LG IRRIGATION

HDPE PIPES · SEWERAGE PIPES · SPRINKLER SYSTEMS



ISO 9001:2015
Quality Management

IS 4984 : 2016
HDPE Pipes

IS 14333
Sewerage Pipes

ENGINEERING WATER FLOW · SINCE 2011



COMPANY PROFILE

We are pleased to introduce L G Irrigation as an established manufacturer and supplier of HDPE pipes, HDPE pipe coils, sewerage pipes, sprinkler irrigation pipes, risers, nozzles, and HDPE pipeline fittings. Established in 2011, we are a professionally managed organisation operating with an ISO 9001:2015 quality-management system and supplying BIS-compliant products according to applicable standards and project requirements.

L G Irrigation has developed a strong position in the HDPE piping and irrigation industry by consistently focusing on product quality, technical accuracy, dependable supply, and customer satisfaction. We specialise in manufacturing durable piping products designed to provide excellent flow performance, corrosion resistance, flexibility, strength, and a long service life.

Our product range includes HDPE pressure pipes for water supply and infrastructure, HDPE coils for agricultural and distribution applications, sewerage pipes for underground wastewater networks, sprinkler pipes and risers for irrigation systems, and fittings such as bends, tees, reducers, couplers, end caps, and flanges.



INFRASTRUCTURE

The manufacturing facility of L G Irrigation is located at Khasra No. 103, Paldi Parsa Village, Mahindra World City (SEZ), Jaipur, Rajasthan. The unit is equipped with modern HDPE pipe-extrusion machinery, supporting equipment, quality-control facilities, and organised storage areas for raw materials and finished products.

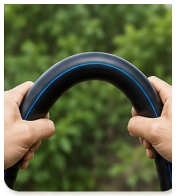
Our infrastructure enables us to manufacture HDPE pipes in sizes ranging from 63 mm to 1000 mm, along with HDPE coils, sewerage pipes, sprinkler irrigation pipes, risers, and associated fittings.

KEY INFRASTRUCTURE CAPABILITIES

- Modern automatic HDPE pipe-extrusion lines
- Multiple pipe sizes, grades & pressure classes
- Controlled raw-material handling & feeding
- Online monitoring of production parameters
- Cooling, sizing, cutting, coiling & handling equipment
- In-house quality-control & product-testing facilities
- Testing supported by a NABL-accredited laboratory
- Separate storage for raw material & finished stock
- Organised planning for standard & bulk orders
- Safe pipe-handling & loading for dispatch
- Experienced operators, engineers & QC personnel

FEATURES OF HDPE PIPES

Ten reasons HDPE has become the default material for modern water networks — from farm laterals to 1000 mm municipal mains.



FLEXIBLE

Bends with the terrain and absorbs ground movement and water hammer without cracking — fewer fittings, fewer failures.



LONG SERVICE LIFE

Engineered for 50+ years of buried service; the UV-stabilised compound resists ageing, sunlight and weather.



EASY TO HANDLE

A fraction of the weight of steel or cement pipe — small crews load, carry and position it without cranes.



LONG PIPE LENGTHS

Supplied in long coils and straight lengths, so networks need far fewer joints and lay much faster.



COST EFFECTIVE

Lower transport, installation and maintenance cost than metal or PVC — across the whole life of the line.



RODENT RESISTANT

The hard, dense pipe wall gives rodents and borers nothing to grip — no gnawed-through supply lines.



CORROSION & ABRASION RESISTANT

Immune to rust; unaffected by acids, alkalis and aggressive soils, and stands up to silt-laden flows.



ENVIRONMENT FRIENDLY

Inert, non-toxic and fully recyclable — safe for drinking water, with nothing leaching into the supply.



LEAK-PROOF JOINTS

Fusion welding makes every joint as strong as the pipe itself — one continuous, monolithic pipeline.



EASY TO INSTALL

Light and flexible enough to weld at ground level and snake straight into the trench with minimal machinery.

