



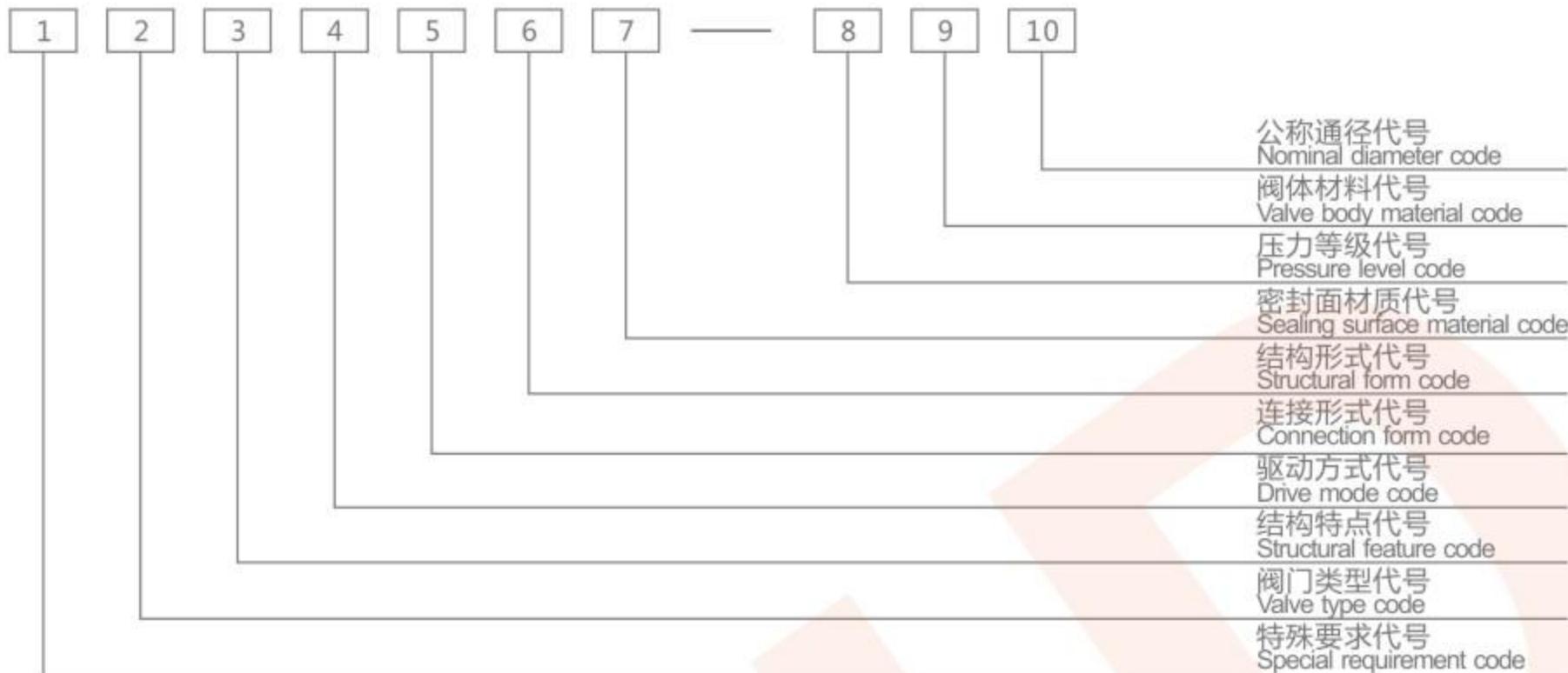
VALVE SELECTION GUIDE

阀门选型指南

KHD华都阀门集团
HUADU VALVE GROUP

阀门选型指南 VALVE SELECTION GUIDE

编制说明 Preparation instructions



1. 特殊要求代号 Special code

| 代号 Code | 含义 Meaning | 代号 Code | 含义 Meaning | 代号 Code | 含义 Meaning |
|------------|------------------------------|------------|---------------------------|------------|--------------------------------|
| K | 抗硫型 Sulfur resistant type | L | 加长杆型 Extended rod type | P | 排渣型 Slagging type |
| D | 低温型 Low temperature type | B | 保温型 Insulation type | LX | 两相流型 Two-phase flow pattern |
| W | 波纹管型 Bellows type | C | 带吹扫型 With purging type | NM | 耐磨型 Wear-resistant type |
| F | 防火型 Fireproof type | Ds | 水封型 Water sealed type | HH | 缓闭式 Slow closing type |

- 注：①抗硫型阀门如无指定内件材料，将按照我公司标准进行内件材料选型；
 ②低温型阀门需注明最小温度，以便我公司采取适宜的工艺措施；
 ③加长杆型阀门需执行阀门的加长杆高度。
 ④带吹扫型需注明是带一个吹扫孔还是两个吹扫孔。一个代号为C1，两个代号为C2。

Note: ①If there is no specified internal material for sulfur resistant valves, the selection of internal material will be based on our company's standards;
 ②Low temperature valves need to indicate the minimum temperature so that our company can take appropriate process measures
 ③Extended stem valves require the height of the valve's extended stem to be executed.
 ④The type with blowing should indicate whether it is equipped with one blowing hole or two blowing holes. One code is C1, and two codes are C2.

