

FLOWING EXPERTISE

JANUARY 2026



**PLUMBING AND
HYDRONICS
CATALOG**

THE CALEFFI GREEN



OUR SUSTAINABLE COMMITMENT

We maximize energy efficiency through sustainable manufacturing innovation and Caleffi's expert application support.

**WASTE
RECOVERY
AND MORE**

85%
RAW MATERIALS
FROM ITALY

98.7%
RAW MATERIALS
FROM EUROPE



100%
EXPANDED POLYURETHANE
ELIMINATED
FROM PRODUCT PACKAGING



80%
SOLAR PV
FACILITY ENERGY MIX
NORTH AMERICA

-60%
POLYETHYLENE
FOR OUTGOING
PACKING

98.5%
PLASTIC
SCRAP
RECOVERED



100%
BRASS
SCRAP
RECOVERED

**WATCH
THE VIDEO**



SECTION	PAGES	
1	5	HYDRAULIC SEPARATORS
2	11	AIR AND DIRT SEPARATORS AND AIR VENTS
3	23	THERMOSTATIC RADIATOR VALVES
4	29	ZONE VALVES, CONTROLS AND COIL KITS
5	39	DISTRIBUTION MANIFOLDS AND MIXING STATIONS
6	47	FILLING UNITS AND BOILER TRIM KITS
7	53	MIXING VALVES
8	71	BALANCING VALVES
9	91	PRESSURE REDUCING VALVES
10	99	BACKFLOW PREVENTION AND SAFETY DEVICES
11	107	RENEWABLE COMPONENTS
12	111	SPECIALTY COMPONENTS AND KITS
13	119	FITTINGS
14	149	INDEX



www.caleffi.com

CALEFFI
Hydronic Solutions

SEP4™ 4-IN-1

HIGH PERFORMANCE HYDRAULIC SEPARATORS

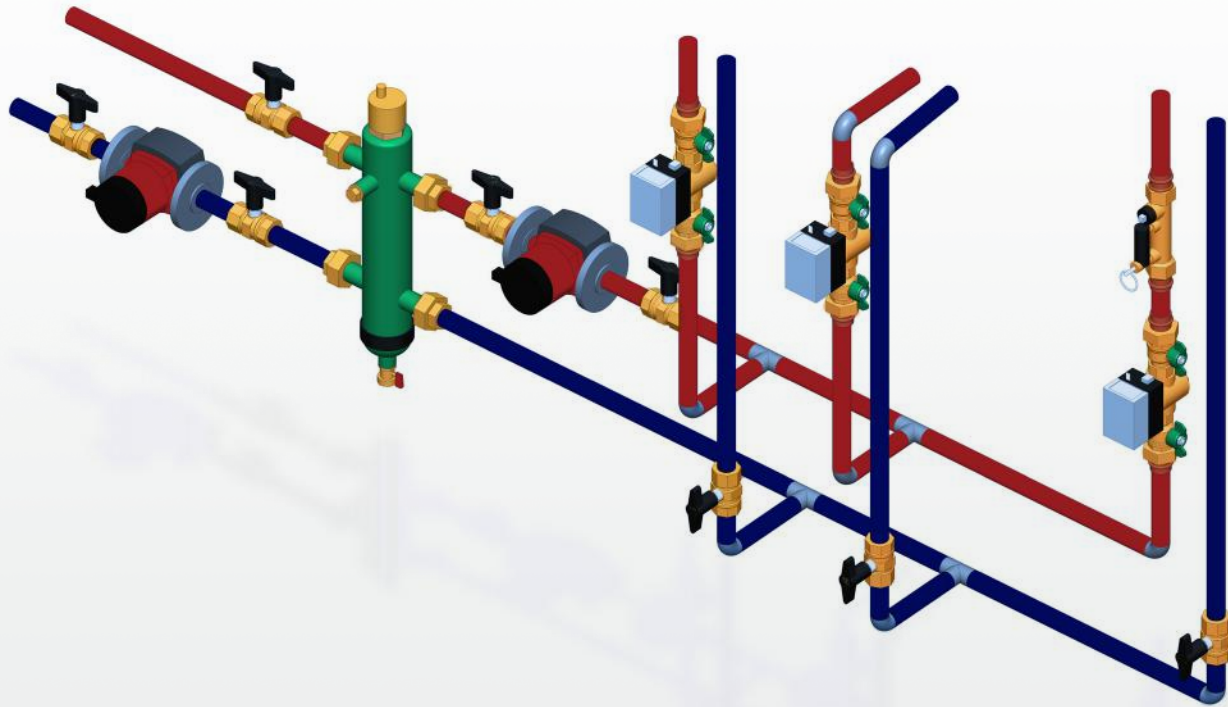


The Caleffi **SEP4™ hydraulic separator** combines air, hydraulic, dirt and magnetic separation, reducing installation costs. Don't settle for less, maintain peak system energy efficiency with SEP4. **CALEFFI GUARANTEED.**



HYDRAULIC SEPARATORS

1



Diagrams made with BIM families: bim.caleffi.com

This diagram is for illustration purposes only

PRODUCTS INCLUDED IN SECTION

4-in-1 hydraulic separators

Hydraulic separators

Accessories

4-IN-1 HYDRAULIC SEPARATORS



5495 SEP⁴™

Combination: air, hydraulic, dirt, and magnetic separation
Complete with:

- Drain valve
- Thermowell tap: 1/2" straight female
- Mounting bracket

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 212 °F
Material: Steel



549/NA549 SEP⁴™

Combination: air, hydraulic, dirt, and magnetic separation
Complete with:

- Air vent isolation valve
- Drain valve
- Insulation jacket (2-4" sizes)

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 212 °F
Material: Steel

Code	Description	Lbs	USD
549596A	1" sweat union	15	-
549506A	1" NPT female union	15	-
549566A	1" press union	15	-
549597A	1 1/4" sweat union	19	-
549507A	1 1/4" NPT female union	19	-
549567A	1 1/4" press union	19	-
549598A	1 1/2" sweat union	27	-
549508A	1 1/2" NPT female union	27	-
549568A	1 1/2" press union	27	-
549599A	2" sweat union	29	-
549509A	2" NPT female union	29	-
549569A	2" press union	29	-
549506US 001*	1" no tailpieces	13	-
549507US 001*	1 1/4" no tailpieces	16	-
549508US 001*	1 1/2" no tailpieces	23	-
549509US 001*	2" no tailpieces	24	-

*See fitting selection in Section 13

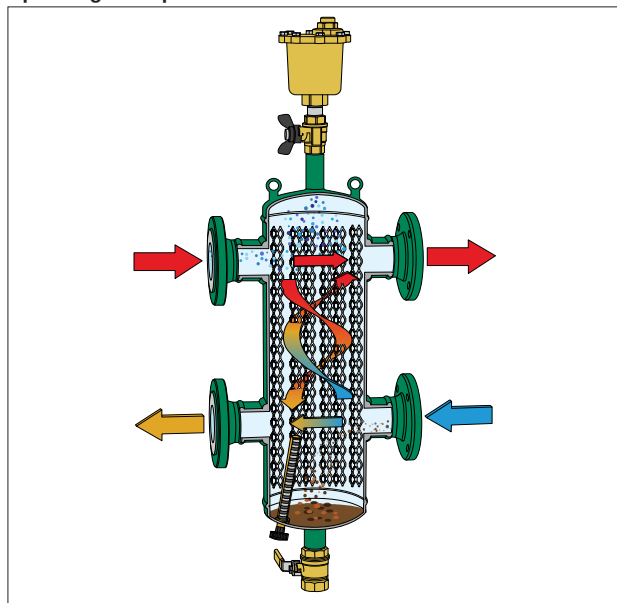
Code	Description	Lbs	USD
549552A	2" ANSI flange	76	-
549562A	2 1/2" ANSI flange	82	-
549582A	3" ANSI flange	112	-
549510A	4" ANSI flange	120	-

Code	Description	Lbs	USD
NA549052AM	2" ANSI flange ASME & CRN	76	-
NA549062AM	2 1/2" ANSI flange ASME & CRN	82	-
NA549082AM	3" ANSI flange ASME & CRN	112	-
NA549102AM	4" ANSI flange ASME & CRN	120	-
NA549120AM*	5" ANSI flange ASME & CRN	220	-
NA549150AM*	6" ANSI flange ASME & CRN	235	-

*Without insulation

NA prefix indicates ASME U-stamp tagged and registered with the National Board of Boiler and Pressure Vessel Inspectors; CRN registered.

Operating Principle for NA549 SEP4



NA549 SEP⁴™ ASME

Combination: air, hydraulic, dirt, and magnetic separation
Complete with:

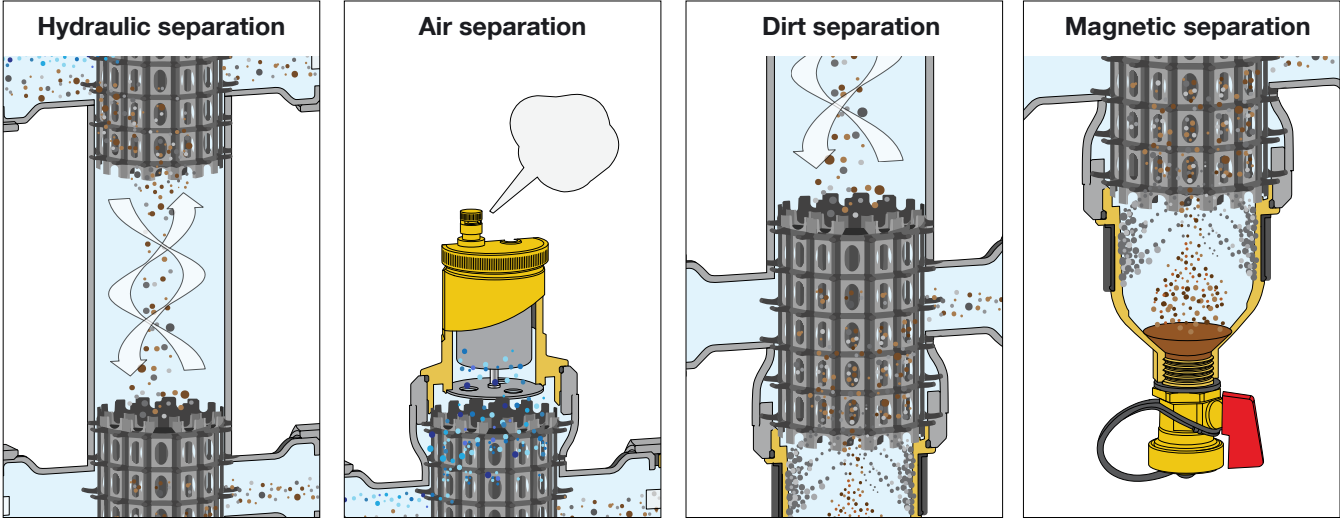
- Air vent isolation valve
- Drain valve
- Thermowell tap (NPT): 1/2" inlet/outlet flanges, 3/4" front center

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 270 °F
Material: Steel

Code	Description	Lbs	USD
NA549200AM	8" ANSI flange ASME & CRN	530	-
NA549250AM	10" ANSI flange ASME & CRN	740	-
NA549300AM	12" ANSI flange ASME & CRN	1,110	-
NA549350AM	14" ANSI flange ASME	1,550	-

4-IN-1 HYDRAULIC SEPARATORS

Operating principle for 5495 SEP4™



Four separators combined in one: Minimize costs and maximize performance for systems with primary and secondary piping by eliminating the need for individual separators.

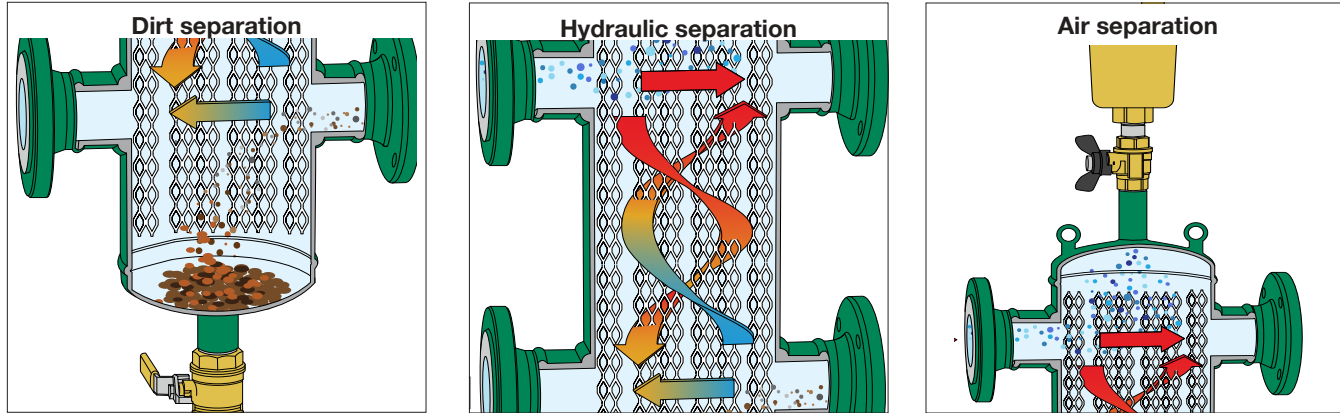
FLOW RATES

	UNION 548/5495 SEP4™ FLOW RATE			
Size	1"	1¼"	1½"	2"
GPM	11	18	26	37
Gallons	0.5	0.7	1.3	3.5

	548/549/NA548/NA549 SEP4™ FLOW RATE									
Size	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"
GPM	60	80	124	247	300	484	792	1330	1850	2500
Gallons	4.0	4.0	8.0	8.0	23	23	95	175	255	450

HYDRAULIC SEPARATORS

Operating principle for NA549 HydroCal



HYDRAULIC SEPARATORS



548 Hydro Separator

Hydraulic separator
Complete with:
- Drain valve
- Thermowell tap: ½" straight female
- Mounting bracket

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 212 °F
Material: Steel

Code	Description	Lbs	USD
548006A	1" NPT female union	13	-
548066A	1" press union	13	-
548096A	1" sweat union	13	-
548007A	1¼" NPT female union	17	-
548067A	1¼" press union	17	-
548097A	1¼" sweat union	17	-
548008A	1½" NPT female union	25	-
548068A	1½" press union	25	-
548098A	1½" sweat union	25	-
548009A	2" NPT female union	27	-
548069A	2" press union	27	-
548099A	2" sweat union	27	-
548006US 001*	1" no tailpieces	11	-
548007US 001*	1¼" no tailpieces	14	-
548008US 001*	1½" no tailpieces	21	-
548009US 001*	2" no tailpieces	22	-

*See fitting selection in Section 13



NA548 Hydro Separator ASME

Hydraulic separator
Complete with:
- Air vent isolation valve
- Drain valve
- Thermowell tap (NPT): ½" inlet/outlet
flanges, ¾" front center

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 270 °F
Material: Steel

Code	Description	Lbs	USD
NA548200A	8" ANSI flange ASME & CRN	530	-
NA548250A	10" ANSI flange ASME & CRN	740	-
NA548300A	12" ANSI flange ASME & CRN	1,110	-
NA548350A	14" ANSI flange ASME	1,550	-



548/NA548 Hydro Separator

Hydraulic separator
Complete with:
- Air vent isolation valve
- Drain valve
- Insulation jacket (2-4" sizes)

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 220 °F
Material: Steel

Code	Description	Lbs	USD
548052A	2" ANSI flange	75	-
548062A	2½" ANSI flange	82	-
548082A	3" ANSI flange	112	-
548102A	4" ANSI flange	117	-

Code	Description	Lbs	USD
NA548052A	2" ANSI flange ASME & CRN	75	-
NA548062A	2½" ANSI flange ASME & CRN	82	-
NA548082A	3" ANSI flange ASME & CRN	112	-
NA548102A	4" ANSI flange ASME & CRN	117	-
NA548120A*	5" ANSI flange ASME & CRN	220	-
NA548150A*	6" ANSI flange ASME & CRN	231	-

*Without insulation

NA prefix indicates ASME U-stamp tagged and registered with the National Board of Boiler and Pressure Vessel Inspectors; CRN registered.



NA549 HydroCal™ ASME

Combination: air, hydraulic and dirt
separation

Complete with:
- Air vent isolation valve
- Drain valve
- Insulation jacket (2-4" sizes)
- Thermowell tap (NPT): ½" inlet/outlet
flanges, ¾" front center (8-14" only)

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 270 °F
Material: Steel

Code	Description	Lbs	USD
NA549052A	2" ANSI flange ASME & CRN	73	-
NA549062A	2½" ANSI flange ASME & CRN	79	-
NA549082A	3" ANSI flange ASME & CRN	108	-
NA549102A	4" ANSI flange ASME & CRN	117	-
NA549120A*	5" ANSI flange ASME & CRN	190	-
NA549150A*	6" ANSI flange ASME & CRN	231	-
NA549200A*	8" ANSI flange ASME & CRN	520	-
NA549250A*	10" ANSI flange ASME & CRN	730	-
NA549300A*	12" ANSI flange ASME & CRN	1,100	-
NA549350A*	14" ANSI flange ASME	1,540	-

*Without insulation

NA prefix indicates ASME U-stamp tagged and registered with the National Board of Boiler and Pressure Vessel Inspectors; CRN registered.

ACCESSORIES



501 MAXCAL[®]

Replacement automatic air vent for NA548 and NA549 hydro separators

Maximum operating pressure: 230 psi
Maximum discharge pressure: 90 psi
Fluid temperature range: -4 – 250 °F

Code	Description	Lbs	USD
501502A	¾" FNPT	7.0	-



5023 VALCAL[™]

Replacement air vent with service check for union 548 hydro separators
Maximum operating pressure: 150 psi
Maximum discharge pressure: 60 psi
Maximum operating temperature: 250 °F

Code	Description	Lbs	USD
502343A	½" MNPT	0.5	-



Replacement air vent assembly for 5495 SEP4[™]

Code	Description	Lbs	USD
59829	Air vent assembly	2.0	-



Support bracket for union 5495 SEP4[™] and union 548 hydro separators

Code	Description	Lbs	USD
NA10778	Fits 1" and 1¼" union	2.0	-
NA10796	Fits 1½" union	2.5	-
NA10797	Fits 2" union	4.0	-



Replacement drain valve for 5495 SEP4[™] and 548 hydro separators
¾" garden hose thread with cap
Max operating pressure: 150 psi
Max operating temperature: 250 °F

Code	Description	Lbs	USD
538402 FD	½" NPT x ¾" GHT	0.3	-



Magnetic/drywell assembly for NA549 SEP4[™]

Code	Description	Lbs	USD
F0000435	Fits 2" and 2½"	0.3	-
49684A	Fits 3" to 6"	0.3	-
F0000349	Fits 8" to 14"	0.3	-



Air vent isolation valve for NA548 and NA549
Maximum operating pressure: 150 psi
Maximum operating temperature: 365 °F

Code	Description	Lbs	USD
NA39589	¾" FNPT w/T-handle	0.8	-



Drain ball valve for NA548 and NA549
Maximum operating pressure: 150 psi
Maximum operating temperature: 365 °F

Code	Description	Lbs	USD
NA39753	1" FNPT w/Lever, drain	0.7	-
NA39588	1¼" FNPT w/Lever, drain	1	-
NA59600	2" FNPT w/Lever, drain	4	-



Replacement pocket well kit for 548 and 5495
Includes sealing washer and sensor grommet

Code	Description	Lbs	USD
NA10425	Temperature pocket well kit	0.4	-



Insulation jacket for union 5495 SEP4[™] and union 548 hydro separators

Code	Description	Lbs	USD
NA10801	Fits 1" union 5495	0.5	-
NA10802	Fits 1¼" union 5495	0.5	-
NA10803	Fits 1½" union 5495	0.6	-
NA10804	Fits 2" union 5495	0.6	-
NA10805	Fits 1" union 548	0.5	-
NA10806	Fits 1¼" union 548	0.5	-
NA10807	Fits 1½" union 548	0.6	-
NA10808	Fits 2" union 548	0.6	-



www.caleffi.com

CALEFFI
Hydronic Solutions

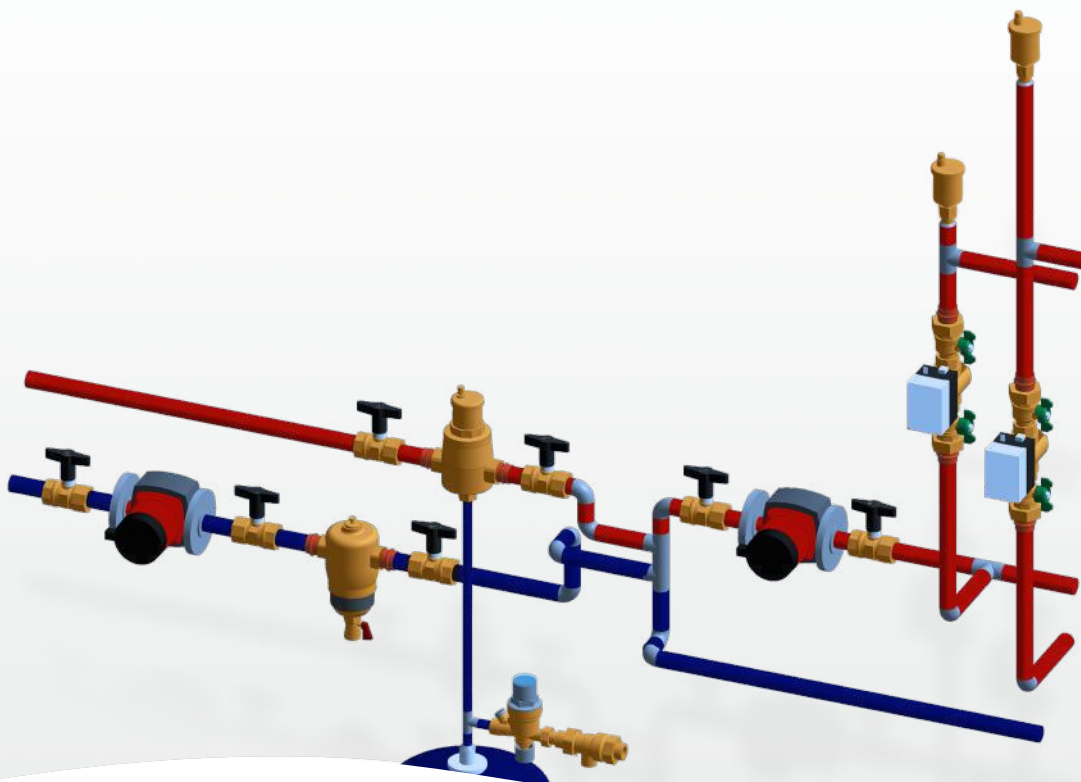
MAGNETIC DUO

DIRT SEPARATORS



Best in the business dirt and magnetite removal! Caleffi leads the way with impurity separation technology to protect critical hydronic components. The DIRTMAG[®] PRO has dual magnetic fields and the CALEFFI XF[™] adds a unique mesh filter and brush for first-pass cleaning. Don't settle for less, blowdown without the mess. **CALEFFI GUARANTEED.**





Diagrams made with BIM families: bim.caleffi.com

This diagram is for illustration purposes only

PRODUCTS INCLUDED IN SECTION

- Air separators
- Combination air and dirt separators
- Magnetic dirt separators
- Automatic and manual air vents
- Accessories for air and dirt separators

AIR SEPARATORS



551 DISCAL®

Air separator
Stainless steel float guide pin and linkage
Glass reinforced nylon internal element
½" FNPT bottom thread

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 250 °F
Material: Brass

Code	Description	Lbs	USD
551005A	¾" FNPT	3.7	-
551028A	1" sweat	3.7	-
551006A	1" FNPT	3.7	-
551066A	1" press	3.8	-
551035A	1¼" sweat	3.7	-
551007A	1¼" FNPT	4.9	-
551067A	1¼" press	5.0	-
551041A	1½" sweat	4.9	-
551008A	1½" FNPT	4.9	-
551068A	1½" press	5.1	-
551054A	2" sweat	5.5	-
551009A	2" FNPT	5.5	-
551069A	2" press	5.5	-

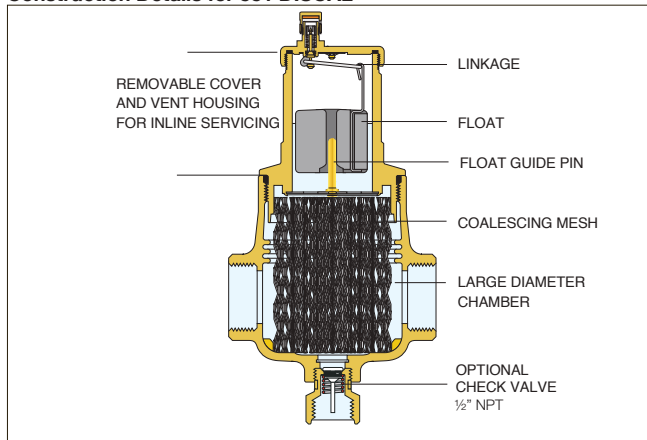


Insulation shell fits DISCAL® 551 Series.

Code	Description	Lbs	USD
CBN551005	Fits ¾" and 1"	0.1	-
CBN551007	Fits 1¼" and 1½"	0.1	-
CBN551009	Fits 2"	0.1	-

*Will not fit the ¾" compact DISCAL®; codes 551003A and 551022A.

Construction Details for 551 DISCAL®



551 DISCAL® Service check

Air separator with service check
Stainless steel float guide pin and linkage
Glass reinforced nylon internal element
Complete with:
- ½" NPT service check valve

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 230 °F
Material: Brass

Code	Description	Lbs	USD
551005AC	¾" FNPT	3.8	-
551028AC	1" sweat	3.8	-
551006AC	1" FNPT	3.8	-
551066AC	1" press	3.9	-
551035AC	1¼" sweat	3.8	-
551007AC	1¼" FNPT	5.0	-
551067AC	1¼" press	5.1	-
551041AC	1½" sweat	5.0	-
551008AC	1½" FNPT	5.0	-
551068AC	1½" press	5.2	-
551054AC	2" sweat	5.6	-
551009AC	2" FNPT	5.6	-
551069AC	2" press	5.6	-

551 DISCAL® FLOW RATE

Size	¾"	1"	1¼"	1½"	2"
GPM	6	10	15	22	39
Cv	19	32	56	73	81



5517 DISCAL® Rotating collar

Air separator with rotating collar
Stainless steel float guide pin and linkage
Stainless steel mesh internal element

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 250 °F
Material: Brass

Code	Description	Lbs	USD
551705A	¾" NPT male union	4.9	-
551765A	¾" press union	4.9	-
551795A	¾" sweat union	4.9	-
551706A	1" NPT male union	4.9	-
551766A	1" press union	4.9	-
551796A	1" sweat union	4.9	-
551716*	Body only	4.4	-

*See fitting selection in Section 13.

AIR SEPARATORS



551 DISCAL® Compact

Air separator
Stainless steel float guide pin and linkage
Stainless steel mesh internal element
½" FNPT bottom thread

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 250 °F
Material: Brass



NA551 DISCAL® ASME/CRN

Air separator
Stainless steel float guide pin and linkage
Stainless steel mesh internal element
Complete with:
- ½" MNPT side drain valve
- 1" FNPT bottom drain valve

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 270 °F
Material: Steel

Code	Description	Lbs	USD
551003A	¾" FNPT	2.0	-
551003AC	¾" FNPT, service check valve	2.1	-
551022A	¾" sweat	2.0	-
551022AC	¾" sweat, service check valve	2.1	-

5517/551 DISCAL® FLOW RATE			
Size	¾" compact	¾" rotating	1" rotating
GPM	6	6	10
Cv	12	14	14

Code	Description	Lbs	USD
NA551050A	2" ANSI flange ASME & CRN	34	-
NA551060A	2½" ANSI flange ASME & CRN	35	-
NA551080A	3" ANSI flange ASME & CRN	62	-
NA551100A	4" ANSI flange ASME & CRN	67	-
NA551120A	5" ANSI flange ASME & CRN	106	-
NA551150A	6" ANSI flange ASME & CRN	117	-

NA prefix indicates ASME tagged and registered with the National Board of Boiler and Pressure Vessel Inspectors; CRN registered.



551 DISCAL®

Air separator
Stainless steel float guide pin and linkage
Stainless steel mesh internal element
Complete with:
- ½" MNPT side drain valve
- 1" FNPT bottom drain valve

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 270 °F
Material: Steel



NA551 DISCAL® ASME/CRN

Air separator
Stainless steel float guide pin and linkage
Stainless steel mesh internal element
Complete with:
- ½" MNPT side drain valve
- 2" FNPT bottom drain valve
- Thermowell tap (NPT): ½" inlet/outlet flanges

Maximum operating pressure: 200 psi
Fluid temperature range: 32 – 270 °F
Material: Steel

Code	Description	Lbs	USD
551050A	2" ANSI flange	34	-
551050AT	2" MNPT	30	-
551060A	2½" ANSI flange	35	-
551060AT	2½" MNPT	31	-
551080A	3" ANSI flange	62	-
551100A	4" ANSI flange	67	-

Code	Description	Lbs	USD
NA551200A	8" ANSI flange ASME & CRN	371	-
NA551250A	10" ANSI flange ASME & CRN	617	-
NA551300A	12" ANSI flange ASME & CRN	871	-

NA prefix indicates ASME tagged and registered with the National Board of Boiler and Pressure Vessel Inspectors; CRN registered.

FLANGED 551/NA551 DISCAL® FLOW RATE									
Size	2"	2½"	3"	4"	5"	6"	8"	10"	12"
GPM	100	155	220	400	615	880	1,570	2,450	3,525
Cv	87	174	208	324	520	832	1,109	1,387	1,664

COMBINATION AIR AND DIRT SEPARATORS



5461 DISCALDIRTMAG™

Air & Dirt separator with magnet
Stainless steel float guide pin and linkage
Glass reinforced nylon internal element
Complete with:
- External clip-on magnet
- Drain valve with cap

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 250 °F
Material: Brass

Code	Description	Lbs	USD
546196A	1" sweat	8.5	-
546166A	1" press	8.5	-
546116A	1" MNPT	8.5	-
546197A	1¼" sweat	8.5	-
546167A	1¼" press	8.5	-



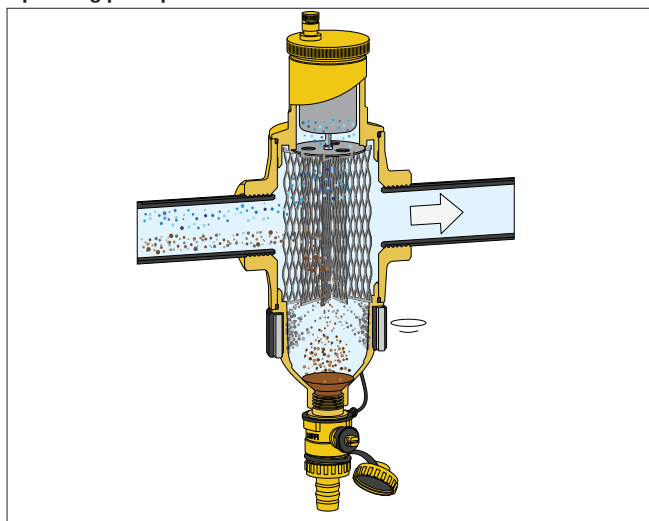
546 DISCALDIRT®

Air & Dirt separator
Stainless steel float guide pin and linkage
Stainless steel mesh internal element
Complete with:
- ½" MNPT side drain valve
- 1" FNPT bottom drain valve

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 270 °F
Material: Steel

Code	Description	Lbs	USD
546050A	2" ANSI flange	40	-
546060A	2½" ANSI flange	42	-
546080A	3" ANSI flange	73	-
546100A	4" ANSI flange	78	-
546120A	5" ANSI flange	181	-

Operating principle for 5461 DISCALDIRTMAG™



5461 DISCALDIRTMAG™

Air & Dirt separator with magnet
Stainless steel float guide pin and linkage
Stainless steel mesh internal element
Complete with:
- External clip-on magnet
- Drain valve with cap

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 230 °F
Material: Steel

Code	Description	Lbs	USD
546198A	1½" sweat union	22	-
546108A	1½" NPT female union	22	-
546168A	1½" press union	22	-
546199A	2" sweat union	23	-
546109A	2" NPT female union	23	-
546169A	2" press union	23	-



546 DISCALDIRT®

Air & Dirt separator
Stainless steel float guide pin and linkage
Glass reinforced nylon internal element
Complete with:
- Drain valve with cap

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 250 °F
Material: Brass

Code	Description	Lbs	USD
546096A	1" sweat	8.3	-
546016A	1" MNPT	8.3	-
546097A	1¼" sweat	8.3	-



Insulation jacket for:
- Brass 546 DISCALDIRT®
- Brass and union 5461 DISCALDIRTMAG™

Code	Description	Lbs	USD
CBN546002	Fits ¾", 1", 1¼" brass 546 and 5461	0.1	-
CBN546118	Fits 1½" union 5461 only	0.1	-
CBN546119	Fits 2" union 5461 only	0.1	-

546/5461 DISCALDIRTMAG® FLOW RATE				
Size	1"	1¼"	1½"	2"
GPM	10	15	22	39
Cv	32	40	50	79

COMBINATION AIR AND DIRT SEPARATORS



NA546 DISCALDIRT® ASME/CRN

Air & Dirt separator
Stainless steel float guide pin and linkage
Stainless steel mesh internal element
Complete with:
- ½" MNPT side drain valve
- 1" FNPT bottom drain valve (2-6" sizes) OR
2" FNPT bottom drain valve (8-14" sizes)

Maximum operating pressure: 150 psi
Medium temperature range: 32 – 270 °F
Material: Steel



NA546M DISCALDIRTMAG™ ASME/CRN

Air & Dirt separator with magnets
Stainless steel float guide pin and linkage
Stainless steel mesh internal element
Complete with:
- ½" MNPT side drain valve
- 1" FNPT bottom drain valve (2-6" sizes) OR
2" FNPT bottom drain valve (8-14" sizes)

Maximum operating pressure: 150 psi
Medium temperature range: 32 – 270 °F
Material: Steel

Code	Description	Lbs	USD
NA546050T	2" MNPT ASME & CRN	28	-
NA546060A	2½" ANSI flange ASME & CRN	42	-
NA546080A	3" ANSI flange ASME & CRN	73	-
NA546100A	4" ANSI flange ASME & CRN	78	-
NA546120A	5" ANSI flange ASME & CRN	181	-
NA546150A	6" ANSI flange ASME & CRN	188	-
NA546200A	8" ANSI flange ASME & CRN	355	-
NA546250A	10" ANSI flange ASME & CRN	555	-
NA546300A	12" ANSI flange ASME & CRN	825	-
NA546350A	14" ANSI flange ASME	950	-

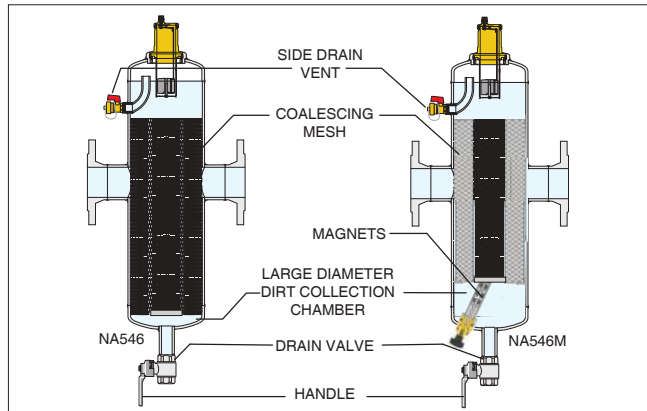
Code	Description	Lbs	USD
NA546050TM*	2" MNPT ASME & CRN	31	-
NA546060AM*	2½" ANSI flange ASME & CRN	45	-
NA546080AM*	3" ANSI flange ASME & CRN	76	-
NA546100AM*	4" ANSI flange ASME & CRN	81	-
NA546120AM*	5" ANSI flange ASME & CRN	184	-
NA546150AM*	6" ANSI flange ASME & CRN	191	-
NA546200AM**	8" ANSI flange ASME & CRN	365	-
NA546250AM**	10" ANSI flange ASME & CRN	565	-
NA546300AM**	12" ANSI flange ASME & CRN	835	-
NA546350AM**	14" ANSI flange ASME	960	-

*With one magnet

**With three magnets

NA prefix indicates ASME tagged and registered with the National Board of Boiler and Pressure Vessel Inspectors; CRN registered 2" to 12"; consult factory for 14"

Construction details for NA546/NA546M DISCALDIRT™



NA546 DISCALDIRT/NA546M DISCALDIRTMAG® FLOW RATE

Size	2"	2½"	3"	4"	5"	6"
GPM	100	155	220	400	615	880
Cv	87	174	208	324	520	832

NA546 DISCALDIRT/NA546M DISCALDIRTMAG® FLOW RATE

Size	8"	10"	12"	14"
GPM	1,570	2,450	3,525	4,800
Cv	1,109	1,387	1,664	1,967

MAGNETIC DIRT SEPARATORS



5463M DIRTMAG® PRO

Dual magnet dirt separator
Glass reinforced nylon internal element
Complete with:
- Internal magnet in drywell
- External clip-on magnet
- Drain valve

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 250 °F
Material: Brass

Code	Description	Lbs	USD
546328AM	1" sweat	4.7	-
546306AM	1" FNPT	4.7	-
546366AM	1" press	5.0	-
546335AM	1¼" sweat	4.7	-
546307AM	1¼" FNPT	5.8	-
546367AM	1¼" press	6.1	-
546341AM	1½" sweat	5.4	-
546308AM	1½" FNPT	6.7	-
546368AM	1½" press	7.0	-
546354AM	2" sweat	6.0	-
546309AM	2" FNPT	6.7	-
546369AM	2" press	7.0	-

5463M DIRTMAG® PRO FLOW RATE

Size	1"	1¼"	1½"	2"
GPM	14	21	31	54
Cv	32	45	69	104



Insulation jacket fits 5463 DIRTMAG® PRO

Code	Description	Lbs	USD
CBN546205	Fits ¾" & 1"	0.1	-
CBN546207	Fits 1¼" & 1½"	0.1	-
CBN546209	Fits 2"	0.1	-



577 CALEFFI XF Extra Filtration Separator

Magnetic dirt separator
Composite body with rotating brass collar
Internal filter mesh with rotating brush
50% bypass feature on 1¼" and 1½" sizes
Complete with:
- Internal magnet in drywell
- Drain valve

Maximum operating pressure: 45 psi
Fluid temperature range: 32 – 195 °F
Material: Composite PA66G30, brass

Code	Description	Lbs	USD
577660A	1" NPT male union	4.3	-
577666A	1" press union	4.7	-
577669A	1" sweat union	4.3	-
577870A	1¼" NPT female union	8.7	-
577876A	1¼" press union	8.9	-
577879A	1¼" sweat union	8.7	-
577980A	1½" NPT female union	8.4	-
577986A	1½" press union	7.8	-
577989A	1½" sweat union	8.0	-

577 CALEFFI XF FLOW RATE

Size	1"	1¼"	1½"
GPM	13	26	26
Cv	12	27	27
Cv 50% bypass	--	46	46



NA5453 DIRTMAG®

Magnetic dirt separator
Composite body with rotating brass collar
HDPE internal element
Drain valve with hose connection
Complete with:
- External clip-on magnet

Maximum operating pressure: 45 psi
Fluid temperature range: 32 – 195 °F
Material: Composite PA66G30, brass

Code	Description	Lbs	USD
NA545305	¾" NPT male union	4.5	-
NA545365	¾" press union	4.5	-
NA545395	¾" sweat union	4.5	-
NA545306	1" NPT male union	4.5	-
NA545366	1" press union	4.7	-
NA545396	1" sweat union	4.5	-

MAGNETIC DIRT SEPARATORS



NA5453 DIRTMAG®

Magnetic dirt separator
Composite body with rotating brass collar
HDPE internal element
Drain valve with hose connection
Complete with:
- External clip-on magnet
- Union isolation ball valves

Maximum operating pressure: 45 psi
Fluid temperature range: 32 – 195 °F
Material: Composite PA66G30, brass

Code	Description	Lbs	USD
NA545355	¾" NPT female union, isolation valves	5.5	-
NA545375	¾" press union, isolation valves	5.5	-
NA545385	¾" sweat union, isolation valves	5.5	-
NA545356	1" NPT female union, isolation valves	5.5	-
NA545376	1" press union, isolation valves	5.5	-
NA545386	1" sweat union, isolation valves	5.5	-

NA5453 DIRTMAG® FLOW RATE		
Size	¾"	1"
GPM	6	10
Cv w/ iso ball valve	9	9
Cv w/o iso ball valve	12	12



Replacement gasket for brass collar on
NA5453 DIRTMAG®

Code	Description	Lbs	USD
F57312 DDT	Replacement gasket	0.3	-



5465M DIRTMAG®

Magnetic dirt separator
Stainless steel and HDPE internal elements
¾" MNPT top thread with brass cap
Complete with:
- 1" FNPT drain valve

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 270 °F
Material: Steel

Code	Description	Lbs	USD
546550AM	2" ANSI flange	41	-
546560AM	2½" ANSI flange	41	-
546580AM	3" ANSI flange	58	-
546510AM	4" ANSI flange	58	-



NA5465M DIRTMAG® ASME/CRN

Magnetic dirt separator
Stainless steel and HDPE internal elements
¾" MNPT top thread with brass cap
Complete with:
- 1" FNPT drain valve

Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 270 °F
Material: Steel

Code	Description	Lbs	USD
NA546550AM	2" ANSI flange ASME & CRN	41	-
NA546560AM	2½" ANSI flange ASME & CRN	41	-
NA546580AM	3" ANSI flange ASME & CRN	58	-
NA546510AM	4" ANSI flange ASME & CRN	58	-
NA546512AM	5" ANSI flange ASME & CRN	141	-
NA546515AM	6" ANSI flange ASME & CRN	151	-

NA prefix indicates ASME tagged and registered with the National Board of Boiler and Pressure Vessel Inspectors; CRN registered.

5465M/NA5465M DIRTMAG® FLOW RATE						
Size	2"	2½"	3"	4"	5"	6"
GPM	89	150	227	355	816	904
Cv	88	176	211	328	520	842



NA5465M DIRTMAG® ASME/CRN

Magnetic dirt separator with three-magnet assembly
Stainless steel and HDPE internal elements
¾" MNPT top thread with brass cap
Complete with:
- 2" FNPT drain valve
- Thermowell tap (NPT): ½" inlet/outlet flanges

Maximum operating pressure: 200 psi
Fluid temperature range: 32 – 270 °F
Material: Steel

Code	Description	Lbs	USD
NA546520AM	8" ANSI flange ASME & CRN	345	-
NA546525AM	10" ANSI flange ASME & CRN	630	-
NA546530AM	12" ANSI flange ASME & CRN	880	-
NA546535AM	14" ANSI flange ASME	1,010	-

NA prefix indicates ASME tagged and registered with the National Board of Boiler and Pressure Vessel Inspectors; CRN registered 2" to 12"; consult factory for 14"

NA5465M DIRTMAG® FLOW RATE				
Size	8"	10"	12"	14"
GPM	1,570	2,450	3,525	4,800
Cv	1,055	1,400	1,755	2,075

AUTOMATIC AND MANUAL AIR VENTS



5022 VALCAL™

High discharge automatic air vent
Hygroscopic safety air vent cap

Maximum operating pressure: 150 psi
Maximum discharge pressure: 60 psi
Maximum discharge rate: 2.5 SCFM
Fluid temperature range: 32 – 250 °F
Material: Brass

Code	Description	Lbs	USD
502243A	½" MNPT	0.5	-



5020 MINICAL™

Automatic air vent
Hygroscopic safety air vent cap

Maximum operating pressure: 150 psi
Maximum discharge pressure: 40 psi
Maximum discharge rate: 1.75 SCFM
Fluid temperature range: 32 – 250 °F
Material: Brass

Code	Description	Lbs	USD
502043A	½" MNPT	0.6	-



5020 MINICAL™

Automatic air vent

Maximum operating pressure: 150 psi
Maximum discharge pressure: 40 psi
Maximum discharge rate: 1.75 SCFM
Fluid temperature range: 32 – 250 °F
Material: Brass

Code	Description	Lbs	USD
502015A	⅛" MNPT	0.4	-
502040A	½" MNPT	0.4	-



5027 ROBOCAL™

Automatic air vent with service check valve

Maximum operating pressure: 150 psi
Maximum discharge pressure: 90 psi
Maximum discharge rate: 1.75 SCFM
Fluid temperature range: 32 – 230 °F
Material: Brass

Code	Description	Lbs	USD
502710A	⅛" MNPT	0.6	-
502720A	¼" MNPT	0.6	-



5023 VALCAL™

High discharge automatic air vent with
service check valve
Hygroscopic safety air vent cap

Maximum operating pressure: 150 psi
Maximum discharge pressure: 60 psi
Maximum discharge rate: 2.5 SCFM
Fluid temperature range: 32 – 230 °F
Material: Brass

Code	Description	Lbs	USD
502343A	½" MNPT	0.5	-



5080 HYGROCAL™

Automatic hygroscopic air vent
Manually operated by rotating knob

Maximum operating pressure: 150 psi
Maximum steam pressure: 15 psi
Fluid temperature range: 40 – 212 °F
Material: Chrome-plated brass body

(Sold in quantities of 25)

Code	Description	Lbs	USD
508013A	⅛" MNPT	0.1	-



5021 MINICAL™

Automatic air vent with service check valve

Maximum operating pressure: 150 psi
Maximum discharge pressure: 40 psi
Maximum discharge rate: 1.75 SCFM
Fluid temperature range: 32 – 230 °F
Material: Brass

Code	Description	Lbs	USD
502115A	⅛" MNPT	0.4	-
502113A	⅛" MNPT, hygroscopic anti-drip cap	0.4	-



NA5026 PLUMBVENT™

Automatic air vent for plumbing systems.
Low lead/Lead free DZR brass body.

Max. working pressure: 150 psi
Max. fluid temperature: 240 °F
Max. discharge rate: 1.75 SCFM

Code	Description	Lbs	USD
NA502640A	½" MNPT	0.6	-

AUTOMATIC AND MANUAL AIR VENTS

2



5081

Replacement hygroscopic cartridge
Fits 5080 HYGROCAL™

(Sold in quantities of 25)

Code	Description	Lbs	USD
508100A	Replacement cartridge	0.1	-



501 MAXCAL™

Extra high-capacity automatic air vent
Discharge top thread: 3/8" female straight
Stainless steel float guide pin and linkage

Maximum operating pressure: 230 psi
Maximum discharge pressure: 90 psi
Maximum discharge rate: 9 SCFM
Fluid temperature range: -4 – 250 °F
Material: Brass

Code	Description	Lbs	USD
501502A	3/4" FNPT	7.0	-



5026 ROBOCAL™

Automatic air vent

Maximum operating pressure: 150 psi
Maximum discharge pressure: 90 psi
Maximum discharge rate: 1.75 SCFM
Fluid temperature range: 32 – 240 °F
Material: Brass

Code	Description	Lbs	USD
502610A	1/8" MNPT	0.6	-
502620A	1/4" MNPT	0.6	-
502420	1/4" straight thread	1.0	-
502630	3/8" straight thread	1.0	-
502640	1/2" straight thread	1.0	-



551 DISCAL AIR®

High discharge automatic air vent
Stainless steel float guide pin and linkage

Maximum operating pressure: 150 psi
Maximum discharge pressure: 150 psi
Maximum discharge rate: 4.5 SCFM
Fluid temperature range: 32 – 230 °F
Material: Brass

Code	Description	Lbs	USD
551004A	1/2" FNPT and 3/4" MNPT	0.8	-



337

Manual air vent with adjustable outlet

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 212 °F
Material: Brass body with composite knob

Code	Description	Lbs	USD
337221A	1/4" MNPT	0.1	-

ACCESSORIES FOR AIR AND DIRT SEPARATORS



Hygroscopic safety air vent cap fits 551 DISCAL®, 546 DISCALDIRTMAG™ and DISCALDIRT®, 502 MINICAL™, 5022 and 5023 VALCAL™

Code	Description	Lbs	USD
R59681	Vent cap	0.1	-



Replacement plastic air vent cap for 5026 and 5027 ROBOCAL™

Code	Description	Lbs	USD
R56142	Vent cap	0.1	-



Air vent cap fits 551 DISCAL®, 546 DISCALDIRTMAG™ and DISCALDIRT®, 502 MINICAL™, 5022 and 5023 VALCAL™

Code	Description	Lbs	USD
R59119	Vent cap	0.1	-



Replacement plastic air vent cap for 5020 and 5021 MINICAL™

Code	Description	Lbs	USD
R56214	Vent cap	0.1	-



Air vent cap adapter fits all air vents and air separators (except for 5026 and 5027 ROBOCAL™)

Code	Description	Lbs	USD
NA10204	1/4" MNPT	0.1	-



Anti-suction air vent cap fits 551 DISCAL®, 546 DISCALDIRTMAG™ and DISCALDIRT®, 502 MINICAL™, 5022 and 5023 VALCAL™

Code	Description	Lbs	USD
562100	Vent cap	0.1	-



Replacement air vent assembly for steel 551 and NA551 DISCAL®, steel 546 and NA546 DISCALDIRT® and NA546 DISCALDIRTMAG™

Code	Description	Lbs	USD
59756	Air vent assembly	3.0	-



Replacement air vent assembly for brass 546 DISCALDIRT®, brass and steel union 5461 DISCALDIRTMAG™ and brass 551 DISCAL® (except for compact and rotating collar)

Code	Description	Lbs	USD
59829	Air vent assembly	2.0	-

ACCESSORIES FOR AIR AND DIRT SEPARATORS



Replacement coalescing element for brass separators (except 551 DISCAL® compact and rotating collar versions)

Code	Description	Lbs	USD
F0001179	For sizes ¾", 1" and sweat 1¼"	0.2	-
F59917	For sizes 1¼" to 2"	0.2	-



Replacement drain ball valve for flanged 546 DISCALDIRT® and DISCALDIRTMAG™, flanged 5465 DIRTMAG® and flanged 551 DISCAL®

Code	Description	Lbs	USD
NA39753	1" FNPT with lever	0.7	-
NA59600	2" FNPT with lever	3.5	-



Replacement drain valve for 546 DISCALDIRT®, 5461 DISCALDIRTMAG™ and 5463 DIRTMAG® PRO

Code	Description	Lbs	USD
538402 FD	½" MNPT x ¾" GHT	0.3	-
R49418	Replacement cap with tether	0.1	-



Replacement service check valve Fits all VALCAL™, MINICAL™, brass 551 DISCAL® and MNPT ROBICAL™

Code	Description	Lbs	USD
59474A	⅛" MNPT x FNPT	0.1	-
59804A	¼" MNPT x FNPT	0.1	-
561402A	½" MNPT x FNPT	0.2	-



Replacement clip-on magnets for DIRTMAG® PRO

Code	Description	Lbs	USD
R39949	Magnetic band	0.2	-



Magnet and drywell assembly for flanged 546 DISCALDIRTMAG™ and 5465 DIRTMAG®

Code	Description	Lbs	USD
49684A	For 2" and 2½"	3.0	-
49685A	For 3" to 6"	3.0	-
F0000349	For 8" to 14"	3.0	-



Replacement air vent cover and float for DISCAL® series

*vent cap sold separately

Code	Description	Lbs	USD
F39807	Cover and float for brass DISCAL®	0.4	-
F0001470	Cover and float for steel DISCAL®	0.5	-



www.caleffi.com

idronics



JOURNAL SERIES EXCELLENCE IN EDUCATION

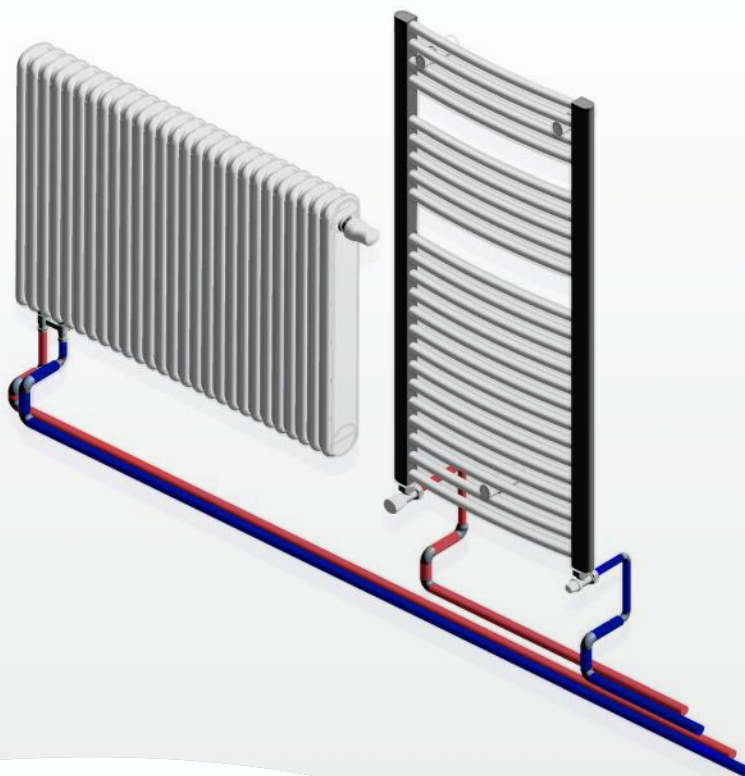
idronics™ is a complimentary educational journal series for hydronic, plumbing and renewable energy professionals to aid them in system design, component application and selection. The popular and frequently referenced publication is **written by engineers and oriented towards innovative design techniques** with a commitment to continuous education of North American professionals. Committed to Excellence in Education. **CALEFFI GUARANTEED.**



 **CALEFFI**
Hydronic Solutions

THERMOSTATIC RADIATOR VALVES

3



Diagrams made with BIM families: bim.caleffi.com

This diagram is for illustration purposes only

PRODUCTS INCLUDED IN SECTION

- Thermostatic control heads
- Thermo-electric actuator
- NPT thermostatic radiator valve bodies
- European style towel warmer radiator valves
- Connection valves for panel radiators
- Connection fittings

THERMOSTATIC CONTROL HEADS



200

Thermostatic control head for radiator valves
Set point locking mechanism
Built-in sensor with liquid-filled element
Fits 220, 221, 338 and 339 series valves

Temperature adjustment range: 45 – 82 °F
Maximum ambient temperature: 120 °F

Code	Description	Lbs	USD
200000	Control head with built-in sensor	0.5	-



201

Thermostatic control head for radiator valves
Set point locking mechanism
Remote sensor with liquid-filled element
Fits 220, 221, 338 and 339 series valves

Capillary length: 78"
Temperature adjustment range: 45 – 82 °F
Maximum ambient temperature: 120 °F

Code	Description	Lbs	USD
201000	Control head with remote sensor	1.0	-



472

Thermostatic control head for radiator valves
Set point locking mechanism
Remote adjustment knob
Fits 220, 221, 338, 339 and 676 valves

Capillary length: 78"
Temperature adjustment range: 43 – 82 °F
Maximum ambient temperature: 120 °F

Code	Description	Lbs	USD
472000	Control head with remote wall sensor	1.0	-



203

Thermostatic control head for radiator valves
Set point locking mechanism
Remote contact probe
Built-in sensor with liquid-filled element
Fits 220, 221, 338 and 339 series valves

Capillary length: 78"
Temperature adjustment range: 68 – 122 °F
Maximum sensor temperature: 212 °F

Code	Description	Lbs	USD
203502	Control head with contact probe	0.5	-

THERMO-ELECTRIC ACTUATOR



6564

Thermo-electric actuator for electric control of radiator valves
Install in any orientation
Fits 220, 221, 338 and 339 series valves

Ambient temperature range: 32 – 120 °F
Power supply: 24V AC/DC
Operating power consumption: 3W
Starting current draw: ≤ 250 mA
Microswitch contact rating: 5A (24V)
Protection class: NEMA 3 (IP 54)

Code	Description	Lbs	USD
656404	24 V AC/DC	0.4	-
656414	24 V AC/DC with microswitch	0.4	-



4490

Manual knob for radiator valves
Fits 220 and 221 series valves

Code	Description	Lbs	USD
449010	Manual knob	0.1	-

NPT THERMOSTATIC RADIATOR VALVE BODIES

220



Angled radiator valve body
Compatible with 200, 201, 203, 472 and 4490 control heads, and 6564 actuators

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 212 °F
Material: Chrome plated brass

Code	Description	Cv	Lbs	USD
220400A	½" FNPT in, ½" NPT male union out	2.8	0.3	-
220500A	¾" FNPT in, ¾" NPT male union out	3.7	0.3	-

221



Straight radiator valve body
Compatible with 200, 201, 203, 472 and 4490 control heads, and 6564 actuators

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 212 °F
Material: Chrome plated brass

Code	Description	Cv	Lbs	USD
221400A	½" FNPT in, ½" NPT male union out	1.7	0.3	-
221500A	¾" FNPT in, ¾" NPT male union out	2.6	0.3	-



Universal radiator tool for installing ½" and ¾" tailpieces

Code	Description	Lbs	USD
387127	Radiator tool	1.0	-

EUROPEAN STYLE TOWEL WARMER RADIATOR VALVES

338



Angled radiator valve body
Manual control knob
Convertible to automatic control with 200, 201, 203 and 472 control heads

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 212 °F
Material: Chrome plated brass

Code	Radiator Connection	Pipe Connection	Cv	Lbs	USD
338452	½" straight	¾" conical	3.1	0.5	-

342



Angled radiator isolation and balancing valve
Manual adjustment of valve to isolate radiator or modulate flow rate

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 212 °F
Material: Chrome plated brass

Code	Radiator Connection	Pipe Connection	Cv	Lbs	USD
342452	½" straight	¾" conical	4.6	0.5	-

339



Straight radiator valve body
Manual control knob
Convertible to automatic control with 200, 201, 203 and 472 control heads

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 212 °F
Material: Chrome plated brass

Code	Radiator Connection	Pipe Connection	Cv	Lbs	USD
339452	½" straight	¾" conical	2.0	0.5	-

Intended for use in metric radiators such as European towel warmers and panel radiators.

