Strainers & Filters Filters



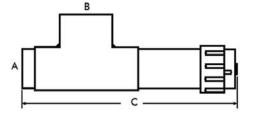
Specially designed for agricultural and irrigation applications. Suitable for any application where cool, filtered water is required. Standard units utilize an internal-to-external filter cartridge. See following page for reverse flow (external to internal) filters.



- 200 psi Working Pressure Non-Shock @ 73°F (23°C)
- Filter Body is made from
- NSF®-PW Approved PVC Material Optional Screen Meshes
- Compact Design, Easy to Clean
- Lightweight, Easy to Install
- Filter Screens are designed using a standard perforated Stainless Steel
- Screen Mesh Sizes include an inner Stainless Steel Cloth with Spring Support
- (external cloth on reverse flow filters) Pressure loss: 100 GPM 3 psi 50 GPM 1.25 psi
- May be bushed to required pipe size (Bushings sold separately)

- When more than 100 gpm is required, filters may be installed in parallel
- When installing filter, allow space for removing filter screen for cleaning
- Remove stainless steel filter screen before solvent welding filter to pipe manifold
- When filters are installed in the direct sun, it is suggested the filter body be coated with a water-base latex paint having a high reflectance
- Installation in a shaded area is preferred

Filter Dimensions & Weights



Filter Assembly with Stainless Steel Screen

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each		
100 GPM							
FL-16*	2-1/2 /3 x 4	1	0	020	555.11		
FL-32*	2-1/2 /3 x 4	1	0	020	567.73		
FL-50	2-1/2 /3 x 4	1	0	020	643.40		
FL-76	2-1/2 /3 x 4	1	0	020	777.14		
FL-100	2-1/2 /3 x 4	1	0	020	706.48		
FL-150	2-1/2 /3 x 4	1	0	020	731.74		
FL-200	2-1/2 /3 x 4	1	0	020	794.81		
*Standard EL-16 and EL-32 can be utilized as Reverse Flow Filters by reversing installation							

Standard FL-16 and FL-32 can be utilized as Reverse Flow Filters by reversing installation from current inlet to outlet and current outlet to inlet.

NOTE: Filter Assemblies are furnished standard with a 1-1/4" IPS tapped cap (FL4a) for use with a valve, or may be plugged off (plug not furnished). Optional cap available with 1/4" IPS tapping for use with a pressure gauge - specify FL-5a when ordering. 50 GDM

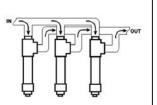
MFL-16*	2-1/2 /3 x 2	1	0	020	466.82
MFL-32*	2-1/2 /3 x 2	1	0	020	474.37
MFL-50	2-1/2 /3 x 2	1	0	020	489.48
MFL-76	2-1/2 /3 x 2	1	0	020	592.98
MFL-100	2-1/2 /3 x 2	1	0	020	517.27
MFL-150	2-1/2 /3 x 2	1	0	020	542.49
MFL-200	2-1/2 /3 x 2	1	0	020	605.57

from current inlet to outlet and current outlet to inlet.

NOTE: Filter Assemblies are furnished standard with a 1-1/4" IPS tapped cap (FL4a) for use with a valve, or may be plugged off (plug not furnished). Optional cap available with 1/4" IPS tapping for use with a pressure gauge — specify FL-5a when ordering.

Filter Replacement Screens

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each			
100 GPM (24" Length)								
FL-16-1	1/16" Holes	3	0	020	222.04			
FL-32-1	1/32" Holes	3	0	020	242.22			
FL-50-1	50 Mesh	3	0	020	479.42			



-CAUTION-

- WATER HAMMER MAY CAUSE SEVERE DAMAGE TO THE FILTER ASSEMBLY.
- BACK FLUSHING IS NOT RECOMMENDED.
- QUALITY GRADE THREAD SEALANT IS RECOMMENDED FOR ALL THREADED PVC CONNECTIONS.

	Mesh Size	Hole Size (in.)	Part Number Extension
	1/16" Holes	.0625	-16
	1/32" Holes	.0312	-32
	50 Mesh	.0117	-50
l	76 Mesh	.0095	-76
	100 Mesh	.0059	-100
	150 Mesh	.0041	-150
	200 Mesh	.0029	-200

Additional Mesh Sizes available on request.

