

MANHOLE



Manholes: Essential Infrastructure for Urban Connectivity

In the bustling infrastructure of modern cities, manholes are often overlooked but crucial components of the urban landscape. These access points to underground utility networks serve a variety of functions, ensuring the efficient operation of essential services such as water supply, sewage systems, telecommunications, and electrical connections.

Structure and Design

Manholes are typically cylindrical structures, constructed from durable materials such as concrete, brick, or precast concrete reinforced with iron or steel. Their design ensures structural integrity and longevity, capable of withstanding the weight of urban traffic and environmental stresses.

A standard manhole consists of several key components:

Cover and Frame: The topmost part visible at street level, designed to bear weight and provide access to the underground infrastructure. Covers are often made from cast iron or composite materials for durability and safety.

Shaft or Barrel: The vertical section that extends beneath the cover, providing access to the underground utility network. It is designed to accommodate maintenance workers and equipment.

Base or Bench: The lowest part of the manhole where pipes or cables converge. It includes channels and steps for ease of access and maintenance.

Functionality

Manholes serve critical functions in urban environments:



Utility Access: They provide access points for maintenance and inspection of sewer systems, stormwater drains, water mains, gas lines, and telecommunications cables.

Safety and Accessibility: Properly maintained manholes ensure the safety of pedestrians and motorists by securely covering access points and preventing accidents.

Environmental Protection: Manholes are designed to prevent contamination of groundwater and soil by securely containing sewage and hazardous materials.

Maintenance and Challenges

Maintaining manholes is essential for preserving urban infrastructure:

Regular Inspection: Periodic inspections ensure structural integrity, identify potential hazards, and prevent service disruptions.

Upgrades and Repairs: Aging infrastructure requires periodic upgrades to meet current safety and performance standards.

Environmental Factors: Manholes must withstand environmental factors such as corrosion, groundwater infiltration, and extreme weather conditions.

Future Trends

As cities evolve, so do manholes:

Smart Infrastructure: Integration of sensors and monitoring systems to detect leaks, gas emissions, and structural weaknesses in real-time.

Green Infrastructure: Implementation of sustainable materials and practices to reduce environmental impact and enhance longevity.

In conclusion, manholes are indispensable components of urban infrastructure, facilitating the efficient operation of utilities and ensuring the safety and well-being of urban populations. Through continual innovation and maintenance, manholes will continue to play a vital role in the sustainable development of cities worldwide.

Our manhole covers are engineered to meet rigorous standards, with a standard load rating of C250 (25 tonnes), ensuring robust durability under typical urban conditions. Additionally, our heavy-duty D400 (40 tonnes) variants are readily available for projects requiring enhanced load-bearing capacities.

Within the infrastructure of drain and sewer systems, various essential structures complement manholes, including inspection chambers, junction structures for managing height disparities, stormwater overflow installations, street drainage systems (infall works), outfall configurations, and valve assemblies.

Manholes, conforming to EN 476 standards, constitute the predominant component of sewer and drain system infrastructure. As stipulated by EN 476, inspection chambers are increasingly adopted alongside manholes to meet regulatory requirements and operational needs.



According to EN 752-1 specifications, a manhole is precisely defined as a chamber featuring a removable cover, strategically positioned within a drain or sewer system to facilitate personnel access for inspection and maintenance purposes.

HIGHWAYS, ROADS AND STREETS



Otoyol Ve Yol Delikli Yuvarlak Menhol Kapagi

Otoyol ve Yol Delikli Yuvarlak Menhol Kapagi, verimli drenaj ve kolay bakım erisimi saglar.

Kategori: Manhole Covers > Highways and Roads

C250 ± 55+3 Otomatik



Karayolu Ve Yol Delikleri Ile Yuvarlak Menhol Kapagi

Yuvarlak tasarimi ve delikleriyle Menhol Kapagi, otoyollar ve yollar boyunca havalandirma ve erisim noktaları saglar.

Kategori: Manhole Covers > Highways and Roads

C250 ± 52+3 Manuel

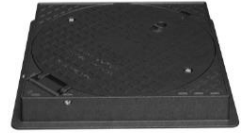


Otoyollar İçin Tam Paketlenmiş Yuvarlak Sekilli Menhol Kapagi

Tam paketlenmiş yuvarlak sekilli Menhol Kapagi, otoyollarda yer alti altyapisi için eksiksiz kaplama ve koruma sunar.

