

NOTE: STANDARD UNIT INCORPORATES A 4" FLANGE TO PERMIT USE WITH GRAVITY PIPING AS SHOWN. CONNECTING PIPING MAY BE REDUCED FOR USE WITH A FORCE MAIN, VACUUM TOILETS OR SOME OTHER ARRANGEMENT.

EXTERNAL AIR SUPPLY: 100 PSI AT 16 SCFM

**LEGEND:**

- CUSTOMER PIPING
- SCIENCO/FAST PIPING
- N.O. NORMALLY OPEN
- N.C. NORMALLY CLOSED
- FLANGED CONNECTION
- REDUCER
- AIR FILTER
- BASKET STRAINER
- FIXED ORFICE
- CUSTOMER SUPPLIED VALVE
- LG LEVEL GAUGE
- GATE VALVE- FLANGED
- BALL VALVE- SCREWED
- SWING CHECK VALVE
- BUTTERFLY VALVE
- LEVEL SENSOR
- SOLENOID VALVE- SCREWED
- WYE STRAINER- SCREWED

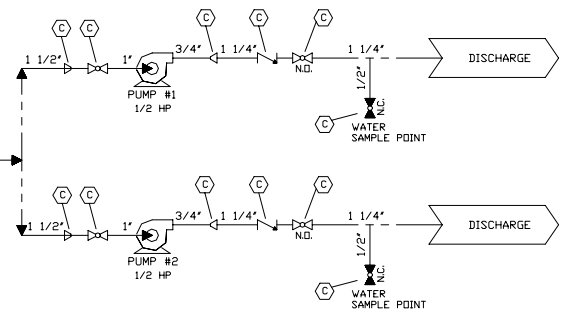
NOTE: DRAWING DEPICTS SYSTEM IN NORMAL RUN POSITION.

MANUAL VALVE POSITION CHART				
VALVE NO.	VALVE FUNCTION	OPERATING POSITION		
		RUN	SCOUR	DRAIN
V1	AIR SCOUR	CLOSED	OPEN	OPEN
V2	MEDIA TANK DRAIN	CLOSED	OPEN	OPEN
V3	WET WELL DISCHARGE	OPEN	CLOSED	CLOSED
V4	STRAINER DRAIN	CLOSED	CLOSED	CLOSED

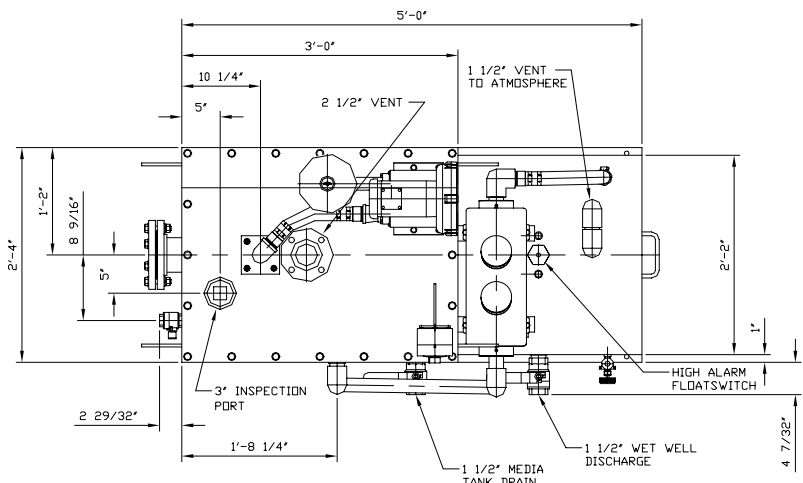
BLOWER & PUMP OPERATION CHART				
MOTOR CALLOUT	HP	OPERATING POSITION		
		RUN	SCOUR	DRAIN
BLOWER	1/2	DN	DN	DN
PUMP NO. 1	1/2	DN	OFF	DN
PUMP NO. 2	1/2	DN	OFF	DN

