

www.ecpc.com.eg

ECPC

The Egyptian Company for Prestressed Concrete



A legacy of excellence since 1978, The Egyptian Company for Prestressed Concrete - ECPC by Consolis is a leading manufacturer of precast concrete solutions in Egypt and the Middle East.

Our story began with a commitment to quality and innovation, laying the foundation with a state-of-the-art factory for Prestressed Concrete Cylinder Pipes (PCCP) in the 10th of Ramadan City. Spanning over 13 hectares, this facility has been producing high-quality PCCP in strict accordance with international standards since its inception.

Over the years, ECPC has enlarged its production capacity and deliveries of PCCP for various infrastructure projects across Egypt and the region. Our PCCP solutions have played a vital role in building stronger infrastructure throughout the years.

This success has fueled our expansion beyond PCCP. Today, ECPC offers a comprehensive range of precast concrete solutions, encompassing a variety of products. This diverse portfolio and know-hows allows us to provide a wider range of infrastructure needs, providing a one-stop shop for your construction projects.

About Consolis Group

Consolis is a leader in precast concrete products and solutions for the building and utilities sectors, with operations in Europe, North Africa, and Asia.

We accelerate the construction industry's transition towards carbon neutrality by providing low-carbon precast concrete solutions.

Driven by our purpose "well-built for well-being", we lead the way in building more sustainable communities through collaborative innovation and deep local expertise.





A Word *From* Consolis Ceo

With our strong industrial platform, commitment to sustainability, and skilled workforce, we are ready to accelerate growth, drive innovation, and expand our low-carbon precast solutions.

Our Offer

We design, produce, and deliver structural precast elements for the residential, non-residential, and utilities sectors.

Our solutions consist of smartly designed, locally produced precast elements and complete structural frames, with options for full-scope delivery and on-site assembly.

We help build sustainable, resilient communities, providing reliable solutions that meet evolving needs and support long-term well-being.

We aim to grow by delivering high-quality precast concrete products and exceptional service.

We are advancing the industry toward sustainability by significantly reducing CO₂ emissions from our operations.

Our clear ambition is to lead the way in making precast concrete a net-zero building material for the future.

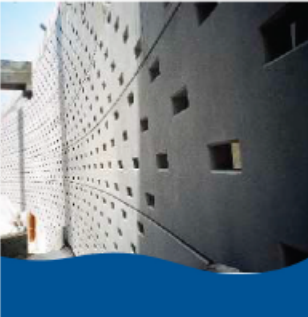
Eduard van der Meer,
CEO Consolis Group

Our segments and products

Infrastructure

Prestressed Concrete Cylinder Pipe "PCCP" 	Reinforced Concrete Pipe "RCP" 	Reinforced Concrete Pipe Jacking "RCPJ" 	Reinforced Concrete Cylinder Pipe "RCCP" 
Concrete Special Fittings 	Tunnel Segments 	Bridges Viaduct Beams 	Service Gallery 

Building

Facades 	Readymade Walls 	Stairs 	Fences & Barriers 
--	--	--	--

Prestressed Concrete Cylinder Pipe "PCCP"

Prestressed Concrete Cylinder Pipe (PCCP) is a highly durable and reliable type of pipe commonly used in water transmission systems. It combines the strength of concrete and the flexibility of steel, resulting in a product that can withstand high internal pressures and external loads. PCCP is designed with a steel cylinder, which provides a watertight core, encased in concrete for added durability.

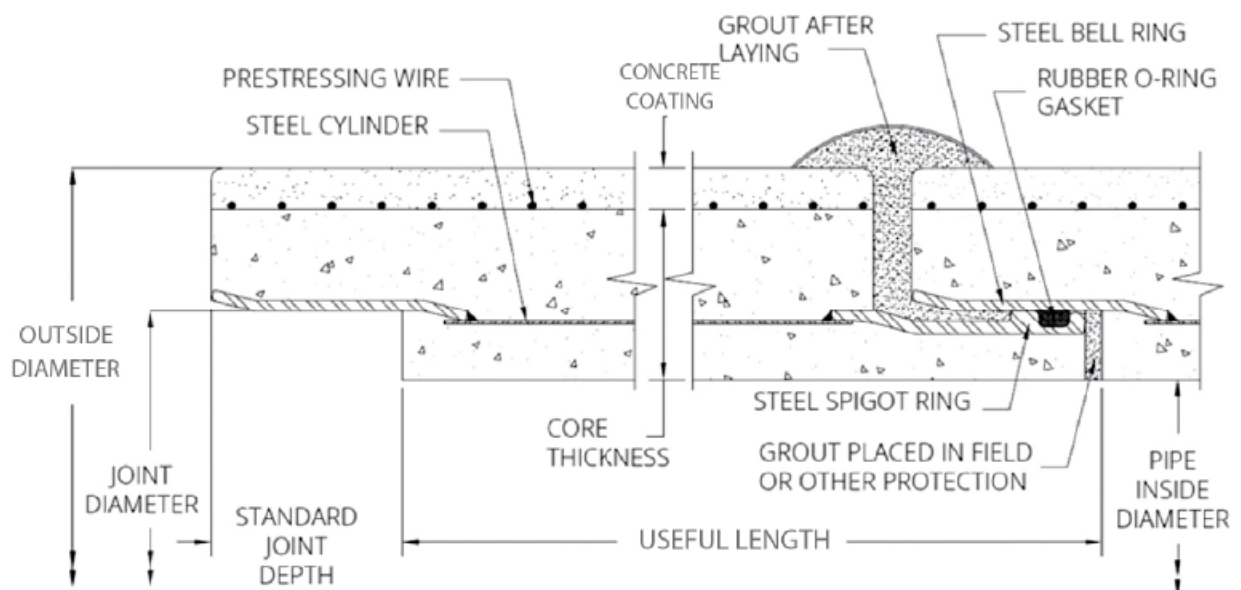
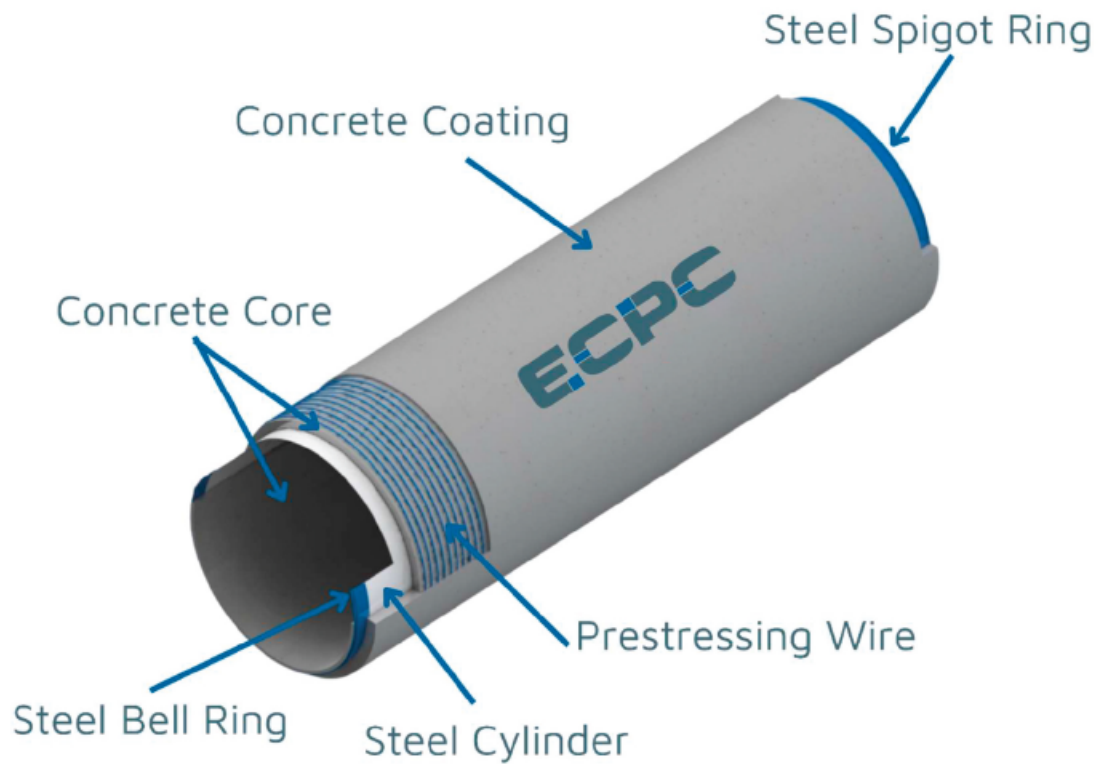
The pipe is further reinforced wrapped with prestressing wire, which is wound tightly around the concrete core under tension to enhance the pipe's ability to handle various stress conditions. This construction method not only ensures longevity but also reduces the risk of leaks, making PCCP an ideal choice for long-distance water conveyance projects.

ECPC manufactures PCCP in accordance with the American Water Works Association (AWWA) C301 standard and relevant ministerial decrees. These pipes are available in a wide range of inner diameters, from 600mm to 2500mm, to provide various project needs.

Nominal diameter	External diameter	Useful length	Wall thickness ± 3mm	Overall weight
ØA mm	ØJ mm	UL mm	E WT mm	Ton
600	780	7000	90	3.74
700	870	7000	85	4.13
800	970	7000	85	4.68
900	1096	7000	98	5.96
1000	1216	7000	108	7.23
1100	1322	7000	111	8.19
1200	1442	6150	121	8.34
1400	1684	6150	142	11.27
1500	1784	6150	142	12.19
1600	1892	6150	146	13.37
1800	2124	6150	162	16.36
2000	2314	6150	157	17.95
2200	2560	6150	180	21.81
2500	2900	6000	200	26.05

* Test pressure and protection, as per project's specs.





