



REFERENCE DOCUMENTS		
NO.	DOCUMENT TITLE	DOCUMENT NUMBER
1	GENERAL ARRANGEMENT PLAN	6094-89940-01
2	TANK ARRANGEMENT AND CAPACITY PLAN	6094-89940-02
3	BLACK, GREY AND SANITARY FLUSHING SYSTEM	6094-59300-02
4	BILGE DRAINAGE AND DEWATERING SYSTEM	6094-52000-01
5	COMPRESSED AIR SYSTEM	6094-55100-01
6	AIR PIPES AND SOUNDING DIAGRAM	6094-50000-02
7	HVAC SINGLE LINE DIAGRAM	6094-51000-01

PIPE DIMENSIONS					
PIPE CODE	PIPE SIZE	STANDARD	MATERIAL	REMARKS	JOINTS
15CU	15.0 x 1.5	DIN1754	COPPER	Class III	BRAZED SLEEVED OR SCREWED FITTINGS PROPPRESS COPPER 25 AND BELOW
15	25.4 x 6.3	DIN2448	STEEL	Class II	
15SS	20.0 x 1.5	DIN2462	STAINLESS STEEL	Class III	
20CU	22.0 x 1.5	DIN1754	COPPER	Class III	
25SS	28.0 x 2.0	DIN2462	STAINLESS STEEL	Class III	
25	33.7 x 6.3	DIN2448	GALVANISED STEEL	Class II	
25CU	28.0 x 1.5	DIN1754	COPPER	Class III	
32SS	42.0 x 2.0	DIN2462	STAINLESS STEEL	Class III	
32CU	35.0 x 1.5	DIN1754	COPPER	Class III	
40CU	42.0 x 1.5	DIN1754	COPPER	Class III	

VALVE MATERIALS						
ND	NP	TEMP	VALVE TYPE	MATERIAL		L.R. CERT.
				BODY	TRIM	
10	10	70	GLOBE VALVE	BRONZE	BRONZE DISC, BRASS STEM	NO
15	10	70	BALL VALVE	BRASS	HIGH POLISHED BALL, EPDM O-RING	NO
15	10	70	BALL VALVE	BRASS	BRASS BALL AND STEM	NO
15	10	70	GLOBE VALVE	BRONZE	BRASS DISC, BRONZE STEM	NO
15	10	70	SDNR GLOBE VALVE	BRONZE	BRASS DISC, BRONZE STEM	NO
15	10	70	HOSE BIB	BRASS	ST. STEEL HANDLE	NO
15	10	70	BACKFLOW PREVENTER	BRONZE	CHLORAMINE RESISTANT ELASTOMERS	NO
15	10	70	FROST PROOF WALL HYDRANT	BRASS	-	NO
15	10	70	SEDIMENT FAUCET	BRASS	-	NO
20	10	70	BALL VALVE	BRASS	BRASS BALL AND STEM	NO
20	10	70	GLOBE VALVE	BRONZE	BRASS DISC, BRONZE STEM	NO
20	10	70	SDNR GLOBE VALVE	BRONZE	BRASS DISC, BRONZE STEM	NO
25	10	70	CHECK VALVE	BRONZE	BRASS DISC	NO
32	10	70	GLOBE VALVE	BRONZE	BRASS DISC, BRONZE STEM	NO
32	10	70	GLOBE VALVE WITH EL. ACT.	BRONZE	BRASS DISC, BRONZE STEM	NO
32	10	70	SDNR GLOBE VALVE	BRONZE	BRASS DISC, BRONZE STEM	NO
40	10	70	SDNR GLOBE VALVE	BRONZE	BRASS DISC, BRONZE STEM	NO

