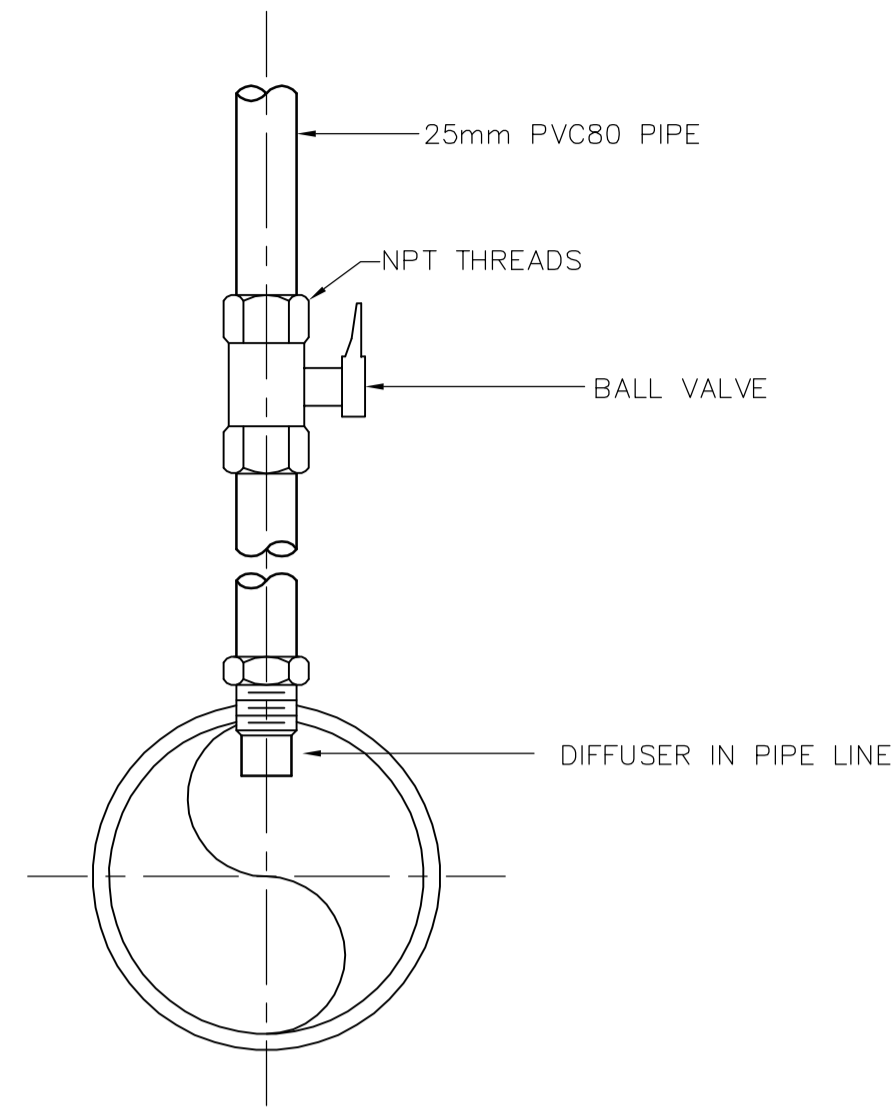
