

EQUIPMENT PREFIXES

INSTRUMENT PREFIXES

FLUIDS ABBREVIATION

THIS DRAWING MAY ONLY BE USED IN THE COURSE OF AND FOR THE PURPOSE OF CREATING SYDNEY WATER ASSETS. USE THIS DRAWING WITH CARE. YOU ARE RESPONSIBLE TO APPLY THE WORK SHOWN IN THIS DRAWING CORRECTLY IN THE CIRCUMSTANCES OF YOUR PROJECT. YOU MUST ENSURE THE WORK IS FIT FOR PURPOSE AND WILL PERFORM ITS INTENDED FUNCTION AS REQUIRED.

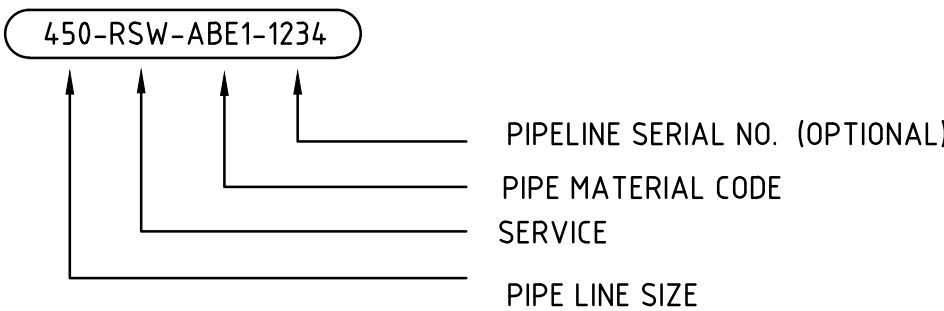
PIPING MATERIAL CODE

ACT	ACTUATOR	LVS	LOW VOLTAGE STARTER
ACR	AIR COOLER	MAC	MACERATOR
ACV	AIR CONTROL VALVE	MCC	MOTOR CONTROL CENTER
ADR	AIR DRYER	MCR	MUNCHER
AER	AERATOR OR PADDLE	MHL	MANHOLE
AEX	ANALYSER ELEMENT	MIX	MIXER, FLOCCULATOR OR AGITATOR
AIX	ANALYSER INDICATOR	MSX	MOISTURE SWITCH
ALT	ALTERNATOR	MTR	MOTOR
ARB	ARBITER	NRV	NON-RETURN OR REFLUX VALVE
BAT	BATTERY	OGD	OFF GAS DESTRUCTOR
BCH	BATTERY CHARGER	OZG	OZONE GENERATOR
BDG	BRIDGE (FIXED)	PBD	PRESSURE BOARD
BEA	BEACON, WARNING OR ALARM LAMP	PCV	PRESSURE CONTROL VALVE
BHI	BOREHOLE INCLINED	PEN	PENSTOCK
BHV	BOREHOLE VERTICAL	PFC	POWER FACTOR CORRECTION
BIN	BIN (SILO OR HOPPER)	PLC	PROGRAMMABLE LOGIC CONTROLLER
BLD	BUILDING	PLP	PLC PANEL\
BLM	BELMOUTH	PLT	PLANT EQUIPMENT
BLR	BLOWER	PMI	PERSON MACHINE INTERFACE
BND	BUND	PMP	PUMP (FIXED OR VARIABLE)
BNI	BURNER IGNITER	POL	POWER POLE
BNR	BURNER	PPE	PIPES/PIPEWORK
BNS	FLAME SENSOR	PRN	PRINTER
BSX	SMOKE OR FIRE DETECTOR	PRS	PRESS
BWL	BOWL DRIVE (CENTRIFUGE)	PRV	PRESSURE RELIEF VALVE
CAP	CAPACITOR BANK	PST	PRIMARY SEDIMENTATION TANK
CAR	CAROUSLE (BAGGING)	PTY	PROPERTY
CBH	HIGH VOLTAGE CIRCUIT BREAKER	PVL	PASTEURISING VESSEL
CBL	LOW VOLTAGE CIRCUIT BREAKER	RAD	RADIO
CBM	MEDIUM VOLTAGE CIRCUIT BREAKER	RDR	CARD SWIPE/READER
CFG	CENTRIFUGE	RIO	REMOTE INPUT/OUTPUT RACK
CGP	CHLORINE GAS PROTECTION PANEL	ROM	ROOM
CHB	CHAMBER	ROU	REVERSE OSMOSIS UNIT
CHN	CHANNEL	RPZ	BACK FLOW PREVENTER
CLR	CLARIFIER	RTU	REMOTE TELEMETRY UNIT
CLT	CHLORINATOR	SBD	STOPBOARD
CNL	CANAL	SCA	SWITCHGEAR & CONTROLGEAR ASSEMBLY
COM	COMMUNICATIONS PANEL	SCB	SCRUBBER
CON	CONVEYOR	SCN	SCREEN
CNB	CHAIN BLOCK/PULLEY	SCP	SCRAPER
