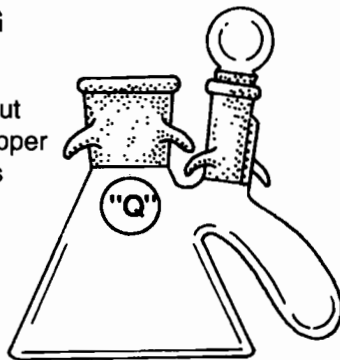


CLINICAL APPARATUS

QC-2030 WARBURG REACTION VESSEL

Approximately 15ml without center well, 7/15 solid stopper in side arm. Center joint is a 17/20.

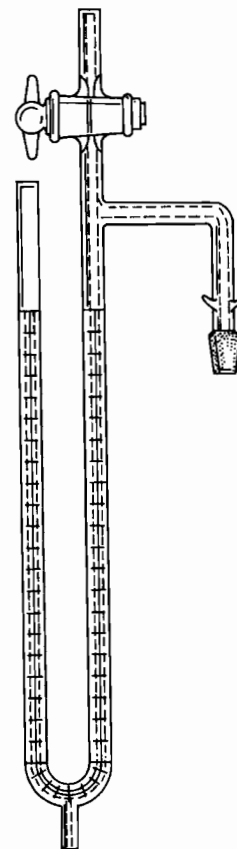
Code
-110



QC-2050 WARBURG MANOMETER

Twin capillaries graduated 0 to 30cm in 1mm divisions, easily read. Tail outlet stopcock on top and a 17/20 joint on side arm for attaching reaction vessels QC-2015 through QC-2040.

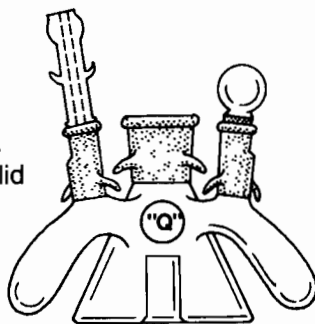
Code
-110



QC-2040 WARBURG REACTION VESSEL

Approximately 15ml with center well and 2 side arms. One side arm has a 7/15 solid stopper. The other side arm has a 7/15 venting pipe.

Code
-110

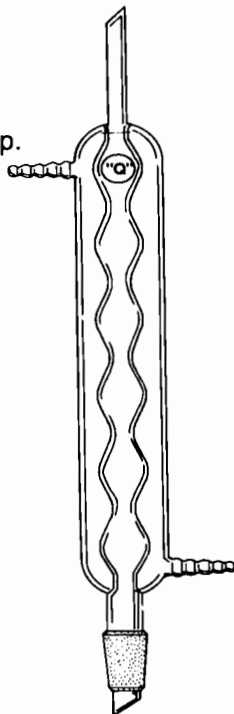


CONDENSERS

QC-2080 CONDENSER ALLIHN

The top of the condenser is a plain tube. The bottom has a drip tip.

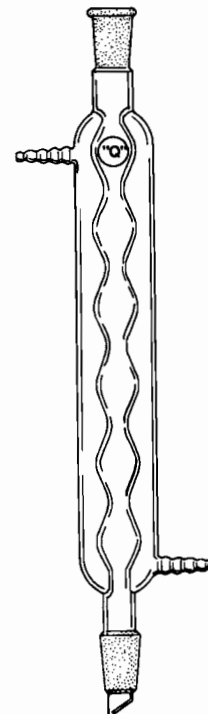
| Jacket Length | 24/40 | 29/42 |
|---------------|-------------|-------------|
| MM | <u>Code</u> | <u>Code</u> |
| 200 | -110 | -216 |
| 250 | -111 | -217 |
| 300 | -112 | -218 |
| 400 | -113 | -219 |
| 500 | -114 | -220 |
| 600 | -115 | -221 |



QC-3000 CONDENSER ALLIHN

Similar to QC-2080, but with an outer joint at top and a drip tip of the same size at bottom.