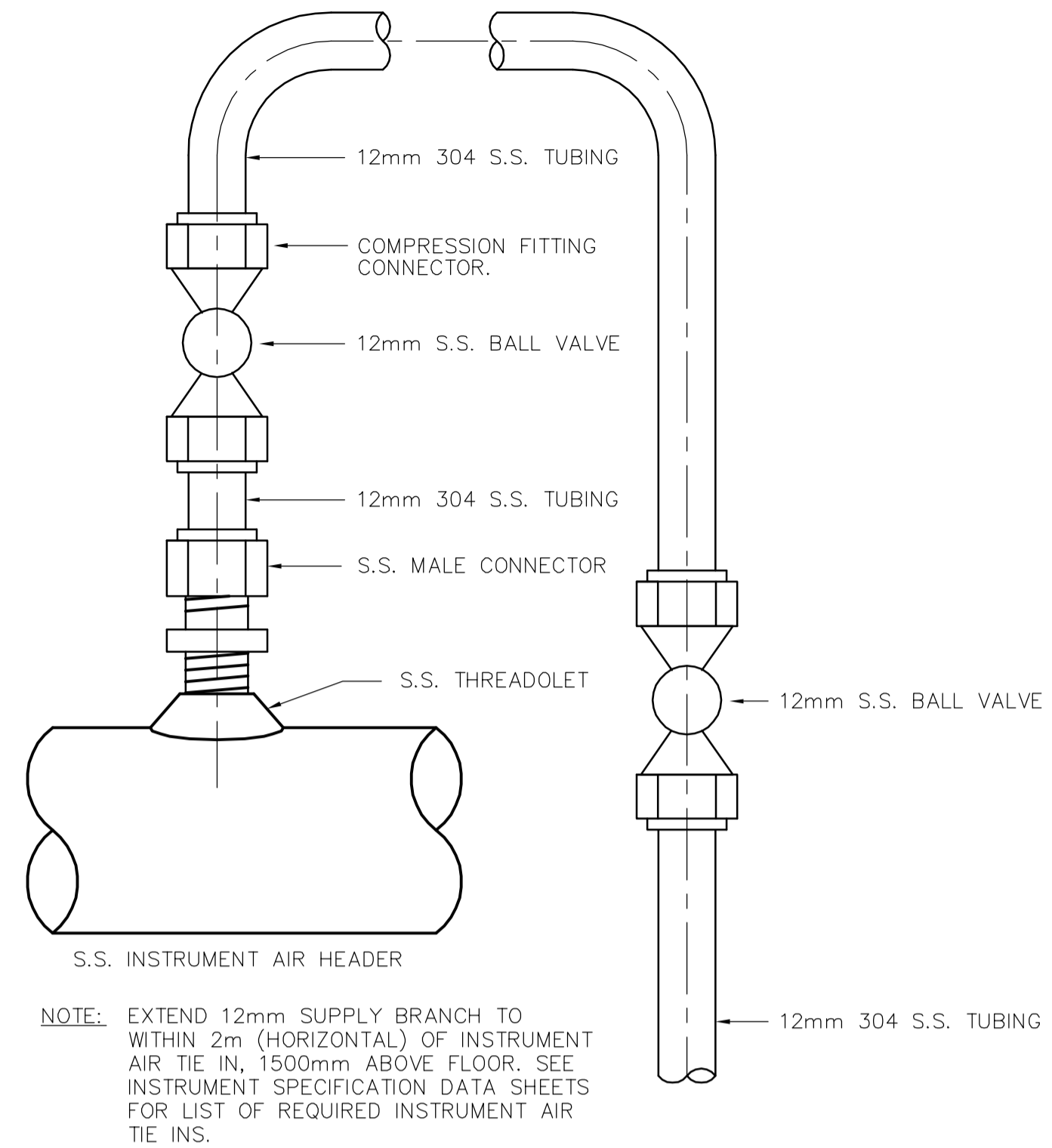


