

井盖

MANHOLE COVER

The manhole cover is used to cover the road or deep well to prevent people or objects from falling. It can be applied in green belts, sidewalks, motor vehicle lanes, docks, squares, alleys, and so on.

It is generally divided into round shape and square shape

In the aspect of urban road administration, the round shape is generally used, because the round manhole cover is not easy to tilt and can better protect the safety of pedestrians and vehicles.

For those used in towns and cable wells, the square shape is generally adopted, so that it can better prevent the entry of liquids such as rainwater.

Guli Casting is able to produce various round and square manhole covers that are currently in market demand. At the same time, it can also customize other shapes of manhole covers and casting products according to the needs of customers. At the same time, the custom artistic manhole covers of Keyuda Casting have beautified scenic areas, communities, parks, squares, and municipalities to a great extent, becoming a unique landscape.

Advantages of ductile iron manhole cover

For spherical graphite cast iron, the more familiar names are ductile iron or malleable iron. The flake graphite in cast iron will turn into a spherical graphite shape after adding metallic magnesium, which greatly improves the tensile strength, shock resistance and elongation of the metal.



井盖标准

MANHOLE COVER STANDARD

According to the regulation of GB/T 23858-2009 "Inspection Manhole Cover"

The manhole cover is divided into six grades according to the bearing capacity

Group 1: (Minimum selection of A15 grade type): Areas such as green belts and sidewalks where motor vehicles are prohibited from entering.

Group 2: (Minimum selection of B125 type): Sidewalks, non-motor vehicle lanes, small car parking lots and underground parking lots.

Group 3: (Minimum selection of C250 type): Residential quarters, back streets and alleys, areas where only light motor vehicles or small cars travel, within 0.5m on both sides of the curbstone on the road.

Group 4: (Minimum selection of D400 type): Urban main roads, highways, high-grade highways, expressways and other areas.

Group 5: (Minimum selection of E600 type): Freight stations, docks, airports and other areas.

Group 6: (Minimum selection of F900 type): Airport runways and other areas.

Note: The load-bearing capacity of the manhole cover and the ability of the manhole cover to allow vehicles to pass through are not the same concept.

The load-bearing capacity of the manhole cover means that in a unit area, a pressure test is carried out through a pressure testing machine, usually 40 tons for heavy-duty. And if it is for passing vehicles, the calculation formula for a 5-axle heavy-duty truck: 5 axles x 40 tons = 200 tons. Under the vehicle gross weight of 200 tons, this heavy-duty manhole cover can ensure passage.

井盖等级标识和应用场合

| level | mark | setting occasions |
|--------------|------|---|
| light | Q | Green areas, paths, bicycle lanes or sidewalks where motor vehicles are prohibited from entering. |
| general type | P | The roads or parking areas where vehicles of grade 10 of automobiles and those below it pass or park. |
| heavy | Z | Roads or parking areas for motor vehicles to pass or park. |



井盖机加工

MANHOLE COVER MACHINE PROCESSING



Manhole cover mechanical processing refers to the process of精加工 the shape, size or performance of manhole cover components through a kind of mechanical equipment or manual work. According to the difference in processing methods, it can be divided into shaping processing and grinding processing.

The mechanical processing process of the manhole cover refers to the intermediate process from semi-finished products to finished products. Modern enterprises use the principles and methods of systems engineering to organize and guide production, and regard the production process as a production system with input and output.

In the production process, any process that changes the shape, size, and properties of the production manhole cover to make it a finished product or semi-finished product is called a technological process. It is the main part of the production process.

A process is the basic unit that composes the mechanical processing technological process. The so-called process refers to that one (or a group of) workers, on one machine tool (or at one work location), continuously complete that part of the technological process for the same workpiece (or for several workpieces at the same time).

Keyuda Casting has two domestic advanced modern mechanical processing workshops with an area of nearly one thousand square meters, and multiple fully automatic or more than ten artificial mechanical processing production lines, which can meet the simultaneous mechanical processing of different types of manhole covers, effectively improving the work efficiency and ensuring the timeliness of customers' products.

模具设计

MANHOLE COVER MOULD DESIGN

The manhole cover is the business card of the city. It starts from solving practical detailed problems, and becomes an art due to exquisite workmanship, and finally continuously popularizes and develops into a special culture. In almost every city, manhole covers and well gratings can be seen, with landscapes, historical stories or urban characteristics printed on them, which are extremely rich in design sense. In the rainy season, accidents of motorcycles and bicycles slipping on manhole covers occur frequently. Engineers have improved the surface texture of the manhole cover by adding some concave-convex pattern designs, which are not only anti-slip but also beautiful.

