

# ASAHI

## BALL VALVE

P.043 BALL VALVE TYPE 21, 21 $\alpha$

P.053 WATER BALL VALVE

P.057 3 WAY BALL VALVE TYPE 23

P.063 3 WAY BALL VALVE TYPE 23 H

P.065 LAB COCK

P.067 COMPACT BALL VALVE TYPE 27



# WATER BALL VALVE (WATER ONLY)

- EQUIPPED WITH TOP FLANGE, ENABLING EASY CHANGE TO AUTOMATIC VALVE.  
(Change to an automatic valve requires an actuator set.)
- TYPE 21 FOR CHEMICAL SOLUTION LINES AND WATER BALL VALVE FOR WATER/SEA WATER LINES CAN BE SELECTIVELY USED, WHICH CONTRIBUTES TO TOTAL COST REDUCTION.

## BASIC SPECIFICATIONS

**VALVE TYPE** ————— **WATER BALL VALVE**  
**SIZE** ————— **15 mm—50 mm (1/2 inch—2 inch)**  
**BODY MATERIAL** ————— **U-PVC**  
**SEAL MATERIAL / O-RING** ————— **EPDM**  
**CONNECTION / SOCKET** ————— **JIS**  
**THREADED** ————— **Rc**  
**HIGH PURITY SERIES** ————— **WETTED PARTS LUBRICANT FREE**

|              | FLUID TEMPERATURE | MAXIMUM WORKING PRESSURE<br>(NORMAL TEMPERATURE) MPa(kgf/cm <sup>2</sup> ) | CONNECTION METHOD |          |
|--------------|-------------------|--|-------------------|----------|
|              |                   |  | SOCKET            | THREADED |
| <b>U-PVC</b> | 0°C ~ 50°C        | 1.0 {10.2}   | ○                 | ○        |

**NOTE** (1) The water ball valves are dedicated for water/sea water lines. They cannot be used for chemical solution lines. (2) For chemical solution lines, use the ball valve type 21 or compact ball valve. (3) The face-to-face dimensions and parts are not compatible between the water ball valve and the ball valve type 21α. (4) Parts for the water ball valve are not sold separately. (5) For switching from a manual valve to an automatic valve, order an actuator set.  
 \* Concerning the allowable pressure for each temperature and material, see the technical documents at the end of this catalog.

MANUAL

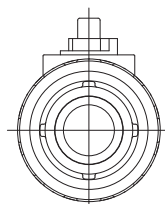
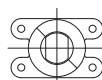
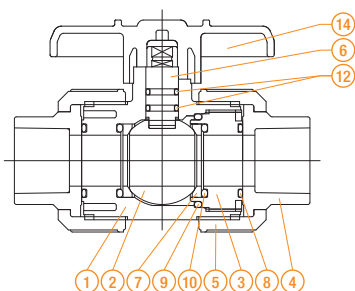


AUTOMATIC

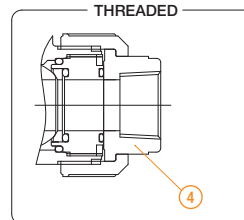


## PARTS LIST **MANUAL**

SOCKET



THREADED



| PART NO. / NAME | QTY | MATERIAL |
|-----------------|-----|----------|
| ① BODY          | 1   | U-PVC    |
| ② BALL          | 1   | U-PVC    |
| ③ UNION         | 1   | U-PVC    |
| ④ END CONNECTOR | 2   | U-PVC    |
| ⑤ UNION NUT     | 2   | U-PVC    |
| ⑥ STEM          | 1   | U-PVC    |

| PART NO. / NAME | QTY | MATERIAL |
|-----------------|-----|----------|
| ⑦ SEAT          | 2   | PTFE     |
| ⑧ O-RING (A)    | 2   | EPDM     |
| ⑨ O-RING (B)    | 1   | EPDM     |
| ⑩ O-RING (C)    | 2   | EPDM     |
| ⑫ O-RING (E)    | 2   | EPDM     |
| ⑭ HANDLE        | 1   | ABS      |

