

HYDRONICS PRODUCT GUIDE

- Residential Boilers
- Commercial Boilers
- Air Elimination
- Circulating Pumps
- Indirect Fired Water Heaters
- Radiant Floor Heating
- Baseboard Radiation
- Hydronics Controls
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Hydronics Line Card



BOSCH

High Efficiency, Combi, and Cast Iron Boilers



High Efficiency, Combi, Cast Iron, Steam, Oil Boilers and Indirect Water



High Efficiency, Combi, & Cast Iron Boilers



Radiant Floor Heating/Cooling, Snowmelt– Residential/Commercial



Circulator Pumps, Zone Valves, Zone Controls, Boiler Trim



Zone Valves & Zone/Pump Controls, Boiler Trim, Hydronic Specialties



Valves, Boiler Trim, Hydronic Specialties



Circulator Pumps



Expansion Tanks, Air Scoops



Baseboard Radiation Resi/Comm



Radiant, Snowmelt, and Geo Controls



Zone/Pump Controls, Thermostats, Snowmelt, Specialty Hydronic Controls



LWCO and Boiler controls



Valves, Boiler Trim, Hydronic Specialties



Toe Kick Heaters



Antifreeze/inhibitor



System cleaners and inhibitors



Magnetic Filter, Cleaner, Inhibitor



Demineralizer products

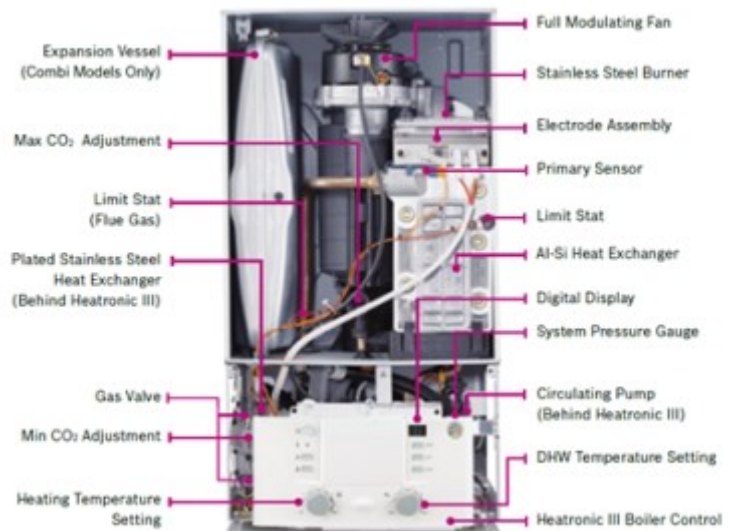
Greenstar Gas-Fired Condensing Boilers

A Green Start to Space & Water Heating

Residential space and water heating solutions with up to 98.7% efficiency and 79.2 to 151.6 MBH inputs



- Two Models— space heating only or combi-boiler for space heating and up to 4 GPM of tankless water heating; wall hung or floor standing based at delta temperature for DHW of 72° F
- Ultra-efficient condensing technology—up to 98.7% with low temperature applications
- Vents with PVC piping (with water only applications)
- Simple & Intelligent control options available, optimizing boiler efficiency and fuel consumption
- All models feature ALSi heat exchanger, 3 speed Grundfos integrated pump, Heat-Tronic control, hydronic manifold bracket, and twin pipe flue adapter
- Limited lifetime heat exchanger warranty and limited 5 year parts & labor warranty



For full warranty information, product data and brochures go to www.bosch-thermotechnology.us/us/en/residential/home/

Greenstar Gas-Fired Condensing Boilers

	Space Heating + DHW			Space Heating Only			
Description	Greenstar Combi 100	Greenstar Combi 131	Greenstar Combi 151	Greenstar 79	Greenstar 100	Greenstar 131	Greenstar 151
Wall Model	ZWB28-3	ZWB35-3	ZWB42-3	ZBR21-3	ZBR28-3	ZBR35-3	ZBR42-3
Part Number	7738100002	7738100256	7713331041	7738100322	7712231415	7712231414	7712231413
Floor Standing	KWB28-3	KWB35-3	KWB42-3	KBR21-3	KBR28-3	KBR35-3	KBR42-3
Part Number	7733600082	7733600083	7733600084	7733600078	7733600079	7733600080	7733600081
Performance Data							
Max Input (MBH)	100	131.9	151.6	79.2	100	131.9	151.6
Min Input (MBH)	24.6	36	36	24.6	24.6	36	36
DOE Heat Capacity (MBH)	91	118	135	71	91	118	135
Net IBR (MBH)	79	103	117	62	79	103	117
AFUE	95%			95%			
DHW Flow Max @72F(GPM)	2.65	3.2	4	Not Applicable			
Water Volume (Gal)	0.952			0.952			
Wall Boiler Tappings	1"			1"			
Floor Boiler Tappings	1-1/4"			1-1/4"			
DHW Tappings	3/4"			Not Applicable			
Gas Connection	3/4"			3/4"			
Vent Size	2"-3" Depending on Length			2"-3" Depending on Length			
Vent Material	PVC / CPVC / PP/ PP-Flex / SS			PVC / CPVC / PP/ PP-Flex / SS			

For full warranty information, product data and brochures go to www.bosch-thermotechnology.us/us/en/residential/home/



Greenstar Gas-Fired Condensing Boilers

Bosch Boiler Part Numbers and Accessories

Greenstar Heat only Boilers	
7738100322	79mbh Greenstar Wall Hung Boiler(ZBR21-3)
7712231415	100mbh Greenstar Wall Hung Boiler(ZBR16-3)
7712231414	131mbh Greenstar Wall Hung Boiler(ZBR35-3)
7712231413	151mbh Greenstar Wall Hung Boiler(ZBR42-3)
7733600078	79mbh Greenstar Floor Standing Boiler(KBR21)
7733600079	100mbh Greenstar Floor Standing Boiler(KBR28)
7733600080	131mbh Greenstar Floor Standing Boiler(KBR35)
7733600081	151mbh Greenstar Floor Standing Boiler(KBR42)
Greenstar Combi Boilers	
7738100002	100mbh Greenstar Wall Hung Combi(ZWB28-3)
7738100256	131mbh Greenstar Wall Hung Combi(ZWB35-3)
7713331041	151mbh Greenstar Wall Hung Combi(ZWB42-3)
7733600082	100mbh Greenstar Floor Standing Combi(KWB28)
7733600083	131mbh Greenstar Floor Standing Combi(KWB35)
7733600084	151mbh Greenstar Floor Standing Combi(KWB42)
Bosch Greenstar Accessories	
ISAAL0303	Appliance adaptor for Bosch Greenstar 3" Centrotherm
7719003528	ICM Cascade Module Greenstar Bosch
7738007138	Boiler Manifold Greenstar Bosch (Wall Hung)
7738111216	Floor Stand Greenstar Boiler Bosch (Wall Hung)
87472071010	Outdoor Sensor for CRC200 Bosch Greenstar
7738110112	Comfort Zone Manager CZM100 3 Zone Control (pump or valve)
7738110090	Basic Comfort Room Controller CRC100 Bosch
7738111034	Programmable Comfort Room Controller CRC200 Bosch