Kategori: Manhole Covers > Highways and Roads

C250 ± 52+3 Manuel



Otoyol Ve Yollar İçin Kare Sekilli Menhol Kapagi

Yol yüzeylerine sorunsuz bir şekilde uyacak sekilde tasarlanmış Kare Sekilli Otoyol ve Yol Menhol Kapagi, erisim noktaları için güvenli bir...

Kategori: Manhole Covers > Highways and Roads

D400 ± 69+3 Manuel & Otomatik



Otoyollar İçin Genel Desenli Yuvarlak Menhol Kapagi

Otoyollar İçin Genel Desenli Yuvarlak Menhol Kapagi, yol aklarında kolay tanımlama için standart bir tasarımı sunar.

Kategori: Manhole Covers > Highways and Roads

D400 ± 77+3 Otomatik



Otoyollar İçin Nokta Desenli Daire Sekilli Menhol Kapagi

Nokta Desenli Daire Sekilli Menhol Kapagi, otoyollar için islevselligi saglarken estetik çekicilik katmaktadır.

Kategori: Manhole Covers > Highways and Roads

D400 ± 62+3 Otomatik



Otoyollar İçin Daire Sekilli Menhol Kapagi

Otoyollar İçin Daire Sekilli Menhol Kapagi, otoyol boyunca erisim noktalarını kapatmak için temel bir çözüm sunar, güvenlik ve erişilebilirlik saglar.

Kategori: Manhole Covers > Highways and Roads

D400 ± 62+3 Otomatik



Otoyollar İçin Daire Sekilli Menhol Kapagi (Alternatif)

Daire sekilli Menhol Kapagi'nin bir baska varyanti, çeşitli yol altyapisi uygulamaları için çok yönlülük ve dayanıklılık sunar.

Kategori: Manhole Covers > Highways and Roads

D400 ± 75+3 Manuel & Otomatik

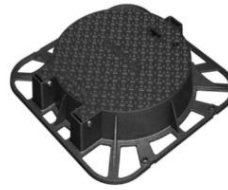


Otoyollar İçin Tam Paketlenmiş Yuvarlak Sekilli Menhol Kapagi

Tam paketlenmiş dairesel sekilli Menhol Kapagi, otoyollarda ve yollarda yoğun trafige ve zorlu hava koşullarına dayanıklıdır.

Kategori: Manhole Covers > Highways and Roads

D400 ± 54+3 Otomatik



Otoyollar İçin Kare Kenarlı Yuvarlak Sekilli Menhol Kapagi

Kare kenar tasarımına sahip Menhol Kapagi, yollar boyunca erisim noktaları için artırılmış stabilite ve güvenlik saglar.

Kategori: Manhole Covers > Highways and Roads

D400 ± 58+3 Otomatik



Otoyollar İçin Kare Kenarlı Yuvarlak Sekilli Menhol Kapagi (Alternatif)

Karsılığına benzer sekilde, Kare Kenarlı Yuvarlak Sekilli Menhol Kapagi, yol altyapisi için güçlendirilmiş koruma ve güvenlik sunar.

Kategori: Manhole Covers > Highways and Roads

C250 ± 58+3 Otomatik



Otoyollar İçin Kati Yuvarlak Sekilli Menhol Kapagi

Kati malzemelerden üretilmiş Yuvarlak Sekilli Menhol Kapagi, zorlu yol ortamlarında uzun ömürlü performans ve güvenilirlik saglar.

Kategori: Manhole Covers > Highways and Roads

D400 ± 53+3 Otomatik

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AIRPORTS AND SEAPORTS



Havaalanları Ve Limanlar İçin Özel Desenli Mert Dokum Kanal Kapagi

Güvenilirlik ve bakım kolaylığı için tasarlanan ayırıcılarımız, oto yıkama tesislerinin temiz su desajrjini ve çevresel yönetimi korumasını...

Kategori: **Manhole Covers** > **Airport and Ports**

F900 ± 81+3 Otomatik



Havaalanları Ve Limanlar İçin Daire Seklinde Desenli Kanal Kapagi

Yenilikçi tasarımı ve dayanıklı yapısıyla, ayırıcılarımız kirlenmeleri minimize ederek ve su kalitesini koruyarak çeşitli kentsel ortamlarda...