## COMPATIBLE ACTUATOR **AUTOMATIC**

**PNEUMATIC TYPE VC** For detailed specifications, see P.125

**ELECTRIC TYPE V** For detailed specifications, see P.143

PRODUCT MODEL  
CODE LIST  
**MANUAL**

| ACTUATION      | TYPE                | OPERATING SYSTEM | BODY MATERIAL | SEAL MATERIAL | CONNECTION             | STANDARD | SIZE                 | HIGH PURITY SERIES            |
|----------------|---------------------|------------------|---------------|---------------|------------------------|----------|----------------------|-------------------------------|
| V              | WB                  | LV               | U             | E             | *                      | J        | ***                  | 2                             |
| ⋮              | ⋮                   | ⋮                | ⋮             | ⋮             | ⋮                      | ⋮        | ⋮                    | ⋮                             |
| V MANUAL VALVE | WB WATER BALL VALVE | LV LEVER TYPE    | U U-PVC       | E EPDM        | S SOCKET<br>N THREADED | J JIS    | 015 15mm<br>050 50mm | 2 WETTED PARTS LUBRICANT FREE |

PRODUCT MODEL  
CODE LIST  
**AUTOMATIC**

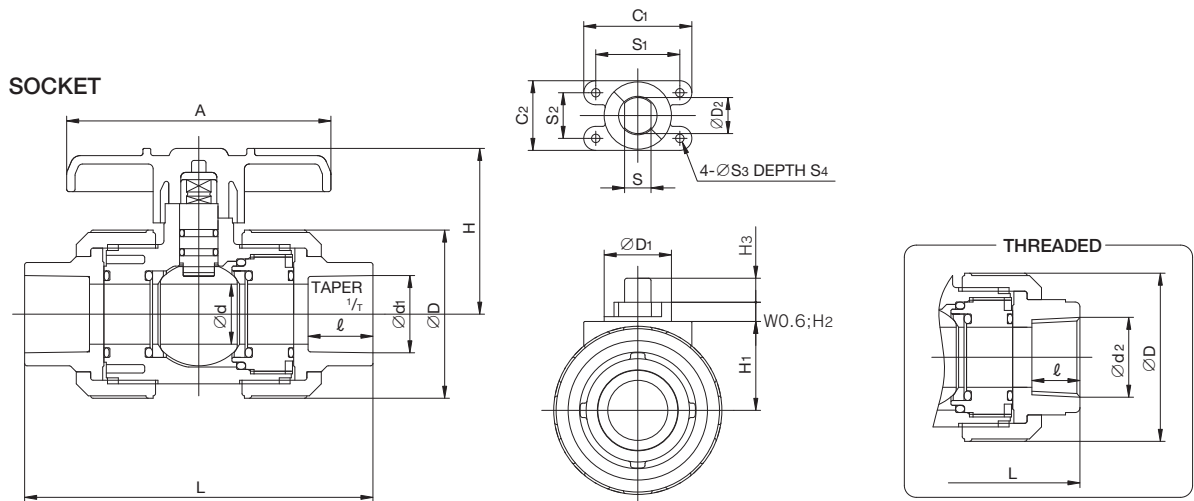
| ACTUATION         | TYPE                | ACTUATOR TYPE                                  | ACTION / POWER SOURCE  | BODY MATERIAL | SEAL MATERIAL | CONNECTION             | STANDARD | SIZE                 | HIGH PURITY SERIES            |
|-------------------|---------------------|--|--|---------------|---------------|------------------------|----------|----------------------|-------------------------------|
| A                 | WB                  | *  | *  | U             | E             | *                      | *        | ***                  | 2                             |
| ⋮                 | ⋮                   | ⋮  | ⋮  | ⋮             | ⋮             | ⋮                      | ⋮        | ⋮                    | ⋮                             |
| A AUTOMATIC VALVE | WB WATER BALL VALVE | PNEUMATIC<br>C TYPE VC<br>ELECTRIC<br>V TYPE V | PNEUMATIC<br>F DOUBLE ACTING<br>G AIR TO OPEN<br>S AIR TO CLOSE<br>ELECTRIC<br>1 Single-Phase 100V<br>2 Single-Phase 200V<br>D DC24V | U U-PVC       | E EPDM        | S SOCKET<br>N THREADED | J JIS    | 015 15mm<br>050 50mm | 2 WETTED PARTS LUBRICANT FREE |

