



**HIPP
DESIGN +
CONSULTING**

SHOP DRAWING / SUBMITTAL ACTION TICKET

CLIENT NAME	Eli Lilly
CONSTRUCTION MANAGER	BE&K
PROJECT NAME	Project Concord DAP
PROJECT NUMBER	G22131

SUBMITTAL NUMBER: #137 (#232113-52 Rev 1)		SUBMITTAL TITLE: Heat Transfer-Coil Kits	
CONTRACTOR / VENDOR: Kirlin-Way Mechanical		DATE RECEIVED: 30AUG2023	
RECEIVED BY: NR		DATE DUE: 06SEP2023	
DISPOSITION: <input checked="" type="checkbox"/> NO EXCEPTION TAKEN <input type="checkbox"/> APPROVED AS NOTED <input type="checkbox"/> REVISE AND RESUBMIT <input type="checkbox"/> REJECTED, RESUBMIT <input type="checkbox"/> NOT REVIEWED		DISTRIBUTION: <input type="checkbox"/> CIVIL _____ <input type="checkbox"/> ARCHITECTURAL _____ <input type="checkbox"/> STRUCTURAL _____ <input checked="" type="checkbox"/> MECHANICAL <u>A. Barley</u> <input type="checkbox"/> PROCESS _____ <input type="checkbox"/> ELECTRICAL _____ <input type="checkbox"/> INST & CONT. _____ <input type="checkbox"/> PROJ. LEADER _____ <input type="checkbox"/> OTHER _____	

Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction, coordination of his work with that of all other trades, and the satisfactory performance of his work.

REMARKS:

Submittal for Record based on previous AAN returned submittal.

Anthony Barley, P.E.

 PRIMARY DISCIPLINE LEAD

Mechanical

 DISCIPLINE

31AUG2023

 DATE



BE&K Building Group
 710 Slater Rd, Suite 400
 Morrisville, North Carolina 27560
 P: (919) 781-0054

**Project: 306232 Lilly — DAP, Warehouse Interface, + Central
 Corridor Fit Out**
 1420 Concord Parkway South
 Concord, North Carolina 28027

Submittal #232113-52.1 - Heat Transfer-Coil Kits 232113 - Hydronic Piping

Revision	1	Submittal Manager	Laura Bates (BE&K Building Group - Raleigh)
Status	Open	Date Created	Aug 9, 2023
Issue Date	Aug 9, 2023	Spec Section	232113 - Hydronic Piping
Responsible Contractor	Kirlin-Way Mechanical, LLC	Received From	Jason Brindle (Kirlin-Way Mechanical, LLC)
Received Date		Submit By	Aug 16, 2023
Final Due Date	Sep 13, 2023	Lead Time	
		Cost Code	
Location		Type	Product Data
Approvers	Natasha R (Hipp Engineering & Consulting Inc), Laura Bates (BE&K Building Group - Raleigh), Matt Schiebel (BE&K Building Group - Raleigh)		
Ball in Court	Natasha R (Hipp Engineering & Consulting Inc)		
Distribution			
Description	Please submit a copy for record.		

Submittal Workflow

Name	Sent Date	Due Date	Returned Date	Response	Attachments
General Information Attachments					
Jason Brindle	Aug 9, 2023	Aug 16, 2023		Pending	
Jarred Goldsmith	Aug 9, 2023	Aug 16, 2023	Aug 30, 2023	Submitted	RECORD - Heat Transfer Coil Kit Piping Packages Submittal.pdf (Current)
Comment	For Record				
Jonathon Ross	Aug 9, 2023	Aug 16, 2023		Pending	
Natasha R	Aug 30, 2023	Sep 6, 2023		Pending	
Laura Bates		Sep 13, 2023		Pending	
Matt Schiebel		Sep 13, 2023		Pending	



KIRLIN-WAY MECH PROJECT NAME: Eli-Lilly Concord

KIRLIN WAY MECH
SUBMITTAL NO: 029

SUBMITTAL DATA

ARCHITECT: Hansbury
223 S. Wilmington Street, Suite 200
Raleigh, NC 27601

Submittal Date: 8/30/23

ENGINEER: HIPP Design & Consulting
2301 Rexwoods Dr. #200
Raleigh, NC 27607

GENERAL CONTRACTOR: BE&K
SUBCONTRACTOR: Kirlin-Way

Specification Section:

Description:

Vendor / Supplier: Heat Transfer

Manufacturer: Griswold

Clarifications:

Deviations:

Substitutions:

Submittal Prepared By: Jason Brindle
Phone: 704-785-6853
Email: Jbrindle@kirlinway.com



Heat Transfer
Sales LLC

SUBMITTAL

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Raleigh, NC 27604
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SUBMITTAL DATE(S)

June 6, 2023

PROJECT

Eli Lilly Project Concord

CONTRACTOR

Kirlin Way

ENGINEER

Hipp Design & Consulting

SPECIFICATION SECTION

Hydronic Piping Specialties

SPECIFICATION NUMBER

23 21 13

MANUFACTURER

Griswold Controls

NOTES:

Changes made from AAN submittals dated 2/27/2023:

Coil flow rates and valve sizes have been updated based on engineer's comments.
Balance valves provided are sized per the flow rate of each coil, not the coil size



Heat Transfer
Sales LLC

EQUIPMENT LIST

BUILDING 2

COIL PIPING PACKAGES (for 2" and smaller pipe connections)

Griswold CPP-QIS Manual Flow Control Coil Piping Packages

Supply: Isolator™ S Strainer w/ Shutoff, Drain Valve, PT & Union End

Return: Griswold Quickset™ Manual Balance Valve w/ Shutoff, 2-PT's & Union End

Isolator™ U Union Piece w/ PT & Manual Air Vent

Items ship shrink-wrapped and tagged with Unit ID.

2/3-way ATC Valves Provided and Installed by Others.

TAG: FCUs - Chilled Water

(20) Size: 1"

TAG: FCU - Hot Water

(20) Size: 1"

TAG: AHU-5900 - Hot Water

(1) Size: 1-1/2"

COIL PIPING PACKAGES (for 2.5" and larger pipe connections)

Griswold Custom Manual Flow Control Coil Piping Packages

Supply: Y-Strainer w/ Drain Valve, PT & FLGD Connection

Return: Griswold Quickset™ Manual Balance Valve, FLGD w/ 2-PT's & Butterfly

TAG: AHU-5900 Chilled Water

(1) Size: 4"

TAG	GPM	CV	COIL KIT SIZE	ATC SIZE	CONNECTION TYPE
FAN COIL UNITS - CHILLED WATER COILS					
FCU-5901A	15.6	12.2	1"	1"	SWT
FCU-5901B	15.6	12.2	1"	1"	SWT
FCU-5901C	15.6	12.2	1"	1"	SWT
FCU-5901D	15.6	12.2	1"	1"	SWT
FCU-5901E	15.6	12.2	1"	1"	SWT
FCU-5901F	15.6	12.2	1"	1"	SWT
FCU-5901G	15.6	12.2	1"	1"	SWT
FCU-5901H	15.6	12.2	1"	1"	SWT
FCU-5901J	15.6	12.2	1"	1"	SWT
FCU-5901K	15.6	12.2	1"	1"	SWT
FCU-5901L	10.6	12.2	1"	1"	SWT
FCU-5901M	10.6	12.2	1"	1"	SWT
FCU-5901N	10.6	12.2	1"	1"	SWT
FCU-5901P	10.6	12.2	1"	1"	SWT
FCU-5901Q	10.6	12.2	1"	1"	SWT
FCU-5901R	10.6	12.2	1"	1"	SWT
FCU-5901S	10.6	12.2	1"	1"	SWT
FCU-5901T	10.6	12.2	1"	1"	SWT
FCU-5901U	10.6	12.2	1"	1"	SWT
FCU-5901V	10.6	12.2	1"	1"	SWT
FAN COIL UNITS - REHEAT COILS					
FCU-5901A	6.0	7.6	1"	3/4"	SWT
FCU-5901B	6.0	7.6	1"	3/4"	SWT
FCU-5901C	6.0	7.6	1"	3/4"	SWT
FCU-5901D	6.0	7.6	1"	3/4"	SWT
FCU-5901E	6.0	7.6	1"	3/4"	SWT
FCU-5901F	6.0	7.6	1"	3/4"	SWT
FCU-5901G	6.0	7.6	1"	3/4"	SWT
FCU-5901H	6.0	7.6	1"	3/4"	SWT
FCU-5901J	6.0	7.6	1"	3/4"	SWT
FCU-5901K	6.0	7.6	1"	3/4"	SWT
FCU-5901L	4.1	3.8	1"	3/4"	SWT
FCU-5901M	4.1	3.8	1"	3/4"	SWT
FCU-5901N	4.1	3.8	1"	3/4"	SWT
FCU-5901P	4.1	3.8	1"	3/4"	SWT
FCU-5901Q	4.1	3.8	1"	3/4"	SWT
FCU-5901R	4.1	3.8	1"	3/4"	SWT
FCU-5901S	4.1	3.8	1"	3/4"	SWT
FCU-5901T	4.1	3.8	1"	3/4"	SWT
FCU-5901U	4.1	3.8	1"	3/4"	SWT
FCU-5901V	4.1	3.8	1"	3/4"	SWT
AIR HANDLER - CHILLED WATER COIL					
AHU-5900	112.5	580	4"	4"	FLANGED
AIR HANDLER - HOT WATER COIL					
AHU-5900	29	22.1	1-1/2"	1-1/2"	SWT

BUILDING 4

COIL PIPING PACKAGES (for 2" and smaller pipe connections)

Griswold CPP-QIS Manual Flow Control Coil Piping Packages

Supply: Isolator™ S Strainer w/ Shutoff, Drain Valve, PT & Union End

Return: Griswold Quickset™ Manual Balance Valve w/ Shutoff, 2-PT's & Union End
Isolator™ U Union Piece w/ PT & Manual Air Vent

Items ship shrink-wrapped and tagged with Unit ID.

2/3-way ATC Valves Provided and Installed by Others.

