

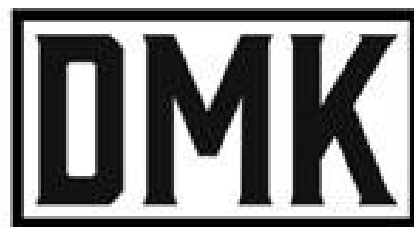
DMK CHEMICAL PROCESS PLANT LTD



ROTARY EVAPORATOR DMKR-1020 – DOUBLE RECEIVER



DMK CHEMICAL PROCESS PLANT LTD



WORKING PRINCIPLE:

THE EVAPORATION FLASK IS FILLED WITH THE REQUIRED MATERIAL, THE FLASK THEN BEGINS TO ROTATE AT A CONSTANT SPEED. THE WATER BATH IS HEATED AT A CONSTANT TEMPERATURE AND THEN RAISED UP TO THE FLASK TO START THE HEATING PROCESS.

AS THE LIQUID IN THE EVAPORATION FLASK IS ROTATED A LARGE-AREA, UNIFORM THIN FILM ON THE INNER WALL OF THE EVAPORATION FLASK IS CREATED. AS THIS BEGINS TO HEAT IT HAS THIS HAS THE EFFECT OF RESULTING IN RAPID EVAPORATION.

THE EFFICIENCY OF THIS PROCESS IS IMPROVED UNDER VACUUM (A VACUUM DEVICE NEEDS TO BE CONNECTED TO THE UNIT FOR THIS)

WHEN THE VAPOR PASSES THROUGH THE GLASS CONDENSER COILS, THE VAPOR IS COOLED TO A LIQUID (A COOLING DEVICE NEED TO BE CONNECTED) AND THE COOLED AND CONDENSED LIQUID IS GATHERED IN THE 2 RECEIVER FLASKS



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BASIC CONFIGURATION:

- THE PARTS IN CONTACT WITH THE MATERIAL ARE ALL MADE OF HIGH BOROSILICATE GLASS (EXPANSION COEFFICIENT 3.3) AND PTFE MATERIALS, WHICH HAVE STABLE PERFORMANCE AND DO NOT REACT EASILY WITH CHEMICALS
 - THE STENT IS MADE OF COLD PLATE ANTI-CORROSIVE SPRAY + ALUMINUM ALLOY MATERIAL, AND THE BATH IS MADE OF 304 STAINLESS STEEL.
 - THE SEALING SYSTEM USES A PTFE + FLUORO-RUBBER COMPOUND SEALING.
 - OILY VACUUM PRESSURE GAUGE SHOWS REAL-TIME VACUUM BY POINTER.
 - THE PISTON-TYPE FEEDING VALVE IS SLEEVED WITH PTFE EXTENSION TUBE, WHICH CAN BE CONTINUOUSLY FED TO THE EVAPORATION BOTTLE UNDER VACUUM STATUS.
 - UPRIGHT SERPENTINE COIL AS DOUBLE CONDENSER, MAIN CONDENSER INCLUDING TWO LAYER COILS + AUXILIARY CONDENSER INCLUDING THREE-LAYER COILS.
 - LARGE LCD DISPLAY, WHICH CAN CONTROL ROTATION, HEATING AND LIFTING AT THE SAME TIME
 - A BRUSHLESS DECELERATION BOOSTER MOTOR IS USED AS THE ROTARY MOTOR, MEANING NO SPARK AND LOW NOISE, THE LIFTING MOTOR ALSO USES DECELERATION BOOSTER MOTOR.
 - THERMOSTAT CONTROLLED BATH, WITH PT100 SENSOR + STAINLESS STEEL PROBE AT THE BOTTOM OF BATH
 - THE BATH CAN BE LIFTED ELECTRICALLY. A SILICONE COVER IS EQUIPPED OUTSIDE THE BATH FOR HEAT INSULATION AND ANTI-SCALDING.
 - ROTATING AND HEATING DOUBLE FUSES SAFETY PROTECTION
 - THE COLLECTION BOTTLE HAS A LOWER DISCHARGE PORT, EQUIPPED WITH GLASS + PTFE INDEPENDENT DISCHARGE VALVE.
 - THERE IS A WATER DISCHARGING VALVE AT THE BOTTOM OF THE BATH TO FACILITATE LIQUID DISCHARGE
 - VACUUM SWITCHING VALVE CAN CONTINUOUSLY COLLECT AND DISCHARGE MATERIALS WITHOUT AFFECTING THE SYSTEM VACUUM AND SOLUTION DISTILLATION
 - OVER-TEMPERATURE PROTECTION FUNCTION, WHEN THE ACTUAL TEMPERATURE > SETTING TEMPERATURE + 5 °C, THE MACHINE WILL AUTOMATICALLY POWER OFF.
 - ANTI-DRYING FUNCTION, WHEN THE WATER LEVEL IN THE HEATING BATH IS LOWER THAN THE HEATING TUBE, THE MACHINE WILL AUTOMATICALLY POWER OFF.
 - IF THE POWER IS SUDDENLY CUT OFF WHILE THE MACHINE IS WORKING, THE MACHINE WILL AUTOMATICALLY STOP HEATING WHEN THE POWER IS TURNED ON AGAIN
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TECHNICAL PARAMETERS