Kategori: **Manhole Covers** > **Airport and Ports**

F900 ± 160+10 Manuel & Otomatik



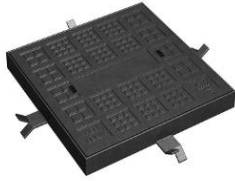
Havaalanları Ve Limanlar İçin Ağır Metalik Dikdörtgen Sekilli Kanal Kapagi

Gelişmiş yakıt ayırıcılarımız, otoparklar, havaalanları ve alışveriş merkezleri için özel olarak tasarlanmış olup, yağ, yağlı maddeler v...

Kategori: **Manhole Covers** > **Airport and Ports**

F900 ± 150+10 Otomatik

GAS STATIONS



Benzin İstasyonları İçin Kare Sekilli Tam Paketlenmiş Menhol Kapagi

Yagun trafikte dayanıklılık sağlamak için tasarlanmış Kare Sekilli Menhol Kapagi, benzin istasyonlarında güvenlik ve dayanıklılığı temin...

Kategori: **Manhole Covers** > **Gas Stations**

D400 ± 43+3 Hiçbiri



Benzin İstasyonları İçin Kare Sekilli Tam Paketlenmiş Menhol Kapagi (Alternatif)

Güvenilir kaplama ve koruma sağlayan Kare Sekilli Menhol Kapagi, benzin istasyonu altyapısı için dayanıklılık ve güvenlik sunar.

Kategori: **Manhole Covers** > **Gas Stations**

D400 ± 63+3 Hiçbiri



Silindirik Sekilli Menhol Kapagi, Benzin İstasyonları İçin Ağır Hizmet Tipi

Ağır hizmet uygulamaları için tasarlanmış Silindirik Sekilli Menhol Kapagi, benzin istasyonları ortasında güvenli kapaklama ve...

Kategori: **Manhole Covers** > **Gas Stations**

C250 ± 18+3 Hiçbiri



Benzin İstasyonları İçin Tam Genişletilmiş Bitüm Boya Menhol Kapagi

Benzin istasyonlarında optimal güvenlik ve dayanıklılık sağlamak için Bitüm Boya Genişletme Menhol Kapagimizi kullanın. Ağır...

Kategori: **Manhole Covers** > **Gas Stations**

± 56 + 3 kg Hiçbiri

TELECOMUNICATION



Telekom Altyapısı İçin Güvenli Erisim Menhol Kapagi

Telekom uygulamaları için özel olarak tasarlanan bu menhol kapagi, yer altı altyapısına güvenli erişim sağlar. Dayanıklı GG...

Kategori: **Manhole Covers** > **Telecom Covers**

D400 ± 80+3 Manuel



EPDM Kauçuk Telekom Menhol Kapagi

EPDM Kauçuk ile üretilmiş Telekom Menhol Kapagimiz, telekomünikasyon altyapısında dayanıklılık ve güvenilirlik sağlar.

Kategori: **Manhole Covers** > **Telecom Covers**

± 125+3 Manuel

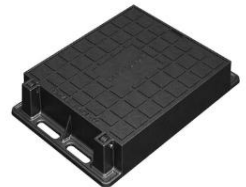


Geniş Boyutlu Siyah Ağır Telekom Menhol Kapagi

Geniş boyutlu ve ağır yapıllı Telekom Menhol Kapagimiz, kapsamlı koruma ve sağlam güvenlik sunar.

Kategori: **Manhole Covers** > **Telecom Covers**

D400 ± 180+3 Manuel



Telekom Menhol Kapagi Dikdörtgen Sekil Malzeme: GGG 50

GGG 50 malzemeden yapılmış dikdörtgen sekilli Telekom Menhol Kapagimiz, güç ve dayanıklılık garantisini sunar.

Kategori: **Manhole Covers** > **Telecom Covers**

D400 ± 58+3 Otomatik

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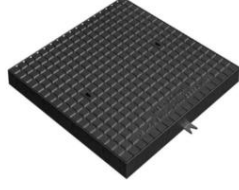


Genişletilebilir Telecom Manhole Kapakları

Effortlessly adaptable, our Telecom Manhole Cover is fully expandable to accommodate various dimensions and requirements.

Kategori: [Manhole Covers](#) > [Telecom Covers](#)


 D400 ± 68+3 Otomatik



Resmi Desenli Telecom Manhole Kapakları

Enhance aesthetics with our Telecom Manhole Cover featuring a formal pattern, adding style to telecommunications infrastructure.