2. 阀门类型代号 Valve type code

| 阀门类别 Valve category | 代号 Code | 阀门类别 Valve category | 代号 Code | 阀门类别 Valve category | 代号 Code | 阀门类别 Valve category | 代号 Code |
|-----------------------------------|------------|----------------------------------|------------|--|------------|-------------------------------------|------------|
| 闸阀 Gate valve | Z | 一般球阀 General ball valve | Q | 节流阀 Throttle valve | L | Y型过滤器 Y-shaped filter | YG |
| 水封闸阀 Water seal gate valve | Zs | 轨道球阀 Rail ball valve | Qg | 蝶阀 Butterfly valve | D | 篮式过滤器 Basket filter | LG |
| 刀型闸阀 Knife gate valve | Zd | 一体式球阀 Integrated ball valve | Qy | 伸缩蝶阀 Telescopic butterfly valve | SD | 取样阀 Sampling valve | Y |
| 止回阀 Check valve | H | 上装式球阀 Top mounted ball valve | Qs | 上展示放料阀 Shown on the discharge valve | Fs | 料浆阀 Slurry valve | LJ |
| 轴流式止回阀 Axial flow check valve | ZLH | 顶装式球阀 Top mounted ball valve | Qd | 下展示放料阀 Lower display of discharge valve | Fx | 双向承压面旋转阀 SXQ | |
| 贯穿式止回阀 Throughflow check valve | GLH | 全焊接球阀 Fully welded ball valve | Qw | 柱塞阀 Plunger valve | U | 抗生素截止阀 Antibiotic shut-off valve | JK |
| 蝶式止回阀 Butterfly Check Valve | HE | V型球阀 V-shaped ball valve | Qv | 旋塞阀 Plug valve | X | 氧气截止阀 Oxygen shut-off valve | Jy |
| 球形止回阀 Ball check valve | HQ | 截止阀 Globe valve | J | 截止止回阀 Stop check valve | JH | 氧气截止阀 Oxygen shut-off valve | Jh |

3. 结构特点代号 (适用于管线球阀，其他阀门此代号省略) Structural characteristics code

| 代号 Code | 含义 Meaning | 代号 Code | 含义 Meaning |
|------------|--|------------|---|
| W | 体、盖焊接结构 Welding structure of body and cover | G | 体球形 (GWB型) 全焊接管线球阀 Spherical (GWB type) fully welded pipeline ball valve |

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4. 驱动方式代号 Driving mode code

| 代号 Code | 阀门类别 Valve category | 代号 Code | 阀门类别 Valve category | 代号 Code | 阀门类别 Valve category | 代号 Code | 阀门类别 Valve category |
|------------|----------------------------------|------------|--|------------|-----------------------------|------------|----------------------------|
| 3 | 蜗轮传动 Worm gear transmission | 6 | 气动(无手动) Pneumatic (without manual) | 6B | 气动 Qi Guan | 9 | 电动 Electric |
| 4 | 正齿轮传动 Spur gear transmission | 6S | 气动带手动 Pneumatic with manual operation | 7 | 液动 Hydrodynamic | 9B | 防暴电动 Anti riot electric |
| 5 | 伞齿轮传动 Bevel gear transmission | 6K | 气开 Qikai | 8 | 气-液动 Pneumatic hydraulic | 省略 | 手动 Manual |

5. 连接形式代号 Connection form code

| 代号 Code | 连接形式 Connection form | 代号 Code | 连接形式 Connection form | 代号 Code | 连接形式 Connection form | 代号 Code | 连接形式 Connection form |
|------------|----------------------------|------------|----------------------------------|------------|--------------------------|------------|-------------------------|
| RF | 凸面法兰 Raised face flange | M | 凸面法兰 Raised face flange | T | 榫面法兰 Tenon flange | BW | 对接焊 Butt welding |
| FM | 凹面法兰 Concave flange | RJ | 环连接法兰 Replace the link flange | G | 槽面法兰 Grooved flange | | |
| 1 | 内螺纹 Internal thread | 8 | 卡箍连接 Clamp connection | 7 | 对夹连接 Clamp connection | | |
| 2 | 外螺纹 External thread | 9 | 卡套 Ferrule | SW | 承插焊 Socket welding | | |

注：法兰和焊接端代号为本公司代号，如需采用国家标准代号，则法兰连接代号为4，焊接端代号为6，订货时需说明为何种形式的法兰和焊接方式。

Note: The flange and welding end codes are our company codes. If a national standard code is required, the flange connection code is 4, and the welding end code is 6. When ordering, it is necessary to indicate the type of flange and welding method.

