

FloWash Basic Filter Cart

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Description

Eaton’s Flowline II bag filter mounted to an industrial cart. Pumping is accomplished with a ½ H.P., self-priming, TEFC centrifugal pump rated for outdoor service. A 1” suction rated hose with a CPVC wand is used as the inlet and outlet hose assemblies.



WARNING: This filter is a pressure vessel designed to operate under specific pressure, temperature, and other engineering parameters. There is a risk of explosion, process fluid leakage or electrical shock if the requirements set forth in this Manual are not followed during installation, operation, inspection or servicing of this equipment. Equipment should be shut down and isolated from energy sources and other equipment before any inspection or servicing to prevent risk of shock or process fluid leakage. Appropriate PPE required. **FAILURE TO FOLLOW THIS WARNING COULD LEAD TO DEATH, SEVERE INJURY OR PROPERTY DAMAGE.**

Specifications

The general specifications for the FloWash basic Filter Cart are:

Service Requirements

Electrical: 115 VAC 60 Hz Single Phase, 9 A
 Air: None.

Materials of Construction

All welded and wetted materials carbon steel or iron.

*The material selection for this vessel is specified by the customer. It is the customer’s responsibility to ensure material compatibility with process and environment conditions. **SPECIFICATION OF INCOMPATIBLE MATERIALS MAY LEAD TO PRODUCT FAILURE, LEAKAGE, DEATH, SEVERE INJURY OR PROPERTY DAMAGE.***

Connections

Process inlet & outlet are 1” NPTI, supplied with 1” cam and groove connectors for coupling of suction and discharge wands.

Elastomers

Flowline II Lid and element elastomers are Buna-N. Pump o-ring and mechanical seal are also Buna-N.

Design Pressures

Service: 75 PSIG (5.17 Bar) maximum.
 Differential: Maximum differential pressure across the filter bag (inlet/outlet DP) 10 -15 PSID (0.69 – 1.03 Bar) depending on the bag media.

Design Temperature

Temperature limitations are based on the pump operating parameters.

- Minimum temperature for this design: 40° F (4.5° C).
- Maximum temperature for this design: 180° F (82.2° C).

Filter Volume

Size #2 filter housing: 0.9 ft³ (0.025 m³) or 6.6 gal. (25.0 liters)

Preparation

Power

Ensure the power cord from the pump is disconnected from any power source.

Pressure

Before opening the lid to the Flowline II bag filter, always ensure that the unit is not under pressure.

Inlet and Outlet Hoses

Position inlet and outlet hoses so that drainage is controlled if drainage from the filter housing or pump occurs.

Filter Media Installation

1. Open the cover and remove the bag hold down. Prepare a new, clean bag for installation by removing any ID tags and pre-wetting the media if required. Enter the ID tag information in your maintenance records.
2. Slightly fold the bag lengthwise and insert into the restrainer basket.
3. Install the bag hold down.
4. Close the cover and tighten the bolts to the recommended torque of 30 to 50 ft-lbs.

FloWash Basic Filter Cart

Operation

Initial Prime of the Pump

1. The pump is self-priming, but like all self-priming pumps requires an initial prime. This is done by removing the inlet hose from the pump by disconnecting the cam and groove coupling.
2. Pour 12 – 16 oz. of fluid (your process or water) into the 1" suction inlet, recouple the hose to the inlet, and secure the coupling using the supplied pins and a zip tie.
3. Securely place the inlet wand/hose into the process you want to filter. Place the outlet hose/wand into the receptacle the filtered process is to be deposited.

Starting the Filter/Pump

1. In preparation of supplying power to the pump motor, ensure you are not standing in liquid, or that the power cords are not wet before you proceed.
2. Keep your hands and body, clothing and equipment away from the inlet wand/hose for the pump at all times to prevent personal injury or equipment damage.
3. Plug the pump motor power cord into 115 VAC power source, and reset the GFCI (Ground Fault Circuit Interrupt) if necessary.