NOTES:  
1. WHEN SERVICE PIPE IS MORE THAN 1800 mm ABOVE FLOOR, DRAIN (AIR RELEASE) SHALL BE PIPED DOWN NEAREST WALL WITH A VALVE 1200 mm ABOVE FINISHED FLOOR.

**STD 504** 25mm AIR RELEASE, SAMPLE AND DRAIN CONNECTION DETAILS

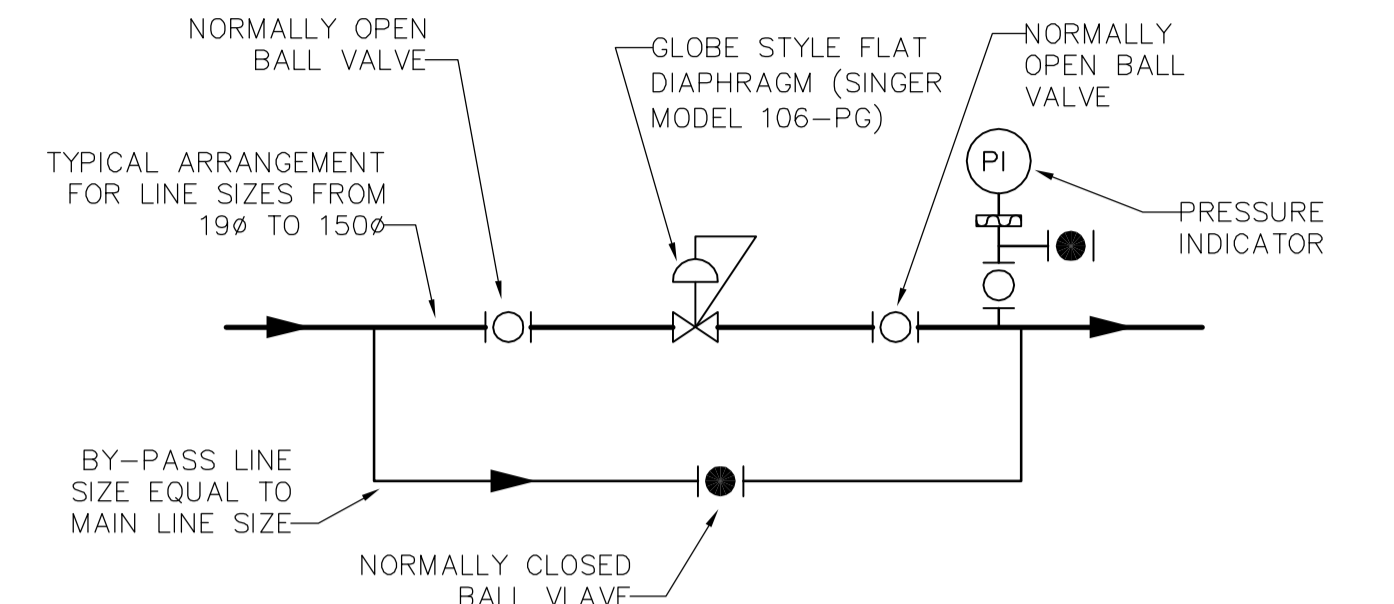


**STD 505** CHEMICAL INJECTION POINT



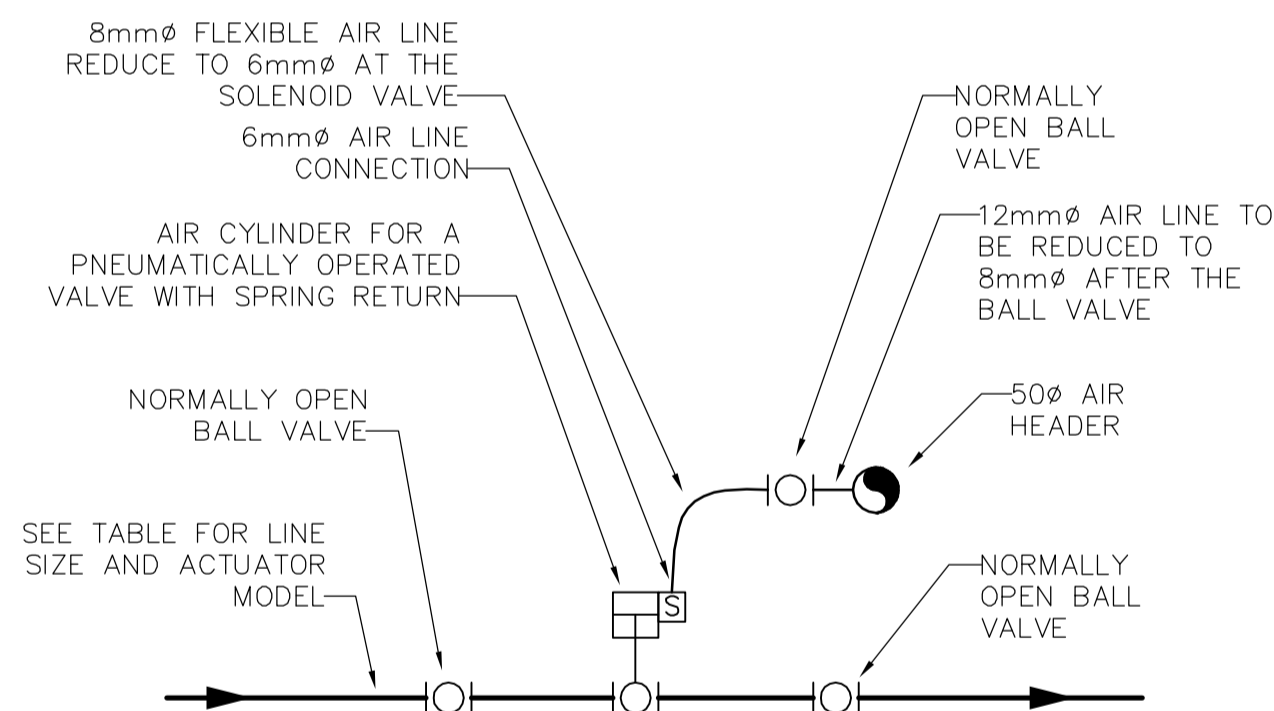
NOTE: EXTEND 12mm SUPPLY BRANCH TO WITHIN 2m (HORIZONTAL) OF INSTRUMENT AIR TIE IN, 1500mm ABOVE FLOOR. SEE INSTRUMENT SPECIFICATION DATA SHEETS FOR LIST OF REQUIRED INSTRUMENT AIR TIE INS.

