

INTAKE SCREENS



awma
Water Control Solutions

www.awmawatercontrol.com.au

CYLINDER SCREENS POWERED

Single cylinder and T-Screens provide screening for pumped intakes and gravity offtakes.

HOW IT WORKS

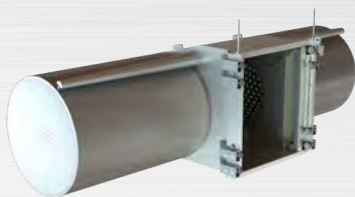
- Water flows through the wedge wire screen medium (excluding debris and protecting aquatic life),
- The internal drive unit slowly rotates the external wedge wire cylinder,
- Fixed internal and external brush systems clean the screening surface, preventing biofouling,
- The screen drive unit includes electric and hydraulic options which may be mains or solar powered,
- The cylinder screens are programmed by the asset owner to operate as often as required in accordance with predicted debris loading.

FEATURES & BENEFITS

- The Single Cylinder Screen allows flows up to 160ML/day (1852 L/s), the Double T-Screen is suitable for flows up to 330 ML/day (3819 L/s).
- Configurations for multiple screens, with a large flow capacity, available on request.
- Various screen aperture sizes available, typically 2mm slot width.
- Low maintenance stainless steel construction.



- Wedge wire screen medium is strong and durable.
- Self-cleaning with internal and external brushes.
- Internal diffusers ensure even flow distribution over the entire screen surface.
- Installed in a fixed position or on a Retrieval System.
- Cathodic protection minimises corrosion.
- Proven technology.
- Compliant with AUS/NZ Fish Screening Guidelines.
- Sustainable operation under heavy debris, sedimentation and biofouling conditions.
- Protects fish from entrainment and impingement.
- Protects pumps and pipeline infrastructure.
- Reduces the loading on, or eliminates downstream fine filtration systems.
- Improves water quality.



CYLINDER SCREENS POWERED

APPLICATIONS

- Irrigation.
- Power plant intakes.
- Water extraction facilities.
- Cooling water intakes.
- Dam inlet towers.
- Seawater intakes.

DESIGN

DESIGN SUPPORT

- These brush-cleaned screens are designed and manufactured by AWMA Water Control Solutions under a licensing agreement with Intake Screens, Inc.
- Screen designs are based on worldclass, 25+ years of proven international performance, complemented with AWMA's design capabilities to provide full design support, ensuring the most appropriate solution is developed to suit site conditions.

SIZES

- A range of sizes available upon request.

MATERIALS

- Wedge wire made from Grade 304 Stainless Steel is standard, with alternative materials available on request.

MAINTENANCE

- AWMA's products typically have a minimum 25 year design life.
- Minimal maintenance is required offering low 'whole of life costs'.

MANUFACTURE

QUALITY

- All AWMA products meet relevant Australian and international standards.
- AWMA hold international accreditations for ISO 9001; Quality, ISO 14001; Environment and ISO 45001 OH&S management.
- AWMA's Integrated Management System aims to provide a framework to deliver products and services that consistently exceed customer expectations.

INSTALLATION

MOUNTING OPTIONS

- Early project involvement ensures development of the most appropriate mounting and retrieval options, eliminating the need for operators to work in, on or over water. Whilst the screens are self-cleaning and require minimum maintenance, a number of solutions are available for ease of screen retrieval to the surface, which may include a rail system.

OPERATION

- This clean and efficient screening solution allows water to flow through the screen into the suction pipe, delivering clean water (with fish protection), without disrupting flow. Screens may be electric, hydraulic or solar powered.

COMMISSIONING

DOCUMENTATION AND TRAINING

- Detailed documentation on operation, testing procedures and maintenance will be provided with all AWMA screens.
- Comprehensive on and/or off site training available.



CYLINDER SCREENS SELF-PROPELLED

No power is required to operate these self-cleaning, self-propelled single cylinder and T-screens, suitable for pumped intakes and gravity offtakes.

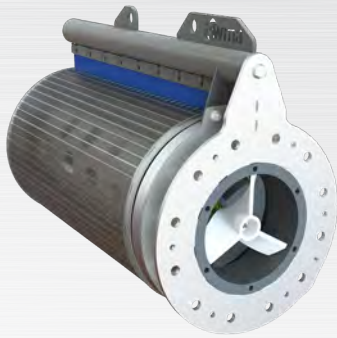
HOW IT WORKS

- The screen unit consists of a wedge wire cylinder and propeller drive system, with internal and external brush systems,
- Water flows through the wedge wire screen medium (excluding debris and protecting aquatic life),
- The propeller drive system operates automatically whenever the flow in the suction pipe exceeds a certain value, this in turn rotates the screen via a gearbox arrangement to self-clean the cylinder screen,
- Fixed internal and external brush systems clean both sides of the screening surface, preventing biofouling.

