



YAMIT  
FILTRATION

# Screen Champ

## Automatic Self-Cleaning Screen Filter

(YAF200 and YAF800 Models)

Carbon Steel with Polyester Coating



Stainless Steel with Passivation



### Unique Features, Advantages, and Benefits:

- Carbon steel filter bodies with superior “UV Resistant Polyester Coating” protecting against fading color and corrosion
- Stainless steel AF800 filter bodies include “Passivation” treatment
  - Bodies soaked in Nitric Acid to remove all carbon sediments
  - Creates an oxide coating to the stainless steel providing superior corrosion resistance
- Three (3) layered floating 316L Stainless Steel Screen
  - Strong and durable
  - Has greater effective screen area (open pore space)
  - Can push higher flow rates through the screen
- Specially designed suction nozzle with a “V Shaped Notch” provides superior cleaning of the screen
  - Large Debris can sometimes be trapped on the inside of the fine screen
  - The Yamit V-shaped nozzle easily ingests large debris and allows the dirt collector to rotate without jamming the screen, as standard nozzles do
  - Better cleaning, less down time, less maintenance



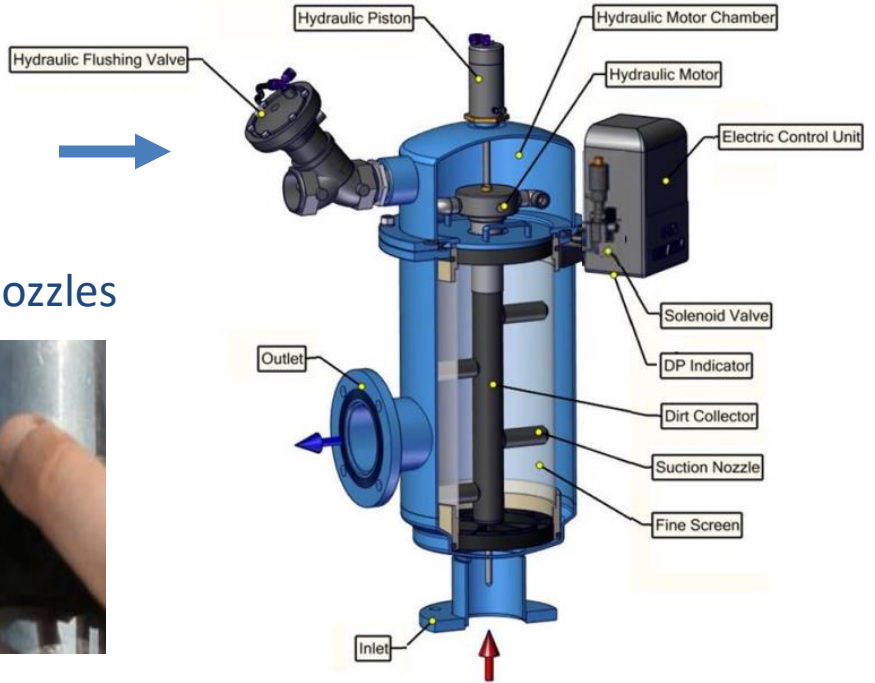
V. 04, 2020



# Screen Champ Automatic Screen Filter

(Cutaways of YAF200 and YAF800 Models)