| Jacket Length | 24/40 | 29/42 |
|---------------|-------------|-------------|
| MM | <u>Code</u> | <u>Code</u> |
| 200 | -110 | -216 |
| 250 | -111 | -217 |
| 300 | -112 | -218 |
| 400 | -113 | -219 |
| 500 | -114 | -220 |
| 600 | -115 | -221 |

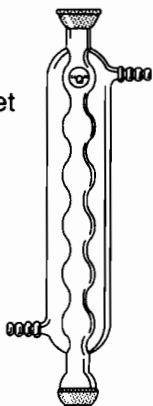


CONDENSERS

QC-3005 CONDENSER ALLIHN

Similar to QC-3000 but with a 35/25 socket at top and 35/25 ball at bottom.

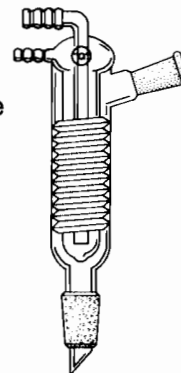
| Jacket Length, MM | Code |
|-------------------|------|
| 200 | -110 |
| 250 | -111 |
| 300 | -112 |
| 400 | -113 |
| 500 | -114 |
| 600 | -115 |



QC-3040 CONDENSER FRIEDRICHS

An outer joint on vapor inlet tube of the same size as drip tip on the bottom

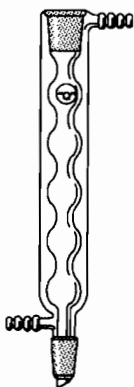
| Joint Size | Code |
|------------|------|
| 24/40 | -110 |
| 29/42 | -111 |
| 34/45 | -112 |
| 45/50 | -113 |
| 55/50 | -114 |



QC-3010 CONDENSER ALLIHN

Full length with water cooled inner and outer joints.

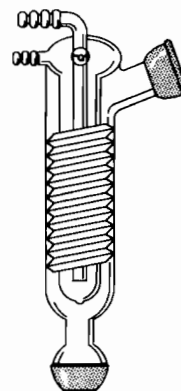
| Jacket Length, MM | 24/40 | 29/42 |
|-------------------|-------|-------|
| | Code | Code |
| 200 | -110 | -215 |
| 300 | -111 | -216 |
| 400 | -112 | -217 |
| 500 | -113 | -218 |
| 600 | -114 | -219 |



QC-3050 CONDENSER FRIEDRICHS

Similar to the QC - 3040 but with ball and socket joints.

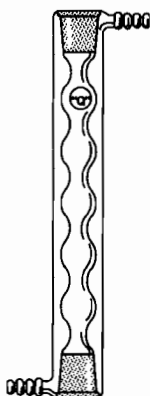
| Joint Size | Code |
|------------|------|
| 35/20 | -110 |
| 35/25 | -111 |



QC-3015 CONDENSER ALLIHN

Similar to QC - 3010, but with outer joints at top and bottom, of the same size.

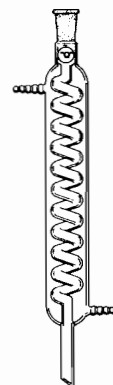
| Jacket Length, MM | 24/40 | 29/42 |
|-------------------|-------|-------|
| | Code | Code |
| 200 | -110 | -215 |
| 300 | -111 | -216 |
| 400 | -112 | -217 |
| 500 | -113 | -218 |
| 600 | -114 | -219 |



QC-3060 CONDENSER GRAHAM

A coil with outer joint at top and drip tube at bottom.