343



Straight radiator isolation and balancing valve
Manual adjustment of valve to isolate radiator or modulate flow rate

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 212 °F
Material: Chrome plated brass

Code	Radiator Connection	Pipe Connection	Cv	Lbs	USD
343452	½" straight	¾" conical	2.5	0.5	-

CONNECTION VALVES FOR PANEL RADIATORS



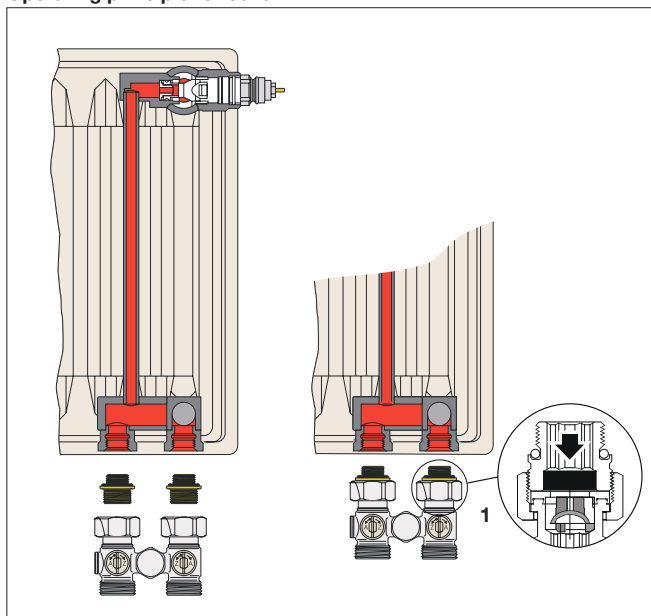
3010

Straight isolation valve for panel radiators with two-pipe systems

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 212 °F
Material: Chrome plated brass

Code	Radiator Connection	Pipe Connection	Lbs	USD
301043	1/2" straight	3/4" conical	1.0	-

Operating principle for 3010



3012

Straight isolation valve for panel radiators with one-pipe systems
Adjustable by-pass valve to divert flow

Adjustable by-pass range: 30-50% of flow
Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 212 °F
Material: Chrome plated brass

Code	Radiator Connection	Pipe Connection	Lbs	USD
301241	1/2" straight	3/4" conical	1.0	-



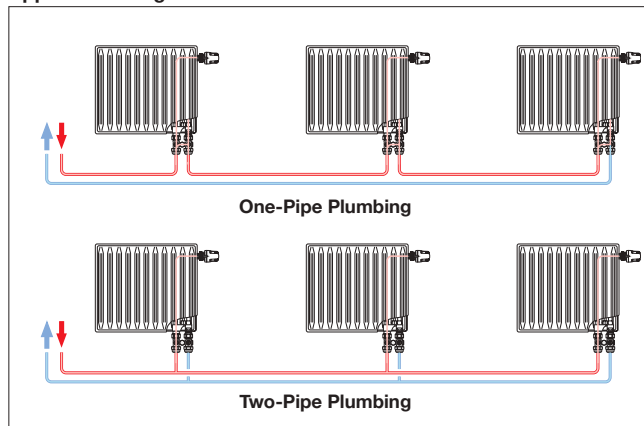
3011

Angled isolation valve for panel radiators with two-pipe systems

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 212 °F
Material: Chrome plated brass

Code	Radiator Connection	Pipe Connection	Lbs	USD
301143	1/2" straight	3/4" conical	1.0	-

Application Diagram for 301 valves



3013

Angled isolation valve for panel radiators with one-pipe systems
Adjustable by-pass valve to divert flow

Adjustable by-pass range: 30-50% of flow
Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 212 °F
Material: Chrome plated brass

Code	Radiator Connection	Pipe Connection	Lbs	USD
301341	1/2" straight	3/4" conical	1.0	-

4497



Wall covering plate for 301 series panel radiator valves
Complete with wall connections

Code	Description	Lbs	USD
449740	Plate	0.1	-

CONNECTION FITTINGS



681 Universal PEX fittings

Compatible with any ASTM F876 single layer PEX tubing
Fits 301, 338, 339, 342 and 343 valves

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 180 °F
Material: Brass chrome plated nut

Code	Description	Lbs	USD
681503A	3/8" nominal PEX	0.2	-
681524	1/2" nominal PEX	0.2	-
681555	5/8" nominal PEX	0.2	-



437

Compression fitting to connect 1/2" copper
Fits 301, 338, 339, 342 and 343 valves

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 250 °F
Material: Brass chrome plated brass

Code	Description	Lbs	USD
437516	1/2" compression	0.1	-



940

Adapter for directly connecting panel radiator with PEX, PEX-AL-PEX, sweat, MNPT or compression fittings
Includes two fittings

Code	Description	Lbs	USD
940451	1/2" M straight x 3/4" M conical	0.1	-



NA103

MNPT fitting to connect 1/2" copper
Fits 301, 338, 339, 342 and 343 valves

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 250 °F
Material: Brass chrome plated brass

Code	Description	Lbs	USD
NA10313	1/2" NPT male	0.2	-



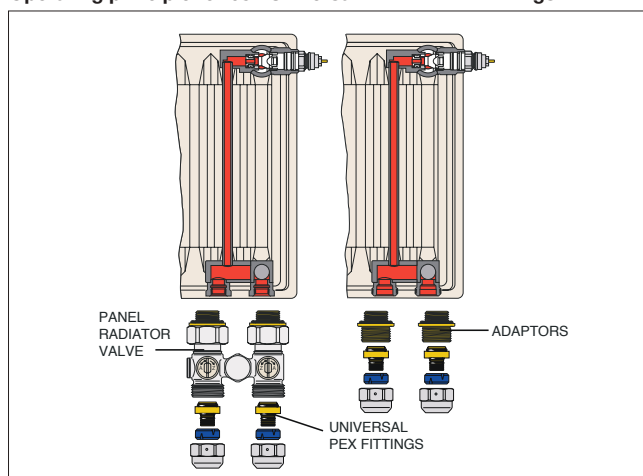
682 Universal PEX-AL-PEX fittings

Compatible with any ASTM F1281 multi-layer PEX-AL-PEX tubing
Fits 301, 338, 339, 342 and 343 valves

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 200 °F
Material: Brass

Code	Description	Lbs	USD
682540A	1/2" PEX-AL-PEX	0.2	-

Operating principle for 682 Universal PEX-AL-PEX fittings



NA102

Sweat fitting to connect 1/2" copper
Fits 301, 338, 339, 342 and 343 valves

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 250 °F
Material: Brass chrome plated brass

Code	Description	Lbs	USD
NA10262	1/2" sweat	0.2	-



Wrench for tightening PEX fitting to radiator valve

Code	Description	Lbs	USD
387100	26 mm x 30 mm	1.5	-



www.caleffi.com

CALEFFI
Hydronic Solutions

Z-ONE™ VALVES AND RELAYS

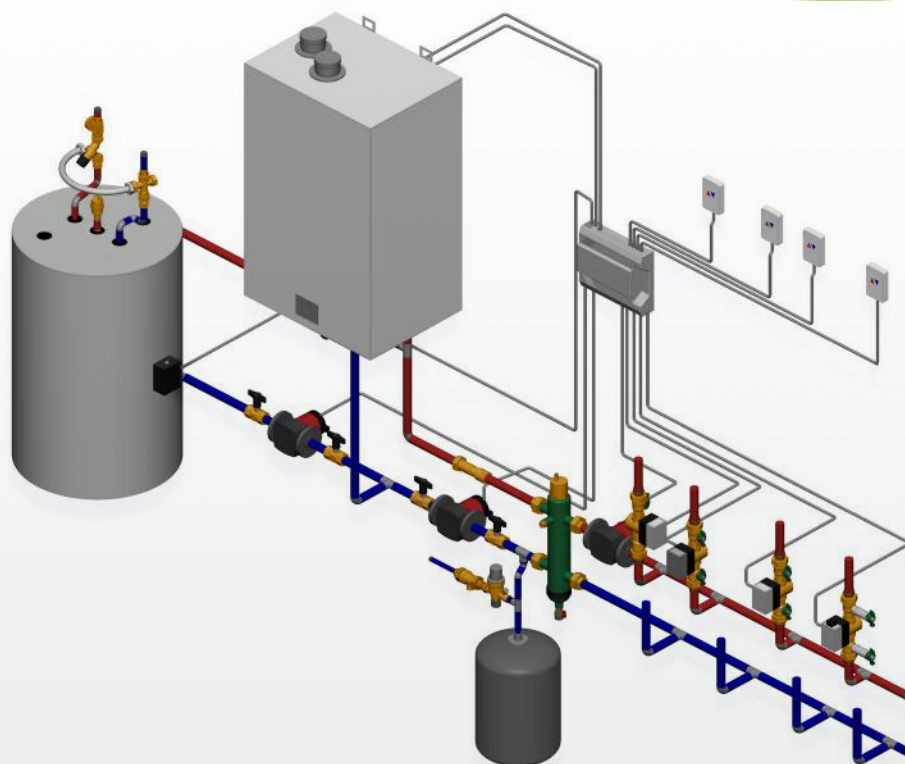
ZONING DONE RIGHT



The reliable **Z-one™ Motorized Zone Valves** offer quick installation and easy service in a wide variety of commercial and residential applications including radiant, fan coils, chilled or hot water and low pressure steam applications. When installed with a **Z-one™ Relay Control**, featuring universal compatibility and versatility, both qualify for our industry exclusive five-year warranty. **CALEFFI GUARANTEED.**



ZONE VALVES, CONTROLS AND COIL KITS



Diagrams made with BIM families: bim.caleffi.com

This diagram is for illustration purposes only

PRODUCTS INCLUDED IN SECTION

Pressure independent control valves (PICV)

Coil kits

Thermo-electric zone valves

Soft close zone valves

Motorized zone valves

Pump zone controls

Valve zone controls

Motorized ball zone valves

Motorized ball valves

PRESSURE INDEPENDENT CONTROL VALVES (PICV)

145 FLOWMATIC® NPT



Pressure independent control valve
Control flow rates manually or automatically
Actuator sold separately
Complete with:
- PT test ports

Maximum operating pressure: 360 psi
Fluid temperature range: -4 – 250 °F
Material: DZR brass

Code	Description	GPM Range	Lbs	USD
145443A G90	1/2" NPT female union	0.1 – 0.9	1.0	-
145443A 1G8	1/2" NPT female union	0.4 – 1.8	1.0	-
145443A 3G5	1/2" NPT female union	0.4 – 3.5	1.0	-
145553A G90	3/4" NPT female union	0.1 – 0.9	1.0	-
145553A 1G8	3/4" NPT female union	0.4 – 1.8	1.0	-
145553A 3G5	3/4" NPT female union	0.4 – 3.5	1.0	-
145553A 5G3	3/4" NPT female union	0.5 – 5.3	1.0	-
145663A 7G9	1" NPT female union	0.8 – 7.9	1.1	-
145663A 13G	1" NPT female union	1.3 – 13	1.1	-
145663A 16G	1" NPT female union	1.6 – 16	1.1	-

145 FLOWMATIC® press



Pressure independent control valve
Control flow rates manually or automatically
Actuator sold separately
Complete with:
- PT test ports

Maximum operating pressure: 200 psi
Fluid temperature range: -4 – 250 °F
Material: DZR brass

Code	Description	GPM Range	Lbs	USD
145446A G90	1/2" press union	0.1 – 0.9	1.0	-
145446A 1G8	1/2" press union	0.4 – 1.8	1.0	-
145446A 3G5	1/2" press union	0.4 – 3.5	1.0	-
145556A G90	3/4" press union	0.1 – 0.9	1.0	-
145556A 1G8	3/4" press union	0.4 – 1.8	1.0	-
145556A 3G5	3/4" press union	0.4 – 3.5	1.0	-
145556A 5G3	3/4" press union	0.5 – 5.3	1.0	-
145666A 7G9	1" press union	0.8 – 7.9	1.1	-
145666A 13G	1" press union	1.3 – 13	1.1	-
145666A 16G	1" press union	1.6 – 16	1.1	-

145 FLOWMATIC® sweat



Pressure independent control valve
Control flow rates manually or automatically
Actuator sold separately
Complete with:
- PT test ports

Maximum operating pressure: 360 psi
Fluid temperature range: -4 – 250 °F
Material: DZR brass

Code	Description	GPM Range	Lbs	USD
145449A G90	1/2" sweat union	0.1 – 0.9	1.0	-
145449A 1G8	1/2" sweat union	0.4 – 1.8	1.0	-
145449A 3G5	1/2" sweat union	0.4 – 3.5	1.0	-
145559A G90	3/4" sweat union	0.1 – 0.9	1.0	-
145559A 1G8	3/4" sweat union	0.4 – 1.8	1.0	-
145559A 3G5	3/4" sweat union	0.4 – 3.5	1.0	-
145559A 5G3	3/4" sweat union	0.5 – 5.3	1.0	-
145669A 7G9	1" sweat union	0.8 – 7.9	1.1	-
145669A 13G	1" sweat union	1.3 – 13	1.1	-
145669A 16G	1" sweat union	1.6 – 16	1.1	-



Proportional actuator for PICV
Fail-safe and fail-in-place variants
Compatible with 145 FLOWMATIC
and 149 FLOWMATIC Express Coil Kit

Power supply: 24V AC/DC
Supply cable length: 78"
Control and Feedback signal: 0-10V
Ambient temperature range: 32 – 120 °F

Code	Description	Lbs	USD
145013	24V, 0-10 V proportional, fail in place	0.3	-
145018*	24V, 0-10 V proportional	0.3	-

* NC / NO, fail open or closed



Proportional thermo-electric actuator
Normally closed
Compatible with 145 FLOWMATIC
and 149 FLOWMATIC Express Coil Kit

Power supply: 24V AC/DC
Supply cable length: 39"
Control and Feedback signal: 0-10V
Ambient temperature range: 32 – 140 °F

Code	Description	Lbs	USD
656524	24V, 0-10 V proportional, NC	0.3	-

ACCESSORIES



Thermo-electric actuator
Compatible with 145 FLOWMATIC® and
149 FLOWMATIC® Express Coil Kit

Power supply: 24V AC/DC
Supply cable length: 39"
Control signal: ON/OFF
Ambient temperature range: 32 – 140 °F



Insulation jacket for 145 FLOWMATIC®

Code	Description	Lbs	USD
656504	24V on/off, NC	0.3	-
656604	24V on/off, NO	0.3	-

Code	Description	Lbs	USD
CBN145437	Fits ½" and ¾"	0.1	-
CBN145667	Fits 1"	0.1	-

COIL KITS



149 FLOWMATIC® Express Coil Kit

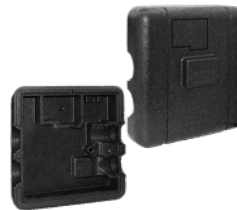
Pre-assembled terminal unit coil kit
Complete with:

- Pressure independent control valve
- 3-way shut-off valves
- Integrated by-pass
- Venturi device with PT ports
- Filtering cartridge
- Pre-formed insulation shell

Maximum working pressure: 360 psi
Fluid temperature range: 14 – 250 °F
Material: DZR brass

Contact your Caleffi Sales representative for
the purchasing form when ordering 10 or
more units.

Code	Description	GPM Range	Lbs	USD
149400A G40	½" NPT	0.1 – 0.4	5.0	-
149400A G90	½" NPT	0.4 – 0.9	5.0	-
149400A 1G8	½" NPT	0.9 – 1.8	5.0	-
149400A 3G5	½" NPT	1.8 – 3.5	5.0	-
149500A G90	¾" NPT	0.4 – 0.9	5.2	-
149500A 1G8	¾" NPT	0.9 – 1.8	5.2	-
149500A 3G5	¾" NPT	1.8 – 3.5	5.2	-
149500A 5G3	¾" NPT	3.5 – 5.3	5.2	-
149600A 7G9	1" NPT	5.3 – 7.9	6.3	-
149600A 13G	1" NPT	7.9 – 13	6.3	-
149600A 16G	1" NPT	8.0 – 16	6.3	-



Insulation jacket for 149 FLOWMATIC®
Express coil kit
For use in chilled water applications

Code	Description	Lbs	USD
F0001771	Insulation shell for chilled water	0.1	-



Terminal unit connecting hoses
Maximum operating pressure: 400 psi
Fluid temperature range: -4 – 212 °F
Material: Braided stainless steel
Includes two hoses

Code	Description	Lbs	USD
NA10970	½" MNPT x 12" length	0.6	-
NA10971	½" MNPT x 18" length	0.7	-
NA10972	½" MNPT x 24" length	0.8	-
NA10973	¾" MNPT x 12" length	1.0	-
NA10974	¾" MNPT x 18" length	1.1	-
NA10975	¾" MNPT x 24" length	1.2	-
NA10976	1" MNPT x 12" length	2.0	-
NA10977	1" MNPT x 18" length	2.2	-
NA10978	1" MNPT x 24" length	2.4	-

THERMO-ELECTRIC ZONE VALVES



6767 TwisTop+™ High Performance

Two-way thermo-electric zone valve
High performance Cv and close-off
Normally closed
Complete with 656354 actuator

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 200 °F
Ambient temperature range: 32 – 120 °F
Power supply: 24V AC/DC
Material: Brass valve body

Code	Description	Cv	ΔP	Lbs	USD
676746A	1/2" press union	5.6	35 psi	2.2	-
676749A	1/2" sweat union	5.6	35 psi	2.2	-
676747A	1/2" PEX crimp union	5.6	35 psi	2.2	-
676748A	1/2" PEX expansion union	5.6	35 psi	2.2	-
676756A	3/4" press union	5.6	35 psi	2.2	-
676759A	3/4" sweat union	5.6	35 psi	2.2	-
676757A	3/4" PEX crimp union	5.6	35 psi	2.2	-
676758A	3/4" PEX expansion union	5.6	35 psi	2.2	-
676766A	1" press union	5.6	35 psi	2.2	-
676769A	1" sweat union	5.6	35 psi	2.2	-
676767A	1" PEX crimp union	5.6	35 psi	2.2	-
676768A	1" PEX expansion union	5.6	35 psi	2.2	-
676500A*	Body only, close-off 35 psid	5.6	35 psi	1.0	-

*See fitting selection in Section 13



6762 TwisTop™ Zone valve

Two-way thermo-electric zone valve
Normally closed
Complete with 656354 actuator

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 200 °F
Ambient temperature range: 32 – 120 °F
Power supply: 24V AC/DC
Material: Brass valve body

Code	Description	Cv	ΔP	Lbs	USD
676246A	1/2" press union	4.0	20 psi	1.4	-
676249A	1/2" sweat union	4.0	20 psi	1.4	-
676247A	1/2" PEX crimp union	4.0	20 psi	1.4	-
676248A	1/2" PEX expansion union	4.0	20 psi	1.4	-
676256A	3/4" press union	4.0	20 psi	1.4	-
676259A	3/4" sweat union	4.0	20 psi	1.4	-
676257A	3/4" PEX crimp union	4.0	20 psi	1.4	-
676258A	3/4" PEX expansion union	4.0	20 psi	1.4	-
676266A	1" press union	4.0	20 psi	1.4	-
676269A	1" sweat union	4.0	20 psi	1.4	-
676267A	1" PEX crimp union	4.0	20 psi	1.4	-
676268A	1" PEX expansion union	4.0	20 psi	1.4	-
676000A*	Body only, close-off 20 psid	4.3	20 psi	0.5	-

*See fitting selection in Section 13



6564

Thermo-electric actuator
Install in any orientation
Fits 676 two-way zone valve bodies

Ambient temperature range: 32 – 120 °F
Power supply: 24V AC/DC
Operating power consumption: 3W
Starting current draw: ≤ 250 mA
Microswitch contact rating: 5A (24V)
Protection class: NEMA 3 (IP 54)



Code	Description	Lbs	USD
656404	24V AC/DC	0.4	-
656414	24V AC/DC with micro-switch	0.4	-



6563 TwisTop™

Thermo-electric actuator
Manually operated using twist-top
Fits 676 two-way zone valve bodies

Ambient temperature range: 32 – 120 °F
Power supply: 24V AC/DC
Operating power consumption: 3W
Starting current draw: ≤ 250 mA
Microswitch contact rating: 5A (24V)
Protection class: NEMA 3 (IP 54)



Code	Description	Lbs	USD
656344	24V AC/DC	0.4	-
656354	24V AC/DC with micro-switch	0.4	-

SOFT CLOSE ZONE VALVES



Z4 Z-one™ 2-way

Two-way motorized zone valve
Normally closed actuator: Z111500
Auxiliary micro-switch
18" wire leads
Lever for manual operation

Maximum operating pressure: 300 psi
Fluid temperature range: 32 – 240 °F
Ambient temperature range: 32 – 104 °F
Power supply: 24 VAC
Wire lead length: 18"



Z5 Z-one™ 2-way

Two-way motorized zone valve
Normally closed actuator: Z115100
Auxiliary micro-switch
Screw terminal blocks
Lever for manual operation

Maximum operating pressure: 300 psi
Fluid temperature range: 32 – 240 °F
Ambient temperature range: 32 – 104 °F
Power supply: 24 VAC



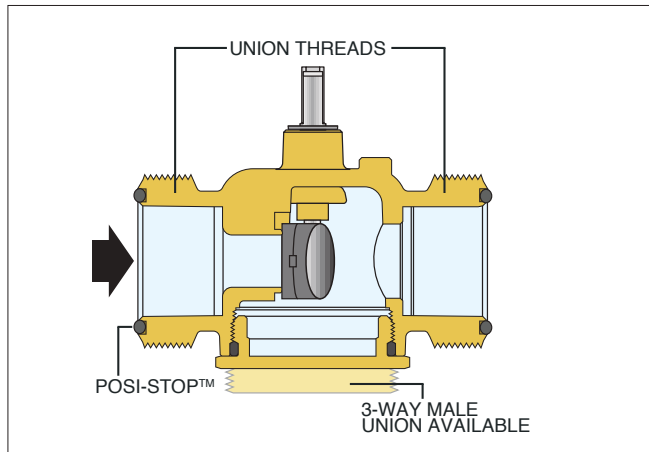
Code	Description	Cv	Δ P	Lbs	USD
Z40	Inverted flare	3.5	30 psi	2.2	-
Z40F*	¾" Inverted flare	3.5	30 psi	2.2	-
Z42	½" SAE flare	3.5	30 psi	2.2	-
Z44	½" sweat	2.5	50 psi	2.1	-
Z45	¾" sweat	7.5	20 psi	2.2	-
Z46	1" sweat	7.5	20 psi	2.3	-
Z47	1¼" sweat	7.5	20 psi	2.3	-
Z111500	Replacement actuator		NEW	1.1	-

* Two ¾" sweat fittings (NA10006) included.

Code	Description	Cv	Δ P	Lbs	USD
Z50	Inverted flare	3.5	30 psi	2.2	-
Z50F*	¾" Inverted flare	3.5	30 psi	2.2	-
Z54	½" sweat	2.5	50 psi	2.1	-
Z55	¾" sweat	7.5	20 psi	2.2	-
Z56	1" sweat	7.5	20 psi	2.3	-
Z57	1¼" sweat	7.5	20 psi	2.3	-
Z151500	Replacement actuator		NEW	1.1	-

* Two ¾" sweat fittings (NA10006) included.

Construction design for Z-one™ 2-way



Inverted flare sweat adaptors for Z-one inverted flare valves

Code	Description	Lbs	USD
NA10005	½" sweat	0.3	-
NA10006	¾" sweat	0.3	-
NA10007	1" sweat	0.4	-
NA61241	Retrofit extension kit	0.2	-



Z-one™ 2-way Unions

Two-way zone valves with unions
Normally closed actuator: Z111500
Auxiliary micro-switch
Lever for manual operation

Maximum operating pressure: 200 psi
Fluid temperature range: 32 – 240 °F
Ambient temperature range: 32 – 104 °F
Power supply: 24 VAC



Code	Description	Cv	Δ P	Lbs	USD
Z44P*	½" press unions*	3.5	30 psi	2.2	-
Z54P**	½" press unions**	3.5	30 psi	2.2	-
Z45P3*	¾" press unions	3.5	30 psi	2.2	-
Z55P3**	¾" press unions	3.5	30 psi	2.2	-
Z45P*	¾" press unions*	7.5	20 psi	2.2	-
Z55P**	¾" press unions**	7.5	20 psi	2.2	-
Z45PL*	¾" press unions*	7.5	20 psi	2.3	-
Z55PL**	¾" press unions**	7.5	20 psi	2.3	-
Z46P*	1" press unions*	7.5	20 psi	2.4	-
Z56P**	1" press unions**	7.5	20 psi	2.4	-
Z55S**	¾" sweat unions	7.5	20 psi	2.2	-

*Includes Z111500 actuator with 18" wire leads connection

**Includes Z151500 actuator with screw terminal block connection

PL version includes long press fittings for retrofit

MOTORIZED ZONE VALVES



Normally closed

Code	Description	Lbs	USD
Z111000	24 V, micro-switch, 18" wires	1.1	-
Z111900	24 V, high current switch, 18" wires	1.1	-
Z116000	120 V, micro-switch, 6" wires	1.1	-
Z151000	24 V, micro-switch, terminal blocks	1.1	-
Z161000	24 V, terminal blocks	1.1	-
Z121000	24 V, 18" wires	1.1	-
Z126000	120 V, 6" wires	1.1	-

Z1

Normally closed actuators fit Z2 and Z3 valve bodies
Normally open actuators fit Z2 valve bodies only
Quick pushbutton install onto zone valve

Ambient temperature range: 32 – 104 °F

Power supply: 24 or 120 VAC

Power consumption: 5 W, 7 VA

Normally open

Code	Description	Lbs	USD
Z131000	24 V, micro-switch, 18" wires	1.1	-
Z136000	120 V, micro-switch, 6" wires	1.1	-
Z141000	24 V, 18" wires	1.1	-
Z146000	120 V, 6" wires	1.1	-



Z3 3-way

Three-way diverting zone valve
Stainless steel stem
EPDM rubber seal and paddle

Maximum operating pressure: 300 psi
Maximum close-off pressure: 75 psi
Fluid temperature range: 32 – 240 °F
Material: Brass

Code	Description	Cv	Δ P	Lbs	USD
Z300411	½" FNPT	1.0	75 psi	1.1	-
Z300412	½" FNPT	2.5	50 psi	1.1	-
Z300413	½" FNPT LL	3.5	30 psi	1.1	-
Z300431	½" sweat	1.0	75 psi	1.0	-
Z300432	½" sweat	2.5	50 psi	1.0	-
Z307433*	½" sweat	3.5	30 psi	1.0	-
Z300512	¾" FNPT	2.5	50 psi	1.2	-
Z300513	¾" FNPT	3.5	30 psi	1.2	-
Z300515	¾" FNPT	5.0	25 psi	1.2	-
Z300517	¾" FNPT	7.5	20 psi	1.2	-
Z300532	¾" sweat LL	2.5	50 psi	1.1	-
Z300533	¾" sweat	3.5	30 psi	1.1	-
Z300535	¾" sweat	5.0	25 psi	1.1	-
Z307537*	¾" sweat	7.5	20 psi	1.1	-
Z300617	1" FNPT	7.5	20 psi	1.3	-
Z300635	1" sweat	5.0	25 psi	1.2	-
Z300637	1" sweat	7.5	20 psi	1.2	-
Z300737	1¼" sweat	7.5	20 psi	1.3	-

***LL** Low-lead brass body.



Z2 2-way

Two-way straight zone valve
Stainless steel stem
EPDM rubber seal and paddle

Maximum operating pressure: 300 psi
Maximum close-off pressure: 75 psi
Fluid temperature range: 32 – 240 °F
Material: Brass

Code	Description	Cv	Δ P	Lbs	USD
Z200041	Inverted flare	1.0	75 psi	1.1	-
Z200042	Inverted flare	2.5	50 psi	1.1	-
Z200043	Inverted flare	3.5	30 psi	1.1	-
Z200053	½" SAE Flare	3.5	30 psi	1.1	-
Z200411	½" FNPT	1.0	75 psi	1.1	-
Z207411*	½" FNPT LL	1.0	75 psi	1.1	-
Z200412	½" FNPT	2.5	50 psi	1.1	-
Z200413	½" FNPT	3.5	30 psi	1.1	-
Z200431	½" sweat	1.0	75 psi	1.0	-
Z200432	½" sweat	2.5	50 psi	1.0	-
Z207433*	½" sweat LL	3.5	30 psi	1.0	-
Z200512	¾" FNPT	2.5	50 psi	1.2	-
Z200513	¾" FNPT	3.5	30 psi	1.2	-
Z200515	¾" FNPT	5.0	25 psi	1.2	-
Z200517	¾" FNPT	7.5	20 psi	1.2	-
Z200532	¾" sweat	2.5	50 psi	1.1	-
Z207533*	¾" sweat LL	3.5	30 psi	1.1	-
Z200535	¾" sweat	5.0	25 psi	1.1	-
Z200537	¾" sweat	7.5	20 psi	1.1	-
Z207537*	¾" sweat LL	7.5	20 psi	1.1	-
Z200617	1" FNPT	7.5	20 psi	1.3	-
Z200635	1" sweat	5.0	25 psi	1.2	-
Z200637	1" sweat	7.5	20 psi	1.2	-
Z200737	1¼" sweat	7.5	20 psi	1.3	-

***LL** Low-lead brass body.

Complies with standard NSF/ANSI/CAN 372, certified by ICC-ES (for the LL models only).

MOTORIZED ZONE VALVES



Three-way union zone valve body
Fittings sold separately

Code	Description	Cv	Δ P	Lbs	USD
Z300687*	1" male union body	7.5	20 psi	1.2	-

*See fitting selection in Section 13



Two-way straight union zone valve body
Fittings sold separately

Code	Description	Cv	Δ P	Lbs	USD
Z200683*	1" male union body	3.5	30 psi	1.1	-
Z200687*	1" male union body	7.5	20 psi	1.1	-

*See fitting selection in Section 13



Replacement valve stem paddle for two-way and three-way zone valves
Complete with:
- C-clip
- Bottom cap o-ring

Code	Description	Lbs	USD
F69293	Fits all 1/2" and 3/4" sweat Z2, Z3	0.4	-
F69294	Fits all 3/4" NPT and all 1", 1 1/4" Z2, Z3	0.4	-



Isolation ball valve.
Low lead MxF union fits between valve body and tailpiece.

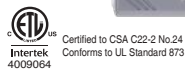
Code	Description	Lbs	USD
290030	1" M x 1" F union ball valve	1.0	-
290031*	1" M x 1" F union ball valve	1.0	-

*with extended handle

Complies with standard NSF/ANSI/CAN 372, certified by ICC-ES (for the LL models only).

PUMP ZONE CONTROLS

ZSR Z-one™ Relay



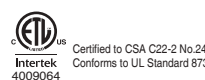
Single and multi-zone pump controls
Control up to 6 circulator pumps
Compatible with low voltage thermostats

Power supply: 120 VAC, 50/60 Hz
Transformer voltage: 24 VAC
Max. transformer load: 6 VA (ZSR101), 40 VA (ZSR103-106)
Electrical switch rating: 10A (ZSR101), 20A (ZSR103-106) max combined
Ambient temperature range: 32 – 115 °F

Code	Description	Lbs	USD
ZSR101	Single zone relay	1.0	-
ZSR103	3 zone pump control	2.0	-
ZSR104	4 zone pump control	2.0	-
ZSR106	6 zone pump control	2.0	-

VALVE ZONE CONTROLS

ZVR Z-one™ Relay



Multi-zone valve relay board
Control up to 6 zone valves
Compatible with low voltage thermostats
Automatic resettable low voltage fuse

Power supply: 120 VAC, 50/60 Hz
Transformer voltage: 24 VAC
Max. transformer load: 40 VA (ZVR103/4), 80 VA (ZVR106)
Electrical switch rating: 20A max combined
Ambient temperature range: 32 – 115 °F

Code	Description	Lbs	USD
ZVR103	3 zone valve control	2.0	-
ZVR104	4 zone valve control	2.0	-
ZVR106	6 zone valve control	2.0	-
NA10343	Expansion transformer	0.1	-

ZSR Z-ONE RELAY FUSES



Replacement fuse pack for ZSR series
Type 2AG, 5A slow blow

Code	Description	Lbs	USD
NA10342	Spare fuse (package of 5)	0.1	-

MOTORIZED BALL ZONE VALVES



6442 2-way Straight

Two-way motorized ball zone valve
3-wire floating fail-in-place actuator with micro-switch

Maximum operating pressure: 150 psi
Fluid temperature range: 20 – 230 °F
Ambient temperature range: 32 – 130 °F
Power supply: 24 VAC
Power consumption: 4 VA
Auxiliary contact rating: 5A

Code	Description	Cv	Lbs	USD
644250A	¾" NPT male union	13	2.3	-
644256A	¾" press union	13	2.4	-
644259A	¾" sweat union	13	2.3	-
644260A	1" NPT male union	13	2.3	-
644266A	1" press union	13	2.4	-
644269A	1" sweat union	13	2.3	-
NA644200*	Body, no fittings	13	1.0	-

*See fitting selection in Section 13



6443..3BY 3-way By-pass

Three-way bypass motorized ball zone valve
3-wire floating fail-in-place actuator with micro-switch

Maximum operating pressure: 150 psi
Fluid temperature range: 20 – 230 °F
Ambient temperature range: 32 – 130 °F
Power supply: 24 VAC
Power consumption: 4 VA
Auxiliary contact rating: 5A

Code	Description	Cv	Lbs	USD
644350A 3BY	¾" NPT male union	12	2.5	-
644356A 3BY	¾" press union	12	2.6	-
644359A 3BY	¾" sweat union	12	2.5	-
644360A 3BY	1" NPT male union	12	2.5	-
644366A 3BY	1" press union	12	2.6	-
644369A 3BY	1" sweat union	12	2.5	-
NA644300 3BY*	Body, no fittings	12	1.2	-

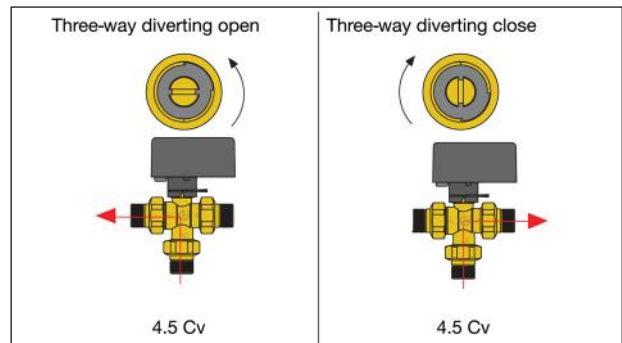
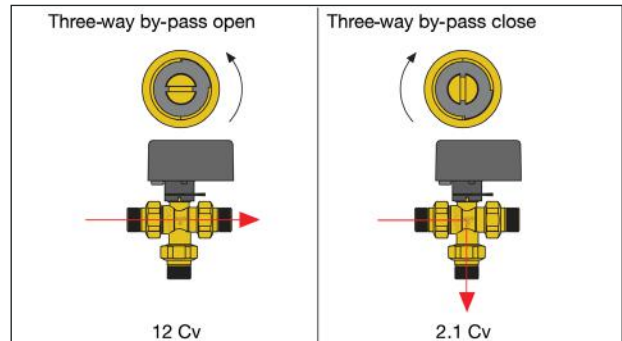
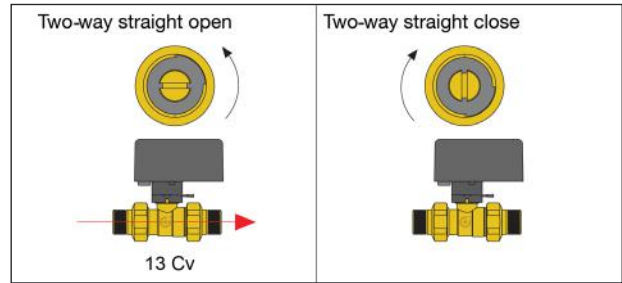
*See fitting selection in Section 13



6440 24 V 3-wire control

Actuator for 6442 and 6443 series valves
Power supply: 24 VAC
Power consumption: 4 VA
Auxiliary contact rating: 5A
Wire lead length: 36"

Code	Description	Lbs	USD
644024	24 VAC	1.0	-



6443 3-way Diverting

Three-way diverting motorized ball zone valve
3-wire floating fail-in-place actuator with micro-switch

Maximum operating pressure: 150 psi
Fluid temperature range: 20 – 230 °F
Ambient temperature range: 32 – 130 °F
Power supply: 24 VAC
Power consumption: 4 VA
Auxiliary contact rating: 5A

Code	Description	Cv	Lbs	USD
644350A	¾" NPT male union	4.5	2.5	-
644356A	¾" press union	4.5	2.6	-
644359A	¾" sweat union	4.5	2.5	-
644360A	1" NPT male union	4.5	2.5	-
644366A	1" press union	4.5	2.6	-
644369A	1" sweat union	4.5	2.5	-
NA644300*	Body, no fittings	4.5	1.2	-

*See fitting selection in Section 13

MOTORIZED BALL VALVES

638 Motorized Ball Valves NPT



Two-way high flow motorized ball valve
3-wire floating fail-in-place actuator
Control lever for manual operation

Maximum operating pressure: 230 psi
Fluid temperature range: 14 – 230 °F
Ambient temperature range: 14 – 230 °F
Power supply: 24 VAC, 6 VA
Auxiliary contacts rating: 6A

Code	Description	Cv	Lbs	USD
638054A 103	¾" NPT male union	20	3.3	-
638064A 103	1" NPT male union	42	4.5	-
638074A 103	1¼" NPT male union	56	5.6	-
638084A 103	1½" NPT male union	89	12	-
638094A 103	2" NPT male union	162	12.4	-

638 Motorized Ball Valves press

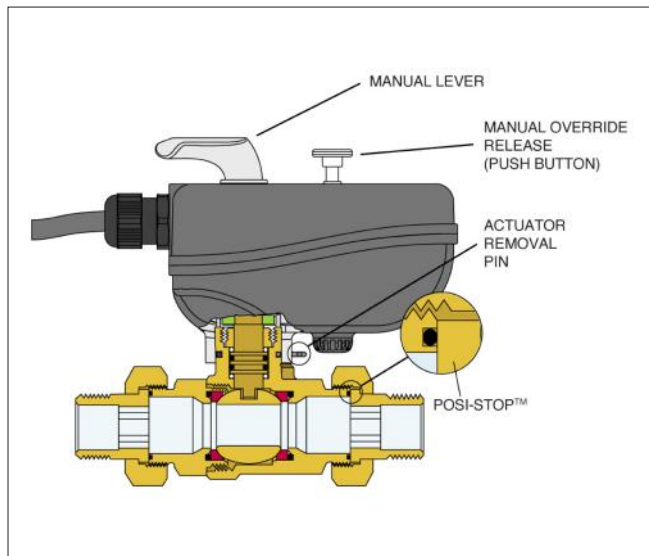


Two-way high flow motorized ball valve
3-wire floating fail-in-place actuator
Control lever for manual operation

Maximum operating pressure: 200 psi
Fluid temperature range: 14 – 230 °F
Ambient temperature range: 14 – 230 °F
Power supply: 24 VAC, 6 VA
Auxiliary contacts rating: 6A

Code	Description	Cv	Lbs	USD
638054A 106	¾" press union	20	2.7	-
638064A 106	1" press union	42	4.8	-
638074A 106	1¼" press union	56	5.8	-
638084A 106	1½" press union	89	11.6	-
638094A 106	2" press union	162	11.8	-

Construction design for 638 Motorized Ball Valves



638 Motorized Ball Valves sweat



Two-way high flow motorized ball valve
3-wire floating fail-in-place actuator
Control lever for manual operation

Maximum operating pressure: 230 psi
Fluid temperature range: 14 – 230 °F
Ambient temperature range: 14 – 230 °F
Power supply: 24 VAC, 6 VA
Auxiliary contacts rating: 6A

Code	Description	Cv	Lbs	USD
638054A 109	¾" sweat union	20	3.3	-
638064A 109	1" sweat union	42	4.5	-
638074A 109	1¼" sweat union	56	5.6	-
638084A 109	1½" sweat union	89	12	-
638094A 109	2" sweat union	162	12.4	-



www.caleffi.com

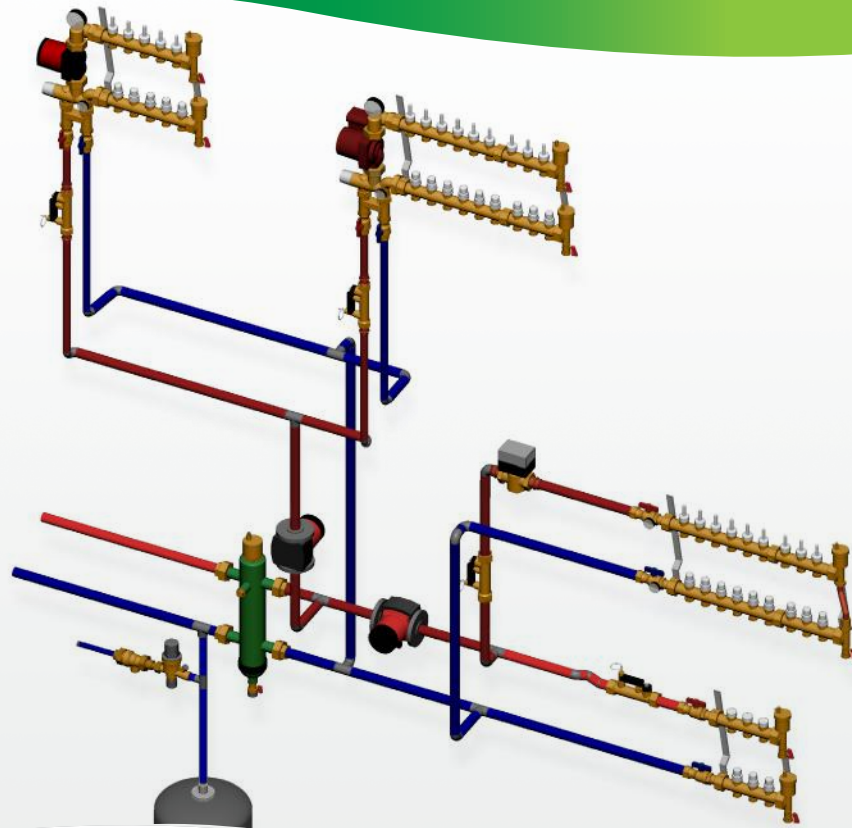


WEBINAR SERIES EXCELLENCE IN EDUCATION

Move the industry forward with us at the next Coffee with Caleffi™. These **complimentary technical training webinars** are intended for contractors, designers, engineers and wholesalers. Together we can make hydronic and plumbing systems more sustainable and resilient. Committed to Excellence in Education. **CALEFFI GUARANTEED.**



DISTRIBUTION MANIFOLDS AND MIXING STATIONS



Diagrams made with BIM families: bim.caleffi.com

This diagram is for illustration purposes only

PRODUCTS INCLUDED IN SECTION

- Thermostatic manifold mixing stations
- Low temperature manifold mixing stations
- Brass distribution manifolds
- Pump and valve temperature mixing units
- Boxes for distribution manifolds
- Fittings for distribution manifolds and mixing stations
- Thermo electric actuators for manifolds and valves
- Accessories

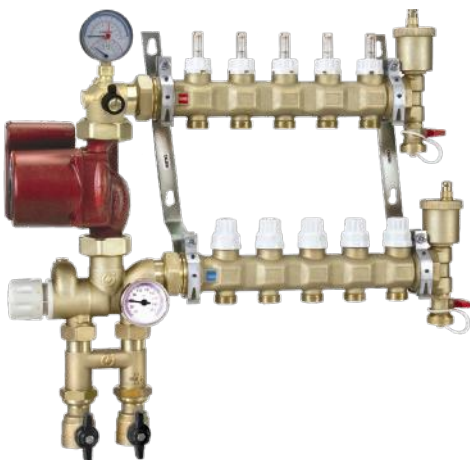
THERMOSTATIC MANIFOLD MIXING STATIONS

172

Low temperature manifold mixing station three speed pump

Supply manifold complete with flow meters and adjustable balancing valves
Return manifold complete with built-in shut-off valves and is suitable for thermo-electric actuators
Includes Grundfos UPS 15-58U pump

Maximum operating pressure: 150 psi
Control temperature range: 80 – 130 °F
Primary inlet max temp: 195 °F



Code	Description	UPS Pump	No.	Outlets	Lbs	USD
1725C1A	¾"	15-58U	3	¾" M	20	-
1725C1A IN*	¾"	15-58U	3	¾" M	20	-
1725D1A	¾"	15-58U	4	¾" M	21	-
1725D1A IN*	¾"	15-58U	4	¾" M	21	-
1725E1A	¾"	15-58U	5	¾" M	23	-
1725E1A IN*	¾"	15-58U	5	¾" M	23	-
1725F1A	¾"	15-58U	6	¾" M	25	-
1725F1A IN*	¾"	15-58U	6	¾" M	25	-
1725G1A	¾"	15-58U	7	¾" M	27	-
1725G1A IN*	¾"	15-58U	7	¾" M	27	-
1725H1A	¾"	15-58U	8	¾" M	28	-
1725H1A IN*	¾"	15-58U	8	¾" M	28	-
1725I1A	¾"	15-58U	9	¾" M	29	-
1725I1A IN*	¾"	15-58U	9	¾" M	29	-
1725L1A	¾"	15-58U	10	¾" M	31	-
1725L1A IN*	¾"	15-58U	10	¾" M	31	-
1725M1A	¾"	15-58U	11	¾" M	33	-
1725M1A IN*	¾"	15-58U	11	¾" M	33	-
1725N1A	¾"	15-58U	12	¾" M	34	-
1725N1A IN*	¾"	15-58U	12	¾" M	34	-
1725O1A	¾"	15-58U	13	¾" M	36	-
1725O1A IN*	¾"	15-58U	13	¾" M	36	-

*Models with "IN" suffix are built inverted with tubing connections going upward.

