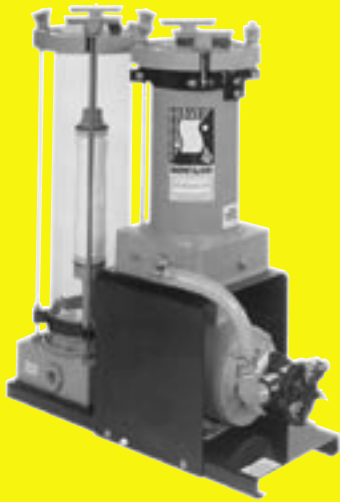




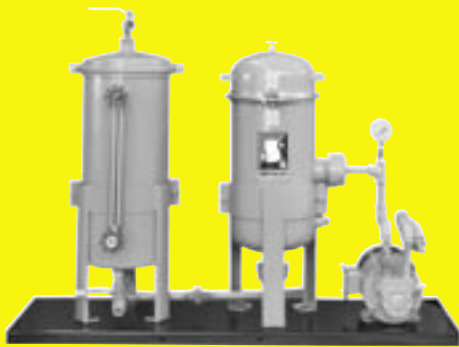
## COALESCING SYSTEMS

### LIQUID / LIQUID SEPARATION

#### **COMPACT, ECONOMICAL LIQUID SEPARATION SYSTEMS FOR USE WITH NON-EMULSIFIED SOLUTIONS UP TO 150°F.**



**Plastic System**



**Steel System**

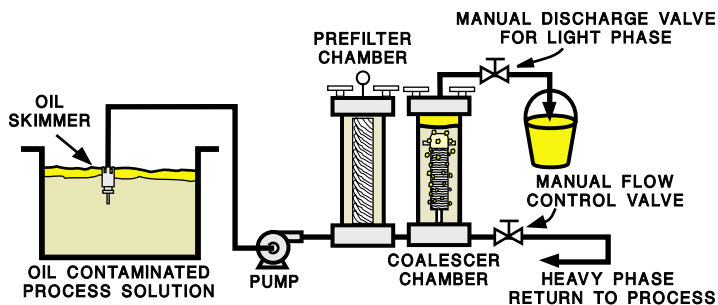
**SERFILCO Coalescing Systems** are compact, economical, and simple to operate. Remove oils from rinse waters, cleaning solutions, plating solutions or waste effluents. Separate water or tramp oil from hydraulic fluids and machining coolants.

Highly effective systems pump, prefilter and separate non-emulsified fluids having a .09 or greater difference in specific gravity. Solution is pumped through prefilter, then coalescing element where small droplets are held until large enough to float to top of coalescing chamber. Light phase is discharged from top of coalescing chamber, heavy phase is discharged from bottom of coalescing chamber. Unwanted phase is periodically bled off via manual flow control valve. Purified solution is directed back to tank or reservoir for re-use. Recovered effluent contains less than 10 ppm of the discontinuous phase. Carbon purification may be used to polish.

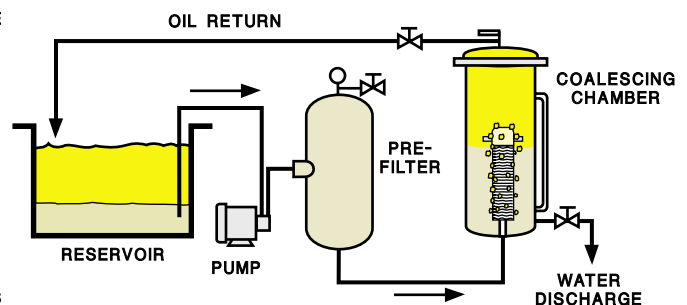
Standard coalescing systems include pump, \* prefilter and coalescing chamber with manual light and heavy phase discharge valves. Prefilter media of 5 to 10 micron is required to protect coalescing element. Selecting a system with greater prefilter capacity will reduce prefilter cartridge and coalescing element consumption. If properly protected, coalescing element has indefinite life. Coalescing of fluids with excessive particulate loading is best accomplished when solution is first clarified with separate filtration system.

