

# Victaulic® Series 78BV Balancing Valve



106.06

## PROJECT INFORMATION

Project  
Contractor  
Job  
Engineer  
Date



## 1.0 PRODUCT DESCRIPTION

**Available Sizes:** ½ – 2"/DN15 – DN50

**Application/Function:** Heating (not including steam) and cooling systems/balancing, pre-setting, measuring, and shut-off

**Maximum Working Pressure:** 400 psi/2758 kPa/28 Bar

**Operating Temperature Range:** -4°F to 248°F/-20°C to +120°C

## 2.0 CERTIFICATIONS/LISTINGS



IAPMO Certified in accordance with ANSI/NSF 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and ANSI/NSF 372.

## 3.0 SPECIFICATIONS - MATERIAL

**Body:** Low-lead brass, equivalent to UNS C46500

**O-ring:** EPDM rubber

**Ball Retainer:** Low-lead brass, equivalent to UNS C46500

**Stem:** Stainless steel, equivalent to UNS 30400

**Ball:** Stainless steel, equivalent to UNS 30400

**Ball Seats:** Polytetrafluoroethylene (PTFE)

**Handle:** Zinc-plated carbon steel with vinyl grip

**Dial Scale:** Stainless steel, equivalent to UNS 30400

**PT Ports:** Low-lead brass, equivalent to UNS C46500

## 4.0 AVAILABLE ACCESSORIES

- PT Port Extensions (kit of two)
- Handle Extension

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

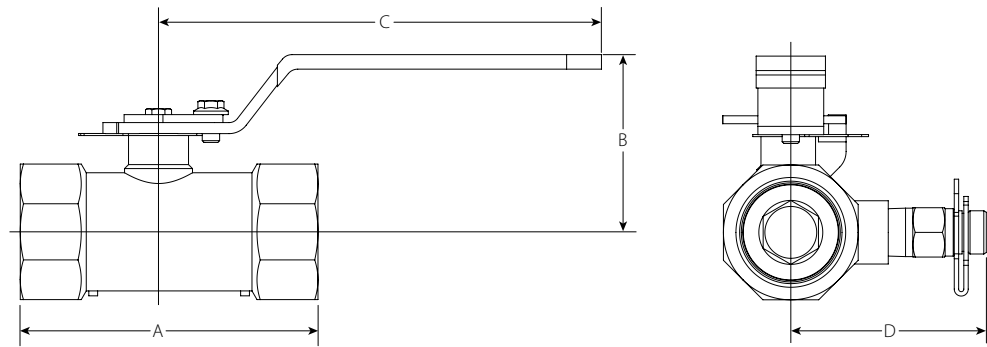
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## 5.0 DIMENSIONS