**See fitting selection in Section 13

172

Low temperature manifold mixing station high efficiency pump

Supply manifold complete with flow meters and adjustable balancing valves
Return manifold shut-off valves can be replaced with thermo-electric actuators
Includes Grundfos UPMS 25-58 pump

Maximum operating pressure: 150 psi
Control temperature range: 80 – 130 °F
Primary inlet max temp: 195 °F

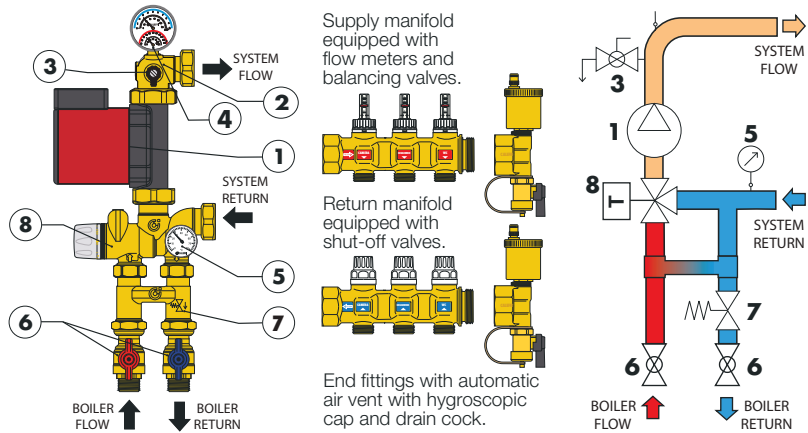


Code	Description	UPMS Pump	No.	Outlets	Lbs	USD
1725C1AHE	¾"	25-58	3	¾" M	20	-
1725C1AHE IN*	¾"	25-58	3	¾" M	20	-
1725D1AHE	¾"	25-58	4	¾" M	21	-
1725D1AHE IN*	¾"	25-58	4	¾" M	21	-
1725E1AHE	¾"	25-58	5	¾" M	23	-
1725E1AHE IN*	¾"	25-58	5	¾" M	23	-
1725F1AHE	¾"	25-58	6	¾" M	25	-
1725F1AHE IN*	¾"	25-58	6	¾" M	25	-
1725G1AHE	¾"	25-58	7	¾" M	27	-
1725G1AHE IN*	¾"	25-58	7	¾" M	27	-
1725H1AHE	¾"	25-58	8	¾" M	28	-
1725H1AHE IN*	¾"	25-58	8	¾" M	28	-
1725I1AHE	¾"	25-58	9	¾" M	29	-
1725I1AHE IN*	¾"	25-58	9	¾" M	29	-
1725L1AHE	¾"	25-58	10	¾" M	31	-
1725L1AHE IN*	¾"	25-58	10	¾" M	31	-
1725M1AHE	¾"	25-58	11	¾" M	33	-
1725M1AHE IN*	¾"	25-58	11	¾" M	33	-
1725N1AHE	¾"	25-58	12	¾" M	34	-
1725N1AHE IN*	¾"	25-58	12	¾" M	34	-
1725O1AHE	¾"	25-58	13	¾" M	36	-
1725O1AHE IN*	¾"	25-58	13	¾" M	36	-

THERMOSTATIC MANIFOLD MIXING STATIONS

Characteristic components / hydraulic diagram

Item	Description	Symbol
1	Circulation pump UPS 15-58 pictured	
2	Top elbow with supply temperature and pressure gauge	
3	Purge valve	
4	Supply temperature and pressure gauge	
5	Return temperature gauge	
6	Primary circuit shut-off valves	
7	Primary circuit hydraulic separator with check valve	
8	Thermostatic three-way mixing valve with built-in sensor	



LOW TEMPERATURE MANIFOLD MIXING STATIONS



Thermostatic mixing station replacement parts

Replacement pump for 172 manifold stations.
Pump only, no fittings included

Code	Description	Lbs	USD
NA11360	UPMS 25-58 replacement pump	2.3	-
NA10038	UPS 15-58U replacement pump	2.3	-
F19153	Replacement mixing valve	1.6	-

BRASS DISTRIBUTION MANIFOLDS



668S1 TwistFlow™ assembly

Distribution manifold for radiant panel and in-floor systems
Supply manifold complete with flow meters and built-in balancing valve
Return manifold shut-off valves can be replaced with thermo-electric actuators

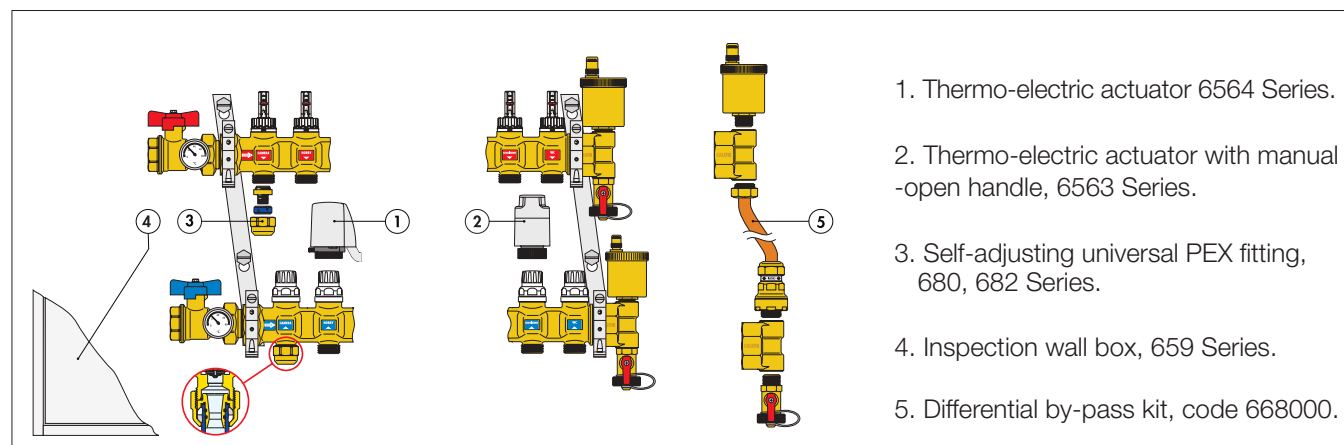
Maximum operating pressure: 150 psi
Fluid temperature range: 32 – 180 °F
Flow meter scale: 1/4 – 2 GPM

Code	Description	No.	Outlets	Lbs	USD
6686C5S1A	1"	3	3/4" M	17	-
6686C5S1A IN*	1"	3	3/4" M	17	-
6686D5S1A	1"	4	3/4" M	18	-
6686D5S1A IN*	1"	4	3/4" M	18	-
6686E5S1A	1"	5	3/4" M	19	-
6686E5S1A IN*	1"	5	3/4" M	19	-
6686F5S1A	1"	6	3/4" M	21	-
6686F5S1A IN*	1"	6	3/4" M	21	-
6686G5S1A	1"	7	3/4" M	23	-
6686G5S1A IN*	1"	7	3/4" M	23	-
6686H5S1A	1"	8	3/4" M	24	-
6686H5S1A IN*	1"	8	3/4" M	24	-
6686I5S1A	1"	9	3/4" M	26	-
6686I5S1A IN*	1"	9	3/4" M	26	-
6686L5S1A	1"	10	3/4" M	28	-
6686L5S1A IN*	1"	10	3/4" M	28	-
6686M5S1A	1"	11	3/4" M	29	-
6686M5S1A IN*	1"	11	3/4" M	29	-
6686N5S1A	1"	12	3/4" M	31	-
6686N5S1A IN*	1"	12	3/4" M	31	-
6686O5S1A	1"	13	3/4" M	33	-
6686O5S1A IN*	1"	13	3/4" M	33	-

Code	Description	No.	Outlets	Lbs	USD
6687C5S1A	1 1/4"	3	3/4" M	17	-
6687C5S1A IN*	1 1/4"	3	3/4" M	17	-
6687D5S1A	1 1/4"	4	3/4" M	18	-
6687D5S1A IN*	1 1/4"	4	3/4" M	18	-
6687E5S1A	1 1/4"	5	3/4" M	19	-
6687E5S1A IN*	1 1/4"	5	3/4" M	19	-
6687F5S1A	1 1/4"	6	3/4" M	21	-
6687F5S1A IN*	1 1/4"	6	3/4" M	21	-
6687G5S1A	1 1/4"	7	3/4" M	23	-
6687G5S1A IN*	1 1/4"	7	3/4" M	23	-
6687H5S1A	1 1/4"	8	3/4" M	24	-
6687H5S1A IN*	1 1/4"	8	3/4" M	24	-
6687I5S1A	1 1/4"	9	3/4" M	26	-
6687I5S1A IN*	1 1/4"	9	3/4" M	26	-
6687L5S1A	1 1/4"	10	3/4" M	28	-
6687L5S1A IN*	1 1/4"	10	3/4" M	28	-
6687M5S1A	1 1/4"	11	3/4" M	29	-
6687M5S1A IN*	1 1/4"	11	3/4" M	29	-
6687N5S1A	1 1/4"	12	3/4" M	31	-
6687N5S1A IN*	1 1/4"	12	3/4" M	31	-
6687O5S1A	1 1/4"	13	3/4" M	33	-
6687O5S1A IN*	1 1/4"	13	3/4" M	33	-

*Models with "IN" suffix are built inverted with tubing connections going upward.

Construction details for 668S1 TwistFlow™ assembly



PUMP AND VALVE TEMPERATURE MIXING UNITS



166 HydroMixer™

Thermostatic adjustable temperature mixing unit with insulation
Complete with:
- Variable OR three-speed pump
- Temperature gauges
- Shut-off ball valves
Available with pump on right or left side

Maximum operating pressure: 145 psi
Control temperature range: 80 – 125 °F
Primary inlet max temp: 212 °F

Code	Description	Lbs	USD
166600A	Dual line with 15-58U pump on right	22	-
166610A	Dual line with 15-58U pump on left	22	-
166602A	Dual line with UPMS 25-58 pump on right	22	-
166612A	Dual line with UPMS 25-58 pump on left	22	-



Wall bracket fits 166 Series.

Code	Description	Lbs	USD
165001	Wall bracket	0.1	-



Differential pressure by-pass valve for 166 mixing units
Maximum operating pressure: 145 psi
Fluid temperature maximum: 212 °F

Code	Description	Lbs	USD
519006	Differential pressure by-pass valve	1.0	-



Top outlet fittings fit 166 series
Complete with:
- Two 1¼" union nuts
- Two sweat tailpieces
- Two washers

Code	Description	Lbs	USD
NA16069	1" sweat union outlet fittings	1.0	-



Bottom inlet fittings fit 166 series
Complete with:
- Two 1½" union nuts
- Two sweat tailpieces
- Two washers

Code	Description	Lbs	USD
NA16169	1" sweat union inlet fittings	1.0	-



Top outlet fittings fit 166 series
Complete with:
- Two 1¼" union nuts
- Two FNPT tailpieces
- Two washers

Code	Description	Lbs	USD
NA16060	1" NPT female union outlet fittings	1.0	-



Bottom inlet fittings fit 166 series
Complete with:
- Two 1½" union nuts
- Two FNPT tailpieces
- Two washers

Code	Description	Lbs	USD
NA16160	1" NPT female union inlet fittings	1.0	-

BOXES FOR DISTRIBUTION MANIFOLDS



659 Manifold cabinet

Housing wall box for 668S1 manifolds
Adjustable depth from 4⅜ – 5½"
Material: 18 gauge sheet metal
Powder coated white paint finish

Code	Description	H	Max Outlets	Lbs	USD
659044	16" width	20"	3	17	-
659064	24" width	20"	6	23	-
659084	32" width	20"	10	30	-
659104	40" width	20"	13	37	-
659124	48" width	20"	17	44	-

*Rough opening dimensions

FITTINGS FOR DISTRIBUTION MANIFOLDS AND MIXING STATIONS



(680504A shown)

680 Universal PEX fittings

Compatible with any ASTM F876 single layer PEX
Fits 172 and 668S1 series manifolds

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 180 °F
Material: Brass

Code	Description	Compression ring	Lbs	USD
680507	5/16" nominal PEX	Blue	0.2	-
680503A	3/8" nominal PEX	Black	0.2	-
680504A	1/2" nominal PEX	Blue	0.2	-
680555A	5/8" nominal PEX	Black	0.2	-
680505A	3/4" nominal PEX	Brass	0.2	-



Wrench for tightening PEX fitting to manifolds.

Code	Description	Lbs	USD
387100	26 mm x 30 mm	1.5	-



Double nipple for coupling PEX fittings

Code	Description	Lbs	USD
942550	3/4" x 3/4" thread	0.1	-



(682530A shown)

682 Universal PEX-AL-PEX fittings

Compatible with any ASTM F1281 multi-layer PEX-AL-PEX tubing
Fits 172 and 668S1 series manifolds

Maximum operating pressure: 150 psi
Fluid temperature range: 40 – 200 °F
Material: Brass

Code	Description	Lbs	USD
682530A	3/8" nominal PEX-AL-PEX	0.2	-
682540A	1/2" nominal PEX-AL-PEX	0.2	-
682545A	5/8" nominal PEX-AL-PEX	0.2	-
682550A	3/4" nominal PEX-AL-PEX	0.2	-



386

Cap to plug unused manifold outlets
Fits 172 and 668S1 series manifolds

Code	Description	Lbs	USD
386500	3/4" straight thread	0.2	-

THERMO ELECTRIC ACTUATORS FOR MANIFOLDS AND VALVES



6563 TwisTop™

Thermo-electric actuator
Manually operated using twist-top
Fits 172 and 668S1 series manifolds

Ambient temperature range: 32 – 120 °F
Power supply: 24V AC/DC
Operating power consumption: 3W
Starting current draw: ≤ 250 mA
Microswitch contact rating: 5A (24V)
Protection class: NEMA 3 (IP 54)

Code	Description	Lbs	USD
656344	24V AC/DC	0.4	-
656354	24V AC/DC with micro-switch	0.4	-
656354R	24V AC/DC with micro-switch Rehau	0.4	-



6564

Thermo-electric actuator
Install in any orientation
Fits 172 and 668S1 series manifolds

Ambient temperature range: 32 – 120 °F
Power supply: 24V AC/DC
Operating power consumption: 3W
Starting current draw: ≤ 250 mA
Microswitch contact rating: 5A (24V)
Protection class: NEMA 3 (IP 54)

Code	Description	Lbs	USD
656404	24V AC/DC	0.4	-
656414	24V AC/DC with micro-switch	0.4	-

ACCESSORIES



Replacement balance/flow meter fits 172 and 668S1 series manifolds
Flow meter scale: ¼ – 2 GPM

Code	Description	Lbs	USD
F69600	Replacement flow meter	0.2	-



Replacement shut-off valve for 172 and 668S1 series manifolds

Code	Description	Lbs	USD
F69590	Replacement shut-off valve	0.3	-



Plastic replacement/test cap fits 5020 Series, for pressure testing manifolds.

Code	Description	Lbs	USD
R56214	Vent cap	0.1	-



Replacement shut-off valve for 663 and old 668 series manifolds

Code	Description	Lbs	USD
69122 CST	Replacement shut-off valve	0.3	-



NA669

Replacement flow meter for 663 and old 668 series manifolds

Maximum operating pressure: 85 psi
Maximum fluid temperature: 210 °F
¾" straight male x ¾" straight female nut

Code	Description	Lbs	USD
NA669150	¼ – 1 GPM high temp.	0.3	-
NA669250	½ – 2 GPM high temp.	0.3	-



White replacement knob for manifolds

Code	Description	Lbs	USD
449000	Replacement knob	0.1	-



5020

Replacement air vent for radiant manifolds
Maximum operating pressure: 150 psi
Maximum discharge pressure: 40 psi
Fluid temperature range: 32 – 250 °F
Material: Brass

Code	Description	Lbs	USD
502043 CST	½" straight thread	0.6	-



668

Off-center differential by-pass assembly

Fixed setting pressure: 3.6 psi
Maximum operating pressure: 150 psi
Fluid temperature range: 14 – 230 °F

Code	Description	Lbs	USD
668000	½" straight thread	0.6	-



675

Snap-on thermometer with thermo-conductive paste
Fits PEX, PEX-AL-PEX and copper pipe

Box of 10, comes with 1 syringe of paste

Code	Description	Lbs	USD
675900A	¾" & 5/8" PEX & ½" copper	0.2	-
R69413	Syringe of thermo conductive paste	0.1	-



688

Temperature gauge with pocket well fitting for manifolds
Dual scale

Code	Description	Lbs	USD
NA11031	Replacement gauge	0.1	-
688003A	Gauge with pocket well	0.2	-
NA10498	Replacement pocket well, low lead	0.1	-
F67037	O-ring fits NA10498	0.1	-



www.caleffi.com

CALEFFI
Hydronic Solutions

AUTOFILL™

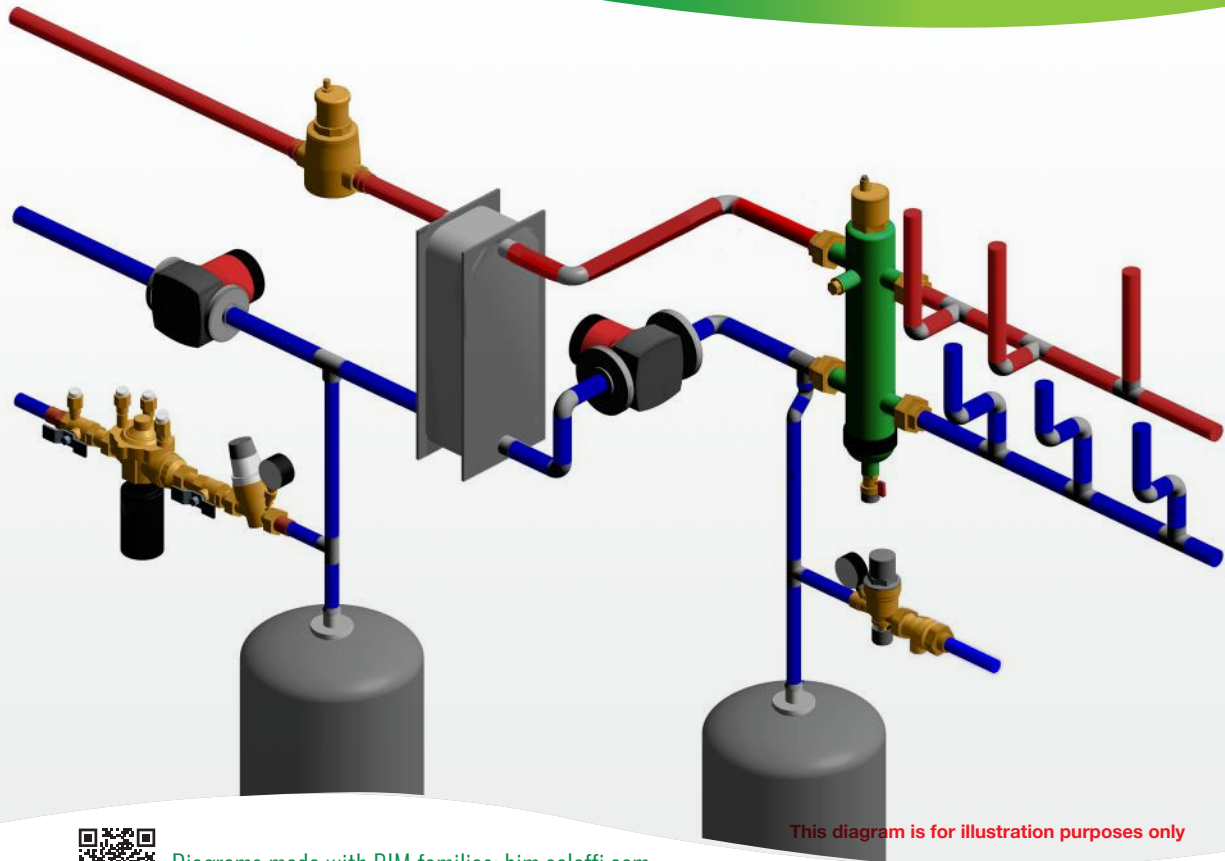
SET IT AND FORGET IT



The highly regarded and widely used **AutoFill™** is known among contractors as the **set it and forget it** hydronic system pressure control valve solution. The **fast-fill function** simplifies system fill by automatically opening fully until fill pressure is reached. System pressure is automatically maintained with set point dial or integral shutoff valve that can be closed for system isolation. The **AutoFill Combo** is conveniently available with an **ASSE 1012** dual check type or **ASSE 1013** RPZ backflow preventer. **CALEFFI GUARANTEED.**



FILLING UNITS AND BOILER TRIM KITS



Diagrams made with BIM families: bim.caleffi.com

This diagram is for illustration purposes only

PRODUCTS INCLUDED IN SECTION

- Automatic filling units
- Commercial automatic filling units
- Boiler trim kits
- Water treatment filling unit
- Fill and flush cart

AUTOMATIC FILLING UNITS



553 AutoFill™

Pre-adjustable automatic filling valve
Anti-scale internal parts
Visual system pressure indicator
Complete with:
- Manual shut-off valve
- Check valve

Maximum operating pressure: 230 psi
Pressure setting range: 3 – 60 psi
Preset outlet pressure: 15 psi
Maximum fluid temperature: 150 °F
Material: Brass body

Code	Description	Lbs	USD
553549A	1/2" sweat union in, 1/2" FNPT out	1.7	-
553649A*	1/2" sweat union in, 1/2" FNPT out	1.7	-
553542A	1/2" NPT male union in, 1/2" FNPT out	1.7	-
553642A*	1/2" NPT male union in, 1/2" FNPT out	1.7	-
553546A	1/2" press union in, 1/2" press out	2.0	-
553646A*	1/2" press union in, 1/2" press out	2.0	-

*With pressure gauge.



574 AutoFill™ Combo

Pre-adjustable automatic filling valve with
testable reduced pressure zone backflow
preventer with air gap
Complete with:
- 553 AutoFill™
- 574 FlowShield™ RP
- Isolation ball valves

Maximum operating pressure: 150 psi
Pressure setting range: 3 – 60 psi
Preset outlet pressure: 15 psi
Maximum fluid temperature: 150 °F

Code	Description	Lbs	USD
574002A	1/2" FNPT	9.4	-
574012A*	1/2" FNPT, gauge	9.4	-
574206A	1/2" press	9.4	-
574216A*	1/2" press, gauge	9.4	-
574207A	1/2" press in x FNPT out	9.4	-
574217A*	1/2" press in x FNPT out, gauge	9.4	-

*With pressure gauge.



573 AutoFill™ Combo

Pre-adjustable automatic filling valve with
dual check backflow preventer
Complete with:
- 553 AutoFill™
- 573 FlowShield™ DuC-AV

Maximum operating pressure: 175 psi
Pressure setting range: 3 – 60 psi
Preset outlet pressure: 15 psi
Maximum fluid temperature: 150 °F
Material: Brass body

Code	Description	Lbs	USD
573002A	1/2" NPT female union in, 1/2" FNPT out	5.0	-
573012A*	1/2" NPT female union in, 1/2" FNPT out	5.0	-
573006A	1/2" press union in, 1/2" press out	5.0	-
573016A*	1/2" press union in, 1/2" press out	5.0	-
573007A	1/2" press union in, 1/2" FNPT out	5.0	-
573017A*	1/2" press union in, 1/2" FNPT out	5.0	-
573009A	1/2" sweat union in, 1/2" FNPT out	5.0	-
573019A*	1/2" sweat union in, 1/2" FNPT out	5.0	-

*With pressure gauge.



Replacement pressure gauge for 553
AutoFill™
Pressure range: 0 – 60 psi / 0 – 4 bar
Connection: 1/4" MNPT

Code	Description	Lbs	USD
NA10363	Replacement pressure gauge	0.1	-



Replacement cartridge for 553 AutoFill™

Code	Description	Lbs	USD
F59650	Replacement cartridge	0.2	-



Replacement plastic cover for 553 AutoFill™

Code	Description	Lbs	USD
NA10197	Clear plastic disc cover	0.1	-

COMMERCIAL AUTOMATIC FILLING UNITS



5350 AutoFill™

Pre-adjustable automatic filling valve
Integral downstream pressure gauge
Pressure setting adjustment knob

Maximum operating pressure: 365 psi
Pressure setting range: 6 – 90 psi
Preset setting pressure: 15 psi
Maximum fluid temperature: 140 °F

Code	Description	Lbs	USD
535059A	¾" sweat union	2.3	-
535069A	1" sweat union	2.4	-
535051A	¾" NPT male union	2.3	-
535061A	1" NPT male union	2.4	-
535056A	¾" press union	2.3	-
535066A	1" press union	2.4	-
535057A	¾" PEX crimp union	2.3	-
535067A	1" PEX crimp union	2.4	-
535058A	¾" PEX expansion union	2.3	-
535068A	1" PEX expansion union	2.4	-



5350 AutoFill™ Body

Pre-adjustable automatic filling valve
Integral downstream pressure gauge
Pressure setting adjustment knob

See fitting selection in Section 13

Code	Description	Lbs	USD
535951A	1" male union body	2.0	-



574 AutoFill™ Combo

Pre-adjustable automatic filling valve with
testable reduced pressure zone backflow
preventer with air gap

Complete with:

- 5350 AutoFill™
- 574 FlowShield™ RP
- Isolation ball valves

Maximum operating pressure: 150 psi
Pressure setting range: 3 – 60 psi
Preset outlet pressure: 15 psi
Maximum fluid temperature: 140 °F

Code	Description	Lbs	USD
574151A	¾" FNPT in, ¾" FNPT union out	9.4	-
574161A	1" FNPT in, 1" NPT male union out	9.4	-
574156A	¾" press	9.4	-
574166A	1" press	9.4	-
574157A	¾" press in, ¾" FNPT union out	9.4	-
574167A	1" press in, 1" NPT male union out	9.4	-



NA102

Replacement pressure gauge for 5350
AutoFill™

Pressure range: 0 – 100 psi / 0 – 7 bar
Connection: 1/8" MNPT

Code	Description	Lbs	USD
NA10273	Replacement pressure gauge	0.2	-



Replacement cartridge for 5350 AutoFill™

Code	Description	Lbs	USD
535004	Replacement cartridge	0.2	-

BOILER TRIM KITS

NA553



Boiler trim kit with 8 boiler system components in one box

Kit includes:

- (1) 551 DISCAL® air separator
- (1) 573 FlowShield™ DuC-AV
- (1) 553 AutoFill™
- (1) Expansion tank
- (1) Expansion tank check valve
- (2) Brass nipples: ½" x 3"
- (1) Brass tee: ½" NPT

Code	Description	Tank size (gal)	Lbs	USD
NA553369	1" sweat	4.4	15	-
NA553379	1¼" sweat	4.4	16	-
NA553362	1" FNPT	4.4	15	-
NA553372	1¼" FNPT	4.4	16	-
NA553366	1" press	4.4	15	-
NA553376	1¼" press	4.4	16	-

NA553



Boiler trim kit with testable backflow preventer, 8 boiler system components in one box

Kit includes:

- (1) 551 DISCAL® air separator
- (1) 574 FlowShield™ RP
- (1) 553 AutoFill™
- (1) Expansion tank
- (1) Expansion tank check valve
- (2) Brass nipples: ½" x 3"
- (1) Brass tee: ½" NPT

Code	Description	Tank size (gal)	Lbs	USD
NA553369R	1" sweat	4.4	19	-
NA553379R	1¼" sweat	4.4	20	-
NA553362R	1" FNPT	4.4	19	-
NA553372R	1¼" FNPT	4.4	20	-
NA553366R	1" press	4.4	19	-
NA553376R	1¼" press	4.4	20	-

WATER TREATMENT FILLING UNITS

NA573



Replenishment water treatment filling unit
Demineralizes water through color changing cartridge

Kit includes:

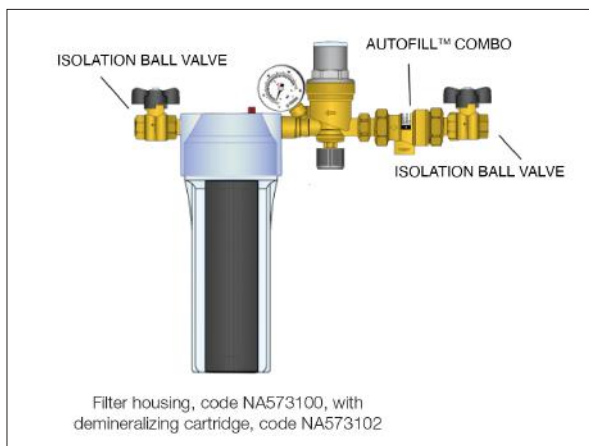
- 553 AutoFill™
- 573 FlowShield™ DuC-AV
- Filter housing with resin cartridge
- (2) Isolation ball valves

Maximum inlet pressure: 125 psi
Maximum fluid temperature: 100 °F

Code	Description	Lbs	USD
NA573022	½" FNPT	7.4	-
NA573100*	Replacement filter housing assembly	3.4	-
NA573102	Replacement color-changing filter	1.0	-

*Filter housing includes color changing demineralizing cartridge.

Construction detail for NA573



Resin bags for NA570 HYDROFILL™ in reusable plastic pail.

Code	Description	Lbs	USD
NA570971	Two resin bags for NA570912	22	-
NA570974	Four resin bags for NA570924	43	-

FILL AND FLUSH CART



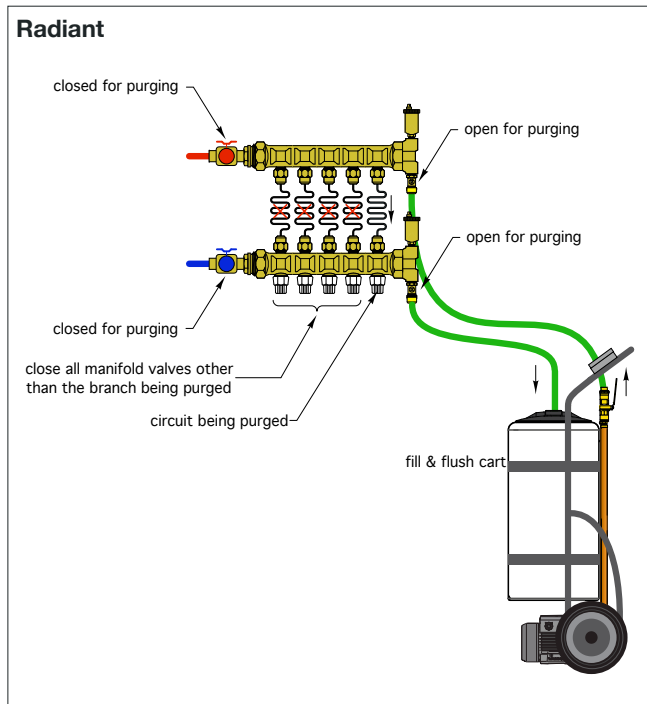
NA255 HYDROFLUSH™

Portable pump cart for filling and flushing solar, geothermal and hydronic heating systems

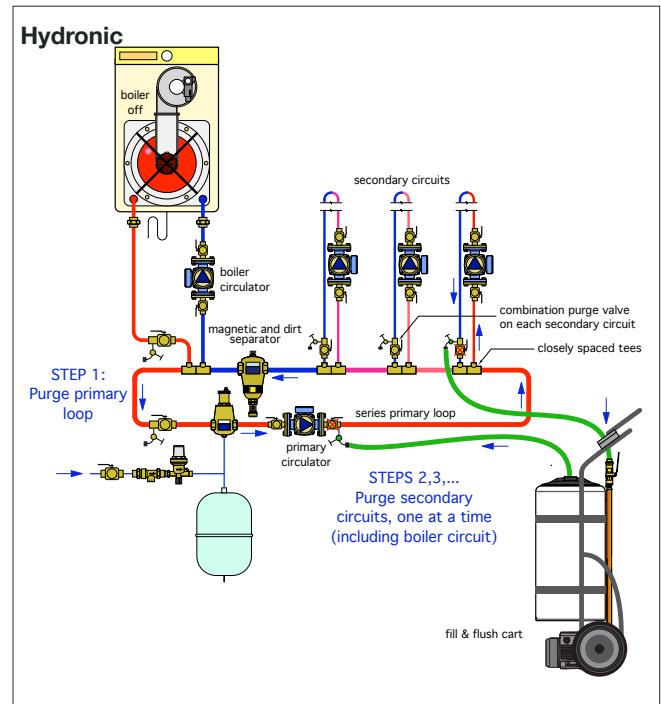
Maximum fluid temperature: 140 °F
Maximum pump pressure: 55 psi
Pump delivery flow: 1-15 gpm
Pump power: ½ HP (120 VAC)
Tank: 10 gallon with dirt filter
Medium: water, glycol, cleaning fluids

Code	Description	Lbs	USD
NA25510	Clean, fill and flush cart	60	-
NA11338	Replacement hose, ¾" ID, Fx F GHT	3.0	-
NA11313	Replacement pump	32	-

Application diagram for NA255 HYDROFLUSH™



Application diagram for NA255 HYDROFLUSH™





www.caleffi.com

CALEFFI
Hydronic Solutions

LEGIOMIX®evo

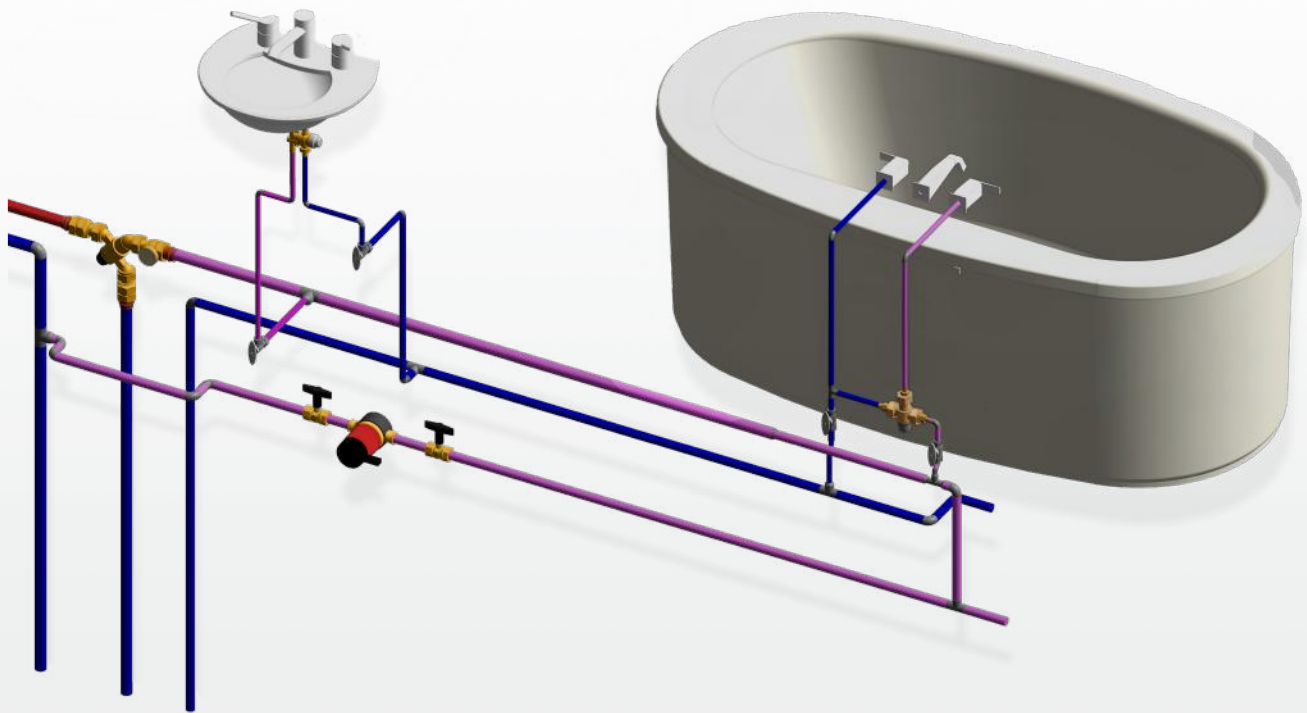
DIGITAL MIXING VALVE



The LEGIOMIX®evo digital mixing valve sets a new standard in mixing control, delivering unmatched precision, efficiency, and ease of use. Its advanced technology ensures consistent water temperature and performance, giving you reliable, worry-free operation. Built for critical systems. **CALEFFI GUARANTEED.**



MIXING VALVES



Diagrams made with BIM families: bim.caleffi.com

This diagram is for illustration purposes only

PRODUCTS INCLUDED IN SECTION

- Thermostatic mixing valves
- High flow thermostatic mixing valves
- Angle body thermostatic mixing valves
- Thermostatic mixing valve kits
- Digital mixing valves
- Electronic mixing valves
- Scald protection thermostatic mixing valves

THERMOSTATIC MIXING VALVES



521 MixCal™ sweat

Adjustable thermostatic mixing valve for point of distribution applications.
Optional: Inlet check valves

Adjustable range: 85 – 150 °F
Max. inlet temperature: 200 °F
Max. working pressure: 200 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 1.0 GPM for optimal performance

Code	Description	Cv	Lbs	USD
521409A	½" sweat union	3.0	2.4	-
521409AC	½" sweat union, check valves	3.0	2.4	-
521509A	¾" sweat union	3.0	2.4	-
521509AC	¾" sweat union, check valves	3.0	2.4	-
521609A	1" sweat union	3.0	2.4	-
521609AC	1" sweat union, check valves	3.0	2.4	-



521 MixCal™ press

Adjustable thermostatic mixing valve for point of distribution applications.
Optional: Inlet check valves

Adjustable range: 85 – 150 °F
Max. inlet temperature: 200 °F
Max. working pressure: 200 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 1.0 GPM for optimal performance

Code	Description	Cv	Lbs	USD
521406A	½" press union	3.0	2.4	-
521406AC	½" press union, check valves	3.0	2.5	-
521506A	¾" press union	3.0	2.4	-
521506AC	¾" press union, check valves	3.0	2.5	-
521606A	1" press union	3.0	2.6	-
521606AC	1" press union, check valves	3.0	3.1	-



521 MixCal™ NPT

Adjustable thermostatic mixing valve for point of distribution applications.
Optional: Inlet check valves

Adjustable range: 85 – 150 °F
Max. inlet temperature: 200 °F
Max. working pressure: 200 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 1.0 GPM for optimal performance

Code	Description	Cv	Lbs	USD
521400A	½" NPT male union	3.0	2.4	-
521400AC	½" NPT male union, check valves	3.0	2.4	-
521500A	¾" NPT male union	3.0	2.4	-
521500AC	¾" NPT male union, check valves	3.0	2.4	-
521600A	1" NPT male union	3.0	2.4	-
521600AC	1" NPT male union, check valves	3.0	2.4	-



521 MixCal™ PEX

Adjustable thermostatic mixing valve for point of distribution applications.
Optional: Inlet check valves

Adjustable range: 85 – 150 °F
Max. inlet temperature: 200 °F
Max. working pressure: 200 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 1.0 GPM for optimal performance

Code	Description	Cv	Lbs	USD
521407A	½" PEX crimp union	3.0	2.4	-
521407AC	½" PEX crimp union, check valves	3.0	2.9	-
521507A	¾" PEX crimp union	3.0	2.4	-
521507AC	¾" PEX crimp union, check valves	3.0	2.9	-
521607A	1" PEX crimp union	3.0	2.4	-
521607AC	1" PEX crimp union, check valves	3.0	2.9	-
521408A	½" PEX expansion union	3.0	2.4	-
521408AC	½" PEX expansion union, check valves	3.0	2.9	-
521508A	¾" PEX expansion union	3.0	2.4	-
521508AC	¾" PEX expansion union, check valves	3.0	2.9	-
521608A	1" PEX expansion union	3.0	2.4	-
521608AC	1" PEX expansion union, check valves	3.0	2.9	-

Complies with: ASSE 1017 and CSA B125.3 performance standards, NSF/ANSI/CAN 372 for low lead/lead free materials requirements and IPC, IRC, UPC, NPC plumbing codes. Certified by ICC-ES.

THERMOSTATIC MIXING VALVES



521 MixCal™ sweat

Adjustable thermostatic mixing valve for point of distribution applications. Complete with temperature gauge
Optional: Inlet check valves

Adjustable range: 85 – 150 °F
Max. inlet temperature: 200 °F
Max. working pressure: 200 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 1.0 GPM for optimal performance

Code	Description	Cv	Lbs	USD
521419A	1/2" sweat union	3.0	2.9	-
521419AC	1/2" sweat union, check valves	3.0	2.9	-
521519A	3/4" sweat union	3.0	2.9	-
521519AC	3/4" sweat union, check valves	3.0	2.9	-
521619A	1" sweat union	3.0	2.9	-
521619AC	1" sweat union, check valves	3.0	2.9	-



521 MixCal™ press

Adjustable thermostatic mixing valve for point of distribution applications. Complete with temperature gauge
Optional: Inlet check valves

Adjustable range: 85 – 150 °F
Max. inlet temperature: 200 °F
Max. working pressure: 200 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 1.0 GPM for optimal performance

Code	Description	Cv	Lbs	USD
521416A	1/2" press union	3.0	2.9	-
521416AC	1/2" press union, check valves	3.0	3.0	-
521516A	3/4" press union	3.0	2.9	-
521516AC	3/4" press union, check valves	3.0	3.0	-
521616A	1" press union	3.0	3.1	-
521616AC	1" press union, check valves	3.0	3.5	-



521 MixCal™ NPT

Adjustable thermostatic mixing valve for point of distribution applications. Complete with temperature gauge
Optional: Inlet check valves

Adjustable range: 85 – 150 °F
Max. inlet temperature: 200 °F
Max. working pressure: 200 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 1.0 GPM for optimal performance

Code	Description	Cv	Lbs	USD
521410A	1/2" NPT male union	3.0	2.9	-
521410AC	1/2" NPT male union, check valves	3.0	2.9	-
521510A	3/4" NPT male union	3.0	2.9	-
521510AC	3/4" NPT male union, check valves	3.0	2.9	-
521610A	1" NPT male union	3.0	2.9	-
521610AC	1" NPT male union, check valves	3.0	2.9	-



521 MixCal™ PEX

Adjustable thermostatic mixing valve for point of distribution applications. Complete with temperature gauge
Optional: Inlet check valves

Adjustable range: 85 – 150 °F
Max. inlet temperature: 200 °F
Max. working pressure: 200 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 1.0 GPM for optimal performance

Code	Description	Cv	Lbs	USD
521417A	1/2" PEX crimp union	3.0	2.5	-
521417AC	1/2" PEX crimp union, check valves	3.0	2.9	-
521418A	1/2" PEX expansion union	3.0	2.5	-
521418AC	1/2" PEX expansion union, check valves	3.0	2.9	-
521517A	3/4" PEX crimp union	3.0	2.5	-
521517AC	3/4" PEX crimp union, check valves	3.0	2.9	-
521518A	3/4" PEX expansion union	3.0	2.5	-
521518AC	3/4" PEX expansion union, check valves	3.0	2.9	-
521617A	1" PEX crimp union	3.0	2.5	-
521617AC	1" PEX crimp union, check valves	3.0	2.9	-
521618A	1" PEX expansion union	3.0	2.5	-
521618AC	1" PEX expansion union, check valves	3.0	2.9	-

Complies with: ASSE 1017 and CSA B125.3 performance standards, NSF/ANSI/CAN 372 for low lead/lead free materials requirements and IPC, IRC, UPC, NPC plumbing codes. Certified by ICC-ES.

HIGH FLOW THERMOSTATIC MIXING VALVES



5231 MixCal+™ NPT

Adjustable thermostatic mixing valve for high flow, point of distribution applications.

Adjustable range: 95 – 150 °F
Max. inlet temperature: 195 °F
Max. working pressure: 200 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 4.4 GPM for 1" and 1¼" models
- 8.8 GPM for 1½ and 2" models



5231 MixCal+™ sweat

Adjustable thermostatic mixing valve for high flow, point of distribution applications.
Complete with temperature gauge.

Adjustable range: 95 – 150 °F
Max. inlet temperature: 195 °F
Max. working pressure: 200 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 4.4 GPM for optimal performance

Code	Description	Cv	Lbs	USD
523160A	1" NPT male union	7.0	6.0	-
523170A	1¼" NPT male union	7.6	6.0	-
523180A	1½" NPT male union	13.0	11.0	-
523190A	2" NPT male union	14.2	12.0	-

Code	Description	Cv	Lbs	USD
523177A	1¼" sweat union	7.6	9.0	-



5231 MixCal+™ sweat

Adjustable thermostatic mixing valve for high flow, point of distribution applications.

Adjustable range: 95 – 150 °F
Max. inlet temperature: 195 °F
Max. working pressure: 200 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 4.4 GPM for 1" and 1¼" models
- 8.8 GPM for 1½ and 2" models



5231 MixCal+™ press

Adjustable thermostatic mixing valve for high flow, point of distribution applications.

Adjustable range: 95 – 150 °F
Max. inlet temperature: 195 °F
Max. working pressure: 200 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 4.4 GPM for 1" and 1¼" models
- 8.8 GPM for 1½ and 2" models

Code	Description	Cv	Lbs	USD
523168A	1" sweat union	7.0	6.0	-
523178A	1¼" sweat union	7.6	6.0	-
523188A	1½" sweat union	13.0	11.0	-
523198A	2" sweat union	14.2	12.0	-

Code	Description	Cv	Lbs	USD
523166A	1" press union	7.0	6.0	-
523176A	1¼" press union	7.6	6.0	-
523186A	1½" press union	13.0	11.0	-
523196A	2" press union	14.2	12.0	-

Complies with standards ASSE 1017, CSA B125.3, NSF/ANSI/CAN 372 and codes IPC, IRC, UPC, NPC. Certified by ICC-ES.

MIXCAL ACCESSORIES



521 MixCal™ Body

Replacement body for 521 MixCal.
See fitting selection in Section 13.

Code	Description	Cv	Lbs	USD
521101A	Replacement union body	3.0	1.9	-



Replacement for inlet tailpieces containing check valves.

Code	Description	Lbs	USD
NA10405	Replacement for PEX, press fittings	0.1	-
R39204	Replacement for sweat, NPT fittings	0.1	-



Replacement temperature gauge assembly.

Dual scale: 30 – 210 °F (0 – 100 °C)
Gauge accuracy: ± 1% FS
Gauge Size: 2" Diameter

Code	Description	Lbs	USD
NA10328	1/2" sweat assembly, incl. temp gauge	0.4	-
NA10056	3/4" sweat assembly, incl. temp gauge	0.4	-
NA10058	1" sweat assembly, incl. temp gauge	0.4	-
NA10358	1" union thread assembly, incl. temp gauge	0.4	-
688003A	Replacement gauge with pocket well	0.5	-
NA11031	Replacement temperature gauge	0.1	-
NA10498	Replacement tin plated pocket well	0.1	-



Conical filter for inlet tailpieces containing check valves.

Code	Description	Lbs	USD
F52429	Conical filter	0.1	-

MIXCAL+ ACCESSORIES



5231 MixCal+™ Body

Replacement body for 5231 MixCal+™.
Check compatibility in code description.
See fitting selection in Section 13.

Code	Description	Lbs	USD
523179A	For 1" and 1 1/4" sizes	7.6	-
523199A	For 1 1/2" and 2" sizes	14.2	-



Accessory stainless steel check valve assembly for hot or cold inlets.
Check description for compatibility.

Code	Description	Lbs	USD
NA10366	Fits 1" and 1 1/4" valve body	0.1	-
NA10367	Fits 1 1/2" and 2" valve body	0.1	-



Accessory temperature gauge assembly.

Dual scale: 30 – 210 °F (0 – 100 °C)
Gauge accuracy: ± 1% FS
Gauge Size: 2" Diameter

Code	Description	Lbs	USD
NA10315	1 1/4" sweat assembly	0.5	-
NA10476	For 1" and 1 1/4" sizes, MxF union	3.0	-
NA10461	For 1 1/2" and 2" sizes, MxF union	4.0	-
688003A	Replacement gauge with pocket well	0.2	-
NA11031	Replacement temperature gauge	0.2	-

Complies with standards ASSE 1017, CSA B125.3, NSF/ANSI/CAN 372 and codes IPC, IRC, UPC, NPC. Certified by ICC-ES.

ANGLE BODY THERMOSTATIC MIXING VALVES



520 AngleMix™ sweat

Adjustable angle body thermostatic mixing valve for point of distribution applications.
Optional: Inlet check valves.

Adjustable range: 95 – 150 °F
Max. inlet temperature: 195 °F
Max. working pressure: 150 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 0.5 GPM for optimal performance

Code	Description	Cv	Lbs	USD
520419A	½" sweat union	2.0	1.7	-
520419AC	½" sweat union, check valves	2.0	1.7	-
520519A	¾" sweat union	2.0	2.0	-
520519AC	¾" sweat union, check valves	2.0	2.1	-
520619A 001	1" sweat union	2.0	3.7	-
520619AC 001	1" sweat union, check valves	2.0	3.8	-



520 AngleMix™ press

Adjustable angle body thermostatic mixing valve for point of distribution applications.
Optional: Inlet check valves.

Adjustable range: 95 – 150 °F
Max. inlet temperature: 195 °F
Max. working pressure: 150 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 0.5 GPM for optimal performance

Code	Description	Cv	Lbs	USD
520416A	½" press union	2.0	1.7	-
520416AC	½" press union, check valves	2.0	1.7	-
520516A	¾" press union	2.0	2.0	-
520516AC	¾" press union, check valves	2.0	2.1	-
520616A 001	1" press union	2.0	3.7	-
520616AC 001	1" press union, check valves	2.0	3.8	-



520 AngleMix™ NPT

Adjustable angle body thermostatic mixing valve for point of distribution applications.
Optional: Inlet check valves.

Adjustable range: 95 – 150 °F
Max. inlet temperature: 195 °F
Max. working pressure: 150 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 0.5 GPM for optimal performance

Code	Description	Cv	Lbs	USD
520410A	½" NPT male union	2.0	1.7	-
520410AC	½" NPT male union, check valves	2.0	1.7	-
520510A	¾" NPT male union	2.0	2.0	-
520510AC	¾" NPT male union, check valves	2.0	2.1	-
520610A 001	1" NPT male union	2.0	3.7	-
520610AC 001	1" NPT male union, check valves	2.0	3.8	-



520 AngleMix™ PEX

Adjustable angle body thermostatic mixing valve for point of distribution applications.
Optional: Inlet check valves.

Adjustable range: 95 – 150 °F
Max. inlet temperature: 195 °F
Max. working pressure: 150 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 0.5 GPM for optimal performance

Code	Description	Cv	Lbs	USD
520414A	½" PEX crimp union	2.0	1.7	-
520414AC	½" PEX crimp union, check valves	2.0	1.7	-
520514A	¾" PEX crimp union	2.0	2.0	-
520514AC	¾" PEX crimp union, check valves	2.0	2.1	-
520614A 001	1" PEX crimp union	2.0	3.7	-
520614AC 001	1" PEX crimp union, check valves	2.0	3.8	-
520415A	½" PEX exp. union	2.0	1.7	-
520415AC	½" PEX exp. union, check valves	2.0	1.7	-
520515A	¾" PEX exp. union	2.0	2.0	-
520515AC	¾" PEX exp. union, check valves	2.0	2.1	-
520615A 001	1" PEX exp. union	2.0	3.7	-
520615AC 001	1" PEX exp. union, check valves	2.0	3.8	-

Complies with standards ASSE 1017, CSA B125.3, NSF/ANSI/CAN 372 and codes IPC, IRC, UPC, NPC. Certified by ICC-ES.

ANGLE BODY THERMOSTATIC MIXING VALVES



520 AngleMix™ DL

Dual Listed angle body thermostatic mixing valve.
Complies with ASSE 1070 & 1017.
Complete with inlet check valves.

Factory set temperature limited to 120°F
Max. inlet temperature: 195 °F
Max. working pressure: 150 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 0.5 GPM for optimal performance

Code	Description	Cv	Lbs	USD
520419AC DL	½" sweat union	2.0	1.8	-
520519AC DL	¾" sweat union	2.0	2.1	-
520619AC DL	1" sweat union	2.0	2.4	-
520410AC DL	½" NPT male union	2.0	1.8	-
520510AC DL	¾" NPT male union	2.0	2.1	-
520610AC DL	1" NPT male union	2.0	2.5	-
520416AC DL	½" press union	2.0	1.9	-
520516AC DL	¾" press union	2.0	2.1	-
520616AC DL	1" press union	2.0	2.4	-
520414AC DL	½" PEX crimp union	2.0	1.7	-
520514AC DL	¾" PEX crimp union	2.0	1.9	-
520614AC DL	1" PEX crimp union	2.0	2.4	-
520415AC DL	½" PEX exp. union	2.0	1.7	-
520515AC DL	¾" PEX exp. union	2.0	1.9	-
520615AC DL	1" PEX exp. union	2.0	2.5	-

Complies with standards ASSE 1017, CSA B125.3, NSF/ANSI/CAN 372 and codes IPC, IRC, UPC, NPC. Certified by ICC-ES. AngleMix™ DL also complies with ASSE 1070/ASME A112.1070/CSA B125.70, CSA B125.3.



520 AngleMix™+

Adjustable angle body thermostatic mixing valve for point of distribution applications.
Optional: Inlet check valves.

Adjustable range: 95 – 150 °F
Max. inlet temperature: 195 °F
Max. working pressure: 150 psi
Min. flow requirement:
- 0 GPM in recirculation applications
- 1 GPM for optimal performance

Code	Description	Cv	Lbs	USD
520619A	1" sweat union	3.5	3.7	-
520619AC	1" sweat union, check valves	3.5	3.8	-
520610A	1" NPT male union	3.5	3.9	-
520610AC	1" NPT male union, check valves	3.5	4.0	-
520616A	1" press union	3.5	3.7	-
520616AC	1" press union, check valves	3.5	3.9	-
520614A	1" PEX crimp union	3.5	3.5	-
520614AC	1" PEX crimp union, check valves	3.5	3.7	-
520615A	1" PEX exp. union	3.5	3.5	-
520615AC	1" PEX exp. union, check valves	3.5	3.7	-

ANGLEMIX, ANGLEMIX DL, ANGLEMIX+ ACCESSORIES



520 AngleMix™ Body

Replacement body for 520 AngleMix™ or 520 AngleMix™+.
Check compatibility in code description.
See fitting selection in Section 13.