MANUAL

## WATER BALL VALVE (WATER ONLY)

TYPE — VWBLV

CONNECTION / SOCKET, THREADED — JIS



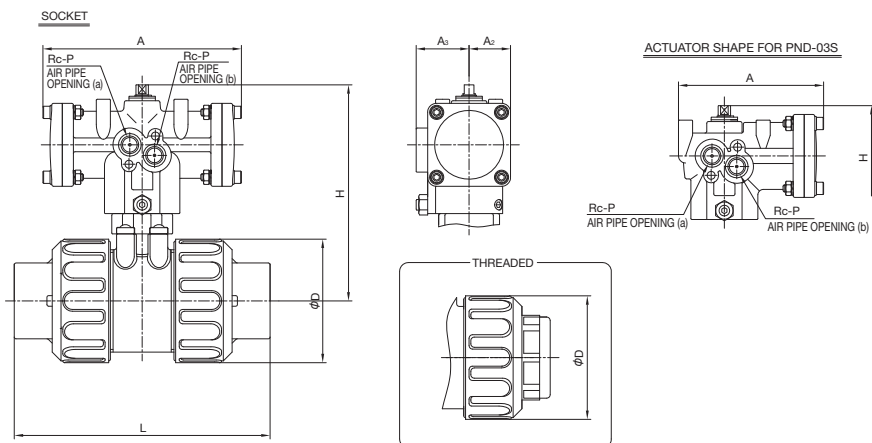
■ JIS (Unit: mm)

| mm | d  | D   | D <sub>1</sub> | D <sub>2</sub> | H   | H <sub>1</sub> | H <sub>2</sub> | H <sub>3</sub> | A   | S    | C <sub>1</sub> | C <sub>2</sub> | S <sub>1</sub> | S <sub>2</sub> | S <sub>3</sub> | S <sub>4</sub> | JIS            |    |      |              |                |    |     |
|----|----|-----|----------------|----------------|-----|----------------|----------------|----------------|-----|------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|------|--------------|----------------|----|-----|
|    |    |     |                |                |     |                |                |                |     |      |                |                |                |                |                |                | SOCKET         |    |      | Threaded End |                |    |     |
|    |    |     |                |                |     |                |                |                |     |      |                |                |                |                |                |                | d <sub>1</sub> | ℓ  | 1/T  | L            | d <sub>t</sub> | ℓ  | L   |
| 15 | 15 | 48  | 24             | 13.5           | 54  | 25             | 6              | 7.5            | 92  | 10.5 | 40             | 25             | 31.5           | 15             | 3.5            | 12             | 22.11          | 20 | 1/34 | 104          | Rc 1/2         | 15 | 98  |
| 20 | 20 | 60  | 27             | 15             | 62  | 31             | 8              | 10             | 100 | 11   | 45             | 29             | 35             | 19             | 3.5            | 12             | 26.13          | 24 | 1/34 | 128          | Rc 3/4         | 17 | 119 |
| 25 | 25 | 70  | 28             | 15             | 69  | 38             | 8              | 10             | 100 | 11   | 45             | 29             | 35             | 19             | 3.5            | 12             | 32.16          | 27 | 1/34 | 145          | Rc 1           | 20 | 135 |
| 32 | 30 | 80  | 34             | 19             | 79  | 43             | 10             | 10             | 121 | 15   | 58.5           | 38             | 45.5           | 25             | 4.5            | 15             | 38.19          | 30 | 1/34 | 162          | Rc 1 1/4       | 22 | 150 |
| 40 | 40 | 96  | 38             | 23             | 88  | 50             | 10             | 12             | 131 | 18   | 58.5           | 38             | 45.5           | 25             | 4.5            | 15             | 48.21          | 37 | 1/37 | 189          | Rc 1 1/2       | 25 | 170 |
| 50 | 51 | 120 | 40             | 23             | 102 | 56             | 12             | 12             | 159 | 18   | 60             | 40             | 47             | 27             | 4.5            | 15             | 60.25          | 42 | 1/37 | 220          | Rc 2           | 28 | 198 |

