POOL & IRRIGATION WATER MANAGEMENT SOLUTIONS

Smaart Green Product Catalogue

Complete end-to-end engineering for swimming pools, irrigation systems & water treatment — every component from submersible pump to last-mile fitting, by trusted global brands.



20 HP Max Pump Power

10 Bar Max Working Pressure

5 µm Min Filtration Grade

60°C Max Service Temp

7 Product Categories

Kirloskar · AZUD · Global Water Solutions · WIKA · Danfoss · Cimberio · Astral UPVC · Weld-On · Polycab

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01

Primary System Equipment

The three-component heart of every Smaart Green system — engineered to pump, filter, and maintain stable pressure for swimming pools, irrigation networks, and water treatment plants.

Where This System Is Deployed

Wherever clean, pressurised water needs to be filtered and circulated reliably — from swimming pool plant rooms to irrigation fields and industrial water treatment. The Smaart Green system replaces fragmented equipment with a single cohesive solution.

- Swimming Pools & Spas
- Irrigation Systems
- Water Treatment Plants
- ETP / STP
- Industrial Water Supply
- Cooling Tower Pre-treatment

KIRLOSKAR — JOS SERIES

Openwell Submersible Pump

Horizontal Openwell Submersible Centrifugal Pump — IP68



Parameter	Specification
Brand	Kirloskar
Series	JOS Series
Pump Type	Horizontal Openwell Submersible Centrifugal
Power Range	3 HP to 20 HP
Head Range	Up to 64 m
Discharge Range	Up to 48.5 LPS
Voltage	200–440 V, 3 Phase, 50 Hz
Protection Class	IP68
Insulation Class	Class B
Cooling Type	Water Cooled Motor
Motor Type	Wet Type Submersible Motor
Casing Material	Cast Iron
Impeller Material	Cast Iron
Shaft Material	Stainless Steel 410
Seal Material	Nitrile Rubber
Starting Method	DOL / Star Delta (model dependent)
Duty	Continuous Duty

★ KEY FEATURES

- IP68 protection — fully submersible continuous duty
- Water cooled motor — efficient heat dissipation
- Compact horizontal monoblock design
- High efficiency centrifugal hydraulic design
- Low maintenance, suitable for sump, reservoir, pool intake

AZUD — HELIX AUTOMATIC

Automatic Disc Filter System

Automatic backwash — Grooved polymeric disc stack



Parameter	Specification
Filtration Grade	5–400 Micron
Standard Grades	50, 100, 130, 200, 400 Micron
Filter Body	Reinforced Technical Plastic / Polyamide
Manifold	HDPE
Clamp Material	Stainless Steel
Seal Material	EPDM / NBR
Connection Size	2″, 3″, 4″
Flow Range	Up to 768 m³/hr
Working Pressure	Up to 10 bar
Backwash Pressure	Min 1.5 bar
Max Temperature	Up to 60°C
pH Range	4 – 11
Cleaning System	Automatic Sequential Self Cleaning
Backwash Duration	30–45 sec/module

GLOBAL WATER SOLUTIONS

Pressure Tank

PressureWave / Challenger — Pre-charged diaphragm



Parameter	Specification
Type	Pre-Charged Diaphragm Pressure Tank
Shell Material	Carbon Steel + Polyurethane Epoxy Coating
Internal Liner	Virgin Polypropylene
Water Connection	Stainless Steel, 1″ to 2″ BSP/NPT
Capacity Range	20 Litres to 500 Litres+
Pre-Charge Pressure	1.4–1.9 Bar (model dependent)
Max Working Pressure	10 Bar / 150 PSI
Max Temperature	90°C
Mounting	Floor Mounted

02

System Instrumentation

Precision measurement and control instruments that monitor and automate the Smaart Green system — from pressure gauges and switches to flow meters and level controls.

WIKA

Pressure Gauge

Bourdon Tube — Model 111.10 / 213.53



Parameter	Specification
Type	Mechanical Bourdon Tube
Measuring Range	0–1 bar to 0–1000 bar
Accuracy Class	±0.1% to ±2.5% FS
Dial Size (NS)	40 / 50 / 63 / 100 / 160 mm
Case Material	SS / Mild Steel
Wetted Parts	Brass / SS
Connection	¼" / ½" BSP / NPT
Temperature Range	-20°C to +60°C
Protection	IP54 / IP65

DANFOSS

Pressure Switch

Adjustable Electro-Mechanical SPDT



Parameter	Specification
Switch Type	Adjustable Electro-Mechanical
Contact Type	SPDT Changeover
Pressure Range	-0.2 to 21 bar
Differential Setting	Adjustable 0.2 to 4 bar
Max Working Pressure	Up to 17–22 bar
Pressure Connection	1/4" / 3/8" BSP
Enclosure Protection	IP30 / IP44 / IP55 / IP67
Contact Rating	Up to 16 A, 400V AC