BUILT FOR 50+ YEARS OF SERVICE

63–1000 MM · PE-63 / PE-80 / PE-100

APPLICATIONS OF HDPE PIPES

One material, hundreds of duties. HDPE's light weight, flexibility and chemical resistance make it the preferred pipe across drinking water, irrigation, sewerage and industrial projects.

DRINKING WATER SUPPLY
Urban and rural water networks, Jal Board corporations and government drinking-water schemes.

IRRIGATION PROJECTS
Field channels, lift irrigation and pressurised systems supplied directly from canals, wells and dams.

TUBE WELLS & PUMPS
Suction and delivery lines for tube wells, jet pumps and submersible pump installations.

SEWERAGE & DRAINAGE
Effluent treatment plants, sewerage treatment plants and gravity drainage lines.

INDUSTRIAL PIPELINES
Transport of aggressive fluids — acids, brine and process chemicals — in plants and mills.

HOUSING & COLONIES
Housing societies, farm houses and residential colony distribution networks.

CABLE DUCTING
Protective conduits for power and communication cables laid underground.

MINES & FACTORIES
Compressed air lines, dewatering and slurry transport in mining and factory duty.



STOCKED FOR PROJECTS OF EVERY SCALE

COMPARISON BETWEEN HDPE & PVC PIPES

Both are thermoplastics — but in buried, exposed and pressurised service the two behave very differently. Across life, weathering and chemical duty, HDPE holds a clear advantage.

PROPERTY	HDPE PIPE	PVC PIPE
Service life	Over 50 years underground; 25+ years overhead	Under 10 years
Weathering resistance	Good — UV-stabilised compound	Poor — turns brittle in sunlight
Temperature range	−40 °C to 45 °C	0 °C to 45 °C
Drinking water suitability	Safe, suitable even beyond 45 °C	Suitable only up to 45 °C
Chemical resistance	High resistance to acids & alkalis	Moderate resistance
Jointing	Fusion welding — leakproof monolithic line	Solvent joints prone to leakage
Handling	Light, flexible, coilable	Rigid lengths, brittle in cold

WHAT THIS MEANS ON SITE

- **LOWER LIFETIME COST**
  One HDPE line outlives multiple PVC replacements — fewer digs, fewer repairs, less downtime.
- **LEAKPROOF NETWORKS**
  Fused joints are as strong as the pipe itself, protecting every litre pumped through the line.
- **SAFE DRINKING WATER**
  Inert material with no taste, odour or leaching — fully suitable for potable duty.

SPECIFY HDPE ONCE — AND STOP REPLACING PVC EVERY FEW YEARS

HDPE PIPE AS PER IS-4984 / 2016

HDPE pipe is polyethylene at its best — a material whose light weight, elasticity and chemical inertness have made it the first choice for modern pressure networks. Quick installation, easy transport and decades of maintenance-free service have driven its adoption across every category of project.

FEATURES OF HDPE PIPES

LOW WEIGHT
Far lighter than steel or concrete pipe — easy to carry, load and install without heavy machinery, even on remote sites.

IMPACT RESISTANT
Extremely high impact tolerance eliminates the need for anti-shock equipment and cuts handling wastage to near zero.

EROSION RESISTANT
Highly resistant to abrasive flows carrying non-soluble solids; the hard surface also keeps rodents and borers out.

