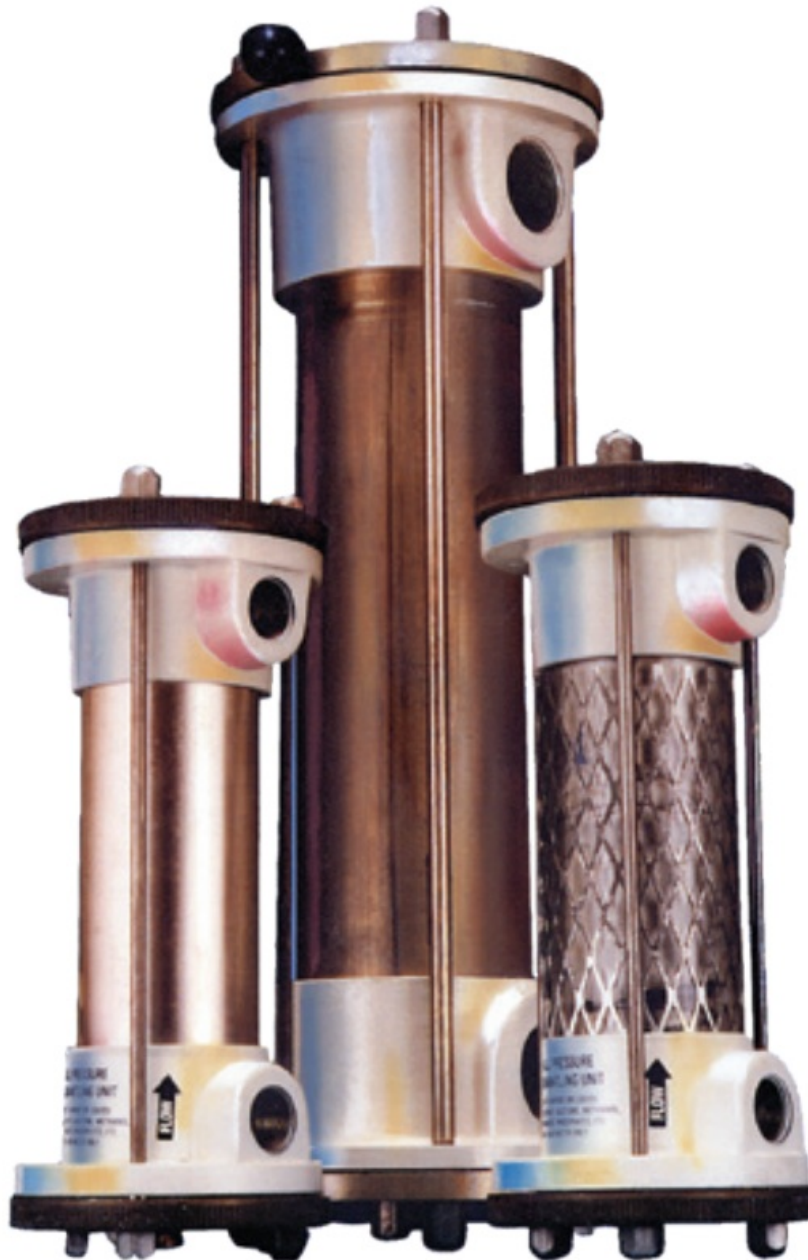


# THERMON G10 M-10 Series FLO-DRI Filters Instruction Manual

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THERMON G10 M-10 Series FLO-DRI Filters



**⚠ WARNING.** Improper installation adjustment, alteration, excessive vibration, service, or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing, operating or servicing this equipment.

#### Special Notes

**⚠ CAUTION** The following special notices highlight important information in the installation, operation and maintenance sections.

**⚠ CAUTION** This symbol indicates a potentially hazardous situation, which, if not avoided, can result in personal injury or damage to the equipment.

This symbol indicates a potentially hazardous situation, which, if not avoided, may be a shock hazard.