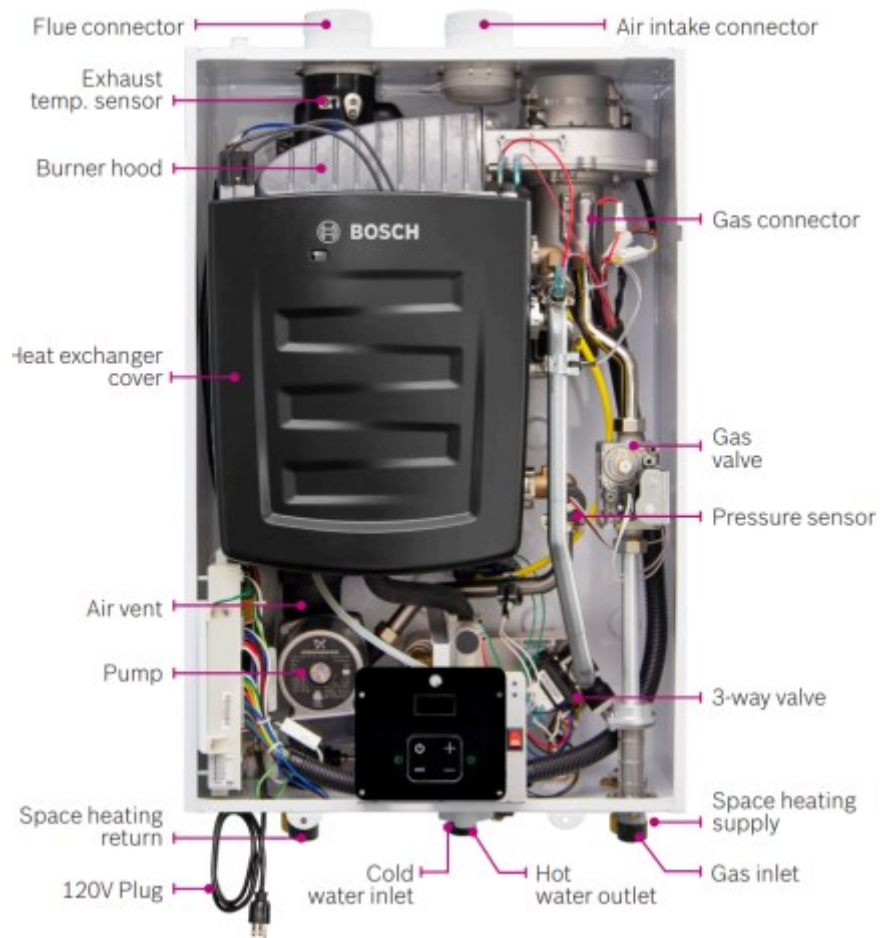
Note: If a CZM100 is used it must be accompanied with Bosch CRC100 or CRC200 controls

For full warranty information, product data and brochures go to www.bosch-thermotechnology.us/us/en/residential/home/

BOILERS

Bosch Singular Condensing Combi Boiler

- High-efficiency condensing combi wall boiler—95% AFUE rating
- Built-in boiler circulator pump
- Stainless steel primary & secondary heat exchangers for cost-effective, reliable performance
- All models are field convertible from NG to LP with included conversion kit
- Capable of outdoor reset with accessory temperature sensor (not included)
- Eco-friendly low NOx metal fiber burner
- Turndown ratio up to 10:1
- 2" PVC vent up to 60' (3" venting up to 150')
- Exhaust gas temperature sensor ensures safe operation
- 10-year heat exchanger, 5-year parts, and 1-year labor limited warranty



For full warranty information, product data and brochures go to www.bosch-thermotechnology.us/us/en/residential/home/

**BOSCH**

Bosch Singular

Condensing Combi Boiler

MODELS		SINGULAR 4000	SINGULAR 5200
PART NUMBER		7-738-007-219	7-738-007-220
HEAT CAPACITY (INPUT)	SPACE HEATING	19,900-80,000 BTU/H	19,900-140,000 BTU/H
	DOMESTIC HOT WATER	19,900-155,000 BTU/H	19,900-199,000 BTU/H
FLOW RATE (DHW)	45°F TEMP RISE	6.0 GPM	7.7GPM
	67°F TEMP RISE	4.0GPM	5.2GPM
AFUE	NATURAL GAS (PROPANE)	95.0% (95.0%)	95.0% (95.0%)
DIMENSIONS (W X H X D)		18.1" X 27.6" X 11.6"	
INSTALLATION TYPE		INDOOR WALL- HUNG	
VENTING METHOD		FORCED DRAFT DIRECT VENT	
IGNITION		ELECTRONIC	
WATER PRESSURE (HYDRONIC/DHW)		12-30PSI/15-150 PSI	
SUPPLY PRSSURE	NATURAL GAS	3.5"-10.5"WC	
	PROPANE	8"-13" WC	
MINIMUM FLOW RATE (DHW)		0.5GPM	
TEMPERATURE RANGE	SPACE HEATING	82°F-180°F	
	DHW	86°F-140°F	
CONNECTION SIZES	SUPPLY/RETURN	1" NPT	
	COLD WATER	3/4" NPT	
	HOT WATER	3/4" NPT	
	GAS INLET	3/4" NPT	
POWER SUPPLY	MAIN SUPPLY	120VAC, 60 HZ / USE LESS THAN 5 AMP	
PRIMARY & SECONDARY HEAT EXCHANGER		STAINLESS STEEL	
VENTING	EXHAUST/INTAKE	2" OR 3" PVC, CPVC, POLYPROPYLENE SPECIAL GAS VENT TYPE BH (CLASS II, A/B/C)	
	2 IN.	60FT	
	3 IN.	150FT	
	VENT CLEARANCES	0" TO COMBUSTIBLES	
SAFETY DEVICES		FLAME ROD, APS, OVER HEAT PREVENTER, LWCO SWITCH, EXHAUST TEMP. HIGH LIMIT SENSOR, POWER SURGE FUSE	

Specifications Subject To Change Without Notice. All Items May Not Be Stocked In All Locations. | b-y.com

Commercial SSB Condensing Boilers

Not just another stainless steel boiler



- AFUE ratings up to 96% with a 10:1 turn down ratio
- Two wire cascade connections for up to 8 SSB1000L to create 8192 MBH
- Out of the box with CSD1 controls that include a manual reset high limit and LWCO with a test button
- Specially built insulation offering ultra-quiet operation as low as 51dB(a)
- Easy to operate human interface control, outdoor reset, and DHW Priority.
- Easy to wire slide out control panel

Model	SSB800	SSB1000	SSB100TL
Part Number	7738004897	7738004898	7738006278
Input Rate BTU/HR	798000	1024000	1024000
Min Input Rate BTU/HR	79800	96100	96,100
Turndown Ratio	10:1		
Max Operating Temperature	194		
Height	70 7/8"		
Depth	31 1/2"		
Width	35 7/16"		
Intake Air Connection	6"	6"	10"
Exhaust Connection	6"	6"	10"
Supply / Return Connection	3" Flanged	5" Flanged	5" Flanged
Water Content(GAL)	13	16	20
Gas Connection	2"	2"	3" Flanged
Noise Rating	51dB	52dB	
Internal Pump	Yes		

