

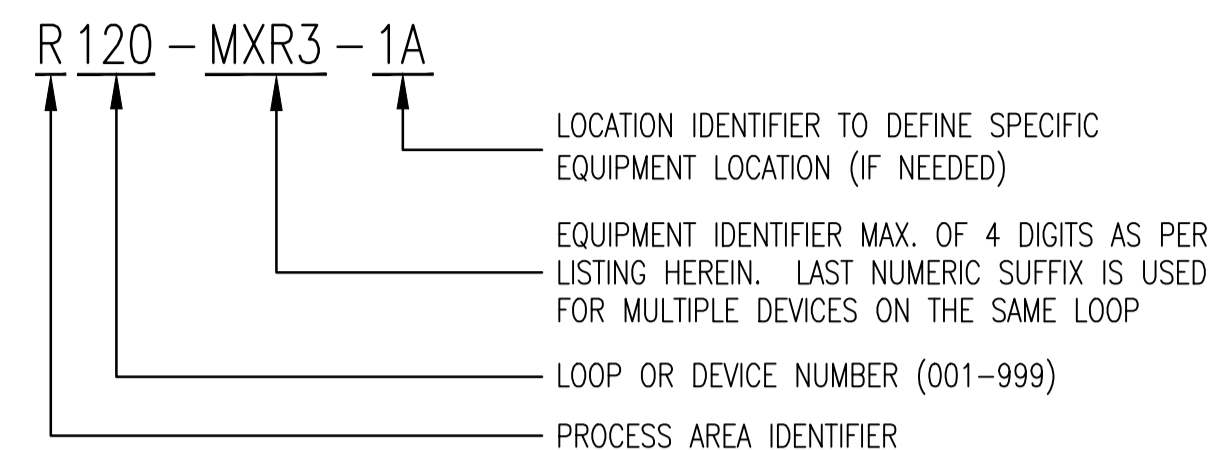
PROCESS AREA IDENTIFIERS	
IDENTIFIER	DEFINITION
M	ADMINISTRATION BUILDING & SEPTAGE FACILITY
G	PUMP & SCREEN BUILDING, GRIT BUILDING, STANDBY GENERATOR BUILDING
P	PRIMARY CLARIFIERS
R	OXYGEN REACTORS
S	SECONDARY CLARIFIERS
B	SERVICE BUILDING, BOILERS, CHEMICAL STORAGE BUILDING
U	UV DISINFECTION

