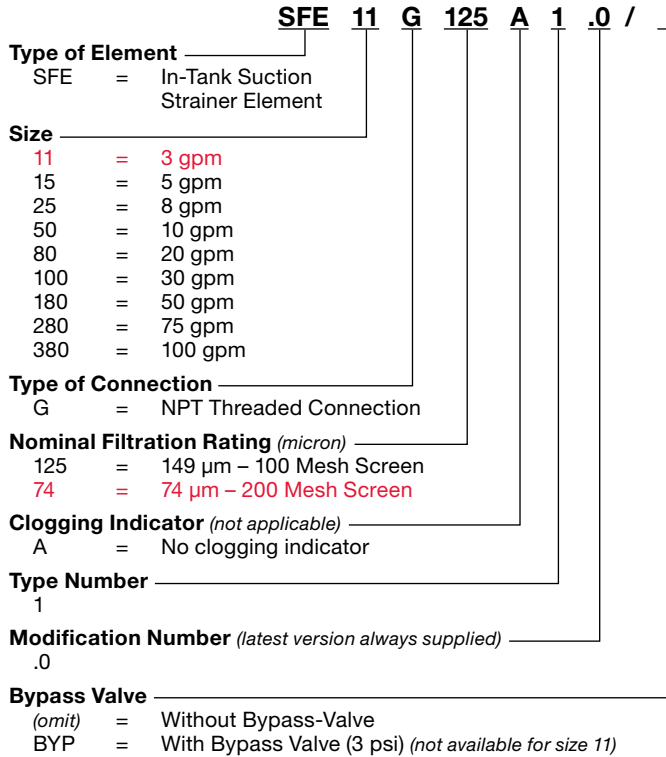


## SFE Series In-Tank Suction Strainer Element



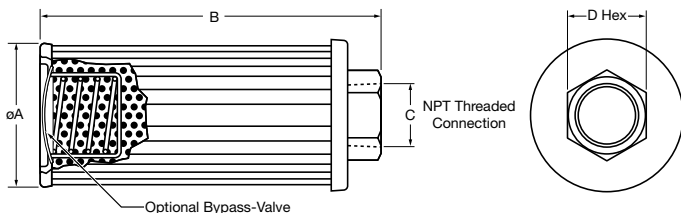
### Model Code



Model Codes containing selections listed in RED italics are non-standard items – Minimum quantities will apply  
Contact HYDAC for information and availability

Not all combinations are available

### Dimensions



### Description

HYDAC Suction Strainer Elements are designed for installation into suction lines of pumps. Extra caution should be taken to ensure that the suction elements are always mounted below the minimum oil level of the reservoir.

The suction strainer elements can be supplied with a bypass valve to reduce high pressure drops caused by contaminated elements or high viscosity fluids during cold starting. The bypass valve opens at 3 psi. for best results, suction strainer elements should be sized for clean element pressure drops of no higher than 0.5 to 0.7 psi.

HYDAC suction Strainer Elements are manufactured using stainless steel wire screen media, plastic nut cap, and plated steel end cap and support tube.

Suction strainer elements are only intended to protect hydraulic pumps against catastrophic failure caused by coarse contaminant.

Suction strainer elements should be inspected and cleaned regularly.

Suction strainer elements should not be used as the only filtration elements in a hydraulic system. Pressure filters and return line filters, with reasonable dirt holding capacity, must be installed to provide protection against component damage caused by fine contaminants.

### Cleaning Procedure

Remove external build-up of contaminant with cleaning fluid in separate tank.

Flush element with clean solvent and blow through wire screen media with air.

### Hydraulic Data

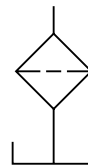
#### Pressure Drop vs. Flow:

- Pressure drop will be < 2 psi when strainers are used within the recommended flow range, and with a standard hydraulic fluid with a viscosity of 141 SSU and specific gravity of 0.86.