For full warranty information, product data and brochures go to www.bosch-thermotechnology.us/us/en/residential/home/

GC144 Residential Gas-Fired Boiler

A compact cast-iron boiler built to last



- Residential models with efficiencies up to 85% with 3 models ranging from 74 to 133MBH
- Beckett AquaSmart control with Heat Manager function adjust water temperature based on demand
- Side piping design for convenient boiler retrofit installation
- Stainless steel corrosion resistant premix burners
- CSA approved for installation on combustible floors
- Compact boiler with advanced low temperature technology
- Limited Lifetime Warranty*
- Factory shipped for natural gas, field convertible to propane

Model	GC144/3	GC144/5	GC144/5
Part Number	7738003477	7738003478	7738003479
Number of Sections	3	4	5
AFUE%	85		
Input Rate BTU/HR	74,000	103,000	133,000
Heating Capacity BTU/HR	62,000	87,000	112,000
NET Ratings BTU/HR	54,000	76,000	97,000
Supply & Return Connections	1 1/4"		
Vent Connection	5"		6"
Height	34 3/8"		
Width	13 1/8"	16 3/4"	20 3/8"
Depth	21 1/2"		

For full warranty information, product data and brochures go to www.bosch-thermototechnology.us/us/en/residential/home/

G234X Residential Gas-Fired Boiler

An intermittent ignition cast-iron boiler



- Residential/Light Commercial models ranging from 160 to 228 MBH input 84+% efficiency
- Beckett AquaSmart control with HeatManager function adjusts water temperature based on demand
- High silicone cast-iron surface for excellence
 - corrosion resistance
- Stainless steel corrosion resistant premix burners
- Designed to resist thermal shock for long life
- Perfect for large residential or light commercial
- Limited Lifetime Warranty*
- Factory shipped for natural gas, propane conversion available for purchase

Model	G234X/38	G234X/45	G234X/55	G234X/64
Part Number	7738003214	7738003215	7738003216	
Weight	487 lbs	487 lbs	565 lbs	684 lbs
AFUE%	84.3	84.1	84.8	84.3
Input Rate BTU/HR	160,000	187,000	228,000	266,000
Heating Capacity BTU/HR	130,000	154,000	188,000	219,000
NET Ratings BTU/HR	113,000	134,000	163,000	190,000
Supply & Return Connections	1-1/2"	1-1/2"	1-1/2"	1-1/2"
Vent Connection	7"	7"	7"	8"
Height	38 1/2"	38 1/2"	38 1/2"	38 1/2"
Width	25 9/16"	25 9/16"	29 1/8"	32 3/4"
Depth	25 5/8"	25 5/8"	25 5/8"	25 5/8"

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Alta Combi Boiler

UNMATCHED SIMPLICITY

No-touch combustion setup, engineered for five-minute start-up

- Self-diagnostic boiler control
- Rate-based temperature reset, no outdoor sensor required – assesses environmental conditions, continually adjusting boiler operation for comfort and efficiency
- Three-side unobstructed service access - fast removal of front and side panels
- Simple 2-step natural gas-to-LP conversion with no kits or additional parts required
- Easy lift, wall hanging design (floor stand optional)
- Alta FastPipe (primary/secondary piping) included on combi models, optional on heating models

NEXT-GENERATION ADAPTIVE COMBUSTION

- Continuous high-efficiency combustion without manual throttle or offset adjustments
- Automatic self-calibration adjusts to variables in environment, component wear, gas & vent pressure
- Low gas pressure capability (2.5 in. wc gas, 8.0 in. wc LP)

HIGH PERFORMANCE COMBI MODELS

- The world's first 10:1, gas adaptive combi boiler!
- Virtually instantaneous DHW response time
- Selectable economy or comfort/recirculation modes
- DHW temperature maintained under all demand conditions
- 10:1 DHW turndown conserves fuel and extends boiler life
- Integrated DHW hydro block with quick-disconnect flat plate DHW heat exchanger, boiler circulator, 3-way valve, and instantaneous DHW flow sensor

INDUSTRY-LEADING VALUE

- 5-year parts warranty, 12-year limited warranty on heat exchanger
- Universal vent connection for CPVC, polypropylene
- Boiler flow safety switch (UL353)
- 95% AFUE



Ratings & Specifications

Model	AFUE %	Heating Input (MBH) min-max	DOE Heating Capacity (MBH)	Net AHRI (MBH)	DHW Rates			Vent Size (In.)	Boiler Wt. (lbs.)
					At 70° TR (GPM)	At 77° TR (GPM)	Input (MBH) min-max		
ALTAC-136	95.0	13.6-120	112	97	3.7	3.4	13.6-136	2	95
ALTAC-200	95.0	20-150	141	123	5.2	4.7	20.0-200	2	116
ALTA-120	95.0	13.6-120	112	97	—	—	—	2	76
ALTA-150	95.0	20-150	141	123	—	—	—	2	103
ALTA-180	95.0	20-180	169	147	—	—	—	2	103

See page 11 for boiler specific accessories for installation

For full warranty information, product data and brochures go to www.usboiler.net

Alpine Commercial

- Up to 97% thermal efficiency
- Equipped with Sage2.2 Control System, includes built-in sequencer for internal staging of up to eight Alpine boilers
- Stainless steel heat exchanger
- Natural or LP gas (399 & 500 field convertible with no kit needed. 600 and above factory ordered LP)
- Unique, patented polypropylene condensate trap with internal cutoff switch prevents damage to heat exchanger from condensate backup
- Stackable
- Pre-installed temperature sensors: dual high limit/ supply, return, dual limit flue gas
- Fast wiring to side access high voltage and Low voltage connection panels
- Backlit LCD touch screen display provides diagnostic and troubleshooting information via intuitive text and menus, without cryptic codes or scrolling
- 5-to-1 turndown modulation and adaptable firing rate output
- Outdoor reset included, plus warm weather shutdown, and off season pump exercising
- DHW priority, control data logging , multiple & adjustable pump outputs
- 4-20mA and modbus inputs



Alpine Commercial Ratings & Specifications (sea level to 2000 feet)

Model	Ratings			Net AHRI Water Rating (MBH)	Thermal Efficiency	Water Content (Gal.)	Heat Transfer Area (SQ.FT.)	Gas Connection	Supply & Return Connection	Intake/ Vent Diameter	Approx. Shipping Weight (lbs.)
	Minimum Input (MBH)	Maximum Input (MBH)	Gross Output (MBH)								
ALP399CF-4L00	80	399	375	326	94.1%	3.4	41.8	3/4" FPT	1-1/2" FPT	4"/4"	316
ALP500CF-5L00	100	500	485	422	97	4.3	58.1	3/4" FPT	2" MPT	4"/4"	368
ALP600CNF-5L00	125	625	594	517	95.0%	5.4	76.2	1" FPT	2" MPT	4"/6"	458
ALP700C	145	725	689	599	95.0%	5.4	76.2	1" FPT	2" MPT	4"/6"	458
ALP800CNF-5L06	160	800	760	661	95.0%	6.2	87.0	1" FPT	2" MPT	4"/6"	500

Net AHRI water ratings shown are based on an allowance of 1.15. The manufacturer should be consulted before selecting a boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc. For forced hot water heating systems where the boiler and all piping are within the area to be heated, the boiler may be selected on the basis of its Gross Output.

