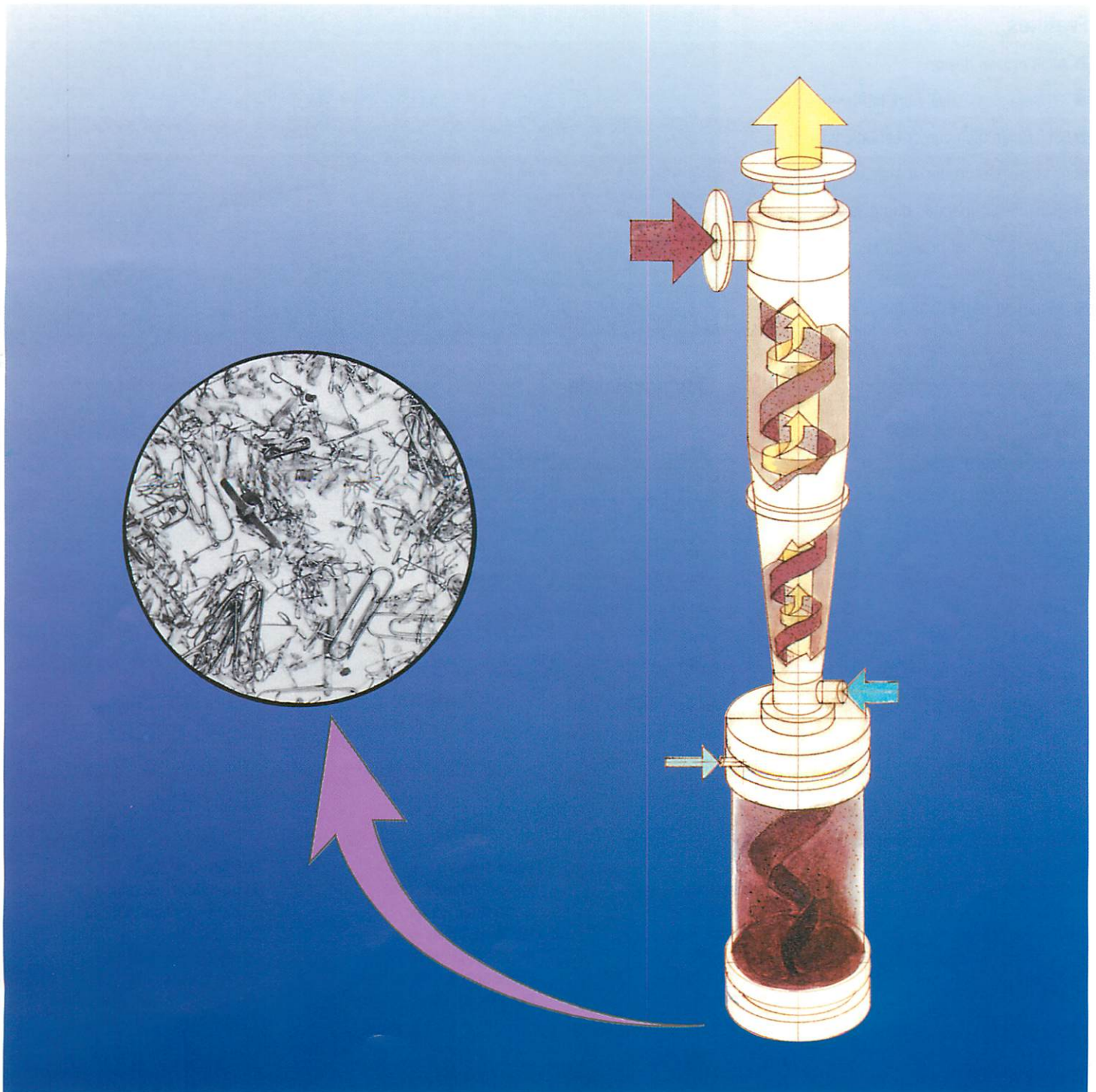


High Density Cleaner

Bird HDC



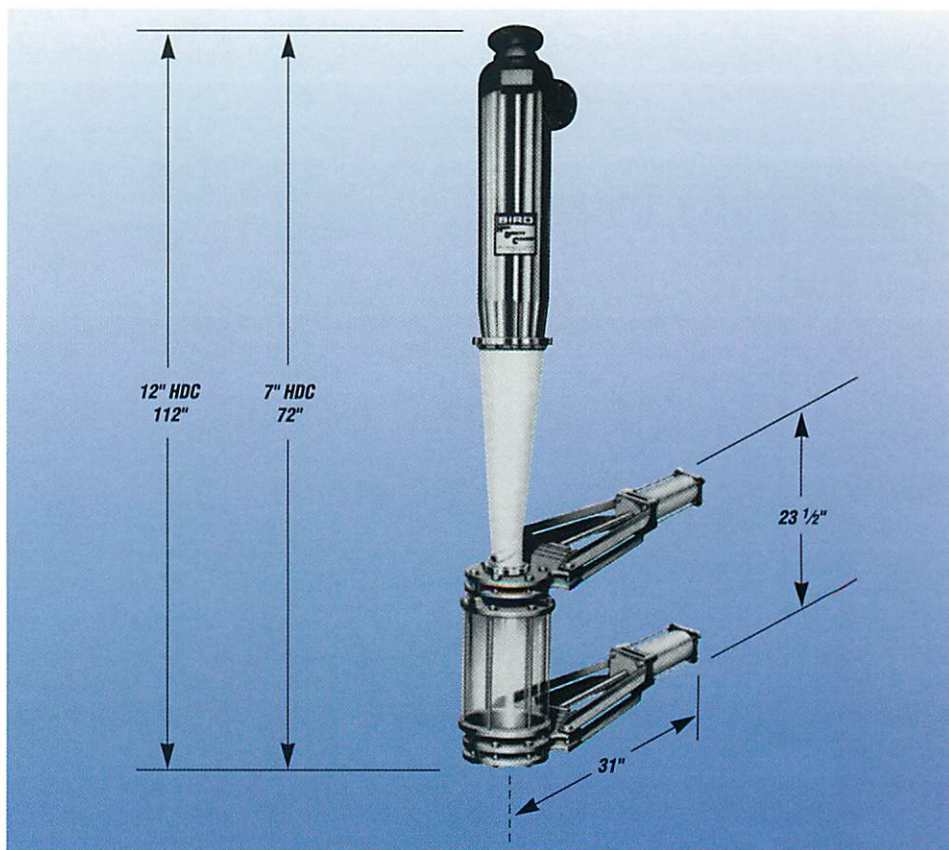
Bird HDC

Applications

- Efficiently cleans high consistency (2.5 – 6%) stock
- Removes tramp material and small abrasive particles
- Minimizes fiber loss
- Protects following equipment from damage and wear
- Effective on secondary or virgin fiber furnish

Features

- Well proven design
- 316 stainless steel work hardened head
- Solid ceramic cone or ceramic lined cone
- Transparent plastic or stainless steel sump
- Reliable air operated dump valves
- Remote manual or automatic (timer) valve control
