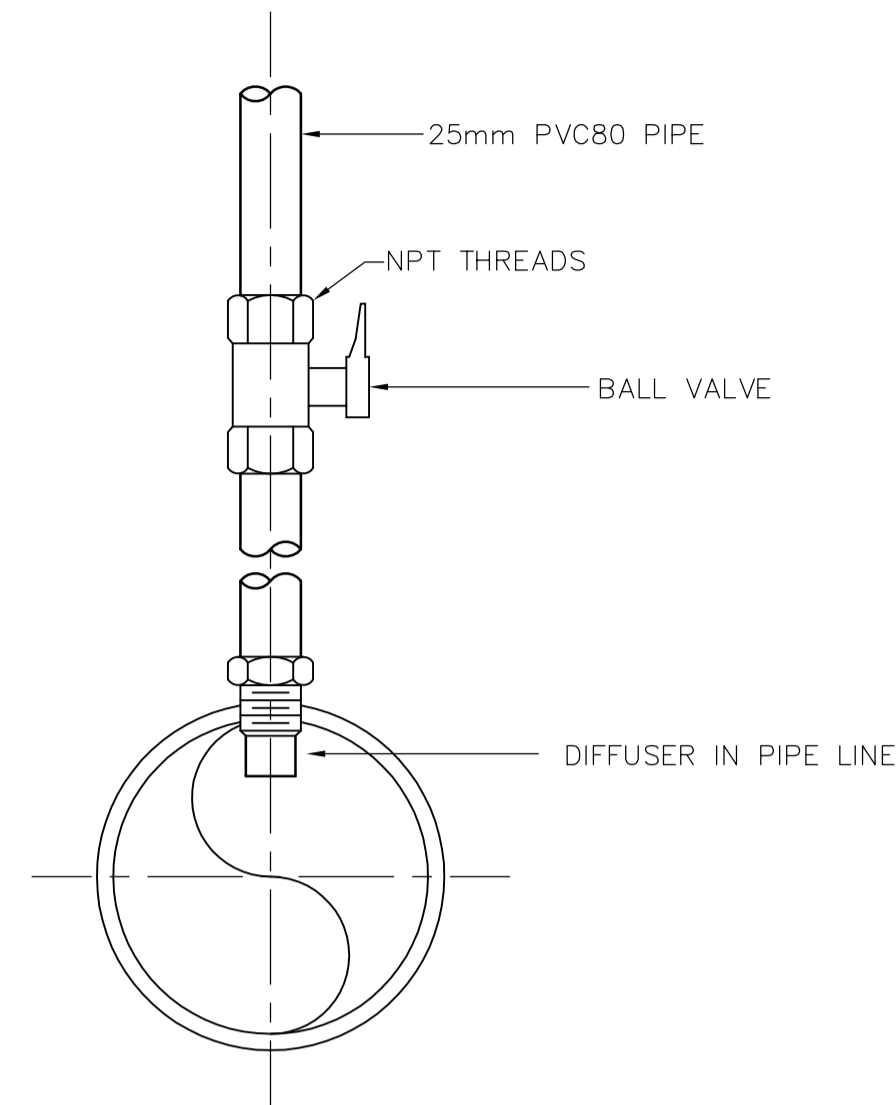