As one of the few large domestic manhole cover production factories, the manhole covers produced by Guli Casting in recent years cover the entire industry product types, and have accumulated various types of manhole cover molds, which can provide customers with any type of manhole cover. Over time, from quantitative change to qualitative change, as the custom manhole cover is increasingly valued and the number of customer orders increases, engineers, while being skilled in designing standard manhole covers, continue to innovate and study, and finally form a set of perfect casting manhole cover design system catalogues to meet the needs of customers in the whole industry and also lay a leading position in the country.



井盖特点

MANHOLE COVER CHARACTERISTICS



Anti-rattle, anti-slip, anti-theft, anti-falling, anti-displacement, easy to open, etc.

Anti-rattle: Add an anti-rattle rubber ring at the contact surface between the manhole cover and the manhole ring.

Anti-slip: Geometric patterns are cast on the surface of the manhole cover. The manhole ring of the inspection well uses a structural form in which rings are connected to each other, and protrusions that increase the friction coefficient are set on the surface of the ring opening, thereby increasing the friction coefficient between the asphalt base material and the ring opening of the well diagram after the auxiliary road.

Anti-displacement: Due to the fixation of the manhole ring and the ground by anchor bolts, the inspection well cover will not cause the misalignment of the manhole ring opening due to the rolling of the road roller during the construction, so as to achieve standard construction.

Anti-falling: For the new multi-prevention inspection well cover, due to the fixation of the anchor bolts, the backfill soil around the inspection well can be rolled to make its compactness meet the specification requirements. Therefore, problems such as local settlement and cracks around the inspection well caused by the unsubstantial backfill soil are avoided.

Anti-theft: Under the manhole ring of the manhole cover, a hidden anti-theft box and an opening flap are set, replacing the anti-theft chain, which completely plays the role of anti-theft operation and fundamentally eliminates the rust problem due to cavitation and water erosion.

井盖安装

MANHOLE COVER INSTALLATION

Installation and fixation construction suggestions.

For the installation of the manhole cover and the bottom frame, there is no absolute standard. This note only makes suggestions to the workers responsible for the installation.

Notch joint.

① Prepare the joint notch; ② Put it on the concrete without cracks, and clean the dust, mud or grease on the joint notch.

Installation, leveling and closing of the bottom frame.

Put the bottom frame on the joint notch, the bite should be accurate, use the appropriate wedge to level the bottom frame, close the gap with the formwork, and for the large and light bottom frame, when installing the manhole cover, it is necessary to check that it is placed flat and does not shake. If necessary, even during the installation process, stop to ensure that it is placed flat first.

Fix / Fasten.

The positioning and fixing material adopts quick and non-shrinking mortar. Pour the mortar under the bottom frame (the mortar must be filled in the formwork frame). In order to ensure that the entire well cover plate and the bottom frame can evenly bear the load generated by traffic and do not shake, the bottom frame must be in 100% full contact with the mortar bonding material and be filled and leveled. Unless it is necessary to pour the asphalt pavement, leave a depth of 20mm for pouring, cover the joint notch, and cover it with canvas or tarpaulin or the like for maintaining the mortar before formal use.

Finishing, and the manhole cover is put into use.

Excluding formworks and other things, plaster the inner wall of the customer well with mortar (if necessary), install the well cover plate on the bottom frame to ensure it is proper and straight (if necessary, clean the contact surface), and pour asphalt concrete where asphalt concrete is needed to be paved, and then this customer well is put into use.

机制井盖

MECHANISM MANHOLE COVER

Material: Ductile iron

Product points

The ductile iron manhole cover is mainly cast from ductile iron. The quality of the manhole cover depends on the technological process of the spheroidization rate. The common coatings used to treat the surface of the filled iron and the cover and meet the requirements of anti-weathering and aging. The advantage of the ductile iron manhole cover is that due to the high strength and good toughness of ductile iron, the ductile iron manhole cover is about 30% lighter than the same type of gray cast iron manhole cover.

Good toughness: The impact value is similar to that of medium-carbon steel and is more than 10 times that of gray iron materials.

Strong corrosion resistance: In the spray water corrosion test, the quarterly corrosion amount is only 1/40 of that of the steel pipe and 1/10 of that of the gray cast iron pipe. The service life is twice that of the gray cast iron pipe and five times that of the ordinary steel pipe.

Good plasticity: The elongation is $\geq 79\%$, which is similar to that of high-carbon steel, while the elongation of gray iron material is zero.



Due to the spherical graphite microstructure of ductile iron, ductile iron is superior to cast steel in terms of weakening the vibration ability, and is therefore more conducive to reducing stress. An important reason for choosing ductile iron is that ductile iron has a lower cost than cast steel. The low cost of ductile iron makes this material more popular, with higher casting efficiency and also reduces the machining cost of ductile iron.