Filter Cart Operation

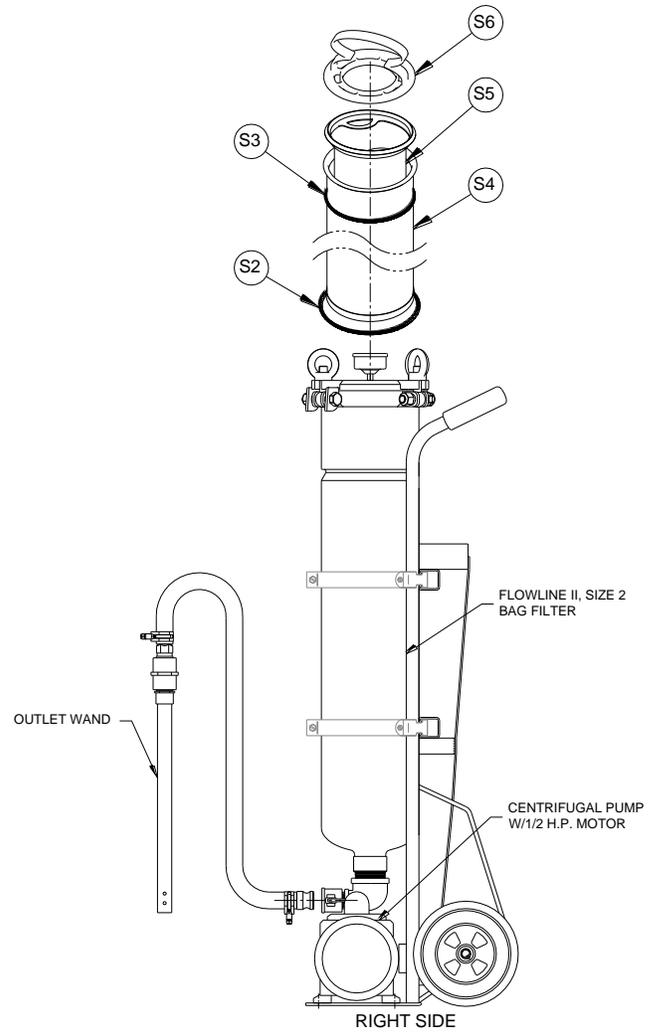
1. The gauge on the filter lid shows the differential pressure (DP) across the filter bag. As debris builds on the inside of the bag, this pressure will rise. Maximum DP is 10 to 25 PSID (0.69 – 1.72 Bar) depending on the bag media.
2. When the filter bag is clogging, the gauge will rise and the pump will sound labored. The bag should be changed shortly.

System Shut Down

1. In preparation for disconnecting the power supply from the pump motor, ensure that you are not standing in liquid, or that the power cords are not wet before you proceed.
2. Unplug the power cord to the pump.
3. Lay the wands/hoses below the height of the inlet and outlet connections to allow the hoses and filter housing to drain before disconnection or movement to prevent spillage.

Bag Change-out

1. Drain the unit and/or open vent to relieve any residual pressure in the vessel.
2. Open the cover and remove the bag hold down. Remove the bag positioner if used. Grasp the bag by the media handles and remove from the basket.
3. Discard the dirty bag in a safe and environmentally friendly manner.
4. Prepare a new, clean bag for installation by removing any id tags and pre-wetting the media if required. Enter the ID tag information in your maintenance records. Slightly fold the bag lengthwise and insert into the restrainer basket.
5. Install the bag hold down.
6. Close the cover and tighten the bolts to the recommended torque of 30 – 50 ft-lbs.