TAG: FCUs - Chilled Water

- (5) Size: 1"
- (1) Size: 1-1/2" – with (4) stacked 1-1/2" balance valves

TAG: FCU - Hot Water

- (3) Size: 1"
- (1) Size: 3/4"
- (4) Size: 1-1/2 – stacked coils

TAG: RHCs

- (25) Size: 3/4"
- (10) Size: 1"
- (24) Size: 1-1/2"

COIL PIPING PACKAGES (for 2.5" and larger pipe connections)

Griswold Custom Manual Flow Control Coil Piping Packages

Supply: Y-Strainer w/ Drain Valve, PT & FLGD Connection

Return: Griswold Quickset™ Manual Balance Valve, FLGD w/ 2-PT's & Butterfly

TAG: AHU-4900, 4901, 4902, 4903, 4904, 4905, 4906, 4907 - Chilled Water Coils

- (8) Size: 6"

TAG: AHU-4900 - Hot Water Coils

- (1) Size: 4"

BALANCING VALVES for AHU Stacked Coils

Return: Griswold Quickset™ Manual Balance Valve w/ Shutoff, 2-PT's & Union or FLD end

TAG: AHU-4900 - Chilled Water Coils

- (6) Size: 3"

TAG: AHU-4901, 4902, 4903, 4904, 4905, 4906, 4907 - Chilled Water Coils

- (42) Size: 2"

TAG: AHU-4900 - Hot Water Coils

- (6) Size: 2"



EQUIPMENT LIST

BALANCING VALVES - STAND ALONE BALANCING VALVES

Griswold Automatic Balancing K-Valve with spring loaded cartridge & 2 PT's

TAG: BV-4610A

(1) Size: 3/4" (Lead free)

TAG: BV-4611A 4611B, 4611C, 4611D, 4611E, 4611F, 4611G

(7) Size: 1/2" (Lead free)

TAG: BV-4630AA, 4630B, 4630C, 4630D, 4640AA, 4641AA, 4641B

(7) Size: 3/4"

TAG	GPM	CV	LINE	REVISED COIL KIT (BASED ON GPM)	ATC SIZE	CONNECTION TYPE
FAN COIL UNITS - CHILLED WATER COILS						
FCU-4941D	10.7	12.2	1"	1"	1"	SWT
FCU-4940C	5.3	7.6	1"	1"	1/2"	SWT
FCU-4940D	6.8	7.6	1-1/2"	1"	3/4"	SWT
FCU-4940E	16.9	22.1	1-1/2"	1-1/2"	1-1/4"	SWT
FCU-4940F	4.5	7.6	1"	1"	1/2"	SWT
FCU-4941E	10.7	12.2	1-1/2"	1"	3/4"	SWT
STACKED COILS						
FCU-4940A	31.9	54.7	1-1/2"	1-1/2"	N/A	SWT
FCU-4940A	31.9	54.7	1-1/2"	1-1/2"	N/A	SWT
FC-4940B	31.9	54.7	1-1/2"	1-1/2"	N/A	SWT
FC-4940B	31.9	54.7	1-1/2"	1-1/2"	N/A	SWT
FAN COIL UNITS - REHEAT COILS						
FCU-4941D	4.8	7.6	1"	1"	1/2"	SWT
FCU-4940C	3.1	3.8	1"	1"	1/2"	SWT
FCU-4940F	2.8	4.2	3/4"	3/4"	1/2"	SWT
FCU-4941E	4.8	7.6	1"	1"	1/2"	SWT
STACKED COILS						
FCU-4940A	18.65	22.1	1-1/2"	1-1/2"	N/A	SWT
FCU-4940A	18.65	22.1	1-1/2"	1-1/2"	N/A	SWT
FCU-4940B	18.65	22.1	1-1/2"	1-1/2"	N/A	SWT
FCU-4940B	18.65	22.1	1-1/2"	1-1/2"	N/A	SWT
AIR HANDLER - CHILLED WATER COILS						
AHU-4900	664	980	6"	6"	N/A	FLANGED
AHU-4901	343	980	6"	6"	N/A	FLANGED
AHU-4902	343	980	6"	6"	N/A	FLANGED
AHU-4903	343	980	6"	6"	N/A	FLANGED
AHU-4904	343	980	6"	6"	N/A	FLANGED
AHU-4905	343	980	6"	6"	N/A	FLANGED
AHU-4906	343	980	6"	6"	N/A	FLANGED
AHU-4907	311	980	6"	6"	N/A	FLANGED
STACKED COILS - CHILLED WATER COILS						
AHU-4900	110.7	269	(6) 3"	(6) 3"	N/A	FLANGED
AHU-4901	57.2	65.2	(6) 2"	(6) 2"	N/A	SWT
AHU-4902	57.2	65.2	(6) 2"	(6) 2"	N/A	SWT
AHU-4903	57.2	65.2	(6) 2"	(6) 2"	N/A	SWT
AHU-4904	57.2	65.2	(6) 2"	(6) 2"	N/A	SWT
AHU-4905	57.2	65.2	(6) 2"	(6) 2"	N/A	SWT
AHU-4906	57.2	65.2	(6) 2"	(6) 2"	N/A	SWT
AHU-4907	51.8	65.2	(6) 2"	(6) 2"	N/A	SWT
AIR HANDLER - HOT WATER COILS						
AHU-4900	170	417	4"	4"	N/A	FLANGED
STACKED COILS - HOT WATER COILS						
AHU-4900	28.3	65.2	(6) 2"	(6) 2"	N/A	SWT

TAG	GPM	CV	LINE SIZE	REVISED COIL KIT (BASED ON GPM)	ATC SIZE	CONNECTION TYPE
REHEAT COILS						
RHC 4901A	23.5	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4901B	23.5	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4901C	26.0	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4901D	23.5	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4902A	30.8	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4902B	23.5	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4902C	15.7	22.1	1-1/2"	1-1/2"	1"	SWT
RHC 4902D	27.7	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4903A	12.3	22.1	1-1/2"	1-1/2"	1"	SWT
RHC 4903B	12.3	22.1	1-1/2"	1-1/2"	1"	SWT
RHC 4903C	25.1	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4903D	12.3	22.1	1-1/2"	1-1/2"	1"	SWT
RHC 4904A	19.6	65.2	2"	1-1/2"	1"	SWT
RHC 4904B	23.5	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4904C	23.5	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4904D	29.7	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4905A	30.2	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4905B	23.5	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4905C	18.3	65.2	2"	1-1/2"	1"	SWT
RHC 4905D	29.3	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4906A	13.9	22.1	1-1/2"	1-1/2"	1"	SWT
RHC 4906B	13.9	22.1	1-1/2"	1-1/2"	1"	SWT
RHC 4906C	18	54.7	2"	1-1/2"	1-1/4"	SWT
RHC 4906D	13.9	22.1	1-1/2"	1-1/2"	1"	SWT
RHC 4101A	6.5	7.6	1"	1"	3/4"	SWT
RHC 4101B	8.5	7.6	1"	1"	3/4"	SWT
RHC 4101C	1.9	2.5	3/4"	3/4"	1/2"	SWT
RHC 4102	0.6	1.1	3/4"	3/4"	1/2"	SWT
RHC 4103	1.3	2.5	3/4"	3/4"	1/2"	SWT
RHC 4107	2.2	2.5	3/4"	3/4"	1/2"	SWT
RHC 4108	0.6	1.1	3/4"	3/4"	1/2"	SWT

TAG	GPM	CV	COIL KIT SIZE	REVISED COIL KIT (BASED ON GPM)	ATC SIZE	CONNECTION TYPE
REHEAT COILS						
RHC 4110	1	1.1	3/4"	3/4"	1/2"	SWT
RHC 4112	6.8	7.6	1"	1"	3/4"	SWT
RHC 4114	0.6	1.1	3/4"	3/4"	1/2"	SWT
RHC 4113A	1.4	2.5	3/4"	3/4"	1/2"	SWT
RHC 4113B	5.4	7.6	1"	1"	1/2"	SWT
RHC 4113C	4.9	7.6	1"	1"	1/2"	SWT
RHC 4122A	2.2	2.5	3/4"	3/4"	1/2"	SWT
RHC 4122B	5.4	7.6	1"	1"	1/2"	SWT
RHC 4118	1.3	2.5	3/4"	3/4"	1/2"	SWT
RHC 4117	1.7	2.5	3/4"	3/4"	1/2"	SWT
RHC 4115	0.7	1.1	3/4"	3/4"	1/2"	SWT
RHC 4121	3	4.2	3/4"	3/4"	1/2"	SWT
RHC 4124	1.9	2.5	3/4"	3/4"	1/2"	SWT
RHC 4120B	6.8	7.6	1"	1"	3/4"	SWT
RHC 4120F	1	1.1	3/4"	3/4"	1/2"	SWT
RHC 4123B	6.8	7.6	1"	1"	3/4"	SWT
RHC 4123F	1	1.1	3/4"	3/4"	1/2"	SWT
RHC 4211A	2.3	2.5	3/4"	3/4"	1/2"	SWT
RHC 4211B	5.7	7.6	1"	1"	1/2"	SWT
RHC 4211C	7.3	7.6	1"	1"	3/4"	SWT
RHC 4212	2.2	2.5	3/4"	3/4"	1/2"	SWT
RHC 4202	0.6	1.1	3/4"	3/4"	1/2"	SWT
RHC 4203	1.3	2.5	3/4"	3/4"	1/2"	SWT
RHC 4207	2.2	2.5	3/4"	3/4"	1/2"	SWT
RHC 4208	0.6	1.1	3/4"	3/4"	1/2"	SWT
RHC 4210	1	1.1	3/4"	3/4"	1/2"	SWT
RHC 4213A	1.1	1.1	3/4"	3/4"	1/2"	SWT
RHC 4213B	3	4.2	3/4"	3/4"	1/2"	SWT

TAG	GPM	CARTRIDGE GPM	K-VALVE SIZE	CONNECTION TYPE
STAND ALONE VALVES				
BV-4610A	1.0	1.0	3/4"	SWT
BV-4611A	1.0	1.0	1/2"	SWT
BV-4611B	1.0	1.0	1/2"	SWT
BV-4611C	1.0	1.0	1/2"	SWT
BV-4611D	1.0	1.0	1/2"	SWT
BV-4611E	1.0	1.0	1/2"	SWT
BV-4611F	1.0	1.0	1/2"	SWT
BV-4611G	1.0	1.0	1/2"	SWT
BV-4630AA	1.0	1.0	3/4"	SWT
BV-4630B	1.0	1.0	3/4"	SWT
BV-4630C	1.0	1.0	3/4"	SWT
BV-4630D	1.0	1.0	3/4"	SWT
BV-4640AA	1.0	1.0	3/4"	SWT
4641AA	1.0	1.0	3/4"	SWT
4641B	1.0	1.0	3/4"	SWT

BUILDING 6

COIL PIPING PACKAGES (for 2" and smaller pipe connections)

Griswold CPP-QIS Manual Flow Control Coil Piping Packages

Supply: Isolator™ S Strainer w/ Shutoff, Drain Valve, PT & Union End

Return: Griswold Quickset™ Manual Balance Valve w/ Shutoff, 2-PT's & Union End

Isolator™ U Union Piece w/ PT & Manual Air Vent

Items ship shrink-wrapped and tagged with Unit ID.

2/3-way ATC Valves Provided and Installed by Others.