EQUIPMENT TABLE			
ITEM	DESCRIPTION	CHARACTERISTICS	REMARKS
E530001	REVERSE OSMOSIS PLANT	6814 litres/day @ 25°C, 600V 3HP	AQUA MATIC 1800-2
E530002	REVERSE OSMOSIS PLANT	6814 litres/day @ 25°C, 600V 3HP	AQUA MATIC 1800-2
E530004/1	FW ELECTRO-PUMP	2.5 m³/h @ 4 bar, 230V 1.2KW	
E530004/2	FW ELECTRO-PUMP	2.5 m³/h @ 4 bar, 230V 1.2KW	
E530005	UV FILTER	2.5 m³/h, 60 Hz	RWO PUR 2E-36
E530008	HOT WATER CIRCULATION PUMP	0.8 m³/h @ 1.3 bar, 600V 0.4KW	with temperature regulating device (max 60°C)
E530006	WATER HEATER	120 litres, 600V 6KW	
E530021	FILTER	1.0 micron	
E530022	STRAINER	ND 25	
E530029	STRAINER	ND 25	
E530023	INSTANT HEATER	21kW, 600V; 2.39GPM; t=60°C	
E530025	BOOSTER PUMP	4.5 GPM @ 2.41 bar; 0.5 HP	
E530026	BOOSTER PUMP	4.5 GPM @ 2.41 bar; 0.5 HP	
E530027	FRESH WATER FLUSH SYSTEM		R.O. PLANT SCOPE OF SUPPLY
E530028	FRESH WATER FLUSH SYSTEM		

TESTS TABLE			
ITEM	DESIGN PRESSURE (bar)	ON WORKSHOP (bar)	ON BOARD (bar)
PIPES WITH FITTINGS, CONNECTING PIECES, BRANCHES AND BENDS	4.4	-	TIGHTNESS TEST AND TEST FOR LEAKAGE UNDER OPERATIONAL CONDITIONS TO BE CONDUCTED IN THE PRESENCE OF L.R. SURVEYOR
VALVES			

- NOTES:**
- If the water heaters internal tank temperature reaches 60°C, or the tank pressure exceeds the OEM's recommended pressure setting, power to the water heater shall be cut off and an alarm shall be activated.
  - Showers to be provided with thermostatic type mixing valves.
  - Flange joints will be avoided over electrical components.
  - Reducers and elbows to be placed at a min. distance of L=5xND of pump suction connection.
  - Filling connection shall be provided with padlocked cap. A bilingual plate stating "Potable Water Only" shall be installed.
  - Drain plugs to be provided to allow complete drainage of the system by gravity, for maintenance purposes.
  - Valves shall have bilingual brass label plates securely attached to them in accordance with ASTM F992-86(2006) Standard Specification for Valve Label Plates.
  - Cold and Hot water piping to be insulated. Pipes passing through tanks, voids or cofferdams and potable water filling pipes passing through machinery spaces are not required to be insulated.
  - A filter will be placed at the inlet to UV filter, capable of removing suspended solids down to 1.0 micron. Every outlet used for drinking and culinary purposes shall have a bilingual plate affixed stating water is safe for drinking and culinary purposes.
  - The potable water system shall be built to comply with:
    - a. Guidelines for Canadian Drinking Water Quality and the Guideline Technical Documents, as published by Health Canada; and
    - b. Canadian Coast Guard (CCG) Fleet Safety and Security Manual Section 7 - Potable Water Quality;
  - Remote stoppage from MCR shall be provided for R.O. Plants
  - Potable water system shall be designed and installed to comply with NSF/ANSI STD61 Drinking Water System Components - Health Effects.
  - Hot water tank operating temperature to be set at 60°C.
  - The laundry washbasin shall be fitted with a heavy duty stainless steel faucet with at least 2 m stainless steel hose and spray head.
  - One cleaning bucket made of non-ferrous material shall be provided for R.O. Plants membranes cleaning.

CCGS PRIVATE ROBERTSON V.C

AF 04/29/12  
Rev Date Description

AS FITTED

TK Perform  
FP Check  
BF Appr.

Client: CANADIAN COAST GUARD

Title: SANITARY FRESH WATER SYSTEM

Scale: 1:10  
Drawn by: M.Samolla  
Checked by: S.Hanganu  
Dwg. date: 19/08/2011  
Rev: AF

Contract No: F7045-06001/002/ND

Project No: 6094

international contract engineering

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