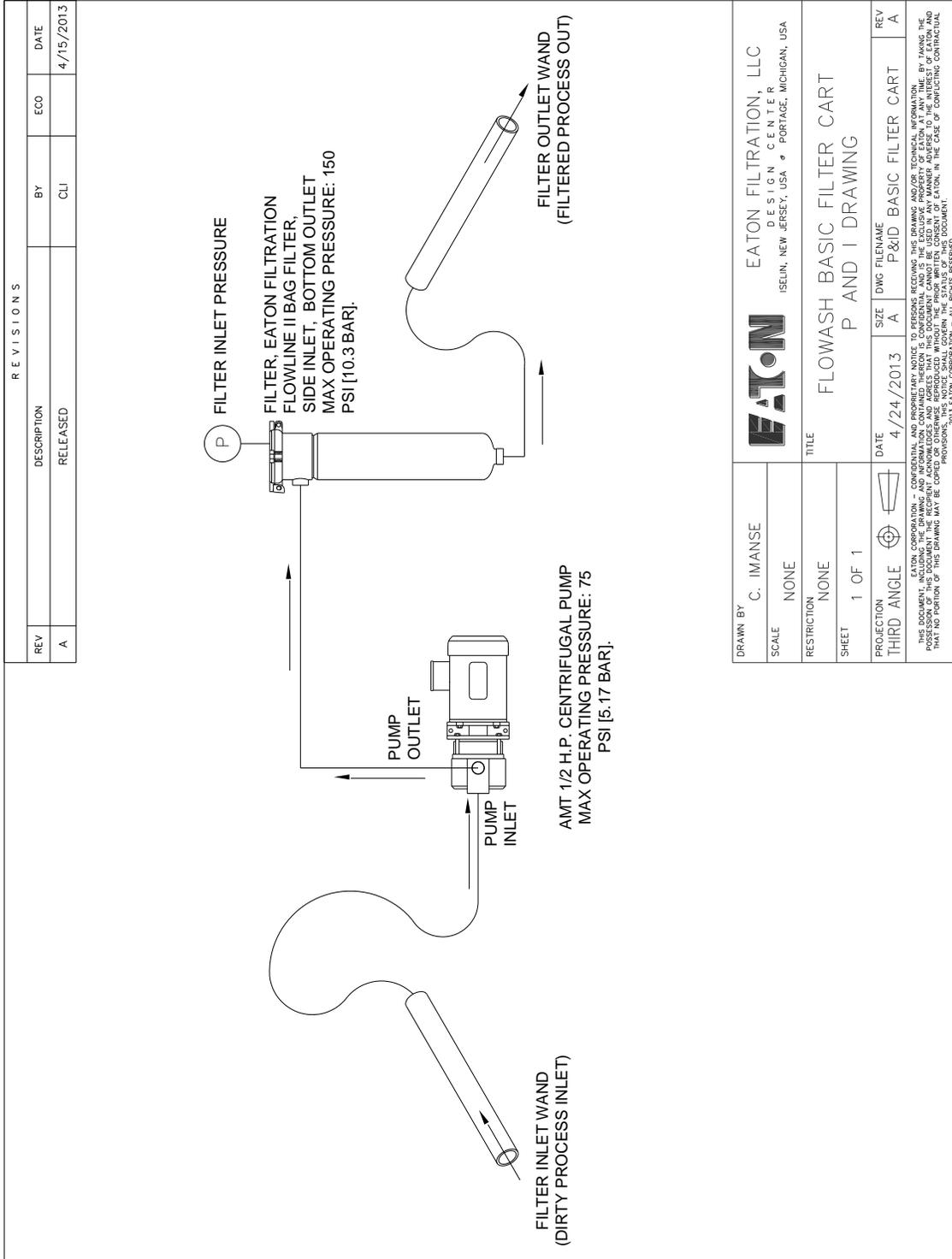


S6	1	EA	RPC0000012	HOLD DOWN, LCSBV
S5	1	EA	VARIES	BAG FILTER MEDIA
S4	1	EA	WEE0000009	RESTRAINER BASKET, #2 SIZE 316 S.S.
S3	1	EA	RPC0000004	O-RING, RESTRAINER BASKET, BUNA-N
S2	1	EA	X811445	O-RING, LID SEAL FLOWLINE II, BUNA-N