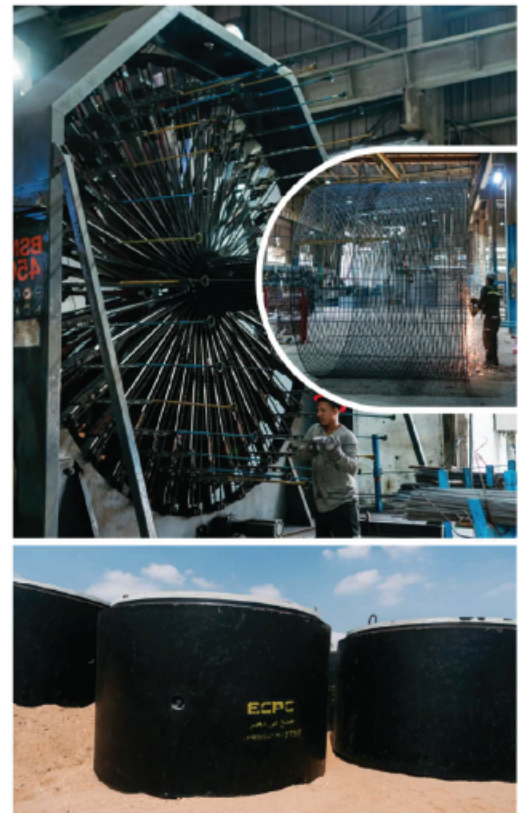
Reinforced Concrete Pipe “RCP”

Reinforced Concrete Pipe (RCP) is a widely recognized and extensively used solution in civil engineering for the conveyance of stormwater, wastewater, and other drainage applications. Known for its structural integrity, RCP is constructed by embedding steel reinforcement within high-strength concrete, resulting in a forceful pipe that can endure significant external loads. This combination of materials ensures that RCP can withstand harsh environmental conditions, including high traffic loads and corrosive soils, while maintaining its functionality over decades. RCP is available in a variety of sizes and classes, making it versatile enough to meet the diverse needs of infrastructure projects, from small-scale drainage systems to large-scale municipal networks. Its proven durability, reliability, and ease of installation make Reinforced Concrete Pipe a preferred choice for engineers and contractors worldwide.

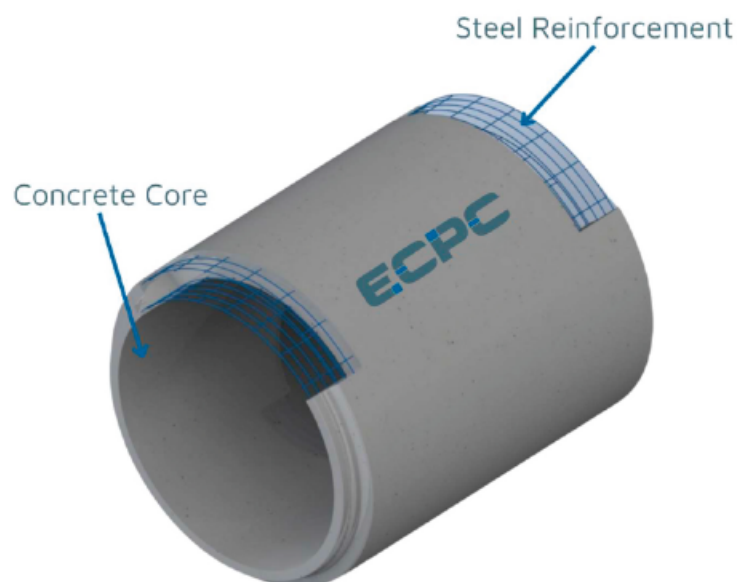
ECPC offers RCP pipes suitable for sanitary sewers, low-pressure sewer force mains, culverts, overflow conduits, treatment plant piping, irrigation systems, groundwater recharge, outfalls, storm drains, utility tunnels, and even jacked or tunneled systems. Additionally, ECPC offers a variety of linings and coatings to meet specific project requirements.

ECPC manufactures RCP in accordance with the American International Standards ASTM C76/BS5911, in a wide range of inner diameters, from 600mm to 3400mm, satisfying diverse applications.

TYPE	Nominal diameter	External diameter	Useful length	Wall thickness	Overall weight
	ØA mm	ØJ mm	UL mm	E mm	Ton
MVN Type A	600	750	3500	75	1.62
	600	790	3500	95	1.76
	700	900	3500	100	2.28
MVR	800	1026	3500	113	2.65
	900	1140	3500	120	3.47
	1000	1264	3500	132	4.04
	1100	1364	3500	132	4.01
	1200	1488	3500	144	5.17
	1300	1600	3500	150	5.66
	1400	1720	3500	160	6.26
	1500	1840	3500	170	7.66
	1600	1960	3500	180	8.68
	1600	1960	4000	180	9.92
	1800	2200	3500	200	10.95
	2000	2400	3300	200	11.43
MVN Type B	2250	2810	3750	280	20.29
	2500	3030	3500	265	20.58
	2740	3180	3750	220	19.63
	2740	3350	2500	305	18.14
	3000	3480	3500	240	22.44
	3400	4080	2500	340	25.15

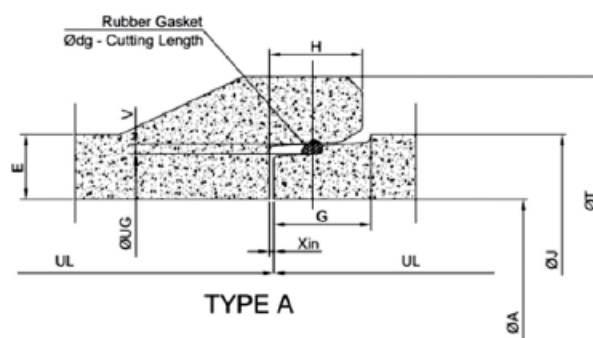


* Dead load (DL) and protection, as per project's specs.



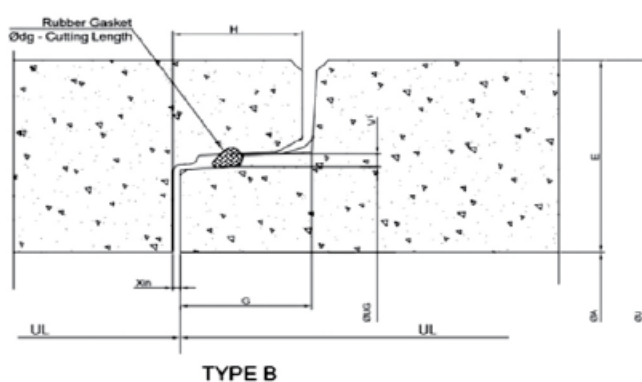
MVN Type A

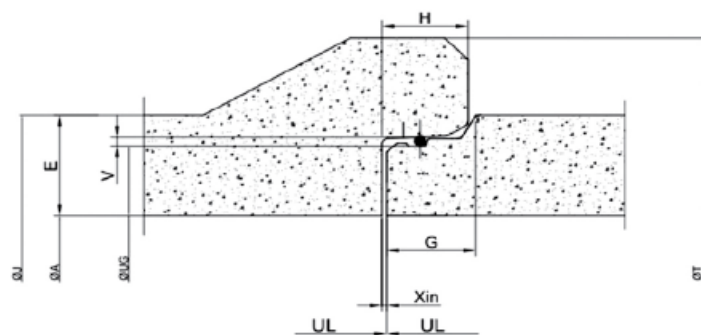
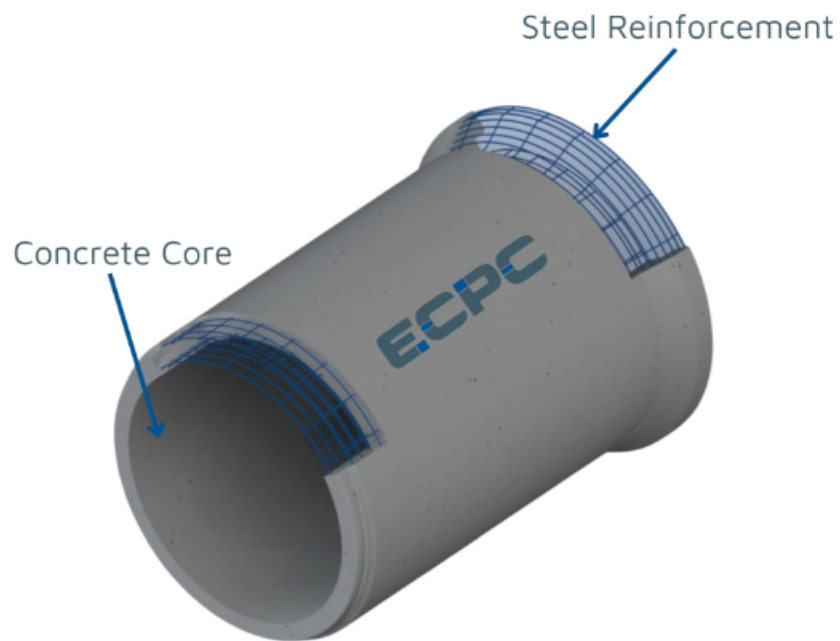
Nominal diameter	External diameter	Useful length	Wall thickness	Overall weight
$\varnothing A$ mm	$\varnothing J$ mm	UL mm	E mm	Ton
600	750	3500	75	1.62
600	790	3500	95	1.76
700	900	3500	100	2.28



MVN Type B

Nominal diameter	External diameter	Useful length	Wall thickness	Overall weight
$\varnothing A$ mm	$\varnothing J$ mm	UL mm	E mm	Ton
2250	2810	3750	280	20.29
2500	3030	3500	265	20.58
2740	3180	3750	220	19.63
2740	3350	2500	305	18.14
3000	3480	3500	240	22.44
3400	4080	2500	340	25.15





MVR

TYPE A

Nominal diameter ØA mm	External diameter ØJ mm	Useful length UL mm	Wall thickness E mm	Overall weight Ton
800	1026	3500	113	2.65
900	1140	3500	120	3.47
1000	1264	3500	132	4.04
1100	1364	3500	132	4.01
1200	1488	3500	144	5.17
1300	1600	3500	150	5.66
1400	1720	3500	160	6.26
1500	1840	3500	170	7.66
1600	1960	3500	180	8.68
1600	1960	4000	180	9.92
1800	2200	3500	200	10.95
2000	2400	3300	200	11.43

Reinforced Concrete Pipe Jacking "RCPJ"

Reinforced Concrete Pipe Jacking (RCPJ) is a specialized trenchless construction technique used for installing underground pipelines with minimal surface disruption. This method involves the controlled jacking or pushing of reinforced concrete pipes through the soil, typically for the construction of sewer lines, stormwater drains, or utility conduits, without the need for extensive excavation. RCPJ is particularly advantageous in urban areas where space is limited, or in sensitive environments where traditional open-cut methods would be impractical or environmentally disruptive. This method gives also the possibility for nearly unlimited depth for line installation.