See page 11 for boiler specific accessories for installation

For full warranty information, product data and brochures go to www.usboiler.net

Burnham Accessory Parts

ALTA specific Installation Parts

107039-01	Kit, 2" CPVC starter and PVC vent termination
108183-01	Kit, 3" CPVC starter and PVC vent termination
111577-01	Kit, Manifold Primary/ Secondary for Heat only Alta (ALTA-120,
108183-01	CSD-1 kit, includes 1100M LWCO, manual reset, 24v, with H5 cable; L4006E high limit, manual reset with 3/4" well

Alpine specific Installation Parts

106761-01	(ALP 399C) special hydronic kit, L4006E high limit, LWCO
106765-01	(ALP 500C, 600C) special hydronic kit, LWCO M&M , Taco pump
108183-01	CSD-1 kit (ALP399C Only), includes 1100M LWCO, manual reset, 24v, with H5 cable; L4006E high limit, manual reset with 3/4"
107421-01	CSD-1 Kit (ALP 500C-800C, excluding 600C LP) includes high& low gas pressure switches, gas valve test harness, tubes, fittings (LWCO, high limit purchased separately)

X-2 specific Installation Parts

106687-01	Conversion kit; nat. gas to LP X-203 through X-206
106688-01	Conversion kit; nat. gas to LP X-207 through X-209

For full warranty information, product data and brochures go to www.usboiler.net

Other Condensing Burnham Models



Aspen Ratings & Specifications				
Model	AFUE %	Input (MBH) min-max	DOE Heating Capacity (MBH)	Net AHRI (MBH)
ASPN-085	96.0	8.5-85	79	69
ASPN-110	96.0	11-110	103	90
ASPN-155	95.0	15.5-155	145	126
ASPN-205	95.0	20.5-205	189	164
ASPN-270	95.0	27-270	252	219
COMBI MODEL				
ASPNC-155	95.0	15.5-155	145	126



Aspen Light Commercial				
Model	Thermal Efficiency %	Input (MBH) min-max	Gross Output (MBH)	Net AHRI (MBH)
ASPN-320	95.0	32-320	304	264
ASPN-399	95.0	39.9-399	379	330



Alpine Models-Wall or Floor Mount		
Boiler Model	Input MBH	AFUE%
ALP80B	16-80	95
ALP105B	21-105	95
ALP150B	30-150	95
ALP210B	42-210	95



Alpine Models-Floor Mount ONLY		
Boiler Model	Input MBH	AFUE%
ALP285	57-285	95.0
ALP399	80-399	94.0*

*Thermal Efficiency

For full warranty information, product data and brochures go to www.usboiler.net

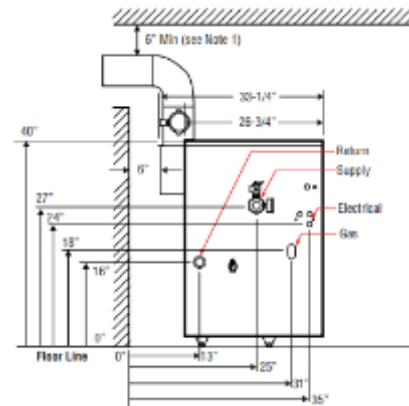
X-2 Series

Gas Fired, Chimney Vented, Cast Iron Water Boiler

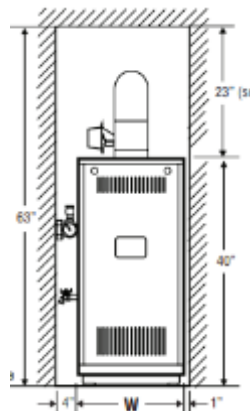


- 84% AFUE
- 38 – 280 MBH (8 sizes)
- Advanced controls, accessible inside boiler jacket – Integrated boiler control with diagnostics – FREE additional pump relay – Integral LWCO option requires no piping! (IDL-1200)
- Industry standard tapping locations allow easy, direct replacement for thousands of existing boiler installations
- American-made cast iron heat exchanger – Designed to promote turbulent water flow within the section for efficient heat transfer
- A solid, reliable, full-featured boiler at a value price!
- Lifetime limited warranty
- Made in Lancaster, PA, USA

X-2 Ratings & Specifications						
Model	Input (MBH)	DOE Heating Capacity (MBH)	Net AHRJ Rating, Water (MBH)	AFUE%	Vent Size (Inches)	Approx. Shipping Weight. (lbs.)
X-202	38	32	28	84.0	4	202
X-203	70	59	51	84.0	4	254
X-204	105	88	77	84.0	5	304
X-205	140	117	102	84.0	6	357
X-206	175	146	127	84.0	6	405
X-207	210	176	153	84.0	7	462
X-208	245	205	178	84.0	7	518
X-209	280	234	203	84.0	8	564



X-2 Dimensions & Connections						
Model	Width "W" (inches)	Connections (inches)				Water Content (gal.)
		Supply	Return	Gas Valve	Relief Valve	
X-202	14	1-1/4	1-1/4	1/2	3/4	1
X-203	14	1-1/4	1-1/4	1/2	3/4	2
X-204	16	1-1/4	1-1/4	1/2	3/4	3
X-205	19	1-1/4	1-1/4	1/2	3/4	4
X-206	22	1-1/4	1-1/4	1/2	3/4	5
X-207	25	1-1/4	1-1/4	3/4	3/4	6
X-208	28	1-1/4	1-1/4	3/4	3/4	7
X-209	31	1-1/4	1-1/4	3/4	3/4	8



NOTES:

1. Minimal radial distance around vent pipe and breeching for single-wall metal pipe vent connector, otherwise follow vent connector manufacturer's recommended clearances.
2. Add height required to maintain 6" clearance from all breeching components.

For LP Kit see page 11

For full warranty information, product data and brochures go to www.usboiler.net

Other Cast-Iron Burnham Models



ES2 Models		
Boiler Model	Input MBH	AFUE%
ES23	70	85.0
ES24	105	85.0
ES25	140	85.0
ES26	175	85.0
ES27	210	85.0
ES28	245	85.0
ES29	280	85.0



Series 3 Models		
Boiler Model	Input MBH	AFUE%
303	70	84.0
304	105	84.0
305	140	84.0
306	175	84.0
307	210	84.0
308	245	84.0
309	280	84.0



Series 2 Models		
Boiler Model	Input MBH	AFUE%
202E	38	84.0
203E	69	84.0
204E	103	84.0
205E	138	84.0
206E	172	84.0
207E	207	84.0
208E	241	84.0
209E	276	84.0



Independence/		
Boiler Model	Input MBH	AFUE%
IN3I/	62	81.9
IN4I/	105	82.0
IN5I/	140	82.0
IN6I/	175	82.1
IN7I	210	82.1
IN8I	245	82.1
IN9I	280	82.2
IN10	315	79.5*
IN11	349	79.5*
IN12	385	79.5*