Code	Description	Lbs	USD
520051A	AngleMix replacement body	1.3	-
520061A	AngleMix+ replacement body	2.5	-



Replacement check valves.
Check compatibility in code description.

Code	Description	Lbs	USD
NA10405*	Replacement for PEX, press fittings	0.1	-
R39204*	Replacement for sweat, NPT fittings	0.1	-
NA10117	Replacement for AngleMix+ fittings	0.1	-

*Compatible with AngleMix and AngleMix DL product codes.



Conical filter for inlet tailpieces containing check valves.

Code	Description	Lbs	USD
F0002455	Conical filter	0.5	-

*Compatible with AngleMix and AngleMix DL product codes.

THERMOSTATIC MIXING VALVE KITS



520 TankMixer™

Mixing valve kit for simple connection to tank water heaters.

Connection to appliance: 3/4" FNPT union
Adjustable range: 95 – 150 °F
Max. inlet temperature: 195 °F
Max. working pressure: 150 psi



520 TankMixer™ with gauge

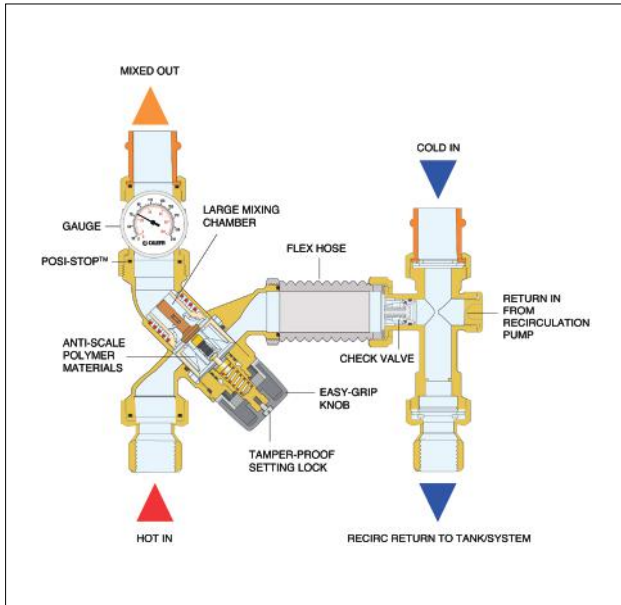
Mixing valve kit for simple connection to tank water heaters.

Connection to appliance: 3/4" FNPT union
Adjustable range: 95 – 150 °F
Max. inlet temperature: 195 °F
Max. working pressure: 150 psi

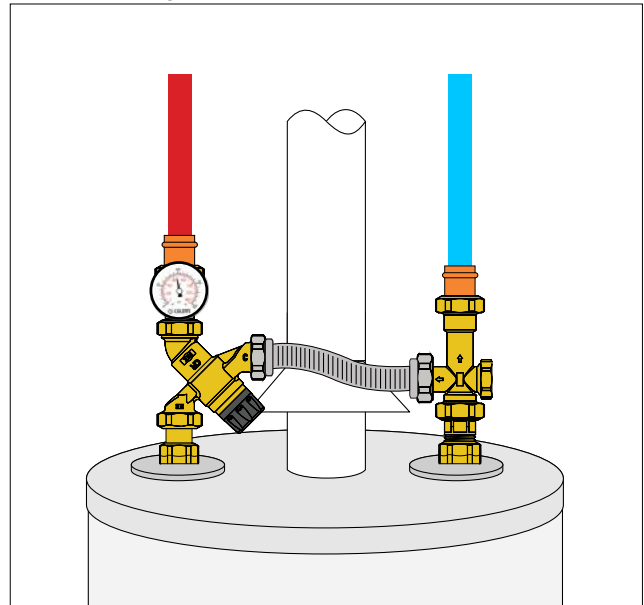
Code	Description	Cv	Lbs	USD
520500AX	3/4" NPT male union system connections	2.0	2.4	-
520506AX	3/4" press union system connections	2.0	2.4	-
520509AX	3/4" sweat union system connections	2.0	2.4	-

Code	Description	Cv	Lbs	USD
520510AX	3/4" NPT male union system connections	2.0	2.9	-
520516AX	3/4" press union system connections	2.0	2.9	-
520519AX	3/4" sweat union system connections	2.0	2.9	-

Construction details for 520 TankMixer™



Application Diagram for 520 TankMixer™



Complies with standards ASSE 1017, CSA B125.3, NSF/ANSI/CAN 372 and codes IPC, IRC, UPC, NPC. Certified by ICC-ES.

THERMOSTATIC MIXING VALVE KITS



520 TankMixer™ Compact

Mixing valve kit for heat pump or electric water heaters.

Complete with:

- Brass offset pivot connectors
- $\frac{3}{4}$ " port for expansion device

Connection to appliance: $\frac{3}{4}$ " FNPT union

Adjustable range: 95 – 150 °F

Max. inlet temperature: 195 °F

Max. working pressure: 150 psi

Code	Description	Cv	Lbs	USD
520519AP	$\frac{3}{4}$ " sweat union system connections	2.0	4.5	-
520510AP	$\frac{3}{4}$ " NPT male union system connections	2.0	4.5	-
520516AP	$\frac{3}{4}$ " press union system connections	2.0	4.5	-



520 TankMixer™ Compact Combi

Mixing valve kit for combi boilers.

Complete with:

- 290 Service valve kit (see section 12)
- Pressure relief valve
- Brass offset pivot connectors

Connection to appliance: $\frac{3}{4}$ " FNPT union

Adjustable range: 95 – 150 °F

Max. inlet temperature: 195 °F

Max. working pressure: 150 psi

Code	Description	Cv	Lbs	USD
KIT520510AP	$\frac{3}{4}$ " NPT male union system connections	2.0	5.0	-
KIT520516AP	$\frac{3}{4}$ " press union system connections	2.0	5.0	-
KIT520519AP	$\frac{3}{4}$ " sweat union system connections	2.0	5.0	-



520 TankMixer™ Combi

Mixing valve kit for combi boilers.

Complete with:

- 290 Service valve kit (see section 12)
- Pressure relief valve

Connection to appliance: $\frac{3}{4}$ " FNPT union

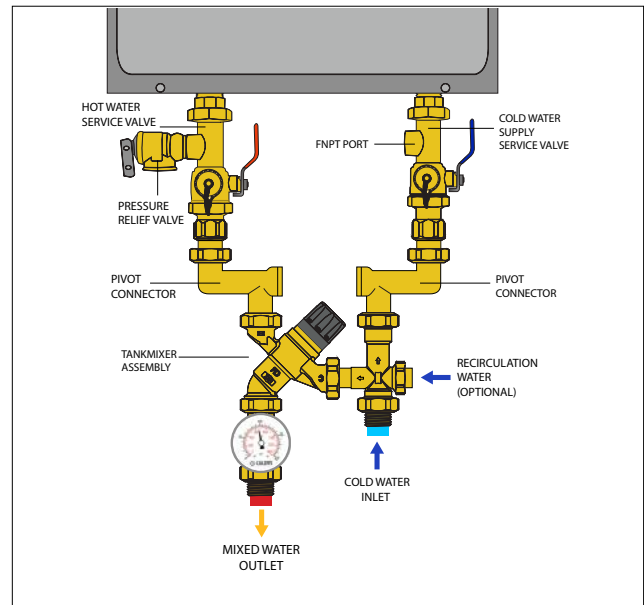
Adjustable range: 95 – 150 °F

Max. inlet temperature: 195 °F

Max. working pressure: 150 psi

Code	Description	Cv	Lbs	USD
KIT520510AX	$\frac{3}{4}$ " NPT male union system connections	2.0	5.0	-
KIT520516AX	$\frac{3}{4}$ " press union system connections	2.0	5.0	-
KIT520519AX	$\frac{3}{4}$ " sweat union system connections	2.0	5.0	-

Construction details for 520 TankMixer™



Complies with standards ASSE 1017, CSA B125.3, NSF/ANSI/CAN 372 and codes IPC, IRC, UPC, NPC. Certified by ICC-ES.

DIGITAL MIXING VALVES

6003 LEGIOMIX®evo sweat



Digital mixing valve for commercial domestic hot water applications, with optional thermal disinfection for Legionella control. Compatible with cloud and building automation systems. Color touchscreen user interface.

Adjustable range: 70 – 185 °F
Max. inlet temperature: 212 °F
Max. working pressure: 150 psi

Code	Description	Cv	Lbs	USD
600359AF*	¾" sweat union	9.7	5.1	-
600369AF 001*	1" sweat union, ¾" body	9.7	5.3	-
600369AF*	1" sweat union	21.0	7.3	-
600379AF*	1¼" sweat union	24.0	8.2	-
600389AF*	1½" sweat union	34.0	21.0	-
600399AF*	2" sweat union	48.0	22.0	-
600359A**	¾" sweat union	9.7	5.1	-
600369A 001**	1" sweat union, ¾" body	9.7	5.3	-
600369A**	1" sweat union	21.0	7.3	-
600379A**	1¼" sweat union	24.0	8.2	-
600389A**	1½" sweat union	34.0	21.0	-
600399A**	2" sweat union	48.0	22.0	-

*Models ending in AF = 0-10V fail safe actuator

**Models ending in A = 24V fail in place actuator

6003 LEGIOMIX®evo press



Digital mixing valve for commercial domestic hot water applications, with optional thermal disinfection for Legionella control. Compatible with cloud and building automation systems. Color touchscreen user interface.

Adjustable range: 70 – 185 °F
Max. inlet temperature: 212 °F
Max. working pressure: 150 psi

Code	Description	Cv	Lbs	USD
600356AF*	¾" press union	9.7	5.1	-
600366AF 001*	1" press union, ¾" body	9.7	5.3	-
600366AF*	1" press union	21.0	7.3	-
600376AF*	1¼" press union	24.0	8.2	-
600386AF*	1½" press union	34.0	21.0	-
600396AF*	2" press union	48.0	22.0	-
NA600356A**	¾" press union	9.7	5.1	-
600366A 001**	1" press union, ¾" body	9.7	5.3	-
600366A**	1" press union	21.0	7.3	-
600376A**	1¼" press union	24.0	8.2	-
600386A**	1½" press union	34.0	21.0	-
600396A**	2" press union	48.0	22.0	-

*Models ending in AF = 0-10V Fail Safe Actuator

**Models ending in A = 24V Fail in place Actuator

6003 LEGIOMIX®evo NPT



Digital mixing valve for commercial domestic hot water applications, with optional thermal disinfection for Legionella control. Compatible with cloud and building automation systems. Color touchscreen user interface.

Adjustable range: 70 – 185 °F
Max. inlet temperature: 212 °F
Max. working pressure: 150 psi

Code	Description	Cv	Lbs	USD
600354AF*	¾" NPT male union	9.7	5.1	-
600364AF 001*	1" NPT male union, ¾" body	9.7	5.3	-
600364AF*	1" NPT male union	21.0	7.3	-
600374AF*	1¼" NPT male union	24.0	8.2	-
600384AF*	1½" NPT male union	34.0	21.0	-
600394AF*	2" NPT male union	48.0	22.0	-
600354A**	¾" NPT male union	9.7	5.1	-
600364A 001**	1" NPT male union, ¾" body	9.7	5.3	-
600364A**	1" NPT male union	21.0	7.3	-
600374A**	1¼" NPT male union	24.0	8.2	-
600384A**	1½" NPT male union	34.0	21.0	-
600394A**	2" NPT male union	48.0	22.0	-

*Models ending in AF = 0-10V Fail Safe Actuator

**Models ending in A = 24V Fail in place Actuator

6003 LEGIOMIX®evo flange



Digital mixing valve for commercial domestic hot water applications, with optional thermal disinfection for Legionella control. Compatible with cloud and building automation systems. Color touchscreen user interface.

Adjustable range: 70 – 185 °F
Max. inlet temperature: 212 °F
Max. working pressure: 150 psi

Code	Description	Cv	Lbs	USD
600360AF*	2½" ANSI 150 flange	105.0	30.0	-
600380AF*	3" ANSI 150 flange	120.0	42.0	-
600360A**	2½" ANSI 150 flange	105.0	30.0	-
600380A**	3" ANSI 150 flange	120.0	42.0	-

*Models ending in AF = 0-10V Fail Safe Actuator

**Models ending in A = 0-10V Fail in place Actuator

Mixing valve is listed and certified by ASSE to standard 1017. Complies with NSF/ANSI/CAN 61 & 372. Listed and certified by ICC-ES. Complies with CSA B125.3, IPC, IRC UPC, NPC. Listed and certified by IAPMO R&T.

DIGITAL MIXING VALVES



6003 LEGIOMIX® evo Station

Includes digital mixing valve with union connections, serviceable check valves, recirculation connection and isolation valves, all mounted to a powder coated steel strut frame. Pre-wired mixed outlet, storage, and return temperature sensors, actuator, and 120/24 VAC plug in transformer with 20' power cord.

Code	Description	Cv	Lbs	USD
600366AFS	1" outlet wall-mount station	7.8	130.0	-
600376AFS	1¼" outlet wall-mount station	9.0	148.0	-
600386AFS	1½" outlet wall-mount station	20.0	219.0	-
600396AFS	2" outlet wall-mount station	38.0	248.0	-
600360AFS	2½" outlet wall-mount station	43.0	250.0	-
600380AFS	3" outlet wall-mount station NEW	46.0	265.0	-

Includes 0 - 10V Fail safe actuator

Mixing valve is listed and certified by ASSE to standard 1017. Complies with NSF/ANSI/CAN 61 & 372. Listed and certified by ICC-ES. Complies with CSA B125.3, IPC, IRC UPC, NPC. Listed and certified by IAPMO R&T.



6003 LEGIOMIX® evo Station + recirculation

Includes digital mixing valve with recirculation pump, union connections, serviceable check valves, recirculation pump and isolation valves, all mounted to a powder coated steel strut frame. Pre-wired mixed outlet, storage, and return temperature sensors, actuator, and 120/24 VAC plug in transformer with 20' power cord.

Code	Description	Cv	Lbs	USD
600366AFS 001	1" outlet with recirculation pump	7.8	137.0	-
600376AFS 001	1¼" outlet with recirculation pump	9.0	164.0	-
600386AFS 001	1½" outlet with recirculation pump	20.0	235.0	-
600396AFS 001	2" outlet with recirculation pump	38.0	264.0	-
600360AFS 001	2½" outlet with recirculation pump	43.0	266.0	-
600380AFS 001	3" outlet with recirculation pump	46.0	281.0	-

Includes 0 - 10V Fail safe actuator

DIGITAL MIXING VALVE ACCESSORIES



Replacement mixed outlet temperature sensor. Check description for compatibility.

Code	Description	Lbs	USD
F69807	For ¾", 1", 1¼" sizes	1.0	-
F69804	For 1½" and 2" sizes	1.0	-
F69381	For 2½" and 3" sizes	1.0	-



Replacement DHW storage temperature sensor. Compatible with LEGIOMIX®evo ONLY.

Code	Description	Lbs	USD
600003	Replacement DHW sensor	1.0	-



Replacement mixed outlet temperature gauge.

Code	Description	Lbs	USD
R19101	Replacement temperature gauge	0.3	-



Replacement recirculation temperature sensor.

Code	Description	Lbs	USD
F69591	Replacement recirculation sensor	1.0	-



Accessory stainless steel check valve assembly for hot or cold inlets. Check description for compatibility.

Code	Description	Lbs	USD
NA10366	Fits 1" and 1¼" valve body	1.0	-
NA10367	Fits 1½" and 2" valve body	1.5	-



Replacement digital mixing valve controller for LEGIOMIXevo assemblies.

Code	Description	Lbs	USD
F0007676	Replacement controller	1.5	-

DIGITAL MIXING VALVE ACCESSORIES



Accessory alarm indication station.
24 VAC power.
Includes visual and audible alert with silence button.

Compatible with LEGIOMIX®evo ONLY.

Code	Description	Lbs	USD
NA10979	Alarm indication station	1.1	-



Replacement plug-in transformer.

Code	Description	Lbs	USD
NA10759	Replacement plug-in transformer 20 VA	1.0	-



Accessory emergency shutoff valve.
24V, Normally closed actuator.

Compatible with LEGIOMIX®evo ONLY.

Code	Description	Lbs	USD
NA11655	¾" FNPT	8.1	-
NA11656	1" FNPT	8.6	-
NA11657	1¼" FNPT	9.2	-
NA11658	1½" FNPT	11.0	-
NA11659	2" FNPT	13.0	-
NA11660	2½" FNPT	21.0	-
NA11661	3" FNPT	26.0	-
NA10964*	Plug in transformer, 50 VA*	-	-

*Transformer required to power safety valve and alarm indication station



Replacement cable components.
Compatible with LEGIOMIX®evo ONLY.



Code	Description	Lbs	USD
F0007678	Terminal block parts kit	0.2	-
F0007680	Cable gland parts kit	0.2	-



Replacement actuator options:
- 0 - 10V Fail safe actuator
- 24V Floating fail in place actuator

Check description for compatibility.

Code	Description	Lbs	USD
645124	Fail safe; ¾" to 2" valves	1.0	-
600224	Fail safe; 2½" and 3" valves	1.0	-
645114	Fail in place; ¾" to 2" valves	1.0	-
600214	Fail in place; 2½" and 3" valves	1.0	-



Replacement valve body, includes gauge adapter.

Code	Description	Lbs	USD
NA10758	Body, gauge adapter (¾" valve)	3.5	-
NA10615	Body, gauge adapter (1", 1¼" valves)	5.1	-
NA10616	Body, gauge adapter (1½", 2" valves)	11	-

ELECTRONIC MIXING VALVES



6000 LEGIOMIX® sweat

Electronic mixing valve for commercial domestic hot water applications, with optional thermal disinfection for Legionella control.

Floating fail in place actuator.
Adjustable range: 70 – 185 °F
Max. inlet temperature: 212 °F
Max. working pressure: 150 psi



6000 LEGIOMIX® press

Electronic mixing valve for commercial domestic hot water applications, with optional thermal disinfection for Legionella control.

Floating fail in place actuator.
Adjustable range: 70 – 185 °F
Max. inlet temperature: 212 °F
Max. working pressure: 150 psi

Code	Description	Cv	Lbs	USD
600059A	¾" sweat union	9.7	5.1	-
600069A 001	1" sweat union, ¾" body	9.7	5.3	-
600069A	1" sweat union	21	7.3	-
600079A	1¼" sweat union	24	8.2	-
600089A	1½" sweat union	34	21	-
600099A	2" sweat union	48	22	-

Code	Description	Cv	Lbs	USD
600056A	¾" press union	9.7	5.1	-
600066A 001	1" press union, ¾" body	9.7	5.2	-
600066A	1" press union	21	7.3	-
600076A	1¼" press union	24	8.2	-
600086A	1½" press union	34	21	-
600096A	2" press union	48	22	-



6000 LEGIOMIX® NPT

Electronic mixing valve for commercial domestic hot water applications, with optional thermal disinfection for Legionella control.

Floating fail in place actuator.
Adjustable range: 70 – 185 °F
Max. inlet temperature: 212 °F
Max. working pressure: 150 psi



6000 LEGIOMIX® flange

Electronic mixing valve for commercial domestic hot water applications, with optional thermal disinfection for Legionella control.

Floating fail in place actuator.
Adjustable range: 70 – 185 °F
Max. inlet temperature: 212 °F
Max. working pressure: 150 psi

Code	Description	Cv	Lbs	USD
600054A	¾" NPT male union	9.7	5.1	-
600064A 001	1" NPT male union, ¾" body	9.7	5.3	-
600064A	1" NPT male union	21	7.3	-
600074A	1¼" NPT male union	24	8.2	-
600084A	1½" NPT male union	34	21	-
600094A	2" NPT male union	48	22	-

Code	Description	Cv	Lbs	USD
600060A	2½" ANSI 150 flange	105	30	-
600080A	3" ANSI 150 flange	120	42	-

Size	Recommended Flow Rates (gpm/lpm)						
	¾"	1"	1 ¼"	1½"	2"	2½"	3"
Minimum flow*	2.2 / 8.3	3.1 / 12	4.4 / 17	6.6 / 25	8.8 / 33	17 / 64	22 / 83
Design flow**	27 / 102	58 / 220	66 / 250	93 / 352	131 / 495	288 / 1,090	329 / 1,245
Flow at 20 psid	43 / 172	94 / 356	107 / 405	152 / 575	215 / 814	470 / 1,780	537 / 2,033
Cv	9.7	21	24	34	48	105	120

*To ensure stable operation and ± 3 °F accuracy. Minimum flow rate is 0 GPM when recirculation flow rate is greater than or equal to the valve size minimum flow rating.

**Suggested maximum flow rate for optimum modulating control at 7.5 psi pressure loss.

Complies with standards ASSE 1017, CSA B125.3, NSF/ANSI/CAN 372 and codes IPC, IRC, UPC, NPC. Certified by ICC-ES.

ELECTRONIC MIXING VALVE



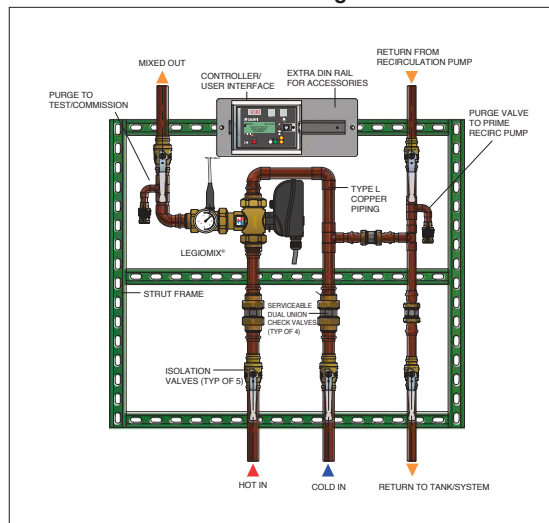
6000 LEGIOMIX® Station

Includes electronic mixing valve with union connections, serviceable check valves, recirculation connections and isolation valves, all mounted to a powder coated steel strut frame. Pre-wired mixed outlet and return temperature sensors, actuator, and 120/24 VAC plug in transformer with 20' power cord.

Code	Description	Cv	Lbs	USD
600066AS	1" outlet wall-mount station	7.8	130	-
600076AS	1¼" outlet wall-mount station	9.0	148	-
600086AS	1½" outlet wall-mount station	20	219	-
600096AS	2" outlet wall-mount station	38	248	-
600060AS	2½" outlet wall-mount station	43	250	-

Includes 24V Floating control fail in place actuator

Construction details for 6000 LegioMix® Station



ELECTRONIC MIXING VALVE ACCESSORIES



Replacement plug-in transformer.



Replacement mixed outlet temperature sensor. Check description for compatibility.

Code	Description	Lbs	USD
NA10759	Replacement plug-in transformer 20 VA	1.0	-

Code	Description	Lbs	USD
F69807	For ¾", 1", 1¼" sizes	1.0	-
F69804	For 1½" and 2" sizes	1.0	-
F69381	For 2½" and 3" sizes	1.0	-



Replacement parts bag for LEGIOMIX®. Compatible with LEGIOMIX® ONLY.



Replacement recirculation temperature sensor.

Code	Description	Lbs	USD
R0001397	Parts bag kit	0.2	-

Code	Description	Lbs	USD
F69591	Replacement recirculation sensor	1.0	-

ELECTRONIC MIXING VALVE ACCESSORIES



Replacement electronic mixing valve controller for LEGIOMIX® assemblies.

Code	Description	Lbs	USD
F0000962	Replacement controller	1.5	-



Accessory Modbus-to-BACnet gateway. Converts RS-485 serial output to BACNET IP or MSTP communication. Compatible with LEGIOMIX® ONLY.

Code	Description	Lbs	USD
755052	Modbus-to-BACnet gateway	1.2	-



Replacement valve body, includes gauge adapter.

Code	Description	Lbs	USD
NA10758	Body, gauge adapter (¾" valve)	3.5	-
NA10615	Body, gauge adapter (1", 1¼" valves)	5.1	-
NA10616	Body, gauge adapter (1½", 2" valves)	11	-



Accessory stainless steel check valve assembly for hot or cold inlets. Check description for compatibility.

Code	Description	Lbs	USD
NA10366	Fits 1" and 1¼" valve body	1.0	-
NA10367	Fits 1½" and 2" valve body	1.5	-



Replacement controller battery. Compatible with LEGIOMIX® ONLY.



Replacement 24V floating fail in place actuator. Check description for compatibility.

Code	Description	Lbs	USD
F69888	Replacement controller battery	0.1	-

Code	Description	Lbs	USD
645114	Fail in place; ¾" to 2" valves	1.0	-
600204	Fail in place; 2½" and 3" valves	1.0	-



Replacement mixed outlet temperature gauge.

Code	Description	Lbs	USD
R19101	Replacement temperature gauge	0.3	-

SCALD PROTECTION THERMOSTATIC MIXING VALVES



5213 TubMixer™

Adjustable thermostatic mixing valve for high flow point-of-use scald protection. Complete with inlet check valves.

Adjustable range: 85 – 120 °F
Max. inlet temperature: 185 °F
Max. working pressure: 150 psi
Min. flow requirement:
- 0.5 GPM for optimal performance



5213 TubMixer™ with gauge

Adjustable thermostatic mixing valve for high flow point-of-use scald protection. Complete with inlet check valves and temperature gauge.

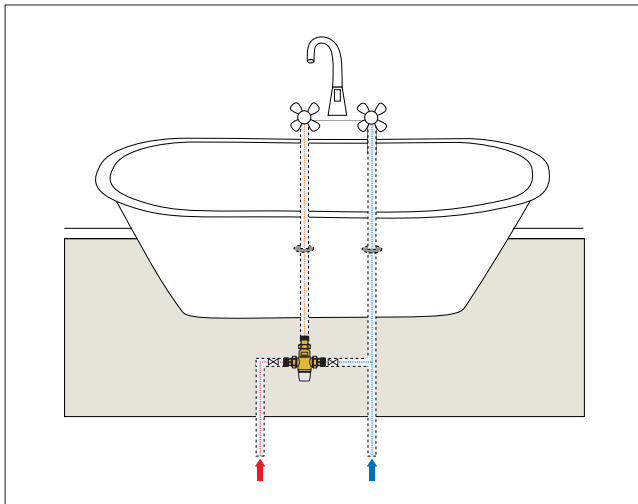
Adjustable range: 85 – 120 °F
Max. inlet temperature: 185 °F
Max. working pressure: 150 psi
Min. flow requirement:
- 0.5 GPM for optimal performance

Code	Description	Cv	Lbs	USD
521333A	3/8" compression union	2.0	2.0	-
521342A	1/2" NPT male union	2.0	2.0	-
521346A	1/2" press union	2.0	2.0	-
521347A	1/2" PEX crimp union	2.0	2.0	-
521348A	1/2" PEX expansion union	2.0	2.0	-
521349A	1/2" sweat union	2.0	2.0	-
521352A	3/4" NPT male union	2.0	2.0	-
521356A	3/4" press union	2.0	2.0	-
521357A	3/4" PEX crimp union	2.0	2.0	-
521358A	3/4" PEX expansion union	2.0	2.0	-
521359A	3/4" sweat union	2.0	2.0	-
521362A	1" NPT male union	2.0	2.0	-
521366A	1" press union	2.0	2.0	-
521367A	1" PEX crimp union	2.0	2.0	-
521368A	1" PEX expansion union	2.0	2.0	-
521369A	1" sweat union	2.0	2.0	-
521301A*	Replacement body, no fittings	2.0	1.5	-

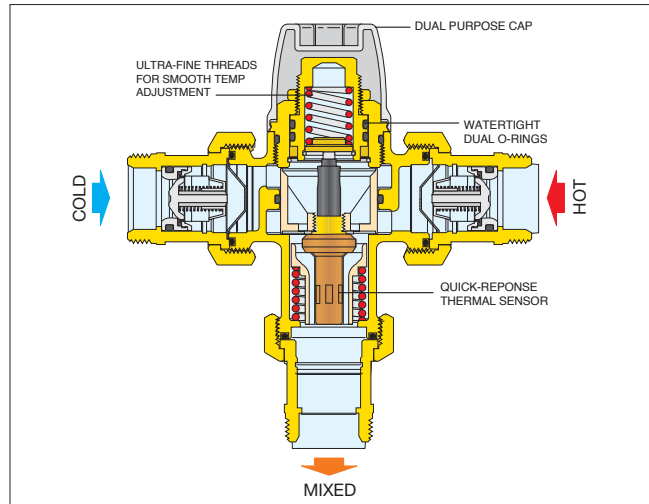
Code	Description	Cv	Lbs	USD
521333A 002	3/8" compression union	2.0	2.1	-
521342A 002	1/2" NPT male union	2.0	2.1	-
521346A 002	1/2" press union	2.0	2.1	-
521347A 002	1/2" PEX crimp union	2.0	2.1	-
521348A 002	1/2" PEX expansion union	2.0	2.1	-
521349A 002	1/2" sweat union	2.0	2.1	-
521352A 002	3/4" NPT male union	2.0	2.1	-
521356A 002	3/4" press union	2.0	2.1	-
521357A 002	3/4" PEX crimp union	2.0	2.1	-
521358A 002	3/4" PEX expansion union	2.0	2.1	-
521359A 002	3/4" sweat union	2.0	2.1	-
521362A 002	1" NPT male union	2.0	2.1	-
521366A 002	1" press union	2.0	2.1	-
521367A 002	1" PEX crimp union	2.0	2.1	-
521368A 002	1" PEX expansion union	2.0	2.1	-
521369A 002	1" sweat union	2.0	2.1	-

*See fitting selection in Section 13.

Application diagram



Construction details for 5213 TubMixer™



Complies with standards ASSE 1070/ASME A112.1070/CSA B125.70, CSA B125.3, NSF/ANSI/CAN 372 and codes IPC, IRC, UPC, NPC. Certified by ICC-ES.

SCALD PROTECTION THERMOSTATIC MIXING VALVES



5212 SinkMixer™ 4-way

Adjustable thermostatic mixing valve for under sink scald protection. Complete with inlet check valves.

Adjustable range: 95 – 120 °F
Max. inlet temperature: 195 °F
Max. working pressure: 150 psi
Min. flow requirement:
- 0.35 GPM for optimal performance



5212 SinkMixer™ 3-way

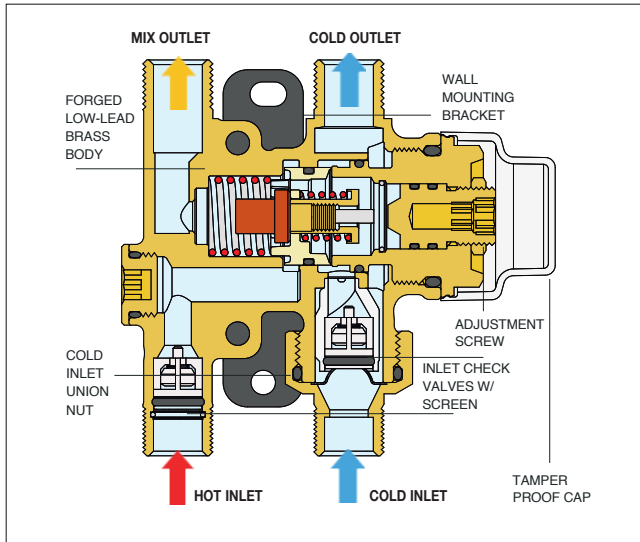
Adjustable thermostatic mixing valve for under sink scald protection. Complete with inlet check valves.

Adjustable range: 95 – 120 °F
Max. inlet temperature: 195 °F
Max. working pressure: 150 psi
Min. flow requirement:
- 0.35 GPM for optimal performance

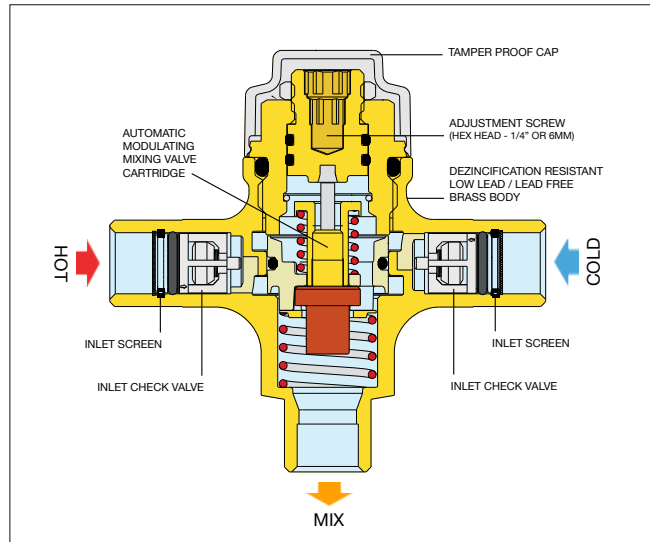
Code	Description	Cv	Lbs	USD
521201A	3/8" compression	0.52	1.0	-
521201AP	3/8" compression, plug/fittings	0.52	1.1	-

Code	Description	Cv	Lbs	USD
521204A	3/8" compression, plugs/fittings	0.52	0.9	-

Construction details 5212 SinkMixer™ (4-way)



Construction details 5212 SinkMixer™ (3-way)



Accessory plug/nut fitting kit for compression fittings.



Replacement check valve and filter for SinkMixer™ product codes.

Code	Description	Lbs	USD
NA10741	5-pack plug/nut fitting kit	0.2	-

Code	Description	Lbs	USD
F0001270	Replacement check valve/filter kit	0.1	-

Complies with standards ASSE 1070/ASME A112.1070/CSA B125.70, CSA B125.3, NSF/ANSI/CAN 61 (Commercial Hot 180 °F), NSF/ANSI/CAN 372 and codes IPC, IRC, UPC, NPC. Certified by ICC-ES.



www.caleffi.com

CALEFFI
Hydronic Solutions

THERMOSETTER™

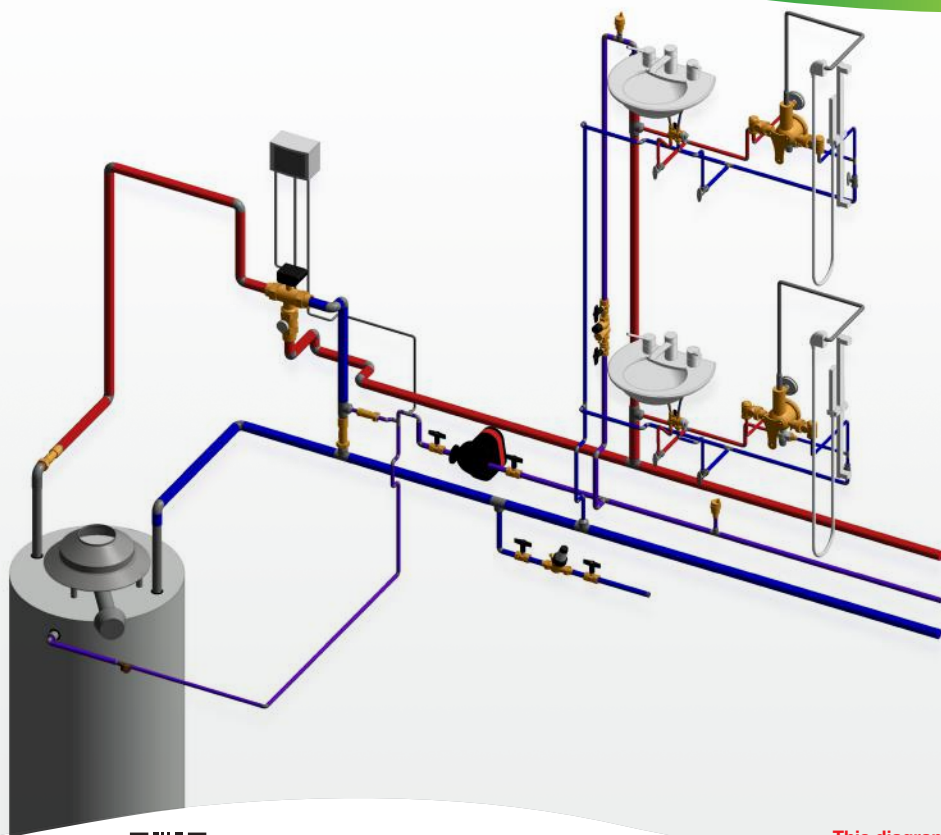
THERMAL BALANCING IN TEMPERATURE MIXING



The flow rate might change, but the temperature won't with the **ThermoSetter™** thermal balancing valves. They modulate to maintain precise temperature in DHW recirculation return piping. Models with bypass cartridges are available for **legionella bacteria management**. Factory-assembled kits ensure easy ordering. **CALEFFI GUARANTEED.**

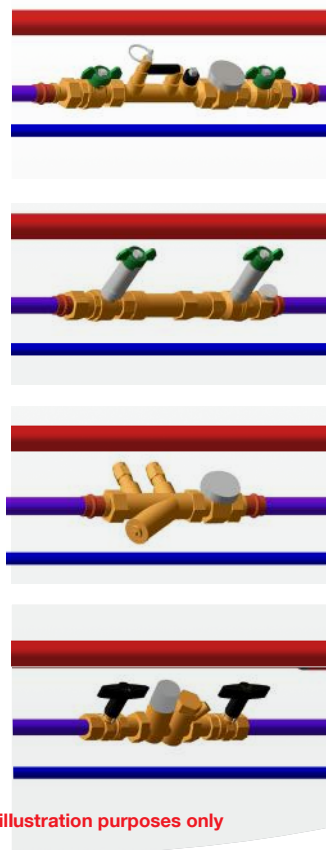


BALANCING VALVES



Diagrams made with BIM families: bim.caleffi.com

This diagram is for illustration purposes only



PRODUCTS INCLUDED IN SECTION

- Static balancing valves with built-in flowmeter
- Static balancing valves (fixed orifice)
- Static balancing valves (variable orifice)
- Dynamic balancing valves
- Compact thermal balancing valves
- Thermal balancing valves

STATIC BALANCING VALVES WITH BUILT-IN FLOWMETER



132 QuickSetter+™ sweat

Adjustable static balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Built-in flow meter for direct reading
- Inlet check valve

Fluid temperature range: 14 – 230 °F
Max. working pressure: 150 psi
Max. percentage of glycol: 50%



132 QuickSetter+™ sweat

Adjustable static balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Built-in flow meter for direct reading
- Inlet check valve
- Outlet temperature gauge

Fluid temperature range: 14 – 230 °F
Max. working pressure: 150 psi
Max. percentage of glycol: 50%

Code	Description	Flow scale (gpm)	Lbs	USD
132439AFC	½" sweat union	0.5—1.8	1.8	-
132539AFC	¾" sweat union	0.5—1.8	2.0	-
132639AFC	1" sweat union	0.5—1.8	2.4	-
132459AFC	½" sweat union	2.0—7.0	1.8	-
132559AFC	¾" sweat union	2.0—7.0	2.0	-
132659AFC	1" sweat union	2.0—7.0	2.4	-

Code	Description	Flow scale (gpm)	Lbs	USD
132438AFC	½" sweat union	0.5—1.8	2.4	-
132538AFC	¾" sweat union	0.5—1.8	2.6	-
132638AFC	1" sweat union	0.5—1.8	2.8	-
132458AFC	½" sweat union	2.0—7.0	2.4	-
132558AFC	¾" sweat union	2.0—7.0	2.6	-
132658AFC	1" sweat union	2.0—7.0	2.8	-



132 QuickSetter+™ press

Adjustable static balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Built-in flow meter for direct reading
- Inlet check valve

Fluid temperature range: 14 – 230 °F
Max. working pressure: 150 psi
Max. percentage of glycol: 50%



132 QuickSetter+™ press

Adjustable static balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Built-in flow meter for direct reading
- Inlet check valve
- Outlet temperature gauge

Fluid temperature range: 14 – 230 °F
Max. working pressure: 150 psi
Max. percentage of glycol: 50%

Code	Description	Flow scale (gpm)	Lbs	USD
132436AFC	½" press union	0.5—1.8	1.8	-
132536AFC	¾" press union	0.5—1.8	1.8	-
132636AFC	1" press union	0.5—1.8	2.2	-
132456AFC	½" press union	2.0—7.0	1.8	-
132556AFC	¾" press union	2.0—7.0	1.8	-
132656AFC	1" press union	2.0—7.0	2.2	-

Code	Description	Flow scale (gpm)	Lbs	USD
132437AFC	½" press union	0.5—1.8	1.8	-
132537AFC	¾" press union	0.5—1.8	2.2	-
132637AFC	1" press union	0.5—1.8	2.6	-
132457AFC	½" press union	2.0—7.0	1.8	-
132557AFC	¾" press union	2.0—7.0	2.2	-
132657AFC	1" press union	2.0—7.0	2.6	-

Connection size	Recommended Flow Rates					
	½"	¾"	1"	½"	¾"	1"
Flow rate (gpm)	0.5—1.8	0.5—1.8	0.5—1.8	2.0—7.0	2.0—7.0	2.0—7.0
Fully open Cv	1	1	1	6.3	6.3	6.3

Complies with standard NSF/ANSI/CAN 372. Certified by ICC-ES.

STATIC BALANCING VALVES WITH BUILT-IN FLOWMETER



132 QuickSetter+™ NPT

Adjustable static balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Built-in flow meter for direct reading
- Inlet check valve

Fluid temperature range: 14 – 230 °F
Max. working pressure: 150 psi
Max. percentage of glycol: 50%



132 QuickSetter+™ NPT

Adjustable static balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Built-in flow meter for direct reading
- Inlet check valve
- Outlet temperature gauge

Fluid temperature range: 14 – 230 °F
Max. working pressure: 150 psi
Max. percentage of glycol: 50%

Code	Description	Flow scale (gpm)	Lbs	USD
132430AFC	½" NPT male union	0.5—1.8	1.8	-
132530AFC	¾" NPT male union	0.5—1.8	2.0	-
132630AFC	1" NPT male union	0.5—1.8	2.4	-
132450AFC	½" NPT male union	2.0—7.0	1.8	-
132550AFC	¾" NPT male union	2.0—7.0	2.0	-
132650AFC	1" NPT male union	2.0—7.0	2.4	-

Code	Description	Flow scale (gpm)	Lbs	USD
132431AFC	½" NPT male union	0.5—1.8	2.4	-
132531AFC	¾" NPT male union	0.5—1.8	2.6	-
132631AFC	1" NPT male union	0.5—1.8	2.8	-
132451AFC	½" NPT male union	2.0—7.0	2.4	-
132551AFC	¾" NPT male union	2.0—7.0	2.6	-
132651AFC	1" NPT male union	2.0—7.0	2.8	-



132 QuickSetter+™ PEX

Adjustable static balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Built-in flow meter for direct reading
- Inlet check valve

Fluid temperature range: 14 – 230 °F
Max. working pressure: 150 psi
Max. percentage of glycol: 50%



132 QuickSetter+™ PEX

Adjustable static balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Built-in flow meter for direct reading
- Inlet check valve
- Outlet temperature gauge

Fluid temperature range: 14 – 230 °F
Max. working pressure: 150 psi
Max. percentage of glycol: 50%

Code	Description	Flow scale (gpm)	Lbs	USD
132434AFC	½" PEX crimp union	0.5—1.8	1.8	-
132432AFC	½" PEX expansion union	0.5—1.8	1.8	-
132534AFC	¾" PEX crimp union	0.5—1.8	2.0	-
132532AFC	¾" PEX expansion union	0.5—1.8	2.0	-
132634AFC	1" PEX crimp union	0.5—1.8	2.2	-
132632AFC	1" PEX expansion union	0.5—1.8	2.2	-
132454AFC	½" PEX crimp union	2.0—7.0	1.8	-
132452AFC	½" PEX expansion union	2.0—7.0	1.8	-
132554AFC	¾" PEX crimp union	2.0—7.0	2.0	-
132552AFC	¾" PEX expansion union	2.0—7.0	2.0	-
132654AFC	1" PEX crimp union	2.0—7.0	2.2	-
132652AFC	1" PEX expansion union	2.0—7.0	2.2	-

Code	Description	Flow scale (gpm)	Lbs	USD
132435AFC	½" PEX crimp union	0.5—1.8	2.2	-
132433AFC	½" PEX expansion union	0.5—1.8	2.2	-
132535AFC	¾" PEX crimp union	0.5—1.8	2.4	-
132533AFC	¾" PEX expansion union	0.5—1.8	2.4	-
132635AFC	1" PEX crimp union	0.5—1.8	2.6	-
132633AFC	1" PEX expansion union	0.5—1.8	2.6	-
132455AFC	½" PEX crimp union	2.0—7.0	2.2	-
132453AFC	½" PEX expansion union	2.0—7.0	2.2	-
132555AFC	¾" PEX crimp union	2.0—7.0	2.4	-
132553AFC	¾" PEX expansion union	2.0—7.0	2.4	-
132655AFC	1" PEX crimp union	2.0—7.0	2.6	-
132653AFC	1" PEX expansion union	2.0—7.0	2.6	-

Complies with standard NSF/ANSI/CAN 372. Certified by ICC-ES.

STATIC BALANCING VALVES WITH BUILT-IN FLOWMETER



132 QuickSetter™ press

Adjustable static balancing valve.
Brass body for use in hydronic applications.
Complete with:
- Built-in flow meter for direct reading
- Insulation jacket

Fluid temperature range: 14 – 230 °F
Max. working pressure: 150 psi
Max. percentage of glycol: 50%

Code	Description	Flow scale (gpm)	Lbs	USD
132436A	1/2" press	0.5 – 1.8	2.2	-
132556A	3/4" press	2.0 – 7.0	2.0	-
132666A	1" press	3.0 – 10	2.4	-
132776A	1 1/4" press	5.0 – 19	2.8	-
132886A	1 1/2" press	8.0 – 32	3.4	-
132996A	2" press	12 – 50	4.4	-



132 QuickSetter™

Adjustable static balancing valve.
Brass body for use in hydronic applications.
Complete with:
- Built-in flow meter for direct reading
- Insulation jacket

Fluid temperature range: 14 – 230 °F
Max. working pressure: 150 psi
Max. percentage of glycol: 50%

Code	Description	Flow scale (gpm)	Lbs	USD
132432A	1/2" FNPT	0.5 – 1.8	2.0	-
132552A	3/4" FNPT	2.0 – 7.0	1.8	-
132662A	1" FNPT	3.0 – 10	2.4	-
132772A	1 1/4" FNPT	5.0 – 19	2.8	-
132882A	1 1/2" FNPT	8.0 – 32	3.4	-
132992A	2" FNPT	12 – 50	4.4	-

Connection size	Recommended Flow Rates					
	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Flow rate (gpm)	0.5 – 1.8	2.0 – 7.0	3.0 – 10	5.0 – 19	8.0 – 32	12 – 50
Fully open Cv	3	6.3	8.3	15	32	54



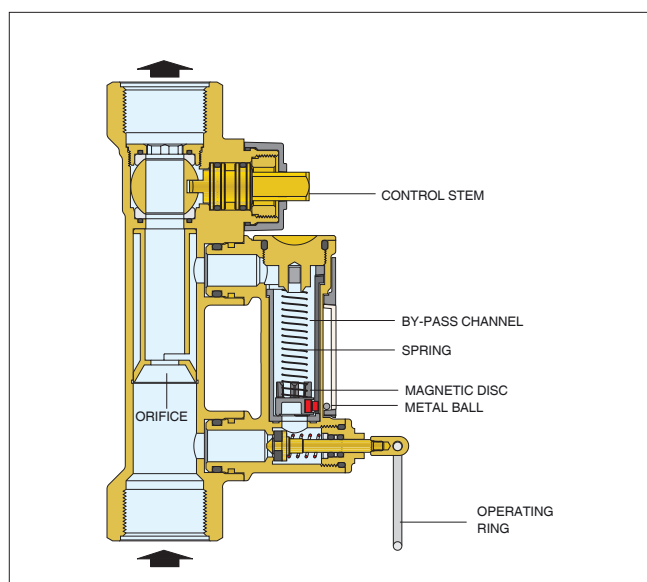
132 QuickSetter™ flange

Adjustable static balancing valve.
Cast iron body for use in hydronic applications.
Complete with:
- Built-in flow meter for direct reading

Fluid temperature range: 14 – 230 °F
Max. working pressure: 150 psi
Max. percentage of glycol: 50%

Code	Description	Flow scale (gpm)	Lbs	USD
132060A	2 1/2" ANSI 125 flange	30 – 105	35	-
132080A	3" ANSI 125 flange	38 – 148	62	-
132100A	4" ANSI 125 flange	55 – 210	67	-

Construction details for 132 QuickSetter™



QUICKSETTER ACCESSORIES



Compatible with QuickSetter FNPT codes.
Full port ball valve with extended handle.
Low-lead/lead free brass.
Compatible nipples found in section 12.

Code	Description	Lbs	USD
NA10824	½" FNPT ball valve	0.4	-
NA10825	¾" FNPT ball valve	0.6	-
NA10826	1" FNPT ball valve	1.0	-
NA10827	1¼" FNPT ball valve	1.6	-
NA10828	1½" FNPT ball valve	1.9	-
NA10829	2" FNPT ball valve	3.0	-



Insulation jackets for QuickSetter+ and QuickSetter.

Code	Description	Lbs	USD
F0000926	For QuickSetter+ union models	0.1	-
112001	For ½", ¾" QuickSetter	0.1	-
112003	For 1" QuickSetter	0.1	-
F0002097	For 1¼" QuickSetter	0.1	-
F0002098	For 1½" QuickSetter	0.1	-
F0002099	For 2" QuickSetter	0.1	-



Union isolation ball valves.
Compatible with QuickSetter+.

Code	Description	Lbs	USD
290030	1" M x 1" F union ball valve	1.0	-
290031*	1" M x 1" F union ball valve	1.0	-

*With extended handle



Quicksetter+ and QuickSetter replacement flow meter.

Code	Description	Lbs	USD
F0000940	Replacement flow meter 0.5 to 1.8 GPM	0.2	-
F0000941	Replacement flow meter 2.0 to 7.0 GPM	0.2	-
F0000942	Replacement flow meter 3.0 to 10 GPM	0.2	-
F0000943	Replacement flow meter 5.0 to 19 GPM	0.2	-
F0000944	Replacement flow meter 8.0 to 32 GPM	0.2	-
F0000945	Replacement flow meter 12 to 50 GPM	0.2	-
F0000946	Replacement flow meter 30 to 105GPM	0.2	-
F0000947	Replacement flow meter 38 to 148 GPM	0.2	-
F0000948	Replacement flow meter 55 to 210 GPM	0.2	-
F19346*	Replacement by-pass valve stem	0.2	-

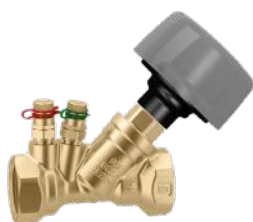
*With operating ring pull



QuickSetter+ replacement bodies.
See fitting selection in Section 13.

Code	Description	Lbs	USD
132637	Replacement body 0.5 - 1.8 GPM	1.0	-
132657	Replacement body 2.0 - 7.0 GPM	1.0	-

STATIC BALANCING VALVES (FIXED ORIFICE)



130 Flo-Set™ Fixed Orifice Balancing Valve

Adjustable static balancing valve.
Fixed orifice design.
Low-lead/lead free DZR brass body.

Complete with:

- Multi-turn adjustment knob
- Memory stop function
- PT ports

Fluid temperature range: -4 – 250 °F
Max. working pressure: 232 psi
Max. percentage of glycol: 50%



Accessory insulation jacket, compatible with 130 Flo-Set™.

Code	Description	Max Cv	Lbs	USD
130400A	½" FNPT	3.7	1.0	-
130500A	¾" FNPT	5.1	1.2	-
130600A	1" FNPT	8.8	1.5	-
130700A	1¼" FNPT	14	2.0	-
130800A	1½" FNPT	20	2.3	-
130900A	2" FNPT	31	2.5	-

Complies with standard NSF/ANSI/CAN 372. Certified by ICC-ES.

Code	Description	Lbs	USD
CBN130400	Fits ½" FNPT	0.1	-
CBN130500	Fits ¾" FNPT	0.1	-
CBN130600	Fits 1" FNPT	0.1	-
CBN130700	Fits 1¼" FNPT	0.1	-
CBN130800	Fits 1½" FNPT	0.1	-
CBN130900	Fits 2" FNPT	0.1	-

STATIC BALANCING VALVES (VARIABLE ORIFICE)



142 Flo-Set™ Variable Orifice Balancing Valve

Adjustable static balancing valve.
Variable orifice.
Low-lead/lead free DZR brass body.

Complete with:

- Memory stop function
- PT ports

Fluid temperature range: 14 – 250 °F
Max. working pressure: 232 psi
Max. percentage of glycol: 50%



Accessory insulation jacket, compatible with 142 Flo-Set™.

Code	Description	Max Cv	Lbs	USD
142241A	½" FNPT	3.4	1.0	-
142251A	¾" FNPT	5.0	1.2	-
142261A	1" FNPT	7.5	1.5	-
142271A	1¼" FNPT	13	2.3	-
142281A	1½" FNPT	17	3.0	-
142291A	2" FNPT	22	3.5	-

Complies with standard NSF/ANSI/CAN 372. Certified by ICC-ES.