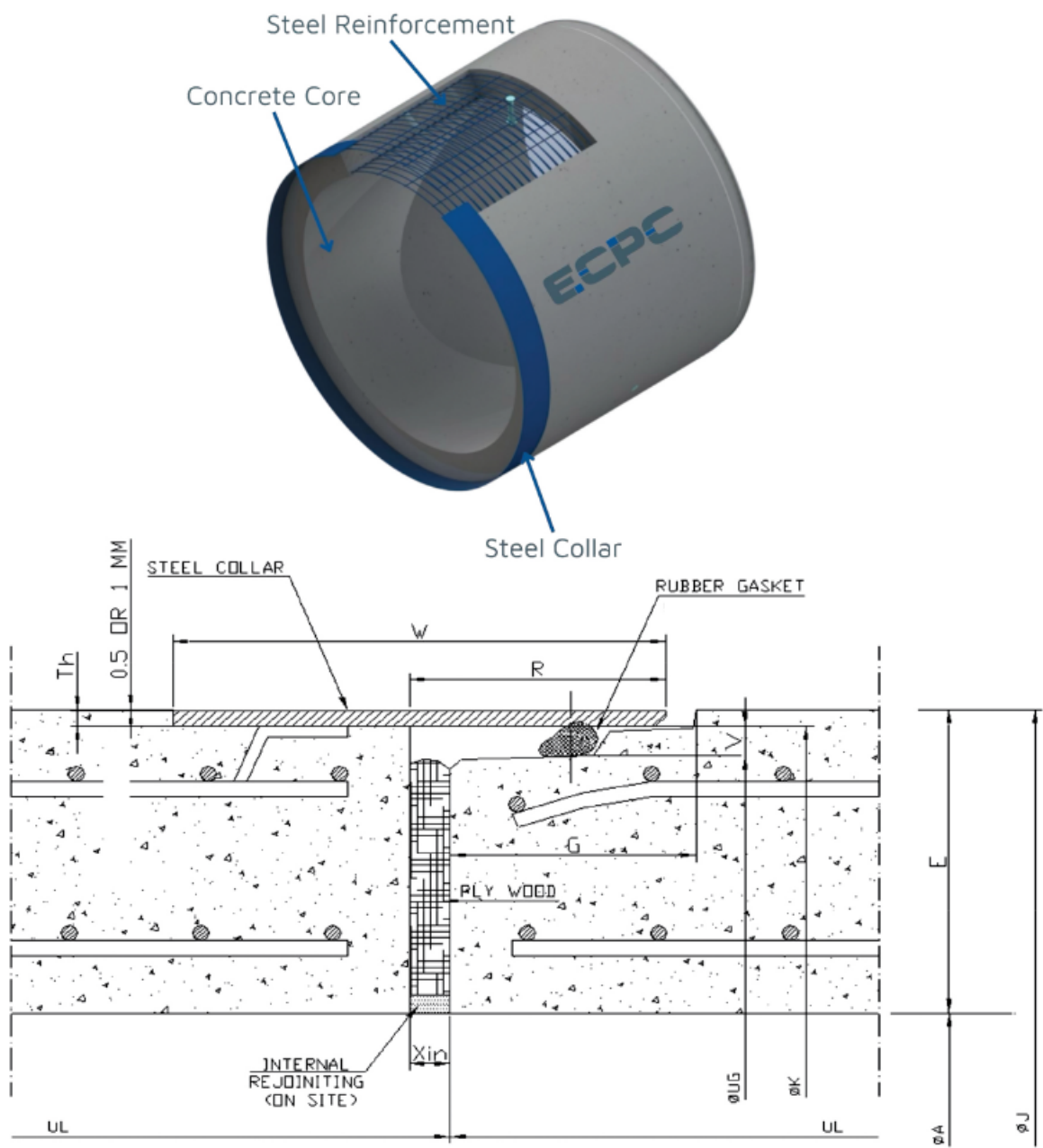
The inherent strength and smooth exterior surface of RCPJ make it ideal for jacking. RCPJ is designed to withstand jacking forces required to advance the pipe while minimizing deflection from the desired line and grade. Additionally, RCPJ's strength allows it to handle both the dead load from soil cover and the live load from above-ground traffic.

Beyond its practical benefits, RCPJ offers significant environmental advantages. Compared to open-cut construction, pipe jacking can reduce carbon emissions by over 75% due to less excavation and backfilling material required. It also minimizes long-term damage to existing infrastructure.

ECPC manufactures RCPJ pipes in our factory according to international standards, ASTM C76M-02/BS5911 and BS 5911 P120. These pipes come in a wide range of inner diameters, from 600mm to 3400mm.

Nominal diameter	External diameter	Useful length	Wall thickness	Overall weight
ØA mm	ØJ mm	mm	E mm	Ton
600	790	2000	95	1.10
600	850	2000	125	1.40
600	972	2000	186	2.24
700	862	2000	81	1.04
700	972	2000	136	1.74
800	972	2500	86	1.21
800	1090	2000	145	2.10
800	1090	2500	145	2.67
800	1175	2000	187.5	2.76
900	1090	2000	95	1.55
900	1090	2500	95	1.93
900	1175	2000	137.5	2.24
900	1175	2500	137.5	2.75
900	1283	3000	191.5	4.68
983	1175	2000	87.5	1.68
983	1283	2000	150	2.88
983	1283	2500	150	3.60
983	1283	3000	150	3.24
1200	1500	2000	150	3.14
1200	1500	2500	150	3.92
1200	1500	3000	150	4.71
1400	1735	3000	167.5	6.05
1400	1820	3000	210	7.58

Nominal diameter	External diameter	Useful length	Wall thickness	Overall weight
ØA mm	ØJ mm	mm	E mm	Ton
1500	1820	2500	160	5.17
1500	1820	3000	160	6.21
1500	2120	3000	310	12.02
1800	2120	3000	160	7.41
1800	2220	3000	210	9.73
2000	2350	2500	175	7.50
2000	2450	2500	225	9.64
2250	2640	2500	195	9.59
2250	2810	2500	280	13.78
2400	2810	2500	205	10.71
2500	3030	2500	265	14.74
2700	3200	2500	250	14.44
2740	3030	2500	145	8.63
2740	3350	2500	305	18.14
3000	3480	2500	240	15.45
3200	3800	2000	300	16.52
3200	3800	2500	300	20.65
3200	3920	2000	360	19.82
3200	3960	2500	380	26.16
3400	3960	2000	280	16.41
3400	3960	2500	280	20.41



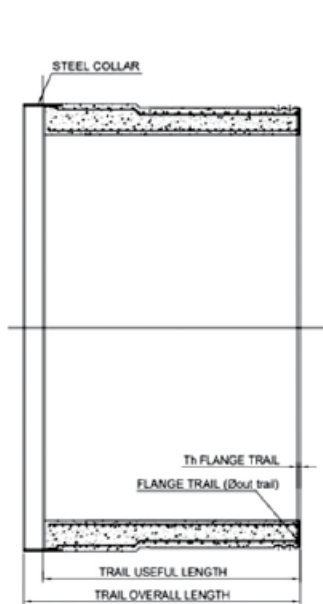
Intermediate Jacking Stations

Intermediate Jacking Stations (IJS) play a crucial role in long-distance pipe jacking projects, offering additional thrust to push pipes through the ground without the need for surface excavation. These stations are strategically placed along the pipeline to overcome friction and ensure the smooth progression of reinforced concrete pipes over extended distances. By distributing the jacking force, IJS reduces the risk of pipe damage and enhances the overall efficiency of the installation process, particularly in challenging ground conditions or projects that require lengthy pipeline routes.

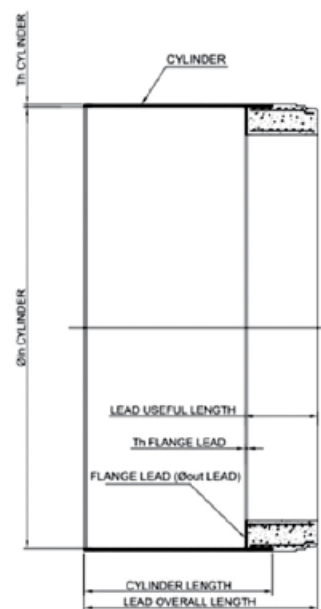
One of the significant environmental advantages of using IJS is its contribution to reducing CO2 emissions. Traditional open-cut methods require extensive excavation, transportation of materials, and prolonged use of heavy machinery, all of which result in high carbon emissions. In contrast, IJS minimizes surface disruption, reduces fuel consumption, and limits the need for constant transportation of excavated materials. This streamlined approach leads to lower energy usage, shorter project timelines, and a reduced carbon footprint. Furthermore, IJS offers the remarkable capability to construct pipelines of nearly unlimited length, making projects like a 2km line feasible with just a single initial shaft. By incorporating IJS into trenchless construction techniques, companies can not only improve operational efficiency but also align with sustainability goals, reducing the environmental impact of infrastructure projects and promoting greener construction practices.

