen. The CM5015S is no longer in production.



Model CM5017S SO<sub>2</sub> Coulometer, c. 2016 - This model has detached touch screen that is larger than in CM5015S. It has a keyboard for easier data entry and open Cell Compartment. Instrument is supplied with an external open style cell compartment and associated Cell assembly for ease of use. The CM5017S is the current full-production model.





# Acidification Modules



Model CM5020 Acidification Module, c. 1975 - The Model CM5020 has a stainless-steel body and "cigarette lighter" style heater. CM5020 model is obsolete.



Model CM5130 Acidification Module, c. 1985 - The Model CM5130 has a gray or black cabinet with off-white front panels. The CM5130 is obsolete model.



Model CM5230 Acidification Module, c. 2008 - The Model CM5230 has an off-white cabinet with a blue, cast aluminum front. The CM5230 is obsolete model.



Model CM5330 Acidification Module, c. 2016 - The Model CM5330 has black cabinet with steel cover. The CM5330 is the current full-production model.

## Furnace Modules



Model CM5020 Furnace Module, c. 1975 - The Model CM5020 was mostly brown in color. All components for the CM5020 are obsolete.

Model CM5120 Furnace Module, c. 1985 - The Model CM5120 has a gray or black cabinet with off-white front panels. CM5120 is obsolete model.



Model CM5600 Infrared Furnace Module, c. 2001 - The Model CM5600 has a dark gray cabinet with off- white side panels. This furnace utilizes an auxiliary catalyst furnace. The CM5600 is obsolete model.

Model CM5300 Furnace Module, c. 1999 - The Model CM5300 has an off-white cabinet with a blue insert on the front. This is the current full-production model.





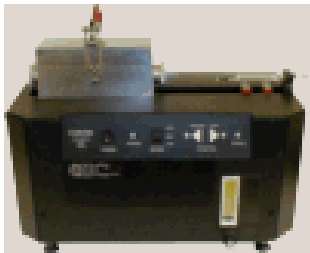
# Autosamplers



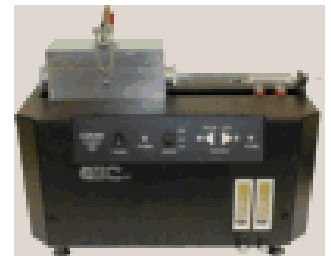
Model CM5240 Auto-Acidification Module, c. 1999 - The Model CM5240 has an off-white body with gray Lucite doors. There are two revision levels for this model, but all components are interchangeable. This is a current full-production model.



Model CM5200 Autosampler Furnace Module, c. 1996 - The Model CM5200 has an off-white cabinet and a cast aluminum front panel. This is a current full-production model and all components are available.



Model CM5390 Automated Boat Inlet (ABI), 2005 – For total and organic carbon measurements. ABI has a black sheet metal cabinet with large, easy to access sample entry box. ABI has selectable sample entry speeds, variable purge time setting, and an integrated flowmeter. ABI replaces traditional “dog houses”.



Model CM5390S Automated Boat Inlet (ABI), 2009 – For total and organic sulfur measurements is very similar to CM5390 but with two integrated flowmeters. ABI replaces traditional “dog houses”. CM5390S is a current full-production model and all components are available.



Model CM5370S Horizontal Furnace Autosampler, 2016 – For total and organic sulfur measurements. CM5370S has aluminum base with a black sheet metal cabinetry and large, easy to access sample entry box. CM5370S is a current full-production model and all components are available.

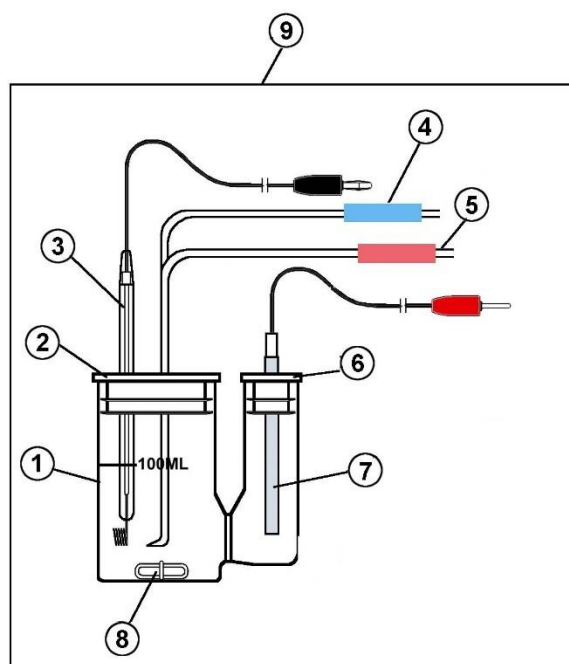


Model Cm5700B TIC auto acidification unit, 2021- For TIC measurements to automate our classic CM140 unit. This is paired with our current CM 5017 coulometer .

## Parts for CO<sub>2</sub> Coulometers

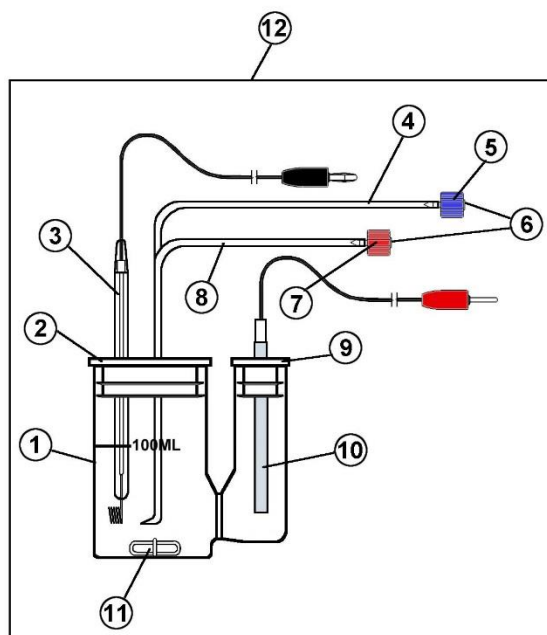
### *Carbon Coulometer Cell for CM5017 and CM50170*

Diag. #	Description	Part No.
1	Cell with side arm	CM200-051
2	Cathode top, teflon	CM119-027
3	Platinum cathode	CM101-135
4	Cell inlet tube	CM190-020
5	Cell outlet tube	CM190-021
6	Anode top, teflon	CM119-028
7	Silver anode	CM101-033
8	Stir bar, 1 1/8"	CM121-001
9	Complete cell assembly	CM210-032

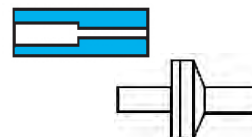
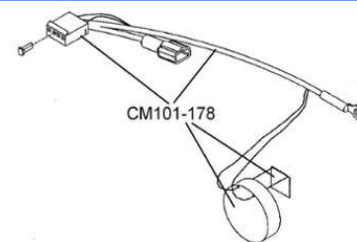


