

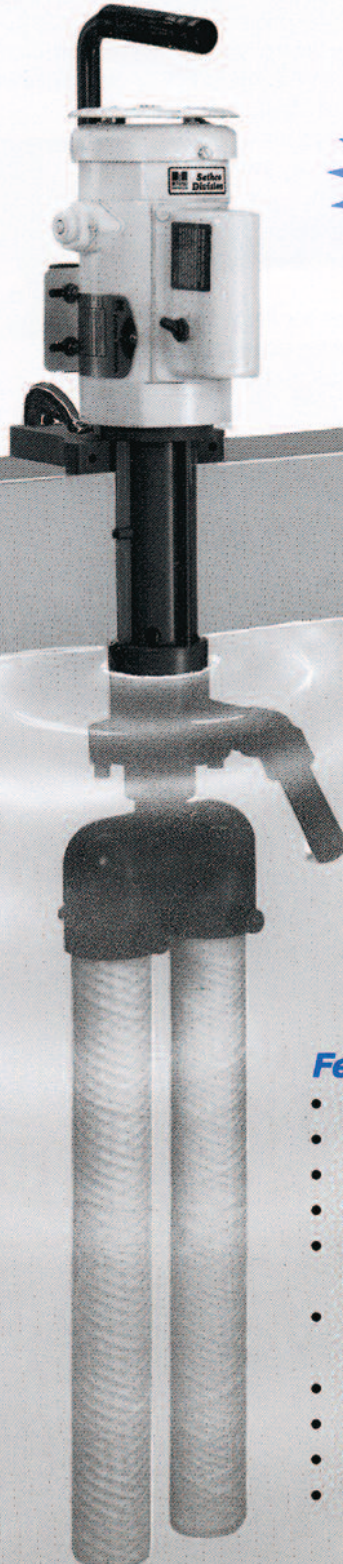
# CECO Mefiag

A Division of CECO Environmental

BULLETIN 552  
SETHCO CORROSION  
RESISTANT  
SUCTION FILTER  
FOR CORROSIVE  
LIQUID FILTRATION

*Designed to pump,  
filter, agitate and treat  
corrosive solutions  
used in metal finishing  
shops, laboratories  
and other chemical  
processes.*

**3 NEW  
MODELS!**



**SSF Series**

**Features:**

- Sealless, bearing free design
- Can run dry without pump damage
- Portable
- Self Priming
- Filtration rates to 5,500 GPH (20,820 LPH)
- Corrosion resistant CPVC construction
- Easy to install and maintain
- Quick filter changeover
- Reusable filter media available
- Eight models to choose from

# SETHCO CORROSION RESISTANT "SSF SERIES" SUCTION FILTERS

**Recommended for all electroplating solutions including electroless nickel at 200°F.**

**Also recommended for pre- and post-plating process tanks**

Sethco's "SSF series" meet the need for a compact, continuous duty, well constructed but inexpensive filter system. Constructed of corrosion resistant CPVC, the Suction Filter is recommended for filtering most acid and alkalis including electroless copper and nickel plating solutions at temperatures to 200°F (93°C).

The powerful bearing-free, sealless Sethco pump pulls in fluid through the filter first, removing impurities down to .5 micron in size. Fluid is then accelerated by the pumps deep vane impeller out through the agitator discharge, which can be rotated to provide for air free agitation and circulation of the tank, and to enhance the filtration process. The pump has no seals, no bearings and no wearing parts. It will even run dry without damage.

Convenient design permits fast timesaving tube changeover without the use of tools. Conventional tubes or Sethco's spiral wrap filter tubes are available for depth filtration.

Sethco suction filter systems are available in 8 sizes for filtration to 5500 GPH (20,820 LPH). Each unit incorporates an easy grip handle, mounting panel, discharge fitting and all hardware needed for immediate start-up.

The Sethco SUCTION FILTER comes with a "full one year warranty".

## Materials of Construction

The high strength qualities and rigidity of CPVC make the SSF Series suction filter systems extremely rugged, yet wear and impact resistant, and capable of handling the roughest of corrosive liquids and sensitive solutions at 200°F (93°C). Wetted parts are CPVC so there is no metal contact with liquid.

## Effective Filtration

Sethco suction filter systems are equipped with easily inserted, appropriately sized **Sethco depth filter tubes**. These are precision wound polypropylene fiber over a polypropylene perforated supporting core, forming hundreds of funnel shaped tunnels. Each layer of fiber serves as its own filter screen. The

close winding pattern (density) determines the size of the particle retention. Filter tubes are available with solids handling retention values of 50 down to 0.5 micron. Sub-micron filter tubes are also available.

Depth filtration area over the entire thickness of the Sethco No. 5 filter tube is 2.0 sq. ft.; of the No. 10 filter tube is 3.5 sq. ft.; of the No. 20 filter tube is 7.0 sq. ft.; and of the No. 30 filter tube is 10.5 sq. ft. Simultaneous carbon treatment and filtration to 10 micron can be achieved by using **Sethco carbon/filter tubes**. See *Bulletin 913* for additional information.