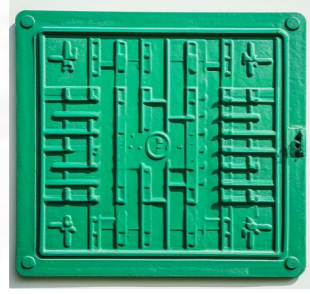
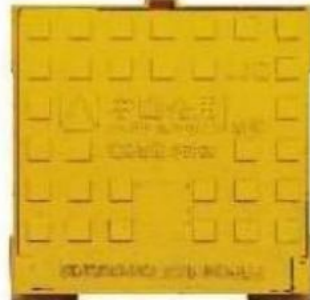
The strength of ductile iron is comparable to that of cast steel. Ductile iron has a higher yield strength, with a minimum yield strength of 40k, while the yield strength of cast steel is only 36k. In municipal application fields, such as water, salt water, steam, etc., the corrosion resistance and oxidation resistance of ductile iron exceed those of cast steel.

Coating

Spray anti-rust asphalt paint.

Application fields

It is widely used in municipal, gardens, parking lots, highways, docks, power plants, boiler factories, airports, landscape roads in residential areas, urban sidewalks, motor vehicle lanes, squares, lawns and flower ponds and other projects such as water supply, drainage, sewage discharge, communication, electricity, natural gas, etc



Mechanism manhole cover product specification parameters 1

| name | weight (kg) | diameter (mm) | bore size (mm) | tall (mm) | Cover weight (kg) | Circle weight (kg) | remarks |
|-----------------|-------------|---------------|----------------|-----------|-------------------|--|---|
| Mechanism Φ 400 | 25 | 400x540 | 360 | 23x70 | 14 | 10 | Cross pattern, no lock |
| Mechanism Φ 600 | 40 | 600x700 | | 29x67 | 28 | 12 | Cross pattern single card spring, lock can be matched with word diamond version weight consultation |
| Regular Φ 700 | 38 | 700x800 | 650 | 30x65 | 25 | 13 | Cross / square / diamond, hexagon bar, unlocked |
| | 45 | 700x800 | 650 | 30x75 | 31 | 14 | |
| | 60 | 700x900 | | 30x100 | 34 | 25 | |
| | 35 | 700x800 | 650 | 30x65 | 23.5 | 11.5 | Cross pattern hexagonal tendon plate lock can be formula block or diamond surface plate |
| | 38 | 700x800 | 660 | 29x65 | 26.5 | 11.5 | |
| | 40 | | 660 | 29x65 | 28 | | |
| | 45 | | 670 | 30x75 | 32 | 13.5 | |
| | 47 | | 670 | 30x75 | 33.5 | | |
| | 50 | | 670 | 30x75 | 33.5 | 15 | |
| | 52 | | 660 | 29x80 | 36 | 16.5 | |
| | 57 | | 660 | 29x80 | 40 | | |
| | 62 | | 660 | 29x80 | 41 | 20.5 | |
| | 67 | | 660 | 29x80 | 46 | | |
| | 36 | | 700x830 | | 30x63 | 22 | 14 |
| | 45 | 700x850 | 650 | 30x80 | 26 | 18.5 | Cross JJQ mark, plug pin lock |
| | 55 | 700x849 | 650 | 30x82 | 36 | 19 | Cross hexagonal bar, pin lock |
| | 65 | 700x905 | 650 | 50x100 | 34 | 30 | Cross JJQ mark, plug pin lock |
| | 70 | 700x905 | | 49x96 | 37 | 32 | Machining, plug lock |
| | 80 | 700x905 | 650 | | 34 | 44 | |
| | 40 | 700x800 | 660 | 32x65 | 28 | 11.5 | Square, unlocked, double loop bars |
| 45 | 700x805 | 650 | 32x60 | 31 | 14 | | |
| 48 | 700x805 | 650 | 32x60 | 34 | 14 | | |
| 55 | 700x850 | 650 | 30x85 | 35 | 20 | | |
| 58 | 700x850 | 650 | 30x85 | 38 | 20 | | |
| 56 | 700x870 | 650 | 40x90 | 34 | 22 | | |
| 66 | | 650 | 40x90 | 44 | 22 | Three spring C lock, horizontal and vertical pattern | |
| 80 | 700x860 | | 40x100 | 46 | 33 | Three spring C lock, oblique horizontal and vertical pattern | |
| Mechanism Φ 800 | 55 | 800x980 | 760 | 28x52 | 33 | 22 | Cross pattern, no lock |
| | 75 | 800x950 | | 28x90 | 48 | 27 | Cross pattern, plug in the pin lock |