FILTRA EXTER

Variable Area Flow Meter

Rotameter — Float type, inline / panel



Parameter	Specification
Type	Float Type Variable Area
Body Material	Polycarbonate / Acrylic
Float Material	SS 316
Connection Sizes	15 NB to 65 NB
Flow Range	10 LPH to 60,000 LPH
Accuracy	±2% FSD
Operating Pressure	Up to 8 kg/cm²
Operating Temperature	Up to 60°C
Installation	Vertical
Application	Pool Filtration / WTP / RO / ETP

NIVELCO (NEVELCO)

Cable Float Switch

NIVOFLOAT — Mercury free, hermetically sealed



Parameter	Specification
Switch Type	Cable Suspended Float Switch
Float Material	Injection Molded Polypropylene
Float Construction	Dual Chamber Hermetically Sealed
Contact Type	Mercury Free Microswitch
Switch Rating	10(4)A, 250V AC
Cable	PVC/Neoprene, 9 mm dia
Cable Lengths	5 m / 10 m / 20 m
Process Pressure	Up to 1–2 bar
Operating Temperature	0°C to 50°C
Application	Tank Level / Pump Control / Overfill

03 Flow Control & Safety Valves

A complete valve selection for isolation, non-return, pressure relief and air venting — European quality from Cimberio and Officine Rigamonti, plus Astral UPVC for chemical resistance.

CIMBERIO

Ball Valve (Brass)

PN25/PN30 · Full Bore



Parameter	Specification
Brand	Cimberio
Body Material	Forged Brass Alloy
Ball Material	Chrome Plated Brass
Seat Material	PTFE
End Connection	Female Threaded BSP
Operation	Quarter Turn Lever
Size Range	15 mm to 100 mm (½" to 4")
Pressure Rating	PN25 / PN30
Working Pressure	Up to 25 Bar
Temperature Range	-20°C to 120°C
Port Type	Full Flow Bore

ASTRAL

UPVC Ball Valve

PN16 · Chemical Resistant



Parameter	Specification
Brand	Astral
Material	UPVC (Unplasticized PVC)
Standard	SCH 40 / SCH 80
Nominal Pressure	PN 10 / PN 16
Size Range	15 mm – 50 mm (½" – 2")
Connection Type	Socket / Threaded / Flanged
Operation	Manual Lever (Quarter Turn)
Ball Material	UPVC / PTFE Coated
Seat Material	PTFE
Seal Material	EPDM / FKM
Temperature Range	0 to 60°C
Flow Type	Full Bore

CIMBERIO

Non-Return Valve (NRV)

PN16/PN20 · EN 12266-1



Parameter	Specification
Brand	Cimberio
Model	CIM 30 / CIM 32
Material	Forged Brass (EN 12165 – CW617N)
Type	Spring Loaded / Lift Check
Nominal Pressure	PN 16 / PN 20
Size Range	½" – 4" (15 NB – 100 NB)
Connection Type	BSP Threaded (Female)
Spring Material	Stainless Steel SS 316
Temperature Range	-10°C to +95°C
Test Pressure	Up to 25–30 bar
Standard	EN 12266-1

OFFICINE RIGAMONTI

Safety Relief Valve (SRV)

PED Compliant · 10 Bar Max



Parameter	Specification
Make	Officine Rigamonti (Italy)
Series	LIGHT
Valve Type	Spring Loaded Safety Valve
Body Material	Brass
Connection Type	BSP Threaded (Male/Female)
Available Sizes	15 mm, 20 mm, 25 mm
Set Pressure Range	1 bar to 10 bar
Max Working Pressure	10 bar
Temperature Range	-10°C to 120°C
Installation	Vertical only
Standard	EN / PED compliant (Europe)

CIMBERIO

Automatic Air Vent Valve

PN10 · Auto Air Bleed



Parameter	Specification
Brand	Cimberio
Model Series	CIM 150VIC / Automatic Float Type
Valve Type	Float Operated Automatic Air Release
Body Material	Forged Brass Alloy CW617N
Float Material	Polyethylene / High Temp Resistant
Seal Material	NBR / EPDM
Connection Type	BSP Female Thread
Available Sizes	½", ¾", 1"
Pressure Rating	PN10 — Up to 10 Bar
Temperature Range	-10°C to 110°C
Media	Water / Hot Water / HVAC Fluids

04 System Piping

100% corrosion-free Astral UPVC pressure pipe and flexible braided hose — lead-free, UV-resistant, and certified for pool, irrigation and water treatment applications.