Series	A In	A Inlet		C Overall	Screen	Filter Approx.
Series	Socket	Spigot	Outlet	Length	Length	Weight
FLR	2-1/2	3	4	28	24	8
MFLR	2-1/2	3	4	16	12	4-3/4

Filter Replacement Screens (continued)

Part Number	Size	Std	Mstr	Disc	Price			
	0.20	Pk	Ctn	Code	Each			
100 GPM (24" Lengt	100 GPM (24" Length)							
FL-76-1	76 Mesh	3	0	020	474.37			
FL-100-1	100 Mesh	3	0	020	373.45			
FL-150-1	150 Mesh	3	0	020	403.71			
FL-200-1	200 Mesh	3	0	020	499.60			

NOTE: When ordering replacement screens for FL and MFL Series Filters, please provide exact length of old screen within 1/64" to ensure proper fit of new screen in your filter body. 50 GPM (12" Length)

MFL-16-1	1/16" Holes	3	0	020	222.04	
MFL-32-1	1/32" Holes	3	0	020	232.14	
MFL-50-1	50 Mesh	3	0	020	252.33	
MFL-76-1	76 Mesh	3	0	020	358.29	
MFL-100-1	100 Mesh	3	0	020	277.57	
MFL-150-1	150 Mesh	3	0	020	307.85	
MFL-200-1	200 Mesh	3	0	020	378.46	
NOTE: When ordering replacement screens for FL and MFL Series Filters, please provide						

exact length of old screen within 1/64" to ensure proper fit of new screen in your filter body.

Filter Replacement Components

Dort Number	0:	Std	Mstr	Disc	Price			
Part Number	Size	Pk	Ctn	Code	Each			
100 GPM Filter Body								
FL-11	2-1/2 /3 X 4	1	0	020	378.46			
50 GPM Filter Body								
MFL-11	2-1/2 /3 X 2	1	0	020	290.17			
Components for	Old-Style Filter	s w/3	" Bo	ttom	Сар			
Part Number	Size	Std	Mstr	Disc	Price			
Part Nulliber	Size	Pk	Ctn	Code	Each			
Filter Cap w/Gasket								
FL-4A	3X1-1/4	70	0	020	31.55			
FL-5A	3X1/4	70	0	020	31.55			

*Standard FL-16 and FL-32 can be utilized as Reverse Flow Filters by reversing installation



Strainers & Filters Filters & Hose Filters

Filters

Hose Filters

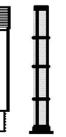
Components for	r Old-Style Filter	s w/3	" Bo	ttom	Сар		
Part Number	Size	Std	Mstr	Disc	Price		
	Size	Pk	Ctn	Code	Each		
Cap Gasket Only							
FCG-5	3	2	0	020	10.04		
Components for New-Style Filters w/4" Bottom Cap							
Part Number	Size	Std	Mstr	Disc	Price		
Fait Nulliber	Size	Pk	Ctn	Code	Each		
Filter Cap w/O-rings							
FL-4B	4X1-1/4	25	0	020	57.97		
-		-	-				

Components for New-Style Filters w/4" Bottom Cap

Size	Std	Mstr	Disc	Price				
Size	Pk	Ctn	Code	Each				
Filter Cap w/O-rings								
4X1/4	1	0	020	93.78				
Includes Cap with Cap O-ring (1) and bottom Filter Bushing O-ring (1)								
	100	0	901	.83				
Filter Bushing O-Rings								
	100	0	901	3.66				
Each filter uses two (2) Filter Bushing O-rings for top and bottom screen seals								
	ring (1) and bottom Filter Bu gs 	Size Pk 4X1/4 1 ring (1) and bottom Filter Bushing (100 gs 100	Size Pk Ctn 4X1/4 1 0 ring (1) and bottom Filter Bushing O-ring (1) 100 0 gs 100 0	Size Pk Ctn Code 4X1/4 1 0 020 ring (1) and bottom Filter Bushing O-ring (1) 100 0 901 gs 100 0 901				







NOTE: It is recommended to connect the inlet of the Hose Filter to the system with a swivel adapter such as Spears® AP Series, to facilitate servicing of the filter element (refer to Hose Fittings).