## Carbon Coulometer Cell for CM5010, CM5011, CM5012, CM5014, CM5015, and CM5015O

Diag. #	Description	Part No.
1	Cell w/ side arm, straight sides (All Coulometers)	CM200-051
2	Cathode Top, white Teflon (All Coulometers except CM5011)	CM119-027
	Cathode Top, black rubber (for CM5011)	CM192-005
3	Platinum electrode, cathode (CM5012, CM5014, CM5015)	CM101-135
	Platinum electrode, cathode (CM5010, CM5011, CM5015O)	CM101-034
4	Cell inlet tube w/blue luer lock conn. (CM5012, CM5014, CM5015)	CM101-137
	Cell inlet tube (CM5010, CM5011, CM5015O)	CM190-002
5	Luer lock ring, blue (CM5012, CM5014, CM5015)	CM129-073
6	Male luer conn. w/ barbs, 1/16" id (CM5012, CM5014, CM5015)	CM129-071
7	Luer lock ring, red (CM5012, CM5014, CM5015)	CM129-072
8	Cell outlet tube w/ red luer lock conn. (CM5012, CM5014, CM5015)	CM101-136
9	Anode top, white Teflon (CM5012, CM5014, CM5015, CM5015O)	CM119-028
	Anode top, black rubber (CM5011)	CM192-006
10	Silver electrode, anode (all coulometers)	CM101-033
11	Stir bar, 1 1/8" (all CO <sub>2</sub> coulometers)	CM121-001
12	-Complete cell assembly for CM5012, CM5014, and CM5015	CM210-015
	-Complete cell assembly for CM5010 and CM5011	CM210-008
	-Complete cell assembly for CM5015O	CM210-016
	Adapter, banana jack to pin TIP plug	CM151-053



CM101-178	Photodiode Assembly
CM125-004	Fuse, 1A, 250V
CM125-010	Fuse, 1.5A, 250V
CM133-083	SD card for CM5015 and CM5016
CM133-115	USB Flash Drive, 8 GB, for CM5017
CM191-001	Unions, small, 1/4" x 1/8", 10/pk
CM192-003	Check valves, 6/pk
CM119-013	Component attachment clip, 2 1/4", each
CM129-074	Lock nut, each
CM140-001	Optical Filter, 620 nM
CM140-005	Lamp, L4038, each
CM150-008	Lamp socket Assembly, each
CM190-009	Tubing, Teflon, 1/16" id x 1/8" od
CM190-010	Tubing, Teflon, 3/32" id x 5/32" od
CM5090-01	Cell Cleaning Kit 115VAC
CM124-072	Vacuum Pump, 115V, 60HZ
CM5090-02	Cell Cleaning Kit 230VAC
CM124-079	Vacuum Pump, 230V, 50HZ
CM190-019	Black rubber vacuum tubing, 1/4"ID X 1/2"OD
CM191-066	Barbed connector 1/4 X 5/32
CM192-004	Rubber stopper



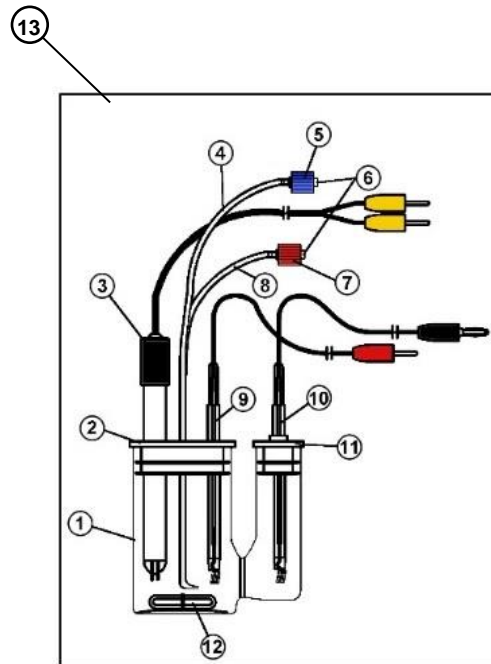
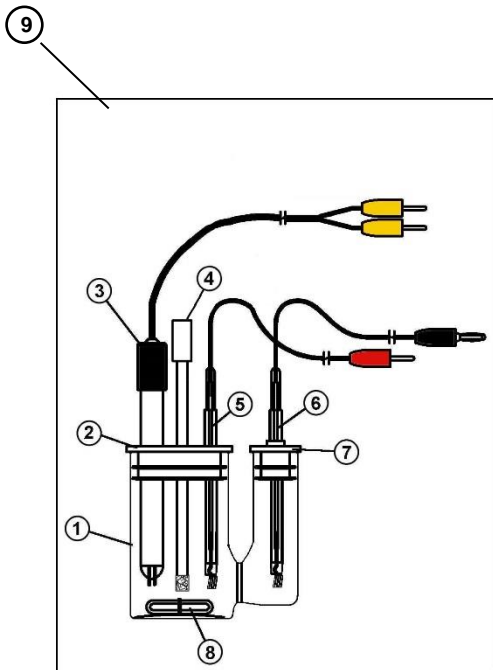
## Chemicals

CM300-001	Carbon cathode solution, 1 gallon, each
CM300-002	Carbon anode solution, 16 oz., each
CM300-003	Potassium iodide, 50 gm., each
CM301-002	Calcium carbonate standard, 100 gm., each
CM310-001	Carbon cell reagent kit includes CM300-001, CM300-002 and CM300-003, each

# SO<sub>2</sub> Coulometer

## Sulfur Coulometer Cell for CM5017S

Diag. #	Description	Part No.
1	Cell w/ side arm, straight sides	CM200-051
2	Anode Top, white Teflon	CM119-086
3	Detector electrode, dual platinum	CM101-275
4	Dispersion tube	CM200-062
5	Platinum Anode, red lead	CM101-210
6	Platinum electrode, cathode	CM101-135
7	Cathode Top, white Teflon	CM101-213
8	Stir bar, 1.5" (all SO <sub>2</sub> coulometers)	CM121-006
9	Complete cell assembly	CM210-035



(Parts listed on the following page)

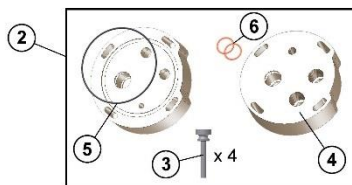
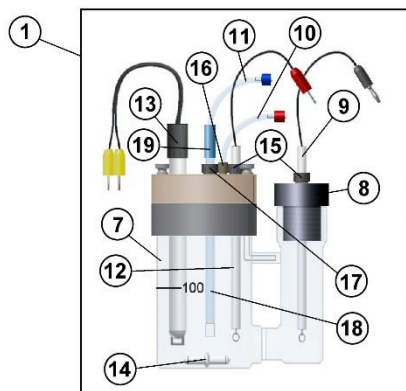
## Sulfur Coulometer Cell for CM3200, CM5014S and CM5015S


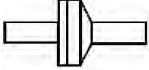
Diag. #	Description	Part No.
1	Cell w/ side arm, straight sides (CM3200, CM5014S, CM5015S)	CM200-051
2	Anode Top, white Teflon (CM5014S, CM5015S)	CM119-040
	Anode Top, green rubber (CM3200)	CM192-007
3	Detector electrode, dual platinum (CM5015S, CM5017S)	CM101-275
	Detector electrode, dual platinum (CM3200, CM5014S)	CM101-098
4	Cell inlet tube w/ blue luer lock connector (CM5014S, CM5015S)	CM101-137
	Cell inlet tube (CM3200)	CM190-002
5	Luer lock ring, blue (CM5014S, CM5015S)	CM129-073
6	Male luer connector w/ barbs, 1/16" id (CM5014S, CM5015S)	CM129-071
7	Luer lock ring, red (CM5014S, CM5015S)	CM129-072
8	Cell outlet tube w/ red luer lock connector (CM5014S, CM5015S)	CM101-136
9	Platinum Anode, red lead (CM5014S, CM5015S)	CM101-210
	Platinum Anode, red lead (CM3200)	CM101-097
10	Platinum electrode, cathode (CM5014S, CM5015S)	CM101-135
	Platinum electrode, cathode (CM3200)	CM101-096
11	Cathode Top, white Teflon (CM5014S, CM5015S)	CM101-213
	Cathode Top, green rubber (CM3200)	CM192-008
12	Stir bar, 1.5" (all SO <sub>2</sub> coulometers)	CM121-006
13	Complete cell assembly (CM5015S)	CM210-028
	Complete cell assembly (CM5014S)	CM210-025
	Complete cell assembly (CM3200)	CM210-009



