

#44780

04-225-21

INSTALLATION INSTRUCTIONS

HRC-100 ~ S/N 16599 & 16600

FOR MODEL HRC-100 FILTER. TO BE USED IN CONJUNCTION
WITH PARTS LIST 200114-D-1 AND DIMENSIONAL DRAWING
F-2772

I UTILITIES NEEDED AT FILTER**A. ELECTRICITY**

110 VOLT OR 220 VOLT, 60 CYCLE, SINGLE PHASE CURRENT
FOR HYDRAULIC SYSTEM MOTOR. 220 OR 440 VOLT, 60 CYCLE
3 PHASE CURRENT FOR SCREW CONVEYOR DRIVE MOTOR.

B. COMPRESSED AIR TO OPERATE VIBRATOR

9.6 CFM AT 40 TO 60 PSI.

C. COMPRESSED AIR OR GAS FOR BLOWDOWN OF FILTER

CAPACITY 100 CFM AT 50 TO 60 PSI

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II MOUNTING OF THE FILTER:

THE FLOOR OR FOUNDATION MOUNTING OF THE FILTER SHOULD BE
COMPLETELY LEVEL. PADS OR FLOOR SHOULD BE DESIGNED TO
ACCEPT THE BASE SHOWN ON DIMENSIONAL DRAWING F-2772.
AFTER THE FILTER HAS BEEN BOLTED IN PLACE, THE FILTER TANK
SHOULD SLOP $2\frac{1}{2}$ DEGREE TOWARD THE SCREW CONVEYOR DISCHARGE
PORT SHOWN ON DIMENSIONAL DRAWING F-2772. THE FILTER TANK
AND BASE IS CONSTRUCTED TO PROVIDE THIS $2\frac{1}{2}$ DEGREE SLOPE.

III PIPING AND ELECTRICAL CONNECTIONS TO FILTER. SEE DWG. F-2772.

- A. INLET LINES CARRYING UNFILTERED LIQUID AND PRECOAT
LIQUID SHOULD BE CONNECTED TO THE (2) 2" INLET PORTS.
- B. OUTLET LINES CARRYING FILTERED LIQUID SHOULD BE CONNECTED
TO 2" FLANGED FILTRATE OUTLET.
- C. THE 3" FLANGED RECIRCULATION PORT IN TOP OF TANK IS
CONNECTED TO INLET TO ALLOW RECIRCULATION OF UNFILTERED
LIQUID IN FILTER TANK.
- D. TANK DRAIN LINE IS CONNECTED TO 3" FLANGED DRAIN PORT
LOCATED IN BOTTOM OF TANK TROUGH.
- E. PROVISION FOR HANDLING DRY FILTER CAKE SHOULD BE MADE
AT 10" FLANGED CAKE DISCHARGE OUTLET.
- F. COMPRESSED AIR OR GAS SHOULD BE CONNECTED TO PORT
MARKED 1" NPT BLOWDOWN ON TOP OF TANK.

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- G. A VENT CONNECTION SHOULD BE MADE TO PORT SHOWN AS 1" NPT TANK AIR VENT. THIS TANK VENT CAN DISCHARGE TO ATMOSPHERE OR BE RETURNED TO PRODUCT TANK.
- H. A COMPRESSED AIR CONNECTION SHOULD BE MADE TO THE VIBRATOR PORT. THIS LINE SHOULD CARRY 9.6 CFM AT 40 TO 60 PSI.
- I. CONNECT THE 3 PHASE ELECTRIC CURRENT TO THE $\frac{1}{2}$ H.P. MOTOR ON THE HYDRAULIC SYSTEM. CHECK HYDRAULIC RESERVOIR TANK FOR SUFFICIENT HYDRAULIC OIL. CHECK ROTATION OF PUMP.
- J. SCREW CONVEYOR - CONNECT THE 3 PHASE SERVICE TO THE $1\frac{1}{2}$ H.P. GEAR MOTOR. CHECK TO INSURE THAT SCREW CONVEYOR IS FREE OF OBSTRUCTIONS. CHECK ROTATION OF SCREW CONVEYOR.
- K. STEAM COILS - CONNECT THE 1 $\frac{1}{2}$ " NPT STEAM COIL COUPLING TO 80 PSIG STEAM SUPPLY.
- L. THE ENTIRE SYSTEM SHOULD BE SUBJECTED TO A HYDROSTATIC PRESSURE TEST TO INSURE THAT THE SYSTEM DOES NOT LEAK BEFORE PRODUCT IS INTRODUCED INTO THE SYSTEM.
- M. PRECOAT SYSTEM. THE PRECOAT SYSTEM WILL UTILIZE THE SAME PORTS AS DESCRIBED UNDER III A AND III B; HOWEVER, THE PRECOAT SYSTEM SHOULD BE ISOLATED BY PROPER VALVING FROM THE PRODUCT SYSTEM. PRECOATING SHOULD BE ACCOMPLISHED WITH FILTERED LIQUID. THE PRECOAT STREAM CARRYING THE FILTERAID IS INTRODUCED THROUGH THE INLETS. THE FILTERED PRECOAT LIQUID ISSUING FROM FILTRATE OUTLET SHOULD BE RETURNED BACK TO THE PRECOAT TANK.