Code	Description	Lbs	USD
CBN142241A	Fits ½" FNPT	0.1	-
CBN142251A	Fits ¾" FNPT	0.1	-
CBN142261A	Fits 1" FNPT	0.1	-
CBN142271A	Fits 1¼" FNPT	0.1	-
CBN142281A	Fits 1½" FNPT	0.1	-

DYNAMIC BALANCING VALVES



128 FlowCal+™ sweat

Y-body automatic balancing valve.
Low-lead/lead free DZR brass body.
Patented anti-scale, low noise cartridge.
Complete as shown with:

- Inlet check valve
- Outlet temperature gauge
- PT ports

Fluid temperature range: 32 – 212 °F
Max. working pressure: 400 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%)



128 FlowCal+™ press

Y-body automatic balancing valve.
Low-lead/lead free DZR brass body.
Patented anti-scale, low noise cartridge.
Complete as shown with:

- Inlet check valve
- Outlet temperature gauge
- PT ports

Fluid temperature range: 32 – 212 °F
Max. working pressure: 400 psi
Max percentage of glycol: 50%
Flow rates: 0.35 – 10 GPM (± 10%)

Code	Description	Lbs	USD
128448AFC***	1/2" sweat union	2.0	-
128458AFC***	3/4" sweat union	2.0	-
128468AFC***	1" sweat union	2.2	-

***: Select desired flow rate on page 81 to complete orderable part number

Code	Description	Lbs	USD
128447AFC***	1/2" press union	2.0	-
128457AFC***	3/4" press union	2.0	-
128467AFC***	1" press union	2.2	-

***: Select desired flow rate on page 81 to complete orderable part number



128 FlowCal+™ PEX

Y-body automatic balancing valve.
Low-lead/lead free DZR brass body.
Patented anti-scale, low noise cartridge.
Complete as shown with:

- Inlet check valve
- Outlet temperature gauge
- PT ports

Fluid temperature range: 32 – 212 °F
Max. working pressure: 400 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%)



128 FlowCal+™ NPT

Y-body automatic balancing valve.
Low-lead/lead free DZR brass body.
Patented anti-scale, low noise cartridge.
Complete as shown with:

- Inlet check valve
- Outlet temperature gauge
- PT ports

Fluid temperature range: 32 – 212 °F
Max. working pressure: 400 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%)

Code	Description	Lbs	USD
128445AFC***	1/2" PEX crimp union	2.0	-
128455AFC***	3/4" PEX crimp union	2.0	-
128465AFC***	1" PEX crimp union	2.2	-
128443AFC***	1/2" PEX expansion union	2.0	-
128453AFC***	3/4" PEX expansion union	2.0	-
128463AFC***	1" PEX expansion union	2.2	-

***: Select desired flow rate on page 81 to complete orderable part number

Code	Description	Lbs	USD
128440AFC***	1/2" NPT male union	2.0	-
128450AFC***	3/4" NPT male union	2.0	-
128460AFC***	1" NPT male union	2.2	-

***: Select desired flow rate on page 81 to complete orderable part number

Complies with standard NSF/ANSI/CAN 372. Certified by ICC-ES.

DYNAMIC BALANCING VALVES



128 FlowCal+™ sweat

Y-body automatic balancing valve.
Low-lead/lead free DZR brass body.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- Inlet check valve
- PT ports

Fluid temperature range: 32 – 212 °F
Max. working pressure: 400 psi
Max percentage of glycol: 50%
Flow rates: 0.35 – 10 GPM (± 10%)



128 FlowCal+™ press

Y-body automatic balancing valve.
Low-lead/lead free DZR brass body.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- Inlet check valve
- PT ports

Fluid temperature range: 32 – 212 °F
Max. working pressure: 400 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%)

Code	Description	Lbs	USD
128449AFC***	1/2" sweat union	1.8	-
128459AFC***	3/4" sweat union	1.8	-
128469AFC***	1" sweat union	2.0	-

***: Select desired flow rate on page 81 to complete orderable part number

Code	Description	Lbs	USD
128446AFC***	1/2" press union	1.8	-
128456AFC***	3/4" press union	1.8	-
128466AFC***	1" press union	2.0	-

***: Select desired flow rate on page 81 to complete orderable part number



128 FlowCal+™ PEX

Y-body automatic balancing valve.
Low-lead/lead free DZR brass body.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- Inlet check valve
- PT ports

Fluid temperature range: 32 – 212 °F
Max. working pressure: 400 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%)



128 FlowCal+™ NPT

Y-body automatic balancing valve.
Low-lead/lead free DZR brass body.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- Inlet check valve
- PT ports

Fluid temperature range: 32 – 212 °F
Max. working pressure: 400 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%)

Code	Description	Lbs	USD
128444AFC***	1/2" PEX crimp union	1.8	-
128454AFC***	3/4" PEX crimp union	1.8	-
128464AFC***	1" PEX crimp union	2.0	-
128442AFC***	1/2" PEX expansion union	1.8	-
128452AFC***	3/4" PEX expansion union	1.8	-
128462AFC***	1" PEX expansion union	2.0	-

***: Select desired flow rate on page 81 to complete orderable part number

Code	Description	Lbs	USD
128441AFC***	1/2" NPT male union	1.8	-
128451AFC***	3/4" NPT male union	1.8	-
128461AFC***	1" NPT male union	2.0	-

***: Select desired flow rate on page 81 to complete orderable part number

Complies with standard NSF/ANSI/CAN 372. Certified by ICC-ES.

DYNAMIC BALANCING VALVES



128 FlowCal™ sweat

Y-body automatic balancing valve.
Low-lead/lead free DZR brass body.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- PT ports

Fluid temperature range: 32 – 212 °F
Max. working pressure: 400 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%)



128 FlowCal™ NPT

Y-body automatic balancing valve.
Low-lead/lead free DZR brass body.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- PT ports

Fluid temperature range: 32 – 212 °F
Max. working pressure: 400 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%)

Code	Description	Lbs	USD
128549AF***	1/2" sweat union	1.8	-
128559AF***	3/4" sweat union	2.0	-
128569AF***	1" sweat union	2.2	-

***: Select desired flow rate on page 81 to complete orderable part number

Code	Description	Lbs	USD
128541AF***	1/2" NPT male union	2.0	-
128551AF***	3/4" NPT male union	2.1	-
128561AF***	1" NPT male union	2.2	-

***: Select desired flow rate on page 81 to complete orderable part number



128 FlowCal™ PEX

Y-body automatic balancing valve.
Low-lead/lead free DZR brass body.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- PT ports

Fluid temperature range: 32 – 212 °F
Max. working pressure: 400 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%)



128 FlowCal™ press

Y-body automatic balancing valve.
Low-lead/lead free DZR brass body.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- PT ports

Fluid temperature range: 32 – 212 °F
Max. working pressure: 400 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%)

Code	Description	Lbs	USD
128544AF***	1/2" PEX crimp	2.0	-
128554AF***	3/4" PEX crimp	2.1	-
128564AF***	1" PEX crimp	2.2	-
128542AF***	1/2" PEX expansion	2.0	-
128552AF***	3/4" PEX expansion	2.1	-
128562AF***	1" PEX expansion	2.2	-

***: Select desired flow rate on page 81 to complete orderable part number

Code	Description	Lbs	USD
128546AF***	1/2" press union	2.0	-
128556AF***	3/4" press union	2.1	-
128566AF***	1" press union	2.2	-

***: Select desired flow rate on page 81 to complete orderable part number

Complies with standard NSF/ANSI/CAN 372. Certified by ICC-ES.

DYNAMIC BALANCING VALVES



127 FlowCal+™ sweat

Compact automatic balancing valve.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- Inlet check valve
- Outlet temperature gauge

Fluid temperature range: 32 – 212 °F
Max. working pressure: 230 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%).



127 FlowCal+™ press

Compact automatic balancing valve.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- Inlet check valve
- Outlet temperature gauge

Fluid temperature range: 32 – 212 °F
Max. working pressure: 230 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%).

Code	Description	Lbs	USD
127148AFC***	½" sweat union	0.8	-
127158AFC***	¾" sweat union	0.8	-
127168AFC***	1" sweat union	1.0	-

***: Select desired flow rate on page 81 to complete orderable part number

Code	Description	Lbs	USD
127147AFC***	½" press union	1.0	-
127157AFC***	¾" press union	1.0	-
127167AFC***	1" press union	1.2	-

***: Select desired flow rate on page 81 to complete orderable part number



127 FlowCal+™ PEX

Compact automatic balancing valve.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- Inlet check valve
- Outlet temperature gauge

Fluid temperature range: 32 – 212 °F
Max. working pressure: 230 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%).



127 FlowCal+™ NPT

Compact automatic balancing valve.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- Inlet check valve
- Outlet temperature gauge

Fluid temperature range: 32 – 212 °F
Max. working pressure: 230 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%).

Code	Description	Lbs	USD
127145AFC***	½" PEX crimp union	1.0	-
127143AFC***	½" PEX expansion union	1.0	-
127155AFC***	¾" PEX crimp union	1.0	-
127153AFC***	¾" PEX expansion union	1.0	-
127165AFC***	1" PEX crimp union	1.3	-
127163AFC***	1" PEX expansion union	1.3	-

***: Select desired flow rate on page 81 to complete orderable part number

Code	Description	Lbs	USD
127140AFC***	½" NPT male union	1.0	-
127150AFC***	¾" NPT male union	1.0	-
127160AFC***	1" NPT male union	1.2	-

***: Select desired flow rate on page 81 to complete orderable part number

Complies with standard NSF/ANSI/CAN 372. Certified by ICC-ES. codes. U.S. Patent 7,246,635 B2.

DYNAMIC BALANCING VALVES



127 FlowCal+™ sweat

Compact automatic balancing valve.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- Inlet check valve

Fluid temperature range: 32 – 212 °F
Max. working pressure: 230 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%).

Code	Description	Lbs	USD
127149AFC***	½" sweat union	1.0	-
127159AFC***	¾" sweat union	1.2	-
127169AFC***	1" sweat union	1.3	-

***: Select desired flow rate on page 81 to complete orderable part number



127 FlowCal+™ press

Compact automatic balancing valve.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- Inlet check valve

Fluid temperature range: 32 – 212 °F
Max. working pressure: 230 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%).

Code	Description	Lbs	USD
127146AFC***	½" press union	1.2	-
127156AFC***	¾" press union	1.2	-
127166AFC***	1" press union	1.2	-

***: Select desired flow rate on page 81 to complete orderable part number



127 FlowCal+™ PEX

Compact automatic balancing valve.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- Inlet check valve

Fluid temperature range: 32 – 212 °F
Max. working pressure: 230 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%).

Code	Description	Lbs	USD
127144AFC***	½" PEX crimp union	1.0	-
127142AFC***	½" PEX expansion union	1.0	-
127154AFC***	¾" PEX crimp union	1.3	-
127152AFC***	¾" PEX expansion union	1.0	-
127164AFC***	1" PEX crimp union	1.0	-
127162AFC***	1" PEX expansion union	1.3	-

***: Select desired flow rate on page 81 to complete orderable part number



127 FlowCal+™ NPT

Compact automatic balancing valve.
Patented anti-scale, low noise cartridge.
Complete as shown with:
- Inlet check valve

Fluid temperature range: 32 – 212 °F
Max. working pressure: 230 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%).

Code	Description	Lbs	USD
127141AFC***	½" NPT male union	1.0	-
127151AFC***	¾" NPT male union	1.0	-
127161AFC***	1" NPT male union	1.2	-

***: Select desired flow rate on page 81 to complete orderable part number

Flow rate selection for 127 and 128 FlowCal™

GPM	Last 3 digits ...	Differential Pressure Control Ranges (psid)
0.35	G35	2 – 14
.5	G50	
.75	G75	
1.0	1G0	2 – 32
1.3	1G3	
1.5	1G5	
1.7	1G7	
2.0	2G0	
2.2	2G2	
2.5	2G5	
2.6	2G6	
3.0	3G0	
3.5	3G5	
4.0	4G0	4 – 34
4.5	4G5	
5.0	5G0	
6.0	6G0	
7.0	7G0	5 – 35
8.0	8G0	
9.0	9G0	
10	10G	

Complies with standard NSF/ANSI/CAN 372. Certified by ICC-ES.

DYNAMIC BALANCING VALVES



127 FlowCal™ sweat

Compact automatic balancing valve.
Patented anti-scale, low noise cartridge.

Fluid temperature range: 32 – 212 °F
Max. working pressure: 230 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%).

Code	Description	Lbs	USD
127349AF***	½" sweat union	1.2	-
127359AF***	¾" sweat union	1.2	-
127369AF***	1" sweat union	1.4	-

***: Select desired flow rate on page 81 to complete orderable part number



127 FlowCal™ press

Compact automatic balancing valve.
Patented anti-scale, low noise cartridge.

Fluid temperature range: 32 – 212 °F
Max. working pressure: 230 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%).

Code	Description	Lbs	USD
127346AF***	½" press union	0.9	-
127356AF***	¾" press union	1.0	-
127366AF***	1" press union	1.3	-

***: Select desired flow rate on page 81 to complete orderable part number



127 FlowCal™ PEX

Compact automatic balancing valve.
Patented anti-scale, low noise cartridge.

Fluid temperature range: 32 – 212 °F
Max. working pressure: 230 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%).

Code	Description	Lbs	USD
127344AF***	½" PEX crimp union	1.0	-
127342AF***	½" PEX expansion union	1.0	-
127354AF***	¾" PEX crimp union	1.3	-
127352AF***	¾" PEX expansion union	1.0	-
127364AF***	1" PEX crimp union	1.0	-
127362AF***	1" PEX expansion union	1.3	-

***: Select desired flow rate on page 81 to complete orderable part number



127 FlowCal™ NPT

Compact automatic balancing valve.
Patented anti-scale, low noise cartridge.

Fluid temperature range: 32 – 212 °F
Max. working pressure: 230 psi
Max percentage of glycol: 50%
Flow Rates: 0.35–10 GPM (±10%).

Code	Description	Lbs	USD
127341AF***	½" NPT male union	1.0	-
127351AF***	¾" NPT male union	1.0	-
127361AF***	1" NPT male union	1.2	-

***: Select desired flow rate on page 81 to complete orderable part number



127 FlowCal™ body

Replacement body for FlowCal+™ and FlowCal™ series.

See fittings selection in Section 13.

Code	Description	Lbs	USD
127000A***	Body including flow cartridge	1.0	-



Union isolation ball valves.
Compatible with 127, 128 FlowCal+ and FlowCal series.

Code	Description	Lbs	USD
290030	1" M x 1" F union ball valve	1.0	-
290031*	1" M x 1" F union ball valve	1.0	-

*With extended handle

Complies with standard NSF/ANSI/CAN 372. Certified by ICC-ES. US Patent 7,246,635 B2.

DYNAMIC BALANCING VALVES FOR HYDRONICS



121 FlowCal™

Y-body automatic flow balancing valve.
For use in hydronic applications ONLY.
Complete with:
- Integral isolation ball valve

Optional: Factory installed PT ports

Fluid temperature range: 32 – 212 °F
Max. working pressure: 360 psi
Max percentage of glycol: 50%
Flow Rates: 0.35 – 21 GPM (±10%)

Code	Description	Lbs	USD
121141A ...	½" NPT female	2.7	-
121149A ...	½" sweat	2.7	-
121151A ...	¾" NPT female	2.7	-
121159A ...	¾" sweat	2.7	-
121161A ...	1" NPT female	5.0	-
121169A ...	1" sweat	5.0	-
121171A ...	1¼" NPT female	5.0	-
121179A ...	1¼" sweat	5.0	-
121341A ...	½" NPT female with PT test ports	3.2	-
121349A ...	½" sweat with PT test ports	3.2	-
121351A ...	¾" NPT female with PT test ports	3.2	-
121359A ...	¾" sweat with PT test ports	3.2	-
121361A ...	1" NPT female with PT test ports	5.5	-
121369A ...	1" sweat with PT test ports	5.5	-
121371A ...	1¼" NPT female with PT test ports	5.5	-
121379A ...	1¼" sweat with PT test ports	5.5	-

Select desired flow rate to complete full part number.

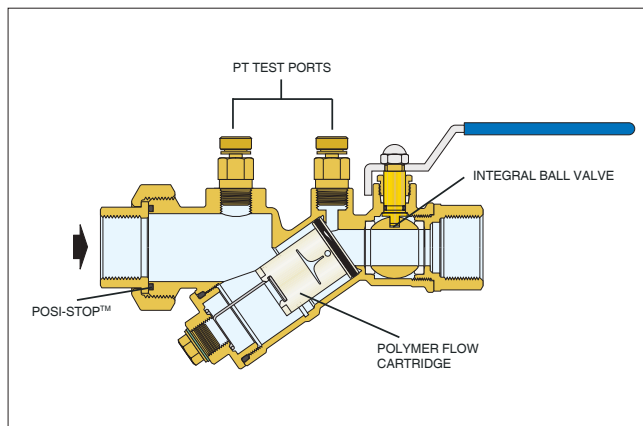
Size	GPM	Last 3 digits ...	Differential Pressure Control Ranges (psid)
½", ¾"	0.35	G35	2 – 14
½", ¾"	0.5	G50	
½", ¾"	0.75	G75	
½", ¾"	1	1G0	
½", ¾"	1.3	1G3	2 – 32
½", ¾"	1.5	1G5	
½", ¾"	1.7	1G7	
½", ¾"	2	2G0	
½", ¾"	2.2	2G2	
½", ¾"	2.5	2G5	
½", ¾", 1"	2.6	2G6	
½", ¾", 1"	3	3G0	
½", ¾", 1"	3.5	3G5	
½", ¾", 1", 1¼"	4	4G0	
½", ¾", 1", 1¼"	4.5	4G5	
½", ¾", 1", 1¼"	5	5G0	
½", ¾", 1", 1¼"	6	6G0	4 – 34
½", ¾", 1", 1¼"	7	7G0	
½", ¾", 1", 1¼"	8	8G0	

Size	GPM	Last 3 digits ...	Differential Pressure Control Ranges (psid)
½", ¾", 1", 1¼"	9	9G0	5 – 35
½", ¾", 1", 1¼"	10	10G	
1", 1¼"	11	11G	3 – 32
1", 1¼"	12	12G	
1", 1¼"	13	13G	
1", 1¼"	14	14G	
1", 1¼"	15	15G	4 – 35
1", 1¼"	16	16G	
1", 1¼"	17	17G	
1", 1¼"	18	18G	
1", 1¼"	19	19G	
1", 1¼"	20	20G	
1", 1¼"	21	21G	

Size	Flow Rates
½"	.35 – 10 GPM
¾"	.35 – 10 GPM
1"	2.5 – 21 GPM
1¼"	4 – 21 GPM

Replacement flow cartridge kits are available. Consult factory.

Construction details for 121 FlowCal™



COMPACT THERMAL BALANCING VALVES



1164 ThermoSetter™ NPT

Compact adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.

Complete with:

- Outlet check valve

Optional:

- Temperature gauge
- Union Isolation Valves

Adjustment temperature range: 105 – 150 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116440AC 002	½" NPT female union	1.6	-
116440AC 102*	½" NPT female union	2.4	-
116441AC 002	½" NPT female union, gauge	1.8	-
116441AC 102*	½" NPT female union, gauge	2.6	-
116450AC 002	¾" NPT female union	1.8	-
116450AC 102*	¾" NPT female union	2.6	-
116451AC 002	¾" NPT female union, gauge	2.0	-
116451AC 102*	¾" NPT female union, gauge	2.8	-

*With isolation valves.



1164 ThermoSetter™ PEX

Compact adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.

Complete with:

- Outlet check valve

Optional:

- Temperature gauge
- Union Isolation Valves

Adjustment temperature range: 105 – 150 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116440AC 008	½" PEX expansion union	1.6	-
116440AC 108*	½" PEX expansion union	2.4	-
116440AC 007	½" PEX crimp union	1.6	-
116440AC 107*	½" PEX crimp union	2.4	-
116441AC 008	½" PEX expansion union, gauge	1.8	-
116441AC 108*	½" PEX expansion union, gauge	2.6	-
116441AC 007	½" PEX crimp union, gauge	1.8	-
116441AC 107*	½" PEX crimp union, gauge	2.6	-
116450AC 008	¾" PEX expansion union	1.8	-
116450AC 108*	¾" PEX expansion union	2.6	-
116450AC 007	¾" PEX crimp union	2	-
116450AC 107*	¾" PEX crimp union	2.8	-
116451AC 008	¾" PEX expansion union, gauge	2.0	-
116451AC 108*	¾" PEX expansion union, gauge	2.8	-
116451AC 007	¾" PEX crimp union, gauge	2.0	-
116451AC 107*	¾" PEX crimp union, gauge	2.8	-

*With isolation valves.



1164 ThermoSetter™ sweat

Compact adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.

Complete with:

- Outlet check valve

Optional:

- Temperature gauge
- Union Isolation Valves

Adjustment temperature range: 105 – 150 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116440AC 009	½" sweat union	1.4	-
116440AC 109*	½" sweat union	2.2	-
116441AC 009	½" sweat union, gauge	1.6	-
116441AC 109*	½" sweat union, gauge	2.4	-
116450AC 009	¾" sweat union	1.6	-
116450AC 109*	¾" sweat union	2.4	-
116451AC 009	¾" sweat union, gauge	1.8	-
116451AC 109*	¾" sweat union, gauge	2.6	-

*With isolation valves.



1164 ThermoSetter™ press

Compact adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.

Complete with:

- Outlet check valve

Optional:

- Temperature gauge
- Union Isolation Valves

Adjustment temperature range: 105 – 150 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116440AC 006	½" press union	1.4	-
116440AC 106*	½" press union	2.2	-
116441AC 006	½" press union, gauge	1.6	-
116441AC 106*	½" press union, gauge	2.4	-
116450AC 006	¾" press union	1.6	-
116450AC 106*	¾" press union	2.4	-
116451AC 006	¾" press union, gauge	1.8	-
116451AC 106*	¾" press union, gauge	2.6	-

*With isolation valves.

Complies with standards NSF/ANSI/CAN 61, NSF/ANSI/CAN 372. Certified by ICC-ES.

THERMAL BALANCING VALVES

1162, 1166 ThermoSetter™ NPT



Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Thermal disinfection bypass cartridge
- Outlet check valve
- Temperature gauge
Optional: Union isolation valves

Adjustment temperature range: 95 – 140 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116240AC 002	1/2" NPT female union, 160 °F bypass	1.8	-
116240AC 102*	1/2" NPT female union, 160 °F bypass	2.4	-
116250AC 002	3/4" NPT female union, 160 °F bypass	2.0	-
116250AC 102*	3/4" NPT female union, 160 °F bypass	3.2	-
116640AC 002	1/2" NPT female union, 140 °F bypass	1.8	-
116640AC 102*	1/2" NPT female union, 140 °F bypass	2.4	-
116650AC 002	3/4" NPT female union, 140 °F bypass	2.0	-
116650AC 102*	3/4" NPT female union, 140 °F bypass	3.2	-

*With isolation valves.

1162, 1166 ThermoSetter™ sweat



Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Thermal disinfection bypass cartridge
- Outlet check valve
- Temperature gauge
Optional: Union isolation valves

Adjustment temperature range: 95 – 140 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116240AC 009	1/2" sweat union, 160 °F bypass	1.7	-
116240AC 109*	1/2" sweat union, 160 °F bypass	2.3	-
116250AC 009	3/4" sweat union, 160 °F bypass	1.9	-
116250AC 109*	3/4" sweat union, 160 °F bypass	3.1	-
116640AC 009	1/2" sweat union, 140 °F bypass	1.7	-
116640AC 109*	1/2" sweat union, 140 °F bypass	2.3	-
116650AC 009	3/4" sweat union, 140 °F bypass	1.9	-
116650AC 109*	3/4" sweat union, 140 °F bypass	3.1	-

*With isolation valves.

1162, 1166 ThermoSetter™ PEX



Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Thermal disinfection bypass cartridge
- Outlet check valve
- Temperature gauge
Optional: Union isolation valves

Adjustment temperature range: 95 – 140 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116240AC 008	1/2" PEX expansion union, 160 °F bypass	1.8	-
116240AC 108*	1/2" PEX expansion union, 160 °F bypass	2.4	-
116240AC 007	1/2" PEX crimp union, 160 °F bypass	1.8	-
116240AC 107*	1/2" PEX crimp union, 160 °F bypass	2.4	-
116250AC 008	3/4" PEX expansion union, 160 °F bypass	2.0	-
116250AC 108*	3/4" PEX expansion union, 160 °F bypass	3.2	-
116250AC 007	3/4" PEX crimp union, 160 °F bypass	2.0	-
116250AC 107*	3/4" PEX crimp union, 160 °F bypass	3.2	-
116640AC 008	1/2" PEX expansion union, 140 °F bypass	1.8	-
116640AC 108*	1/2" PEX expansion union, 140 °F bypass	2.4	-
116640AC 007	1/2" PEX crimp union, 140 °F bypass	1.8	-
116640AC 107*	1/2" PEX crimp union, 140 °F bypass	2.4	-
116650AC 008	3/4" PEX expansion union, 140 °F bypass	2.0	-
116650AC 108*	3/4" PEX expansion union, 140 °F bypass	3.2	-
116650AC 007	3/4" PEX crimp union, 140 °F bypass	2.0	-
116650AC 107*	3/4" PEX crimp union, 140 °F bypass	3.2	-

*With isolation valves.

1162, 1166 ThermoSetter™ press



Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Thermal disinfection bypass cartridge
- Outlet check valve
- Temperature gauge
Optional: Union isolation valves

Adjustment temperature range: 95 – 140 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116240AC 006	1/2" press union, 160 °F bypass	1.7	-
116240AC 106*	1/2" press union, 160 °F bypass	2.3	-
116250AC 006	3/4" press union, 160 °F bypass	1.9	-
116250AC 106*	3/4" press union, 160 °F bypass	2.1	-
116640AC 006	1/2" press union, 140 °F bypass	1.7	-
116640AC 106*	1/2" press union, 140 °F bypass	2.3	-
116650AC 006	3/4" press union, 140 °F bypass	1.9	-
116650AC 106*	3/4" press union, 140 °F bypass	2.1	-

*With isolation valves.

Complies with standards NSF/ANSI/CAN 61, NSF/ANSI/CAN 372. Certified by ICC-ES.

THERMAL BALANCING VALVES



1161 ThermoSetter™ NPT

Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.

Complete with:

- Cavity for bypass cartridge
- Outlet check valve

Optional:

- Union isolation valves
- Temperature gauge

Adjustment temperature range: 95 – 140 °F

Max fluid temperature: 195 °F

Max. working pressure: 230 psi

Code	Description	Lbs	USD
116140AC 002	½" NPT female unions	1.7	-
116140AC 102*	½" NPT female unions	2.3	-
116141AC 002	½" NPT female unions, gauge	1.8	-
116141AC 102*	½" NPT female unions, gauge	2.4	-
116150AC 002	¾" NPT female unions	1.9	-
116150AC 102*	¾" NPT female unions	3.1	-
116151AC 002	¾" NPT female unions, gauge	2.0	-
116151AC 102*	¾" NPT female unions, gauge	3.2	-

*With isolation valves.



1161 ThermoSetter™ PEX

Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.

Complete with:

- Cavity for bypass cartridge
- Outlet check valve

Optional:

- Union isolation valves
- Temperature gauge

Adjustment temperature range: 95 – 140 °F

Max fluid temperature: 195 °F

Max. working pressure: 230 psi

Code	Description	Lbs	USD
116140AC 008	½" PEX expansion unions	1.7	-
116140AC 108*	½" PEX expansion unions	2.3	-
116140AC 007	½" PEX crimp unions	1.7	-
116140AC 107*	½" PEX crimp unions	2.3	-
116141AC 008	½" PEX expansion unions, gauge	1.8	-
116141AC 108*	½" PEX expansion unions, gauge	2.4	-
116141AC 007	½" PEX crimp unions, gauge	1.8	-
116141AC 107*	½" PEX crimp unions, gauge	2.4	-
116150AC 008	¾" PEX expansion unions	1.9	-
116150AC 108*	¾" PEX expansion unions	3.1	-
116150AC 007	¾" PEX crimp unions	1.9	-
116150AC 107*	¾" PEX crimp unions, check	3.1	-
116151AC 008	¾" PEX expansion unions, gauge	2.0	-
116151AC 108*	¾" PEX expansion unions, gauge	3.2	-
116151AC 007	¾" PEX crimp unions, gauge	2.0	-
116151AC 107*	¾" PEX crimp unions, gauge	3.2	-

*With isolation valves.



1161 ThermoSetter™ sweat

Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.

Complete with:

- Cavity for bypass cartridge
- Outlet check valve

Optional:

- Union isolation valves
- Temperature gauge

Adjustment temperature range: 95 – 140 °F

Max fluid temperature: 195 °F

Max. working pressure: 230 psi

Code	Description	Lbs	USD
116140AC 009	½" sweat union	1.6	-
116140AC 109*	½" sweat union	2.2	-
116141AC 009	½" sweat union, gauge	1.7	-
116141AC 109*	½" sweat union, gauge	2.3	-
116150AC 009	¾" sweat union	1.8	-
116150AC 109*	¾" sweat union	3.0	-
116151AC 009	¾" sweat union, gauge	1.9	-
116151AC 109*	¾" sweat union, gauge	3.1	-

*With isolation valves.



1161 ThermoSetter™ press

Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.

Complete with:

- Cavity for bypass cartridge
- Outlet check valve

Optional:

- Union isolation valves
- Temperature gauge

Adjustment temperature range: 95 – 140 °F

Max fluid temperature: 195 °F

Max. working pressure: 230 psi

Code	Description	Lbs	USD
116140AC 006	½" press union	1.6	-
116140AC 106*	½" press union	2.2	-
116141AC 006	½" press union, gauge	1.7	-
116141AC 106*	½" press union, gauge	2.3	-
116150AC 006	¾" press union	1.9	-
116150AC 106*	¾" press union	3.1	-
116151AC 006	¾" press union, gauge	1.9	-
116151AC 106*	¾" press union, gauge	3.1	-

*With isolation valves.

Complies with standards NSF/ANSI/CAN 61, NSF/ANSI/CAN 372. Certified by ICC-ES.

THERMAL BALANCING VALVES



1163 ThermoSetter™ NPT

Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Thermo-electric bypass valve
- Outlet check valve & temperature gauge
Optional: Union isolation valves
Purchase 656 actuator separately, page 32

Adjustment temperature range: 95 – 140 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116340AC 002	½" NPT female union	1.8	-
116340AC 102*	½" NPT female union	2.4	-
116350AC 002	¾" NPT female union	2.0	-
116350AC 102*	¾" NPT female union	3.2	-

*With isolation valves.



1163 ThermoSetter™ PEX

Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Thermo-electric bypass valve
- Outlet check valve & temperature gauge
Optional: Union isolation valves
Purchase 656 actuator separately, page 32

Adjustment temperature range: 95 – 140 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116340AC 008	½" PEX expansion union	1.8	-
116340AC 108*	½" PEX expansion union	2.4	-
116340AC 007	½" PEX crimp union	1.8	-
116340AC 107*	½" PEX crimp union	2.4	-
116350AC 008	¾" PEX expansion union	2.0	-
116350AC 108*	¾" PEX expansion union	3.2	-
116350AC 007	¾" PEX crimp union	2.0	-
116350AC 107*	¾" PEX crimp union	3.2	-

*With isolation valves.



1163 ThermoSetter™ sweat

Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Thermo-electric bypass valve
- Outlet check valve & temperature gauge
Optional: Union isolation valves
Purchase 656 actuator separately, page 32

Adjustment temperature range: 95 – 140 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116340AC 009	½" sweat union	1.7	-
116340AC 109*	½" sweat union	2.3	-
116350AC 009	¾" sweat union	1.9	-
116350AC 109*	¾" sweat union	3.1	-

*With isolation valves.



1163 ThermoSetter™ press

Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Thermo-electric bypass valve
- Outlet check valve & temperature gauge
Optional: Union isolation valves
Purchase 656 actuator separately, page 32

Adjustment temperature range: 95 – 140 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116340AC 006	½" press union	1.7	-
116340AC 106*	½" press union	2.3	-
116350AC 006	¾" press union	1.9	-
116350AC 106*	¾" press union	2.1	-

*With isolation valves.

Complies with standards NSF/ANSI/CAN 61, NSF/ANSI/CAN 372. Certified by ICC-ES.

THERMAL BALANCING VALVES

1162,1166 ThermoSetter™



Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Thermal disinfection bypass cartridge
- Temperature gauge
Optional:
- Outlet check valve
- Isolation valves

Adjustment temperature range: 95 – 150 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116260A	1" FNPT, 160°F bypass	1.8	-
116260AC	1" FNPT, check, 160°F bypass	2.0	-
116270A	1¼" FNPT, 160°F bypass	1.7	-
116270AC	1¼" FNPT, check, 160°F bypass	1.9	-
116660A	1" FNPT, 140°F bypass	2.3	-
116660AC	1" FNPT, check, 140°F bypass	2.5	-
116670A	1¼" FNPT, 140°F bypass	2.2	-
116670AC	1¼" FNPT, check, 140°F bypass	2.4	-

Note: Add '001' suffix for versions with isolation valves

1161 ThermoSetter™



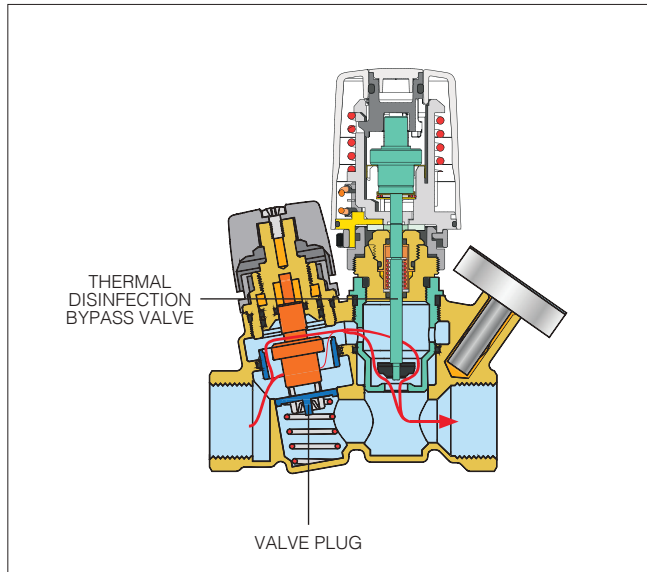
Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Cavity for bypass cartridge
Optional:
- Temperature gauge
- Outlet check valve
- Isolation valves

Adjustment temperature range: 95 – 150 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116160A	1" FNPT	2.1	-
116160AC	1" FNPT, check	2.3	-
116161A	1" FNPT, gauge	2.2	-
116161AC	1" FNPT, gauge, check	2.4	-
116170A	1¼" FNPT	2.0	-
116170AC	1¼" FNPT, check	2.2	-
116171A	1¼" FNPT, gauge	2.1	-
116171AC	1¼" FNPT, gauge, check	2.3	-

Note: Add '001' suffix for versions with isolation valves

Construction details for 1163 ThermoSetter™



1163 ThermoSetter™



Adjustable thermal balancing valve.
Low-lead/lead free DZR brass body.
Complete with:
- Thermo-electric bypass valve
- Temperature gauge
Optional:
- Outlet check valve
- Isolation valves
Purchase 656 actuator separately, page 32
Adjustment temperature range: 95 – 150 °F
Max fluid temperature: 195 °F
Max. working pressure: 230 psi

Code	Description	Lbs	USD
116360A	1" FNPT, gauge	2.3	-
116360AC	1" FNPT, gauge, check valve	2.5	-
116370A	1¼" FNPT, gauge	2.2	-
116370AC	1¼" FNPT, gauge, check valve	2.4	-

Note: Add '001' suffix for versions with isolation valves

Complies with standards NSF/ANSI/CAN 61, NSF/ANSI/CAN 372. Certified by ICC-ES.

THERMAL BALANCING VALVES



Replacement thermal disinfection bypass cartridges.
Compatible with 1162, 1163 ThermoSetter.
Upgrade option for 1161 ThermoSetter.



Replacement balancing cartridge for ThermoSetter.

Code	Description	Lbs	USD
F0001286	140 °F bypass cartridge	0.1	-
F0000580	160 °F bypass cartridge	0.1	-

Code	Description	Lbs	USD
F0001516	½", ¾" balancing cartridge	0.1	-



Replacement temperature gauge for ThermoSetter.



Insulation jacket for ThermoSetter™.

Code	Description	Lbs	USD
116010	1½" dial temperature gauge	0.1	-

Code	Description	Lbs	USD
CBN116140	Fits ½" and ¾" - 1161, 1162, 1163, 1166	0.1	-
CBN116440	Fits ½" and ¾" - 1164	0.1	-
CBN116160	Fits 1" and 1¼" - 1161, 1162, 1163, 1166	0.1	-



Replacement actuator bypass cartridge compatible with 1163 ThermoSetter.



Replacement isolation ball valves and nipples for ThermoSetter.

Code	Description	Lbs	USD
116000	Replacement actuator bypass cartridge	0.1	-



Replacement check valve for 1" and 1¼" ThermoSetter.

Code	Description	Lbs	USD
NA51361	1" MNPT in, 1" FNPT out	1.1	-
NA51371	1¼" MNPT in, 1¼" FNPT out	1.3	-

Code	Description	Lbs	USD
290030	1" M x 1" F union ball valve	1.1	-
290031	1" M x 1" F union ball valve, extended handle	1.3	-
NA10826	1" FNPT ball valve	1.0	-
NA10836	1" NPT nipple	0.1	-
NA10827	1¼" FNPT ball valve	1.6	-
NA10837	1¼" NPT nipple	0.3	-



www.caleffi.com

CALEFFI
Hydronic Solutions

PRESICAL™ PRVS

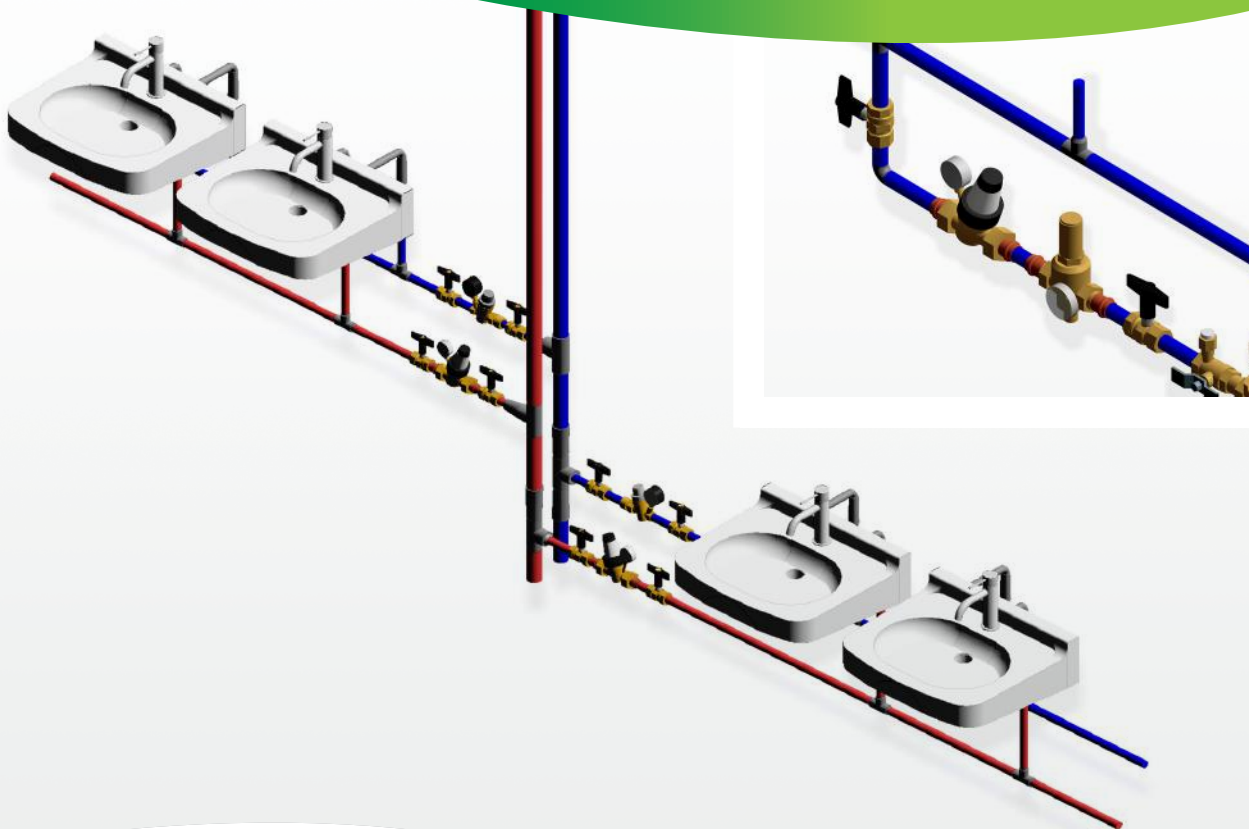
PRECISION ENGINEERED
FOR DURABLE PERFORMANCE



The **PresCal™** pressure reducing valve family is constructed of dezincification-resistant low lead brass and low friction moving parts that stand up to hard water and scale for maximum durability. The diaphragm models as well as the new **true piston** models feature a service-friendly **removable cartridge** with integral stainless steel mesh strainer that makes cleaning or rebuilding **fast and easy**. **Approvals include compliance with U.S. and Canadian plumbing codes. CALEFFI GUARANTEED.**



PRESSURE REDUCING VALVES



Diagrams made with BIM families: bim.caleffi.com

This diagram is for illustration purposes only

PRODUCTS INCLUDED IN SECTION

Pressure reducing valves - diaphragm type

Pressure reducing valves - piston type

Two stage pressure reducing kit

Compact pressure reducing valves - diaphragm type

PRESSURE REDUCING VALVES - DIAPHRAGM TYPE



535H PresCal™ sweat

Adjustable pressure reducing valve.
Low lead/lead free DZR brass body.
Field serviceable cartridge.

Complete with UV protective cover.
Optional pressure gauge.

Adjustable range: 15 – 90 psi
Max. working pressure: 300 psi
Max fluid temperature: 180°F

Code	Description	Lbs	USD
535940HA	½" sweat union	1.9	-
535941HA	½" sweat union, gauge	2.0	-
535950HA	¾" sweat union	2.2	-
535951HA	¾" sweat union, gauge	2.3	-
535960HA	1" sweat union	2.9	-
535961HA	1" sweat union, gauge	3.0	-
535970HA	1¼" sweat union	5.6	-
535971HA	1¼" sweat union, gauge	5.7	-
535980HA	1½" sweat union	7.3	-
535981HA	1½" sweat union, gauge	7.4	-
535990HA	2" sweat union	9.7	-
535991HA	2" sweat union, gauge	9.8	-



535H PresCal™ NPT

Adjustable pressure reducing valve.
Low lead/lead free DZR brass body.
Field serviceable cartridge.

Complete with UV protective cover.
Optional pressure gauge.

Adjustable range: 15 – 90 psi
Max. working pressure: 300 psi
Max fluid temperature: 180°F

Code	Description	Lbs	USD
535340HA	½" NPT female union	2.0	-
535341HA	½" NPT female union, gauge	2.1	-
535350HA	¾" NPT female union	2.3	-
535351HA	¾" NPT female union, gauge	2.4	-
535360HA	1" NPT female union	3.0	-
535361HA	1" NPT female union, gauge	3.1	-
535370HA	1¼" NPT female union	5.7	-
535371HA	1¼" NPT female union, gauge	5.8	-
535380HA	1½" NPT female union	7.3	-
535381HA	1½" NPT female union, gauge	7.4	-
535390HA	2" NPT female union	9.7	-
535391HA	2" NPT female union, gauge	9.8	-



535H PresCal™ press

Adjustable pressure reducing valve.
Low lead/lead free DZR brass body.
Field serviceable cartridge.

Complete with UV protective cover.
Optional pressure gauge.

Adjustable range: 15 – 90 psi
Max. working pressure: 300 psi
Max fluid temperature: 180°F

Code	Description	Lbs	USD
535640HA	½" press union	1.9	-
535641HA	½" press union, gauge	2	-
535650HA	¾" press union	2.3	-
535651HA	¾" press union, gauge	2.4	-
535660HA	1" press union	3	-
535661HA	1" press union, gauge	3.1	-
535670HA	1¼" press union	5.8	-
535671HA	1¼" press union, gauge	5.8	-
535680HA	1½" press union	7.3	-
535681HA	1½" press union, gauge	7.4	-
535690HA	2" press union	9.7	-
535691HA	2" press union, gauge	9.8	-



535H PresCal™ PEX

Adjustable pressure reducing valve.
Low lead/lead free DZR brass body.
Field serviceable cartridge.

Complete with UV protective cover.
Optional pressure gauge.

Adjustable range: 15 – 90 psi
Max. working pressure: 300 psi
Max fluid temperature: 180°F

Code	Description	Lbs	USD
535750HA	¾" PEX crimp union	2.3	-
535751HA	¾" PEX crimp union, gauge	2.4	-
535550HA	¾" PEX expansion union	2.3	-
535551HA	¾" PEX expansion union, gauge	2.4	-
535760HA	1" PEX crimp union	3.0	-
535761HA	1" PEX crimp union, gauge	3.1	-
535560HA	1" PEX expansion union	3.0	-
535561HA	1" PEX expansion union, gauge	3.1	-

Complies with standards ASSE 1003, CSA B356, NSF/ANSI/CAN 61, NSF/ANSI/CAN 372 and with codes IPC, IRC, UPC. Certified by ICC-ES.
Plenum rated: compliant with the requirements of standard UL 2043.

PRESCAL ACCESSORIES



535H PresCal™ Body

Replacement valve body for PresCal.
Low lead/lead free DZR brass.
Optional pressure gauge.
See fittings selection in Section 13.

Code	Description	Lbs	USD
NA535840HA	1/2" body	1.9	-
NA535841HA	1/2" body, gauge	2	-
NA535850HA	3/4" body	2.2	-
NA535851HA	3/4" body, gauge	2.3	-
NA535860HA	1" body	2.9	-
NA535861HA	1" body, gauge	3	-
NA535870HA	1 1/4" body	6.1	-
NA535871HA	1 1/4" body, gauge	6.2	-
NA535880HA	1 1/2" body	7.3	-
NA535881HA	1 1/2" body, gauge	7.4	-
NA535890HA	2" body	9.7	-
NA535891HA	2" body, gauge	9.8	-



Replacement pressure gauge.
Pressure range: 0 – 100 psi
Dial size: 2"

Code	Description	Lbs	USD
NA10273	1/8" NPT male	0.1	-



PVC jumper nipple, male union thread.
Matches face-to-face length of
corresponding 535H body size.
Allows piping completion before valve
installation.

Code	Description	Lbs	USD
NA11405	Jumper nipple for 535H 1/2"	0.1	-
NA11375*	Jumper nipple for 535H 3/4"	0.1	-
NA11376*	Jumper nipple for 535H 1"	0.2	-
NA11406	Jumper nipple for 535H 1 1/4"	0.3	-
NA11407	Jumper nipple for 535H 1 1/2"	0.3	-
NA11408	Jumper nipple for 535H 2"	0.5	-

*With filter screen.



Replacement cartridge for 535H PresCal.
Check code description for compatibility.

Code	Description	Lbs	USD
535006HA	Fits 535H 1/2", 3/4", 1"	0.3	-
535009HA	Fits 535H 1 1/4", 1 1/2", 2"	0.5	-

Complies with standards ASSE 1003, CSA B356, NSF/ANSI/CAN 61, NSF/ANSI/CAN 372 and with codes IPC, IRC, UPC. Certified by ICC-ES.
Plenum rated: compliant with the requirements of standard UL 2043.

PRESSURE REDUCING VALVES - PISTON TYPE



536 PresCal™ HP sweat High Range

High-performance piston type pressure reducing valve for high pressure applications.

Low lead/lead free DZR brass body.
Complete with pressure gauge.

Adjustable range: 90 – 150 psi
Max. working pressure: 360 psi
Max fluid temperature: 180°F

Code	Description	Lbs	USD
536043A 109	½" sweat union	3.3	-
536053A 109	¾" sweat union	4.4	-
536063A 109	1" sweat union	5	-
536073A 109	1¼" sweat union	7.5	-
536083A 109	1½" sweat union	8.8	-
536093A 109	2" sweat union	12	-



536 PresCal™ HP NPT High Range

High-performance piston type pressure reducing valve for high pressure applications.

Low lead/lead free DZR brass body.
Complete with pressure gauge.

Adjustable range: 90 – 150 psi
Max. working pressure: 360 psi
Max fluid temperature: 180°F

Code	Description	Lbs	USD
536043A 103	½" NPT female union	3.3	-
536053A 103	¾" NPT female union	4.4	-
536063A 103	1" NPT female union	5.0	-
536073A 103	1¼" NPT female union	7.5	-
536083A 103	1½" NPT female union	8.8	-
536093A 103	2" NPT female union	11	-



536 PresCal™ HP press High Range

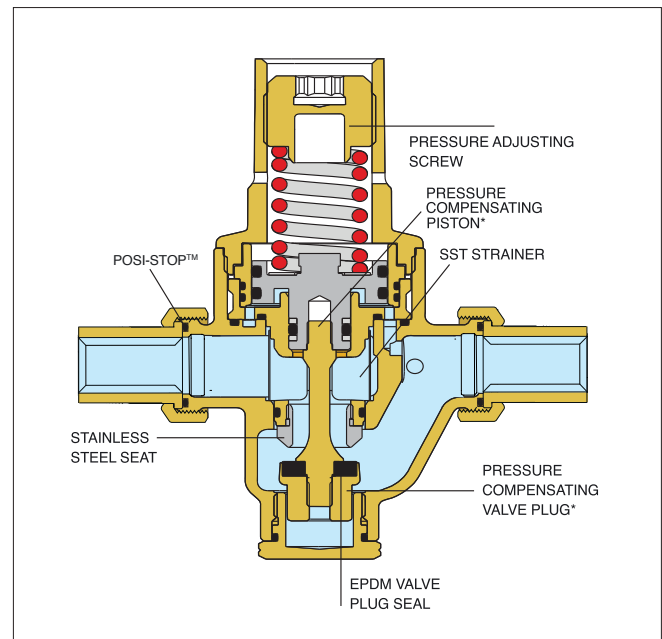
High-performance piston type pressure reducing valve for high pressure applications.

Low lead/lead free DZR brass body.
Complete with pressure gauge.

Adjustable range: 90 – 150 psi
Max. working pressure: 300 psi
Max fluid temperature: 180°F

Code	Description	Lbs	USD
536043A 106	½" press union	3.3	-
536053A 106	¾" press union	4.4	-
536063A 106	1" press union	5	-
536073A 106	1¼" press union	7.5	-
536083A 106	1½" press union	8.8	-
536093A 106	2" press union	12	-

Construction details for 536 PresCal™ HP



Complies with standards NSF/ANSI/CAN 61, NSF/ANSI/CAN 372 and with codes IPC, IRC, UPC. Certified by ICC-ES.

PRESSURE REDUCING VALVES - PISTON TYPE



536 PresCal™ HP sweat Low Range

High-performance piston type pressure reducing valve for severe service or water hammer applications.

Low lead/lead free DZR brass body.
Complete with pressure gauge.

Adjustable range: 10 – 90 psi
Max. working pressure: 300 psi
Max fluid temperature: 180°F

Code	Description	Lbs	USD
536044A 109	½" sweat union	3.3	-
536054A 109	¾" sweat union	4.4	-
536064A 109	1" sweat union	5	-
536074A 109	1¼" sweat union	7.5	-
536084A 109	1½" sweat union	8.8	-



536 PresCal™ HP NPT Low Range

High-performance piston type pressure reducing valve for severe service or water hammer applications.

Low lead/lead free DZR brass body.
Complete with pressure gauge.

Adjustable range: 10 – 90 psi
Max. working pressure: 300 psi
Max fluid temperature: 180°F

Code	Description	Lbs	USD
536044A 103	½" NPT female union	3.3	-
536054A 103	¾" NPT female union	4.4	-
536064A 103	1" NPT female union	5.0	-
536074A 103	1¼" NPT female union	7.5	-
536084A 103	1½" NPT female union	8.8	-



536 PresCal™ HP press Low Range

High-performance piston type pressure reducing valve for severe service or water hammer applications.

Low lead/lead free DZR brass body.
Complete with pressure gauge.