## Simultaneous Carbon/Sulfur Coulometer Cell for CM5016

Diag. #	Description	Part No.
1	Complete Cell Assembly	CM210-031
2	Anode Top Assembly (includes items 3, 4, 5, and 6)	CM119-078
3	Thumb Screws	CM111-083
4	Anode Top	CM118-442
5	O-Ring, EPDM, -138	CM153-035
6	O-Rings, Silicone, -111	CM153-036
7	Cell with Ring Attached	CM210-030
8	Cathode Top	CM119-077
9	Platinum Electrode	CM101-135
10	Cell Outlet Tube	CM101-136
11	Cell Inlet Tube	CM101-209
12	Pt Electrode w/ Pin Plug	CM101-210
13	Detector Electrode	CM101-275
14	Stir Bar, 1-1/2"	CM121-006
15	Nut, Flangeless, 1/4"	CM191-057
15	Ferrule, Flangeless, 1/4"	CM191-058
16	Nut, 5/16-24, PEEK	CM191-059
16	Ferrule, Flangeless, 1/8"	CM191-060
17	Nut, Flangeless, 5/16"	CM191-061
17	Ferrule, ETFE, 7mm	CM129-120
18	Dispersion Tube	CM200-062
19	Union, 1/4" x 1/8"	CM191-001



CM119-013	Component attachment clip, 2 1/4", each
CM125-004	Fuse, 1A, 250V
CM125-010	Fuse, 1.5A, 250V
CM129-074	Lock nut, each
CM133-083	SD card for CM5015S
CM133-115	USB Flash Drive, 8 GB, for CM5017S
CM190-009	Tubing, Teflon, 1/16" id x 1/8" od, per inch
CM190-010	Tubing, Teflon, 3/32" id x 5/32" od, per inch
CM191-001	Unions, small, 1/4" x 1/8", 10/pk 
CM192-003	Check valves, 6/pk 
CM124-072 / CM124-079	Vacuum Pump – See page 12 for details

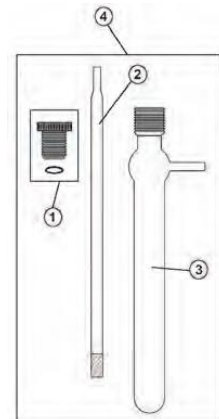
### Chemicals

CM300-026	Sulfur anode solution, 4 quarts, each
CM300-027	Sulfur cathode solution, 1 quart, each
CM310-002	Sulfur cell reagent kit includes CM300-026 and CM300-027, each

## Acidification Modules (CM5130, CM5230, and CM5330)

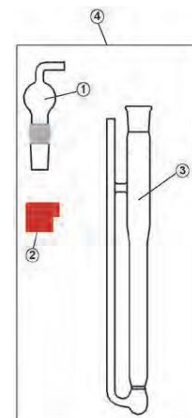
### Pre-Scrubber Assembly

Diag. #	Description	Part No.
1	Black threaded bushing w/ O-ring	CM191-006
2	Dispersion tube for pre-scrubber	CM200-016
3	Pre-scrubber body	CM200-015
4	Pre-scrubber assembly, complete	CM210-002



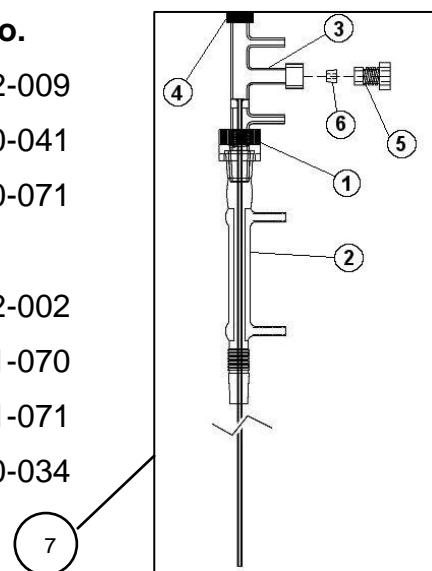
### Post-Scrubber Assembly

Diag. #	Description	Part No.
1	Post-scrubber Top	CM200-046
2	Threaded joint connector, red	CM192-009
3	Post-scrubber body	CM200-020
4	Post-scrubber assembly, complete	CM210-012



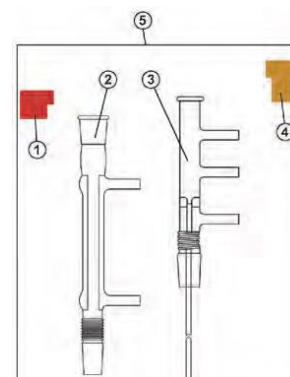
## Sample Column Assembly for CM5330

Diag. #	Description	Part No.
1	Threaded joint connector, red	CM192-009
2	Threaded condenser	CM200-041
3	Adapter Sample Column Type 2, with Tubing Rev A	CM200-071
4	Septa, 10/pk	CM192-002
5	Bushing, # 7 Nylon Rev A	CM191-070
6	Ferrule, Teflon, 1/8in Rev A	CM191-071
7	Sample column assembly, complete	CM210-034



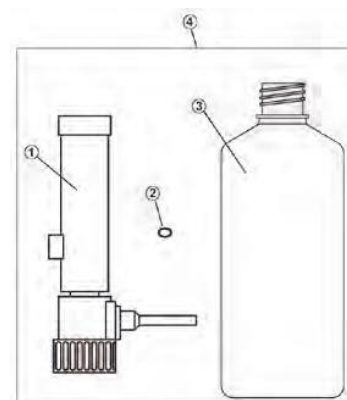
## Sample Column Assembly for CM5130 and CM5230

Diag. #	Description	Part No.
1	Threaded joint connector, red	CM192-009
2	Threaded condenser	CM200-041
3	Sample column adapter, threaded	CM210-013
4	Septa, 10/pk	CM192-002
5	Sample column assembly, complete	CM210-010



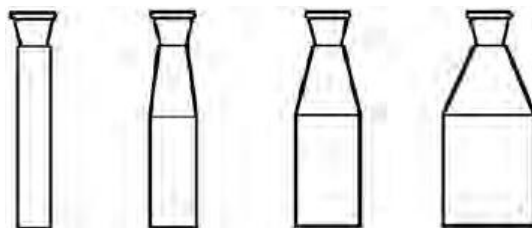
## Acid Dispenser Assembly

Diag. #	Description	Part No.
1	Acid dispenser, 0-5ml injection volume	CM250-007
2	O-ring, 1/4" OD x 1/8" ID	CM153-001
3	Bottle, polyethylene, 500ml	CM332-010
4	Acid dispenser assembly, complete	CM101-115



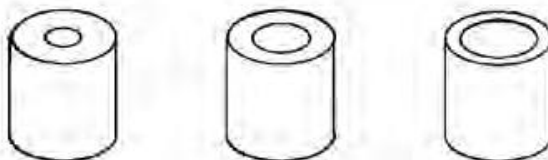
## Sample Flasks

CM200-042	Sample flask, 10ml, ea.
CM200-043	Sample flask, 25ml, ea.
CM200-044	Sample flask, 50ml, ea.
CM200-045	Sample flask, 100ml, ea.