Mechanism manhole cover product specification parameters 2

| name | weight (kg) | diameter (mm) | bore size (mm) | tall (mm) | Cover weight (kg) | Circle weight (kg) | remarks |
|---------------------------|-------------|---------------|----------------|-----------|-------------------|--------------------|---|
| Machined at Φ 740 | 72 | 740x900 | | 31x80 | 46 | 26 | Three spring C lock, cross pattern |
| | 75 | 740x930 | | 35x85 | 46 | 29 | Machined, no lock, no hinge |
| | 95 | 740x965 | | 40x95 | 56 | 39 | |
| | 85 | 740x900 | | 38x100 | 48 | 37 | Three boxes |
| | 98 | | | | 60 | | |
| | 105 | 740x964 | | 40x100 | 53 | 52 | Machined, lock-free |
| Machined at Φ 750 | 80 | 750x900 | | 30x95 | 46 | 35 | |
| | 85 | 750x960 | | 50x100 | 40 | 40 | Machining |
| | 105 | | | | 65 | | |
| Half-side spring Φ 700 | 60 | 700x890 | | 21x100 | 34 | 26 | A T-shaped half-sided spring |
| | 70 | | | | 40 | 29 | |
| | 80 | | | | 49 | 29 | |
| | 77 | 700x900 | | 50x100 | 46 | 30 | An L-shaped half-side spring |
| | 72 | 700x878 | | 34x100 | 40 | 32 | Inverted Z-shaped version |
| Mechanism Φ 710 | 36 | 710x850 | | 30x60 | 23 | 13 | Block, municipal works, no lock, no hinge |
| Mechanism Φ 720 | 45 | 720x900 | | 30x90 | 24 | 21 | |
| Mechanism Φ 730 | 64 | 735x945 | | 40x85 | 34 | 30 | |
| Square manhole cover | 35 | 500x500 | 600x600 | 42x55 | 21 | 14 | |
| | 15 | 300x400 | 380x480 | 33x40 | 9 | 6 | T-shaped face version |
| | 20 | 330x500 | 420x590 | 28x50 | 10 | 10 | Inverted Z-shaped version |
| | 26 | 330x480 | 410x560 | 39x60 | 13 | 12 | Cross pattern |
| Double open manhole cover | 47 | 480x650 | 560x730 | 39x60 | single 14 | 18.5 | Double open, cross-pattern |
| | 53 | 480x730 | 560x810 | 39x60 | single 16.5 | 19 | Double open, cross-pattern |
| | 66 | 550x800 | 650x900 | 45x55 | Single cover 23 | 20 | Double-open, T-shaped version |
| | 62 | 560x1000 | 670x1110 | 38x70 | Single cover 18 | 25 | Double-open, inverted Z-shaped version |

Note: The above are all theoretical data, only for reference only

The face version has square, cross, diamond, diamond, square, and other patterns, if there are special needs can be customized

防沉降井盖

ANTI-SUBSIDENCE COVER

Installation and construction

Construction joints.

Construct the guardrails, reflective cones to enclose the operation points, etc., and the equipment enters the site. Taking the well center as the center of the circle, according to the size of the well ring cover plate, use the jointing machine to carry out jointing along the arc line.

Demolish the pavement and widen and deepen the working position.

After the joints are built, break the asphalt or concrete in the working position and remove and clean it. Except for the thickness required by the structure, for the excessive part of the depth, level it to ensure that the excavation depth of the working face is consistent with the distance from the pavement.

Install the concrete adjusting ring.

According to the distance between the base and the pavement, first smear mortar on the base surface, and fix the concrete adjusting ring on the mortar surface. There is sufficient construction adjustment distance from the pavement to the surface of the adjusting ring. The installation of the concrete adjusting ring must be stable and without looseness and other phenomena.

Install the cast iron frame (mould).

Vertically insert the cast iron installation frame (mould) with the hinge position into the adjusting ring, and the installation is stable. At the same time, check whether the bottom of the cast iron installation frame (mould) is aligned and placed in the adjusting ring.

Fill the asphalt material.

Sprinkle the asphalt primer to increase the adhesive force of the original structure. When filling the asphalt, tamp it layer by layer to ensure that the compactness meets the requirements of the construction standard. The height of the asphalt filler should be consistent with the top surface of the cast iron installation frame (mould). Adjust the installation frame (mould) and the well cover plate.

Adjust the installation frame (mould) and the well cover plate.

Adjust the installation frame (mould) to be level with the height of the line, and at the same time fill the asphalt material to be level with it. After completion, carefully take out the installation frame (mould), and then put the well cover plate into the prefabricated structure for stable installation.