Adjustable range: 10 – 90 psi
Max. working pressure: 300 psi
Max fluid temperature: 180°F

Code	Description	Lbs	USD
536044A 106	½" press union	3.3	-
536054A 106	¾" press union	4.4	-
536064A 106	1" press union	5	-
536074A 106	1¼" press union	7.5	-
536084A 106	1½" press union	8.8	-

PRESCAL HP ACCESSORIES



Replacement pressure gauge for 536 PresCal™ HP
Dual scale: psi/kPa
Dial size: 2½"

Check code description for compatibility.

Code	Description	Lbs	USD
NA10817	0-100 psi gauge, low range	0.4	-
NA10813	0-200 psi gauge, high range	0.4	-



Replacement pressure gauge adapter parts.
Compatible with both low and high range 536 Prescal™ HP.

Code	Description	Lbs	USD
R57264	O-ring seal for NA10810 gauge adapter	0.1	-
NA10810	¼" G male x ¼" FNPT gauge adapter fitting	0.3	-

Complies with standards ASSE 1003, CSA B356, NSF/ANSI/CAN 61, NSF/ANSI/CAN 372 and with codes IPC, IRC, UPC. Certified by ICC-ES.

TWO STAGE PRESSURE REDUCING KIT

KIT536



Two stage pressure reduction kit for managing demanding pressure reduction ratios.
Complete with:

- Low lead/lead free coupler
- Expansion relief accessory
- Pressure gauges

1st stage adjustment range: 90–150 psi
2nd stage adjustment range: 15–90 psi
Max working pressure: 360 psi
Max fluid temperature: 180°F

KIT536



Two stage pressure reduction kit for managing demanding pressure reduction ratios.
Complete with:

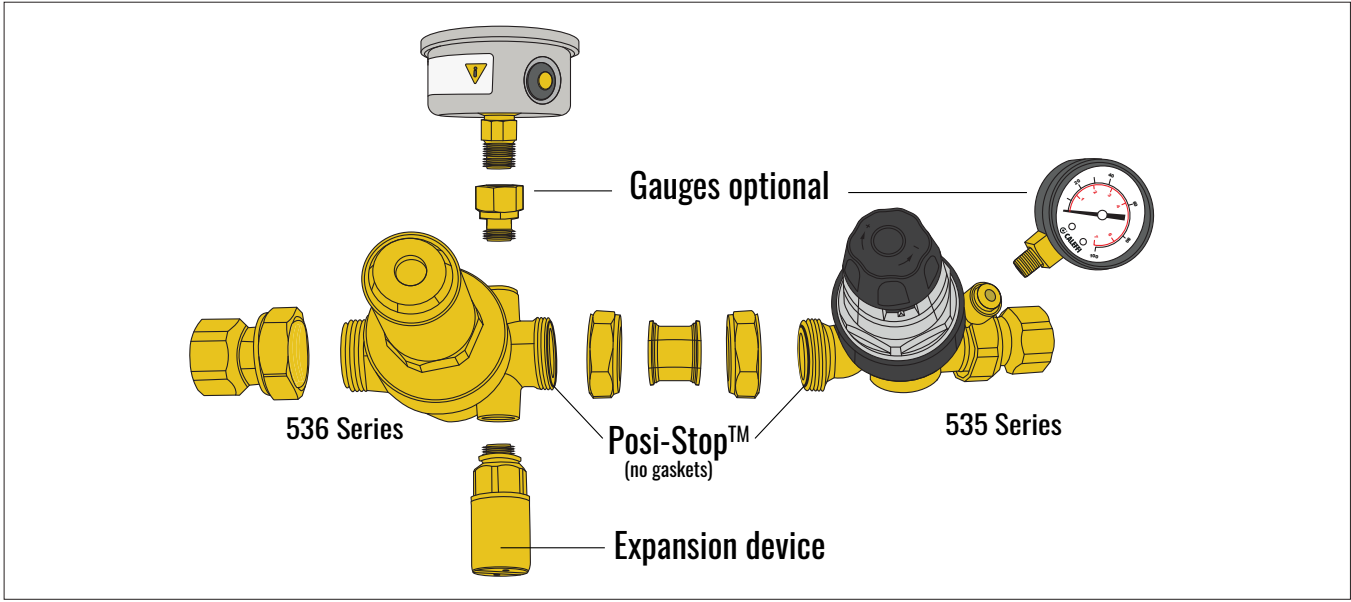
- Low lead/lead free coupler
- Expansion relief accessory

1st stage adjustment range: 90–150 psi
2nd stage adjustment range: 15–90 psi
Max working pressure: 360 psi
Max fluid temperature: 180°F

Code	Description	Lbs	USD
KIT536 535A 153	¾" NPT female union, pressure gauges	6.8	-
KIT536 535A 156	¾" press union, pressure gauges	6.8	-
KIT536 535A 159	¾" sweat union, pressure gauges	6.7	-
KIT536 535A 163	1" NPT female union, pressure gauges	8.1	-
KIT536 535A 166	1" press union, pressure gauges	8.1	-
KIT536 535A 169	1" sweat union, pressure gauges	8.0	-

Code	Description	Lbs	USD
KIT536 535A 053	¾" NPT female union	6.6	-
KIT536 535A 056	¾" press union	6.6	-
KIT536 535A 059	¾" sweat union	6.5	-
KIT536 535A 063	1" NPT female union	7.9	-
KIT536 535A 066	1" press union	7.9	-
KIT536 535A 069	1" sweat union	7.8	-

Construction details for KIT536



COMPACT PRESSURE REDUCING VALVES - DIAPHRAGM TYPE



533H PresCal™ Compact sweat

Compact, inlet union pressure reducing valve. Low lead/lead free DZR brass body. Field serviceable cartridge.

Complete with tamper resistant cap. Optional pressure gauge.

Adjustable range: 15 – 80 psi
Max. working pressure: 250 psi
Max fluid temperature: 180 °F

Code	Description	Lbs	USD
533940HA	½", sweat union in, FNPT out	2	-
533941HA	½", sweat union in, FNPT out, gauge	2.1	-
533950HA	¾", sweat union in, FNPT out	2.3	-
533951HA	¾", sweat union in, FNPT out, gauge	2.4	-



533H PresCal™ Compact press

Compact, inlet union pressure reducing valve. Low lead/lead free DZR brass body. Field serviceable cartridge.

Complete with tamper resistant cap. Optional pressure gauge.

Adjustable range: 15 – 80 psi
Max. working pressure: 250 psi
Max fluid temperature: 180 °F

Code	Description	Lbs	USD
533640HA	½", press union in, FNPT out	2.3	-
533641HA*	½", press union in, FNPT out, gauge	2.4	-
533650HA	¾", press union in, FNPT out	2.3	-
533651HA*	¾", press union in, FNPT out, gauge	2.4	-



533H PresCal™ Compact NPT

Compact, inlet union pressure reducing valve. Low lead/lead free DZR brass body. Field serviceable cartridge.

Complete with tamper resistant cap. Optional pressure gauge.

Adjustable range: 15 – 80 psi
Max. working pressure: 250 psi
Max fluid temperature: 180 °F

Code	Description	Lbs	USD
533340HA	½", NPT female union in, FNPT out	1.9	-
533341HA	½", NPT female union in, FNPT out, gauge	2.0	-
533350HA	¾", NPT female union in, FNPT out	2.2	-
533351HA	¾", NPT female union in, FNPT out, gauge	2.3	-



533H PresCal™ Compact PEX

Compact, inlet union pressure reducing valve. Low lead/lead free DZR brass body. Field serviceable cartridge.

Complete with tamper resistant cap. Optional pressure gauge.

Adjustable range: 15 – 80 psi
Max. working pressure: 250 psi
Max fluid temperature: 180 °F

Code	Description	Lbs	USD
533750HA	¾", PEX crimp union in, FNPT out	2.3	-
533751HA	¾", PEX crimp union in, FNPT out, gauge	2.4	-
533850HA	¾", PEX expansion union in, FNPT out	2.3	-
533851HA	¾", PEX expansion union in, FNPT out, gauge	2.3	-

Complies with standards ASSE 1003, CSA B356, NSF/ANSI/CAN 61, NSF/ANSI/CAN 372 and with codes IPC, IRC, UPC. Certified by ICC-ES.

PRESCAL COMPACT ACCESSORIES



Replacement cartridge for 533H PresCal Compact. Check code description for compatibility.

Code	Description	Lbs	USD
533000H	Fits 533H ½", ¾"	0.2	-



Replacement pressure gauge. Pressure range: 0 – 100 psi Dial size: 2"

Code	Description	Lbs	USD
NA10273	1/8" NPT male	0.1	-



533H PresCal™ Body

Replacement valve body for 533 PresCal Compact. Low lead/lead free DZR brass. Gauge port plug included with body. See fittings selection in Section 13.

Code	Description	Lbs	USD
NA533449HA	½" body	0.7	-
NA533459HA	¾" body	0.9	-



www.caleffi.com

ASK CALEFFI

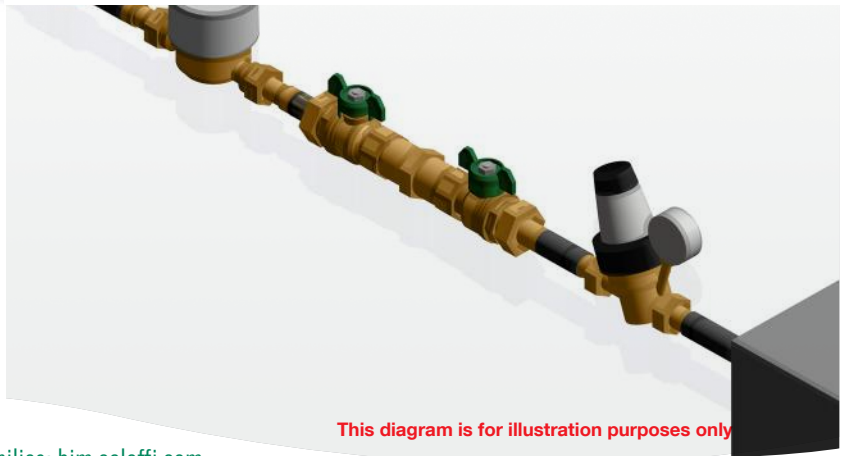
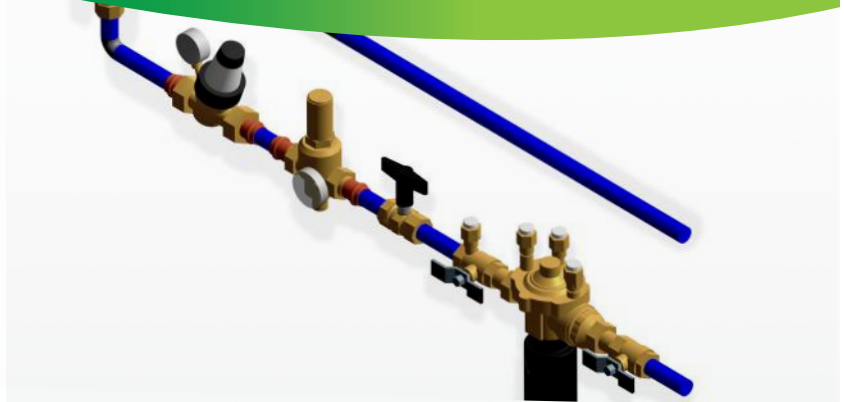
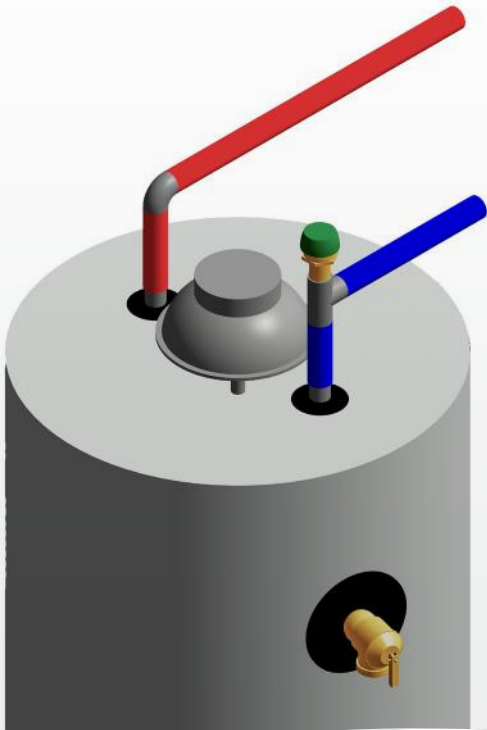
PODCAST SERIES EXCELLENCE IN EDUCATION

The Ask Caleffi podcast Series follows our tech support team as they discuss **tricky heating and plumbing system problems**. Learn how to incorporate best practices and hear what industry expert guests are up to. **CALEFFI GUARANTEED.**



 **CALEFFI**
Hydronic Solutions

BACKFLOW PREVENTION AND SAFETY DEVICES



Diagrams made with BIM families: bim.caleffi.com

PRODUCTS INCLUDED IN SECTION

- Backflow preventers, reduced pressure (RP)
- Backflow preventers, dual check (DuC)
- Backflow preventers, double check (DC)
- Backflow preventers, dual check, atmospheric vent (DuC-AV)
- Vacuum relief valve

BACKFLOW PREVENTERS, REDUCED PRESSURE (RP)



574 FlowShield™ RP

Testable reduced pressure principle backflow preventer.
Low lead/Lead free DZR brass body.

Complete with discharge air gap.



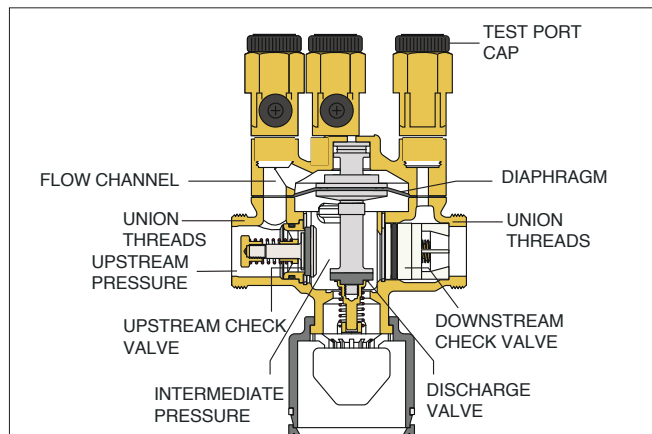
Max. operating pressure: 150 psi
Max. fluid temperature: 150°F

Code	Description	Lbs	USD
574004A	1/2" FNPT, includes discharge air gap	5.0	-
574064A	1/2" press, includes discharge air gap	5.1	-
NA11604**	Complete rebuild kit	0.7	-
59977*	Upstream check valve assembly	0.1	-
59978*	Relief valve assembly	0.2	-
F0002532*	Downstream check valve assembly	0.1	-
59980*	Discharge air gap	0.1	-
F0001006*	1/8" NPT test cock	0.2	-

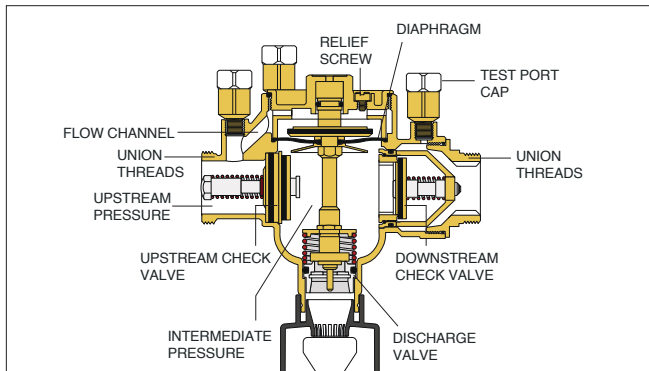
* Replacement parts.

**Includes: upstream, downstream check valve and relief valve assembly.

Construction details for 1/2" 574 FlowShield™ RP



Construction details for 1 1/4" and 1 1/2" 574 FlowShield™ RP



574 FlowShield™ RP

Testable reduced pressure principle backflow preventer.
Low lead/Lead free DZR brass body.

Complete with discharge air gap.



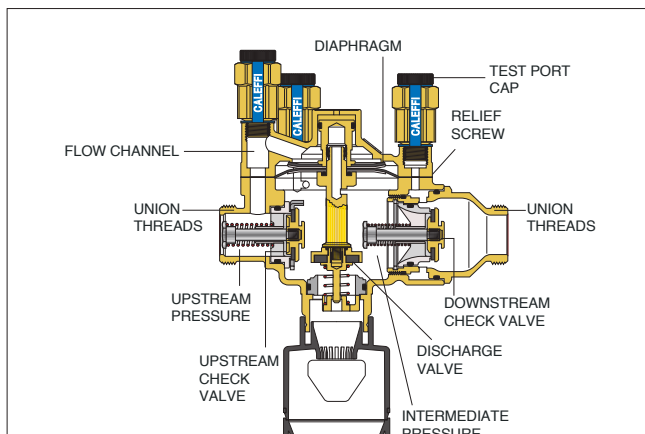
Max. operating pressure: 150 psi
Max. fluid temperature: 150°F

Code	Description	Lbs	USD
574050A	3/4" FNPT, includes discharge air gap	9.5	-
574056A	3/4" press, includes discharge air gap	9.6	-
NA11605**	Complete rebuild kit	0.8	-
59469*	Upstream check valve assembly	0.2	-
59470*	Downstream check valve assembly	0.2	-
59471*	Relief valve assembly	0.3	-
59472*	Relief valve seat	0.1	-
39623*	Discharge air gap	0.2	-
F0001006*	1/8" NPT test cock	0.2	-

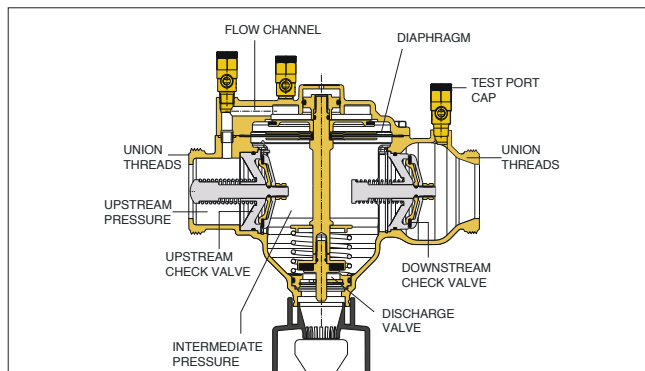
*Replacement parts for 574050A and 574056A.

**Includes: Upstream and downstream check valves, relief valve assembly and seat.

Construction details for 3/4" and 1" 574 FlowShield™ RP



Construction details for 2" 574 FlowShield™ RP



Listed and certified by ASSE to standard 1013. Listed and certified by CSA to standard B64.4. Complies with AWWA C511, NSF/ANSI/CAN 61 and NSF/ANSI/CAN 372.

BACKFLOW PREVENTERS, REDUCED PRESSURE (RP)



574 FlowShield™ RP

Testable reduced pressure principle backflow preventer.
Low lead/Lead free DZR brass body.

Complete with discharge air gap.



Max. operating pressure: 150 psi
Max. fluid temperature: 150°F

Code	Description	Lbs	USD
574006A	1" FNPT, includes air gap	11	-
574066A	1" press, includes air gap	11	-
NA11606**	Complete rebuild kit	0.8	-
59469*	Upstream check valve assembly	0.3	-
F0001637*	Downstream check valve assembly	0.3	-
59471*	Relief valve assembly	0.3	-
59472*	Relief valve seat	0.1	-
39623*	Discharge air gap	0.2	-
F0001006*	1/8" NPT test cock	0.2	-

*Replacement parts for 574006A and 574066A.

**Includes: Upstream and downstream check valves, relief valve assembly and seat.



574 FlowShield™ RP

Testable reduced pressure principle backflow preventer.
Low lead/Lead free DZR brass body.

Complete with discharge air gap.



Max. operating pressure: 150 psi
Max. fluid temperature: 150°F

Code	Description	Lbs	USD
574700A	1 1/4" FNPT, includes air gap	14	-
574706A	1 1/4" press, includes air gap	14	-
NA11607**	Complete rebuild kit	1.4	-
59455*	Upstream check valve assembly	0.3	-
59456*	Downstream check valve assembly	0.3	-
59457*	Relief valve assembly	0.6	-
59458*	Relief valve seat	0.2	-
39623*	Discharge air gap	0.2	-
F0001901*	1/4" NPT test cock	0.2	-

*Replacement parts for 574700A and 574706A.

**Includes: Upstream and downstream check valves, relief valve assembly and seat.



574 FlowShield™ RP

Testable reduced pressure principle backflow preventer.
Low lead/Lead free DZR brass body.

Complete with discharge air gap.



Max. operating pressure: 150 psi
Max. fluid temperature: 150°F

Code	Description	Lbs	USD
574801A	1 1/2" FNPT, includes air gap	14	-
574806A	1 1/2" press, includes air gap	14	-
NA11608**	Complete rebuild kit	1.4	-
59455*	Upstream check valve assembly	0.3	-
F0001636*	Downstream check valve assembly	0.6	-
59457*	Relief valve assembly	0.6	-
59458*	Relief valve seat	0.2	-
39623*	Discharge air gap	0.2	-
F0001901*	1/4" NPT test cock	0.2	-

*Replacement parts for 574801A and 574806A.

**Includes: Upstream and downstream check valves, relief valve assembly and seat.



574 FlowShield™ RP

Testable reduced pressure principle backflow preventer.
Low lead/Lead free DZR brass body.

Complete with discharge air gap.



Max. operating pressure: 150 psi
Max. fluid temperature: 150°F

Code	Description	Lbs	USD
574900A	2" FNPT, includes air gap	20	-
574906A	2" press, includes air gap	20	-
NA11609**	Complete rebuild kit	1.8	-
59459*	Upstream check valve assembly	0.4	-
59460*	Downstream check valve assembly	0.4	-
59461*	Relief valve assembly	0.7	-
59462*	Relief valve seat	0.3	-
39623*	Discharge air gap	0.2	-
F0001901*	1/4" NPT test cock	0.2	-

*Replacement parts for 574900A and 574906A.

**Includes: Upstream and downstream check valves, relief valve assembly and seat.

Listed and certified by ASSE to standard 1013. Listed and certified by CSA to standard B64.4. Complies with AWWA C511, NSF/ANSI/CAN 61 and NSF/ANSI/CAN 372.

BACKFLOW PREVENTERS, REDUCED PRESSURE (RP)

NEW



5751 FlowShield™ RP flange

Testable reduced pressure principle backflow preventer.
Epoxy coated cast iron body.

Discharge air gap sold separately

Max. operating pressure: 175 psi
Max. fluid temperature: 150°F



Code	Description	Lbs	USD
575106A	2½" ANSI 150 flange	104	-
NA11610	Internal component rebuild kit	1.8	-
NA11614	Air gap kit	0.4	-
F0002296	Check valve #1	0.4	-
F0002299	Check valve #2	0.7	-
59625	Relief valve assembly	0.3	-
59462	Relief valve seat	0.2	-
31872	Air gap	0.2	-
31875	Relief valve flow guide	0.2	-
R0002579	½" test cock	0.2	-

*includes check valve #1 and #2 and relief valve assembly with seat.

**includes relief valve flow guide and air gap.

NEW



5751 FlowShield™ RP flange

Testable reduced pressure principle backflow preventer.
Epoxy coated cast iron body.

Discharge air gap sold separately

Max. operating pressure: 175 psi
Max. fluid temperature: 150°F



Code	Description	Lbs	USD
575108A	3" ANSI 150 flange	170	-
NA11612	Internal component rebuild kit	1.8	-
NA11616	Air gap kit	0.4	-
F0002298	Check valve #1	0.4	-
F0002300	Check valve #2	0.7	-
59629	Relief valve assembly	0.3	-
F0002294	Relief valve seat	0.2	-
31873	Air gap	0.2	-
31876	Relief valve flow guide	0.2	-
R0002579	½" test cock	0.2	-

*includes check valve #1 and #2 and relief valve assembly with seat.

**includes relief valve flow guide and air gap.

NEW



5751 FlowShield™ RP flange

Testable reduced pressure principle backflow preventer.
Epoxy coated cast iron body.

Discharge air gap sold separately

Max. operating pressure: 175 psi
Max. fluid temperature: 150°F

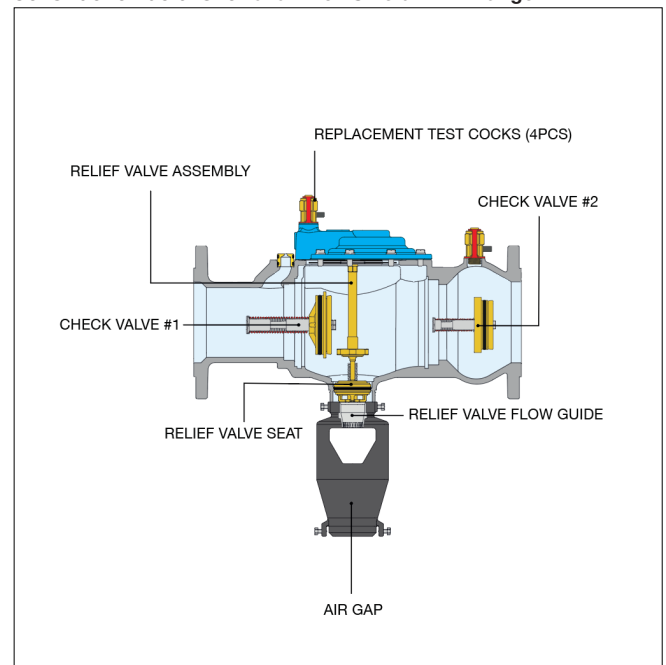


Code	Description	Lbs	USD
575110A	4" ANSI 150 flange	170	-
NA11612	Internal component rebuild kit	1.8	-
NA11616	Air gap kit	0.4	-
F0002298	Check valve #1	0.4	-
F0002300	Check valve #2	0.7	-
59629	Relief valve assembly	0.3	-
F0002294	Relief valve seat	0.2	-
31873	Air gap	0.2	-
31876	Relief valve flow guide	0.2	-
R0002579	½" test cock	0.2	-

*includes check valve #1 and #2 and relief valve assembly with seat.

**includes relief valve flow guide and air gap.

Construction details for 5751 FlowShield™ RP flange



Listed and certified by ASSE to standard 1013. Listed and certified by CSA to standard B64.4. Complies with AWWA C511, NSF/ANSI/CAN 61 and NSF/ANSI/CAN 372.

BACKFLOW PREVENTERS, DUAL CHECK (DuC)



3048 FlowShield™ DuC sweat

Dual check backflow preventer.

Dual union, Low lead/lead free DZR brass body.

Max. operating pressure: 175 psi
Max. fluid temperature: 180°F

Code	Description	Lbs	USD
304849A	½" sweat union	1.2	-
304859A	¾" sweat union	1.6	-
304869A	1" sweat union	1.6	-



3048 FlowShield™ DuC MNPT

Dual check backflow preventer.

Dual union, Low lead/lead free DZR brass body.

Max. operating pressure: 175 psi
Max. fluid temperature: 180°F

Code	Description	Lbs	USD
304840A	½" NPT male union	1	-
304850A	¾" NPT male union	1.2	-
304860A	1" NPT male union	1.6	-



3048 FlowShield™ DuC FNPT

Dual check backflow preventer.

Dual union, Low lead/lead free DZR brass body.

Max. operating pressure: 175 psi
Max. fluid temperature: 180°F

Code	Description	Lbs	USD
304843A	½" NPT female union	1.2	-
304853A	¾" NPT female union	1.6	-



3048 FlowShield™ DuC PEX

Dual check backflow preventer.

Dual union, Low lead/lead free DZR brass body.

Max. operating pressure: 175 psi
Max. fluid temperature: 180°F

Code	Description	Lbs	USD
304847A	½" PEX crimp union	1	-
304857A	¾" PEX crimp union	1	-
304867A	1" PEX crimp union	1.2	-
304848A	½" PEX expansion union	1.2	-
304858A	¾" PEX expansion union	1.4	-
304868A	1" PEX expansion union	1.4	-



3048 FlowShield™ DuC press

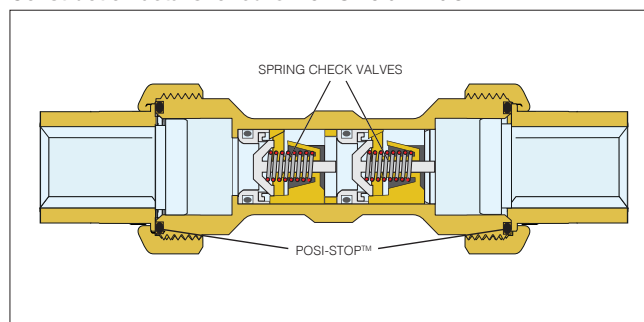
Dual check backflow preventer.

Dual union, Low lead/lead free DZR brass body.

Max. operating pressure: 175 psi

Code	Description	Lbs	USD
304846A	½" press union	1	-
304856A	¾" press union	1.2	-
304866A	1" press union	1.4	-

Construction details for 3048 FlowShield™ DuC



Complies with standards ASSE 1024, CSA B64.6, NSF/ANSI/CAN 61, NSF/ANSI/CAN 372 and codes IPC, IRC, UPC, NPC.

BACKFLOW PREVENTERS, DOUBLE CHECK (DC)

NEW

3049 FlowShield™ DC

Testable double check backflow prevention assembly.
Low lead/Lead free DZR brass body.

Reversible shutoff handles install in either direction.

ASSE 1015 CSA B64.5 C UPC

Max. operating pressure: 175 psi
Max. fluid temperature: 150°F

Code	Description	Lbs	USD
304940A	½" FNPT	3.8	-
NA11630**	Complete rebuild kit	0.5	-
F0002563*	Check valve #1	0.2	-
F0002564*	Check valve #2	0.2	-
F0002565*	Check valve retainer kit	0.1	-
F0001901*	¼" Test cock	0.2	-
F0002566*	Shutoff valve handle kit	0.4	-

* Replacement parts.
**Includes: CV #1, CV #2 and check valve retainer kit.

NEW

3049 FlowShield™ DC

Testable double check backflow prevention assembly.
Low lead/Lead free DZR brass body.

Reversible shutoff handles install in either direction.

ASSE 1015 CSA B64.5 C UPC

Max. operating pressure: 175 psi
Max. fluid temperature: 150°F

Code	Description	Lbs	USD
304950A	¾" FNPT	3.7	-
NA11630**	Complete rebuild kit	0.5	-
F0002563*	Check valve #1	0.2	-
F0002564*	Check valve #2	0.2	-
F0002565*	Check valve retainer kit	0.1	-
F0001901*	¼" Test cock	0.2	-
F0002566*	Shutoff valve handle kit	0.4	-

* Replacement parts.
**Includes: CV #1, CV #2 and check valve retainer kit.

NEW

3049 FlowShield™ DC

Testable double check backflow prevention assembly.
Low lead/Lead free DZR brass body.

Reversible shutoff handles install in either direction.

ASSE 1015 CSA B64.5 C UPC

Max. operating pressure: 175 psi
Max. fluid temperature: 150°F

Code	Description	Lbs	USD
304960A	1" FNPT	4	-
NA11630**	Complete rebuild kit	0.5	-
F0002563*	Check valve #1	0.2	-
F0002564*	Check valve #2	0.2	-
F0002565*	Check valve retainer kit	0.1	-
F0001901*	¼" Test cock	0.2	-
F0002566*	Shutoff valve handle kit	0.4	-

* Replacement parts.
**Includes: CV #1, CV #2 and check valve retainer kit.

NEW

3049 FlowShield™ DC

Testable double check backflow prevention assembly.
Low lead/Lead free DZR brass body.

Reversible shutoff handles install in either direction.

ASSE 1015 CSA B64.5 C UPC

Max. operating pressure: 175 psi
Max. fluid temperature: 150°F

Code	Description	Lbs	USD
304970A	1¼" FNPT	12.3	-
NA11633**	Complete rebuild kit	0.7	-
F0002571*	Check valve #1	0.2	-
F0002570*	Check valve #2	0.4	-
F0002569*	Check valve retainer kit	0.1	-
F0001901*	¼" Test cock	0.2	-
F0002568*	Shutoff valve handle kit	0.5	-

* Replacement parts.
**Includes: CV #1, CV #2 and check valve retainer kit.

Listed and certified by ASSE to standard 1015. Listed and certified by CSA to standard B64.5. Complies with NSF/ANSI/CAN 61 and NSF/ANSI/CAN 372.

BACKFLOW PREVENTERS, DOUBLE CHECK (DC)

NEW

3049 FlowShield™ DC



Testable double check backflow prevention assembly.
Low lead/Lead free DZR brass body.

Reversible shutoff handles install in either direction.



Max. operating pressure: 175 psi
Max. fluid temperature: 150°F

Code	Description	Lbs	USD
304980A	1½" FNPT	12.2	-
NA11633**	Complete rebuild kit	0.7	-
F0002571*	Check valve #1	0.2	-
F0002570*	Check valve #2	0.4	-
F0002569*	Check valve retainer kit	0.1	-
F0001901*	¼" Test cock	0.2	-
F0002568*	Shutoff valve handle kit	0.5	-

* Replacement parts.

**Includes: CV #1, CV #2 and check valve retainer kit.

Listed and certified by ASSE to standard 1015. Listed and certified by CSA to standard B64.5. Complies with NSF/ANSI/CAN 61 and NSF/ANSI/CAN 372.

NEW

3049 FlowShield™ DC



Testable double check backflow prevention assembly.
Low lead/Lead free DZR brass body.

Reversible shutoff handles install in either direction.



Max. operating pressure: 175 psi
Max. fluid temperature: 150°F

Code	Description	Lbs	USD
304990A	2" FNPT	12.6	-
NA11633**	Complete rebuild kit	0.7	-
F0002571*	Check valve #1	0.2	-
F0002570*	Check valve #2	0.4	-
F0002569*	Check valve retainer kit	0.1	-
F0001901*	¼" Test cock	0.2	-
F0002568*	Shutoff valve handle kit	0.5	-

* Replacement parts.

**Includes: CV #1, CV #2 and check valve retainer kit.

BACKFLOW PREVENTER DuC-AV



573 FlowShield™ DuC-AV

Dual check backflow preventer with an intermediate atmospheric vent.

Dual union, low lead/lead free DZR brass body.

Max. operating pressure: 175 psi
Max. fluid temperature: 210°F

Code	Description	Lbs	USD
573403A	½" NPT female union	1.7	-
573406A	½" press union	1.7	-
573409A	½" sweat union	1.7	-
573493A	½" sweat union inlet, ½" FNPT union outlet	1.7	-
573503A	¾" NPT female union	1.7	-
573100A*	Replacement body	1.5	-

*See fitting selection in Section 13.

Complies with standards ASSE 1012, CSA B64.3, NSF/ANSI/CAN 372 and with codes IPC, IRC, UPC. Certified by ICC-ES.

VACUUM RELIEF VALVE



304 Vacu-Stop™ (VRV)

Vacuum relief valve for water and low pressure steam service applications.

Low lead/lead free DZR brass body.

Max. operating pressure: 200 psi
Operating fluid range: 32 - 250°F

Code	Description	Lbs	USD
304040A	½" MNPT	0.8	-
304050A	¾" MNPT	0.8	-

Complies with standards ANSI Z21.22, CSA 4.4, NSF/ANSI/CAN 61, NSF/ANSI/CAN 372 and codes IPC, IRC, UPC, NPC. Certified by ICC-ES.



www.caleffi.com



LIVE TECH SUPPORT **REAL PEOPLE. REAL ANSWERS. REAL**

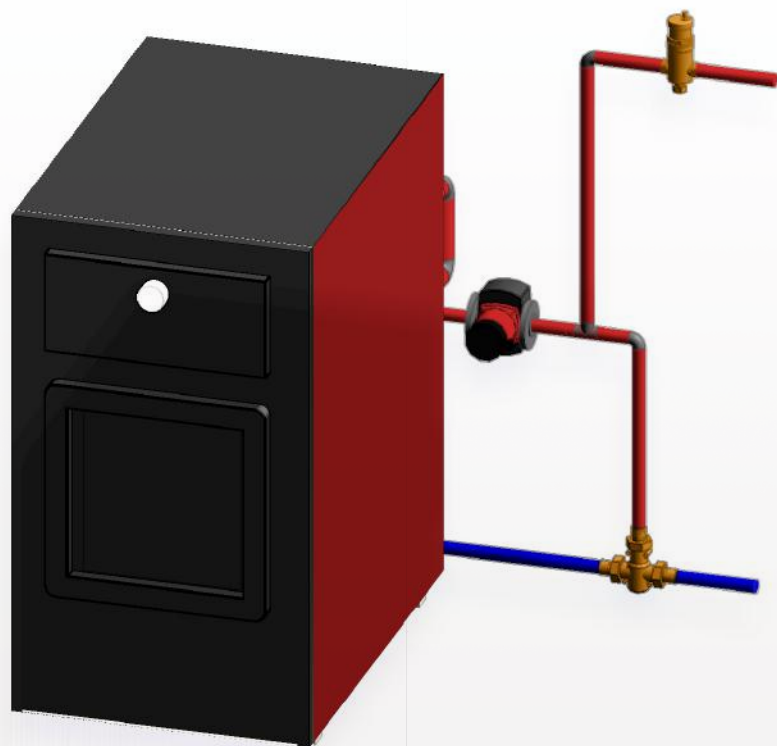
Zero wait, real people. Our Tech Support team consists of experts from the field who know the challenges you face. They are ready with **fast, practical solutions** and guidance so you can get the job done right every time. **CALEFFI GUARANTEED.**

414.338.6338 | techsupport.us@caleffi.com

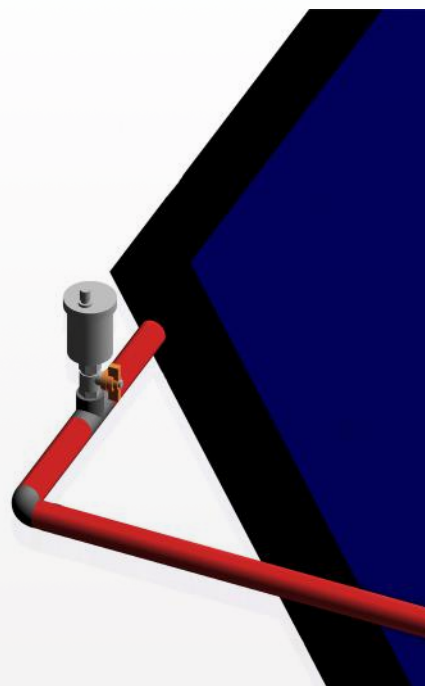


 **CALEFFI**
Hydronic Solutions

RENEWABLE COMPONENTS



Diagrams made with BIM families: bim.caleffi.com



This diagram is for illustration purposes only

PRODUCTS INCLUDED IN SECTION

Boiler protection high-flow thermostatic mixing valves
Boiler protection accessories
Air separator and safety relief valves
Automatic air vents

BOILER PROTECTION HIGH-FLOW THERMOSTATIC MIXING VALVES



280 ThermoProtec™

High-flow thermostatic mixing valve for boiler protection
Interchangeable thermostatic sensor cartridge
Complete with:
- 130 OR 140 °F sensor cartridge (field replaceable with 115 or 160 °F options)

Maximum working pressure: 150 psi
Fluid temperature range: 40 – 212 °F
Boiler bypass full-closing temperature:
Tset + 18 °F

Code	Description	Lbs	USD
280965A	1" sweat union, 130 °F Tset	11	-
280165A	1" NPT female union, 130 °F Tset	11	-
280966A	1" sweat union, 140 °F Tset	11	-
280166A	1" NPT female union, 140 °F Tset	11	-
280975A	1¼" sweat union, 130 °F Tset	11	-
280175A	1¼" NPT female union, 130 °F Tset	11	-
280976A	1¼" sweat union, 140 °F Tset	11	-
280176A	1¼" NPT female union, 140 °F Tset	11	-

BOILER PROTECTION ACCESSORIES



F296

Replacement thermostatic sensor cartridge for 280 ThermoProtec series

Boiler bypass full-closing temperature:
Tset + 18 °F

Code	Description	Lbs	USD
F29633	Replacement cartridge, 115 °F Tset	0.2	-
F29634	Replacement cartridge, 130 °F Tset	0.2	-
F29635	Replacement cartridge, 140 °F Tset	0.2	-
F29636	Replacement cartridge, 160 °F Tset	0.2	-



F295

Dual scale temperature gauge fits 280 ThermoBloc series boiler protection valves

Working temperature range: 32 – 250 °F

Code	Description	Lbs	USD
F29571	Replacement temperature gauge	0.2	-

AIR SEPARATOR AND SAFETY RELIEF VALVES



251 DISCAL®

Air separator for solar thermal systems
1/2" FNPT bottom connection

Maximum working pressure: 150 psi
Maximum discharge pressure: 150 psi
Fluid temperature range: -20 – 320 °F
Material: Chrome plated brass

Code	Description	Lbs	USD
251003A	¾" FNPT	2	-



253

Safety relief valve for solar thermal systems

Inlet connection: 1/2" straight
Outlet connection: 3/4" straight
Maximum working pressure: 150 psi
Fluid temperature range: -20 – 320 °F
Discharge capacity: 171,000 BTU
Material: Chrome plated brass



Code	Description	Lbs	USD
253042	factory set to 35 psi	0.3	-
253043	factory set to 45 psi	0.3	-
253044	factory set to 60 psi	0.3	-
253046	factory set to 90 psi	0.3	-
253048	factory set to 120 psi	0.3	-
253040	factory set to 150 psi	0.3	-

TÜV Rheinland is an approved U.S. Nationally Recognized Testing Laboratory (NRTL) Certification Body for Pressure Equipment. Meets ANSI Z21.22

AUTOMATIC AIR VENTS



250

Automatic air vent for solar systems

Maximum working pressure: 150 psi
Maximum discharge pressure: 75 psi
Fluid temperature range: -20 – 360 °F
Material: Chrome plated brass

Code	Description	Lbs	USD
250041A	1/2" MNPT	0.3	-



251 DISCALAIR®

High discharge automatic air vent for solar systems

Maximum working pressure: 150 psi
Maximum discharge pressure: 150 psi
Fluid temperature range: -20 – 320 °F
Material: Chrome plated brass

Code	Description	Lbs	USD
251004A	1/2" FNPT and 3/4" MNPT	0.8	-



NA292

Shut-off valve for 250 or 251 series automatic air vents

Maximum working pressure: 150 psi
Fluid temperature range: -20 – 360 °F
Material: Chrome plated brass

Code	Description	Lbs	USD
NA29284	1/2" FNPT x 1/2" MNPT	0.2	-



NA102

Air vent cap adapter fits all air vents and air separators (except for 5026 and 5027 ROBOCAL™)

Code	Description	Lbs	USD
NA10204	1/4" MNPT	0.1	-



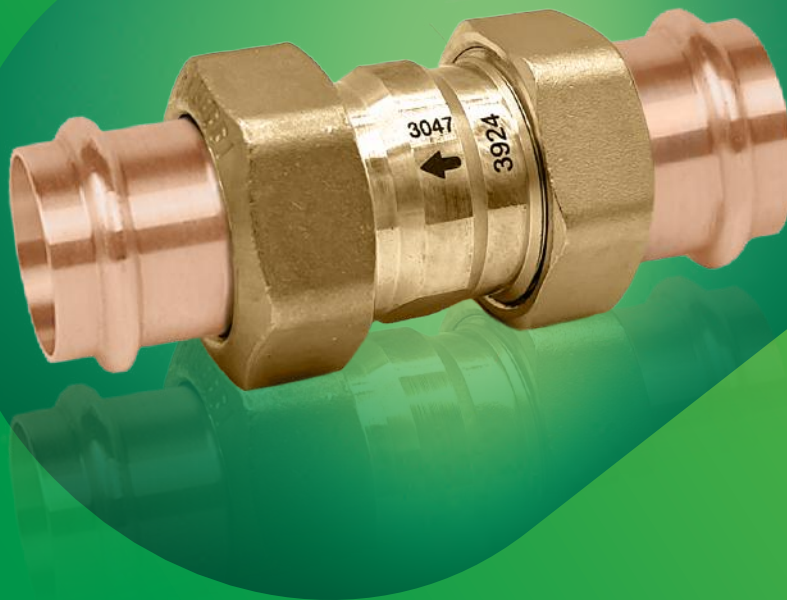
www.caleffi.com

CALEFFI
Hydronic Solutions

SERIES 3047

SERVICEABLE CHECK VALVE

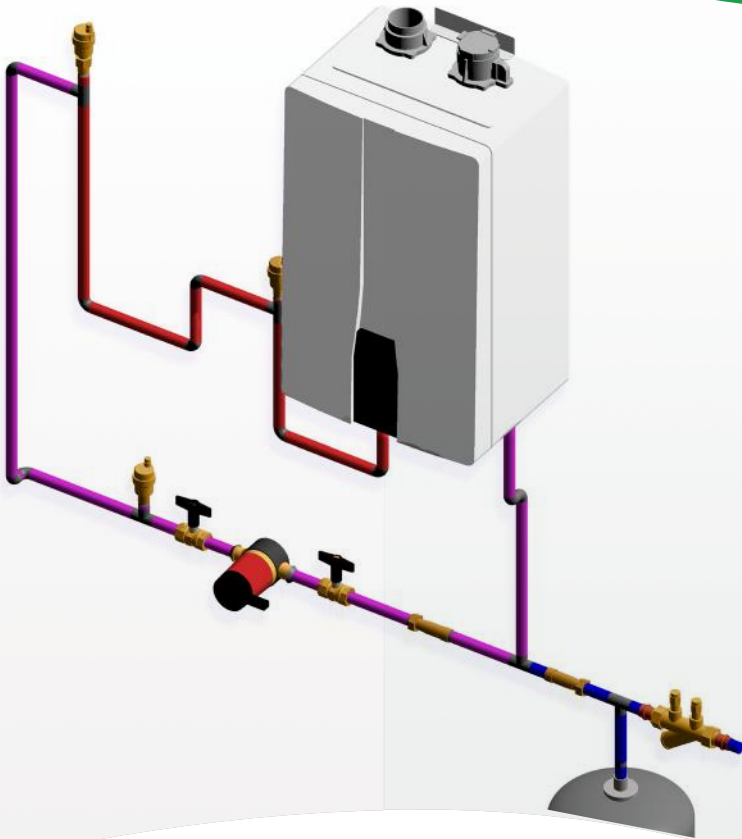
BUILT TO LAST



Designed for durability and ease of maintenance, the low-lead, Serviceable Check Valve delivers dependable one-way flow. Built with dual posi-stop™ embedded O-ring unions for easy inspection and periodic maintenance without changing parts. Ideal for domestic water systems and hydronic applications, it ensures long-lasting performance you can trust. **CALEFFI GUARANTEED.**



SPECIALTY COMPONENTS AND KITS



Diagrams made with BIM families: bim.caleffi.com

This diagram is for illustration purposes only

PRODUCTS INCLUDED IN SECTION

- Union Y-strainers
- Y-strainer with ball valve
- Serviceable low lead check valves
- Automatic air vent for plumbing
- Uni-Switch™ universal flow switch
- Antifreeze valve
- Tankless water heater service valve kit
- Differential pressure bypass
- NPT Y-strainers
- Isolation ball valves

UNION Y-STRAINERS



128 Y-strainer sweat

Y-strainer for plumbing or hydronics.
Low lead/Lead free DZR brass body.
Complete with:
- PT ports
- ½" FNPT blowdown port

Maximum working pressure: 400 psi
Fluid temperature range: 32 – 250 °F
Maximum percentage of glycol: 50%

Code	Description	Lbs	USD
128749A 000	½" sweat union	1.3	-
128759A 000	¾" sweat union	1.5	-
128769A 000	1" sweat union	1.7	-



128 Y-strainer NPT

Y-strainer for plumbing or hydronics.
Low lead/Lead free DZR brass body.
Complete with:
- PT ports
- ½" FNPT blowdown port

Maximum working pressure: 400 psi
Fluid temperature range: 32 – 250 °F
Maximum percentage of glycol: 50%

Code	Description	Lbs	USD
128741A 000	½" NPT male union	1.5	-
128751A 000	¾" NPT male union	1.5	-
128761A 000	1" NPT male union	1.7	-



128 Y-strainer press

Y-strainer for plumbing or hydronics.
Low lead/Lead free DZR brass body.
Complete with:
- PT ports
- ½" FNPT blowdown port

Maximum working pressure: 400 psi
Fluid temperature range: 32 – 250 °F
Maximum percentage of glycol: 50%

Code	Description	Lbs	USD
128746A 000	½" press union	1.5	-
128756A 000	¾" press union	1.5	-
128766A 000	1" press union	1.7	-



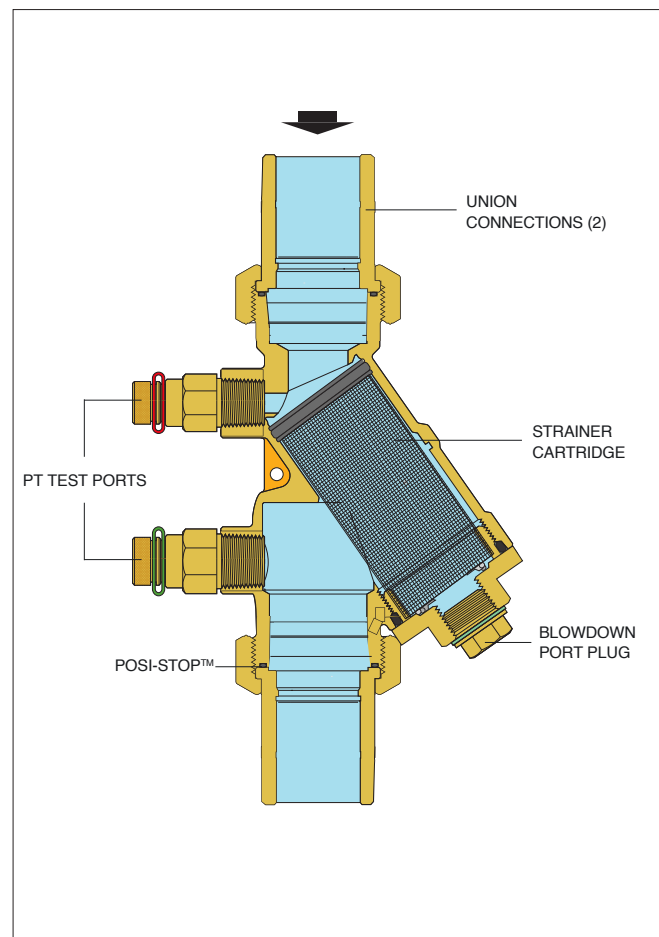
128 Y-strainer PEX

Y-strainer for plumbing or hydronics.
Low lead/Lead free DZR brass body.
Complete with:
- PT ports
- ½" FNPT blowdown port

Maximum working pressure: 400 psi
Fluid temperature range: 32 – 250 °F
Maximum percentage of glycol: 50%

Code	Description	Lbs	USD
128744A 000	½" PEX crimp union	1.5	-
128754A 000	¾" PEX crimp union	1.5	-
128764A 000	1" PEX crimp union	1.7	-
128742A 000	½" PEX expansion union	1.5	-
128752A 000	¾" PEX expansion union	1.5	-
128762A 000	1" PEX expansion union	1.7	-

Construction details for 128 Y-strainer



Complies with standard NSF/ANSI/CAN 372. Certified by ICC-ES.

UNION Y-STRAINERS ACCESORIES



Drain valves for y-strainers.
Compatible with:
- 128 FlowCal
- 128 Y-strainer
- 120 Y-strainer



Pressure test ports
Compatible with:
- 128 FlowCal
- 128 Y-strainer
- 120 Y-strainer

Code	Description	Lbs	USD
538202 FD	1/4" NPT male for 1/2" & 3/4"	0.3	-
538402 FD	1/2" NPT male for 1" & 1 1/4"	0.3	-

Code	Description	Lbs	USD
100001A *	1/4" NPT male x 3/8"-24 UNF	0.5	-

*Includes two pressure test port adapters

Y-STRAINER WITH BALL VALVE



120 Y-strainer

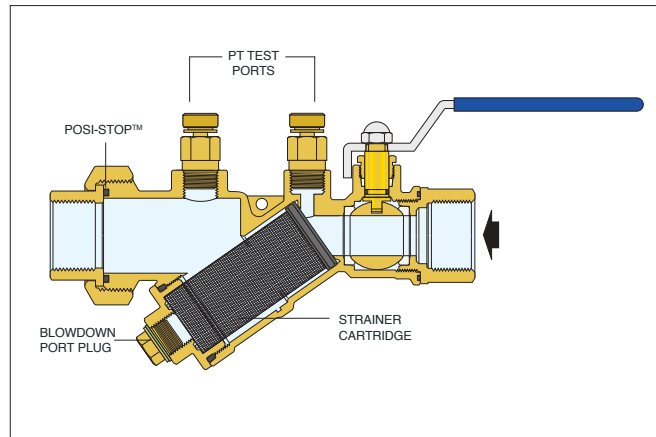
Y-strainer for hydronics.
Brass body.