Nominal diameter	External diameter	Useful length	Useful Length mm		Wall thickness	Overall weight
ØA	ØJ	UL	Lead	Trail	E mm	Ton
600	972	2000	300	1700	186	2.24
700	972	2000	300	1700	136	2.27
800	972	2000	300	1700	86	1.88
800	1175	2000	300	1700	187.5	4.11
900	1175	3000	1250	1750	137.5	2.71
900	1283	3000	1000	2000	191.5	3.78
983	1283	2000	665	1335	150	3.12
983	1283	2500	1000	1500	150	3.91
1200	1500	2320	800	1520	150	4.30
1200	1500	3000	870	2130	150	5.56
1500	1820	2350	500	1850	160	6.22
1500	1820	2500	650	1850	160	6.21
1800	2220	2890	1390	1500	210	10.68
2000	2450	2800	1000	1800	225	12.49
2250	2810	2800	1000	1800	280	17.26
2500	3030	3900	1400	2500	265	25.12
2700	3200	2800	1400	1800	250	19.62
2740	3350	2500	1000	1500	305	17.50
3000	3480	2570	570	2000	240	18.70
3200	3800	2570	570	2000	300	30.23
3200	3960	2375	600	1775	380	35.38
3200	3960	2500	600	1900	380	37.25
3400	3960	2375	600	1775	280	23.54
3400	3960	2500	600	1900	280	24.78

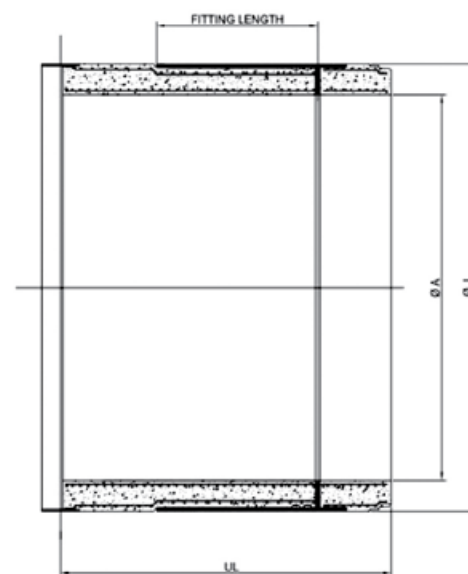
* Dead load (DL) and protection, as per project's specs.



INTERMEDIATE TRAIL JACKING PIPE



INTERMEDIATE LEAD JACKING PIPE



INTERMEDIATE STATION COMPLETELY CLOSED
AFTER FINISHING OF JACKING



Reinforced Concrete Cylinder Pipe “RCCP”

RCCP pipe is a pressure pipe specifically designed for exceptional strength and permanency in underground applications. RCCP combines the best of both worlds: a high-strength concrete core for overall support and an embedded steel cylinder for enhanced structural integrity. This unique design allows pipes to withstand significant external loads, internal pressure, and even vacuum conditions. The pipe elements are connected by welded joints or flexible elastomeric gasket (ER) connections for a perfect fit in the pipeline system.

ECPC understanding that every underground project has unique requirements, our RCCP pipes and fittings are custom-designed and manufactured to perfectly suit this specific needs. During this process, we consider a variety of factors to ensure optimal performance for project application, from service pressure and maximum working pressure to backfill height and laying method.

The RCCP accurately engineered to handle the expected water pressure that will be running through the system. It features the ability to withstand temporary pressure spikes that may occur beyond normal operation, providing an additional layer of security. We also factor in the weight of the surrounding soil during the design phase to ensure optimal performance. Finally, RCCP pipes can be adapted to seamlessly integrate with the chosen laying method, whether require traditional trench installation, pipe jacking, or micro tunneling. This flexibility allows to choose the most appropriate installation technique for the project.

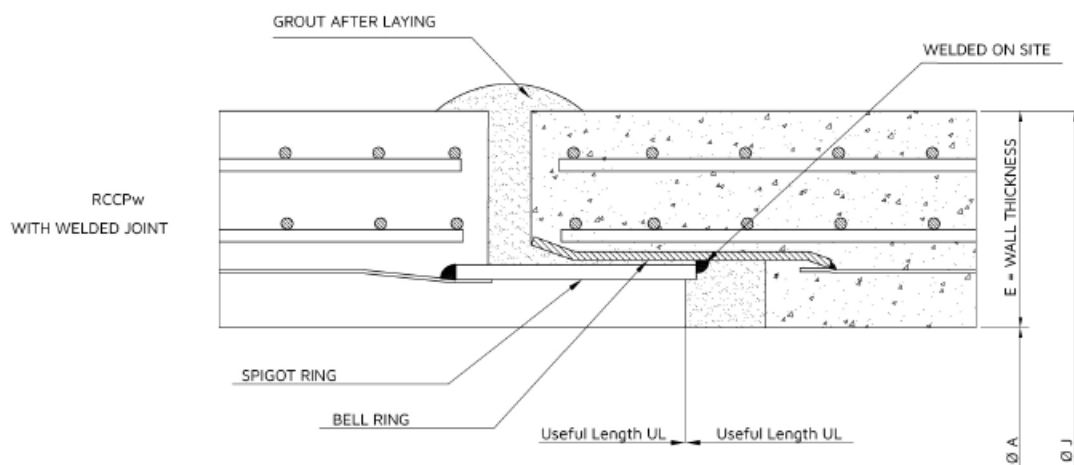
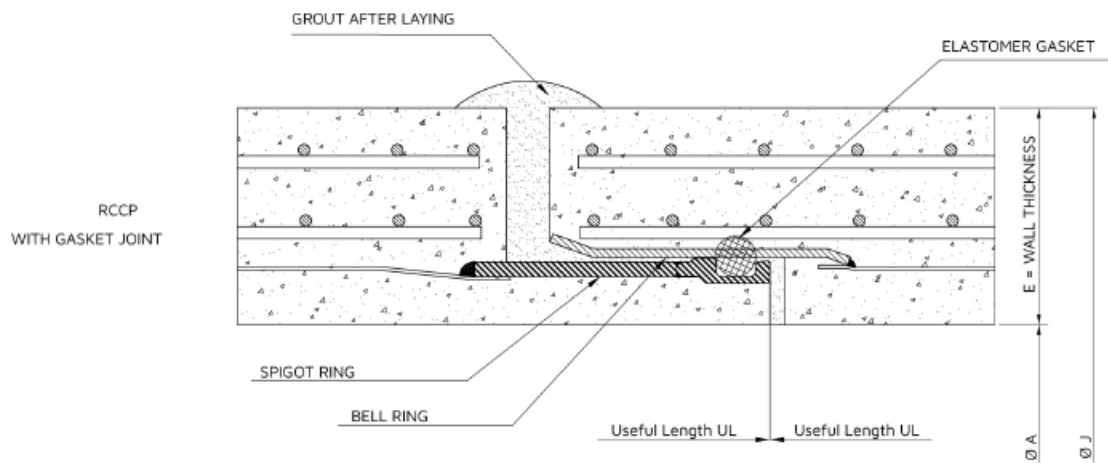
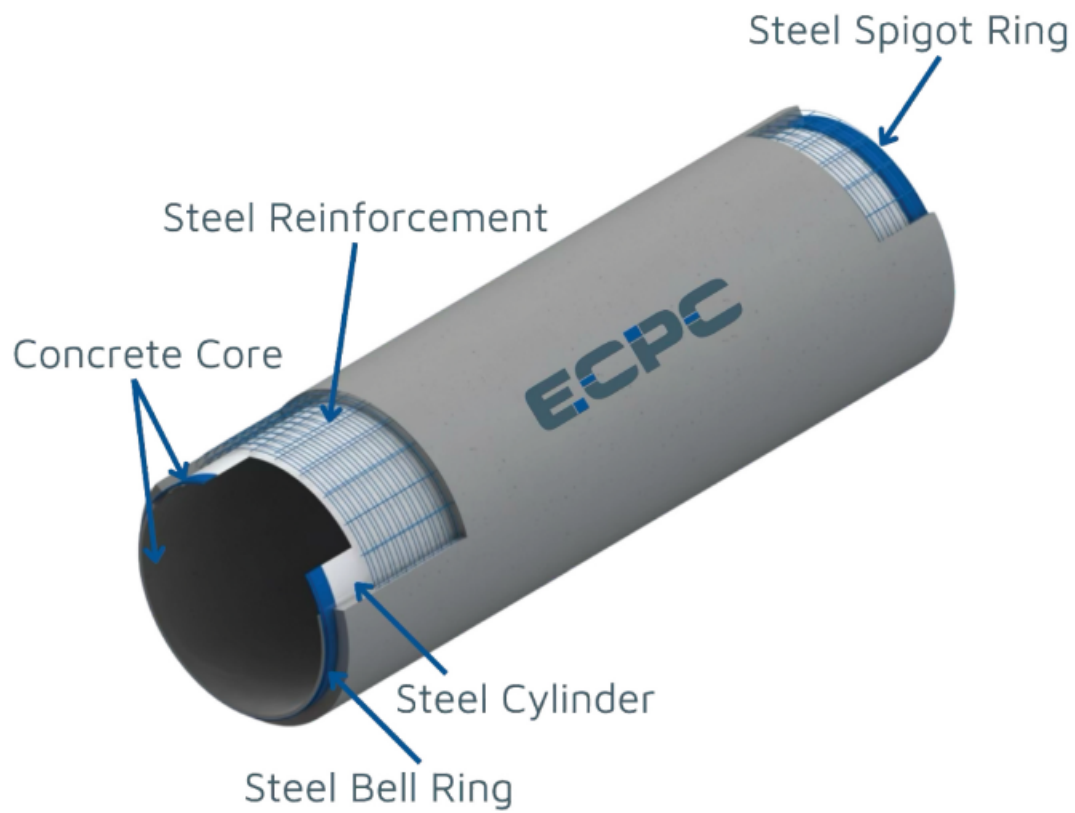
Our RCCP pipes are manufactured in our factory, adhering to the international standards – AWWA C300, ASTM C76, and BS5911. This commitment to quality ensures consistent performance and unmatched reliability for your project. Additionally, RCCP pipes come in a wide range of inner diameters, from a compact 600mm to a substantial 3500mm, offering various project needs.