Mesh Size	Hole Size	Part Number
MOON OILO	(in.)	Extension
20 Mesh	.0331	-20
30 Mesh	.0232	-30
50 Mesh	.0117	-50
80 Mesh	.0070	-80
100 Mesh	.0059	-100
150 Mesh	.0041	-150
200 Mesh	.0029	-200

Additional Mesh Sizes available on request. Example: HF-50 = 50 Mesh

7 GPM Steel

7 GPM Plastic/Nylon

7 GPM Hose Filter Assembly

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
with Stainless Steel	Screen	TR	Our	0000	Lacit
HF-20	3/4	10	60	020	18.71
HF-30	3/4	10	60	020	18.71
HF-50	3/4	10	60	020	18.71
HF-80	3/4	10	60	020	18.71
HF-100	3/4	10	60	020	19.43
HF-150	3/4	10	60	020	19.67
HF-200	3/4	10	60	020	20.20
with Plastic/Nylon S	creen				
HF-150N	3/4	10	60	020	19.67
Hose Filter Repl	acement Screen	-	-		
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
Stainless Steel Scre	en				
HF-20-1W	5	25	150	020	6.84
HF-30-1W	5	25	150	020	6.84
HF-50-1W	5	25	150	020	6.84
HF-80-1W	5	25	150	020	6.84
HF-100-1W	5	25	150	020	10.11
HF-150-1W	5	25	150	020	10.11
HF-200-1W	5	25	150	020	10.11
Plastic/Nylon Screer	1				
HF-150-1NW	4-3/4	25	150	020	10.11
7 GPM Hose Filt	er Body Compor	nents	5		
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
Hose Filter Body w/o	o screen				
HF	3/4	10	60	020	14.07
Hose Washer					
W-100	3/4	50	1500	020	.04
Screen Washer		-	-	-	
S-W		600	0	901	.21

Strainers & Filters In-line Tee Style Filters and Reverse In-line Tee Style Filters



100 GPM and 50 GPM • PVC White • Buna O-ring Seal



100 GPM PVC White Tee Filter

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
Buna-N O-ring Seal y	with Stainless Steel S			Coue	Lacii
V		CIECI	I		
TF-16 [*]	2-1/2 /3 x 2-1/2 /3	1	0	020	555.11
TF-32*	2-1/2 /3 x 2-1/2 /3	1	0	020	567.73
TF-50	2-1/2 /3 x 2-1/2 /3	1	0	020	643.40
TF-76	2-1/2 /3 x 2-1/2 /3	1	0	020	777.14
TF-100	2-1/2 /3 x 2-1/2 /3	1	0	020	706.48
TF-150	2-1/2 /3 x 2-1/2 /3	1	0	020	731.74
TF-200	2-1/2 /3 x 2-1/2 /3	1	0	020	794.81

50 GPM PVC White Tee Filter

Part Number	Size	Std	Mstr	Disc	Price			
	5126	Pk	Ctn	Code	Each			
Buna-N O-ring Seal with Stainless Steel Screen								
MTF-16*	2-1/2 /3 x 2-1/2 /3	1	0	020	466.82			
MTF-32*	2-1/2 /3 x 2-1/2 /3	1	0	020	474.37			
MTF-50	2-1/2 /3 x 2-1/2 /3	1	0	020	489.48			
MTF-76	2-1/2 /3 x 2-1/2 /3	1	0	020	592.98			
MTF-100	2-1/2 /3 x 2-1/2 /3	1	0	020	517.27			
MTF-150	2-1/2 /3 x 2-1/2 /3	1	0	020	542.49			
MTF-200	2-1/2 /3 x 2-1/2 /3	1	0	020	605.57			

Mesh Size	Hole Size (in.)	Part Number Extension
1/16" Holes	.0625	-16
1/32" Holes	.0312	-32
50 Mesh	.0117	-50
76 Mesh	.0095	-76
100 Mesh	.0059	-100
150 Mesh	.0041	-150
200 Mesh	.0029	-200