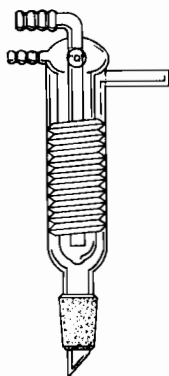
| Jacket Length, MM | 24/40 | 29/42 |
|-------------------|-------|-------|
| | Code | Code |
| 200 | -110 | -216 |
| 250 | -111 | -217 |
| 300 | -112 | -218 |
| 400 | -113 | -219 |
| 500 | -114 | -220 |
| 600 | -115 | -221 |



QC-3020 CONDENSER FRIEDRICHS

Rubber tubing connection at vapor inlet and drip tip on bottom.

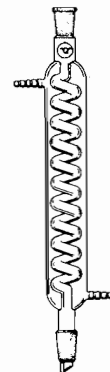
| Joint Size | Code |
|------------|------|
| 24/40 | -110 |
| 29/42 | -111 |
| 34/45 | -112 |
| 45/50 | -113 |
| 55/50 | -114 |



QC-3080 CONDENSER, GRAHAM

Similar to QC - 3060 but with a drip tip at bottom and an outer joint of the same size on top

| Jacket Length, MM | 24/40 | 29/42 |
|-------------------|-------|-------|
| | Code | Code |
| 200 | -110 | -216 |
| 250 | -111 | -217 |
| 300 | -112 | -218 |
| 400 | -113 | -219 |
| 500 | -114 | -220 |
| 600 | -115 | -221 |

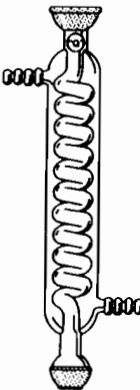


CONDENSERS

QC-3085 CONDENSER, GRAHAM

Similar to QC - 3080 but with ball and socket joints.

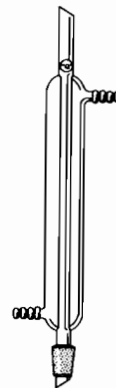
| Jacket Length MM | 28/15 Code | 35/20 Code | 35/25 Code |
|---------------------|---------------|---------------|---------------|
| 200 | -110 | -216 | -322 |
| 250 | -111 | -217 | -323 |
| 300 | -112 | -218 | -324 |
| 400 | -113 | -219 | -325 |
| 500 | -114 | -220 | -326 |
| 600 | -115 | -221 | -327 |



QC-4005 CONDENSER, LIEBIG

The top is a plain tube with a drip tip on the bottom

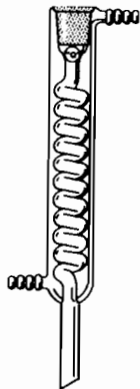
| Jacket Length , MM | 24/40 Code | 29/42 Code |
|--------------------|---------------|---------------|
| 200 | -110 | -217 |
| 300 | -111 | -218 |
| 400 | -112 | -219 |
| 500 | -113 | -220 |
| 600 | -114 | -221 |
| 750 | -115 | -222 |
| 1000 | -116 | -223 |



QC-3090 CONDENSER GRAHAM

Full length jacket with water cooled outer joint at top and plain tube at bottom.

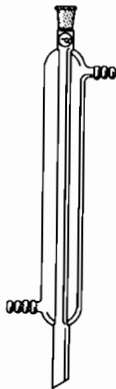
| Jacket Length MM | 24/40 Code | 29/42 Code |
|---------------------|---------------|---------------|
| 200 | -110 | -215 |
| 300 | -111 | -216 |
| 400 | -112 | -217 |
| 500 | -113 | -218 |
| 600 | -114 | -219 |



QC-4010 CONDENSER, LIEBIG

The top inlet has an outer joint with a plain tube on the bottom.

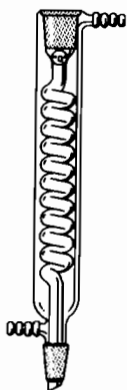
| Jacket Length , MM | 24/40 Code | 29/42 Code |
|--------------------|---------------|---------------|
| 200 | -110 | -217 |
| 300 | -111 | -218 |
| 400 | -112 | -219 |
| 500 | -113 | -220 |
| 600 | -114 | -221 |
| 750 | -115 | -222 |
| 1000 | -116 | -223 |



QC-3095 CONDENSER GRAHAM

Similar to QC - 3090, but with a water cooled drip joint at bottom.

