

COUPLINGS, CONDENSERS

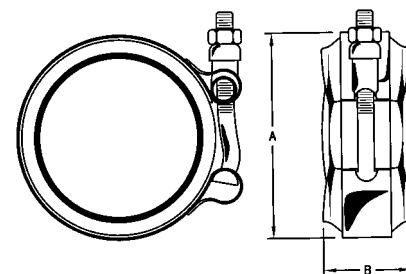
CG-1968 COUPLING, BEADED PIPE

These support tubes are made of brilliant polished 304 stainless steel. They have good surface hardness and do not score from clamp binding screws. Tubes are 1/2" (13mm) in diameter and are hollow, reducing weight to half of solid stainless steel rods while maintaining all the advantages of the stainless steel. The walls are 1/16" (1.6mm) are thick, strong, and do not sag. The ends of each tube are capped with polyethylene tight fitting end-caps.

Part Number	Pipe Size	Dimension A	Dimension B	Torque Max (in. lbs.)	Hex Nut Size
CG-1968-68	1/2"	1- 3/8"	7/8"	20	3/8"
CG-1968-70	3/4"	1-1/2"	7/8"	25	3/8"
CG-1968-66	1"	1- 7/8"	1- 1/16"	35	7/16"
CG-1968-69	1-1/2"	2- 7/16"	1- 5/16"	50	7/16"
CG-1968-67	2"	3- 1/8"	1- 5/16"	60	7/16"

Accessories:

Part Number	Description
CG-1963-B-10	Deflecting Beam Torque Wrench, Max 60 in/lbs
CG-1963-B-12	3/8" Deep Socket, 6 Point, 1/4" Drive
CG-1963-B-14	7/16" Deep Socket, 6 Point, 1/4" Drive

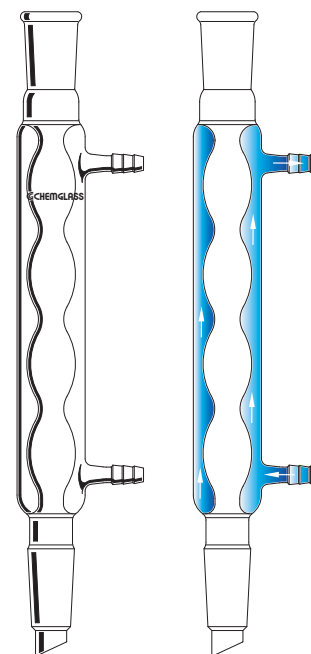


CG-1968

CG-1206 CONDENSER, ALLIHN

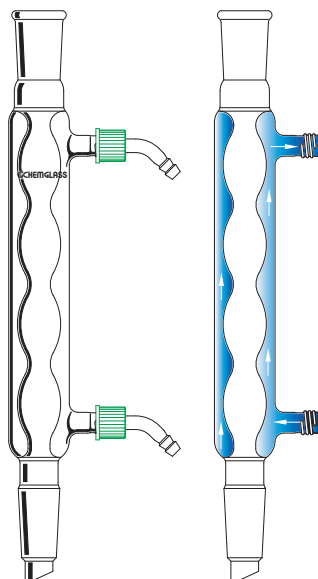
Allihn style reflux condenser with a standard taper outer joint at the top and a lower inner drip tip joint. Hose connections have an O.D. of 10mm at the middle serration.

Part Number	Jacket Length (mm)	Joint Size	Overall Height (mm)
CG-1206-01	200	24/40	330
CG-1206-03	250	24/40	380
CG-1206-05	300	24/40	430
CG-1206-07	400	24/40	530
CG-1206-09	500	24/40	630
CG-1206-11	600	24/40	730
CG-1206-21	250	29/26	370
CG-1206-02	200	29/42	335
CG-1206-04	250	29/42	385
CG-1206-06	300	29/42	435
CG-1206-08	400	29/42	535
CG-1206-10	500	29/42	635
CG-1206-12	600	29/42	735



CG-1206

CONDENSERS

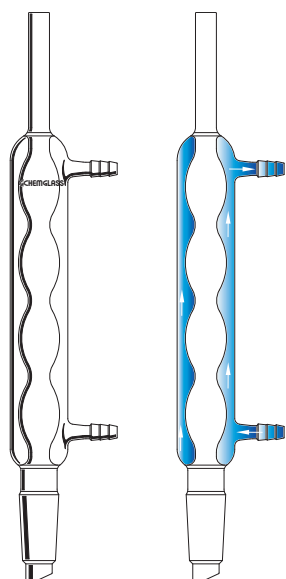


CG-1206-HC

CG-1206-HC CONDENSER, ALLIHN, REMOVABLE HOSE CONNECTIONS

Allihn style reflux condenser similar to CG-1206 but with detachable hose connections. Connections are made of polypropylene and provide a safe and easy way of connecting and disconnecting flexible tubing to the condenser. Hose connections have an O.D. of 8mm and an I.D. of 4mm. Supplied complete with two GL-14 open top screw caps. See CG-198 and CG-195 for replacement GL fittings.