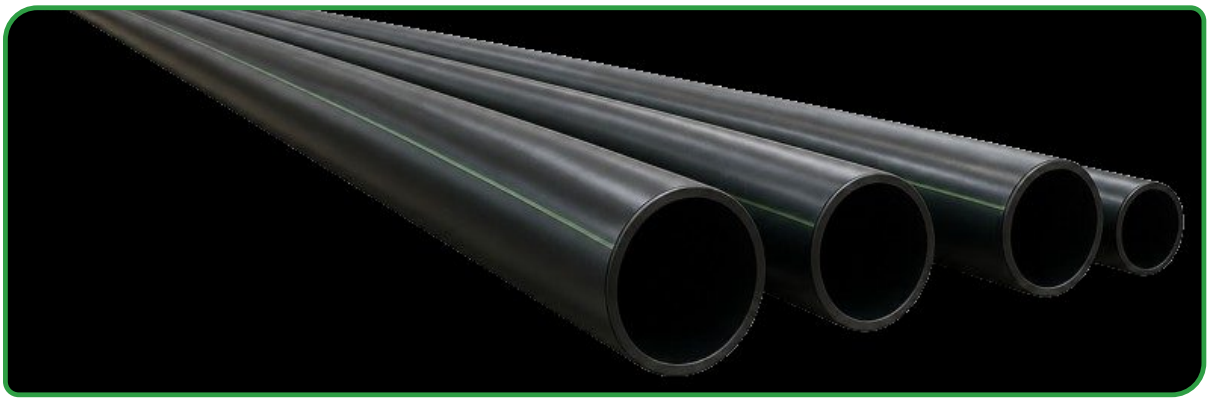
CHEMICAL RESISTANT
Unaffected by acidic and alkaline environments across the standard chemical resistance range for PE.

HIGH FLOW RATE
Mirror-smooth bore with a roughness coefficient of just 0.007 keeps fluids moving fast, year after year.

EASY CONNECTING
Supplied as coils and straight lengths; branches connect by fusion, flange or compression fittings.

FLEXIBILITY
Generous bending radius means fewer fittings, faster laying around obstacles and lower installed cost.

LONG LIFE
UV-stabilised compound engineered for decades of buried or exposed service without replacement.



PN 2 – PN 20 · PE-63 / PE-80 / PE-100 · 63 MM – 1000 MM

QUALITY CONTROL SYSTEM

L G Irrigation operates an ISO 9001:2015 certified quality management system, committed to supplying products that meet the customer's requirements and the applicable Indian Standards in full. The heart of the system is a fully equipped in-house laboratory — 100% of QA testing is performed on site, on the same machines used by certifying laboratories.

Quality checks are applied at three stages — incoming raw material, online production and final inspection — so that no pipe which fails a parameter ever reaches the buyer. Hydrostatic testing is carried out on completed lengths: pressure is applied by pump and held while the pipe is inspected for any sign of leakage or weeping.

01 RAW MATERIAL

Grade verification, MFI and density checks on every PE compound lot before it enters the line.

02 ONLINE PRODUCTION

Continuous monitoring of diameter, wall thickness, ovality and surface finish during extrusion.

03 FINAL INSPECTION

Hydraulic, tensile and reversion testing of finished pipe before marking and dispatch.



EXTRUSION LINE



ONLINE INSPECTION



FINISHED PIPE



DISPATCH STOCK

RAW MATERIAL → ONLINE PRODUCTION → FINAL INSPECTION — CLEAR ALL THREE, OR IT DOES

HDPE PIPES FOR SPRINKLER – IS-14151

A complete sprinkler system — pipes, fittings, clamps, nozzles and accessories — manufactured from high-density polyethylene polymers. Water sprayed through nozzles gives maximum use efficiency: water is saved, soil erosion is prevented and coverage is even. Suitable for nearly every crop — wheat, pulses, vegetables, cotton, soyabean, tea and coffee plantations.

SPECIFICATIONS & RANGE

PIPES	63 mm to 110 mm
PRESSURE CLASS	PN 2.5 & PN 3.2
GRADES	PE-63 & PE-80
STANDARD	IS 14151 (Part 2)

PROPERTY	VALUE
MFI (190 °C, 5 kg load)	0.2 – 1.1 g / 10 min
Density	940 – 958 kg/m³
Material grade	PE-63, PE-80
Carbon black	2.5 ± 0.5 %
Reversion	< 3 %
Hydraulic test	No leakage @ 80 °C / 165 hrs

