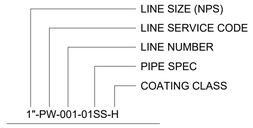
DRAWING NO. DRAWING_NO. 123A90-DDL-PR-PID-80010
REV. REV. 03

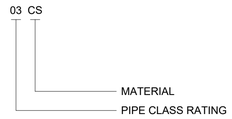
PIPING SYMBOLS

PRIMARY PIPING
SECONDARY PIPING
INSULATED PIPING
E — ELECTRICALLY HEAT TRACED PIPING

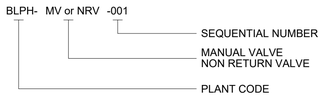
LINE NOMENCLATURE



PIPING SPECIFICATION (NOTE 4)



VALVE IDENTIFICATION CODE



PIPE CLASS RATING

01	CLASS 150# ACCORDING TO ASME B31.3
03	CLASS 300# ACCORDING TO ASME B31.3
06	CLASS 600# ACCORDING TO ASME B31.3
01H	CLASS 150# ACCORDING TO ASME B31.12
03H	CLASS 300# ACCORDING TO ASME B31.12

MATERIAL

CS	CARBON STEEL
SS	STAINLESS STEEL
SD	SUPER DUPLEX STAINLESS STEEL
GRP	GLASS REINFORCED PLASTIC

INSULATION CLASS

H	HEAT CONSERVATION
P	PERSONNEL PROTECTION
E	ELECTRICALLY HEAT TRACED
N	NOT INSULATED (PAINTED)

PIPING CONNECTORS

DRAWING CONTINUATION ARROW

CONNECTOR NUMBER — DWG NUMBER
TO/FROM EQUIPT NO.

3RD PARTY BATTERY LIMIT

CONTRACTOR — SUPPLIER

TIE-IN LABEL



INSTRUMENTATION CONNECTOR

DRAWING CONTINUATION ARROW

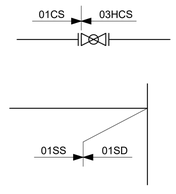
CONNECTOR NUMBER — DWG NUMBER
TO/FROM INSTRUMENT NO.

VALVES, CONTROL VALVES AND RELIEF VALVES

SYMBOL	DESCRIPTION
	CHECK VALVE
	GLOBE VALVE
	BUTTERFLY VALVE
	NEEDLE VALVE
	BALL VALVE
	ANGLE VALVE
	GATE
	3-WAY
	PRESSURE RELIEF VALVE
DB	DOUBLE BLOCK AND BLEED VALVE
SB	SINGLE BLOCK AND BLEED VALVE
	SINGLE BLOCK AND BLEED VALVE (MONOFLANGE)
	DOUBLE BLOCK AND BLEED VALVE (MONOFLANGE)

PIPING SEGMENT BREAKS & LABELS

PIPE SPEC BREAK
INDICATES CHANGE PIPE SPEC



SPECIALTY LABELS



0001 = SP SEQUENCE NO.

FITTINGS

	FLANGE
	CAP
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	HOSE CONNECTION

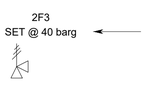
SPECIALTY ITEMS

BRS		BIRD SCREEN
STR		Y-TYPE STRAINER
	RS	REMOVABLE SPOOL
SAM	S	SAMPLE CONNECTION (SAM) SAMPLE STATION NOTE 3
GVC		GOOSENECK VENT W/MESH NOTE 3
RO		RESTRICTION ORIFICE NOTE 3
SPS		SPECTACLE BLIND (BOTTOM CIRCLE DENOTES NORMAL POSITION)
VB		VORTEX BREAKER NOTE 2
MV		AIR RELEASE VALVE

EQUIPMENT NOZZLE CONNECTIONS

	FLANGED NOZZLE
	FLANGED NOZZLE ON SIDE OF VESSEL
MW	MANWAY
	MANWAY

INSTRUMENT LABELS



PRV SIZE (INLET, ORIFICE, OUTLET)
SET PRESSURE

ACTUATORS

	DIAPHRAGM ACTUATOR
	SINGLE/DOUBLE ACTING CYLINDER ACTUATOR
S	SINGLE SOLENOID ACTUATOR
S	OFF-LINE 3-WAY SOLENOID VALVE WITH SINGLE ACTUATOR

INSTRUMENT SIGNAL LINES

	INSTRUMENT TO PROCESS
	ELECTRIC
	PNEUMATIC
	SOFTWARE OR CCS LINK

PRIMARY INLINE ELEMENT SYMBOLS

	VARIABLE AREA METER
	ULTRASONIC
	DIAPHRAGM SEAL WITH CAPILLARY

OTHER INSTRUMENTATION

	INSTRUMENT COMPONENT LABEL SYMBOL WITH NO DATA
10 PV 100 A	10 = UNIT NUMBER P = MEASURED VARIABLE CODE V = INSTRUMENT TYPE MODIFIER 100 = INSTRUMENT SEQUENCE NUMBER A = SUFFIX
FV 2" FO	CONTROL VALVE LABEL CONTROL VALVE WITH NOMINAL DIAMETER AND FAIL ACTION LABEL
HH H FIC L LL	ALARM HIGH HIGH LABEL ALARM HIGH LABEL ALARM LOW LABEL ALARM LOW LOW LABEL
FT M	IF PRIMARY ELEMENT HAS INTEGRAL TRANSMITTER SHOW FT INSTEAD OF FE INSIDE OF TAG

INSTRUMENT OR FUNCTION SYMBOLS

	FIELD MOUNTED INSTRUMENT
	INSTRUMENT MOUNTED ON CENTRAL CONTROL ROOM PANEL
	DCS DISPLAY ACCESSIBLE TO OPERATOR
	CRITICAL INTERLOCK
	VENDOR'S UCP

NOTES

1. FOR GENERAL NOTES AND INSTRUMENTATION SIMBOLOGY SEE DRAWINGS: 123A90-DDL-PR-PID-80009 AND 123A90-DDL-PR-PID-80042 RESPECTIVELY.
2. ITEMS ARE SHOWN UNDER SPECIALTY ITEMS FOR SYMBOLOGY REFERENCE ONLY. ITEMS ARE NOT SP ITEMS.
3. ITEMS ARE NOT SPECIALITY ITEMS UNLESS OTHERWISE SPECIFIED.
4. PIPE SPECIFICATION AND PIPING MATERIAL CLASS INDEX AS PER PIPE MATERIAL CLASSES (DOC. N. 123A90-DDL-PP-SP-70000)

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	21/10/2025	RZI	RZI	CGI	AS BUILT
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
PIPING SYMBOLOGY

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE NTS
DRAWN	CHECKED	APPROVED	DATE

A1	DRAWING NO. 123A90-DDL-PR-PID-80010	SHEET 001	REV. 03

File Name : DRAWING_NO.