RCCP

Nominal diameter	External diameter	Useful length	Wall thickness
ØA mm	ØJ mm	UL mm	E mm
1200	1480	6150	140
1400	1720	6150	160
1500	1800	6150	150
1800	2120	6150	160
2500	2910	4250	205
2740	3180	3750	220
3000	3480	3500	240
3500	4080	2500	290

RCCPw

Nominal diameter	External diameter	Useful length	Wall thickness
ØA mm	ØJ mm	UL mm	E mm
1800	2120	6200	160
2250	2620	5000	185
2500	2910	4250	205
2740	3180	3750	220
3000	3480	3500	240
3200	3800	2750	300
3500	4080	2500	290



Reinforced Concrete Cylinder Pipe Jacking “RCCPJ”

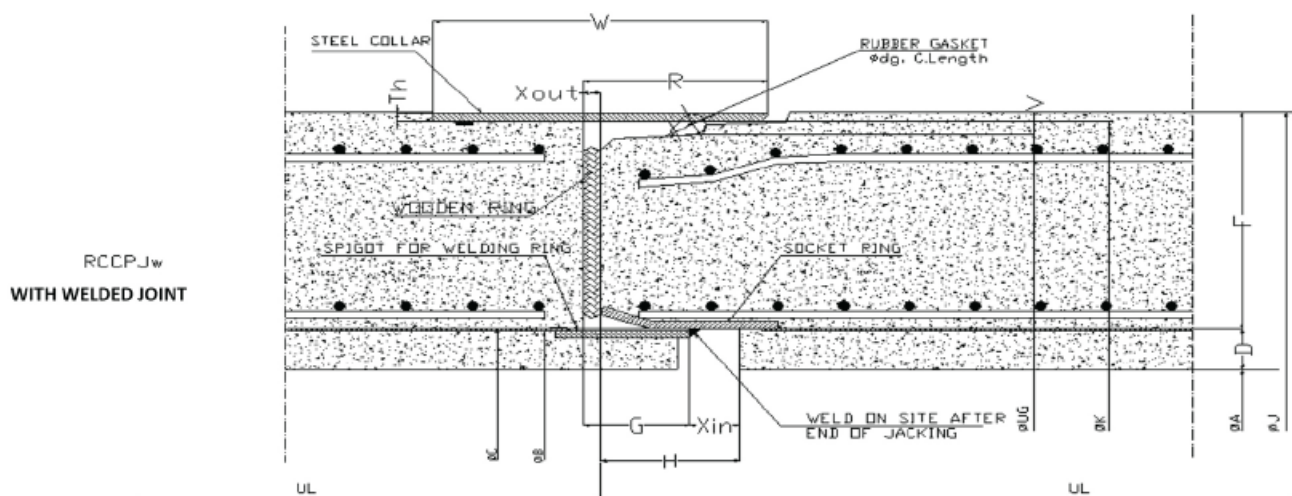
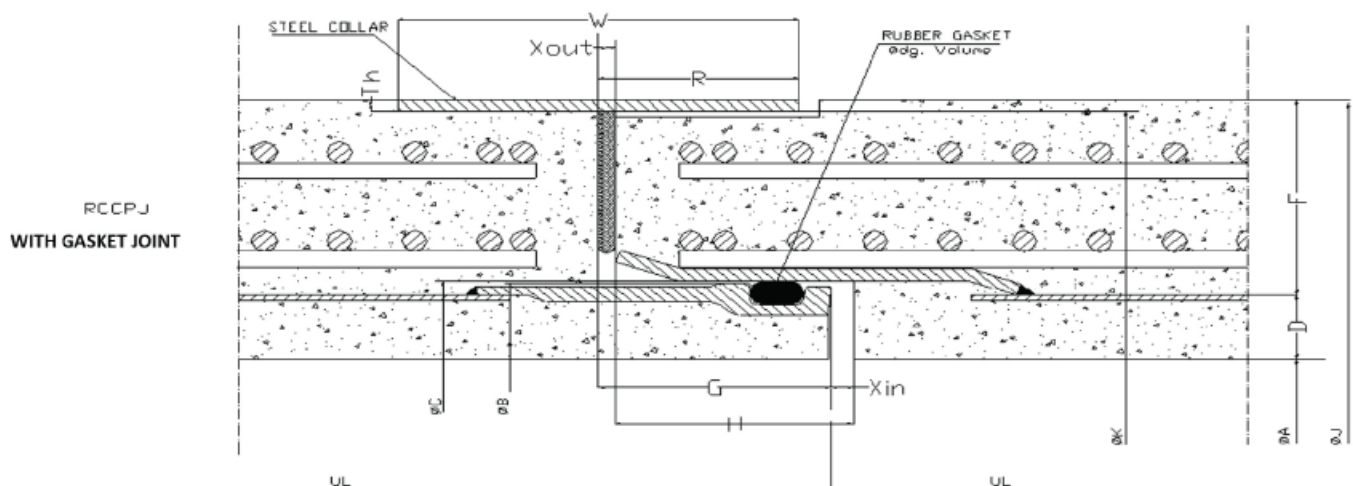
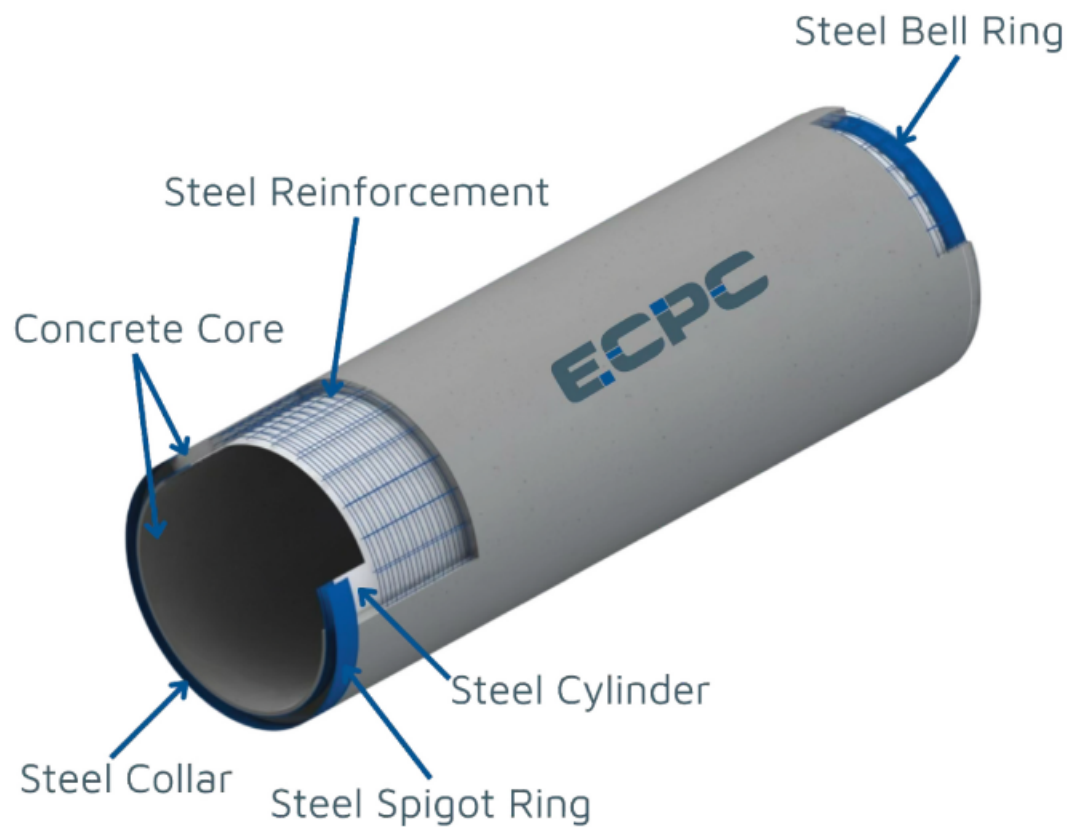
RCCPJ pipes offer a significant advantage for pipe jacking projects. Unlike traditional methods that require installing a concrete sleeve first, followed by a separate pressure pipe and grouting, RCCPJ pipes can be directly jacked into place as pressure pipes. This eliminates a step, saving time and resources.

Furthermore, RCCPJ's adaptability extends to micro tunneling and long-distance pipe jacking projects. The pipes come in two connection options: welded or elastomeric gasket end rings. Additionally, intermediate jacking stations, custom-designed to match the project's pipe specifications, can be incorporated to increase jacking or micro tunneling distances efficiently. This allows for longer drives with minimal disruption to the surface.

