

world water works

PURIFYING OUR FUTURE

Pre-Screening



worldwaterworks.com - Works For You...

www/PreScreen - Internally-fed Rotary Screen



World Water Works manufactures a wide range of screening equipment. The typical application for these systems is pre-screening of process or wastewater streams to remove large particles to protect downstream equipment. World Water Works offers three (3) different technologies: the Sidehill Screen (SHS), Externally-fed Rotary Screen (ERS), and Internally-fed Rotary Screen (IRS). Each of these offers different advantages, which are generally overviewed within this catalog. A World Water Works technical representative will work with you to select the optimum piece of equipment for the specific application.

All of www/PRESCREENS are manufactured using 304 Stainless Steel. As an option, any product can be upgraded to 316 Stainless Steel for an additional charge. World Water Works has selected the highest quality wedgewire screens designed for maximum drainage. Our PRESCREENS are built to last. Typically, the weights of WWW's screens are some 20-40% more than the same size competitors' screens. This is an easy means of comparing the amount of structural material World Water Works uses to assure long-term customer satisfaction.

For each of these units a custom sump tank can be added to fit beneath the PRESCREEN to provide the ability to pump the screened water. These tanks are manufactured using Stainless Steel as well and include cleanouts.



www/Sidehill Screen

The SideHill Screen (SHS) is ideally suited for process and wastewater streams containing solids, which are easily separated from the liquid and will slide easily.

The system operates by feeding the influent into a headbox where hydraulic turbulence keeps solids in suspension. The wastewater then overflows a distribution weir that orients the flow tangentially onto a steeply sloped screen surface. The liquid passes through the openings in the wedgewire to a drainage pan, located on the backside of the screen, and the solids slide down the surface of the screen to the discharge lip.

The SHS element is a curved, slotted, wedgewire screen with slots ranging from 0.010" to 0.125" oriented perpendicular to the direction of flow. The decks are positioned at a steeply sloped angle providing an effective stripping of liquid and allowing the solids to slide off the deck.

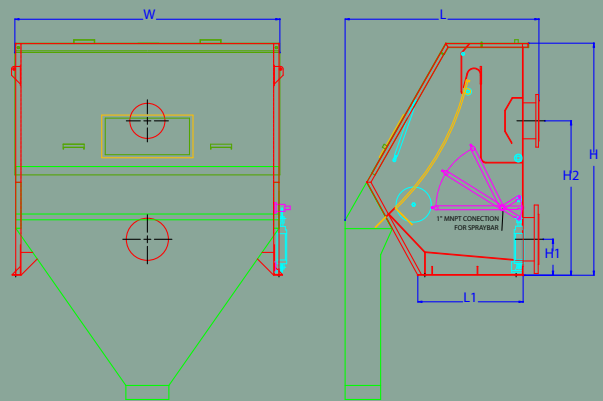


FEATURES

- * 304 stainless steel construction
- * Housing in 3/16" thick plate
- * Deck with an adjustment range of 6%

OPTIONS

- * 316 stainless steel or Alloy 20 construction
- * Range of wedgewire shapes and designs
- * Vapor enclosure
- * Rear oscillating, or front traveling, spray bars



SHS	Dimensions*						Weight*	
Model Number	W (in)	L (in)	L1 (in)	H (in)	H1 (in)	H2 (in)	Shipping (lbs.)	Operational (lbs.)
SHS-12	17	49	30	66	6	50	780	1,300
SHS-24	29	49	30	66	7	50	850	1,600
SHS-48	53	49	30	66	7	50	1,050	2,100
SHS-72	77	49	30	66	10.3	44	1,420	3,200
SHS-96	101	60.5	38	76	10.3	54	1,950	4,480
SHS-120	125	60.5	38	76	10.3	54	2,400	6,000

*Weights and dimensions are to be considered approximate only.

www/Internally-fed Rotary Screen

The Internally-fed Rotary Screen is designed for versatility and can handle high flows and/or high solids. Typically, the IRS provides the driest solid versus the other www/PRESCREENS. In fact, this system can be used for thickening sludges containing 0.5% - 3% solids to 3% - 15%, depending on the type of sludge.

The system operates by feeding the influent into a headbox, which extends 2/3 the length of the drum. The energy is dissipated as the flow is evenly distributed onto the sidewalls of the drum. In some sense, the IRS is like two sidehill screens facing each other. The spreading of this flow across the length of the screen assures proper water drainage. The thinner the layer of water, the less chance solids interfere with drainage. Solids are retained on the screen surface as the liquid flows radially through the openings. Splash guards direct the liquid filtrate to a central drainage area, and the solids are transported axially, by flights, to the open end of the drum. The design of the flights in conjunction with the rotation causes these solids to turn over and release additional water. The rotation of the drum allows the entire screening surface to be continuously or intermittently washed by a fixed external spray bar fitted.

The IRS has a cylindrical drum mounted horizontally on four shaft mounted trunnion wheels that are supported on pillow block bearings. The IRS screening element is a slotted wedgewire screen with openings ranging from 0.010 to 0.100 inches.

