



Rivulis Media Filters

F1600 Media Filter - Carbon Steel Tanks with Stainless Steel Underdrain

F1800 Media Filter - Stainless Steel Tanks with Stainless Steel Underdrain




F2000 Media Filter - Double Chamber Underdrain





Rivulis has a complete line of media filters that have the features and options to be the right media filter for your growing operation. The Rivulis media filters are offered in three different body and finish material combinations and have filter size options ranging from eighteen inch to forty eight inch. The media filters are sold as modular components systems which can put together to make larger systems.

Product Line Comparison

Filter	F1600	F1800	F2000
Characteristics			
Image			
Type	Media Filter	Media Filter	Media Filter
Body Material	Carbon Steel	Stainless Steel	Carbon Steel
Body Finish	Sprayed and Brushed Epoxy	11 Gauge 304 Stainless Steel	Baked On Epoxy Coating
Underdrain	All Welded Stainless Steel Wedgewire	All Welded Stainless Steel Wedgewire	Double Chamber Underdrain with diffusers
Legs Per Tank	3	3	4 (Skids and Adjustable Feet)
Access Ports Per Tank	3 (8")	2 (8")	5 (8")
Backwash Valve	Backwash Valve, PVC Adapter	Backwash Valve, PVC Adapter	Backwash Valve
Backwash Manifold	PVC Adapter	PVC Adapter	4" Metal Backwash Manifold, Flow Control Valve Kit
Cleaning Mechanism	Pressure Differential or Time Based Backflush	Pressure Differential or Time Based Backflush	Pressure Differential or Time Based Backflush
Actuation Method	DC	DC	DC/DC Latching
Maximum Flow Rate Range	35-3840 gpm	35-3840 gpm	370-3840 gpm
Diameters/Sizes	18-48" Tanks	18-48" Tanks	36-48" Tanks
Configurations	Modular	Modular	Modular
Media	Not Included	Not Included	Included - Basalt #1
Sand Depth	14"	14"	16"
Operating Guidelines			
Minimum Operating Pressure	28 PSI	28 PSI	21 PSI
Maximum Operating Pressure	18" - 125 PSI	18" - 125 PSI	120 PSI
	24"- 30" - 100 PSI	24"- 30" - 100 PSI	
	36"- 48" - 80 PSI	36"- 48" - 80 PSI	
Maximum Pressure Differential	6 PSI above the normal operating pressure differential	6 PSI above the normal operating pressure differential	Need to exceed 7.5 PSI
	18" - 27 gpm	18" - 27 gpm	
Minimum Backwash Flow Rate	24" - 47 gpm	24" - 47 gpm	36" - 148 gpm
	30" - 74 gpm	30" - 74 gpm	
	36" - 148 gpm	36" - 148 gpm	
	48" - 260 gpm	48" - 260 gpm	

F1600 Media Filter

Carbon Steel Media Filters with Stainless Steel Wedgewire Underdrain

The Rivulis F1600 Media Filters (Carbon Steel) provide the most effective and reliable filtration of water heavily contaminated with algae, organic matter, and other impurities found in open reservoirs, canals, and recycled water systems. The F1600 Media Filters use a bed of sand approximately fourteen inches deep to filter particles out of the water. The fully welded stainless steel underdrain provides a uniform backwash of the dirt particles trapped in the sand bed during the backwash cycle. The carbon steel filter and plastic backwash valve will effectively filter at 28 PSI. The stainless steel underdrain eliminates the requirement for a safety screen.



Installation made easier and faster.

The Rivulis F1600 Media Filter systems are designed as modules, so there is less custom assembly required. It's now about assembling whole modules, and not every part.

