



VASSALLO

SISTEMI s.r.l.

Fuel Filtration Specialist

Parker Store

CHINEC
FUELSTAT®

FUELMANAGER®

Diesel Fuel Filtration



STANADYNE®
BALDWIN
FILTERS®

FM1, FM10, FM100, FM1000

Sistemi completi, Elementi and Parti di ricambio



I sistemi di filtrazione carburante/separatore d'acqua Fuel Manager sono utilizzati a livello globale in un'ampia varietà di applicazioni con motori diesel.

La serie Fuel Manager comprende: FM1, FM10, FM100 e FM1000. Ognuno di questi tipi di filtri fornisce precise specifiche di potenza per motori da 7,3 a 447 kW (da 10 a 600 CV). Tutti gli elementi di Fuel Manager sono separatori di carburante/acqua con disposizioni per lo scarico d'acqua coalizzata. I sistemi sono destinati all'uso di diesel e bio-blended diesel e non per benzina o altri carburanti.

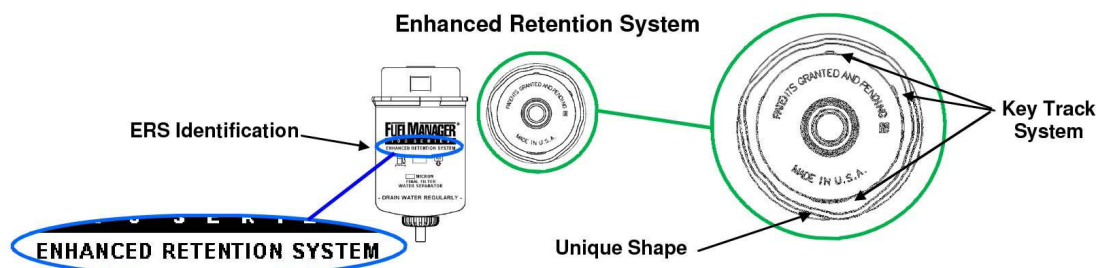
Ogni membro della serie di gestione del carburante è descritto nel presente documento con dettagli riguardanti i sistemi di filtrazione completi, i componenti modulari, le parti di ricambio e le informazioni generali di installazione e funzionamento.

IMPORTANTE! Gli elementi e i gruppi di installazione elencati nel presente documento sono considerati per uso "Assistenza" e non sono compatibili con i componenti Fuel Manager utilizzati dai nostri clienti OEM.

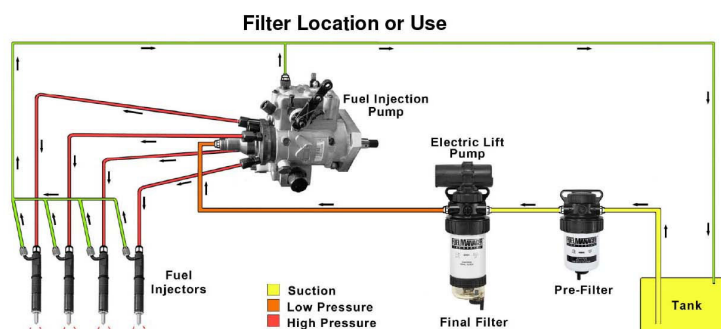
Glossario dei Termini

Air Vent Plug (*tappo di sfiato dell'aria*): ogni sistema FM ha un tappo di sfiato incorporato nel gruppo della testa che viene girato ad $\frac{1}{2}$ - $\frac{3}{4}$ di giro per attivare il processo di uscita dell'aria e leggermente chiuso una volta completato.

Enhanced Retention System (ERS): una forma e una disposizione di indicizzazione uniche che forniscono una ritenzione dell'elemento superiore aumentando il sistema brevettato "Key Track" di Stanadyne.

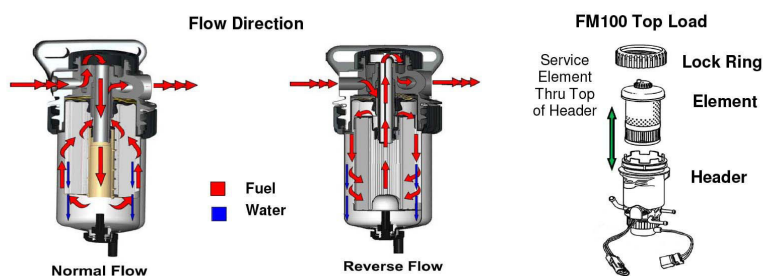


Filter Location or Use (*Posizione o utilizzo del filtro*): il sistema d'alimentazione del gasolio ideale dovrebbe contenere un pre-filtro (primario) e un sistema di filtraggio finale (secondario) separato, come mostrato nella figura seguente. I pre-filtri sono generalmente classificati come 150, 30, 10 micron, mentre i filtri finali sono 5 o 2 micron. Alcune situazioni potrebbero richiedere l'uso di un solo filtro. In questi casi è disponibile una schermata di pre-filtro opzionale e riparabile.



Flow Direction (*Direzione del flusso*): il flusso di carburante all'interno della testa e il gruppo dell'elemento sono classificati in due tipi: normale e inverso. Un normale flusso in testa ha un'apertura in entrata e una in uscita su ciascun lato, dove internamente il carburante confluisce attraverso il tubo centrale e poi attraverso il corpo. Un gruppo di testata a flusso inverso ha entrambe le porte di ingresso nella parte anteriore e entrambe le porte di uscita nella parte posteriore (verso la flangia di montaggio). Internamente il carburante confluisce prima attraverso il fluido, quindi attraverso il tubo centrale. I sistemi di filtro con pompe elettriche di sollevamento / alimentazione opzionali devono utilizzare un tipo di sistema a flusso inverso per garantire che il carburante venga filtrato prima di entrare nella pompa.

Top Load (*Caricamento dall'alto*): un tipo di sistema FM100 in cui l'elemento è sottoposto a manutenzione attraverso la parte superiore del gruppo della testata anziché da sotto, come mostrato nell'illustrazione seguente.



FM1



- ⇒ **Engine power rating:** 10 to 55 HP (7.5 to 41 kW)
- ⇒ **Max. fuel flow rate:** 25 US gallons/hour (95 liters/hour)
- ⇒ **Max. operating pressure:** 20 P.S.I. (138 kPa)
- ⇒ Integral 8mm barbed fittings for flex hose use
- Corrosion resistant polymer header assembly
- Configurations for Pre-Filter and Final Filter usage
- Patented “Twist on” element retention design
- Ideal for smaller On-Off Road, Agricultural and Industrial applications.
- All systems and replacement elements are “Reverse Flow”¹ configuration.