*\* Standard pumps are low shear positive displacement: flexible impeller, rotary gear or diaphragm. These pumps minimize emulsification in pump head and have self-priming capabilities. For removal of floating or light phase, pump suction must be connected to overflow weir or optional skimmer assembly. For removal of heavy phase solution, suction connection near tank bottom is recommended.*

### OIL SEPARATION FROM AQUEOUS RESERVOIR



### WATER SEPARATION FROM OIL RESERVOIR



# PLASTIC COALESCING SYSTEMS

## Standard Air Operated systems include:

- Polypropylene air operated diaphragm pump with Teflon® internals
- Air pressure regulator
- Plastic prefilter chamber and coalescer
- EPDM gaskets (prefilter and coalescer)
- Light and heavy phase discharge valves on coalescer
- Corrosion resistant mounting base
- 10 ft. suction and discharge hoses

## AIR OPERATED PLASTIC COALESCING SYSTEMS

FLOW		SYSTEM	SCFM @ PSI	PUMP	PREFILTER <sup>1</sup>		COALESCER <sup>1</sup>		DIMENSIONS L x W x H Inches	SHIP-PIPING WEIGHT Lbs.
GPH	LPH				MEDIA/CHAMBER SERIES	MATERIALS OF CONST. BASE / SHELL	MEDIA / CHAMBER	MATERIALS OF CONST. BASE / SHELL		
300	1363	S-1386A	2 @ 40	PPTF½"	1-20" / L	PVC/clear PVC	1-2.5"x10" / L	PVC/clear PVC	19" x 10" x 33"	70
300	1363	S-1387	2 @ 40	PPTF½"	1-20" / L	polypropylene	1-2.5"x10" / L	polypropylene	19" x 10" x 33"	70
600	2271	S-1388	10 @ 40	PPTF1"	3-10" / S	polypropylene	1-2.5"x10" / S	PP/clear PVC	29" x 10" x 33"	80
600	2271	S-1389	10 @ 40	PPTF1"	3-10" / S	polypropylene	1-2.5"x10" / S	polypropylene	29" x 10" x 33"	80
600	2271	S-1390	10 @ 40	PPTF1"	3-20" / S	polypropylene	1-2.5"x10" / S	polypropylene	29" x 10" x 33"	90
1500	5678	S-1391	30 @ 80	PPTF1"	3-20" / S	polypropylene	1-6"x11" / G	polypropylene	33" x 18" x 33"	100
1500	4578	S-1392	30 @ 80	PPTF1"	3-30" / S	polypropylene	1-6"x11" / G	polypropylene	33" x 18" x 43"	100

Air operated plastic coalescing systems are best suited for separation of oils from aqueous based solutions. Non-metallic solution contact allows a wide range of chemical compatibil-

ity. Air operated diaphragm pump features excellent dry run capability and will self-prime to 10 ft.

## Standard Electric Operated systems include:

- Epoxy pump with Buna-N flexible impeller
- 115V/1/60, TEFC, 1725 RPM motor
- 8 ft. of 3-wire cord and plug
- Plastic prefilter chamber and coalescer
- EPDM gaskets (prefilter and coalescer)
- Light and heavy phase discharge valves
- Corrosion resistant mounting base
- 10 ft. suction and discharge hoses

## ELECTRIC OPERATED PLASTIC COALESCING SYSTEMS

FLOW		SYSTEM NUMBER	PUMP HP, MODEL	PREFILTER <sup>1</sup>		COALESCER <sup>1</sup>		DIMENSIONS L x W x H Inches	SHIP-PIPING WEIGHT Lbs.
GPH @ 60 Hz	LPH @ 50 Hz			MEDIA/CHAMBER SERIES	MATERIALS OF CONST. BASE / SHELL	MEDIA / CHAMBER	MATERIALS OF CONST. BASE / SHELL		
300	945	S-1394	1/3, 1/2 JPH	1-20" / L	polypropylene	1-2.5"x10" / L	polypropylene	14" x 10" x 33"	85
600	1890	S-1395	1/2, 3/4 JENH	3-10" / S	polypropylene	1-2.5"x10" / S	PP/clear PVC	24" x 10" x 33"	95
600	1890	S-1396	1/2, 3/4 JENH	3-10" / S	polypropylene	1-2.5"x10" / S	polypropylene	24" x 10" x 33"	95
600	1890	S-1397	1/2, 3/4 JENH	3-20" / S	polypropylene	1-2.5"x10" / S	polypropylene	24" x 10" x 33"	105
1500	4725	S-1398	1, 1 JEESNH	3-20" / S	polypropylene	1-6"x11" / G	polypropylene	50" x 18" x 33"	115
1500	4725	S-1399	1, 1 JEESNH	3-30" / S	polypropylene	1-6"x11" / G	polypropylene	50" x 18" x 43"	115

Electric operated plastic coalescing systems are best suited for separation of oils from aqueous based solutions. Non-metallic solution contact allows a wide range of chemical compatibility.