TAG: RHCs

- (4) Size: 1-1/2"

TAG: FCUs - Chilled Water Coils

- (1) Size: 3/4" L
- (1) Size: 1"
- (4) Size: 1-1/2"

TAG: FCUs - Hot Water Coils

- (1) Size: 3/4"
- (2) Size: 1-1/2"

TAG: AHU-4911 - Chilled & Hot Water Coils

- (2) Size: 1-1/2"

COIL PIPING PACKAGES (for 2.5" and larger pipe connections)

Griswold Custom Manual Flow Control Coil Piping Packages

Supply: Y-Strainer w/ Drain Valve, PT & FLGD Connection

Return: Griswold Quickset™ Manual Balance Valve, FLGD w/ 2-PT's & Butterfly

TAG: AHU-4910 - Chilled Water Coils

- (1) Size: 6"

BALANCING VALVES for AHU Stacked Coils

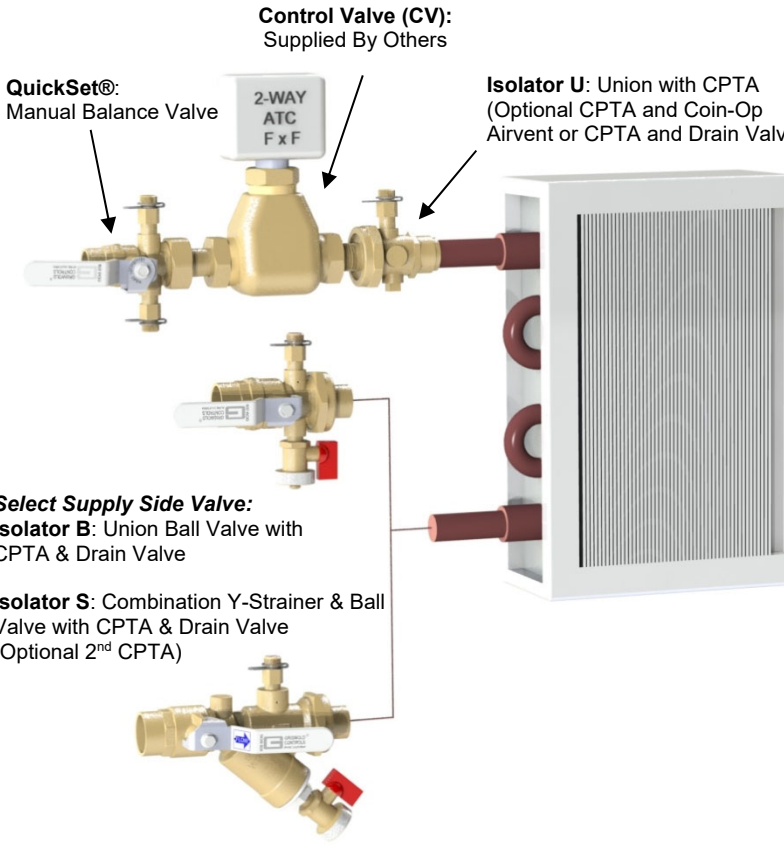
Return: Griswold Quickset™ Manual Balance Valve w/ Shutoff, 2-PT's & Union or FLD end

TAG: AHU-4910 - Chilled Water Coils

- (6) Size: 2"



TAG	GPM	CV	COIL KIT SIZE	ATC SIZE	CONNECTION TYPE
REHEAT COILS					
RHC-4910A	25.3	22.1	1-1/2"	1"	SWT
RHC-4910B	26.7	22.1	1-1/2"	1-1/4"	SWT
RHC-4910C	37.6	54.7	1-1/2"	1-1/4"	SWT
RHC-4910D	32.7	54.7	1-1/2"	1-1/4"	SWT
AIR HANDLER - CHILLED WATER COILS					
AHU-4911	26	22.1	1-1/2"	1-1/4"	SWT
AHU-4910	384	980	6"	6"	FLANGED
<i>STACKED COILS - CHILLED WATER COILS</i>					
AHU-4910	64	65.2	(6) 2"	2"	SWT
AIR HANDLER - HOT WATER COILS					
AHU-4911	11	22.1	1-1/2"	1"	SWT
TAG	GPM	CV	COIL KIT SIZE	ATC SIZE	CONNECTION TYPE
FAN COIL UNITS - CHILLED WATER COILS					
FCU-4922C	7.4	7.6	1"	1"	SWT
FCU-4922D	4.5	7	3/4" L	1/2"	SWT
<i>STACKED COILS</i>					
FCU-4922A	17.9	22.1	1-1/2"	1-1/4"	SWT
FCU-4922A	17.9	22.1	1-1/2"	1-1/4"	SWT
FCU-4922B	17.9	22.1	1-1/2"	1-1/4"	SWT
FCU-4922B	17.9	22.1	1-1/2"	1-1/4"	SWT
FAN COIL UNITS - REHEAT COILS					
FCU-4922A	16.9	22.1	1-1/2"	1"	SWT
FCU-4922B	16.9	22.1	1-1/2"	1"	SWT
FCU-4922D	2.6	4.2	3/4"	1/2"	SWT



Control Valve (CV):
Supplied By Others

QuickSet®:
Manual Balance Valve

Isolator U: Union with CPTA (Optional CPTA and Coin-Op Airvent or CPTA and Drain Valve)

Select Supply Side Valve:
Isolator B: Union Ball Valve with CPTA & Drain Valve

Isolator S: Combination Y-Strainer & Ball Valve with CPTA & Drain Valve (Optional 2nd CPTA)

LINE TYPE:		COIL TYPE:	
<input type="checkbox"/> FNPT	<input checked="" type="checkbox"/> SWT	<input type="checkbox"/> FNPT	<input type="checkbox"/> MNPT
<input type="checkbox"/> QuickPress ¹		<input type="checkbox"/> QuickPress ¹	
LINE SIZE:	COIL SIZE:	CV SIZE:	
<input type="checkbox"/> 1/2"	<input type="checkbox"/> 1/2"	<input type="checkbox"/> 1/2"	
<input checked="" type="checkbox"/> 3/4"	<input checked="" type="checkbox"/> 3/4"	<input type="checkbox"/> 3/4"	
<input type="checkbox"/> 1"	<input type="checkbox"/> 1"	<input type="checkbox"/> 1"	
<input type="checkbox"/> 1-1/4"	<input type="checkbox"/> 1-1/4"	<input type="checkbox"/> 1-1/4"	
<input checked="" type="checkbox"/> 1-1/2"	<input checked="" type="checkbox"/> 1-1/2"	<input type="checkbox"/> 1-1/2"	
<input type="checkbox"/> 2"	<input type="checkbox"/> 2"	<input type="checkbox"/> 2"	
BALL & STEM:			
<input checked="" type="checkbox"/> Nickel-plated brass ball & brass stem			
<input type="checkbox"/> Stainless Steel ball & stem			
COMPONENT OPTIONS:			
<input type="checkbox"/> 1-1/2" Ext Kit		<input type="checkbox"/> 2" Ext Kit	
<input type="checkbox"/> Strainer 20 Mesh		<input type="checkbox"/> Strainer 50 Mesh	
<input type="checkbox"/> Union Coin-Op&CPTA		<input type="checkbox"/> Union CPTA&DV	
<input type="checkbox"/> Isolator S 2 nd CPTA		<input type="checkbox"/> Isolator B in lieu IS	
HOSE OPTIONS (FNPT COIL):			
Swivel Type: <input type="checkbox"/> MNPT <input type="checkbox"/> SWT			
Length: <input type="checkbox"/> 12" <input type="checkbox"/> 18" <input type="checkbox"/> 24" <input type="checkbox"/> 36"			
CONTROL VALVE (CV):			
<input checked="" type="checkbox"/> Customer Supplied and Installed CV			
<input type="checkbox"/> Customer Supplied CV - Installed By Griswold Controls			

Verify with Control valve submittal

For CHW Coils

SPECIFICATIONS

QuickSet®: Forged brass manual balance valve with brass venturi insert and graduated memory stop. Valve housing includes field repairable dual Teflon and EPDM o-ring seal stem. Valve includes one fixed end (FNPT or SWT) connection and one union (MNPT) connection. Union end includes union nut and EPDM o-ring. Valve body has two ports with (1) combination Pressure/Temperature Test Valves and manual air vent (CPTA), and (1) Pressure/Temperature Test Valve. PSI/Temp Rating: 600WOG-400PSI/250°F

Isolator S: Ball valve and integrated strainer. Valve housing is forged brass with field repairable dual Teflon and EPDM o-ring seal stem. Strainer is Stainless Steel and can be removed from housing without disturbing pipe connections for inspection or replacement. Valve includes one fixed connection and one union connection. Union end includes union nut and EPDM o-ring. Body has one port with combination Pressure/Temperature Test Valves (CPTA). Assembly includes drain valve with 3/4" hose connection with cap. PSI/Temp Rating: 600WOG-400PSI/250°F

Isolator B: Forged brass union ball valve. Valve housing includes field repairable dual Teflon and EPDM o-ring seal stem. Valve includes one fixed end (FNPT or SWT) connection and one union (FNPT or SWT) connection. Union end includes union nut and EPDM o-ring. Valve body has two ports with one combination Pressure/Temperature Test Valve and Manual Air Vent (CPTA), and one Drain Valve. PSI/Temp Rating: 600WOG-400PSI/250°F.

Union: Forged brass (ASTM B283) union. Union includes one fixed end (FNPT or SWT) connection and one union (MNPT) connection. Union end includes union nut and EPDM o-ring. Union body has one port with combination Pressure/Temperature Test Valves and manual air vent (CPTA). PSI/Temperature Rating: 400 PSI / 250°F.

Drain Valve: Brass housing, Nickel plated ball. 1/2"-1":1/2"UNFx3/4"NPSH. 1-1/4"-2":3/4"UNFx3/4" NPSH. Rated 300PSI/250°F

Combination Pressure/Test Valve & Manual Air Vent (CPTA): Brass Housing, EPDM Seal. Rated 1000PSI/350°F Pressure/Temperature Test Valve works in conjunction with valve body feature to function as Manual Air Vent. Requires both components to operate as manual air vent.

NOTES

¹ QuickPress connections are compatible with popular press tools and are rated for maximum 200 PSI.