**STD 506** INSTRUMENT AIR TAKEOFF



NOTES:  
1. ENSURE THAT THE PIPING AROUND THE VALVES IS WELL SUPPORTED.

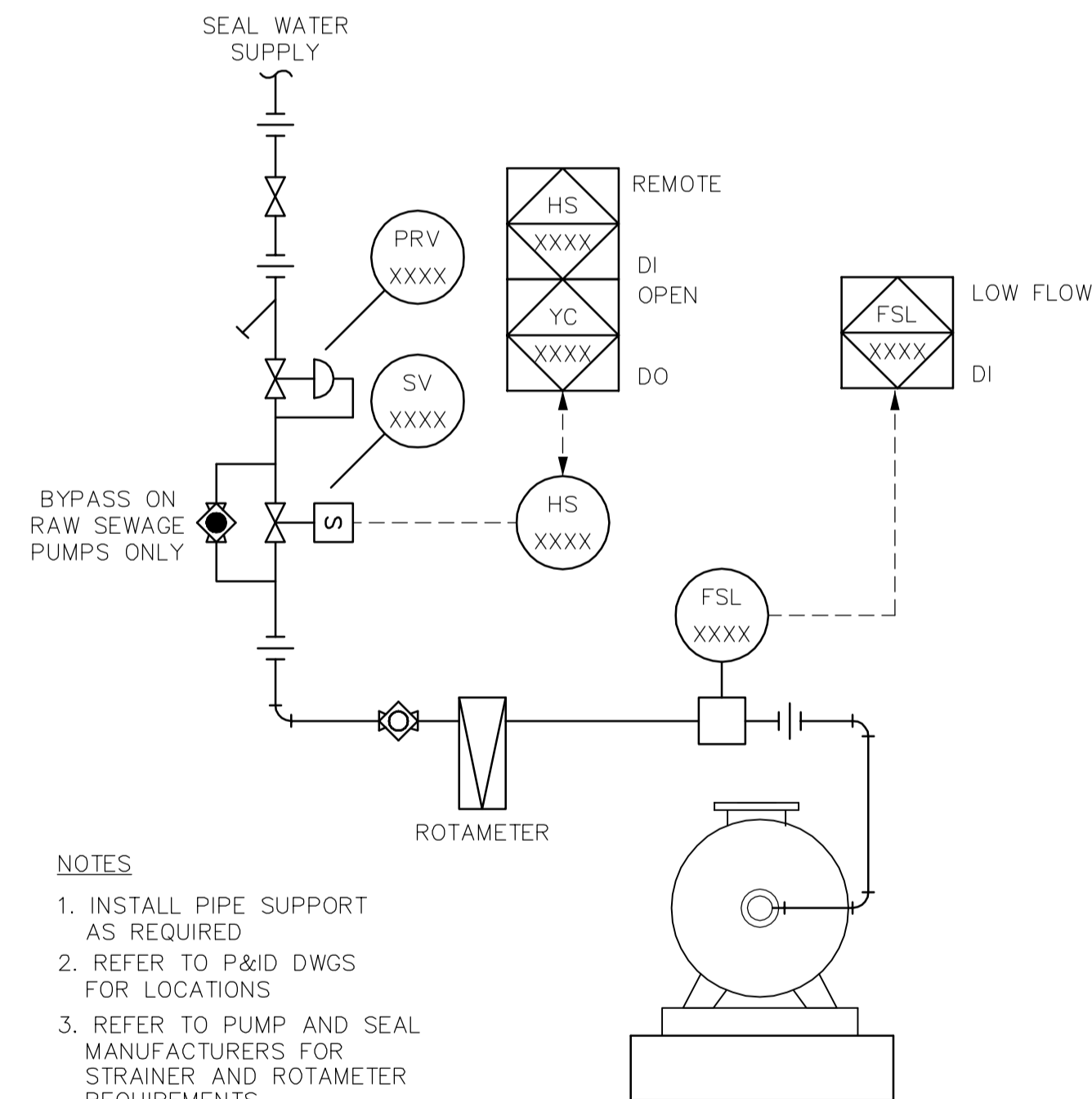
**STD 511** PRESSURE REDUCING VALVE



LINE SIZE	MODEL #
