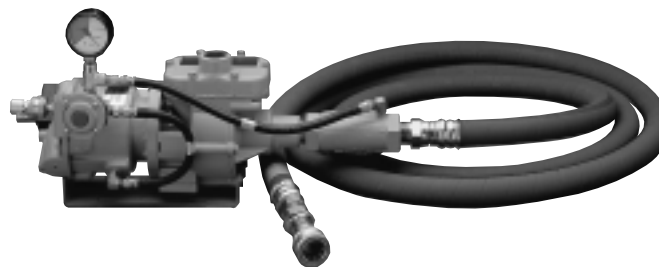


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Direct Access

The FLOCS Direct Access Conversion Kit uses the Aeroquip-developed FD14 Drain Coupling as an alternative to the standard remote hose kit. This coupling design permits easy, one-hand connection and disconnection of the evacuation unit's hose.

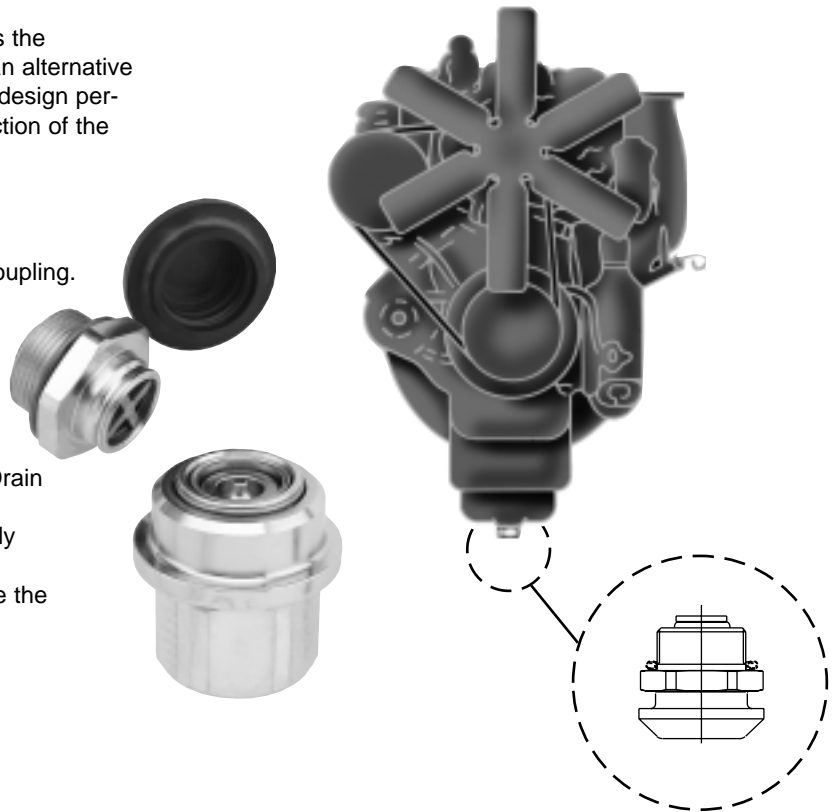
Installation:

1. Remove old drain plug.
 2. Replace with the proper size FD14 Drain Coupling.
 3. Push on rubber protective cap.
- Your installation is now complete.

Evacuation:

When it is time to change the oil:

1. Remove the rubber protective cap.
2. Connect the evacuation hose to the FD14 Drain Coupling.
3. Activate the pump, and the used oil is quickly evacuated to storage tanks.
4. Disconnect the evacuation hose and replace the rubber cap.



Remote Access

The FLOCS Remote Access Conversion Kit replaces the old drain plug with a 90 degree pan adapter, Aeroquip FC350 AQP® hose and quick-disconnect coupling.

