

AVAILABLE CONFIGURATIONS / FIGURE NUMBERS

M&H AWWA C500 STANDARD DOUBLE DISC GATE VALVES

**M&H AWWA Double Disc Parallel Seat IBBM Gate Valves
Meet or Exceed the requirements of AWWA C500**

Size Range	Water Working Pressure psi	Hydrostatic Shell Test psi
2" – 12"	200	400
14" – 48"	150	300

Available End Connections	Size Range	Figure Number.
Flanged Ends (NRS)	2"-48"	F-5070
Flanged Ends (OS&Y)	14"-36"	F-5072
Mechanical Joint	2"-48"	F-5065
*Mechanical Joint (Cutting End)	4"-12"	F-5067
*Tyton Ends (For D.I. / C900)	4"-12"	F-5080
*Flange End X Mechanical Joint	4"-48"	F-5066
*Flange End X Tyton End (For D.I. / C900)	4"-12"	F-5080
*Push-on (For PVC / SDR)	2"-10"	F-5085
*Tapping Valve	4"-24"	F-5093

*Contact Factory for availability and lead times

Note: Call Factory for Special Applications

42" & 48" Drawings Available on Request

Customer Drawings Available on Request

Accessories:

Floor stands

Limit Switches

Open Gearing

Needle & Slot (Navy) Indicators

Electric Motors

2" Square Operating Nuts

Chain wheels

"T" Handles

Stem Guides

Indicator Posts

By-pass Valves

Enclosed Gearing (Grease Case)

Barrel Indicators

Tracks, Rollers, & Scrapers for valves 14" or larger installed horizontally in line

Hand wheels

Extension Stems

Floor boxes

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M&H DOUBLE DISC GATE VALVES

Description and Advantages:

M&H AWWA Gate Valves are designed primarily for flow control of water in underground pipe lines. They equal or exceed the requirements established by standards of the American Water Works Association and conform to Federal Specifications WW-V-58B, Type II, Class I.

M&H AWWA Gate Valves are specifically designed for heavy pressure service. Neck, flanges, and bell are made extra heavy to withstand pipe strain and possible shifting. Body, cover, gates, and stem are built for extra strength, with clean and simple internal construction, to assure long service and low maintenance.

Operation of the Valve:

Turning the stem releases the wedging pressure on the gates allowing them to move away from their seats before starting upward travel. Further turning of the stem raises the gates into the fully opened position.

When closing the valve, the gates move freely downward without friction, to a position opposite their seats.

As the gates approach the bottom of the valve, the iron hooks come into contact with stops which prevent further downward movement of the hooks. The bronze wedges riding on these hooks spread the gates apart and force them against their seats.

Construction:

Body: Cast iron, bronze mounted. Sturdy proportions provide protection against damage.

Stem: Manganese bronze of high tensile and torsional strength, with accurate, perfectly machined threads. Ample diameters assure smooth valve movements.

Stem Nut: Solid bronze. Independent of hooks, gates, and wedges. Stem or stem nut will not bind or spring out of line, as can happen when stem nut is attached to wedges.

Wedges: Independent, solid bronze, 2"-3" valves have integral hook and wedge. 4"-8" have independent solid bronze wedges placed loosely in iron hooks, and are free to adjust to various positions of the gates. In 10" and larger valves, each wedge has one long and one short surface. The bottom of each wedge forms a

rocker bearing on the iron hooks, letting wedges adjust to varying positions of the gates in closing. The long side is used in closing the valve and the short side in opening it.

Low Torque Thrust Bearing: Valves 4"-12" are fitted below the stem collar with an exclusive Low Torque Thrust Bearing which provides high load capacity and low friction. This bearing reduces operating torque up to 50% yet seals perfectly for repacking under pressure.

Gates and Gate Rings: Gates 3" and smaller are bronze. Gates 4" and larger are high strength cast iron with bronze gate rings rolled into machined and dovetailed grooves under pressure to make gate and ring one inseparable unit. After fitting, gate rings are accurately machined.

Case rings: Bronze case rings are screwed into place and machined. They can be removed and replaced if necessary.

Packing: O-Ring packing is standard on all non-rising stem gate valves. Rising stem and geared valves are furnished with conventional packing.

Operating Nut and Handwheel: All valves except flanged valves and outside screw and yoke valves are supplied with 2" square operating nuts of high strength cast iron unless otherwise specified. Flanged valves and outside screw and yoke valves are supplied with handwheels of high strength cast iron unless otherwise specified. Direction of opening is indicated by arrow cast on operating nut skirt or on the rim of the handwheel.

Yoke: Yokes for outside screw and yoke valves are of rugged cast iron. Careful machining assures accurate stem alignment.

Accessories: Valves may be fitted with a large number of accessories: cylinders, electric motor operators, gearing, bypasses, etc.

Rollers, Tracks, and Scrapers: Recommended for 14" and larger diameter valves carry weight of the gates for valves installed in a horizontal or vertical line.

NOTE: All valves open to the left (counter clockwise) unless otherwise specified.