INSTRUMENT SIGNAL IDENTIFIERS		
IDENTIFIER	DEFINITION	SIGNAL TYPE
AA	ANALYSIS ALARM (1ST STAGE)	DIGITAL INPUT
AF	ANALYSIS (SAMPLER) FAIL	DIGITAL INPUT
AH	ANALYSIS HIGH ALARM (1ST OR 2ND STAGE)	DIGITAL INPUT
AM	ANALYSIS (SAMPLER) ON/OFF STATUS	DIGITAL INPUT
AN	ANALYSIS (SAMPLER) START	DIGITAL OUTPUT
AT	ANALYSIS TRANSMIT (APPLIED TO ALL TYPES OF ANALYTICAL MEASUREMENTS)	ANALOG INPUT
AU	ANALYSIS MULTIFUNCTION (USED FOR COMMON ANALYTICAL POINT)	DIGITAL INPUT
BF	BURNER FLAME FAILURE	DIGITAL INPUT
BL	BOILER LOW FIRE	DIGITAL INPUT
BH	BOILER HIGH FIRE	DIGITAL INPUT
BM	BURNER FLAME STATUS ON	DIGITAL INPUT
BS	BOILER SAFETY (BOILER FIRE ENABLED)	DIGITAL INPUT
DT	DENSITY TRANSMIT	ANALOG INPUT
ET	VOLTAGE TRANSMIT	ANALOG INPUT
FL	FLOW RATE LOW	DIGITAL INPUT
FT	FLOW TRANSMIT	ANALOG INPUT
GA	GAS ALARM	DIGITAL INPUT
HM	MANUAL STATUS ON	DIGITAL INPUT
LH	LEVEL HIGH	DIGITAL INPUT
LL	LEVEL LOW	DIGITAL INPUT
LT	LEVEL TRANSMIT	ANALOG INPUT
MF	MOTOR FAILURE	DIGITAL READOUT
MM	MOTOR ON/OFF STATUS	DIGITAL INPUT
MN	MOTOR START	DIGITAL OUTPUT
MO	MOTOR STOP	DIGITAL OUTPUT
MX	MOTOR UNCLASSIFIED (X = RESET)	DIGITAL OUTPUT
NA	HUMIDITY ALARM	DIGITAL INPUT
PA	PRESSURE ALARM (1ST STAGE)	DIGITAL INPUT
PH	PRESSURE HIGH ALARM (1ST OR 2ND STAGE)	DIGITAL INPUT
PL	PRESSURE LOW	DIGITAL INPUT
PT	PRESSURE TRANSMIT	ANALOG INPUT
QA	COMMON ALARM (OR TROUBLE)	DIGITAL INPUT
QF	COMMON FAIL ALARM	DIGITAL INPUT
SB	SPEED DECREASE	MODULATING OUTPUT
SD	SPEED INCREASE	MODULATING OUTPUT
SM	SPEED CONTROLLER STATUS	DIGITAL INPUT
ST	SPEED TRANSMIT	ANALOG INPUT
TH	TEMPERATURE HIGH	DIGITAL INPUT
TT	TEMPERATURE TRANSMIT	ANALOG INPUT
UA	MULTIFUNCTION ALARM (MULTIPLE SYSTEM ALARM-ALTERNATE SYMBOL = QA)	DIGITAL INPUT
VB	VALVE CLOSE (OR DECREASE)	DIGITAL OR MODULATING OUTPUT
VD	VALVE OPEN (OR INCREASE)	DIGITAL OR MODULATING OUTPUT
XA	UNCLASSIFIED ALARM (X = FIRE)	DIGITAL INPUT
XT	UNCLASSIFIED TRANSMIT (X = POWER FACTOR)	ANALOG INPUT
YK	COMPUTER/LOCAL STATION	DIGITAL INPUT
YM	COMPUTER OPERATIONAL	DIGITAL INPUT
YS	COMPUTER SWITCH STATUS	DIGITAL INPUT
YX	COMPUTER UNCLASSIFIED (STATUS ON)	DIGITAL INPUT
ZB	POSITION CLOSED (LIMIT SWITCH)	ANALOG INPUT
ZD	POSITION OPEN (LIMIT SWITCH)	DIGITAL INPUT
ZL	POSITION LOW (BELT TENSION)	DIGITAL INPUT
ZT	POSITION TRANSMIT	ANALOG INPUT

