

PRO INSPECTION CHAMBER AND MANHOLE SYSTEM



Faster installation with lower rollout costs
and longer service life

Discover our full service portfolio online.

PIPELIFE 
always part of your life

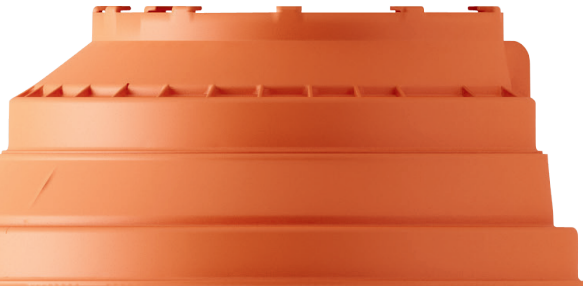
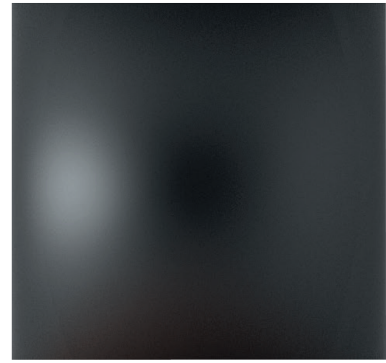
ALWAYS PART OF YOUR LIFE

Pipelife develops, manufactures and distributes advanced PP, PVC and PE plastic pipe systems, something we have been doing under various names since 1947. Today, as Pipelife, part of the global Wienerberger building materials group, we are one of Europe's leading manufacturers of lightweight yet strong solutions for the complete water cycle, for energy and power distribution, for telecommunication networks and for industrial applications.

The Pipelife concept is driven by our belief in system-wide thinking and sustainable solutions. System-wide thinking, because this leads to smarter, more cost-efficient and simply better pipeline networks. Sustainability, because this forces us to seek ways to do things that, through being better for our planet, are better for our customers, too. A simple example: our lightweight pipes and manholes last over 50 years and are intended to be subsequently recycled to make second life products. Lightweight means lower emissions during transportation. It means faster, safer and less complicated installation. Lightweight reduces labour costs. And long life-cycles means having to renew pipes less frequently.

Today, we use continuous improvement and customer-driven innovation to develop excellent products, and back these up with services that deliver exactly what our customers need. The result is competence you can count on, an energetic team spirit and visionary ideas on the ways we can use advanced plastic pipes to make people's lives better. customer-driven innovation to develop excellent products, and back these up with services that deliver exactly what our customers need. The result is competence you can count on, an energetic team spirit and visionary ideas on the ways we can use advanced plastic pipes to make people's lives better.

ALWAYS PART OF YOUR LIFE



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THE PRO SYSTEM

LONGER LIFE AT LOWER SYSTEM COST

Developed from system-wide thinking

The Pipelife PRO inspection chamber and manhole series is the latest and most innovative iteration of our continuous development process. Through talking with customers, learning from experience and monitoring climate, urbanisation and other trends, we're continually advancing the design of our chamber systems from construction, inspection and cleaning perspectives. We are also always looking for ways to speed up installation and improve overall integration across the entire pipeline system.



TECH INSIGHT

Pipelife PRO chambers come with a choice of standard-angle pipe inlets or custom design to meet the need of specific installation sites. The ribbed outer wall that gives the PRO system its lightweight strength also doubles as a locking system: soil fills the gaps and holds the chamber in place should groundwater levels rise.

