

Contractor shall supply the following direct replacement pumps in the quantities indicated below:

- 1.) CELV 25-20/15 pumps, Quantity 6
- 2.) CELV 25-15/10 pumps, Quantity 3
- 3.) MCV 12.5x1-3.2 A5 pumps, Quantity 6
- 4.) CELV 16-5/3 A5 pumps, Quantity 4

Please see pump requirements below for all the pumps listed above. Please note power requirement as 460V.

The pumps required are direct replacement pumps for the currently fitted Stork pumps onboard the CCGS Terry Fox. Coast Guard will not accept any substitutes. Direct replacement pumps will allow for the current pump bases, pipe work, electrical supply, controls and spare parts already in place to remain with no alterations required.

The original pumps fitted were supplied by the STORK POMPEN company and were built in the Netherlands. STORK POMPEN was merged with Johnson Pump AB in 1996 and was merged with SPX Company in 2006.

Contact information for pump supplier,

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**(1.)Type : CELV 25-20/15 vertical non-self priming centrifugal pump,
(direction of rotation, cw when facing the shaft end)**

Operating data

Capacity per pump	: 350	m ³ /h	Liquid	: Seawater / Fresh water
NPSH required	: 3	m	Specific mass	: 1025 / 1000 kg/m ³
Speed	: 1780	min ⁻¹	Viscosity	: 1 mm ² /s
Power absorbed	: -	kW	Temperature	: 25 °C
Motive power	: 37	kW		
Man. delivery head	: 25	m.l.c.		

Pump Construction

Casing parts	: bronze 2.1086.01	Shaft sealing	: gland packing
Impeller	: bronze 2.1086.01	Bearing / Lubrication	: double row angular contact bearing / grease
Wear ring	: bronze 2.1090.01	Connec. suct./disch.	: 200 mm / 150 mm
Shaft	: stainless steel 1.4401		

Nozzle arr. suct./disch. : horizontal / horizontal inline

Max. service pressure : 10 bar

Scope of supply per set

Pump : CELV 25-20/15 B2 S2 L2
Coupling : flexible spacer coupling incl. coupling guard
Driving : electric motor, IP 55, 3*460 Volt D, 60 Hz, IEC 200L; make: ROTOR-NL,
marine design per IEC 92.301, tropical insulation class F, shape V1 and provided with canopy on fan
hood.
Pump and motor assembled
Standard one layer one component painting final colour RAL 5015

Remarks : This pump will replace the pumps with serial numbers: Z510628 / 29 / 30 + Z510627 / 45 /
46 currently fitted on the CCGS Terry Fox

Seawater Cooling Pump Port Inner, Qty 3

Pump Type: STORK CELV 25-20/15
Serial #s: Z510630 /29 /28
Capacity: 350 M3/Hr
Rpm: 1780
Imp Dia: 260mm
Drawing #: CELV/06.01.01
Parts List: CELV/07.01.01-00345008

Freshwater Cooling Pump Port Outer, Qty 3

Pump Type: STORK CELV 25-20/15
Serial #s: Z510627 /46 /45
Capacity: 350 M3/Hr
Rpm: 1780
Imp Dia: 260mm
Drawing #: CELV/06.01.01
Parts List: CELV/07.01.01-00345007

(2.) Type : CELV 25-15/10 vertical non-self priming centrifugal pump,
(Direction of rotation, cw when facing the shaft end)

Operating data

Capacity per pump	: 180	m ³ /h	Liquid	: Seawater
NPSH required	: 3.5	m	Specific mass	: 1025
Speed	: 1780	min ⁻¹	Viscosity	: 1
Power absorbed	: -	kW	Temperature	: 25
Motive power	: 22	kW		
Man. delivery head	: 25	m.l.c.		

