



天河水务

Z 型系列钢闸门 TYPE-Z SERIAL STEEL GATES

● 用途 Applications

钢闸门是给排水工程、水利、水电工程中常用的拦水、止水设备，我公司生产的钢闸门种类齐全，可适用于各种场合，从其结构形式可分为以下五类：

插板闸门（CBZ）：露顶闸门，三面止水、密封性能好，适用于渠道安装。

制水闸门（ZSZ）：淹没式闸门，四面止水，适用于渠道或孔壁的安装，承受水头在 5m 以下。

叠梁闸门（DLZ）：适用于使用频率较少的场合，渠道安装，分块启吊。

平面闸门（PGZ）：承受水头较大，外形规格不受限制，广泛适用于水利水电工程中工作闸门、事故闸门、检修闸门等。

水利闸门（SLZ）：外形尺寸较大，可制成推转式、横拉式，可单扇也可双扇，采用电液推杆或卷扬机操作，广泛适用于泄洪、河道换水等水利工程。



The steel gate is an ordinary water damming and stopping equipment in water supply and sewerage engineering and hydraulic and hydropower engineering. We can provide you the steel gates complete in varieties, which can be applied in various places. Based on the structural forms, they can be divided into the following five kinds:

Sliding Gate (CBZ): Stopping water in three sides, good in seal, suitable for installation in channels.

Water Control Gate (ZSZ): Stopping water on all sides, suitable for installation in channels and hole-walls, bearing water head is less than 5m.

Lapping Beam Gate (DLZ): Suitable in the places where the operational frequency is lower, installation in channels and lifting by piecemeal.

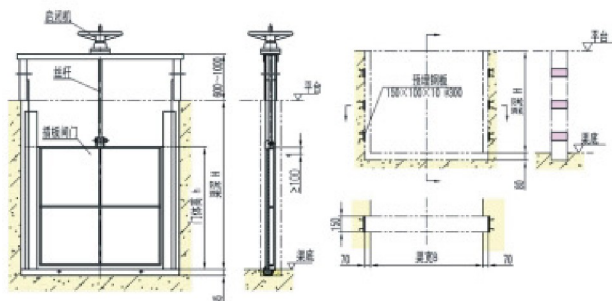
Plane Gate (PGZ): Bearing bigger water head. Outline specifications are not limited. Widely used as working gate, emergency gate and service gate in hydraulic and hydropower engineering.

Hydraulic Gate (SLZ): Outline dimensions are bigger; forms are various such as pushing & rotating and horizontal pulling; Single door or double door can be used; electrical-hydraulic pushing or hoister operating. Widely used in hydraulic projects such as floodwater releasing, water replacing for channels and other hydraulic engineering.

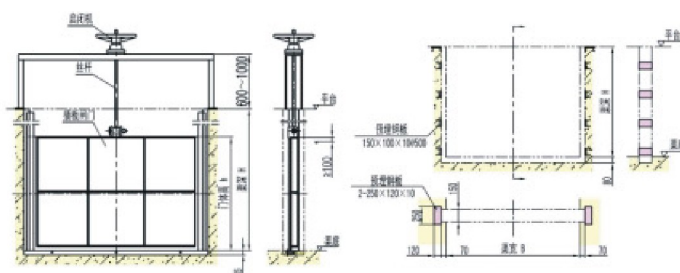
● 钢闸门分类及表示方式 Classification and Expression of Steel Gate

钢闸门形式	型号表示方式	材质说明	适用场合	订货说明
插板闸门	CBZ-□×□ └─┬─┘ 门体高度 (mm) 渠道宽度 (mm)	碳钢或不锈钢	三面止水， 渠道安装。	须注明渠道深度及启闭方式。
制水闸门	ZSZ-□×□ └─┬─┘ 洞口高度 (mm) 洞口宽度 (mm)	碳钢或不锈钢	四面止水 洞口安装， 水头较低， 依靠斜块楔实止水。	须注明H及承受水头。
叠梁闸门	DLZ-□×□ └─┬─┘ 门体高度 (mm) 渠道宽度 (mm)	碳钢、铝合金或不锈钢	三面止水， 多块叠加， 使用频率少。	订货须注明H渠道深度。
平面闸门	PGZ-□×□ └─┬─┘ 洞口高度 (mm) 洞口宽度 (mm)	碳钢或不锈钢	承受水头较高， 依靠静水压力止水。	须注明H及承受水头，注明启闭的水头。闸槽也可采用耐腐蚀的铸铁闸槽。
水利闸门	SLZ-□×□ └─┬─┘ 门体高度 (mm) 渠道宽度 (mm)	碳钢或不锈钢	三面止水， 渠道安装， 用于水利工程中。	订货时注明渠道宽度及启闭形式。