- Mounting frame available as option



Technical data

<i>Model</i>	<i>Inlet Flange</i>	<i>Discharge Flange</i>	<i>Optimum Flow Range gpm</i>	<i>Optimum Pressure Drop psig</i>
7" 300	3" – 150# Std.	3" – 150# Std.	300	22
7" 400	4" – 150# Std.	4" – 150# Std.	400	22
12" 850	8" – 150# Std.	6" – 150# Std.	850	28
12" 1200	8" – 150# Std.	8" – 150# Std.	1200	28

7" HDC shown above; 12" HDC has 2 part cone.

Dimensions and illustrations non-committal, subject to change.

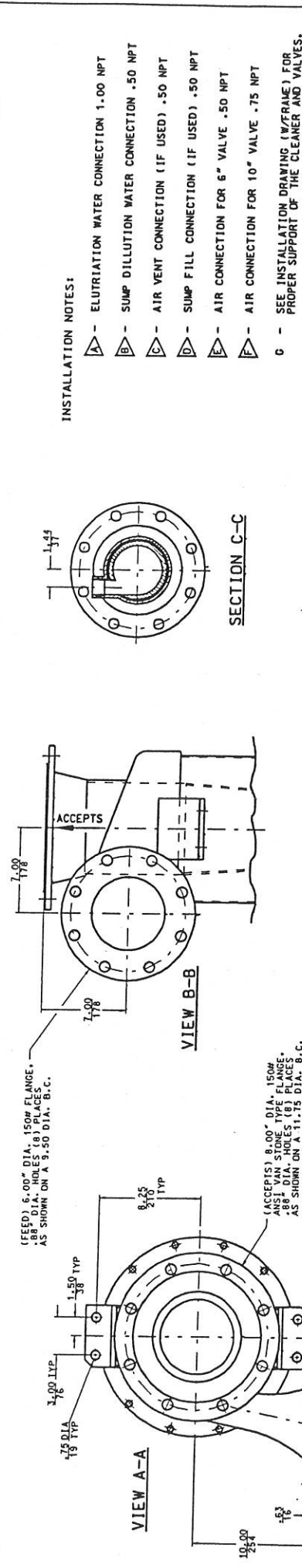
Offices for Stock Preparation Division

Voith Sulzer
Stoffaufbereitung GmbH
 Postfach 2120
 D-88191 Ravensburg
 Phone 07 51 83 01
 Fax 07 51 83 22 80