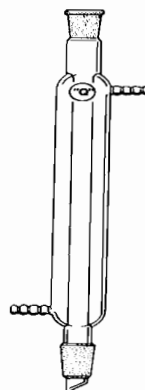
| Jacket Length MM | 24/40 Code | 29/42 Code |
|---------------------|---------------|---------------|
| 200 | -110 | -215 |
| 300 | -111 | -216 |
| 400 | -112 | -217 |
| 500 | -113 | -218 |
| 600 | -114 | -219 |



QC-4020 CONDENSER, LIEBIG

Top and bottom joints of the same size.

| Jacket Length , MM | 24/40 Code | 29/42 Code |
|--------------------|---------------|---------------|
| 200 | -110 | -217 |
| 300 | -111 | -218 |
| 400 | -112 | -219 |
| 500 | -113 | -220 |
| 600 | -114 | -221 |
| 750 | -115 | -222 |
| 1000 | -116 | -223 |



QC-4000 CONDENSER, AIR

Plain tube with a drip tip at bottom.

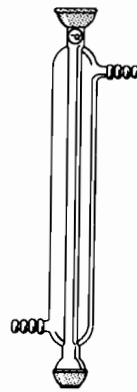
| Tube Length MM | 24/40 Code | 29/42 Code |
|-------------------|---------------|---------------|
| 200 | -110 | -217 |
| 300 | -111 | -218 |
| 400 | -112 | -219 |
| 500 | -113 | -220 |
| 600 | -114 | -221 |
| 750 | -115 | -222 |
| 1000 | -116 | -223 |



QC-4025 CONDENSER, LIEBIG

Similar to the QC - 4020, but with ball and socket joints.

| Jacket Length , MM | 35/25 Code |
|--------------------|---------------|
| 200 | -110 |
| 300 | -111 |
| 400 | -112 |
| 500 | -113 |
| 600 | -114 |
| 750 | -115 |
| 1000 | -116 |

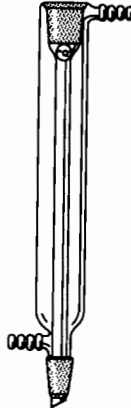


CONDENSERS

QC-4027 CONDENSER, LIEBIG

Full length jacket with water cooled inner and outer joints.

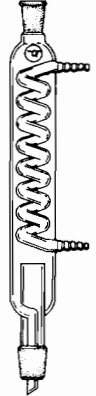
| Jacket Length MM | 24/40 Code | 29/42 Code |
|---------------------|---------------|---------------|
| 200 | -110 | -215 |
| 300 | -111 | -216 |
| 400 | -112 | -217 |
| 500 | -113 | -218 |
| 600 | -114 | -219 |



QC-4080 CONDENSER, DALIN

A unique bypass design for the prevention of flooding in the condenser.

| Jacket Length, MM | 24/40 Code | 29/42 Code |
|-------------------|------------|------------|
| 200 | -110 | -216 |
| 250 | -111 | -217 |
| 300 | -112 | -218 |
| 400 | -113 | -219 |
| 500 | -114 | -220 |
| 600 | -115 | -221 |



QC-4040 CONDENSER, COOL COIL

Coolant passes through the inner coil. There is an outer joint at top and a drip tip of the same size at the bottom.

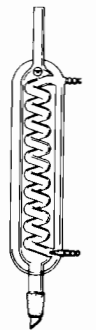
| Jacket Length, MM | 24/40 Code | 29/42 Code |
|-------------------|------------|------------|
| 200 | -110 | -216 |
| 250 | -111 | -217 |
| 300 | -112 | -218 |
| 400 | -113 | -219 |
| 500 | -114 | -220 |
| 600 | -115 | -221 |



QC-5000 CONDENSER, DOUBLE JACKET

Coolant passes through inner coil and outer jacket. The top is a plain tube with a drip tip on the bottom.