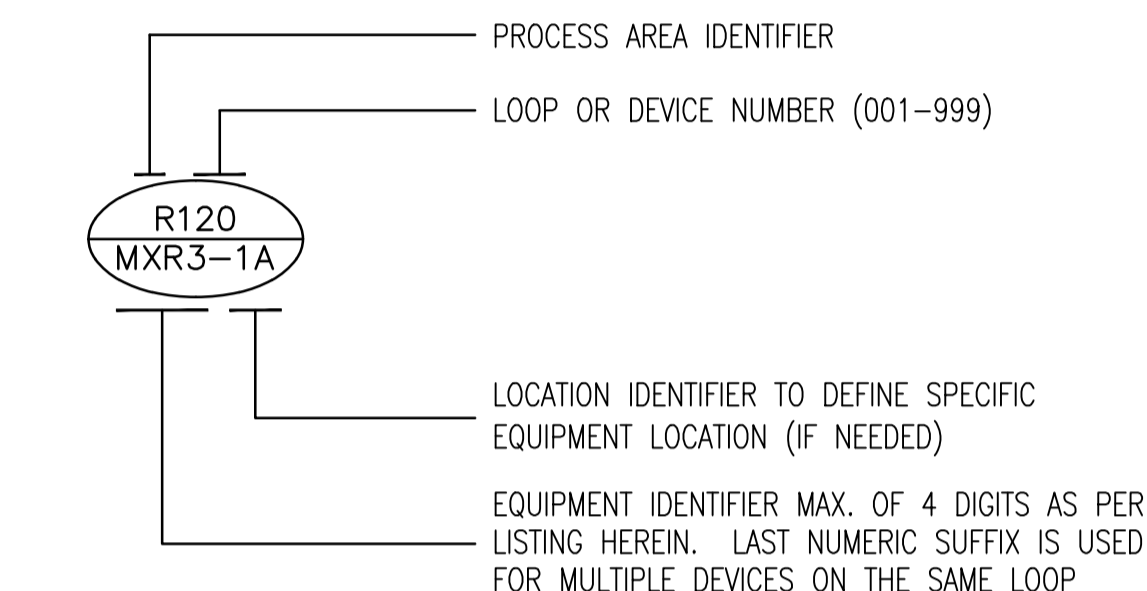
EQUIPMENT IDENTIFIERS	
IDENTIFIER	DEFINITION
AB	AIR BLOWER
AC	AIR COMPRESSOR
ACU	AIR CONDITIONING UNIT
AD	AIR DRYER
AF	AERATION FAN (EXISTING OR NEW)
AHU	AIR HANDLING UNIT
AP	ANALYSIS/SAMPLE PUMP
BF	BOILER FAN (EXISTING OR NEW)
BP	BOILER PUMP (EXISTING OR NEW)
CAP	CAKE PUMP
CC	COOLING COIL
CM	CLARIFIER MECHANISM
CMP	COMPRESSOR
CON	CONVEYOR
CP	CIRCULATING PUMP
CR	CRANE OR HOIST
CU	CONDENSING UNIT
DC	DRAG CONVEYOR
EF	EXHAUST FAN
EXH	HEATER EXCHANGER
F OR FN	FAN
FE	FILTER
FG	FLAP GATE
GB	GRIT BLOWER
GP	GLYCOL PUMP
HC	HEAT COIL
HRC	HEAT RECOVERY COIL
HWP	HOT WATER PUMP
LOP	LUBE OIL PUMP
MAU	MAKE-UP AIR UNIT
MXR	MIXER MOTOR
P	PUMP
PB	PURGE BLOWER
R	COMPRESSOR (REFRIGERANT)
RAP	RAS PUMP
SC	SLUDGE COLLECTOR (TRAVELING BRIDGE)
SCA	SLUDGE CAKE AUGER
SE	SAMPLER ELEMENT
SFP	SLUDGE FEED PUMP
SG	SLUICE GATE
SL	STOP LOG
SMP	SUMP PUMP
SP	SCUM PUMP
STP	SLUDGE TRANSFER PUMP
SWP	SWASH PLATE
TD	TRUCK DOOR
UPS	UNINTERRUPTIBLE POWER SUPPLY
UH	UNIT HEATER
UV	ULTRAVIOLET LAMP ASSEMBLY
VFD	VARIABLE FREQUENCY DRIVE
VP	VACUUM PUMP
WAP	WAS PUMP
WP	WELL PUMP
W	WEIR
WG	WEIR GATE

EQUIPMENT IDENTIFICATION

THE EQUIPMENT IDENTIFICATION MAY BE IN EITHER TEXT OR EQUIPMENT TAG FORMAT.



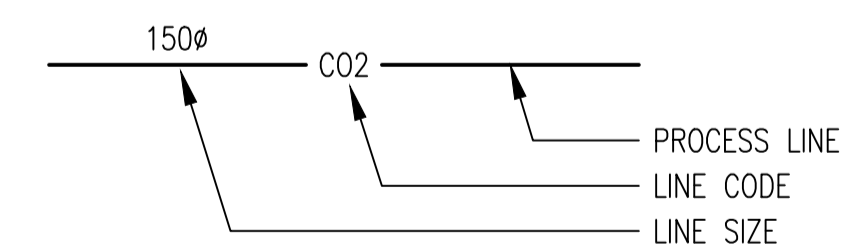
OR



IMPERIAL PIPE SIZE CHART (METRIC EQUIVALENT)