● CBZ型插板闸门安装及埋件 Installation and Embedding of Type CBZ-Sliding Gate



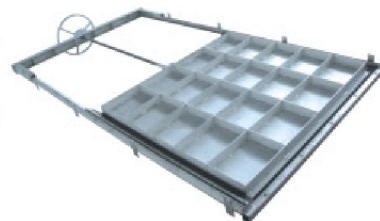
适用渠道宽度 $B \leq 2000\text{mm}$



适用渠道宽度 $B > 2000\text{mm}$

● 钢闸门启闭力计算与启闭机选用 Calculation for Start-stop Force and Choice for Headstock Gear for Steel Gates

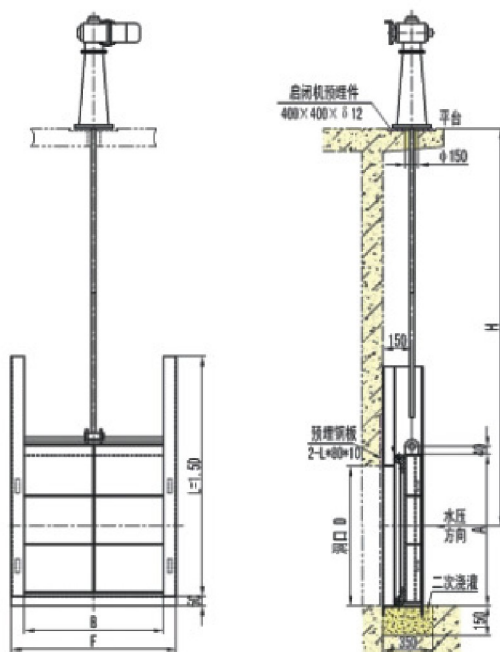
1. CBZ型配套专用启闭装置，仅需注明手动或电动即可，无需另外注明启闭机型号。
2. ZSZ型按铸铁闸门启闭力计算方法计算。
3. DLZ型采用电动单梁吊车（电动葫芦、手动葫芦）配抓落机构启闭，宽度在1.5m以内，且深度合适时，可采用手提操作，建议采用铝合金门体。
4. PGZ型可按启闭力配用我公司生产的Q系列启闭机，也可用卷扬式启闭机、电动葫芦配自动抓落机构。启闭力应按启闭门时的静水压力状况区别对待：
 - (1)静水启闭（如某些检修闸门、设有旁路放水系统）时，启闭力为门体自重，闭门力不考虑。
 - (2)动水启闭（如放水闸门、事故闸门、冲砂闸门），启闭力按铸铁闸门启闭计算。
 - (3)大型闸门承受水压较大时，为降低启闭力，可在闸门上设放水阀（水位平衡装置），在打开闸门前先平衡两侧水位，此型在订货时应注明，其启闭力同上述(1)。



1. If you need type-CBZ matched start-stop equipments, please note the start-stop mode is hand or electrical, type is needless.
2. The calculation for start-stop force of Type ZSZ can be done as the method of cast-iron gates.
3. The electric single beam crane (electric hoist or chain hoist) matched with other lifting mechanism is adopted for the start-stop for Type DLZ. If the width is within 1.5m and the depth is proper, the portable operation can be adopted. Aluminum alloy door is proposed.
4. According to its start-stop force, type PGZ can match series Q start-stop machine of our company. It can match winding start-stop machines too, as the electric hoist matched with automatic lifting devices. The start-stop force should be calculated according to the hydrostatic pressure at starting or stopping the gate.
 - (1)When starting and closing gate is under hydrostatic pressure (such as service gate or the gate with shunt drain system), the starting force is the deadweight of the gate body and the gate-closing force is not considered.
 - (2)When starting and closing gate at hydrodynamic pressure (such as draining gate, emergency gate and washout valve), the start-stop force should be calculated as that of cast-iron gate.
 - (3)When the large type of gate bears bigger water pressure, in order to reduce its start-stop force, a water-escape valve (balance device for water level) can be settled on the gate. It is necessary to balance the level between both sides before opening the gate. Please note this type when ordering. The start-stop force is the same to (1) above.