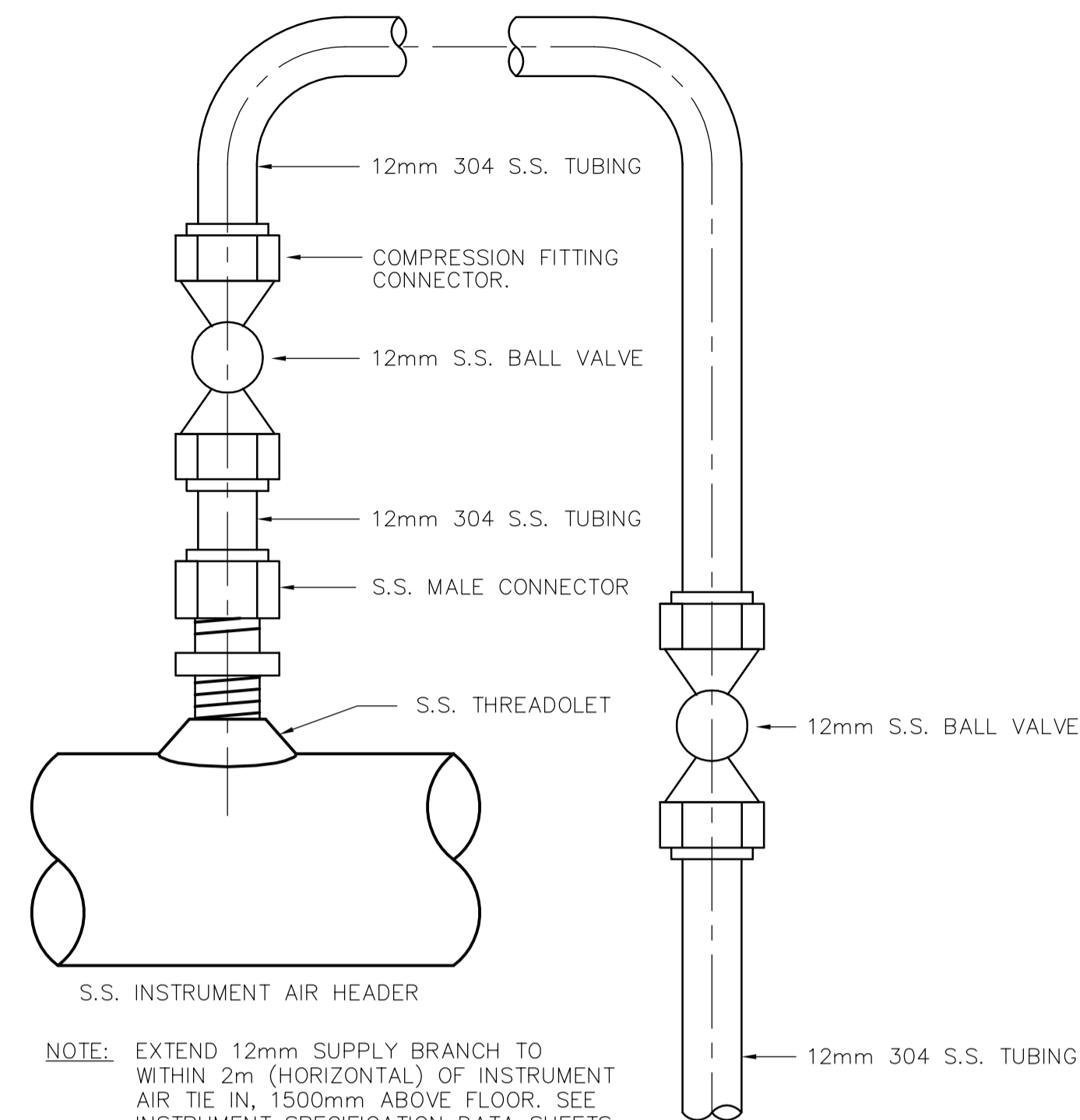