Voith Sulzer
Paper Technology
North America Inc.
 2620 E. Glendale Avenue
 Appleton, WI 54911-8687
 Phone 414-731-7724
 Fax 414-731-0240

Voith Sulzer
Paper Technology
North America Inc.
 603 West Street
 Mansfield, MA 02048
 Phone 508-261-8800
 Fax 508-262-8810

Voith Sulzer S.A.
Máquinas e Equipamentos
 Rua Friedrich von Voith, 825
 Bairro Jaraquã
 02995-000 São Paulo, SP
 Phone 11-840-4430
 Fax 11-840-4848



- A - ELUTRIATION WATER CONNECTION 1.00 NPT
- B - SUMP DILLUTION WATER CONNECTION .50 NPT
- C - AIR VENT CONNECTION (IF USED) .50 NPT
- D - SUMP FILL CONNECTION (IF USED) .50 NPT
- E - AIR CONNECTION FOR 6" VALVE .50 NPT
- F - AIR CONNECTION FOR 10" VALVE .75 NPT
- G - SEE INSTALLATION DRAWING (W/FRAKE) FOR PROPER SUPPORT OF THE CLEANER AND VALVES.

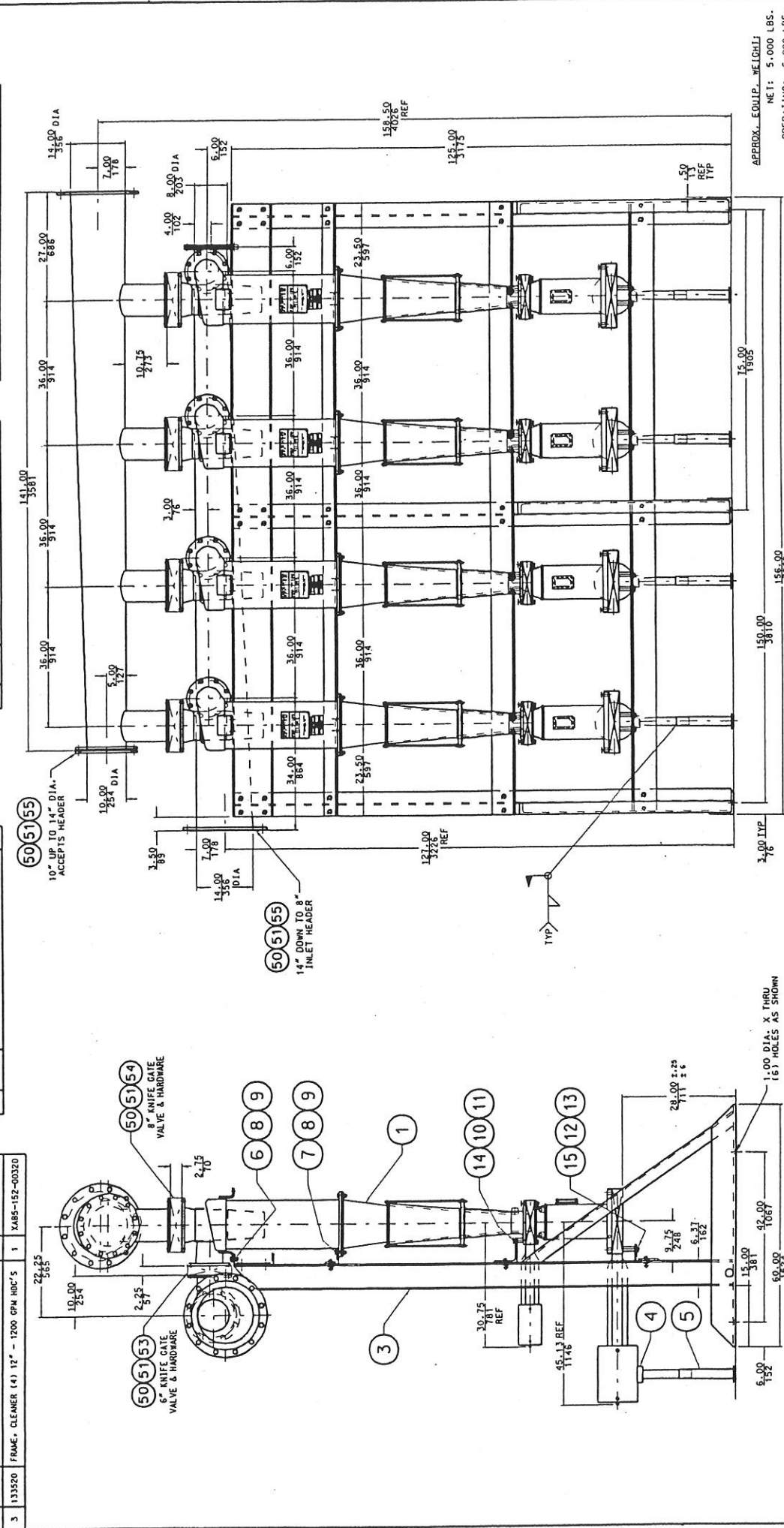


APPROX. WEIGHTS:

NET	-	750 LBS.
OPERATING	-	950 LBS.