**⚠ WARNING** This symbol indicates an imminently hazardous situation, which, if not avoided, could result in

death or serious injury

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## FILTER MAINTENANCE INSTRUCTIONS

1. The following simple maintenance procedures will ensure maximum FLO-DRI filtering efficiency and a longer filter life.
2. FLO-DRI cartridges should be examined frequently until a pattern of usage is established.
3. Failure to replace cartridges in an expedient fashion may result in excessive pressure drop and the possibility of contaminant carry over. Refer to the FLO-DRI Cartridge Change-Out Calculator available on Thermion's website for recommended change out schedules. This calculator allows the user to determine an accurate cartridge replacement schedule based on their specific application. If the calculator is unavailable, replace cartridges every 30 days or when the cartridge appears to be contaminated.
4. Do not subject the unit to vapors or liquids from synthetic solvents, acetone, methanol, esters, lacquer thinners, phosphates, etc.



## TO CHANGE FLO-DRI CARTRIDGES



**WARNING.** Never replace filter cartridge when the unit is under pressure. Always follow safe work procedures when working with high pressure.

1. Close inlet, wait for unit to vent, then close the outlet isolation valve to the FLO-DRI filter.
2. To vent filter, open drain cock. Make certain filter is COMPLETELY VENTED and under NO pressure prior to removing the top end cap.
3. To remove the end cap: depress, turn counter clockwise and pull out. DO NOT LOOSEN CASTLE NUTS.
4. Inspect filter media. Replace when completely saturated, or earlier



**WARNING.** Do not reused contaminated media.

5. Insert new FLO-DRI cartridge (sewn end down) into the filter unit.
6. Replace end cap, close drain cock and open isolation valves before returning FLO-DRI unit to service.



**WARNING.** It is essential to positively confirm close of top cap prior to re-pressurizing system.

## FLO-DRI FILTER INSTALLATION INSTRUCTIONS

1. For maximum efficiency, FLO-DRI unit should be installed as indicated in Figure 1.
2. Install in a vertical position only.