Accessory components not included.

Max. working pressure: 400 psi
Fluid temperature range: 32 – 212 °F
Max. percentage of glycol: 50%

Code	Description	Cv	Lbs	USD
120141A 000	1/2" NPT female	8.0	3.0	-
120149A 000	1/2" sweat	8.0	3.0	-
120151A 000	3/4" NPT female	8.4	3.0	-
120159A 000	3/4" sweat	8.4	3.0	-
120161A 000	1" NPT female	19	6.0	-
120169A 000	1" sweat	19	6.0	-
120171A 000	1 1/4" NPT female	20	6.0	-
120179A 000	1 1/4" sweat	20	6.0	-
120341A 000	1/2" NPT female with PT	8.0	3.5	-
120349A 000	1/2" sweat with PT	8.0	3.5	-
120351A 000	3/4" NPT female with PT	8.4	3.5	-
120359A 000	3/4" sweat with PT	8.4	3.5	-
120361A 000	1" NPT female with PT	19	6.5	-
120369A 000	1" sweat with PT	19	6.5	-
120371A 000	1 1/4" NPT female with PT	20	6.5	-
120379A 000	1 1/4" sweat with PT	20	6.5	-

Construction details for 120 Y-strainer



SERVICEABLE LOW LEAD CHECK VALVES



3047 sweat

Serviceable in-line spring check valve.
Low lead/Lead free DZR brass body.
Dual union body.

Maximum working pressure: 150 psi
Fluid temperature range: 32 – 250 °F

Code	Description	Cv	Lbs	USD
304749A	½" sweat union	17	0.4	-
304759A	¾" sweat union	17	0.4	-
304769A	1" sweat union	30	0.9	-
304779A	1¼" sweat union	30	1.1	-
304789A	1½" sweat union	75	2.4	-
304799A	2" sweat union	75	2.4	-



3047 press

Serviceable in-line spring check valve.
Low lead/Lead free DZR brass body.
Dual union body.

Maximum working pressure: 150 psi
Fluid temperature range: 32 – 250 °F

Code	Description	Cv	Lbs	USD
304746A	½" press union	17	0.4	-
304756A	¾" press union	17	0.6	-
304766A	1" press union	30	1.1	-
304776A	1¼" press union	30	1.3	-
304786A	1½" press union	75	2.6	-
304796A	2" press union	75	2.6	-



3047 MNPT

Serviceable in-line spring check valve.
Low lead/Lead free DZR brass body.
Dual union body.

Maximum working pressure: 150 psi
Fluid temperature range: 32 – 250 °F

Code	Description	Cv	Lbs	USD
304740A	½" NPT male union	17	0.4	-
304750A	¾" NPT male union	17	0.6	-
304760A	1" NPT male union	30	1.1	-
304770A	1¼" NPT male union	30	1.3	-
304780A	1½" NPT male union	75	2.6	-
304790A	2" NPT male union	75	2.6	-



3047 PEX

Serviceable in-line spring check valve.
Low lead/Lead free DZR brass body.
Dual union body.

Maximum working pressure: 150 psi
Fluid temperature range: 32 – 250 °F

Code	Description	Cv	Lbs	USD
304747A	½" PEX crimp union	17	0.4	-
304757A	¾" PEX crimp union	17	0.6	-
304748A	½" PEX expansion union	17	0.4	-
304758A	¾" PEX expansion union	17	0.6	-



3047 FNPT

Serviceable in-line spring check valve.
Low lead/Lead free DZR brass body.
Dual union body.

Maximum working pressure: 150 psi
Fluid temperature range: 32 – 250 °F



3047 body

Serviceable in-line spring check valve.
Low lead/Lead free DZR brass body.
Dual union body.

Maximum working pressure: 150 psi
Fluid temperature range: 32 – 250 °F

Code	Description	Cv	Lbs	USD
NA30474A	½", ¾" body w/o fittings	17.0	0.2	-
NA30476A	1", 1¼" body w/o fittings	30.0	0.5	-
NA30478A	1½", 2" body w/o fittings	75.0	1.8	-

See fittings selection in Section 13.



Replacement spring check valves for
3047 series.

Code	Description	Cv	Lbs	USD
304743A	½" NPT female union	17	0.4	-
304753A	¾" NPT female union	17	0.6	-
304763A	1" NPT female union	30	1.1	-
304773A	1¼" NPT female union	30	1.3	-
304793A	2" NPT female union	75	2.6	-

Code	Description	Cv	Lbs	USD
NA10117	Fits ½", ¾" body	17.0	0.1	-
NA10370	Fits 1", 1¼" body	30.0	0.1	-
NA10371	Fits 1½", 2" body	75.0	0.2	-

Complies with standards: NSF/ANSI/CAN 61 & NSF/ANSI/CAN 372. Certified by ICC-ES.

AUTOMATIC AIR VENT FOR PLUMBING

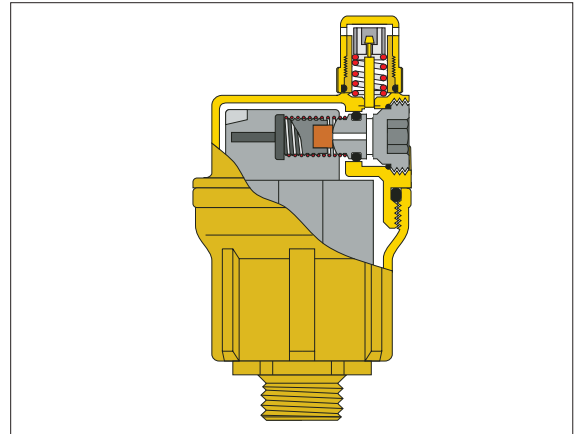


NA5026 PLUMBVENT™

Automatic air vent for plumbing systems.
Low lead/Lead free DZR brass body.

Maximum working pressure: 150 psi
Maximum fluid temperature: 240 °F
Maximum discharge rate: 1.75 SCFM

Construction detail for NA5026 PLUMBVENT™



Code	Description	Lbs	USD
NA502640A	1/2" MNPT	0.6	-

Complies with standard NSF/ANSI/CAN 372. Certified by ICC-ES.

UNIVERSAL FLOW SWITCH



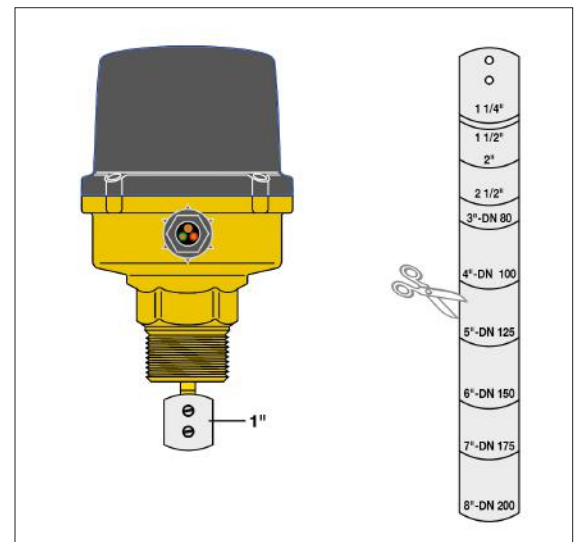
626 Uni-Switch™

Universal flow switch.
Compatible with 1" to 8" pipe size.

Maximum working pressure: 150 psi
Fluid temperature range: -20 – 250 °F
Required minimum flow: 5.7 GPM



Construction detail for 626 Uni-Switch™



Code	Description	Lbs	USD
626600A	1" NPT male	2.3	-
626009*	Replacement paddle assembly	0.1	-

* stainless steel

ANTIFREEZE VALVE



108 iStop®

Antifreeze valve for air-to-water hydronic
heat pump applications.
Brass body.

Minimum ambient temperature: -22 °F
Discharge at fluid temperature: 37 °F
Maximum working pressure: 150 psi

Code	Description	Lbs	USD
108860A	1" NPT female union	2.7	-
108866A	1" press union	3.1	-
108869A	1" sweat union	2.5	-
108870A	1 1/4" NPT female union	3.5	-
108876A	1 1/4" press union	3.6	-
108879A	1 1/4" sweat union	2.6	-

TANKLESS WATER HEATER SERVICE VALVE KIT



290 Tankless Water Heater Service Valve Kit

Service valve kit for tankless water heater applications.
Low lead/Lead free DZR brass body.

Optional:
- Pressure relief valve

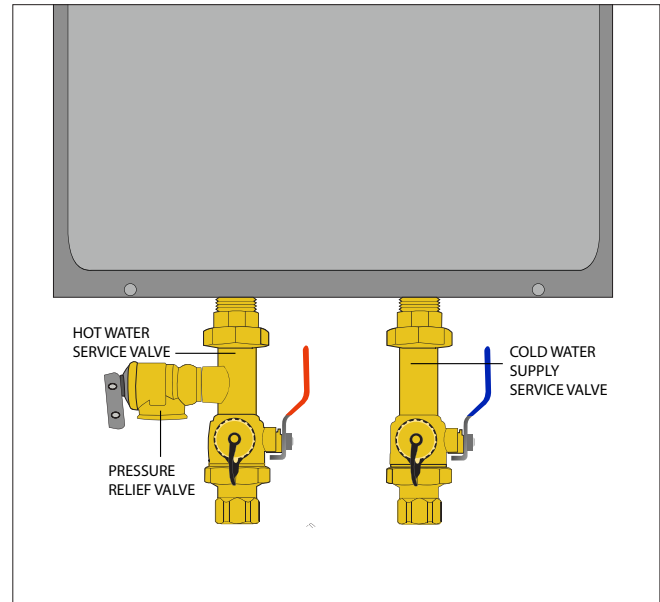
Maximum working pressure: 400 psi
Fluid temperature range: 32 – 210 °F

Code	Description	Lbs	USD
KIT290503A*	¾" FNPT	5.0	-
KIT290504A*	¾" FNPT equal lay length	5.2	-
290503A**	¾" FNPT	4.5	-
290504A**	¾" FNPT equal lay length	4.7	-

*With pressure relief valve.

** Certified to Section 1417(d) of the Safe Drinking Water Act, and the lead content requirements of Section 116875 of the California Health & Safety Code, by IAPMO R&T.

Construction details for 290 Tankless Water Heater Service Valve Kit



DIFFERENTIAL PRESSURE BYPASS



519

Differential pressure bypass valve for hydronic systems.
Brass body.

Adjustable range: 2 – 10 psi
Maximum working pressure: 150 psi
Fluid temperature range: 32 – 230 °F

Code	Description	Lbs	USD
519502A	¾" NPT male union	1.0	-
519566A	¾" press union	1.0	-
519599A	¾" sweat union	1.0	-
519600A	1" FNPT in, 1" NPT male union out	1.4	-
519609A	1" FNPT in, 1" sweat union out	1.4	-
519700A	1¼" FNPT in, 1¼" NPT male union out	1.5	-
519709A	1¼" FNPT in, 1¼" sweat union out	1.5	-

NPT Y-STRAINERS



NA109 Y-strainer

Y-strainer for plumbing or hydronics.
Low lead/Lead free DZR brass body.

Maximum working pressure: 360 psi
Fluid temperature range: 14 – 285 °F
Maximum percentage of glycol: 50%

Code	Description	Lbs	USD
NA10904	½" FNPT	0.5	-
NA10905	¾" FNPT	0.9	-
NA10906	1" FNPT	1.4	-
NA10907	1¼" FNPT	1.9	-
NA10908	1½" FNPT	2.4	-
NA10909	2" FNPT	3.0	-

**Complies with standards NSF/ANSI/CAN 61 & NSF/ANSI/CAN 372.
Certified and listed by IAPMO R&T.**

ISOLATION BALL VALVES



NA108

Full port isolation valve.
Low lead/Lead free DZR brass body.
Quarter turn.

Code	Description	Lbs	USD
NA10824	½" FNPT ball valve	0.4	-
NA10825	¾" FNPT ball valve	0.6	-
NA10826	1" FNPT ball valve	1.0	-
NA10827	1¼" FNPT ball valve	1.6	-
NA10828	1½" FNPT ball valve	1.9	-
NA10829	2" FNPT ball valve	3.0	-



Pipe nipple.
Low lead/Lead free DZR brass.
Compatible with FNPT Caleffi Products.

Code	Description	Lbs	USD
NA10834	½" MNPT	0.1	-
NA10835	¾" MNPT	0.1	-
NA10836	1" MNPT	0.1	-
NA10837	1¼" MNPT	0.3	-
NA10838	1½" MNPT	0.3	-
NA10839	2" MNPT	0.5	-



290 Isolation Valve

Union isolation valves.
Low lead/Lead free DZR brass body.
Quarter turn.

Code	Description	Lbs	USD
290030	1" M x 1" F union ball valve	1.0	-
290031*	1" M x 1" F union ball valve, ext. handle	1.0	-

*With extended handle

Complies with standards NSF/ANSI/CAN 61, NSF/ANSI/CAN 372.
Certified by ICC-ES.

MISCELLANEOUS COMPONENTS



NA503

Dual pressure and temperature gauge for boiler applications.

Maximum working pressure: 75 psi
Fluid temperature range: 60 – 320 °F

Code	Description	Lbs	USD
NA503040	¼" NPT male center back	0.2	-



538

Drain valve, brass body.
Quarter turn.

Maximum working pressure: 150 psi
Maximum fluid temperature: 250 °F

Code	Description	Lbs	USD
538202 FD	¼" NPT male x ¾" GHT	0.3	-
538402 FD	½" NPT male x ¾" GHT	0.3	-



NA510

Check valve for hydronic applications.

Maximum working pressure: 150 psi
Fluid temperature range: 32 – 150 °F

Code	Description	Cv	Lbs	USD
NA51069	1" sweat union	17	1.0	-



www.caleffi.com

CUSTOMER SUPPORT ALWAYS HERE. ALWAYS HELPFUL.

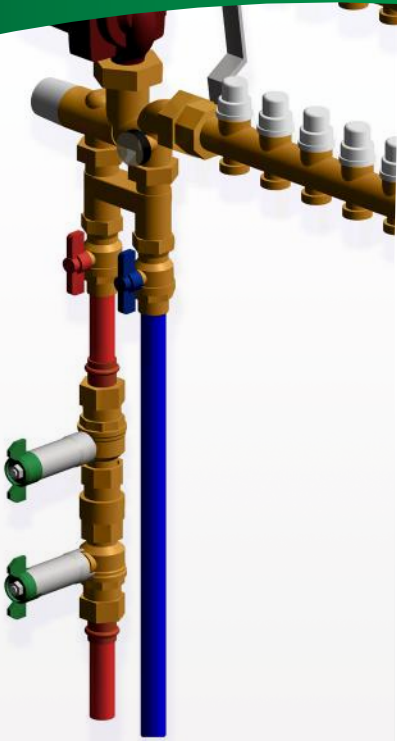
Our Customer Service team is ready to answer every call and guide you through every order and project. With **99.8% order accuracy, same-day processing, and fast, efficient handling**, we deliver dependable service you can trust. **CALEFFI GUARANTEED.**

414.238.2360 | orders.us@caleffi.com



 **CALEFFI**
Hydronic Solutions

FITTINGS



Diagrams made with BIM families: bim.caleffi.com

This diagram is for illustration purposes only

PRODUCTS INCLUDED IN SECTION

- | | |
|----------------------------------|--|
| 520 AngleMix | 573 Flowshield DuC-AV |
| 520 AngleMix+ | 3048 Flowshield DuC |
| 520 AngleMix DL | 3047 Serviceable Check Valve |
| 520 TankMixer | 577 CALEFFI XF |
| 520 TankMixer Combi | 108 iStop |
| 520 TankMixer Compact Combi | 5495 SEP4, 548 Hydro Separator, & 5461 |
| 521 MixCal, 5213 TubMixer | DISCALDIRTMAG |
| 5231 MixCal+ | 638 Motorized Ball Valves |
| 6000 LEGIOMIX & 6003 LEGIOMIXevo | 553 & 5350 Autofill |
| 127 FlowCal+, 128 FlowCal+, 128 | 145 Flowmatic |
| Y-Strainer, & 132 QuickSetter+ | 116 ThermoSetter & 1164 ThermoSetter |
| 535 PresCal & 536 PresCal HP | compact |
| 533 PresCal Compact | 172 Manifold Mixing Valves |
| 5517 Discal Rotating Collar | Z-one union, 6442 & 6443 series |
| NA5453 DIRTMAG | 6767 Twistop+ & 6762 Twistop |
| | Miscellaneous Fittings |

520 ANGLEMIX



NPT male tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F0002181	1/2" NPT male requires 1" union nut	0.3	-
31901A	3/4" NPT male requires 1" union nut	0.4	-
59817A	1" NPT male includes union nut	0.4	-



NPT male tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA12004	1/2" NPT male requires 1" union nut	0.2	-
NA12005	3/4" NPT male requires 1" union nut	0.3	-
NA12006	1" NPT male includes check and union nut	0.5	-



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10002	1/2" sweat requires 1" union nut	0.2	-
NA10003	3/4" sweat requires 1" union nut	0.3	-
59834A	1" sweat includes union nut	0.4	-



Sweat tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA12094	1/2" sweat requires 1" union nut	0.2	-
NA12095	3/4" sweat requires 1" union nut	0.3	-
NA12096	1" sweat includes 1" union nut	0.5	-



Copper press tailpiece, low lead
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10403	1/2" press requires 1" union nut	0.3	-
NA10744	3/4" press requires 1" union slip nut	0.4	-
NA10404	1" press requires 1" union slip nut	0.5	-



Copper press tailpiece with **check valve**, low lead
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10864LC	1/2" press includes 1" union nut	0.3	-
NA16265LC	3/4" press includes 1" union slip nut	0.3	-
NA16266LC	1" press includes 1" union slip nut	0.3	-



PEX expansion (ASTM F1960) tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F0002152	1/2" PEX exp. requires 1" union nut	0.1	-
F0002108	3/4" PEX exp. requires 1" union nut	0.1	-
F0002153	1" PEX exp. requires 1" union slip nut	0.1	-



PEX expansion (ASTM F1960) tailpiece with **check valve**, low lead brass.

Code	Description	Lbs	USD
NA10634	1/2" PEX exp. requires 1" union nut	0.2	-
NA10635	3/4" PEX exp. requires 1" union nut	0.2	-
NA10636	1" PEX exp. requires 1" union slip nut	0.2	-

520 ANGLEMIX



PEX crimp (ASTM F1807) tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™



PEX crimp (ASTM F1807) tailpiece with **check valve**, low lead brass.

Code	Description	Lbs	USD
F0002151	½" PEX crimp requires 1" union nut	0.1	-
F0002077	¾" PEX crimp requires 1" union nut	0.1	-
F0002150	1" PEX crimp requires 1" union slip nut	0.1	-

Code	Description	Lbs	USD
NA10484	½" PEX crimp requires 1" union nut	0.2	-
NA10485	¾" PEX crimp requires 1" union nut	0.2	-
NA10486	1" PEX crimp requires 1" union slip nut	0.2	-



Replacement check valves



Union nut, brass.

Code	Description	Lbs	USD
R39204	For sweat, NPT male fittings	0.1	-
NA10405	For press and PEX fittings	0.1	-

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-



Union sealing gasket for legacy non-Posi-Stop™ valves



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
R20011	1" union gasket	0.1	-

Code	Description	Lbs	USD
NA10999	Replacement o-rings	0.1	-

520 ANGLEMIX+



NPT male tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™



NPT male tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA20760	1" NPT male includes union nut and gasket	0.4	-

Code	Description	Lbs	USD
NA20760C	1" NPT male includes union nut and gasket	0.6	-



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™



Sweat tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA20769	1" sweat includes union nut and gasket	0.5	-

Code	Description	Lbs	USD
NA20769C	1" sweat includes union nut and gasket	0.5	-

520 ANGLEMIX+



Copper press tailpiece, low lead
Sealing gasket required for legacy valves
without Posi-Stop™



Copper press tailpiece with **check valve**,
low lead
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
NA20766	1" press includes union nut and gasket	0.5	-

Code	Description	Lbs	USD
NA20766C	1" press includes union nut and gasket	0.5	-



PEX expansion (ASTM F1960) tailpiece, low
lead brass
Sealing gasket required for legacy valves
without Posi-Stop™



PEX expansion (ASTM F1960) tailpiece with
check valve, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
NA20768	1" PEX exp. includes union nut and gasket	0.5	-

Code	Description	Lbs	USD
NA20768C	1" PEX exp. includes union nut and gasket	0.6	-



PEX crimp (ASTM F1807) tailpiece, low
lead brass
Sealing gasket required for legacy valves
without Posi-Stop™



PEX crimp (ASTM F1807) tailpiece with
check valve, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
NA20767	1" PEX crimp includes union nut and gasket	0.5	-

Code	Description	Lbs	USD
NA20767C	1" PEX crimp includes union nut and gasket	0.6	-



Replacement check valves



Union nut, brass.

Code	Description	Lbs	USD
NA10117	Check valve for 520 AngleMix+	0.1	-

Code	Description	Lbs	USD
R31495	1¼" union nut	0.2	-
F0002471	1¼" union slip nut	0.2	-



Union sealing gasket for legacy
non-Posi-Stop™ valves

Code	Description	Lbs	USD
R0001454	1¼" union gasket	0.1	-

520 ANGLEMIX DL



NPT male tailpiece with **check valve**, low lead brass.

Code	Description	Lbs	USD
NA12004	1/2" NPT male requires 1" union nut	0.2	-
NA12005	3/4" NPT male requires 1" union nut	0.3	-
NA12006	1" NPT male includes 1" union nut	0.5	-



Sweat tailpiece with **check valve**, low lead brass.

Code	Description	Lbs	USD
NA12094	1/2" sweat requires 1" union nut	0.2	-
NA12095	3/4" sweat requires 1" union nut	0.3	-
NA12096	1" sweat includes 1" union nut	0.5	-



Copper press tailpiece with **check valve**, low lead
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10864LC	1/2" press includes 1" union nut	0.3	-
NA16265LC	3/4" press includes 1" union slip nut	0.4	-
NA16266LC	1" press includes 1" union slip nut	0.5	-



PEX expansion (ASTM F1960) tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10634	1/2" press requires 1" union nut	0.2	-
NA10635	3/4" press requires 1" union slip nut	0.2	-
NA10636	1" press requires 1" union slip nut	0.2	-



PEX crimp (ASTM F1807) tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10484	1/2" PEX crimp requires 1" union nut	0.2	-
NA10485	3/4" PEX crimp requires 1" union nut	0.2	-
NA10486	1" PEX crimp requires 1" union nut	0.2	-



Replacement check valves

Code	Description	Lbs	USD
R39204	For sweat, NPT male fittings	0.1	-
NA10405	For press and PEX fittings	0.1	-



Union nut, brass.

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-



Union sealing gasket for legacy non-Posi-Stop™ valves

Code	Description	Lbs	USD
R20011	1" union gasket	0.1	-



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10999	Replacement o-rings	0.1	-

520 TANKMIXER



NPT male tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™



NPT female tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
31901A	¾" NPT male requires 1" union nut	0.4	-

Code	Description	Lbs	USD
F49645	¾" NPT female includes 1" union nut	0.2	-



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™



Copper press tailpiece, low lead
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10003	¾" sweat requires 1" union nut	0.3	-

Code	Description	Lbs	USD
NA10744	¾" press requires 1" union slip nut	0.4	-



Union nut, brass.



Union sealing gasket for legacy non-Posi-Stop™ valves

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-

Code	Description	Lbs	USD
R20011	1" union gasket	0.1	-



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10999	Replacement o-rings	0.1	-

520 TANKMIXER COMPACT



NPT male tailpiece, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™



NPT female tailpiece, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
31901A	¾" NPT male requires 1" union nut	0.4	-

Code	Description	Lbs	USD
F49645	¾" NPT female includes 1" union nut	0.2	-



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™



Copper press tailpiece, low lead
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
NA10003	¾" sweat requires 1" union nut	0.3	-

Code	Description	Lbs	USD
NA10744	¾" press requires 1" union slip nut	0.4	-



Union nut, brass.



Union sealing gasket for legacy
non-Posi-Stop™ valves

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-

Code	Description	Lbs	USD
R20011	1" union gasket	0.1	-



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10999	Replacement o-rings	0.1	-

520 TANKMIXER COMBI



NPT male tailpiece, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
31901A	¾" NPT male requires 1" union nut	0.4	-

Code	Description	Lbs	USD
NA10003	¾" sweat requires 1" union nut	0.3	-



Copper press tailpiece, low lead
Sealing gasket required for legacy valves
without Posi-Stop™



Union nut, brass.

Code	Description	Lbs	USD
NA10744	¾" press requires 1" union slip nut	0.4	-

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-



Union sealing gasket for legacy
non-Posi-Stop™ valves



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
R20011	1" union gasket	0.1	-

Code	Description	Lbs	USD
NA10999	Replacement o-rings	0.1	-

520 TANKMIXER COMPACT COMBI



NPT male tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
31901A	¾" NPT male requires 1" union nut	0.4	-

Code	Description	Lbs	USD
NA10003	¾" sweat requires 1" union nut	0.3	-



Copper press tailpiece, low lead
Sealing gasket required for legacy valves without Posi-Stop™



Union nut, brass.

Code	Description	Lbs	USD
NA10744	¾" press requires 1" union slip nut	0.4	-

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-



Union sealing gasket for legacy non-Posi-Stop™ valves



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
R20011	1" union gasket	0.1	-

Code	Description	Lbs	USD
NA10999	Replacement o-rings	0.1	-

521 MIXCAL, 5213 TUBMIXER



NPT male tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F0002181	½" NPT male requires 1" union nut	0.3	-
31901A	¾" NPT male requires 1" union nut	0.4	-
59817A	1" NPT male includes 1" union nut	0.4	-



NPT male tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA12004	½" NPT male requires 1" union nut	0.2	-
NA12005	¾" NPT male requires 1" union nut	0.3	-
NA12006	1" NPT male includes check and union nut	0.5	-



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10002	½" sweat requires 1" union nut	0.2	-
NA10003	¾" sweat requires 1" union nut	0.3	-
59834A	1" sweat includes union nut	0.4	-



Sweat tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA12094	½" sweat requires 1" union nut	0.2	-
NA12095	¾" sweat requires 1" union nut	0.3	-
NA12096	1" sweat includes 1" union nut	0.5	-



Copper press tailpiece, low lead
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10403	½" press requires 1" union nut	0.3	-
NA10744	¾" press requires 1" union slip nut	0.4	-
NA10404	1" press requires 1" union slip nut	0.5	-



Copper press tailpiece with **check valve**, low lead
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10864LC	½" press includes 1" union nut	0.3	-
NA16265LC	¾" press includes 1" union slip nut	0.3	-
NA16266LC	1" press includes 1" union slip nut	0.3	-



PEX expansion (ASTM F1960) tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F0002152	½" PEX exp. requires 1" union nut	0.1	-
F0002108	¾" PEX exp. requires 1" union nut	0.1	-
F0002153	1" PEX exp. requires 1" union slip nut	0.1	-



PEX expansion (ASTM F1960) tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10634	½" PEX exp. requires 1" union nut	0.2	-
NA10635	¾" PEX exp. requires 1" union nut	0.2	-
NA10636	1" PEX exp. requires 1" union slip nut	0.2	-



PEX crimp (ASTM F1807) tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F0002151	½" PEX crimp requires 1" union nut	0.1	-
F0002077	¾" PEX crimp requires 1" union nut	0.1	-
F0002150	1" PEX crimp requires 1" union slip nut	0.1	-



PEX crimp (ASTM F1807) tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10484	½" PEX crimp requires 1" union nut	0.2	-
NA10485	¾" PEX crimp requires 1" union nut	0.2	-
NA10486	1" PEX crimp requires 1" union slip nut	0.2	-

521 MIXCAL, 5213 TUBMIXER



Replacement check valves

Code	Description	Lbs	USD
R39204	For sweat, NPT male fittings	0.1	-
NA10405	For press and PEX fittings	0.1	-
NA10479	For 5213 TubMixer 3/8" compression	0.1	-



Union nut, brass.

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-



Compression tailpiece, low lead brass
For 5213 TubMixer ONLY

Code	Description	Lbs	USD
F0000718	3/8" compression requires 1" nut	0.3	-



Union sealing gasket for legacy
non-Posi-Stop™ valves

Code	Description	Lbs	USD
R20011	1" union gasket	0.1	-



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10999	Replacement o-rings for 521 and 5213s	0.1	-

5231 MIXCAL+



NPT male tailpiece, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
NA10009	1" NPT male requires 1½" union nut	0.3	-
R41660	1¼" NPT male requires 1½" union nut	0.3	-
41371A	1½" NPT male requires 2½" union nut	0.4	-
41372A	2" NPT male requires 2½" union nut	0.5	-



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
31554 FD	1" sweat requires 1½" union nut	0.3	-
41787 CST	1¼" sweat requires 1½" union nut	0.3	-
41788 CST	1½" sweat requires 2½" union nut	0.4	-
41789 CST	2" sweat requires 2½" union nut	0.5	-



Copper press tailpiece, low lead
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
NA10706	1" press requires 1½" union nut	0.4	-
NA10707	1¼" press requires 1½" union slip nut	0.4	-
NA10708	1½" press requires 2½" union nut	0.5	-
NA10709	2" press includes 2½" union nut	0.5	-



Union nut, brass.

Code	Description	Lbs	USD
R31589	1½" union nut	0.2	-
F0002470	1½" union slip nut	0.2	-
R51838	2½" union nut	0.3	-



Union sealing gasket for legacy
non-Posi-Stop™ valves

Code	Description	Lbs	USD
R0001457	1½" union gasket	0.1	-
R0001460	2½" union gasket	0.1	-

6000 LEGIOMIX AND 6003 LEGIOMIXevo



NPT male tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
31901A	¾" NPT male requires 1" union nut	0.3	-
59817A	1" NPT male includes 1" union nut	0.3	-
NA10009	1" NPT male requires 1½" union nut	0.3	-
R41660	1¼" NPT male requires 1½" union nut	0.3	-
41371A	1½" NPT male requires 2½" union nut	0.4	-
41372A	2" NPT male requires 2½" union nut	0.5	-



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10003	¾" sweat requires 1" union nut	0.3	-
59834A	1" sweat includes 1" union nut	0.3	-
31554 FD	1" sweat requires 1½" union nut	0.3	-
41787 CST	1¼" sweat requires 1½" union nut	0.4	-
41788 CST	1½" sweat requires 2½" union nut	0.4	-
41789 CST	2" sweat requires 2½" union nut	0.5	-



Copper press tailpiece, low lead
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10744	¾" press requires 1" union slip nut	0.2	-
NA10404	1" press requires 1" union slip nut	0.2	-
NA10706	1" press requires 1½" union nut	0.4	-
NA10707	1¼" press requires 1½" union slip nut	0.4	-
NA10708	1½" press requires 2½" union nut	0.5	-
NA10709	2" press includes 2½" union nut	0.5	-



Union nut, brass.

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-
R31589	1½" union nut	0.3	-
F0002470	1½" union slip nut	0.3	-
R51838	2½" union nut	0.3	-



Union sealing gasket for legacy non-Posi-Stop™ valves

Code	Description	Lbs	USD
R0001462	1" union gasket	0.1	-
R0001457	1½" union gasket	0.1	-
R0001460	2½" union gasket	0.1	-



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10998*	For ¾" assemblies	0.1	-
NA10992	For 1" & 1 1/4" assemblies	0.1	-
NA10993	For 1 1/2" & 2" assemblies	0.1	-

*Compatible with LEGIOMIXevo and LEGIOMIX 1" assembly using ¾" body

127 FLOWCAL+, 128 FLOWCAL+, 128 Y-STRAINER, 132 QUICKSETTER+



NPT male tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F0002181	½" NPT male requires 1" union nut	0.3	-
31901A	¾" NPT male requires 1" union nut	0.4	-
59817A	1" NPT male includes union nut	0.4	-



NPT male tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA12004	½" NPT male requires 1" union nut	0.2	-
NA12005	¾" NPT male requires 1" union nut	0.3	-
NA12006	1" NPT male includes check and union nut	0.5	-



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10002	½" sweat requires 1" union nut	0.2	-
NA10003	¾" sweat requires 1" union nut	0.3	-
59834A	1" sweat includes union nut	0.4	-



Sweat tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA12094	½" sweat requires 1" union nut	0.2	-
NA12095	¾" sweat requires 1" union nut	0.3	-
NA12096	1" sweat includes 1" union nut	0.5	-

127 FLOWCAL+, 128 FLOWCAL+, 128 Y-STRAINER, 132 QUICKSETTER+



Copper press tailpiece, low lead
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10403	½" press requires 1" union nut	0.3	-
NA10744	¾" press requires 1" union slip nut	0.4	-
NA10404	1" press requires 1" union slip nut	0.5	-



Copper press tailpiece with **check valve**, low lead
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10864LC	½" press includes 1" union nut	0.3	-
NA16265LC	¾" press includes 1" union slip nut	0.3	-
NA16266LC	1" press includes 1" union slip nut	0.3	-



PEX expansion (ASTM F1960) tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F0002152	½" PEX exp. requires 1" union nut	0.1	-
F0002108	¾" PEX exp. requires 1" union nut	0.1	-
F0002153	1" PEX exp. requires 1" union slip nut	0.1	-



PEX expansion (ASTM F1960) tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10634	½" PEX exp. requires 1" union nut	0.2	-
NA10635	¾" PEX exp. requires 1" union nut	0.2	-
NA10636	1" PEX exp. requires 1" union slip nut	0.2	-



PEX crimp (ASTM F1807) tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F0002151	½" PEX crimp requires 1" union nut	0.1	-
F0002077	¾" PEX crimp requires 1" union nut	0.1	-
F0002150	1" PEX crimp requires 1" union slip nut	0.1	-



PEX crimp (ASTM F1807) tailpiece with **check valve**, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10484	½" PEX crimp requires 1" union nut	0.2	-
NA10485	¾" PEX crimp requires 1" union nut	0.2	-
NA10486	1" PEX crimp. requires 1" union slip nut	0.2	-



Union sealing gasket for legacy non-Posi-Stop™ valves

Code	Description	Lbs	USD
R20011	1" union gasket	0.1	-



Replacement check valves

Code	Description	Lbs	USD
R39204	Replacement for sweat, NPT male fittings	0.1	-
NA10405	Replacement for press and PEX fittings	0.1	-



Union nut, brass.

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10998	Replacement o-rings for 127 & 132 Series	0.1	-

535 PRESCAL AND 536 PRESCAL HP



NPT female tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F49644	½" NPT female includes ¾" union nut	0.4	-
F49645	¾" NPT female includes 1" union nut	0.5	-
F49646	1" NPT female includes 1¼" union nut	0.6	-
F0002160	1¼" NPT female includes 1½" union nut	0.7	-
F0000493	1½" NPT female includes 2" union nut	0.9	-
F0000495*	2" NPT female includes 2½" union nut	1	-

*536 PresCal HP Low range not offered in this size



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10001	½" sweat requires ¾" union nut	0.1	-
NA10003	¾" sweat requires 1" union nut	0.2	-
F49657	1" sweat includes 1¼" nut	0.4	-
41787 CST	1¼" sweat requires 1½" union nut	0.3	-
F0000494	1½" sweat includes 2" union nut	0.7	-
F0000496*	2" sweat includes 2½" union nut	0.8	-

*536 PresCal HP Low range not offered in this size



Copper press tailpiece, low lead
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10809	½" press requires ¾" union slip nut	0.2	-
NA10744	¾" press requires 1" union slip nut	0.4	-
NA10747	1" press requires 1¼" union slip nut	0.6	-
NA10707	1¼" press requires 1½" union slip nut	0.8	-
NA10715	1½" press includes 2" union nut	0.9	-
NA10709*	2" press includes 2½" union nut	2	-

*536 PresCal HP Low range not offered in this size



PEX crimp (ASTM F1807) tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F0002077	¾" PEX crimp requires 1" union nut	0.1	-
NA10496	1" PEX crimp requires 1¼" union nut	0.2	-



Union nut, brass.



PEX expansion (ASTM F1960) tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F0002108	¾" PEX expansion requires 1" union nut	0.1	-
F0001365	1" PEX expansion requires 1¼" union nut	0.2	-

Code	Description	Lbs	USD
F41186	¾" union nut	0.1	-
R21176	¾" union slip nut	0.1	-
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-
R31495	1¼" union nut	0.3	-
F0002471	1¼" union slip nut	0.3	-
R31589	1½" union nut	0.4	-
F0002470	1½" union slip nut	0.4	-
R51838	2½" union nut	0.5	-



Union sealing gasket for legacy non-Posi-Stop™ valves

Code	Description	Lbs	USD
R0001458	¾" union gasket	0.1	-
R20011	1" union gasket	0.1	-
R0001454	1¼" union gasket	0.1	-
R0001457	1½" union gasket	0.1	-
R0001459	2" union gasket	0.1	-
R0001460	2½" union gasket	0.1	-



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10989	Replacement o-rings for ½" 535's	0.1	-
NA10998	Replacement o-rings for ¾" 535's	0.1	-
NA10995	Replacement o-rings for 1" 535's	0.1	-
NA10992	Replacement o-rings for 1¼" 535's	0.1	-
NA10990	Replacement o-rings for 1½" 535's	0.1	-
NA10993	Replacement o-rings for 2" 535's	0.1	-

533 PRESCAL COMPACT



NPT female tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F49644	1/2" NPT female includes 3/4" union nut	0.4	-
F49645	3/4" NPT female includes 1" union nut	0.5	-



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10001	1/2" sweat tailpiece requires 3/4" union nut	0.1	-
NA10003	3/4" sweat tailpiece requires 1" union nut	0.2	-



Copper press tailpiece, low lead
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
NA10809	1/2" press requires 3/4" union slip nut	0.2	-
NA10744	3/4" press requires 1" union slip nut	0.4	-



PEX crimp (ASTM F1807) tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F0002077	3/4" PEX crimp requires 1" union nut	0.1	-



PEX crimp (ASTM F1807) tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F0002108	3/4" PEX expansion requires 1" union nut	0.1	-



Union nut, brass.

Code	Description	Lbs	USD
F41186	3/4" union nut	0.1	-
R21176	3/4" union slip nut	0.1	-
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-



Union sealing gasket for legacy non-Posi-Stop™ valves

Code	Description	Lbs	USD
R0001458	3/4" union gasket	0.1	-
R20011	1" union gasket	0.1	-



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10998	Replacement o-ring for 533's	0.1	-

5517 DISCAL ROTATING COLLAR, NA5453 DIRTMAG



NPT male tailpiece, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
31901A	¾" NPT male requires 1" union nut	0.3	-
59817A	1" NPT male includes 1" union nut	0.3	-

Code	Description	Lbs	USD
NA10003	¾" sweat requires 1" union nut	0.3	-
59834A	1" sweat includes union nut	0.4	-



Copper press tailpiece, low lead
Sealing gasket required for legacy valves
without Posi-Stop™



Union nut, brass.

Code	Description	Lbs	USD
NA10744	¾" press requires 1" union slip nut	0.4	-
NA10404	1" press requires 1" union slip nut	0.5	-

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-



Union sealing gasket for legacy
non-Posi-Stop™ valves

Code	Description	Lbs	USD
R20011	1" union gasket	0.1	-

573 FLOWSHIELD DUC-AV



NPT female tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
-	1/2" NPT female	0.2	-
-	3/4" NPT female	0.3	-

Contact Tech Support for orderable item code



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
-	1/2" sweat tailpiece requires 3/4" union nut	0.1	-
-	3/4" sweat tailpiece requires 1" union nut	0.2	-

Contact Tech Support for orderable item code



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
-	1/2" sweat	0.1	-

Contact Tech Support for orderable item code



Union nut, brass.

Code	Description	Lbs	USD
-	Union nut for 573 series	0.2	-

Contact Tech Support for orderable item code



Copper press adapter, low lead

Code	Description	Lbs	USD
-	1/2" press adapter, MNPT x Press	0.3	-

Contact Tech Support for orderable item code



Replacement Posi-Stop O-Rings for 573 Flowshield DuC-AV
Sold in packs of 10

Code	Description	Lbs	USD
-	Replacement o-rings	0.1	-

Contact Tech Support for orderable item code



Union sealing gasket for legacy non-Posi-Stop™ valves

Code	Description	Lbs	USD
-	Replacement gasket for 573 series	0.1	-

Contact Tech Support for orderable item code

3048 FLOWSHIELD DUC



NPT male tailpiece, low lead brass

Code	Description	Lbs	USD
F0002181	1/2" NPT male requires 1" union nut	0.2	-
31901A	3/4" NPT male requires 1" union nut	0.3	-
59817A	1" NPT male includes 1" union nut	0.3	-



NPT female tailpiece, low lead brass

Code	Description	Lbs	USD
NA10569	1/2" NPT female requires 1" union slip nut	0.2	-
NA10745	3/4" NPT female requires 1" union slip nut	0.3	-



Copper press tailpiece, low lead

Code	Description	Lbs	USD
NA10403	1/2" press requires 1" union nut	0.3	-
NA10744	3/4" press requires 1" union slip nut	0.4	-
NA10404	1" press requires 1" union slip nut	0.5	-



Sweat tailpiece, low lead brass

Code	Description	Lbs	USD
NA10002	1/2" sweat requires 1" union nut	0.2	-
NA10003	3/4" sweat requires 1" union nut	0.3	-
59834A	1" sweat includes union nut	0.4	-



PEX expansion (ASTM F1960) tailpiece, low lead brass
Sealing gasket required for legacy valves without Posi-Stop™

Code	Description	Lbs	USD
F0002152	1/2" PEX exp. requires 1" union nut	0.1	-
F0002108	3/4" PEX exp. requires 1" union nut	0.1	-
F0002153	1" PEX exp. requires 1" union slip nut	0.1	-



Union nut, brass.

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10998	Replacement o-rings for 3048's	0.1	-



PEX crimp (ASTM F1807) tailpiece, low lead brass

Code	Description	Lbs	USD
F0002151	1/2" PEX crimp requires 1" union nut	0.1	-
F0002077	3/4" PEX crimp requires 1" union nut	0.1	-
F0002150	1" PEX crimp. requires 1" union slip nut	0.1	-

3047 SERVICEABLE CHECK VALVE



NPT male tailpiece, low lead brass

Code	Description	Lbs	USD
F0002181	½" NPT male requires 1" union nut	0.2	-
31901A	¾" NPT male requires 1" union nut	0.3	-
NA10009	1" NPT male requires 1½" union nut	0.3	-
R41660	1¼" NPT male requires 1½" union nut	0.3	-
41371A	1½" NPT male requires 2½" union nut	0.4	-
41372A	2" NPT male requires 2½" union nut	0.5	-



NPT female tailpiece, low lead brass

Code	Description	Lbs	USD
NA10569	½" NPT female requires 1" union slip nut	0.2	-
F49645	¾" NPT female includes 1" union nut	0.2	-
31553 FD	1" NPT female requires 1½" union nut	0.3	-
F0002160	1¼" NPT female includes 1½" union nut	0.7	-
F0000495	2" NPT female includes 2½" union nut	1	-



Copper press tailpiece, low lead

Code	Description	Lbs	USD
NA10403	½" press requires 1" union nut	0.3	-
NA10744	¾" press requires 1" union slip nut	0.4	-
NA10706	1" press requires 1½" union nut	0.4	-
NA10707	1¼" press requires 1½" union slip nut	0.4	-
NA10708	1½" press requires 2½" union nut	0.5	-
NA10709	2" press includes 2½" union nut	0.5	-



Sweat tailpiece, low lead brass

Code	Description	Lbs	USD
NA10002	½" sweat requires 1" union nut	0.3	-
NA10003	¾" sweat requires 1" union nut	0.3	-
31554 FD	1" sweat requires 1½" union nut	0.3	-
41787 CST	1¼" sweat requires 1½" union nut	0.3	-
41788 CST	1½" sweat requires 2½" union nut	0.4	-
F0000496	2" sweat includes 2½" union nut	0.8	-



PEX expansion (ASTM F1960) tailpiece, low lead brass

Code	Description	Lbs	USD
F0002152	½" PEX exp. requires 1" union nut	0.1	-
F0002108	¾" PEX exp. requires 1" union nut	0.1	-



Union nut, brass.

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-
R31589	1½" union nut	0.4	-
F0002470	1½" union slip nut	0.4	-
R51838	2½" union nut	0.5	-



PEX crimp (ASTM F1807) tailpiece, low lead brass

Code	Description	Lbs	USD
F0002151	½" PEX Crimp requires 1" union nut	0.1	-
F0002077	¾" PEX Crimp requires 1" union nut	0.1	-


Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10998	Replacement o-rings for ½" and ¾"	0.1	-
NA10992	Replacement o-rings for 1" and 1¼"	0.1	-
NA10993	Replacement o-rings for 1½" and 2"	0.1	-

577 CALEFFI XF



NPT male tailpiece, low lead brass

Code	Description	Lbs	USD
59817A	1" NPT male includes 1" union nut	0.3	-



NPT female tailpiece, low lead brass

Code	Description	Lbs	USD
F0002160	1 1/4" FNPT includes 1 1/2" union nut	0.7	-
F0000493	1 1/2" FNPT includes 2" union nut	0.9	-



Copper press tailpiece, low lead

Code	Description	Lbs	USD
NA10404	1" press requires 1" union slip nut	0.5	-
NA10707	1 1/4" press requires 1 1/2" union slip nut	0.8	-
NA10715	1 1/2" press includes 2" union nut	0.9	-



Sweat tailpiece, low lead brass

Code	Description	Lbs	USD
59834A	1" sweat includes 1" union nut	0.4	-
41787 CST	1 1/4" sweat requires 1 1/2" union nut	0.3	-
F0000494	1 1/2" sweat includes 2" union nut	0.7	-



Union nut, brass.