FEATURES & BENEFITS

- Suitable for flows between 3 ML/day (35 L/s) and 37 ML/day (428 L/s).
- Various screen aperture sizes available, typically 2mm slot width.
- Low maintenance stainless steel construction.
- Wedge wire screen medium is strong and durable.
- Self-cleaning with internal and external brushes.
- Internal diffusers ensure even flow distribution over the entire screen surface.
- Installed in a fixed position or on a Retrieval System.
- Cathodic protection minimises corrosion.
- Proven technology.
- Compliant with AUS/NZ Fish Screening Guidelines.
- Sustainable operation under heavy debris, sedimentation and biofouling conditions.
- Protects fish from entrainment and impingement.
- Protects pumps and pipeline infrastructure.
- Reduces the loading on, or eliminates downstream fine filtration systems.
- Improves water quality.





CYLINDER SCREENS SELF-PROPELLED

APPLICATIONS

- Irrigation.
- Power plant intakes.
- Water extraction facilities.
- Cooling water intakes.
- Dam inlet towers.
- Seawater intakes.

DESIGN

DESIGN SUPPORT

- These brush-cleaned screens are designed and manufactured by AWMA Water Control Solutions under a licensing agreement with Intake Screens, Inc.
- Screen designs are based on worldclass, 25+ years of proven international performance, complemented with AWMA's design capabilities to provide full design support, ensuring the most appropriate solution is developed to suit site conditions.

SIZES

- Four sizes are available with flow rates ranging from 3 ML/day (35 L/s) to 40 ML/day (463 L/s).

MATERIALS

- Wedge wire made from Grade 304 Stainless Steel is standard, with alternative materials available on request.

MAINTENANCE

- AWMA's products typically have a minimum 25 year design life.
- Minimal maintenance is required offering low 'whole of life costs'.

MANUFACTURE

QUALITY

- All AWMA products meet relevant Australian and international standards.
- AWMA hold international accreditations for ISO 9001; Quality, ISO 14001; Environment and ISO 45001 OH&S management.
- AWMA's Integrated Management System aims to provide a framework to deliver products and services that consistently exceed customer expectations.

INSTALLATION

MOUNTING OPTIONS

Early project involvement ensures development of the most appropriate mounting and retrieval options, eliminating the need for operators to work in, on or over water. Whilst the screens are self-cleaning and require minimum maintenance, a number of solutions are available for ease of screen retrieval to the surface, which include:

- Submersible Pontoons.
- Rail Systems.

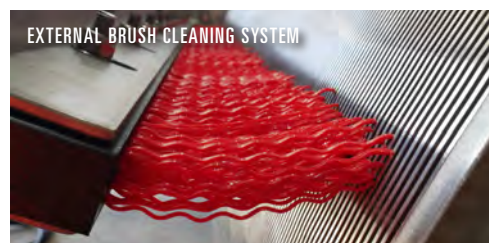
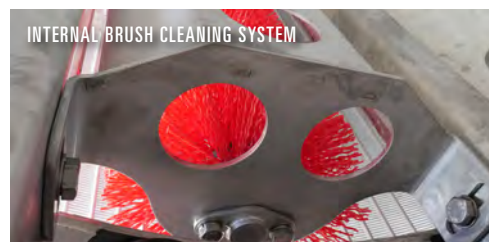
OPERATION

The propeller drive system on this model uses the waterway's natural flow to rotate the external cylinder screen, which in turn self-cleans both sides of the wedge wire screen. A clean and efficient screening solution allows water to flow through the screen into the suction pipe, delivering clean water (with fish protection), without disrupting flow.

COMMISSIONING

DOCUMENTATION AND TRAINING

- Detailed documentation on operation, testing procedures and maintenance will be provided with all AWMA screens.
- Comprehensive on and/or off site training available.



CONE SCREENS

Cone shaped screening solutions are ideal for shallow intakes or offtakes.