**NOTES:**

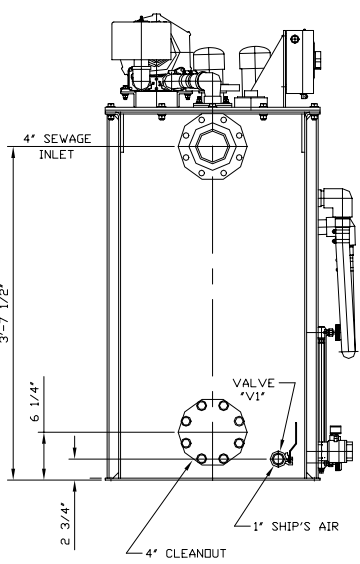
- CRITICAL HEIGHTS:**  
 1. CENTERLINE OF SOIL LINE TRAP INLET TO BE NOT LESS THAN 12 INCHES HIGHER THAN CENTERLINE OF MEDIA TANK INLET FLANGE.  
 2. GRAVITY FLOW PIPING LEADING TO MEDIA TANK TO SLOPE NOT LESS THAN 1/4 INCH PER 12 INCHES AND BE EQUIPPED WITH PROPERLY VENTED TRAP AS SHOWN.  
 3. TRAP DEPTH AND TRAP VENT SHOWN FOR 4 INCH SOIL PIPE AND 2 INCH VENT PIPE.
- MEDIA TANK VENT PIPING:**  
 4. DO NOT COMBINE MEDIA TANK VENT WITH ANY OTHER VENT.  
 5. VENT TO TERMINATE NOT LESS THAN 10 FEET ABOVE WEATHER DECK, FROM ANY SOURCE OF IGNITION AND FROM ANY VENTILATION AIR INLET.  
 6. VENT TO TERMINATE HIGH RATHER THAN LOW, SINCE VENTED AIR IS WARMER THAN SURROUNDING AIR AND WILL RISE.  
 7. HORIZONTAL OFFSETS IN MEDIA TANK VENT MUST BE SLOPED NOT LESS THAN 1/2 INCH PER 12 INCHES SO THAT CONDENSATE WILL DRAIN TO MEDIA TANK.  
 8. FLAME SCREEN IS NOT RECOMMENDED. IT WILL PLUG WITH LINT AND REQUIRE FREQUENT CLEANING. IF A FLAME SCREEN MUST BE USED, SCREEN TO BE TWO PIPE SIZES LARGER THAN VENT PIPE.
- EMERGENCY BYPASS DISCHARGE:**  
 9. AN EMERGENCY BYPASS DISCHARGE IS REQUIRED TO PROVIDE THE USE OF SANITARY FACILITIES IN CASE OF EQUIPMENT MALFUNCTION.  
 10. MOUNT SEWAGE INLET AND EMERGENCY BYPASS GATE VALVES WITH STEMS IN AN UPRIGHT VERTICAL POSITION.
- MAINTENANCE AND CLEARANCE REQUIREMENTS:**  
 11. ALLOW AT LEAST 54 INCHES CLEARANCE ABOVE MEDIA TANK COVER TO VENT SPOOL FLANGED CONNECTION TO PERMIT REMOVAL OF COVER FOR INTERNAL REPAIR.  
 12. ALLOW AT LEAST 12 INCHES CLEARANCE ABOVE CHLORINE TABLET REFILL TUBES FOR TUBE REMOVAL.
- GENERAL PIPING REQUIREMENTS:**  
 13. CONNECTING PIPING AND INSTALLATION SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF APPLICABLE REGULATORY BODIES.  
 14. RECOMMENDED MATERIAL IS SCHEDULE 40 STEEL.