Kategori: [Manhole Covers](#) > [Telecom Covers](#)


 D400 ± 125+5 Hiçbiri

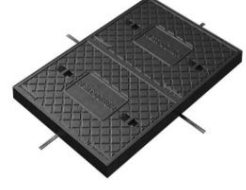


Telekom Menhol Kapagi Kaymaz

Güvenlik için tasarlanan Telekom Menhol Kapagimiz, kaymaz özellikleri ile kazaları önler ve güvenli zemin sağlar.

Kategori: [Manhole Covers](#) > [Telecom Covers](#)


 C250 ± 71+3 Hiçbiri



Telekom Menhol Kapagi Tam Genişletilmiş Kaymaz

Tam genişletilmiş Telekom Menhol Kapagimiz, gelişmiş kaymaz özellikleri ile maksimum güvenlik sağlar.

Kategori: [Manhole Covers](#) > [Telecom Covers](#)

 C250 ± 140+5 Hiçbiri



Telecom Altyapısına Güvenli Erisim Sağlayan Telecom Manhole Kapakları

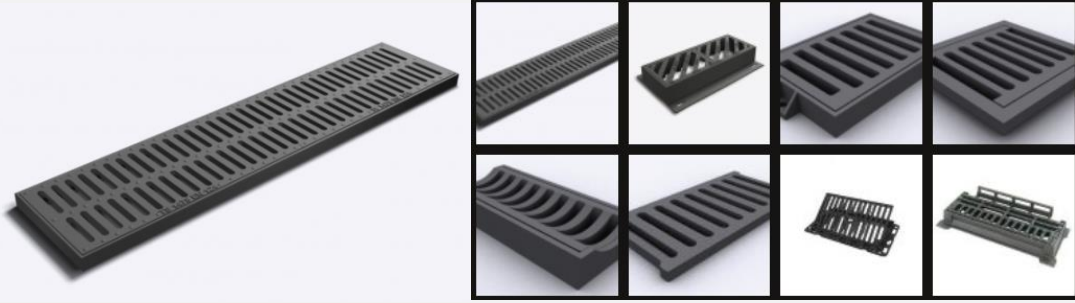
The telecom manhole cover is a critical component designed to provide secure access to underground telecommunication...

Kategori: [Manhole Covers](#) > [Telecom Covers](#)

 D400 ± 80+3 Manuel



LINEAR GRILL MANHOLE



Linear Grill Manholes: Enhancing Urban Drainage Solutions

Linear grill manholes represent a specialized solution within urban drainage systems, designed to efficiently manage surface water runoff while ensuring structural integrity and aesthetic appeal.

Design and Functionality

Linear grill manholes are characterized by their elongated, narrow profile, typically featuring a series of parallel slits or grills along their length. These grills serve multiple purposes:

- 1. Water Collection:** They effectively collect surface water from urban areas, preventing flooding and directing runoff into the drainage system.
- 2. Debris Management:** The grill structure filters out debris such as leaves, twigs, and litter, preventing blockages and ensuring continuous flow.
- 3. Aesthetic Integration:** Designed to blend seamlessly with urban landscapes, linear grill manholes can be customized in terms of materials and finishes to complement surrounding architecture and paving.

Materials and Construction

To withstand the rigors of urban environments, linear grill manholes are typically constructed from durable materials such as stainless steel, galvanized steel, or corrosion-resistant polymers. This ensures longevity and minimal maintenance requirements, even in high-traffic areas.

Installation and Maintenance

Installation of linear grill manholes involves careful consideration of site-specific drainage requirements and hydraulic performance. Regular maintenance, including cleaning of grills and inspection of associated drainage pipes, ensures optimal functionality and prevents potential blockages.

Applications

Linear grill manholes find application in various urban settings, including:

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- Streets and Roads: Managing surface water runoff to prevent flooding and maintain road safety.
- Public Spaces: Enhancing drainage efficiency in parks, squares, and pedestrian areas.
- Commercial and Industrial Zones: Supporting effective stormwater management around buildings and industrial facilities.

Regulatory Compliance

Linear grill manholes adhere to relevant standards and regulations, ensuring compliance with municipal and national drainage guidelines. This includes considerations for load-bearing capacities, safety features, and environmental impact assessments.