Each module includes:

- 1 Inlet manifold with air vent
- 2 Outlet manifold
- 3 PVC adaptor for backwash
- 4 manifold
- 5 Plastic backwash valve
- 6 Grooved couplings
- 7 Hydraulic pick up kit
- 8 Electrical kit
- 9 12 volt DC solenoids with pull elbows
- 10 Controller

Flow Recommendations For F1600 Carbon Steel Media Filters

Model	Flow Recommendations			Backwash Recommendation		
	Poor Water Quality (at 10-15 gpm/ft ²)	Average water quality (at 15-20 gpm/ft ²)	Good water quality (at 25 gpm/ft ²)	Media - Basalt # 1 (at 20 gpm/ft ²)	Media - Silica # 16 (at 15 gpm/ft ²)	Media - Silica # 20 (at 15 gpm/ft ²)
(inch)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)
18	12.5-18.5	18-25	25-31	25	27	27
24	31-46.5	45-62	60-77.5	62	47	47
30	49-73.5	70-98	95-122.5	98	74	74
36	70-106	105-142	140-177	148	107	107
48	125-187.5	185-250	250-312.5	312	188	188

F1600 Media Requirements Per System - (Gravel and Sand Required)

Media	18" Tank Systems			24" Tank Systems			30" Tank Systems			36" Tank Systems		
	1 x 18	2 x 18	3 x 18	1 x 24	2 x 24	3 x 24	1 x 30	2 x 30	3 x 30	1 x 36	2 x 36	3 x 36
Gravel												
Weight	75	150	225	150	300	450	300	600	900	400	800	1200
Sand												
Weight	200	400	600	400	800	1200	500	1000	1500	800	1600	1200
Media	48" Tank Systems											
	1 x 48	2 x 48	3 x 48	4 x 48	5 x 48	6 x 48	7 x 48	8 x 48	9 x 48	10 x 48	11 x 48	12 x 48
Gravel												
Weight	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
Sand												
Weight	1300	2600	3900	5200	6500	7800	9100	10400	11700	13000	14300	15600

F1600 Carbon Steel Media Filter - Systems (Stations)

Description	Size	# of Tanks	Filtration Area	Min. Backwash Flow Rate	Configuration	Manifolds (Inlet/Outlet)	Max. Flow Rate	Item Number		Required Gravel*	Required Sand*
	(inch)							(Sq. ft.)	(gpm)		
F1600 - 18" x 2	18	2	2.5	27	L - ●●	3	60	101050747	101050748	150	400
F1600 - 18" x 3	18	3	3.75	27	L - ●●●	3	90	101050751	101050752	225	600
F1600 - 24" x 2	24	2	6.2	47	L - ●●	4	155	101050755	101050756	300	800
F1600 - 24" x 3	24	3	9.3	47	L - ●●●	4	230	101050759	101050760	450	1200
F1600 - 30" x 2	30	2	9.8	74	L - ●●	4	245	101050763	101050764	600	1000
F1600 - 30" x 3	30	3	14.7	74	L - ●●●	4	365	101050767	101050768	900	1500
F1600 - 36" x 2	36	2	14.2	107	L - ●●	6	355	101050771	101050772	800	1600
F1600 - 36" x 3	36	3	21.3	107	L - ●●●	6	531	101050775	101050776	1200	2400
F1600 - 48" x 2	48	2	25	260	L - ●●	6	625	101050779	101050780	1000	2600
F1600 - 48" x 3	48	3	37.5	260	L - ●●●	6	935	101050783	101050784	1500	3900
F1600 - 48" x 4	48	4	50	260	CF - ●●●●	8	1250	101050787	101050788	2000	5200
F1600 - 48" x 5	48	5	62.5	260	CF - ●●●●●	10	1560	101050791	101050792	2500	6500
F1600 - 48" x 6	48	6	75	260	CF - ●●●●●●	10	1875	101050795	101050796	3000	7800
F1600 - 48" x 7	48	7	87.5	260	H - ●●●●●●	12	2240	101050799	101050800	3500	9100
F1600 - 48" x 8	48	8	100	260	H - ●●●●●●●	12	2560	101050803	101050804	4000	10400
F1600 - 48" x 9	48	9	112.5	260	H - ●●●●●●●●	14	2880	101050807	101050808	4500	11700
F1600 - 48" x 10	48	10	125	260	H - ●●●●●●●●●	14	3200	101050811	101050812	5000	13000
F1600 - 48" x 11	48	11	137.5	260	H - ●●●●●●●●●●	16	3520	101050815	101050816	5500	14300
F1600 - 48" x 12	48	12	150	260	H - ●●●●●●●●●●●	16	3840	101050879	101050820	6000	156000

System Details
F1600 Carbon Steel Media Filters

Included components: Tanks, manifolds, air valves, PVC adapter for backwash manifold, backwash control valves, 12 Volt DC solenoids with pull elbows, controller, hydraulic kit & grooved couplings to connect modules.

