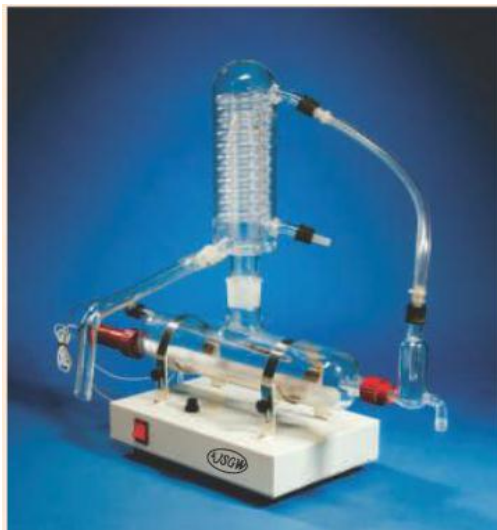




## Single Stage Quartz Distillation (Horizontal)



**Water stills** are carefully designed to produce high purity pyrogen free distilled water. The water still of Quartz glass comprises of horizontal type boiler with water level, Quartz condenser, silica sheathed (Quartz) heater, along with stand and clamps.

**Compact Design. All parts are replaceable**

### Features:

- ❖ Quartz condenser & boiler are fitted with a removable silica sheathed heater & screw threaded connectors for ease of cleaning when scaling is formed.
- ❖ Distillate temp. is around 25 to 45°C which is ensured by an efficient condenser.
- ❖ The stand is powder coated for rust free operation and lustrous appearance.
- ❖ The unit automatically switches off if water level in the boiler falls below heater.
- ❖ Cooling water from the condenser is re-circulated into the boiling chamber, Hence saving energy.
- ❖ Fuse is provided for safety in case of voltage fluctuation or short circuit.
- ❖ Electrical Power: 220/240 V, 50/60Hz, Single Phase Supply.

**Unique Feature: This model is equipped with in Built Safety Cut Off Device which protect the glass in case of water failure & Overheating.**

Cat No.	Output	Cooling Water Consumption (ltr/hr)	Power Rating KW	Conductivity 45/cm	PH
428/1Q	2ltr/hr	80ltr/hr	1.7Kw	0.5 - 0.8	6-7





# Jain Scientific Glass Works

(Laboratory Glassware)

## All Quartz Double Distillation



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# Jain Scientific Glass Works

(Laboratory Glassware)

- It has been designed keeping in view customer requirements & easy Serviceability of the equipment. All Quartz Double Distillation consists of Demountable upper & lower boiler
- The lower boiler has a built in heater enclosed in a quartz boiler with a cup on top.
- The upper boiler has a built in quartz coil and condensing unit which is mounted on the boiler with the help of ball and socket joint.
- Double walled condenser ensures separate condensation of vapours coming from the two boilers using a single cooling circuit.
- The unit is mounted on a specially designed powder coated stand and is also provided with automatic Safety Control Unit.
- This new dual - safety cut off device has been designed for better and accurate control of the distillation unit. It has been incorporated with advanced microprocessor based electronic circuitry.
- This has the latest electronic technology that has been introduced by our company which gives an easy user machine interaction.
- The alpha numeric LCD which has been used shows all messages that correspond to the running of the machine.
- Also there is alarm system which beeps as and when user attention is required.

## Double Distillate Quality

Parameters	Values
Specific Conductivity	< 1 $\mu$ s/cm
Biological Activity (distillate quality)	Pyrogen Free
Organic Matter	Nil
Total Solids	0.1 mg/ltr
Silica	<0.01 mg/ltr

*\*\* All parameters are under standard test conditions.*

*\*\*We recommend a Quartz Reservoir for storage of High Purity Water.*





# Jain Scientific Glass Works

(Laboratory Glassware)

## *All Quartz Double Distillation:*

<b>Cat No.</b>	<b>Output Cap. Apprx.</b>	<b>Power Rating</b>	<b>Cooling Water Consumption(ltr/hr)</b>
427/1	1.5 ltr/hr	3.0 Kw	50 ltr/hr
427/2	2.5 ltr/hr	5.0 Kw	70 ltr/hr
427/3	3.5 ltr/hr	7.5 Kw	90 ltr/hr
427/4	5.0 ltr/hr	9.0 Kw	150 ltr/hr