Part Number	Jacket Length (mm)	Joint Size	Overall Height (mm)
CG-1206-HC-01	200	24/40	330
CG-1206-HC-05	300	24/40	430



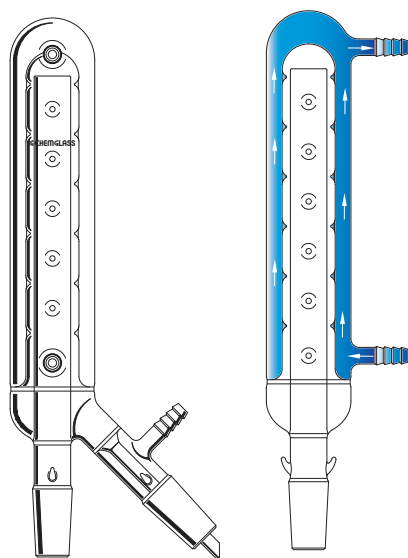
CG-1207

CG-1207 CONDENSER, ALLIHN

Allihn style reflux condenser with a plain tubulation at the top and a lower inner drip tip joint. Hose connections have an O.D. of 10mm at the middle serration.

Part Number	Jacket Length (mm)	Joint Size	Overall Height (mm)
CG-1207-14	110	14/20	175
CG-1207-01	200	24/40	345
CG-1207-03	300	24/40	445
CG-1207-05	400	24/40	545
CG-1207-06	400	29/42	550

PLEASE SEE CG-1368 FOR ALLIHN CONDENSERS USED WITH SOXHLET EXTRACTION APPARATUS ON PAGE 149.



CG-1208

CG-1208 CONDENSER, CONCENTRATOR

Vapors rise to the top of inner tube then travel downward and condense in this highly efficient concentrator. Condensate drains through the side tube which has a standard taper inner joint the same size as the lower inner uptake joint. Serrated hose connection for connecting to vacuum source. Hose connections for both the cooling jacket and vacuum source have an O.D. of 10mm. Available with detachable hose connections on a special order basis.

Part Number	Joint Size	Inner Tube Height (mm)	Overall Height (mm)
CG-1208-20	24/40	200	325
CG-1208-21	29/42	200	340

CG-1209 CONDENSER, DEWAR TYPE

Condenser has a large opening at the top for use with dry ice/acetone or liquid nitrogen. Condenser has a lower inner drip tip joint and hose connections with an O.D. of 10mm at the middle serration.

Part Number	Joint Size	Inside Dimensions Depth x I.D. (mm)
CG-1209-01	24/40	200 x 40
CG-1209-03	24/40	250 x 50
CG-1209-05	24/40	350 x 75
CG-1209-02	29/42	200 x 40
CG-1209-04	29/42	250 x 50
CG-1209-06	29/42	350 x 75

PLEASE SEE CG-4519 FOR SOLVENT RECOVERY TRAPS USED WITH ROTARY EVAPORATORS.

CG-1209-A CONDENSER, DEWAR TYPE

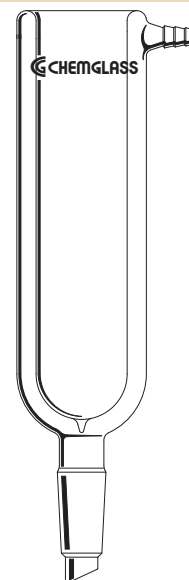
Condenser has a large opening at the top for use with dry ice/acetone or liquid nitrogen. Condenser has an outer standard taper joint set at a 75° angle to the condenser body and a lower inner drip tip joint, both being the same size.

Part Number	Joint Size	Inside Dimensions Depth x I.D. (mm)
CG-1209-A-20	14/20	90 x 37
CG-1209-A-21	14/20	90 x 70
CG-1209-A-22	14/20	120 x 31
CG-1209-A-23	19/22	90 x 37
CG-1209-A-25	19/22	120 x 31
CG-1209-A-26	24/40	200 x 40
CG-1209-A-27	24/40	250 x 50
CG-1209-A-28	24/40	350 x 75
CG-1209-A-30	29/42	250 x 50
CG-1209-A-31	29/42	350 x 75

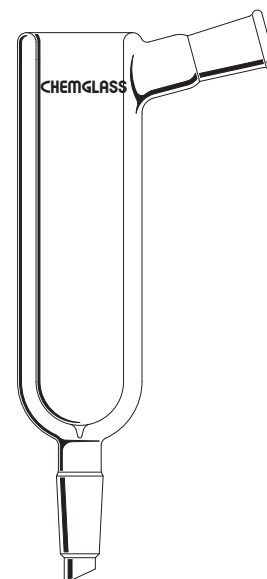
CG-1210 CONDENSER, FRIEDRICHS

Condenser has a specially formed spiral inner tube providing a long vapor path, ensuring good heat transfer and anti-flooding characteristics. Condenser has a standard taper outer joint at a 15° angle to the condenser and a lower inner drip tip joint. Hose connections have an O.D. of 10mm at the middle serration.