MODEL R-1020

VOLTAGE/FREQUENCY: 220V 50HZ/110V 60HZ

TOTAL POWER: 5100W

ROTARY MOTOR POWER: 60W1/5

LIFTING MOTOR POWER: 40W1/12.5

HEATING POWER: 5000W

VACUUM: 0.095MPA

ROTARY FLASK VOLUME: 20L Φ 355MM/ Φ 95 FLANGE PORT

COLLECTING FLASK VOLUME: 1 10L Φ 280MM/UPPER Φ 60 FLANGE PORT \times Φ 35 FLANGE PORT \times 2 PCS \times LOWER Φ 50 FLANGE PORT

COLLECTING FLASK VOLUME 2 OPTIONAL: 2X10L COLLECTING FLASKS

ROTARY SPEED: 0-120RPM/MIN

TEMPERATURE CONTROL RANGE: ROOM TEMPERATURE-180 $^{\circ}$ C

TEMPERATURE CONTROL ACCURACY: \pm 1 $^{\circ}$ C

BATH LIFTING STROKE: 150MM

CONDENSER DIMENSION MAIN CONDENSER: Φ 130 \times 700H(MM), UPPER Φ 60 FLANGE PORT, LOWER Φ 80 FLANGE PORT

AUXILIARY CONDENSER: Φ 160 \times 530H(MM), UPPER Φ 80 FLANGE PORT, LOWER Φ 60 FLANGE PORT, SIDE Φ 60 FLANGE PORT

CONDENSING AREA: 0.94(0.46+0.48) m^2

GAS CYLINDER: LEFT Φ 35 FLANGE PORT, UPPER Φ 35 FLANGE PORT, SIDE Φ 60 FLANGE PORT, RIGHT Φ 60 FLANGE PORT

MATERIAL FEEDING VALVE: Φ 35 FLANGE PORT, GLASS + PTFE VALVE, MATERIAL FEEDING VALVE(PAGODA JOINT) WITH 12MM OUTER DIAMETER

MULTI-FUNCTION PORT: Φ 35 FLANGE PORT, GLASS + PTFE VALVE, GLASS VALVE (PAGODA JOINT) WITH 12MM OUTER DIAMETER

RELEASING VALVE: Φ 35 FLANGE PORT \times 2, GLASS + PTFE VALVE, RELEASING VALVE (PAGODA JOINT) WITH 12MM OUTER DIAMETER

MATERIAL DISCHARGING VALVE: Φ 50 FLANGE PORT, SIDE MATERIAL DISCHARGING PORT (PAGODA JOINT) WITH 20MM OUTER DIAMETER, 210MM FROM THE GROUND

VACUUM NOZZLE: Φ 60 FLANGED GLASS NOZZLE (PAGODA JOINT) WITH 10MM OUTER DIAMETER

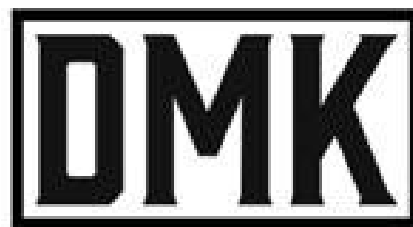
IN AND OUT CIRCULATING NOZZLE OF CONDENSER COIL: PAGODA JOINT WITH 16MM OUTER DIAMETER

BATH DIMENSION/WEIGHT: Φ 450 \times 260H (MM) ABOUT 41L

OVERALL DIMENSION(W \times D \times H): 1210 \times 610 \times 2170MM

NET WEIGHT: 78KG

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CONTACT US:

FOR MORE INFORMATION ON THIS PRODUCT OR ANY OTHER PRODUCTS IN OUR RANGE, PLEASE DON'T HESITATE TO CALL US ON 01925 727227 AND ONE OF OUR REPRESENTATIVES WILL BE HAPPY TO HELP YOU.

ALTERNATIVELY, PLEASE EMAIL P.MASON@DMK-GLASS.CO.UK WITH YOUR ENQUIRY.

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