50	ES100
75	ES200
100	ES200
150	ES350

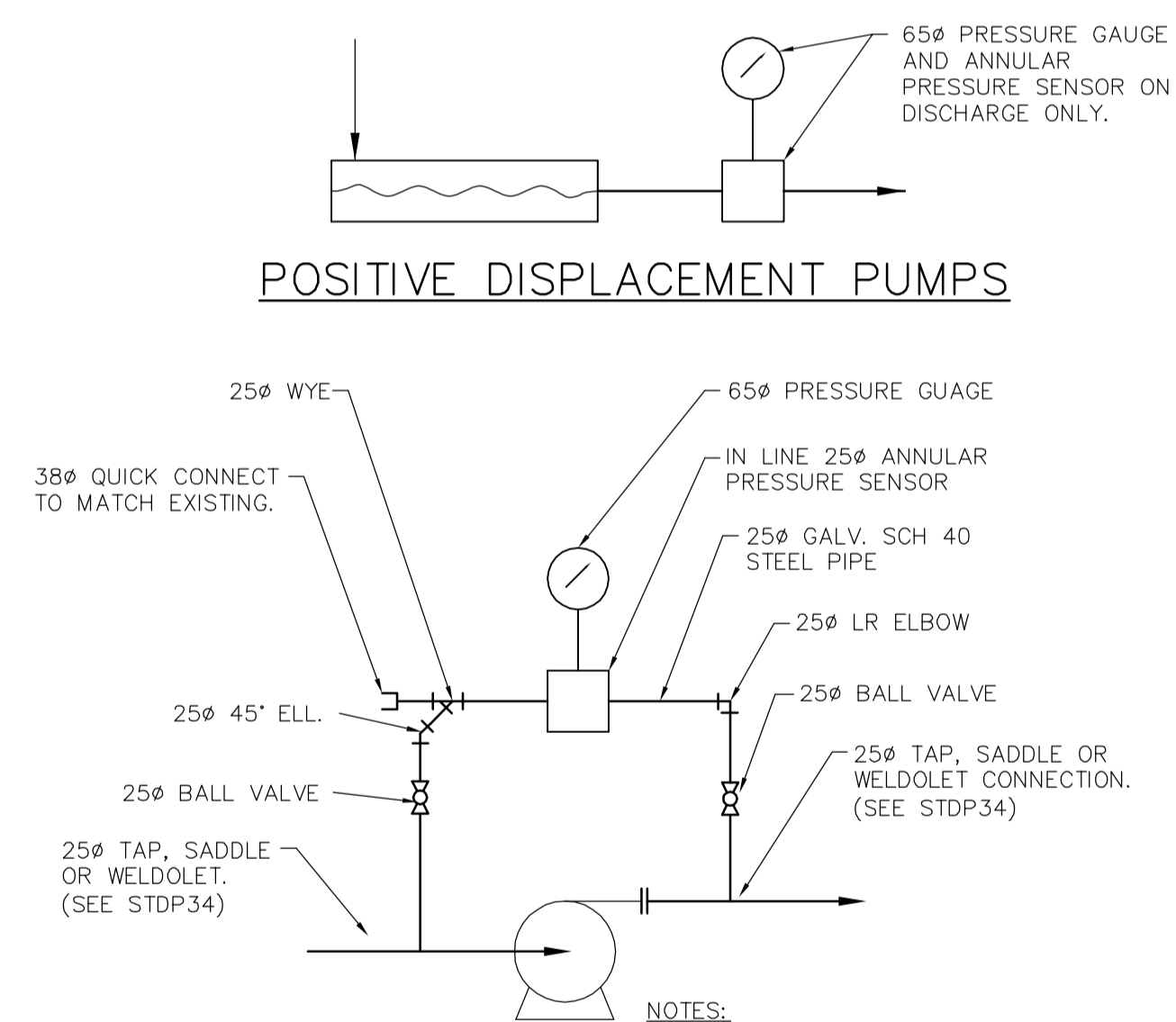
NOTES:  
1. VALVE ACTUATOR ARRANGEMENT IS BASED ON THE EL-O-MATIC PNEUMATIC CYLINDER.