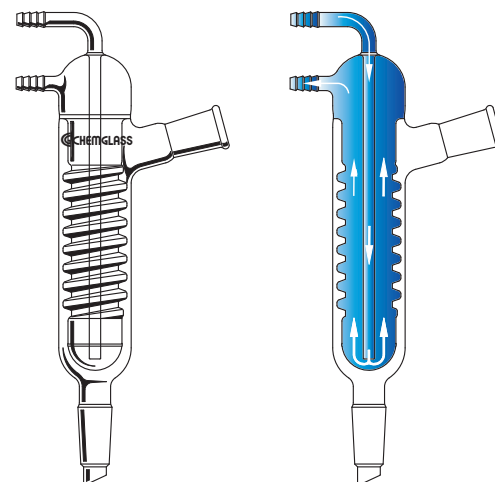
Part Number	Joint Size	Overall Height (mm)
CG-1210-01	24/40	330
CG-1210-20	29/26	320
CG-1210-02	29/42	335



CG-1209

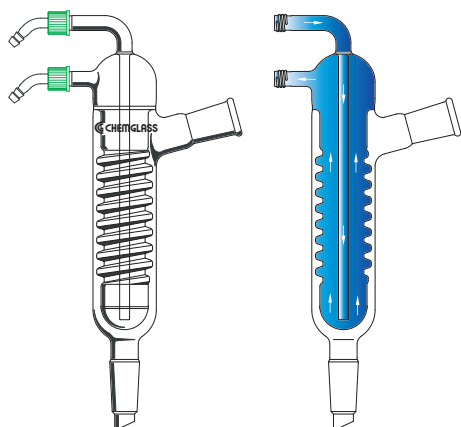


CG-1209-A



CG-1210

CONDENSERS

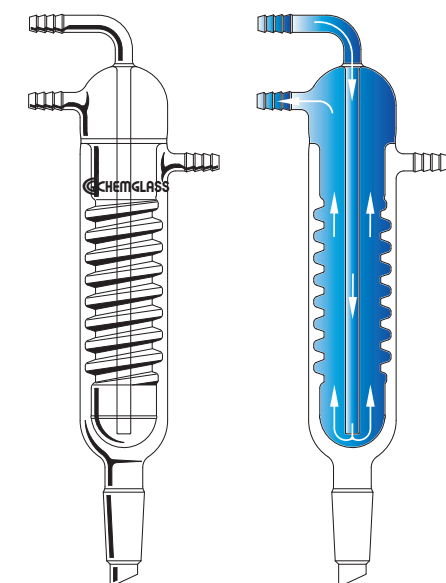


CG-1210-HC

CG-1210-HC CONDENSER, FRIEDRICHS, REMOVABLE HOSE CONNECTIONS

Friedrichs condenser similar to CG-1210 but with detachable hose connections. Connections are made of polypropylene and provide a safe and easy way of connecting and disconnecting flexible tubing to the condenser. Hose connections have an O.D. of 8mm and an I.D. of 4mm. Supplied complete with two GL-14 open top screw caps. See CG-198 and CG-195 for replacement GL fittings.

Part Number	Joint Size	Overall Height (mm)
CG-1210-HC-01	24/40	330

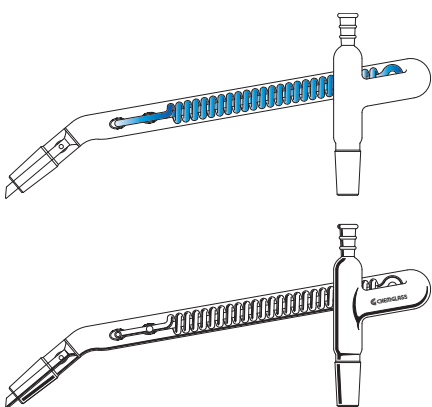


CG-1211

CG-1211 CONDENSER, FRIEDRICHS

Similar to CG-1210 but with the 24/40 outer joint replaced with a serrated hose connection for use with a drying tube. This style condenser is used primarily in Soxhlet extractions or in reflux mode. Hose connections have an O.D. of 10mm at the middle serration.

Part Number	Joint Size	Overall Height (mm)
CG-1211-01	24/40	330
CG-1211-03	45/50	360



CG-1212

CG-1212 CONDENSER, GOOSENECK, DISTILLING

Unique one-piece distilling condenser is actually a 75° adapter, highly efficient coil condenser and vacuum adapter in a compact one-piece unit. Available with a choice of three sizes of condensers with uptake inner joint as listed. Top thermometer joint is a 10/30 outer for use with a 3" immersion CG-3506 thermometer. Receiver joint on all sizes is a 24/40 inner having a sealed-in drip tip.