***Media (sand or gravel) is sold separately.**

F1800 Media Filter

Stainless Steel Media Filters with Stainless Steel Wedgewire Underdrain

The Rivulis F1800 Stainless Steel Media Filters (gravel or sand) provide the most effective and reliable filtration of water heavily contaminated with algae, organic matter, and other impurities found in open reservoirs, canals, and recycled water systems. The F1800 Media Filters use a bed of sand approximately fourteen inches deep to filter particles out of the water. The stainless steel wedgewire underdrain provides a uniform backwash of the dirt particles trapped in the sand bed during the backwash cycle. The Stainless steel filter and plastic backwash valve will effectively filter at 28 PSI. The stainless steel underdrain eliminates the requirement for a safety screen.



Installation made easier and faster.

The Rivulis F1800 Media Filter systems are designed as modules, so there is less custom assembly required. It's now about assembling whole modules, and not every part.

Each module includes:

- ❶ Inlet manifold with air vent
- ❷ Grooved couplings
- ❸ Outlet manifold
- ❹ Hydraulic pick up kit
- ❺ PVC adaptor for backwash
- ❻ Electrical kit
- ❼ manifold
- ❼ 12 volt DC solenoids with pull elbows
- ❽ Plastic backwash valve
- ❾ Controller

Flow Recommendations For F1800 Carbon Steel Media Filters

Model	Flow Recommendations			Backwash Recommendation		
	Poor Water Quality (at 10-15 gpm/ft ²)	Average water quality (at 15-20 gpm/ft ²)	Good water quality (at 25 gpm/ft ²)	Media - Basalt # 1 (at 20 gpm/ft ²)	Media - Silica # 16 (at 15 gpm/ft ²)	Media - Silica # 20 (at 15 gpm/ft ²)
(inch)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)
18	12.5-18.5	18-25	25-31	25	27	27
24	31-46.5	45-62	60-77.5	62	47	47
30	49-73.5	70-98	95-122.5	98	74	74
36	70-106	105-142	140-177	148	107	107
48	125-187.5	185-250	250-312.5	312	188	188

F1800 Media Requirements Per System - (Gravel and Sand Required)

Media	18" Tank Systems			24" Tank Systems			30" Tank Systems			36" Tank Systems		
	1 x 18	2 x 18	3 x 18	1 x 24	2 x 24	3 x 24	1 x 30	2 x 30	3 x 30	1 x 36	2 x 36	3 x 36
Gravel												
Weight	75	150	225	150	300	450	300	600	900	400	800	1200
Sand												
Weight	200	400	600	400	800	1200	500	1000	1500	800	1600	1200
Media	48" Tank Systems											
	1 x 48	2 x 48	3 x 48	4 x 48	5 x 48	6 x 48	7 x 48	8 x 48	9 x 48	10 x 48	11 x 48	12 x 48
Gravel												
Weight	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
Sand												
Weight	1300	2600	3900	5200	6500	7800	9100	10400	11700	13000	14300	15600

F1800 Stainless Steel Media Filter - Systems (Stations)