Vibratory compaction of asphalt and well cover plate.

Vibrate and press the well cover plate and the surrounding asphalt filler back and forth to make them integrate into one and be flush with the original pavement. The paving temperature of the asphalt material must meet the specification requirements to ensure that there is no offset or damage to the well cover plate.



Product specifications and parameters of anti-settlement manhole cover

| name | weight (kg) | diameter (mm) | bore size (mm) | tall (mm) | Cover weight (kg) | Circle weight (kg) | remarks |
|------------------------------|-------------|---------------|----------------|-----------|-------------------|--------------------|---|
| Prevention of settlement 640 | 72 | 640x823 | 590 | 23x120 | 39 | 33 | Machining, prevent settlement |
| Anti-settlement of Φ 650 | 80 | 650x850 | | 20.5x190 | 36 | 41 | Rain belt hole |
| Settlement prevention Φ 700 | 89 | 700x895 | | 32x190 | 46 | 43 | Machining, prevent settlement |
| Prevention of settlement 700 | 78-80 | 700x900 | | 27.5x190 | 38 | 42 | Machining, anti-settlement, can be aggravated |

Note: The above are all theoretical data, only for reference only

手工井盖

MANUAL MANHOLE COVE

Material: ductile cast iron

Product characteristics

Ball-iron casting manhole covers and castings are almost used in the ground or underground fields, and the applied districts require high strength, plasticity, toughness, wear resistance and mechanical impact, high temperature or low temperature resistance, corrosion resistance, and dimensional stability. In order to meet these changes in use conditions, ductile iron has many specifications, with a moderate range of mechanical and physical properties.

Strength and elongation are not the only spherical iron cast covers, while other decisive important properties include yield strength, elastic modulus, wear resistance and fatigue strength, hardness and impact performance. In addition, corrosion resistance and oxidation resistance and electromagnetic properties are also key.

Sound prevention: the manhole cover and the well ring contact surface are processed to make it more consistent.

Anti-skid: the diamond block pattern is cast on the surface of the manhole cover. The inspection ring uses a ring connected to the ring, and a cross bump that increases the grinding resistance coefficient is provided on the surface of the ring opening to increase the grinding resistance coefficient of the asphalt foundation material behind the auxiliary road and the ring opening.

Anti-displacement: due to the fixation of the anchor bolt to the ground, the inspection well cover will not cause the wrong mouth caused by the rolling of the roller, so as to meet the standard construction.

Anti-theft: the well cover in the well ring set up the anti-theft box, open the folding plate, replaced the anti-theft chain, has played a thorough anti-theft role.

Application

Spray with rust-proof asphalt paint

Application fields

Widely used in municipal roads, highways, communications, electricity, tap water, residential areas, schools and other industrial parks and public facilities



Handmade manhole cover product specification parameters 1

| product name | specifications | weight (kg) | Cover diameter, ×-ring diameter(mm) | Circle inner diameter (mm) | Height (mm) Cover height × lap height | remarks |
|-------------------------|----------------|-------------|-------------------------------------|----------------------------|---------------------------------------|-----------------|
| Round manhole cover-400 | D400 | 25-30 | 400x550 | 360 | 25x55 | |
| Round manhole cover-500 | D500 | 25 | 500x605 | 450 | 35x50 | |
| Round manhole cover-600 | D600 | 25 | 600x700 | | 20×50 | newly increased |
| | D600 | 28 | 600x710 | 570 | 35x50 | |
| | D600 | 32 | 600x700 | 550 | 30x70 | |
| | D600 | 40 | 600x710 | 560 | 35x50 | |
| | D600 | 52 | 600x780 | 560 | 40x100 | |
| Round manhole cover-630 | D630 | 35 | 630x790 | 610 | 20x50 | |
| | D630 | 45 | 630x800 | 590 | 35x90 | |
| Round manhole cover-640 | D640 | 74 | 640x850 | 600 | 40x100 | |
| Round manhole cover-650 | D650 | 65 | 700x880 | 650 | 25x100 | |
| | D650 | 73 | 650x820 | 590 | 20x120 | |
| | D650 | 80 | 650x845 | 600 | 25x185 | |
| Round manhole cover-680 | D680 | 27 | 680x780 | 650 | 30x50 | |
| | D680 | 28 | 680x780 | 550 | 30x40 | |
| Round manhole cover-700 | D700 | 32 | 700x800 | | 29x54 | newly increased |
| | D700 | 35 | 700x840 | 665 | 30x65 | |
| | D700 | 45 | 700x850 | 665 | 30x80 | |
| | D700 | 55 | 700x850 | 665 | 30x95 | |
| | D700 | 55 | 700x865 | 650 | 40x90 | |
| | D700 | 58 | 700x850 | 660 | 30x85 | |
| | D700 | 64 | 700x760 | 640 | 30x80 | |
| | D700 | 65 | 700x870 | 650 | 40x90 | |