6. 结构形式代号 Structural code

闸阀 Gate valves

| 结构形式 Structural style | | 代号 Code |
|--------------------------|--|------------------------------|
| 明杆 Rising Stem | | 弹性闸阀 Elastic gate valve 0 |
| | | 楔式 Wedge 1 |
| | | 刚性 Rigidity 2 |
| | | 平行式 Parallel type 3 |
| | | 平行式 Parallel type 4 |
| | | 楔式 Wedge 5 |
| | | 刚性 Rigidity 6 |
| | | 平行式 Parallel type 7 |
| | | 平行式 Parallel type 8 |
| | | |

截止阀、节流阀、料浆阀 Globe valve, throttle valve, slurry valve

| 结构形式 Structural style | | 代号 Code |
|------------------------------|------------------------------|------------|
| 直通式 Straight through type | | 1、2 |
| 角式 Angular equation | | 3、4 |
| Y型 DC type | | 5 |
| 平衡 Balance | 直通式 Straight through type | 6 |
| | 角式 Angular equation | 7 |

止回阀 Check valve

| 结构形式 Structural style | | 代号 Code |
|--------------------------|------------------------------|------------|
| 升降 Lifting | 直通式 Straight through type | 1 |
| | 立式 vertical | 2 |
| | 角式 Angular equation | 3 |
| 旋启 Swing | 单瓣 Unipetal | 4 |
| | 多瓣式 Multi petal type | 5 |
| | 双瓣式 Double petal type | 6 |

球阀 Ball valve

| 结构形式 Structural style | | 代号 Code |
|--------------------------|------------------------------|------------|
| 浮动 Float | 直通式 Straight through type | 1 |
| | Y型 Y-shaped | 2 |
| | L型 L-shaped | 4 |
| | T型 T-shaped | 5 |
| | | |
| 固定 Regular | 直通式 Straight through type | 7 |
| | 四通 Cross connection | 6 |
| | L型 L-shaped | 8 |
| | T型 T-shaped | 9 |

蝶阀 Butterfly valve

| 结构形式 Structural style | | 代号 Code | 结构形式 Structural style | | 代号 Code |
|--------------------------|----------------------------|------------|---------------------------|----------------------------|------------|
| 密 封型 Sealed type | 中线式 Midline type | 1 | 非密 封型 Unsealed type | 中线式 Midline type | 6 |
| | 双偏心 Double eccentricity | 2 | | 双偏心 Double eccentricity | 7 |
| | 三偏心 Triple eccentricity | 3 | | 三偏心 Triple eccentricity | 8 |
| | 连杆机构 Linkage mechanism | 4 | | 连杆机构 Linkage mechanism | 9 |
| | | | | | |

旋塞阀 Cock

| 结构形式 Structural style | | 代号 Code |
|--------------------------|------------------------------|------------|
| 填料 Filler | 直通式 Straight through type | 3 |
| | T型三通式 T-shaped three-way | 4 |
| | 四通式 Four way equation | 5 |
| 油封 Oil seal | 直通式 Straight through type | 7 |
| | T型三通式 T-shaped three-way | 8 |

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减压阀 Pressure reducing valve

| 结构形式 Structural style | 代号 Code |
|-------------------------------|------------|
| 薄膜式 Thin film type | 1 |
| 弹簧薄膜式 Bunsen membrane type | 2 |
| 活塞式 Piston type | 3 |
| 波纹管式 Bellows type | 4 |
| 杠杆式 Lever type | 5 |

疏水阀 The steam trap

| 结构形式 Structural style | 代号 Code |
|--------------------------------|------------|
| 浮球式 Floating ball type | 1 |
| 双金属片式 Bimetallic sheet type | 7 |
| 脉冲式 Pulse type | 8 |
| 热动力式 Thermodynamic | 9 |

