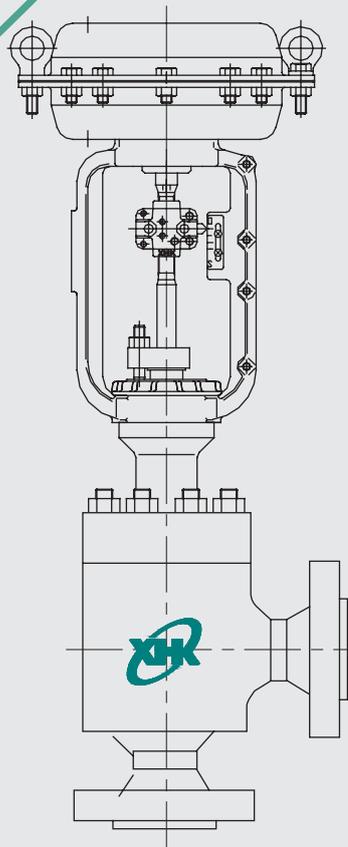


G404 高压多段式角阀

HIGH PRESSURE ANGLE CONTROL
VALVES



阀门选型手册

**VALVE SELECTION
HANDBOOK**

概 要

G404 高压角型调节阀具有单座、多级降压不平衡型和平衡型三种结构形式, 适合于高温、高压流体的调节、切断控制, 尤其适用于浆料、聚合物、结晶体等含颗粒物的流体控制。

GENERAL

G404 High Pressure Angle Type Control Valves with three structure types. Such as Single Seated, Multi-step unbalance & Multi-step balance trims is suited for High temperature, High pressure fluids control, especially for slurry, polymer, slurry materials & entrained particles fluids.

标准规格 STANDARD SPECIFICATIONS

本体部 BODY

| | | | |
|----------------|---------------------------|---|--|
| 形 式 | Type | 不平衡阀芯型, 平衡阀芯型 | Unbalance plug type, Balanced plug type |
| 公称通径 | Body size | 0.5"~4" (15A~100A 即 DN15~DN100) *1 | |
| 阀芯形状 | Plug form | P 孔单座、多段式阀芯 | P-port single seated, Multi-step plug |
| 流量特性 | Characteristics | 线性、等百分比(P 孔) | Linear, Equal percentage (for P-port) |
| 阀内件材质 | Trim materials | 标准材质组合及使用温度, 请参见表 1。 | |
| 阀内件处理 | Trim treatment | See Tables 1 for hardening treatment and operating temperature. | |
| 公称压力 | Body ratings | ANSI Class 900,1500,2500 | |
| 连接方式 | Body connections | 法兰型 (RF & RTJ)、焊接型 (BW、SW, 其法兰距请与 我们确认。) Flanged(RF & RTJ), Weld ends (BW & SW, Face to Face dimension please consult with us.) | |
| 法 兰 距 | Face to Face dimension | 请参见第 10-13 页。 See pages 10-13. | |
| 阀 体 及 上阀盖材质 | Body & Bonnet Material | A105, F304, F316 各种材质的使用温度·压力范围, 请参见表 1 和表 2。 As to the operating pressure-temperature limitation for each material, see Table 1 and 2. | |
| 上阀盖形式 | Bonnet type | 标准型 Standard type | : -5 ~ +230℃ |
| | | 散热片型 Fin-Extension type | : -45 ~ -5℃ 或者超过 230℃ 的场合 -45 ~ under -5℃ or over +230℃ |
| | | 加长型 Long-Extension type | : -196 ~ -45℃ |
| | | 但必须注意各种材质的使用温度·压力范围。 Note: The allowable operating pressure-temperature limitation for each material. | |
| 填 料 | Packing | 聚四氟乙烯碳纤维、柔性石墨。 Teflon fiber, Grafoil. | |
| 垫 圈 | Gasket | 缠绕式垫圈 (聚四氟乙烯 / 316、柔性石墨 / 316) Spiral wound metal, with Grafoil or Teflon filler. | |
| 表面涂层 | Painting color | 墨绿色环氧树脂。阀体材质为不锈钢时, 本体部不加涂层。 Dark Green Epoxy resin group is standard In case of stainless steel body, no painting is standard. | |

*1 当阀门口径大于 4" (DN100), 请与 我们确认。
When Valve size is above 4" (100A), please consult us.

执行机构 ACTUATOR

| | | |
|--|--|---|
| 规格 Specification | 型号 Type | 气动薄膜式 Diaphragm type |
| | | 1000LA |
| | | 多弹簧型 Multi-Spring type |
| 用途 Purpose | | 调节 Modulation |
| 供气压力 (弹簧范围) Air supply (Spring range) | | 300 (80~200) KPa G |
| 接口 Connection | | Rc1/4 |
| 正作用 Direct action | | 气压增加阀闭 Air to valve shut |
| 反作用 Reverse action | | 气压增加阀开 Air to valve open |
| 回差 Hysteresis | | ≤ 1% FS (带定位器) ≤ 1% of Full Stroke with positioner |
| 线性 Linearity | | ≤ 2% FS (带定位器) ≤ 2% of Full Stroke with positioner |
| 允许环境温度 Ambient Temp. | | 标准型 Standard type -10 ~ +70℃ 高温型 High Temp.service 0~ +100℃ 低温型 Low Temp.service -40 ~ +40℃ |
| 标准涂层色 Painting | | 墨绿色 (环氧树脂) Dark Green Epoxy resin group is standard. |
| 选购设备 Option | 电气定位器、气气定位器、过滤减压阀、电磁阀、限位开关、调速器、锁止阀、限位件、手动操作机构。 E/P-Positioner, P/P-Positioner, Air-set, Solenoid valve, Limit switch, Speed controller Lock valve, Lock-up valve Manual handle, etc | |

性能 PERFORMANCE

| | | | |
|-----------|--------------------------|---------|--------------------------|
| 额 定 Cv 值 | Rated Cv | 请参见表 3。 | See Table 3. |
| 流 量 特 性 | Flow characteristics | 线性、等百分比 | Linear, Equal percentage |
| 可 调 比 R | Rangeability | 50 : 1 | |
| 阀 座 泄 漏 量 | Seat Leakage | 请参见表 1。 | See Table 1. |
| 允 许 压 差 | Allowable pressure drops | 请参见表 4。 | See Table 4. |

表 1. 阀体、阀内件材质组合及使用温度范围·阀座允许泄漏量

Table 1. BODY/TRIM STANDARD MATERIAL COMBINATION, OPERATING TEMPERATURE AND SEAT LEAKAGE.

- R.TFE : 强化聚四氟乙烯 Reinforced Teflon
- PS: 堆焊司太莱合金 Partial stellite
- HT : 热处理 Heat treatment
- SF: 全部堆焊司太莱合金 Stellite full surface
- PH : 析出硬化热处理 Precipitation hardening
- SS: 部分堆焊司太莱合金 Stellite seat surface

表 1-1 G401 高压单座角阀

Table 1-1 G401 SINGLE SEATED TYPE

| 阀体材质 Body material | | A105 | | F304, F316 | |
|-------------------------|--------------|-----------|-----------|------------|-------------|
| 阀芯 Plug | 材质 material | 440C | 316 | 316 | 316 |
| | 处理 treatment | HT | SF | SF | SF |
| 阀座 Seat ring | 材质 material | 440C | 316 | 316 | 316 |
| | 处理 treatment | HT | SF | SF | SF |
| 导向套 Guide | 材质 material | 440B | 440B | 316 | 316 |
| | 处理 treatment | HT | HT | PS | PS |
| 垫圈 Gasket | 材质 material | T/#1806GR | T/#1806GR | T/#9090 | T/#1806GR |
| 阀座允许泄漏量 Seat Leakage | ANSI | Class IV | Class IV | Class IV | Class IV |
| | Rated Cv × | 0.01% | 0.01% | 0.01% | 0.01% |
| 使用温度 Operating Temp. °C | | -5 ~ +425 | -5 ~ +425 | -75 ~ +230 | -196 ~ +565 |