MODEL NUMBER SELECTION

Size	Model Number- FNPT Line	Model Number- SWT Line	Model Number- PRESS Line	Select Coil Size & Type ² for Model Number	Select CV Size for Model Number
1/2"	CP2Q0_E__0	CP2Q0_L__0	CP2Q0_2__0	FNPT:(E=1/2,F=3/4) MNPT:(H=1/2, I=3/4) SWT:(K=3/8",L=1/2,M=3/4) PRESS:(2=1/2,3=3/4)	MNPT:(H=1/2)
3/4"	CP2Q0_F__0	CP2Q0_M__0	CP2Q0_3__0		MNPT:(1/2=H,I=3/4)
3/4"L	CP2Q1_F__0	CP2Q1_M__0	CP2Q1_3__0		MNPT:(1/2=H,I=3/4)
1"	CP2Q1_G__0	CP2Q1_N__0	CP2Q1_1__0	FNPT:(E=1/2,F=3/4,G=1) MNPT:(H=1/2,I=3/4,J=1) SWT:(L=1/2,M=3/4,N=1) PRESS:(2=1/2,3=3/4,1=1)	MNPT:(1/2=H,I=3/4,J=1)
1-1/4"	CP2Q2_P__0	CP2Q2_K__0	CP2Q2_4__0		MNPT:(1/2=H,I=3/4,J=1,S=1-1/4)
1-1/2"	CP2Q2_Q__0	CP2Q2_W__0	CP2Q2_5__0	FNPT:(G=1,P=1-1/4,Q=1-1/2) MNPT:(J=1, S=1-1/4,T=1-1/2) SWT:(N=1,K=1-1/4,W=1-1/2) PRESS:(1=1, 4=1-1/4, 5=1-1/2)	MNPT:(J=1,S=1-1/4,T=1-1/2)
2"	CP2Q3_R__0	CP2Q3_Y__0	CP2Q3_6__0	FNPT:(P=1-1/4,Q=1-1/2,R=2) MNPT:(S=1-1/4, T=1-1/2,U=2) SWT:(K=1-1/4,W=1-1/2,Y=2) PRESS:(4=1-1/4, 5=1-1/2, 6=2)	MNPT:(T=1-1/2,U=2)

Some Control Valve sizes have QuickSet Cv limitations. 1/2" Control Valve may not be compatible with Cv of 12.2, 21.8, 22.1, 54.7; 3/4" Control Valve may not be compatible with Cv of 21.8, 22.1, 54.7; 1" Control Valve may not be compatible with Cv of 54.7 or 105.2; 1-1/4" Control Valve may not be compatible with Cv of 105.2.

NOTES:

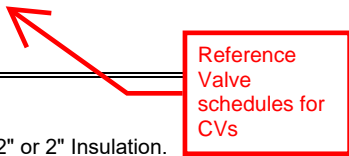
- Standard CPPs include nickel-plated brass ball and brass stem. For optional Stainless Steel ball and stem change "CP" to "CS" in model number.
- Insert Venturi Cv letter Code in 6th digit from flow table.
- Insert Coil Size & Type in 8th digit.
- Insert Control Valve (CV) Size in 9th digit.
- Insert Supply Side Product Code: **Isolator S** ("B"=(1) CPTA/DV, 20 mesh screen, "D"=(2) CPTAs & (1) DV, 20 mesh screen, "G"=(1) CPTA/DV, 50 mesh screen, "J"=(2) CPTAs & (1) DV, 50 mesh screen) or **Isolator B** ("V"=(1) CPTA/DV)
- Optional Extension Kit- includes cap and tube for insulation around handle and appropriate number of extensions for PT/CPTA included in package. Change "0" to "1" for 1-1/2" extension option or "2" for 2" extension option.³
- If Control Valve (CV) is installed at the factory by Griswold Controls add an "A" to end of model number.

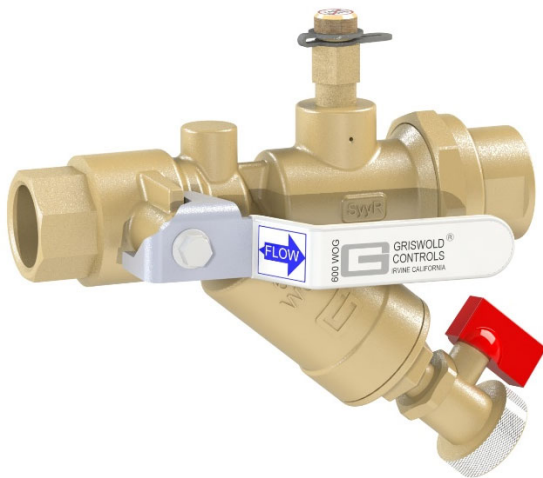
FLOW RATES (+/-1%⁴)

OUTLET SIZE	QUICKSET MODEL NO.	FLOW GPM ⁽⁵⁾ AT 4 FT/SEC	Cv ⁽⁶⁾	GPM RANGE FOR 5"-100" W.C. ΔP (SET W/100" GAUGE)	GPM RANGE FOR 5"-300" W.C. ΔP (SET W/300" GAUGE)
1/2", 3/4"	QS0	3.8	A=0.39	0.15 – 0.67	0.15 – 1.16
			B=1.1	0.3 – 1.4	0.3 – 2.4
			C=2.5	0.6 – 2.8	0.6 – 4.6
			D=4.2	1.2 – 5.4	1.2 – 9.4
3/4"L	QS1	6.7	B=0.9	0.3 – 1.4	0.3 – 2.5
			C=1.9	0.6 – 2.8	0.6 – 4.9
			D=3.9	1.3 – 5.6	1.3 – 9.7
			E=7.0	2.6 – 11.5	2.6 – 19.9
1"	QS1	10.8	C=1.8	0.6 – 2.8	0.6 – 5.0
			D=3.8	1.3 – 5.6	1.3 – 9.7
			F=7.6	2.6 – 11.5	2.6 – 19.9
			G=12.2	3.9 – 17.3	3.9 – 30.0
1-1/4"	QS2	18.7	H=10.0	3.4 – 15.0	3.4 – 26.2
			I=21.8	7.2 – 32.3	7.2 – 55.9
1-1/2"	QS2	25.4	J=22.1	7.4 – 33.0	7.4 – 57.2
			N=54.7	13.9 – 62.0	13.9 – 107.4
2"	QS3	41.9	M=65.2 ⁷	21.6 – 96.5	21.6 – 167.1
			P=105.2	21.6 – 96.5	21.6 – 167.1

NOTES

- Coil Type must be FNPT if hoses are required.
- Extension Option includes handle cover and accessory extensions for either 1-1/2" or 2" Insulation.
- Accuracy is for venturi portion of valve only. Pressure readability is dependent on accuracy of gauge and system pressure stability.
- The generally accepted upper limit as recommended by ASHRAE to prevent pipe noise is 4 ft/sec.
- Cv's are used to calculate the permanent pressure drop. $PSID=(Flow/Cv)^2$. Use the Flow Curve for flow measurement.
- 65.2 Cv includes an optimizer insert in the ball.

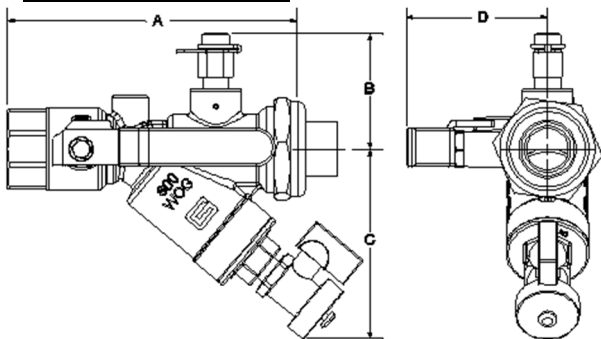




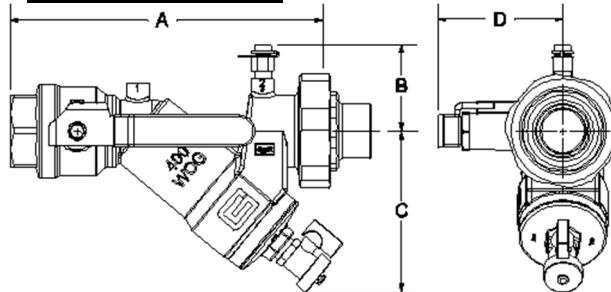
SPECIFICATIONS

- PSI/Temperature Rating:** 1/2"-1-1/2": 600 WOG 400 PSI / 250° F
1-1/2"L-3": 400 WOG 275 PSI / 250° F
- Body Material:** 1/2"-1-1/2": Forged Brass ASTM B283-06
1-1/2"L-3": Cast brass
- End Connections:** Brass – NPT, Sweat, QuickPress¹, Grooved, Carbon Steel Raised Face Flange, Class 150, ANSI B16-5²
- Ball Valve Seals:** Teflon
- Union Seal:** EPDM O-Ring
- Body Tappings³:** (3) Bosses for CPTAs and Drain Valve
- Ball Valve:** Nickel-plated brass ball
Optional: Stainless Steel ball
- Field Repairable Stem:** Dual Teflon seals and EPDM O-ring
- Strainer:** 20 mesh stainless steel (optional 50 mesh)
- Options:** Combination P/T Test Valve and Manual Air Vent (CPTA), Drain Valve, or 1/2" Bypass⁴, Extension Option

1/2" – 1-1/2" Housing



1-1/2"L - 3" Housing



DIMENSIONS & WEIGHTS (NOMINAL)

All dimensions are for planning purposes only and may change without notice.

SIZE	A - FIXED END CONNECTION		UNION END CONNECTION ⁵						B	C	D ⁶	Cv ⁷	WEIGHT (LBS.)			
	FNPT	SWT	FNPT		MNPT		SWT									
1/2"	3.9	3.8	1/2":1.0	3/4":N/A ⁸	1/2":1.0	3/4":1.2	3/8",1/2":0.8		3/4":1.1	1.9	2.9	0.5,1.5 2.2	4.7	0.9		
3/4"	3.9	4.0														
3/4"L	5.4	5.4	1/2",3/4":1.0	1":N/A ⁸	1/2"-3/4":1.0	1":1.4	3/8",3/4":1.0	1/2":0.7	1":1.3	2.2	3.6	2.6, 3.2	9.1	2.3		
1"	5.4	5.6														
1-1/4"	7.6	7.7	1",1-1/4",1-1/2":1.7		1",1-1/4",1-1/2":1.7 ⁹		1",1-1/4":1.7		1-1/2":1.4		2.5	3.1	3.1, 3.7		24.6	5.0
1-1/2"	7.5	7.9														
1-1/2"L, 2"	9.3	9.8	1-1/4", 1-1/2":1.6	2": N/A ⁸	1",1-1/4":1.8	1-1/2", 2":1.6	1-1/4",2":1.6		1-1/2":1.7		2.6	3.7	3.7, 4.3		35	8.8
2"L	10.9	11.2	2": 2.5		2": 1.6		2": 1.6									
2-1/2"	11.1	N/A	N/A ¹⁰						2.9	4.0	4.0, 4.6		60	12.4		
3"	11.3	N/A														

For QuickPress connections add 3.1" (1/2") 3.6" (3/4", 3/4"L), 4.1" (1"), to the FNPT length (A) listed for a valve.