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-
R31589	1 1/2" union nut	0.4	-
F0002470	1 1/2" union slip nut	0.4	-


Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10998	Replacement o-rings for 1" 577's	0.1	-
NA10992	Replacement o-rings for 1 1/4" 577's	0.1	-
NA10990	Replacement o-rings for 1 1/2" 577's	0.1	-

108 ISTOP



NPT female tailpiece, brass

Code	Description	Lbs	USD
31553 FD	1" FNPT requires 1 1/2" union nut	0.3	-
F0002160	1 1/4" FNPT includes 1 1/2" union nut	0.7	-



Sweat tailpiece, brass

Code	Description	Lbs	USD
31554 FD	1" sweat requires 1 1/2" union nut	0.3	-
41787 CST	1 1/4" sweat requires 1 1/2" union nut	0.3	-



Copper press tailpiece

Code	Description	Lbs	USD
NA10406	1" press requires 1 1/2" union nut	0.4	-
NA10707	1 1/4" press requires 1 1/2" union slip nut	0.4	-



Union nut, brass

Code	Description	Lbs	USD
R31589	1 1/2" union nut	0.4	-
F0002470	1 1/2" union slip nut	0.4	-



Union gasket for legacy non-Posi-Stop™ valves

Code	Description	Lbs	USD
R0001457	1 1/2" union gasket	0.1	-

5495 SEP4, 548 HYDRO SEPARATOR, 5461 DISCALDIRTMAG



NPT female tailpiece, brass

Code	Description	Lbs	USD
31553 FD	1" NPT female requires 1½" steel union nut	0.3	-
31401 FD	1¼" NPT female requires 2" steel union nut	0.3	-
R41441	1½" NPT female requires 2¼" steel union nut	0.3	-
31426 FD	2" NPT female requires 2¾" steel union nut	0.4	-



Sweat tailpiece, brass

Code	Description	Lbs	USD
31554 FD	1" sweat requires 1½" steel union nut	0.3	-
31403 FD	1¼" sweat requires 2" steel union nut	0.3	-
41882A	1½" sweat requires 2¼" steel union nut	0.3	-
31428 FD	2" sweat requires 2¾" steel union nut	0.4	-



Copper press tailpiece

Code	Description	Lbs	USD
NA10406	1" press tailpiece requires 1½" steel union nut	0.4	-
NA10407	1¼" press tailpiece requires 2" steel union nut	0.4	-
NA10408	1½" press tailpiece requires 2¼" steel union nut	0.5	-
NA10409	2" press tailpiece requires 2¾" steel union nut	0.5	-



Union nut, steel

Code	Description	Lbs	USD
R0001452	1½" steel union nut	0.4	-
R53003	2" steel union nut	0.4	-
R53004	2¼" steel union nut	0.4	-
R53005	2¾" steel union nut	0.4	-



Union gasket for legacy non-Posi-Stop™ valves

Code	Description	Lbs	USD
R50005	1½" union gasket	0.2	-
R50008	2" union gasket	0.2	-
R50047	2¼" union gasket	0.2	-
R50048	2¾" union gasket	0.2	-

638 MOTORIZED BALL VALVES



NPT male tailpiece, low lead brass



Sweat tailpiece, brass

Code	Description	Lbs	USD
31901A	¾" NPT male requires 1" union nut	0.3	-
NA10116	1" NPT male requires 1 ¼" union nut	0.4	-
R41660	1 ¼" NPT male requires 1 ½" union nut	0.3	-
41371A	1 ½" NPT male requires 2 ½" union nut	0.4	-
41372A	1" NPT male includes 2 ½" union nut	0.3	-

Code	Description	Lbs	USD
NA10003	¾" sweat requires 1" union nut	0.3	-
F49657	1" sweat includes 1 ¼" union nut	0.3	-
41787 CST	1 ¼" sweat requires 1 ½" union nut	0.3	-
41788 CST	1 ½" sweat requires 2 ½" union nut	0.4	-
41789 CST	2" sweat requires 2 ½" union nut	0.5	-



Copper press tailpiece



Union nut, brass

Code	Description	Lbs	USD
NA10744	¾" press requires 1" union slip nut	0.4	-
NA10747	1" press requires 1 ¼" union slip nut	0.5	-
NA10707	1 ¼" press requires 1 ½" union slip nut	0.4	-
NA10708	1 ½" press requires 2 ½" union nut	0.5	-
NA10709	2" press includes 2 ½" union nut	0.5	-

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-
R31495	1 ¼" union nut	0.3	-
F0002471	1 ¼" union slip nut	0.2	-
R31589	1 ½" union nut	0.2	-
F0002470	1 ½" union slip nut	0.2	-
R51838	2 ½" union nut	0.3	-


Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10998	Replacement o-rings for ¾" 638's	0.1	-
NA10995	Replacement o-rings for 1" 638's	0.1	-
NA10992	Replacement o-rings for 1 ¼" 638's	0.1	-

553 AND 5350 AUTOFILL



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
NA10001*	1/2" sweat requires 3/4" union nut	0.3	-
NA10003	3/4" sweat requires 1" union nut	0.3	-
59834A	1" sweat includes 1" union nut	0.4	-

*for 553 AutoFill ONLY



NPT male tailpiece, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
F31868*	1/2" NPT male requires 3/4" union nut	0.1	-
31901A	3/4" NPT male requires 1" union nut	0.3	-
59817A	1" NPT male includes 1" union nut	0.3	-

*for 553 AutoFill ONLY



Press tailpiece, low lead copper
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
NA10744	3/4" press requires 1" union slip nut	0.4	-
NA10404	1" press requires 1" union slip nut	0.5	-



PEX expansion (ASTM F1960) tailpiece,
low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
F0002108	3/4" PEX exp. requires 1" union nut	0.1	-
F0002153	1" PEX exp. requires 1" union slip nut	0.1	-



Union nut, brass

Code	Description	Lbs	USD
F41186	3/4" union nut	0.1	-
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-



Union gasket for legacy non-Posi-Stop™
valves

Code	Description	Lbs	USD
R0001458	3/4" union gasket	0.1	-
R20011	1" union gasket	0.1	-



PEX crimp (ASTM F1807) tailpiece, low
lead brass
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
F0002077	3/4" PEX crimp requires 1" union nut	0.1	-
F0002150	1" PEX crimp requires 1" union slip nut	0.1	-



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10989*	Replacement o-ring 3/4" union	0.1	-

*for 553 AutoFill ONLY

145 FLOWMATIC



NPT female tailpiece, low lead brass

Code	Description	Lbs	USD
F49644	1/2" NPT female includes 3/4" union nut	0.3	-
F49645	3/4" NPT female includes 1" union nut	0.3	-
F49646	1" NPT female includes 1 1/4" union nut	0.3	-



Sweat tailpiece, low lead brass

Code	Description	Lbs	USD
NA10001	1/2" sweat requires 3/4" union nut	0.3	-
NA10003	3/4" sweat requires 1" union nut	0.3	-
F49657	1" sweat includes 1 1/4" union nut	0.3	-



Copper press tailpiece, low lead

Code	Description	Lbs	USD
NA10809	1/2" press requires 3/4" union slip nut	0.4	-
NA10744	3/4" press requires 1" union slip nut	0.4	-
NA10747	1" press requires 1 1/4" union slip nut	0.5	-



Union nut, brass

Code	Description	Lbs	USD
F41186	3/4" union nut	0.4	-
R21176	3/4" union slip nut	0.4	-
F61008	1" union nut	0.4	-
F0000698	1" union slip nut	0.4	-
R31495	1 1/4" union nut	0.4	-
R11222	1 1/4" union slip nut	0.4	-



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10994	Replacement o-rings for 1/2" 145's	0.1	-
NA10998	Replacement o-rings for 3/4" 145's	0.1	-
NA10995	Replacement o-rings for 1" 145's	0.1	-

116 THERMOSETTER & 1164 THERMOSETTER COMPACT



NPT female tailpiece, low lead brass

Code	Description	Lbs	USD
NA10569	1/2" NPT female requires 1" union slip nut	0.2	-
F49645	3/4" NPT female includes 1" union nut	0.5	-



Sweat tailpiece, low lead brass

Code	Description	Lbs	USD
NA10002	1/2" sweat requires 1" union nut	0.2	-
NA10003	3/4" sweat requires 1" union nut	0.3	-



Press tailpiece, low lead copper

Code	Description	Lbs	USD
NA10403	1/2" press requires 1" union nut	0.3	-
NA10744	3/4" press requires 1" union nut	0.4	-



PEX expansion (ASTM F1960) tailpiece, low lead brass

Code	Description	Lbs	USD
F0002152	1/2" PEX exp. requires 1" union nut	0.1	-
F0002108	3/4" PEX exp. requires 1" union nut	0.1	-



PEX crimp (ASTM F1807) tailpiece, low lead brass

Code	Description	Lbs	USD
F0002151	1/2" PEX crimp requires 1" union nut	0.1	-
F0002077	3/4" PEX crimp requires 1" union nut	0.1	-



Union nut, brass

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10998	Replacement o-rings for 116 and 1164s	0.1	-

172 MANIFOLD MIXING STATION



NPT female tailpiece, low lead brass
Compatible with 172 Mixing station
isolation valves



NPT male tailpiece, low lead brass.
Compatible with 172 Mixing station
isolation valves

Code	Description	Lbs	USD
F49645	¾" NPT female includes 1" union nut	0.5	-

Code	Description	Lbs	USD
31901A	¾" NPT male requires 1" union nut	0.3	-



Copper press tailpiece, low lead
Compatible with 172 Mixing station
isolation valves



Sweat tailpiece, low lead brass
Compatible with 172 Mixing station
isolation valves

Code	Description	Lbs	USD
NA10744	¾" press requires 1" union slip nut	0.4	-

Code	Description	Lbs	USD
NA10003	¾" sweat requires 1" union nut	0.3	-



PEX expansion (ASTM F1960) tailpiece, low
lead brass
Compatible with 172 Mixing station
isolation valves



Union nut, brass

Code	Description	Lbs	USD
F0002108	¾" PEX exp. requires 1" union nut	0.1	-

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-



PEX crimp (ASTM F1807) tailpiece, low
lead brass
Compatible with 172 Mixing station
isolation valves

Code	Description	Lbs	USD
F0002077	¾" PEX Crimp requires 1" union nut	0.1	-

Z-ONE UNION, 6442 AND 6443 SERIES



Sweat tailpiece, low lead brass

Code	Description	Lbs	USD
NA10002	1/2" sweat requires 1" union nut	0.2	-
NA10003	3/4" sweat requires 1" union nut	0.3	-
59834A	1" sweat includes 1" union nut	0.4	-



NPT male tailpiece, low lead brass

Code	Description	Lbs	USD
R31981	1/2" NPT male requires 1" union nut	0.2	-
31901A	3/4" NPT male requires 1" union nut	0.3	-
59817A	1" NPT male includes 1" union nut	0.4	-



Replacement Posi-Stop O-Rings
Sold in packs of 10

Code	Description	Lbs	USD
NA10998	Replacement o-rings for Z-one, 6442/6443	0.1	-



Copper press tailpiece, low lead

Code	Description	Lbs	USD
NA10403	1/2" press requires 1" union nut	0.3	-
NA10744	3/4" press requires 1" union slip nut	0.4	-
NA16265L*	3/4" long press includes 1" union slip nut	0.4	-
NA10404	1" press requires 1" union slip nut	0.4	-

*for Z-one Union zone valves ONLY



Union nut, brass

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-

6767 TWISTOP+ AND 6762 TWISTOP



Sweat tailpiece, low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
NA10002	½" sweat requires 1" union nut	0.2	-
NA10003	¾" sweat requires 1" union nut	0.3	-
59834A	1" sweat includes 1" union nut	0.4	-



Copper press tailpiece, low lead
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
NA10403	½" press requires 1" union nut	0.3	-
NA10744	¾" press requires 1" union slip nut	0.4	-
NA10404	1" press requires 1" union slip nut	0.4	-



PEX expansion (ASTM F1960) tailpiece,
low lead brass
Sealing gasket required for legacy valves
without Posi-Stop™

Code	Description	Lbs	USD
F0002152	½" PEX exp. requires 1" union nut	0.1	-
F0002108	¾" PEX exp. requires 1" union nut	0.1	-
F0002153	1" PEX exp. requires 1" union slip nut	0.1	-



PEX crimp (ASTM F1807) tailpiece, low
lead brass
Compatible with 172 Mixing station
isolation valves

Code	Description	Lbs	USD
F0002151	½" PEX crimp requires 1" union nut	0.1	-
F0002077	¾" PEX exp. requires 1" union nut	0.1	-
F0002150	1" PEX exp. requires 1" union slip nut	0.1	-



Union nut, brass

Code	Description	Lbs	USD
F61008	1" union nut	0.2	-
F0000698	1" union slip nut	0.2	-



Union gasket for legacy non-Posi-Stop™
valves

Code	Description	Lbs	USD
R20011	1" union gasket	0.1	-

MISCELLANEOUS FITTINGS



Sweat adapter

Code	Description	Lbs	USD
NA10062	1" sweat adapter w/ 1" male thd.	0.1	24.50



Double nipple

Code	Description	Lbs	USD
NA12173	1" NPT x 1" NPT	0.4	-



Nipple

Code	Description	Lbs	USD
NA10064	1" NPT w/ 1" male thread	0.2	25.40



Nipple

Code	Description	Lbs	USD
NA12162	¾" male w/ O-ring x 1" male thread	0.2	-



Sweat adapter

Code	Description	Lbs	USD
NA10119	1" sweat adapter x 1¼" union thread	0.4	31.10



Bushing

Code	Description	Lbs	USD
61215A	1" NPT F x 1¼" M thread bushing	0.8	-



Bushing

Code	Description	Lbs	USD
NA10087	1" female x 1¼" male thread bushing	0.4	22.80



Nipple

Code	Description	Lbs	USD
R31706	1" male x 1¼" male nipple	0.3	-



www.caleffi.com



CALEFFI BIM LIBRARY THE HEART OF YOUR DESIGNS

Download the free library bim.caleffi.com. Caleffi is BIM ready and we are eager to share our design know-how. The whole library is natively modeled in REVIT so files are of the highest quality, delivered in a user-friendly file size. Each family contains the parametric variants to allow calculation functions within AUTODESK® REVIT®. Choose Caleffi as part of your standard of excellence in design. **CALEFFI GUARANTEED.**



CALEFFI
Hydronic Solutions

Code	Page(s)	Code	Page(s)	Code	Page(s)	Code	Page(s)	Code	Page(s)
100001A	113	116250AC 108	85	116640AC 107	85	127167AFC***	80	128769A 000	112
108860A	115	116250AC 109	85	116640AC 108	85	127168AFC***	80	130400A	76
108866A	115	116260A	88	116640AC 109	85	127169AFC***	81	130500A	76
108869A	115	116260AC	88	116650AC 002	85	127341AF***	82	130600A	76
108870A	115	116270A	88	116650AC 006	85	127342AF***	82	130700A	76
108876A	115	116270AC	88	116650AC 007	85	127344AF***	82	130800A	76
108879A	115	116340AC 002	87	116650AC 008	85	127346AF***	82	130900A	76
112003	75	116340AC 006	87	116650AC 009	85	127349AF***	82	132060A	74
112001	75	116340AC 007	87	116650AC 102	85	127351AF***	82	132080A	74
116000	89	116340AC 008	87	116650AC 106	85	127352AF***	82	132100A	74
116010	89	116340AC 009	87	116650AC 107	85	127354AF***	82	132430AFC	73
116140AC 002	86	116340AC 102	87	116650AC 108	85	127356AF***	82	132431AFC	73
116140AC 006	86	116340AC 106	87	116650AC 109	85	127359AF***	82	132432A	74
116140AC 007	86	116340AC 107	87	116660A	88	127361AF***	82	132432AFC	73
116140AC 008	86	116340AC 108	87	116660AC	88	127362AF***	82	132433AFC	73
116140AC 009	86	116340AC 109	87	116670A	88	127364AF***	82	132434AFC	73
116140AC 102	86	116350AC 002	87	116670AC	88	127366AF***	82	132435AFC	73
116140AC 106	86	116350AC 006	87	120141A 000	113	127369AF***	82	132436A	74
116140AC 107	86	116350AC 007	87	120149A 000	113	128440AFC***	77	132436AFC	72
116140AC 108	86	116350AC 008	87	120151A 000	113	128441AFC***	78	132437AFC	72
116140AC 109	86	116350AC 009	87	120159A 000	113	128442AFC***	78	132438AFC	72
116141AC 002	86	116350AC 102	87	120161A 000	113	128443AFC***	77	132439AFC	72
116141AC 006	86	116350AC 106	87	120169A 000	113	128444AFC***	78	132450AFC	73
116141AC 007	86	116350AC 107	87	120171A 000	113	128445AFC***	77	132451AFC	73
116141AC 008	86	116350AC 108	87	120179A 000	113	128446AFC***	78	132452AFC	73
116141AC 009	86	116350AC 109	87	120341A 000	113	128447AFC***	77	132453AFC	73
116141AC 102	86	116360A	88	120349A 000	113	128448AFC***	77	132454AFC	73
116141AC 106	86	116360AC	88	120351A 000	113	128449AFC***	78	132455AFC	73
116141AC 107	86	116370A	88	120359A 000	113	128450AFC***	77	132456AFC	72
116141AC 108	86	116370AC	88	120361A 000	113	128451AFC***	78	132457AFC	72
116141AC 109	86	116440AC 002	84	120369A 000	113	128452AFC***	78	132458AFC	72
116150AC 002	86	116440AC 006	84	120371A 000	113	128453AFC***	77	132459AFC	72
116150AC 006	86	116440AC 007	84	120379A 000	113	128454AFC***	78	132530AFC	73
116150AC 007	86	116440AC 008	84	121141A***	83	128455AFC***	77	132531AFC	73
116150AC 008	86	116440AC 009	84	121149A***	83	128456AFC***	78	132532AFC	73
116150AC 009	86	116440AC 102	84	121151A***	83	128457AFC***	77	132533AFC	73
116150AC 102	86	116440AC 106	84	121159A***	83	128458AFC***	77	132534AFC	73
116150AC 106	86	116440AC 107	84	121161A***	83	128459AFC***	78	132535AFC	73
116150AC 107	86	116440AC 108	84	121169A***	83	128460AFC***	77	132536AFC	72
116150AC 108	86	116440AC 109	84	121171A***	83	128461AFC***	78	132537AFC	72
116150AC 109	86	116441AC 002	84	121179A***	83	128462AFC***	78	132538AFC	72
116151AC 002	86	116441AC 006	84	121341A***	83	128463AFC***	77	132539AFC	72
116151AC 006	86	116441AC 007	84	121349A***	83	128464AFC***	78	132550AFC	73
116151AC 007	86	116441AC 008	84	121351A***	83	128465AFC***	77	132551AFC	73
116151AC 008	86	116441AC 009	84	121359A***	83	128466AFC***	78	132552A	74
116151AC 009	86	116441AC 102	84	121361A***	83	128467AFC***	77	132552AFC	73
116151AC 102	86	116441AC 106	84	121369A***	83	128468AFC***	77	132553AFC	73
116151AC 106	86	116441AC 107	84	121371A***	83	128469AFC***	78	132554AFC	73
116151AC 107	86	116441AC 108	84	121379A***	83	128541AF***	79	132555AFC	73
116151AC 108	86	116441AC 109	84	127000A***	82	128542AF***	79	132556A	74
116151AC 109	86	116450AC 002	84	127140AFC***	80	128544AF***	79	132556AFC	72
116160A	88	116450AC 006	84	127141AFC***	81	128546AF***	79	132557AFC	72
116160AC	88	116450AC 007	84	127142AFC***	81	128549AF***	79	132558AFC	72
116161A	88	116450AC 008	84	127143AFC***	80	128551AF***	79	132559AFC	72
116161AC	88	116450AC 009	84	127144AFC***	81	128552AF***	79	132637	75
116170A	88	116450AC 102	84	127145AFC***	80	128554AF***	79	132657	75
116170AC	88	116450AC 106	84	127146AFC***	81	128556AF***	79	132630AFC	73
116171A	88	116450AC 107	84	127147AFC***	80	128559AF***	79	132631AFC	73
116171AC	88	116450AC 108	84	127148AFC***	80	128561AF***	79	132632AFC	73
116240AC 002	85	116450AC 109	84	127149AFC***	81	128562AF***	79	132633AFC	73
116240AC 006	85	116451AC 002	84	127150AFC***	80	128564AF***	79	132634AFC	73
116240AC 007	85	116451AC 006	84	127151AFC***	81	128566AF***	79	132635AFC	73
116240AC 008	85	116451AC 007	84	127152AFC***	81	128569AF***	79	132636AFC	72
116240AC 009	85	116451AC 008	84	127153AFC***	80	128741A 000	112	132637AFC	72
116240AC 102	85	116451AC 009	84	127154AFC***	81	128742A 000	112	132638AFC	72
116240AC 106	85	116451AC 102	84	127155AFC***	80	128744A 000	112	132639AFC	72
116240AC 107	85	116451AC 106	84	127156AFC***	81	128746A 000	112	132650AFC	73
116240AC 108	85	116451AC 107	84	127157AFC***	80	128749A 000	112	132651AFC	73
116240AC 109	85	116451AC 108	84	127158AFC***	80	128751A 000	112	132652AFC	73
116250AC 002	85	116451AC 109	84	127159AFC***	81	128752A 000	112	132653AFC	73
116250AC 006	85	116640AC 002	85	127160AFC***	80	128754A 000	112	132654AFC	73
116250AC 007	85	116640AC 006	85	127161AFC***	81	128756A 000	112	132655AFC	73
116250AC 008	85	116640AC 007	85	127162AFC***	81	128759A 000	112	132656AFC	72
116250AC 009	85	116640AC 008	85	127163AFC***	80	128761A 000	112	132657AFC	72
116250AC 102	85	116640AC 009	85	127164AFC***	81	128762A 000	112	132658AFC	72
116250AC 106	85	116640AC 102	85	127165AFC***	80	128764A 000	112	132659AFC	72
116250AC 107	85	116640AC 106	85	127166AFC***	81	128766A 000	112	132662A	74

Code	Page(s)	Code	Page(s)	Code	Page(s)	Code	Page(s)	Code	Page(s)
132666A	74	1725G1A	40	304769A	114	502420	19	520616AC DL	59
132772A	74	1725G1A IN	40	304770A	114	502630	19	520619A	59
132776A	74	1725G1AHE	40	304773A	114	502640	19	520619A 001	58
132882A	74	1725G1AHE IN	40	304776A	114	502610A	19	520619AC	59
132886A	74	1725H1A	40	304779A	114	502620A	19	520619AC 001	58
132992A	74	1725H1A IN	40	304780A	114	502710A	18	520619AC DL	59
132996A	74	1725H1AHE	40	304786A	114	502720A	18	521101A	57
142241A	76	1725H1AHE IN	40	304789A	114	508013A	18	521201A	69
142251A	76	1725H1A	40	304790A	114	508100A	19	521201AP	69
142261A	76	1725H1A IN	40	304793A	114	519006	43	521204A	69
142271A	76	1725H1AHE	40	304796A	114	519502A	116	521301A	68
142281A	76	1725H1AHE IN	40	304799A	114	519566A	116	521333A	68
142291A	76	1725L1A	40	304840A	103	519599A	116	521333A 002	68
145013	30	1725L1A IN	40	304843A	103	519600A	116	521342A	68
145018	30	1725L1AHE	40	304846A	103	519609A	116	521342A 002	68
145443A 1G8	30	1725L1AHE IN	40	304847A	103	519700A	116	521346A	68
145443A 3G5	30	1725M1A	40	304848A	103	519709A	116	521346A 002	68
145443A G90	30	1725M1A IN	40	304849A	103	520051A	59	521347A	68
145446A 1G8	30	1725M1AHE	40	304850A	103	520061A	59	521347A 002	68
145446A 3G5	30	1725M1AHE IN	40	304853A	103	520410A	58	521348A	68
145446A G90	30	1725N1A	40	304856A	103	520410AC	58	521348A 002	68
145449A 1G8	30	1725N1A IN	40	304857A	103	520410AC DL	59	521349A	68
145449A 3G5	30	1725N1AHE	40	304858A	103	520414A	58	521349A 002	68
145449A G90	30	1725N1AHE IN	40	304859A	103	520414AC	58	521352A	68
145553A 1G8	30	1725O1A	40	304860A	103	520414AC DL	59	521352A 002	68
145553A 3G5	30	1725O1A IN	40	304866A	103	520415A	58	521356A	68
145553A 5G3	30	1725O1AHE	40	304867A	103	520415AC	58	521356A 002	68
145553A G90	30	1725O1AHE IN	40	304868A	103	520415AC DL	59	521357A	68
145556A 1G8	30	200000	24	304869A	103	520416A	58	521357A 002	68
145556A 3G5	30	201000	24	304940A	104	520416AC	58	521358A	68
145556A 5G3	30	203602	24	304950A	104	520416AC DL	59	521358A 002	68
145556A G90	30	220400A	25	304960A	104	520419A	58	521359A	68
145559A 1G8	30	220500A	25	304970A	104	520419AC	58	521359A 002	68
145559A 3G5	30	221400A	25	304980A	105	520419AC DL	59	521362A	68
145559A 5G3	30	221500A	25	304990A	105	520500AX	60	521362A 002	68
145559A G90	30	250041A	109	31401 FD	Section 13	520506AX	60	521366A	68
145663A 13G	30	251003A	109	31403 FD	Section 13	520509AX	60	521366A 002	68
145663A 16G	30	251004A	109	31426 FD	Section 13	520510A	58	521367A	68
145663A 7G9	30	253040	109	31428 FD	Section 13	520510AC	58	521367A 002	68
145666A 13G	30	253042	109	31553 FD	Section 13	520510AC DL	59	521368A	68
145666A 16G	30	253043	109	31554 FD	Section 13	520510AP	61	521368A 002	68
145666A 7G9	30	253044	109	31872	102	520510AX	60	521369A	68
145669A 13G	30	253046	109	31873	102	520514A	58	521369A 002	68
145669A 16G	30	253048	109	31875	102	520514AC	58	521400A	54
145669A 7G9	30	280165A	108	31876	102	520514AC DL	59	521400AC	54
149400A 1G8	31	280166A	108	31901A	Section 13	520515A	58	521406A	54
149400A 3G5	31	280175A	108	337221A	19	520515AC	58	521406AC	54
149400A G40	31	280176A	108	338452	25	520515AC DL	59	521407A	54
149400A G90	31	280965A	108	339452	25	520516A	58	521407AC	54
149500A 1G8	31	280966A	108	342452	25	520516AC	58	521408A	54
149500A 3G5	31	280975A	108	343452	25	520516AC DL	59	521408AC	54
149500A 5G3	31	280976A	108	386500	44	520516AP	61	521409A	54
149500A G90	31	290030	35, 75, 82, 89, 117	387100	27, 44	520516AX	60	521409AC	54
149600A 13G	31	290031	35, 75, 82, 89, 117	387127	25	520519A	58	521410A	55
149600A 16G	31	290503A	116	39623	100, 101	520519AC	58	521410AC	55
149600A 7G9	31	290504A	116	41371A	Section 13	520519AC DL	59	521416A	55
165001	43	301043	26	41372A	Section 13	520519AP	61	521416AC	55
166600A	43	301143	26	41787 CST	Section 13	520519AX	60	521417A	55
166602A	43	301241	26	41788 CST	Section 13	520610A	59	521417AC	55
166610A	43	301341	26	41789 CST	Section 13	520610A 001	58	521418A	55
166612A	43	304040A	105	41882A	Section 13	520610AC	59	521418AC	55
1725C1A	40	304050A	105	437516	27	520610AC 001	58	521419A	55
1725C1A IN	40	304740A	114	449000	45	520610AC DL	59	521419AC	55
1725C1AHE	40	304743A	114	449010	24	520614A	59	521500A	54
1725C1AHE IN	40	304746A	114	449740	26	520614A 001	58	521500AC	54
1725D1A	40	304747A	114	472000	24	520614AC	59	521506A	54
1725D1A IN	40	304748A	114	49684A	9, 21	520614AC 001	58	521506AC	54
1725D1AHE	40	304749A	114	49685A	21	520614AC DL	59	521507A	54
1725D1AHE IN	40	304750A	114	501502A	9, 19	520615A	59	521507AC	54
1725E1A	40	304753A	114	502015A	18	520615A 001	58	521508A	54
1725E1A IN	40	304756A	114	502040A	18	520615AC	59	521508AC	54
1725E1AHE	40	304757A	114	502043 CST	45	520615AC 001	58	521509A	54
1725E1AHE IN	40	304758A	114	502043A	18	520615AC DL	59	521509AC	54
1725F1A	40	304759A	114	502113A	18	520616A	59	521510A	55
1725F1A IN	40	304760A	114	502115A	18	520616A 001	58	521510AC	55
1725F1AHE	40	304763A	114	502243A	18	520616AC	59	521516A	55
1725F1AHE IN	40	304766A	114	502343A	9, 18	520616AC 001	58	521516AC	55

Code	Page(s)	Code	Page(s)	Code	Page(s)	Code	Page(s)	Code	Page(s)
521517A	55	535370HA	92	546080A	14	551006A	12	574216A	48
521517AC	55	535371HA	92	546096A	14	551006AC	12	574217A	48
521518A	55	535380HA	92	546097A	14	551007A	12	574700A	101
521518AC	55	535381HA	92	546100A	14	551007AC	12	574706A	101
521519A	55	535390HA	92	546108A	14	551008A	12	574801A	101
521519AC	55	535391HA	92	546109A	14	551008AC	12	574806A	101
521600A	54	535550HA	92	546116A	14	551009A	12	574900A	101
521600AC	54	535551HA	92	546120A	14	551009AC	12	574906A	101
521606A	54	535560HA	92	546166A	14	551022A	13	575106A	102
521606AC	54	535561HA	92	546167A	14	551022AC	13	575108A	102
521607A	54	535640HA	92	546168A	14	551028A	12	575110A	102
521607AC	54	535641HA	92	546169A	14	551028AC	12	577660A	16
521608A	54	535650HA	92	546196A	14	551035A	12	577666A	16
521608AC	54	535651HA	92	546197A	14	551035AC	12	577669A	16
521609A	54	535660HA	92	546198A	14	551041A	12	577870A	16
521609AC	54	535661HA	92	546199A	14	551041AC	12	577876A	16
521610A	55	535670HA	92	546306AM	16	551050A	13	577879A	16
521610AC	55	535671HA	92	546307AM	16	551050AT	13	577980A	16
521616A	55	535680HA	92	546308AM	16	551054A	12	577986A	16
521616AC	55	535681HA	92	546309AM	16	551054AC	12	577989A	16
521617A	55	535690HA	92	546328AM	16	551060A	13	59455	101
521617AC	55	535691HA	92	546335AM	16	551060AT	13	59456	101
521618A	55	535750HA	92	546341AM	16	551066A	12	59457	101
521618AC	55	535751HA	92	546354AM	16	551066AC	12	59458	101
521619A	55	535760HA	92	546366AM	16	551067A	12	59459	101
521619AC	55	535761HA	92	546367AM	16	551067AC	12	59460	101
523160A	56	535940HA	92	546368AM	16	551068A	12	59461	101
523166A	56	535941HA	92	546369AM	16	551068AC	12	59462	101, 102
523168A	56	535950HA	92	546510AM	17	551069A	12	59469	100, 101
523170A	56	535951A	49	546550AM	17	551069AC	12	59470	100
523176A	56	535951HA	92	546560AM	17	551080A	13	59471	100, 101
523177A	56	535960HA	92	546580AM	17	551100A	13	59472	100, 101
523178A	56	535961HA	92	548006A	8	551716	12	59474A	21
523179A	57	535970HA	92	548006US 001	8	551705A	12	59625	102
523180A	56	535971HA	92	548007A	8	551706A	12	59629	102
523186A	56	535980HA	92	548007US 001	8	551765A	12	59756	20
523188A	56	535981HA	92	548008A	8	551766A	12	59804A	21
523190A	56	535990HA	92	548008US 001	8	551795A	12	59817A	Section 13
523196A	56	535991HA	92	548009A	8	551796A	12	59829	9, 20
523198A	56	536043A 103	94	548009US 001	8	553542A	48	59834A	Section 13
523199A	57	536043A 106	94	548052A	8	553546A	48	59977	100
533000H	97	536043A 109	94	548062A	8	553549A	48	59978	100
533340HA	97	536044A 103	95	548066A	8	553642A	48	59980	100
533341HA	97	536044A 106	95	548067A	8	553646A	48	600003	63
533350HA	97	536044A 109	95	548068A	8	553649A	48	600054A	65
533351HA	97	536053A 103	94	548069A	8	561402A	21	600056A	65
533640HA	97	536053A 106	94	548082A	8	562100	20	600059A	65
533641HA	97	536053A 109	94	548096A	8	573002A	48	600060A	65
533650HA	97	536054A 103	95	548097A	8	573006A	48	600060AS	66
533651HA	97	536054A 106	95	548098A	8	573007A	48	600064A	65
533750HA	97	536054A 109	95	548099A	8	573009A	48	600064A 001	65
533751HA	97	536063A 103	94	548102A	8	573012A	48	600066A	65
533850HA	97	536063A 106	94	549506A	6	573016A	48	600066A 001	65
533851HA	97	536063A 109	94	549506US 001	6	573017A	48	600066AS	66
533940HA	97	536064A 103	95	549507A	6	573019A	48	600069A	65
533941HA	97	536064A 106	95	549507US 001	6	573100A	105	600069A 001	65
533950HA	97	536064A 109	95	549508A	6	573403A	105	600074A	65
533951HA	97	536073A 103	94	549508US 001	6	573406A	105	600076A	65
535004	49	536073A 106	94	549509A	6	573409A	105	600076AS	66
535006HA	93	536073A 109	94	549509US 001	6	573493A	105	600079A	65
535009HA	93	536074A 103	95	549510A	6	573503A	105	600080A	65
535051A	49	536074A 106	95	549552A	6	574002A	48	600084A	65
535056A	49	536074A 109	95	549562A	6	574004A	100	600086A	65
535057A	49	536083A 103	94	549566A	6	574006A	101	600086AS	66
535058A	49	536083A 106	94	549567A	6	574012A	48	600089A	65
535059A	49	536083A 109	94	549568A	6	574050A	100	600094A	65
535061A	49	536084A 103	95	549569A	6	574056A	100	600096A	65
535066A	49	536084A 106	95	549582A	6	574064A	100	600096AS	66
535067A	49	536084A 109	95	549596A	6	574066A	101	600099A	65
535068A	49	536093A 103	94	549597A	6	574151A	49	600204	67
535069A	49	536093A 106	94	549598A	6	574156A	49	600214	64
535340HA	92	536093A 109	94	549599A	6	574157A	49	600224	64
535341HA	92	538202 FD	113, 117	551003A	13	574161A	49	600354A	62
535350HA	92	538402 FD	9, 21, 113, 117	551003AC	13	574166A	49	600354AF	62
535351HA	92	546016A	14	551004A	19	574167A	49	600356AF	62
535360HA	92	546050A	14	551005A	12	574206A	48	600359A	62
535361HA	92	546060A	14	551005AC	12	574207A	48	600359AF	62

Code	Page(s)	Code	Page(s)	Code	Page(s)	Code	Page(s)	Code	Page(s)
600360A	62	644360A	36	676267A	32	F0000962	67	KIT520516AX	61
600360AF	62	644360A 3BY	36	676268A	32	F0001006	100, 101	KIT520519AP	61
600360AFS	63	644366A	36	676269A	32	F0001179	21	KIT520519AX	61
600360AFS 001	63	644366A 3BY	36	676500A	32	F0001270	69	KIT536535A 053	96
600364A	62	644369A	36	676746A	32	F0001286	89	KIT536535A 056	96
600364A 001	62	644369A 3BY	36	676747A	32	F0001365	Section 13	KIT536535A 059	96
600364AF	62	645114	64, 67	676748A	32	F0001470	21	KIT536535A 063	96
600364AF 001	62	645124	64	676749A	32	F0001516	89	KIT536535A 066	96
600366A	62	656344	32, 44	676756A	32	F0001636	101	KIT536535A 069	96
600366A 001	62	656354	32, 44	676757A	32	F0001637	101	KIT536535A 153	96
600366AF	62	656354R	44	676758A	32	F0001771	31	KIT536535A 156	96
600366AF 001	62	656404	24, 32, 44	676759A	32	F0001901	101, 104, 105	KIT536535A 159	96
600366AFS	63	656414	24, 32, 44	676766A	32	F0002077	Section 13	KIT536535A 163	96
600366AFS 001	63	656524	30	676767A	32	F0002097	75	KIT536535A 166	96
600369A	62	656504	31	676768A	32	F0002098	75	KIT536535A 169	96
600369A 001	62	656604	31	676769A	32	F0002099	75	NA10001	Section 13
600369AF	62	656904	43	680507	44	F0002108	Section 13	NA10002	Section 13
600369AF 001	62	656964	43	680503A	44	F0002150	Section 13	NA10003	Section 13
600374A	62	659084	43	680504A	44	F0002151	Section 13	NA10005	33
600374AF	62	659104	43	680505A	44	F0002152	Section 13	NA10006	33
600376A	62	659124	43	680555A	44	F0002153	Section 13	NA10007	33
600376AF	62	668000	45	681524	27	F0002160	Section 13	NA10009	Section 13
600376AFS	63	6686C5S1A	42	681555	27	F0002181	Section 13	NA10038	41
600376AFS 001	63	6686C5S1A IN	42	681503A	27	F0002294	102	NA10056	57
600379A	62	6686D5S1A	42	682530A	44	F0002296	102	NA10058	57
600379AF	62	6686D5S1A IN	42	682540A	27, 44	F0002298	102	NA10062	Section 13
600380A	62	6686E5S1A	42	682545A	44	F0002299	102	NA10064	Section 13
600380AF	62	6686E5S1A IN	42	682550A	44	F0002300	102	NA10087	Section 13
600380AFS	63	6686F5S1A	42	688003A	45, 57	F0002455	59	NA10116	Section 13
600380AFS 001	63	6686F5S1A IN	42	69122 CST	45	F0002470	Section 13	NA10117	59, 114, Section 13
600384A	62	6686G5S1A	42	755052	67	F0002471	Section 13	NA10119	Section 13
600384AF	62	6686G5S1A IN	42	940451	27	F0002532	100	NA10197	48
600386A	62	6686H5S1A	42	942550	44	F0002563	104	NA10204	20, 109
600386AF	62	6686H5S1A IN	42	CBN116140	89	F0002564	104	NA10262	27
600386AFS	63	6686I5S1A	42	CBN116160	89	F0002565	104	NA10273	49, 93, 97
600386AFS 001	63	6686I5S1A IN	42	CBN116440	89	F0002566	104	NA10313	27
600389A	62	6686L5S1A	42	CBN130400	76	F0002568	104, 105	NA10315	57
600389AF	62	6686L5S1A IN	42	CBN130500	76	F0002569	104, 105	NA10328	57
600394A	62	6686M5S1A	42	CBN130600	76	F0002570	104, 105	NA10342	35
600394AF	62	6686M5S1A IN	42	CBN130700	76	F0002571	104, 105	NA10343	35
600396A	62	6686N5S1A	42	CBN130800	76	F0007676	63	NA10358	57
600396AF	62	6686N5S1A IN	42	CBN130900	76	F0007678	64	NA10363	48
600396AFS	63	6686O5S1A	42	CBN142241A	76	F0007680	64	NA10366	57, 63, 67
600396AFS 001	63	6686O5S1A IN	42	CBN142251A	76	F19153	41	NA10367	57, 63, 67
600399A	62	6687C5S1A	42	CBN142261A	76	F19346	75	NA10370	114
600399AF	62	6687C5S1A IN	42	CBN142271A	76	F29571	108	NA10371	114
61215A	Section 13	6687D5S1A	42	CBN142281A	76	F29633	108	NA10403	Section 13
626009	115	6687D5S1A IN	42	CBN145437	31	F29634	108	NA10404	Section 13
626600A	115	6687E5S1A	42	CBN145667	31	F29635	108	NA10405	57, 59, Section 13
638054A 103	37	6687E5S1A IN	42	CBN546002	14	F29636	108	NA10406	Section 13
638054A 106	37	6687F5S1A	42	CBN546118	14	F31868	Section 13	NA10407	Section 13
638054A 109	37	6687F5S1A IN	42	CBN546119	14	F39807	21	NA10408	Section 13
638064A 103	37	6687G5S1A	42	CBN546205	16	F41186	Section 13	NA10409	Section 13
638064A 106	37	6687G5S1A IN	42	CBN546207	16	F49644	Section 13	NA10425	9
638064A 109	37	6687H5S1A	42	CBN546209	16	F49645	Section 13	NA10461	57
638074A 103	37	6687H5S1A IN	42	CBN551005	12	F49646	Section 13	NA10476	57
638074A 106	37	6687I5S1A	42	CBN551007	12	F49657	Section 13	NA10479	Section 13
638074A 109	37	6687I5S1A IN	42	CBN551009	12	F52429	57	NA10484	Section 13
638084A 103	37	6687L5S1A	42	F0000349	9, 21	F57312 DDT	17	NA10485	Section 13
638084A 106	37	6687L5S1A IN	42	F0000435	9	F59650	48	NA10486	Section 13
638084A 109	37	6687M5S1A	42	F0000493	Section 13	F59917	21	NA10496	Section 13
638094A 103	37	6687M5S1A IN	42	F0000494	Section 13	F61008	Section 13	NA10498	45, 57
638094A 106	37	6687N5S1A	42	F0000495	Section 13	F67037	45	NA10569	Section 13
638094A 109	37	6687N5S1A IN	42	F0000496	Section 13	F69293	35	NA10615	64, 67
644024	36	6687O5S1A	42	F0000580	89	F69294	35	NA10616	64, 67
644250A	36	6687O5S1A IN	42	F0000698	Section 13	F69381	63, 66	NA10634	Section 13
644256A	36	675900A	45	F0000718	Section 13	F69590	45	NA10635	Section 13
644259A	36	676000A	32	F0000926	75	F69591	63, 66	NA10636	Section 13
644260A	36	676246A	32	F0000940	75	F69600	45	NA10706	Section 13
644266A	36	676247A	32	F0000941	75	F69804	63, 66	NA10707	Section 13
644269A	36	676248A	32	F0000942	75	F69807	63, 66	NA10708	Section 13
644350A	36	676249A	32	F0000943	75	F69888	67	NA10709	Section 13
644350A 3BY	36	676256A	32	F0000944	75	KIT290503A	116	NA10715	Section 13
644356A	36	676257A	32	F0000945	75	KIT290504A	116	NA10741	69
644356A 3BY	36	676258A	32	F0000946	75	KIT520510AP	61	NA10744	Section 13
644359A	36	676259A	32	F0000947	75	KIT520510AX	61	NA10745	Section 13
644359A 3BY	36	676266A	32	F0000948	75	KIT520516AP	61	NA10747	Section 13

Code	Page(s)	Code	Page(s)	Code	Page(s)	Code	Page(s)	Code	Page(s)
NA10758	64, 67	NA11616	102	NA546050T	15	NA553369	50	Z200053	34
NA10759	64, 66	NA11630	104	NA546050TM	15	NA553369R	50	Z200411	34
NA10778	9	NA11633	104, 105	NA546060A	15	NA553372	50	Z200412	34
NA10796	9	NA11655	64	NA546060AM	15	NA553372R	50	Z200413	34
NA10797	9	NA11656	64	NA546080A	15	NA553376	50	Z200431	34
NA10801	9	NA11657	64	NA546080AM	15	NA553376R	50	Z200432	34
NA10802	9	NA11658	64	NA546100A	15	NA553379	50	Z200512	34
NA10803	9	NA11659	64	NA546100AM	15	NA553379R	50	Z200513	34
NA10804	9	NA11660	64	NA546120A	15	NA570971	50	Z200515	34
NA10805	9	NA11661	64	NA546120AM	15	NA570974	50	Z200517	34
NA10806	9	NA12004	Section 13	NA546150A	15	NA573022	50	Z200532	34
NA10807	9	NA12005	Section 13	NA546150AM	15	NA573100	50	Z200535	34
NA10808	9	NA12006	Section 13	NA546200A	15	NA573102	50	Z200537	34
NA10809	Section 13	NA12094	Section 13	NA546200AM	15	NA59600	9, 21	Z200617	34
NA10810	95	NA12095	Section 13	NA546250A	15	NA600356A	62	Z200635	34
NA10813	95	NA12096	Section 13	NA546250AM	15	NA61241	33	Z200637	34
NA10817	95	NA12162	Section 13	NA546300A	15	NA644200	36	Z200683	35
NA10824	75, 117	NA12173	Section 13	NA546300AM	15	NA644300	36	Z200687	35
NA10825	75, 117	NA16060	43	NA546350A	15	NA644300 3BY	36	Z200737	34
NA10826	75, 89, 117	NA16069	43	NA546350AM	15	NA669150	45	Z207411	34
NA10827	75, 89, 117	NA16160	43	NA546510AM	17	NA669250	45	Z207433	34
NA10828	75, 117	NA16169	43	NA546512AM	17	R0001397	66	Z207533	34
NA10829	75, 117	NA16265L	Section 13	NA546515AM	17	R0001452	Section 13	Z207537	34
NA10834	117	NA16265LC	Section 13	NA546520AM	17	R0001454	Section 13	Z300411	34
NA10835	117	NA16266LC	Section 13	NA546525AM	17	R0001457	Section 13	Z300412	34
NA10836	89, 117	NA20760	Section 13	NA546530AM	17	R0001458	Section 13	Z300413	34
NA10837	89, 117	NA20760C	Section 13	NA546535AM	17	R0001459	Section 13	Z300431	34
NA10838	117	NA20766	Section 13	NA546550AM	17	R0001460	Section 13	Z300432	34
NA10839	117	NA20766C	Section 13	NA546560AM	17	R0001462	Section 13	Z300512	34
NA10864LC	Section 13	NA20767	Section 13	NA546580AM	17	R0002579	102	Z300513	34
NA10904	116	NA20767C	Section 13	NA548052A	8	R11222	Section 13	Z300515	34
NA10905	116	NA20768	Section 13	NA548062A	8	R19101	63, 67	Z300517	34
NA10906	116	NA20768C	Section 13	NA548082A	8	R20011	Section 13	Z300532	34
NA10907	116	NA20769	Section 13	NA548102A	8	R21176	Section 13	Z300533	34
NA10908	116	NA20769C	Section 13	NA548120A	8	R31495	Section 13	Z300535	34
NA10909	116	NA25510	51	NA548150A	8	R31589	Section 13	Z300617	34
NA10964	64	NA29284	109	NA548200A	8	R31706	Section 13	Z300635	34
NA10970	31	NA30474A	114	NA548250A	8	R31981	Section 13	Z300637	34
NA10971	31	NA30476A	114	NA548300A	8	R39204	57, 59, Section 13	Z300687	35
NA10972	31	NA30478A	114	NA548350A	8	R39949	21	Z300737	34
NA10973	31	NA39588	9	NA549052A	8	R41441	Section 13	Z307433	34
NA10974	31	NA39589	9	NA549052AM	6	R41660	Section 13	Z307537	34
NA10975	31	NA39753	9, 21	NA549062A	8	R49418	21	Z40	33
NA10976	31	NA502640A	18, 115	NA549062AM	6	R50005	Section 13	Z40F	33
NA10977	31	NA503040	117	NA549082A	8	R50008	Section 13	Z42	33
NA10978	31	NA51069	117	NA549082AM	6	R50047	Section 13	Z44	33
NA10979	64	NA51361	89	NA549102A	8	R50048	Section 13	Z44P	33
NA10989	Section 13	NA51371	89	NA549102AM	6	R51838	Section 13	Z45	33
NA10990	Section 13	NA533449HA	97	NA549120A	8	R53003	Section 13	Z45P	33
NA10992	Section 13	NA533459HA	97	NA549120AM	6	R53004	Section 13	Z45P3	33
NA10993	Section 13	NA535840HA	93	NA549150A	8	R53005	Section 13	Z45PL	33
NA10994	Section 13	NA535841HA	93	NA549150AM	6	R56142	20	Z46	33
NA10995	Section 13	NA535850HA	93	NA549200A	8	R56214	20, 45	Z46P	33
NA10998	Section 13	NA535851HA	93	NA549200AM	6	R57264	95	Z47	33
NA10999	Section 13	NA535860HA	93	NA549250A	8	R59119	20	Z50	33
NA11031	45, 57	NA535861HA	93	NA549250AM	6	R59681	20	Z50F	33
NA11313	51	NA535870HA	93	NA549300A	8	R69413	45	Z54	33
NA11338	51	NA535871HA	93	NA549300AM	6	Z111000	34	Z54P	33
NA11360	41	NA535880HA	93	NA549350A	8	Z111500	33	Z55	33
NA11375	93	NA535881HA	93	NA549350AM	6	Z111900	34	Z55P	33
NA11376	93	NA535890HA	93	NA551050A	13	Z116000	34	Z55P3	33
NA11405	93	NA535891HA	93	NA551060A	13	Z121000	34	Z55PL	33
NA11406	93	NA545305	16	NA551080A	13	Z126000	34	Z55S	33
NA11407	93	NA545306	16	NA551100A	13	Z131000	34	Z56	33
NA11408	93	NA545355	17	NA551120A	13	Z136000	34	Z56P	33
NA11604	100	NA545356	17	NA551150A	13	Z141000	34	Z57	33
NA11605	100	NA545365	16	NA551200A	13	Z146000	34	Z5R101	35
NA11606	101	NA545366	16	NA551250A	13	Z151000	34	Z5R103	35
NA11607	101	NA545375	17	NA551300A	13	Z151500	33	Z5R104	35
NA11608	101	NA545376	17	NA553362	50	Z161000	34	Z5R106	35
NA11609	101	NA545385	17	NA553362R	50	Z200041	34	Z5R103	35
NA11610	102	NA545386	17	NA553366	50	Z200042	34	Z5R104	35
NA11612	102	NA545395	16	NA553366R	50	Z200043	34	Z5R106	35
NA11614	102	NA545396	16						

LIMITED WARRANTY

COVERAGE: Caleffi North America Inc. ("WARRANTOR") warrants that each Caleffi PRODUCT will be free from defects in material and workmanship for a period of two years* from the date of shipment/delivery of the PRODUCT (that can be identified by the "Caleffi" trademark, trade name, or logo affixed to them). The Limited Warranty is referred to herein as "the Limited warranty." The PURCHASER's sole and exclusive remedy under this Limited Warranty for defects in the PRODUCT shall be the repair, replacement or refund of the purchase price, in WARRANTOR's sole discretion, of the defective PRODUCT, or components thereof.

*PRODUCT warranty exceptions:

Switching Zone Relays	3 years
Switching zone relays + valves (Z-one valves and Z-one relays installed together)	5 years

NOT COVERED: This Limited Warranty also does not apply to, and WARRANTOR shall have no liability or responsibility in respect of, damages or expenses relating to:

- The failure to properly store, transport, install or use the PRODUCT as, for example, specified in any manuals or other literature supplied by WARRANTOR, on WARRANTOR's website, or in accordance with any applicable laws, codes, regulators or standards;
- Any PRODUCT purchased from any entity other than WARRANTOR;
- Alteration, change or modification of the PRODUCT, including its subcomponents, parts or assemblies;
- WARRANTOR also makes no warranty that a PRODUCT manufactured does not infringe the intellectual property or other proprietary rights of any third party;
- Accidents, misuse, abuse, abnormal use, improper use, negligent use, wilful misconduct, or use exceeding the recommended and permitted limits of the PRODUCT, and/or normal wear or deterioration;
- Any defect or non-conformity that has not been timely and promptly communicated in writing to WARRANTOR as set forth herein.
- Any damage, cost or expense caused by Act of God; or
- Loss of time, loss of use, inconvenience, loss of profits, lost business, lost business opportunities, damage to reputation, goodwill and any incidental or consequential damages arising out of or relating to the PRODUCT, or other matters not specifically covered hereunder.

PROCEDURE: Upon delivery, PURCHASER shall, within one (3) business day, inspect the PRODUCT for conformity and visible defects. PURCHASER shall give WARRANTOR immediate written, specific and detailed notice of any non-conformities or defects regarding the PRODUCT. Upon receipt of the written notice of claim, WARRANTOR shall have the right to inspect the PRODUCT. In the event of a defect covered by this Limited Warranty, WARRANTOR will, at WARRANTOR's discretion, repair or replace the PRODUCT or any component of the PRODUCT or refund the purchase price for that particular PRODUCT. In the event that PURCHASER submits a warranty claim that, in the sole reasonable discretion of the WARRANTOR, is unfounded, the PURCHASER shall reimburse the WARRANTOR all reasonable costs incurred by the WARRANTOR in evaluating the warranty claim (i.e. travel, lodging, expert evaluations, etc.). WARRANTOR must approve, in advance and in writing, all repairs or replacements covered under or performed pursuant to this Limited Warranty. Any warranty repairs or service must be performed exclusively by WARRANTOR or other authorized representative of WARRANTOR or by another servicing facility pre-approved in writing by WARRANTOR. Acceptance of any Limited Warranty claim is not an admission that any PRODUCT or any of its component parts are defective. The PURCHASER forfeits any rights it may have under this Limited Warranty if the PURCHASER does not follow the procedure described herein.

All requests and notices under this Limited Warranty shall be directed to:

Caleffi North America Inc.
3883 West Milwaukee Road
Milwaukee, WI 53208
E-Mail: returns.us@caleffi.com
Phone (414) 238-2360
Fax: (414) 238-2366

LIMITATION OF DAMAGES: Except as expressly provided by this Limited Warranty, **WARRANTOR SHALL NOT BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ASSOCIATED WITH THE USE OR NON-USE OF THE PRODUCT OR A CLAIM UNDER THIS LIMITED WARRANTY, WHETHER THE CLAIM IS BASED ON CONTRACT, TORT OR OTHERWISE.** The foregoing statements of warranty are exclusive and in lieu of all other remedies or damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so only in this case this limitation or exclusion may not apply to you. This Limited Warranty shall be the sole and exclusive remedy available to the PURCHASER with respect to this PRODUCT. In the event of any alleged breach of any warranty or any legal action brought by the PURCHASER, based on breach of warranty, alleged negligence or other tortious conduct by WARRANTOR, the PURCHASER's sole and exclusive remedy will be the repair or replacement of any defective PRODUCT as stated herein. In no event shall the liability of the WARRANTOR exceed the purchase price of the PRODUCT.

DISCLAIMER: ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND ALL IMPLIED WARRANTIES ARISING FROM A COURSE OF DEALING, USAGE OF TRADE, BY STATUTE OR OTHERWISE, IS HEREBY STRICTLY LIMITED TO THE TERM OF THIS WRITTEN WARRANTY. This Limited Warranty shall be the sole and exclusive remedy available to the PURCHASER with respect to this PRODUCT. In the event of any alleged breach of any warranty or any legal action brought by the PURCHASER based on alleged negligence or other tortious conduct by WARRANTOR, the PURCHASER'S sole and exclusive remedy will be repair or replacement of defective materials or refund of the purchase price, as stated herein.

TRANSFER OF LIMITED WARRANTY: This warranty is made by WARRANTOR with only first PURCHASER of the PRODUCT and does not extend to any subsequent PURCHASER or any third parties. The unexpired portion of this Limited Warranty may not be transferred to any entity.

APPLICABLE LAW: The parties expressly acknowledge and irrevocably agree that any and all claims or disputes arising out of or otherwise relating to this Limited Warranty shall be decided by a binding arbitration administered by the American Arbitration Association pursuant to Commercial Industry Rules in effect as of the date of this Limited Warranty, to the exclusion of any courts of any place, except as necessary for the enforcement of arbitration rights. The place for any such arbitration shall be The State of Wisconsin. PURCHASER expressly waives any provision of law in the jurisdiction in which PURCHASER is located or any other potentially applicable law which conflicts with any provision of this Limited Warranty at any time.

OTHER RIGHTS: Your acceptance of delivery of The PRODUCT constitutes your acceptance of the terms of this Limited Warranty. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. If any term or provision of this Limited Warranty is invalid or unenforceable under any local, state, or federal law, statute, judicial decision, regulation, ordinance, executive order or other rule of law, such term shall be deemed reformed or deleted, but only to the extent necessary to comply with such statute, regulation, ordinance, order or rule and the remaining provisions of this Limited Warranty shall remain in full force and effect.

ENTIRE AGREEMENT: This document alone contains the entire Limited Warranty given by WARRANTOR in respect of the PRODUCT. Nothing in WARRANTOR's product literature, marketing materials, advertisements and technical specifications expand or enlarge the scope of this Limited Warranty. There are no terms, promises, conditions or warranties regarding the PRODUCT other than those expressly contained herein. WARRANTOR specifically does not authorize any person, including but not limited to any dealer or other agent or employee of WARRANTOR, to extend the time, scope, terms or conditions of this Limited Warranty or to create or assume for WARRANTOR any other obligation or liability with respect to the PRODUCT or other products designed, manufactured or sold by WARRANTOR. All terms of this Limited Warranty are contractual and not mere recitals, and constitute material terms of this Limited Warranty. It is agreed and acknowledged that the provisions of this Limited Warranty allocate the risks between WARRANTOR and PURCHASER, that WARRANTOR's pricing reflects this allocation of risk, and but for this allocation and limitation of liability, WARRANTOR would not have entered into this Limited Warranty. The agents, employees, and dealers of Caleffi Products are not authorized to make modifications to this limited warranty or make additional warranties binding on Caleffi.

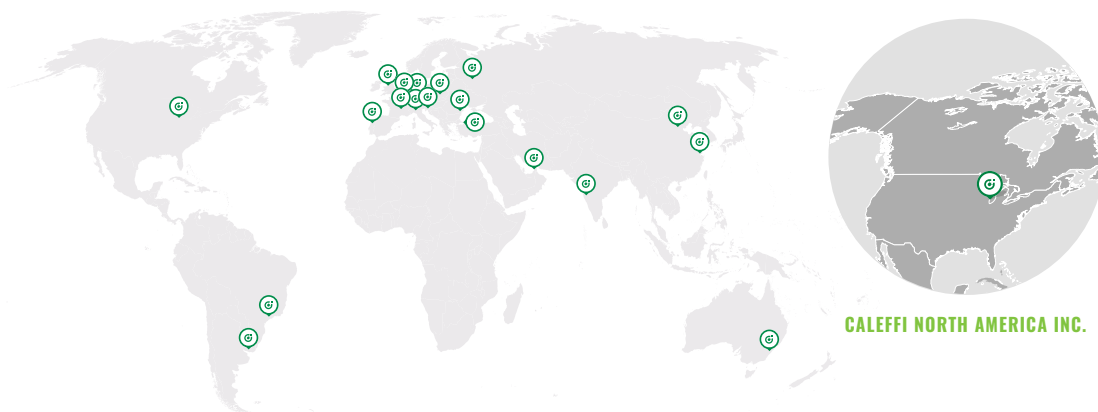
THIS DOCUMENT AND ALL PROVISIONS CONTAINED HAS BEEN SPECIFICALLY AGREED BETWEEN THE PARTIES.



HAVE A QUESTION?

WANT TO LEARN MORE?

We are committed to your success and are here to help. Check out our website CALEFFI.US to explore an expansive collection of product information, training webinars, BIM objects, and our expansive library of educational idronics™ journals.



CALEFFI NORTH AMERICA INC.

INQUIRIES:

SALES:

sales@caleffi.com

TECHNICAL SUPPORT:

techsupport.us@caleffi.com
414-338-6338

MARKETING/PR:

marketing.na@caleffi.com

FIND YOUR NEAREST



www.caleffi.info/dealerlocator/

Suggested List Price
Effective January 1, 2026
Canceling All Prior Issues
Specifications and prices are subject to change without notice

Caleffi North America, Inc.
3883 West Milwaukee Road · Milwaukee, WI 53208
Tel: 414.238.2360 · Fax: 414.238.2366
sales@caleffi.com | www.caleffi.com

© 2026 Copyright Caleffi