表 1-2 G404 高压多段式角阀

Table 1-2 G404 MULTI-STEP UNBALANCED TYPE

| 阀体材质 Body material | | A105 | F304, F316 | |
|-------------------------|--------------|-----------|------------|-------------|
| 套筒 Cage | 材质 material | 17-4PH | 316 | 316 |
| | 处理 treatment | PH | — | — |
| 阀芯 Plug | 材质 material | 440C | 316 | 316 |
| | 处理 treatment | HT | SS | SS |
| 阀座 Seat ring | 材质 material | 410 | 316 | 316 |
| | 处理 treatment | HT | SF | SF |
| 垫圈 Gasket | 材质 material | T/#1806GR | T/#9090 | T/#1806GR |
| 阀座允许泄漏量 Seat Leakage | ANSI | Class IV | Class IV | Class IV |
| | Rated Cv × | 0.01% | 0.01% | 0.01% |
| 使用温度 Operating Temp. °C | | -5 ~ +425 | -75 ~ +230 | -196 ~ +565 |

表 1-3 G402 高压平衡角

Table 1-3 G402 MULTI-STEP BALANCED TYPE

| 阀体材质 Body material | | A105 | | F304, F316 | | |
|-------------------------|--------------|-----------|--------------|-------------|-------------|--------------|
| 套筒 Cage | 材质 material | 410 | 410 | 316 | 316 | 316 |
| | 处理 treatment | — | — | — | — | — |
| 阀芯 Plug | 材质 material | 440C | 440C | 316 | 316 | 316 |
| | 处理 treatment | HT | HT | SS | SS | SS |
| 阀座 Seat ring | 材质 material | 410 | 410 | 316 | 316 | 316 |
| | 处理 treatment | HT | HT | SF | SF | SF |
| 平衡密封环 Balance seal | 材质 material | R.TFE | 柔性石墨 Grafoil | R.TFE* ① | R.TFE* ① | 柔性石墨 Grafoil |
| | 垫环 treatment | 316 | — | 316 | 316 | — |
| 垫圈 Gasket | 材质 material | T/#1806GR | T/#1806GR | T/#9090 | T/#1806GR | T/#1806GR |
| 阀座允许泄漏量 Seat Leakage | ANSI | Class IV | Class IV | Class IV | Class IV | Class IV |
| | Rated Cv × | 0.01% | 0.01% | 0.01% | 0.01% | 0.01% |
| 使用温度 Operating Temp. °C | | -5 ~ +230 | -5 ~ +425 | -196 ~ +230 | -196 ~ +230 | -196 ~ +565 |

* ① 流体温度在 -75℃ 以下的场合，平衡密封环的材质：Fluoroloy G；垫环材质：Elgiloy。

When the fluid temperature is below -75℃, the materials for the balance seal and the back ring will be Fluoroloy G and Elgiloy, respectively.

表2 阀体材质的使用温度·压力范围

Table 2 BODY MATERIAL/OPERATING PRESSURE-TEMPERATURE RATINGS UNIT : MPa G

| 温度 Temp. ℃ | ANSI Class 900 | | | | | | ANSI Class 1500 | | | | | | ANSI Class 2500 | | | | | |
|------------------|----------------|-------------|------------|------------|-------------|--------------|-----------------|-------------|------------|------------|-------------|--------------|-----------------|-------------|------------|------------|-------------|--------------|
| | SCPL1 | SCPH2 | SCPH21 | SCPH32 | SCS13A | SCS14A | SCPL1 | SCPH2 | SCPH21 | SCPH32 | SCS13A | SCS14A | SCPL1 | SCPH2 | SCPH21 | SCPH32 | SCS13A | SCS14A |
| | LCB | A105 WCB | F11 WC6 | F22 WC9 | F304 CF8 | F316 CF8M | LCB | F105 WCB | F11 WC6 | F22 WC9 | F304 CF8 | F316 CF8M | LCB | F105 WCB | F11 WC6 | F22 WC9 | F304 CF8 | F316 CF8M |
| -196~38 | - | - | - | - | 14.88 | 14.88 | - | - | - | - | 24.79 | 24.79 | - | - | - | - | 41.33 | 41.34 |
| -45~38 | 14.35 | - | - | - | 14.88 | 14.88 | 23.92 | - | - | - | 24.79 | 24.79 | 39.87 | - | - | - | 41.33 | 41.34 |
| -5~38 | 14.35 | 15.31 | 15.50 | 15.50 | 14.88 | 14.88 | 23.92 | 25.51 | 25.84 | 25.84 | 24.79 | 24.79 | 39.87 | 42.52 | 43.07 | 43.07 | 41.33 | 41.34 |
| 50 | 14.18 | 15.01 | 15.33 | 15.35 | 14.34 | 14.43 | 23.64 | 25.02 | 25.55 | 25.58 | 23.90 | 24.04 | 39.40 | 41.70 | 42.59 | 42.64 | 39.84 | 40.07 |
| 100 | 13.52 | 13.90 | 14.62 | 14.70 | 12.25 | 12.65 | 22.53 | 23.16 | 24.36 | 24.50 | 20.42 | 21.09 | 37.56 | 38.62 | 40.61 | 40.85 | 34.01 | 35.14 |
| 150 | 13.18 | 13.56 | 13.90 | 13.98 | 10.89 | 11.54 | 21.96 | 22.60 | 23.18 | 23.30 | 18.16 | 19.24 | 36.60 | 37.66 | 38.61 | 38.84 | 30.26 | 32.07 |
| 200 | 12.79 | 13.14 | 13.63 | 13.45 | 9.82 | 10.69 | 21.32 | 21.89 | 22.73 | 22.40 | 16.37 | 17.83 | 35.53 | 36.50 | 37.88 | 37.35 | 27.28 | 29.71 |
| 250 | 12.17 | 12.51 | 13.33 | 13.26 | 9.15 | 10.02 | 20.28 | 20.84 | 22.22 | 22.10 | 15.26 | 16.68 | 33.80 | 34.75 | 37.03 | 36.83 | 25.43 | 27.80 |
| 300 | 11.30 | 11.61 | 12.72 | 12.72 | 8.71 | 9.49 | 18.84 | 19.36 | 21.20 | 21.20 | 14.52 | 15.80 | 31.40 | 32.26 | 35.33 | 35.33 | 24.20 | 26.34 |
| 350 | 10.78 | 11.08 | 12.06 | 12.06 | 8.42 | 9.12 | 17.96 | 18.46 | 20.11 | 20.11 | 14.02 | 15.20 | 29.95 | 30.78 | 33.51 | 33.51 | 23.36 | 25.36 |
| 375 | | 10.94 | 11.63 | 11.63 | 8.32 | 8.91 | | 18.22 | 19.38 | 19.38 | 13.86 | 14.84 | | 30.37 | 32.32 | 32.32 | 23.12 | 24.74 |
| 400 | | 10.34 | 10.98 | 10.98 | 8.23 | 8.72 | | 17.24 | 18.28 | 18.28 | 13.72 | 14.55 | | 28.73 | 30.47 | 30.47 | 22.87 | 24.25 |
| 425 | | 8.62 | 10.53 | 10.53 | 8.14 | 8.59 | | 14.37 | 17.54 | 17.54 | 13.57 | 14.32 | | 23.94 | 29.23 | 29.23 | 22.63 | 23.87 |
| 450 | | 6.01 | 10.13 | 10.13 | 8.06 | 8.42 | | 10.02 | 16.89 | 16.89 | 13.42 | 14.03 | | 16.68 | 28.16 | 28.16 | 22.37 | 23.38 |
| 475 | | 4.06 | 9.50 | 9.50 | 7.97 | 8.20 | | 6.76 | 15.82 | 15.82 | 13.27 | 13.67 | | 11.28 | 26.36 | 26.36 | 22.13 | 22.79 |
| 500 | | | 8.33 | 8.33 | 7.81 | 8.05 | | | 13.89 | 13.89 | 13.02 | 13.40 | | | 23.15 | 23.15 | 21.71 | 22.34 |
| 525 | | | 6.08 | 6.58 | 7.15 | 7.73 | | | 10.12 | 10.96 | 11.94 | 12.89 | | | 16.88 | 18.26 | 19.88 | 21.47 |
| 550 | | | 3.83 | 4.91 | 6.54 | 7.49 | | | 6.38 | 8.17 | 10.91 | 12.48 | | | 10.63 | 13.63 | 18.17 | 20.79 |
| 575 | | | 2.55 | 3.51 | 6.02 | 7.22 | | | 4.24 | 5.85 | 10.04 | 12.04 | | | 7.08 | 9.74 | 16.72 | 20.07 |
| 600 | | | 1.75 | 2.29 | 5.01 | 6.43 | | | 2.94 | 3.82 | 8.35 | 10.71 | | | 4.90 | 6.36 | 13.92 | 17.85 |
| 625 | | | | | 3.92 | 5.48 | | | | | 6.54 | 9.12 | | | | | 10.89 | 15.20 |
| 650 | | | | | 3.16 | 4.23 | | | | | 5.25 | 7.06 | | | | | 8.75 | 11.76 |
| 675 | | | | | 2.33 | 3.78 | | | | | 3.88 | 6.31 | | | | | 6.45 | 10.53 |

