



NIKUNJ FIBRE GLASS

ENGINEERED COMPOSITE & THERMOPLASTIC EQUIPMENT
ESTD. 1992 | ISO 9001:2015 CERTIFIED | VAPI, GUJARAT, INDIA

ESTD. 1992 • 30+ YEARS

ISO 9001:2015 CERTIFIED

OFFICIAL PRODUCT CATALOGUE 2026

ENGINEERED CORROSION SOLUTIONS

Industrial FRP • GRP • Dual Laminate • PP • HDPE • PVDF Equipment

"Transforming High-Corrosion Challenges into Durable, High-Efficiency Engineering Reality."



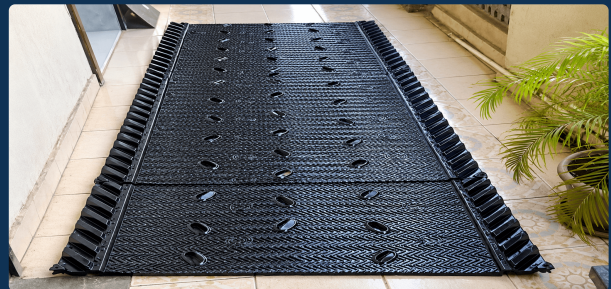
FRP & Dual Laminate Chemical Tanks



Industrial Wet Scrubbers & Towers



FRP Blowers & Dynamic Balancing



Cooling Tower Fills, Fume Hoods & Piping

ABOUT NIKUNJ FIBRE GLASS

Pioneering Corrosion Engineering in India Since 1992

Established in 1992 in the premier industrial hub of **Vapi, Gujarat**, **Nikunj Fibre Glass** is an industry-leading manufacturer, fabricator, and turnkey supplier of corrosion-resistant industrial composites and thermoplastic process equipment. Over three decades of relentless innovation, we have delivered more than **15,000 custom-engineered vessels, pollution control systems, and process piping networks** to India's most demanding chemical, pharmaceutical, steel, fertilizer, and effluent treatment facilities.

Modern Manufacturing Facility

- **35,000+ Sq. Ft. Fabrication Works:** Located in GIDC Vapi with dedicated clean lay-up rooms and temperature-controlled post-curing ovens.
- **Automated Helical Filament Winding:** High-precision CNC winding for tanks and pipes with uniform glass-to-resin ratio (65:35).
- **Advanced Thermoplastic Welding:** Hot-gas extrusion welding and automated electrofusion processors for PP, PVDF, and HDPE liners.
- **Computerized Dynamic Balancing:** Dual-plane balancing bay for impellers operating up to 3000 RPM conforming to ISO 1940 Grade G2.5.

Quality Assurance & Standards

- **Design Specifications:** Custom structural engineering conforming to **BS 4994, ASTM D3299, ASME RTP-1, and IS 12709**.
- **100% Hydrostatic Pressure Testing:** All chemical storage vessels tested at 1.25x - 1.5x working design head before dispatch.
- **High-Voltage Spark Testing:** 15 kV to 25 kV electrostatic spark testing to certify 100% pinhole-free dual-laminate liners.
- **Barcol Hardness (ASTM D2583):** Rigorous verification of complete resin polymerization and surface cross-linking.

Material Selection & Thermoplastic Engineering

Material System	Max Temp	Recommended Chemical Media	Key Industry Applications
FRP (Vinyl Ester - Derakane 411/470)	105°C - 130°C	Chlorine, Concentrated HCl, Organic solvents, Acid gases	Chemical plants, Scrubbers, Pickling lines
FRP (Isophthalic Polyester)	80°C	Dilute acids, Alkalis, Seawater, Effluent (ETP), Rainwater	Water storage, Cooling tower parts, Ducts
Dual Laminate (PP-FRP / PPH)	90°C	Hydrochloric acid (HCl 33%), Caustic Soda (NaOH 50%)	Dyes & Pigments, Chlor-Alkali, ETP Neutralization
Dual Laminate (PVDF-FRP - Kynar)	120°C	Hot Bromine, Wet Chlorine, Hydrofluoric Acid (HF), Nitric Acid	Pharma Bulk API, Halogen processing, Agrochemicals
HDPE (PE 100 Solid / Spiral)	60°C	Inorganic salts, Slurries, Raw chemical drainage, Effluents	Chemical transport, Underground ETP pipelines

