

AMD



Pipe
Systems



Fitting
Systems



Valve &
Flow Control
Systems



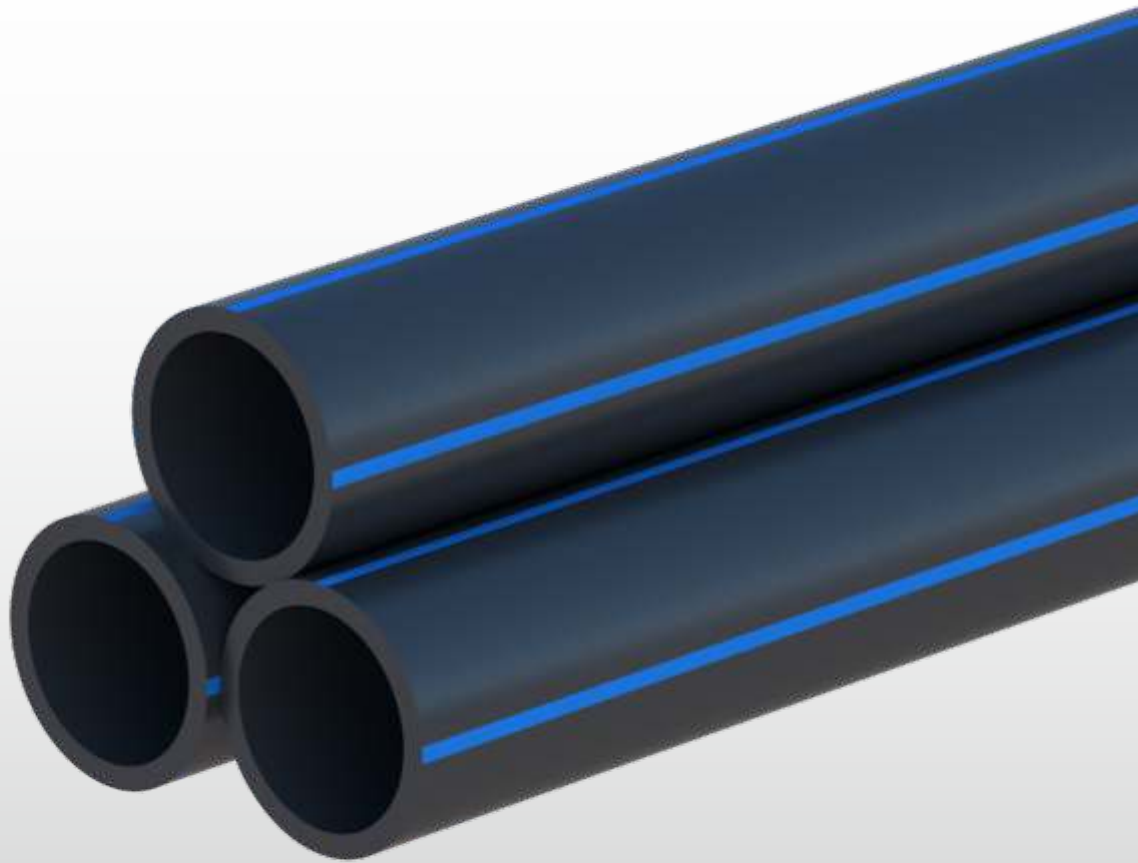
Flange &
Connection
Systems



Cable
Management
Systems



Plastic
Welding
Systems



CATALOG | 2026

PE WATER PIPE

PT. Golden Piping Indonesia

AMD



Public Utility
Infrastructure



Building
& Industry



Energy & Natural
Resources



Digital
Infrastructure

PT. Golden Piping Indonesia

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INTEGRATED PIPING SYSTEM

- Pipe Systems
- Fitting Systems
- Valve & Flow Control Systems
- Flange & Connection Systems
- Cable Management Systems
- Plastic Welding Systems

**TENTANG
PERUSAHAAN****ABOUT
COMPANY**

PT. Golden Piping Indonesia adalah perusahaan yang fokus pada penyediaan solusi sistem perpipaan terintegrasi untuk memenuhi kebutuhan infrastruktur dan industri modern.

GPI menghadirkan portofolio produk yang lengkap dan komprehensif, mencakup Pipe Systems, Fitting Systems, Valve & Flow Control Systems, Flange & Connection Systems, Cable Management Systems, serta Plastic Welding Systems.

Produk dan solusi GPI dirancang untuk mendukung berbagai sektor strategis, antara lain Public Utility Infrastructure, Building & Industry, Energy & Natural Resources, dan Digital Infrastructure.