Cast iron cover

cast iron cover DN 600, class A15-D400

Support

reinforced concrete support for manholes 800/1000

Ladder

ladder fitted with anti-slip GRP steps

Riser

PP-B riser rings DN/ID 1000 or DN/ID 800 connected with rubber seal

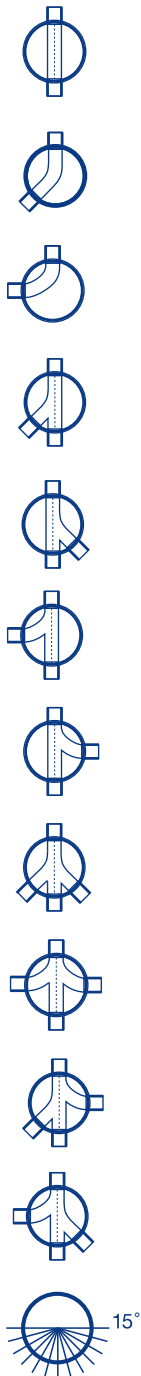
Base

PP-B reinforced base with bottom plug



PRO BENEFITS AT A GLANCE

Pipelife PRO chambers are engineered with polypropylene thermoplastic to meet tough strength and utility requirements. They provide the ideal solution for sewerage and stormwater in various ground and water conditions. They connect easily to our Pipelife Pragma® and smooth pipes. And Pragma and PRO form an important part of our Raineo® rainwater management solution as well.



Lightweight and long-lasting

Pipelife PRO inspection chambers and manholes are available in dimensions of 630 mm, 800 mm and 1000 mm. We make them from 100% virgin polypropylene (PP),

SMALLER CREWS AND FASTER INSTALLATION

- > Lower transport costs and lower transport-related emissions
- > Less manpower and less heavy equipment needed
- > An enormous weight-saving compared with concrete chambers
- > A significant weight saving versus chambers made with traditional materials
- > Easy to precision-cut the final height of the manhole on-site
- > Easy to connect to the Pipelife Pragma pipeline system as well as smooth pipes
- > Adapters and connectors available for connecting to other pipe types
- > Unrivalled life expectancy

a lightweight yet tough material that guarantees high durability and a long working life of over 50 years. Being virgin material, we can colour our components red-brown, which is better for visual inspection than low-contrast black, a by-product of using recycled materials.

Smaller crews and faster installation

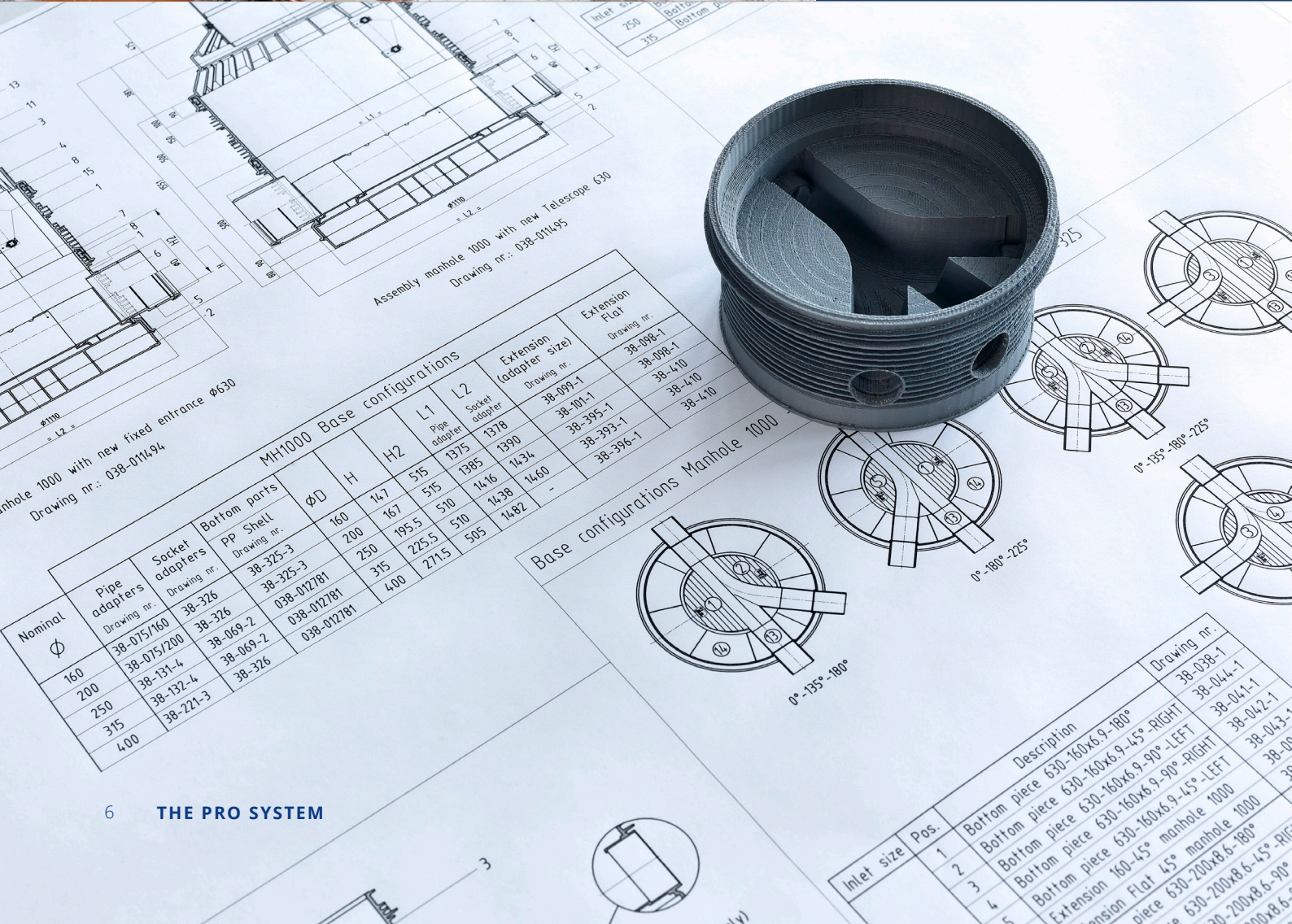
The result is what you should expect of a modern manhole solution: easier and so faster installation, using smaller crews that reduce overall project costs.