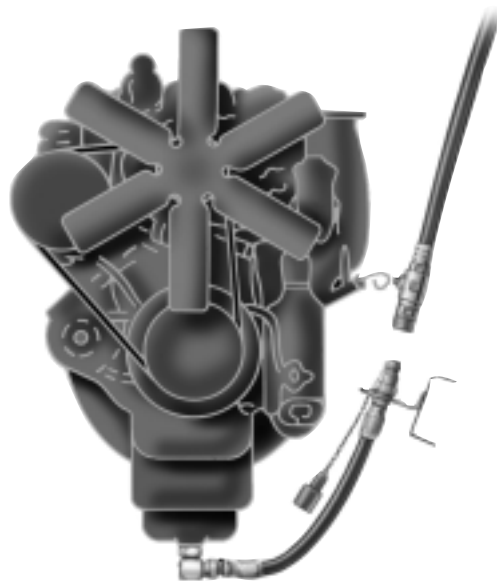
Installation:

1. Remove old drain plug.
 2. Replace with the proper size FF1187 pan adapter.
 3. Install mounting bracket (and optional 90 degree adapter).
 4. Attach hose assembly to FF1187 pan adapter and mounting bracket.
 5. Attach coupling and dust cap.
- Your installation is now complete.

Evacuation:

When it is time to change the oil:

1. Remove the dust cap.
2. Connect the evacuation hose to the quick-disconnect coupling.
3. Activate the pump, and the used oil is quickly evacuated to storage tanks.
4. Disconnect the evacuation hose and replace the dust cap.



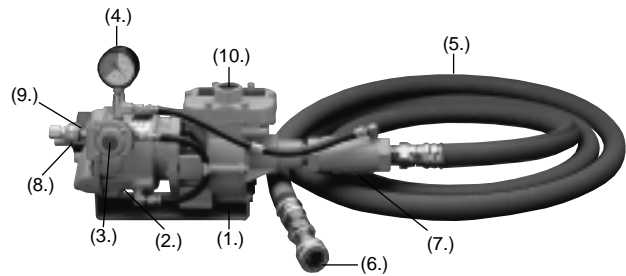
FLOCS® 30A Air-powered Unit

(Part No. FF9330A-01) Remote Access

(Part No. FF9330A-19) Direct Access

The FLOCS 30A Oil-evacuation Unit is a versatile, air-powered unit designed to be used where an air-power source is available, and electrical units may present a fire hazard. This unit can be adapted for use either on a lube truck or in a maintenance bay.

A FLOCS 30A unit can be used with equal effectiveness on vehicles with small oil-pan capacities (taxicabs, delivery trucks, school buses, etc.), medium capacities (highway equipment, tree-harvesting equipment, etc.), or large capacities (mining or construction equipment, etc.). Speed, ease of operation and versatility make the FLOCS 30A the best rapid oil-evacuation unit for many applications.



1. Piston pump
2. 5 cfm air-operated motor (80-150 psi)
3. Override button
4. Cycle gauge
5. 15' of 1" I.D. suction hose*
6. Coupling half**
7. Suction strainer
8. 1/4" air-supply coupling
9. 1/4" air-supply nipple
10. 1" NPT discharge port

*FLOCS 30A Oil-evacuation Unit with 25' hose assembly is ordered by part number FF9330A-100 (Remote Access), FF9330A-20 (Direct Access).
**Differs with access method.