Additional Mesh Sizes available on request. Example: TF-50 = 50 Mesh

100 GPM PVC White Reverse Tee Filter

Part Number	Size	Std Pk	Mstr	Disc	Price Each
			Ctn	Code	Each
Buna-N O-ring Seal	with Stainless Steel S	icreer	1		
TF-16*	2-1/2 /3 x 2-1/2 /3	1	0	020	555.11
TF-32*	2-1/2 /3 x 2-1/2 /3	1	0	020	567.73
TFR-50	2-1/2 /3 x 2-1/2 /3	1	0	020	643.40
TFR-76	2-1/2 /3 x 2-1/2 /3	1	0	020	777.14
TFR-100	2-1/2 /3 x 2-1/2 /3	1	0	020	706.48
TFR-150	2-1/2 /3 x 2-1/2 /3	1	0	020	731.74
TFR-200	2-1/2 /3 x 2-1/2 /3	1	0	020	794.81

50 GPM PVC White Reverse Tee Filter

Part Number	Size	Std	Mstr	Disc	Price				
Fait Nullibei	3120	Pk	Ctn	Code	Each				
Buna-N O-ring Seal	Buna-N O-ring Seal with Stainless Steel Screen								
MTF-16*	2-1/2 /3 x 2-1/2 /3	1	0	020	466.82				
MTF-32 [*]	2-1/2 /3 x 2-1/2 /3	1	0	020	474.37				
MTFR-50	2-1/2 /3 x 2-1/2 /3	1	0	020	489.48				
MTFR-76	2-1/2 /3 x 2-1/2 /3	1	0	020	592.98				
MTFR-100	2-1/2 /3 x 2-1/2 /3	1	0	020	517.27				

- In-line Design Simplifies Installation. Allows Easy Parallel Filter Configuration for Increased Flow and Filtration. Removable Type 304 Stainless Steel Filter Cartridges in Assorted Perforations and Screen Mesh.
- Standard Flow Filter (Internal-to-External) Traps Sediment on Inside of Cartridge, Reverse Flow Filter (External-to-Internal) Traps Sediment on Outside of Cartridge. Convenient Bottom Drain with 1-1/4" NPT Stainless Steel Reinforced Plastic Thread and
- Plug. Optional Cap with 1/4" Outlet Available. 200 psi Working Pressure for Water @ 73°F (23°C). Manufactured from NSF® Certified PVC Material.

50 GPM PVC White Reverse Tee Filter (continued)

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each		
Buna-N O-ring Seal with Stainless Steel Screen							
MTFR-150	2-1/2 /3 x 2-1/2 /3	1	0	020	542.49		
MTFR-200	2-1/2 /3 x 2-1/2 /3	1	0	020	605.57		

*Standard TF-16, TF-32, MTF-16 & MTF-32 can be utilized as Reverse Flow Filters by reversing installation from current inlet to outlet and current outlet to inlet.

100 GPM Filter Replacement Screens for TF Filters (24" Length)

Part Number	Size	Std	Mstr	Disc	Price
Part Nulliber		Pk	Ctn	Code	Each
FL-16-1	1/16" Holes	3	0	020	222.04
FL-32-1	1/32" Holes	3	0	020	242.22
FL-50-1	50 Mesh	3	0	020	479.42
FL-76-1	76 Mesh	3	0	020	474.37
FL-100-1	100 Mesh	3	0	020	373.45
FL-150-1	150 Mesh	3	0	020	403.71
FL-200-1	200 Mesh	3	0	020	499.60
NOTE: When ordering re	placement screens for TE a	and MT	F Series	Filters.	please provide

exact length of old screen within 1/64" to insure proper fit of new screen in your filter body.

50 GPM Filter Replacement Screens for MTF Filters (12" Lenath)

Part Number	Size	Std	Mstr	Disc	Price
	JIZE	Pk	Ctn	Code	Each
MFL-16-1	1/16" Holes	3	0	020	222.04
MFL-32-1	1/32" Holes	3	0	020	232.14
MFL-50-1	50 Mesh	3	0	020	252.33
MFL-76-1	76 Mesh	3	0	020	358.29
MFL-100-1	100 Mesh	3	0	020	277.57
MFL-150-1	150 Mesh	3	0	020	307.85
MFL-200-1	200 Mesh	3	0	020	378.46
NOTE: When ordering re	placement screens for TE a	and MT	E Series	Filters	nlease provide

 When ordering replacem ens for TF an exact length of old screen within 1/64" to insure proper fit of new screen in your filter body.