CPR	COMPRESSOR	SCV	SCOUR VALVE
CRN	CRANE	SCW	SCREW CONVEYOR
CRU	CRUSHER	SEQ	SAFETY EQUIPMENT
CRX	LIFTING EQUIPMENT STRUCTURES	SEQ	SYSTEM/SEQUENCE TAG
CTW	COOLING TOWER	SFT	SHAFT
CYC	CYCLONE	SHR	SHREDDER
CYL	CYLINDER	SIL	SILENCER
DAM	DAM	SIP	SECURITY INDICATOR PANEL
DEC	DECANTER	SIR	SIREN
DIF	DIFFUSER	SKM	SKIMMER
DIG	DIGESTER	SMP	SUMP
DIS	DISTRIBUTION BOARD	SMR	SAMPLER
DMP	PULSATION DAMPER	SOV	SOLENOID OPERATED VALVE
DRM	DRUM	SPK	SPEAKER
DWL	DRY WELL	SSS	SEWER SEPTIC SYSTEM
EEX	ELECTRICAL EQUIPMENT	STN	STRAINER
EJR	EJECTOR	STR	STRUCTURE
ELP	ELECTRICAL PANEL	SUB	SUBSTATION
ENG	ENGINE	SVC	SOLENOID VALVE (CLOSED)
EVP	EVAPORATOR	SVL	SOLENOID VALVE (LOWER)
FAN	FAN	SVO	SOLENOID VALVE (OPEN)
FAR	FLAME ARRESTER	SVR	SOLENOID VALVE (RAISE)
FCV	FLOW CONTROL VALVE	SWR	SWITCH ROOM
FDR	FEEDER	TBA	TRAVELLING BRIDGE MOTOR 1
FEN	FENCE	TBB	TRAVELLING BRIDGE MOTOR 2
FEX	FLOW ELEMENT	TBG	TRAVELLING BRIDGE
FFQ	FIRE FIGHTING EQUIPMENT	TEP	TELEMETRY PANEL
FIP	FIRE INDICATOR PANEL	TEX	TEMPERATURE ELEMENT
FIX	FLOW INDICATOR OR GAUGE /ROTAMETER	TFI	TRICKLING FILTER
FLT	FILTER	THB	THEROBLENDER
FTP	FEILD TERMINATION PANEL	TLY	TROLLY
FTR	FLAME TRAP	TNK	TANK, WELL OR VESSEL
GAL	GALLERY	TRF	TRANSFORMER
GAT	GATE	TRP	TRAP
GBX	GEARBOX	TRY	TRANSFORMER YARD
GDP	GAS DETECTION PANEL	TUN	TUNNEL
GEN	GENERATOR	TWR	TOWER
HOS	HOIST	UPS	UNINTERRUPTED POWER SUPPLY
HSE	EMERGENCY STOP OR PULL-WIRE	UTY	UTILITY STATION (ALL TYPES)
HSX	HANDSTATION OR SELECTOR SWITCH	UVB	ULTRA VIOLET BANK
HTR	HEATER OR BOILER	VAP	VACUUM PUMP
HVD	HIGH VOLTAGE DISTRIBUTION	VEH	VEHICLE
HVS	HIGH VOLTAGE STARTER	VEN	VENTILATION PANEL OR SYSTEM
HXR	HEAT EXCHANGER	VIB	VIBRATION, HAMMEROR SHAKER
HYD	HYDRAULIC POWER PACK	VLV	VALVE
HYV	HYDRANT (VALVE)	VSD	VARIABLE SPEED DRIVE
IGV	INLET GUIDE VANE	VSH	VENT SHAFT
KLX	KLAXON, SIREN, HOOTER, BELL	VSL	PRESSURE VESSEL
LCP	LOCAL CONTROL PANEL	WBR	WEIGHBRIDGE
LFT	LIFT(PASSENGER OR SERVICE LIFT)	WEQ	WORKSHOP EQUIPMENT
LID	LID	WER	WEIR
LIT	LIGHTING/LIGHTS	WIN	WINCH
LIX	LEVEL INDICATOR OR SIGHT GLASS	WPR	WASHPACTOR
LVD	LOW VOLTAGE DISTRIBUTION		