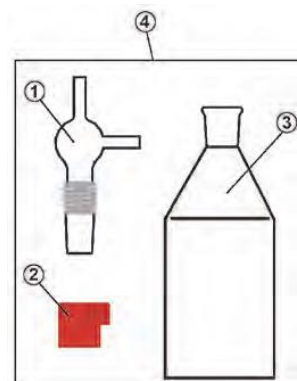
## Heater Block Inserts

CM122-042	Heater block insert, 10ml, ea.
CM122-043	Heater block insert, 25ml, ea.
CM122-044	Heater block insert, 50ml, ea.

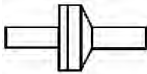

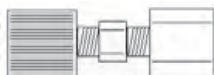




## Auxiliary Scrubber Assembly

Diag. #	Description	Part No.
1	Auxiliary scrubber top, threaded	CM200-055
2	Threaded joint connector, red	CM192-009
3	Sample flask, 100ml	CM200-045
4	Auxiliary scrubber assembly, complete	CM210-017



## Other Parts and Accessories

CM192-003	Check valves, 6/pk	
CM191-001	Unions, small, 1/4" x 1/8", 10/pk	
CM191-012	Union, Teflon, 1/4" x 1/8", ea.	
CM119-034/50	Sample cups, Teflon, 50/pk	
CM123-017	Flowmeter, ea.	

CM101-122	Clamp assembly
CM101-268	Solenoid valve assembly (CM5130, CM5230, CM5330)
CM101-270	Heater assembly (CM5230, CM5330)
CM119-016	Component attachment clip, 3/4", ea.
CM119-017	Component attachment clip, 1/2", ea.
CM121-001	Stir bar, 1", ea.
CM101-269	Internal air pump assembly (CM5130, CM5230, CM5330)
CM125-003	Fuse, 2A, 250V for power entry module on 115V units, ea. (CM5130, CM5230, CM5330)
CM125-004	Fuse, 1A, 250V for power entry module on 230V units, ea. (CM5130, CM5230, CM5330)
CM190-009	Tubing, Teflon, 1/16" id x 1/8" od, per inch
CM440-006	Operation Manual, CM5130, ea.

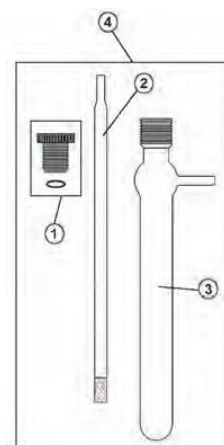
## Chemicals

CM300-037	Potassium Hydroxide, 100 g, ea.
CM300-025	Silver Nitrate, 30 g, ea.

## Furnace Modules

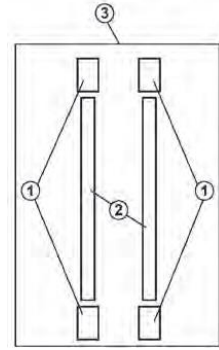
### Pre-Scrubber Assembly

Diag. #	Description	Part No.
1	Threaded bushing w/ O-ring	CM191-006
2	Dispersion tube	CM200-016
3	Pre-scrubber body	CM200-015
4	Pre-scrubber assembly, complete	CM210-002



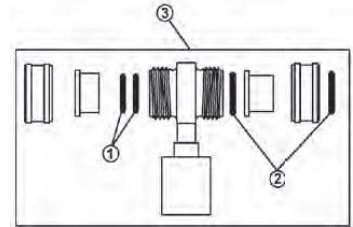
## Post-Scrubber Assembly

Diag. #	Description	Part No.
1	Unions, medium, 1/2" x 1/8", 4/pk	CM191-002
2	Scrubber tubes, 2/pk	CM200-014
3	Post-scrubber assembly, complete	CM210-006



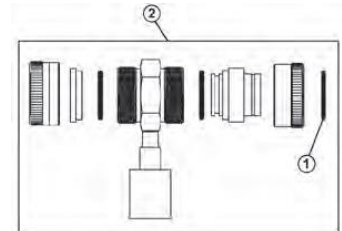
## 15mm Breech Block Assembly

Diag. #	Description	Part No.
1	O-ring, 13/16" OD x 5/8" ID	CM153-006
2	O-ring, 7/8" OD x 11/16" ID	CM153-007
3	15mm breech block assembly, complete	CM101-126



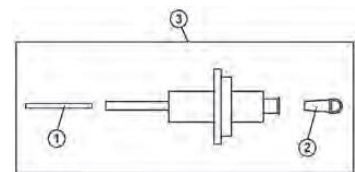
## 25mm Breech Block Assembly

Diag. #	Description	Part No.
1	O-ring, 7/8" OD x 11/16" ID	CM153-007
2	25mm breech block assembly, complete	CM101-127



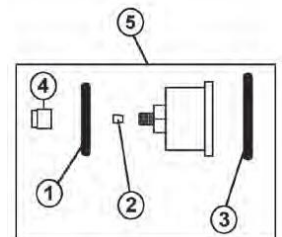
## Syringe Injection Adapter

Diag. #	Description	Part No.
1	Needle guide, Teflon	CM190-003
2	Stopper for Luer adapter	CM129-035
3	Syringe injection adapter (15mm only), complete	CM101-092



## Manipulator Rod Adapters, 15mm and 25mm

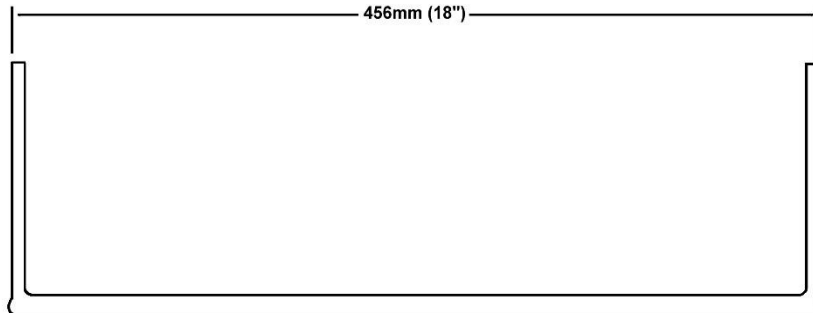
Diag. #	Description	Part No.
1	O-ring, 7/8" OD x 11/16" ID (25mm only)	CM153-007
2	Ferrule, Vespel, 10/pk (15mm and 25mm)	CM129-097
3	O-ring, 1 3/8" OD x 1" ID (25mm only)	CM153-021
4	Nut, Knurled	CM129-049
5	Manipulator rod adapter, complete, 15mm	CM101-077
	Manipulator rod adapter, complete, 25mm	CM101-129



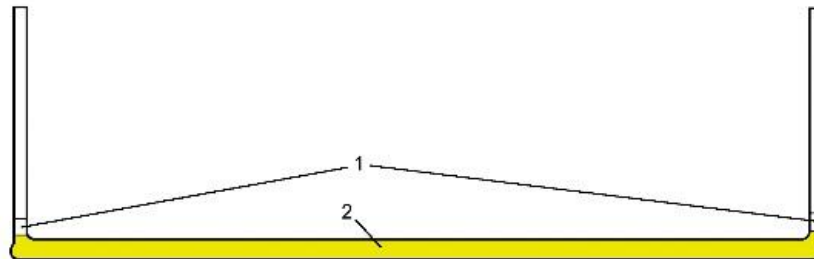


## Combustion Tubes

CM201-037 Pre-combustion tube, unfilled

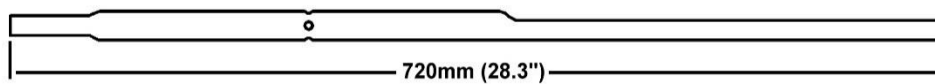


CM211-016 Pre-combustion tube, filled



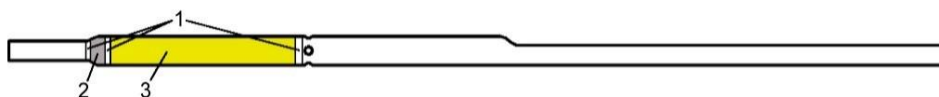
Diag. #	Description	Part No.
1	Quartz Wool (1 g)	CM300-004
2	Barium Chromate, 10-20 mesh (50 g)	CM300-039