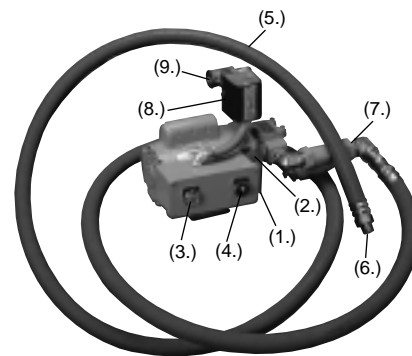
FLOCS 15 Electric-powered Unit

(Part No. FF9315-01) Remote Access

(Part No. FF9315-28) Direct Access

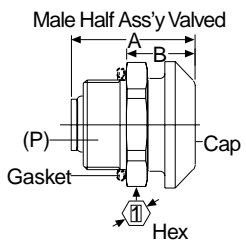
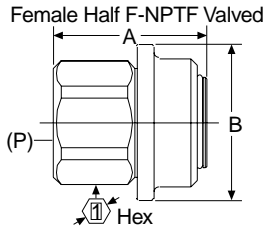
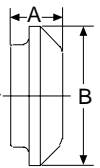
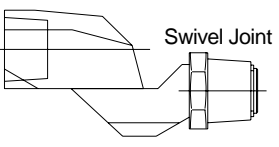
The FLOCS 15 Oil-evacuation Unit is electric powered and is designed for use in fleet maintenance service bays. Used in conjunction with overhead oil-dispensing reels, the FLOCS 15 speeds oil changes in large fleets. In some multi-lane maintenance shops, the FLOCS 15 concept has been used to implement a "fast-lane" operation, with one lane set aside for high-frequency, routine maintenance functions, leaving the other lanes free for more complex and time-consuming operations.

The FLOCS 15 is compatible with existing oil service equipment and can be installed quickly, without interrupting normal maintenance operations. It discharges old oil into existing storage tanks and shuts off automatically when the old oil has been evacuated. A signal light goes off when the evacuation is complete.



1. 3/4 hp electric motor, 115V AC, 20 amp
2. Gear pump
3. Cycle-run starter button
4. Cycle-run signal light
5. 15' of 1" I.D. suction hose*
6. Coupling half**
7. Suction strainer
8. 115V AC flow-control switch
9. Backflow check valve with a 3/4" NPT discharge port

*FLOCS 15 Oil-evacuation Unit with 30' hose assembly is ordered by part number FF9516-01 (Remote Access), FF9516-02 (Direct Access).
**Differs with access method.