### Female NPT



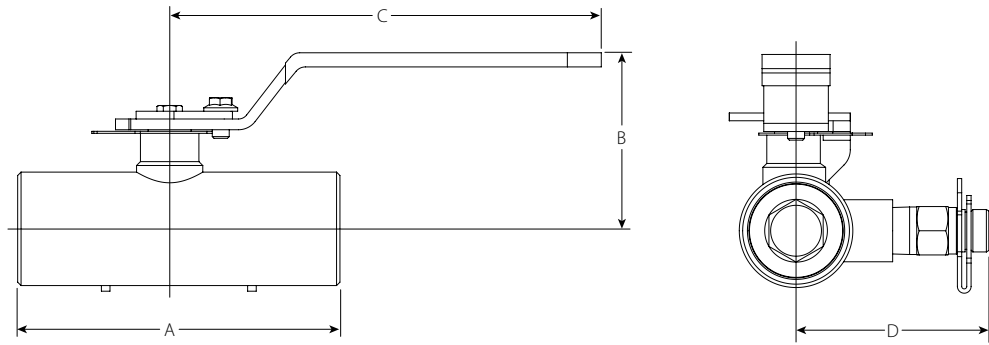
Series 78BV  
1/2 – 2"/DN15 – DN50

Size		Dimensions					Full Open Cv Kv	Weight
Nominal Size inches DN	Actual O.D. inches mm	A Female x Female inches mm	A Copper Press x Copper Press inches mm	B inches mm	C inches mm	D inches mm		Approx. <sup>1</sup> (Each) lb kg
1/2 DN15	0.840 21.3	2.44 62	4.80 122	1.97 50	3.95 100	2.10 54	2.35 2.03	0.69 0.30
3/4 DN20	1.050 26.9	2.69 68	5.45 138	1.95 50	3.95 100	2.19 56	6.31 5.46	0.86 0.40
1 DN25	1.315 33.7	3.37 86	6.39 162	2.09 54	5.33 136	2.20 56	10.95 9.47	1.27 0.60
1 1/4 DN32	1.660 42.4	3.93 100	7.29 186	2.17 56	5.33 136	2.56 66	15.92 13.77	1.95 0.90
1 1/2 DN40	1.900 48.3	4.11 104	8.15 208	2.28 58	5.33 136	2.70 68	23.66 20.47	2.50 1.10
2 DN50	2.375 60.3	4.88 124	9.62 244	2.68 68	5.94 150	2.97 76	40.58 35.10	4.14 1.90

<sup>1</sup> Weight is for female x female configuration and does not include optional copper press adapters

## 5.0 DIMENSIONS (CONTINUED)

### Sweat



Series 78BV  
1/2 – 2"/DN15 – DN50

Size		Dimensions				Full Open Cv Kv	Weight
Nominal Size inches DN	Actual O.D. inches mm	A Sweat x Sweat inches mm	B inches mm	C inches mm	D inches mm		Approx. (Each) lb kg
1/2 DN15	0.840 21.3	2.40 60	2.05 52	3.95 100	2.01 52	2.35 2.03	0.62 0.30
3/4 DN20	1.050 26.9	2.98 76	1.95 50	3.95 100	2.09 54	6.31 5.46	0.70 0.30
1 DN25	1.315 33.7	3.75 96	2.15 54	5.33 136	2.20 56	10.95 9.47	1.15 0.50
1 1/4 DN32	1.660 42.4	4.47 114	2.17 56	5.33 136	2.50 64	15.92 13.77	1.49 0.70
1 1/2 DN40	1.900 48.3	5.00 128	2.26 58	5.33 136	2.62 66	23.66 20.47	2.05 0.90
2 DN50	2.375 60.3	6.06 154	2.66 68	5.94 150	2.80 72	40.58 35.10	3.67 1.70

## 5.1 OPTIONAL PARTS

Description	Victaulic Part Code
Kit of (2) PT Port Extensions	K00078BV2X
Handle Extension for 1/2" or 3/4" Valve (For 2" thick insulation)	P00478Y2HL
Handle Extension for 1" through 1 1/2" Valve (For 2" thick insulation)	P01278Y2HL
Handle Extension for 2" Valve (For 2" thick insulation)	P02078Y2HL