Pipelife PRO chambers are ideal for use as TV inspection access points, line clean-out access, interim access points in long pipe sections, effluent sampling stations and monitoring pits.



CHEMICAL RESISTANT PIPES FOR SHOWCASE TRADE PARK

Schiphol Trade Park, near Amsterdam Schiphol Airport, has been developed to be the most sustainable industrial park in Europe. With this challenge in mind, our customer proposed Pipelife PP pipes and connection pieces, and Pipelife Renoflow inspection chambers. PP offers better chemical resistance than PVC (including against kerosene, a key calamity-planning issue near an airport), shows higher impact resistance and is 100% recyclable.



Manhole 1000 with new fixed entrance Ø630
Drawing nr.: 038-011494

Assembly manhole 1000 with new Telescope 630
Drawing nr.: 038-011495

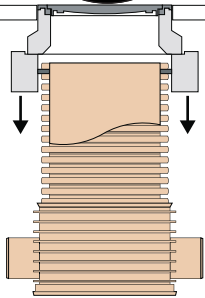
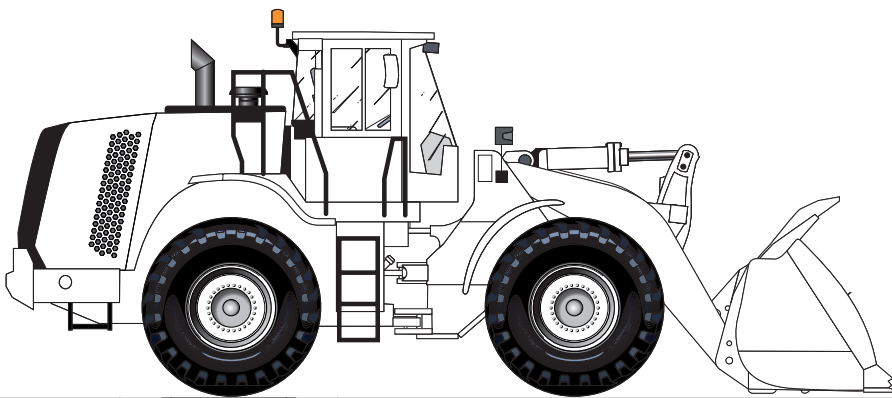
Nominal Ø	Pipe adapters Drawing nr.	Socket adapters Drawing nr.	PP Shell Drawing nr.	MH1000 Base configurations				Extension (adapter size) Drawing nr.	Extension Flat Drawing nr.
				Bottom parts	ØD	H	H2		
160	38-075/160	38-326	38-325-3	160	147	515	1375	38-099-1	38-098-1
200	38-075/200	38-326	38-325-3	200	167	515	1385	38-101-1	38-100-1
250	38-131-4	38-069-2	038-012781	250	195.5	510	1390	38-395-1	38-410
315	38-132-4	38-069-2	038-012781	315	225.5	510	1434	38-393-1	38-410
400	38-221-3	38-326	038-012781	400	271.5	505	1482	38-395-1	38-410