[illegible]

SUPPLIED BY VOITH SULZER			
ITEM	P/N	DESCRIPTION	QTY
1	133519	INST/ASSY 12" - 1200 GPM HOC CLEANER	4
2	130526	AIR SUPPLY SET HOC CLEANER (SEE DWG)	4
3	133520	FRAME, CLEANER (4) 12" - 1200 GPM HOC'S	1
4	255888	SUPPORT TUBE, VALVE (INCLUDED W/FRAME)	4
5	255866	SUPPORT PIPE, VALVE (INCLUDED W/FRAME)	4
6	103928	CAP SCREW HH 304 - #2-11UNC X 2.00LC	8
7	701058	CAP SCREW HH 304 - #2-11UNC X 3.00LC	8
8	100448	NUT HEX 304 - #2-11UNC	16
9	104840	WASHER FLAT 304 - #2	32
10	100457	CAP SCREW HH 304 - #2-11UNC X 2.50LC	8
11	701172	WASHER FLAT 304 - #2	8
12	131519	CAP SCREW HH 304 - #8-9UNC X 4.25 LG	8
13	251674	WASHER FLAT 304 - #8	8
14	702442	PIPE .75 SCH 40 316L X 1.50LC	8
15	701297	PIPE 1.00 SCH 40 316L X 2.88LC	8



SUPPLIED BY CUSTOMER:

50 INLET VALVES: 6.00" DIA. KNIFE GATE

51 ACCEPTS VALVES: 8.00" DIA. KNIFE GATE

52 "OPTIONAL" NOT SPECIFIED ON CERTIFICATION SHEET (SUCH AS LOCAL CONTROL PANEL, AIR SUPPLY SET, CLEANER FRAME, AND INLET/Accept HEADERS)

INSTALLATION NOTES:

1. INLET & ACCEPTS PRESSURE GAUGES REQUIRED EACH STAGE. INSTALLED IN VERTICAL PIPE.
2. A BACK PRESSURE CONTROL VALVE IS REQUIRED.
3. IN ACCEPTS PIPELINE AFTER THE GAUGE.
4. THE 1.00 NPT DILUTION & .50 NPT DILUTION. THIS DILUTION MUST BE CLEAN ENOUGH TO PREVENT PLUGGING.

