



NOTICE OF COMPLETION
AND
AUTHORIZATION TO APPLY THE UL MARK

06/10/2015

Backflow Direct, LLC
Doug Powell
3290 Monier Circle #300
Rancho Cordova, CA 95742

Our Reference: File MH60837 Vol. 1 Project Number 4786920662

Your Reference: POWELLD 05MAY15

Project Scope: NSF/ANSI 372 Evaluation for lead content to certify the following product lines:
(a) Backflow Preventers 2 ½"-3"-4"-6"-8" Deringer 20-30-40-50
(b) Backflow Preventers 4"-6" Deringer 20X-30X-40X-50X
(c) Butterfly Valves 2 ½"-3"-4"-6"-8" SS705

Dear Doug :

Congratulations! UL's investigation of your product(s) has been completed under the above Reference Number and the product was determined to comply with the applicable requirements. This letter temporarily supplements the UL Follow-Up Services Procedure and serves as authorization to apply the UL Mark at authorized factories under UL's Follow-Up Service Program. To provide your manufacturer(s) with the intended authorization to use the UL Mark, you must send a copy of this notice to each manufacturing location currently authorized under File MH60837 Vol. 1 and including any special instructions as indicated in the addendum to this letter.

Records in the Follow-Up Services Procedure covering the product are now being prepared and will be sent in the near future. Until then, this letter authorizes application of the UL Mark for 90 days from the date indicated above.

Additional requirements related to your responsibilities as the Applicant can be found in the document "Applicant responsibilities related to Early Authorizations" that can be found at the following web-site:
<http://www.ul.com/EAResponsibilities>

Any information and documentation provided to you involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

We are excited you are now able to apply the UL Mark to your products and appreciate your business. Feel free to contact me or any of our Customer Service representatives if you have any questions.

Very truly yours,

Jeffery Raffaelli
Chemist
UL, LLC
847.664.2996

Reviewed by:

Stephen Woynerowski
Staff Chemist
UL, LLC
847.664.3604



Douglas Powell
 BACKFLOW DIRECT L L C
 2484 MERCHANTILE DR
 RANCHO CORDOVA CA 95742

Date: 2018/07/04
 Subscriber: None
 PartySite: 664871
 File No: MH60837
 Project No: 4788549810
 PD No: 18029953
 Type: R
 PO Number:

Subject: **Procedure And/Or Report Material**

The following material resulting from the investigation under the above numbers is enclosed.

Issue

| <u>Date</u> | <u>Vol</u> | <u>Sec</u> | <u>Pages</u> | <u>Revised Date</u> |
|-------------|------------|------------|-------------------------------------|---------------------|
| | 1 | | Revised Index Page(s) 1 | 2018/06/29 |
| | 1 | | Revised Special Appendix Page(s) B2 | 2018/06/29 |
| 2015/06/10 | 1 | 1 | Cert of Compliance | |
| 2015/06/10 | 1 | 1 | New Description Page(s) 5A,6A | 2018/06/29 |
| 2015/06/10 | 1 | 1 | Revised Description Page(s) 1,5,6 | 2018/06/29 |
| 2015/06/10 | 1 | | Revised Description Page(s) 1 | 2018/06/29 |
| 2015/06/10 | 1 | | New Test Record 4 | 2018/06/29 |
| 2015/06/10 | 1 | | Revised Test Record 3-1 | 2018/06/29 |

PO# POWELLD 21JUN18

Inspections at your plant will be conducted under the supervision of DANIEL DEATHERAGE, UL INSPECTION CENTER NORTHWEST AREA OFFICE, UL LLC, FIELD SERVICES DEPT,NORTH REGION, 2600 NW LAKE RD, CAMAS, WA, United States, 98607., PHONE: 360.597.8635, EMAIL: Dan.Deatherage@ul.com

Please file revised pages and illustrations in place of material of like identity. New material should be filed in its proper numerical order.

NOTE: Follow-Up Service Procedure revisions DO NOT include Cover Pages, Test Records and Conclusion Pages. Report revisions DO NOT include Authorization Pages, Indices, Section General Pages and Appendixes.

Please review this material and report any inaccuracies to UL's Customer Service Professionals. Contact information for all of UL's global offices can be found at <http://ul.com/aboutul/locations>.