Base configurations Manhole 1000

Inlet size	Pos.	Description	Drawing nr.
1	1	Bottom piece 630-160x6.9-180°	38-038-1
2	2	Bottom piece 630-160x6.9-45°-RIGHT	38-044-1
3	3	Bottom piece 630-160x6.9-90°-LEFT	38-042-1
4	4	Bottom piece 630-160x6.9-90°-RIGHT	38-042-1
5	5	Extension 160-45° manhole 1000	38-042-1
		Extension Flat 45° manhole 1000	38-042-1
		piece 630-200x8.6-45°-RIGHT	38-042-1
		piece 630-200x8.6-45°-LEFT	38-042-1
		piece 630-200x8.6-90°-RIGHT	38-042-1
		piece 630-200x8.6-90°-LEFT	38-042-1

21ST CENTURY DESIGN

Every element of the PRO manhole system has been designed from the customer point of view. Our goal is to add value by focusing on overall system and project cost, ease of installation and operation, and long-term life expectancy and sustainability.



Built to resist

Every PRO manhole is strong enough to withstand heavy traffic (Class D, 400kN), earth loads and 5 meters of groundwater pressure. Our chambers also withstand high temperatures, are 100% water resistant, provide excellent chemical resistance in aggressive environments, and they don't crack in the face of demanding freeze-thaw cycles.

Built to adapt

The telescopic riser and cover allows flexibility during warm and cold months, which helps to reduce road deformation and cracking. Inherently, this solution can decrease maintenance costs and ensure a longer roadway lifespan. Via the support ring the weight on the cover is also transmitted into the ground, rather than onto the manhole, while the ribbing on the outside of the chamber fills with soil, ensuring it stays in place regardless of soil movement or rising groundwater pressure.

Built to flow

Our PRO chambers have excellent flow characteristics, featuring high flow-profile walls and smooth internal surfaces for optimal hydraulic behaviour. This guarantees excellent flow characteristics in both normal conditions and, crucially, during the kind of sudden, torrential downpours that are expected to become increasingly common due to climate change.

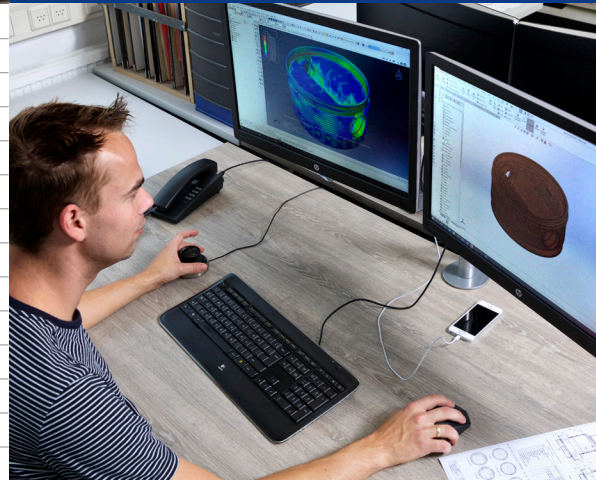
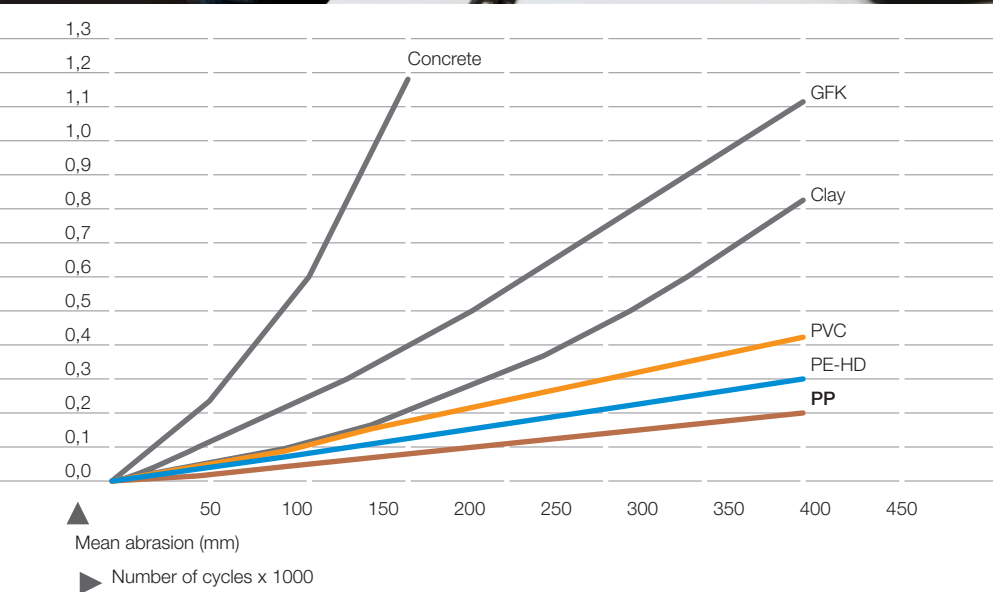
Built to last