APPLICATIONS

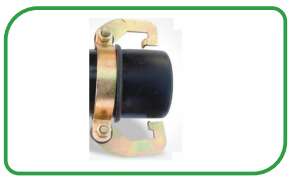
- Sprinkler irrigation systems
- Potable water supply lines
- Lift irrigation schemes
- Supply directly from canals, wells & dams



SYSTEM COMPONENTS



SPRINKLER PIPES



QUICK COUPLING



END CAP



IMPACT NOZZLE

HDPE PIPES JOINTING METHODS

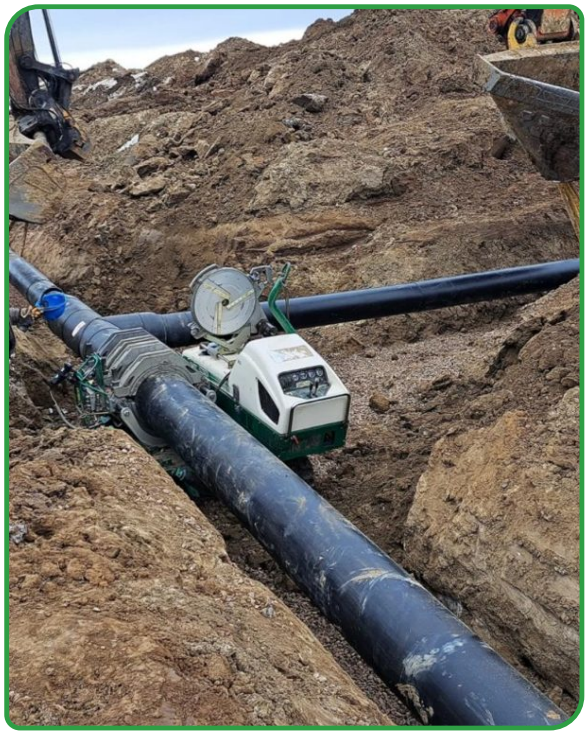
HDPE pipes are joined in two principal ways — butt fusion welding and electro-fusion welding. Both produce joints with strength equal to the pipe itself, giving a continuous, leakproof pipeline.

BUTT FUSION WELDING

1. Clean both pipe ends thoroughly.
2. Clamp the ends in the fusion machine and trim both faces square with the rotating trimmer.
3. Check alignment by pressing the faced ends together.
4. Insert the heater plate at 205 °C; watch for a uniform melt bead around both circumferences.
5. Withdraw the plate quickly without touching the molten ends.
6. Press the ends together at the specified pressure to form a twin rollback bead; allow about 30 minutes of cooling before stressing the joint.

ELECTRO-FUSION WELDING

Electro-fusion fittings carry an integral electrical heating coil embedded in the socket. Current passed through the coil melts the surrounding material, which expands and fuses the fitting permanently to the pipe — ideal for repairs, tie-ins and confined trenches where a butt-fusion machine cannot be positioned.



BUTT FUSION JOINTING ON SITE

FAST FUSION TECHNOLOGY

LGI welds pipelines at record speed — an enhanced cooling system multiplies welds per hour on municipal projects without compromising joint integrity or pressure rating.

JOINT STRENGTH = PIPE STRENGTH — NO GASKETS TO AGE, NO THREADS TO LOOSEN, NO SOLVENT FAI

OUR IN-HOUSE TEST FACILITIES

Every batch is proven before it ships. Our laboratory tests pipes on the same parameters as certifying laboratories, and product testing is further supported by a NABL-accredited laboratory.

