

PRODUCT DATASHEET

Filtration Equipment Range

Media, adsorption, gravity polishing and continuous fine filtration | six configurable families

DATASHEET NO.

DS-YS-FIL-R03

ENGINEERING BASIS

6 TYPES

SELECTION BY REMOVAL MECHANISM

Pressure, gravity, moving-media, cloth and screen filters address different solids and adsorption duties.

10 um

PUBLISHED FINE CLOTH RATING

The fiber-disc option provides tertiary polishing where upstream solids loading is compatible.

CONT.

ONLINE-CLEANING OPTIONS

Continuous sand, cloth-disc and drum systems can remain in filtration while their media or screen is cleaned.

TEST

WATER-SPECIFIC DESIGN

Filter rate, media, terminal head loss and backwash sequence follow the actual feed and filtrate targets.

CATEGORY OVERVIEW

YORA filtration systems provide targeted removal of suspended solids, turbidity, color, odor, residual chlorine and selected dissolved contaminants. The range combines pressure and gravity filtration, fixed and continuously moving media, and fine mechanical polishing. Selection is based on influent quality, required filtrate quality, hydraulic profile, solids loading, media behavior, backwash availability, redundancy and lifecycle objectives.



CONTINUOUS SAND FILTER

Continuous media filtration and online sand washing



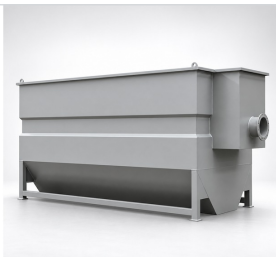
V-TYPE RAPID GRAVITY FILTER

Constant-level filtration with air-water backwash



QUARTZ SAND PRESSURE FILTER

Pressurized turbidity and suspended-solids reduction



FIBER DISC FILTER

Gravity polishing through 10-micron synthetic-fiber cloth



ACTIVATED CARBON FILTER

Adsorption of color, odor, residual chlorine and organics



ROTARY DRUM SCREEN FILTER

Continuous fine solids capture and internal backwash

Representative equipment views. Final geometry, materials, finish and accessories are project specific.

PRODUCT DATASHEET

Media & Adsorption Filtration

Continuous sand, quartz-sand pressure and granular activated-carbon systems

PRODUCT FAMILY OVERVIEW

	CSF Continuous Sand Filter ROLE - Advanced treatment of potable, industrial, wastewater and reclaimed-water streams. PRINCIPLE - Single-grade sand moves continuously through the bed and is cleaned by an air-lift washer, allowing filtration and media washing without a shutdown backwash cycle. INDICATIVE RANGE - 9-84 m³/h per listed module; filter area 1.5-7.0 m²; vessel diameter 1,440-3,000 mm; height 5,450-6,755 mm. CONSTRUCTION - Project-selected vessel and internals with graded filtration media, inlet distributor, air-lift assembly and washed-sand return. ENGINEERING DISTINCTION - No operational switching valves or dedicated backwash pump; parallel modules support capacity growth and redundancy.
	QSF Quartz Sand Pressure Filter ROLE - Turbidity and suspended-solids reduction for industrial water, potable water, wastewater polishing and desalination pretreatment. PRINCIPLE - Top-entry flow is distributed across single- or dual-media beds; clarified water is collected through a nozzle plate or supported underdrain and the bed is periodically backwashed. INDICATIVE RANGE - 5-70.6 m³/h; diameter 800-3,000 mm; filtration velocity 8-10 m/h; media depth 1,000-1,200 mm; 4-50 deg C. CONSTRUCTION - SS304 or coated carbon-steel vessel as typical, with distribution baffles, underdrain, external valves, gauges and sampling points. ENGINEERING DISTINCTION - High dirt-holding porous media, low-cost consumables and multiple vessel sizes simplify duty matching.
	GAC Activated Carbon Filter ROLE - Adsorptive polishing for color, odor, residual chlorine and dissolved organic contaminants. PRINCIPLE - Water passes through a granular activated-carbon bed supported for uniform distribution and backwash; saturated media is regenerated or replaced according to breakthrough criteria. INDICATIVE RANGE - 6-71 m³/h; diameter 800-3,000 mm; media depth 1,600-2,000 mm; maximum listed working pressure 0.4 MPa; 5-40 deg C. CONSTRUCTION - Coated carbon steel or stainless steel selected for water chemistry, with GAC media, support layer, distributors, underdrain, valves and instruments. ENGINEERING DISTINCTION - Combines particulate polishing and high-surface-area adsorption with low pressure drop per unit filtration area.

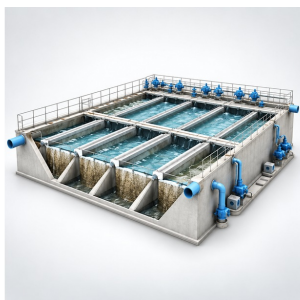
Indicative ranges support preliminary selection. GAC duty is finalized from contaminant loading, carbon type, empty-bed contact time and breakthrough criterion. Additional vessel diameters, media depths and parallel arrangements are available on request.

PRODUCT DATASHEET

Gravity & Mechanical Polishing

Large-scale rapid filtration, fine cloth polishing and rotary drum filtration

PRODUCT FAMILY OVERVIEW



VGf

V-Type Rapid Gravity Filter

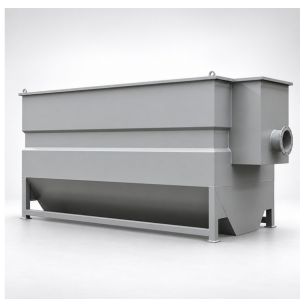
ROLE - Medium- to large-scale water production and wastewater polishing where stable gravity filtration is required.

