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MUELLER GATE VALVES



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CHATTANOOGA, TENNESSEE



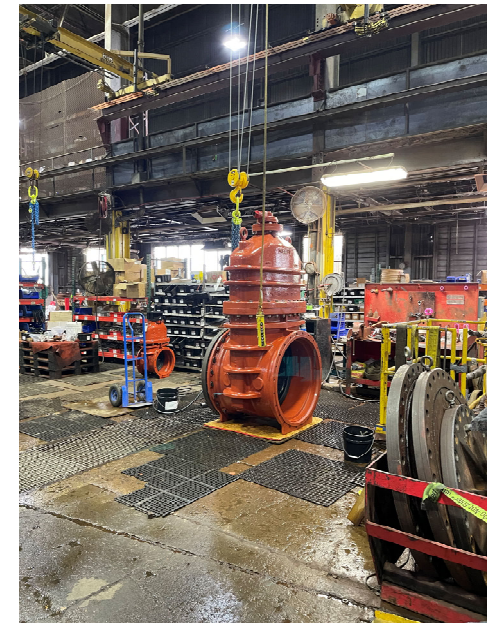
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RESILIENT SEAT / RESILIENT WEDGE GATE VALVE

- ✓ When AWWA C515 was released, we redesigned/modernized our gate valves (35% lighter than C509)
- ✓ NGV are in compliance with ANSI/AWWA C515 standard.
- ✓ Triple listed (meets & exceeds AWWA standard) - UL listed / FM approved up to 12".
- ✓ 350 psig maximum working pressure for 2"-12".
- ✓ 250 psig maximum working pressure for 14"-54".
- ✓ Bi-directional flow.



A2361 series



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54" GATE VALVE



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(60" RWGV disc nut)

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RESILIENT SEAT / RESILIENT WEDGE GATE VALVE

- ✓ New fully encapsulated Ductile Iron wedge design (patent pending) allows for 350psi rating.
- ✓ Natural SBR elastomer as standard, EPDM option.
- ✓ Reduced / Improved the shape of the valve / Polymer guide caps.
- ✓ 360-degree 100% seal
- ✓ 30% easier to operate than the old C509
- ✓ New 12" Mueller NGV Disc Design:
 - *150 ft/lbs of input torque will seal 500psi.*



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GUIDE CAPS



RESILIENT SEAT / RESILIENT WEDGE GATE VALVE



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350 PSI NEXT GENERATION GATE VALVES

- ✓ **Resilient Wedge Reduced Wall. (35 % lighter)**
 - *Body, Bonnet, Stuffing Box (Ductile Iron)*
 - *NGV 3"-12"*
- ✓ **New wedge design allows for a narrower profile while maintaining the same pipe stab depth & pipe end deflection.**
 - *12" 2362 is 15", NGV is 12"*
- ✓ **Forged Manganese Bronze / More elastic & stronger**
- ✓ **Stem is interchangeable with installed 2360 valves and available in the following materials:**
 - *Manganese Bronze: ASTM B138 Alloy C67600 HO4*
 - *Everdur: ASTM B98 Alloy C66100 HO2*
 - *304 / 316 Stainless Steel: ASTM A276/A273*



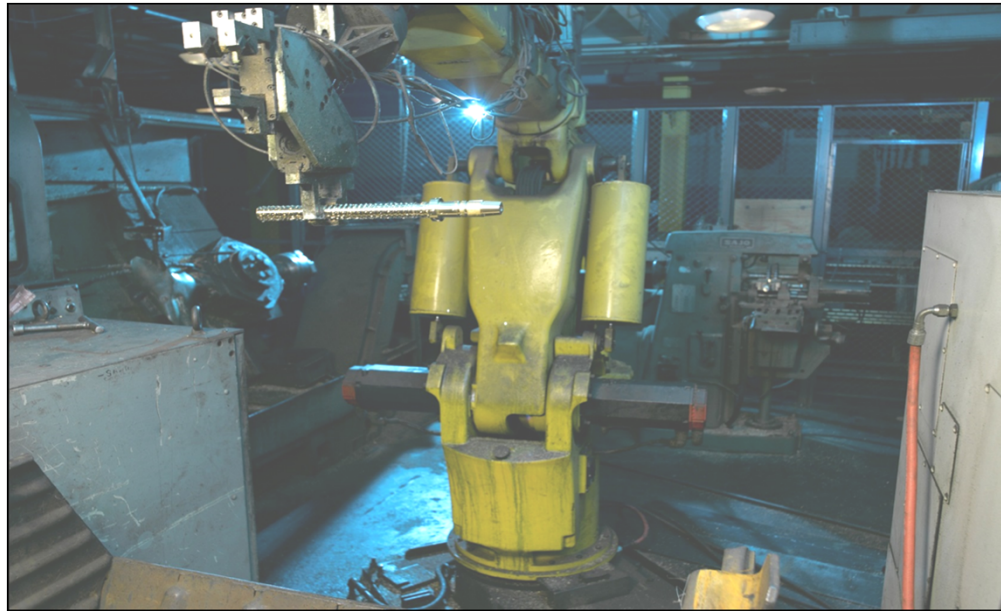
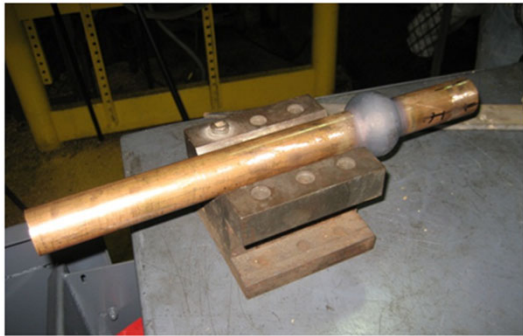
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INTEGRAL THRUST COLLAR