Electric pump features Buna-N flexible impeller for limited dry run capability. When wetted, pump will self-prime to 5 ft. Spare impeller is recommended.

<sup>1</sup> Filter media and coalescing media ordered separately. See page 4.

# METAL COALESCING SYSTEMS

## Standard Air Operated metal systems include:

- Polypropylene air operated diaphragm pump with Teflon® internals
- Air pressure regulator
- Metallic prefilter chamber and coalescer
- Buna-N gaskets (prefilter and coalescer)
- Light and heavy phase discharge valves on coalescer
- Sight glass on coalescer
- Corrosion resistant mounting base
- 10 ft. suction and discharge hoses

## AIR OPERATED STEEL COALESCING SYSTEMS

FLOW		SYSTEM NUMBER	SCFM @ PSI	PUMP	PREFILTER <sup>1</sup>		COALESCER <sup>1</sup>		DIMENSIONS L x W x H Inches	SHIPPING WEIGHT Lbs.
GPH	LPH				MEDIA	MATERIALS OF CONST.	MEDIA	MATERIALS OF CONST.		
480	1363	S-1283	5 @ 50	PPTF1/2"	5-10"	carbon steel	1-4" x 11"	carbon steel	42" x 13" x 37"	150
480	2271	S-1284	5 @ 50	PPTF1/2"	5-20"	carbon steel	1-4" x 11"	carbon steel	42" x 13" x 37"	160
600	5678	S-1285	10 @ 40	PPTF1"	5-30"	carbon steel	1-4" x 11"	carbon steel	42" x 13" x 37"	170

## AIR OPERATED STAINLESS STEEL COALESCING SYSTEMS

FLOW		SYSTEM NUMBER	SCFM @ PSI	PUMP	PREFILTER <sup>1</sup>		COALESCER <sup>1</sup>		DIMENSIONS L x W x H Inches	WEIGHT Lbs.
GPH	LPH				MEDIA	MATERIALS OF CONST.	MEDIA	MATERIALS OF CONST.		
480	1363	S-1286	5 @ 50	PPTF1/2"	5 - 10"	304 stainless steel	1-4"x11"	304 stainless steel	42" x 13" x 37"	155
480	2271	S-1287	5 @ 50	PPTF1/2"	5 - 20"	304 stainless steel	1-4"x11"	304 stainless steel	42" x 13" x 37"	165
600	5678	S-1288	10 @ 40	PPTF1"	5 - 30"	304 stainless steel	1-4"x11"	304 stainless steel	42" x 13" x 37"	175

Air operated metal coalescing systems are ideal for use with petroleum, alkaline and other solutions. Air operated diaphragm pump features excellent dry run capability and will self-prime to 10 ft.

## Standard Electric Operated systems include:

- Cast iron or 316 stainless steel gear pump
- 115V/1/60, TEFC, 1725 RPM motor
- 8 ft. of 3-wire cord and plug
- Metallic prefilter chamber and coalescer
- Buna-N gaskets (prefilter and coalescer)
- Light and heavy phase discharge valves on coalescer
- Pressure relief valve
- Sight glass on coalescer
- Corrosion resistant mounting base
- 10 ft. suction and discharge hoses

## ELECTRIC OPERATED STEEL COALESCING SYSTEMS

FLOW		SYSTEM NUMBER	PUMP HP, MODEL	PREFILTER <sup>1</sup>		COALESCER <sup>1</sup>		DIMENSIONS L x W x H Inches	WEIGHT Lbs.
GPH @ 60 Hz	LPH @ 50 Hz			MEDIA	MATERIALS OF CONST.	MEDIA	MATERIALS OF CONST.		
180	567	S-1277	1/3, TS3	5 - 10"	carbon steel	1-4"x11"	carbon steel	42" x 13" x 37"	175
360	1134	S-1278	1/2, TS6	5 - 20"	carbon steel	1-4"x11"	carbon steel	42" x 13" x 37"	195
540	1701	S-1279	1, TS9	5 - 30"	carbon steel	1-4"x11"	carbon steel	42" x 13" x 37"	215

## ELECTRIC OPERATED STAINLESS STEEL COALESCING SYSTEMS

FLOW		SYSTEM NUMBER	PUMP HP, MODEL	PREFILTER <sup>1</sup>		COALESCER <sup>1</sup>		DIMENSIONS L x W x H Inches	SHIPPING WEIGHT Lbs.
GPH @ 60 Hz	LPH @ 50 Hz			MEDIA	MATERIALS OF CONST.	MEDIA	MATERIALS OF CONST.		
180	567	S-1433	1/2, TSS3	304 stainless steel	carbon steel	1-4" x 11"	304 stainless steel	42" x 13" x 37"	200
300	945	S-1434	3/4, TSS5	304 stainless steel	carbon steel	1-4" x 11"	304 stainless steel	42" x 13" x 37"	225

Electric operated metal systems are ideal for use in separating tramp oil or trace water from petroleum, hydraulic, synthetic and machining fluids. Rotary gear pumps are best suited for fluids having lubricity and small particulate load. Gear pumps are self-priming and will lift to 10 ft.