FD14 Series	Coupling Size	Thread Size (P)	Dimensional Data			Min. Ass'y Torque (Ft-Lbs)	Assembly (Includes Gasket & Cap)	Gasket (Copper-Crush)	Cap (Buna-N)
			A	B	Δ				
 <p>Male Half Ass'y Valved</p>	-06	1/2-20 UNF-2A	1.33	.56	15/16	20*	FD14-1002-01-06	FD14-1206-01	FD14-1204-06
	-06	M18 x 1.5 6g	1.33	.56	1 1/4	20*	FD14-1002-02-06	FD14-1206-04	FD14-1204-06
	-06	M14 x 1.25 6g	1.33	.56	15/16	20*	FD14-1002-03-06	FD14-1206-02	FD14-1204-06
	-06	1 1/4-18 UNEF-2A	1.37	.56	1 1/2	30*	FD14-1002-05-06	FD14-1206-11	FD14-1204-06
	-06	1-18 UNS-2A	1.37	.56	1 1/4	30*	FD14-1002-06-06	FD14-1206-07	FD14-1204-06
	-06	7/8-18 UNS-2A	1.37	.56	1 1/4	30*	FD14-1002-07-06	FD14-1206-06	FD14-1204-06
	-06	9/8-18 UNF-2A	1.33	.56	15/16	20*	FD14-1002-08-06	FD14-1206-03	FD14-1204-06
	-06	3/4-16 UNF-2A	1.37	.56	1 1/4	30*	FD14-1002-09-06	FD14-1206-04	FD14-1204-06
	-06	7/8-14 UNF-2A	1.37	.56	1 1/4	30*	FD14-1002-10-06	FD14-1206-06	FD14-1204-06
	-06	M24 x 2 6g	1.37	.56	1 1/4	30*	FD14-1002-11-06	FD14-1206-07	FD14-1204-06
	-06	9/16-18 UNF-2A	1.33	.56	15/16	20*	FD14-1002-12-06	FD14-1206-02	FD14-1204-06
	-06	1 1/8-12 UNF-2A	1.37	.56	1 1/2	30*	FD14-1002-14-06	FD14-1206-09	FD14-1204-06
	-06	M20 x 1.5 6g	1.37	.56	1 1/4	30*	FD14-1002-16-06	FD14-1206-05	FD14-1204-06
	-06	M25 x 1.5 6g	1.37	.56	1 1/4	30*	FD14-1002-17-06	FD14-1206-07	FD14-1204-06
	-06	M22 x 1.5 6g	1.37	.56	1 1/4	30*	FD14-1002-18-06	FD14-1206-06	FD14-1204-06
	-06	M24 x 1.5 6g	1.37	.56	1 1/4	30*	FD14-1002-19-06	FD14-1206-07	FD14-1204-06
	-06	1 1/16-12 UN-2A	1.37	.56	1 1/2	30*	FD14-1002-20-06	FD14-1206-08	FD14-1204-06
	-06	M30 x 1.5 6g	1.37	.56	1 1/2	30*	FD14-1002-21-06	FD14-1206-10	FD14-1204-06
	-06	1/2-14 UNS-2A	1.33	.56	15/16	20*	FD14-1002-22-06	FD14-1206-01	FD14-1204-06
	-06	M12 x 1.5 6g	1.33	.56	15/16	20*	FD14-1002-23-06	FD14-1206-01	FD14-1204-06
-06	M14 x 1.5 6g	1.33	.56	15/16	20*	FD14-1002-24-06	FD14-1206-02	FD14-1204-06	
-06	M12 x 1.75 6g	1.33	.56	15/16	20*	FD14-1002-25-06	FD14-1206-01	FD14-1204-06	
-06	3/4-14 Dryseal NPTF	1.52	.56	1 1/4		FD14-1002-26-06	None Needed	FD14-1204-06	
 <p>Female Half F-NPTF Valved</p>									
	-06	3/4-14 Dryseal NPTF	1.83	1.81	1 5/16		FD14-1001-12-06		
 <p>Cap Molded Rubber</p>									
	-06		0.519	1.400					FD14-1204-06
 <p>Swivel Joint</p>									
	-06	3/4-14 Dryseal NPTF					FD14-1004-12-12		

* Δ CAUTION: Failure to meet minimum assembly torque could result in fluid leakage.

See page 290 for FD14 Technical Data.

With the spectographic analysis of engine oil being increasingly used, the problem of obtaining oil samples quickly, economically and efficiently has demanded more attention.

With the push of a button, an oil sample can be taken during the evacuation cycle of any FLOCS® unit and collected in a standard sampling bottle for analysis. It takes less than 15 seconds to collect an oil sample with the Oil Thief.

Because different oil-analysis facilities provide differing oil sample bottles, the FLOCS Oil Thief is available with a sample bottle port thread to match your needs. (Refer to the sample bottle thread sizes and corresponding Oil Thief part numbers listed in this chart).

Oil Thief Part Number	Sample Bottle Thread Size (in inches)
FF9300-75-0001	1.480-6 (or 38mm)
FF9300-75-0002	2.070-6
FF9300-75-0003*	1.580-6
FF9300-75-0004*	1.750-6 (or 45mm)

*Available by special order.

Features:

- Push-button operation
- Light weight
- Repairable seals
- Accepts a wide variety of sample bottle threads

Benefits:

- No-mess oil sample
- Economical— one Oil Thief per maintenance bay evacuation pump
- Allows oil sampling while oil is still hot, without employee hazard

Note: Sample bottles are not supplied with the Oil Thief and must be obtained from the oil-analysis facility.

Physical Characteristics:

Buna-N-Seals for -40 to +225 Degrees Fahrenheit Service. Vacuum Capable to 28" HG.

In a typical FLOCS system, a Male NPTF-to-Male NPTF adapter (2083-12-12s) is used on one end of the Oil Thief to connect to the female quick-disconnect coupling.

