RAINWATER HARVESTING & RECHARGE SYSTEM

Smaart Rainwater Harvesting Product Catalogue

Complete rainwater harvesting system — precast RCC recharge rings, vee-wire filter screen, PVC piping and activated carbon filtration media.



SS316
Filter Screen Grade

1000 mg/g
Carbon Iodine Value

5 ft
RCC Ring Diameter

Vee-Wire | Astral

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01 Equipment

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Core system equipment.

RWH

RCC Rings



Parameter	Specification
Description	Precast RCC Hume Pipe Collar Rings
Material	Reinforced Cement Concrete (RCC)
Outer Diameter	5 ft
Height	10 Inches
Wall Thickness	40–50 mm
Cover Type	RCC Cover

★ WHY THIS IS NECESSARY

- Precast RCC rings form the structural, code-compliant recharge pit or soak pit shaft that lets harvested rainwater percolate safely into the ground.
- Reinforced concrete construction carries the surrounding soil load for a permanent underground structure.

RWH

Vee Wire Filter Screen



Parameter	Specification
Product Type	Vee-Wire (Wedge Wire) Filter Screen
Construction	V-shaped wire wrapped over longitudinal support rods (all-welded design)
Diameter / Size	150 mm × 300 mm, 200 mm × 400 mm (custom sizes available)
Length	0.5 m to 3 m (or as required)
Slot Size	0.15 mm to 3 mm
Material	Stainless Steel SS304 / SS316 / SS316L or LCG (Low Carbon Galvanized)
End Fittings	As per available standards (threaded / flange / plain ends)
Slot Type	Continuous V-shaped slots for non-clogging filtration
Manufacturing Method	Resistance welded wedge-wire construction
Open Area	Higher open area than conventional slotted pipes
Filtration Performance	High filtration efficiency with low head loss.

★ WHY THIS IS NECESSARY

- Selected for reliable, corrosion-free performance across the working pressure and temperature range of the system.
- A genuine, standards-compliant part here is what keeps the whole system leak-free and low-maintenance over its service life.

RWH

PVC Pipe



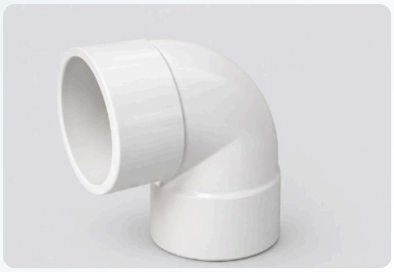
Parameter	Specification
Product Type	PVC Pipe (Polyvinyl Chloride)
Material	PVC (Rigid / Flexible depending on type)
Application	Drainage / Plumbing / Electrical Conduit / Irrigation
Color	White / Grey / Blue
Size Range	15 mm (½") to 315 mm (12")
Pressure Rating	PN4 / PN6 / PN10 (varies by type)
Standard	IS 4985 / ASTM D1785 / ASTM D2241
Pipe Type	Rigid PVC (RPVC) / Flexible PVC
Temperature Range	Up to 50°C
Jointing Method	Solvent Weld / Rubber Ring (RR Joint)
Density	~1.3 – 1.4 g/cm³
Chemical Resistance	Good (limited compared to uPVC)
Corrosion Resistance	Rust-free
Surface Finish	Smooth inner surface
Roughness Coefficient	Low (good flow characteristics)
UV Resistance	Limited (needs protection outdoors)
Electrical Property	Non-conductive
Life Span	25–50 years

★ WHY THIS IS NECESSARY

- Corrosion-free rigid pipework rated to the system's full working pressure — carries the mainline run from source to point of use.
- Smooth bore and UV-stabilised construction keep flow losses low and the pipe stable across decades of outdoor and buried service.

RWH

PVC Elbow



Parameter	Specification
Product Type	PVC Elbow (45° / 90°)
Material	Polyvinyl Chloride (PVC / UPVC)
Color	White / Grey
Application	Plumbing / Drainage / WTP / RO / Industrial piping
Angle	45° / 90°
Size Range	15 mm (½") to 110 mm (4")
Pressure Rating	PN4 / PN6 / PN10 / PN16
Standard	ASTM D2466 / IS 7834
Connection Type	Socket (Solvent Weld) / Ring Fit / Threaded
Temperature Range	Up to 50–60°C
Chemical Resistance	Good to Excellent
Corrosion Resistance	100% rust-free
Surface Finish	Smooth internal bore
Jointing Method	Solvent cement / Rubber ring
Leakage	Leak-proof when properly installed
Installation	Easy and quick

★ WHY THIS IS NECESSARY

- Changes flow direction with a fully rated, leak-free solvent-weld joint — matched to the same pressure class as the pipe it joins.
- Smooth internal bore keeps friction loss low at every direction change in the run.

RWH

PVC End Cap



Parameter	Specification
Product Type	PVC End Cap
Material	Polyvinyl Chloride (PVC / uPVC)
Color	White / Grey
Application	Plumbing / Drainage / WTP / RO / Industrial piping
Function	Closes the end of a pipe line
Design	Socket Type (Slip-on) / Threaded
Size Range	15 mm (½") to 110 mm (4")
Pressure Rating	PN4 / PN6 / PN10 / PN16 (type dependent)
Standard	ASTM D2466 / IS 7834
Connection Type	Socket (Solvent Weld) / Threaded
Temperature Range	Up to 50–60°C
Chemical Resistance	Good to Excellent
Corrosion Resistance	100% rust-free
Surface Finish	Smooth inner surface
Jointing Method	Solvent cement / Thread sealing
Leakage	Leak-proof when properly installed
Installation	Easy and quick

★ WHY THIS IS NECESSARY

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RWH

Activated Carbon



Parameter	Specification
Type	Activated Carbon
Base	Coconut Based
Appearance	Black Granular
Iodine Value	1000 mg/gm
Bulk Density	4.80 gm/cc
Ash Content	5 % Max
Moisture Area	3 % Max
Hardness	96%
pH	7 – 9 Max
Mesh Size	4 × 8

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Smaart Rainwater Harvesting — End-to-End Engineering, Trusted Global Brands

PRODUCTS

RCC Recharge Rings • Vee-Wire Filter Screen
PVC Pipe & Fittings • Activated Carbon

STANDARDS REFERENCED

IS 4985 • ASTM D1785 • ASTM D2241
ASTM D2466 • IS 7834

SUPPLIED BY

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