**STD 530** TYPICAL PNEUMATICALLY OPERATED VALVE ARRANGEMENT



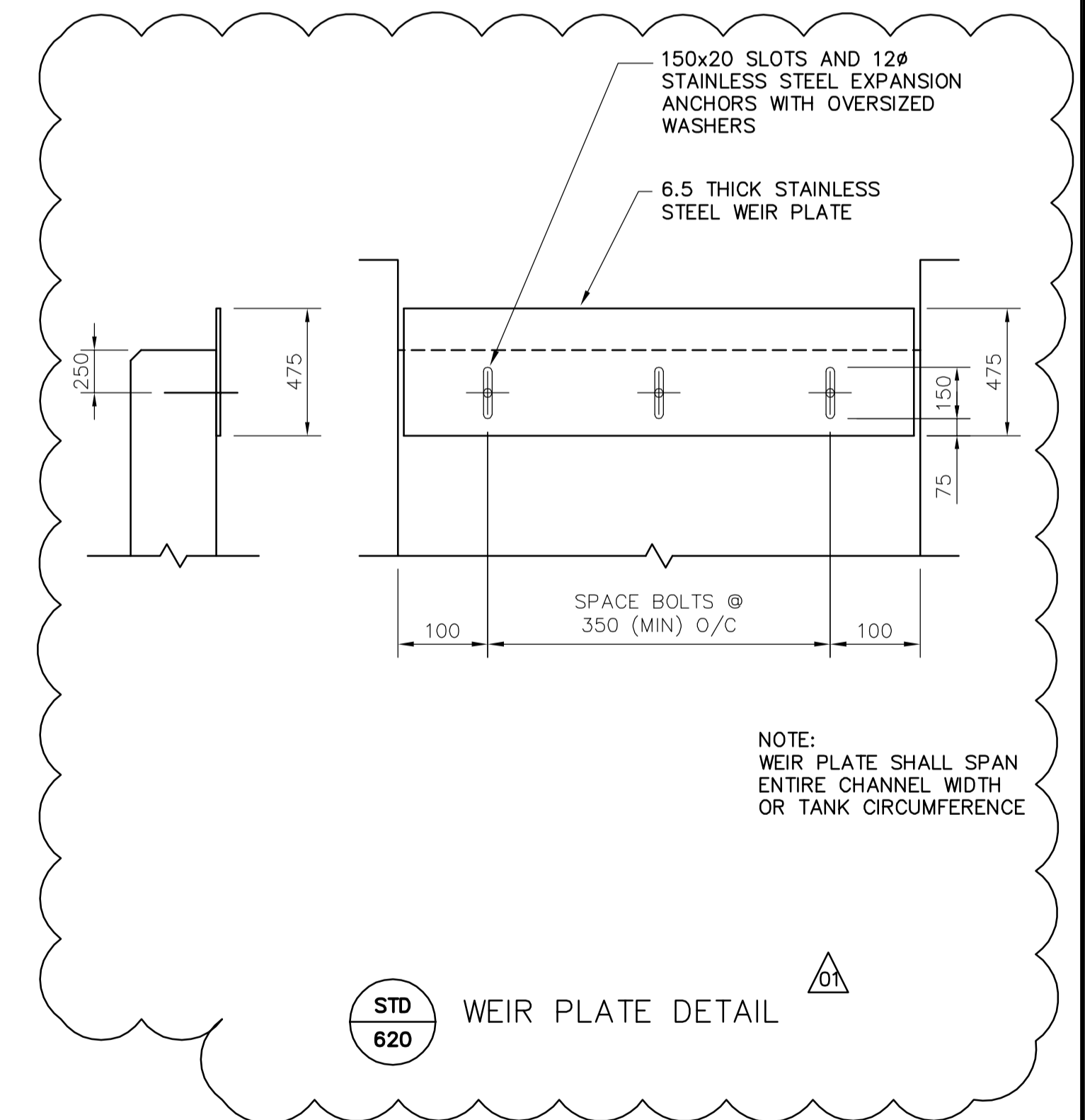
NOTES:  
1. INSTALL PIPE SUPPORT AS REQUIRED  
2. REFER TO P&ID DWGS FOR LOCATIONS  
3. REFER TO PUMP AND SEAL MANUFACTURERS FOR STRAINER AND ROTAMETER REQUIREMENTS