Description	Size	# of Tanks	Filtration Area	Min. Backwash Flow Rate	Configuration	Manifolds (Inlet/Outlet)	Max. Flow Rate	Item Number		Required Gravel*	Required Sand*
	(inch)							(Sq. ft.)	(gpm)		
F1800 - 18" x 2	18	2	2.5	27	L - ●●	3	60	101050745	101050746	150	400
F1800 - 18" x 3	18	3	3.75	27	L - ●●●	3	90	101050749	101050750	225	600
F1800 - 24" x 2	24	2	6.2	47	L - ●●	4	155	101050753	101050754	300	800
F1800 - 24" x 3	24	3	9.3	47	L - ●●●	4	230	101050757	101050758	450	1200
F1800 - 30" x 2	30	2	9.8	74	L - ●●	4	245	101050761	101050762	600	1000
F1800 - 30" x 3	30	3	14.7	74	L - ●●●	4	365	101050765	101050766	900	1500
F1800 - 36" x 2	36	2	14.2	107	L - ●●	6	355	101050769	101050770	800	1600
F1800 - 36" x 3	36	3	21.3	107	L - ●●●	6	531	101050773	101050774	1200	2400
F1800 - 48" x 2	48	2	25	260	L - ●●	6	625	101050777	101050778	1000	2600
F1800 - 48" x 3	48	3	37.5	260	L - ●●●	6	935	101050781	101050782	1500	3900
F1800 - 48" x 4	48	4	50	260	CF - ●●●●	8	1250	101050785	101050786	2000	5200
F1800 - 48" x 5	48	5	62.5	260	CF - ●●●●●	10	1560	101050789	101050790	2500	6500
F1800 - 48" x 6	48	6	75	260	CF - ●●●●●●	10	1875	101050793	101050794	3000	7800
F1800 - 48" x 7	48	7	87.5	260	H - ●●●●●●●	12	2240	101050797	101050798	3500	9100
F1800 - 48" x 8	48	8	100	260	H - ●●●●●●●●	12	2560	101050801	101050802	4000	10400
F1800 - 48" x 9	48	9	112.5	260	H - ●●●●●●●●●	14	2880	101050805	101050806	4500	11700
F1800 - 48" x 10	48	10	125	260	H - ●●●●●●●●●●	14	3200	101050809	101050810	5000	13000
F1800 - 48" x 11	48	11	137.5	260	H - ●●●●●●●●●●●	16	3520	101050813	101050814	5500	14300
F1800 - 48" x 12	48	12	150	260	H - ●●●●●●●●●●●●	16	3840	101050817	101050818	6000	156000

System Details
F1800 Stainless Steel Media Filters

Included components: Tanks, manifolds, air valves, PVC adapter for backwash manifold, backwash control valves, 12 Volt DC solenoids with pull elbows, controller, hydraulic kit & grooved couplings to connect modules.

***Media (sand or gravel) is sold separately.**

F2000 Media Filter

Double Chamber Underdrain with diffusers

F2000 Media Filters (gravel or sand) provide the most effective and reliable filtration of water heavily contaminated with algae, organic matter, and other impurities found in open reservoirs, canals, and recycled water systems. The F2000 Media Filters use a bed of sand approximately sixteen inches deep to filter particles out of the water. Water passes through the open spaces between the sand particles. The sharp edges of the sand, snag and trap the solid particles. The dirt particles trapped in the sand bed are removed during the backwash cycle. This dirt and backwash water is expelled from the tank into a disposal area.



Product Information

- Modular system
- Unique double chamber underdrain
- Five access ports for easy service and maintenance
- Efficient backwash valve

Key Operating Guidelines

- Maximum working pressure: 120 psi
- Maximum pressure: 150 psi
- Pressure differential: Not to exceed 7.5 psi



Installation made easier and faster.

The Rivulis F2000 Media Filter systems are designed as modules, so there is less custom assembly required. It's now about assembling whole modules, and not every part.

Each module includes:

- ① Inlet manifold
- ② Backwash manifold
- ③ Backwash valve
- ④ Outlet manifold
- ⑤ Legs/skids (pre-assembled on the filter optional)

F2000 Media Filter Specifications

Flow Recommendations For F2000 Media Filters						
Model	Filtration Recommendation			Backwash Recommendation		
	Poor Water Quality (at 14-19 gpm/ft ²)	Average water quality (at 18-25 gpm/ft ²)	Good water quality (at 24-27 gpm/ft ²)	Media - Basalt # 1 (at 32 gpm/ft ²)	Media - Silica # 16 (at 21 gpm/ft ²)	Media - Silica # 20 (at 15 gpm/ft ²)
(inch)	(mesh)	(mesh)	(mesh)	(gpm)	(gpm)	(gpm)
36	95-130	125-170	160-185	215	140	100
48	170-230	220-280	270-320	390	260	175

Media Requirements Per System (Included with Systems)																
	36" Tank Systems				48" Tank Systems											
	1 x 36	2 x 36	3 x 36	4 x 36	1 x 48	2 x 48	3 x 48	4 x 48	5 x 48	6 x 48	7 x 48	8 x 48	9 x 48	10 x 48	11 x 48	12 x 48
Basalt #1																
Weight	772	1544	2316	3088	1378	2756	4134	5512	6890	8268	9646	11024	12402	13780	15158	16536