SteamMax Ratings		
Boiler Model	Input MBH	Steam (sq. ft.)
STMX075	75	169
STMX100	100	258
STMX125	125	321
STMX150	150	388
STMX175	175	450
STMX200	200	517
STMX250	250	646
STMX299	299	771
STMX350	350	892
STMX399	399	1013
STMX450	450	1142
STMX500	500	1271
STMX550	550	1396

For full warranty information, product data and brochures go to www.usboiler.net

Oil-Fired Cast-Iron Burnham Models



MPO-IQ		
Boiler Model	Burner Capacity (GPH)	AFUE%
MPO-IQ84	.60	87.0
MPO-IQ115	.80	87.0
MPO-IQ147*	1.05	87.0
MPO-IQ189*	1.35	87.0
MPO-IQ231*	1.65	87.0



MegaSteam		
Boiler Model	Burner Capacity (GPH)	AFUE%
MST288	.60	86.0
MST396	1.05	86.0
MST513	1.35	86.0
MST629	1.65	86.0



EMP Ratings & Specifications		
Boiler Model	Burner Capacity (GPH)	AFUE%
EMP84E	.60	87
EMP115E	.80	87
EMP140	1.00	87
EMP182	1.30	87
EMP224E	1.60	87



V8H—Water		
Boiler Model	Burner Capacity (GPH)	AFUE%
V8H3 (W)	1.05	85.0
V8H4 (W)	1.35	85.3
V8H5 (W)	1.65	85.3
V8H6 (W)	1.90	85.3
V8H7 (W)	2.10	85.3
V8H8 (W)	2.35	82.0*
V8H9 (W)	2.60	82.3*

V8H—Water w/ optional ENERGY STAR upgrade kit		
Boiler Model	Burner Capacity (GPH)	AFUE%
V8H3 (W)	.075	87.0
V8H4 (W)	1.00	87.0
V8H5 (W)	1.20	87.0
V8H6 (W)	1.35	87.0

V8H—Steam		
Boiler Model	Burner Capacity (GPH)	AFUE%
V8H3 (S)	.75	85.1
V8H4 (S)	1.05	85.3
V8H5 (S)	1.35	85.4
V8H6 (S)	1.65	85.7
V8H7 (S)	2.10	84.7
V8H8 (S)	2.35	84.1*
V8H9 (S)	2.60	82.3*

For full warranty information, product data and brochures go to www.usboiler.net

BOILERS

Series 8H/8HE Cast Iron Gas Fired Commercial Boiler



Boiler Model (1)	Ratings				Minimum Natural Gas Pressure (Inches)		Recommended Chimney Size (Round)	Water Content (Gallons)	Approx. Shipping Weight (lbs.)	
	Input (MBH)	Gross Output (MBH)	I=B=R Net Rating Water (MBH) (2)	Thermal Efficiency (4)	24V	EI			Packaged	Knock-down
805H	252	208	181	82.7	N/A	4.5	7" dia. X 15 ft.	11.9	600	680
806H	315	253	220	80.2	4.5	4.5	8" dia. X 15 ft.	13.9	690	770
807HE	340	275	239	81.0	5.0	4.5	8" dia. X 15 ft.	15.9	770	870
808HE	410	328	285	80.1	N/A	4.5	8" dia. X 15 ft.	17.9	880	950
809HE	460	370	322	80.4	N/A	5.0	10" dia. X 15 ft.	19.9	970	1040
810HE	505	406	353	80.5	N/A	5.0	10" dia. X 15 ft.	21.9	1060	1140

1. When ordering use prefix P for packaged and K for knocked-down. Use suffix NSP for natural gas, standing pilot; NEI for natural gas, electronic ignition; PSP for LP gas, standing pilot; PEL for LP gas, electronic ignition.
2. Net I=B=R ratings show are based on normal I=B=R piping and pickup allowance of 1.15. Consult the Burnham Commercial website for installations having unusual piping and pickup requirements such as intermittent system of operation, extensive piping systems, etc.
3. 15 foot height is measured from top of drafthood to top of chimney.
4. 805H Efficiency is AFUE.

Maximum allowable working pressure: 50 PSI Water Only; 50 PSI Safety Relief Valve— Standard; 30 PSI Safety Relief Valve—Optional

Standard Equipment

Cast Iron Section Assembly	Aluminized Steel Burners	Blocked Vent Switch (BVS) - All Sizes	75P-MT-120 Probe LWCO- 808HE-810HE Only
Deluxe Jacket with 3 inch Insulation	1" Gas Connection	Flame Roll-Out Switch (FRS) - All Sizes	Electronic Ignition on 805H & 808HE—810HE for Natu-
100% Shut-Off Gas Controls	2" Supply and Return Connections	L4080D High Limit Control	24V Standing Pilot on 806H & 807HE for Natural or LP
Boiler Drain Valve	50 PSI Safety Relief Valve	High Limit Control with Manual Reset-	Pressure Temperature Gauge
50VA Transformer and Junction Box	Stainless Steel Flue Baffles	L4006E (in addition to L4080)-Packaged Boilers	

For more information, literature, IOM or complete warranty coverage visit <https://www.burnhamcommercial.com>

**Series 5B
Commercial
Atmospheric
Gas-Fired Steam Boiler**



Series 5B: Natural or LP Gas, Steam Only, Cast Iron						
Model Number	Gas Input (MBH)	Gross Output (MBH)	Steam Rating Sq. Ft.	Steam (MBH)	Boiler H.P.	Thermal Efficiency
5006B	401	321	1,004	241	9.58	77%
5007B	468	375	1,171	281	11.04	77%
5008B	546	437	1,367	328	12.88	77%
5009B	624	500	1,558	374	14.73	77%
5010B	702	562	1,754	421	16.57	77%
5011B	780	624	1,950	468	18.41	77%
5012B	858	687	2,146	515	20.25	77%
5013B	936	749	2,342	562	22.09	77%
5014B	1,014	812	2,538	609	23.93	77%
5015B	1,092	874	2,729	655	25.77	77%
5016B	1,170	936	2,925	702	27.61	77%
5017B	1,248	999	3,121	749	29.45	77%
5018B	1,326	1,061	3,317	796	31.29	77%
5019B	1,404	1,124	3,513	843	33.13	77%
5020B	1,482	1,186	3,704	889	34.97	77%
5021B	1,560	1,248	3,900	936	36.82	77%
5022B	1,638	1,311	4,113	987	38.66	77%
5024B	1,794	1,436	4,546	1091	42.34	77%
5026B	1,950	1,560	4,975	1194	46.02	77%

For more information, literature, IOM or complete warranty coverage visit <https://www.burnhamcommercial.com>

BWB

Gas-Fired Water Boiler

- Cast Iron heat exchanger
- Up to 84% AFUE (gas heating efficiency)
- Integrated boiler controls provides responsive and reliable heating
- Stainless steel burners provide quiet, efficient and corrosion-resistant performance
- Contoured internal vanes and thermal pins enhance the heat exchange process to reduce fuel costs
- 10-year parts* and 20 year heat exchanger limited warranty



* The limited warranty period is five years on parts if not registered within 90 days. Jurisdictions where warranty benefits are not conditioned on registration will automatically receive a 10-year parts limited warranty. See warranty certificate at bryant.com for complete details and restrictions