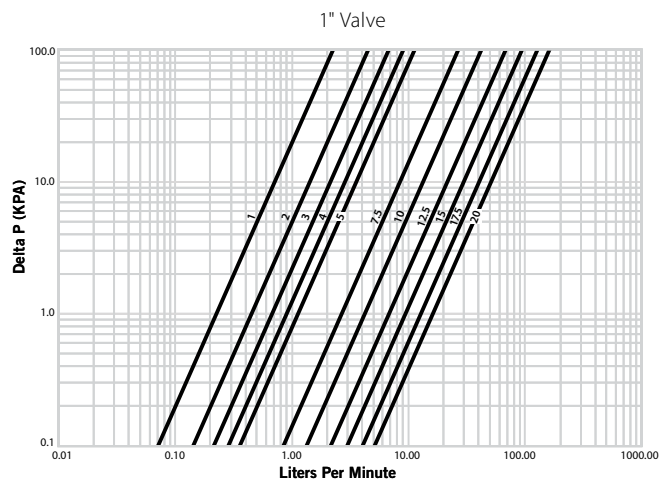
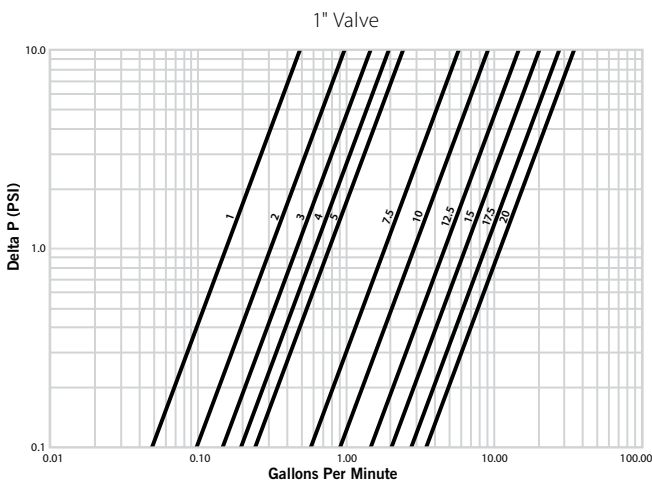
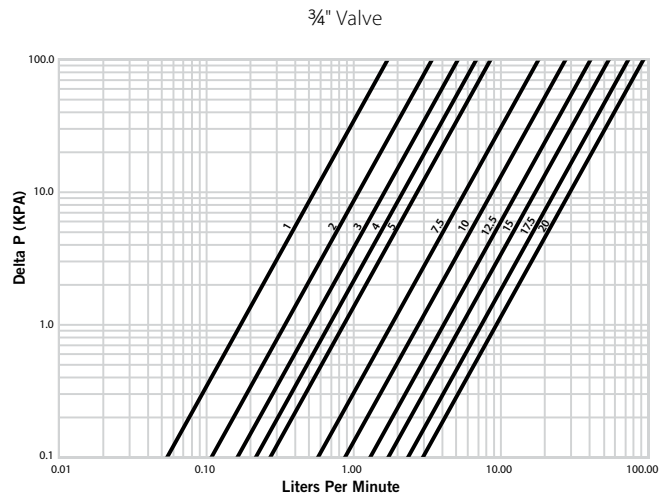
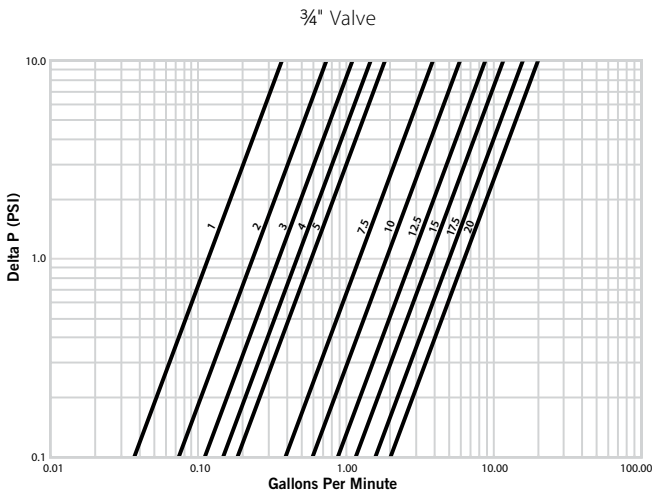
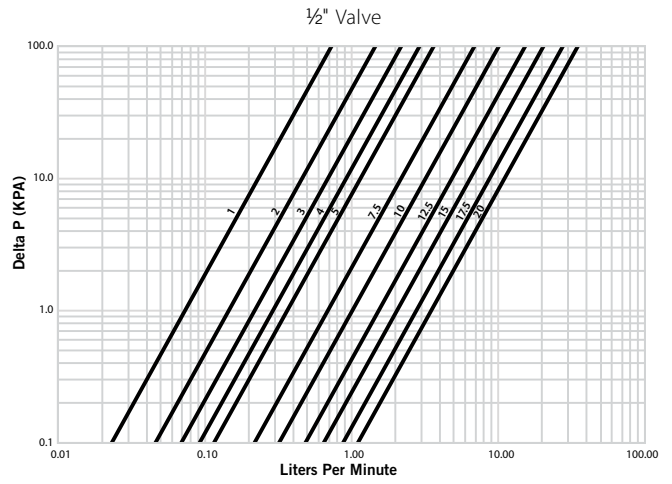
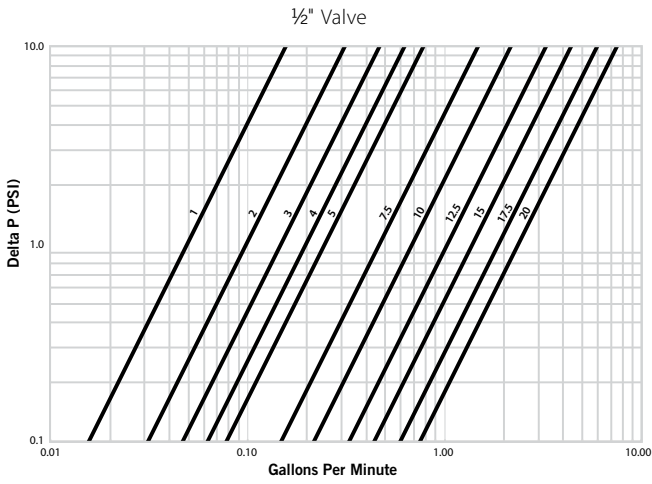
**6.0 PERFORMANCE**