Conclusion

In conclusion, linear grill manholes represent a sophisticated solution for urban drainage challenges, offering efficient water management, debris filtration, and aesthetic integration. Their design versatility and robust construction make them indispensable components in modern urban infrastructure, contributing to safer and more resilient cities.

Our manhole covers are engineered to meet rigorous standards, with a standard load rating of C250 (25 tonnes), ensuring robust durability under typical urban conditions. Additionally, our heavy-duty D400 (40 tonnes) variants are readily available for projects requiring enhanced load-bearing capacities.

Within the infrastructure of drain and sewer systems, various essential structures complement manholes, including inspection chambers, junction structures for managing height disparities, stormwater overflow installations, street drainage systems (infall works), outfall configurations, and valve assemblies.

Manholes, conforming to EN 476 standards, constitute the predominant component of sewer and drain system infrastructure. As stipulated by EN 476, inspection chambers are increasingly adopted alongside manholes to meet regulatory requirements and operational needs.

According to EN 752-1 specifications, a manhole is precisely defined as a chamber featuring a removable cover, strategically positioned within a drain or sewer system to facilitate personnel access for inspection and maintenance purposes.

CITY APPLICATIONS



Kentsel Drenaj Verimliliği: Lineer Izgaralar

GGG 50 malzemesinden üretilmiş ve Bitüm Boya ile kaplanmış Lineer Izgaralarımızla kentsel drenaj verimliliğini artırın.

Kategori: [Linear Gratings](#)

D400 ± 38+3 Nono



Kentsel Su Altyapısı Çözümleri: Lineer Izgaralar

GGG 50 malzemesinden üretilmiş ve Bitüm Boya ile kaplanmış Lineer Izgaralarımızla kentsel su altyapısı ihtiyaçlarınızı karşılayın.

Kategori: [Linear Gratings](#)

D400 ± 21+2 Nono



Lineer Izgaralar Kentsel Drenaj Çözümleri: Lineer Izgaralar

Kentsel altyapı için tasarlanmış Lineer Izgaralar ile etkili su yönetimi sağlayın. Malzeme: GGG 50, Bitüm Boya ile kaplanmıştır.

Kategori: [Linear Gratings](#)

D400 ± 7+1 Nono



Şehir Drenaj Sistemlerini İyileştirme: Lineer Izgaralar

Şehir drenaj sistemlerini geliştirin, dayanıklı GGG 50 malzemenin üretilmiş ve Bitüm Boya ile kaplanmış Lineer Izgaralarımızla kentsel su yollarını etkili bir şekilde yönetin.

Kategori: [Linear Gratings](#)

D400 ± 8+1 Nono



Kentsel Drenaj İçin GGG 50 Lineer Izgaralar

GGG 50 Lineer Izgaralar ile kentsel su akışını etkili bir şekilde yönetin, Bitüm Boya ile kaplanmış ve dayanıklılığı artırılmış.

Kategori: [Linear Gratings](#)

D400 ± 10+1 Nono



Belediyeler İçin Lineer Izgaralar

Belediyelerin drenaj ağlarında pürüzsüz su akışı sağlamak için GGG 50 malzemenin üretilmiş ve Bitüm Boya ile kaplanmış Lineer Izgaralarımızla kentsel su altyapısını geliştirin.

Kategori: [Linear Gratings](#)

C250 ± 7+1 Nono



Şehir Altyapısını İyileştirme: Lineer Izgaralar

Dayanıklı GGG 50 malzemenin üretilmiş ve Bitüm Boya ile kaplanmış Lineer Izgaralarımızla şehir altyapısını geliştirin.

Kategori: [Linear Gratings](#)

D400 ± 11+1 Nono



Kentsel Su Yolu Yönetimi: Lineer Izgaralar

GGG 50 malzemenin üretilmiş ve dayanıklı Bitüm Boya ile kaplanmış Lineer Izgaralarımızla kentsel su yollarını etkili bir şekilde yönetin.

Kategori: [Linear Gratings](#)

D400 ± 14+1 Nono



Şehir Drenajı İçin GGG 50 Lineer Izgaralar

GGG 50 Lineer Izgaralar ile şehir drenaj sistemlerini optimize edin, korozyona karşı koruma için Bitüm Boya ile kaplanmış.