表3 额定Cv及行程

Table 3 Cv VALUE AND STROKE

表3-1 G401 高压单座角 公称压力ANSI Class 900、1500、2500

Table 3-1 G401 SINGLE SEATED BODY RATINGS ANSI Class 900、1500、2500

| 公称通径 Valve size inch (mm) | 阀芯尺寸 Plug size inch (mm) | 额定Cv值 Rated Cv | 行程 (mm) Stroke | 公称通径 Valve size inch (mm) | 阀芯尺寸 Plug size inch (mm) | 额定Cv值 Rated Cv | 行程 (mm) Stroke |
|---------------------------------|--------------------------------|-------------------|-------------------|---------------------------------|--------------------------------|-------------------|-------------------|
| 0.5 (15) | 1/8 (6) | 0.28 | 12 | 1 (25) | 1/8 (6) | 0.28 | 12 |
| | 3/16 (7) | 0.52 | 12 | | 3/16 (7) | 0.52 | 12 |
| | 1/4 (8) | 0.96 | 12 | | 1/4 (8) | 0.96 | 12 |
| | 5/16 (9) | 1.6 | 20 | | 5/16 (9) | 1.6 | 20 |
| | 3/8 (10) | 2.5 | 20 | | 3/8 (10) | 2.5 | 20 |
| | 1/2 (15) | 4.0 | 20 | | 1/2 (15) | 4.0 | 20 |
| 0.75 (20) | 1/8 (6) | 0.28 | 12 | 1.5 (40) | 3/4 (20) | 6.5 | 20 |
| | 3/16 (7) | 0.52 | 12 | | 1 (25) | 13 | 20 |
| | 1/4 (8) | 0.96 | 12 | 2 (50) | 3/4 (20) | 6.5 | 20 |
| | 5/16 (9) | 1.6 | 20 | | 1 (25) | 13 | 20 |
| | 3/8 (10) | 2.5 | 20 | | 1.25 (32) | 20 | 20 |
| | 1/2 (15) | 4.0 | 20 | 1.5 (40) | 25 | 20 | |
| | 3/4 (20) | 6.5 | 20 | 1 (25) | 13 | 20 | |
| | | | | 1.25 (32) | 20 | 20 | |
| | | | | 1.5 (40) | 25 | 20 | |
| | | | | 2 (50) | 45 | 20 | |

表 3-2 G404 高压多段式角阀 公称压力 ANSI Class 900、1500、2500

Table 3-2 G404 MULTI-STEP TYPE BODY RATINGS ANSI Class 900、1500、2500

| 公称通径 Valve size inch (mm) | 阀芯尺寸 Plug size inch (mm) | 最小可控 Min.Cv | 额定 Cv 值 Rated Cv | | 行程 (mm) Stroke |
|---------------------------------|--------------------------------|----------------|------------------|---|-------------------|
| | | | 线性 Linear | 阀芯段数 No. of Step | |
| 1 (25) | 5/16 (9) | 0.05 | 0.63 | 4 段 16 级降压 4 steps 16 stages (不平衡型) (Unbalanced) | 12 |
| | | | 1.0 | | |
| | | | 1.6 | | |
| | | | 2.5 | | |
| 1.5 (40) | 0.5 (15) | 0.06 | 2.5 | | |
| | | | 4.0 | | |
| 2 (50) | 1 (25) | 0.14 | 6.3 | 4 段 16 级降压 4 steps 16 stages | 12 |
| | 1.25 (32) | 0.18 | 10.0 | | |
| 3 (80) | 2 (50) | 0.47 | 16.0 | | |
| 3 (80) | 1.5 (40) | 0.36 | 16.0 | 3 段 12 级降压 3 steps 12 stages | 16 |
| | 2 (50) | 0.52 | 25.0 | | |
| 3 (80) | 1.5 (40) | 0.44 | 16.0 | 2 段 8 级降压 2 steps 8 stages | 16 |
| | 2 (50) | 0.64 | 25.0 | | 20 |
| 4 (100) | 2.5 (65) | 0.93 | 40.0 | | 25 |
| | 3 (80) | 1.42 | 63.0 | | |

表3-3 G403 额定CV及行程

Table3-3 G403 CV VALVE AND

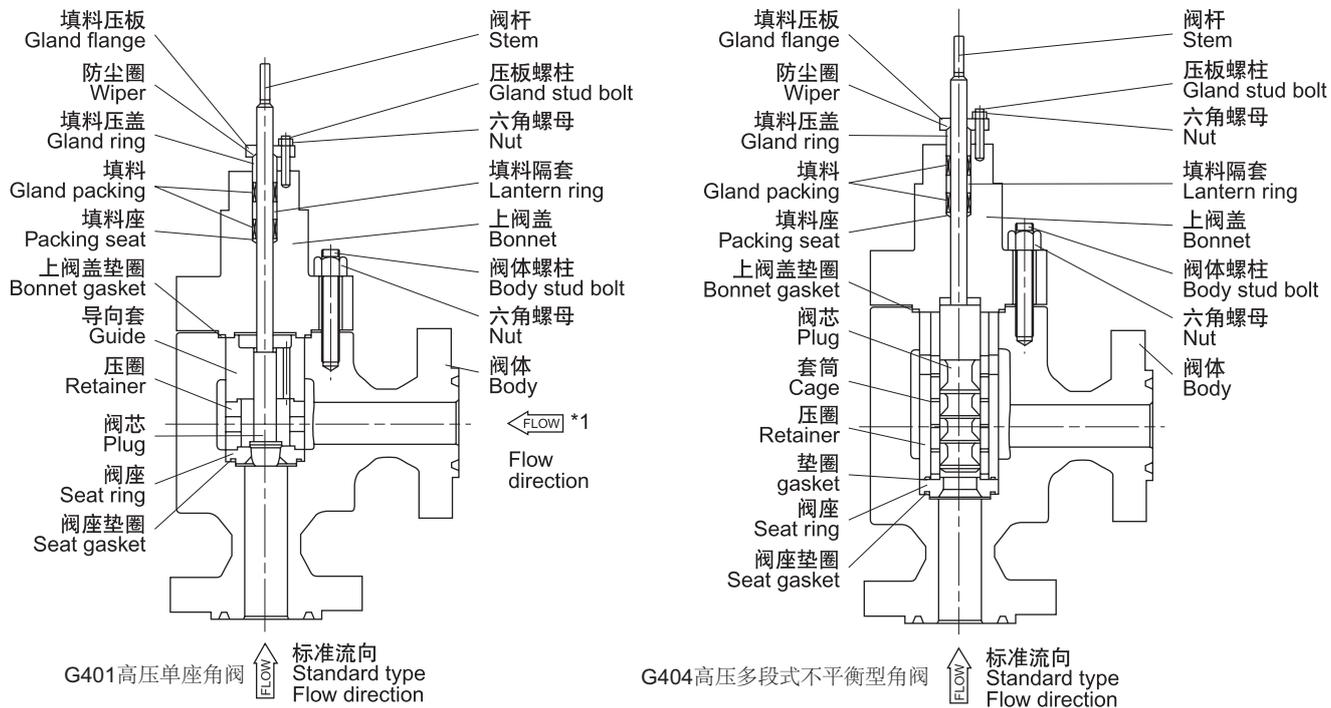
| 套筒材质 Cage Material | 公称通径 Valve size inch(mm) | 阀芯尺寸 Plug size inch(mm) | 最小可控 Mini Cv | 行程 Stroke mm | 额定 Rated Cv | | | | |
|-----------------------|--------------------------------|-------------------------------|-----------------|--------------------|-------------------------------|------|------|------|------|
| | | | | | 1stg | 2stg | 4stg | 6stg | 8stg |
| 316 410 | 1 (25) | 1/2 (15) | 0.04 | 12 | — | — | — | — | 0.47 |
| | | | | 20 | 8级降压 (8stg) Cv=0.78、1.24、2.10 | | | | |
| | | 5/8 (16) | 0.22 | 20 | 5.8 | 4.7 | 3.8 | 3.2 | 2.4 |
| | 1.5 (40) | 1 (25) | 0.48 | 25 | 5.8 | 5.6 | 4.8 | 4.2 | 3.3 |
| | | | | 20 | 16 | 10.8 | 8.3 | 6.7 | 4.6 |
| | | | | 25 | 16 | 13.4 | 10.8 | 9.1 | 6.5 |
| | 2 (50) | 1.5 (40) | 0.86 | 25 | 40.2 | 18.3 | 15.2 | 12.2 | 9.2 |
| | | | | 30 | 43.8 | 21.7 | 18.5 | 15.2 | 11.7 |
| | | | | 30 | 70 | 49 | 40.5 | 33 | 23.9 |
| | 3 (80) | 2 (50) | 1.3 | 40 | 70 | 60.2 | 52.2 | 44.3 | 33.2 |
| | | | | 40 | 138 | 85 | 68 | 58 | 43 |
| | 4 (100) | 3 (80) | 2.2 | 50 | 152 | 102 | 84.7 | 73.5 | 55.9 |