VOITH SULZER
PAPER TECHNOLOGY

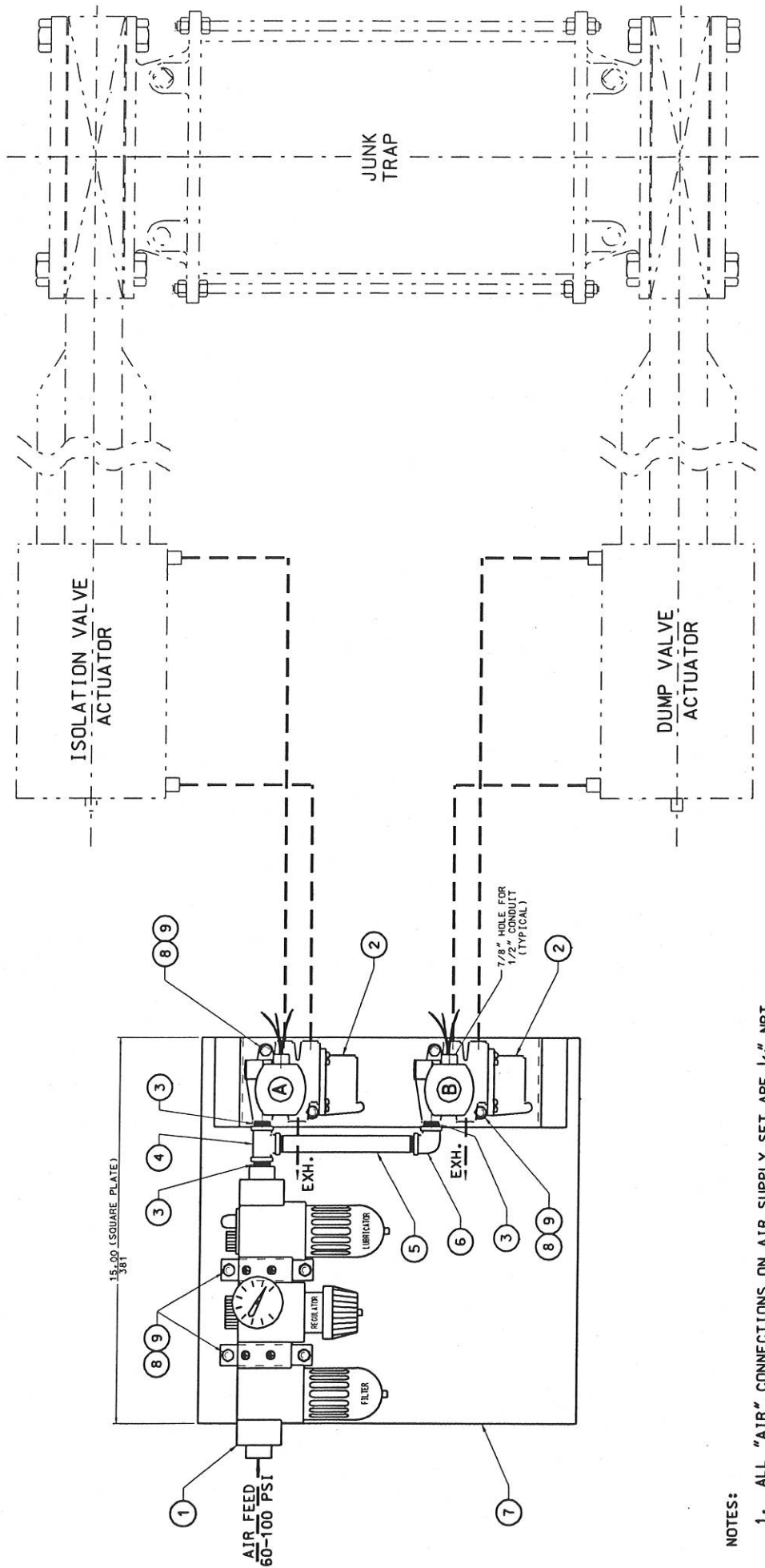
INSTALLATION DETAILS
12" - 1200 GPM HOC CLEANER
(4) UNIT BANK (136" SPACING)

NET: 5,000 LBS.
OPERATING: 6,000 LBS.

APPROX. EQUIP. WEIGHT
NET: 5,000 LBS.
OPERATING: 6,000 LBS.

