

# 9000 DISTILLING HEAD, ₹, CLAISEN

Distilling head-condenser combination. § outer 10/30 thermometer joint at top of side tube for 75 mm. immersion thermometer. All other — joints are the same size, Special West type condenser has bent lower end for direct connection to receiver.

Code No.	Α	В	C	
 <b>§</b> Joint	19/38	24/40	29/42	

#### 9010 DISTILLING HEAD

Distilling head with condenser sealed to adapter tube at 75° angle. Bottom inner side drip \$ joints or \$ ball joints are the same size. \$ outer 10/30 joint at top of adapter for 75 mm. immersion \$ thermometer. Condenser jacket length, 250 mm. for all sizes.

Code	Α	В	С	Code	A-1	B-1
<b></b> Join⁺	19/38	24/40	29/42	§ Joint	35/20	35/25

#### 9030 DISTILLING HEAD

Code	₹	Code	<b>§</b>
Α	19/38	A-1	35/20
В	24/40	B-1	35/25
С	29/42	C-1	50/30

# 9040 DISTILLING HEAD

Cold finger type reflux head, with  $\P$  outer joint or  $\S$  socket joint at top and inner  $\P$  drip joint or  $\S$  ball joint at bottom.

Code	₹	Code	<b>\$</b>
Α	19/38	A-1	35/20
B	24/40	B-1	35/25
С	29/42	C-1	50/30

#### 9050 DISTILLING HEAD

Distilling head with  $\mathfrak{F}$  outer joint or  $\mathfrak{F}$  socket joint at top and  $\mathfrak{F}$  inner drip joint or  $\mathfrak{F}$  ball joint at bottom.

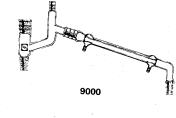
		Bulb			Bulb
Code	₹	Dia., mm.	Code	<b>§</b>	Dia., mm.
Α	19/38	52	A-1	35/20	52
В	24/40	65	B-1	35/25	65
С	29/42	75	C-1	50/30	75

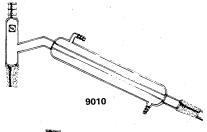
#### 9060 DISTILLING HEAD

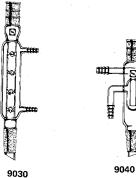
Distilling head for use with low boiling materials. Dewar type reservoir, with drop counter on bottom, can be charged with dry ice, liquid air, etc. All sizes have \$ 24/40 or \$ 35/20 receiver joints. Column connection is \$ inner joint or \$ ball joint. \$ outer 10/30 joint at top for 75 mm. immersion thermometer. When ordering, please specify column \$ or \$ joint size from table below.

Code	₹ .	Code	<b>\$</b>
Α	24/40	A-1	35/20
В	29/42	B-1	35/25
С	34/45	C-1	50/30

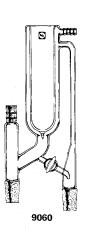
# Heads











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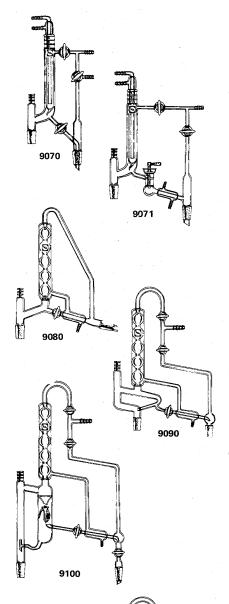
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#### 9070 DISTILLING HEAD

Distilling head with separable cold finger condenser. Stopcocks permit removal of receiver without interrupting distillation and regulate reflux rate. All sizes have § 29/42 condenser joint, § 24/40 or § 35/20 drip type receiver joint and § 10/30 outer joint for 75 mm. immersion thermometer. When ordering, please specify column § or § joint size from table below.

<u></u> ₹ Joint			<b>୬</b> Joint		
Code	A	В	A-1	B-1	C-1
Size	24/40	29/42	35/20	35/25	50/30

#### 9071 DISTILLING HEAD

Distilling head similar in design to 9070 except for Newman type dropcounting stopcock and condenser on distillate tube.