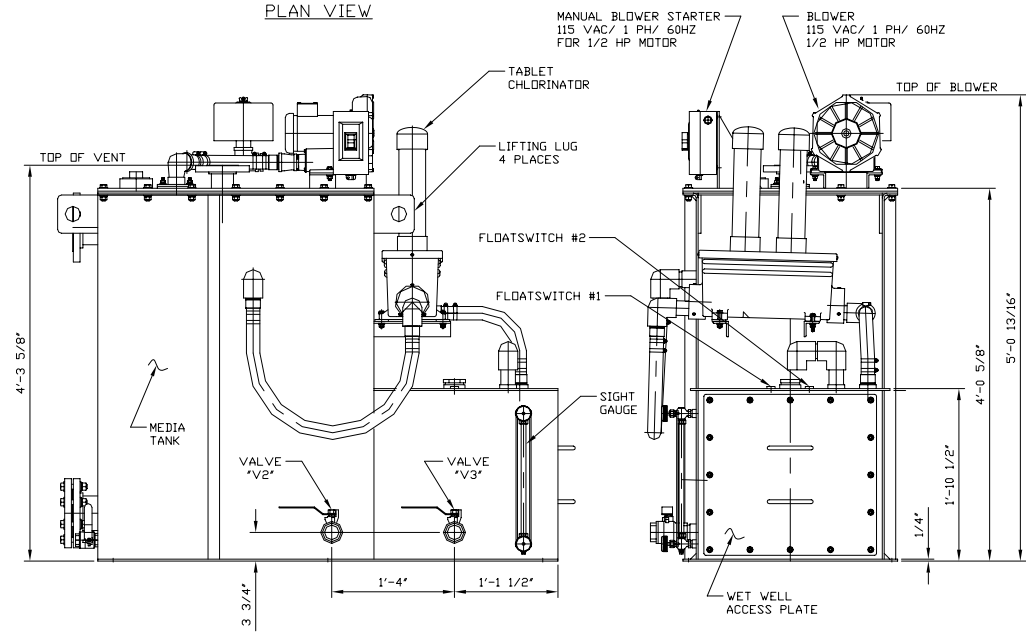
REV	DESCRIPTION	BY	DATE
 <b>SCIENCO/FAST</b> <sup>®</sup> 3240 N. BROADWAY ST. LOUIS, MO. 63147-3515 U.S.A. PHONE: 314-621-2536 FAX: 314-621-1952			
THIS DRAWING AND INFORMATION CONTAINED THEREIN IS THE PROPERTY OF SCIENCO/FAST SYSTEMS AND IS LOANED WITH THE EXPRESSED AGREEMENT THAT IT WILL NOT BE REPRODUCED, COPIED, OR OTHERWISE DISTRIBUTED, DIRECTLY OR INDIRECTLY, AND WILL NOT BE USED IN WHOLE OR IN PART TO FURNISH ANY INFORMATION FOR THE MANUFACTURING OF EQUIPMENT OR APPARATUS WITHOUT WRITTEN PERMISSION OF SCIENCO/FAST SYSTEMS FIRST OBTAINED AND SPECIFIC TO EACH CASE.			
SYSTEM		FAST SEWAGE TREATMENT	
CUSTOMER		MASTER DUPLEX PUMPS	
TITLE			
<b>SYSTEM PIPING DIAGRAM &amp;            INSTALLATION DATA</b>			
SCALE	NONE	DRAWN	JCU
SIZE	NEXT ASSY.	CHECKED	PREV. ASSY.
		PLOT SCALE	DATE
		1:1	8/28/00
CONTRACT NO.	MODEL NO.	DRAWING NO.	SHEET NO.
J-0000	MX1	CU000	1 of 1
			0



PLAN VIEW



MEDIA TANK END VIEW




FRONT ELEVATION

WET WELL END VIEW

NOTES:

1. TANK MAY BE INSTALLED EITHER FORE AND AFT OR ATHWARTSHIPS.
2. SUPPORT TANK BEDPLATE ALL AROUND ON FLAT SUPPORTING SURFACES NOT LESS THAN 3 INCHES WIDE. SECURE IN PLACE WITH 3/16 INCH FILLET WELDS ALL AROUND, 3 INCHES ON 12 INCHES PER ABS REQUIREMENTS.
3. ESTIMATED WEIGHTS:  
SHIPPING: 1,400 LBS.  
OPERATING: 3,400 LBS.
4. ALL FLANGED CONNECTIONS ARE 150 LB., RAISED FACED, FORGED STEEL, ASTM A-105.
5. SEE DRAWING MX1-CU000 FOR ADDITIONAL INSTALLATION REQUIREMENTS.
6. SEE DRAWING MX1-CU002 FOR ADDITIONAL COMPONENTS SUPPLIED.
7. SEE DRAWING MX1-CU003 FOR TANK SECTIONAL VIEW A-A.
8. SEE DRAWINGS MX1-EL500 FOR ELECTRICAL SCHEMATIC & CABLE WIRING DIAGRAM.

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SYSTEM		FAST SEWAGE TREATMENT	
CUSTOMER		MASTER EXTERNAL DUPLEX PUMPS	
TITLE			
MX1 TANK INSTALLATION			
SCALE	DRAWN	CHECKED	APPROVED
1 1/2"=1'-0"	JCU		
SIZE	PREV. ASSY.	PLOT SCALE	DATE
D		1:1	8/29/00
CONTRACT NO.	MODEL NO.	DRAWING NO.	SHEET NO.
J-0000	MX1	CU001	1 of 1
			REV
			0