7、密封面材质代号 Sealing surface material code

| 阀座密封面材料 Valve seat sealing surface material | 代号 Code | 阀座密封面材料 Valve seat sealing surface material | 代号 Code | 阀座密封面材料 Valve seat sealing surface material | 代号 Code |
|---|------------|--|------------|--|------------|
| 铁基合金 Iron based alloy | H | 蒙乃尔合金 Monel alloy | M | PTFE+碳纤+Cu PTFE+carbon fiber+Cu | FC |
| 聚四氟乙烯 teflon | F | 巴氏合金 Babbitt alloy | B | PTFE+碳纤 PTFE+carbon fiber | FS |
| 橡胶 rubber | X | 巴氏合金 Babbitt alloy | A | 304 three hundred and four | P |
| 内衬橡胶 Rubber lining | J | 铜合金 copper alloy | T | 316 three hundred and sixteen | R |
| 硬质合金/司太立合金 Hard alloy/Taili alloy | Y | 对位聚苯PPL Para Polyphenylene PPL | FP | 内衬聚四氟乙烯 (全衬) Lined with polytetrafluoroethylene (fully lined) | F4 |
| 本体直接加工 Direct processing of the body | W | 聚醚酮PEEK Polyether ether ketone PEEK | FP | 内衬聚全氟乙炳烯 (全衬) Lined with perfluoroethylene (fully lined) | F46 |
| 增强聚四氟乙烯 Reinforced polytetrafluoroethylene | FR | 钼龙 Molybdenum dragon | FM | 体内衬F4/板CF8 Inner lining F4/plate CF8 | F4/P |
| 高温聚四氟乙烯 High temperature polytetrafluoroethylene | FG | 尼龙NYLON Nylon | N | 体内衬F46/板CF8 Inner lining F46/plate CF8 | F46/P |

8、压力等级代号 Pressure rating code : 公称压力以公斤 (bar) 表示 , 磅级以实际数

9、阀体材料代号 Valve body material code

| 阀体材料 Material | 代号 Code | 阀体材料 Material | 代号 Code | 阀体材料 Material | 代号 Code |
|------------------|------------|------------------------|------------|---------------------------|------------|
| A105 | C1 | 1Cr5Mo | I1 | 304/0Cr18Ni9 | P1 |
| WCB | C2 | ZGCr5Mo | I2 | Cf8 | P2 |
| LCB | C3 | F11 | I3 | 1Cr18Ni9Ti | P3 |
| LF1 | C4 | C5 | I4 | 304/00Cr18Ni10 | P11 |
| LCC | C5 | WC5 | I5 | Cf3 | P12 |
| LF2 | C6 | WC6 | I6 | 316/00Cr18Ni12Mo2Ti | R1 |
| 12CrMoV | V1 | 15CrMo | I7 | CF8M | R2 |
| 15CrMoV | V2 | TA2 | A | 316/00Cr17Ni14Mo2Ti | R11 |
| F22 | V3 | 蒙乃尔合金 Monel alloy | M | CF3M | R12 |
| WC9 | V4 | 可锻铸铁 Malleable iron | K | 球墨铸铁 Nodular cast iron | Q |

注 : ①PN≤1.6MPa的灰铸铁阀门 , 省略本代号 ;

Note: ① For grey cast iron valves with PN ≤ 1.6MPa, this code is omitted;

②PN≥2.5MPa的碳素钢阀体 , 省略本代号 ;

② For carbon steel valve bodies with PN ≥ 2.5MPa, this code is omitted;

10、公称通径代号 Nominal size code : 全通径省略 , 缩径的阀门在通径后加S。

Nominal diameter code: Omit the full diameter, and add S after the diameter for valves with reduced diameter.

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阀门引用标准 Valve reference standard