		<b>S</b> Joint		≸ Joi	nt
Code	Α	В	A-1	B-1	C-1
Size	24/40	29/42	35/20	35/25	50/30

#### 9080 DISTILLING HEAD

Variable reflux distilling head with adjustable flow stopcock. § outer 10/30 joint at top for 75 mm. immersion thermometer and § 24/40 drip joint or § 35/20 ball joint on side. When ordering, please specify column § or § joint size from table below.

Code	<b></b>	Code	\$
Α	29/40	A-1	35/20
В	29/42	B-1	35/25
		C-1	50/30

#### 9090 DISTILLING HEAD

Variable reflux distilling head with stopcock arrangement to permit removal of receiver without interrupting distillation. \$ outer 10/30 joint at top for 75 mm. immersion thermometer and \$ 24/40 inner joint or \$ 35/20 ball joint on receiver tube. When ordering, please specify column or joint size from table below.

Code	\$	Code	<b>\$</b>
A	24/40	A-1	35/20
В	29/42	B-1	35/25
		C-1	50/30

### 9100 DISTILLING HEAD

Magnetically controlled variable reflux distilling head with stopcock arrangement to permit removal of receiver without interrupting distillation. ₹ outer 10/30 joint at top for 75 mm immersion thermometer and ₹ 24/40 inner joint or ₹ 35/20 ball joint on receiver tube. When ordering, please specify column ₹ or ₹ joint size from table below.

Code	₹	Code	<b>§</b>
Α	24/40	A-1	35/20
В	29/42	B-1	35/25
		C-1	50/30

# 9101 DISTILLING HEAD, Vacuum Jacketed

Similar to 9100 except with vacuum jacket.

Code	\$	Code	<b>§</b>
Α	24/40	A-1	28/15
В	29/42	B-1	35/20
		C-1	35/25



# 9110 ELECTROMAGNETIC COIL AND RECTIFIER\*

Electromagnetic coil and rectifier for activating swinging funnels of Auto-Distilling Heads. Rectifier input: 120 Volts A.C. at 0.5 amps. Output: 6 Volts D.C., 4 amps.

Part	ltem
Α	Electromagnetic Coil
В	Rectifier
С	Complete

#### 9111 ELECTROMAGNETIC COIL\*

Same as 9110, except 115 Volt, A.C., 50/60 cycle.

#### 9120 TIMER/CONTROL/ELECTRONIC

A repeat cycle timer for regulating reflux ratio on distilling heads. Maximum ON/OFF time setting is 999.9 seconds. Minimum setting is 0.1 second. Microprocessor based timer control with LCD display. Input/Output 120V 10A Max. 50/60 Hz

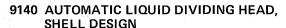
#### 9130 ELECTROMAGNETIC COIL\*

This coil is designed to operate automatic distilling heads which operate on the plunger principle whereby the glass rod is pulled through the center of the magnet. Supplied complete with necessary wiring to connect into the system. For operation on 115 volts, 60 cycles A.C. operation only. Can supply coils to order for different voltages and cycles. For intermittent service only.

Diameter of Hole ½ in.

Length 11/4 in

Diameter 1¼ in.



In this head the dividing chamber, thermometer well, and \$\frac{1}{3}\$ joints are completely vacuum jacketed to minimize heat transfer and maintain a uniform operating temperature. The jacket is equipped with bellows to allow for expansion due to temperature differential.

The reflux condenser is a separate unit with ₹ 29/42 connection to the distilling head. As standard the head is equipped with § 29/42 connection for the column, ₹ 10/30 thermometer opening and 18/9 Ball joint on takeoff tube. Other joints may be substituted with slight adjustment in price.

Take-off control is by means of a swinging funnel with a glass enclosed iron core, energized by an external solenoid. In the normal position, the funnel returns condensate through a drain tube to the column; in the energized position, condensate is directed to take-off. Price complete with reflux condenser but without solenoid or connecting tube.

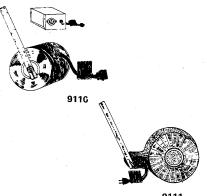
#### 9141 AUTOMATIC LIQUID DIVIDING HEAD, SHELL DESIGN

Like 9140 but with reflux condenser vacuum jacketed to prevent frosting.

# 9142 AUTOMATIC LIQUID DIVIDING HEAD, SHELL DESIGN

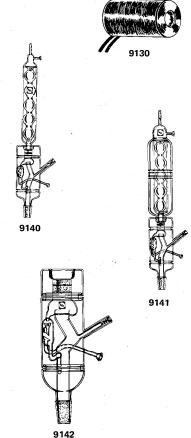
Dividing head only for 9140 and 9141.