| | | | | | | |
|-------------------------|----------------------------|---|-----------|-----|--------|--|
| | D700 | 65 | 700x850 | 665 | 30x95 | |
| | D700 | 70 | 700x900 | 665 | 50x100 | |
| | D700 | 73 | 680x870 | 630 | 35x80 | |
| | D700 double-deck | 70 | 700x830 | 630 | 30x90 | |
| | D700 double-deck | 85 | 700x875 | 610 | 70x100 | |
| | D700 | 95 | 700x880 | 650 | 38x90 | |
| | D700 | 80 | 700x900 | 650 | 28x190 | |
| | D700 | 100 | 700x900 | 650 | 25x190 | |
| Round manhole cover-730 | D730 | 94 | 730x930 | 680 | 30x190 | |
| Round manhole cover-740 | D740 | 85 | 740x970 | 690 | 38x100 | |
| Round manhole cover-750 | D750 | 95 | 750 | 700 | 40x100 | |
| Round manhole cove-760 | D760 | 104 | | | | |
| Round manhole cove-800 | D800 | 67 | 800x1000 | 750 | 40x90 | |
| | D800 | 72 | 800x980 | 760 | 37x90 | |
| Round manhole cove-900 | D900 | 108 | 900x1080 | 860 | 40x90 | |
| Round manhole cove-1000 | D1000 | 120 | 1000x1120 | 940 | 45x80 | |
| The foreign circle | Round to 700 square to 110 | Round height 85, square height 45, inner diameter 650 | | | | |
| The foreign circle | Round to 680 square to 8 | 50 | 680x800 | 560 | 38x83 | |

Handmade manhole cover product specification parameters 2

| product name | specifications | Cover diameter, x-ring diameter(mm) | Circle inner diameter(mm) | remarks |
|---|--------------------|---|---|---|
| Double open manhole cover | 600×800 | Cover: 600×800×35, circle: 700×900×55 | 60 | |
| | 600×1000 | Cover: 600×1000×35, circle: 700×1100×55 | 70 | Double open manhole cover |
| | 600×1000 | Cover: 800×1200×53, circle: 930×1335×65 | 127-130 | 1200mm For double cover specifications |
| | 800×1200 | Cover: 800×1200×54, circle: 920×1430×65 | 69-70 | 1200mm For double cover specifications |
| | 750×1000 | Cover: 750×1000×50, circle: 920×1430×65 | 120-130 | 1000mm For double cover specifications |
| | 550×800 | Cover: 550×800×40, circle: 700×950×50 | 60-63 | 800mm For double cover specifications |
| | 550×900 | Cover: 550×900×40, circle: 700×1050×50 | 66-70 | 900mm For double cover specifications |
| | Long manhole cover | 500×750 | Cover: 500×750×50, circle: 862×1113/1615×65 | 60/120/180 |
| Cover: 500×750×50, circle: 570×815×65 | | | 66-68 | Single manhole cover |
| Cover: 500×750×55 | | | 77.5 | Single open |
| outside: 610(With big bumps 630) ×1100×65 | | | | It can be made into a double open 1 meter 1 meter |
| Three manhole covers | | Cover: 750×1500×60, circle: 815×1140×65 | 170-171 | 51T above |
| Square manhole cover | 400×400 | Cover: 400×400×40, circle: 490×490×50 | 15、 18 | |
| | 400×400 | Cover: 400×400×30, | 24-25 | New mold |

| | | | | |
|--------------|-----------|--|-------|--------------|
| | | circle: 470×470×70 | | |
| | 500×500 | Cover: 500×500×30, circle: 590×590×45 | 25-30 | |
| | 600×600 | Cover: 600×600×30, circle: 680×680×50 | 45 | |
| | 680×680 | Cover: 680×680×30, circle: 745×745×45 | 48.5 | Square: 700 |
| | 1000×1000 | Cover: 1000×1000×55, circle: 1130×1130×70 | 135 | Square: 1000 |
| | 1040×1060 | Cover: 1040×1060×40, circle: 1140×1170×100 | 155 | |
| Three grates | | Cover: 490×630×30 | 46 | |
| | | outside: 590×730×65 | | |
| | | grates: 240×660×30 | | |
| | | Cover: 475×700 | 60 | |
| | | outside: 550×730×100 | | |
| | | grates: 240×740 | | |

Note: The above are all theoretical data, only for reference only

套算和单算

SET&SINGLE
MANHOLE COVE

Material: Ductile iron

Product features

Anti-noise, anti-slip, anti-displacement, anti-

theft, anti-falling, strong drainage, etc.