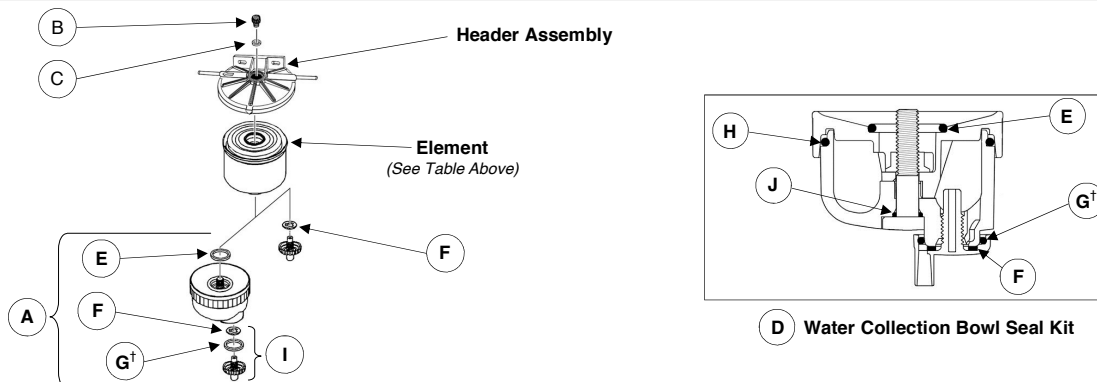
FM1 Complete Filter/Water Separator Systems

System Part No.	Use	Micron Rating	Components	Element Part No.	Element Length	Dim. “A” ²	Dim “B” ²	Pkg. Qty.
40074	Final Filter	5	Air Vent Plug	40072	3.6 (91.4)	5.9 (149.6)	5.3 (133.6)	1
41467	Final Filter	5	Water Collection Bowl , Air Vent plug	40072	3.6 (91.4)	7.6 (193.0)	7.0 (178.2)	1
42145	Pre-Filter	30	Air Vent Plug	42140	3.6 (91.4)	5.9 (149.6)	5.3 (133.6)	1

FM1 Service Replacement Elements

Element Part No.	Use	Micron Rating	Element Length	Pkg. Qty.
40070	Final Filter	5	2.8 (71.1)	12
40072	Final Filter	5	3.6 (91.4)	12
40096	Final Filter	5	4.3 (109.2)	12
42139	Pre-Filter	30	2.8 (71.1)	12
42140	Pre-Filter	30	3.6 (91.4)	12
42141	Pre-Filter	30	4.3 (109.2)	12

FM1 Components



FM1 Service Parts

Component Reference	Description	Part No.	Pkg. Qty.
(A)	Complete Water Collection Bowl Kit	29899	1
(B)	Plastic Air Vent Plug	28691	6
(C)	O-Ring - Air Vent Plug	13494	10
(D)	Water Collection Bowl Seal Kit (Contains 6 each of seals (E) (F) (H) (J))	30448	1
(E)	O-Ring - Filter element to water collection bowl header	10519	10
(F)	Sealing Washer - Three “Lobed” seal for all plastic drain valves	32010	5
(G)	O-Ring - Plastic drain valve [†] Only Available Separately	29210	5
(H)	O-Ring - Water collection bowl to water collection bowl header	31498	5
(I)	Plastic Drain Valve Kit	32003	1
(J)	O-Ring - Collection bowl draw bolt	30911	5

¹ Reference *Glossary of Terms* on page 1. ² Reference *FM1 Dimensions* on page 11.

FM10



- ⇒ **Engine power rating:** 10 to 200 HP (7.5 to 150 kW)
- ⇒ **Max. fuel flow rate:** 50 US gallons/hour (190 liters/hour)
- ⇒ **Max. operating pressure:** 30 P.S.I. (200 kPa)
- ⇒ Integral 8mm barbed fittings for flex hose use
- Corrosion resistant polymer header assembly
- For use as a Final Filter
- Patented “Twist on” element retention design
- Economical and environmentally friendly

FM10 Complete Filter/Water Separator Systems

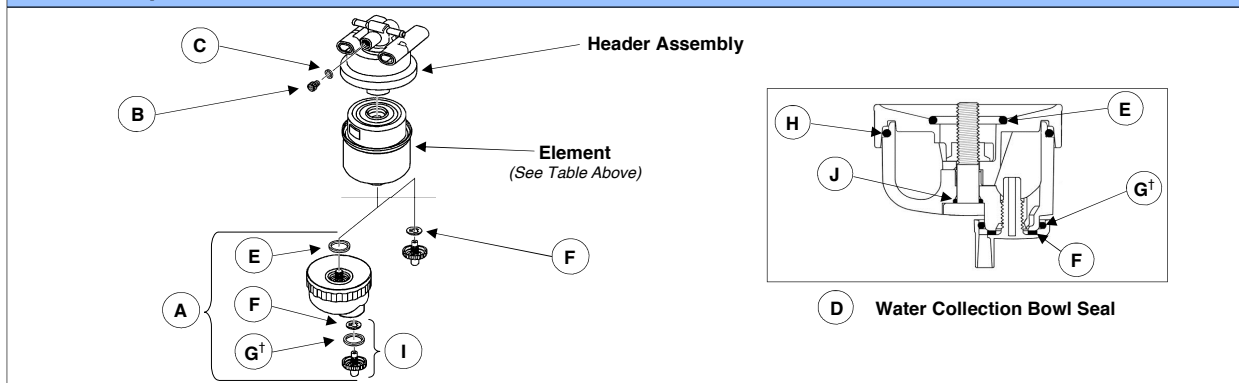
System Part No.	Use	Micron Rating	Flow Direction ¹	Components	Element Part No.	Element Length	Dim. □A□ ²	Dim □B□ ²	Pkg. Qty.
36691	Final Filter	5	Normal	Air Vent Plug	36682	2.8 (71.1)	6.6 (167.6)	4.7 (119.4)	1
36996	Final Filter	5	Normal	Air vent plug	35746	4.3 (109.2)	8.1 (205.7)	6.2 (157.5)	1
37865	Final Filter	5	Normal	Water Collection Bowl , Air vent plug	36682	2.8 (71.1)	8.5 (217.7)	6.6 (169.5)	1

FM10 Service Replacement Elements

Element Part No.	Use	Micron Rating	Flow Direction ¹	Element Length	Pkg. Qty.
38680	Pre-Filter	30	Normal	3.6 (91.4)	12
36682	Final Filter	5	Normal	2.8 (71.1)	12
35746	Final Filter	5	Normal	4.3 (109.2)	12
36995	Final Filter	5	Reverse	5.1 (129.5)	12
38640	Final Filter	5	Reverse	6.0 (152.4)	12
36994	Final Filter	2	Reverse	6.0 (152.4)	12

¹ Reference *Glossary of Terms* on page 1. ² Reference *FM10 Dimensions* on page 11.