FEATURES & BENEFITS

- The screen covers an intake, pipe or manifold underneath it.
- Screen design reduces the approach velocity.
- External brush arm rotates about vertical axis to self-clean, preventing biofouling.
- Low maintenance stainless steel construction.
- Wedge wire screen medium is strong and durable.
- Internal diffuser ensures even flow distribution over the entire screen surface.
- Cone shaped screens provide large surface area over small footprint.
- Various aperture sizes available, typically 2mm slot width.
- Standard size cone screens available for flows up to 260 ML/day (3009 L/s).
- Proven technology.
- Compliant with AUS/NZ Fish Screening Guidelines.
- Sustainable operation under heavy debris, sedimentation and biofouling conditions.



- Marine-duty hydraulic motor rotates brushes in both directions.
- Protects fish from entrainment and impingement.
- Protects pumps and pipeline infrastructure.
- Protects downstream filtration and irrigation equipment.
- Improves water quality.
- Can include SCADA interface for remote monitoring and control functionality.

APPLICATIONS

- Irrigation Diversions.
- Urban Water Intakes.
- Debris/weed dense waterways.

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CONE SCREENS

DESIGN

DESIGN SUPPORT

- Cone screens are designed and manufactured by AWMA Water Control Solutions under a licensing agreement with Intake Screens, Inc.
- Screen designs are based on worldclass, 25+ years of proven international performance, complemented with AWMA's design capabilities to provide full design support, ensuring the most appropriate solution is developed to suit site conditions.

SIZES

- A range of standard sizes available.
- Multiple screens may be used at any one location to accommodate large flow volumes.

MATERIALS

- Wedge wire made from Grade 304 Stainless Steel is standard, with alternative materials available on request.

MAINTENANCE

- AWMA's products typically have a minimum 25 year design life.
- Minimal maintenance is required offering low 'whole of life costs'.

MANUFACTURE

QUALITY

- All AWMA products meet relevant Australian and international standards.
- AWMA hold international accreditations for ISO 9001; Quality, ISO 14001; Environment and ISO 45001 OH&S management.
- AWMA's Integrated Management System aims to provide a framework to deliver products and services that consistently exceed customer expectations.

INSTALLATION

MOUNTING OPTIONS

- The Cone Screen can be mounted onto a custom designed base to suit site and operational requirements.
- Cone Screens can be mains or solar powered.
- Cone Screen actuation options include Electric or Hydraulic.

OPERATION SYSTEMS

- The brushes operate automatically, as programmed to suit cleaning requirements.
- Electric and hydraulic systems operate on a timer which can be programmed in accordance with debris loads. Usually they need only operate once or twice a day, for a minute or two.

COMMISSIONING

DOCUMENTATION AND TRAINING

- Detailed documentation on operation, testing procedures and maintenance will be provided with all AWMA screens.
- Comprehensive on and/or off site training available.



TRAVELLING POLYMER SCREENS

Polymer Travelling Screens are engineered for fish protection and removal of debris from waterways.

HOW IT WORKS

- The Travelling Polymer Screen is a debris removal system, typically installed and operated within a channel structure.
- The powered polymer screen rotates to clear debris from the waterway, carrying it up and over the structure into a designated storage system until cleared.
- The rotating screen has no side chains, no submerged moving parts and is designed to remain in the water year round for 24/7 debris removal.
- The automated self-cleaning function is facilitated by scraper or water sprays to maintain a clean and efficient screen surface.

FEATURES & BENEFITS

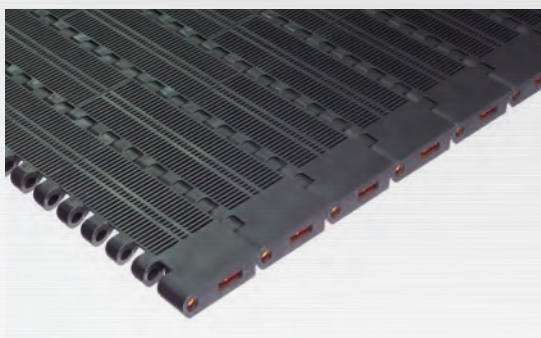
- No submerged moving parts.
- Chainless screen design.
- Cleaned via scraper or water sprays.
- Innovative drive design.
- Low maintenance polymer material.
- Various aperture sizes available.
- Proven technology.
- Compliant with AUS/NZ Fish Screening Guidelines.
- Efficient removal of trash from waterway.



- Sustainable operation under heavy debris, sedimentation and biofouling conditions.
- Protects fish from entrainment and impingement.
- Protects pumps from clogging.
- Protects downstream filtration and irrigation equipment.
- Improved water quality.
- Engineered polymer does not corrode.
- Polymer less likely to experience ice adhesion.