PRO inspection chambers and manholes are the long-lasting solution, providing at least 50 years of reliable service. They fulfill all the requirements set out in the applicable European standards.



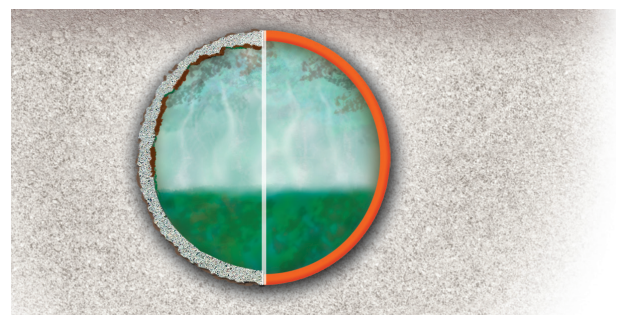
TECH INSIGHT

PRO inspection chambers and manholes are flexible, strong, don't collapse under pressure the way concrete does, don't corrode, and they have a smooth surface for low stickiness. Installation can be performed with smaller and less costly cranes, and smaller crews – crucial benefits given that people and equipment account for the vast majority of the cost of a project.



Pipe abrasion

European Standard PN-EN 295-3 stipulates that a pipeline inliner must show abrasion of no more than 0.2 mm after 100,000 cycles. Polypropylene has the highest abrasion resistance, with PP-B Pragma pipes demonstrating abrasion of 0.2 mm after 400,000 cycles (versus the 100,000 set out in the standard). This ensures a life expectancy of every pipe in the network of at least 50 years.



WHY POLYPROPYLENE IS THE MOST SUSTAINABLE SOLUTION

Polypropylene inspection chambers and manholes are the modern, ecological and lower cost alternative to heavy, hard-to-handle and maintenance-intensive concrete and brick constructions.



LIFETIME: AT LEAST 50 YEARS

PP lasts longer and Pipelife reuses it

Polypropylene's (PP) guaranteed airtightness, strength and low weight make it ideal for building sewerage and drainage systems that will last 50 years or more. Employing PP reduces production and transport-related emissions, reduces labour and equipment needs, cuts installation time and increases worker safety. And at the end of their life, the chambers are intended to be recycled to manufacture second life products.

PP outperforms PVC and PE

Polypropylene is the latest generation thermoplastic material and combines the strength of polyvinyl chloride (PVC) with the elasticity of polyethylene (PE). PP can be used in temperatures ranging from -5 °C to 100 °C, and is known for its stiffness, strength and hardness. This makes PP the best all-round choice for meeting the complex requirements of EN 13598-2. For example, our chambers' bases will resist deformation for at least 50 years. They are

also resistant to the impact of groundwater (5m water column) and abrasion, and remain tight at pressures of +0.5 bar and -0.3 bar.

