



## **Updated Multi Pro® Filter Information**

Product: Multi Pro® March 24, 2017 **Affected Units:** Models: **Serial Numbers:** Multi Pro 5800 Base Gas 41594 315000001-316999999 Multi Pro 5800 Base Diesel 41593 311000001-316999999 Multi Pro 5800 Diesel 313000001-314699999 41593N Multi Pro 5800 ExcelaRate Diesel 41393 316000001-316999999 Multi Pro 5800 ExcelaRate Gas 41394 316000001-316999999 Multi Pro 1750 41188 314000001-316999999 Multi Pro Workman 314000001-316999999 41240

Subject: Multi Pro Filters

Bulletin Type & Status

Final Release

Situation:

Toro offers four types and various sizes of filters for Multi Pro sprayers. The correct filters must be used and maintained to achieve optimal longevity of the Multi Pro sprayer. The filters are color coordinated by mesh size. (**Table 1**).

Table 1

	Suction	Pressure		Tip
	Current Part No.	2016 and Prior	2017 and Later	Current Part No.
16 MESH		Brown	Brown	
TO MEST		131-0212	133-0383	
30 MESH	Green	Red	Red	
00 III_011	100-6991	131-0211	133-0384	
50 MESH	Blue	Blue	Blue	Blue
00 III_011	100-8642	131-0210	133-0385	120-0699
80 MESH	Red	Yellow	Yellow	
oo meeri	100-6992	131-0209	133-0386	
100 MESH		Green	Green	Green
100 MEGIT		131-0208	133-0387	120-0698



Figure 1

1. The first type is the basket filter that sits in the tank. (Figure 2)

This filter helps keep the bigger debris out of the spray tank and out of the spray system. This is the first line of defense. There is only one mesh size for the basket filter in the Multi Pro sprayers.



Figure 2

2. The second type is the suction filter. This filter is located on the top of the tank, in the suction line going to the spray pump. This filter protects the pump and other components downstream. If this filter becomes partially blocked, it can cause a restriction in the suction line, resulting in pump cavitation, greatly shortening the life of the pump. (**Figure 3**)

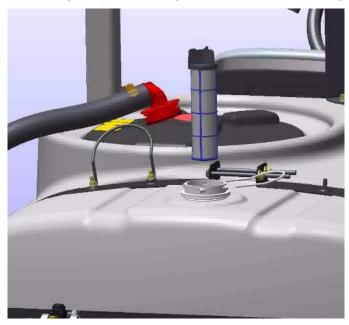


Figure 3

There are 3 different mesh sizes for the suction filter: 30 mesh, 50 mesh, and 80 mesh. (**Figure 4**) The current factory equipped filter size is 50 mesh. The factory equipped will be changing to 30 mesh. This is sized based on the viscosity of plain water. It is recommended to size the suction filter based on the nozzle size, the viscosity of the chemicals being used, and the chosen application rate. (Refer to **Table 2** for filter size based on nozzles.) If the viscosity is higher than plain water, or if the application rate has a high flow rate, use the 30 mesh suction filter to handle the flow rates through the filter that are required. When using thinner viscosity fluids or/and smaller nozzles with lower application rates, use the finer 80 mesh filter, as the thinner viscosity fluid requires a finer mesh to get adequate filtration.

Table 2

Nozzle Color	Mesh Size
Yellow (0.2 gpm)	50
Red (0.4 gpm)	50
Brown (0.5 gpm)	50 or 30
Gray (0.6 gpm)	30
White (0.8 gpm)	30
Blue (1.0 gpm)	30
Green (1.5 gpm)	30



Filter Mesh Size: 30, 50, 100

### Figure 4

3. The next type is an inline pressure filter located after the pump and before the valves (**Figure 5**). This filter protects the valves in the spray system. If this filter becomes blocked, it will restrict flow and system pressure will increase until the pressure filter ruptures.



Figure 5

There are five different sizes of pressure filters: 16 mesh, 30 mesh, 50 mesh, 80 mesh, and 100 mesh. (Figure 6)The factory equipped filter size is 50 mesh. This is sized based on the viscosity of plain water. It is recommended to size the suction filter based on the nozzle size, the viscosity of the chemicals being used, and the chosen application rate. The pressure filter is sized according to the nozzles that are selected (refer to **Table 3**). The viscosity of the fluid is still an important part of the filter selection criteria.