IV FILTER ASSEMBLY INSTRUCTIONS

- A. FILTER WILL ARRIVE WITH THE FILTER PLATES REMOVED FROM THE FILTER TANK. THE FILTER PLATE CARRIAGE WILL BE SUITABLY BRACED INSIDE THE FILTER TANK TO PREVENT MOVEMENT. THE VIBRATOR CONTROL ASSEMBLY AND FILTER PLATES WILL BE CRATED SEPARATELY FROM THE TANK. IT IS NECESSARY TO BOLT THE VIBRATOR INCLUDING THE VIBRATOR BRACKET TO THE FILTER TANK FOR OPERATION. IT IS IMPORTANT THAT THE FILTER PLATES NEVER BE VIBRATED WHILE IN THE HORIZONTAL POSITION. THE VIBRATOR SHOULD BE TURNED ON ONLY WHEN THE FILTER PLATES HAVE BEEN ROTATED TO THE VERTICAL POSITION.
- B. IT WILL BE NECESSARY TO INSERT THE FILTER PLATES INTO THE FILTER TANK. AS THE UNIT IS SHIPPED, THE FILTER PLATE CARRIAGE IS BRACED IN THE HORIZONTAL POSITION. BEFORE INSERTING FILTER PLATES, THE CARRIAGE SHOULD BE ROTATED BY MEANS OF THE HYDRAULIC SYSTEM TO THE VERTICAL POSITION INDICATED BY THE FACT THAT THE ROTATING BRACKET ON THE BACK OF THE FILTER IS IN A VERTICAL POSITION AND THE HYDRAULIC RAM IS FULLY EXTENDED. THE FILTER PLATES ARE THEN PLACED IN THE FILTER BY ENGAGING THE PLATE HANGER BRACKETS WITH THE RAILS IN TOP OF THE FILTER

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CARRIAGE. THE FILTER PLATES ARE NUMBERED 1 THROUGH 12. THESE NUMBERS CORRESPOND TO THE NUMBERS STAMPED ON THE CARRIAGE ITSELF. FILTER PLATE NO. 1 SHOULD BE PLACED IN THE FILTER ON THE RAIL MARKED NO. 1, ETC. EACH FILTER PLATE SHOULD BE PROVIDED WITH AN O-RING GASKET IN THE GASKET GROOVE ON THE FILTER PLATE OUTLET. THIS O-RING WILL SEAL IN THE FEMALE COUPLING IN THE BACK OF THE FILTER CARRIAGE.

- C. AFTER ALL OF THE FILTER PLATES HAVE BEEN INSTALLED IN THE FILTER, IT IS NECESSARY TO BOLT ON VIBRATOR BAR. THIS VIBRATOR BAR IS PROVIDED WITH A HOLE FOR EACH FILTER PLATE. EACH FILTER PLATE IS PROVIDED WITH A SCREWED CONNECTOR. CAP SCREENS AND LOCK WASHERS ARE PROVIDED WITH THE FILTER FOR BOLTING THIS VIBRATOR BAR TO THE FILTER PLATES. A CAP SCREW AND LOCK WASHER SHOULD BE USED TO ATTACH EACH PLATE TO THE VIBRATOR TRANSMISSION BAR. AFTER THIS VIBRATOR BAR IS BOLTED TO THE FILTER PLATES, THE VIBRATOR TRANSMISSION ROD IS PUT IN PLACE. THIS VIBRATOR TRANSMISSION ROD IS PROVIDED WITH A COLLAR WHICH IS SLIPPED OVER THE STUD ON THE VIBRATOR BAR. THE TRANSMISSION ROD IS THEN BOLTED TO THE VIBRATOR SHAFT WHICH PROTRUDES INTO THE TANK. CARE SHOULD BE TAKEN THAT BOLTS AND CAP SCREWS FASTENING THE VARIOUS PARTS OF THE VIBRATOR TRANSMISSION MECHANISM ARE ALL PROVIDED WITH LOCK WASHERS AND THESE FASTENINGS SHOULD BE KEPT AS TIGHT AS POSSIBLE.
- D. THE FILTER PLATE CARRIAGE IS ROTATED BY OPERATING THE CONTROL VALVE IN THE HYDRAULIC SYSTEM. THE CONTROL VALVE AND RESERVOIR TANK ON THE HYDRAULIC SYSTEM ARE SHOWN ON PARTS LIST 200114-D-1.