If you'd like to receive updated materials FASTER, UL offers electronic access and/or delivery of this material. For more details, contact UL's Customer Service Professionals as shown above.

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NBK File

UL INSPECTION CENTER 969

| Models | Section |
|---|---------|
| <p>Deringer-</p> <p>20^: 2.5", 3", 4", 6", 8"</p> <p>30^: 2.5", 3", 4", 6", 8"</p> <p>40^: 2.5", 3", 4", 6", 8"</p> <p>50^: 2.5", 3", 4", 6", 8"</p> <p>20^X: 4", 6"</p> <p>30^X: 4", 6"</p> <p>40^X: 4", 6"</p> <p>50^X: 4", 6"</p> <p>Magnum-</p> <p>20^: 2.5", 3", 4", 6", 8"</p> <p>40^: 2.5", 3", 4", 6", 8"</p> <p>20^X: 4", 6"</p> <p>40^X: 4", 6"</p> <p>Butterfly Valves:</p> <p>SS705-</p> <p>2.5", 3", 4", 6", 8"</p> <p>Footnotes:</p> <p>^: Addition of "G" denotes use of OS&Y or NRS Gate Valve construction</p> | 1 |
| | |

Verify UL Certification including use restrictions on the following components:

| Component Trade Name | Manufacturer | Use Restrictions |
|---|---------------------|--|
| 2.5"-8" OS&Y or NRS Gate Valve | ANY | Classified/ Certified to NSF/ANSI 372 |

Special Instructions:

Quantity of samples to be collected shall adhere to the following criteria for XRF testing: 1) There will be a flat surface area of the wetted parts at minimum 1cm x 3cm, or can be easily manipulated to provide a 1cm x 3cm area. 2) If the flat surface area of the entire wetted part is less than 1cm x 3cm then the quantity of samples collected will be in the range of 3-5 samples.

In the event that the specific part number is not available for sampling, a different part may be selected provided that it is made of the same material.

Samples collected should be placed into an appropriate sized plastic ziplock bag with the following information typed or written onto a notecard or letterhead: applicant part number, supplier part number, part description,

manufacturer name, supplier of raw material, trade name of raw material, lead content % of raw material, and either CAS number or UNS code with alloy name.

All appropriate MSDS sheets should be provided in the plastic bag

DESCRIPTION

PRODUCTS COVERED:

Backflow prevention check valves, in the following models, series and sizes:

Deringer-

20^: 2.5", 3", 4", 6", 8"

30^: 2.5", 3", 4", 6", 8"

40^: 2.5", 3", 4", 6", 8"

50^: 2.5", 3", 4", 6", 8"

20^X: 4", 6"

30^X: 4", 6"

40^X: 4", 6"

50^X: 4", 6"

Magnum-

20^: 2.5", 3", 4", 6", 8"

40^: 2.5", 3", 4", 6", 8"

20^X: 4", 6"

40^X: 4", 6"

Butterfly Valves:

SS705-

2.5", 3", 4", 6", 8"

Footnotes:

^: Addition of "G" denotes use of OS&Y or NRS Gate Valve construction

USC, CNC - product(s) investigated to US and Canadian Standard NSF/ANSI 372.

GENERAL CHARACTER AND USE:

These products are backflow prevention check valves Classified to the lead (Pb) content requirements of NSF/ANSI 372, Drinking Water System Component - Lead (Pb) Content, only.