图 1 本体部构造

Fig. 1 BODY SECTION VIEW

图 1-1 不平衡型

Fig. 1-1 UNBALANCED TYPE



*1 调节压差较高，阀内件全部堆焊司太莱合金时推荐流向。
High modulation differential pressure, Stellite full surface of trim type.

图 1-2 平衡型

Fig. 1-2 BALANCED TYPE

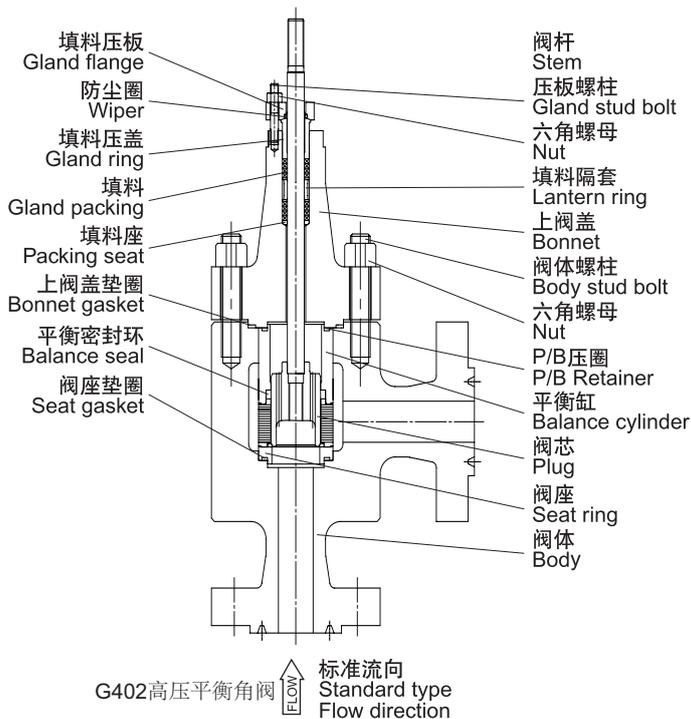


图2 平衡密封环使用温度·压力范围

Fig. 2 BALANCE SEAL PRESSURE-TEMPERATURE RATINGS

图 2-1 R.TFE/316

Fig. 2-1 R.TFE/316

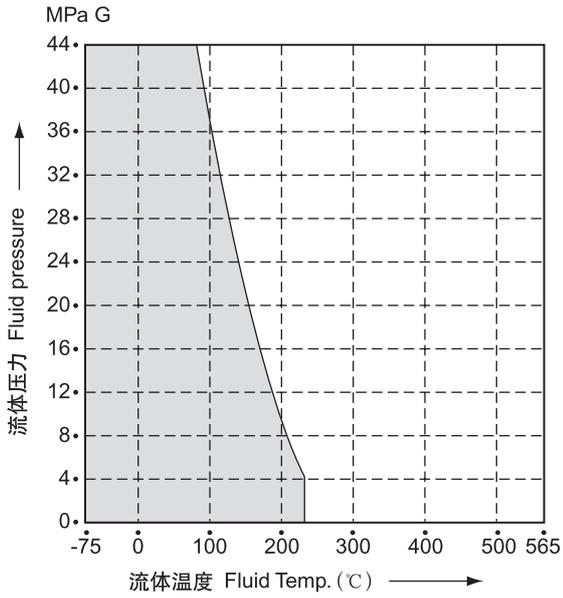


图 2-2 柔性石墨

Fig. 2-2 GRAFOIL

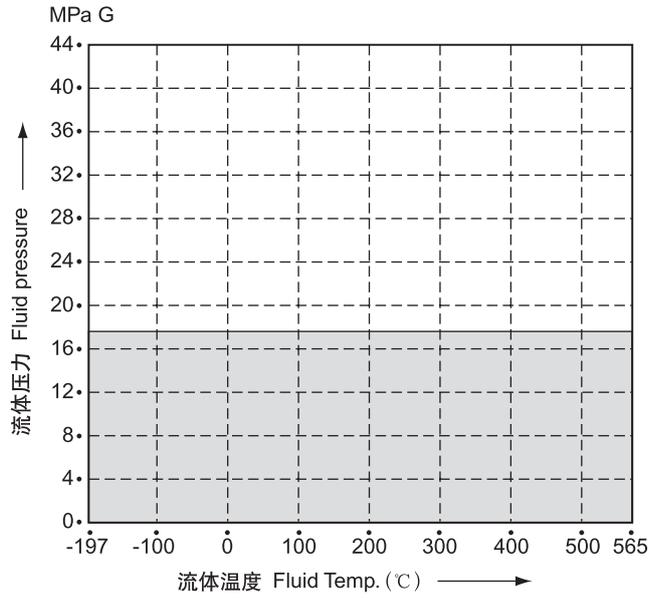


图 2-3 FLUOROLOY G/ELGILOY

Fig. 2-3 FLUOROLOY G/ELGILOY

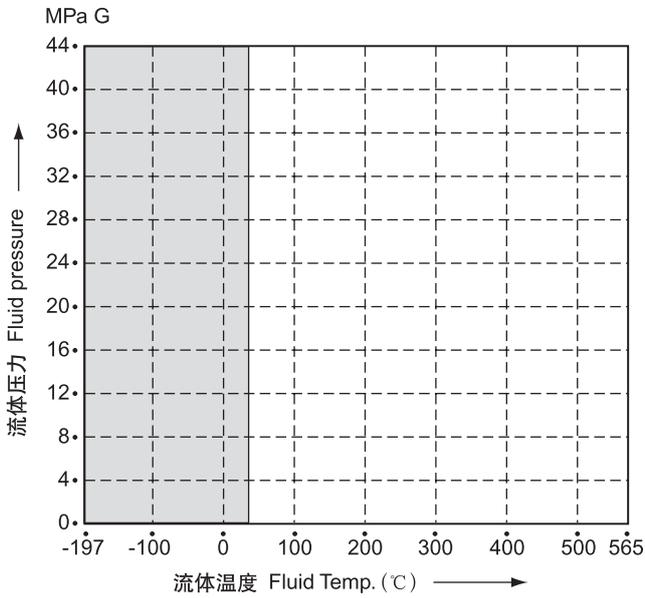


表 4. 最大允许压差 (单位: MPa)

Table 4 ALLOWABLE PRESSURE DROPS (UNIT : MPa)

阀门口径与执行机构的标准组合请参见第 10~13 页。

See pages 10~13 valve size-actuator size combinations.