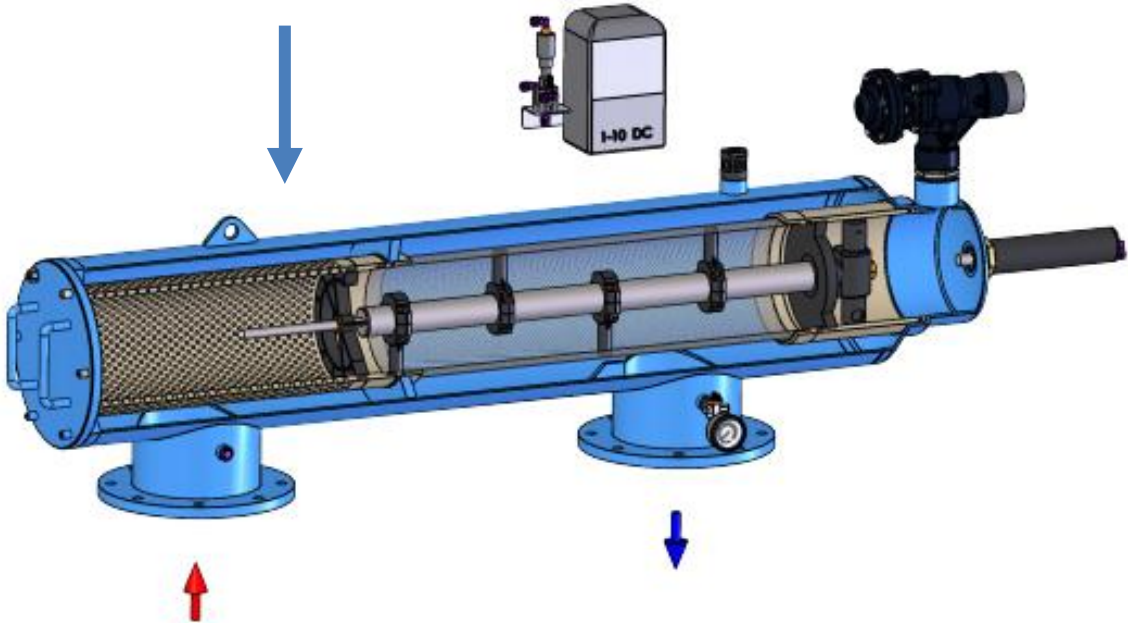
YAF200 Models  
(2" – 8")



V-Shaped Suction Nozzles



YAF800 Models  
(4" – 12")



# Screen Champ Automatic Screen Filter

## (AF200 and AF800 Models)

### Applications:

- Provides quality and reliable filtration to protect all types of irrigation systems from clogging
- Effective with all water sources including reservoirs, canals, rivers, wells and treated effluent water

### Operation:

#### *Filtration*

Water enters the filter through the “inlet” and passes through the coarse screen, that functions as a “first stop” for large particles. Water then reaches the fine screen, which further cleans the flow by separating smaller particles from the water. As more water flows through, impurities build up on the fine screen. As impurities on the screen accumulate, a pressure differential is built up between the internal section of the fine screen and its external section.

#### *Self-cleaning process - "Flushing"*

When the difference in pressure (DP) reaches the preset value on the differential pressure indicator, the following events occur, while the water continues to flow to the irrigation system. The flush valve opens, a strong suction force is created at the nozzles of the dirt collector inside the screen. The suction force vacuums the dirt particles that accumulated on the inside of the screen. The hydraulic motor rotates the dirt collector around its axis and the piston moves the dirt collector forward so that the nozzles clean the entire inside surface of the screen.

The flushing process takes 10 seconds. The flushing valve closes at the end of the cycle and the increased water pressure returns the dirt collector to its initial position. The filter screen is now clean and starts to accumulate additional dirt particles. During the whole process, the water supply is uninterrupted.

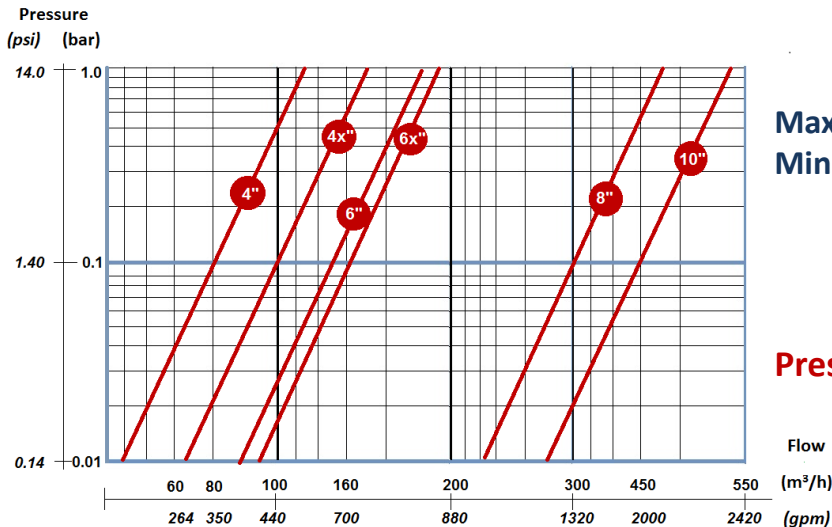
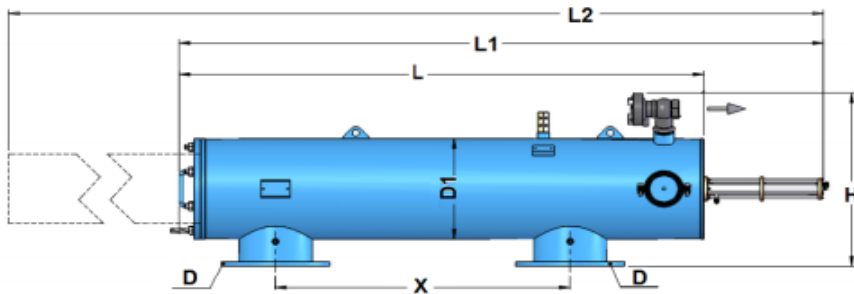