| 阀门类型 Valve type | | 设计制造 Design and manufacturing | 结构长度 Structure length | 连接端 Connection end | 检验试验 Inspection test | 壳体壁厚 Shell wall thickness | |
|-----------------------|---------------------------------------|----------------------------------|---|-----------------------|---|------------------------------|--------------------------------------|
| 闸阀 Gate valve | 一般闸阀 General gate valve | 国标 National Standard | GB/12234 | GB/T 12221 | GB/T 9113 HG 20592 JB/T 79 | GB/T 26480 GB/T 13927 | |
| | 平板闸阀 Flat gate valve | | JB/5298 GB/T 23300 | | | | |
| | 刀闸阀 Knife gate valve | | JB/T 8691 | | | | |
| | 闸阀/平板闸阀 Gate valve/flat gate valve | 美标 American Standard | API 600 API 602 API 6D | ASME B16.10 API 6D | ASME B16.5 ASME B16.47 ASME B16.11 ASME B16.25 | API 598 API 6D | |
| | 刀闸阀 Knife gate valve | | MSS SP-81 MSS SP-135 | | | | |
| 截止阀 Globe valve | | 国标 National standard | GB/T 12235 | GB/T 12221 | GB/T 9113 HG 20592 JB/T 79 | GB/T 26480 GB/T 13927 | GB/T 12224 GB/T 12235 GB 26640 |
| | | 美标 American standard | BS 1873 API 602 | ASME B16.10 | ASME B16.5 ASME B16.47 ASME B16.11 ASME B16.25 | API 598 | BS 1873 ASME B16.34 |
| 止回阀 Check valve | | 国标 National standard | GB/T 12236 | GB/T 12221 | GB/T 9113 HG 20592 JB/T 79 | GB/T 26480 GB/T 13927 | GB/T 12224 GB/T 12236 GB 26640 |
| | | 美标 American standard | BS 1868 API 594 API 602 API 6D | ASME B16.10 API 6D | ASME B16.5 ASME B16.47 ASME B16.11 ASME B16.25 | API 598 API 6D | BS 1868 ASME B16.34 |
| 球阀 Ball valve | | 国标 National standard | GB/T 12237 | GB/T 12221 | GB/T 9113 HG 20592 JB/T 79 | GB/T 26480 GB/T 13927 | GB/T 12224 GB/T 12234 GB 26640 |
| | | 美标 American standard | API 608 API 6D | ASME B16.10 API 6D | ASME B16.5 ASME B16.47 ASME B16.11 ASME B16.25 | API 598 API 6D | ASME B16.34 |
| 蝶阀 Butterfly valve | | 国标 National standard | GB/T 12238 | GB/T 12221 | GB/T 9113 HG 20592 JB/T 79 | GB/T 13927 GB/T 26480 | GB/T 12224 GB/T 12234 GB 26640 |
| | | 美标 American standard | API 609 | API 609 | ASME B16.5 ASME B16.47 | API 598 | ASME B16.34 |

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阀门引用标准 Valve reference standard

| 阀门类型 Valve type | | 设计制造 Design and manufacturing | 结构长度 Structure length | 连接端 Connection end | 检验试验 Inspection test | 壳体壁厚 Shell wall thickness |
|------------------------------|----------------------------|-------------------------------------|---------------------------|---|--------------------------|---------------------------------------|
| 旋塞阀 Plug | 国标 National Standard | GB/T 22130 | GB/T 12221 | GB/T 9113 HG 20592 JB/T 79 | GB/T 26480 GB/T 13927 | GB 26640 GB/T 12224 |
| | 美标 American Standard | API 599 API 6D | ASME B16.10 | ASME B16.5 ASME B16.47 ASME B16.11 ASME B16.25 | API 598 API 6D | ASME B16.34 |
| 疏水阀 Drain valve | | GB/T 22654 | GB/T 12250 | GB/T 9113 HG 20592 JB/T 79 | GB/T 12251 | GB 26640 GB/T 12224 |
| 隔膜阀 Diaphragm valve | | GB/T 12239 | GB/T 12221 | GB/T 9113 HG 20592 JB/T 79 | JB/T 9092 | GB 26640 GB/T 12224 |
| 减压阀 Pressure relief valve | | GB/T 12244 GB/T 12246 | JB/T 2250 | GB/T 9113 HG 20592 JB/T 79 | GB/T 12245 | GB 26640 GB/T 12224 |
| 电站阀 Power station valve | | JB/T 3595 | GB/T 12221 ASME B16.10 | GB/T 9113 HG 20592 JB/T 79 ASME B16.5 ASME B16.25 | JB/T 3595 | GB 26640 GB/T 12224 ASME B16.34 |

性能规范 performance specification

| 公称压力 Nominal pressure | PN | Class |
|---|---|------------|
| | 2.5~420 | 150~2500Lb |
| 壳体(强度)试验 Shell(strength) test | 38°C (100F) 时材料压力额定值的 1.5倍 1.5 times the material pressure rating at 38°C (100F) | |
| 高压密封试验(水) High pressure sealing test (water) | 38°C (100F) 时材料压力额定值的 1.1倍 1.1 times the material pressure rating at 38°C (100F) | |
| 低压密封试验(气) Low pressure sealing test (gas) | 0.4~0.7MPa | |
| 规格 Specifications | 15~1000 | 1/2"~40" |
| 适用温度(°C) Applicable temperature (°C) | | -196~550 |
| 适用介质 Applicable medium | 水、蒸汽、油品、液化气、天然气、硝酸类、醋酸类 Water, steam, oil products, liquefied gas, natural gas, nitric acid, acetic acid | |