DATE: 11/27/21
BY: [Signature]
REV: 1

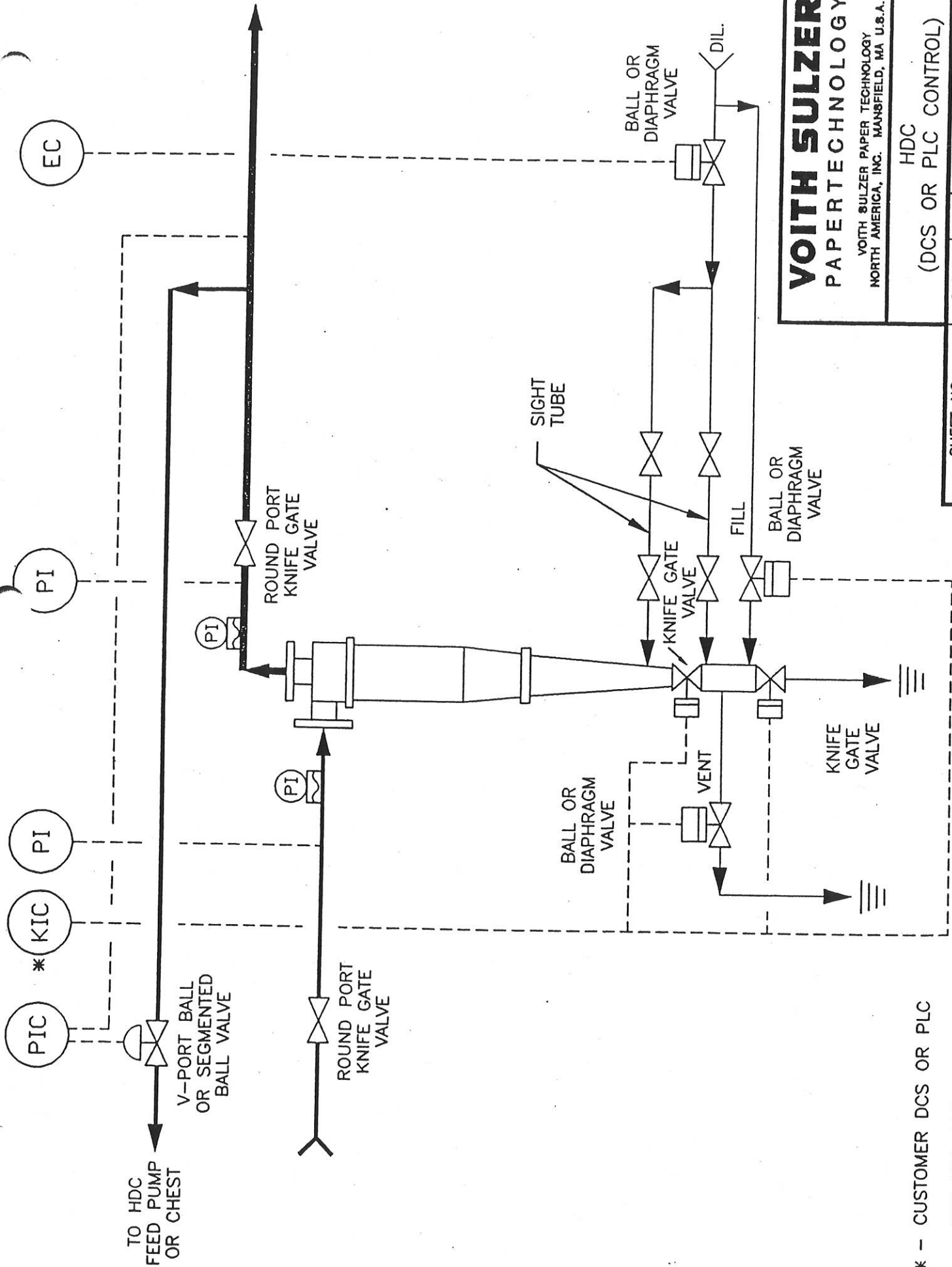
PROJECT NO: D
JOB NO: XAB5-904-00460



NOTES:

1. ALL "AIR" CONNECTIONS ON AIR SUPPLY SET ARE 1/4" NPT
2. --- THIS LINE STYLE DESIGNATES "BY CUSTOMER"
3. 110-120 VOLT SOLENOIDS, A.C.
4. CONNECT SOLENOID A TO 1 & 2 ON TIMER TERMINAL STRIP (WHEN USING LOCAL TIMER FOR CONTROLLING JUNK TRAP)
5. CONNECT SOLENOID B TO 3 & 4 ON TIMER TERMINAL STRIP (WHEN USING LOCAL TIMER FOR CONTROLLING JUNK TRAP)

VOITH SULZER PAPERTECHNOLOGY		PROJECT NAME NO. 1728/11 AIR	TITLE ASSEMBLY AIR SUPPLY SET
REV. 1 1. 110-120 VOLT SOLENOIDS, A.C. 2. 110-120 VOLT SOLENOIDS, A.C. 3. 110-120 VOLT SOLENOIDS, A.C. 4. 110-120 VOLT SOLENOIDS, A.C. 5. 110-120 VOLT SOLENOIDS, A.C. 6. 110-120 VOLT SOLENOIDS, A.C. 7. 110-120 VOLT SOLENOIDS, A.C. 8. 110-120 VOLT SOLENOIDS, A.C. 9. 110-120 VOLT SOLENOIDS, A.C.	DATE 1/28/71	DRAWN BY 1728/11 AIR	CHECKED BY 1728/11 AIR
D 130525	XCY2-914-00020	130525	130525



VOITH SULZER PAPERTECHNOLOGY

VOITH SULZER PAPER TECHNOLOGY
NORTH AMERICA, INC. MANSFIELD, MA U.S.A.

HDC

(DCS OR PLC CONTROL)

SHEET NO.

DATE

DRAWING NO.

1 OF 3

8/15/96

FDO-914-01340

* - CUSTOMER DCS OR PLC

- FOR FILL AND VENT

HIGH DENSITY CLEANER
TIMING SEQUENCE FOR DUMP CYCLE
PREFERRED IN HEAVY DEBRIS STREAMS
(WITH FILL AND VENT)
DCS OR PLC CONTROLLER

OPERATING MODE:

ISOLATION VALVE OPEN
DUMP VALVE CLOSED
VENT VALVE CLOSED
PROCESS WATER ON
FILL VALVE CLOSED

DUMP MODE:

0 SECONDS CLOSE ISOLATION VALVE.
 ISOLATES SUMP.

3 SECONDS OPEN DUMP VALVE AND VENT VALVE.
 ALLOWS DEBRIS TO DROP OUT OF SUMP. THE VENT
 VALVE BREAKS THE VACUUM THAT IS GENERATED BY
 THE DOWNWARD DISPLACEMENT OF DEBRIS
 COLLECTED IN SUMP. THE SUMP DILUTION WATER
 (SUMP TOP) WASHES THE INSIDE OF THE SUMP.