CM201-004 Ladle combustion tube, 15mm inlet, unfilled

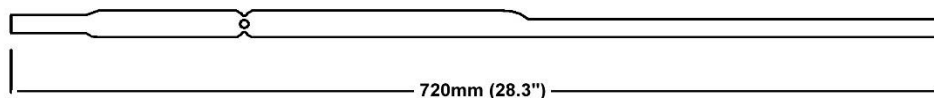


CM211-002 Ladle combustion tube, 15mm inlet, filled

Diag. #	Description	Part No.
1	Quartz Wool (2 g)	CM300-004
2	Reduced Silver (25 g)	CM300-012
3	Barium Chromate, 10-20 mesh (70 g)	CM300-039

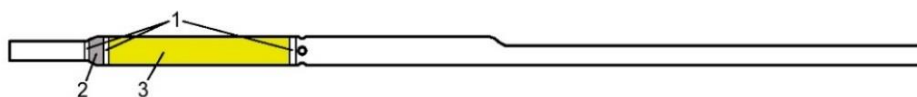


CM201-007 Surface carbon combustion tube, 15mm inlet, unfilled



CM211-004 Surface carbon combustion tube, 15mm inlet, filled

Diag. #	Description	Part No.
1	Quartz Wool (2 g)	CM300-004
2	Reduced Silver (25 g)	CM300-012
3	Barium Chromate, 10-20 mesh (70 g)	CM300-039

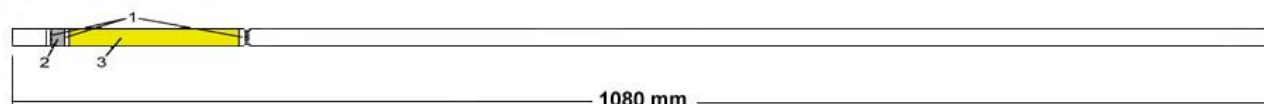


CM201-020 Surface carbon combustion tube, 2 furnaces, 15mm inlet, unfilled

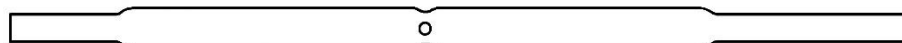


CM211-005 Surface carbon combustion tube, 2 furnaces, 15mm inlet, filled

Diag. #	Description	Part No.
1	Quartz Wool (2 g)	CM300-004
2	Reduced Silver (25 g)	CM300-012
3	Barium Chromate, 10-20 mesh (50 g)	CM300-039

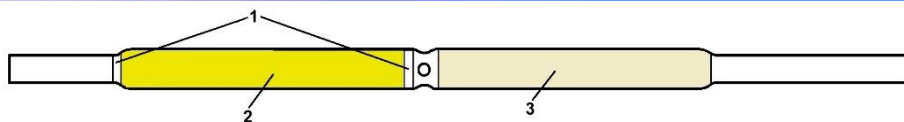


CM201-029 Syringe combustion tube, 15mm inlet, unfilled



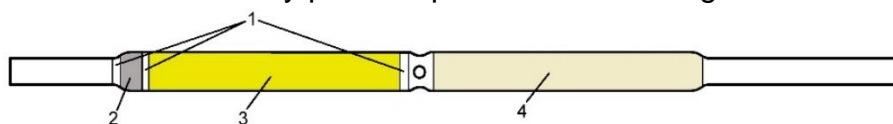
CM211-009 Syringe combustion tube, 15mm inlet, filled, w/o silver (except CM5600)

Diag. #	Description	Part No.
1	Quartz Wool (3 g)	CM300-004
2	Barium Chromate, 10-20 mesh (70 g)	CM300-039
3	Loosely packed quartz wool and tungsten trioxide (WO <sub>3</sub> )	



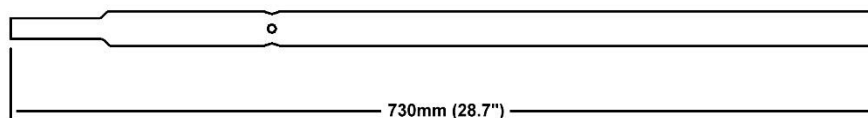
CM211-012 Syringe combustion tube, 15mm inlet, filled (except CM5600)

Diag. #	Description	Part No.
1	Quartz Wool (3 g)	CM300-004
2	Reduced Silver (25 g)	CM300-012
3	Barium Chromate, 10-20 mesh (70 g)	CM300-039
4	Loosely packed quartz wool and tungsten trioxide (WO <sub>3</sub> )	



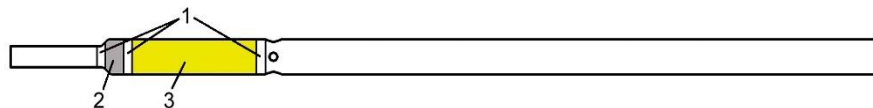
CM211-018 Syringe combustion tube, 15mm inlet, filled (CM5600)

CM201-032 Large volume combustion tube, 25mm inlet, unfilled (except CM5600)

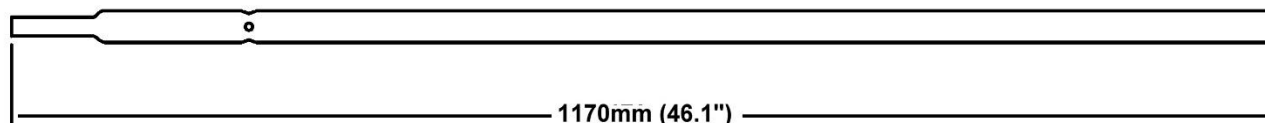


CM211-013 Large volume combustion tube, 25mm inlet, filled (except CM5600)

Diag. #	Description	Part No.
1	Quartz Wool (2 g)	CM300-004
2	Reduced Silver (25 g)	CM300-012
3	Barium Chromate, 10-20 mesh (70 g)	CM300-039

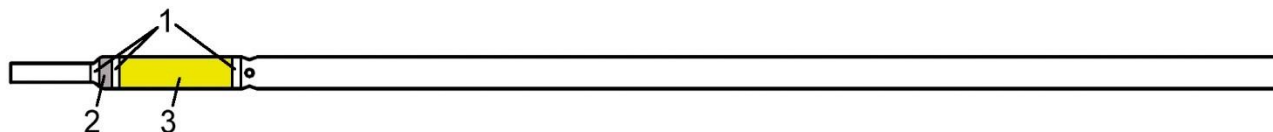


CM201-033 Large volume combustion tube, 2 furnaces, 25mm inlet, unfilled

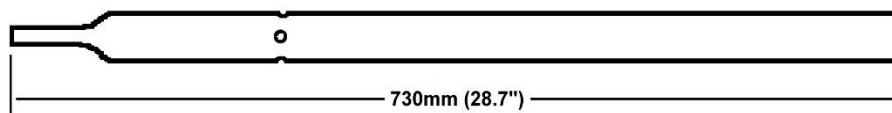


CM211-014 Large volume combustion tube, 2 furnaces, 25mm inlet, filled 730mm

Diag. #	Description	Part No.
1	Quartz Wool (2 g)	CM300-004
2	Reduced Silver (25 g)	CM300-012
3	Barium Chromate, 10-20 mesh (70 g)	CM300-039