| | | | | | | |
|----------------------------|--------------|-------------------------|----------------------|---------------------|---|------|
| Spacer, Link | BD-4009 | McMaster | Dupont | Nylon 6/6 | 2 | 0.39 |
| Bearing, SAE 841 | BD-4019 | Industrial Suppliers | SAE 841/AMS 4805 | Oilite Non-Tox | 1 | 0.72 |
| Shut Off Disk, 4in | BD-4004 | Expert Auto | F-13, N-40L1, N-40V1 | Silicone Shore 40A | 2 | 15.6 |
| Shut Off Disk, Bypass Chk | CV-7502 | Newby, Expert Auto | F-13, N-40L1, N-40V1 | Silicone Shore 40A | 1 | 2.31 |
| Piston, RV 2.5-8 (portion) | BD-1010 | Newby, Expert Auto | F-10, N-60L1, N-60V1 | Silicone Shore 60A | 1 | 1.86 |
| Spring, RV 2.5-8 | BD-1011 | Bloomingburg Spring | UNS S30200 | Stainless Steel 302 | 1 | 10.7 |
| Spring, Bypass Check | CV-7513 | Bloomingburg Spring | UNS S30200 | Stainless Steel 302 | 1 | 4.1 |
| Piston, RV 2.5-8 (portion) | BD-1010 | Custom Machine | UNS S30300 | Stainless Steel 303 | 1 | 6.34 |
| Pitot Tube, 2.5 | BD-1026 | Custom Machine | UNS S30300 | Stainless Steel 303 | 1 | 8.36 |
| Link, Mid DC | BD-4005 | Material Wholesaler | ASTM A240 | Stainless Steel 304 | 2 | 1.34 |
| Link, Spring DC | BD-4008 | Material Wholesaler | ASTM A240 | Stainless Steel 304 | 1 | 2.65 |
| Link, Mid RP | BD-4015 | Material Wholesaler | ASTM A240 | Stainless Steel 304 | 2 | 3.42 |
| Link, Spring RP | BD-4018 | Material Wholesaler | ASTM A240 | Stainless Steel 304 | 1 | 4.04 |
| Cover, RV 2.5-8 | BD-1012 | Material Wholesaler | ASTM A240 | Stainless Steel 304 | 1 | 7.39 |
| Nipple, .5NPT X 2.0L | BP-0010 | O'Brien Brass, McMaster | UNS S30400 | Stainless Steel 304 | 1 | 3.64 |
| Test Cock, Seal | TC-MF-5050 | Camega Valve | Dupont | Tetrafluoroethylene | 8 | 0.26 |
| 1/2" Ball Valve, Seal | BV-FF-5050-P | Camega Valve | Dupont | Tetrafluoroethylene | 4 | 0.85 |
| 1/8" Ball Valve, Seal | TC-MS-1212 | Camega Valve | Dupont | Tetrafluoroethylene | 4 | 0.26 |

*

OS&Y or NRS Gate Valve Constructions

These components are add-ons to the above construction

| Description | Size range | Supplier | Quantity |
|------------------------|------------|--|----------|
| Gasket Coupling | 2.5"-8" | LEDE/API | 2 |
| OS&Y or NRS Gate Valve | 2.5"-8" | Any OS&Y or NRS Gate Valve Classified/ Certified to NSF/ ANSI 372 by UL* | 2 |

*Product should bear either the UL Classified or Certified Mark

The following components were deemed necessary for NSF/ ANSI 372 Testing and Follow Up Service Inspection:

| PART DESCRIPTION | SUPPLIER'S MODEL NUMBER / TRADE NAME / PART DESIGNATION | ALLOY NUMBER / MATERIAL TYPE | SUPPLIER | WETTED SURFACE AREA OF ONE PART (IN ²) | Max Lead Content (Pb %) |
|------------------|---|------------------------------|------------------------|--|-------------------------|
| Test Cock, Ball | TC-MF-5050 | Brass, Cr Plated C36000 | Camega Valve | 3.3 | 3.70 |
| Test Cock, Inlet | TC-MF-5050 | Bronze, Ni Plated C89520 | Camega Valve | 3.3 | 0.25 |
| H-40. KMC-H-4 | BFV-2111 | EDPM Shore 70A | Black River | 9.28 | 0.00 |
| Elbo 90 | BP-0017 | Lead Free Bronze, C89836 | Camega Valve | 9.2 | 0.25 |
| Roller Check 4in | BD-4025 | Noryl GFN3 | Magic Plastics | 1.33 | 0.00 |
| Sensing Line | BD1020 | SS304 and Brass | BrassCraft (Only this) | 10.3 | 0.25 |
| Elbo 90 | BP-0009 | Lead Free Bronze, C89836 | Camega Valve | 5.2 | 0.25 |
| Rulon 142 | BFV-4105 | Bronze Teflon CoPolymer | Def Seals | 2.47 | 0.00 |
| Body Portion | SS RP | SS304 ASTM A743 | Black River | 322.3 | 0.00 |