FRP & DUAL LAMINATE STORAGE TANKS

Engineered for Corrosive Acids, Alkalis, Solvents & Slurries (1 KL to 100 KL)



Vertical Chemical Storage Tank



FRP Chemical Reaction Vessel



Dual Laminate PP-FRP Tank

Engineering Configurations & Vessel Designs

- **Vertical Cylindrical Tanks:** Flat bottom, conical bottom, or dished bottom with heavy-duty structural anchor chairs designed to withstand wind and seismic loading (IS 875 / IS 1893).
- **Horizontal Underground / Above-Ground Tanks:** Equipped with reinforced composite saddles or wear plates for soil and ETP installation.
- **Dual Laminate Construction:** Inner thermoplastic liner (3mm to 5mm PP, PVDF, CPVC, or HDPE) backed by glass fabric and wound with high-tensile Vinyl Ester structural FRP.
- **Turnkey Nozzle Outlets:** Flanged nozzles (ANSI B16.5 / DIN PN10), vortex breakers, internal dip pipes, manholes with swing bolts, level gauge mounts.

Technical Specifications & Standard Range

Capacity	Standard Dia (mm)	Height (mm)	Liner Type	Structural Shell	Design Standard
1,000 L (1 KL)	1000 - 1100	1300 - 1500	PP / PVDF / Isophthalic	Vinyl Ester / FRP (6 mm)	ASTM D3299 / BS 4994
5,000 L (5 KL)	1800 - 1900	2100 - 2300	PP-H / PVDF / Dual Lam	Filament Wound FRP (8 mm)	ASTM D3299 / BS 4994
10,000 L (10 KL)	2200 - 2400	2800 - 3000	PP-H (3mm) + Vinyl Ester	Filament Wound FRP (10 mm)	ASTM D3299 / BS 4994
25,000 L (25 KL)	2800 - 3000	3800 - 4100	Dual Laminate Liner	Helical Wound FRP (14 mm)	BS 4994 / ASME RTP-1
50,000 L (50 KL)	3500 - 3700	5200 - 5500	PP-H / PVDF / Vinyl Ester	Helical Wound FRP (18 mm)	BS 4994 / ASME RTP-1
100,000 L (100 KL)	4200 - 4500	6800 - 7200	Custom Dual Laminate	Multi-Angle Filament (24 mm)	BS 4994 / ASME RTP-1

INDUSTRIAL WET SCRUBBERS & TOWERS

Packed Bed, Venturi & Multi-Stage Scrubbers (>99.5% Acid Fume Removal)



Packed Bed Counter-Current Scrubber System



Spiral Wound Multi-Stage Acid Scrubber

System Architecture & Scrubbing Mechanisms

- Counter-Current Packed Bed Towers:** Fumes enter the lower chamber and rise through a high-surface polypropylene Pall ring packing bed (100 - 150 m²/m³). Re-circulated alkaline or neutral scrubbing liquor distributes downward via non-clog spiral spray nozzles.
- Venturi Scrubbers:** High-throat velocity accelerates contaminated airstreams, atomizing scrubbing liquor to trap sub-micron particulates, heavy metal dust, and aerosol mists.
- High-Efficiency Mist Eliminators:** Chevron blade or mesh pad demisters installed at the tower head capture 99.9% of liquid entrainment before clean exhaust reaches the stack.
- Automated Chemical Dosing:** Turnkey instrumentation package including pH sensors, automated NaOH/acid dosing pumps, level transmitters, and PLC control panel.