PRINCIPLE - V-shaped inlet troughs distribute flow across a sand bed. Ultrasonic level control modulates the outlet; staged air, air-water and water backwash cleans the media.

INDICATIVE RANGE - Listed modular capacities 1,500-30,000 m³/day; multiple cells can be installed in parallel for larger duties.

CONSTRUCTION - Reinforced concrete or engineered steel filter cells, media, nozzles, wash-water and air systems, level instruments and PLC controls.

ENGINEERING DISTINCTION - Constant-level operation and staged air-water washing; the listed backwash-water saving is 20-40% for suitable duties versus the referenced conventional arrangement.



FDF

Fiber Disc Filter

ROLE - Advanced wastewater filtration, reuse polishing, cooling-water reuse and pretreatment for sensitive downstream systems.

PRINCIPLE - Gravity flow passes through synthetic-fiber cloth mounted on rotating discs. Rising level automatically starts disc rotation and suction cleaning while filtration continues.

INDICATIVE RANGE - 10-micron cloth; 2.0 or 3.0 m disc diameter; 2-20 discs; listed plant duties approximately 2,000-50,000 m³/day.

CONSTRUCTION - Coated or stainless-steel tank and frame, synthetic-fiber media, central drum, drive, suction manifold, backwash pump and control panel.

ENGINEERING DISTINCTION - High filtration area in a compact footprint, low gravity-filtration energy and uninterrupted online backwash.



RDF

Rotary Drum Screen Filter

ROLE - Fine suspended-solids removal for municipal upgrades, industrial process water and reclaimed-water systems.

PRINCIPLE - Water flows from inside to outside a slowly rotating screen drum. Retained solids are washed into an internal trough using filtered effluent and discharged through a sludge outlet.

INDICATIVE RANGE - 3,000-30,000 m³/day; screen area 1.5-15 m²; outlet DN200-DN700; drive 0.55-1.5 kW; listed backwash pressure 7.5 bar.

CONSTRUCTION - Stainless-steel modular screen panels and frame with drive, backwash pump, spray system, collection trough and automatic controls.

ENGINEERING DISTINCTION - Each panel is individually replaceable; filtration and backwash occur simultaneously. Listed stable influent SS is up to 40 mg/L within the applicable feed and hydraulic envelope.

Final capacity, solids capture and backwash performance depend on the actual influent, approved hydraulic profile and operating philosophy.

PRODUCT DATASHEET

Selection, Configuration & Scope

Water-quality objectives translated into the appropriate filtration train

FILTER SELECTION BASIS

DESIGN FACTOR	INFLUENCE ON SELECTION	REQUIRED PROJECT BASIS
Contaminant target	Determines screen, sand, cloth or adsorptive duty	TSS, turbidity, particle distribution, color, odor, chlorine and organics
Hydraulic duty	Sets filtration area, vessel diameter and number of units	Average, peak and minimum flow; available head and pressure
Filtrate objective	Controls media grade, pore size, loading rate and staging	Required TSS, turbidity, SDI, color and downstream process limit
Solids loading	Determines run length, cleaning frequency and waste volume	Peak solids, upset conditions and shock-load profile
Backwash resources	Defines air, water, suction or continuous-wash arrangement	Washwater source, air supply, waste destination and recovery target
Materials	Establishes corrosion resistance and service life	Chlorides, pH, temperature, chemicals and installation environment
Operating philosophy	Sets redundancy, automation and isolation requirements	Operating hours, staffing, acceptable downtime and SCADA standard

TYPICAL CONFIGURATION

ITEM	AVAILABLE PROJECT CONFIGURATION
Filter body	SS304, SS316, coated carbon steel or reinforced-concrete cells according to process, pressure and corrosion duty
Filtration media	Quartz sand, dual / multimedia, granular activated carbon, synthetic-fiber cloth or stainless-steel screen panels
Cleaning system	Water backwash, air scour, combined air-water wash, continuous sand wash, suction cleaning or internal spray wash
Hydraulics	Distribution baffles / troughs, underdrain nozzles, level control, isolation valves and project-specific inlet / outlet orientation
Instrumentation	Pressure, differential pressure / level, flow, turbidity and wash-cycle permissives as applicable
Controls	Local PLC panel, automatic cleaning sequence, alarms, remote interface and duty / standby or multi-cell sequencing

STANDARD SUPPLY SCOPE	EXTRA OPTIONS
- Selected filter body and internal distribution system - Specified filtration / adsorption media or screen elements - Cleaning equipment within the agreed package boundary - Local controls and core process instruments - General arrangement and equipment documentation	- Duty / standby or parallel filter trains - Backwash pumps, blowers, tanks and wastewater recovery - Platforms, handrails, access ladders and lifting aids - Online turbidity, SDI, chlorine or differential-level monitoring - SCADA integration, commissioning, training and service support

INFORMATION REQUIRED FOR FINAL SELECTION

1 WATER QUALITY	2 PERFORMANCE	3 HYDRAULICS	4 PROJECT BASIS
Full analysis, particle / solids profile and expected upset conditions	Required filtrate quality and downstream process protection target	Average / peak flow, available pressure or gravity head and operating levels	Materials, redundancy, controls, backwash utilities and waste route

Published claims and ranges are retained as the preliminary product basis. Final media, filtration rate, hydraulic capacity, dimensions, vessel pressure, motor power, washwater demand, contact time, accessories, applicable standards and performance guarantees are confirmed from actual water quality, site conditions and client technical specifications. Additional or non-standard items are identified as Extra Options.