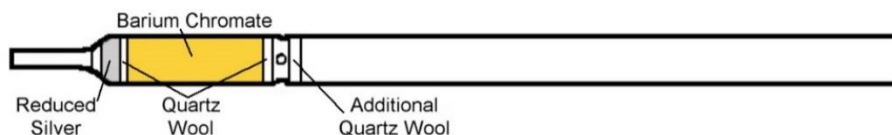


CM201-036 X-Large volume combustion tube, 38mm inlet, unfilled

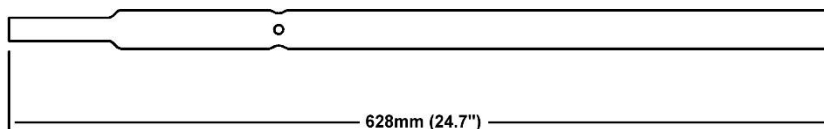


CM211-015 X-Large volume combustion tube, 38mm inlet, filled

Diag. #	Description	Part No.
1	Quartz Wool (2 g)	CM300-004
2	Reduced Silver (25 g)	CM300-012
3	Barium Chromate, 10-20 mesh (70 g)	CM300-039

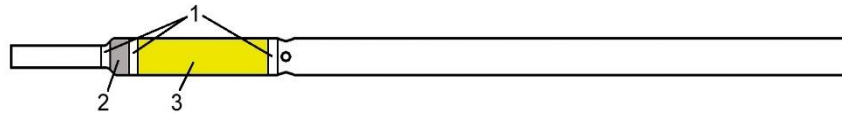


CM201-038 Large volume combustion tube, 25mm inlet, unfilled (for CM5600)

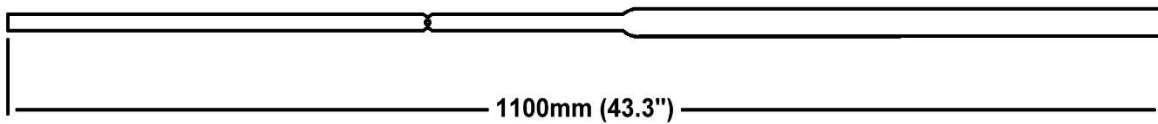


CM211-017 Large volume combustion tube, 25mm inlet, filled (for CM5600)

Diag. #	Description	Part No.
1	Quartz Wool (2 g)	CM300-004
2	Reduced Silver (25 g)	CM300-012
3	Barium Chromate, 10-20 mesh (70 g)	CM300-039

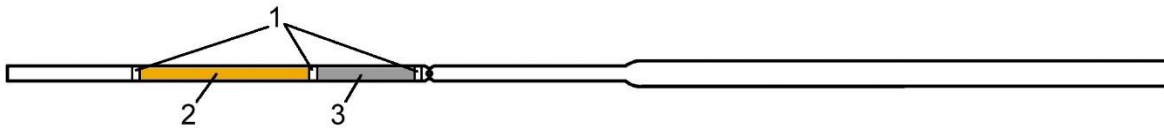


CM201-028 Sulfur combustion tube, 2 furnaces, 25mm inlet, unfilled

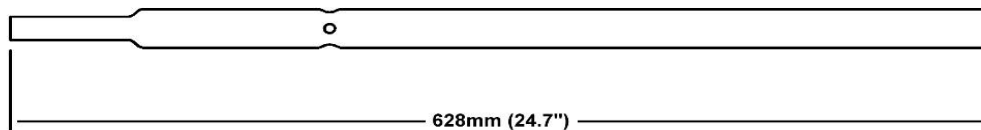


CM211-010 Sulfur combustion tube, 2 furnaces, 25mm inlet, filled

Diag. #	Description	Part No.
1	Quartz Wool (2 g)	CM300-004
2	Reduced Copper Wire (60 g)	CM300-012
3	Copper Oxide Wire (45 g)	CM300-039

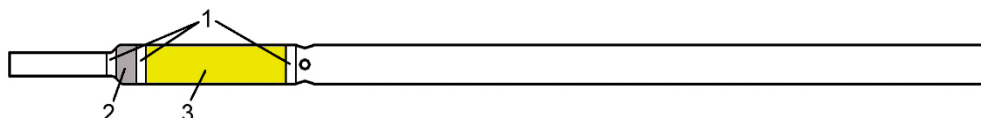


CM201-041 ABI carbon tube unfilled

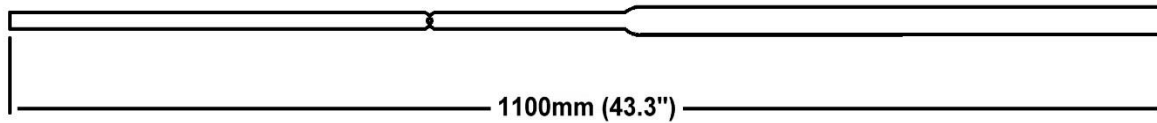


CM211-019 ABI Carbon tube filled

Diag. #	Description	Part No.
1	Quartz Wool (2 g)	CM300-004
2	Reduced Silver (25 g)	CM300-012
3	Barium Chromate, 10-20 mesh (70 g)	CM300-039

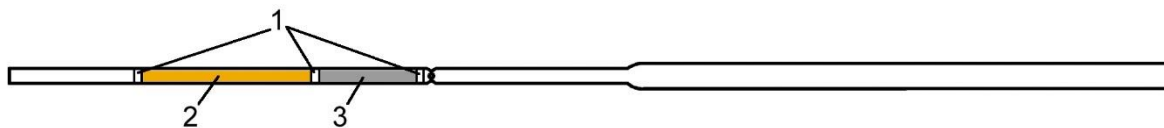


CM201-045 ABI Sulfur tube unfilled



CM211-020 ABI Sulfur Combustion Tube filled

Diag. #	Description	Part No.
1	Quartz Wool (2 g)	CM300-004
2	Reduced Copper Wire (60 g)	CM300-012
3	Copper Oxide Wire (45 g)	CM300-039

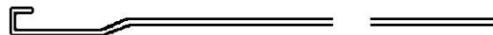


## Sample Introduction Components

### Manipulator Rods

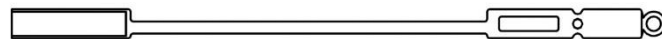
CM118-132 Manipulator rod, 33.5", ea.

CM118-133 Manipulator rod, 19.5", ea.

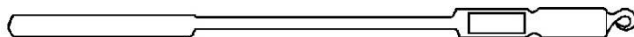


### Ladles

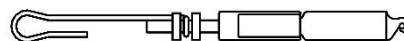
CM201-005 Ladle, open end



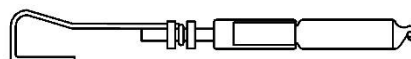
CM201-014 Scoop Ladle, open top



CM201-016 Hook ladle, small



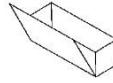
CM201-026 Hook ladle, large





Sample Boats

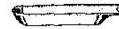
CM251-001 Platinum boat, 4x4x12mm



CM251-002 Platinum boat, 3.5x5x30mm



CM251-003 Porcelain boat, 4x5x17mm



CM251-004 Porcelain boat, 8x10x60mm

CM251-003

CM251-004

CM251-005 Porcelain boat, 10x16x97mm



CM251-006 Ceramic boat, 10x16x97mm, used for TS analysis, 500/pk



CM250-001 Syringe, spring loaded, 200µl



CM250-002 Syringe needle, replacement for CM250-001

CM121-002 Magnet, used with ladles



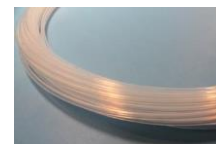
Miscellaneous and Consumable Parts

CM101-113 Balston filter w/ tube and clamp



CM162-016 Ceramic fiber insulation

CM190-009 Teflon tubing, 1/8" OD x 1/16" ID, per inch



CM191-001 Unions, small, 1/4" x 1/8", 10/pk



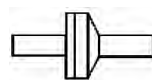
CM191-002 Unions, medium, 1/2" x 1/8", 4/pk



CM191-003 Union, large, 3/4" x 1/8", ea.