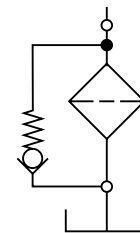
#### Temperature:

- 15° to 180°F (-9° to 82°C)

### Hydraulic Symbols



Without Bypass-Valve



With Bypass-Valve

Size	Nominal Flow (gpm)	ØA	B	C (NPT)	D HEX	Media Area (sq. in.)
SFE 11	3	1.95	2.68	3/8	1.00	15
SFE 15	5	1.95	4.19	1/2	1.00	25
SFE 25	8	2.67	3.55	3/4	1.43	50
SFE 50	10	2.67	5.25	1	1.62	90
SFE 80	20	3.47	6.62	1 1/4	2.00	135
SFE 100	30	3.47	8.01	1 1/2	2.38	195
SFE 180	50	4.03	9.88	2	2.78	260
SFE 280	75	5.19	10.25	2 1/2	3.25	325
SFE 380	100	5.19	11.75	3	3.75	410

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print. Dimensions are in inches.

## MSS Series Magnetic Suction Separators



### Description

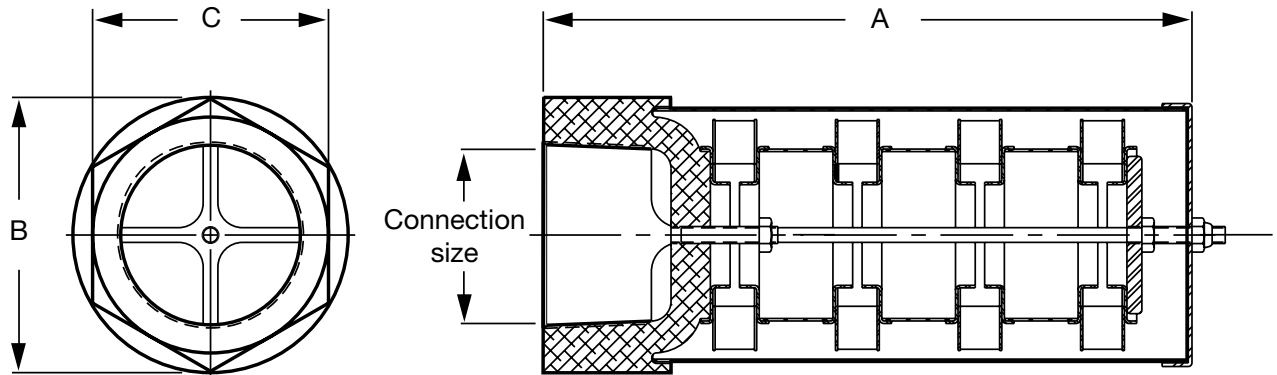
With the use of HYDAC's Magnetic Suction Separators, suction line filtration is provided without starving the pump. They offer unique protection for pumps from all sizes of ferrous particles, some of which have the potential of destroying a pump in a single pass. Large ceramic magnets are spaced along the length of the separator. All hydraulic fluid entering the pump must move at low velocity through a powerful magnetic field. This field traps large quantities of micronic ferrous particles. The viscous properties of the fluid can cause some non-ferrous particles to adhere to the magnetically trapped particles.

The MSS series is available in sizes ranging from one to three inches. The chart below shows the part numbers, specifications, and dimensions of available models.

The standard outer screen has adequate open area (0.079 inch diameter perforations) to eliminate the possibility of pump starvation. All models are also available with a pleated 20 mesh screen (850 micron) by adding SS20 to the model number. (Example MSS-1 SS20).

All units have a removable outer screen that can be cleaned and re-used to extend service life and minimize pressure drop.

### Dimensions

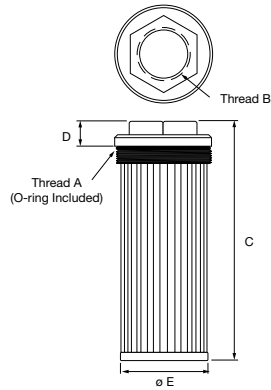


Model Number	Part No.	Connection Size	Max. Flow gpm (lpm)	Δ psi at Max. gpm	Dimensions		
					A	B	C
MSS-1	02082431	1" NPT	15 (55)	0.05	5.25" (133)	3.25" (83)	1.62" (41)
MSS-1 1/4	02082432	1 1/4" NPT	25 (95)	0.05	8.25" (210)	3.50" (89)	3.00" (76)
MSS-1 1/2	02082433	1 1/2" NPT	35 (135)	0.08	8.25" (210)	3.50" (89)	3.00" (76)
MSS-2	02082434	2" NPT	50 (190)	0.10	8.25" (210)	3.50" (89)	3.00" (76)
MSS-3	02082435	3" NPT	100 (380)	0.02	10" (254)	3.50" (89)	4.00" (102)