**Series 78BV**

Handle Position	Cv Kv					
	½"	¾"	1"	1 ¼"	1 ½"	2"
0	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00
1	0.04	0.05	0.04	0.00	0.00	0.00
	0.03	0.04	0.03	0.00	0.00	0.00
2	0.07	0.15	0.16	0.00	0.00	0.00
	0.06	0.13	0.14	0.00	0.00	0.00
3	0.08	0.27	0.33	0.53	0.85	0.84
	0.07	0.23	0.29	0.46	0.74	0.73
4	0.11	0.44	0.57	0.61	1.32	1.51
	0.10	0.38	0.49	0.53	1.14	1.31
5	0.15	0.60	0.78	1.25	1.74	2.29
	0.13	0.52	0.67	1.08	1.51	1.98
7 ½	0.30	1.18	1.50	2.49	3.60	4.98
	0.26	1.02	1.30	2.15	3.11	4.31
10	0.49	1.77	2.68	4.46	7.10	9.32
	0.42	1.53	2.32	3.86	6.14	8.06
12 ½	0.98	2.72	4.02	6.52	10.21	13.77
	0.85	2.35	3.48	5.64	8.83	11.91
15	1.50	3.73	6.00	9.44	15.40	20.97
	1.30	3.23	5.19	8.17	13.32	18.14
17 ½	1.88	5.30	9.14	14.30	20.67	32.72
	1.63	4.58	7.91	12.37	17.88	28.30
20	2.35	6.31	10.95	15.92	23.66	40.58
	2.03	5.46	9.47	13.77	20.47	35.10