SPARE PARTS LIST

FloWash Basic Filter Cart

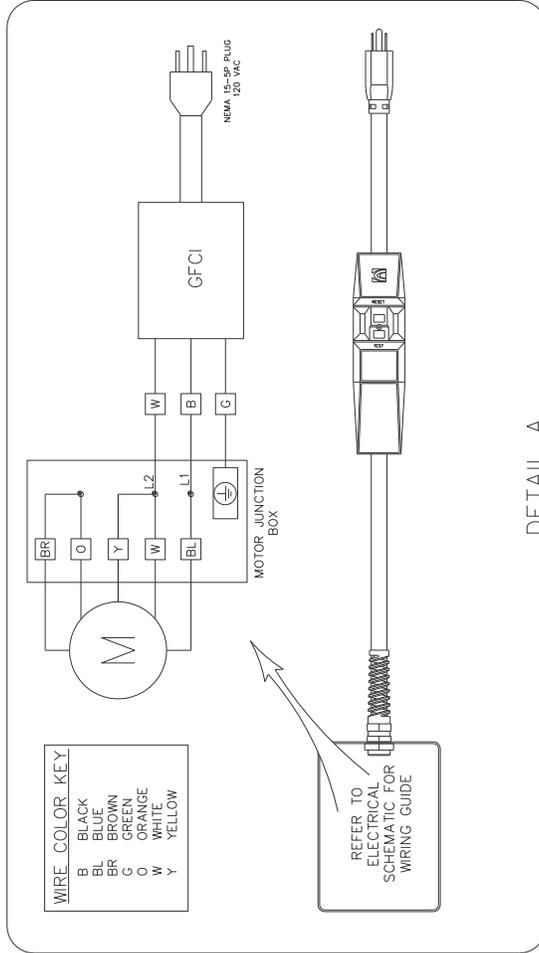
P&I diagram



DRAWN BY	C. IMANSE		
SCALE	NONE		
RESTRICTION	NONE		
SHEET	1 OF 1		
PROJECTION	⊕	DATE	4/24/2013
THIRD ANGLE	⊕	SIZE	A
		DWG FILENAME	P&ID BASIC FILTER CART
		REV	A
EATON FILTRATION, LLC DESIGN CENTER ISELIN, NEW JERSEY, USA • PORTAGE, MICHIGAN, USA			
FLOWASH BASIC FILTER CART P AND I DRAWING			
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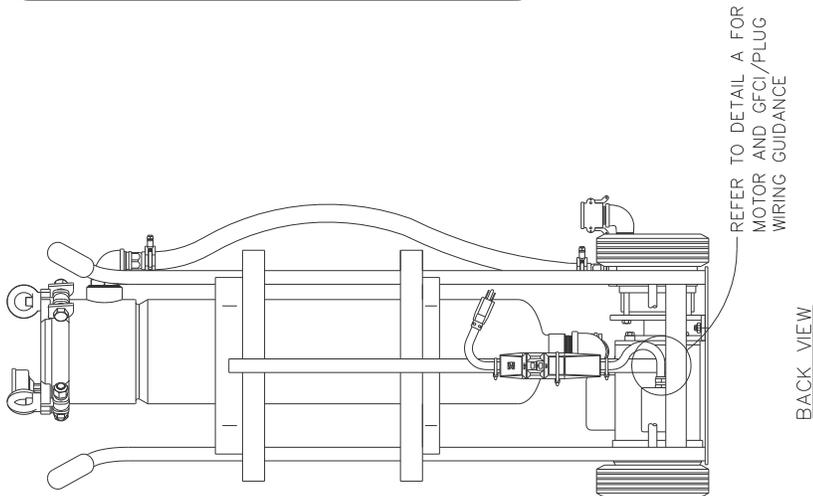
FloWash Basic Filter Cart

Pump Motor Wiring Diagram



WARNING

THE AMT 285E-95 MOTOR IS OUTDOOR RATED, BUT IS NOT RATED FOR WASH DOWN. FLUID NEEDS TO BE KEPT OFF THE MOTOR TO PREVENT SERIOUS INJURY TO THE OPERATOR AND DAMAGE TO THE MOTOR.



FloWash Basic Filter Cart

Unit Drawing

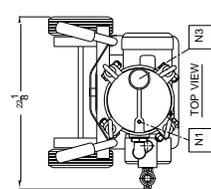
NOZZLE SCHEDULE		REVISIONS					
MARK	SIZE	TYPE	DESCRIPTION	REV	BY	ECO	DATE
N1	1"	WAND/CAM & GROOVE CONNECTOR	NEW DRAWING	A	CJ	0084660	4/17/2013
N2	1"	WAND/CAM & GROOVE CONNECTOR					
N3	3/4"	NPTI					
N4	3/4"	NPTI					

ITEM	QTY	UM	PART NUMBER	DRAWING NUMBER	DESCRIPTION
1	1	EA	F3F000004-BA	F3F000004-BA	INDUSTRIAL FILTER CART ASSEMBLY WITH CENTRIFUGAL PUMP