AAM	AMMONIA TRANSMITTER/ANALYSER	LEX	LEVEL ELEMENT
ACD	CARBON DIOXIDE TRANSMITTER/ANALYSER	LIS	LOCAL ISOLATING SWITCH
ACL	CHLORINE TRANSMITTER/ANALYSER	LSA	LEVEL SWITCH
ACM	CARBON MONOXIDE TRANSMITTER/ANALYSER	LTX	LEVEL TRANSMITTER
CAN	CONDUCTIVITY TRANSMITTER	MSX	MOISTURE SWITCH
ADO	DISSOLVED OXYGEN TRANSMITTER	MTX	MOISTURE TRANSMITTER
AEX	ANALYSER ELEMENT	PIX	PRESSURE INDICATOR OR GAUGE
AHS	HYDROGEN SULPHIDE TRANSMITTER	PMI	PERSON MACHINE INTERFACE
AIX	ANALYSER INDICATOR	PSA	PRESSURE SWITCH
AMN	METHANE TRANSMITTER	PTX	PRESSURE TRANSMITTER
ANI	NITRATE TRANSMITTER	SIX	SPEED INDICATOR
AOP	ORTHO-PHOSPHATE TRANSMITTER	SSA	SPEED SWITCH
AOR	OXYGEN REDUCTION TRANSMITTER	STX	SPEED TRANSMITTER
AOX	OXYGEN TRANSMITTER/ANALYSER	TIX	TEMPERATURE INDICATOR OR GAUGE
APH	pH TRANSMITTER/ANALYSER	TSA	TEMPERATURE SWITCH
ARB	ARBITER	TTX	TEMPERATURE TRANSMITTER
ARC	RESIDUAL CHLORINE TRANSMITTER/ANALYSER	VTX	VIBRATION TRANSMITTER
ASB	SLUDGE BLANKET LEVEL TRANSMITTER	WSH	TORQUE SWITCH
ASC	CHLORINE LEAK DETECTOR	WTX	WEIGHT TRANSMITTER
ASO	OZONE LEAK DETECTOR	ZEX	POSITION ELEMENT
ASS	SUSPENDED SOLIDS TRANSMITTER	ZSC	LIMIT SWITCH CLOSED
ATP	TOTAL PHOSPHORUS TRANSMITTER	ZSH	BELT DRIFT (CONVEYOR) SWITCH
ATU	TURBITY TRANSMITTER	ZSL	LIMIT SWITCH LOWERED
ATX	ANALYSER TRANSMITTER	ZSO	LIMIT SWITCH OPEN
AUI	ULTRA VIOLET INTENSITY TRANSMITTER	ZSP	LIMIT SWITCH PARKED
BCH	BATTERY CHARGER	ZSR	LIMIT SWITCH RAISED
BEA	BEACON, WARNING OR ALARM LAMP	ZSA	POSITION SWITCH
BGS	BREAK GLASS SWITCH	ZTX	POSITION TRANSMITTER
BNI	BURNER IGNITER		
BNS	FLAME SENSOR		
BSX	SMOKE OR FIRE DETECTOR		
CBH	HIGH VOLTAGE CIRCUIT BREAKER		
CBL	LOW VOLTAGE CIRCUIT BREAKER		
CBM	MEDIUM VOLTAGE CIRCUIT BREAKER		
DTX	DENSITY TRANSMITTER		
EEX	ELECTRICAL EQUIPMENT		
ESL	POWER SWITCH FAIL		
ETC	CURRENT TRANSMITTER		
ETK	KILOWATT TRANSMITTER		
ETP	POWER FACTOR TRANSMITTER		
ETV	VOLTAGE TRANSMITTER		
FIX	FLOW INDICATOR OR GAUGE /ROTAMETER		
FSA	FLOW SWITCH		
FTX	FLOW TRANSMITTER		
HSE	EMERGENCY STOP OR PULL-WIRE		
HSX	HANDSTATION OR SELECTOR SWITCH		