表 4-1 G401 高压单座角阀

Table 4-1 G404 SINGLE SEATED TYPE

| 公称压力 Body ratings | 执行机构 型 号 Actuator type | 气源压力 Air supply KPa G | 弹簧范围 Spring range KPa G | 薄膜式执行机构 (1000LA) | | | | | | | | | | | |
|------------------------|---------------------------------|-----------------------------|----------------------------------|---|-------|-------|------|------|------|------------------------------|-------|-------|------|------|------|
| | | | | 阀芯尺寸 Pulg size (inch) | | | | | | | | | | | |
| | | | | 填料: 聚四氟乙烯石棉 Packing: Teflon-Asbestos | | | | | | 填料: 柔性石墨 Packing: Grafoil | | | | | |
| | | | | ≤ 0.5 | 0.75 | 1 | 1.25 | 1.5 | 2 | ≤ 0.5 | 0.75 | 1 | 1.25 | 1.5 | 2 |
| ANSI Class 900、1500 | 1040LA | 300 | 80~200 | 21.07 | 14.20 | 8.33 | 4.20 | 3.23 | 1.86 | 17.83 | 12.05 | 7.05 | 2.57 | 2.74 | 1.47 |
| ANSI Class 900、1500 | 1050LA | 300 | 80~200 | - | 25.84 | 15.87 | 8.75 | 6.46 | 3.72 | - | 24.10 | 14.30 | 6.78 | 5.78 | 3.33 |

表 4-2 G404 高压多段式角阀

Table 4-2 G404 MULTI-STEP UNBALANCED TYPE

| 公称压力 Body ratings | 执行机构 型 号 Actuator type | 气源压力 Air supply KPa G | 弹簧范围 Spring range KPa G | 薄膜式执行机构 (1000LA) | | | | | | | | | |
|------------------------|---------------------------------|-----------------------------|----------------------------------|---|-------|-------|------|-------|------------------------------|-------|------|--|--|
| | | | | 阀芯尺寸 Pulg size (inch) | | | | | | | | | |
| | | | | 填料: 聚四氟乙烯石棉 Packing: Teflon-Asbestos | | | | | 填料: 柔性石墨 Packing: Grafoil | | | | |
| | | | | 5/16 | 0.5 | 1 | 1.25 | 5/16 | 0.5 | 1 | 1.25 | | |
| ANSI Class 900、1500 | 1040LA | 300 | 80~200 | 25.84 | 20.10 | - | - | 21.76 | 13.60 | - | - | | |
| ANSI Class 900、1500 | 1050LA | 300 | 80~200 | - | 25.84 | 11.58 | 5.94 | - | 25.84 | 10.06 | 4.72 | | |

表 4-3 G402 高压平衡角阀

Table 4-3 G402 MULTI-STEP BALANCED TYPE

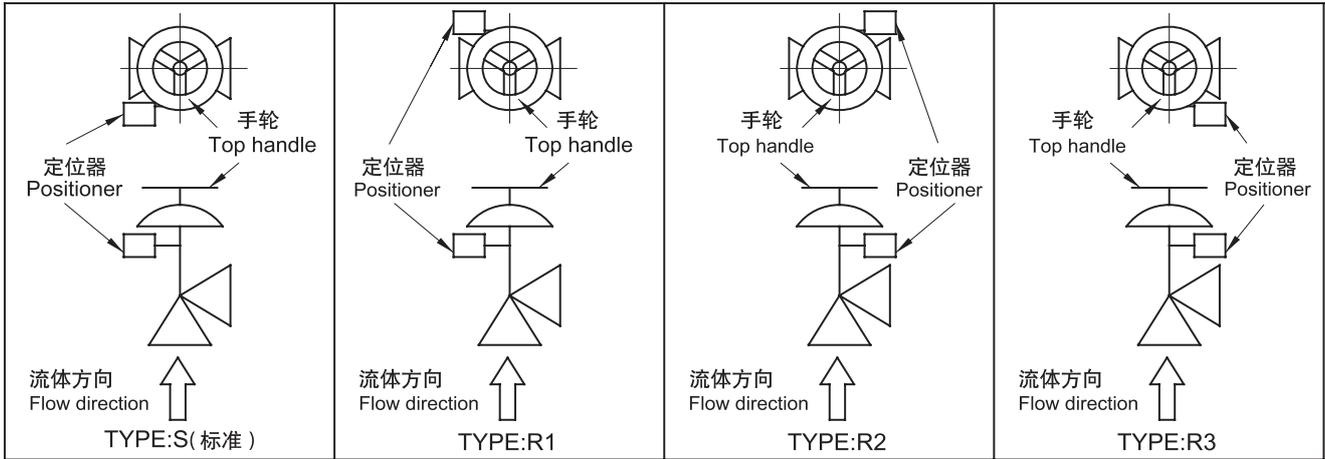
| 公称压力 Body ratings | 执行机构 型 号 Actuator type | 气源压力 Air supply KPa G | 弹簧范围 Spring range KPa G | 薄膜式执行机构 (1000LA) Diaphragm Actuator (1000LA) | | | | | | | | 气缸式双动作执行机构 (2000LA) Double Acting Cylinder Actuator (2000LA) | | |
|------------------------|---------------------------------|-----------------------------|----------------------------------|---|-------|-------|-------|-------|-------|--------------------------------------|-------|--|-------|-------|
| | | | | 阀芯尺寸 Pulg size (inch) | | | | | | | | | | |
| | | | | 平衡密封环: R.TFE/316 Balance seal: R.TFE/316 | | | | | | 平衡密封环: 柔性石墨 Balance seal: Grafoil | | 平衡密封环: 柔性石墨 Balance seal: Grafoil | | |
| | | | | 1 | 1.25 | 1.5 | 2 | 2.5 | 3 | 1 | 1.25 | 2 | 2.5 | 3 |
| ANSI Class 900、1500 | 1050LA | 300 | 80~200 | 25.49 | 25.10 | 23.72 | 21.66 | 16.86 | 13.04 | 17.15 | 16.08 | - | - | - |
| ANSI Class 900、1500 | 2030LA | 400 | - | - | - | - | - | - | - | - | - | 17.15 | 17.15 | 17.15 |

图3 控制阀安装方位 (1000LA)

Fig. 3 ACTUATOR MOUNTING FORMS FOR 1000LA

图3-1. 执行机构: 350、450

Fig. 3-1 ACTUATOR SIZE : 350、450



注) 安装位置为非标准时, 请指定安装位置的形式 (TYPE)。

NOTE : Type S is automatically applied, unless otherwise specified.

表5. 与标准执行机构组合时的产品重量 (单位: kg)

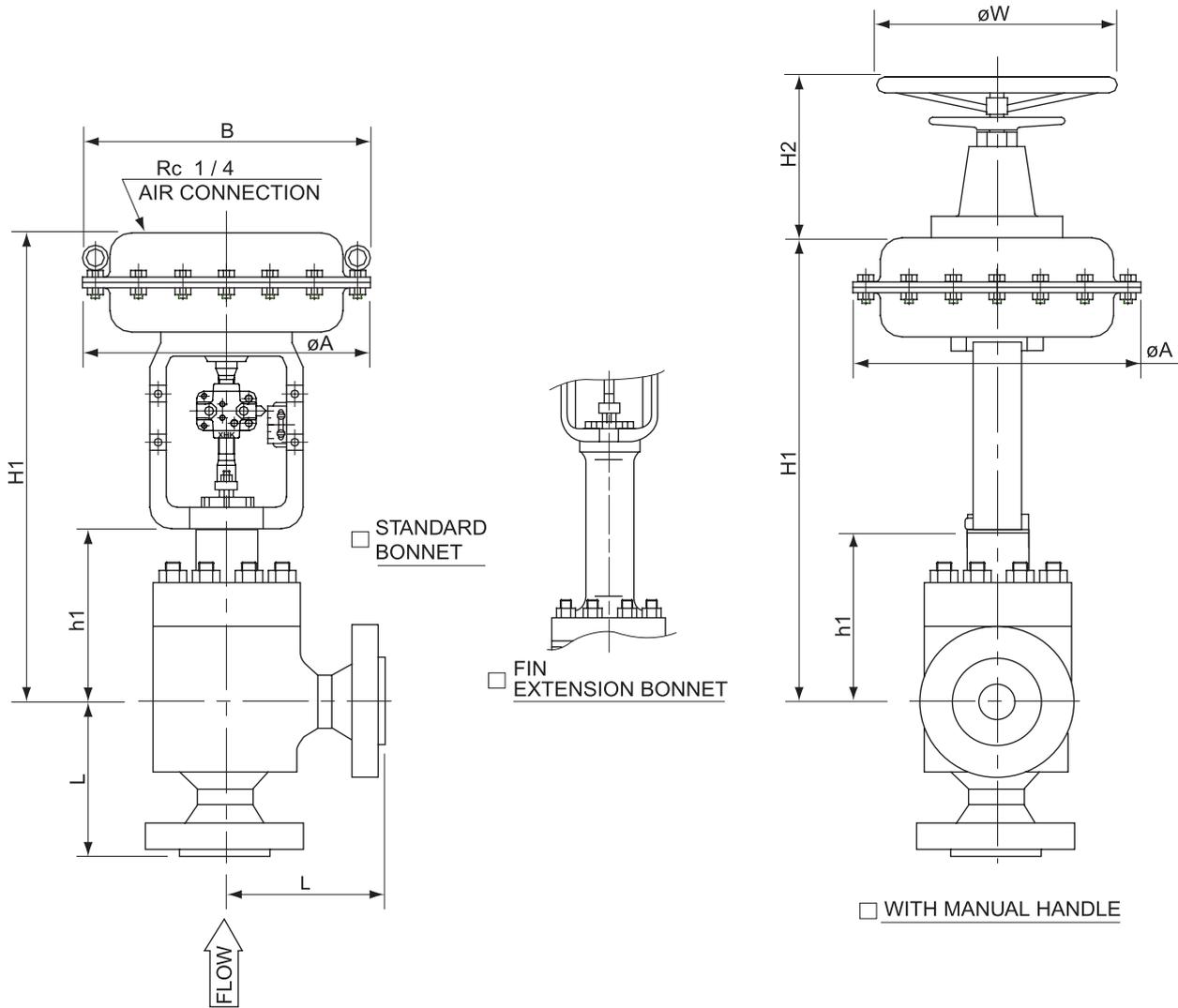
Table 5 NET WEIGHT OF STANDARD VALVE AND ACTUATOR COMBINED (UNIT: kg)