APPLICATIONS

- Irrigation diversions.
- Urban water intakes.
- Debris/weed dense waterways.
- Hydro power facilities.
- Water extraction facilities.
- Cooling water intakes.



TRAVELLING POLYMER SCREENS

DESIGN

DESIGN SUPPORT

- AWMA's R&D and Engineering teams are available under Early Contractor Involvement (ECI), to assist in developing water control and screening solutions for bespoke green-field and brown-field sites.

SIZES

- Customised to suit the application.

MATERIALS

- Polymer screening material is reliable, durable and low maintenance. Stringy debris is less likely to wrap or cling to the polymer screen material.
- Frame options are typically stainless steel.

MAINTENANCE

- AWMA's products typically have a minimum 25 year design life.
- Minimal maintenance is required offering low 'whole of life costs'.
- The engineered polymer modules are interlocked with full length rods, allowing fast on-site maintenance if required.
- The Travelling Screens have no side chains, no submerged moving parts and are designed to remain in the water year round, operating 24/7.

MANUFACTURE

QUALITY

- All AWMA products meet relevant Australian and international standards.
- AWMA hold international accreditations for ISO 9001; Quality, ISO 14001; Environment and ISO 45001 OH&S management.
- AWMA's Integrated Management System aims to provide a framework to deliver products and services that consistently exceed customer expectations.

INSTALLATION

MOUNTING OPTIONS

- The Travelling Polymer Screen is typically mounted within a channel structure.
- Mounting options include consideration of the debris removal system.

DRIVE SYSTEMS

- Travelling Polymer Screens are powered via an electric motor and gearbox.

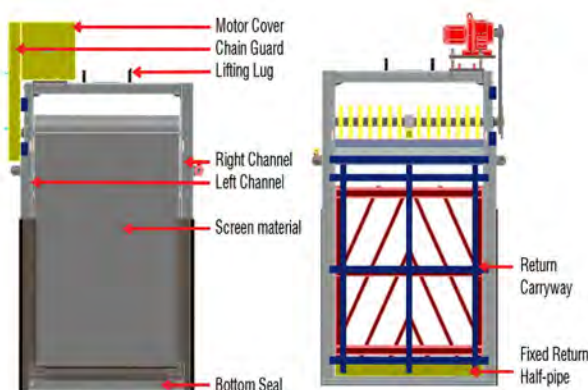
OPERATION SYSTEMS

- Other than the travelling screen there are no moving parts submerged in the water.
- The screen operates via an innovative drive system.
- System features a scraper to facilitate cleaning and debris removal, with the option for water sprays.

COMMISSIONING

DOCUMENTATION AND TRAINING

- Detailed documentation on operation, testing procedures and maintenance will be provided with all AWMA screens.
- Comprehensive on and/or off site training available.



AUTOMATED TRASH SCREENS

Automated Trash Screens remove weed and debris from waterways, often protecting downstream systems and minimising OH&S risks. Design options are available for bulk and finer filtration requirements.

FEATURES & BENEFITS

- Reliable self-cleaning system.
- Customised bar spacing or wedge wire options to suit debris type and loading.
- Automated trash screens can be either AC or DC powered.
- Low noise level.
- Long life fully sealed polymer bearings.
- Optional spill trays and screen covers.
- Custom designed to suit application size and shape.
- Captures floating and submerged debris within waterways.
- Reduces OH&S risks by eliminating manual cleaning.
- Requires minimal civil works to install.
- Protects downstream infrastructure such as pumps, valves and pipework.
- Designed to require minimal maintenance.
- Improved downstream water quality.
- Designs meet safety regulations on pipes, siphons, pumps and culverts.
- Suitable for exclusion of weed, rubbish, branches and other solids.



APPLICATIONS

- Pipes.
- Pump Intakes.
- Siphons.
- Stormwater Systems.
- Floodways.
- Channels.
- Water Distribution Systems.
- Wetlands.
- Mining.



AUTOMATED TRASH SCREENS

DESIGN

DESIGN SUPPORT

- AWMA's R&D and Engineering teams are available under Early Contractor Involvement (ECI), to assist in developing water control and screening solutions for bespoke green-field and brown-field sites.

SIZES

- All AWMA screens are custom sized to ensure they meet specific site and operational requirements.

MATERIALS

- AWMA automated trash screens are constructed from either 304 or 316 stainless steel for long service life.

MAINTENANCE

- Trash Screens are designed to achieve high duty cycles with minimal downtime.
- Can be easily accessed and cleaned out of the waterway, without the need to dewater or bypass the structure.
- Minimal maintenance is required offering low 'whole of life costs'.