ASTRAL — AQUARIUS / AQUARIUS+ SERIES

UPVC Pressure Pipe

Lead Free UPVC — IS 4985 / ASTM D1785 Certified



Parameter	Specification
Material	Lead Free UPVC (Rigid PVC)
Standard	IS 4985 / ASTM D1785 / ASTM D1784
Pipe Class	SCH 40 / SCH 80
Pressure Classes	2.5, 4, 6, 8, 10 kg/cm² (IS Class)
Size Range	20 mm to 400 mm
Industrial Size Range	15 mm to 300 mm (½"–12")
Standard Length	3 m / 6 m
Max Service Temperature	Up to 60°C
Jointing Type	Solvent Cement / Ring Fit
Corrosion Resistance	100% Rust Free
UV Resistance	Yes
Tensile Strength	~45–55 N/mm²
Specific Gravity	~1.40 g/cm³

FLEXIBLE PIPING

Flexible Braided Pipe

Double HT Synthetic Fibre reinforced PVC — anti-kink design



Parameter	Specification
Material	Flexible PVC + Double HT Synthetic Fibre
Size Range	6 mm to 50 mm ID (¼" to 2")
Working Pressure	8 to 20 kg/cm²
Standard Lengths	30 m / 50 m / 100 m
Temperature Range	-5°C to +65°C
Weather Resistant	Yes
Oil & Chemical Resistant	Yes (light chemicals)
Kink Resistant	Yes — anti-bending design
Anti-abrasion	Yes
Surface Finish	Bright, smooth finish

PIPING AT A GLANCE

- ✔ 60°C UPVC max service temperature
- ✔ 100% rust free — corrosion resistance
- ✔ SCH 40/80 pressure ratings
- ✔ 20–400 mm UPVC size range
- ✔ UV resistant — UPVC all-weather

05 UPVC Pipe Fittings

Complete range of Astral UPVC fittings plus Weld-On 705 solvent cement — corrosion-free, high-strength connections rated to PN16 for all pool, irrigation and water treatment applications.

ASTRAL

UPVC Union

PN16 · 3-Piece



Parameter	Specification
Type	3-piece (Union Nut + Body + Tail Pieces)
Material	UPVC
Standard	ASTM D1785 / SCH 40 / SCH 80
Pressure Rating	PN 10 / PN 16
Size Range	15 mm – 100 mm (½" – 4")
Seal Type	EPDM / NBR O-Ring
Temperature Range	0 to 60°C
Reusability	Yes — multiple times detachable

ASTRAL — MALE THREADED ADAPTER

UPVC MTA

BSP/NPT · Brass Insert



Parameter	Specification
Material	UPVC with Brass Thread Insert
Standard	ASTM D1785 / SCH 40 / SCH 80
Size Range	15 mm – 100 mm (½" – 4")
Connection	Socket (Solvent) × Male Thread
Thread Type	BSP / NPT
Pressure Rating	PN 10 / PN 16
Temperature Range	0 to 60°C
Thread Material	Brass (for strength & durability)

ASTRAL — FEMALE THREADED ADAPTER

UPVC FTA

BSP/NPT · Brass Insert



Parameter	Specification
Material	Lead Free UPVC with Brass Insert
Standard	ASTM F1498 / ASTM D2467
Size Range	15 mm to 100 mm (½″ to 4″)
Connection	Socket × Female Thread
Thread Type	BSP / NPT
Pressure Rating	PN10 / PN16
Max Temperature	Up to 60°C
Insert Material	Brass

ASTRAL — EQUAL / REDUCING

UPVC Tee

PN16 · 90° Branch



Parameter	Specification
Material	Lead Free UPVC
Standard	ASTM D2466 / ASTM D2467
Pipe Compatibility	SCH 40 / SCH 80
Size Range	15 mm to 300 mm (½″ to 12″)
Connection Type	Socket (Solvent Weld)
Pressure Rating	PN10 / PN16
Max Temperature	Up to 60°C
Flow Pattern	90° Branch Connection

ASTRAL — 90° / 45°

UPVC Elbow

90° / 45° · Solvent Weld



Parameter	Specification
Material	Lead Free UPVC
Standard	ASTM D2466 (SCH 40), ASTM D2467 (SCH 80)
Size Range	15 mm to 300 mm (½" to 12")
Connection Type	Socket (Solvent Weld)
Pressure Rating	PN10 / PN16
Max Temperature	Up to 60°C
Bend Radius	Standard / Long Radius
Types	90° Elbow / 45° Elbow

ASTRAL

UPVC Bush (Reducer)

PN16 · Size Reduction



Parameter	Specification
Material	Lead Free UPVC
Type	Flush / Socket Reducer Bush
Standard	ASTM D2467 (SCH 80), ASTM D2466 (SCH 40)
Size Range	15 mm to 300 mm
Typical Sizes	25×20, 32×25, 50×40, 63×50 mm
Connection Type	Spigot × Socket
Pressure Rating	PN10 / PN16
Max Temperature	Up to 60°C