FM10 Components



FM10 Service Parts

Component Reference	Description	Part No.	Pkg. Qty.
(A)	Complete Water Collection Bowl Kit	29899	1
(B)	Plastic Air Vent Plug	28691	6
(C)	O-Ring - Air Vent Plug	13494	10
(D)	Water Collection Bowl Seal Kit (Contains 6 each of seals (E) (F) (H) (J))	30448	1
(E)	O-Ring - Filter element to water collection bowl header	10519	10
(F)	Sealing Washer - Three "Lobed" seal for all plastic drain valves	32010	5
(G)	O-Ring - Plastic drain valve [†] Only Available Separately	29210	5
(H)	O-Ring - Water collection bowl to water collection bowl header	31498	5
(I)	Plastic Drain Valve Kit	32003	1
(J)	O-Ring - Collection bowl draw bolt	30911	5

¹ Reference *Glossary of Terms* on page 1. ² Reference *FM1 Dimensions* on page 11.

FM100



- ⇒ **Engine power rating:** 50 to 350 HP (37 to 261 kW)
- ⇒ **Max. fuel flow rate:** 80 US gallons/hour (300 liters/hour)
- ⇒ **Max. operating pressure:** 60 P.S.I. (413 kPa)
- ⇒ Top Load Filter: Max. Engine power 325 HP (243.75 kW), max. fuel flow 75 g/h (283 l/h)
- ⇒ Water separation efficiency: Up to 95% of whole water separation
- Heavy duty aluminum header assemblies with a variety of threads sizes and port configurations available
- Optional modular features (Heaters, Primer Pumps, WIF Sensors, etc.)
- Elements available in different sizes and micron ratings
- **MARINE** systems and components have enhanced corrosion resistant coatings and conform to U.S.C.G. regulations

NOTE: Enhanced Retention System (ERS) elements are **not** compatible with other elements or headers.

FM100 Complete Filter/Water Separator Systems

System Part No.	Use	Micron Rating	Flow	Port Size	Components	Element Part No.	Element Length	Dim. "A" ²	Dim "B" ²	Pkg. Qty.
35599	Pre-	150	N	3/8-18 NPT	Air Vent Plug	31649	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1
33640	Pre-	150	N	3/8-18 NPT	Collection Bowl, Air Vent Plug	33169	3.6 (91.4)	8.1 (205.7)	6.2 (157.5)	1
34817	Pre-	150	N	M12 x 1.5	Collection Bowl, Air Vent Plug	33169	3.6 (91.4)	8.1 (205.7)	6.2 (157.5)	1
34818	Pre-	150	N	M14 x 1.5	Collection Bowl, Air Vent Plug	33169	3.6 (91.4)	8.1 (205.7)	6.2 (157.5)	1
33816	Pre-	30	N	1/4-18 NPT	Collection Bowl, Air Vent Plug	31865	4.3 (109.2)	11.3 (286.5)	9.4 (239.0)	1
40954	Pre-	30	R	1/4-18 NPT	Collection Bowl, Air Vent Plug	35014	4.3 (109.2)	11.3 (286.5)	9.4 (239.0)	1
42093	Pre-	30	N	1/4-18 NPTF	Collection Bowl, Air Vent Plug	31863	3.6 (91.4)	10.6 (269.0)	8.72 (221.6)	1
39452	Pre-	30	N	3/8-18 NPT	Collection Bowl, Air Vent Plug	31865	4.3 (109.2)	11.3 (286.5)	9.4 (239.0)	1
33641	Pre-	30	N	3/8-18 NPT	Air Vent Plug	31865	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1
34819	Pre-	30	N	M12 x 1.5	Air Vent Plug	31865	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1
41341	Pre-	30	R	M12 x 1.5	Collection Bowl, Air Vent Plug	40955	4.3 (109.2)	11.3(286.5)	9.4 (239.0)	1
34820	Pre-	30	N	M14 x 1.5	Air Vent Plug	31865	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1
40253	Pre-	30	R	M14 x 1.5	Air Vent Plug - ERS	37294	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1
42049	Pre-	30	N	M14 x 1.5	Collection Bowl, Air Vent Plug	31865	4.3 (109.2)	11.3(286.5)	9.4 (239.0)	1
41343	Pre-	30	R	M14 x 1.5	Collection Bowl, Air Vent Plug	40955	4.3 (109.2)	11.3(286.5)	9.4 (239.0)	1
29367	Final	5	N	In:3/8" (90°) Out:1/4"	Top Load , 100 Watt Heater, 12 Volt Water in Fuel Sensor	31712	3.6 (91.4)	12.3 (312.4)	7.9 (200.6)	1
30481	Final	5	N	In: 3/8" (0°) Out: 1/4"	Top Load , 100 Watt Heater, 12 Volt Water in Fuel Sensor	31712	3.6 (91.4)	12.3 (312.4)	7.9 (200.6)	1
35726	Final	5	N	1/4-18 NPT	Collection Bowl, Air Vent Plug	33168	2.8 (71.1)	9.7 (248.4)	7.9 (201.0)	1
38630	Final	5	N	1/4-18 NPT	Hand Primer, Air Vent Plug	33168	2.8 (71.1)	7.8 (198.4)	5.9 (150.9)	1
33642	Final	5	N	3/8-18 NPT	Air Vent Plug	31873	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1
34821	Final	5	N	M12 x 1.5	Air Vent Plug	31873	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1
34822	Final	5	N	M14 x 1.5	Air Vent Plug	31873	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1
36694	Final	2	N	1/4-18 NPT	Air Vent Plug	36693	2.8 (71.1)	7.8 (198.4)	5.9 (150.9)	1
42050	Final	2	R	M14 x 1.5	Collection Bowl, Air Vent Plug	36012	6.0 (152.4)	12.2(309.8)	11.2(284.5)	1
42533	Final	2	N	1/4-18 NPTF	Collection Bowl, Air Vent Plug	36693	2.8 (71.1)	9.84 (249.9)	7.97 (202.6)	1

FM100 MARINE Filter/Water Separator Systems

33643	Pre-	150	N	3/8-18 NPT	Marine Drain Valve, Vent plug	32200	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1
40957	Pre-	30	R	1/4-18 NPT	Marine Drain Valve, Vent plug	40958	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1
33644	Pre-	30	N	3/8-18 NPT	Marine Drain Valve, Vent plug	32177	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1
41342	Pre-	30	R	M12 x 1.5	Marine Drain Valve, Vent plug	40958	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1
41344	Pre-	30	R	M14 x 1.5	Marine Drain Valve, Vent plug	40958	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1
33645	Final	5	N	3/8-18 NPT	Marine Drain Valve, Vent plug	32178	4.3 (109.2)	9.3 (236.5)	7.4 (189.4)	1

¹ Reference *Glossary of Terms* on page 1. (N = Normal, R= Reverse)

² Reference *FM100 Dimensions* on page 11.