● ZSZ 型制水闸门安装及埋件图 The Drawings About Installation and Embedding for Type ZSZ Making Water Gate





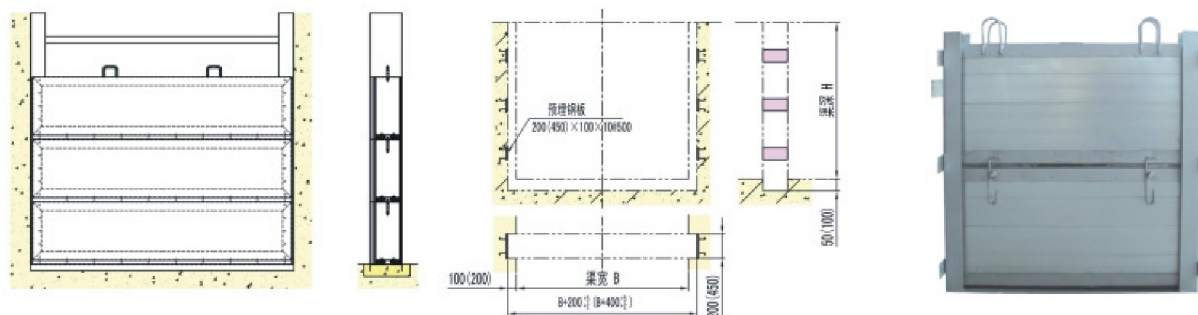
TYPE-Z SERIAL STEEL GATES

● ZSZ型制水闸门参数表 The Parameters for Type ZSZ Making Water Gate

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公称通径	A	B	D	F	公称通径	A	B	D	F
300×300	350	300	300	460	1400×1400	1450	1400	1400	1560
400×400	450	400	400	560	1500×1500	1550	1500	1500	1660
500×500	550	500	500	660	1600×1600	1650	1600	1600	1760
600×600	650	600	600	760	1700×1700	1750	1700	1700	1860
700×700	750	700	700	860	1800×1800	1850	1800	1800	1960
800×800	850	800	800	960	1900×1900	1950	1900	1900	2060
900×900	950	900	900	1060	2000×2000	2050	2000	2000	2160
1000×1000	1050	1000	1000	1160	2100×2100	2150	2100	2100	2260
1100×1100	1150	1100	1100	1260	2200×2200	2250	2200	2200	2360
1200×1200	1250	1200	1200	1360	2300×2300	2350	2300	2300	2460
1300×1300	1350	1300	1300	1460	2400×2400	2450	2400	2400	2560

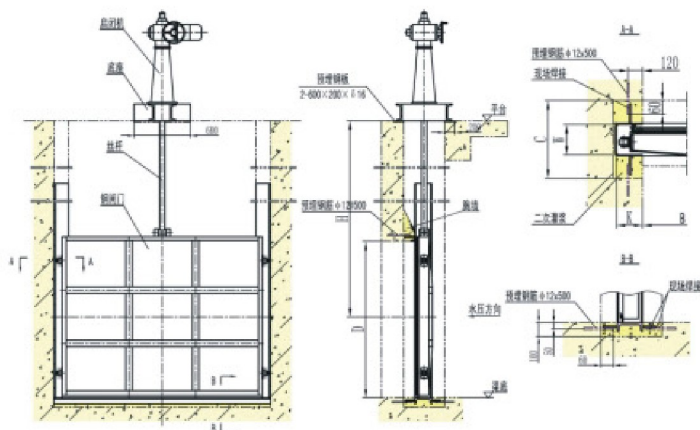
DLZ 型叠梁闸门安装及埋件图 The Drawings About Installation and Embedding for Type DLZ Lapping Beam Gate