Table 3

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Nozzle Color	Mesh Size
Yellow (0.2 gpm)	80
Red (0.4 gpm)	50
Brown (0.5 gpm)	50
Gray (0.6 gpm)	50
White (0.8 gpm)	50
Blue (1.0 gpm)	50
Green (1.5 gpm)	50



Filter Mesh Size: 16, 30, 50, 80, 100

#### Figure 6

4. The final type is the tip strainer. The tip strainer (or nozzle filter) is installed behind the nozzle in the turret. (Figure 7) This is the only filter that is considered optional. There is no factory equipped tip strainer on Multi Pro sprayers. This filter is designed to protect the nozzles and increase their lifespan. If there is a filter behind every nozzle on the sprayer, these filters need to be cleaned regularly and maintained to extend the longevity of the nozzles. If these tip strainers become partially blocked, it will result in distortion of the spray pattern and potentially cause an inconsistent application rate. The two filter sizes that are available are 50 mesh and 100 mesh (Figure 8). Tip strainers are sized relative to the nozzles selected.



Figure 7



Filter Mesh Size: 50, 100

#### Figure 8

The filters used in Toro Multi Pro sprayers are color coded for quick identification. This color coding reflects the mesh size of the filter. Prior to 2016, the color code was vendor dependent, as different vendors used their own color-coding system. In 2016, the filter color codes were moved to standardized color codes. With the implementation, there are previous filters that are still using the old color code. The only difference in these older filters is the color; there is no change in mesh size or performance of the filters. The new standardized color-coded filters also have the mesh size molded on the filter housing. (**Figure 9**)

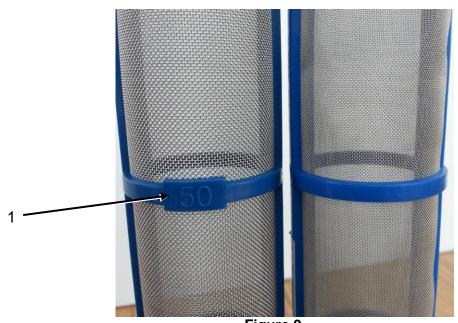


Figure 9
1. Molded mesh size



### Vehicles #01-01

# **Updated Multi Pro® Filter Information**

Product: Multi Pro		Publishing Date
Affected Units:	Models:	Serial Numbers:
Multi Pro 5800 Base Gas	41594	315000001-316999999
Multi Pro 5800 Base Diesel	41593	311000001-316999999
Multi Pro 5800 Diesel	41593N	313000001-314699999
Multi Pro 5800 ExcelaRate Diesel	41393	316000001-316999999
Multi Pro 5800 ExcelaRate Gas	41394	316000001-316999999
Multi Pro 1750	41188	314000001-316999999
Multi Pro Workman	41240	314000001-316999999

Subject: Multi Pro Filters

Bulletin Type & Status

Select type: Final Release

Situation:

Toro offers four types and various sizes of filters for Multi Pro sprayers. The correct filters must be used and maintained to achieve optimal longevity of the Multi Pro sprayer. The filters are color coordinated by mesh size (**Table 1**).

Table 4

	Suction	Pressure		Tip
	Current Part No.	2016 and Prior	2017 and Later	Current Part No.
16 MESH		Brown	Brown	
10 1112011		131-0212	133-0383	
30 MESH	Green	Red	Red	
00 M2011	100-6991	131-0211	133-0384	
50 MESH	Blue	Blue	Blue	Blue
30 1112311	100-8642	131-0210	133-0385	120-0699
80 MESH	Red	Yellow	Yellow	
00 1112011	100-6992	131-0209	133-0386	
100 MESH		Green	Green	Green
		131-0208	133-0387	120-0698



Figure 10

1. The first type is the basket filter that sits in the tank. (**Figure 2**) This filter helps keeps the bigger debris out of the spray tank and out of the spray system. This is the first line of defense. There is only one mesh size for the basket filter in the Multi Pro sprayers.



Figure 11

2. The second type is the suction filter. This filter is located on the top of the tank, in the suction line going to the spray pump. (Figure 3) This filter protects the pump and other components downstream. If this filter becomes partially blocked, it can cause a restriction in the suction line, resulting in pump cavitation, greatly shortening the life of the pump.