*

Verify NSF Certification including use restrictions on the following components:

| Component Trade Name | Manufacturer | Use Restrictions |
|----------------------------------|------------------------|-------------------|
| BD1020, Sensing Line RV 2.5-8 | Watts, Lil O-Quicke | NSF 372 Certified |
| BP-6275, Meter 5/8 x 3/4 | Badger, Sensus, Master | NSF 372 Certified |

Verify UL Certification including use restrictions on the following components:

| Component Trade Name | Manufacturer | Use Restrictions |
|-----------------------------------|--------------|--|
| 2.5"-8" OS&Y or NRS Gate Valve | ANY | Classified/ Certified to NSF/ANSI 372 |

CERTIFICATE OF COMPLIANCE

Certificate Number 20180704-MH60837
Report Reference MH60837-20150610
Issue Date YYYY-MONTH-DD

Issued to: Backflow Direct L L C
2484 Merchantile Dr
Rancho Cordova CA 95742

**This is to certify that
representative samples of**

LEAD CONTENT VERIFICATION OF PRODUCTS IN
CONTACT WITH POTABLE WATER

For Models Refer Addendum Page

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: NSF/ANSI 372 - Drinking Water System Components -
Lead Content

Additional Information: See the UL Online Certifications Directory at
www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's
Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program
UL LLC

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contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



CERTIFICATE OF COMPLIANCE

Certificate Number 20180704-MH60837
Report Reference MH60837-20150610
Issue Date YYYY-MONTH-DD

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Models;

Backflow prevention check valves, in the following models, series and sizes:

Deringer-

20[^]: 2.5", 3", 4", 6", 8"

30[^]: 2.5", 3", 4", 6", 8"

40[^]: 2.5", 3", 4", 6", 8"

50[^]: 2.5", 3", 4", 6", 8"

20[^]X: 4", 6"

30[^]X: 4", 6"

40[^]X: 4", 6"

50[^]X: 4", 6"

Magnum-

20[^]: 2.5", 3", 4", 6", 8"

40[^]: 2.5", 3", 4", 6", 8"

20[^]X: 4", 6"

40[^]X: 4", 6"

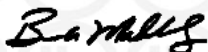
Butterfly Valves:

SS705-

2.5", 3", 4", 6", 8"

Footnotes:

[^]: Addition of "G" denotes use of OS&Y or NRS Gate Valve construction



Bruce Mahrenholz, Director North American Certification Program

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DESCRIPTION

PRODUCT(S) COVERED:

Backflow prevention check valves, in the following models, series and sizes:

Deringer-

20^: 2.5", 3", 4", 6", 8"

30^: 2.5", 3", 4", 6", 8"

40^: 2.5", 3", 4", 6", 8"

50^: 2.5", 3", 4", 6", 8"

20^X: 4", 6"

30^X: 4", 6"

40^X: 4", 6"

50^X: 4", 6"

Magnum-

20^: 2.5", 3", 4", 6", 8"

40^: 2.5", 3", 4", 6", 8"

20^X: 4", 6"

40^X: 4", 6"

Butterfly Valves:

SS705-

2.5", 3", 4", 6", 8"

Footnotes:

^: Addition of "G" denotes use of OS&Y or NRS Gate Valve construction

USC, CNC - product(s) investigated to US and Canadian Standard NSF/ANSI 372

GENERAL CHARACTER AND USE:

These products are backflow prevention check valves Classified to the lead (Pb) content requirements of NSF/ANSI 372, Drinking Water System Component - Lead (Pb) Content, only.

TEST RECORD NO. 3

GENERAL:

This test record covers the addition of the following Backflow Prevention Check Valves:

Magnum-

20: 2.5", 3", 4", 6", 8"

40: 2.5", 3", 4", 6", 8"

20X: 4", 6"

40X: 4", 6"

No testing was required as this was revisions were completed under a service request.

Test Record by:

Reviewed by:

Jeffery Raffaelli

Associate Project Chemist

Douglas Frederick

Senior Staff Chemist

TEST RECORD NO. 4

GENERAL:

This test record covers the addition of OS&Y or NRS Gate Valve constructions, designated with a "G," to the listing.

Deringer, Deringer X, as well as Magnum product lines will utilize the "G" Designation to show construction with two gate valves.

No testing was required as this was revisions were completed under a service request.

Test Record by:

Reviewed by:

Jeffery Raffaelli
Associate Project Chemist

Douglas Frederick
Senior Staff Chemist