Product Dimensions

Model	D	H	H2	Configuration	Module Weight	Media Sand Weight
	(inch)	(inch)	(inch)		(lbs.)*	(lbs.)
36" Single module	40	76.5	14.4	1x36"	570	950
36" Double module	80.1	76.5	14.4	2x36"	1240	
48" Single module	52	80.1	17	1x48"	990	1650
48" Double module	104	80.1	17	2x48"	2050	

* Weight includes: Filters on skids, all manifolds & valves

Key Features

Modular System

- Filters assembled on skids
- Ready to connect as modules

Unique Under Drain

Even and dense distribution of slots in the underdrain create uniform and thorough cleaning of the media during backflush

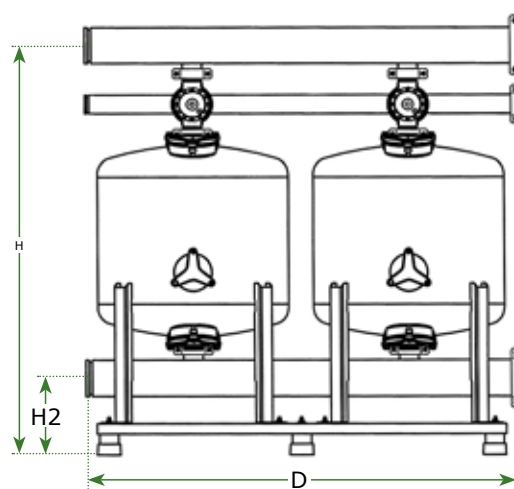
High Mushroom Diffuser counts per filter

Large total slot open area

Large and uniform mean slot width

Easy to service threaded Mushroom Diffusers when media has been removed

Models 36", 48"



Complete System Components

- Inlet, outlet, and backwash manifolds
- Backup screen filter
- Controller: AC or DC
- Automatic flow control valve for backwash
- Air release valves

Five Service Ports for Maintenance

- 1 on top
- 1 for the under drain
- 3 to remove media

Flow Recommendations

Model	Filtration Recommendation (gpm)			Backwash Recommendation (gpm)		
	Poor Water Quality (at 14-19 gpm/ft ²)	Average water quality (at 18-25 gpm/ft ²)	Good water quality (at 24-27 gpm/ft ²)	Media - Basalt # 1 (at 32 gpm/ft ²)	Media - Silica # 16 (at 21 gpm/ft ²)	Media - Silica # 20 (at 15 gpm/ft ²)
(inch)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)
36	95 - 130	125 - 170	160 - 185	215	140	100
48	170 - 230	220 - 280	270 - 320	390	260	175