15 SECONDS OPEN SUMP FILL VALVE (SUMP BUTTON).
 WASHES DEBRIS FROM DUMP VALVE SEAT.

17 SECONDS CLOSE DUMP VALVE.
 WHEN SUMP IS FILLING, DISPLACED AIR IS RELEASED
 FROM VENT VALVE.

23 SECONDS CLOSE SUMP FILL VALVE AND VENT VALVE.

25 SECONDS OPEN ISOLATION VALVE.
 RETURNS TO OPERATING MODE.

NOTE: THE ABOVE TIME INTERVALS WILL VARY DUE TO VALVE SUPPLY
 AIR PRESSURE AND PROCESS WATER PRESSURE.

THE DUMP MODE SHOULD BE COMPILED AS QUICKLY AS
POSSIBLE TO PREVENT BUILD-UP OF DEBRIS ABOVE THE
ISOLATION VALVE WHICH RESULTS IN AN ACCELERATED
WEAR CONDITION.

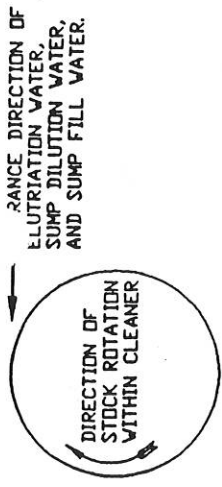
VOITH SULZER
PAPERTECHNOLOGY

VOITH SULZER PAPER TECHNOLOGY
NORTH AMERICA, INC. MANSFIELD, MA U.S.A.

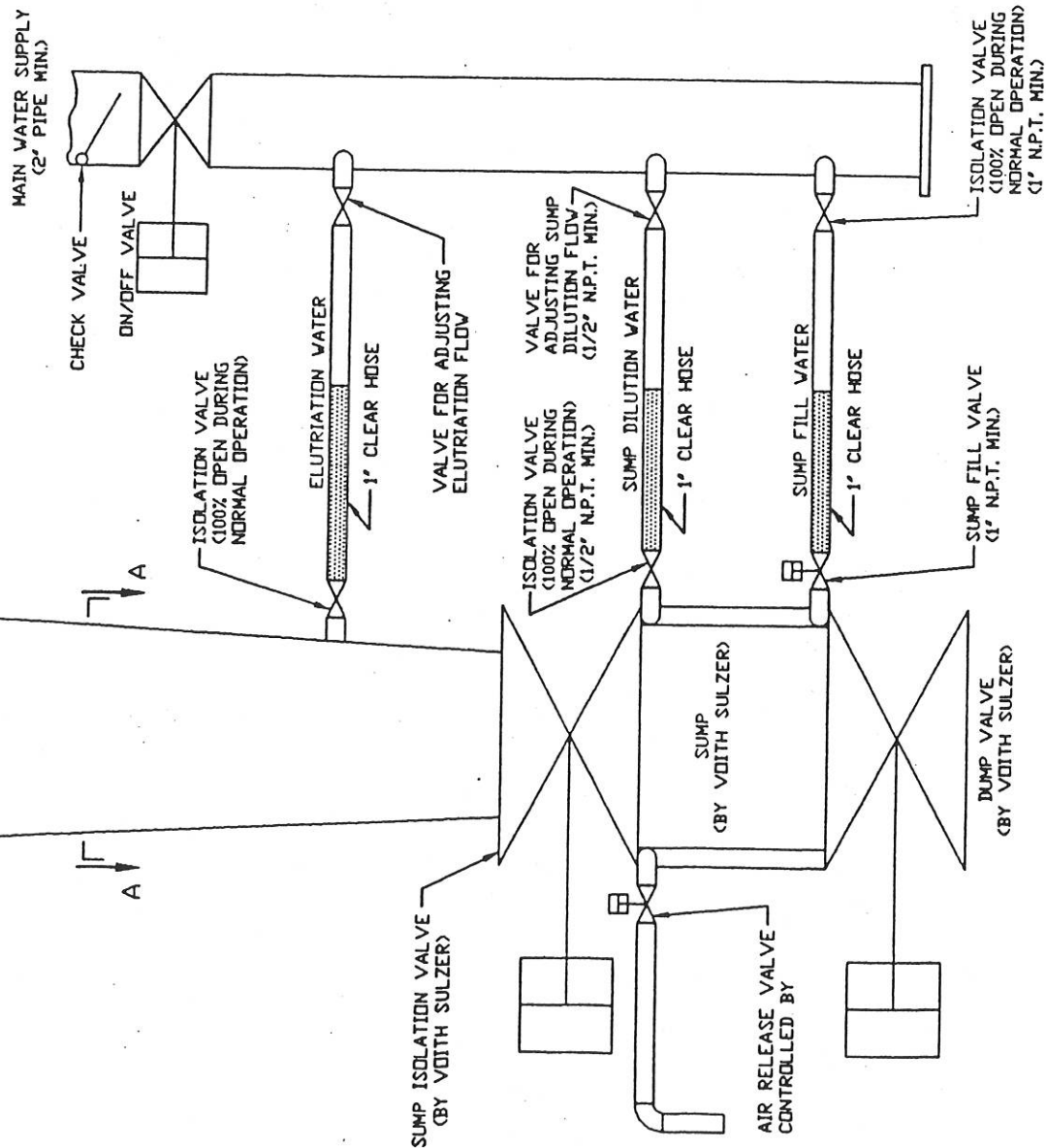
HDC
(DCS OR PLC CONTROL)