RCCPJ			
Nominal diameter	External diameter	Useful length	Wall thickness
ØA	ØJ	UL	E mm
600	850	2000	125
600	972	2000	186
700	972	2000	136
800	1283	2500	241.5
900	1283	3000	191.5
900	1310	3000	205
1000	1283	2500	141.5
1200	1500	2320	150
1200	1620	2500	210

RCCPJw			
Nominal diameter	External diameter	Useful length	Wall thickness
ØA	ØJ	UL	E mm
1400	1820	3000	210
1500	1820	3000	160
1800	2220	3000	210
2250	2810	2500	280
2500	3030	2500	265
3200	3960	2000	380





Special Fittings

Concrete special fittings are critical for creating complete and efficient liquid conveyance systems. These fittings are designed to seamlessly integrate with a wide range of concrete pressure pipes, such as Prestressed Concrete Cylinder Pipes (PCCP), Reinforced Concrete Pipes (RCP), and Reinforced Concrete Cylinder Pipes (RCCP). They are available in the same diameters, specifications, linings, and coatings as the pipes they complement, ensuring compatibility and consistent performance.

Applications and Benefits

Hydraulic Efficiency: Special fittings help maintain smooth fluid flow and optimize the performance of the pipeline, even at transitions or junctions, ensuring the system operates efficiently.

Economical: By reducing installation complexity and enabling more efficient use of materials, special fittings help lower overall project costs, offering an economical solution for your pipeline needs.

Comprehensive System Solutions: Special fittings are engineered to address a variety of project requirements, such as changes in direction, slope adjustments, size or shape transitions, and providing secure junctions and closures for the pipeline system.

Durability and Reliability: Constructed from high-quality prestressed concrete, these fittings are built for long-lasting performance, ensuring the durability and reliability of your system for years to come.

Some of our common special fitting products:

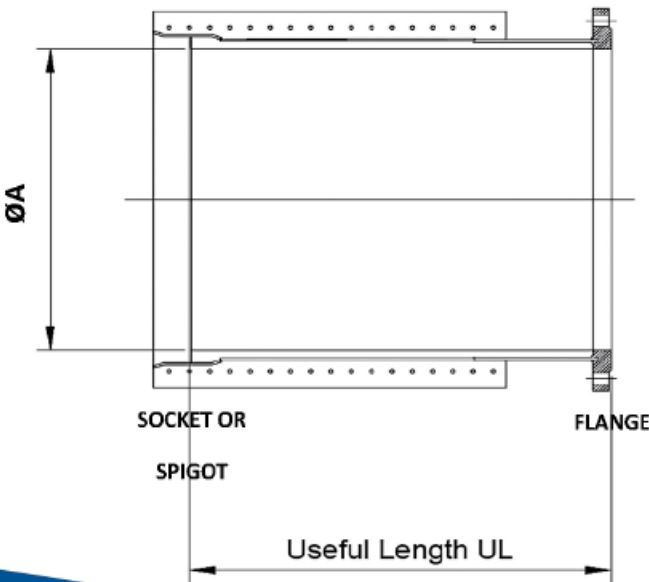
End Pieces with Socket/Spigot and Flange

End Pieces are specialty fittings designed to provide secure terminations for concrete pressure pipe systems. These end pieces likely incorporate two key features:

Nominal diameter	Useful Length
ØA	mm
600	600
700	600
800	600
900	600
1000	800
1100	800
1200	800
1400	1000
1500	1000
1600	1000
1800	1200
2000	1200
2200	1500
2500	1500

Socket/Spigot Connection: One end of the fitting may have a socket (female end) that accepts the spigot (male end) of a pipe, creating a watertight joint. The other end may have a spigot for connecting to another pipe or fitting.

Flange: The end piece may also include a flange, a flat plate with bolt holes for secure connections to valves, pumps, and other pipeline equipment. These mounted flanges adhere to international standards, ensuring broad compatibility with all market available valves, connections, and accessories, simplifying system integration.



Tees with Perpendicular Branch

Tees with perpendicular branches are essential for connecting smaller pipelines to the main line in concrete pressure pipe systems. Available in tangential and axial configurations, these fittings ensure efficient branch connections, each with distinct advantages.

Key Configurations

Tangential Tees: The branch pipe connects tangentially to the main pipe, offering smoother flow and reduced pressure drops, ideal for high-velocity applications.

Axial Tees: The branch connects directly to the centerline of the main pipe, suitable for applications with space constraints or simpler designs.

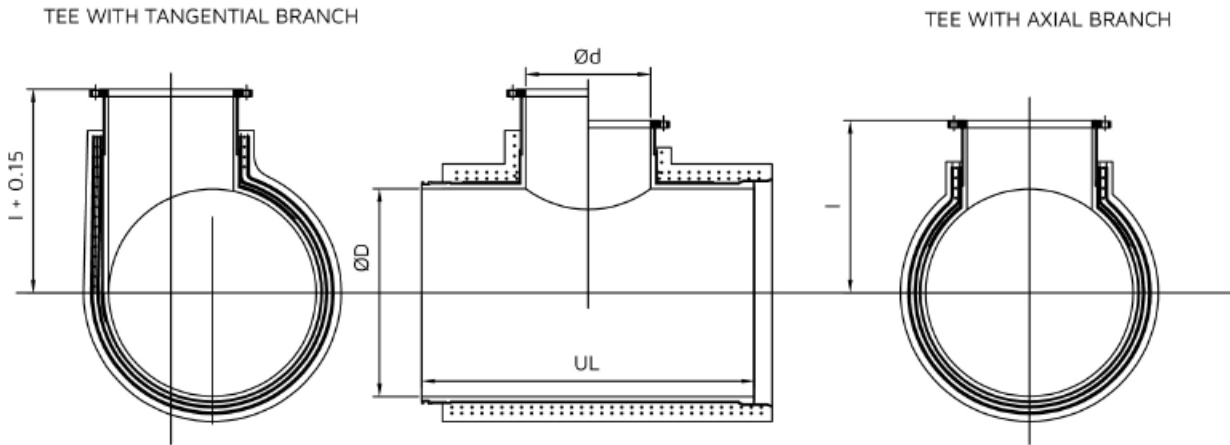
Applications and Benefits

Branch Line Integration: Enables the connection of branch lines to the main pipeline for effective liquid distribution.

Flow Optimization: Tangential tees minimize flow disturbances, while axial tees provide adequate performance with a more compact design.

Durability: Made from high-quality concrete, ensuring strength and longevity.

Customizable: Tees can be tailored to specific project needs, including branch size and tee configuration



Useful length "L" of Tee			
$\frac{D}{d}$	600 to 900	1000 to 1800	2000 to 2500
40-300	800	800	1000
350	900	900	1000
400	1000	1000	1000
450	1100	1100	1100
500	1200	1200	1200
600	1400	1400	1400
700	1600	1600	1600
800	1800	1800	1800
900	2000	2000	2000
1000		2200	2200
1100		2300	2300
1200		2400	2400
1400		2600	2600
1500		2700	2700
1600		2800	2800
1800		3000	3000
2000			3300
2200			3500
2500			3900

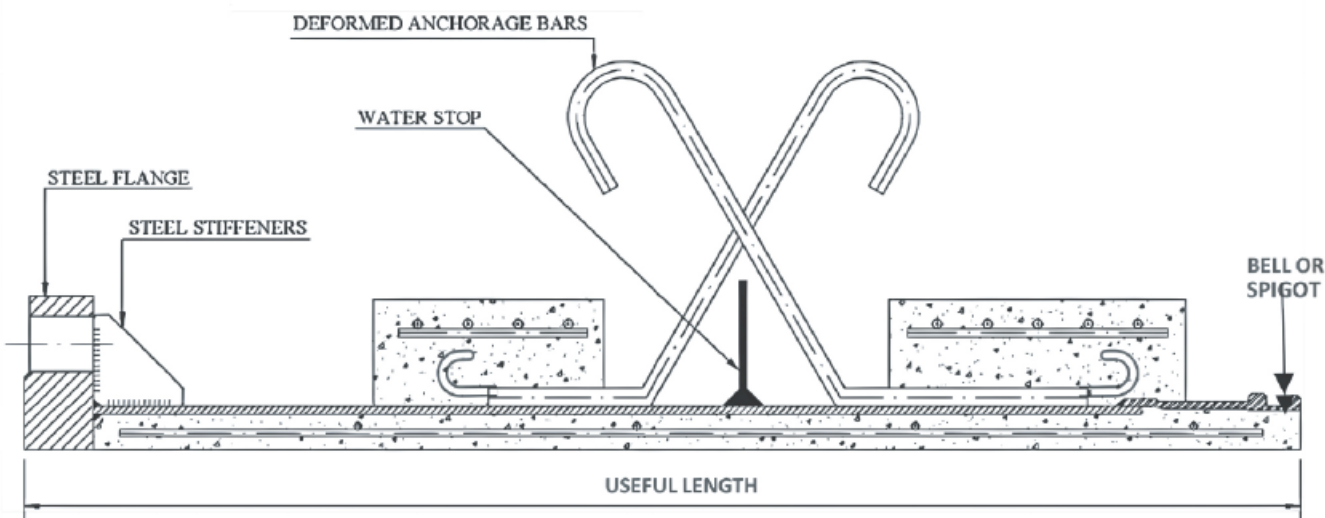
Useful length "L" of Tee								
$\frac{D}{d}$	40 to 300	350 to 500	600 to 700	800 to 900	1000 to 1500	1600 to 1800	2000 to 2200	2500
600	590	590	610					
700	640	640	670					
800	690	690	720	780				
900	740	750	770	840				
1000	790	800	830	890	930			
1100	840	850	890	940	990			
1200	890	910	950	990	1050			
1400	990	1020	1060	1090	1160			
1500	1050	1080	1120	1150	1220			
1600	1120	1150	1190	1220	1290	1330		
1800	1230	1260	1300	1330	1400	1440		
2000	1350	1380	1420	1450	1520	1560	1600	
2200	1480	1490	1530	1580	1630	1670	1710	
2500	1830	1660	1700	1730	1800	1840	1880	1940

Wall Piece with Anchoring Bars and Steel Water Stop Collar

These specialized components provide secure, watertight transitions for concrete pressure pipes through walls. Made from high-quality concrete, they feature anchoring bars for stability and a steel water stop collar to prevent leaks.