NOTES

- ¹ QuickPress is available on 1/2" to 1" valves only. Connections are compatible with popular press tools and are rated for maximum 200 PSI.
- ² Grooved End and Flanged End connections are available on 2-1/2" and 3" valves only.
- ³ Body Tappings for accessories are a leak proof metal to metal seal and do not require pipe dope or tape. Tape or dope should not be used.
- ⁴ Bypass is only available on 1/2" to 1-1/2" valves.
- ⁵ For overall length, add union end connection length to body length.
- ⁶ Space Saver handle standard on 1/2"-3/4" valves. Standard handle on 1" to 3" valves and 1-1/2" extended handle in 1/2" to 3" is compatible with 1-1/2" insulation. Largest extended handle is compatible with 2" insulation.
- ⁷ Cv's are based on a clean 20 mesh stainless steel strainer. When a 50 mesh screen is used, multiply PSID by 1.3.
- ⁸ Tailpiece is not available for this size. Male tailpiece used with coupling.
- ⁹ 1-1/4"-1-1/2" valves can also take 1/2"-3/4" MNPT tailpieces.
- ¹⁰ 2-1/2" and 3" Valves are fixed end by fixed end connection. Union connection is not available.

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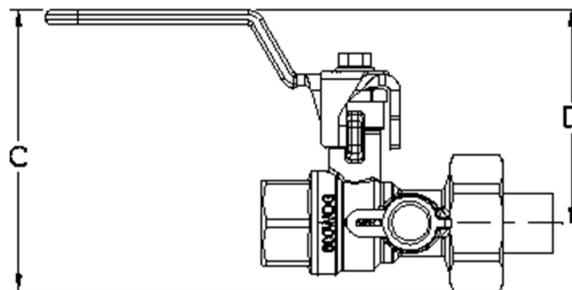
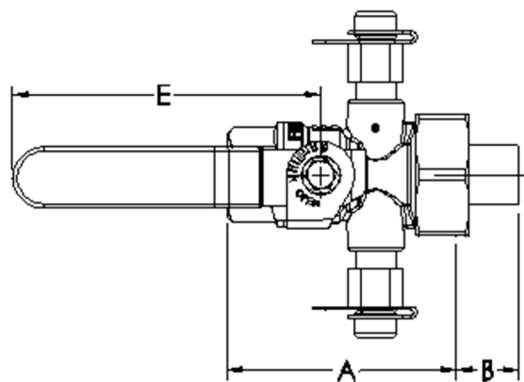
1700 Barranca Parkway, Irvine, CA 92606
 (949) 559-6000 Fax (949) 559-6088
 www.GriswoldControls.com





SPECIFICATIONS

- PSI/Temperature Rating:** 600 WOG 400 PSI / 250°F
- Flow Elements:** Venturi: Brass
- Body Material:** Forged Brass ASTM B283-06
- End Connections:** Brass – NPT, Sweat or QuickPress¹
- Ball Valve Seals:** Teflon
- Union Seal:** EPDM O-ring
- Ball Valve:** Nickel-plated brass ball, full port
Optional: Stainless steel ball
- Body Tappings²:** Two Combination P/T Test Valve and Manual Air Vent (CPTA)
- Field Repairable Stem:** Dual Teflon seals and EPDM O-ring
- Handle:** Memory Stop with graduated markings
- Installation:** Straight sections of piping upstream and downstream of the QuickSet aren't necessary for proper operation
- Options:** Extension Option³



DIMENSIONS & WEIGHTS (NOMINAL)

All dimensions are for planning purposes only and may change without notice.

SIZE	A - FIXED END CONNECTION		B - UNION END CONNECTION ⁴						C	D ⁵	E	WEIGHT (LBS.)	
	FNPT	SWT	FNPT		MNPT		SWT						
1/2"	2.6	2.5	1/2":1.0	3/4":N/A ⁶	1/2":1.0	3/4":1.2	3/8",1/2":0.8	3/4":1.1	3.0	1.0, 1.5, 2.2	3.7	0.7	
3/4"	2.6	3.2											
3/4"L	3.0	3.1	1/2",3/4":1.0	1":N/A ⁶	1/2"-3/4":1.0	1":1.4	3/8",3/4":1.0	1/2":0.7	1":1.3	3.8	2.1, 2.6, 3.2	3.7	1.0
1"	3.2	3.4											
1-1/4"	3.9	4.1	1",1-1/4",1-1/2":1.7	1",1-1/4",1-1/2":1.7	1",1-1/4":1.7	1-1/2":1.4	1",1-1/4":1.7	1-1/2":1.4	4.0	2.9, 3.5	5.0	1.5	
1-1/2"	4.4	4.6											
2"	5.1	5.5	1-1/2":1.6	2": N/A ⁶	1-1/2", 2":1.6	1-1/2":1.7	2":1.6	5.3	4.0, 4.6	5.5	6.9		

For QuickPress connections add 3.1" (1/2", 1/2"L) 3.6" (3/4", 3/4"L), 4.1" (1") to the FNPT length (A) listed for a valve.

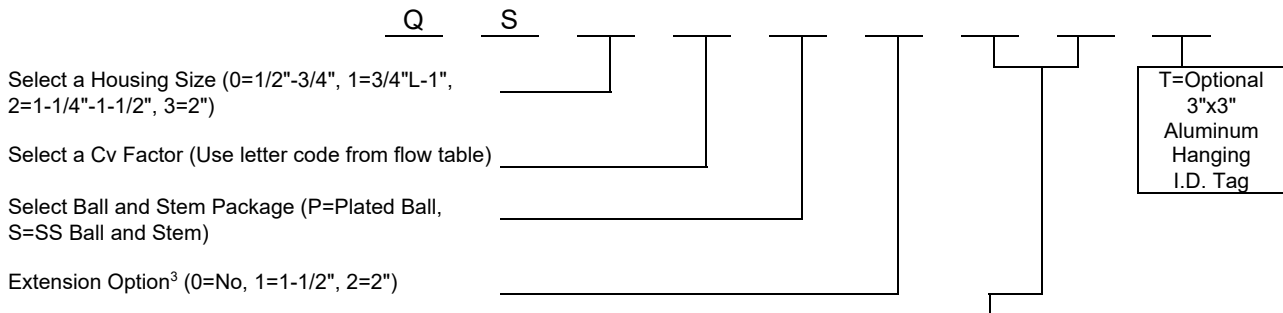
NOTES

- ¹ QuickPress is available on 1/2" to 1" valves. Connections are compatible with popular press tools and are rated for maximum 200 PSI.
- ² Body Tappings for accessories are a leak proof metal to metal seal and do not require pipe dope or tape. Tape or dope should not be used.
- ³ Extension Option includes handle cover and accessory extensions for either 1-1/2" or 2" insulation.
- ⁴ For overall length, add union end connection length to body length.
- ⁵ Space Saver handle standard on 1/2"-3/4"L valves. Standard handle on 1" to 2" valves and 1-1/2" extended handle in 1/2" to 2" is compatible with 1-1/2" insulation. Largest extended handle is compatible with 2" insulation.
- ⁶ Tailpiece is not available for this size. Male tailpiece used with coupling.

FLOW RATES (+/-1%⁷)

OUTLET SIZE	MODEL NO.	FLOW GPM ⁽⁸⁾ AT 4 FT/SEC	Cv ⁽⁹⁾	GPM RANGE FOR 5"-100" W.C. ΔP (SET W/100" GAUGE)	GPM RANGE FOR 5"-300" W.C. ΔP (SET W/300" GAUGE)
1/2", 3/4"	QS0	3.8	A=0.39	0.15 – 0.67	0.15 – 1.16
			B=1.1	0.3 – 1.4	0.3 – 2.4
			C=2.5	0.6 – 2.8	0.6 – 4.6
			D=4.2	1.2 – 5.4	1.2 – 9.4
3/4"L	QS1	6.7	B=0.9	0.3 – 1.4	0.3 – 2.5
			C=1.9	0.6 – 2.8	0.6 – 4.9
			D=3.9	1.3 – 5.6	1.3 – 9.7
			E=7.0	2.6 – 11.5	2.6 – 19.9
1"	QS1	10.8	C=1.8	0.6 – 2.8	0.6 – 5.0
			D=3.8	1.3 – 5.6	1.3 – 9.7
			F=7.6	2.6 – 11.5	2.6 – 19.9
			G=12.2	3.9 – 17.3	3.9 – 30.0
1-1/4"	QS2	18.7	H=10.0	3.4 – 15.0	3.4 – 26.2
			I=21.8	7.2 – 32.3	7.2 – 55.9
1-1/2"	QS2	25.4	J=22.1	7.4 – 33.0	7.4 – 57.2
			N=54.7	13.9 – 62.0	13.9 – 107.4
2"	QS3	41.9	M=65.2 ¹⁰	21.6 – 96.5	21.6 – 167.1
			P=105.2	21.6 – 96.5	21.6 – 167.1

MODEL NUMBER SELECTION

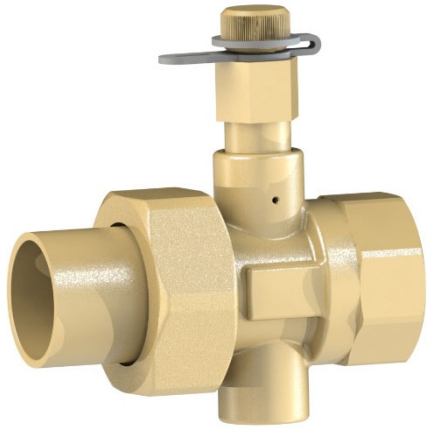


Valve	FIXED END OR UNION END ¹¹ (No Union Tailpiece=Z)			UNION END ONLY ¹¹
	Female Threaded	Female Sweat	QuickPress	Male Threaded
QS0	1/2"=E, 3/4"=F ¹²	3/8"=K ^{13/14} , 1/2"=L, 3/4"=M	1/2"=2 ¹⁴ , 3/4"=3	1/2"=H, 3/4"=I
QS1	1/2"=E ¹⁴ , 3/4"=F, 1"=G ¹²	3/8"=K ^{13/14} , 1/2"=L ^{13/14} , 3/4"=M, 1"=N	1/2"=2 ¹⁴ , 3/4"=3, 1"=1	1/2"=H ¹⁴ , 3/4"=I, 1"=J
QS2 (1-1/4")	1"=G ¹³ , 1-1/4"=P, 1-1/2"=Q	1"=N ¹³ , 1-1/4"=K, 1-1/2"=W	N/A	1/2"=H ¹⁴ , 3/4"=I ¹⁴ , 1"=J, 1-1/4"=S, 1-1/2"=T
QS2 (1-1/2")	1"=G ^{13/14} , 1-1/4"=P, 1-1/2"=Q	1"=N ^{13/14} , 1-1/4"=K, 1-1/2"=W	N/A	1"=J ¹⁴ , 1-1/4"=S, 1-1/2"=T
QS3 (2")	1-1/2"=Q ¹³ , 2"=R ¹²	1-1/2"=W ¹³ , 2"=Y	N/A	1-1/2"=T, 2"=U

Size reductions to the ATC (tailpiece side) of more than two line sizes may affect pressure signal of venturi depending on ATC configuration.