Scrubber Technical Sizing & Performance Range

Model	Airflow (CFM)	Airflow (m ³ /hr)	Tower Dia (mm)	Packed Height (mm)	Scrubbing Efficiency
NFG-WS-1000	1,000 - 1,500	1,700 - 2,550	600 - 750	1,800	99.2% (HCl, NH ₃ , Cl ₂)
NFG-WS-3000	3,000 - 4,000	5,100 - 6,800	900 - 1,100	2,200	99.5% (SO ₂ , NO _x , HCl)
NFG-WS-6000	6,000 - 7,500	10,200 - 12,750	1,300 - 1,500	2,600	99.6% (Acidic Fumes)
NFG-WS-12000	12,000 - 15,000	20,400 - 25,500	1,800 - 2,100	3,200	99.7% (Bulk Pharma API)
NFG-WS-25000	25,000 - 30,000	42,500 - 51,000	2,400 - 2,700	3,800	99.8% (Chemical Complex)

FRP & PP CENTRIFUGAL BLOWERS

Corrosion-Proof Heavy-Duty Industrial Fans (ISO 1940 Grade G2.5 Balanced)



FRP/HDPE Industrial Centrifugal Blower



High-Static Pressure Chemical Exhaust Fan

Engineering Design & Dynamic Balancing Highlights

- **Solid Composite Impellers:** Aerodynamically contoured backward-curved or radial blade impellers compression molded in premium Vinyl Ester or solid PP. Eliminates metal corrosion entirely.
- **ISO 1940 Grade G2.5 Dynamic Balancing:** Dual-plane balancing on computerized dynamic balancing machines reduces vibration to less than 1.8 mm/s RMS, dramatically extending motor and bearing service life.
- **Heavy-Duty Drive Configurations:** Direct-drive (Arrangement 4) with flameproof (FLP) motor mounting, or V-belt driven (Arrangement 9/12) with cast iron bearing pedestals isolated in grease baths.
- **FRP Ducting & Airflow Dampers:** Seamless FRP duct pipes (100 mm to 1500 mm dia) with flanged joints, lip exhaust hoods, and butterfly/louver airflow damper valves.

Blower Performance & Static Pressure Ratings

Blower Model	Air Volume (CFM)	Static Pressure (mm WG)	Motor Rating (HP)	Inlet/Outlet Dia (mm)
NFG-CB-15	800 - 1,500	50 - 100 mm	2.0 - 3.0 HP	200 / 180 mm
NFG-CB-30	2,000 - 3,500	75 - 150 mm	5.0 - 7.5 HP	300 / 250 mm
NFG-CB-60	4,500 - 7,000	100 - 200 mm	10.0 - 15.0 HP	450 / 400 mm
NFG-CB-120	8,000 - 14,000	150 - 300 mm	20.0 - 30.0 HP	600 / 500 mm
NFG-CB-250	16,000 - 28,000	200 - 450 mm	40.0 - 60.0 HP	800 / 700 mm
NFG-CB-400	30,000 - 42,000	250 - 600 mm	75.0 - 100.0 HP	1000 / 900 mm

PICKLING TANKS & NUTSCHE FILTERS

Wire Galvanizing Lines, Vacuum Filtration & Vacuum Receivers



Heavy-Duty Wire Galvanizing Pickling Tank



FRP/PP Vacuum Nutsche Filter Unit

Acid Pickling Tanks for Steel & Wire Industries

- **Continuous Wire & Tube Pickling:** Engineered specifically for 20% - 35% hot Hydrochloric Acid (HCl) and Sulfuric Acid (H₂SO₄) operating at up to 75°C.
- **Heavy Structural Box Stiffeners:** Reinforced with external MS box channels encapsulated in thick corrosion-proof FRP to withstand hydrostatic and dynamic crane wire loads.
- **Lip Fume Extraction Slots:** Integrated bilateral rim slots connected to suction headers to capture acid fumes directly at the liquid surface.
- **Anti-Impact Wear Liners:** Removable sacrificial PP/UHMWPE bottom wear pads protect tank flooring from falling wire coils and steel pipes.

FRP Nutsche Filters & Vacuum Receivers

Equipment Type	Standard Sizes	Design Pressure / Vacuum	Material Construction	Key Advantages
Vacuum Nutsche Filter	500 mm to 2,500 mm Dia (100 L to 5,000 L)	Full Vacuum (-760 mm Hg) • 1.5 Bar Internal	PP-FRP / PVDF-FRP / Vinyl Ester	Perforated false bottom with PP filter cloth, cake washing nozzles, leak-tight bottom discharge door.
FRP Vacuum Receiver	500 L to 15,000 L	Full Vacuum (-760 mm Hg)	Dual Laminate PP-FRP / Vinyl Ester	ASME Section VIII design standards, internal vacuum stiffening rings, burst-proof reinforced shell.
Knockout Pots & Traps	200 L to 3,000 L	Full Vacuum • 2.5 Bar Test	Vinyl Ester / FRP Multi-Layer	Traps condensate and liquid droplets before vacuum pumps to prevent mechanical seizure and acid contamination.