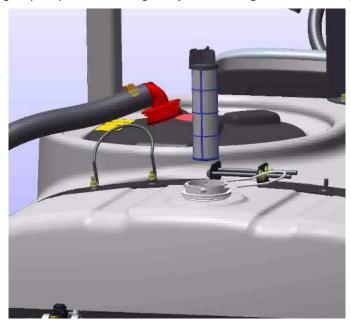


Figure 12

There are 3 different mesh sizes for the suction filter: 30 mesh, 50 mesh, and 80 mesh. (**Figure 4**) The current factory equipped filter size is 50 mesh. The factory equipped will be changing to 30 mesh. This is sized based on the viscosity of plain water. It is recommended to size the suction filter based on the nozzle size, the viscosity of the chemicals being used, and the chosen application rate. (Refer to **Table 2** for filter size based on nozzles.) If the viscosity is higher than plain water, or if the application rate has a high flow rate, use the 30 mesh suction filter to handle the flow rates through the filter that are required. When using thinner viscosity fluids or/and smaller nozzles with lower application rates, use the finer 80 mesh filter, as the thinner viscosity fluid requires a finer mesh to get adequate filtration.

Table 5

Nozzle Color	Mesh Size
Yellow (0.2 gpm)	50
Red (0.4 gpm)	50
Brown (0.5 gpm)	50 or 30
Gray (0.6 gpm)	30
White (0.8 gpm)	30
Blue (1.0 gpm)	30
Green (1.5 gpm)	30



Filter Mesh Size: 30, 50, 100

Figure 13

3. The next type is an inline pressure filter located after the pump and before the valves. (**Figure 5**) This filter protects the valves in the spray system. If this filter becomes blocked, it will restrict flow and system pressure will increase until the pressure filter ruptures.



Figure 14

There are five different sizes of pressure filters; 16 mesh, 30 mesh, 50 mesh, 80 mesh, and 100 mesh. (**Figure 6**) The factory equipped filter size is 50 mesh. This is sized based on the viscosity of plain water. It is recommended to size the suction filter based on the nozzle size, the viscosity of the chemicals being used, and the chosen application rate. The pressure filter is sized according to the nozzles that are selected (refer to **Table 3**). The viscosity of the fluid is still an important part of the filter selection criteria.

Table 6

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Nozzle Color	Mesh Size		
Yellow (0.2 gpm)	80		
Red (0.4 gpm)	50		
Brown (0.5 gpm)	50		
Gray (0.6 gpm)	50		
White (0.8 gpm)	50		
Blue (1.0 gpm)	50		
Green (1.5 gpm)	50		



Filter Mesh Size: 16, 30, 50, 80, 100

#### Figure 15

4. The final type is the tip strainer. The tip strainer (or nozzle filter) is installed behind the nozzle in the turret. (Figure 7) This is the only filter that is considered optional. There is no factory equipped tip strainer on Multi Pro sprayers. This filter is designed to protect the nozzles and increase their lifespan. If there is a filter behind every nozzle on the sprayer, these filters need to be cleaned regularly and maintained to extend the longevity of the nozzles. If these tip strainers become partially blocked, it will result in distortion of the spray pattern and potentially cause an inconsistent application rate. The two filter sizes that are available are 50 mesh and 100 mesh.(Figure 8) Tip strainers are sized relative to the nozzles selected.



Figure 16



Filter Mesh Size: 50, 100

Figure 17

The filters used in Toro Multi Pro sprayers are color coded for quick identification. This color coding reflects the mesh size of the filter. Prior to 2016, the color code was vendor dependent, as different vendors used their own color-coding system. In 2016, the filter color codes were moved to standardized color codes. With the implementation, there are previous filters that are still using the old color code. The only difference in these older filters is the color; there is no change in mesh size or performance of the filters. The new standardized color-coded filters also have the mesh size molded on the filter housing. (**Figure 9**)

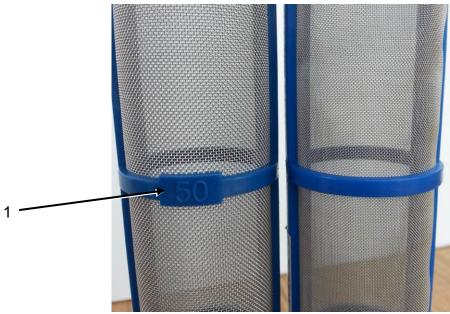


Figure 18

1. Molded mesh size