CM192-003 Check valves, 6/pk



CM118-153 Safety shield, ea.

CM119-016 Component attachment clip, 3/4"

CM119-017 Component attachment clip, 1/2"

CM119-018 Component attachment clip, 1 1/2"

CM123-017 Flowmeter



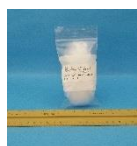
CM125-007 Fuse, 4A, 250V, used on power module for 230V furnace (CM5120)

CM125-008 Fuse, 8A, 250V, used on power module for 115V furnace (CM5120)

CM125-016 Fuse, 15A SloBlo (CM5600)

## *Chemicals for Carbon and Sulfur Analysis*

CM300-004 Quartz wool, 4 g



CM300-008 Acid dichromate on silica support, 14 g



CM300-009 Manganese dioxide, 5 g



CM300-010 Magnesium perchlorate, 500 g

CM300-039 Barium chromate, 200 g

CM300-012 Reduced silver, 100 g

CM300-015 Tungsten trioxide, 100 g

CM300-028 Vanadium pentoxide, 250 g

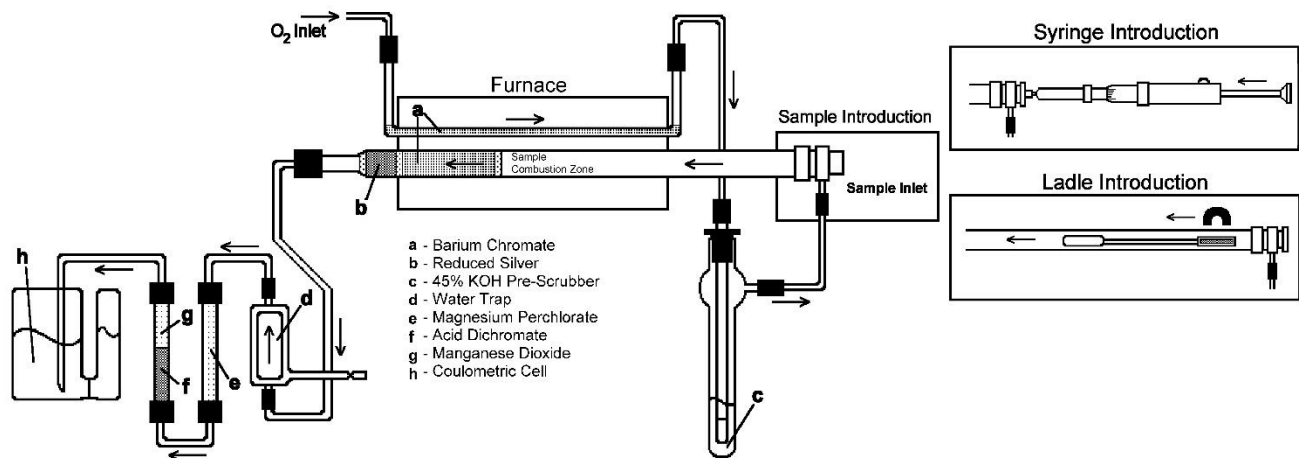
CM300-029 Copper oxide, 250 g

CM300-030 Reduced copper, 250 g

CM319-001 Granular silver, 1 g



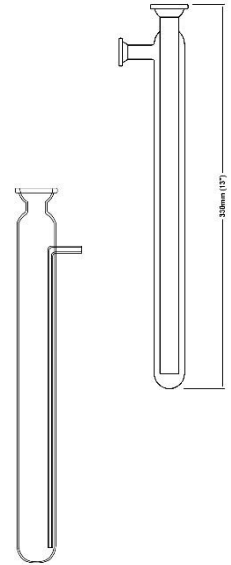
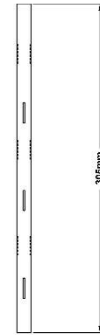
Typical flow diagram of the CM5120 and CM5300 furnace modules



## Autosamplers

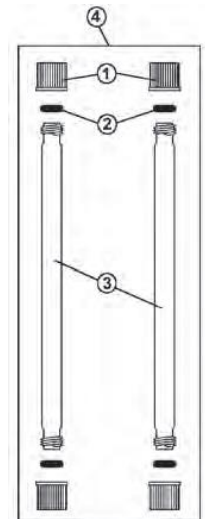
### CM5200 Autosampler Furnace

CM201-035	Combustion tube, vertical furnace, unfilled only
CM201-043	Combustion tube, large volume, for CM5200
CM251-012	Ceramic insert, slotted
CM251-007	Ceramic insert, unslotted



### Post-Scrubber Assembly

Diag. #	Description	Part No.
1	Cap, 14mm	CM191-035
2	O-ring, 4mm x 4mm	CM153-024
3	Tube, threaded, 200mm	CM200-056
4	Post-scrubber assembly, CM5200, complete	CM210-018



### Other Post-Scrubber Parts

CM119-017	Component attachment clip, 1/2"
CM130-017	Scrubber tube outlet, 12/3 ball joint
CM130-018	Scrubber tube inlet, 18/3 ball joint
CM130-019	Scrubber u-tube
CM192-011	Clamp, #12 ball socket
CM192-015	Clamp, #18 ball socket
CM251-008	Tin boats, 6x6x12mm, 500/pk



### Other Parts and Accessories

CM123-017	Flowmeter
CM125-002	Fuse, 10A, 250V, Slo Blo
CM125-009	Fuse, 20A, 250V, Slo Blo
CM125-011	Fuse, 5A, 250V, Slo Blo
CM147-012	Ceramic tube, furnace insert, 1 1/8" ID
CM153-018	O-ring, #28 ball fitting
CM190-009	Tubing, Teflon, 1/8" OD x 1/16" ID, per inch
CM191-001	Unions, small, 1/4" x 1/8", 10/pk
CM192-012	Clamp, #28 ball socket
CM251-009	Micro spatula
CM251-010	Forceps, curved fine point
CM251-011	Forceps, membrane

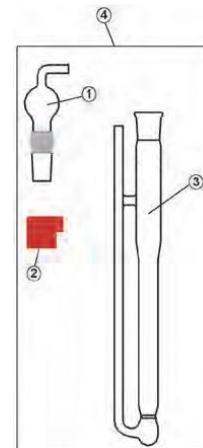
### Chemicals

CM300-004	Quartz wool, 4 g
CM300-008	Acid dichromate on silica support, 14 g
CM300-009	Manganese dioxide, 5 g
CM300-010	Magnesium perchlorate, 500 g
CM300-039	Barium chromate, 10-20mesh, 200 g
CM300-012	Reduced silver, 100 g

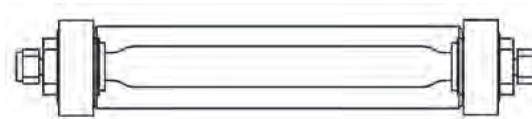
## CM5240 Auto-Acidification Module

### Post-Scrubber Assembly

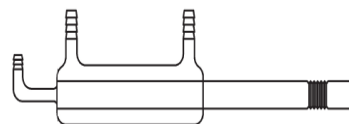
Diag. #	Description	Part No.
1	Post-scrubber Top	CM200-046
2	Threaded joint connector, red	CM192-009
3	Post-scrubber body	CM200-020
4	Post-scrubber assembly, complete	CM210-012