FM100 con Pompa Elettrica



- ⇒ Final filter assemblies for aftermarket use where an electric lift pump and higher fuel flow rates are desired.
- ⇒ For Engine Sizes from 50 to 350 Horsepower (37 to 261 kW)
- ⇒ Typically, Includes a Water Collection Bowl with plastic drain valve.
- ⇒ Heavy-Duty aluminum headers with anti-corrosion coating.
- ⇒ Reverse Flow¹ for extended pump life.
- ⇒ Lift Pump Requirements:
 - Power: 12 Volt, 4 Amp
 - Circuit: Fused, Switched (Key "On" = constant power).
Includes; five feet (1.5m) of 18 gauge wire harness (2 wire) with mating terminal connector.
- ⇒ **Two** Types of Lift Pump Assemblies Available: (Brush Type and Brushless)
- ⇒ Maximum System Flow up to 80 gallons per hour.
- ⇒ Assembly contains a Non-Adjustable Internal Pressure Regulator
- ⇒ **NOT** direct replacements for OEM Fuel Manager systems.

FM100 Complete Filter/Water Separator Systems with Electric Lift Pumps

System Part No.	Use	Micron Rating	Flow	Port Size	Components	Element Part No.	Element Length	Dim. "A" ²	Dim "B" ²	Pkg. Qty.
33945	Final	5	R	1/4-18 NPT	Lift Pump (Brush), 40 gph flow, 8 psi pressure regulator Collection Bowl, Vent Plug	33959	4.3 (109.2)	11.3 (286.5)	9.4 (239.0)	1
39359	Final	5	R	M14 x 1.5 M16 x 1.5	Lift Pump (Brush), 40 gph flow, 17 psi pressure regulator Collection Bowl, Vent Plug	39442	6.0 (152.4)	12.94 (328.7)	11.1 (281.2)	1
41775	Final	5	R	1/4-18 NPT	Lift Pump (Brushless), 80 gph flow, 10 psi pressure regulator, Collection Bowl, Vent Plug	33959	4.3 (109.2)	11.3 (286.5)	9.4 (239.0)	1
42468	Final	5	R	1/4-18 NPTF	Lift Pump (Brushless), 80 gph flow, 17 psi pressure regulator, Collection Bowl, Vent Plug	33959	4.3 (109.2)	11.3 (286.5)	9.4 (239.0)	1
42946	Final	2	R	3/8-18 NPTF	Lift Pump (Brushless), 80 gph flow, 17 psi pressure regulator, Vent Plug	42944	6.0 (152.4)	12.94 (328.7)	11.1 (281.2)	1
42963	Final	2	R	1/2-20 UNF	Lift Pump (Brushless), 80 gph flow, 10 psi pressure regulator, Vent Plug	42944	6.0 (152.4)	12.94 (328.7)	11.1 (281.2)	1

¹ Reference *Glossary of Terms* on page 1 (N = Normal, R= Reverse).

² Reference *FM100 Dimensions* on page 11.

FM100 Service Replacement Elements

Element Part No.	Use	Micron Rating	Flow Direction ¹	Element Length	Retention ¹	Pkg. Qty.
33169	Pre-Filter	150	Normal	3.6 (91.4)	Original	12
31649	Pre-Filter	150	Normal	4.3 (109.2)	Original	12
31648	Pre-Filter	150	Normal	6.0 (152.4)	Original	12
33962	Pre-Filter	150	Reverse	3.6 (91.4)	Original	12
33963	Pre-Filter	150	Reverse	4.3 (109.2)	Original	12
33965	Pre-Filter	150	Reverse	6.0 (152.4)	Original	12
39870	Pre-Filter	150	Reverse	4.3 (109.2)	ERS	12
31863	Pre-Filter	30	Normal	3.6 (91.4)	Original	12
31865	Pre-Filter	30	Normal	4.3 (109.2)	Original	12
31867	Pre-Filter	30	Normal	5.1 (129.5)	Original	12
31869	Pre-Filter	30	Normal	6.0 (152.4)	Original	12
37079	Pre-Filter	30	Normal	3.6 (91.4)	ERS	12

¹ Reference *Glossary of Terms* on page 1.

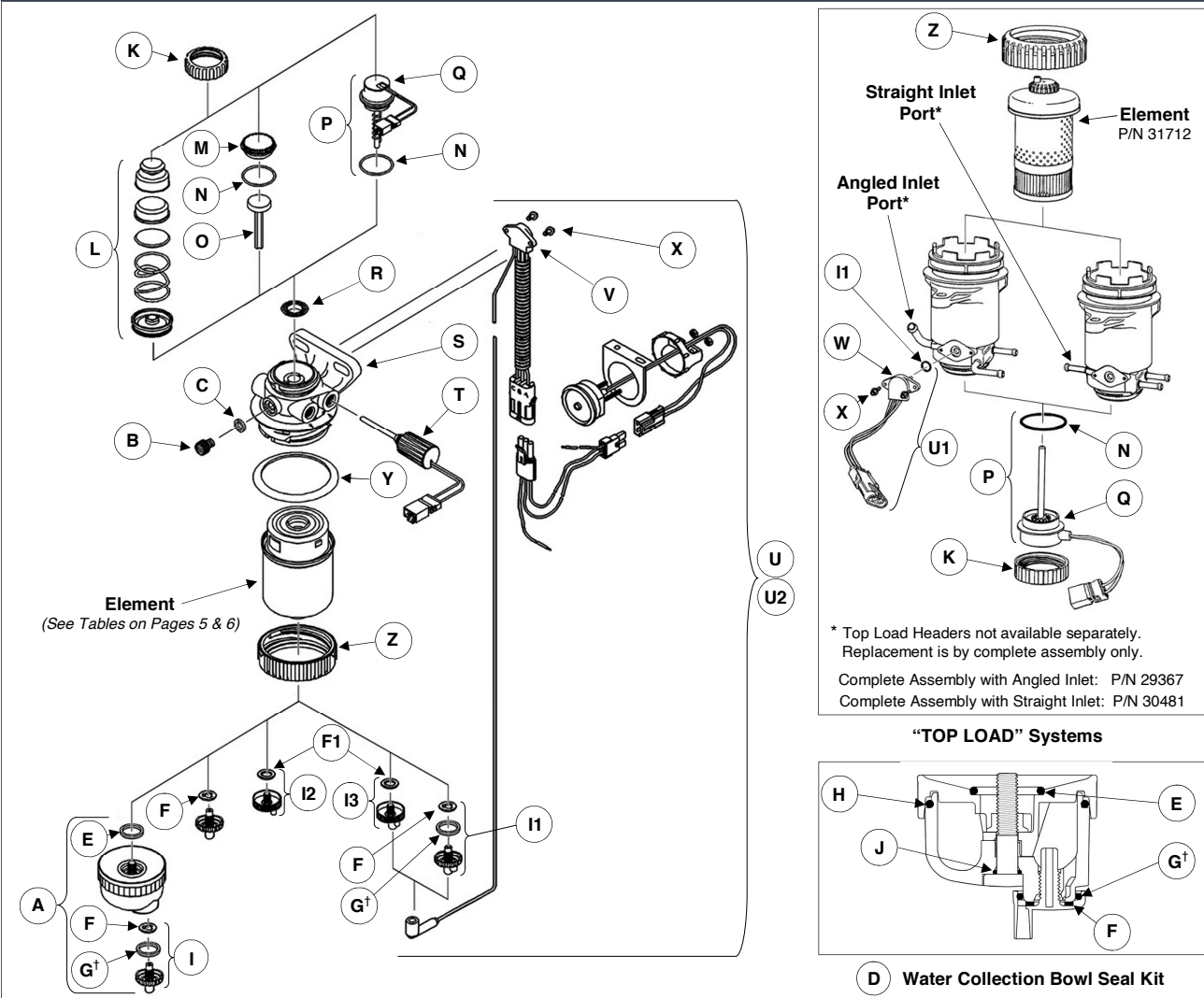
FM100 Service Replacement Elements (continued)