100 GPM Reverse Flow Filter Replacement Screens for **TFR Filters (24" Length)**

Part Number	Size	Std	Mstr	Disc	Price
Fait Nulliber	Size	Pk	Ctn	Code	Each
FL-16-1	1/16" Holes	3	0	020	222.04
FL-32-1	1/32" Holes	3	0	020	242.22
FLR-50-1	50 Mesh	3	0	020	243.39
FLR-76-1	76 Mesh	3	0	020	474.37
FLR-100-1	100 Mesh	3	0	020	337.02
FLR-150-1	150 Mesh	3	0	020	383.52
FLR-200-1	200 Mesh	3	0	020	474.62

50 GPM Reverse Flow Filter Replacement Screens for MTFR Filters (12" Length)

Part Number	Size	Std Pk		Disc Code	Price Each
MFL-16-1	1/16" Holes	3	0	020	222.04
MFL-32-1	1/32" Holes	3	0	020	232.14

NOT FOR DISTRIBUTION OF COMPRESSED AIR OR GAS

Due to Material Cost Variations, Prices Subject to Change. Check On-line Catalog @ www.spearsmfg.com

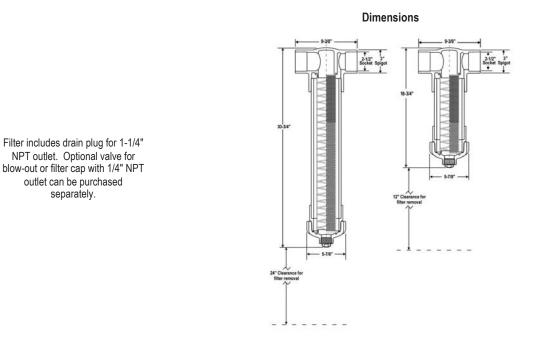


50 GPM Reverse Flow Filter Replacement Screens for MTFR Filters (12" Length) (continued)

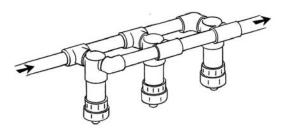
Part Number	ber Size	Std	Mstr	Disc	Price
Fait Number	Size	Pk	Ctn	Code	Each
MFLR-50-1	50 Mesh	3	0	020	256.21
MFLR-76-1	76 Mesh	3	0	020	358.29
MFLR-100-1	100 Mesh	3	0	020	263.67
MFLR-150-1	150 Mesh	3	0	020	292.44
MFLR-200-1	200 Mesh	3	0	020	359.53

Strainers & Filters In-line Tee Style Filters and Reverse In–line Tee Style Filters

IN-LINE TECHNICAL INFORMATION

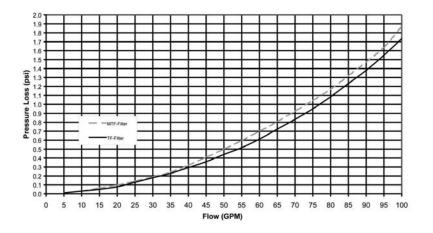


Parallel Filter Installation



- When more than 100 gpm is required, filters may be installed in parallel.
- When installing filter, allow space for removing filter screen for cleaning.
- Remove stainless steel filter screen before solvent welding filter to pipe manifold to avoid cement contact with screen.
- When filters are installed in the direct sun, it is suggested the filter body be coated with a water-base latex paint having a high reflectance.
- Installation in a shaded area is preferred.