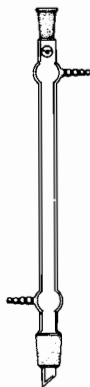
| Jacket Length, MM | 24/40 Code | 29/42 Code |
|-------------------|------------|------------|
| 200 | -110 | -216 |
| 250 | -111 | -217 |
| 300 | -112 | -218 |
| 400 | -113 | -219 |
| 500 | -114 | -220 |
| 600 | -115 | -221 |



QC-4060 CONDENSER, WEST TYPE

The top outer joint and bottom drip tip are the same size.

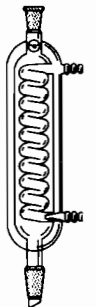
| Jacket Length, MM | 24/40 Code | 29/42 Code |
|-------------------|------------|------------|
| 200 | -110 | -217 |
| 250 | -111 | -218 |
| 300 | -112 | -219 |
| 400 | -113 | -220 |
| 500 | -114 | -221 |
| 600 | -115 | -222 |
| 750 | -116 | -223 |



QC-5001 CONDENSER, DOUBLE JACKET

Similar to QC-5000, but with an outer joint on the top and a drip tip on the bottom of the same size.

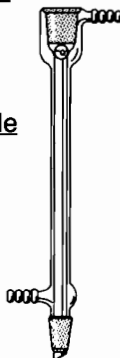
| Jacket Length, MM | 24/40 Code | 29/42 Code |
|-------------------|------------|------------|
| 200 | -110 | -216 |
| 250 | -111 | -217 |
| 300 | -112 | -218 |
| 400 | -113 | -219 |
| 500 | -114 | -220 |
| 600 | -115 | -221 |



QC-4065 CONDENSER, WEST TYPE

Full length jacket with water cooled inner and outer joints.

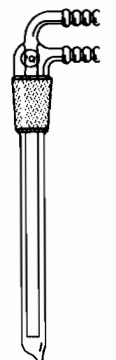
| Jacket Length, MM | 24/40 Code | 29/42 Code |
|-------------------|------------|------------|
| 200 | -110 | -216 |
| 250 | -111 | -217 |
| 300 | -112 | -218 |
| 400 | -113 | -219 |
| 500 | -114 | -220 |
| 600 | -115 | -221 |



QC-5002 CONDENSER, COLD FINGER

The jacket extends below an inner joint to a pointed bottom to form a drip tip.

| Jacket Length MM | 24/40 Code | 29/42 Code | 45/50 Code |
|---------------------|---------------|---------------|---------------|
| 100 | -110 | -216 | -322 |
| 150 | -111 | -217 | -323 |
| 200 | -112 | -218 | -324 |
| 250 | -113 | -219 | -325 |
| 300 | -114 | -220 | -326 |
| 400 | -115 | -221 | -327 |



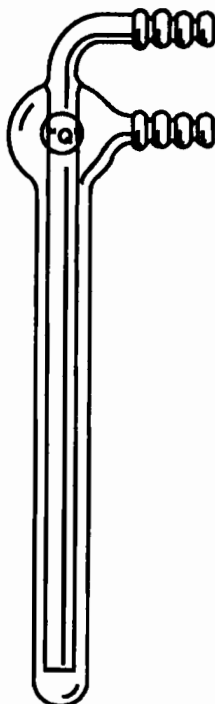
CONDENSERS

QC-5003 CONDENSER COLD FINGER

Bulb at the top for use in tubes or flasks without joints.