Model Number	Max Input (Btuh)	Heating Capacity	Dimensions			Ship Wt (lbs)
			Width	Depth	Height	
BWBCAN000060	59,000	50,000	13 3/8"	24 1/8"	32 1/8"	215
BWBCAN000095	92,500	78,000	13 3/8"	24 1/8"	32 1/8"	250
BWBCAN000120	120,000	101,000	16 1/4"	24 1/8"	32 1/8"	295
BWBCAN000150	149,000	125,000	19"	24 1/8"	32 1/8"	335
BWBCAN000175	175,000	147,000	21 7/8"	24 1/8"	32 1/8"	385
BWBCAN000205	205,000	172,000	27 1/2"	24 1/8"	32 1/8"	420
BWBCAN000235	235,000	197,000	27 1/2"	24 1/8"	32 1/8"	465

BWBB LP KIT P/N: 550003778

For more information, literature, IOM or complete warranty coverage visit www.bryant.com/en/us/products/boilers/

BW3

Gas-Fired Water Boiler

- Up to 84.4% AFUE (gas heating efficiency)
- Titanium composite burners for quiet efficiency and corrosion resistance
- Inducer motor controls combustion airflow to maximize performance
- Contoured internal vanes and thermal pins enhance the heat exchange process to reduce fuel costs
- 10-year parts* and 20-year heat exchanger warranty



*The limited warranty period is five years on parts if not registered within 90 days. Jurisdictions where warranty benefits are not conditioned on registration will automatically receive a 10-year parts limited warranty. See warranty certificate at bryant.com for complete details and restrictions

Model Number	Max Input (Btuh)	Heating Capacity	Dimensions			Ship Wt (lbs)
			Width	Depth	Height	
BW3AAN000042	42,500	36,000	11"	23 1/4"	29"	202
BW3AAN000075	75,000	63,000	14 1/4"	23 1/4"	29"	255
BW3AAN000112	112,500	94,000	17 1/2"	23 1/4"	29"	305
BW3AAN000150	150,000	125,000	20 3/4"	23 1/4"	29"	362
BW3AAN000187	187,500	155,000	24"	23 1/4"	29"	411
BW3AAN000225	225,000	186,000	27 3/4"	23 1/4"	29"	374

BW3 LP KIT P/N: 550003778

For more information, literature, IOM or complete warranty coverage visit www.bryant.com/en/us/products/boilers/

BS2

Gas-Fired Steam Boiler

- Up to 82.7% AFUE
- Cast iron heat exchanger
- Gas-fired models
- Water or steam models
- Standard standing pilot or optional electronic ignition
- Electric vent damper
- Stainless steel/titanium alloy composite burners
- Compact design
- 5-year parts limited warranty and a 12-year parts limited warranty on heat exchanger section*



*To the original owner, the Bryant BW9A boiler is covered by a 5-year parts limited warranty and a 15-year parts limited warranty on the heat exchanger section. Ask your Bryant dealer about optional extended warranties, which may include labor. See warranty certificate at bryant.com for complete details.

Model Number	Max Input (Btuh)	Heating Capacity	NET Rating Sq. FEET	Dimensions			Ship Wt (lbs)
				Width	Depth	Height	
BS2AAN000075	75,000	62,000	196	11 1/4"	26 1/2"	36 3/8"	291
BS2AAN000112	112,500	91,000	283	14 1/2"	26 1/2"	36 3/8"	358
BS2AAN000150	150,000	122,000	383	17 3/4"	26 1/2"	36 3/8"	445
BS2AAN000187	187,500	153,000	479	21"	26 1/2"	36 3/8"	504
BS2AAN000225	225,000	183,000	575	24 1/4"	26 1/2"	36 3/8"	584
BS2AAN000262	262,500	214,000	671	27 1/2"	26 1/2"	36 3/8"	651
BS2AAN000299	299,000	245,000	767	30 3/4"	26 1/2"	36 3/8"	729

UTICA PEG & BRYANT BS2 PIPING KITS

BK1124	Piping Kit for PEG112BIDE or BS2AAN000112
BK1505	Piping Kit for PEG150BIDE or BS2AAN000150
BK1876	Piping Kit for PEG187BIDE or BS2AAN000187
BK2257	Piping Kit for PEG225BIDE or BS2AAN000225
BK2628	Piping Kit for PEG262BIDE or BS2AAN000262
BK2999	Piping Kit for PEG299BIDE or BS2AAN000299

For more information, literature, IOM or complete warranty coverage visit www.bryant.com/en/us/products/boilers/

Raypak

High Efficiency Commercial



XVers + KOR

- 1 MMBTUH- 4 MMBTUH
- Hydronic 94.5-95.7% Efficiency
- Stainless steel fire-tube
- Cascades up to 8 units



XTherm

- 1 MMBTUH—4 MMBTUH
- Hydronic 96% Efficiency
- Water Heat 97% Efficiency
- Pool 97% Efficiency
- Hybrid: copper or cupronickel finned water-tube with secondary stainless steel condensing water-tube.
- Cascades up to 8 units



XVers

- 855 MBTUH-3 MMBTUH
- Hydronic 95.5-96.2% Efficiency
- Stainless steel fire-tube.
- Cascades up to 8 units.
- HO2T (O2 Trim system) optional.



XFIIRE

- 300 MBTUH—1 MMBTUH
- Hydronic 96-96.5% Efficiency
- Water Heat 96-96.5% Efficiency
- Stainless steel water-tube
- Cascade up to 8 units



XVers L

- 399 MBTUH—850 MBTUH
- Hydronic 97.2-98% Efficiency
- Stainless steel fire-tube
- Cascades up to 8 units

For more information, literature, IOM or complete warranty coverage visit <https://www.raypak.com>

Raytherm

Atmospheric Commercial

Copper Fin Tube Boiler

The Raytherm Selection Guide is a ready-reference to Raypak's full line of atmospheric commercial hydronic heating boilers, water heaters and packaged systems. The user, the specifier and the installer will find nearly all the significant information they require to select the proper Raytherm boiler, water heater, or package system for their particular need or application.