COOLING TOWER FILLS & COMPONENTS

PVC/ABS Fills, Drift Eliminators & Clog-Free Spray Nozzles



High-Temp ABS Sigma Fills (80°C)



PVC Honeycomb Fluted Fills



Industrial Shed Rain Gutters

Thermal Performance Fills & Drift Eliminators

- **PVC Cross-Fluted Honeycomb Fills:** High surface area (140 - 240 m²/m³) promotes rapid heat dissipation in counterflow and crossflow towers. UV-stabilized and self-extinguishing (ASTM E84 Class A).
- **ABS High-Temperature Sigma Fills:** Specially engineered for chemical process water, dirty effluent cooling, and high-TDS recirculating water where standard PVC softens or collapses. Withstands continuous 80°C water.
- **Cellular Drift Eliminators:** Heavy-duty PVC three-pass cellular design captures water droplets entrained in the air stream, reducing drift loss to less than **0.005% of circulating water**.
- **Clog-Resistant PP Spray Nozzles:** Full cone spiral and umbrella pattern nozzles distribute water uniformly without internal vanes or narrow orifices, preventing scale plugging.
- **Solar Panel Cleaning Sprinkler Nozzles:** Precision engineered PP nozzles providing 360-degree uniform water coverage for automated solar farm cleaning manifolds.

Cooling Tower Fill Technical Comparison

Fill Grade	Material Polymer	Max Working Temp	Flute Height / Pitch	Specific Surface Area	Recommended Water Quality
Standard PVC Honeycomb	Virgin Rigid PVC	55°C	12 mm / 19 mm	140 - 220 m ² /m ³	Clean treated cooling water (TDS 1500)
High-Temp CPVC Fill	Chlorinated PVC	70°C	19 mm	135 m ² /m ³	Hot process return water
Industrial ABS Sigma Fill	High-Impact ABS	80°C	25 mm / 38 mm	110 - 130 m ² /m ³	High TDS, oily water, chemical plant effluent
Splash Grid Poly Fills	Polypropylene (PP)	85°C	Open Grid Mesh	90 m ² /m ³	Heavily contaminated, fibrous, or bio-fouling water

PIPING, FITTINGS & INDUSTRIAL VALVES

PP, HDPE, PVDF & CPVC Fluid Handling Solutions (PN 6 to PN 16)



Industrial Pipe Fittings & Spigots Assortment



Heavy-Duty Industrial Poly Ball Valve

Industrial Pipe Fittings & Joining Technology

- **HDPE Electrofusion Fittings:** PE 100 electrofusion couplers, 90°/45° elbows, reducing tees, and branch saddles with integrated 39.5V barcode welding coils (ISO 13950).
- **PP & HDPE Service Saddles:** Clamp-on branch tapping saddles with SS 304/316 reinforcement rings and female threaded outlets (1/2" to 3") for in-line branching without cutting pipe.
- **Spigot & Butt-Weld Fittings:** Molded and fabricated bends, tees, flange adaptors, and stub ends for heavy chemical process lines.
- **CPVC Schedule 80 / 40 Pipes:** High pressure hot acid lines, solvent welded with industrial CPVC cement.

Industrial Valve Range & Specifications

Valve Type	Sizes Available	Materials	Pressure Class	Features & Benefits
True Union Ball Valve	1/2" to 4" (15mm - 100mm)	PP, PPH, PVDF, CPVC	PN 10 / PN 16 (150 PSI)	Double union design enables in-line maintenance without dismantling piping network. PTFE seats.
Flanged Ball Valve	1/2" to 8" (15mm - 200mm)	PP, PVDF, HDPE, FRP	ANSI 150# / DIN PN10	Full bore, solid molded body, zero stem blow-out, long lever or gear operated.
Diaphragm Valve (Weir)	1/2" to 6" (15mm - 150mm)	PP, PVDF, Cast FRP	PN 10 (150 PSI)	Hermetically isolates bonnet from corrosive media. Ideal for slurries & crystallizing acids.
Non-Return Valve (NRV)	1/2" to 6" (15mm - 150mm)	PP, PVDF, CPVC	PN 10	Ball check or swing flap design prevents backflow in pump discharge manifolds.
Y-Strainer / Basket Strainer	1/2" to 6" (15mm - 150mm)	PP, PVDF, CPVC	PN 10	Removable PP/PTFE mesh screen protects pumps and meters from pipe scale and debris.