NOTES

- ⁷ Accuracy is for venturi portion of valve only. Pressure readability is dependent on accuracy of gauge and system pressure stability.
- ⁸ The generally accepted upper limit as recommended by ASHRAE to prevent pipe noise is 4 ft/sec.
- ⁹ Cv's are used to calculate the permanent pressure drop. $PSID=(Flow/Cv)^2$. Use the Flow Curve to set valve or for flow measurement.
- ¹⁰ 65.2 Cv includes an optimizer insert in the ball.
- ¹¹ Select the Fixed End First and the Union End Second.
- ¹² Tailpiece is not available for this size. Male tailpiece used with coupling.
- ¹³ Fixed end not available for this size. Union tailpiece only.
- ¹⁴ This tailpiece has Cv limitations. 3/8" tailpiece is not compatible with Cv of 4.2, 7.0, 7.6, 12.2; 1/2" tailpiece is not compatible with Cv of 12.2, 21.8, 22.1, 54.7; 3/4" tailpiece is not compatible with Cv of 21.8, 22.1, 54.7; 1" tailpiece is not compatible with Cv of 54.7 or 105.2; 1-1/4" tailpiece is not compatible with Cv of 105.2.



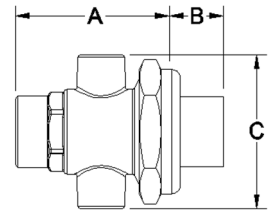
SPECIFICATIONS

PSI / Temperature Rating: 400 PSI / 250°F
Body Material: Forged Brass ASTM B283-06
End Connections: Brass – NPT, Sweat or QuickPress¹
Union Seal: EPDM O-ring
Body Tappings²: (2) Bosses for CPTAs, Airvent. and Drain Valve
Options: Combination P/T Test Valve and Manual Air Vent (CPTA), Drain Valve, Coin Operated Airvent, Extension Option

DIMENSIONS & WEIGHTS (NOMINAL)

All dimensions are for planning purposes only and may change without notice.

SIZE	A - FIXED END CONNECTION		B - UNION END CONNECTION ³						C	WEIGHT (LBS.)		
	FNPT	SWT	FNPT		MNPT		SWT					
3/8"	N/A	1.7							1.2	0.3		
1/2"	2.0	1.9	1/2":1.0	3/4":N/A ⁴	1/2":1.0	3/4":1.2	3/8",1/2":0.8	3/4":1.1				
3/4"	1.9	1.9										
1"	2.2	2.2	1/2",3/4":1.0	1":N/A ⁴	1/2"-3/4":1.0	1":1.4	3/8",3/4":1.0	1/2":0.7	1":1.3	2.0	1.1	
1-1/4"	2.6	2.6	1",1-1/4",1-1/2":1.7		1",1-1/4",1-1/2":1.7 ⁵		1",1-1/4":1.7		1-1/2":1.4		2.7	2.4
1-1/2"	2.8	2.8										
2"	2.8	2.8	1-1/4",1-1/2":1.6	2": N/A ⁴	1",1-1/4":1.8	1-1/2",2":1.6	1-1/4",2":1.6		1-1/2":1.7		3.4	3.2
2-1/2"	3.0	N/A	1-1/2" – 2-1/2": 1.2	3": 2.2	1-1/2"-2-1/2": 1.5	3": 2.5						
3"	3.2	N/A					2":2.0				3.7	5.1 5.6



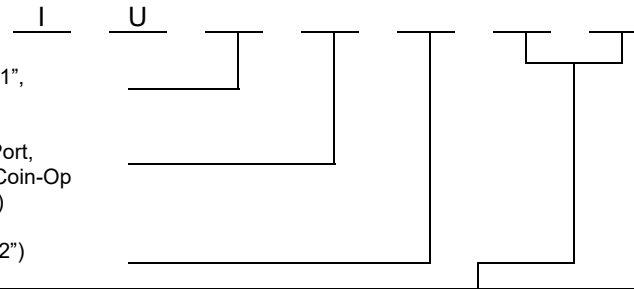
For QuickPress connections add 3.1" (1/2"), 3.6" (3/4"), 4.1" (1") to the FNPT length (A) listed for a valve.

MODEL NUMBER SELECTION

Select a Housing Size (0=1/2"-3/4", 1=1", 2=1-1/4"-1-1/2", 3=2", 4=2-1/2"-3")

Select an Accessory Package (0=No Port, B=CPTA, C=CPTA & Drain Valve, D=Coin-Op Airvent, E=Coin-Op Airvent and CPTA)

Extension Option⁶ (0=No, 1=1-1/2", 2=2")



Valve	FIXED END OR UNION END ⁷ (No Union Tailpiece=Z)			UNION END ONLY ⁷
	Female Threaded	Female Sweat	QuickPress	Male Threaded
IU0	1/2"=E, 3/4"=F ⁴	3/8"=K, 1/2"=L, 3/4"=M	1/2"=2, 3/4"=3	1/2"=H, 3/4"=I
IU1	1/2"=E ⁸ , 3/4"=F ⁸ , 1"=G ⁴	3/8"=K ⁸ , 1/2"=L ⁸ , 3/4"=M ⁸ , 1"=N	1/2"=2 ⁸ , 3/4"=3 ⁸ , 1"=1	1/2"=H, 3/4"=I, 1"=J
IU2	1"=G ⁸ , 1-1/4"=P, 1-1/2"=Q	1"=N ⁸ , 1-1/4"=K, 1-1/2"=W	N/A	1/2"=H, 3/4"=I, 1"=J, 1-1/4"=S, 1-1/2"=T
IU3	1-1/4"=P ⁸ , 1-1/2"=Q ⁸ , 2"=R ⁴	1-1/4"=K ⁸ , 1-1/2"=W ⁸ , 2"=Y	N/A	1-1/4"=S, 1-1/2"=T, 2"=U
IU4	1-1/2"=Q ⁸ , 2"=R ⁸ , 2-1/2"=A, 3"=B	2"=Y ⁸	N/A	1-1/2"=T, 2"=U, 2-1/2"=C, 3"=D

NOTES

- ¹ QuickPress is available on 1/2" to 1" valves. Connections are compatible with popular press tools and are rated for maximum 200 PSI.
- ² Body Tappings for accessories are a leak proof metal to metal seal and do not require pipe dope or tape. Tape or dope should not be used.
- ³ For overall length, add union end connection length to body length.
- ⁴ Tailpiece is not available for this size. Male tailpiece used with coupling.
- ⁵ 1-1/4"-1-1/2" valves can also take 1/2"-3/4" MNPT tailpieces.
- ⁶ Extension Option includes accessory extensions for either 1-1/2" or 2" insulation.
- ⁷ Select the Fixed End First and the Union End Second.
- ⁸ Fixed end not available for this size. Union tailpiece only.



SPECIFICATIONS

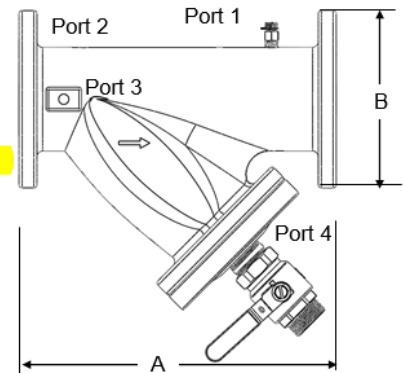
PSI/Temperature Rating: 232 PSI / 200° F
Body Material: Cast Iron ASTM A126 Class B
End Connections: Flanges ANSI B16.5 Class 125
Body Tappings¹: Port 1: 1/4" NPT with PT; Port 2: 1/4" NPT; Port 3: 3/4" NPT; Port 4: Ball Valve to be used as drain valve
Strainer: Stainless steel 304 ASTM A167

Supply Strainer for AHUs with coils 2.5" and Larger

DIMENSIONS & WEIGHTS (NOMINAL)

All dimensions are for planning purposes only and may change without notice.

SIZE	A LENGTH ²	B HEIGHT	BOLT CIRCLE	HOLE Dia.	# OF HOLES	DRAIN SIZE	WEIGHT (LBS.)
2-1/2"	10.7 - 11.4	7.1	5.5	0.75	4	1"	36
3"	11.5 - 12.2	7.5	6.0	0.75	4	1"	44
4"	13.8	9.1	7.5	0.88	8	1-1/4"	68
5"	15.8 - 16.5	10.0	8.5	0.88	8	1-1/4"	117
6"	18.5 - 18.9	11.0	9.5	0.88	8	1-1/2"	147
8"	21.4 - 23.6	13.6	11.8	0.88	8	1-1/2"	246
10" ¹	26.0	15.9	14.3	1	12	2"	370
12" ¹	30.0	19.1	17.0	1	12	2"	579



MODEL NUMBER SELECTION

PORT STYLE	2-1/2"	3"	4"	5"	6"	8"	10"	12"
(1) 1/4" Port with PT; (1) 1/4" Port with plug and (1) 3/4" Port with plug (1) Port with Ball Valve	8274-32	8274-33	8274-34	8274-35	8274-36	8274-37	8274-56	8274-57

OPTIONS (ORDER AS SEPARATE LINE ITEMS, INSTALLED IN THE FIELD):

Pressure/Temperature Test Valve – 1/4": 6889
 Manual Air Vent – 1/4": 738-01
 Thermowell for 2-1/2" to 4" Strainer – 3/4"x2" Stem: 6889-11
 Thermowell for 5" to 8" Strainer – 3/4"x4" Stem: 6889-12

NOTES

¹ 10" and 12" don't include ports 1, 2 or 3
² The length can vary between casting foundries. Please contact Griswold Controls at time of order for length of product.