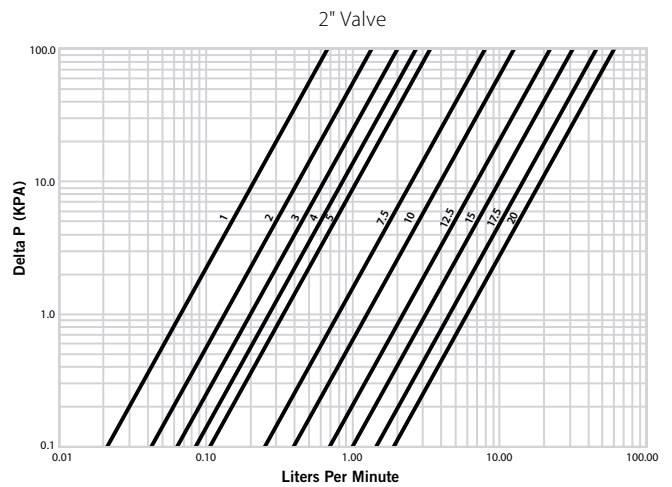
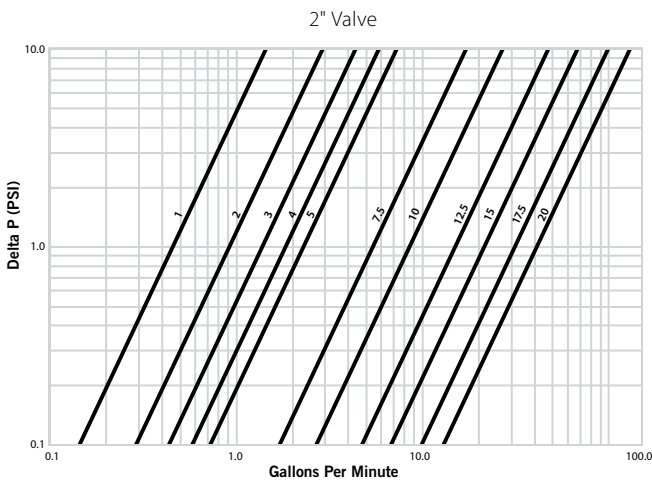
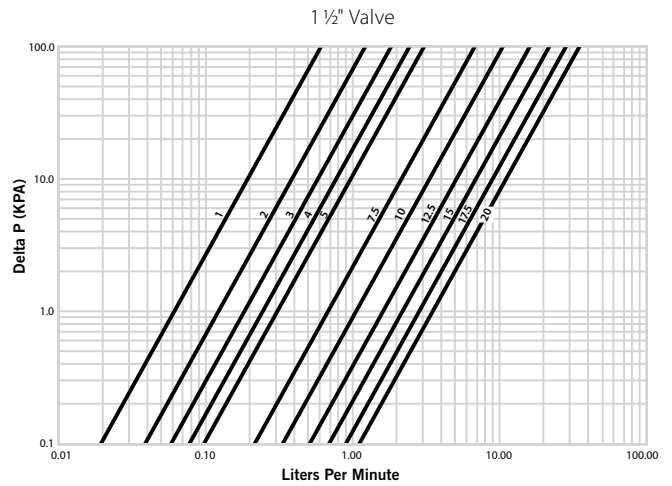
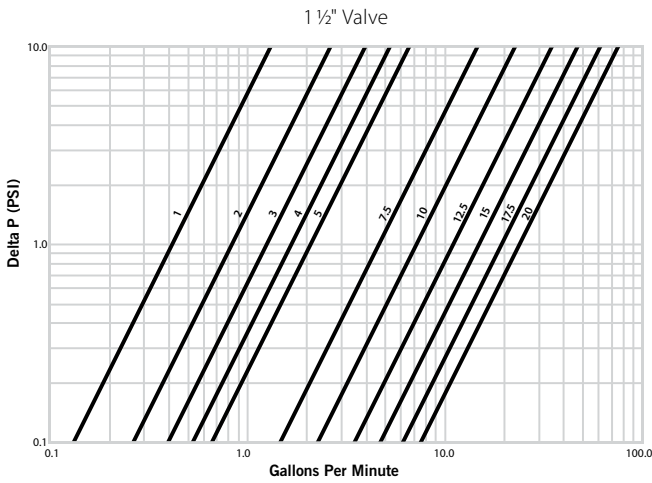
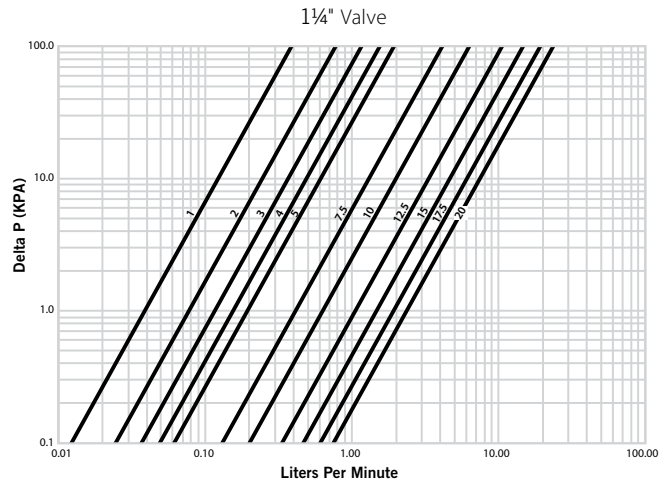
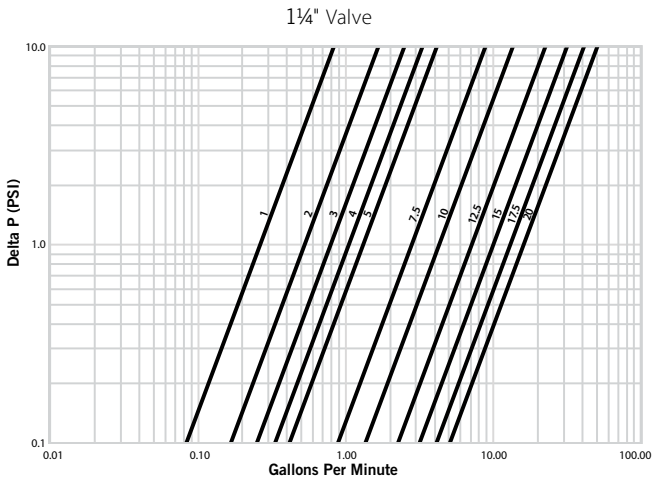
## 7.0 PERFORMANCE