# Screen Champ YAF800

## Automatic Self-Cleaning Screen Filter

Model	In/Out ØD (mm) (in)		Maximum Flow Rate (m <sup>3</sup> /h) (gpm)		Screen area (cm <sup>2</sup> ) (in <sup>2</sup> )		Flushing Flow Rate (m <sup>3</sup> /h) (gpm)		Flushing vol. (m <sup>3</sup> ) (gal)	
YAF804NL	100	4	80	350	5,780	895	30	132	0.083	21.9
YAF804NX	100	4	100	440	8,410	1,303	30	132	0.083	21.9
YF806NL	150	6	150	660	5,780	895	30	132	0.083	21.9
YF806NX	150	6	160	700	8,410	1,303	30	132	0.083	21.9
YF808NL	200	8	300	1320	8,410	1,303	30	132	0.083	21.9
YF810X	250	10	450	2000	11,710	1,815	90	396	0.249	65.7

Model	In/OutØD (mm) (in)		ØD1 (in)	H (mm) (in)		X (mm) (in)		L (mm) (in)		L1 (mm) (in)		L2 (mm) (in)	
YAF804NL	100	4	10	545	21.4	900	35.4	1,535	60.4	1782	70.1	2,820	111.0
YAF804NX	100	4	10	545	21.4	900	35.4	1,931	76.0	2178	85.7	3,620	142.5
YAF806NL	150	6	12	580	22.8	900	35.4	1,605	63.2	1851	72.9	2,890	113.8
YF806NX	150	6	10	555	21.8	900	35.4	2,001	78.8	2247	88.5	3,680	144.9
YF808NL	200	8	12	579	22.8	900	35.4	2,190	86.2	2437	95.9	3,870	152.4
YAF810X	250	10	16	720	28.4	1,100	43.3	2,700	106.3	3145	123.8	5,420	213.4