Forged Manganese Bronze Stem and Integral Thrust Collar



NON-INTEGRAL THRUST COLLAR



54-inch Stem



EPOXY COATING

Bury & forget / Applied 10 mils nominal / Powder gun is charged to 40k volts negative



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RESILIENT SEAT / RESILIENT WEDGE GATE VALVE

- ✓ Lifting Lugs integral to stuffing box enables use of straps or hooks
- ✓ Stuffing Box & Bonnet Bolts now 316 SS standard
- ✓ Stuffing Box centers Valve Box:
 - 6-1/2" VB fits over 4"-6" Lifting Lugs
 - 7" VB fits over 8" Lifting Lugs
 - 8" VB fits over 10"-12" Lifting Lugs



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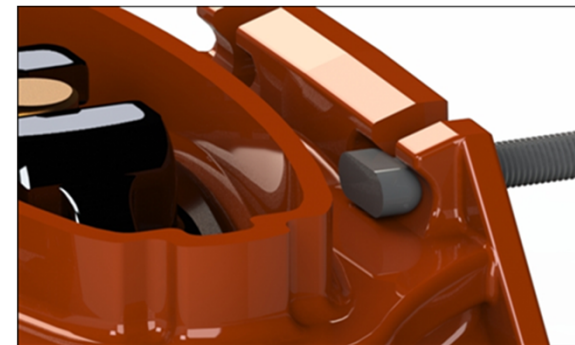
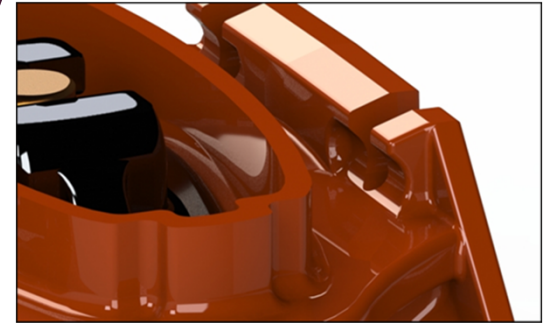


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RESILIENT SEAT / RESILIENT WEDGE GATE VALVE

- ✓ **End Connections Available for 350psi.**
 - *Mechanical Joint (3" – 12")*
(Features T-Head Bolt Retention on the slotted MJ Flange holes)
 - *Flanged (3"-12") with use of special gasket per Section 1.1 of ANSI/AWWA C110/A21.10-08*
 - *Slip-on (4"-12")*
- ✓ **0.3" Oversized Port opening.**



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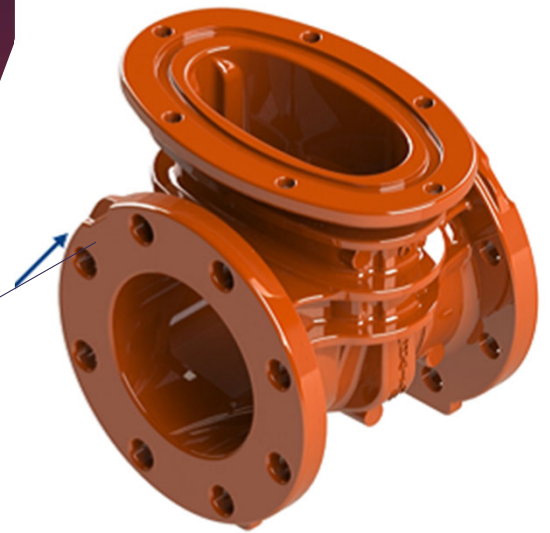
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NEW FL X FL FEATURES