MANUFACTURE

QUALITY

- All AWMA products meet relevant Australian and international standards.
- AWMA hold international accreditations for ISO 9001; Quality, ISO 14001; Environment and ISO 45001 OH&S management.
- AWMA's Integrated Management System aims to provide a framework to deliver products and services that consistently exceed customer expectations.

OPTIONS

- Customised spill trays, hungry boards and screen covers are available, subject to application.
- Water Sprays.

INSTALLATION

MOUNTING OPTIONS

- Trash Screens are typically wall mounted.

OPERATION

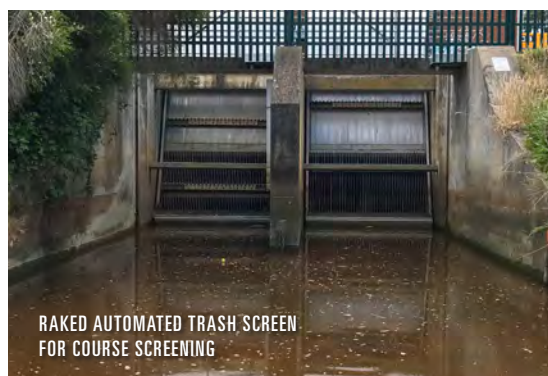
- AWMA's Automated Trash Screens utilise either raked or brushed elevator's (or flights) attached to a rotating chain system. This is driven by a motor and gearbox coupled to a drive shaft. The result is a reliable, autonomous, self-cleaning system. These debris removal processes can remove bulky objects and/or fine debris from the front of the screen to avoid blockages. Debris is transported upwards, out of the waterway into removable disposal bins, conveyors, chutes or troughs.

COMMISSIONING

- Detailed documentation on operation, testing procedures and maintenance is provided with all AWMA water control solutions.
- Comprehensive on and/or off site training available.

DOCUMENTATION AND TRAINING

- Detailed documentation on operation, testing procedures and maintenance is provided with all AWMA water control solutions.
- Comprehensive on and/or off site training available.



BAR SCREENS

AWMA Bar Screens are designed with retractable, manually operated retrieval systems. An economical and safe solution for removing weed and debris from waterways.

FEATURES

- Custom designed to suit application size and shape.
- Captures floating and submerged debris within waterways.
- Easily cleaned, without the traditional manual handling risks.
- Customised bar spacing to suit debris type and loading.
- Designed to require minimal maintenance.
- Low noise level.
- Designs eliminate the need for operators to work in, on or over water.
- Suitable for exclusion of weed, rubbish, branches and other solids.

BENEFITS

- Reduces OH&S risks.
- Requires minimal civil works to install.
- Protects downstream infrastructure such as pumps, valves and pipework.
- Improved downstream water quality.



APPLICATIONS

- Pipes.
- Pump Intakes.
- Siphons.
- Stormwater Systems.
- Floodways.
- Channels.
- Water Distribution Systems.
- Wetlands.

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BAR SCREENS

DESIGN

DESIGN SUPPORT

- AWMA's design team will provide full support to ensure the most appropriate solution is developed and specified during the preliminary design.

SIZES

- All AWMA screens are custom sized to ensure they meet specific site and operational requirements.

MATERIALS

- AWMA bar screens are constructed from either marine grade aluminium or stainless steel.

MAINTENANCE

- Screens can be easily accessed and cleaned out of the waterway, without the need to dewater or bypass the structure.
- Minimal maintenance is required offering low 'whole of life costs'.

MANUFACTURE

ISO CERTIFICATION

- AWMA hold international accreditations for ISO 9001; Quality, ISO 14001; Environment and ISO 45001 OH&S management.
- AWMA's Integrated Management System aims to provide a framework to deliver products and services that consistently exceed customer expectations.

INSTALLATION

MOUNTING OPTIONS

- Bar Screens are typically stand-alone structures, customisable to meet site and operational requirements.

OPERATION

- A manual winch and pulley system is often used to retract and extend bar screens in and out of the waterway, eliminating manual handling risks over and alongside waterways/channels.
- A track system allows operators to manually glide the screen horizontally, or vertically, away from the channel to clear the screen.

COMMISSIONING

- Detailed documentation on operation, testing procedures and maintenance is provided with all AWMA water control solutions.
- Comprehensive on and/or off site training available.

DOCUMENTATION AND TRAINING

- Detailed documentation on operation, testing procedures and maintenance is provided with all AWMA water control solutions.
- Comprehensive on and/or off site training available.