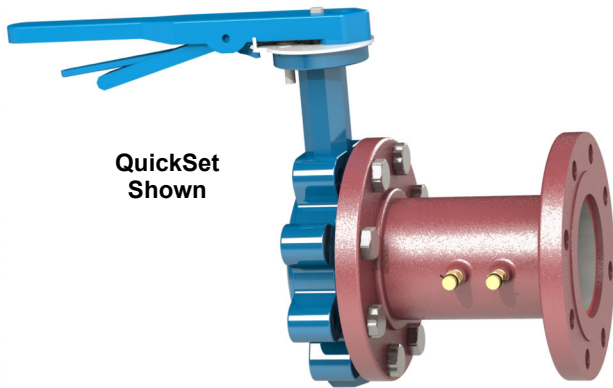
Balancing Valve for AHUs with coils 2.5" and Larger

MANUAL BALANCE

2-1/2" - 20"

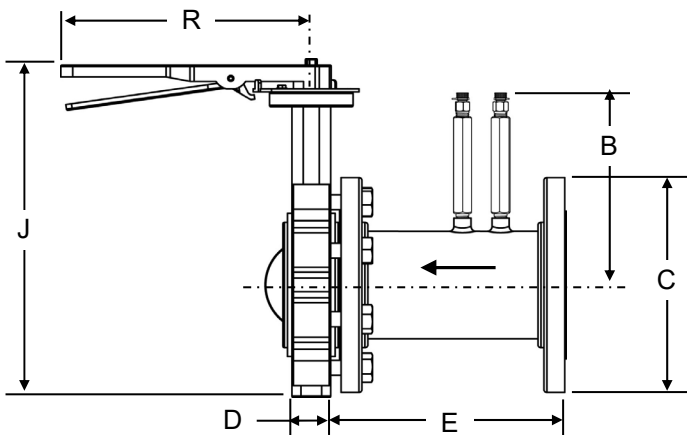
**FLANGED END QUICKSET
& METERING STATION**

SPECIFICATIONS:

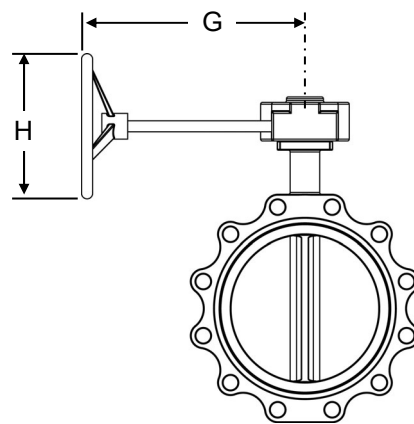


PSI/Temperature Rating
Metering Station: 240 PSI/275° F
QuickSet: 200 PSI (14"-18": 150 PSI) /275° F
Low Loss Venturi: Carbon Steel with Piezo-Ring to average low signal pickup.
Body Material: Carbon Steel SA-53 Grade B.
Butterfly Valve¹: Bronze disk, S.S. Stem
End Connections: Steel flanges ANSI B16.5 CL 150
Body Tappings: 1/4" NPT with Brass P/T test valves
Optional Accessory Ports: Port 1: 1/4" for Air Vent
 Port 2: 3/4" for Thermowell
 Port 3: 1/2" for Drain Valve
Installation: No straight-run pipe is necessary for normal operation. Consult chart (F-4439) for exact Flow Constant and Permanent Pressure Drop calculations.

QuickSet (2-1/2"-6")



QuickSet (8"-18")



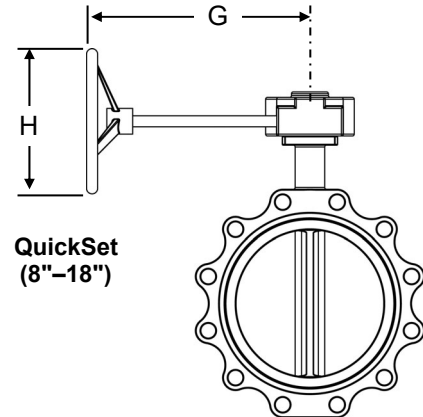
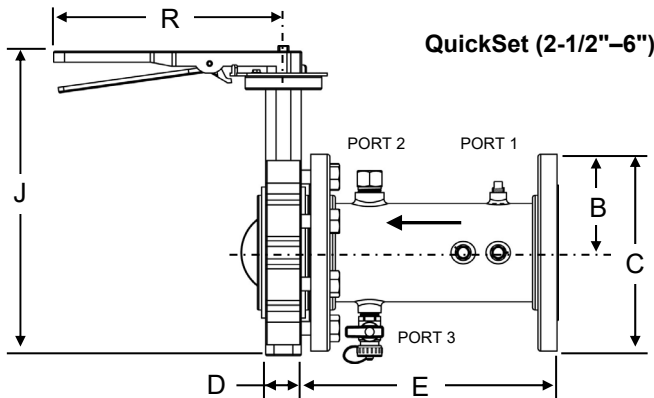
DIMENSIONS & WEIGHTS FOR QUICKSET (NOMINAL)

All dimensions are for planning purposes only and may change without notice.

LINE SIZE	B	C	D	E	G	H	J	R	WEIGHT (LBS.)	
									W/ HANDLE	W/GEAR WHEEL
2-1/2"	7.3	7.0	1.8	6.3	N/A	N/A	11.6	10.5	32	N/A
3"	7.6	7.5	1.8	6.8	N/A	N/A	12.1	10.5	35	N/A
4"	8.0	9.0	2.0	8.4	N/A	N/A	13.6	10.5	52	N/A
5"	8.6	10.0	2.1	10.3	N/A	N/A	14.6	10.5	77	N/A
6"	9.1	11.0	2.3	11.8	N/A	N/A	15.6	10.5	91	N/A
8"	10.1	13.5	2.4	15.3	N/A	12.0	18.9	N/A	N/A	170
10"	11.2	16.0	2.6	18.3	9.5	12.0	21.3	N/A	N/A	258
12"	12.2	19.0	3.0	21.8	9.5	12.0	24.6	N/A	N/A	362
14"	12.8	21.0	3.0	24.3	9.5	12.0	26.8	N/A	N/A	464
16"	13.8	23.5	4.0	27.8	15.0	16.0	30.0	N/A	N/A	630
18"	14.8	25.0	4.5	32.0	15.0	16.0	31.6	N/A	N/A	743

NOTES

¹ Butterfly valve is standard on QuickSet only.



DIMENSIONS & WEIGHTS FOR QUICKSET WITH ACCESSORY PORTS (NOMINAL)

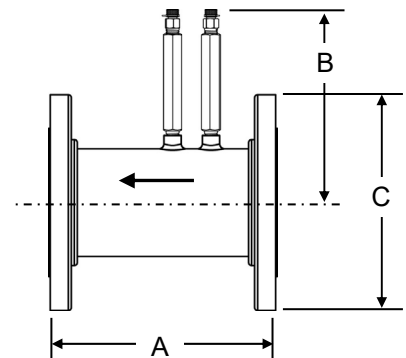
All dimensions are for planning purposes only and may change without notice.

LINE SIZE	B	C	D	E	G	H	J	R HANDLE	WEIGHT (LBS.)	
									W/ HANDLE	W/GEAR WHEEL
2-1/2"	7.19	7.00	1.75	10.00	N/A	N/A	11.63	10.5	34	N/A
3"	7.50	7.50	1.75	10.50	N/A	N/A	12.13	10.5	38	N/A
4"	8.00	9.00	2.00	11.38	N/A	N/A	13.63	10.5	56	N/A
5"	8.53	10.00	2.13	13.13	N/A	N/A	14.63	10.5	65	N/A
6"	9.06	11.00	2.25	13.63	N/A	N/A	15.63	10.5	95	N/A
8"	10.06	13.50	2.38	17.00	9.5	12.0	18.88	N/A	N/A	176
10"	11.13	16.00	2.88	20.88	9.5	12.0	21.25	N/A	N/A	252
12"	12.13	19.00	3.00	23.50	9.5	12.0	24.63	N/A	N/A	300
14"	12.75	21.00	3.00	25.88	9.5	12.0	26.75	N/A	N/A	395
16"	13.75	23.50	4.00	29.25	15.0	16.0	30.00	N/A	N/A	505
18"	14.75	25.00	4.25	33.63	15.0	16.0	31.63	N/A	N/A	645

DIMENSIONS & WEIGHTS FOR METERING STATIONS (NOMINAL)

All dimensions are for planning purposes only and may change without notice.

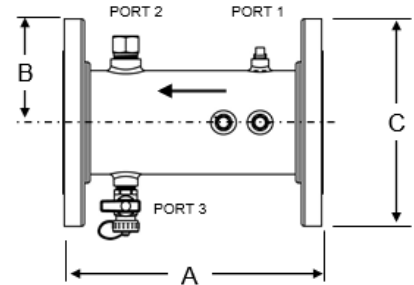
LINE SIZE	A	B	C	WEIGHT (LBS.)
2-1/2"	6.3	7.3	7.0	18
3"	6.8	7.6	7.5	22
4"	8.4	8.0	9.0	32
5"	10.3	8.6	10.0	45
6"	10.8	9.1	11.0	54
8"	12.8	10.1	13.5	90
10"	16.0	11.2	16.0	148
12"	16.8	12.2	19.0	204
14"	17.0	12.8	21.0	244
16"	18.0	13.8	23.5	301
18"	17.3	14.8	25.0	325
20"	20.9	14.2	27.5	TBD



DIMENSIONS & WEIGHTS FOR METERING STATIONS WITH ACCESSORY PORTS (NOMINAL)

All dimensions are for planning purposes only and may change without notice.

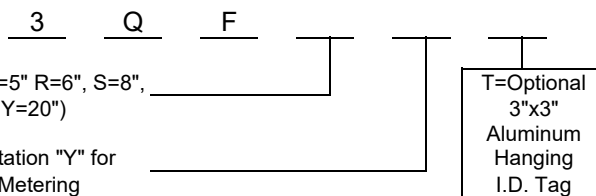
LINE SIZE	A	B	C	WEIGHT (LBS.)
2-1/2"	10.00	7.19	7.00	21
3"	10.50	7.50	7.50	25
4"	11.38	8.00	9.00	36
5"	13.13	8.53	10.00	45
6"	13.63	9.06	11.00	59
8"	17.00	10.06	13.50	101
10"	19.88	11.13	16.00	145
12"	22.13	12.13	19.00	229
14"	24.13	12.75	21.00	285
16"	27.00	13.75	23.50	355
18"	30.75	14.75	25.00	415



FLOW RATES (+/-1%²)

LINE SIZE	Cv Metering Station ³	Cv QuickSet ³	Cv Metering Station with Accessory ³	Cv QuickSet with Accessory ³	GPM RANGE FOR 5-100" ⁴ W.C. ΔP (SET W/100" GAUGE)	GPM RANGE FOR 5-300" W.C. ΔP (SET W/300" GAUGE)	Turn Down Ratio
2-1/2"	171	135	169	134	19 – 87	19 – 151	7.9
3"	269	201	242	189	32 – 147	32 – 255	7.9
4"	580	417	506	387	58 – 260	58 – 451	7.8
5"	800	630	680	566	80 – 372	80 – 645	8.1
6"	1250	980	900	782	140 – 624	140 – 1075	7.7
8"	2100	1745	1800	1561	260 – 1180	260 – 2045	7.8
10"	4000	3201	3900	3149	375 – 1610	375 – 2790	7.4
12"	5700	4690	4930	4232	600 – 2790	600 – 4820	8.0
14"	7300	6225	6800	5906	775 – 3420	775 – 5940	7.7
16"	9600	8283	8900	7821	1250 – 5525	1250 – 9575	7.7
18"	14500	12057	13000	11153	1650 – 7405	1650 – 12830	7.8
20" ⁵	26400	19950	N/A	N/A	2246 – 10071	22460 – 17448	7.7