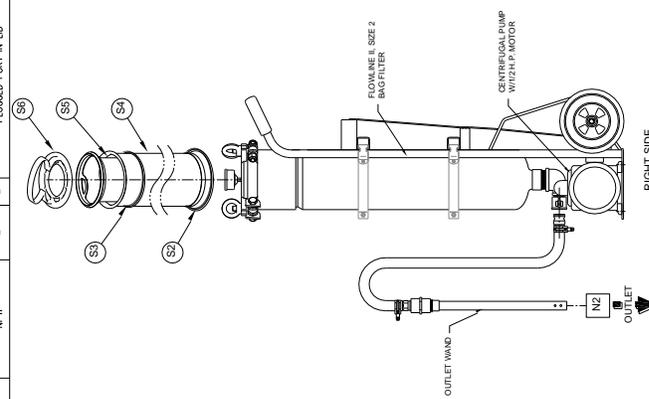
ITEM	QTY	UM	PART NUMBER	DRAWING NUMBER	DESCRIPTION
S6	1	EA	RPC0000012		HOLD DOWN, LCSBY
S5	1	EA	VARES		BAG FILTER MEDIA
S4	1	EA	WEC0000009		RESTRAINER BASKET, #2 SIZE 3/16 S.S.
S3	1	EA	RPC0000004		O-RING, RESTRAINER BASKET, Buna-N
S2	1	EA	X811445		O-RING, LID SEAL FLOWLINE II, Buna-N

ITEM	QTY	UM	PART NUMBER	DRAWING NUMBER	DESCRIPTION
1	1	EA	F3F000004-BA	F3F000004-BA	INDUSTRIAL FILTER CART ASSEMBLY WITH CENTRIFUGAL PUMP

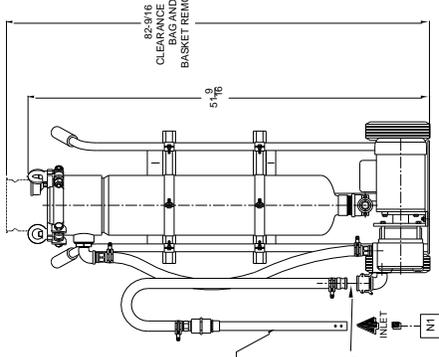
REV	DESCRIPTION	BY	DATE
A	NEW DRAWING	CJ	0084660 4/17/2013



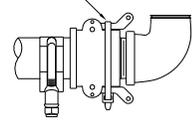
TOP VIEW



RIGHT SIDE



FRONT VIEW



DETAIL A
SECURICAM GROOVE COUPLINGS TYPICAL IN 2 PLACES

INLET WANDS AND GROOVE WAND CONNECTORS: DETAIL A

8-FT HOSE

TYPICAL 2 PLACES

5. UNIT WEIGHT (APPROX.)
EMPTY: 185lbs (84 kg)
FULL (WATER): 243lbs (110 kg)

82-9116 CLEARANCE FOR BAG AND BASKET REMOVAL

5'-8"

OUTLET WAND

OUTLET

FLOWLINE II, SIZE 2 BAG FILTER

CENTRIFUGAL PUMP WITH 1/2 HP MOTOR

RESTRAINER BASKET, #2 SIZE 3/16 S.S.

O-RING, RESTRAINER BASKET, Buna-N

O-RING, LID SEAL FLOWLINE II, Buna-N

NOTES:

- INLET/OUTLET CONNECTIONS ARE 1" NPTI FITTED WITH 1/2" CAM AND GROOVE COUPLINGS. SUCTION AND DISCHARGE WANDS ARE COUPLED AT THESE TWO POINTS. IT IS RECOMMENDED THAT THE CAM AND GROOVE COUPLERS ARE LOCKED WITH THE SUPPLIED PINS AND CONSTRAINED WITH ZIP TIES. SEE DETAIL A.
- PUMP OPERATING PARAMETERS:
MAXIMUM PRESSURE: 75 PSI
TEMPERATURE RANGE: 40 TO 180° F
ELECTRICAL REQUIREMENTS: 115 VAC @ 60 HZ
- UNIT WEIGHT (APPROX.)
EMPTY: 185lbs (84 kg)
FULL (WATER): 243lbs (110 kg)