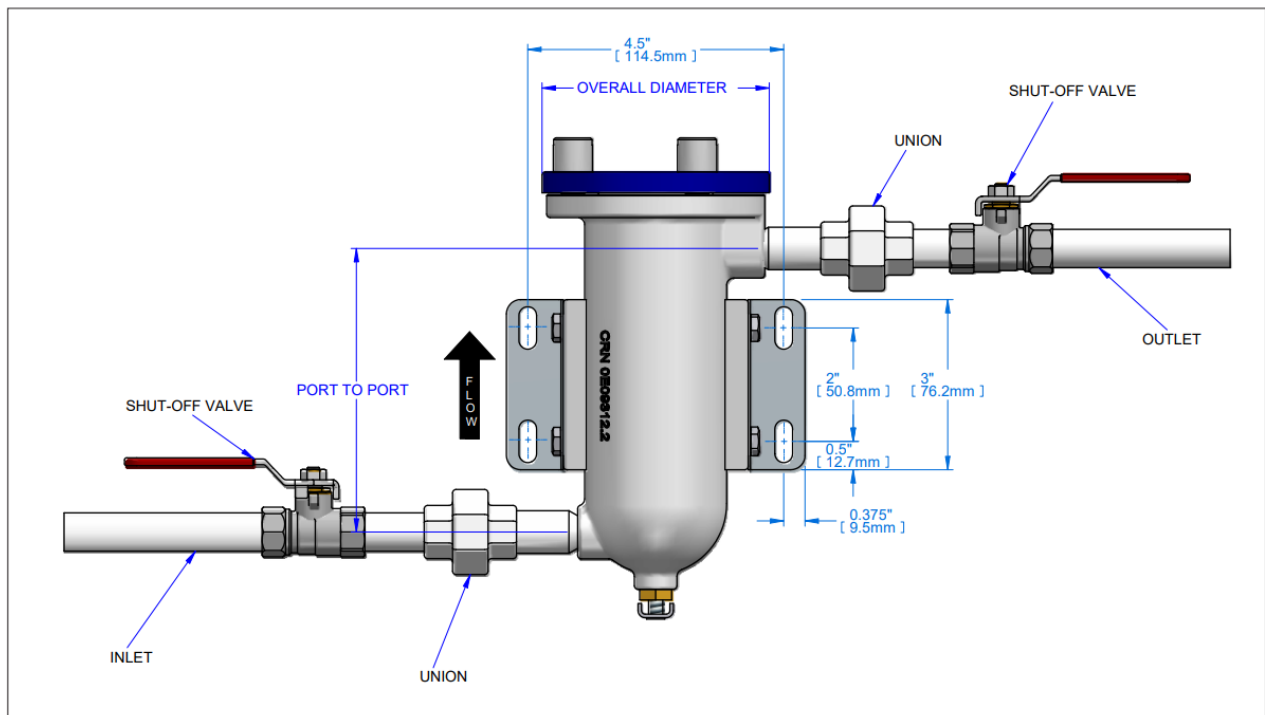


Figure 1 – G-10 & M-10 Assembly Diagram

3. Tighten fittings into casting 5.5 to 6.0 turns. Do not over-tighten threaded connections. This may lead to thread damage or possible cracking of the casting.
4. Ensure flow direction is as indicated on the unit.
5. Installation of drain leg is highly recommended

Scrubbing System	Model No.	PSI G	No. of Cartridges	Overlength		Overall Diameter		Port to Port		Pipe Size NPT	Bed Cubic in3	Cartridge Media Part No.
				in	m	in	mm	in	mm			
Natural Gas	FLODRI-G10A	150	1	8.50	216	4.00	102	5.00	127	1/4	12.56	FLODRI-10AA
												FLODRI-10AC
												FLODRI-10MS
Compressed Air	FLODRI-M10A											FLODRI-10R

## CARTRIDGE MEDIA

1. Natural Gas
  - AA – Moisture Removal
  - AC – Odor Removal
  - MS – H<sub>2</sub>S & Moisture Removal
2. Compressed Air Cartridge Media
  - R – Moisture, Oil and Heavy Liquids Removal, Air Purifier