Element Part No.	Use	Micron Rating	Flow Direction ¹	Element Length	Retention ¹	Pkg. Qty.
36810	Pre-Filter	30	Normal	4.3 (109.2)	ERS	12
34878	Pre-Filter	30	Reverse	3.6 (91.4)	Original	12
35014	Pre-Filter	30	Reverse	4.3 (109.2)	Original	12
35632	Pre-Filter	30	Reverse	5.1 (129.5)	Original	12
35634	Pre-Filter	30	Reverse	6.0 (152.4)	Original	12
37294	Pre-Filter	30	Reverse	4.3 (109.2)	ERS	12
37296	Pre-Filter	30	Reverse	5.1 (129.5)	ERS	12
37302	Pre-Filter	30	Reverse	6.0 (152.4)	ERS	12
37258	Pre-Filter	10	Reverse	4.3 (109.2)	Original	12
37255	Pre-Filter	10	Reverse	6.0 (152.4)	Original	12
37300	Pre-Filter	10	Reverse	6.0 (152.4)	ERS	12
31712	Final Filter	5	Normal	3.8 (96.0)	Top Load	12
33168	Final Filter	5	Normal	2.8 (71.1)	Original	12
31871	Final Filter	5	Normal	3.6 (91.4)	Original	12
31873	Final Filter	5	Normal	4.3 (109.2)	Original	12
31875	Final Filter	5	Normal	5.1 (129.5)	Original	12
31877	Final Filter	5	Normal	6.0 (152.4)	Original	12
37290	Final Filter	5	Normal	2.8 (71.1)	ERS	12
37292	Final Filter	5	Normal	4.3 (109.2)	ERS	12
37299	Final Filter	5	Normal	6.0 (152.4)	ERS	12
33957	Final Filter	5	Reverse	2.8 (71.1)	Original	12
33958	Final Filter	5	Reverse	3.6 (91.4)	Original	12
33959	Final Filter	5	Reverse	4.3 (109.2)	Original	12
33960	Final Filter	5	Reverse	5.1 (129.5)	Original	12
33961	Final Filter	5	Reverse	6.0 (152.4)	Original	12
39851	Final Filter	5	Reverse	4.3 (109.2)	ERS	12
39442	Final Filter	5	Reverse	6.0 (152.4)	ERS	12
36693	Final Filter	2	Normal	2.8 (71.1)	Original	12
35614	Final Filter	2	Normal	4.3 (109.2)	Original	12
35612	Final Filter	2	Normal	6.0 (152.4)	Original	12
39187	Final Filter	2	Normal	4.3 (109.2)	ERS	12
37297	Final Filter	2	Normal	6.0 (152.4)	ERS	12
36012	Final Filter	2	Reverse	6.0 (152.4)	Original	12
42944	Final Filter	2	Reverse	6.0 (152.4)	Original	12

FM100 MARINE Service Replacement Elements

32200	Pre-Filter	150	Normal	4.3 (109.2)	Original	12
32201	Pre-Filter	150	Normal	6.0 (152.4)	Original	12
32177	Pre-Filter	30	Normal	4.3 (109.2)	Original	12
32180	Pre-Filter	30	Normal	6.0 (152.4)	Original	12
40958	Pre-Filter	30	Reverse	4.3 (109.2)	Original	12
37293	Pre-Filter	10	Reverse	4.3 (109.2)	ERS	12
37301	Pre-Filter	10	Reverse	6.0 (152.4)	ERS	12
32178	Final Filter	5	Normal	4.3 (109.2)	Original	12
32179	Final Filter	5	Normal	6.0 (152.4)	Original	12
37295	Final Filter	5	Reverse	4.3 (109.2)	ERS	12
37291	Final Filter	2	Normal	4.3 (109.2)	ERS	12
37298	Final Filter	2	Normal	6.0 (152.4)	ERS	12