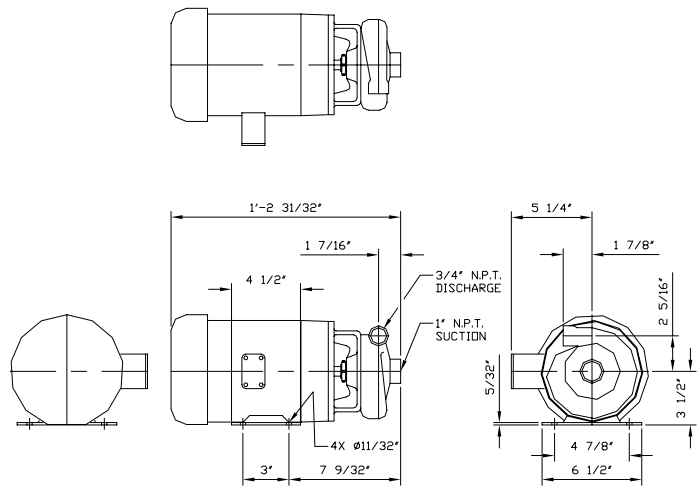
8 7 6 5 4 3 2 1

D

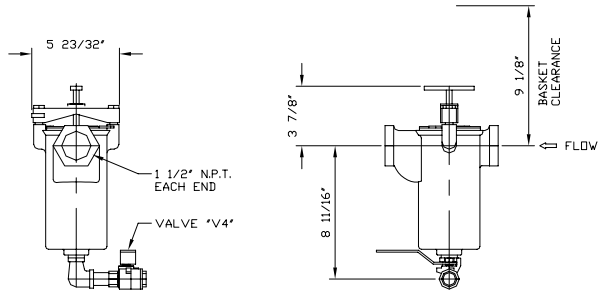
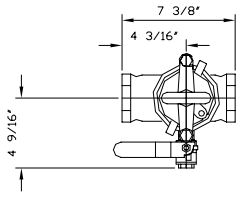
C

B

A




**PUMP ASSEMBLY**  
EST. WT.: 68 LBS.



**STRAINER ASSEMBLY**  
EST. WT.: 17 LBS.

8 7 6 5 4 3 2 1

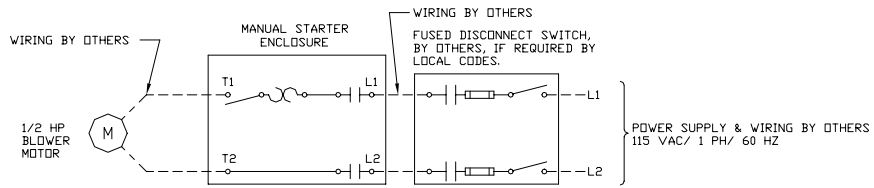
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SYSTEM		FAST SEWAGE TREATMENT	
CUSTOMER		MASTER PUMPS & BASKET STRAINER	
TITLE			
<b>PUMP &amp; STRAINER ASSEMBLIES</b>			
SCALE	DRAWN	CHECKED	APPROVED
1/4"=1"	JCU		
SIZE	PREV. ASSY.	PLOT SCALE	DATE
D		1:1	8/31/00
CONTRACT NO.	MODEL NO.	DRAWING NO.	SHEET NO.
J-0000	MX1	CU002	1 of 1
			REV
			0

D

C

B

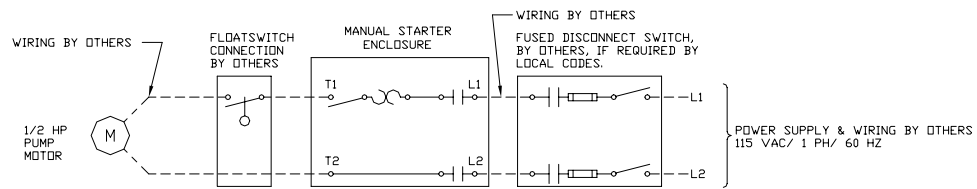
A



BLOWER WIRING DIAGRAM


NOTES:

1. FEEDER CABLE, OVERCURRENT PROTECTION AND WIRING OF REMOTE DEVICES BY OTHERS AND TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF APPLICABLE REGULATORY BODIES.



PUMP WIRING DIAGRAM

2 REQ'D.

REV	DESCRIPTION	BY	DATE
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SYSTEM		FAST SEWAGE TREATMENT	
CUSTOMER		MARCO SHIPYARDS	
TITLE			
BLOWER WIRING DIAGRAM			
SCALE	DRAWN	CHECKED	APPROVED
NONE	JCU		
SIZE	PREV. ASSY.	PLOT SCALE	DATE
D		1:1	10/2/00
CONTRACT NO.	MODEL NO.	DRAWING NO.	SHEET NO.
J-1177	MX1	EL500	1 of 1
			REV
			0