FL x FL Valve Body

- A2361 & P2361
- New 4" – 12" FL x FL bodies
- Follows the light-weight design (MJ body)
- Same "lay length" as current bodies
- Flange ends
 - *Flange type identifying tabs*
 - *ASME B16.1 Class 125 & PN 10/PN 16*



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RESILIENT WEDGE PRESSURE TESTS

- ✓ Hydro-tested per the AWWA standard to 2x their working pressure (250 psi valves → 500 psi & 350 psi valves → 700 psi)
- ✓ UL tested to 4x their working pressure with 0 leak by (250 psi valves → 1000 psi & 350 1400psi)
- ✓ Shell test every valve at 500 or 700 psig.
- ✓ Test every tenth valve at 50 psig.
- ✓ UL listed / FM approved at 350psi for 2361 Series



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O.S.& Y GATE VALVE

- ✓ In compliance with AWWA's C515 standards.
- ✓ Manufacture sizes
 - Resilient Wedge (Ductile Iron) 2"-24"
- ✓ Utilized in above ground applications.
- ✓ Hand-wheel operation.
- ✓ UL listed / FM approved thru 16".
- ✓ UL listed only 18"-24".
- ✓ 350 psig Max working pressure 2"- 12"
- ✓ 250 psig Max working pressure 14"- 24"



R-2361 Series



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NEW O.S.& Y FEATURES

R2361 NGV Product Offering

- Size range 4" – 12 "
- All new redesigned (DI)
 - *FL x FL NGV Body*
 - *OS&Y Bonnet/Yoke Combo*
- AWWA (C515) / UL / FM – 350 PSI
- Flange ends
 - *Flange type identifying tabs*
 - *ASME B16.1 Class 125 & PN 10/PN 16*
- Also offered AWWA (C509) / UL / FM – 250 PSI 4"-12" Thick-wall Body & Bonnet



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THROTTLING



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GATE VALVE MAINTENANCE

✓ Valve Exercising

- ✓ *AWWA recommends 1 time/year*
- ✓ *2-3 cycles*
- ✓ *Hydrant open downstream*
- ✓ *Hydraulic valve exerciser recommended (contact valve company for torque requirements)*

✓ Formula for Number of Turns?

- ✓ *$3 \times \text{Size} + (2 \text{ or } 3)$*

✓ Record Keeping



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LACK OF MAINTENANCE LEADS TO GATE VALVE REPAIR



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IDENTIFICATION

- ✓ A Mueller valve can be identified by checking to see if the stuffing box runs parallel with the pipe up to 16".
- ✓ Identify valves with Red or Black operating nut.
 - *Can replace stem and stem nut without removing valve from line.*
- ✓ The operating nut can also determine whether the valve is a DDGV or RWGV.



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STAINLESS STEEL TYPE 316 FASTENERS

SST 316 Fastener Conversion & Standardization

➤ *Effective:*

1. 2" - 16" (RWGV) - May 1, 2017
2. 18" - 54" (RWGV) & 14" - 36" (DDGV) – July 1, 2017

Conversion Scope:

- Substitution of SST 304 with SST 316 on 2" -12"
- Substitution of Carbon Steel and SST 304 with SST 316 on 14" -54"
- Stainless option cost adder removed where appropriate