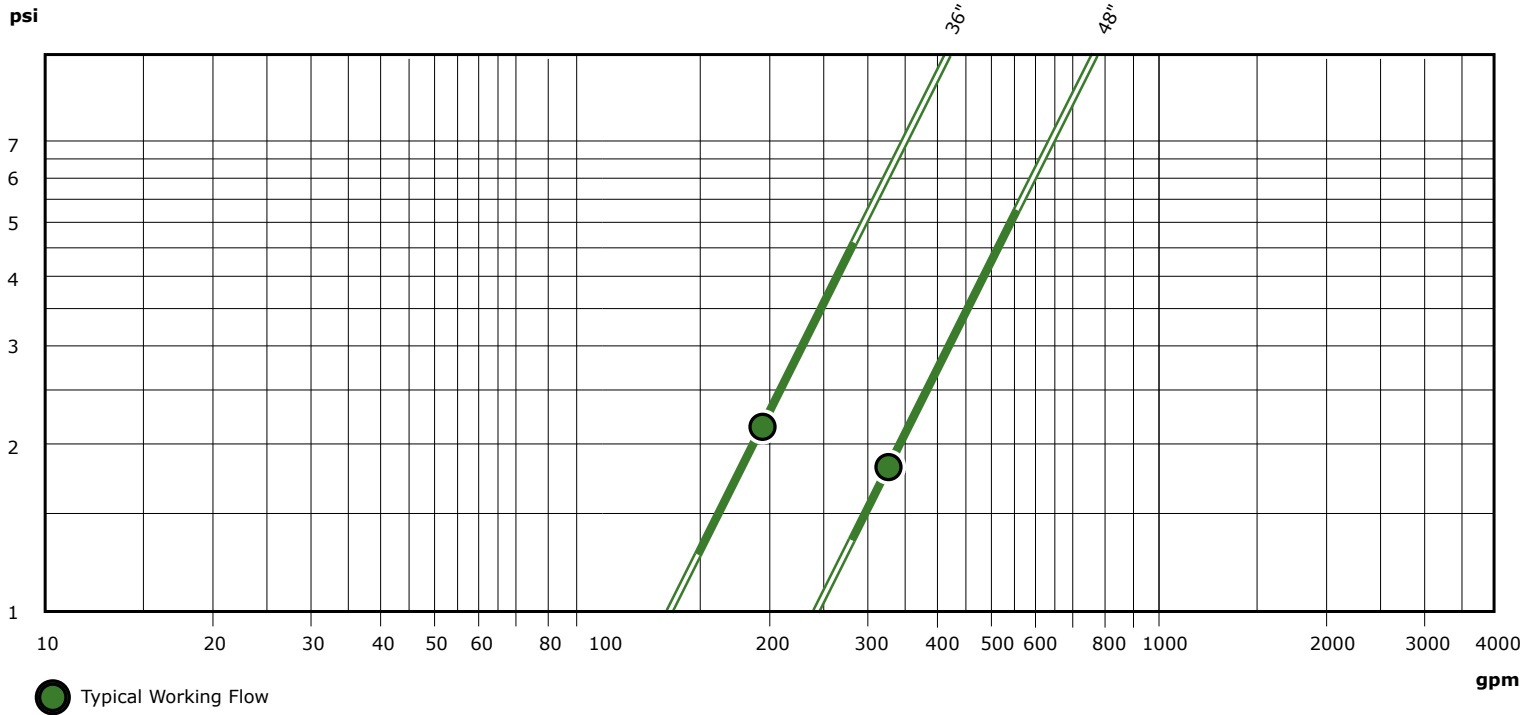
F2000 Media Filter Specifications

Head Loss Chart (psi) - 36" and 48" Body

Flow Rate (gpm)	100	125	175	200	225	250	275	300	400	500	600
Head Loss (psi) 36"	0.6	0.9	1.8	2.3	3	3.7	4.4	5.3	9.4		
Head Loss (psi) 48"			0.5	0.7	0.9	1.1	1.3	1.6	2.8	4.4	6.3

* Weight includes: Filters on skids, all manifolds & valves

Head Loss/Flow Rate



1 Efficient backwash valve

Benefit

Low head loss backwash valve enables F2000 media filter systems to backwash efficiently at lower pressure than most competitors.

Valve Cv during filtration: 240*

Valve Cv during backflush: 290

Pressure loss (psi) = (Flow (gpm)/Cv)² water @ 72°F

* For 48" filters



2 Under Drain Features

Size (inch)	Surface area (ft ²)	Mushroom Diffusers	
		Number	Slit area (in ²)
36	6.8	42	29
48	12	72	50



Threaded Mushroom Diffusers

F2000 Media Filter - Complete filtration systems

Model	Item	Number of Filters	Min. Flow (gpm)	Max. Flow (gpm)	Min. Backwash Flow (gpm)	Configuration	Secondary Filter Diameter	Manifold Diameter
36"	WT14281	2	320	370	140	●●	4"	6"
	WT14285	3	480	555	140	●●●	6"	6"
	WT14289	4	640	740	140	●●●●	6"	6"
48"	WT12615	2	540	640	260	●●	4"	8"
	WT12617	3	810	960	260	●●●	8"	8"
	WT12619	4	1080	1280	260	●●●●	8"	8"
	WT12621	5	1350	1600	260	●●●●●	8"	8"
	WT12623	6	1620	1920	260	●●●●●●	8"	8"
	WT12625	6	1620	1920	260	{●●●●●}	8"	8"
	WT12627	7	1890	2240	260	{●●●●●●}	10"	10"
	WT12629	8	2160	2560	260	{●●●●●●●}	10"	10"
	WT12631	9	2430	2880	260	●●●●●●●●	12"	12"
	WT12633	10	2700	3200	260	●●●●●●●●●	12"	12"
	WT12635	11	2970	3520	260	●●●●●●●●●●	(2) 8"	12"
	WT12637	12	3240	3840	260	●●●●●●●●●●●	(2) 10"	12"



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