The operator is an integral part of the pavement, directly distributing the load to the pavement structure layer, protecting the asphalt pavement around the manhole cover and preventing settlement.

Utilizing the toughness of ductile iron, a spring arm that can be finitely contracted is designed on the operator, so that the operator can be tightly fastened to the well frame in the closed state without jumping, ensuring pavement safety.

The built-in elastic pins and hinges prevent the operator from being stolen, and this design effectively avoids the problem of the pin rotating and damaging the surrounding roadbed when the traditional operator is opened.

The special drainage outlet design, and there is no partition in the drainage gap, which is not easy to cause the accumulation of sundries.

The grating pattern is in all directions to avoid skidding when driving in rainy and snowy weather; both the well frame and the upper surface of the operator are cast with convex lines, which can effectively increase the friction coefficient, and the anti-slip effect is remarkable.

A rubber strip is installed on the contact surface between the operator and the well frame, which can effectively eliminate the noise caused by the collision between the operator and the well frame.

Coating

Spray anti-rust asphalt paint.

Application fields

Applicable places: It is suitable for installation places such as municipal, water conservancy, electric power, road administration, and residential areas.



Set of grate product specifications and parameters

| product name | Specification (mm), length, width and height | substance (kg) | remarks |
|---------------------------|--|--------------------------------|---|
| 250×350 Set of grates | grates: 250×350×30, circle: 300×425×45 | 9 | handwork |
| 300×500 Set of grates | grates: 300×500×30, circle: 360×560×40 | 11/12/14/15/17/19/22 and so on | 14kg , It is made by hand. |
| 300×600 Set of grates | grates: 300×600×33, circle: 354×666×41 | 16 | handwork |
| 360×480 Set of grates | grates: 360×480×25, circle: 450×590×50 | 21 | handwork |
| 380×680 Set of grates | grates: 380×680×27, circle: 483×786×45 | 35 | The whole edge of the mechanism is set |
| 400×520 Set of grates | grates: 400×520×35, circle: 490×610×50 | 23 | handwork |
| 400×500 Set of grates | grates: 400×500×30, circle: 420×520×40 | 26 | handwork/machine-processed |
| 400×600 Set of grates | grates: 400×600×35, circle: 420×620×40 | 21/26 | handwork/machine-processed, Boundless double page |
| 400×600 Spring set grates | grates: 400×600×35, circle: 500×760×80 | 30 | handwork |
| 400×600 Set of grates | grates: 400×600×30, circle: 500×750×89 | 30/36.5 | Mechanism spring grates |
| 410×710 Set of grates | grates: 410×710×27, circle: 515×815×50 | 34 | The whole edge of the mechanism is set |
| 450×750 Set of grates | grates: 450×750×27, circle: 555×855×50 | 38 | |
| | grates: 450×750×36, circle: 550×770×43 | 28/32 | handwork/machine-processed, Boundless double page |
| | grates: 450×750×45, circle: 550×770×53 | 38 | |
| | grates: 450×750×53, circle: 494×817×62 | 30/37/45 | Domestic set grates |
| | grates: 450×750×42, circle: 574×873×50 | 46 | The whole edge of the mechanism is set |
| | grates: 450×750×25, circle: 572×872×40 | 53 | Mechanism full edge set grate, grate in the middle of the bulge |
| | grates: 450×750×30, circle: 572×872×40 | 58 | The whole edge of the mechanism is set |

| product name | Specification (mm), length, width and height | substance (kg) | remarks |
|---------------------------------|--|----------------|--|
| 450×680 Spring set grates | grates: 450×680×30, circle: 560×810×120 | 55 | Prevent settlement |
| 450×1500 Double open set grates | grates: 450×1500×27, circle: 555×1613×50 | 73 | 1500mm For double cover specifications |
| | grates: 450×1500×60, circle: 510×1600×70 | 85 | |
| 400×700 Set of grates | grates: 400×700×30, circle: 450×770×45 | 25/31 | 31 For the mechanism, the specifications need to be consulted, can be done left and right set grate or full side set grate |
| 450×750 Set of grates | Cover: 450×750×55, circle: 550×850×60 | 42 | 50T, The right grate shall work together with the left grate |
| ladder stand | 130×270×15 | 1.2 | |
| | 150×290×10 | 1.5 | |
| | 160×296×11 | 1.5 | |
| | 160×296×9 | 1.2 | |
| | 160×263×8 | 0.8 | |