SHEET NO.	DATE	DRAWING NO.
2 OF 3	8/15/96	FD0-914-01340

HIGH DENSITY CLEANER



VIEW "A-A"



NOTES:

1. THE PIPING CONFIGURATION SHOWN IS THE RECOMMENDED ARRANGEMENT WHICH WILL MINIMIZE OPERATIONAL PROBLEMS. IT SHOULD BE FOLLOWED AS CLOSELY AS POSSIBLE.
2. ALL PIPING AND VALVES ASSOCIATED WITH THE ELUTRIATION, SUMP DILUTION, AND SUMP FILL LINES TO BE PROVIDED BY THE CUSTOMER. THE AIR RELEASE VALVE (IF UTILIZED) TO BE PROVIDED BY THE CUSTOMER.
3. ALL WATER LINES SHOULD BE AS SHORT AS POSSIBLE WITH NO ELBOWS OR OTHER DISCONTINUITIES. ANY NECESSARY ELBOWS SHOULD BE IN THE HARD PIPED PORTION RATHER THAN IN THE HOSE SECTION.
NOTE: DURING THE DUMP CYCLE IT IS IMPORTANT THAT THE SUMP FILLS QUICKLY TO REDUCE THE AMOUNT OF TIME THE ISOLATION VALVE IS CLOSED BECAUSE DEBRIS WILL COLLECT ON TOP OF THE VALVE AND CAUSE PREMATURE WEAR OR PLUGGING.
4. CONNECT THE SUMP DILUTION LINE SUCH THAT THE WATER FLOW OPPOSES THE STOCK FLOW WITHIN THE CLEANER. THIS IS SHOWN IN VIEW "A-A".
5. EACH WATER LINE SHOULD HAVE (2) VALVES, ONE FOR CONTROL AND ONE FOR ISOLATION. THE ISOLATION VALVES SHOULD BE IN THE FULLY OPEN POSITION DURING NORMAL OPERATION.
6. ALL VALVES SHOULD BE THE FULL BORE TYPE.

CONTROL SYSTEMS OPTIONS

1. MANUAL CONTROL - (BASIC MACHINE ONLY) THE CUSTOMER IS TO PROVIDE ALL CONTROLS TO OPERATE VALVES MANUALLY. (EXAMPLE: OPERATOR VISUALLY DUMPS MACHINE USING REMOTE HAND OPERATED SOLENOID VALVES.)
2. AUTOMATIC CONTROL PKG. - AUTOMATICALLY CONTROLS THE DUMP CYCLE. THE AUTOMATIC CONTROL SYSTEM INCLUDES A TIMER CABINET AND SOLENOID VALVES (SOLENOID VALVES FOR VOITH SULZER SUPPLIED ISOLATION AND DUMP VALVES.)
A. PLC CONTROLLED
B. ELECTROMECHANICAL TIMER CONTROLLED
DOES NOT INCLUDE CONNECTIONS TO CONTROL THE FILL AND VENT VALVES.)
3. AUTOMATIC CONTROLS WITH CUSTOMER'S DCS - THE CUSTOMER'S DCS CONTROLS THE SUMP ISOLATION VALVE AND DUMP VALVE. VOITH SULZER TO SUPPLY SOLENOID SOLENOID VALVES FOR THE ISOLATION AND DUMP VALVES.

REFER TO THE EQUIPMENT INSTRUCTION MANUAL FOR THE CONTROL SEQUENCE FOR EACH SYSTEM.

VOITH SULZER PAPERTECHNOLOGY

VOITH SULZER PAPER TECHNOLOGY
NORTH AMERICA, INC. MANFIELD, MA U.S.A.

HDC

(DCS OR PLC CONTROL)

SHEET NO.	DATE	DRAWING NO.
3 OF 3	8/15/96	FDO-914-01340