本表中所列重量, 均为执行机构和本体部的标准产品重量, 不包括附件、手动机构等。

Only standard types are represented. Weights of accessories, handwheel and the like are not included.

| 公称通径 Valves size inch(mm) | 公称压力 Body ratings | 薄膜式执行机构 (1000LA) Diaphragm actuator size | | 气缸式双动作执行机构 (2000LA) Double acting cylinder actuator size |
|---------------------------------|----------------------|---|--------|---|
| | | 1040LA | 1050LA | 2030LA |
| 0.5 (15) | 900、1500 | 98 | - | - |
| 0.75 (20) | 900、1500 | 100 | - | - |
| 1 (25) | 900、1500 | 117 | - | - |
| 1.5 (40) | 900、1500 | 152 | 180 | - |
| 2 (50) | 900、1500 | 212 | 240 | - |
| 3 (80) | 900、1500 | - | 350 | 400 |
| 4 (100) | 900、1500 | - | 420 | 490 |

DIRECT & REVERSE ACTION DIAPHRAGM ACTUATOR



DIMENSIONS

UNIT: mm

| VALVE SIZE CODE No. | FACE TO FACE : L <input type="checkbox"/> ANSI 900# RF <input type="checkbox"/> ANSI 900# RTJ <input type="checkbox"/> ANSI 1500# RF <input type="checkbox"/> ANSI 1500# RTJ | <input type="checkbox"/> ANSI 900#, 1500# | | | | ACTUATOR | | | | CODE No. |
|---|--|---|-----------------------------------|-------------------------------|-----------------------------------|------------------------------|-----|---|-----|----------|
| | | BONNET | | BONNET | | SIZE A | B | <input type="checkbox"/> WITH MANUAL HANDLE | | |
| | | <input type="checkbox"/> STD. | <input type="checkbox"/> FIN EXT. | <input type="checkbox"/> STD. | <input type="checkbox"/> FIN EXT. | | | H2 | W | |
| | | h1 | | H1 | | | | | | |
| 90 <input type="checkbox"/> 0.5" (15A) | 160 | 210 | 360 | 640 | 790 | <input type="checkbox"/> 350 | 367 | 202 | 350 | 1040LA |
| 91 <input type="checkbox"/> 0.75" (20A) | 160 | 210 | 360 | 640 | 790 | <input type="checkbox"/> 350 | 367 | 202 | 350 | 1040LA |
| 01 <input type="checkbox"/> 1" (25A) | 160 | 210 | 360 | 640 | 790 | <input type="checkbox"/> 350 | 367 | 202 | 350 | 1040LA |
| 93 <input type="checkbox"/> 1.5" (40A) | 180 | 253 | 403 | 683 | 833 | <input type="checkbox"/> 350 | 367 | 202 | 350 | 1040LA |
| | | | | 748 | 898 | <input type="checkbox"/> 450 | 472 | 245 | 500 | 1050LA |
| 02 <input type="checkbox"/> 2" (50A) | 200 | 280 | 430 | 710 | 860 | <input type="checkbox"/> 350 | 367 | 202 | 350 | 1040LA |
| | | | | 775 | 925 | <input type="checkbox"/> 450 | 472 | 245 | 500 | 1050LA |

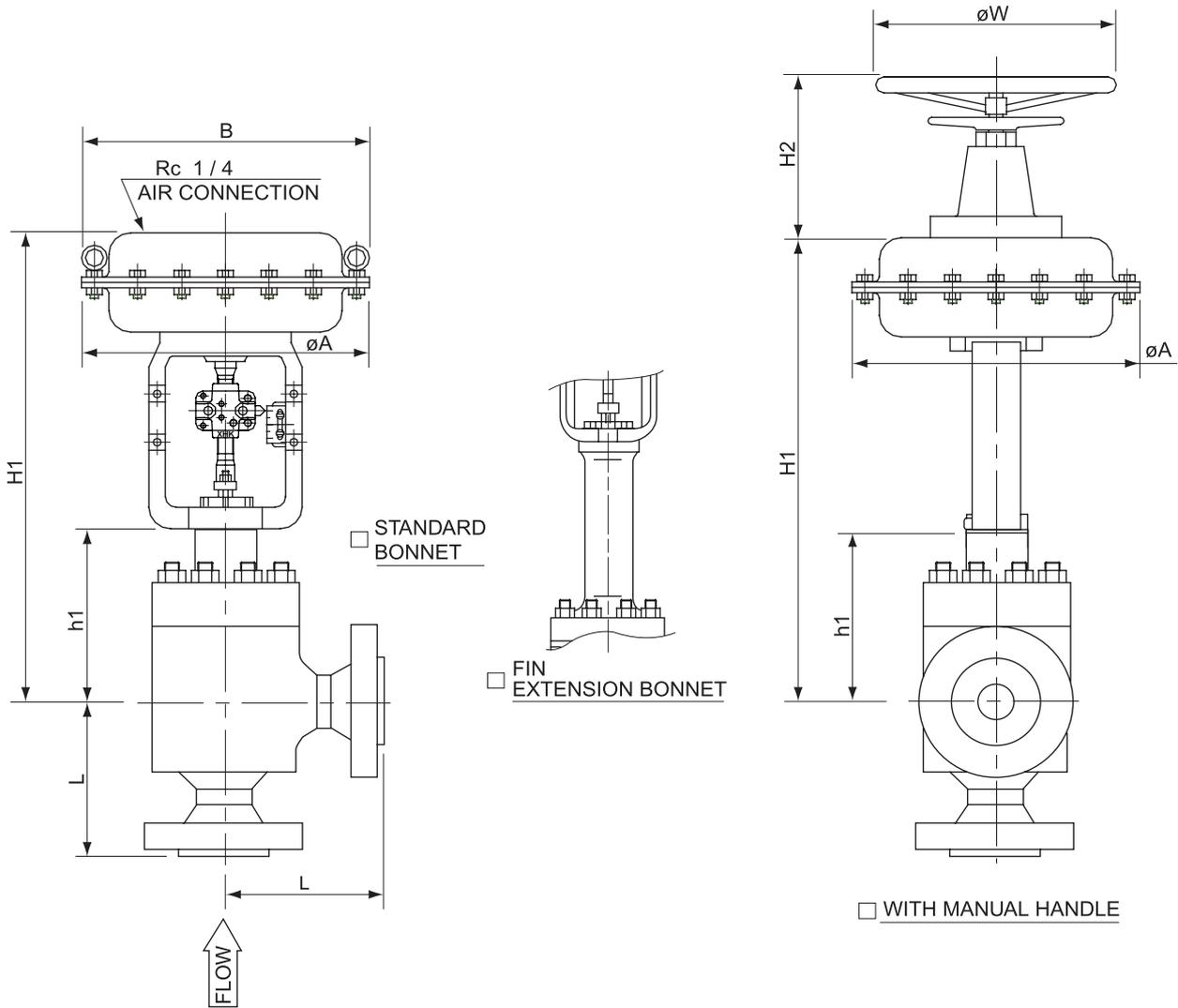
*FLANGE IS ACCORDING TO THE STANDARD WHICH IS DESCRIBED ON SPECIFICATION SHEET.