Model Number	Full Input in BTUH	Flue Dia.
H3-HD101	100,000	4"
H3-HD151	150,000	4"
H3-HD201	199,000	5"
H3-HD251	250,000	5"
H3-HD301	299,000	5"
H3-HD401	399,000	6"



Model Number	Full Input in BTUH	Flue Dia.
H3-302C	300,000	5"
H3-402C	399,000	6"
H3-502C	500,000	6"
H3-652C	650,000	8"
H3-752C	750,000	8"
H3-902C	900,000	8"



Model Number	Full Input in BTUH	Flue Dia.	# of Stages
H8-992C	990,000	10"	3
H9-126C	1,260,000	12"	4
H9-1532C	1,530,000	12"	4
H9-1802c	1,800,000	14"	4
H9-2002C	1,999,000	14"	4
H9-2072C	2,070,000	14"	4
H9-2342C	2,340,000	16"	4

For more information, literature, IOM or complete warranty coverage visit <https://www.raypak.com>

Raytherm

Atmospheric Commercial

Copper Fin Tube Boiler



Basic Data

Model Number	Full Input in (BTUH) Gas	Full Input in (BTUH) Propane	Indoor Flue Dia.
H-514	511,500	481,000	10"
H-624	627,000	589,000	12"
H-724	726,000	682,000	12"
H-824	825,000	775,000	14"

Available Firing Modes

H1	Mechanical modulation,
H3	2-Stage
H4	On-off
H5	Mechanical modulation setpoint 110F-170F
H9	4-Stage

Basic Data

Model Number	Full Input in BTUH	Flue Dia.	Efficiency
H-2100	2,100,000	24"	81% Thermal
H-2500	2,499,000	26"	82% Combustion
H-3001	3,000,000	28"	
H-3500	3,500,000	30"	
H-4001	4,000,000	32"	

Available Firing Modes

H3	2-Stage
H4	On-off
H9	4-Stage

Basic Data

Model Number	Full Input in
H-926	926,000*
H-1083	1,083,000*
H-1178	1,178,000*
H-1287	1,287,000*
H-1414	1,414,000*
H-1571	1,571,000*
H-1758	1,758,000*

* Propane input is 94% of stated value

Available Firing Modes

H1	Mechanical modulation,
H3	2-Stage
H4	On-off
H5	Mechanical modulation setpoint 110F-170F
H9	4-Stage

Basic Data

Model Number	Full Input in (BTUH) Gas	Full Input in (BTUH) Propane	Flue Dia.
H-962	962,700	885,000	14"
H-1125	1,124,000	1,035,000	16"
H-1223	1,222,500	1,125,000	16"
H-1336	1,336,500	1,230,000	18"
H-1468	1,467,000	1,350,000	18"
H-1631	1,630,000	1,500,000	18"
H-1826	1,825,600	1,680,000	20"

Available Firing Modes

H1	Mechanical modulation, setpoint
H2	Motorized modulation
H3	2-Stage
H4	On-off
H5	Mechanical modulation, setpoint
H9	4-Stage

For more information, literature, IOM or complete warranty coverage visit <https://www.raypak.com>

MAC/MAH Combi or Space Heating Wall Boiler

- The Intelligent Condensing Approach to Residential Heating and Domestic Hot Water
- Combi or Heat-only models with AFUE Efficiencies up to 95%
- The [AI] control automatically modulates the gas input reducing energy use and utility costs.
- 6 Models Available, 93.5 - 205 MBH Input
- Adjusts for LP or Natural Gas - NO Field Conversion Kits Required
- Primary/Secondary LABOR SAVER™ Manifold Included
- High DHW Flow Rates @ 70°F Temperature Rise with a heat exchanger preheat function to ensure immediate hot water at the set temperature
- Warranty Coverage - FREE 2-Year Parts & Labor Limited Warranty* - 10 Year Limited Heat Exchanger Warrant



*Unit must be registered within 60 days from the date of original installation. All terms of Trinity Extended Service Agreement apply.

MODEL		INPUT MBH(1)				DHW Flow Rate GPM (4)	AHRI CERTIFIED RATINGS			VENTING		
		CH Mode MAX	CH Mode MIN	DHW Mode MAX	DHW Mode MIN		Heating Capacity MBH (1) (2)	Net Water MBH(1)(3)	Efficiency AFUE(2)	Coaxial(5) (OD/ID)	2-Pipe(5) Polypropylene	2-Pipe(5) CPVC
COMBI	MAC-115	93.5	16.6	115.5	16.6	2.5	85.4	74	95%	4"/2"	2", 3"	3"
	MAC-150	125	22.0	153	22.0	3.5	113	98	95%	4"/2"	2", 3"	3"
	MAC-205	164	29.5	205	29.5	5.0	153	133	95%	5"/3"	2", 3"	3"
HEAT ONLY	MAH-100	93.5	16.6				85.4	74	95%	4"/2"	2", 3"	3"
	MAH-125	125	22.0				113	98	95%	4"/2"	2", 3"	3"
	MAH-165	164	29.5				153	133	95%	5"/3"	2", 3"	3"

(1) 1000 Btu/h (British Thermal Units Per Hour)

(2) Heating Capacity and AFUE (Annual Fuel Utilization Efficiency) are based on DOE (Department of Energy) test procedures.

(3) Net Water Rating shown based on piping and pickup allowance of 1.15. Consult manufacturer before selecting boilers for installation having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

(4) Flow Rate based on 70°F temperature rise.

(5) Refer to IOM and vent pipe manufacturer's instructions for equivalent lengths and approved venting materials. 2-Pipe requires an adapter sold separately.

Boiler must be vented in Polypropylene 2 pipe or Coaxial (Concentric) [See page 42](#)

KHG714059113	Centrotherm twin vent pipe adapter MAH(F) 100, 125, MAC(F) 115, 150
KHG714089010	Centrotherm twin vent pipe adapter MAH(F) 165, MAC(F) 205
BD710487302V	Outdoor Air Sensor MAH(F)/MAC(F)
550003189	Domestic Hot Water Sensor Kit MAH(F)
TE-275	Multi Boiler Control MAH(F)125 and MAH(F)150 only

For more information, literature, IOM or complete warranty coverage visit <https://www.uticaboilers.com>

MACF/MAHF Combi or Space Heating Floor Boiler

- The Intelligent Condensing Approach to Residential Heating and Domestic Hot Water
- Combi or Heat-only models with AFUE Efficiencies up to 95%
- The [AI] control automatically modulates the gas input reducing energy use and utility costs.
- 6 Models Available, 93.5 - 205 MBH Input
- Adjusts for LP or Natural Gas - NO Field Conversion Kits Required
- Built-in Primary/Secondary LABOR SAVER™ Manifold
- High DHW Flow Rates @ 70°F Temperature Rise with a heat exchanger preheat function to ensure immediate hot water at the set temperature
- Leveling Legs included
- Warranty Coverage - FREE 2-Year Parts & Labor Limited Warranty* - 10 Year Limited Heat Exchanger Warrant



*Unit must be registered within 60 days from the date of original installation. All terms of Trinity Extended Service Agreement apply.

MODEL		INPUT MBH(1)				DHW	AHRI CERTIFIED RATINGS			VENTING		
		CH Mode MAX	CH Mode MIN	DHW" Mode MAX	DHW" Mode MIN		Flow Rate GPM (4)	Heating Capacity MBH (1) (2)	Net Water MBH(1) (3)	Efficiency AFUE(2)	Coaxial (5) (OD/ID)	2-Pipe(5) Polypropylene
COMBI	MACF-115	93.5	16.6	115.5	16.6	2.5	85.4	74	95%	4"/2"	2", 3"	3"
	MACF-150	125	22.0	153	22.0	3.5	113	98	95%	4"/2"	2", 3"	3"
	MACF-205	164	29.5	205	29.5	5.0	153	133	95%	5"/3"	2", 3"	3"
HEAT ONLY	MAHF-100	93.5	16.6				85.4	74	95%	4"/2"	2", 3"	3"
	MAHF-125	125	22.0				113	98	95%	4"/2"	2", 3"	3"
	MAHF-165	164	29.5				153	133	95%	5"/3"	2", 3"	3"

(1) 1000 Btu/h (British Thermal Units Per Hour)

(2) Heating Capacity and AFUE (Annual Fuel Utilization Efficiency) are based on DOE (Department of Energy) test procedures.