Operating Instructions:

The Oil Thief is compatible with any FLOCS evacuation unit. Simply install an Oil Thief between the evacuation hose line and the coupling half; then attach a sample bottle. Wait a few seconds after starting the evacuation cycle (to flush away any oil from the last evacuation); then depress the sample collection button for approximately ten seconds. Release the button and remove the sample bottle. Clean the Oil Thief sample bottle port, attach another bottle and you are ready for the next sample.

Note: When not in use, the Oil Thief should have a spare sample bottle attached to maintain valve cleanliness.

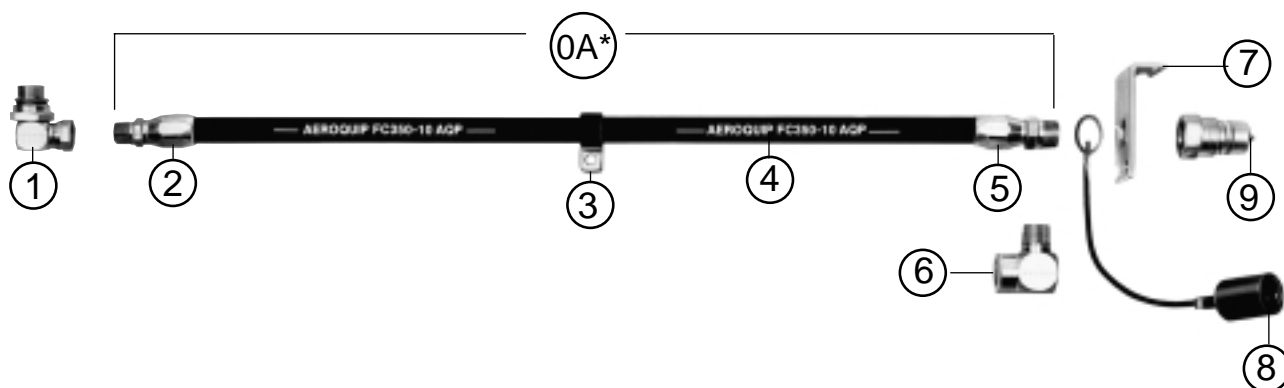


Standard Vehicle Kit

All kits are designed to accommodate manual drain when necessary.

These components are common to each kit regardless of the part number.

Item #	Part #	Description
Item #2	412-8-10S	Hose Fitting
Item #3	900729-6	Hose Clamp
Item #4	FC350-10	Hose
Item #5	412-12-10S	Hose Fitting
Item #6	2089-12-12S	Adapter for 90 Connection at Mounting Flange
Item #7	FF9363-01S	Bracket
Item #8	5657-12	Dust Cap
Item #9	5602-12-12S	Coupling Half



Thread Size	#1 Oil Pan Adapter & Gasket	Hardware Kit (Includes Items 1, 3, 6, 7, 8 & 9)	Assembled Kit* (Includes Items 1 through 9)
1/2-20	FF1187-0801S	FF428	FF400-0A
m 18 X 1.5	FF1187-0802S	FF429	FF401-0A
m 14 x 1.25	FF1187-0803S	FF430	FF402-0A
m 10 x 1	FF1187-0804S	FF431	FF403-0A
1 1/4 - 18	FF1187-0805S	FF432	FF404-0A
1 - 18	FF1187-0806S	FF433	FF405-0A
7/8 - 18	FF1187-0807S	FF434	FF406-0A
5/8 - 18	FF1187-0808S	FF435	FF407-0A
3/4 - 16	FF1187-0809S	FF436	FF408-0A
7/8 - 14	FF1187-0810S	FF437	FF409-0A
m 24 x 2	FF1187-0811S	FF438	FF410-0A
9/16 - 18UNF - 2A	FF1187-0812S	FF11042	FF11041-0A
1 1/8 - 12UNF - 2A	FF1187-0814S	FF11301	FF10452-0A
1 1/8 - 12UNF - 2A	**FF1187-0815S	FF11303	FF11302-0A
m 20 x 1.5	FF1187-0816S	FF11499	FF11498-0A
m 25 x 1.5	FF1187-0817S	FF11826	FF11825-0A
3/8 - 18 NPT (Pipe)	2047-8-6S	FF439	FF411-0A
1/2 - 14 NPT (Pipe)	2047-8-8S	FF440	FF412-0A
3/4 - 14 NPT (Pipe)	2047-8-12S	FF441	FF413-0A

