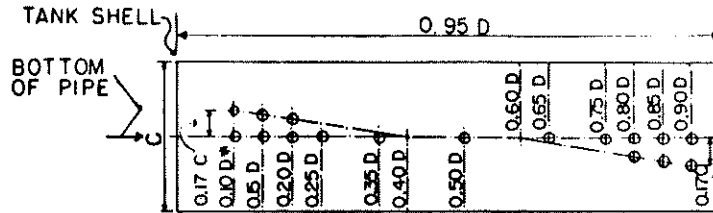
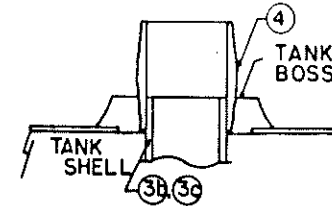


PLAN

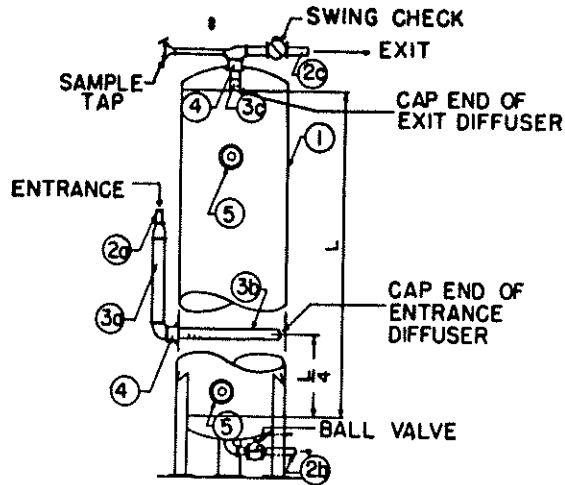


ENTRANCE DIFFUSER DRILLING TEMPLATE

C = OUTSIDE CIRCUMFERENCE OF PIPE
 ID = INSIDE DIAMETER OF PIPE
 D = DIAMETER OF TANK
 * = HOLE SPACING: 0.10 D = 0.10 x THE INSIDE TANK DIAMETER

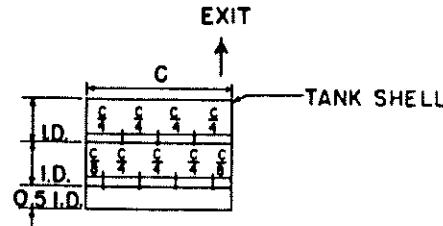


DIFFUSER CONNECTION DETAIL



SECTIONED TANK ELEVATION

L = TANK HEIGHT EXCLUSIVE OF END CAPS



EXIT DIFFUSER DRILLING TEMPLATE

NOTES:

1. PRESSURE TANK, VOLUME 10 TO 15 TIMES DESIGN FLOW RATE IN GALLONS PER MINUTE.
2. PIPE SIZED FOR DESIGN FLOW RATE VELOCITY NEAREST 4 FEET PER SECOND. (a) SUPPLY LINE, INJECT CHEMICALS AS FAR AHEAD OF TANK AS PRACTICAL, (b) TANK DRAIN, DRAIN LINE MUST HAVE AIR GAP ABOVE WASTE RECEIVING DRAIN, (c) DISCHARGE LINE TO FILTER(S) OR HYDROPNEUMATIC TANK.
3. PIPE SIZED FOR DESIGN FLOW RATE VELOCITY NEAREST 1 FOOT PER SECOND. (a) TRANSITION SECTION AT LEAST 10 INSIDE DIAMETER, 11 BOTTOM, 3 EACH ON OPPOSITE SIDES TO INDUCE RADIAL FLOW, (c) EXIT DIFFUSER, 9 HOLES, 0.14 OF PIPE INSIDE DIAMETER, 8 SIDE, 1 BOTTOM CENTER. LOW ENTRANCE VELOCITY 1 fpm AND HIGH EXIT VELOCITY 6 fpm. REQUIRED TO ESTABLISH PROPER FLOW PATTERN AND MINIMIZE SHORT CIRCUITING.
4. NIPPLE, SHORT OR LONGER, ONE SIZE LARGER THAN (3) SCHEDULE 40 OR 80 AS REQUIRED FOR BEST FIT.
5. EXTRA TANK FITTINGS AS DESIRED. TO FLUSH SEDIMENT FROM TANK, TURN OFF PUMP, OPEN SAMPLE TAP, OPEN TANK DRAIN VALVE; WHEN EMPTY TURN PUMP ON, RUN WATER TO WASTE UNTIL CLEAR, BLEED AIR TO WASTE THROUGH SAMPLE TAP UNTIL TANK IS FULL.

WARNING: AVOID USE OF SOLDER THAT CONTAINS LEAD.

DIFFUSER PIPE SIZES

FLOW RATE GPM	PIPE SIZE	O.D. INCHES	SCHEDULE 40 PIPE			INLET HOLES	EXIT HOLES	NIPPLE SIZE	
			I.D. INCHES	C INCHES				I.D. (SCH 80)	
-5.5	1-1/4	1.660	1.380	5.22	11/32	3/16	1-1/2	1.500	
5.6-8.7	1-1/2	1.900	1.610	5.97	13/32	7/32	2	1.939	
8.8-12.9	2	2.375	2.067	7.46	1/2	9/32	2-1/2	2.323	
13.0-19.3	2-1/2	2.875	2.469	9.03	5/8	11/32	3	2.900	
19.4-30.0	3	3.500	3.068	11.00	3/4	7/16	3-1/2	3.364	

CHLORINE CONTACT TANK

FLOW RATE GPM	10 MINUTE CONTACT TANK			TANK BOSS		DIFFUSERS			
	VOLUME GALLON	DIAMETER INCHES	HEIGHT INCHES	TOP & SIDES	DRAIN	PIPE SIZE	INLET HOLES	EXIT HOLES	.17 C
8	80	20	62	2	1-1/2	1-1/2	13/32	7/32	1.01
12	120	24	65	2-1/2	2	2	1/2	9/32	1.27
18	180	30	62	3	2	2-1/2	5/8	11/32	1.54
22	220	30	77	3-1/2	2	3	3/4	7/16	1.87
30	300	36	71	3-1/2	2	3	3/4	7/16	1.87

* NOMINAL - USE MANUFACTURERS DIMENSIONS.

COOPERATIVE EXTENSION SERVICE
 AGRICULTURE AND HOME ECONOMICS

UNITED STATES DEPARTMENT OF AGRICULTURE AND COOPERATING

MIXING - CONTACT - TIME
 SEDIMENTATION TANK

USDA '74 6155 SHEET 1 OF 1
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