SPECIFICATIONS:

Condenser Size	Coil O.D. (mm)	Coil Length (mm)	Jacket O.D. (mm)	Overall Width (mm)
Small	6	200	25	390
Medium	7	200	30	440
Large	8	200	41	440

ORDERING INFORMATION:

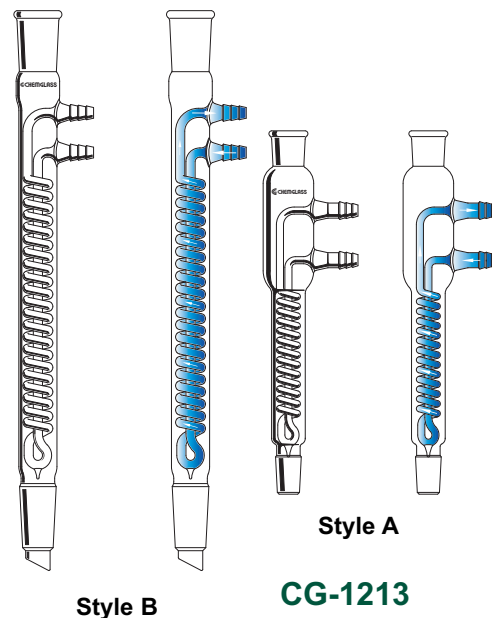
Part Number	Uptake Joint Size	Condenser Size
CG-1212-20	24/40	Small
CG-1212-21	24/40	Medium
CG-1212-24	29/42	Large

CONDENSERS

CG-1213 CONDENSER, REFLUX

Coil style reflux condenser with tightly wrapped coil providing maximum cooling. Excellent for use with high vapor pressure solvents. Condenser has a top outer standard taper joint and lower inner drip tip joint. Hose connections have an O.D. of 10mm at the middle serration.

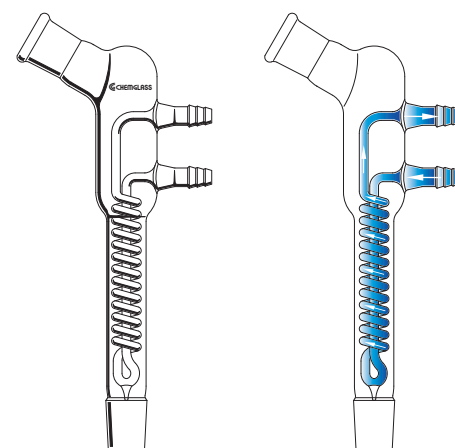
Part Number	Jacket Length (mm)	Joint Size	Overall Height (mm)	Condenser Style
CG-1213-14	100	14/20	205	A
CG-1213-19	100	19/22	205	A
CG-1213-09	150	24/40	315	B
CG-1213-01	200	24/40	365	B
CG-1213-03	250	24/40	415	B
CG-1213-05	300	24/40	465	B
CG-1213-07	400	24/40	565	B
CG-1213-02	200	29/42	370	B
CG-1213-04	250	29/42	420	B
CG-1213-06	300	29/42	470	B
CG-1213-08	400	29/42	570	B



CG-1213-A CONDENSER, REFLUX

Coil style reflux condenser with tightly wrapped coil providing maximum cooling. Excellent for use with high vapor pressure solvents. Condenser has a top outer joint set at a 75° angle to the condenser body, and lower inner drip tip. Hose connections have an O.D. of 10mm at the middle serration.

Part Number	Jacket Length (mm)	Joint Size	Overall Height (mm)
CG-1213-A-14	100	14/20	210
CG-1213-A-19	100	19/22	215

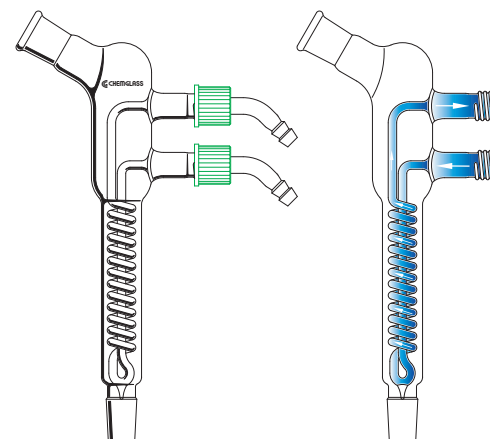


CG-1213-A

CG-1213-A-HC CONDENSER, REFLUX, REMOVABLE HOSE CONNECTIONS

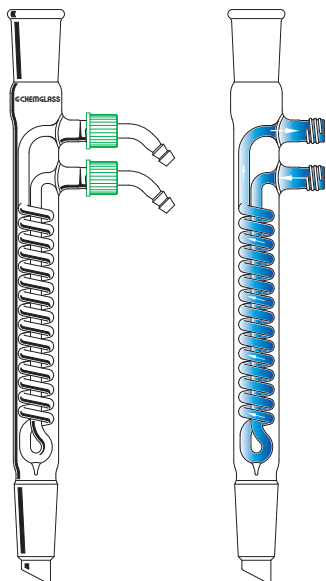
Reflux condenser similar to CG-1213-A but with detachable hose connections. Connections are made of polypropylene and provide a safe and easy way of connecting and disconnecting flexible tubing to the condenser. Hose connections have an O.D. of 8mm and an I.D. of 4mm. Supplied complete with two GL-14 open top screw caps. See CG-198 and CG-195 for replacement GL fittings.