FRP SAFETY & STRUCTURAL EQUIPMENT

Fire Hose Boxes, Gratings, Cable Trays & Rain Gutters



FRP Fire Hose Box Cabinet



Double Door Fire Safety Box



Molded FRP Composite Components

FRP Fire Hose Boxes & Safety Cabinets

- **Weatherproof & Marine-Grade:** Molded from premium Isophthalic resin with UV-inhibited gelcoat (Signal Red RAL 3000). Completely immune to rust, salt spray, and corrosive chemical vapors.
- **Hardware & Glazing:** Equipped with SS 316 / brass piano hinges, toggle latches, rubber weather-gaskets, and shatter-resistant break-glass or transparent acrylic windows.
- **Standard Capacities:** Single hose box (one 15m/30m hose + branch nozzle), Double hose box, and standalone portable fire extinguisher cabinets (4.5 kg, 6 kg, 9 kg DCP / CO2).

FRP Gratings, Cable Trays & Industrial Gutters

Product Category	Standard Profiles	Resin Grades	Key Advantages Over Metals
Molded FRP Gratings	Mesh: 38x38 mm • Thickness: 25 mm, 30 mm, 38 mm	Isophthalic / Vinyl Ester (Fire Retardant)	Anti-skid quartz grit surface, non-conductive, high strength-to-weight ratio, 100% rust-free chemical plant walkways.
FRP Cable Trays	Ladder & Perforated Types (Width: 50 mm - 1000 mm)	Isophthalic / Flame-Retardant Polyester	High load capacity, zero corrosion in coastal and sulfur plants, UV-stabilized, low maintenance.
FRP Motor Canopies	Motor frames 63 to 355 (0.5 HP to 250 HP)	Vinyl Ester / FRP Multi-Layer	Protects costly electric motors from acid rain, direct sun radiation, and overhead pipe drips.
PEB Shed Rain Gutters	Width: 200 mm to 600 mm • Length: 3m - 6m	Heavy-Duty Industrial PVC & FRP	Monolithic continuous channels prevent water leakage on shop floors. High UV resistance.



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ESTABLISHED 1992

INDUSTRIES & PROCESS PLANTS WE EMPOWER

- **Chemical & Specialty Intermediates:** HCl, H₂SO₄, NaOH, and solvent storage.
- **Dyes, Pigments & Textile Processing:** High-abrasion slurry tanks and scrubbers.
- **Pharmaceuticals & Bulk API:** High-purity PVDF dual-laminate reaction vessels.
- **Steel Wire Galvanizing & Pickling:** Heavy-duty pickling tanks & lip fume extractors.
- **Fertilizers & Agrochemicals:** Phosphatic acid, NPK plant ducting and blowers.
- **Electroplating & Metal Finishing:** Acid baths, chrome fume exhaust systems.
- **Effluent Treatment Plants (ETP / CETP / STP):** Neutralization sumps, bio-filters, blowers.
- **Power Generation & Cooling Towers:** PVC/ABS fills, drift eliminators, spray nozzles.

OUR QUALITY & PERFORMANCE COMMITMENT

Every unit manufactured by Nikunj Fibre Glass undergoes comprehensive in-house quality inspection, including hydrostatic pressure testing, ultrasonic thickness gauging, high-voltage spark testing, and Barcol hardness verification. We provide complete manufacturing documentation, material test certificates (MTC), third-party inspection compliance, and warranty support with every delivery.

Design Standards: ASTM D3299 • BS 4994 • ASME RTP-1 • IS 12709 • ISO 9001:2015

COMPLETE CONTACT & FACTORY DETAILS

Works & Factory: Plot No. 2707, Phase IV, GIDC, Vapi - 396195, Gujarat, India.

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