



## A-713 1" Angle Valve for Chlorine Service

### Corrosion resistant angle valves provide reliable long life in Chlorine transportation applications

For more than 25 years Midland has been providing the A-713-ML angle valve for Chlorine Service. The Midland A-713-ML has become the standard valve used on Chlorine trucks in North America and is used by most major shippers of Chlorine by rail. The A-713 Angle Valves are constructed of a monel body material with hastelloy c trim. The Midland A-713 angle valve is a soft-seated plug-style valve that provides bubble-tight sealing and long service life. Midland Angle Valves are also approved by the Association of American Railroads.

Utilizing more than 50 years of Midland expertise, the Angle Valves have been constructed to have the lowest number of potential leak paths in the industry, assuring Midland customers of long-term reliability and safe operation.

Because of this commitment to safety and quality, tank cars equipped with Midland Angle Valves stay in service longer and are more easily maintained. The unique seat design permits self-draining reducing the concern of trapping product in body after closing the valve. Soft, self-centering valve seats provide long life and positive shutoff along with lower operating torques. The valve stem packing is live loaded to provide constant force on



the packing rings. This live loading compensates for packing wear and thermal expansion and contraction of the packing when flashing in the valve occurs. The valves also incorporate secondary adjustable stem packing, providing improved stem sealing and The A-713 is also equipped with a replaceable outlet port that can be easily replaced without removing the valve from the tank car or truck.

#### Features

- Corrosion-Resistant materials provide maximum protection from wet chlorine
- Successfully used in Chlorine and AHCL applications
- Soft-seated design provides bubble-tight shutoff
- Lowest number of potential leak paths in the industry
- Triple seals on all potential leak paths to atmosphere
- Live-loaded valve stem provides constant load on packing rings
- Cappable with both Midland B-240 ERK Kit and Chlorine Institute C-Kit

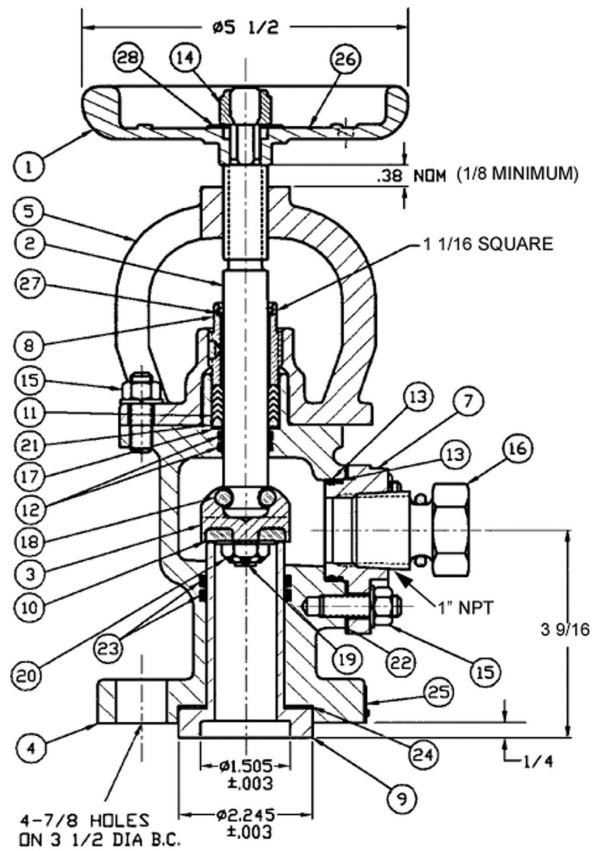
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## Ordering Specifications

### 713 1" Angle Valve

ITEM	DESCRIPTION
1	HANDWHEEL
2	STEM
3	SEAL RETAINER(3)
4	BODY
5	BONNET
6	
7	OUTLET FLANGE
8	PACKING SCREW
9	BODY INSERT(2)
10	SEAT SEAL(3)
11	PACKING RING
12	STEM "O" RING
13	OUTLET "O" RING
14	HANDWHEEL NUT
15A	STUD
15B	WASHER
15C	HEX NUT
16	PIPE PLUG & CHAIN ASM
17	PACKING SPRING
18A	U-BOLT
18B	NUTS
19	RETAINER PIN
20	RETAINER NUT
21	MALE PACKING ADAPTER
22	OUTLET FLANGE GASKET
23	BODY "O" RING
24	INSERT GASKET
25	NAMEPLATE
26	INSTRUCTION PLATE
27	WIPER
28	FLAT WASHER

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### NOTE:

- EXTERIOR CASTING SURFACES ARE GREEN TEFLON COATED
- PATENT 5131694 FOR BARSTOCK BODY INSERT  
(713-90-HC) USE VALVE MODEL NUMBER A-713-ML-B.
- ITEMS 3, 10, 19 & 20 FACTORY ASSEMBLED CAN BE ORDERED BY PT. NO 713-3000-ML.
- FLOW COEFFICIENT FOR UNLOADING IS 20.1 CV (WATER).