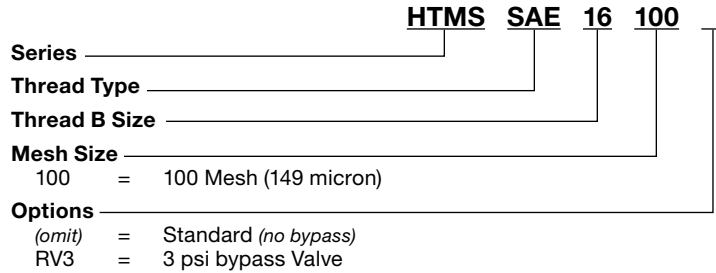
\* B Dimension larger for SS20 versions

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print. Dimensions are in inches.

## HTMS Series Tank Mounted Suction Strainer Elements SAE O-ring

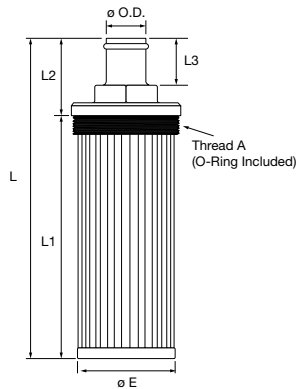


### Model Code

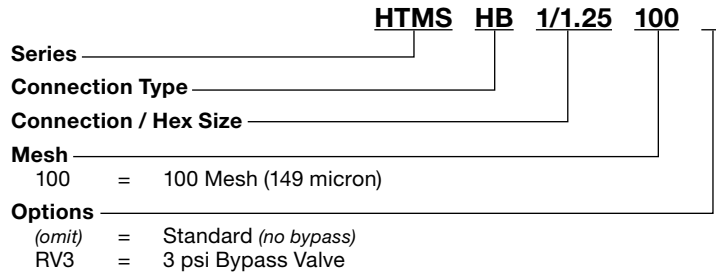


Model Code	Part No.	Per SAEJ514		Hex Size	GPM*	Screen Area (Sq. In.)	Dimensions		
		THD A	THD B				C	D	øE
HTMS SAE 16 100	02078472	2-1/2"-12	1-5/16"-12	2.13	9	90	9.00"	0.75"	2.24"
HTMS SAE 20 100	02078473	2-1/2"-12	1-5/8"-12	2.13	14	90	9.00"	0.75"	2.24"
HTMS SAE 24 100	02078474	3-3/8"-12	1-7/8"-12	2.50	21	230	8.80"	0.90"	3.22"
HTMS SAE 32 100	02078475	3-3/8"-12	2-1/2"-12	3.00	39	230	9.30"	0.98"	3.22"

## Hose Barb

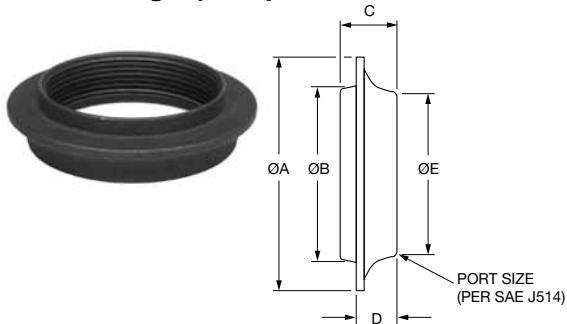


### Model Code



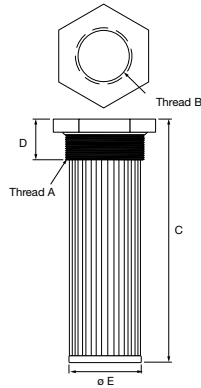
Model Code	Part No.	Thread A	ø O.D.	Hex Size	GPM*	Dimensions				
						L	L1	L2	L3	ø E
HTMS HB 1 / SAE 24 100	02078485	1-7/8"-12	1.00"	1.25"	8	9.30"	7.30"	2.00"	1.25"	1.65"
HTMS HB 1.25 / SAE 32 100	02078486	2-1/2"-12	1.25"	1.50"	14	10.00"	8.00"	2.00"	1.25"	2.12"
HTMS HB 1.5 / SAE 48 100	02078487	3-3/8"-12	1.50"	2.00"	21	10.30"	7.82"	2.48"	1.50"	3.22"
HTMS HB 2 / SAE 48 100	02078488	3-3/8"-12	2.00"	2.50"	40	10.80"	7.84"	2.97"	2.00"	3.22"