Dengan komitmen terhadap kualitas, efisiensi, dan pertumbuhan jangka panjang, GPI tidak hanya berperan sebagai penyedia produk, tetapi juga sebagai mitra strategis yang menghadirkan solusi sistem perpipaan terintegrasi sesuai kebutuhan pelanggan.

Didukung oleh produk berkualitas tinggi, layanan profesional, serta dukungan teknis yang andal, GPI berkomitmen untuk memberikan nilai tambah, meningkatkan efisiensi operasional, dan menghadirkan keandalan jangka panjang bagi setiap pelanggan.

PT. Golden Piping Indonesia is a company specializing in the provision of integrated piping system solutions to meet the demands of modern infrastructure and industrial development.

GPI offers a comprehensive portfolio of products, including Pipe Systems, Fitting Systems, Valve & Flow Control Systems, Flange & Connection Systems, Cable Management Systems, and Plastic Welding Systems.

GPI's products and solutions are designed to support a wide range of strategic sectors, including Public Utility Infrastructure, Building & Industry, Energy & Natural Resources, and Digital Infrastructure.

Committed to quality, efficiency, and long-term growth, GPI is more than just a product supplier, we are a strategic partner dedicated to delivering integrated piping system solutions tailored to our customers' specific requirements.

Supported by high-quality products, professional services, and reliable technical support, GPI is committed to creating added value, enhancing operational efficiency, and delivering long-term reliability for every customer.







Product Description

PE Water Pipe adalah pipa berbahan High-Density Polyethylene (HDPE) PE100 yang dirancang untuk sistem distribusi air bertekanan. Pipa ini banyak digunakan pada jaringan air bersih modern karena memiliki ketahanan tinggi terhadap korosi, fleksibilitas unggul, serta sistem sambungan fusion yang kedap bocor. Produk ini menjadi solusi ideal untuk water supply system, baik untuk jaringan kota, kawasan industri, maupun proyek infrastruktur skala besar.



Technical Specifications

Material		PE100
Standard		SNI 4829.2:2015 / ISO 4427-2
Diameter		DN 16 - DN 1200
Color		Black / Black with Blue Stripe
Pressure Nominal		6, 8, 10, 12.5, 16, 20, 25 Bar
SDR		26, 21, 17, 13.6, 11, 9, 7.4
Standard	Roll	50, 100, 200, 300, 400, 500 m
Length	Straight	5.8, 6, 8, 9, 11.8, 12 m

Standards & Certifications



SNI 4829.2:2015

ISO 4427.2:2019
ISO 4427.2:2007

Quality & Testing

- Hydrostatic pressure test
- Dimensional inspection
- Impact resistance test
- Material quality control (MFI & density)
- Visual & Surface Inspection

Summary

PE Water Pipe merupakan solusi perpipaan modern yang menggabungkan kekuatan, fleksibilitas, dan ketahanan tinggi terhadap lingkungan, menghasilkan sistem distribusi air yang andal, efisien, dan berumur panjang. Produk ini menjadi pilihan utama untuk proyek infrastruktur air berskala kecil hingga besar dengan kebutuhan performa tinggi dan biaya operasional rendah.

Product Concept

Solusi perpipaan modern berbasis material polietilena berkepadatan tinggi yang mengutamakan fleksibilitas, durabilitas, dan efisiensi instalasi untuk infrastruktur air masa kini dan masa depan.

Function (Fungsi)

Menyalurkan air bersih bertekanan secara aman dan efisien dengan performa tinggi, sambungan bebas bocor, serta ketahanan terhadap korosi dan bahan kimia.

System Role (Peran dalam Sistem)

Komponen utama dalam sistem penyediaan dan distribusi air (SPAM), mencakup jaringan transmisi, distribusi, hingga sambungan ke pengguna akhir.

Advantages

- **Corrosion Resistant** → tidak berkarat & tahan lingkungan agresif
- **Leak-Free Joint** → sistem penyambungan butt fusion & electrofusion tanpa kebocoran
- **High Flexibility** → tahan pergerakan tanah & gempa
- **Smooth Internal Surface** → aliran optimal, pressure loss rendah
- **Lightweight** → ringan, mudah transport & instalasi
- **Long Service Life** → umur pakai ≥ 50 tahun
- **Low Maintenance** → biaya operasional rendah

Applications

- Public Utility Infrastructure (SPAM / PDAM)
- Building & Residential
- Industrial & Commercial
- Agro & Irrigation System
- Marine & Remote Area

Jointing System

- Butt Fusion (utama untuk diameter besar)
- Electrofusion (presisi tinggi & repair)
- Compression Fitting (diameter kecil ≤ Dn110)
- Push Fitting (diameter kecil ≤ Dn32)

Installation Method

- Open trench installation
- HDD / trenchless installation
- Above ground (opsional, dengan support system)