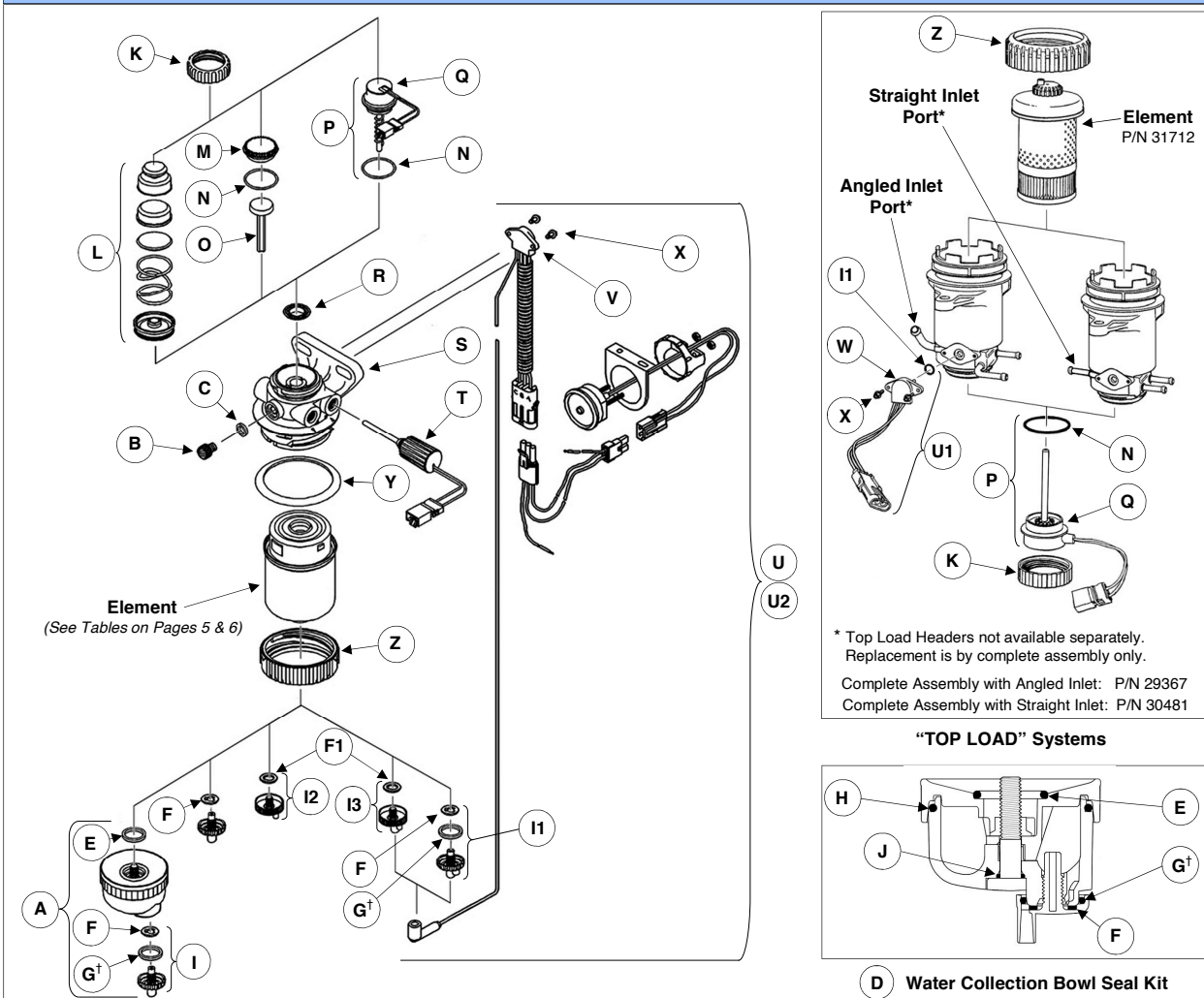
FM100 Components



FM100 Service Parts

Component Reference	Description	Part No.	Pkg. Qty.
(A)	Water Collection Bowl Kit	29899	1
(B)	Plastic plug, Air Vent	28691	6
(C)	O-Ring for Air Vent Plug	13494	10
(D)	Water Collection Bowl Seal Kit (Contains 6 each of seals: (E), (F), (H), (J))	30448	1
(E)	O-Ring for water collection bowl header to element	10519	10
(F)	Sealing Washer - Three "Lobed" for plastic drain valves	32010	5
(G)	O-Ring for Plastic Drain Valve [†] Only available Separately	29210	5
(H)	O-Ring for water collection bowl to bowl header	31498	5
(I)	Plastic Drain Valve Kit	32003	1
(J)	O-Ring - Collection bowl draw bolt	30911	5
(K)	Retaining Nut Small Diameter (Cap, heater, etc.)	28849	6
(L)	Hand Primer Pump, Normal Flow	29578	1
	Hand Primer Pump, Reverse Flow	35474	1
(M)	Cap plate, Top of FM100 Header Assemblies	28853	6
(N)	O-Ring for Header Top (quad cross-section)	28869	6
(O)	Volume Plug used under Cap Plate	29552	6

FM100 Components



FM100 Service Parts

Component Reference	Description	Part No.	Pkg. Qty.
(A)	Water Collection Bowl Kit	29899	1
(B)	Plastic plug, Air Vent	28691	6
(C)	O-Ring for Air Vent Plug	13494	10
(D)	Water Collection Bowl Seal Kit (Contains 6 each of seals: (E), (F), (H), (J))	30448	1
(E)	O-Ring for water collection bowl header to element	10519	10
(F)	Sealing Washer - Three "Lobed" for plastic drain valves	32010	5
(G)	O-Ring for Plastic Drain Valve [†] Only available Separately	29210	5
(H)	O-Ring for water collection bowl to bowl header	31498	5
(I)	Plastic Drain Valve Kit	32003	1
(J)	O-Ring - Collection bowl draw bolt	30911	5
(K)	Retaining Nut Small Diameter (Cap, heater, etc.)	28849	6
(L)	Hand Primer Pump, Normal Flow	29578	1
	Hand Primer Pump, Reverse Flow	35474	1
(M)	Cap plate, Top of FM100 Header Assemblies	28853	6
(N)	O-Ring for Header Top (quad cross-section)	28869	6
(O)	Volume Plug used under Cap Plate	29552	6

FM100 Service Parts (continued)

Component Reference	Description	Part No.	Pkg. Qty.
(P)	Top Load Heater Kit - 12 volt, 100 Watt	31341	1
	Top Load Heater Kit - 12 volt, 150 Watt	32364	1
	Top Load Heater Kit - 24 volt, 150 Watt	33649	1
(Q)	Top Load Heating Element - 12 volt, 100 Watt	30446	1
	Top Load Heating Element - 12 volt, 150 Watt	30447	1
(R)	Pre-Filter Screen - 150 Micron	29575	1
(S)	Header Assembly, Normal Flow - Port Threads: 1/2-20	30837	1
	Header Assembly, Normal Flow - Port Threads: 1/4-18 NPT	33260	1
	Header Assembly, Normal Flow - Port Threads: 3/8-18 NPT	33648	1
	Header Assembly, Normal Flow - Port Threads: M12 x 1.5	34504	1
	Header Assembly, Normal Flow - Port Threads: M14 x 1.5	34306	1
(T)	Side Load Heater Kit - 12 volt, Threads: 1/4-18 NPT	32283	1
	Side Load Heater Kit - 12 volt, Threads: 3/8-18 NPT	35160	1
	Side Load Heater Kit - 12 volt, Threads: 1/2-20	30939	1
	Side Load Heater Kit - 12 volt, Threads: M12 x 1.5	34743	1
	Side Load Heater Kit (Deutsch Electrical Terminals) - 12 volt, Threads: 1/2-20	36550	1
	Side Load Heater Kit - 24 volt, Threads: 1/4-18 NPT	34144	1
	Side Load Heater Kit - 24 volt, Threads: 3/8-18 NPT	34145	1
	Side Load Heater Kit - 24 volt, Threads: 1/2-20	34146	1
	Side Load Heater Kit - 24 volt, Threads: M12 x 1.5	35334	1
	Side Load Heater Kit - 24 volt, Threads: M16 x 1.5	40144	1
(U)	Electronic Water in Fuel Sensor Kit - 24 volt	33651	1
(U1)	Electronic Water in Fuel Sensor Kit, Top Load - 12 volt	29996	1
(V)	Sensor, Water in Fuel - 12 volt	32343	1
	Sensor, Water in Fuel - 24 volt	31942	1
(W)	Sensor, Water in Fuel, Top Load - 12 volt	30831	1
(X)	Mounting Screws, Water in Fuel Sensor	24322	4
(Y)	Dust Seal under retaining nut, Large diameter	29577	6
(Z)	Retaining Nut Large Diameter (Element)	29458	6
Not Shown	Lift Pump wiring harness	34061	1
(I1)	Water Sensor Drain Valve Kit, Plastic	32342	1

FM100 Marine Specific Components

(U2)	Electronic Water in Fuel Sensor Kit - 12 volt (Aluminum drain valve assembly)	30866	1
(L)	Marine Hand Primer Pump Kit, Normal Flow (Enhanced corrosion resistant coating)	30841	1
(I2)	Standard Marine Drain Valve Kit, aluminum	30552	1
(I3)	Water Sensor Drain Valve Kit, aluminum	30660	1
(F1)	Washer for Aluminum Drain Valves	29675	5

Additional Information:

1. Side Load Heaters are 100 watt with Packard terminal connectors unless otherwise noted.
2. All Electric Fuel Heaters have automatic switching. Heater comes ON at 42°-58°F (5.5°-14.4°C) and goes OFF at 75°-85°F (23.9°-29.4°C).
3. Wire harness assemblies are made with 18 gauge jacketed copper wire and come complete with mating terminal connector with connecting wire leads.