预埋件图 (括号外尺寸用于 $B \leq 1500$, 括号内尺寸用于 $B > 1500$)

● PGZ 型平面钢闸门静水启闭安装及埋件图

The Drawings About Installation and Embedding for Type PGZ Plane Steel Gate (start-stop hydrostaticly)



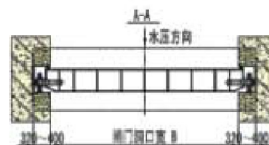
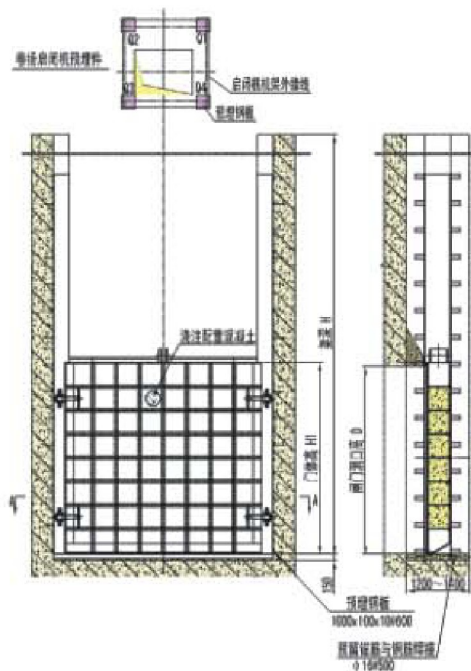
B(m)	C(mm)	W(mm)	K(mm)
<2.5	475	250	220
≥ 2.5	600	420	260

注:

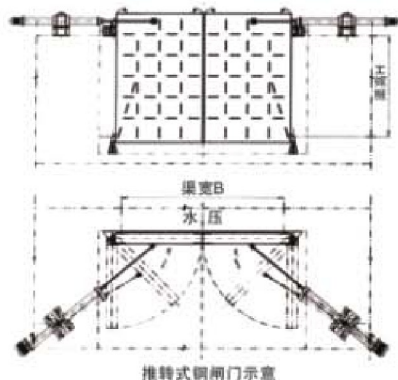
- 1、本图为四面止水钢闸门安装图，若上部无需止水时，可取消胸墙。
- 2、 $B > 3\text{m}$ 且 $B/h > 2$ 或 $B > 4\text{m}$ 时，应采用双吊点启闭机，吊点间距为 $B/2$ 。

PGZ 型平面钢闸门动水启闭安装及埋件图

The Drawings About Installation and Embedding for Type PGZ Plane Steel Gate (start-stop hydrodynamically)

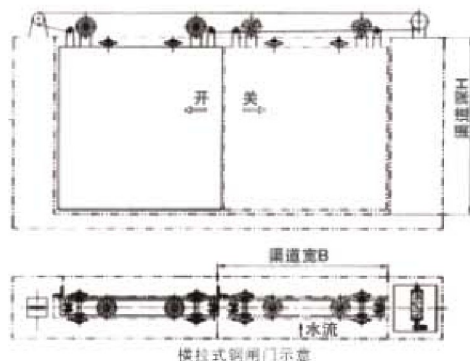


SLZ 型钢闸门安装示意图 Scheme of Installation About SLZ-Steel Gate



推转式用于各种水利工程中，采用电液推杆的推力来进行闸门的开启与闭合，结构简单，性能可靠。可根据具体情况提供详细资料。

This cracking steel gate is used variously in hydraulic projects. By using the pushing force of electrical-hydraulic pushing unit, it can open and close the gate. It is simple in structure and reliable in operation. Detailed information can be provided as the case may be.



横拉式用于各种水利工程中的河道，用于泄洪、排涝，用卷扬机构来进行闸门的开启和关闭，安装方便，工作可靠，当跨度较大时可设计成对拉式。可根据具体情况提供详细资料。

This horizontal pulled steel gate is used variously in hydraulic projects to release floodwater and drain flood. The door is opened and closed by hoister. It is easy to install and reliable to operate. When the span is too big, it can be designed as double sliding doors. Detailed information can be provided as the case may be.