Related Products

- PE Fittings (Butt Fusion/Electrofusion/Mechanical)
- Valves (Gate Valve, Ball Valve)
- Flange Adaptor & Stub End
- Plastic Welding Equipment



Tehcnical Data Sheet (TDS)

Property	Value	Unit	Metode Pengujian
Material Properties			
Density [Compound]	0.948 - 0.960	kg/m ³	ISO 1183-1 / ASTM D 1505
Melt Flow Rate [190 °C/5,5 kg]	0.20 - 0.26	g/10min	ISO 1133 / ASTM D 1238
Tensile Modulus [1 mm/min]	800 - 1300	MPa	ISO 527-2 / ASTM D 790
Elongation at Break [50 mm/min]	350 - 760	%	ISO 527-2 / ASTM D 638
Elongation at Yield [50 mm/min]	30	MPa	ISO 527-2 / ASTM D 638
Carbon black content	2 - 2,5	%	ISO 6964
Carbon black dispersion	< 3	-	ISO 18553
Oxidation Induction Time [210 °C]	> 20	min	ISO 11357-6 / ASTM D 3895
Mechanical Properties			
Hydrostatic Strength [20°C]	Pass		ISO 1167
Hydrostatic Strength [80°C]	Pass		ISO 1167
Impact Resistance	Excellent		ISO 179
Slow Crack Growth Resistance	> 3000	h	ISO 16770 (FNCT)
Rapid Crack Propagation	Excellent		ISO 13479
Physical Properties			
Longitudinal Reversion	≤ 3	%	ISO 2505
MFR Change After Processing	± 20	%	ISO 1133
Thermal Conductivity	0.40	W/m.K	ASTM C177
Linear Thermal Expansion	1.8 × 10	/°C	ASTM D696
Specific Heat Capacity	1.9	J/g.°C	Typical Value
Hydraulic Properties			
Hazen-Williams Coefficient	150		
Surface Roughness [k]	0.007 mm		
Internal Surface	Smooth		
Pressure Loss	Very Low		

Perbandingan antara Pipa HDPE, PVC dan Steel

SUBJECT	HDPE	PVC	STEEL	EFFECT TO
Flexibility	✓	X	X	Deformation Proof
	Flexible	Stiff	Very Hard	
Durability	✓	X	Δ	Reduce Life Cycle Cost
	No Stain	Crack	Corrode	
Wokability	✓	✓	X	Safe Construction Time
	Leight Weight	Leight Weight	Heavy	
Wheatherability	✓	X	Δ	Safe Construction Cost
	No Trouble	Deteriorate	Corrode	
Join Method	✓	X	Δ	Reliability For Leakage
	Fusion	Glue	Weld/Thread	
Life Time	100 Years	30 Years	40 Years	Reduce Replacement & Maintenance Cost

Koefisien tekanan kerja maksimum untuk temperatur air

Temperatur Air °C	Koefisien tekanan nominal (PN)
20°	1
30°	0.87
40°	0.74

- Untuk temperatur lainnya dapat menggunakan perhitungan interpolasi [SNI 4829.2:2015]
- Operating Temperature : 20°C (Reference)
- Maximum Operating Temperature : Up to 40°C*



PE100 Water Pipe Wall Thickness (According to SNI 4829.2:2015)