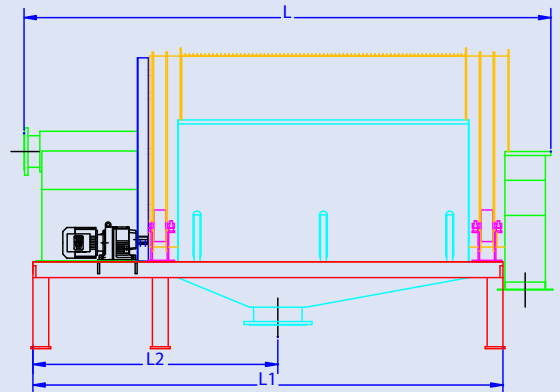
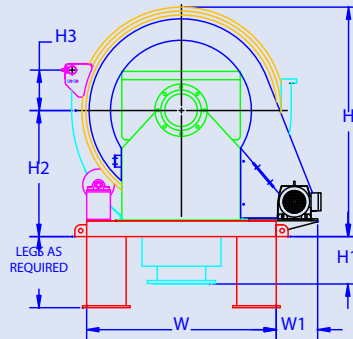


FEATURES

- * 304 stainless steel construction
- * TEFC motor and geardrive
- * Stainless steel roller chain
- * UHMW polyethylene trunnions
- * Internal flights
- * External spray bar

OPTIONS

- * 316 stainless steel
- * Vapor enclosure
- * Internal spray bar
- * Chain oiler
- * Variable speed drive



IRS Model Number	Dimensions*									Weight*	Motor
	W	W1	L	L1	L2	H	H1	H2	H3	Operational (lbs.)	HP
IRS-3060	30	8	86	72	41	38	13	13.5	10	2,100	0.5
IRS-4872	48	10.5	133	119	62	58	12	32	10	5,100	1.5
IRS-6072	60	13.5	133	119	62	73	15	33	18	8,500	2
IRS-6096	60	13.5	169	155	80	73	15	33	18	11,000	2
IRS-72120	72	13.5	204	188	94	82	18	43	16	20,000	3

*Weights and dimensions are to be considered approximate only.

www/Externally-fed Rotary Screen

The Externally-fed Rotary Screen (ERS) is ideally suited for process and wastewater streams containing high fats, oils, and grease loadings.

The system operates by feeding the influent into a headbox, which distributes the flow evenly across the full length of the rear, upper external surface of the rotating drum. As water passes through the screen, solids are retained on the outside of the screen drum and are carried by rotation around to the front of the screen. A fixed doctor blade (with adjustable tension) removes the solids from the screen. The screened water cascades down inside the drum and falls through the bottom, creating a vigorous backwash action. This action, together with the use of internal water sprays, has a combined effect of self-cleaning the drum during each revolution.

The ERS has a slotted wedgewire cylindrical drum that rotates on two pillow block bearings. The screen slot openings range from 0.040 to 0.010 inches. A TEFC motor fitted to a shaft-mounted gearbox drives the rotary drum.

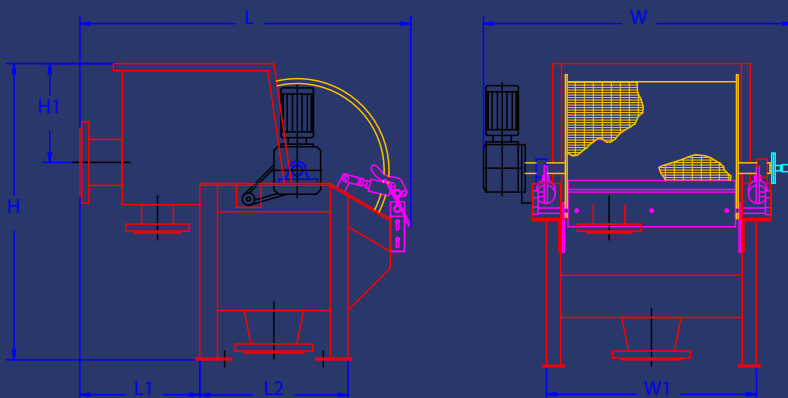


FEATURES

- * All 304 stainless steel construction
- * Unitary frame
- * Wedgewire drum
- * TEFC motor and shaft mounted geardrive
- * Headbox, with overflow protection
- * Doctor blade assembly with Monel blade
- * Internal spray bar

OPTIONS

- * 316 stainless steel construction
- * Pneumatic operated doctor blade cleaner
- * Variable speed drive or 2 speed motor
- * Headbox level sensor



ERS Model Number	Dimensions*							Weight*		Motor
	W (in)	W1 (in)	L (in)	L1 (in)	L2 (in)	H (in)	H1 (in)	Shipping (lbs.)	Operational (lbs.)	HP
ERS-2524	44	30.75	47	17	21	42	14	1,100	2,250	0.5
ERS-2536	56	40	47	17	21	42	14	1,200	2,500	0.5
ERS-2572	90	75.5	53	19.3	11.75	44	14	1,500	3,150	0.75
ERS-2596	117	100	53	19.3	11.75	44	15	2,000	4,100	0.75
ERS-36120	150	127.75	76	27	36	57	20	3,800	7,800	1.5

*Weights and dimensions are to be considered approximate only.