SAMPLE GATE VALVE SPECIFICATION

M&H DOUBLE DISC GATE VALVES

Gate Valves:

Valves shall be manufactured in accordance with AWWA Standard C500-93. Valves 12" and smaller shall be designed for 200 psi water working pressure and 150 psi for valves 14"-48" inclusive. Valves shall have (MJ, Flanged or as indicated on plans) ends and shall have clear waterway equal to the full nominal diameter of the valve. Valves shall be double disc parallel seat type with (non-rising, rising) stems, opening by turning (left, right) and provided with (2" square nuts, handwheel), with arrow cast in metal to indicate direction of opening.

Manufacturer of 2-48" gate valves must have the full range of valves in both NRS and OS&Y styles.

Each manufacturer shall provide certification that they have manufactured 2"-48" valves for a minimum of ten years.

Each valve shall have manufacturer's name, pressure rating and year in which manufactured cast on body. Prior to shipment from the factory each valve shall be hydrostatically shell tested at a pressure of 400 psig in sized 12" and smaller and 300 psig in sizes 14" and larger. In addition each valve shall be hydrostatically seat tested at a pressure of 200 psig in sizes 12" and smaller and 150 psig in sizes 14" and larger. Valves shall be AWWA valves as supplied by the M&H Valve Company, Anniston, Alabama.

Stuffing Boxes:

Stuffing Boxes shall be "O" ring seal type with two o-rings located in stem above thrust collar in valves without gearing. Sizes 14" through 48" there shall be a bronze bushing meeting ASTM B584.

Bolts and Nuts:

Body and cover bolts and nuts shall meet specification ASTM A307 rust proofed.

Wedging:

Valves will be bottom wedging type with two part floating wedge contact. The wedge and hook shall be separate castings and not a one piece casting in valves 4"-36". In valves 42" and 48" the hooks and wedges shall be one piece design with the outside of the wedge area covered with a bronze shoe. No side wedging will be acceptable.

Stems:

Stems shall be in full conformance with AWWA Specs. Sizes 14"-36" bronze ASTM B584 with 80,000 tensile strength, and cast integral stem collar. 42" and 48" shall be type 304 stainless steel.

Stem Nuts:

Stem nuts shall be made of solid bronze independent of hooks, gates and wedges. No pins will be allowed to retain gates to stem nut.

Gates and Gate Rings:

Gates shall be high strength cast iron, sturdily proportioned without pockets on backs. Cam surfaces shall open to bottom. Gate rings shall be rolled into dovetailed grooves under pressure to make one inseparable unit. The gate ring face shall be machined to a smooth finish.

Case Rings:

Bronze case rings shall be screwed into place and the contact face machined to a smooth finish. Use of screws, rivets of other means of retention will not be acceptable.

Valves 14" and Larger:

Valves installed with stem horizontal shall be equipped with bronze rollers, tracks, and scrapers.

Bypasses:

Bypasses shall be provided on 16" and larger valves where indicated and mounted directly to valve body with cast iron flanged connections. Bypass valves shall be resilient seated AWWA and ULFM approved for sizes through 36" and integral double disc type bypass valves for 42" and 48" sizes.

Gearing:

Enclosed spur or bevel gearing with extended type gear cases will be provided where indicated on plans. Side cover plates will be provided to completely enclose stem and stuffing box. Manufacturer must be able to supply open and enclosed gearing as standard.

ORDERING INFORMATION

M&H DOUBLE DISC GATE VALVES

When placing orders or making inquiries, please furnish the following information. This information will enable us to answer your questions, prepare quotations, and fill your order promptly. Lack of essential information is almost sure to cause delays. Use figure number wherever possible to identify product wanted.

1. Quantity

2. Size

3. Working pressure: Refer to tables of pressure ratings

4. End type or types: Gate valves are furnished with many end types

4A. Flanged valves: Furnished with ANSI 125 pound Standard flanges with bolt holes straddling center lines.

4B. Mechanical Joint valves: Normally furnished with standardized mechanical joints with plain rubber gaskets. Cutting-in type mechanical joints also available for use in existing cast iron pipe lines.

5. Direction of opening: Must be specified. Open left (counterclockwise); or open right (clockwise).

6. Type of stem: State whether non-rising stem or rising stem with outside screw and yoke.

7. Installation position: Indicate position in which valve will be installed (vertically, horizontally, or otherwise).

8. Operating nut or handwheel: All flanged valves and all rising stem valves with outside screw and yoke are furnished with handwheels unless otherwise specified. Other valves are furnished with a 2-inch square operating nut unless otherwise specified.

9. Stuffing box: Whether conventional or O-ring. Unless otherwise specified, we regularly furnish NRS valves with O-ring packing; other valves are regularly furnished with conventional stuffing box packing.

10. Indicator posts and valves: State depth of trench (distance from ground line to bottom of the pipe line); size and shape of operating nut, if other than standard. For valves already in place, state whether valve is equipped with a flange for post support; if so, give flange dimensions, and distance from centerline of valve to top of flange.

11. By-pass valves: State location, whether manually operated by-pass will have handwheel or operating nut, and any special instructions necessary.

12. Parts: Always order parts by number.