*\*\* Cat No. 427/3 & 427/4 are with 3 phase power supply.*

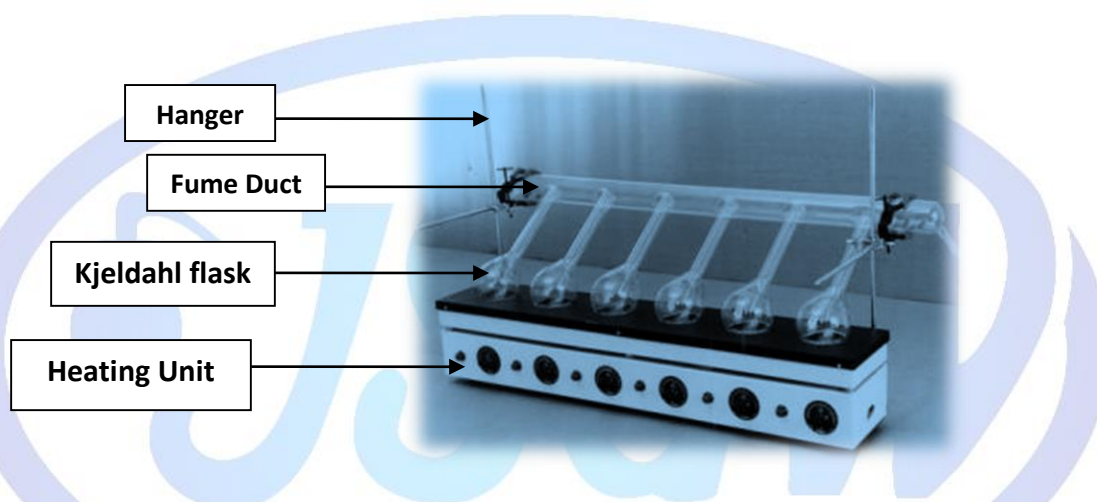
*\*\*Cost of safety cut off device included.*





# KJELDAHL COMBINED DIGESTION & DISTILLATION APPARATUS

## (Operation and Maintenance Manual)



### Technical Data:

Exterior Body	:	Duly Coated Mild Steel
Weight	:	14kg
Maximum temperature	:	350 degrees
Temperature regulation	:	Energy Regulator
Heating Plates	:	Ceramic
Models	:	3 test , 6test
Power Supply	:	220/230V,AC,50hz

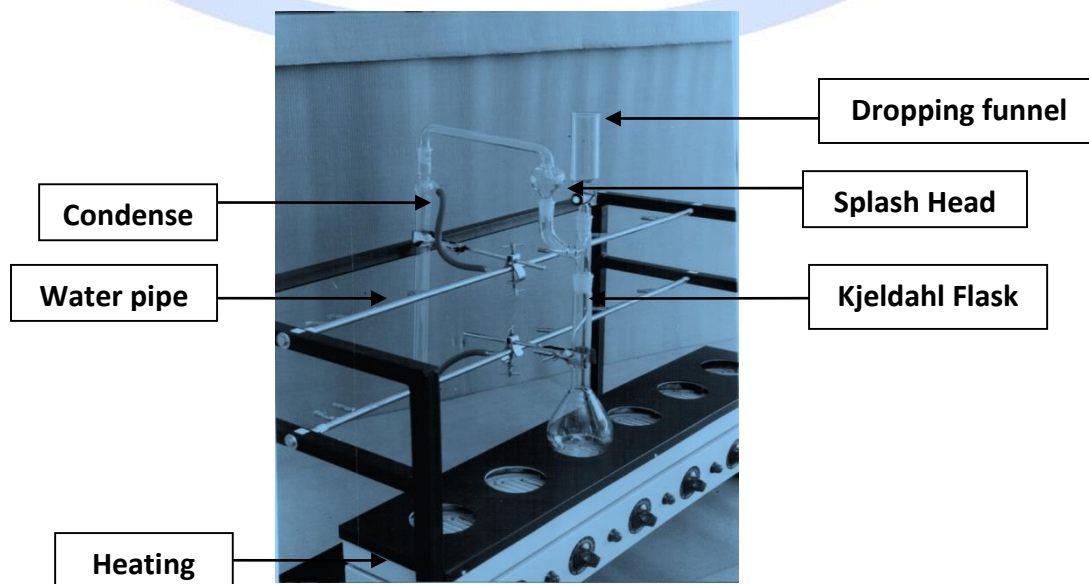
## Installation:

- Place the fume duct glass or lead in the hangers
- Put the Kjeldahl flask on the heater of the heating unit & place the neck into the fume duct hole as shown in the figure
- Adjust the height of the hangers according to the size of the Kjeldahl flasks

## Operation:

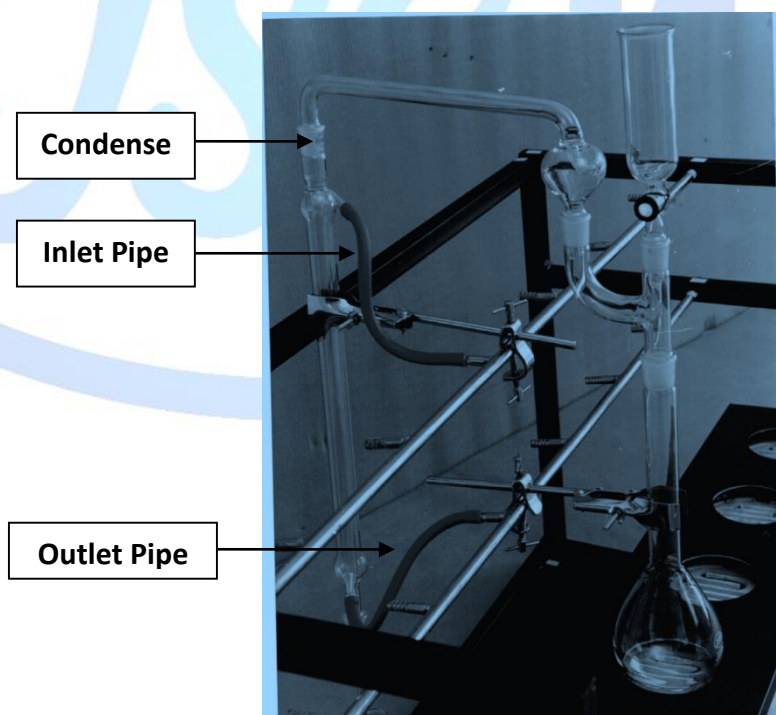
- Connect the mains lead connector to the heating unit
- Connect the other end of mains lead to mains 220V,50hz
- Switch on the energy regulator by rotating its knob clockwise and set the knob at the max. position
- Red indicator glows indicating the heaters are on
- When the desired temperature is reached i.e. when the liquid in the flask starts boiling reverse the regulator knob slowly
- The red indicator goes off , leave the regulator knob at that position
- This maintains the desired temperature
- The digestion process starts at this level
- When the digestion process is complete switch off the mains

## **UPPER PART (KJELDHAL DISTILLATION APP.)**



## Installation:

- Put the Kjeldahl flask on the heater of the heating unit
- Place the dropping funnel on the top of kjeldahl flask as shown in the figure
- Connect the splash head to the kjeldahl flask
- Place the receiving flask on the tray which is tightened to the stand
- Splash head is connected to the condenser which is thereby connected to receiving flask through receiving adapter
- Bolt the water pipes(nozzle pipes) with the stand as shown in the diagram
- Use the clamps provided to hold the kjeldahl flasks and condenser flasks
- Attach the inlet and outlet pipes to the nozzles and condenser as shown in the diagram below
- Put the inlet pipe at main water inlet and outlet pipe on a outlet tank



## Operation:

- Connect the mains lead connector to the heating unit
- Connect the other end of mains lead to mains 220V,50hz
- Switch on the energy regulator by rotating its knob clockwise and set the knob at the max. position
- Red indicator glows indicating the heaters are on
- When the desired temperature is reached i.e. when the liquid in the flask starts boiling reverse the regulator knob slowly
- The red indicator goes off, leave the regulator knob at that position
- This maintains the desired temperature
- The distillation process starts at this level
- The condensate is collected into the receiving flask
- When the distillation process is complete switch off the mains

**Note:** Energy regulator dial is marked 0-100. This marking does not indicate the temperature but shows the energy level. At position '0' minimum current is allowed to flow & at position '100' maximum current is allowed to flow through the instrument