Jacket
Length
Below
Bulb

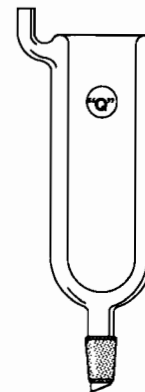
| MM | Jacket O.D. MM | Code |
|-----|----------------------|------|
| 100 | 15 | -110 |
| 150 | 15 | -111 |
| 100 | 18 | -112 |
| 150 | 18 | -113 |
| 150 | 22 | -114 |
| 200 | 22 | -115 |
| 150 | 28 | -116 |
| 200 | 28 | -117 |
| 200 | 32 | -118 |
| 250 | 32 | -119 |
| 300 | 38 | -120 |



QC-5010 CONDENSER, DEWAR

For use with dry ice or other solid cooling agents. Vented vertically for safety, with drip tip at bottom.

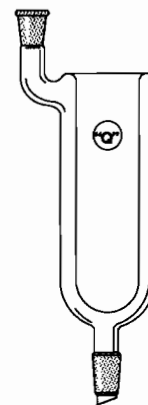
| Inside Diameter MM | Depth MM | 24/40 Code | 29/42 Code |
|--------------------------|-------------|---------------|---------------|
| 40 | 200 | -110 | -214 |
| 50 | 250 | -111 | -215 |
| 60 | 345 | -112 | -216 |
| 75 | 300 | -113 | -217 |



QC-5015 CONDENSER, DEWAR

Similar to QC-5010, but the top vent has an outer joint of the same size as the drip tip.

| Inside Diameter MM | Depth MM | 24/40 Code | 29/42 Code |
|--------------------------|-------------|---------------|---------------|
| 40 | 200 | -110 | -214 |
| 50 | 250 | -111 | -215 |
| 60 | 345 | -112 | -216 |
| 75 | 300 | -113 | -217 |

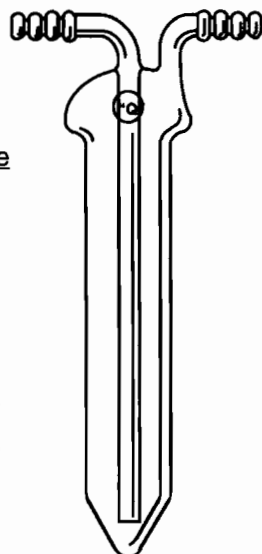


QC-5005 CONDENSER COLD FINGER

Similar to QC-5003, but with a flatter flange at top for a better seal.

Jacket
Length
Below
Flange

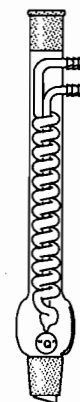
| MM | Jacket O.D. MM | Flange O.D. MM | Code |
|-----|----------------------|----------------------|------|
| 100 | 15 | 35 | -110 |
| 150 | 15 | 35 | -111 |
| 100 | 22 | 45 | -112 |
| 150 | 22 | 45 | -113 |
| 150 | 32 | 45 | -114 |
| 200 | 32 | 45 | -115 |
| 225 | 41 | 55 | -116 |
| 300 | 41 | 55 | -117 |
| 110 | 45 | 60 | -118 |
| 200 | 45 | 60 | -119 |



QC-5020 CONDENSER, SPIRAL

The hose connections are at the top on the same side. Coolant passes through coil. The outer joint at top and the drip tip at bottom are the same size.

| Jacket Length, MM | 24/40 Code | 29/42 Code |
|-------------------|------------|------------|
| 125 | -110 | --- |
| 200 | -111 | --- |
| 250 | -112 | -215 |
| 300 | -113 | -216 |
| 400 | -114 | -217 |



QC-5030 CONDENSER, SPIRAL

The hose connections are at the top opposite each other. Coolant passes through inner coil. The outer joint at top and the drip tip at bottom are the same size.

| Jacket Length, MM | 24/40 Code | 29/42 Code |
|-------------------|------------|------------|
| 200 | -110 | -216 |
| 250 | -111 | -217 |
| 300 | -112 | -218 |
| 400 | -113 | -219 |
| 500 | -114 | -220 |
| 600 | -115 | -221 |