## PARTS LIST

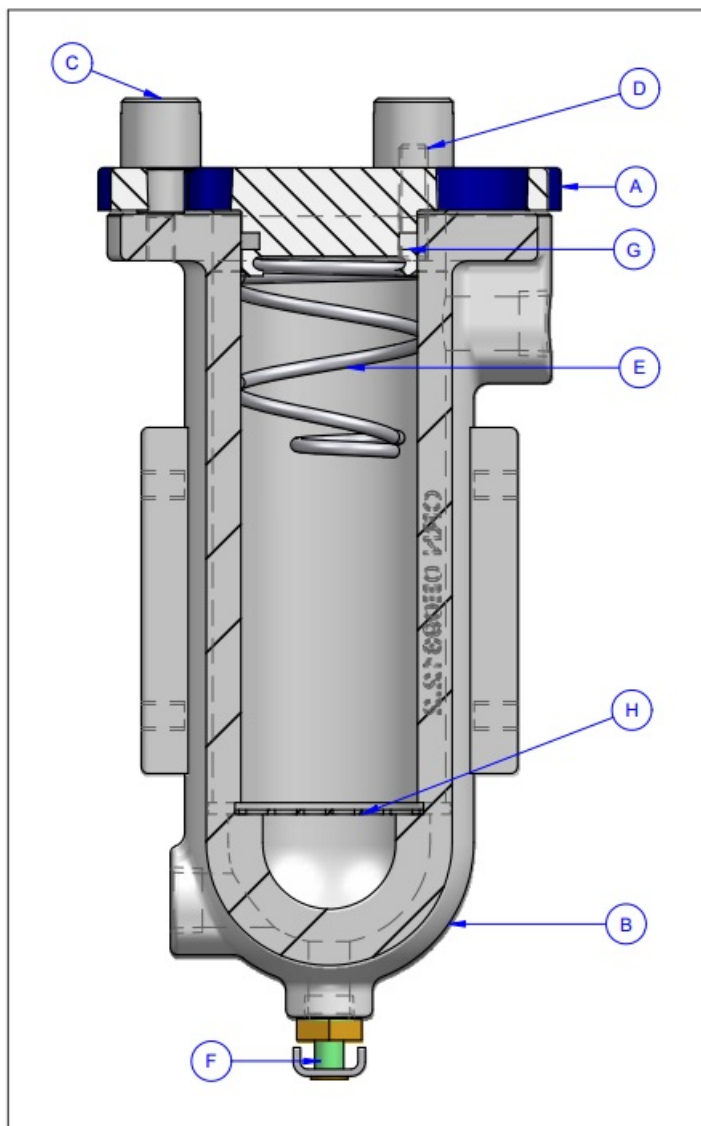


Figure 2

Table 2 – G-10 & M-10 Parts List

Item	No. Req.	Part No.	Description
A	1		End cap
B	1		Body
C	3		Castle nut
D	3		Stud
E	1	10255	Spring, 10 Series, SST
F	1		Drain cock, Assembly, 1/8 NPT
G	1	10256	O-ring, End cap, 10 Series
H	1	10257	Perforated disc, 10 Series, Concave

**Table 3 – Replacement FLODRI-MTG10**

No. Req.	Part No.	Description
2	A16160-01	Bracket, Mounting G25 Scrubber
4	7597	Bolt, 1/4-20 UNC X 1/2" HEX SST
4	A10686-34	1/4" 18-8 Split Lock 304SS
4	9070	Washer, Flat 1/4" 18-8 304SS

**Table 4 – Replacement FLODRI-ORING 10 Kit**

Item	No. Req.	Part No.	Description
G	2	10256	O-ring, End cap, 10 Series
–	1	10347	O-ring Lube, 6 Gram packet

## CHANGE-OUT SCHEDULE FOR FLO-DRI

Table 5, page 6 shows cartridge change-out frequencies in days for each model heater and gas scrubber for H<sub>2</sub>S and moisture.

To determine the cartridge change-out frequency in days for other H<sub>2</sub>S moisture concentrations, use the formulas provided in the examples.

**Table 5 – Flo-Dry Cartridge Change Schedule in Days**

<b>WX Series</b>	<b>Rating (Btu/hr)</b>	<b>Sour Gas H<sub>2</sub>S FloDri10MS Days</b>	<b>FloDri10MS Days</b>	<b>FloDri25MS Days</b>	<b>Moisture (50ppm) FloDri25MS Days</b>
6×6	1,250	450	1,167	360	934
6×12	2,500	225	583	180	467
6×24	5,000	112	291	90	233
8×8	2,222	253	656	202	525
10×12	4,167	135	350	108	280
12×12	5,000	112	291	90	233
12×24	10,000	56	145	45	116
12×36	15,000	37	97	30	77
12×48	20,000	28	72	22	58
12×60	25,000	22	58	18	46
12×72	30,000	18	48	15	38
18×24	15,000	37	97	30	77
18×30	18,750	30	77	24	62
18×36	22,500	25	64	20	51
18×48	30,000	18	48	15	38



18×60	37,500	15	38	12	31
18×72	45,000	12	32	10	25
24×24	20,000	28	72	22	58
24×30	25,000	22	58	18	46
24×36	30,000	18	48	15	38
24×48	40,000	14	36	11	29
24×60	50,000	11	29	9	23
24×72	60,000	9	24	7	19

#### Example 1: Sour Gas H<sub>2</sub>S

Change-out Frequency =

$$\# \text{ Days (Table 5)} \times \left[ \frac{10 \text{ ppm}}{\text{H}_2\text{S in Gas Supply}} \right]$$

Your installation has a Cata-Dyne TM heater, model WX 12×24, 10,000 Btu/hr (2.928 kW/hr) natural gas using a model FloDri-10MS cartridge.

- The concentration of H<sub>2</sub>S in your gas supply is 25 ppm.
- The change-out frequency for 10 ppm is 70 days (derived from Table 5).
- COF = 56 days × (10 ppm/25 ppm) = 22 days
- The FLO-DRI-10MS scrubber cartridge should be changed once every 22 days.

