

GENERAL EQUIPMENT SYMBOLS

	BELLMOUTH, OVERFLOW		AIR DRYER
	BELLMOUTH, SUCTION		BELLOWS (METAL)
	FLOW CONTROL REGULATOR		BELLOWS (RUBBER)
	DRAIN TRAP		BLOWER / AIR COMPRESSOR
	EXPANSION JOINT (RESTRAINED)		BUTTERFLY DAMPER
	EXPANSION JOINT (UNRESTRAINED)		CALIBRATION CYLINDER
	INLINE MIXER		COMPRESSED AIR COOLER
	MOTOR		DIVERTER CHUTE
	OPEN VENT GIVE NOTE IF RUN TO GRADE		DIAPHRAGM SEAL
	PULSATION DAMPER / PRESSURE VESSEL (VENTED)		INJECTOR OR EDUCTOR
	RUPTURE DISK - PRESSURE RELIEF		FAN
	RUPTURE DISK - VACUUM RELIEF		FLAME ARRESTOR
	SPACER		GENERATOR
	SPADE BLIND OR SLIP BLIND		INSPECTION POINT
	SPECTACLE BLIND (CLOSED)		LUBRICATOR
	SPECTACLE BLIND (OPEN)		MIXER, AGITATOR, PROPELLER
	STRAINER		PADDLE MIXER
	STRAINER - "Y" TYPE		PUMP CENTRIFUGAL
	TUNDISH		PUMP GENERAL
	VENT VALVE (IF RUN TO GRADE)		PUMP HELICAL ROTOR
	RESTRICTION ORIFICE		PUMP PROGRESSIVE CAVITY
	DOSING LANCE		PUMP HOSE
	TRAP SEAL		PUMP RECIPROCATING
	VENTURI		PUMP ROTOR VANE
	WATER TRAP		ACTIVATED CARBON FILTER/SCRUBBER
			SILENCER
			PRESSURE VESSEL (NON VENTED)

INSTRUMENTS

	FIELD MOUNTED	PRIMARY LOCATION NORMALLY ACCESSIBLE TO OPERATE	AUXILIARY LOCATION NORMALLY ACCESSIBLE TO OPERATE	NORMALLY INACCESSIBLE TO OPERATE (BEHIND THE PANEL)
DISCRETE INSTRUMENTS				
COMPUTER FUNCTION				
SHARED DISPLAY SHARED CONTROL				
PROGRAMMABLE LOGIC CONTROL (P.L.C.)				

PIPE MATERIAL CODES

CODE	MATERIAL
ABS	ABS
AC	ASBESTOS CEMENT
CICL	CAST IRON CEMENT LINED
CS	CARBON STEEL
CSG	CARBON STEEL (GALVANIZED)
CU	COPPER TUBE
DICL	DUCTILE IRON CEMENT LINED
GRP	GLASS FILAMENT REINFORCED PLASTIC
HDPE	HIGH DENSITY POLYETHYLENE
MSCL	MILD STEEL CEMENT LINED
NYL	NYLON TUBE
PVC	PVC (UPVC/MPVC/OPVC)
RC	REINFORCED CONCRETE
RRJ	RUBBER RING JOINT
SS	STAINLESS STEEL
VC	VITRIFIED CLAY

CHEMICAL CODES

CODE	CHEMICAL
ACP	ACTIVATED CARBON POWDER
ACS	ACTIVATED CARBON SLURRY
ALC	ALUMINIUM CHLOROHYDRATE
ALS	ALUMINIUM SULPHATE (ALUM)
CI	CITRIC ACID
CDG	CARBON DIOXIDE GAS
CLG	CHLORINE GAS
CLL	CHLORINE LIQUID
CLS	CHLORINE SOLUTION
ESL	ETHANOL SOLUTION
ETH	ETHANOL
FE	FERRIC OR FERROUS CHLORIDE SOLUTION
FLA	FLUOROSILIC ACID (HYDROFLUOROSILIC)
FLP	SODIUM FLUORIDE POWDER
FLS	SODIUM FLUORIDE SOLUTION
FA	FORMIC ACID
HCA	HYDROCHLORIC ACID
HLP	HYDRATED LIME POWDER
LIS	LIME SOLUTION
MHL	MAGNESIUM HYDROXIDE LIQUID
MO	MOLASSES
NUT	NUTRIENT (PROPRIETARY)
PHA	PHOSPHORIC ACID
POS	POLYMER SOLUTION
QLIP	QUICKLIME POWDER
SBI	SODIUM BISULPHITE
CA	SODIUM HYDROXIDE (CAUSTIC SODA)
SH	SODIUM HYPOCHLORITE
SUA	SULPHURIC ACID
SUC	SUCROSE (SUGAR)
SBA	SODIUM BISULPHATE