**AUTOMATIC** PNEUMATIC **TYPE VC**  
**DOUBLE ACTING**  
 AIR TO OPEN  
 AIR TO CLOSE

# WATER BALL VALVE

TYPE—AWBC  
 CONNECTION / SOCKET, THREADED—JIS



### ACTUATOR SELECTION CHART

| SIZE             | ACTUATOR TYPE |
|------------------|---------------|
| 15mm ( 1/2inch)  | PND-03S       |
| 20mm ( 3/4inch)  |               |
| 25mm ( 1inch)    | PND-03D       |
| 32mm (1 1/4inch) |               |
| 40mm (1 1/2inch) | PND-04D       |
| 50mm ( 2inch)    |               |

For detailed specifications, see **P.125**

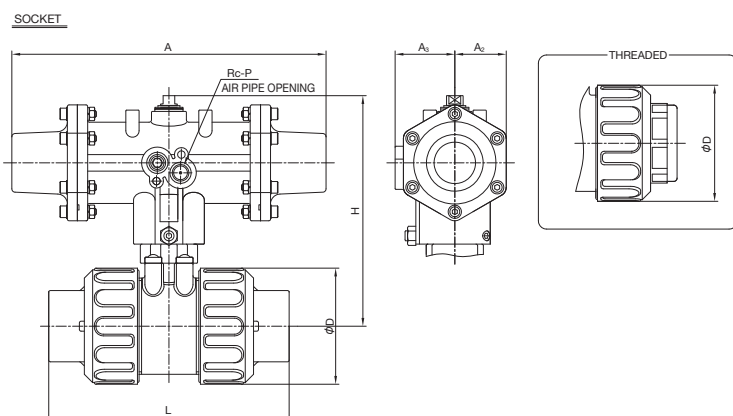
■ JIS (Unit: mm)

| mm | D   | H     | A   | A <sub>2</sub> | A <sub>3</sub> | P   | JIS    |          |
|----|-----|-------|-----|----------------|----------------|-----|--------|----------|
|    |     |       |     |                |                |     | SOCKET | THREADED |
| 15 | 48  | 96.5  | 83  | 24             | 30             | 1/8 | 104    | 98       |
| 20 | 60  | 107   | 83  | 24             | 30             | 1/8 | 128    | 119      |
| 25 | 70  | 122.5 | 113 | 24             | 30             | 1/8 | 145    | 135      |
| 32 | 80  | 145.5 | 113 | 24             | 30             | 1/8 | 162    | 150      |
| 40 | 96  | 169   | 132 | 31             | 36             | 1/8 | 189    | 170      |
| 50 | 120 | 177   | 132 | 31             | 36             | 1/8 | 220    | 198      |

**AUTOMATIC** PNEUMATIC **TYPE VC**  
**DOUBLE ACTING**  
 AIR TO OPEN  
 AIR TO CLOSE

# WATER BALL VALVE

TYPE—AWBC  
 CONNECTION / SOCKET, THREADED—JIS



### ACTUATOR SELECTION CHART

| SIZE             | ACTUATOR TYPE |              |
|------------------|---------------|--------------|
|                  | AIR TO OPEN   | AIR TO CLOSE |
| 15mm ( 1/2inch)  | PSO-03D       | PSC-03D      |
| 20mm ( 3/4inch)  | PSO-03D       | PSC-03D      |
| 25mm ( 1inch)    | PSO-04D       | PSC-04D      |
| 32mm (1 1/4inch) | PSO-04D       | PSC-04D      |
| 40mm (1 1/2inch) | PSO-04W       | PSC-04W      |
| 50mm ( 2inch)    | PSO-04W       | PSC-04W      |