AG	AMMONIA GAS
AA	AGITATION AIR
AEA	AERATION AIR
ALS	ALUM SOLUTION
BWW	BACKWASH WASTEWATER
CA	COMPRESSED AIR
CEN	CENTRATE
CG	CHLORINE GAS
DR	DRAINAGE
DS	DIGESTED SLUDGE
EF	EFFLUENT
FA	FOUL AIR
FC	FERRIC CHLORIDE
FE	FILTERED EFFLUENT
FLT	FILTRATE
FM	FIRE MAIN
FS	FERMENTED SLUDGE
FSN	FERMENTER SUPERNATANT
FW	FOUL WATER
G	GRIT
HA	HYDROCHLORIC ACID
IW	INDUSTRIAL WATER
LP	LIME POWDER
MH	MAGNESIUM HYDROXIDE
ML	MIXED LIQUOR
MLR	MIXED LIQUOR RECYCLE
OF	OVERFLOW
PE	PRIMARY EFFLUENT
PS	PRIMARY SLUDGE
PW	POTABLE WATER
RAS	RETURN ACTIVATED SLUDGE
RE	RECLAIMED EFFLUENT
RSW	RAW SEWAGE
SB	SODIUM BISULPHITE
SC	SCUM
SCN	SCREENINGS
SE	SECONDARY EFFLUENT
SH	SODIUM HYPOCHLORITE
SPL	SPENT PICKLE LIQUOR
SL	SLUDGE
SS	SCREENED SEWAGE
SW	STORM WATER
TSW	TREATED STORM WATER
TD	TANK DRAIN
TE	TERTIARY EFFLUENT
M	METHANOL
WAS	WASTE ACTIVATED SLUDGE
PES	POLYMER SOLUTION
SA	SULPHURIC ACID
SOH	SODIUM HYDROXIDE
SPN	SUPERNATANT