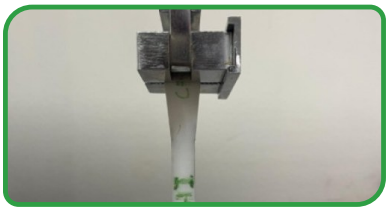
- Dimensional & visual inspection
- Tensile test
- Reversion test
- Crush resistance
- Hydraulic characteristics
- Internal coefficient of friction
- Melt flow index (MFI)
- Hydrostatic pressure test
- Ash content
- Density of pipe
- Carbon black content
- Type test

KEY TESTS — EXPLAINED



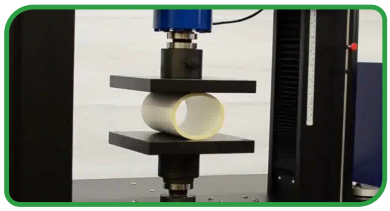
HYDROSTATIC PRESSURE TEST

Pipe lengths are filled with water and pressurised in a temperature-controlled bath. Held under load, the pipe must show no leakage, weeping or swelling — the basis of the 80 °C / 165 hr acceptance criterion.



TENSILE & ELONGATION

Dumbbell specimens cut from the pipe wall are pulled in a universal testing machine until break — verifying tensile strength and elongation of material and weld.



CRUSH RESISTANCE

Pipe rings are compressed between flat platens to measure deflection under load — proof the pipe holds its shape under soil and traffic.



BURST PRESSURE

Internal pressure is raised rapidly until failure, establishing the true safety margin far above the pipe's rated PN class.

NABL-ACCREDITED SUPPORT

In-house results are validated through a NABL-accredited laboratory — dual assurance on every critical parameter.

TESTED AT THREE STAGES — RAW MATERIAL, ONLINE PRODUCTION & FINAL INSPECTION

OUR CLIENTS & APPROVALS

L G Irrigation is an approved vendor with major government departments and supplies leading infrastructure contractors across India's water, sewerage and power sectors.

MJP Maharashtra Jeevan Pradhikaran

REF: MJP/STP-HDPE/2021

Approved vendor for municipal water supply and sewerage pipes across Maharashtra.

JJM Jal Jeevan Mission, Rajasthan

REF: JJM/RAJ/REG-4984

Registered supplier of drinking-water pipelines to rural households under PHED Rajasthan.

UPJN Uttar Pradesh Jal Nigam

REF: UPJN/VENDOR-LIST-III

Enlisted manufacturer for central water distribution networks and urban sewer installations.

DJB Delhi Jal Board

REF: DJB/W-1000/QA

Approved contractor supply for large-diameter HDPE infrastructure pipelines up to 1000 mm.

PHED Public Health Engg. Department

REF: PHED/RAJ/WSS/HDPE

State Government vendor for irrigation, potable drinking-water networks and sprinkler lines.

L&T Larsen & Toubro Construction

REF: L&T/INFRA-QA/2023

Certified supply partner for major commercial sewage grids and smart-city water schemes.

MAJOR CORPORATE & CONTRACTOR CLIENTS

- Zillion Infra Project Pvt. Ltd. — Govt. infrastructure contractor
- O.P. Constructions (P) Ltd. — Govt. water supply projects
- Shiv Bhandar — Govt. infrastructure projects
- Infra Project Pvt. Ltd. — Civil infrastructure pipeline contracts
- JSP — Govt. irrigation & piping schemes

Also serving various discoms of state power corporations, including PuVVNL and DVVNL contractors.

4	ISO	2011	1000 MM
BIS LICENSES	9001 : 2015	SERVING SINCE	MAX PIPE SIZE

GOVERNMENT-APPROVED VENDOR — CREDENTIALS FILE AVAILABLE ON REQUEST

Serving state departments, discoms and national infrastructure contractors since 2011.

LG IRRIGATION

· SEWERAGE · SPRINKLER IRRIGATION

CONTACT US

WORKS	Khasra No. 103, Paldi Parsa Village,
	Mahindra World City (SEZ), Jaipur, Rajasthan
PHONE / WHATSAPP	+91 98281 67722
EMAIL	lgirrigation99@gmail.com
WEB	www.lgirrigation.in

- ISO 9001:2015 — Quality Management
- IS 4984 : 2016 — HDPE Pipes
- IS 14333 — Sewerage Pipes

ENGINEERING WATER FLOW · ESTABLISHED 2011 · JAIPUR, RAJASTHAN