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**CERTIFICATE OF COMPLIANCE**  
**Material and Production Test Certification**  
**Mueller 4-12" 2361 HYMAX Ends Resilient Wedge Gate Valves**

Date: May 5, 2021

**WE HEREBY CERTIFY** that MUELLER CO. 4-12" A2361 Series RWGV's with HYMAX ends are manufactured and tested at the Mueller ISO 9001 registered facility in Chattanooga, TN, USA. Approved, are certified to ANSI/NSF 61 & 372 and meet the requirements of AWWA C515. Production testing is performed in accordance with these standards and meets the following specifications.

<b>APPROVALS / PRODUCTION TESTING</b>				
Size	Model No.	AWWA (psi)	Hydro Seat Test (psi)	Hydro Shell Test (psi)
4-12"	A2361	250	375/375	500

\* NOTE: FM only approves Open Left valves.

Mueller certifies that the valve body, bonnet and wedge are manufactured in a Mueller foundry in Albertville, AL or Chattanooga, TN per Mueller QA procedures; each heat is tested and certified to be within the specification shown in the chart below under a controlled program and in accordance with ASTM A536 Ductile Iron.

<b>Ductile Iron: ASTM A536</b>										
<b>CHEMICAL COMPOSITION</b>										
Element	C	Si	Mn	S	Cu	P	Cr	Ti	Pb	Mo
Minimum	3.900	2.500	0.370	-----	0.140	-----	-----	-----	-----	-----
Maximum	3.950	2.800	0.420	0.022	0.180	0.050	0.080	0.015	0.005	-----

Mueller certifies that manganese bronze stems are manufactured under a controlled program and are

in accordance with ASTM B138.

<b>Manganese Bronze ASTM B138; Alloy C67600 (H02)</b>									
Chemical Composition							Mechanical Properties		
Element	Cu	Fe	Pb	Mn	Sn	Zn	Tensile	Yield	Elongation
Minimum	57.00	0.40	0.50	0.05	0.50	Remainder	70,000	35,000	15.00%
Maximum	60.00	1.30	1.00	0.50	1.50	Remainder	-----	-----	-----

Mueller certifies that the SBR rubber wedge material noted in the order above is manufactured under a controlled program and is in accordance with Mueller Rubber Specification R-88.

<b>SBR (Mueller Rubber Specification R-88); ASTM D2000</b>				
Specification	Durometer	Tensile	Elongation	Compression Set
Minimum	73	2,000	200%	0.00
Maximum	83	----	----	18.00

Mueller certifies the coating supplied with these valves is Mueller® Pro-Gard™ Epoxy Coating, an exceptional fusion bonded epoxy electrostatically applied to valve internal and external surfaces to protect against corrosion. This coating is Sienna red in color, non-toxic and suitable for use with drinking water components. Mueller valves with Pro-Gard are certified to NSF 61 and meet or exceed AWWA C550 requirements. Valves have a standard coating of ten mils nominal thickness.

Mueller certifies that components for A2361 RWGV's with HYMAX ends are manufactured in accordance with Mueller Co. QA procedures which include but are not limited to relevant dimensional, visual, and functional inspection and verification.

Respectfully,

*Matthew Littell*

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**MUELLER**