



PIPING AND FITTINGS – HIGH VELOCITY AIR			
ITEM	SIZE RANGE	DESCRIPTION	MATERIAL
PIPE	24"	SCH 10S	A312 TP316L
FLANGES	24"	CL150 ANSI B16.5 RF	A182 F316L
BLIND FLANGE	24"	1/2" FLAT PLATE	A240 GR316L
FITTINGS	24"	BUTT WELD SCH 10S	A403 WP316L
BOLTING	ALL	BOLTS, HEAVY HEX NUTS	A193 B8M TYPE 316
GASKETS	ALL	1/8" SELF ENERGIZING	
REPADS	ALL	1/4" ROLLED PLATE	A240 GR316L

DESIGN DATA - HIGH VELOCITY AIR	
DESIGN TEMPERATURE	-30 to +130°C
OPERATING PRESSURE	8 PSIG
OPERATING TEMPERATURE	80°C
SPECIFIC GRAVITY - FLOODED	1.1
FLUIDS	AIR
CORROSION ALLOWANCE	0.0
HEAT TREATMENT	NONE
INSPECTION AND TESTING	
LIQUID PENETRANT TESTING	100% ALL SHOP AND FIELD WELDS

**BLOWER HEADER CROSSOVER PIPING SBR-1 TO SBR -2**

1. REMOVE END CAP ON BLOWER HEADER SBR -2
2. TRIM AS INDICATED AND BEVEL PIPE ENDS TO 37 1/2 ° BEVEL
3. INSTALL NEW ELBOW, PIPE AND FLANGE.
4. NEW ANSI B16.5 FLANGES TO A182 F316L
5. WELDERS TO HOLD VALID LICENSE TO ASME SECTION IX ISSUED BY ITS MANITOBA FOR THE RELEVANT PROCESS OR CSA W471. 'T' CLASSIFICATION LICENSE ISSUED BY THE CANADIAN WELDING BUREAU.
6. INSTALL 1/2 INCH THICK BLIND FLANGE TO PROTECT SYSTEM UNTIL BLOWER HEADER EXTENSION ON SBR-1 IS COMPLETED AND CONNECTED.

**ALTERNATE FABRICATION OF SPOOL PIECE**

1. REPLACE EXISTING SECTION OF HEADER SERVING PIPING LOOP 'A' WITH NEW 24" SCH 10S PIPE.
2. FABRICATE AND INSTALL REPLACEMENT SPOOL PIECE AS SHOWN WITH 12" VERTICAL SECTION OF DROP LEG, FLANGE CONNECTION TO EXISTING EXPANSION JOINT, ELBOW AND FLANGE.
3. INSTALL 1/2 INCH THICK BLIND FLANGE TO PROTECT SYSTEM UNTIL BLOWER HEADER EXTENSION ON SBR-1 IS COMPLETED AND CONNECTED.

B.M. ELEV.	
CONSTRUCTION COMPLETION DATE: YYYY MM DD	
DESIGNED BY	FAR
CHECKED BY	FAR
DRAWN BY	JC
APPROVED BY	FAR
SCALE:	
HORIZONTAL	
VERTICAL	
ISSUED FOR TENDER 85-2023	2023 03 10 JC
NO.	REVISIONS
DATE	BY
DATE	2023 03 10
DATE	

**F.A. Roberts & Associates Ltd.**  
Engineering Consultants  
1304 Border St. | Winnipeg, MB | R3H 0M6 | Ph. (204) 694-4600

ENGINEER'S SEAL

CONSULTANT DRAWING NUMBER:  
**2022187-P6**



**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT  
ENGINEERING DIVISION

**2023 NEWPCC SBR UPGRADES**  
**SBR TANK No.2 PIPING**  
**CROSS OVER PIPING**

SHEET 6 OF 6  
CITY DRAWING NUMBER  
85-2023  
DRAWING  
2022187\_P6-RO