NOTES:
 1. WHEN SERVICE PIPE IS MORE THAN 1800 mm ABOVE FLOOR, DRAIN (AIR RELEASE) SHALL BE PIPED DOWN NEAREST WALL WITH A VALVE 1200 mm ABOVE FINISHED FLOOR.

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

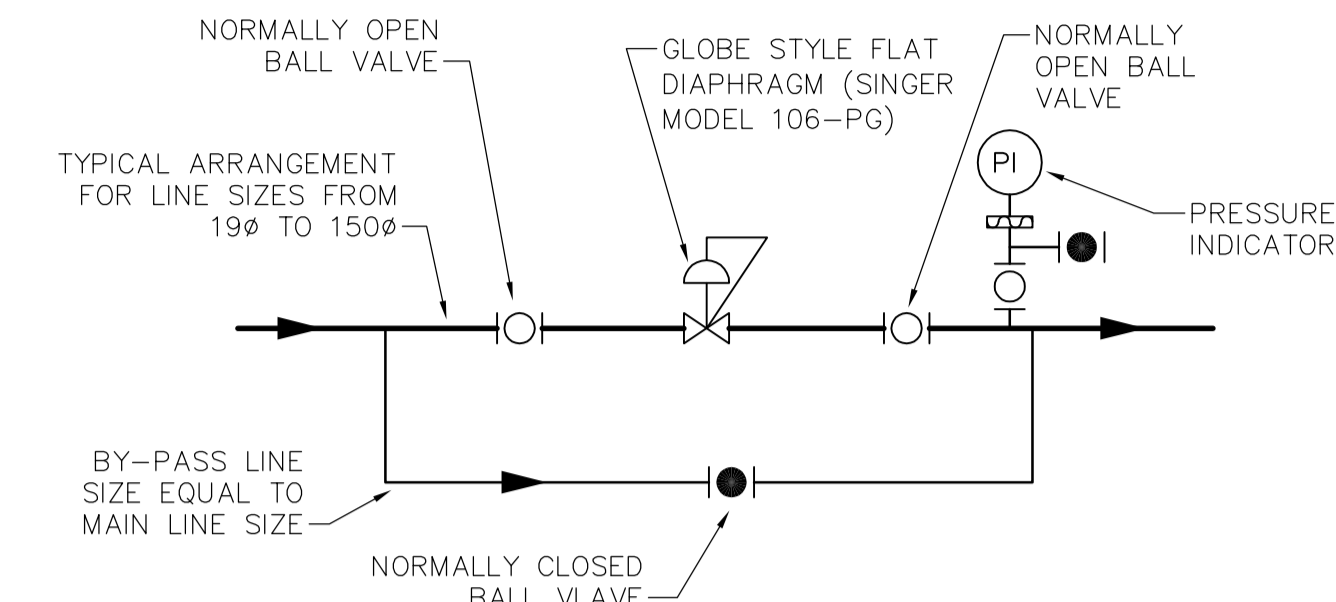


STD 505 CHEMICAL INJECTION POINT



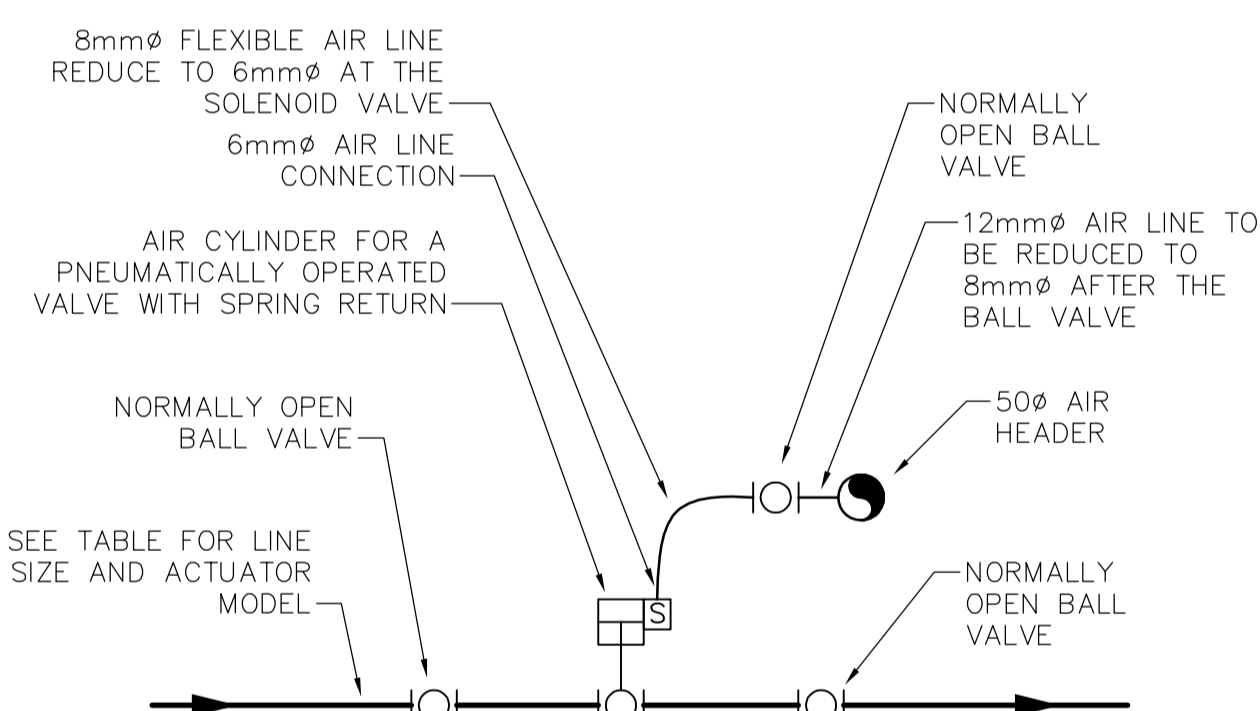
NOTE: EXTEND 12mm SUPPLY BRANCH TO WITHIN 2m (HORIZONTAL) OF INSTRUMENT AIR TIE IN, 1500mm ABOVE FLOOR. SEE INSTRUMENT SPECIFICATION DATA SHEETS FOR LIST OF REQUIRED INSTRUMENT AIR TIE INS.