Nominal Diameter (DN/OD)			PN 6	PN 8	PN 10	PN 12.5	PN 16	PN 20	PN 25
OD min	OD max	Inch (Reference)	SDR 26 S 12.5 en	SDR 21 S 10 en	SDR 17 S 8 en	SDR 13.6 S 6.3 en	SDR 11 S 5 en	SDR 9 S 4 en	SDR 7.4 S 3.2 en
16	16.3	3/8	-	-	-	-	1.5*	2.0	2.3
20	20.3	1/2	-	-	1.2*	1.5*	2.0	2.3	3.0
25	25.3	3/4	-	-	1.5*	2.0	2.3	3.0	3.5
32	32.3	1	-	-	2.0	2.4	3.0	3.6	4.4
40	40.4	1-1/4	-	2.0	2.4	3.0	3.7	4.5	5.5
50	50.4	1-1/2	2.0	2.4	3.0	3.7	4.6	5.6	6.9
63	63.4	2	2.5	3.0	3.8	4.7	5.8	7.1	8.6
75	75.5	2-1/2	2.9	3.6	4.5	5.6	6.8	8.4	10.3
90	90.6	3	3.5	4.3	5.4	6.7	8.2	10.1	12.3
110	110.7	4	4.2	5.3	6.6	8.1	10.0	12.3	15.1
125*	125.8	5	4.8	6.0	7.4	9.2	11.4	14.0	17.1
140*	140.9	5-1/2	5.4	6.7	8.3	10.3	12.7	15.7	19.2
160	161	6	6.2	7.7	9.5	11.8	14.6	17.9	21.9
180*	181.1	7	6.9	8.6	10.7	13.3	16.4	20.1	24.6
200	201.2	8	7.7	9.6	11.9	14.7	18.2	22.4	27.4
225*	226.4	9	8.6	10.8	13.4	16.6	20.5	25.2	30.8
250	251.5	10	9.6	11.9	14.8	18.4	22.7	27.9	34.2
280*	281.7	11	10.7	13.4	16.6	20.6	25.4	31.3	38.3
315	316.9	12	12.1	15.0	18.7	23.2	28.6	35.2	43.1
355	357.2	14	13.6	16.9	21.1	26.1	32.2	39.7	48.5
400	402.4	16	15.3	19.1	23.7	29.4	36.3	44.7	54.7
450	452.7	18	17.2	21.5	26.7	33.1	40.9	50.3	61.5
500	503	20	19.1	23.9	29.7	36.8	45.4	55.8	-
560	563.4	22	21.4	26.7	33.2	41.2	50.8	62.6	-
630	633.8	24	24.1	30.0	37.4	46.3	57.2	70.3	-
710	716.4	28	27.2	33.9	42.1	52.2	64.5	79.3	-
800	807.2	32	30.6	38.1	47.4	58.8	72.6	89.3	-
900	908.1	36	34.4	42.9	53.3	66.2	81.7	-	-
1000	1009	40	38.2	47.4	59.3	72.5	90.2	-	-
1200	1210.8	48	45.9	57.2	67.9	88.2	-	-	-
1400*	1412.6	56	53.5	66.7	82.4	102.9	-	-	-
1600*	1614.4	64	61.2	76.2	94.1	117.6	-	-	-
1800*	1816.2	72	69.1	85.7	105.9	-	-	-	-
2000*	2018.0	80	76.9	95.2	117.6	-	-	-	-

Keterangan:S : seri pipa (tidak memiliki satuan) $S = (SDR - 1) / 2$ SDR : standard dimension ratio ($SDR = DN/en$)

DN/OD : diameter luar nominal (dn), dalam millimeter

ID = OD - (2 × Wall Thickness)

* Produced subject to project requirement.

PN : Nominal Pressure adalah tekanan operasi kontinu maksimum pada suhu referensi 20°C berdasarkan koefisien desain minimum ($C = 1,25$).

Inch size shown for reference only.

Weight (kg/m) = $(\pi/4 \times (OD^2 - ID^2) \times \text{Density}) \div 1.000.000$



Standard Length PE Water Pipe



PE Pipe Roll (Coil)



PE Pipe Straight (Batang)

Pipa Roll (digulung)

Pipa harus digulung sedemikian rupa untuk menghindari perubahan bentuk setempat, misalnya tekukan dan puntiran.

Diameter internal minimum gulungan harus lebih besar atau sama dengan 18dn.

Panjang Pipa

Tidak ada persyaratan yang ditetapkan tentang panjang tertentu dari pipa gulung atau lurus atau toleransinya, sehingga perlu dilakukan kesepakatan antara pembeli dan pabrikan terkait panjang pipa yang harus disediakan.

DN/OD		METER / ROLL						METER / STRAIGHT					
mm	Inch	500	400	300	200	100	50	12	11.8	9	8	6	5.8
16	3/8	•	•	•	•	•	•						
20	1/2	•	•	•	•	•	•						
25	3/4	•	•	•	•	•	•						
32	1		•	•	•	•	•						
40	1 1/4			•	•	•	•						
50	1-1/2				•	•	•						
63	2				•	•	•	•	•	•	•	•	•
75	2-1/2					•	•	•	•	•	•	•	•
90	3					•	•	•	•	•	•	•	•
110	4						•	•	•	•	•	•	•
125	5							•	•	•	•	•	•
140	5							•	•	•	•	•	•
160	6							•	•	•	•	•	•
180	6							•	•	•	•	•	•
200	8							•	•	•	•	•	•
225	8							•	•	•	•	•	•
250	10							•	•	•	•	•	•
280	10							•	•	•	•	•	•
315	12							•	•	•	•	•	•
355	14							•	•	•	•	•	•
400	16							•	•	•	•	•	•
450	18							•	•	•	•	•	•
500	20							•	•	•	•	•	•
560	22							•	•	•	•	•	•
630	24							•	•	•	•	•	•
710	28							•	•	•	•	•	•
800	32							•	•	•	•	•	•
900	36											•	•
1000	40											•	•
1200	48											•	•

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