PP connects better

A system based on Pipelife PRO inspection chambers and manholes, plus our Pragma or smooth pipes and couplings, ensures every component conforms to spec, guaranteeing top quality performance for decades. It also simplifies installation because, unlike concrete, pipes can be easily cut, on-site, to the exact length required to connect to the chamber.



PRO 630



The PRO 630 comes with OD630 or ID600 riser pipes with an exceptionally smooth inner layer, which makes it easy to clean after an occasional system overflow.

PRO 800 & 1000



A wide range of configurations makes the PRO 800 and 1000 chambers ideal for mainlines and, in combination with large diameters, suitable for complicated



The white inner layer of the riser makes inspection much easier. The PRO 630 has a diameter of 630 mm and comes with a wide choice of standard inlet and riser pipe angles, plus any-angle custom options. It features our One Shot Base, a modular, hydraulically optimal bottom section that's as effective as it is cost-efficient, and a fixed entrance as standard, with the option of a telescopic entrance.

connection points. The rigid riser rings of the PRO 800 and 1000 chambers are perfect for welded connections. High quality thermoplastic material provides high durability and a long operational lifetime. The PRO 800 and 1000 can be installed up to 6 m deep. The maximum ground water level above the flow channel is 5 m. The low weight of all the inspection chamber's parts makes transportation easy and installation fast, even for just two people.



STANDARD AND CUSTOM CHAMBERS AND MANHOLES



MORE WAYS TO HAVE IT YOUR WAY

The PRO inspection chambers and manholes can be tailored to specific needs. As well as inlet angles and risers, other options include sand and leaf traps, pumping stations and oil separators. The chambers can also be used to reduce the speed at which water flows down steep inclines in mountain and hillside pipeline networks.

The PRO manholes offer a huge range of connections to the base and riser rings. In practice, with PRO, engineers can design their ideal manhole without being constrained by standard inlet-angle configurations.

We also offer flexible sockets which, if needed, allow for a $\pm 7.5^\circ$ correction of the inlet angle.

Pipelife PRO manholes are an ideal alternative to concrete and are widely used for:

ASSEMBLE YOUR IDEAL MANHOLE

- > Sewerage revision and inspection
- > Connecting sewerage on different levels
- > Changing the direction of the sewerage path (horizontally and vertically)
- > Changing the slope and vertical section of a sewer pipe
- > Draw tanks for PROFOS sewerage pumping stations
- > Tanks for stormwater
- > Energy reducing
- > Water meter manholes
- > Revision and inspection of telecommunication and power networks
- > Industry-specific needs

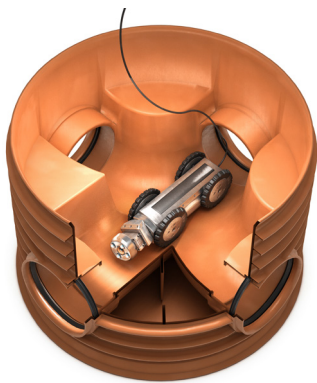


A FAST AND FLEXIBLE INFRASTRUCTURE SOLUTION

A German housebuilding company needed inspection chambers and manholes that could connect with any dimension of standard pipe. The answer: custom-made Pipelife PRO. Pipelife Germany worked out a phased, just-in-time delivery schedule for 50 PRO MH1000 for the main connections, and 94 PRO IC630 for the house connections. And with plug and play connectivity to the standard pipes, all the customer had to do was couple the components at the moment they chose.



THE BEST SERVICE AND SUPPORT



We back our products with in-depth service and support, from advice on specifications and design to installation support, customer-focused R&D and updating pipeline plans using Building Information Management-ready (BIM) software.

Customer-focused R&D

Our R&D team, for example, not only focuses on blue-sky thinking, but also on customer adaptation

optimal system for them, in terms of both strength and price. The software further enables us to make quick and reliable cost calculations based on real-time prices.

WE THINK SYSTEM-WIDE

and problem-solving. R&D is integrated into our corporate product management and marketing department, which enables us to react faster and better to emerging market trends and customer needs. Using rapid prototyping, FEM (finite element method) calculation models, 3D printing and other techniques, we can take ideas from the drawing board to our customers' stock yards in very little time.