#### Example 2: Moisture

Change-out Frequency =

$$\# \text{ Days (Table 5)} \times \left[ \frac{50 \text{ ppm}}{\text{Moisture in Gas Supply}} \right]$$

Your installation has a Cata-Dyne TM heater, model WX 12×24, 10,000 Btu/hr (2.928 kW/hr) natural gas using a model FloDri-10MS cartridge.

- The concentration of H<sub>2</sub>S in your gas supply is 25 ppm.
- The change-out frequency for 50 ppm is 45 days (derived from Table 5).
- COF = 45 days x (50 ppm/25 ppm) = 90 days
- The FloDri-10MS scrubber cartridge should be changed once every 90 days.

**For further assistance, please call 24hr hotline: 1-800-410-3131 (U.S.A. and Canada) Please have model and serial numbers available before calling**

**WARRANTY:** Under normal use the Company warrants to the purchaser that defects in material or workmanship will be repaired or replaced without charge for a period of 18 months from date of shipment, or 12 months from the start date of operation, whichever expires first. Any claim for warranty must be reported to the sales office where the product was purchased for authorized repair or replacement within the terms of this warranty.

Subject to State or Provincial law to the contrary, the Company will not be responsible for any expense for installation, removal from service, transportation, or damages of any type whatsoever, including damages arising from lack of use, business interruptions, or incidental or consequential damages.

The Company cannot anticipate or control the conditions of product usage and therefore accepts no responsibility for the safe application and suitability of its products when used alone or in combination with other products. Tests for the safe application and suitability of the products are the sole responsibility of the user.

This warranty will be void if, in the judgment of the Company, the damage, failure or defect is the result of:

- Vibration, radiation, erosion, corrosion, process contamination, abnormal process conditions, temperature and pressures, unusual surges or pulsation, fouling, ordinary wear and tear, lack of maintenance, incorrectly applied utilities such as voltage, air, gas, water, and others or any combination of the aforementioned causes not specific calmly allowed for in the design conditions or,
- Any act or omission by the Purchaser, its agents, servants or independent contractors which for greater certainty, but not so as to limit the generality of the foregoing, includes physical, chemical or mechanical abuse, accident, improper installation of the product, improper storage and handling of the product, improper application or the misalignment of parts.

No warranty applies to paint finishes except for manufacturing defects apparent within 30 days from the date of installation.

The Company neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the product(s).

The Purchaser agrees that all warranty work required after the initial commissioning of the product will be provided only if the Company has been paid by the Purchaser in full accordance with the terms and conditions of the contract.

The Purchaser agrees that the Company makes no warranty or guarantee, express, implied or statutory, (including any warranty of merchantability or warranty of fitness for a particular purpose) written or oral, of the Article or incidental labour, except as is expressed or contained in the agreement herein.

**LIABILITY:** Technical data contained in the catalog or on the website is subject to change without notice. The Company reserves the right to make dimensional and other design changes as required. The Purchaser acknowledges the Company shall not be obligated to modify those articles manufactured before the formulation of the changes in design or improvements of the products by the Company.

The Company shall not be liable to compensate or indemnify the Purchaser, end user or an other party against any actions, claims, liabilities, injury, loss, loss of use, loss of business, damages, indirect or consequential damages, demands, penalties, fines, expenses (including legal expenses), costs, obligations and causes of action of any kind arising wholly or partly from negligence or omission of the user or the misuse, incorrect application, unsafe application, incorrect storage and handling, incorrect installation, lack of maintenance, improper maintenance or improper operation of products furnished by the Company

## **CUSTOMER SUPPORT**

### **Edmonton**

1-800-661-8529

1-780-466-3178

F 780-468-5904

### **Oakville**

1-800-410-3131

1-905-829-4422

F 905-829-4430

### **Orillia**

1-877-325-3473

1-705-325-3473

F 705-325-2106

### **Houston**

1-855-219-2101

1-281-506-2310

F 281-506-2316

### **Denver**

1-855-244-3128

1-303-979-7339

F 303-979-7350



## **Documents / Resources**



**[THERMON G10 M-10 Series FLO-DRI Filters](#)** [pdf] Instruction Manual  
G10 M-10 Series FLO-DRI Filters, G10 M-10 Series, FLO-DRI Filters, Filters