Part Number	Jacket Length (mm)	Joint Size	Overall Height (mm)
CG-1213-A-HC-01	100	14/20	210

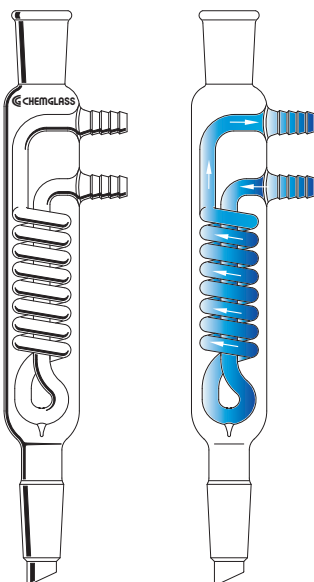


CG-1213-A-HC

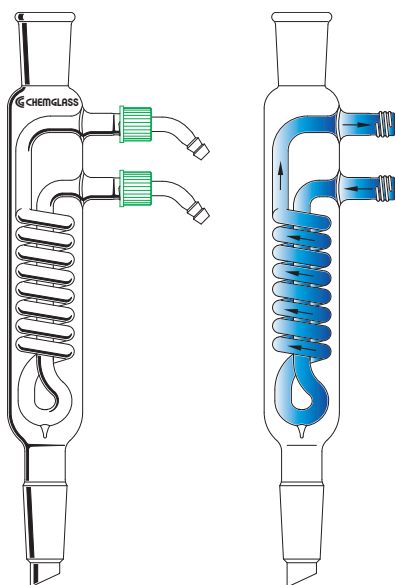
CONDENSERS



CG-1213-HC



CG-1213-L



CG-1213-L-HC

CG-1213-HC CONDENSER, REFLUX, REMOVABLE HOSE CONNECTIONS

Reflux condenser similar to CG-1213 but with detachable hose connections. Connections are made of polypropylene and provide a safe and easy way of connecting and disconnecting flexible tubing to the condenser. Hose connections have an O.D. of 8mm and an I.D. of 4mm. Supplied complete with two GL-14 open top screw caps. See CG-198 for replacement GL fittings.

Part Number	Jacket Length (mm)	Joint Size	Overall Height (mm)
CG-1213-HC-01	100	14/20	205
CG-1213-HC-09	150	24/40	315
CG-1213-HC-03	250	24/40	415

CG-1213-L CONDENSER, REFLUX

Similar to CG-1213, but having a larger diameter jacket and coil, thereby providing maximum cooling capacity, while being shorter in length. Jacket has a O.D. of 41mm while the coil O.D. is 8mm. Excellent for use with high vapor pressure solvents. Condenser has a top outer standard taper joint and lower inner drip tip joint.

Part Number	Coil Length (mm)	Joint Size	Overall Height (mm)
CG-1213-L-20	125	24/40	300
CG-1213-L-21	175	24/40	350
CG-1213-L-22	125	29/42	300
CG-1213-L-23	175	29/42	350
CG-1213-L-24	125	29/26	300
CG-1213-L-25	175	29/26	350
CG-1213-L-30	300	45/50	695

CG-1213-L-HC CONDENSER, REFLUX

Coil style reflux condenser with a large diameter jacket and coil, similar to CG-1213-L but with detachable hose connections. Connections are made of polypropylene and provide a safe and easy way of connecting and disconnecting flexible tubing to the condenser. Supplied complete with two GL open top screw caps and two bent polypropylene hose connections. Condensing area is the same as CG-1213-L.

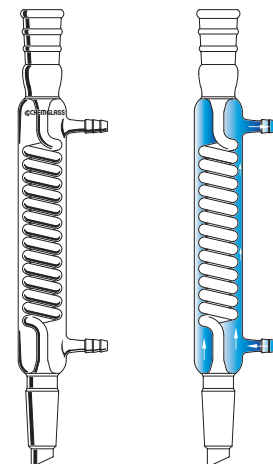
Part Number	Coil Length (mm)	Joint Size	Overall Height (mm)	Thread Size
CG-1213-L-HC-01	125	24/40	300	GL-14
CG-1213-L-HC-02	175	24/40	350	GL-14
CG-1213-L-HC-03	125	29/42	300	GL-14
CG-1213-L-HC-04	175	29/42	350	GL-14
CG-1213-L-HC-05	300	45/50	490	GL-18

CONDENSERS

CG-1214 CONDENSER, GRAHAM

Condenser has a top standard taper outer and lower inner drip tip joint. Hose connections have an O.D. of 10mm at the middle serration.