**Maximum operating pressure: 150 psi**  
**Minimum pressure during flush: 30 psi**

**Pressure Loss at 120 mesh**

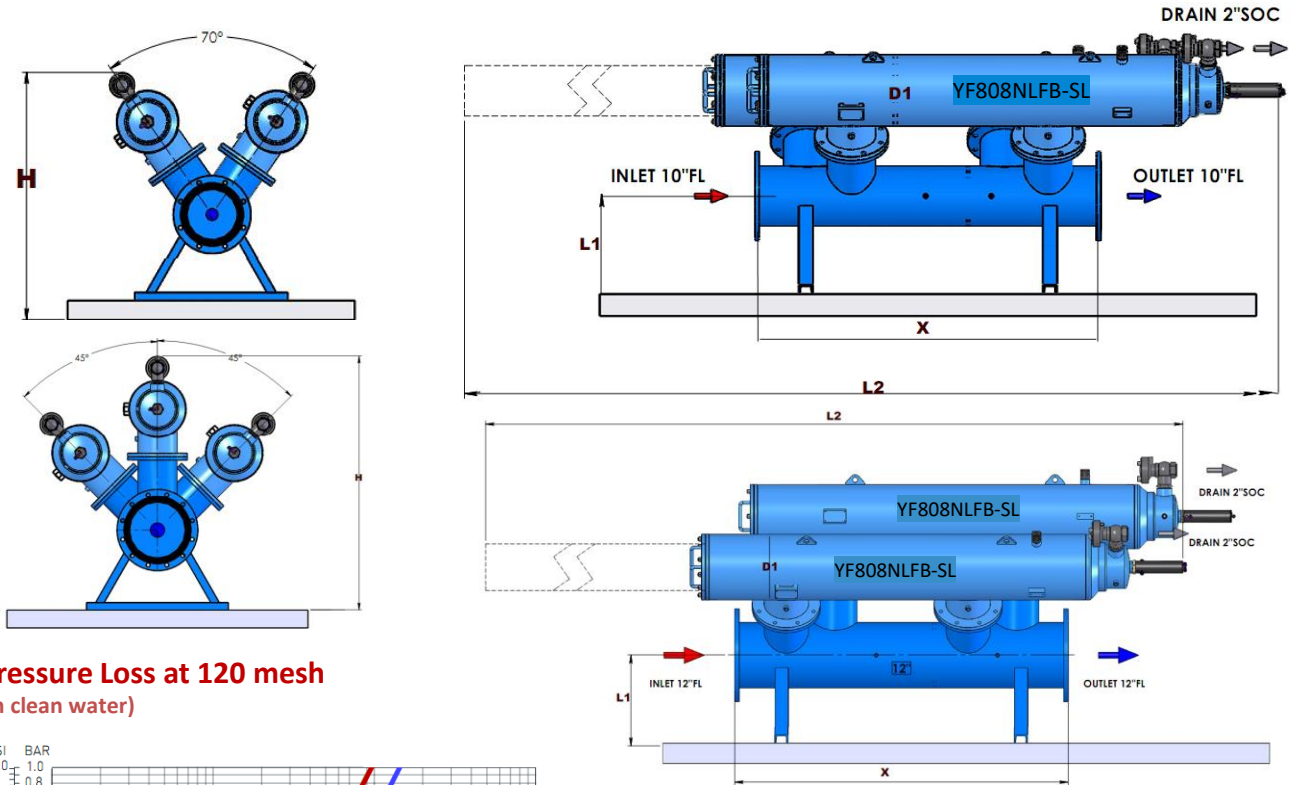




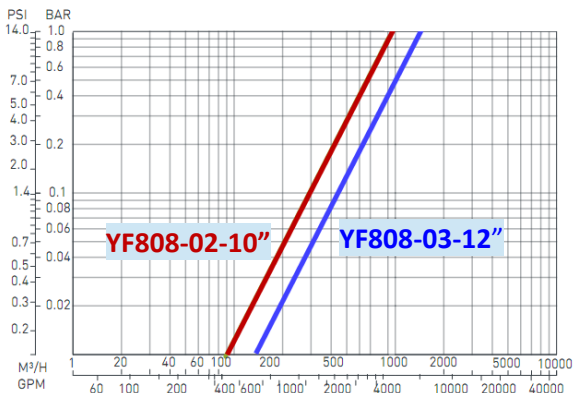
# Screen Champ Automatic Screen Filter (Multi-Unit Systems)

Model	In/Out ØD (mm) (in)		Maximum Flow Rate (m3/h) (gpm)		Screen area (cm <sup>2</sup> ) (in <sup>2</sup> )		Flushing Flow Rate (m3/h) (gpm)		Flushing vol. (m <sup>3</sup> ) (gal)	
YF808-02-10-YU	250	10	600	2,640	16,820	2,606	60	264	0.166	43.8
YF808-03-12-YU	300	12	900	3,960	25,230	3,909	90	396	0.249	65.7

Model	In/Out ØD (mm) (in)		ØD1 (in)	H (mm) (in)		X (mm) (in)		L1 (mm) (in)		L2 (mm) (in)	
YF808-02-10-YU	250	10	10	1,295	51	1,650	65	425	16.73	4,400	174
YF808-03-12-YU	300	12	10	1,431	56	1,650	65	450	17.71	4,400	174



## Pressure Loss at 120 mesh (in clean water)



**Maximum operating pressure: 150 psi**  
**Minimum pressure during flush: 30 psi**





# Screen Champ YAF800

## Automatic Self-Cleaning Screen Filter

### Maximum Recommended Flow Rates

#### 4" Parallel Short Model YAF804NL

Filter Area = 896 in<sup>2</sup>

Water Quality	200 mesh	150 mesh	120 mesh	80 mesh
Good	275	300	325	350
Average	250	275	300	325
Poor	225	250	275	300
Very Poor	175	200	250	275