**Use these Sethco tubes also!**



wound tube



carbon filter tube

## Motors

Sethco "SSF" electric motors are all totally enclosed, fan cooled, U.L. recognized, CSA approved and continuous duty rated. The motors are protected by special corrosion resistant paints and insulated windings. In addition, they have a corrosion resistant drip cover. The motors are equipped with over-sized, double sealed ball bearings, and have a one-piece shaft to prevent impeller whip and assure long life.

All 1/2 horsepower and larger motors are equipped with a lip seal where the stainless steel shaft enters the motor to help prevent vapors and liquid from entering.

## System Specifications

Model	Filtration Rate*		Maximum Pressure		HP	Volts	Hz.	Phase	Type	Standard Filter Tube	Net Lbs.	Weight Kg.
	(GPH)	(LPH)	Ft. of Water	Meters of Water								
SSF-5	350	1,325	6	1.8	1/20	115/230	50/60	1	TEFC	(1) #5	11	5
SSF-10	720	2,725	10	3.0	1/20	115/230	50/60	1	TEFC	(1) #5	11	5
SSF-15B	1,500	5,677	22	6.7	1/6	115/230	50/60	1†	TEFC	(1) #10	24	10.5
SSF-20A	2,000	7,590	22	6.7	1/6	115/230	50/60	1†	TEFC	(1) #20	25	11.3
SSF-30	3,000	11,355	22	6.7	1/4	115/230	50/60	1†	TEFC	(2) #20	25	12.2
SSF-40	4,000	15,140	32	9.7	3/4	115/230	50/60	1†	TEFC	(2) #20	47	21.4
SSF-50	5,000	18,925	39	11.9	3/4	115/230	50/60	1†	TEFC	(2) #20	47	21.4
SSF-55	5,500	20,820	46	14	3/4	115/230	50/60	1†	TEFC	(2) #20	47	21.4

\*at 60 Hz. Filtration rate based on standard filter tube. All models can use any length tube, however filtration rate will vary.

† 3 phase motors are available, see optional equipment on price list

**WARRANTY:** One year warranty against defective parts and workmanship. See Form TC-01 for full warranty details. Always be specific about your application in order that proper materials may be furnished. Let Sethco or an authorized distributor know: liquids being handled, gallons, temperature and pH. The standard warranty does not apply when equipment is used contrary to factory recommendations. Since the policy of Sethco is one of continual improvement, we reserve the right to change design or materials at any time, without giving notice or creating any obligations to previous or future customers.

## Features

✓ **Compact design** requires minimum amount of in-tank space while providing high turnover rate.

✓ **In-tank design** insures leakproof operation. No hoses, connections, or components are outside the tank.

✓ **Easy installation and filter changeover.** Attaches to tank flange with "C" clamp. Each suction filter is provided with mounting panel, clamps, and filter media for immediate start-up.

✓ **High flow rate, low cost.** The Sethco SSF series filter systems are high quality, continuous duty units at a surprisingly low price.



✓ **Sealless, self-priming, bearing free pump** can run dry with no damage. CPVC construction is suitable for temperatures to 200°F (93°C).

✓ **Choice of filter media.** Choose reusable spiral wrap media, standard wound cartridges, or carbon filter tubes.

✓ **Versatile suction filter system** provides filtration, carbon treatment, tank agitation, and tank transfer.

✓ **Only one moving part** makes these filter systems virtually maintenance free. In the unlikely event that service is necessary, Sethco Sealless Suction Filters are field repairable and do not have to be returned to the factory for repair.



single filter tube holder standard

Models  
SSF-5 & SSF-10  
for filtration  
to 720 GPH  
(2,725 LPH)



single filter tube holder standard, double holder optional

Models  
SSF-15 & SSF-20  
for filtration  
to 2,000 GPH  
(7,590 LPH)



double filter tube holder standard

Model SSF-30  
for filtration  
to 3,000 GPH  
(11,355 LPH)

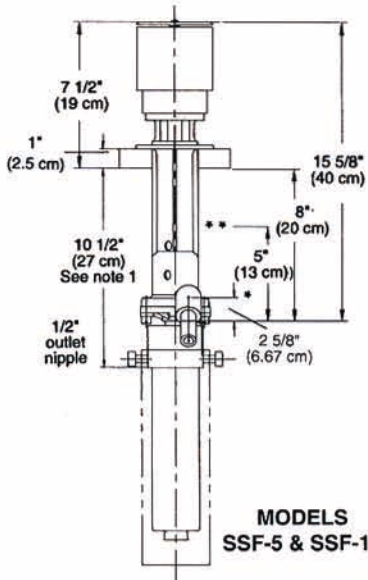


double filter tube holder standard

Models  
SSF-40, SSF-50, SSF-55  
for filtration  
to 5,500 GPH  
(20,820 LPH)

*Sethco offers a variety of sizes to meet your specific filtration requirements. No matter which model you choose, you can be assured of a quality product that will give you dependable, long lasting service.*

