

## **AIO Series Chemical Free Iron Filter**

The AIO Chemical Free Iron filter is intended to be an effective and economical way to remove iron from water without the use of messy and dangerous chemicals or expensive pumps or an external venturi. The AIO valve uses a unique process to create an air bubble at the upper portion of the tank to oxidize any ferrous iron prior to being filtered by the media. It can also be used to remove low concentrations of dissolved hydrogen sulfide and manganese from water.

## **How does the AIO (Air Induction Oxidization) filter work?**

This filter works by adding oxygen to the incoming water by passing it through a bubble of compressed air. The water is then passed through a special filter bed. The special media not only increases the pH of the water to enhance iron removal but also acts as a physical barrier to trap iron precipitate. As more water passes through this iron filter, the oxygen in the unit is used up, and the media gets loaded with iron. The regeneration process then begins in order to replenish the supply of oxygen, and to backwash the precipitated iron trapped in the media bed. The iron removal efficiency will be more effective with high pH water. The filter is fitted with an inlet check valve to prevent any air from flowing backwards out of the filter tank.





Item#	Model	Media Cu Ft	Flow Rate USGPM			Mineral	Pipe Size	Ship Weight	
			Service	Peak	Backwash	Tank Size	Inches	Lbs	
AIO CHEMICAL FREE IRON FILTER									
765 Valve									
18550801	PW765-75AIO	0.75	2	4	3.5	8 x 44	3/4" - 1"	93	
18550808	PW765-100AIO	1.0	3	6	4	9 x 48	3/4" - 1"	120	
18550815	PW765-150AIO	1.5	4	10	5	10 x 54	3/4" - 1"	164	
AIOM CHEMICAL FREE IRON FILTER For Low pH and/or High Manganese Applications									
765 Valve									
18550822	PW765-75AIOM	0.75	2	4	3.5	8 x 44	3/4" - 1"	93	
18550829	PW765-100AIOM	1.0	3	6	4	9 x 48	3/4" - 1"	120	
18550836	PW765-150AIOM	1.5	4	10	5	10 x 54	3/4" - 1"	164	
AIOC FILTER FOR HYDROGEN SULFIDE REDUCTION									
765 Valve									
18550843	PW765-75AIOC	0.75	2	4	3.5	8 x 44	3/4" - 1"	50	
18550850	PW765-100AIOC	1.0	3	6	4	9 x 48	3/4" - 1"	60	
18550857	PW765-150AIOC	1.5	4	10	5	10 x 54	3/4" - 1"	78	
AIOB BIRM IRON FILTER									
765 Valve									
18550870	PW765-75AIOB	0.75	2	4	3.5	8 x 44	3/4" - 1"	67	
18550877	PW765-100AIOB	1.0	3	6	4	9 x 48	3/4" - 1"	79	
18550884	PW765-150AIOB	1.5	4	10	5	10 x 54	3/4" - 1"	101	

	Application Parameters						
Bed Type	Iron (ppm)	Manganese (ppm)	Hydrogen Sulfide (ppm)	pH Range			
AIO Chem Free	0.0 - 10.0	0.0	0.0 - 1.0	7.0 - 8.5			
AIOM Chem Free	0.0 - 10.0	0.0 - 1.0	0.0 - 1.0	6.5 - 6.9			
AIOC Hydrogen Sulfide	0.0	0.0	0.0 - 3.0	7.0 - 8.5			
AIOB Birm	0.0 - 10.0	0.0	0.0	7.0 - 8.5			



**PW765 Series Control Valve** 









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