Part Number	Jacket Length (mm)	Joint Size	Overall Height (mm)
CG-1214-01	200	24/40	330
CG-1214-03	250	24/40	380
CG-1214-05	300	24/40	430
CG-1214-07	400	24/40	530
CG-1214-02	200	29/42	340
CG-1214-04	250	29/42	390
CG-1214-06	300	29/42	440

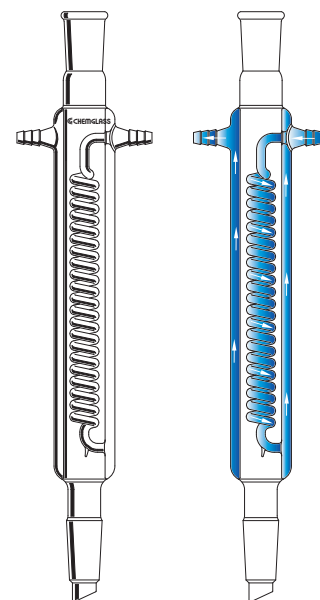


CG-1214

CG-1215-A CONDENSER, REFLUX

Reflux condenser having an internal coil that is water jacketed. Vapors are condensed both on the coil and the inner wall of the jacket. The top end has a standard taper outer joint and the lower end has an inner drip tip joint. Hose connections have an O.D. of 10mm at the middle serration.

Part Number	Jacket Length (mm)	Joint Size	Overall Height (mm)
CG-1215-A-10	250	24/40	390
CG-1215-A-11	300	24/40	440
CG-1215-A-12	400	24/40	540
CG-1215-A-20	250	29/26	380
CG-1215-A-13	250	29/42	395
CG-1215-A-14	300	29/42	445
CG-1215-A-15	400	29/42	545

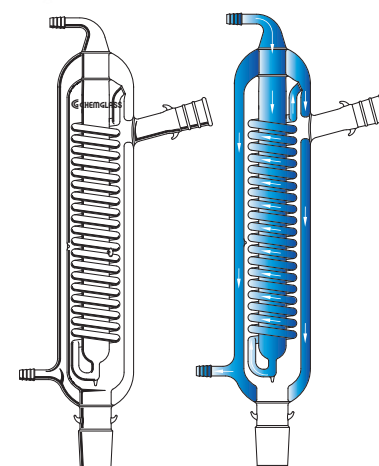


CG-1215-A

CG-1215-C CONDENSER, HIGH EFFICIENCY

This unique design combines some of the best features for refluxing in a single condenser. Coolant, introduced into the upper hose connection, fills a large cold finger that is wrapped with coils. After the coolant travels through the coils, it enters the water jacket to maximize cooling surface along the vapor path. Angled take off joint is a standard taper 24/40, and the angled take off joint for the 45/50 size is a standard taper 29/42. Hose connections for the 24/40 size condenser are 10mm at the largest serration. Hose connections for the 45/50 size are 15mm at the largest serration.

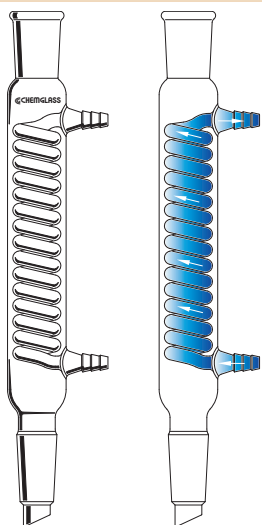
Part Number	Lower Joint Size	Jacket Length (mm)	Overall Height (mm)
CG-1215-C-01	24/40	400	500
CG-1215-C-10	45/50	465	590
CG-1215-C-02	45/50	600	730



CG-1215-C

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CONDENSERS



CG-1216

CG-1216 CONDENSER, REFLUX

Reflux condenser with the coolant circulated through the inner coil instead of through the jacket as in the Graham style condenser. Condenser has standard taper top outer and lower inner drip tip joints. Hose connections have an O.D. of 10mm at the middle serration.

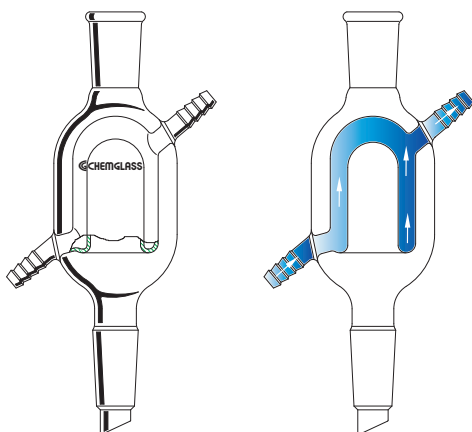
Part Number	Jacket Length (mm)	Joint Size	Overall Height (mm)
CG-1216-01	200	24/40	315
CG-1216-03	250	24/40	365
CG-1216-05	300	24/40	415
CG-1216-20	200	29/26	305
CG-1216-21	250	29/26	355
CG-1216-02	200	29/42	320
CG-1216-04	250	29/42	370
CG-1216-06	300	29/42	420



CG-1217 CONDENSER, REFLUX

Compact high efficiency reflux condenser employs a double wall thimble shape bulb sealed into the outer jacket. Serrated hose connections for water connection extend through the outer bulb and have an O.D. of 10mm at the middle serration. While the overall height of this condenser is only 210mm, it has the efficiency of a standard 400mm Liebig condenser.