NOTE:

G400-1000LA - D · N · R · T



DIRECT & REVERSE ACTION DIAPHRAGM ACTUATOR



DIMENSIONS

UNIT: mm

| VALVE SIZE | FACE TO FACE : L | ANSI 900#, 1500# | | | | ACTUATOR | | | | CODE No. | |
|------------|-------------------------------------|------------------|----------|--------|----------|----------|------------------------------|----------|-----|----------|--------|
| | | BONNET | | BONNET | | SIZE | WITH MANUAL HANDLE | CODE No. | | | |
| | | STD. | FIN EXT. | STD. | FIN EXT. | | | | A | | B |
| CODE No. | | h1 | | H1 | | | | | | | |
| 01 | <input type="checkbox"/> 1" (25A) | 170 | 316 | 466 | 746 | 896 | <input type="checkbox"/> 350 | 367 | 202 | 350 | 1040LA |
| 93 | <input type="checkbox"/> 1.5" (40A) | 190 | 320 | 470 | 750 | 900 | <input type="checkbox"/> 350 | 367 | 202 | 350 | 1040LA |
| | | | | | 815 | 965 | <input type="checkbox"/> 450 | 472 | 245 | 500 | 1050LA |
| 02 | <input type="checkbox"/> 2" (50A) | 230 | 369 | 519 | 864 | 1014 | <input type="checkbox"/> 450 | 472 | 245 | 500 | 1050LA |

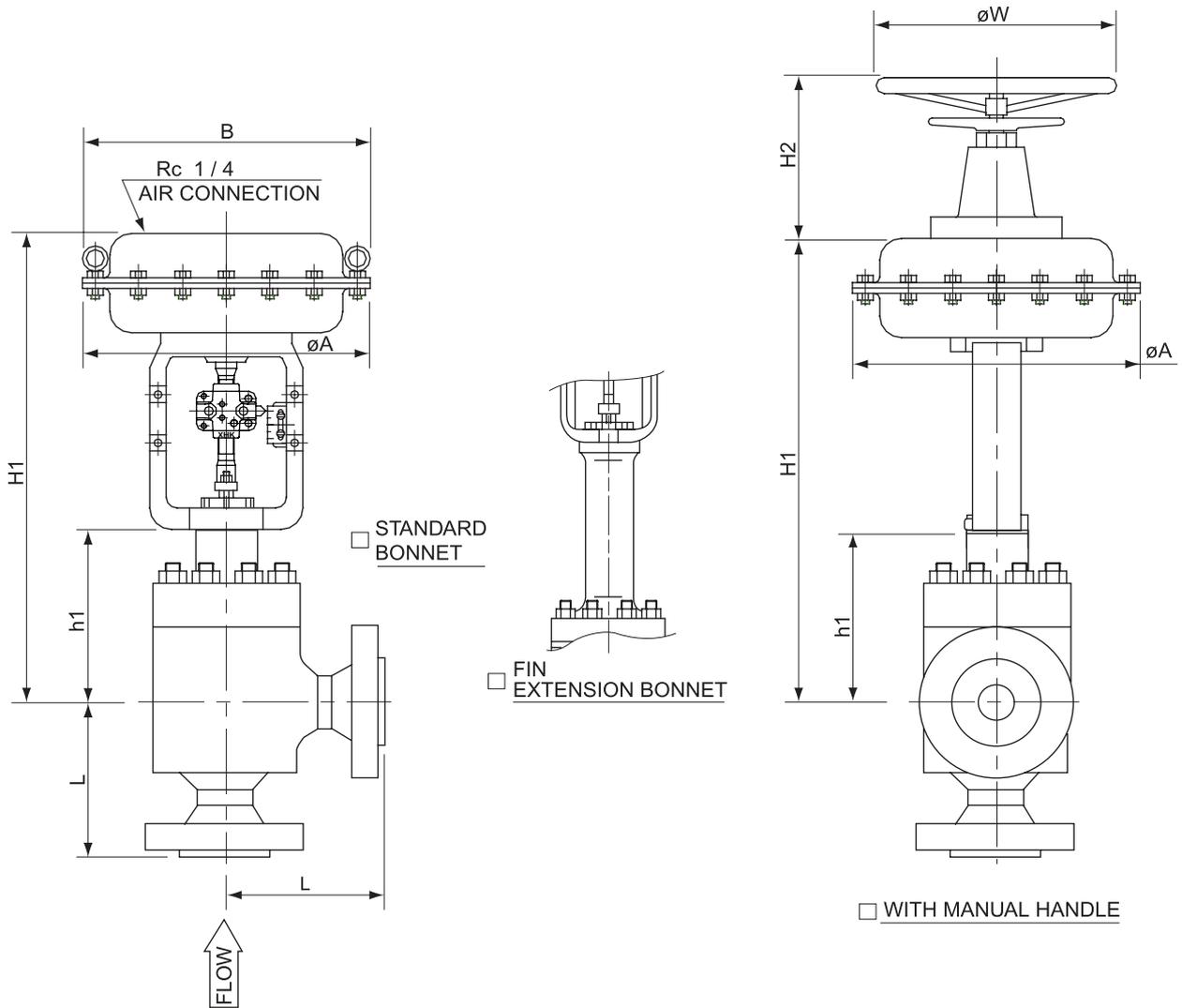
*FLANGE IS ACCORDING TO THE STANDARD WHICH IS DESCRIBED ON SPECIFICATION SHEET.

NOTE:

**G400-1000LA - D - N
R - T**



DIRECT & REVERSE ACTION DIAPHRAGM ACTUATOR



DIMENSIONS

UNIT: mm

| VALVE SIZE CODE No. | FACE TO FACE : L <input type="checkbox"/> ANSI 900# RF <input type="checkbox"/> ANSI 900# RTJ <input type="checkbox"/> ANSI 1500# RF <input type="checkbox"/> ANSI 1500# RTJ | <input type="checkbox"/> ANSI 900#, 1500# | | | | ACTUATOR | | | | CODE No. |
|---------------------------------------|--|---|-----------------------------------|-------------------------------|-----------------------------------|------------------------------|-----|---|-----|----------|
| | | BONNET | | BONNET | | SIZE | | <input type="checkbox"/> WITH MANUAL HANDLE | | |
| | | <input type="checkbox"/> STD. | <input type="checkbox"/> FIN EXT. | <input type="checkbox"/> STD. | <input type="checkbox"/> FIN EXT. | A | B | H2 | W | |
| | | h1 | | H1 | | | | | | |
| 02 <input type="checkbox"/> 2" (50A) | 230 | 369 | 519 | 864 | 1014 | <input type="checkbox"/> 450 | 472 | 245 | 500 | 1050LA |
| 03 <input type="checkbox"/> 3" (80A) | 300 | 384 | 534 | 879 | 1029 | <input type="checkbox"/> 450 | 472 | 245 | 500 | 1050LA |
| 04 <input type="checkbox"/> 4" (100A) | 400 | 345 | 495 | 840 | 990 | <input type="checkbox"/> 450 | 472 | 245 | 500 | 1050LA |