Note: The above are the variety specifications and weights are for reference only
Single grate product specifications

| Specification (mm), length, width and height | substance (Kg) | remarks |
|--|----------------|----------|
| 200×400×19 | 3kg | |
| 200×400×20 | 4kg | |
| 200×400×20 | 5kg | handwork |
| 200×450×30 | 4kg | |
| 250×500×20 | 3kg | |
| 250×500×28 | 4kg | |

| Specification (mm), length, width and height | substance (Kg) | remarks |
|--|----------------|---------|
| 390×500×40 | 14.5kg | |
| 398×498×37 | 11kg | |
| 400×400 | 18kg | |
| 400×480×30 | 9kg | |
| 400×490×20 | 11kg | |
| 400×500×20 | 6kg | |

| Specification (mm), length, width and height | substance (Kg) | remarks |
|--|----------------|----------------------------|
| 250×500×20 | 5kg | |
| 250×500×30 | 6kg | handwork+machine-processed |
| 250×500×30 | 5kg | handwork |
| 270×500×36 | 8kg | |
| 290×500×20 | 8kg | 7.5KG |
| 280×400×30 | 15kg | |
| 150×600×20 | 5kg | |
| 300×500×20 | 4kg | |
| 300×500×20 | 5kg | handwork |
| 300×500×20 | 12kg | |
| | 4.5kg | |
| | 5kg | C250 |
| | 5.5kg | |
| 300×500×30 | 6.5kg | |
| | 8kg | |
| | 9.5kg | |
| | 11kg | |
| | 14kg | |
| 300×500×35 | 7.5kg | |
| 300×500×40 | 10.5kg | |
| 350×400×50 | 21-22kg | |
| | 6kg | |
| 350×500×30 | | With a word C250 |
| | 7.5kg | With a word D400 |
| 350×500×30 | 9kg | |
| 370×500×40 | 11.5kg | |
| 380×500×20 | 6-7kg | |
| 380×500×30 | 6kg | |
| 380×500×30 | 8-9kg | |
| 380×590×20 | 20kg | |
| 380×590×30 | 11kg | |
| 380×590×20 | 20kg | |

| Specification (mm), length, width and height | substance (Kg) | remarks |
|--|----------------|-----------|
| | 6kg | |
| 400×500×30 | 7.5kg | |
| | | |
| | 10.5kg | No words |
| 400×500×35 | 12kg | |
| 460×500×40 | 23kg | |
| 500×500×40 | 12kg | |
| 500×500×40 | 17kg | |
| 500×500×50 | 25kg | |
| 500×500×50 | 33kg | |
| 400×600×20 | 12kg | |
| 400×600×30 | 8.5kg | Well type |
| | 8kg | A tendon |
| 400×600×30 | 11kg | |
| | 16.5kg | |
| 400×600×40 | 10kg | |
| 400×600×40 | 18kg | |
| 400×700×30 | | |
| 450×450×30 | 12kg | |
| 450×450×40 | 12kg | |
| | | |
| | | |
| 450×750×40 | 17kg | |
| 450×750×30 | 20kg | handwork |
| 450×750×30 | 28kg | |
| 500×600×30 | 35kg | |
| 500×750×100 | 120kg | handwork |
| 600×850×40 | 24kg | |
| 600×600×30 | | |
| 700×700 | 45kg | |

Note: The above are the variety specifications and weights are for reference only

艺术井盖

ART MANHOLE COVER

The manhole cover that uses flat carving or relief to express the pattern, and uses colors or words to express the individual cultural label is called an artistic manhole cover.

Artistic manhole cover: Chinese artistic manhole cover, European artistic manhole cover and Japanese artistic manhole cover.

As the entrance of the urban underground pipe network, the manhole cover is a part of the details of the underground pipe network management in urban construction. Urban builders and managers, with high professional quality and sense of responsibility, rely on the visual identification of the manhole cover to form a city's standard and attitude towards the management mode of the underground pipe network.

Urban manhole cover culture is the bloodline that shapes and inherits urban culture, and it is a part of the urban visual identification system; it plays a role in condensing the cultural pride of citizens and deepening the public's perception and communication. With the help of patterns such as the scenery of the manhole cover, it improves the unique humanistic taste of the city.

Artistic manhole cover is a constituent element of the landscape, and it is the textured part responsible for paving in the overall scenery.

Artistic manhole covers are the products of personification of buildings, the display of the cultural and artistic individuality of urban buildings, and the label symbol of the artistic taste of the building owners.

Application fields

Municipal and enterprise institutions, as well as tourism real estate and antique building complexes.

Commercial real estate and urban complexes: villa areas, commercial communities, commercial podiums, shopping centers, etc.

Other new fields: theme parks, children's parks, university towns, folk culture villages, cultural industry parks, cartoon industry cities, etc.