Part Number	Joint Size	Overall Height x Width (mm)	Condensing Area (cm ²)
CG-1217-20	24/40	222 x 65	160
CG-1217-21	29/42	227 x 65	160
CG-1217-22	45/50	240 x 65	160
CG-1217-25	45/50	315 x 100	385



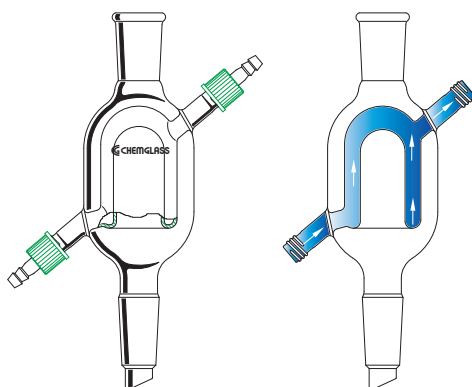
CG-1217



CG-1217-HC CONDENSER, REFLUX

Compact high efficiency reflux condenser similar to CG-1217 but with detachable hose connections. Connections are made of polypropylene and provide a safe and easy way of connecting and disconnecting flexible tubing to the condenser. Supplied complete with two GL open top screw caps and two straight polypropylene hose connections. Condensing area is the same as CG-1217.

Part Number	Joint Size	Overall Height x Width (mm)	Thread Size
CG-1217-HC-20	24/40	222 x 65	GL 14
CG-1217-HC-21	29/42	227 x 65	GL 14
CG-1217-HC-22	45/50	240 x 65	GL 14
CG-1217-HC-25	45/50	315 x 100	GL 18

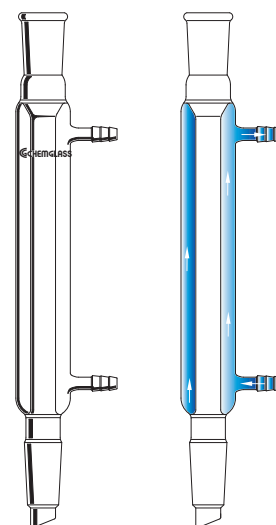


CG-1217-HC

CG-1218 CONDENSER, LIEBIG

Condenser has a standard taper outer joint at the top and a lower inner drip tip joint. Hose connections have an O.D. of 10mm at the middle serration.

Part Number	Jacket Length (mm)	Joint Size	Overall Height (mm)
CG-1218-01	200	24/40	320
CG-1218-03	250	24/40	370
CG-1218-05	300	24/40	420
CG-1218-07	400	24/40	520
CG-1218-09	500	24/40	620
CG-1218-11	600	24/40	720
CG-1218-20	200	29/26	310
CG-1218-21	250	29/26	360
CG-1218-22	300	29/26	410
CG-1218-02	200	29/42	325
CG-1218-04	250	29/42	375
CG-1218-06	300	29/42	425
CG-1218-08	400	29/42	525
CG-1218-10	500	29/42	625
CG-1218-12	600	29/42	725

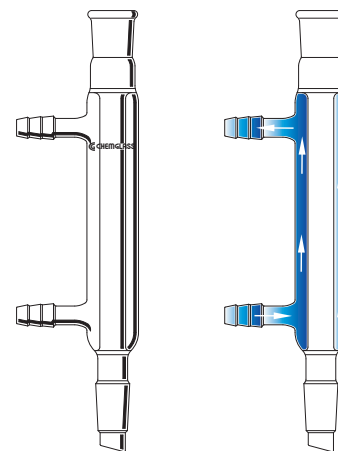


CG-1218

CG-1218-A CONDENSER, LIEBIG

Small scale Liebig condenser with a standard taper outer joint at the top and a lower inner drip tip joint. Hose connections have an O.D. of 10mm at the middle serration.