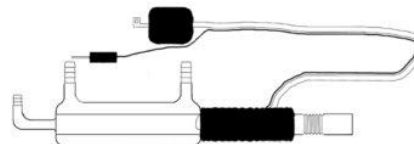
CM210-022 Solid CO<sub>2</sub> pre-scrubber



CM210-021 Condenser, unheated



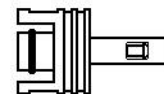
CM210-023 Condenser, heated



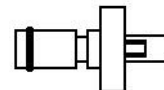
CM119-034/50 Sample cups, Teflon, 50/pk



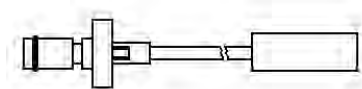
CM129-118 Quick Disconnect, for 1/16" id tubing



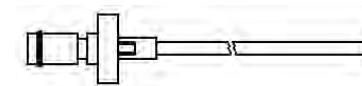
CM129-109 Coupling, male w/ hose barbs



CM101-182 Connection hose, condenser to CM5240

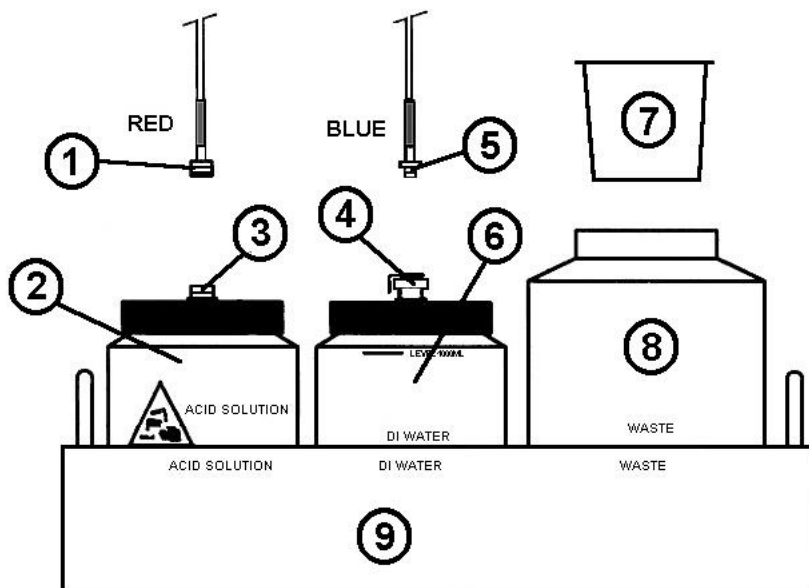


CM101-183 Connection hose, CM5240 to Coulometer





## Bottle Rack Components



Diag. #	Description	Part No.
1	Fitting, (M) LL w/ barbs for Acid Inlet line	CM129-111
2	1-liter bottle for Acid, complete w/ cap, fitting and filter	CM332-015
3	Fitting, (F) LL, bulkhead w/ barbs	CM129-129
4	Fitting, (F) LL, 1/16" w/ barbs	CM129-110
5	Coupling, 1/16" (M) w/ barbs	CM129-109
6	1-liter bottle for water, complete w/ cap, fitting and filter	CM332-014
7	Sample holder cup	CM332-016
8	2-liter Waste bottle, complete w/ sample holder cup	CM332-013
9	Bottle rack	CM101-185
10	Bottle rack assembly, complete w/ CM332-013, CM332-014, CM332-015 and CM101-185	CM101-191

## Other Parts and Accessories

CM101-186	45-position carousel assembly
CM119-033	Plexiglas carousel cover
CM123-017	Flowmeter
CM125-017	Fuse, 2A, 20mm
CM129-108	Valve cartridge, for rinse and acid pumps, 2/pk
CM153-027	O-rings, Viton #206, 5/pk
CM190-009	Tubing, Teflon, 1/8" OD x 1/16" ID, per inch
CM191-001	Unions, small, 1/4" x 1/8", 10/pk
CM192-003	Check valves, 6/pk
CM192-009	Threaded joint connector, red
CM250-017	Bottom-of-the-bottle filter, ea.
CM251-009	Micro spatula
CM251-010	Forceps curved fine point
CM251-011	Forceps, membrane

## *CM5390 and CM5390S Automated Boat Inlet-ABI*

CM118-387	Fitting Sample Box
CM153-013	O-Ring, 1-3/16" OD x 1" ID, ea.
CM153-034	O-ring for ABI
CM161-027	Power Cord, US
CM161-051	Power Cord, European
CM161-121	Serial Cable, CM5014 to CM5390
CM191-001	Small Unions, 10/pk
CM191-003	Large Union, ea.
CM191-009	Teflon Tubing, 1/8" OD, inch
CM191-057	Ferrule 1/8" Brass Set
CM191-067	Replacement, Hex nut Brass
CM201-040	Ladle Entry Tube
CM201-041	Combustion Tube, CM5390, Unfilled
CM201-042	Hook Ladle for CM5390
CM201-045	Sulfur Combustion Tube, CM5390S, Unfilled
CM210-022	Solid CO <sub>2</sub> Absorption Tube
CM211-019	Combustion Tube, CM5390, Filled
CM211-020	Sulfur Combustion Tube, CM5390S, Filled
CM251-005	Porcelain Boat, 10x16x97mm, ea.
CM251-011	Forceps
CM440-034	Operation Manual, CM5390
CM440-043	Operation Manual, CM5390S

## *CM5370S Horizontal Furnace Autosampler*

CM101-325	29-Position Carousel Cover
CM122-018	Plug, Breech Block Rev A
CM122-020	Cap, Breech Block
CM153-007	O-Ring, 7/8" OD X 11-16" ID
CM161-027	Power cord, US Rev N/A
CM161-193	Cable, ABI module to CM5370S Rev A
CM161-197	Cable, CM5370S to Coulometer
CM164-006	Power Conditioner, 120 V, 1, 1.5 A Rev A
CM190-009	Teflon tubing, 1/16" X 1/8" Rev N/A
CM191-001	Unions, 1/4 X 1/8" (ten per pack) Rev B
CM191-003	Unions, Large Rev B
CM192-023	Check Valve, SS, 1/3 cracking pressure Rev A
CM201-040	Glass tube for ladle, ABI Rev B
CM201-049	Glass hook ladle, CM5370S, Rev A
CM201-050	Glass Ladle, 5370, Rev A
CM211-020	Filled sulfur combustion tube, ABI
CM251-011	Forceps, membrane Rev N/A
CM251-018	Nickel combustion boat, Heavy gauge Rev A
CM440-063	Operation Manual CM5370S, Rev 1.0
CM445-002	Test tube brush, 300 mm, 12"
CM445-003	Strap Wrench, Rev A



## *CM5700B Auto Acidification unit*

1. CM200-077 80 ML Flask for large Bottle 15 position CM5700B, each
2. CM200-078 20 ml Flask for small Bottle 30 position CM5700B, each
3. CM333-021 Screw cap ( open top), Polypropylene Black, each
4. CM192-024 PTFE/silicon Septa for CM5700B ,pack of 100
5. CM190-009 Tubing, sold by the inch
6. CM191-001 Union ,1PK
7. CM192-003 Check valve ,6/pkg
8. CM192-009 Joint Connector, each
9. CM210-022 Solid CO2 Prescrubber, each
10. CM210-021 Glass Condenser, each
11. CM210-012 Post Scrubber Assembly, each
12. CM129-109 Coupling with Barbs, each
13. CM250-023 Short Needle for CM5700B, each
14. CM250-024 Long Needle for CM5700B, each
15. CM192-020 Check Valve, Peek, each

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