STD 506 INSTRUMENT AIR TAKEOFF



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

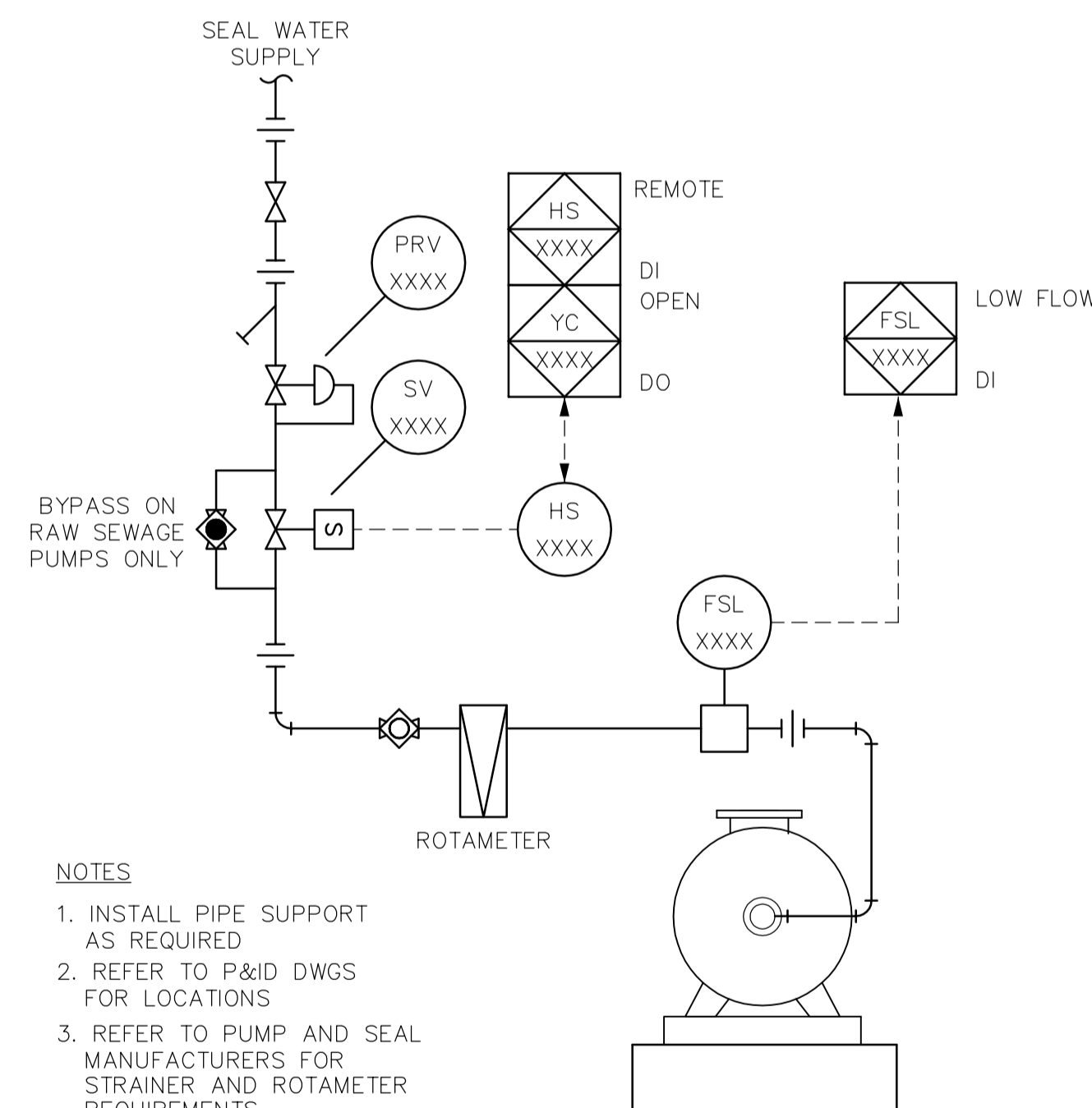
STD 511 PRESSURE REDUCING VALVE



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

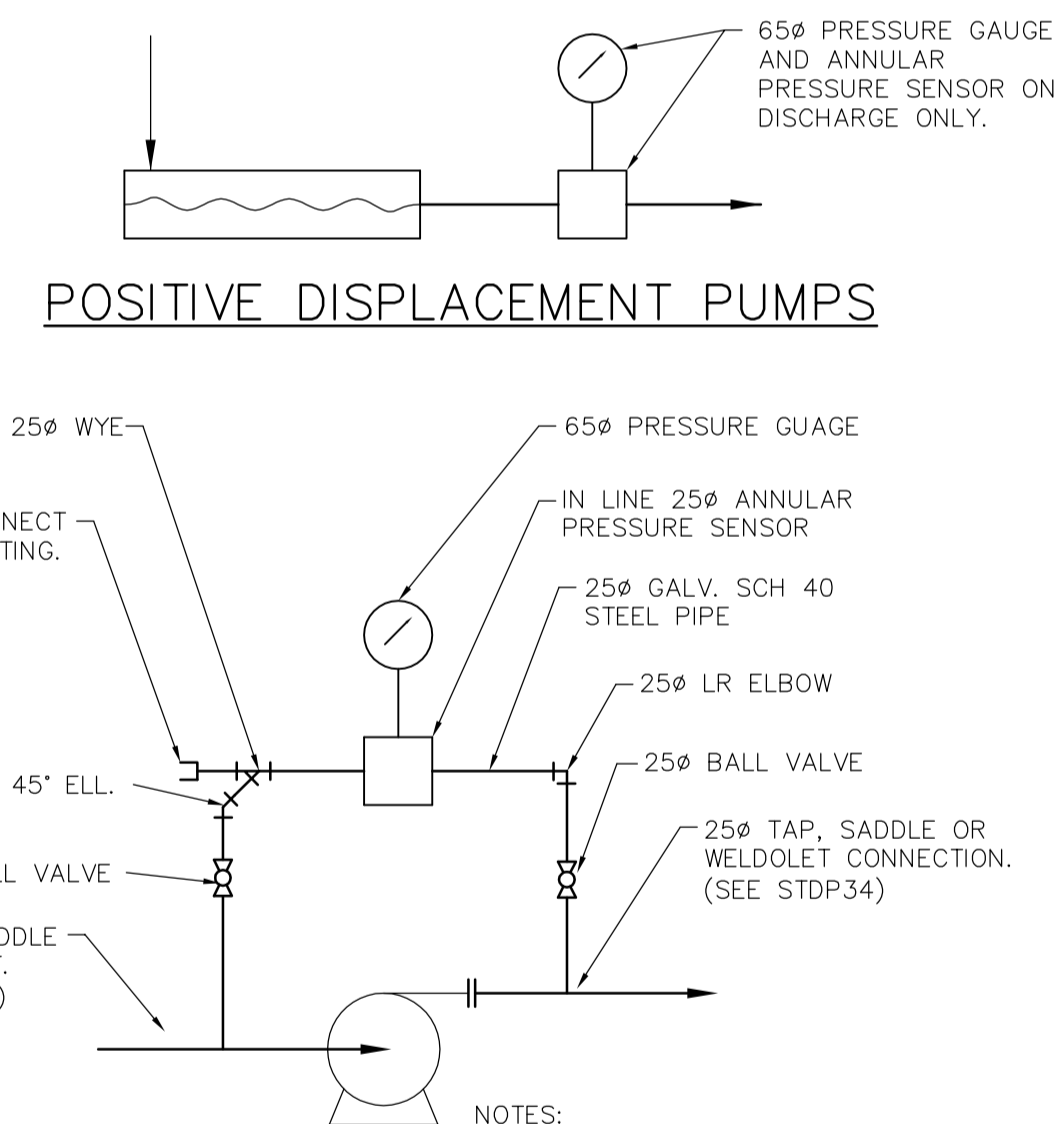
NOTES:
 1. VALVE ACTUATOR ARRANGEMENT IS BASED ON THE EL-O-MATIC PNEUMATIC CYLINDER.

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. SENSING LINE TIE INS TO BE INSIDE PUMP ISOLATION VALVES

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



B.M. ELEV.	 A Tyco International Ltd. Company		ENGINEER'S SEAL	 THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT ENGINEERING DIVISION		
			DESIGNED BY: CL			CHECKED BY: KM
		DRAWN BY: PJY	APPROVED BY: JEH	2006/04/26	WEWPC BIOLOGICAL NUTRIENT REMOVAL UPGRADE CONTRACT 3	
		HOR. SCALE: NONE VERTICAL SCALE: NONE	RELEASED FOR CONSTRUCTION BY: J. VEILLEUX	CONSULTANT DRAWING NO. LP2.04		CITY FILE NUMBER
00 ISSUED FOR TENDER	06/04/26 SRP				SHEET OF	
NO. REVISIONS	DATE	DATE	DATE	2005/10/06	2006/04/26	CITY DRAWING NUMBER
				PROCESS AREA L - GENERAL & SITWORKS STANDARD DETAILS		