Pressure Loss





Strainers & Filters Reverse Flow Filters





50 GPM

100 GPM Reverse Flow Filter Assembly with Stainless **Steel Screen**

Part Number	Size	Std	Mstr	Disc	Price
Part Nulliber	Size	Pk	Ctn	Code	Each
Socket x Socket/Sp	bigot				
FLR-16*	4X2-1/2 /3	1	0	020	555.11
FLR-32 [*]	4X2-1/2 /3	1	0	020	567.73
FLR-50	4X2-1/2 /3	1	0	020	643.40
FLR-76	4X2-1/2 /3	1	0	020	777.14
FLR-100	4X2-1/2 /3	1	0	020	706.48
FLR-150	4X2-1/2 /3	1	0	020	731.74
FLR-200	4X2-1/2 /3	1	0	020	794.81
*Standard EL-16 and EL	-32 can be utilized as Rever	se Flow	Filters	by revers	sing installation

from current inlet to outlet and current outlet to inlet.

50 GPM Filter Assembly with Stainless Steel Screen

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each		
Socket x Socket/Spi	aot	TR	Our	oouc	Lacii		
oocket x oocket/opi	got						
MFLR-16*	2X2-1/2 /3	1	0	020	466.82		
MFLR-32*	2X2-1/2 /3	1	0	020	474.37		
MFLR-50	2X2-1/2 /3	1	0	020	489.48		
MFLR-76	2X2-1/2 /3	1	0	020	592.98		
MFLR-100	2X2-1/2 /3	1	0	020	517.27		
MFLR-150	2X2-1/2 /3	1	0	020	542.49		
MFLR-200	2X2-1/2 /3	1	0	020	605.57		
*Standard MFL-16 and MFL-32 can be utilized as Reverse Flow Filters by r					s by reversing		

installation from current inlet to outlet and current outlet to inlet.

100 GPM Reverse Flow Filter Replacement Screens (24" Length)

Part Number	Size	Std	Mstr	Disc	Price		
		Pk	Ctn	Code	Each		
FL-16-1	1/16" Holes	3	0	020	222.04		
FL-32-1	1/32" Holes	3	0	020	242.22		
FLR-50-1	50 Mesh	3	0	020	243.39		
FLR-76-1	76 Mesh	3	0	020	474.37		
FLR-100-1	100 Mesh	3	0	020	337.02		
FLR-150-1	150 Mesh	3	0	020	383.52		
FLR-200-1	200 Mesh	3	0	020	474.62		

50 GPM Reverse Flow Filter Replacement Screens (12" Length)

Part Number	Size		Price		
	0120	Pk	Ctn	Code	Each
MFL-16-1	1/16" Holes	3	0	020	222.04
MFL-32-1	1/32" Holes	3	0	020	232.14
MFLR-50-1	50 Mesh	3	0	020	256.21
MFLR-76-1	76 Mesh	3	0	020	358.29
MFLR-100-1	100 Mesh	3	0	020	263.67
MFLR-150-1	150 Mesh	3	0	020	292.44
MFLR-200-1	200 Mesh	3	0	020	359.53

- Filter cartridge specially designed for external-to-internal filtration Traps sediment and debris on outside of filter (standard filters use
- internal-to-external flow) 100 GPM and 50 GPM styles available

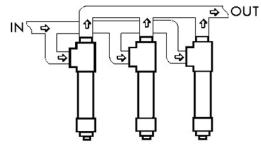
Strainers & Filters Reverse Flow Filters



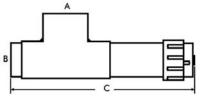
Mesh Size	Hole Size (in.)	Part Number Extension
1/16" Holes	.0625	-16
1/32" Holes	.0312	-32
50 Mesh	.0117	-50
76 Mesh	.0095	-76
100 Mesh	.0059	-100
150 Mesh	.0041	-150
200 Mesh	.0029	-200

Additional Mesh Sizes available on request. Example: FLR-<u>50</u> = 50 Mesh

Typical Reverse Flow Application



- When more than 100 gpm is required, filters may be installed in parallel
- When installing filter, allow space for removing filter screen for cleaning
- Remove stainless steel filter screen before solvent welding filter to pipe manifold
- When filters are installed in direct sunlight, it is suggested the filter body be coated with a water-base latex paint having a high reflectance
- Installation in a shaded area is preferred



	Α	B Outlet		C Overall	Screen	Filter
	Inlet	Socket	Spigot	Length	Length	Approx. Weight
FLR	4	2-1/2	3	28	24	8
MFLR	4	2-1/2	3	16	12	4-3/4