Code	Α	В	
₹ Joint	29/42	50/50	



9111





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# **Distillation**

### 9143 REFLUX CONDENSER, WATER JACKET

Condenser for 9140.

Code A B

S Joint 29/42 50/50



Condenser only for 9141.

Code A B \$ Joint 29/42 50/50

# 9145 CONNECTING TUBE 120°, GLASS 9146 CONNECTING TUBE 120°, TEFLON®

With 18/9 Ball and Socket joints to adapt 60° take off tube to vertical receivers or product condenser. Can also be supplied with § joint on receiver end. Please specify joint size required.

Code	Α	В 🆗
§ Joint	18/9	28/15

#### 9150 VAPOR DIVIDING HEAD, SHELL DESIGN

With a modified umbrella type valve which eliminates any possibility of distillate being taken off when valve is closed for reflux cycle. The reflux condenser has a cooling coil in addition to the cooling jacket, and is completely vacuum jacketed to prevent frosting. As standard this head is equipped with  $\S$  29/42 joint for column,  $\S$  10/30 thermometer opening, and 18/9 Ball joint on side arm. Price complete with reflux condenser but without thermometer, solenoid, or connecting tube.

Code	Α	В	
▼ Joint	29/42	50/50	

# 9151 VAPOR DIVIDING HEAD, SHELL DESIGN

Similar to 9150 except with a high capacity condenser. The condenser has an additional cooling spiral extending through the center of the bulbs.

Code	Α	В	
₹ Joint	29/42	50/50	

#### 9160 COLUMN FEED ADAPTER HEAD

A vacuum jacketed adapter to provide an entrance to the column. As standard is equipped with § 29/42 joints at top and bottom, § 10/30 thermometer opening and 18/9 Ball joint on inlet,but can be furnished with other § or Ball joints.

Code	A	В	
▼ Joint	29/42	50/50	

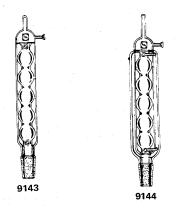
# 9170 DISTILLING HEAD THERMOCOUPLE ADAPTER

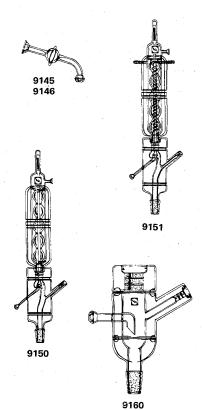
Use in shell design Automatic Distilling Heads to adapt the head for use with Temperature Recorder.

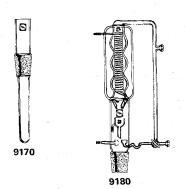
Immersion	<b>₹</b> Joint
75 mm	10/30

#### 9180 DISTILLING HEAD, COMBINED

This combination, one piece, Distilling Head provides the maximum in fraction cutting both at atmospheric and reduced pressure. Designed for large capacity columns, the condenser is high capacity in design. The magnetically controlled splitter gives an infinitely variable reflux ratio. The Head is provided with 29/42 \$\(\frac{1}{3}\) or 50/50 \$\(\frac{1}{3}\) Inner Joint. Please specify joint size when ordering.







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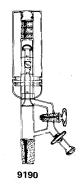
# 9190 REFLUX COUNTING TRAP, SHELL DESIGN

This trap is inserted between flask and column to measure feed rate and operating Holdup. The refulx collected is measured volumetrically. Furnished with § 29/42 Joints or § 50/50 Joints. Please specify joint size when ordering.

# 9191 REFLUX COUNTING TRAP, IMPROVED

A unique design in Reflux counting devices for distilling apparatus. The vapor lines are completely encapsulated in a silvered vacuum jacket to prevent heat loss found in other Traps available. There is an unsilvered window at the graduation mark for visual observation, the stopcock is § 2 mm straight bore. Unit can be supplied with § Joints or § Joints as pictured. Please specify Joint size when ordering. The Take-off Joint is § 18/9. Capacity 50 ml.

Part No.	Joint Size
Α	<b>\$</b> 24/40
В	₹ 29/42
С	<b>\$</b> 35/20
D	§ 35/25





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