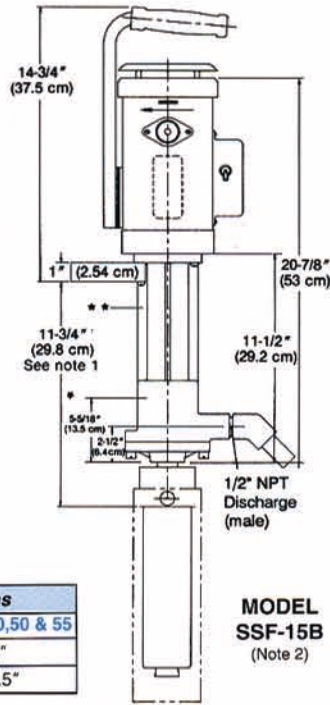
# Dimensional Drawings



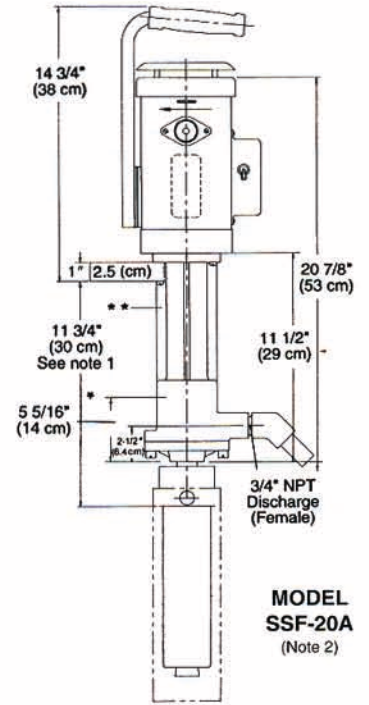
**MODELS  
SSF-5 & SSF-10**

Maximum and Minimum Immersion Level Dimensions					
	SSF-5 & 10	SSF-15	SSF-20	SSF-30	SSF-40,50 & 55
Minimum*	4.5"	5-5/16"	5-5/16"	5-5/16"	6"
Maximum**	8"	9"	9"	9"	10.5"

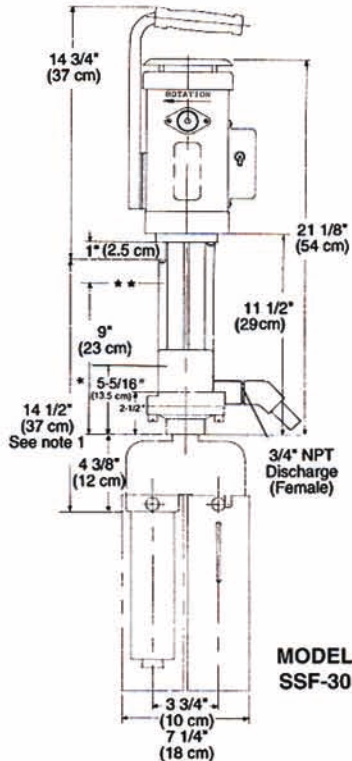
Dimensions are from bottom of pump



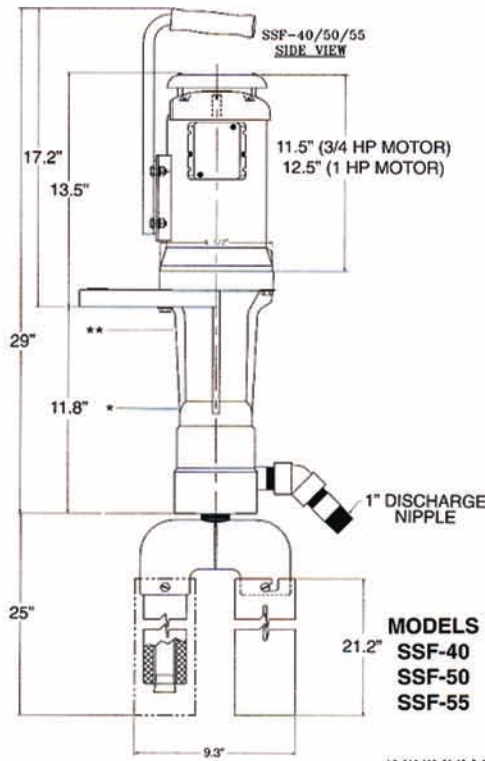
**MODEL  
SSF-15B  
(Note 2)**



**MODEL  
SSF-20A  
(Note 2)**



**MODEL  
SSF-30**



**MODELS  
SSF-40  
SSF-50  
SSF-55**

**Note 1**  
Add to filter "in-tank" depth as follows:

FOR FILTER TUBE LENGTH	ADD
6" (15 cm)	5" (13 cm)
10" (15 cm)	9" (13 cm)
20" (15 cm)	19" (13 cm)
30" (15 cm)	29" (13 cm)

If dirt holder is used, add an additional 1-1/4" to the depth.

**Note 2**  
Two tube filter holder is available for the SSF-15B and SSF-20A. This option allows use of 2 each 10" tubes on SSF-15B and SSF-20A or 2 each 20" tubes on SSF-20.

\*MINIMUM IMMERSION LEVEL \*\*MAXIMUM IMMERSION LEVEL

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