#### 4" Parallel Long Model YAF804NX

Filter Area = 1300 in<sup>2</sup>

Water Quality	200 mesh	150 mesh	120 mesh	80 mesh
Good	375	400	450	500
Average	325	375	425	450
Poor	275	300	375	400
Very Poor	220	250	300	350

#### 6" Parallel Short Model YAF806NL

Filter Area = 896 in<sup>2</sup>

Water Quality	200 mesh	150 mesh	120 mesh	80 mesh
Good	425	475	550	660
Average	400	450	500	600
Poor	350	400	450	550
Very Poor	300	350	400	500

#### 6" Parallel Long Model YAF806NX

Filter Area = 1300 in<sup>2</sup>

Water Quality	200 mesh	150 mesh	120 mesh	80 mesh
Good	550	600	650	700
Average	525	550	625	650
Poor	480	500	600	625
Very Poor	380	400	450	550

#### 8" Parallel Model YAF808NL

Filter Area = 1300 in<sup>2</sup>

Water Quality	200 mesh	150 mesh	120 mesh	80 mesh
Good	750	900	1,100	1,300
Average	675	800	950	1,100
Poor	520	600	750	850
Very Poor	320	400	550	650

#### 10" Parallel Model YAF810X

Filter Area = 1815 in<sup>2</sup>

Water Quality	200 mesh	150 mesh	120 mesh	80 mesh
Good	1,400	1,600	1,800	2,000
Average	900	1,200	1,500	1,700
Poor	750	950	1,200	1,400
Very Poor	500	700	900	1,100

#### 10" (2-units of 8") Model YF808-02-10"

Filter Area = 2600 in<sup>2</sup>

Water Quality	200 mesh	150 mesh	120 mesh	80 mesh
Good	1,500	1,800	2,200	2,600
Average	1,350	1,600	1,900	2,200
Poor	1,040	1,200	1,500	1,700
Very Poor	640	800	1,100	1,300

#### 12" (3-units of 8") Model YF808-03-12"

Filter Area = 3900 in<sup>2</sup>

Water Quality	200 mesh	150 mesh	120 mesh	80 mesh
Good	2,250	2,700	3,300	3,900
Average	2,025	2,400	2,850	3,300
Poor	1,560	1,800	2,250	2,550
Very Poor	960	1,200	1,650	1,950

\*\*\*Note: Flow Rates are the maximum recommended per unit.  
Please contact Toro or Yamit for additional information.



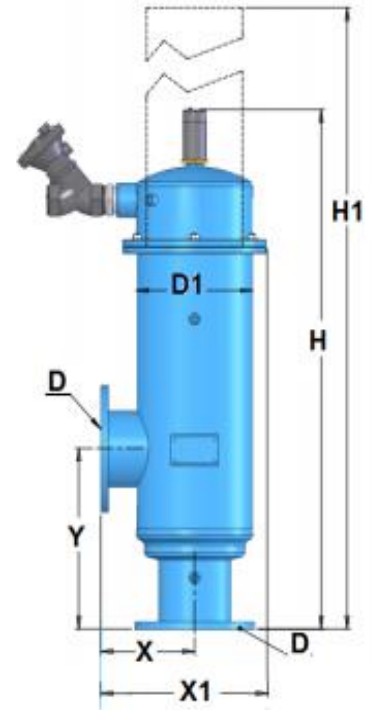
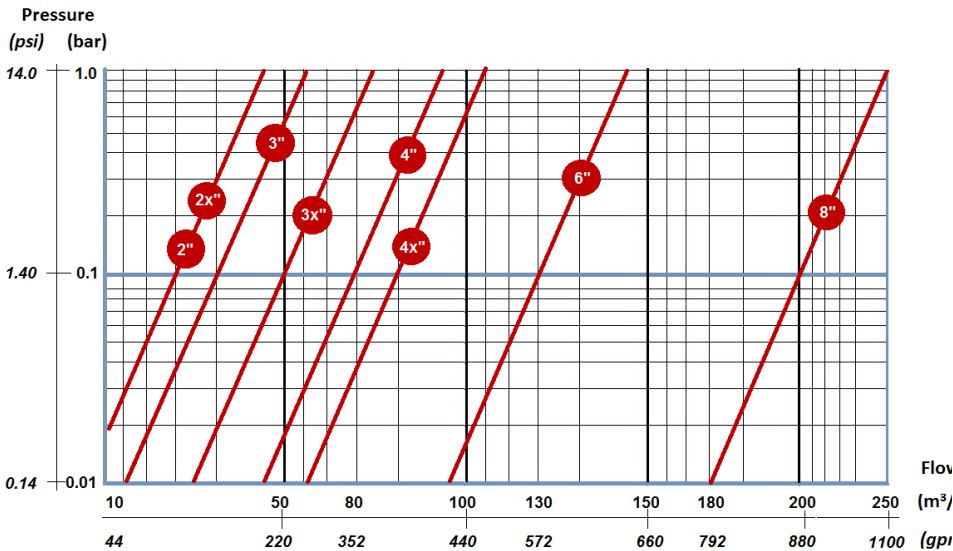