### Cv VERSUS HANDLE POSITION CHARTS - THREADED AND SWEAT END



## 7.0 PERFORMANCE (CONT'D)

### Cv VERSUS HANDLE POSITION CHARTS - THREADED AND SWEAT END



## 8.0 NOTIFICATIONS

### ⚠ WARNING



- Read and understand all instructions before attempting to install any Victaulic products.
- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Confirm that any equipment, branch lines, or sections of piping that may have been isolated for/during testing or due to valve closures/positioning are identified, depressurized, and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, foot protection, and hearing protection.

Failure to follow these instructions could result in death or serious personal injury and property damage.

## 9.0 REFERENCE MATERIALS

[08.30: Victaulic® KOIL-KIT™ Coil Pack](#)

[08.34: Victaulic® Automatic Balancing Valves - Series 76T, 76B, 76K, 76V, 76G, and 76F](#)

[106.01: Victaulic® Series 786V Manual Balancing Valve](#)

[106.02: Victaulic® Series 787V Manual Balancing Valve](#)

[106.03: Victaulic Series 788V Manual Balancing Valve](#)

[106.04: Victaulic Series 789V Manual Balancing Valve](#)

[106.05: Victaulic® Series 78KV Manual Balancing Valve](#)

[106.20: Victaulic® Series UBA Unibody ABV Balancing Valve](#)

[106.21: Victaulic® Series UBM Unibody Manual Balancing Valve](#)

[106.15: Victaulic® Series UBP Unibody PICV Balancing Valve](#)

[106.30: Victaulic® Series UH1 Stainless Steel Annular Corrugated Flexible Pipe](#)

[I-786V/787V: Victaulic® Series 786V and 787V Manual Balancing Valves Installation and Maintenance Instructions](#)

[I-788V/789V: Victaulic® Series 788V and 789V Manual Balancing Valves Installation and Maintenance Instructions](#)

[I-UBA: Victaulic® Series UBA Unibody ABV Balancing Valve Installation and Maintenance Instructions](#)

[I-UBM: Victaulic® Series UBM Unibody Manual Balancing Valve Installation and Maintenance Instructions](#)

[I-UBP: Victaulic® Series UBP Unibody PICV Balancing Valve Installation and Maintenance Instructions](#)

[I-UH1: Victaulic® Series UH1 Stainless Steel Annular Corrugated Flexible Pipe Installation and Use Guidelines](#)

### User Responsibility for Product Selection and Suitability

Each user bears final responsibility for determining the suitability of Victaulic products for their end-use application, in accordance with industry standards, project specifications, and Victaulic's published performance, maintenance, and safety data, as well as all warnings and installation instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, warranty, installation instructions, or this disclaimer.

### Installation

Always refer to and follow the [Victaulic Installation Handbook](#) or installation instructions for the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at [victaulic.com](#).

### Warranty

Refer to the Warranty section of the current Price List or contact Victaulic for details.

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### Note

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