Key Benefits

- Ensures strong, leak-proof connections for pipes passing through walls.
- Ideal for building penetrations, tunnel connections, and pipe repairs.
- Customizable to fit specific dimensions and pipe sizes.



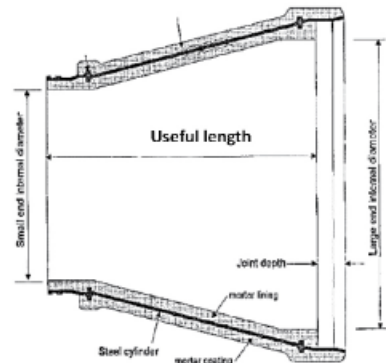
Nominal diameter "mm"	600	700	800	900	1000	1100	1200	1400	1500	1600	1800	2000	2200	2500
Useful Length "mm"	1400	1400	1400	1400	1400	1400	1400	1900	1900	1900	1900	2000	2000	2000

Reducer

Reducers facilitate smooth transitions between pipes of different diameters, ensuring efficient size changes within your concrete pressure pipe system.

Applications and Benefits

- Downsizing Pipelines: Ideal for reducing pipe size when connecting to smaller branch lines or equipment.
- Flow Efficiency: Designed to minimize pressure drops and flow disturbances during size transitions.
- Durable Construction: Made from high-quality concrete, offering strength and long-lasting performance.
- Customizable: Can be tailored to meet specific project requirements, including size and configuration adjustments



For a difference in diameter	Useful Length
D-d = mm	mm
100	780
200	1150
300	1540
400	1910
500	2300
600	2670
700	3060

Elbows

Concrete elbows are key components in pipeline systems, designed to efficiently navigate changes in direction while ensuring smooth flow and long-lasting durability. These fittings are essential for maintaining optimal performance in concrete pressure pipe systems.

Applications and Benefits

Directional Changes: Facilitate smooth transitions around obstacles and maintain efficient pipeline routing.

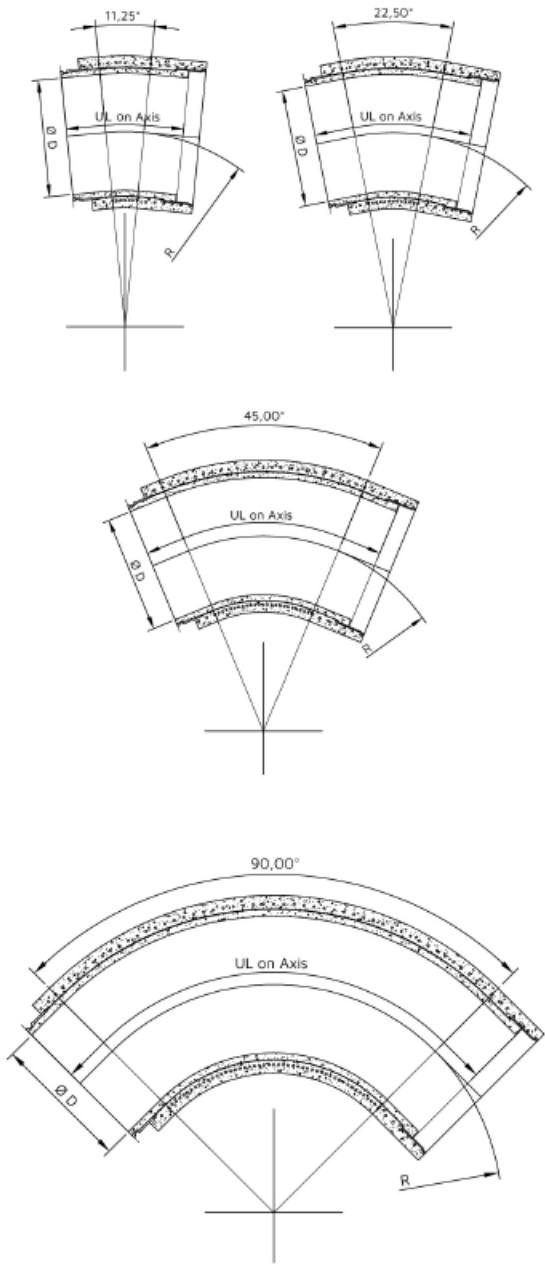
Reduced Pressure Loss: Well-designed internal profiles minimize pressure drops at bends, ensuring efficient flow.

Exceptional Durability: Manufactured from high-quality concrete for strength and long-lasting performance.

Variety of Degrees: Available in various bend angles, including 11.15°, 22.30°, 45°, 90°, and custom options.

Watertight Connections: Designed for secure, leak-proof joints, ensuring system integrity.

Inner Diam.	Radius on Axis	Total Useful Length on Axis (mm)			
D (mm)	R (mm)	11°15	22°30	45°	90°
600	1000	596	793	1185	1970
700	1250	645	890	1381	2363
800	1250	645	890	1381	2363
900	1250	645	890	1381	2363
1000	1500	694	988	1578	2756
1100	1500	694	988	1578	2756
1200	1500	694	988	1578	2756
1400	2000	793	1185	1970	3542
1500	2000	793	1185	1970	3542
1600	2000	793	1185	1970	3542
1800	2000	793	1185	1970	
2000	2500	891	1382	2363	
2100	2500	891	1382	2363	
2350	3000	989	1578	2756	
2500	3000	989	1578	2756	
2600	3000	989	1578	2756	
2800	3000	989	1578	2756	
3000	3500	1087	1774		
3200	3500	1087	1774		



Key System “replace a standard PCCP”

The Key System with Steel Collar and Socket Tee is an innovative solution for repairing damaged sections of Prestressed Concrete Cylinder Pipe (PCCP) while enabling future branch line connections. This system maintains the same length as a standard PCCP pipe and features easy-to-install prefabricated components for efficient repairs.

With the aim of providing constant support to our customers, ECPC keep in stock at any time some available key system in all diameters to support any urgent maintenance needs.

Key Features

Short Concrete Pipe with Spigot: Prefabricated with a spigot end for seamless connection to existing PCCP pipes.

Steel End for Welding: Designed for welding to the adjacent PCCP section.

Steel Collar: Provides additional strength and watertight integrity.

Tee with Matching Diameter: Includes a tee for future branch connections with a pre-installed blank flange.

Applications and Benefits

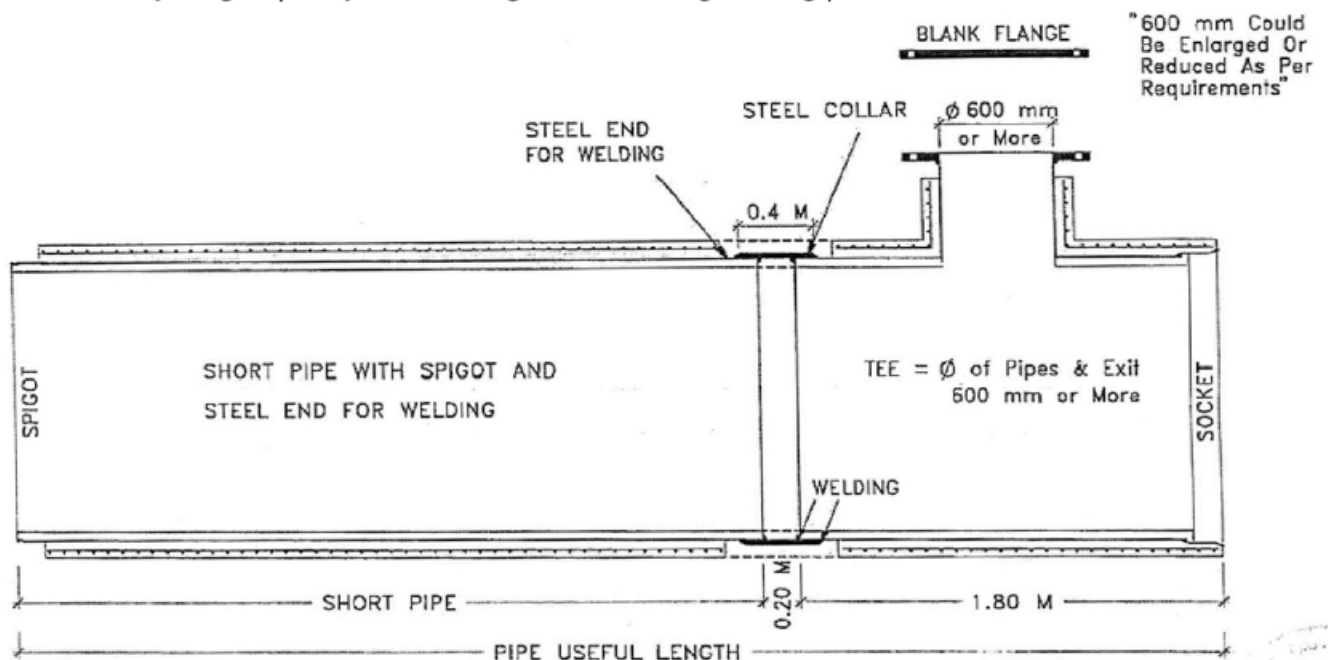
Targeted Pipe Repair: Efficiently replaces damaged sections without needing to replace the entire pipe.

Faster Installation: Prefabricated components and welding simplify the repair process.

Branching Potential: Enables future branch line connections without additional fittings.

Watertight Integrity: Ensures leak-proof repairs.

Durability: High-quality materials guarantee long-lasting performance.



Tunnel Segments

Precast tunnel lining segments are essential components for constructing durable underground passageways. ECPC, with over 35 years of expertise and tens of kilometers of tunnel lining segments, provides high-quality, reinforced segments designed for efficient construction and long-lasting performance in challenging underground environments.