## Weld Flange (SAE)



Model Code	Part No.	Port Size	Dimensions				
			øA	øB	C	D	øE
HTMS TWF-6	02078493	9/16"-18	1.50"	0.93"	0.56"	0.31"	1.00"
HTMS TWF-8	02078494	3/4"-16	1.50"	0.93"	0.56"	0.31"	1.00"
HTMS TWF-12	02078495	1-1/16"-12	2.13"	1.38"	0.69"	0.44"	1.44"
HTMS TWF-16	02078496	1-5/16"-12	2.38"	1.66"	0.75"	0.50"	1.75"
HTMS TWF-20	02078497	1-5/8"-12	2.69"	2.00"	0.75"	0.50"	2.13"
HTMS TWF-24	02078482	1-7/8"-12	3.00"	2.25"	0.75"	0.50"	2.38"
HTMS TWF-32	02078483	2-1/2"-12	3.50"	2.63"	0.84"	0.59"	2.88"
HTMS TWF-48	02078484	3-3/8"-12	4.63"	3.66"	1.00"	0.81"	3.94"

## NPT



### Model Code

Series \_\_\_\_\_ **HTMS** **NPT** **1/2** **100**

Thread Type \_\_\_\_\_

Thread B Size \_\_\_\_\_

Mesh \_\_\_\_\_  
100 Mesh (149 micron)

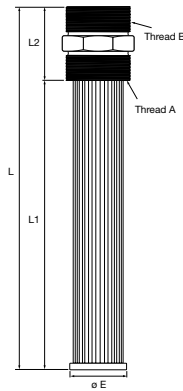
Options \_\_\_\_\_

(omit) = Standard (no bypass)

RV5 = 5 psi Bypass Valve

Model Code	Part No.	GPM*	Screen Area (Sq. In.)	THD A	THD B	Hex Size	Dimensions		
							C	D	ø E
HTMS NPT 1/2 100	02078460	5	35	1" NPT	1/2" NPT	1.43	5.38"	1.10"	1.18"
HTMS NPT 3/4 100	02078461	10	64	1 1/4" NPT	3/4" NPT	1.81	7.50"	1.20"	1.14"
HTMS NPT 1 100	02078462	15	86	1 1/2" NPT	1" NPT	2.00	8.25"	1.30"	1.65"
HTMS NPT 1 1/4 100	02078463	25	125	2" NPT	1 1/4" NPT	2.55	10.00"	1.30"	2.12"
HTMS NPT 2 100	02078464	50	260	3" NPT	2" NPT	3.30	10.25"	1.70"	3.03"
HTMS NPT 3 100	02078465	100	315	4" NPT	3" NPT	5.00	11.30"	1.80"	3.78"

## Male NPT Ports



### Model Code

Series \_\_\_\_\_ **HTMS** **NPTM** **2** **100**

Thread Type \_\_\_\_\_

Thread B Size \_\_\_\_\_

Mesh Size \_\_\_\_\_  
100 Mesh (149 micron)

Options \_\_\_\_\_

(omit) = Standard (no bypass)

RV3 = 3 psi bypass Valve

Model Code	Part No.	GPM*	THD A	THD B	Hex Size	Dimensions			
						L	L1	L2	ø E
HTMS NPTM 2 100	02078480	50	2" NPT	2" NPT	2.75"	13.50"	10.75"	2.70"	2.12"

Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.

Dimensions are in inches/(mm) and lbs./(kg)

\*Flow ratings listed are nominal flow ratings for typical applications. High viscosity, low temperature applications may require a strainer with a higher flow rating. Consult HYDAC Engineering for more information.