**PREFILTER MEDIA**

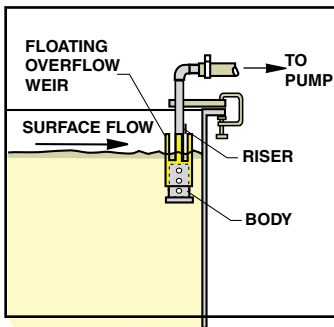
MICRON	MEDIA	LENGTH (Inches)	CORE	PRICE CODE NO.
5	polypropylene	10	polypropylene	05U10U
5	polypropylene	20	polypropylene	05U20U
5	polypropylene	30	polypropylene	05U30U
10	polypropylene	10	polypropylene	10U10U
10	polypropylene	20	polypropylene	10U20U
10	polypropylene	30	polypropylene	10U30U
5	bleached cotton	10	tinned steel	05C10T
5	bleached cotton	20	tinned steel	05C20T
5	bleached cotton	30	tinned steel	05C30T
10	bleached cotton	10	tinned steel	10C10T
10	bleached cotton	20	tinned steel	10C20T
10	bleached cotton	30	tinned steel	10C30T

**COALESCING MEDIA**

MODEL	MATERIAL DESCRIPTION Media, Core, End Caps*	DIMENSIONS I.D. x O.D. x Length	PRICE CODE NUMBER
K2.5 x 10N K2.5 x 10P K2.5 x 10G	Nylon, polypropylene, EPDM Polypropylene, polypropylene, EPDM Glass, polypropylene, EPDM	1" x 2.5" x 10"	88-3245 88-3246 88-3247
K4 x 11N K4 x 11P K4 x 11G	Nylon, 304 stainless steel, Buna-N Polypropylene, 304 stainless steel, Buna-N Glass, 304 stainless steel, Buna-N	1.8" x 4" x 11"	88-3248 88-3249 88-3250
K6 x 11NPP	Nylon, Polypropylene, Buna-N	3" x 6" x 11"	88-0816

\* Viton® end caps (4 x 11 size only). Minimum order carton quantity. Add -V to Model and Price Code Number.  
Note: Carton quantity: 25 of 10", 10 of 11".

**SKIMMER ASSEMBLY**



Connect to pump suction to skim floating oils or debris. Constructed of polypropylene and CPVC.

MODEL NUMBER	LIQUID LEVEL DIFFERENTIAL	SKIM RATE GPH	INLET / OUTLET **		INLET LENGTH	RISER LENGTH	BRACKET 1/2" THICK	PRICE CODE NO.
			NPT					
			PIPE	PORT				
SK 1/2	2"	to 300	1/2"	3/8"	15"	13"	4" x 2"	99-0479
SK 3/4	3"	to 600	3/4"	1/2"	18"	18"	4" x 2"	99-0498
SK 1	4"	to 900	1"	3/4"	18"	18"	6" x 2"	99-0480

To select skimmer: 1. Determine tank liquid level differential. This will minimize dry pump operation.  
2. Use skim rate as guideline for sizing.

\*\* SK 1/2 to SK 1 have NPT inlet and hose adapter outlet, "C" clamp, hose clamp, lock screw and elbow hose adapter.  
- Consult Sales Dept. for other skimmer sizes.

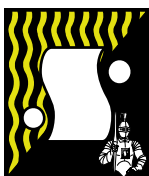
**OPTIONAL**

DESCRIPTION	PRICE CODE NO.
Motor starter Model -ST4	O-1214
Portable - 2 wheels and 2 legs on standard mounting base (metal & plastic systems)	O-0191
Sight glass for 1500 GPH coalescing chamber	O-1435
Viton® chamber elastomers / Viton impeller (J-pumps)	Add -V to System No.

F.O.B. Northbrook, Illinois

Specifications subject to change without notice.

Registered trademarks:  
Viton - DuPont Dow Elastomers; Teflon - DuPont



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