SERVICE FLUID CODES

CODE	FLUID
AEA	AERATION AIR
ASW	AIR SATURATED WATER
BWW	BACKWASH WATER
CEN	CENTRATE
CMA	COMPRESSED AIR
DGG	DIGESTER GAS
DGS	DIGESTED SLUDGE
DRN	DRAIN
DSN	DIGESTER SUPERNATANT
EFF	EFFLUENT
FIL	FILTRATE
FIW	FILTERED WATER
FWS	FIRE WATER SERVICE
FLA	FOUL AIR
GAS	NATURAL GAS
GSL	GRIT SOLUTION
GSN	GRIT SUPERNATANT
HTW	HOT WATER
INA	INSTRUMENT AIR
MLQ	MIXED LIQUOR
MLR	MIXED LIQUOR RETURN
PER	PERMEATE
PRW	SERVICE WATER (PROCESS WATER)
PTW	POTABLE WATER
RAS	RETURN (RECYCLED) ACTIVATED SLUDGE
RAW	RAW WATER
REW	RECYCLED WATER (REUSE WATER)
SCM	SCUM
SEW	RAW SEWAGE
SLG	SLUDGE
SSN	SLUDGE SUPERNATANT
SRS	SCREENED RAW SEWAGE
WWW	WASTE WASHWATER
WAS	WASTE ACTIVATED SLUDGE

LETTER CODE FOR IDENTIFICATION OF INSTRUMENT FUNCTION

LETTER	FIRST LETTER		SUCCEEDING LETTER		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS	-	ALARM	-	-
B	BURNER, FLAME	-	USERS CHOICE	USERS CHOICE	USERS CHOICE
C	USERS CHOICE	-	-	CONTROL	-
D	DISSOLVED OXYGEN	-	DIFFERENTIAL	-	-
E	VOLTAGE	-	SENSOR	-	-
F	FLOW RATE	-	RATIO	-	-
G	USERS CHOICE	-	VIEWING DEVICE	-	-
H	HAND	-	-	-	HIGH
I	CURRENT (ELECTRICAL)	-	INDICATOR	-	-
J	POWER	SCAN	-	-	-
K	TIME, TIME SCHEDULE	TIME RATE OF CHANGE	-	CONTROL STATION	-
L	LEVEL	-	LIGHT	-	-
M	USERS CHOICE	MOMENTARY	-	-	MIDDLE INTERMEDIATE
N	USERS CHOICE	-	USERS CHOICE	USERS CHOICE	USERS CHOICE
O	USERS CHOICE	-	ORIFICE RESTR.	-	-
P	PRESSURE, VACUUM	-	POINT CONNECTION	-	-
Q	QUANTITY	INTERGRATE, TOTALIZE	-	-	-
R	RADIATION	-	RECORD	-	-
S	SPEED, FREQUENCY	SAFETY	-	SWITCH	-
T	TEMPERATURE	-	-	TRANSMIT	-
U	MULTIVARIABLE	-	MULTI FUNCTION	MULTI FUNCTION	MULTI FUNCTION
V	VIBRATION, MECHANICAL ANALYSIS	-	-	VALVE, DAMPER, LOUVER	-
W	WEIGHT, FORCE	-	WELL	-	-
X	UNCLASSIFIED	X AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE OR PRESENCE	Y AXIS	-	RELAY, COMPUTE, CONVERT	-
Z	POSITION, DIMENSION	Z AXIS	-	DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	-

NOTE  
THIS DRAWING SHOWS THE STANDARD SYMBOLS TO BE USED WHEN PRODUCING P & ID'S FOR SA WATER AND ON ALL SA WATER PROJECTS. REFER TO TS112

REVISIONS	REV	DATE	DRN	DESCRIPTION	APPRV'D	DESIGNED	G.J.H.	24/05/12	AUTHORIZED	14/08/15	<p>This drawing is the property of the SOUTH AUSTRALIAN WATER CORPORATION and shall not be copied or modified in part or in whole without authorization.</p>	PROCESS AND INSTRUMENTATION DIAGRAMS STANDARD DRAFTING SYMBOLS CHART SA WATER STANDARDS	SHEET SIZE	SAW PROJECT No.	REVISION
	1	14/08/15	P.H.	ISSUED FOR USE		DRAWN	C.M.C.D.	24-05-12	SIGNATURE				A1		1
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