ASTRAL — STRAIGHT / REPAIR

UPVC Coupling

PN16 · Rust Free



Parameter	Specification
Material	Lead Free UPVC
Type	Straight Coupler / Repair Coupler
Standard	ASTM D2467 (SCH 80), ASTM D2466 (SCH 40)
Size Range	15 mm to 300 mm
Connection Type	Socket × Socket
Pressure Rating	PN10 / PN16
Max Temperature	Up to 60°C
Corrosion Resistance	100% Rust Free

WELD-ON 705

UPVC Solvent Cement

ASTM D2564 · Fast Set



Parameter	Specification
Brand / Model	Weld-On 705
Packing Size	473 ml (Pint)
Colour	Clear
Setting Type	Fast Setting
Pipe Size Range	Up to 6″ dia (Interference Fit)
Pipe Schedule	SCH 40 / SCH 80
Standard	ASTM D2564
Initial Setting Time	1–2 minutes
Handling Time	5–10 minutes
Full Cure Time	24 hours
Max Temperature	Up to 60°C

06

Installation Hardware

Every nut, bolt, clamp, tape and fastener needed for a complete, professional Smaart Green installation — corrosion-resistant SS 304 and galvanized materials selected for wet environments.

Product	Material / Specification	Application
Hose Nipple	Brass / GI, BSP Threaded, ½″–2″	Water piping connections
Hose Clamp	SS 304, Worm Drive, Corrosion Resistant	Flexible hose securing

Product	Material / Specification	Application
Nut & Bolt with 2 Washer	MS Zinc / SS 304, Hex M8–M16	1 Plain + 1 Spring Washer
C Clamp	MS / SS, Rubber Lined, Heavy Duty	Pipe support per OD size
D Clamp	MS, Saddle Type, Painted / GI Finish	Pipe support and fixing
Teflon Tape	PTFE, 12 mm Width, High Density	Thread sealing
Insulation Tape	PVC, Flame Retardant, 0.125 mm	Cable protection
Waterproof Tape	Self-Adhesive Butyl / PVC	Weather resistant sealing
Cable Tie	Nylon 66, UV Resistant, 100–300 mm	Cable management
Rubber Gasket	EPDM / Nitrile, 3–5 mm	Water application sealing
Screw	MS / SS, Self-Tapping / Machine Type	Corrosion resistant fixing
Rawl Plug	Nylon, 6 mm / 8 mm / 10 mm	Wall fixing anchor
Anchor Fastener	MS / SS, Wedge Type, M8–M12	Heavy duty concrete fixing
Foot Valve Mesh	SS 304, Corrosion Resistant	Suction line protection
Cement Nail	Hardened Steel	Concrete fixing
I Stand	MS Fabricated, Epoxy Coated	Pump base support

07

Electrical Components

Polycab cables and ISI-marked PVC conduit system for a complete, code-compliant electrical installation — fire-retardant and durably insulated for pump motor and control panel wiring.

POLYCAB — IS 694 / IS 1554

Power Cables



Parameter	Specification
Cable Sizes	2.5 Sq.mm × 3 Core, 4 Sq.mm × 3 Core, 1.5 Sq.mm × 3 Core
Brand	Polycab
Conductor	Annealed Copper
Insulation	PVC / FR / FRLS
Voltage Grade	1100 V
Standard	IS 694 / IS 1554
Temperature Rating	Up to 70–90°C
Application	Power supply, motor connection, panel wiring

POLYCAB

Conduit Pipe

PVC Heavy Duty — IS 9537 ISI Marked



Parameter	Specification
Size	25 mm
Type	PVC Heavy Duty, ISI Marked
Material	FR / FRLS PVC
Standard	IS 9537
Colour	Grey / Black
Application	Cable protection, concealed/exposed wiring

POLYCAB

Conduit Bend

PVC Standard Radius — IS 9537



Parameter	Specification
Size	25 mm
Material	PVC Standard Radius
Standard	IS 9537
Application	Direction change in conduit runs

POLYCAB

Flexible Conduit Pipe

PVC Corrugated — IS 9537



Parameter	Specification
Size	25 mm
Type	PVC Corrugated Flexible
Material	FR / FRLS PVC
Standard	IS 9537
Colour	Grey / Black
Application	Flexible runs, motor terminal connections

Smaart Green — Complete Pool, Irrigation & Water Treatment Solutions

KEY BRANDS

Kirloskar · AZUD · GWS
WIKA · Danfoss · Filtra Exter
Cimberio · Officine Rigamonti
Astral UPVC · Weld-On · Polycab

SYSTEM CATEGORIES

Equipment · Instrumentation
Valves · Piping · Fittings
Hardware · Electricals

MANUFACTURED BY

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