✓ Some options will remain until spec. change



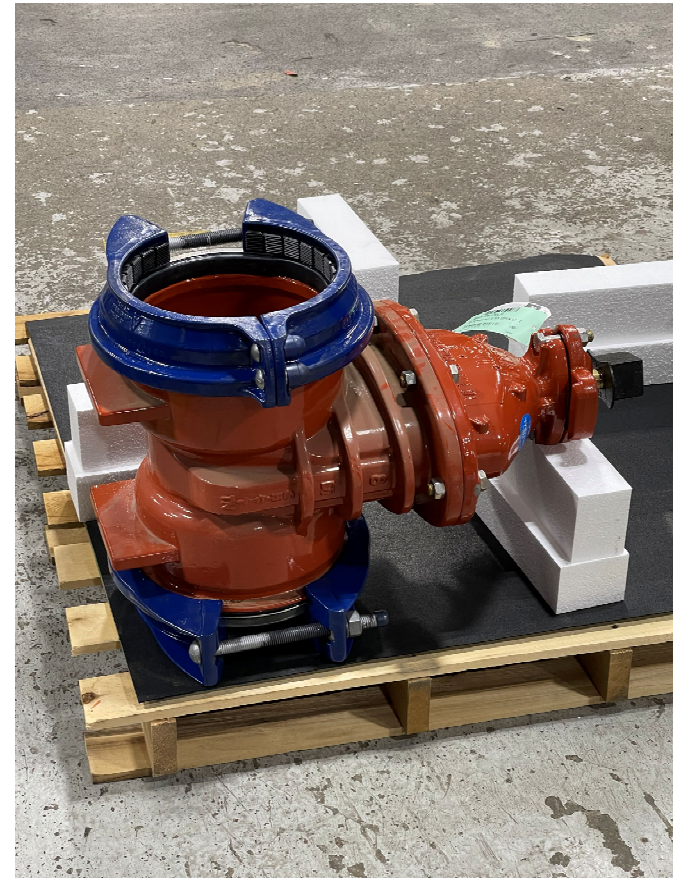
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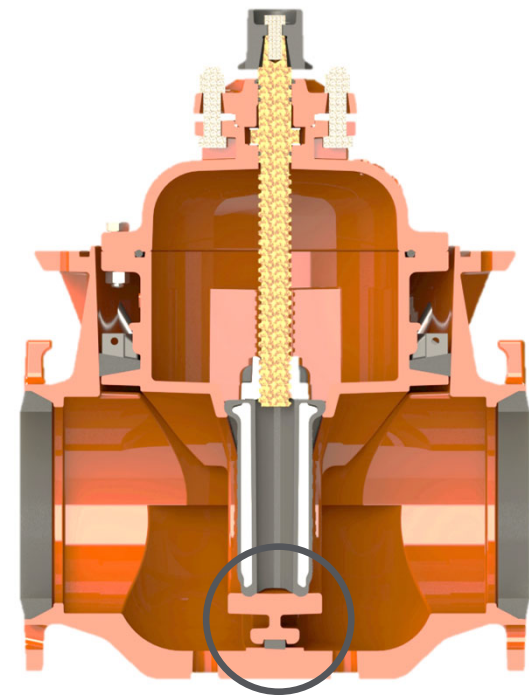
PermaSeal Insertion Valve

- 4", 6", 8", 10", 12"
- Clean Seat
- Benefits
 - Reduced need for shutdown, disruption to flow, water contamination, time, cost, customer down time

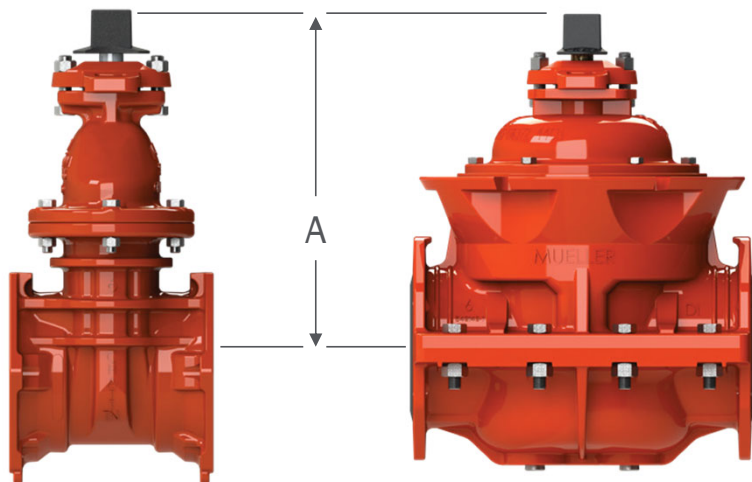


Repeat & Reliable Service

- “Clean Seat” technology enables reliable and repeatable watertight shutoff - suitable for an exercise program
- Gate seats on the precision cast surface of valve body and not on host pipe
- No recess/pocket in bottom of seat area to trap sediment or debris



Designed to ANSI/AWWA C-515 Standard



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- Compliant with all pertinent structural, functional, operating, and dimensionally important installation criteria
- 100% factory tested and verified
- Standard Mueller wedge, stem, and stuffing box valve operating assembly components
- Standard Mueller 10-year warranty

12" Insertion Valve



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MUELLER A2361 C515 GATE VALVE

- ✓ **350 PSI Max Working Pressure**
 - 3"-12" NGV
- ✓ **Lighter Weight Valve**
- ✓ **Fully Encapsulated Wedge**
- ✓ **Guide Gaps**
- ✓ **Easier to Operate**
- ✓ **Forged Manganese Bronze Stem**
- ✓ **Stem with Integral Thrust Collar**
- ✓ **Integral Lifting Lugs**
- ✓ **Stuffing Box centers Valve Box**
- ✓ **T-head Bolt Retention**
- ✓ **Stainless Steel Bolts**



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Questions?