#### **Strainers & Filters Filters**



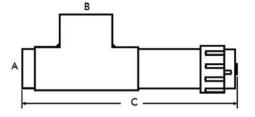
Specially designed for agricultural and irrigation applications. Suitable for any application where cool, filtered water is required. Standard units utilize an internal-to-external filter cartridge. See following page for reverse flow (external to internal) filters.



- 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

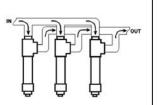
MFL-16*	2-1/2 /3 x 2	1	0	020	466.82
MFL-32*	2-1/2 /3 x 2	1	0	020	474.37
MFL-50	2-1/2 /3 x 2	1	0	020	489.48
MFL-76	2-1/2 /3 x 2	1	0	020	592.98
MFL-100	2-1/2 /3 x 2	1	0	020	517.27
MFL-150	2-1/2 /3 x 2	1	0	020	542.49
MFL-200	2-1/2 /3 x 2	1	0	020	605.57

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			
<b>Components for</b>	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** 

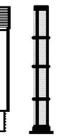
Components for	r Old-Style Filter	s w/3	" Bo	ttom	Сар		
Part Number	Size	Std	Mstr	Disc	Price		
	Size	Pk	Ctn	Code	Each		
Cap Gasket Only							
FCG-5	3	2	0	020	10.04		
Components for New-Style Filters w/4" Bottom Cap							
Part Number	Size	Std	Mstr	Disc	Price		
Fait Nulliber	Size	Pk	Ctn	Code	Each		
Filter 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 <sup>*</sup>	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 <sup>*</sup>	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

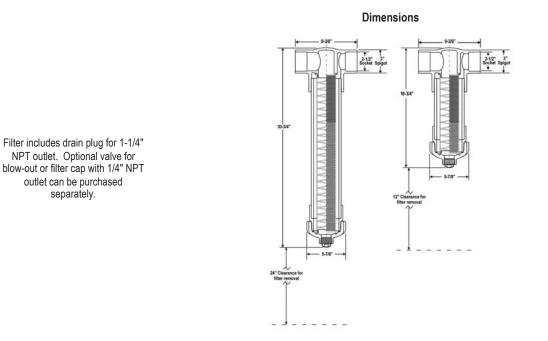


# 50 GPM Reverse Flow Filter Replacement Screens for MTFR Filters (12" Length) (continued)

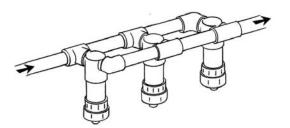
Part Number	ber Size	Std	Mstr	Disc	Price
Fait Number	Size	Pk	Ctn	Code	Each
MFLR-50-1	50 Mesh	3	0	020	256.21
MFLR-76-1	76 Mesh	3	0	020	358.29
MFLR-100-1	100 Mesh	3	0	020	263.67
MFLR-150-1	150 Mesh	3	0	020	292.44
MFLR-200-1	200 Mesh	3	0	020	359.53

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

## IN-LINE TECHNICAL INFORMATION

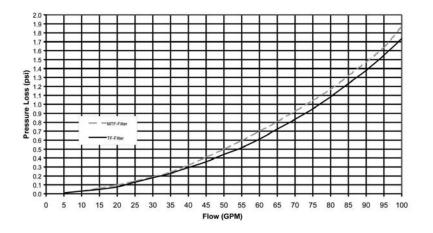


**Parallel Filter Installation** 



- 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 <sup>*</sup>	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

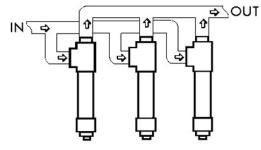
## Strainers & Filters Reverse Flow Filters



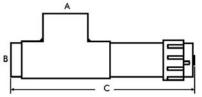
Mesh Size	Hole Size (in.)	Part Number Extension
1/16" Holes	.0625	-16
1/32" Holes	.0312	-32
50 Mesh	.0117	-50
76 Mesh	.0095	-76
100 Mesh	.0059	-100
150 Mesh	.0041	-150
200 Mesh	.0029	-200

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