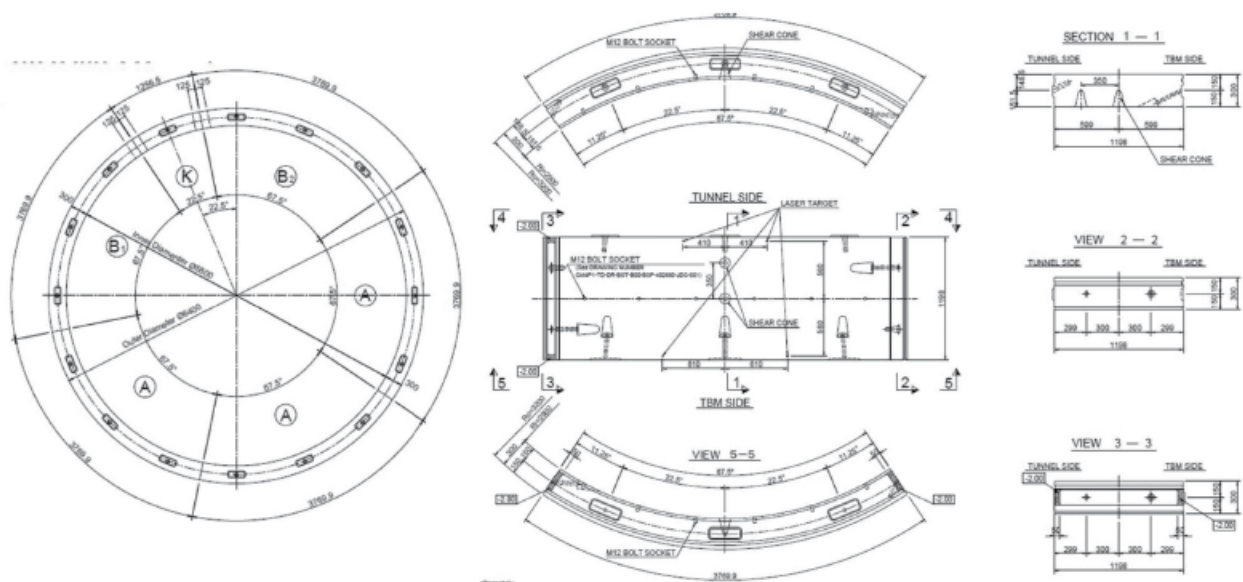
Key Features

High-strength concrete ensures durability and reliability.
Built-in reinforcement enhances load-bearing capacity.
Interlocking designs provide seamless and secure connections.
Available in various shapes and sizes to meet project needs.
Prefabricated for faster installation and consistent quality.

Applications and Benefits

Used in transportation and utility tunnels, as well as underground structures like basements and bunkers.

Prefabrication ensures faster construction, reduced costs, and enhanced safety. Consistent factory-made quality minimizes defects and improves structural reliability. Environmentally friendly with reduced site impact compared to traditional methods.



Bridge and Viaduct Beams

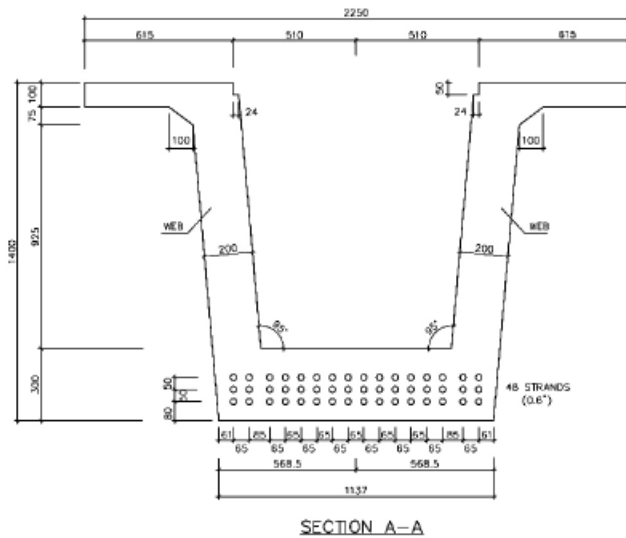
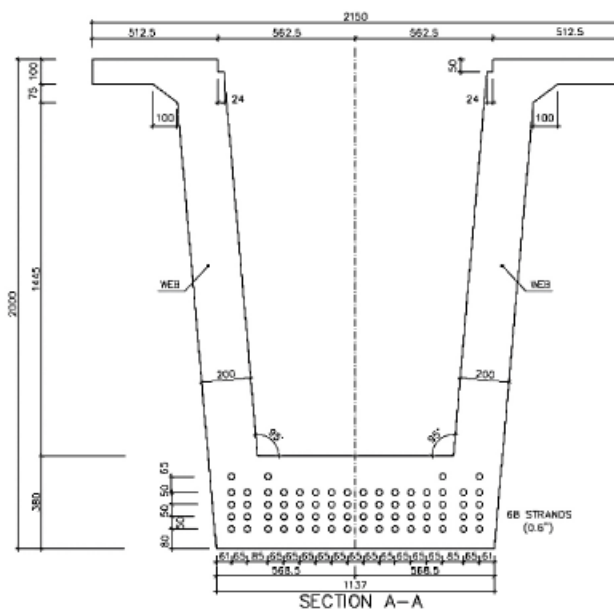
Prestressed precast concrete beams are critical components in modern bridge and viaduct construction, combining strength, efficiency, and versatility. ECPC demonstrated its expertise by supplying 848 beams, with 30–40m spans, for Cairo Metro Line 3's elevated viaduct.

Key Features

- High-strength concrete for durability and load resistance.
- Prestressed reinforcement enhances capacity and reduces deflection.
- Precast in controlled settings for quality and quick installation.
- Variety of shapes, sizes, and custom surface finishes for flexibility.

Applications and Benefits

- Used in bridges, viaducts, and bridge rehabilitation projects.
- Faster, safer construction with reduced site disruption.
- Low maintenance and long-lasting performance.
- Supports longer spans, reducing costs and overall weight.



Tailored Project Solutions

"ECPC excels in developing tailored precast concrete solutions to address specific client challenges in infrastructure projects. Our approach encompasses comprehensive technical design support, including mold design and manufacturing, coupled with high-quality production and rigorous follow-up. This ensures that we deliver solutions precisely aligned with project requirements and performance objectives.

Example: Service Gallery

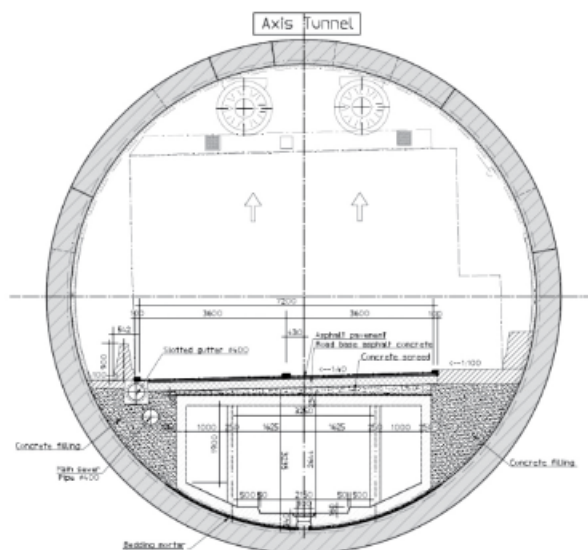
Concrete service galleries are prefabricated structures designed to ensure the safe and efficient housing of utilities within tunnels. Combining durability, precision, and versatility, these galleries facilitate maintenance access and enhance the performance of underground infrastructure projects.

Key Features

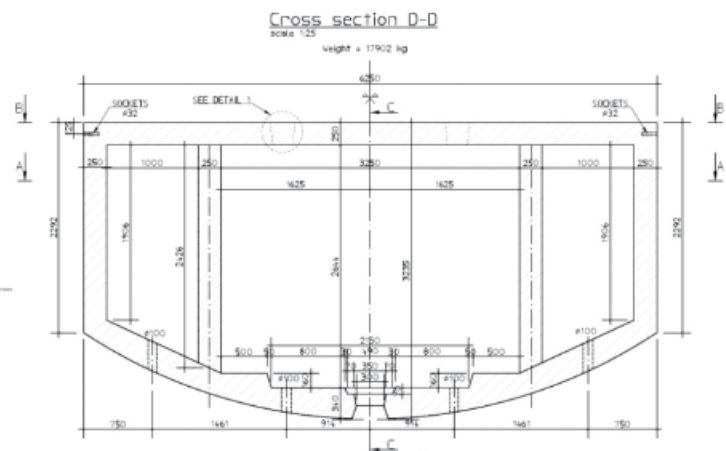
- High-strength concrete for exceptional durability.
- Precast construction ensures quality and faster installation.
- Customizable designs.
- Options for integrated lighting, ventilation, and cable trays.

Applications & Benefits

- Ideal for utility and transportation tunnels, as well as infrastructure projects like power plants and wastewater facilities.
- Improves safety by separating utilities from traffic zones.
- Low-maintenance and long-lasting, reducing overall costs.
- Simplifies installation and maintenance access.



cross section of service gallery in TBM tunnel





Well-built for well-being

www.ecpc.com.eg

Contact Us

Head Office: 5th Settlement,
Southern Investors, Section 42
Al-Zahwa Compound, S-8,
Cairo, Egypt.

Tel: +02 26108353

Fax: +02 26108352

Factory: 3rd Industrial Zone, A1,
Behind Ezz Steel Factory,
10th of Ramadan City,
El Sharkia, Egypt.

Tel: +055 4410176 (7) +055 4411509

Fax: +055 4410174