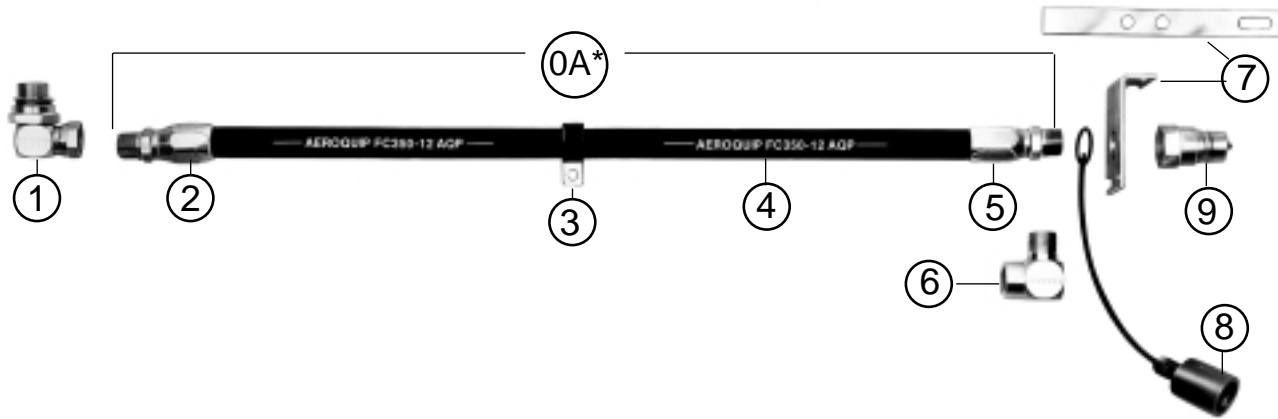
*0A indicates overall length of hose assembly in inches.
** Long Drop Version for oil pans covered by sound attenuation shields.

Large-Capacity Vehicle Kit

All kits are designed to accommodate manual drain when necessary.

These components are common to each kit regardless of the part number.

Item #	Part #	Description
Item #3	900729-8	Hose Clamp
Item #4	FC350-12	Hose
Item #5	4412-12-12S	Hose Fitting
Item #6	2089-12-12S	Adapter for 90 Connection at Mounting Flange
Item #7	FF9363-01S/FF9270-01S	Bracket
Item #8	5657-12	Dust Cap
Item #9	5602-12-12S	Coupling Half



Thread Size	#1 Oil Pan Adapter & Gasket	#2 Hose Fitting	Hardware Kit (Includes Items 1, 3, 6, 7, 8 & 9)	Assembled Kit* (Includes Items 1 through 9)
3/4 - 14 NPT (Pipe)	2024-12-12S	4411-12S	FF943	FF293-0A
3/8 - 18 NPT (Pipe)	2024-6-12S	4411-12S	FF945	FF322-0A
7/8 - 18	FF1187-0807S	4412-8-12S	FF944	FF317-0A
7/8 - 14	FF1187-0810S	4412-8-12S	FF946	FF380-0A
1 - 18	FF1187-0806S	4412-8-12S	FF947	FF395-0A
1 - 11 1/2 NPT (Pipe)	2024-16-12S	4411-12S	FF948	FF833-0A
1/2 - 14 NPT (Pipe)	2024-8-12S	4411-12S	FF949	FF834-0A

*OA indicates overall length of hose assembly in inches.