For detailed specifications, see **P.125**

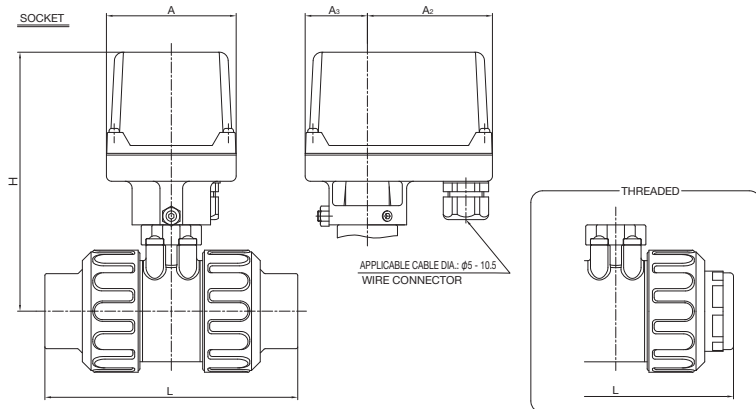
■ JIS (Unit: mm)

| mm | D   | H     | A   | A <sub>2</sub> | A <sub>3</sub> | P   | JIS    |          |
|----|-----|-------|-----|----------------|----------------|-----|--------|----------|
|    |     |       |     |                |                |     | SOCKET | THREADED |
| 15 | 48  | 105   | 165 | 24             | 30             | 1/8 | 104    | 98       |
| 20 | 60  | 115.5 | 165 | 24             | 30             | 1/8 | 128    | 119      |
| 25 | 70  | 139   | 190 | 31             | 36             | 1/8 | 145    | 135      |
| 32 | 80  | 162   | 279 | 31             | 36             | 1/8 | 162    | 150      |
| 40 | 96  | 169   | 279 | 31             | 36             | 1/8 | 189    | 170      |
| 50 | 120 | 177   | 279 | 31             | 36             | 1/8 | 220    | 198      |

# WATER BALL VALVE

TYPE—AWBV

CONNECTION / SOCKET, THREADED—JIS



**ACTUATOR SELECTION CHART**

| SIZE             | ACTUATOR TYPE    |         |
|------------------|------------------|---------|
|                  | AC100V<br>AC200V | DC24V   |
| 15mm ( 1/2inch)  | AM1-030          | DM2-030 |
| 20mm ( 3/4inch)  | AM1-070          | DM2-070 |
| 25mm ( 1inch)    | AM1-180          | DM2-180 |
| 32mm (1 1/4inch) | AM1-180          | DM2-180 |
| 40mm (1 1/2inch) | AM1-180          | DM2-180 |
| 50mm ( 2inch)    | AM1-180          | DM2-180 |

For detailed specifications, see **P.143**

■ JIS (Unit: mm)

| mm | H     | A  | A <sub>2</sub> | A <sub>3</sub> | JIS    |          |
|----|-------|----|----------------|----------------|--------|----------|
|    |       |    |                |                | SOCKET | THREADED |
|    |       |    |                |                | L      |          |
| 15 | 131   | 74 | 71             | 36             | 104    | 98       |
| 20 | 141.5 | 74 | 71             | 36             | 128    | 119      |
| 25 | 148.5 | 74 | 71             | 36             | 145    | 135      |
| 32 | 213.5 | 74 | 54             | 53             | 162    | 150      |
| 40 | 220.5 | 74 | 54             | 53             | 189    | 170      |
| 50 | 228.5 | 74 | 54             | 53             | 220    | 198      |