MODEL NUMBER SELECTION



Select a Size (M=2.5", N=3", P=4", Q=5" R=6", S=8", T=10", U=12", V=14", W=16", X=18", Y=20")

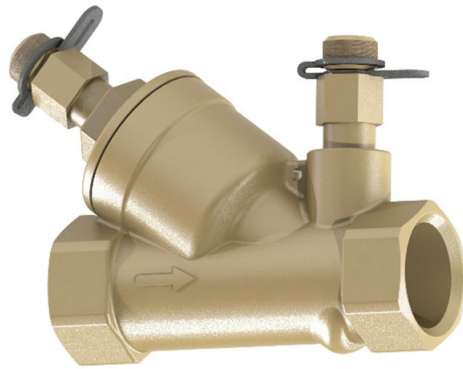
Select Valve Style ("0" for Metering Station "Y" for QuickSet with Butterfly Valve, "A" for Metering Station with Accessory Port "B" for QuickSet with Accessory Port with Butterfly Valve)

NOTES

² Accuracy is for venturi portion of valve only. Pressure readability is dependent on accuracy of gauge and system pressure stability.
³ Cv's are used to calculate permanent pressure drop. PSID=(Flow/Cv)². Consult chart F-4439 Smart Phone app for flow measurement.
⁴ Not all gages/meters can accurately show a 5" signal. Readability is dependent on quality of the meter. Digital gages can read below 1".
⁵ 20" is only available as a Metering Station.

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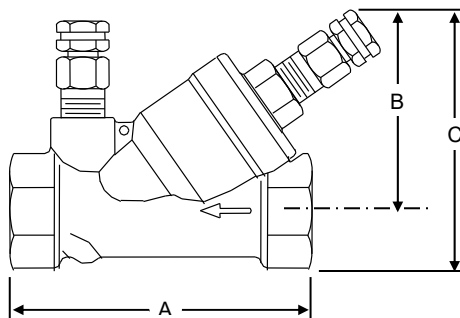
ACCESSIBLE CARTRIDGE

SPECIFICATIONS

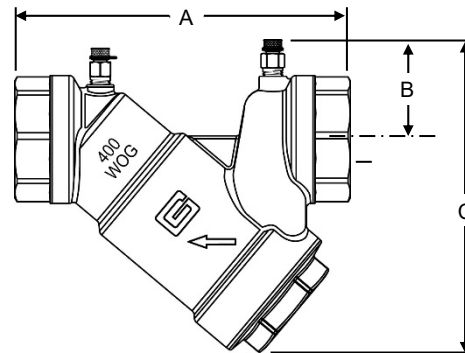
PSI / Temperature Rating:	1/2"-1-1/2": 600 WOG 400 PSI / 250°F 1-1/2"L-3": 400 WOG 275 PSI / 250 °F
Cartridge:	AISI Type 304 stainless steel AISI Type 17-7 PH stainless steel spring
Body Material:	Forged brass (Certified No Lead ¹ DZR Brass Available) (1/2" to 1-1/2") Cast brass (1-1/2"L to 3")
End Connections:	Female NPT (Sweat Available on 1/2" to 3/4" Housing) Housing)
Seals:	EPDM O-Rings
Body Tappings²:	Two P/T Test Valve (CPTA)
Optional Strainer³:	20 mesh stainless steel

Lead free for potable system

1/2" - 1-1/2" Housing



1-1/2"L - 3" Housing



DIMENSIONS & WEIGHTS (NOMINAL)

All dimensions are for planning purposes only and may change without notice.

SIZE	MODEL NO.	A	B	C	WEIGHT (LBS.)
1/2"	3K0_	2.6	2.2	2.9	0.6
1/2"L	380_	3.5	2.4	3.0	2
3/4"		3.8	2.5	3.0	2
1"		4.1	2.6	3.4	2
1"L	381_	5.9	3.4	3.7	3
1-1/4"		6.1	3.5	4.2	3
1-1/2"		6.1	3.5	4.2	3
1-1/2"L	383_	9.1	2.7	8.5	10
2"		8.9	2.7	8.5	10
2-1/2"		9.8	2.7	8.5	10
3"		10.2	2.7	8.5	10

NOTES

¹ No Lead brass contains less than 0.25% lead content by weight on wetted surfaces. 3rd party certification for CA AB1953 and NSF-61 Annex G was performed by Truesdail Labs. Certificate available on website. Certification label is applied to valve surface.

² Body Tappings for accessories are a leak proof metal to metal seal and do not require pipe dope or tape. Tape or dope should not be used.

³ The optional strainer is internal and does not affect the dimensions. Strainer is available only on 1/2"L to 1-1/2" models.

5/21

F-2852ZB

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 **GRISWOLD
CONTROLS**
A FlowCon International/Griswold Controls LLC. Company

MODEL NUMBER SELECTION⁴

3

Insert K for 1/2"
Insert 8 for 1/2"L to 3"

Insert 0 for 1/2", 1/2"L, 3/4", and 1"
Insert 1 for 1"L, 1-1/4", and 1-1/2"
Insert 3 for 1-1/2"L, 2", 2-1/2", and 3"⁵

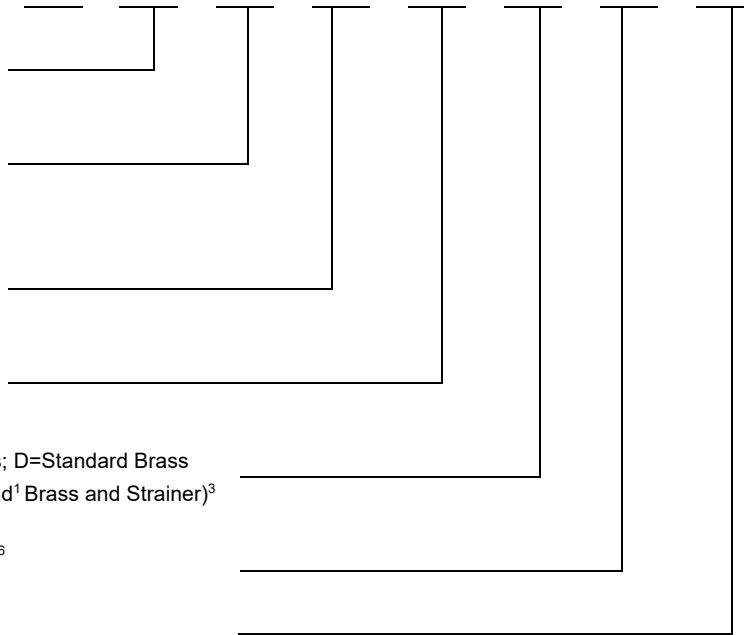
Select a PSID control range (1=1-14/1-20/
4-20, 2=2-32/8-32, 4=4-57, 8=8-128)

Select a size (1/2"=E, 3/4"=F, 1"=H,
1-1/4"=J, 1-1/2"=K, 2"=L, 2-1/2"=M, 3"=N)

Select Housing Material (B=Standard Brass; D=Standard Brass
and Strainer; L=No Lead¹ Brass; M=No Lead¹ Brass and Strainer)³

Add an "S" for sweat, leave blank for FNPT⁶

Extension Kit (0=No, 1=1-1/2", 2=2")⁷



FLOW RATES (+/-5%)

SIZE	MODEL NO.	HEAD LOSS IN FEET ⁸	PSID RANGE ⁹	GPM	
				MIN.	MAX.
1/2"	3K02	7.4	2-32	0.25, 0.33, 0.50, 0.60, 0.75, 0.85, 1.00, 1.25, 1.50, 2.00, 2.50, 3.00	
	3K04	13.4	4-57	0.50, 1.00, 1.50, 2.00, 2.50, 3.00	
1/2"L, 3/4"L, 1"	3801	3.5	1-14	0.33, 0.50, 0.67, 1.00, 1.33, 1.67, 2.00, 2.33, 2.67, 3.33, 4.00, 4.67, 5.00	
	3802	7.4	2-32	0.55, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.50, 4.00, 5.00, 6.00, 7.00, 8.00	
	3804	13.4	4-57	0.75, 1.00, 1.33, 2.00, 2.67, 3.33, 4.00, 4.67, 5.33, 6.67, 8.00, 9.33, 10.00, 11.00	
	3808	30.0	8-128	1.10, 1.50, 2.00, 3.00, 4.00, 5.00, 6.00, 7.00, 8.00, 10.0, 12.0, 14.0, 16.0	
1"L, 1-1/4", 1-1/2"	3811	3.5	1-14	5.33, 6.00, 6.67, 7.33, 8.00, 8.67, 9.33, 10.00, 10.67, 11.33, 12.00, 12.67, 13.33, 14.00, 14.67	
	3812	7.4	2-32	8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0, 20.0, 21.0, 22.0	
	3814	13.4	4-57	10.67, 12.00, 13.33, 14.67, 16.00, 17.33, 18.67, 20.00, 21.33, 22.67, 24.00, 25.33, 26.67, 28.00, 29.33	
	3818	30.0	8-128	16.0, 18.0, 20.0, 22.0, 24.0, 26.0, 28.0, 30.0, 32.0, 34.0, 36.0, 38.0, 40.0, 42.0, 44.0	

SIZE	MODEL NO.	HEAD LOSS IN FEET ⁸	PSID RANGE	GPM			HEAD LOSS IN FEET ⁸	PSID RANGE	HIGHER FLOW RATES/ NO INCREMENTS
				MIN.	INCREMENT	MAX			
1-1/2"L, 2", 2-1/2", 3"	3831	3.5	1-20	14.0	2.0	60	9.2	4-20	90, 110, 130
	3832	7.4	2-32	17.5	2.5	75	18.4	8-32	110, 135, 160
	3834	13.4	4-57	23.33	3.33	100	NONE		
	3838	30.0	8-128	35.0	5.0	150			

NOTES

- ⁴ Model no. and flow rate are indicated on label affixed to body.
- ⁵ Large Housing "3" (1-1/2"L-3") is not available in Certified No Lead Brass. Only 1/2" to 1-1/2" is available in No Lead Brass.
- ⁶ Sweat ends are available only on 1/2" to 3/4" models.
- ⁷ Extension Kit is available for standard brass models only.
- ⁸ Head Loss in Feet is provided for pump head calculations. (1 PSI = 2.307 Feet of Water)
- ⁹ Systems with entrained air and fluid velocities less than 4FPS are susceptible to noise when using the 2-32 cartridge. If your system has entrained air and flowrates less than 2GPM please consider using the 4-57 cartridge.