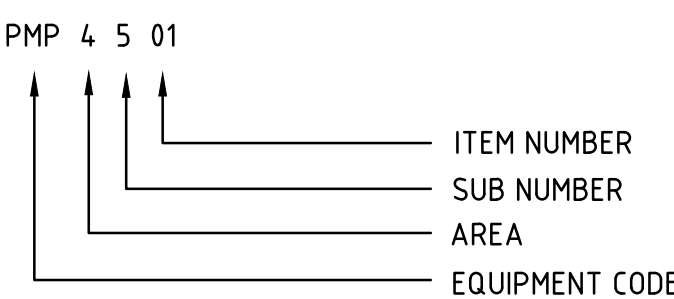
LINE NUMBERING SYSTEM



VALVE FAILURE MODE

FO	FAIL OPEN
FL	STAY IN LAST POSITION
FC	FAIL CLOSE

EQUIPMENT TAG NAME STRUCTURE



CODE	PIPE
A1	COPPER, AS 1432, TYPE B, ANNEALED TEMPERED
A2	COPPER, AS 1432, TYPE B, ANNEALED TEMPERED
B1	MILD STEEL, TO AS 1074, MEDIUM, GALVANISED
B2	MILD STEEL TO AS 1579, WELDED AND OR FLANGED HOT DIPPED GALVANISED AND/OR CEMENT LINED WHERE INDICATED
B3	MILD STEEL SCHEDULE PIPE TO, AS 4041, FLANGED OR WELDED, HOT DIP GALVANISED
B4	STAINLESS STEEL, GRADE 316, SEAM WELDED. SCHEDULE PIPE TO SUIT APPLICATION
B5	STAINLESS STEEL, GRADE 316, SPIRAL WELDED. MINIMUM THICKNESS = 2mm
B6	MILD STEEL SCHEDULE 40 WELDED OR FLANGED FOR T _s 45°C. STAINLESS STEEL GRADE 304L OR 316L SCHEDULE 40 FOR T _s > 45°C.
B7	CARBON STEEL SCHEDULE PIPE, TO AS4041. FLANGED OR WELDED, NO INTERNAL SURFACE TREATMENT
C1	DUCTILE IRON, RUBBER RING JOINT AS 2280. PRESSURE CLASS PIPE & FITTINGS (WSA PS 200, WSA PS 201 WSA PS 200S AND WAS PS 201S) TO SUIT APPLICATION. CEMENT LINED (HEAVY) INTERNALLY AND BITUMEN COATED EXTERNALLY
C2	DUCTILE IRON, FLANGED JOINT AS 2280. FLANGED CLASS PIPE & FITTINGS (WSA PS 200, WSA PS 201 WSA PS 200S AND WAS PS 201S) TO SUIT APPLICATION. CEMENT LINED (HEAVY) INTERNALLY AND BITUMEN COATED EXTERNALLY
C3	DUCTILE IRON, RUBBER RING JOINT AS 2280. PRESSURE CLASS PIPE & FITTINGS (WSA PS 200, WSA PS 201 WSA PS 200S AND WAS PS 201S) TO SUIT APPLICATION. EPOXY LINED INTERNALLY AND BITUMEN COATED EXTERNALLY
C4	DUCTILE IRON, FLANGED JOINT AS 2280. PRESSURE CLASS PIPE & FITTINGS (WSA PS 200, WSA PS 201 WSA PS 200S AND WAS PS 201S) TO SUIT APPLICATION. EPOXY LINED INTERNALLY AND BITUMEN COATED EXTERNALLY
D1	UPVC, AS 1477, CLASS 18
D2	UPVC RAINWATER PIPE, AS 1273
D3	PLASTIC ABS, AS 3518 CLASS TO SUIT APPLICATION
D4	GRP POLYESTER BASED, AS 2634 & AS 3571, CLASS TO SUIT APPLICATION
D5	UPVC, AS 1254, STORM WATER PIPES
D6	PVC-C TO ASTM D1784, CLASS 2344.7-B
D7	POLYETHYLENE SERIES 1 TO AS 4130
D8	UPVC TO AS 1260, GRADE SN10 FOR DN100 AND SN8 FOR > DN100
D10	PVC-U TO ASTM D1785 SCHEDULE 80
E1	REINFORCED CONCRETE PIPE TO AS 4058 OR FRC PIPE TO AS 4139. RUBBER RING/ELASTOMETRIC JOINTS
E2	REINFORCED CONCRETE PIPE TO AS 4058 OR FRC PIPE TO AS 4139.
E3	REINFORCED CONCRETE PIPE TO AS 4058 PVC LINED.

<div>Sydney</div> <div>WATER</div>	APPROVED	MAR 2017	A	ORIGINAL ISSUE	KW	17/03/17	DEEMED TO COMPLY DRAWINGS	<div>DTC</div> <div>7019</div>
	<div>KEN WIGGINS</div> <div>MANAGER, E & ES</div>						CHEMICAL DOSING & RECHLORINATION UNIT PREFIXES & PIPING CODES P&ID	
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