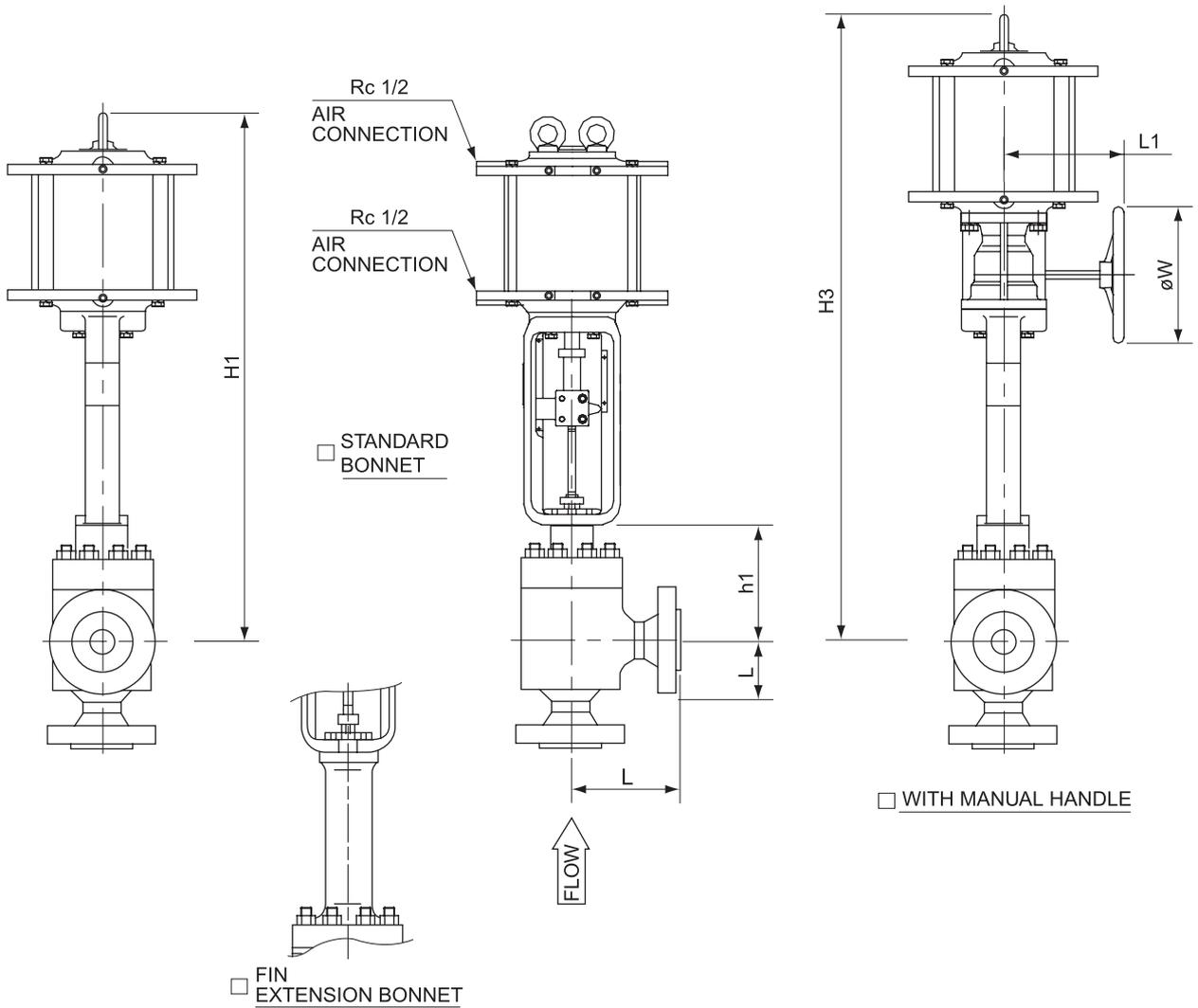
*FLANGE IS ACCORDING TO THE STANDARD WHICH IS DESCRIBED ON SPECIFICATION SHEET.

NOTE:

**G400-1050LA - D - N
R - T**



DOUBLE ACTING CYLINDER ACTUATOR



DIMENSIONS

UNIT: mm

| VALVE SIZE CODE No. | FACE TO FACE : L <input type="checkbox"/> ANSI 900# RF <input type="checkbox"/> ANSI 900# RTJ <input type="checkbox"/> ANSI 1500# RF <input type="checkbox"/> ANSI 1500# RTJ | <input type="checkbox"/> ANSI 900#, 1500# | | | | ACTUATOR | | | | | | |
|---------------------------------------|--|---|-----------------------------------|-------------------------------|-----------------------------------|------------------------------|-------|---|----------|-----|-----|----------|
| | | BONNET | | BONNET | | Cylinder Der A | B | <input type="checkbox"/> WITH MANUAL HANDLE | | | | CODE No. |
| | | <input type="checkbox"/> STD. | <input type="checkbox"/> FIN EXT. | <input type="checkbox"/> STD. | <input type="checkbox"/> FIN EXT. | | | H3 | | L1 | øW | |
| | | h1 | H1 | STD. | FIN EXT. | | | STD. | FIN EXT. | | | |
| 02 <input type="checkbox"/> 2" (50A) | 230 | 369 | 519 | 864 | 1014 | <input type="checkbox"/> 300 | Rc1/2 | 1074 | 1224 | 260 | 400 | 2030LA |
| 03 <input type="checkbox"/> 3" (80A) | 300 | 384 | 534 | 879 | 1029 | <input type="checkbox"/> 300 | Rc1/2 | 1414 | 1564 | 260 | 400 | 2030LA |
| 04 <input type="checkbox"/> 4" (100A) | 400 | 345 | 495 | 840 | 990 | <input type="checkbox"/> 300 | Rc1/2 | 1275 | 1425 | 260 | 400 | 2030LA |

*FLANGE IS ACCORDING TO THE STANDARD WHICH IS DESCRIBED ON SPECIFICATION SHEET.

NOTE:

G400-2000LA - D - N - S



附表一

控制阀公称压力对照表

| 公称压力等级代号 | L 级 | M 级 | H 级 | |
|----------|-----------|-----------------|--------------|-----------|
| 中国标准 | PN 16 | PN 40 | PN 63、PN 100 | |
| 美国标准 | ANSI 150# | ANSI 300# | ANSI 600# | ANSI 900# |
| 日本标准 | JIS 10K | JIS 20K、JIS 30K | JIS 40K | JIS 63K |

注：由于各国标准在公称压力定义时选择的温度基准不同，表中相同等级只是近似的，因此，各标准的公称压力下的温度·压力使用范围请参照相应的标准。

附表二

控制阀阀体常用材质对照表

| | | | | |
|------|-----------|------------|------------------|----------|
| 中国标准 | ZG230-450 | ZG0Cr18Ni9 | ZG0Cr18Ni12Mo2Ti | |
| 美国标准 | A216-WCB | A351-CF8 | A351-CF8M | A217-WC6 |
| 日本标准 | SCPH2 | SCS13A | SCS14A | SCPH21 |
| 备注 | 成份同 ZG25 | 成份同 304SS | 成份同 316SS | 一般不推荐使用 |

附表三

控制阀编号系统

| 阀门型号 | 执行机构型号 | 压力等级 | 材质 | 口径 |
|--------------|-----------------|------------------|-------------|----------------|
| G400- | 1040LARN | PN10.0MPa | F316 | 20AX20A |

| | | | | |
|-------------------|----------------|---------|------|------|
| G401-高压单座角阀 | 1040LA气动薄膜式直行程 | 10.0MPa | A105 | 20A |
| G402-高压平衡角阀 | 1050LA气动薄膜式直行程 | 16.0MPa | F304 | 25A |
| G404-高压多段式角阀 | 1070LA气动薄膜式直行程 | 25.0MPa | F316 | 32A |
| G421-焊接/螺纹高压单座角阀 | 2030LA气动活塞式直行程 | 42.0MPa | | 40A |
| G422-焊接/螺纹高压平衡角阀 | 2050LA气动活塞式直行程 | 900# | | 50A |
| G424-焊接/螺纹高压多段式角阀 | | 1500# | | 65A |
| | | 2500# | | 80A |
| | | | | 100A |
| | | | | 125A |
| | 1020LARN | | | 150A |
| | N: 无手轮 | | | 200A |
| | T: 顶式手轮 | | | 250A |
| | S: 旁式手轮 | | | |
| | D: 正作用 | | | |
| | R: 反作用 | | | |
| | LA: 标准行程 | | | |
| | LB: 大行程 | | | |
| | 2020LARN | | | |
| | N: 无手轮 | | | |
| | T: 顶式手轮 | | | |
| | S: 旁式手轮 | | | |
| | D: 正作用 | | | |
| | R: 反作用 | | | |
| | W: 双动作 | | | |
| | LA: 标准行程 | | | |
| | LB: 大行程 | | | |



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