SPARE PARTS LIST

SCALE: NONE

RESTRICTION SHEET

PRODUCTION THIRD ANGLE

DATE: 4/23/2013

DRG FILE NAME: F3F000004-B

REV: A

INDUSTRIAL FILTER CART ASSEMBLY WITH CENTRIFUGAL PUMP

INDUSTRIAL FILTER CART ASSEMBLY WITH CENTRIFUGAL PUMP

DRAWN BY: C. IMANSE

SCALE: NONE

RESTRICTION SHEET

PRODUCTION THIRD ANGLE

DATE: 4/23/2013

DRG FILE NAME: F3F000004-B

REV: A

EATON

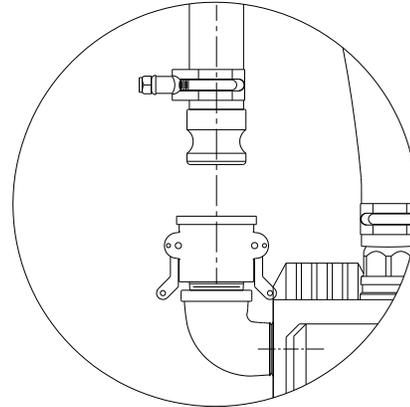
EATON FILTRATION, LLC

101 S. LEXINGTON AVE.

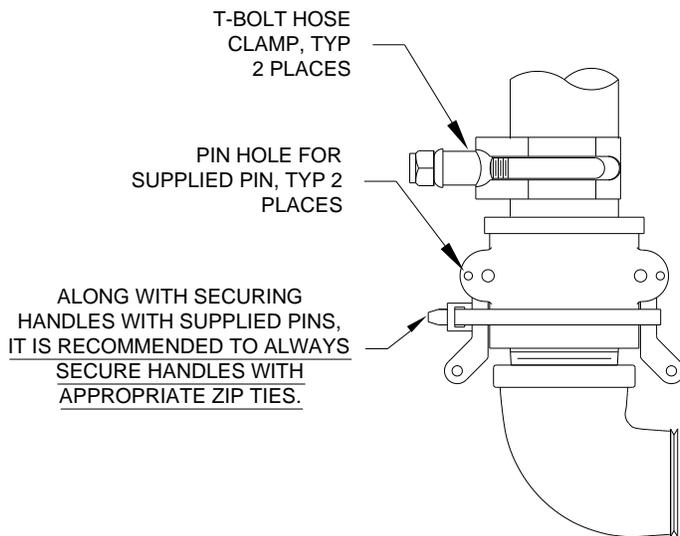
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FloWash Basic Filter Cart

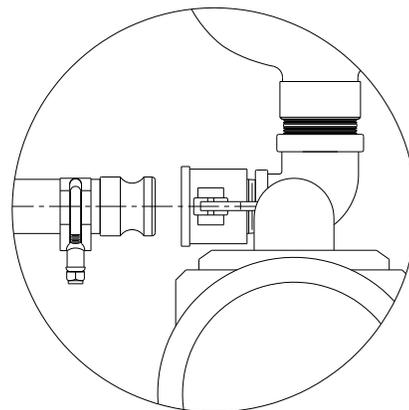
Connection Detail



Suction (Inlet)
Connection



Connection Detail
SECURING CAM AND GROOVE COUPLING, TYPICAL IN 2 PLACES



Discharge (Drain)
Connection



Powering Business Worldwide

FloWash Basic Filter Cart

Warranty and Contact Information

WARRANTY

All products manufactured by Seller are warranted against defects in material and workmanship under normal use and service for which such products were designed for a period of eighteen (18) months after shipment from our factory or twelve (12) months after start up, whichever comes first. OUR SOLE OBLIGATION UNDER THIS WARRANTY IS TO REPAIR OR REPLACE, AT OUR OPTION, ANY PRODUCT OR ANY PARTS OR PARTS THEREOF FOUND TO BE DEFECTIVE. SELLER MAKES NO OTHER REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. WE SHALL NOT BE LIABLE FOR CARTAGE, LABOR, CONSEQUENTIAL DAMAGES OR CONTINGENT LIABILITIES. OUR MAXIMUM LIABILITY SHALL NOT IN ANY EVENT EXCEED THE CONTRACT PRICE FOR THE PRODUCT.

If you are interested in ordering spare parts or having service performed on your filter, please contact Customer Service at +1 800 656 4700 (U.S.) or +1 732 212 4700 (Worldwide).

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Eaton Filtration, LLC reserves the right to change specifications, dimensions and model designations without prior notice.