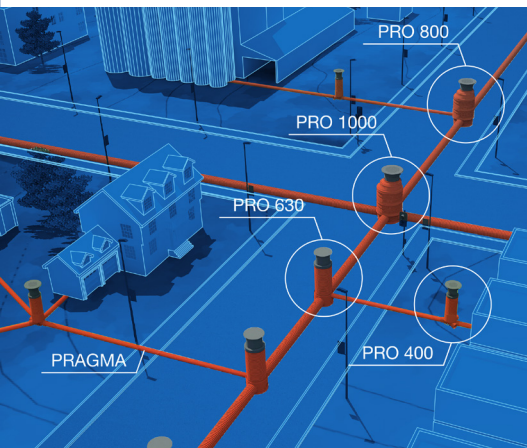
Faster on-site assembly

Out in the field, we make life easier by always delivering PRO manholes as a set. Being lightweight, they are fast and simple to install, and so require less heavy equipment and fewer people.

Just like our products, when it comes to support and service, we think system-wide as well.

Real-time calculations

Our proprietary PRO Manhole Configurator is a static calculator that we use to calculate whether the products a customer requests are strong enough to withstand external forces they tell us they need to meet. This extra level of assurance means we can help our clients build the



TECH INSIGHT

With modern cleaning and inspection equipment meaning you no longer need to climb in to see in, not every chamber has to have a diameter of 1000 mm. Designing or redesigning a sewer or drainage system in line with today's technology can help you optimise your costs for generations to come.

Angle	Model	Diameter of flight/inlet					Material
		160	200	250	315	400	
	630	•	•	•	•	•	PP-B
	800	•	•	•	•	•	
	1000	•	•	•	•	•	
	630	•	•	•	•	•	PP-B
	800	•	•	•	•	•	
	1000	•	•	•	•	•	
	630	•	•	•	•	•	PP-B
	800	•	•	•	•	•	
	1000	•	•	•	•	•	
	630	•	•	•	•	•	PP-B
	800	•	•	•	•	•	
	1000	•	•	•	•	•	
	630	•	•	•	•	•	PP-B
	800	•	•	•	•	•	
	1000	•	•	•	•	•	
	630	•	•	•	•	•	PP-B
	800	•	•	•	•	•	
	1000	•	•	•	•	•	
	630	•	•	•	•	•	PP-B
	800	•	•	•	•	•	
	1000	•	•	•	•	•	
	630	•	•	•	•	•	PP-B
	800	•	•	•	•	•	
	1000	•	•	•	•	•	
	630	•	•	•	•	•	PP-B
	800	•	•	•	•	•	
	1000	•	•	•	•	•	
	630	•	•	•	•	•	PP-B
	800	•	•	•	•	•	
	1000	•	•	•	•	•	

EXACTLY WHAT YOU NEED

All Pipelife PRO inspection chambers and manholes are produced in an integrated, in-house production process. Because we develop and manufacture all the main elements ourselves, we can guarantee their compatibility with other Pipelife products as well as third-party ones.

This unified, no-compromise approach to meeting requirements allows us to create functional, high-quality components with clear and reliable features. This is backed by excellent service, knowledgeable staff and readily available stock.



kiwa
gecertificeerd



ISO 9001

PIPELIFE PRO: THIS IS WHY

- > Part of a wider, system-based pipe and manhole concept
- > Ideal for sewerage and drainage installations
- > Operating life of at least 50 years
- > 3-4 times lower CO2 emissions than comparable concrete solutions
- > Lower transport costs and fewer truck movements vs concrete
- > Requires less manpower and less heavy equipment
- > Just as strong yet lighter than chambers made with other materials
- > Easy to precision-cut the final height of the manhole on-site
- > Easy to build out into a full system using Pipelife pipes
- > Designs reflect customer feedback and trend-based insights
- > Range of available sizes: 630 mm, 800 mm and 1000 mm
- > Easier visual inspection thanks to red-brown colour
- > Comprehensive service and support

SYSTEM-BASED



EASY HANDLING



FAST INSTALLATION



LIFETIME 50+ YEARS



EXTREMELY ROBUST



NO SCALING OR EROSION



100% RECYCLABLE