FM1000



- ⇒ **Engine power rating:** 250 (187 kW) to 600 HP (447 kW)
- ⇒ **Max. fuel flow rate:** 180 US gallons/hour (680 liters/hour)
- ⇒ **Max. operating pressure:** 100 P.S.I. (688 kPa) *without water collection bowl*
- Heavy duty aluminum header assemblies available with a variety of internal threads sizes and sealing configurations.
- Accepts optional modular features. Elements available in different sizes and micron ratings.
- Larger capacity for longer filter life and extended change intervals
- Not for Marine Use.

FM1000 Filter/Separator Systems

System Part No.	Use	Micron Rating	Flow	Port Size	Components	Element Part No.	Element Length	Dim. "A" ²	Dim "B" ²	Pkg. Qty.
33688	Pre-	30	N	1/2-14 NPT	Air Vent plug	33634	4.0 (101.6)	9.2 (233.7)	7.0 (178.6)	1
33692	Pre-	30	N	1/2-14 NPT	Air Vent plug	33638	8.0 (203.2)	13.2 (335.3)	11.0 (280.2)	1
33696	Pre-	30	N	7/8-14 UNF	Air Vent plug	33634	4.0 (101.6)	9.2 (233.7)	7.0 (178.6)	1
33700	Pre-	30	N	7/8-14 UNF	Air Vent plug	33638	8.0 (203.2)	13.2 (335.2)	11.0 (280.2)	1
36224	Pre-	150	N	M22 x 1.5	Water in Fuel Sensor (24v), Hand Primer, Air Vent Plug	36223	8.0 (203.2)	13.3 (339.1)	11.3 (286.0)	1
33686	Final	5	N	1/2-14 NPT	Air Vent Plug	33119	4.0 (101.6)	9.2 (233.7)	7.0 (178.6)	1
33690	Final	5	N	1/2-14 NPT	Air Vent Plug	33636	8.0 (203.2)	13.2 (335.2)	11.0 (280.2)	1
33694	Final	5	N	7/8-14 UNF	Air Vent Plug	33119	4.0 (101.6)	9.2 (233.7)	7.0 (178.6)	1
33698	Final	5	N	7/8-14 UNF	Air Vent Plug	33636	8.0 (203.2)	13.2 (335.2)	11.0 (280.2)	1
37776	Final	5	N	7/8-14 UNF	300 Watt (12v) Top Heater, Collection Bowl, Air Vent Plug	33636	8.0 (203.2)	15.6 (396.3)	13.4 (341.1)	1
42925	Pre-	30	N	M22 x 1.5	Collection Bowl, Air Vent Plug	33638	8.0 (203.2)	13.2 (335.2)	11.0 (280.2)	1
42939	Final	5	N	M22 x 1.5	Collection Bowl, Air Vent Plug	33636	8.0 (203.2)	13.2 (335.2)	11.0 (280.2)	1

¹ Reference *Glossary of Terms* on page 1 (N = Normal, R= Reverse).

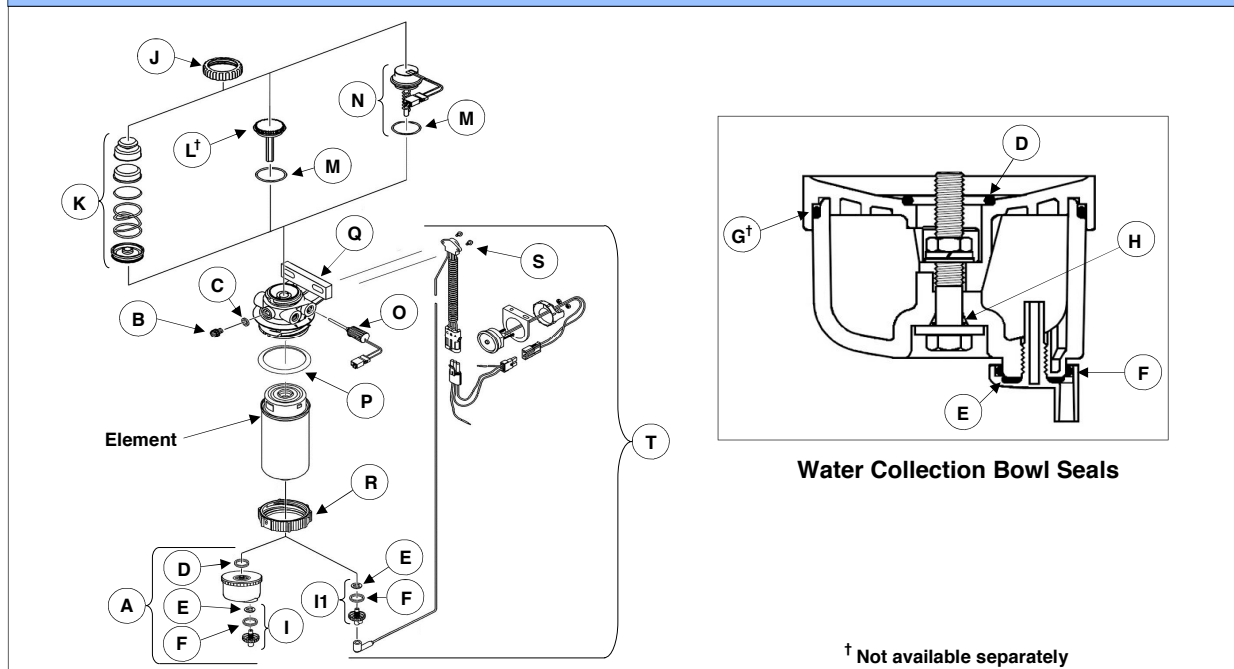
² Reference *FM1000 Dimensions*

FM1000 Service Replacement Elements

Element Part No.	Use	Micron Rating	Flow Direction ¹	Element Length	Pkg. Qty.
36223	Pre-Filter	150	Normal	8.0 (203.2)	6
33634	Pre-Filter	30	Normal	4.0 (101.6)	6
33638	Pre-Filter	30	Normal	8.0 (203.2)	6
37968	Pre-Filter	10	Reverse	8.0 (203.2)	6
33119	Final Filter	5	Normal	4.0 (101.6)	6
33636	Final Filter	5	Normal	8.0 (203.2)	6
39595	Final Filter	5	Reverse	3.0 (76.2)	8