IN	MM	IN	MM
1/8	= 3	1/4	= 350
1/4	= 6	3/8	= 400
3/8	= 10	1/2	= 450
1/2	= 12	5/8	= 500
5/8	= 16	3/4	= 550
3/4	= 20	7/8	= 600
7/8	= 25	1	= 650
1	= 32	1 1/8	= 700
1 1/8	= 38	1 1/4	= 750
1 1/4	= 50	1 3/8	= 800
1 3/8	= 65	1 1/2	= 850
1 1/2	= 75	1 5/8	= 900
1 5/8	= 90	1 3/4	= 950
1 3/4	= 100	1 7/8	= 1000
1 7/8	= 112	2	= 1050
2	= 125	2 1/8	= 1100
2 1/8	= 150	2 1/4	= 1150
2 1/4	= 175	2 3/8	= 1200
2 3/8	= 200	2 1/2	= 1250
2 1/2	= 225	2 5/8	= 1300
2 5/8	= 250	2 3/4	= 1350
2 3/4	= 275		
2 7/8	= 300		

PROCESS LINE DESIGNATION



PROCESS LINE CODES	
IDENTIFIER	DEFINITION
AC	ALTERNATING CURRENT (ELECTRICAL)
ALP	LOW PRESSURE AIR
CA	COMPRESSED AIR
CDW	COLD DOMESTIC WATER
CE	CENTRATE
CG	CALIBRATION GAS
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CL	CHLORINE
CLR	COMPRESSED LIQUEFIED REFRIGERANT
C02	CARBON DIOXIDE
CON	CONDENSATE
CS	SLUDGE CAKE
CWR	COOLING WATER RETURN
CWS	COOLING WATER SUPPLY
DGH	HIGH PRESSURE DIGESTER GAS
DL	DECANT LIQUOR
DP	DRY POLYMER
EDR	EVAPORATED REFRIGERANT
ES	ELECTRICAL SUPPLY
FE	FINAL EFFLUENT
FW	FLUSHING WATER
GE	GRIT EFFLUENT
GR	GLYCOL RETURN
GS	GLYCOL SUPPLY
HCO	HYDRAULIC OIL
HDW	HOT DOMESTIC WATER
HFW	HOT FLUSHING WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HYD	HYDROGEN
IAS	INSTRUMENT AIR SUPPLY
LCP	LIQUID CONCENTRATED POLYMER
LGO	LUBRICATING OIL
LPS	LOW PRESSURE STEAM
ML	MIXED LIQUOR
MP	MIXED POLYMER
N2	NITROGEN
NLG	NATURAL GAS
O2	OXYGEN
PD	PROCESS DRAIN
PE	PRIMARY EFFLUENT
PO	PROCESS OVERFLOW
PS	PRIMARY SLUDGE
PV	PROCESS VENT
PW	POTABLE WATER
RAS	RETURN ACTIVATED SLUDGE
RW	RECIRCULATED WATER
RS	RAW SEWAGE
SE	SECONDARY EFFLUENT
SEA	SERVICE AIR
SC	SCUM
SW	SEAL WATER
TS	THIN SLUDGE
VMA	VACUUM AIR
VTA	VENT TO ATMOSPHERE
W	WATER
WA	WASTE AIR
WAS	WASTE ACTIVATED SLUDGE



NO.	REVISIONS	DATE	DESIGN	CHECK
01	ORIGINAL DRAWING NUMBER WAS 1-0102A-D-A0001-003	2010/03/03	-	SW
00	ISSUED FOR CITY USE	2007/02/26	-	EFB

SNC-LAVALIN INC. 148 Nature Park Way Winnipeg, MB, Canada R3P 0X7 204-786-8080	
DESIGNED BY: EMR	CHECKED BY: EFB
DRAWN BY: DS	APPROVED BY: CJR
SCALE: NTS	RELEASED FOR CONSTRUCTION BY:
DATE: 2004/01/23	DATE:
CONSULTANT NO.: 112577-0112-49DD-0102	

ENGINEER'S SEAL

FOR REFERENCE ONLY

THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT	
SOUTH END WATER POLLUTION CONTROL CENTRE	
PROCESS AND INSTRUMENT DIAGRAM LEGEND AND DETAILS	
CITY DRAWING NUMBER	SHEET REV. SIZE
1-0102A-A0001	003 01 A1