**STD 622** TYPICAL SEAL WATER PIPING FOR PUMPS



NOTES:  
1. ARRANGEMENT SHOWN IS SCHEMATIC FOR ALL PUMPS HANDLING SEWAGE, SLUDGE, SCUM OR GRIT.  
2. ARRANGE PIPING IN FIELD TO MINIMIZE LENGTH OF CONNECTION.  
3. PRESSURE SENSOR SHALL BE MOUNTED IN HORIZONTAL LEG.  
4. ALL ELBOWS SHALL BE LONG RADIUS.  
5. SENCING LINE TIE INS TO BE INSIDE PUMP ISOLATION VALVES

**STD 615** PRESSURE SENSING ARRANGEMENT ON SEWAGE, SCUM, SLUDGE & GRIT PUMPS



NOTE: WEIR PLATE SHALL SPAN ENTIRE CHANNEL WIDTH OR TANK CIRCUMFERENCE

**STD 620** WEIR PLATE DETAIL



B.M. ELEV.		 A Tyco International Ltd. Company		ENGINEER'S SEAL	
				ORIGINAL SIGNED BY J.E. HUTCHISON 2006/04/26	
		DESIGNED BY CL	CHECKED BY KM	CONSULTANT DRAWING NO. LP2.04	
		DRAWN BY PJY	APPROVED BY JEH		
		HOR. SCALE: NONE VERTICAL SCALE: NONE		RELEASED FOR CONSTRUCTION BY: J. VEILLEUX	
NO. REVISIONS		DATE	DATE	DATE	
01		21-2006 ADDENDUM 3	06/05/19	2005/10/06	
00		ISSUED FOR TENDER	06/04/26	2006/04/26	

 THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT ENGINEERING DIVISION		CITY FILE NUMBER
WEWPCC BIOLOGICAL NUTRIENT REMOVAL UPGRADE CONTRACT 3		SHEET OF
PROCESS AREA L - GENERAL & SITWORKS STANDARD DETAILS		CITY DRAWING NUMBER