¹ Reference *Glossary of Terms* on page 1

FM1000 Components



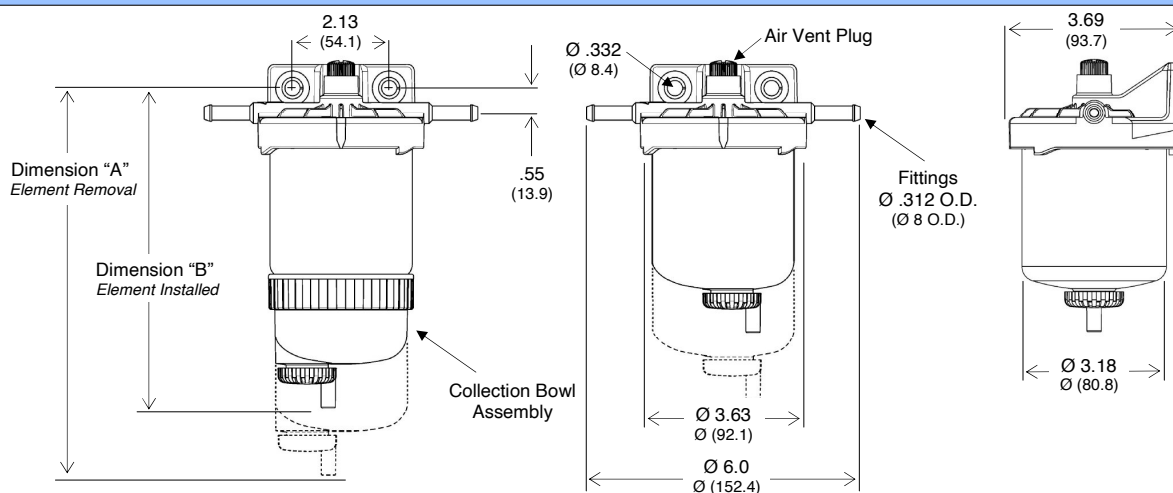
FM1000 Service Parts

Component	Description	Part No.	Pkg. Qty.
A	Complete Water Collection Bowl Assembly	35635	1
B	Plastic Plug, Air Vent	28691	6
C	O-Ring for Air Vent Plug	13494	10
D	O-ring, Water Collection Bowl Header to Element	10519	10
E	Sealing Washer - Three "Lobe" Seal for Plastic Drain Valves	32010	5
F	O-ring, Plastic Drain Valve	29210	5
G†	O-ring, Bowl Header to Bowl (Only available in FM1000 Seal Kit: P/N 36768)	—	—
H	O-ring, Draw Bolt to Bowl	32884	5
I	Standard Drain Valve Kit, Plastic	32003	1
II	Water Sensor Drain Valve Kit, Plastic	32342	1
J	Retaining Ring, Small Diameter (Top Cap/Volume Plug)	28694	1
K	Hand Primer Module Assembly, Normal Flow	36910	1
	Hand Primer Module Assembly, Reverse Flow	37348	1
L†	Top Cap/Volume Plug (Only available with a Complete FM1000 System)	—	—
M	O-ring under Top Cap/Volume Plug and Top Load Heater Assembly	29588	1
N	Heater Kit, Top Load (12V, 300 Watt)	36238	1
O	Heater Kit, Side Load (12V, 200 Watt) (Heater Thread: 1/2-20, includes adapter to M16x1.5)	40145	1
P	Element Dust Seal	33104	1
Q	Header Assembly, Black "E" coated (Ports Thread Size: 1/2-14 NPT)	33564	1
	Header Assembly, Black "E" coated (Ports Thread Size: 7/8-14)	33102	1
R	Retaining Ring, Large Diameter (Element)	33108	1
S	Mounting Screws, Water in Fuel Sensor	24322	4
T	Electronic Water in Fuel Sensor Kit, 12 Volt	29268	1
	Electronic Water in Fuel Sensor Kit, 24 Volt	38023	1
Not Shown	FM1000 Seal Kit, includes: C, E, F, G, H, I, N, R, V†, W†	36768	1
V†	Hand Primer Pump, Outer Seal (Only available in FM1000 Seal Kit: P/N 36768) - Not Shown	—	—
W†	Hand Primer Pump, Inner Seal - Not Shown	22591	10

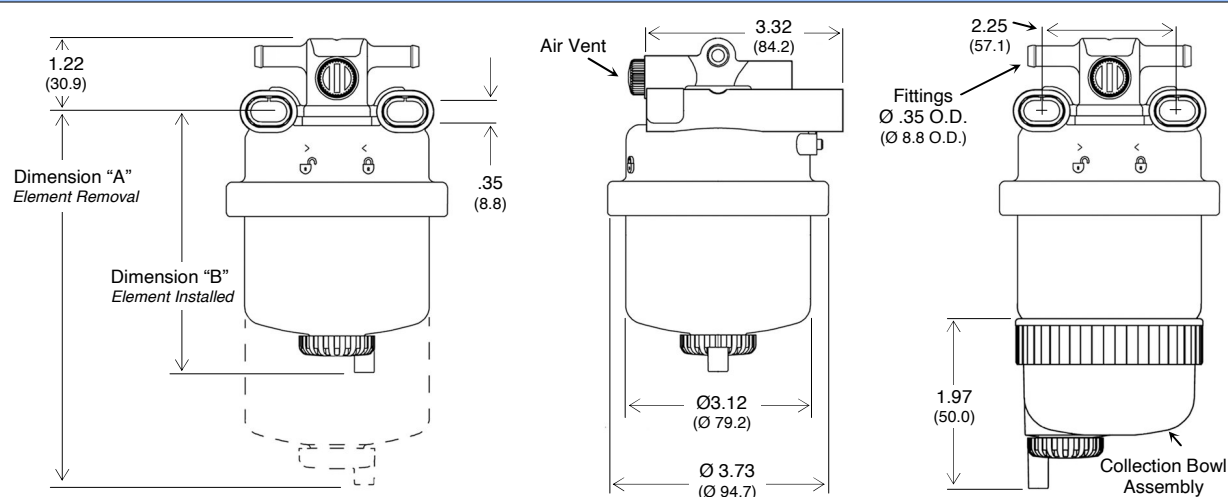
NOTE: All Electric Fuel Heaters have automatic switching. Heater comes ON at 42°-58°F (5.5°-14.4°C) and goes OFF at 75°-85°F (23.9°-29.4°C).

Dimensioni

FM1



FM10



FM100