Pump Construction

Casing parts	: bronze 2.1086.01	Shaft sealing	: gland packing
Impeller	: bronze 2.1086.01	Bearing / Lubrication	: double row angular contact bearing / grease
Wear ring	: bronze 2.1090.01	Connec. suct./disch.	: 150 mm / 100 mm
Shaft	: stainless steel 1.4404		

Nozzle arr. suct./disch.: horizontal / horizontal inline

Max. service pressure : 10 bar

Scope of supply per set

Pump : CELV 25-15/10 B2 S2 L2
Coupling : flexible spacer coupling incl. coupling guard
Driving : electric motor, IP 55, 3*460 Volt D, 60 Hz, IEC 180M; make: ROTOR-NL,
marine design per IEC 92.301, tropical insulation class F, shape V1 and provided with canopy on fan
hood.

Pump and motor assembled

Standard one layer one component painting final colour RAL 5015

Remarks : This pump will replace the pumps with serial numbers: Z510622 / 23 / 24 currently fitted
on CCGS Terry Fox.

Jacket Water Cooling Pump Starboard Inner, Qty 3

Pump Type: STORK CELV 25-15/10

Serial #s: Z510622 /23 /24

Capacity: 180 M3/Hr

Rpm: 1780

Imp Dia: 260mm

Drawing #: CELV/06.01.01

Parts List: CELV/07.01.01-00345006

(3.) Type : MCV 12.5x1-3.2 A5 Vertical, non-self priming centrifugal pump

Operating data

Capacity per pump	: 1,6	m ³ /h	Liquid	: Seawater
NPSH required	: 4	m	Specific mass	: 1025 kg/m ³
Speed	: 3500	min ⁻¹	Viscosity	: 1 mm ² /s
Power absorbed	: -	kW	Temperature	: 25 (ass.) °C
Motive power	: 1,73	kW		
Man. delivery head	: 20	m.l.c.		

Pump Construction

Casing parts	: bronze 2.1086.01	Shaft sealing	: gland packing
Impeller diam. 125 mm	: bronze 2.1086.01	Bearing / Lubrication	: double row angular contact bearing / grease
Wear ring	: bronze 2.1090.01	Connec. suct./disch.	: 32 mm / 32 mm
Shaft	: stainless steel 1.4057		

Nozzle arr. suct./disch. : horizontal / horizontal

Max. service pressure : 40 bar

Scope of supply per set

Pump	: MCV 12.5x1-3.2 A5
Coupling	: flexible spacer coupling incl. coupling guard
Driving	: N/A
Standard one layer one component painting final colour RAL 5015	

Remarks : *This pump will replace the pumps with serial numbers: Z510635, 36, 38, 56, 58 and 59 fitted on CCGS Terry Fox.*

Fuel Injector CW Pumps:

Type: MCV 12.5 x 1 - 3.2 A5

Capacity: 1.6 m³/hr.

Serial Nos.: Z510635, -36, -38, -56, -58 and -59.

(4.) Type : CELV 16-5/3 A5 vertical non-self priming centrifugal pump,
(direction of rotation, cw when facing the shaft end)

Operating data

Capacity per pump	: 5	m ³ /h	Liquid	: Seawater	
		m	Specific mass	: 1025	kg/m ³
Speed	: 1750	min ⁻¹	Viscosity	: 1	mm ² /s
Power absorbed	: -	kW	Temperature	: 25 (ass.)	°C
Motive power	: 1,03	kW			
Man. delivery head	: 10	m.l.c.			

Pump Construction

Casing parts	: bronze 2.1086.01	Shaft sealing	: Mechanical seal
Impeller diam. 150 mm	: bronze 2.1086.01	Bearing / Lubrication	: ball bearing grease lubr.
Wear ring	: N/A	Connec. suct./disch.	: 50 mm / 32 mm
Shaft	: stainless steel 1.4404	Nozzle arr. suct./disch	: horizontal / horizontal inline
		Max. service pressure	: 10 bar

Scope of supply per set

Pump	: CELV 16-5/3 A5 B2 M2 L1
Coupling	: flexible spacer coupling incl. coupling guard
Driving	: N/A

Remarks : This pump will replace the pumps with serial numbers: Z510633, 34, 51 and 53 fitted on CCGS Terry Fox.

JW Preheat Pumps:

Type: CELV 16 - 5/3 A5

Capacity: 5.0 m³/hr.

Serial Nos.: Z510633, -34, -51 and -53.