Part Number	Jacket Length (mm)	Top Outer Joint Size	Lower Inner Joint Size	Overall Length (mm)
CG-1218-A-20	110	14/20	14/20	185
CG-1218-A-21	110	14/20	14/35	195
CG-1218-A-22	110	19/22	19/22	200

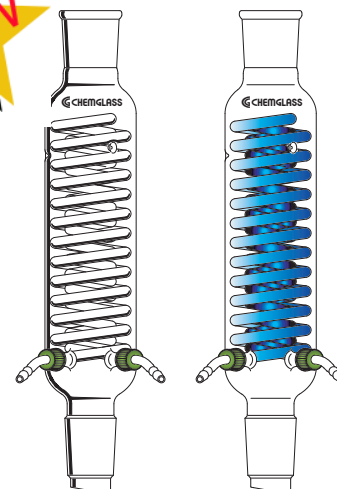


CG-1218-A

CG-1219 CONDENSER, DOUBLE COIL

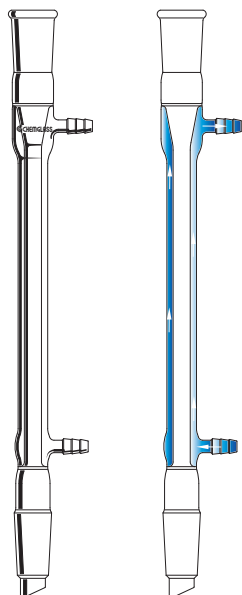
High efficiency double coil condenser, similar to a rotary evaporator condenser but with 45/50 joints. Condenser has an O.D. of 80mm and is 400mm in overall length. Coolant connections are made using removable hose connections with GL-14 threads. Supplied complete with two polypropylene hose connections and caps.

Part Number	Joint Size	Condensing Area (cm ²)
CG-1219-20	45/50	895



CG-1219

CONDENSERS

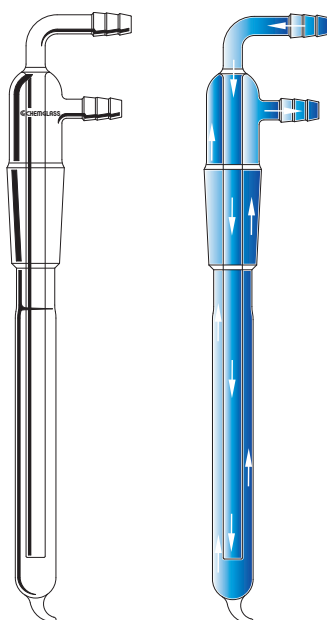


CG-1220

CG-1220 CONDENSER, WEST

Narrow annular space between jacket and inner tube of the West condenser provides for excellent cooling efficiency due to the increased flow rate of water. Condenser has a top standard taper outer joint and a lower inner drip tip joint. Hose connections have an O.D. of 10mm at the middle serration.

Part Number	Jacket Length (mm)	Joint Size	Overall Height (mm)
CG-1220-20	110	14/20	185
CG-1220-21	200	14/20	270
CG-1220-23	110	19/22	200
CG-1220-24	200	19/22	290
CG-1220-01	200	24/40	485
CG-1220-03	250	24/40	430
CG-1220-05	300	24/40	485
CG-1220-02	200	29/42	385
CG-1220-04	250	29/42	435
CG-1220-06	300	29/42	485

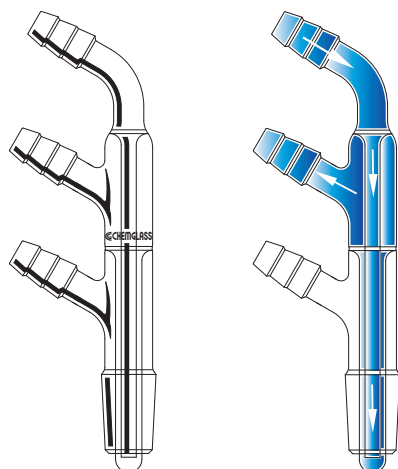


CG-1222

CG-1222 CONDENSER, COLD FINGER

Condenser has an inner joint and a sealed lower drip tip for drip control. Hose connections have an O.D. of 10mm at the middle serration.

Part Number	Joint Size	Length Below Joint (mm)
CG-1222-14	14/20	100
CG-1222-01	24/40	150
CG-1222-03	24/40	200
CG-1222-05	24/40	250
CG-1222-04	29/42	200



CG-1222-A

CG-1222-A CONDENSER, MICRO COLD FINGER**

Condenser for use in refluxing from 1 to 20mL of solvent in flasks having a capacity of 5 to 50mL. Minimal surface area provides for better yields while providing adequate cooling. The additional hose connection is provided to allow introduction of an inert gas such as nitrogen. Top hose connection is cooling inlet and middle hose connection is cooling outlet. Cold finger extends either 5mm or 13mm below the joint and is used on a flask with the listed joint size. Hose connection is 10mm at the largest serration.

Part Number	Joint Size	Overall Height (mm)	Length Below Joint (mm)
CG-1222-A-01	14/20	119	5
CG-1222-A-02	14/20	127	13
CG-1222-A-03	19/22	121	5
CG-1222-A-04	19/22	129	13

**Design suggested by Dr. Kathleen Zandi, Pfizer Inc., Groton CT.