# Screen Champ YAF200

## Automatic Self-Cleaning Screen Filter

Model	In/Out ØD (in)	Max. Flow Rate *		Screen Area		Flushing Flow rate		Flushing volume	
		(m <sup>3</sup> /h)	(gpm)	(cm <sup>2</sup> )	(in <sup>2</sup> )	(m <sup>3</sup> /h)	(gpm)	(m <sup>3</sup> )	(gal)
YAF202X	2	30	132	1,630	253	6	26	0.0083	2.2
YAF203X	3	50	220	1,630	253	6	26	0.0083	2.2
YAF204X	4	90	396	2,770	430	20	87	0.028	7.4
YAF206	6	130	572	4,120	640	20	87	0.028	7.4
YAF208	8	200	880	5,240	812	20	87	0.028	7.4

Model	In/Out ØD (mm) (in)		ØD1 (in)	X (mm) (in)		X1 (mm) (in)		Y (mm) (in)		H (mm) (in)		H1 (mm) (in)		Shipping Weight (kg) (lb)	
YAF202X	50	2	10	220	8.7	465	18.3	197	8.7	623	24.5	590	23.2	47	103
YAF203X	75	3	10	220	8.7	465	18.3	210	8.3	641	25.2	590	23.2	48	105
YAF204X	100	4	10	220	8.7	585	23.0	315	12.4	920	36.2	1,145	45.1	70	154
YAF206	150	6	10	220	8.7	585	23.0	400	15.8	1,150	45.3	1,575	62.0	90	198
YAF208	200	8	16	303	11.9	642	25.3	450	17.7	1,219	48.0	1,700	66.9	150	331



**Maximum operating pressure: 150 psi**  
**Minimum pressure during flush: 30 psi**





# Screen Champ YAF200

## Automatic Self-Cleaning Screen Filter

### Maximum Recommended Flow Rates

2" Vertical Model YAF202XM				
Filter Area = 253 in <sup>2</sup>				
Water Quality	200 Mesh	150 Mesh	120 Mesh	80 Mesh
Good	112	120	125	132
Average	80	90	105	120
Poor	65	80	90	105
Very Poor	50	65	75	90

3" Vertical Model YAF203XM				
Filter Area = 253 in <sup>2</sup>				
Water Quality	200 Mesh	150 Mesh	120 Mesh	80 Mesh
Good	170	190	210	220
Average	130	150	175	200
Poor	90	115	140	170
Very Poor	75	90	115	140

4" Vertical Model YAF204XF				
Filter Area = 430 in <sup>2</sup>				
Water Quality	200 Mesh	150 Mesh	120 Mesh	80 Mesh
Good	340	360	380	400
Average	240	280	320	360
Poor	180	220	260	300
Very Poor	120	160	200	240

6" Vertical Model YAF206F				
Filter Area = 640 in <sup>2</sup>				
Water Quality	200 Mesh	150 Mesh	120 Mesh	80 Mesh
Good	470	495	520	550
Average	330	380	430	490
Poor	230	300	340	410
Very Poor	170	220	260	330

8" Vertical Model YAF208F				
Filter Area = 812 in <sup>2</sup>				
Water Quality	200 Mesh	150 Mesh	120 Mesh	80 Mesh
Good	680	720	760	800
Average	480	560	640	720
Poor	360	440	520	600
Very Poor	240	320	400	480

