



## **FINE MATERIAL SCREW WASHER**

McLanahan Fine Material Screw Washers (FMSW) are primarily used to dewater, classify and wash sand and other fine materials. The selection of a Fine Material Screw Washer is based upon the type of material, feed gradation, desired product specification, capacity required and water volume if in a slurry feed. All of these factors must be taken into consideration for proper sizing.

### **Guaranteed Capacity**

From the start of your enquiry, our experts do their homework to best fit a McLanahan Fine Material Screw Washer to your site. Poor design and planning in these stages can lead to overflow of desired fine material, resulting in lost product and profit. We apply proven operational knowledge when determining the proper machine size by reviewing needed application data that includes slurry volume and your feed gradation data of water coming in with the feed. Now that you have an extra 1 to 2 tons every hour, multiply the hours you're running each year by the cost per ton of sand – that's how much extra money you have in your product pile!

### **Retain More Fines**

Size for size, machine to machine, McLanahan Fine Material Screw Washers retain more product size fines than any other screw washer on the market. McLanahan Fine Material Screw washer boxes are designed with longer weirs and a larger pool area behind the baffle plate for retaining more +200 mesh (75 Micron) fines. Fine Material Screw Washers are designed with longer shafts for more dewatering, which results in a dryer product than with competitive units. They are a low cost, low power, sand processing solution that ensures you retain the optimal amount of fines.

### **Standard Equipment, Built For Your Application**

McLanahan understands that every application is different, which is why we offer a wide range of sand washing equipment. Our Fine Material Screw Washers come in more sizes and configurations so that the appropriate size washer box and screw shaft(s) can be selected to accommodate the sand and water capacity. Wear shoes are available in multiple materials, including white iron, hardmac and premium urethane to handle different types of feed. Each Fine Material Screw Washer comes with the service and support for which McLanahan is known.

Single Fine Material Screw Washer Capacities and Specifications						
		Max USGPM (m³/h) for retaining down to:				
Screw - Diameter x Length (Metric)	Capacity - STPH (MTPH)	100 mesh (150 Micron)	150 mesh (100 Micron)	200 mesh (75 Micron)	100% Screw RPM	HP (kW)
20" x 25' (508mm x 7.6m)	35 (31.75)	503 (114)	329 (75)	185 (42)	38	5 (3.7)
24" x 25' (610mm x 7.6m)	50 (45.36)	652 (148)	427 (97)	240 (55)	32	10 (7.5)
30" x 25' (762mm x 7.6m)	80 (72.58)	789 (179)	516 (117)	290 (66)	26	15 (11)
36" x 25' (914mm x 7.6m)	105 (95.25)	912 (207)	597 (136)	336 (76)	21	15 (11)
36" x 27' (914mm x 8.2m)	105 (95.25)	912 (207)	597 (136)	336 (76)	21	15 (11)
44" x 33' (1118mm x 10.1m)	175 (158.76)	1771 (402)	1159 (263)	652 (148)	17	25 (18.5)
54" x 35' (1372mm x 10.7m)	250 (226.8)	2023 (460)	1325 (301)	745 (169)	14	40 (30)
66" x 38' (1676mm x 11.6m)	400 (362.87)	2274 (517)	1489 (338)	838 (190)	11	60 (45)
72" x 42' (1828mm x 12.8m)	475 (430.91)	2660 (604)	1741 (395)	980 (223)	10	75 (56)

Capacities are based on solids weight being 100 pounds per cubic foot (1.6 metric tons per cubic meter).

Double Fine Material Screw Washer Capacities and Specifications						
		Max USGPM (m³/h) for retaining down to:				
Screw - Diameter x Length (Metric)	Capacity - STPH (MTPH)	100 mesh (150 Micron)	150 mesh (100 Micron)	200 mesh (75 Micron)	100% Screw RPM	HP (kW)
36" x 25' (914mm x 7.6m)	210 (190.51)	1374 (312)	900 (204)	506 (115)	21	2 - 15 2 - (11)
36" x 27' (914mm x 8.2m)	210 (190.51)	1374 (312)	900 (204)	506 (115)	21	2 - 15 2 - (11)
44" x 33' (1118mm x 10.1m)	350 (317.51)	2629 (597)	1721 (391)	968 (220)	17	2 - 25 2 - (18.5)
54" x 35' (1372mm x 10.7m)	500 (453.59)	3100 (704)	2029 (461)	1142 (260)	14	2 - 40 2 - (30)
66" x 38' (1676mm x 11.6m)	800 (725.75)	3434 (780)	2248 (511)	1264 (287)	11	2 - 60 2 - (45)
72" x 42' (1828mm x 12.8m)	950 (861.83)	4028 (915)	2637 (600)	1483 (337)	10	2 - 75 2 - (56)

Capacities are based on solids weight being 100 pounds per cubic foot (1.6 metric tons per cubic meter).

Fine Material Screw Washer Speeds	
Speed relationship to % passing 50 mesh (300 Micron)	
0 to 15%	100% Speed
16 to 20%	75% Speed
21 to 30%	50% Speed
31 to 50%	25% Speed
51 to 85%	16% Speed

A screw speed reduction will proportionately reduce rated capacity. Example: a 25% reduction in speed reduces rated capacity by 25%.