Kategori: [Linear Gratings](#)

D400 ± 18+1 Nono



Sürdürülebilir Kentsel Gelişim İçin Lineer Izgaralar

Uzun ömür için GGG 50 malzemenin üretilmiş ve Bitüm Boya kaplanmış Lineer Izgaralarımızla sürdürülebilir kentsel gelişimi teşvik edin.

Kategori: [Linear Gratings](#)

E600 ± 36+2 Nono



Yol Drenajı İçin GGG 50 Lineer Izgaralar

Yol drenajını verimli bir şekilde yönetin, Bitüm Boya ile kaplanmış GGG 50 Lineer Izgaralar ile uzun ömür sağlayın.

Kategori: [Linear Gratings](#)

D400 ± 23+2 Nono



Kentsel Dayanıklılık İçin Lineer Izgaralar

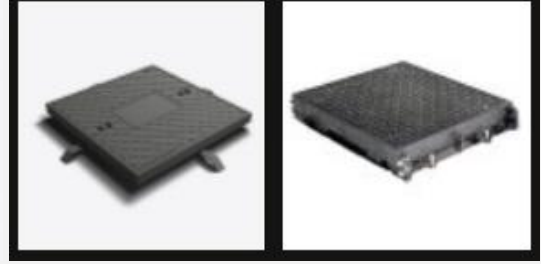
Dayanıklılığı artırılmış GGG 50 malzemenin üretilmiş ve Bitüm Boya ile kaplanmış Lineer Izgaralarımızla kentsel dayanıklılığı teşvik edin.

Kategori: [Linear Gratings](#)

C250 ± 19+2 Nono



SQUARE MANHOLE



Square Manholes: Versatile Solutions for Urban Infrastructure

Square manholes are integral components of urban infrastructure, designed to facilitate access to underground utilities and drainage systems while ensuring structural reliability and operational efficiency.

Design and Features

Square manholes are characterized by their square or rectangular shape, providing a distinct advantage in terms of space efficiency and ease of installation compared to circular counterparts. Key design features include:

- **Accessibility:** Square openings allow for easier access and maneuverability for maintenance personnel and equipment, accommodating various utility configurations within confined urban spaces.
- **Load-bearing Capacity:** Constructed from robust materials such as reinforced concrete, ductile iron, or polymer composites, square manholes are engineered to withstand heavy loads and vehicular traffic, ensuring long-term durability and safety.
- **Customizable Options:** They can be customized with features such as anti-slip surfaces, corrosion-resistant coatings, and locking mechanisms to enhance security and operational reliability.

Applications

Square manholes find diverse applications across urban landscapes:

- **Roads and Highways:** Providing access to sewer systems, stormwater drains, and telecommunications cables beneath roadways, ensuring efficient maintenance and emergency repairs.
- **Industrial Facilities:** Supporting infrastructure in industrial zones, including access to utility tunnels and service corridors for water, gas, and electrical networks.
- **Public Infrastructure:** Integrating seamlessly into public spaces such as parks, plazas, and pedestrian walkways, where aesthetic considerations and functional performance are equally important.

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Installation and Maintenance

Installation of square manholes involves precise engineering and adherence to local building codes and standards. Regular maintenance is essential to ensure functionality, including periodic inspections, cleaning of debris, and structural integrity assessments.

Advantages

- **Space Efficiency:** Square manholes maximize use of underground space, accommodating multiple utility lines within a compact footprint.
- **Flexibility:** They offer flexibility in design and configuration, supporting various depths and access requirements based on specific project needs.
- **Durability:** Engineered for resilience, square manholes provide long-lasting performance under diverse environmental conditions and operational demands.

Regulatory Compliance

Compliance with industry standards such as EN 124 ensures that square manholes meet stringent safety, performance, and environmental requirements. This includes considerations for load ratings, accessibility features, and material specifications.

Conclusion

Square manholes represent a versatile and essential component of urban infrastructure, offering efficient access to underground utilities and drainage systems while meeting stringent safety and performance standards. Their design flexibility, durability, and space-efficient footprint contribute to the sustainable development and resilience of modern cities worldwide.

Our manhole covers are engineered to meet rigorous standards, with a standard load rating of C250 (25 tonnes), ensuring robust durability under typical urban conditions. Additionally, our heavy-duty D400 (40 tonnes) variants are readily available for projects requiring enhanced load-bearing capacities.

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