(3) Net Water Rating shown based on piping and pickup allowance of 1.15. Consult manufacturer before selecting boilers for installation having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

Boiler must be vented in Polypropylene 2 pipe or Coaxial (Concentric) [See page 42](#)

KHG714059113	Centrotherm twin vent pipe adapter MAH(F) 100, 125, MAC(F) 115, 150
KHG714089010	Centrotherm twin vent pipe adapter MAH(F) 165, MAC(F) 205, UCS 240
BD710487302V	Outdoor Air Sensor MAH(F)/MAC(F)
550003189	Domestic Hot Water Sensor Kit MAH(F)
TE-275	Multi Boiler Control MAH(F)125 and MAH(F)150 only

For more information, literature, IOM or complete warranty coverage visit <https://www.utica boilers.com>

UCS Condensing Water Boilers

- UCS 240 Wall Hung
- UCS 380 Floor Standing

Residential & Light Commercial

UCS 240 Residential/Light Commercial

- 240 MBH
- 95% AFUE - ENERGY STAR® Certified
- 6.7:1 Turndown Ratio ■ Wall Mounted
- Optional Floor Base Available



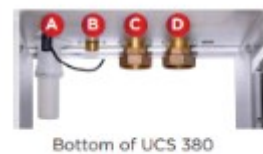
UCS 380 Commercial Offering

- 380 MBH
- 95% Thermal Efficiency
- 10.5:1 Turndown Ratio
- Floor Standing

Advanced Electronics

- Anti-wind Function Control automatically adjusts the fan speed to prevent loss of flame and lockouts
- Flame Stabilization Control allows the flame to stabilize before modulating, preventing flame drop outs and recycling

Includes LABOR SAVER™ Primary/Secondary Manifold



For more information, literature, IOM or complete warranty coverage visit <https://www.uticaboilers.com>

UCS Condensing Water Boilers

- UCS 240 Wall Hung
- UCS 380 Floor Standing

Residential & Light Commercial

Pair the **UCS 240/380** with one of our staging controls and 2-4 boilers for special package pricing!
Installing multiple boilers provide many benefits:

- Improved Efficiency
- Improved Serviceability
- Built-in Redundancy
- Improved Boiler System Longevity
- Installation Flexibility



Options:

Boiler Choice

- UCS 240
- UCS 380

Staging Control Choice

- MBC Control
- Tekmar 275
- Tekmar 284

MODEL	INPUT MBH(1)		AHRI CERTIFIED RATINGS			VENTING		DIMENSIONS				
	MAX	MIN	Heating Capacity MBH (1) (2)	Net Water MBH(1)(3)	Efficiency (2)	Coaxial (4) (OD/ID)	2-Pipe(4) Polypropylene	Water Content (Gal.)	Width	Height	Depth	Ship Weight Lbs.
UCS-240	241	36	216	188	95% AFUE	3"/5"	3"	.8	17-3/4"	31-1/16"	23"	145
UCS-380	379	35	348	303	95% Thermal	4"/6"	4"	4.6	23-5/8"	50	25-1/2"	255

(1) 1000 Btu/hr (British Thermal Units Per Hour)

(2) Heating Capacity and AFUE (Annual Fuel Utilization Efficiency) are based on DOE (Department of Energy) test procedures

(3) Net Water Rating shown based on piping and pickup allowance of 1.15. Consult manufacturer before selecting boilers for installation having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

(4) Refer to IOM and vent pipe manufacturer's instructions for equivalent lengths and approved venting materials.

KHG714089010	Centrotherm twin vent pipe adapter 3" MAH(F) 165, MAC(F) 205, UCS 240
BD7106314V	Centrotherm twin vent pipe adapter 4" UCS 380
BD710487302V	Outdoor Air Sensor
550003189	Domestic Hot Water Sensor Kit
55000332	CSD-1 Kit UCS 240, UCS 380
550003304	Floor Base UCS 240
TE-274	Tekmar Multi boiler control UCS 240/380
AMB4BUB	Utica Multi Boiler Control

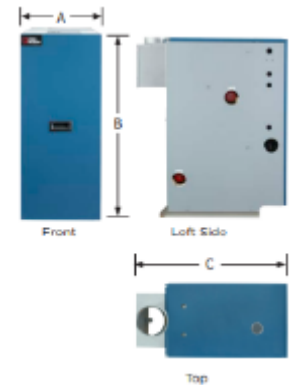
Boiler must be vented in Polypropylene 2 pipe or Coaxial (Concentric) [See page 42](#)

For more information, literature, IOM or complete warranty coverage visit <https://www.utica boilers.com>

MGB-K Gas-Fired Hot Water Boiler

A Cast Iron Boiler Made in the USA

- The MGB-K is a gas-fired boiler with quiet and highly efficient operation. Its energy saving features include the electronic ignition system and motorized vent damper.
- The internal Hydrolevel control adjusts the water temperature based on your heating system demand which further reduces heating costs. The Built-in low water cutoff (LWCO) protects the boiler from potentially dangerous low water levels.
- The MGB-K offers more installation flexibility with water and gas piping options available out the left or right sides of the boiler.
- Proven Cast Iron Heat Exchanger Design Features a dependable cast iron heat exchanger with dry leg end sections.
- Easy to Service Burners Features a removable burner tube tray for easy access and quick service.
- Easy to Install Low Profile Draft Diverter Reduces installation height by up to 30" when compared to models with external draft diverter hoods.
- 20 Year Non-Prorated Limited Warranty (Residential)
- Built by American Craftsmen



MODEL	AHRI CERTIFIED RATINGS					DIMENSIONS					
	Input MBH(1)	Heating Capacity	Net Water MBH(2)	Efficiency AFUE%	Water content	Flue Diameter	Number Burners	-A- Width	-B- Height	-C- Depth	Ship Weight
MGB-060K	59	50	43	84	1.9	4"	2	13-3/8"	32-1/8"	26"	215
MGB-095K	92.5	78	68	84	2.3	5"	3	13-1/2"	32-1/8"	26"	250
MGB-120K	120	101	88	84	2.8	6"	4	16-1/4"	32-1/8"	26"	295
MGB-150K	149	125	109	84	3.2	6"	5	19"	32-1/8"	26"	335
MGB-175K	175	147	128	84	3.7	7"	6	21-7/8"	32-1/8"	26"	385
MGB-205K	205	172	150	84	4.1	7"	7	27-1/2"	32-1/8"	26"	420
MGB-235K	235	197	171	84	4.6	7"	8	27-1/2"	32-1/8"	26"	465

(1) Input rating for sea level to 2,000 ft. (610m) above sea level. United States, over 2000 ft (610m) above sea level. Reduce input rate 4% for every 1000 ft (304m) above sea level.

(2) Net AHRI Water Rating shown based on piping and pickup allowance of 1.15. Consult manufacturer before selecting boilers for installation having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

(3) Refer to IOM and vent pipe manufacturer's instructions for approved venting materials and installation methods.

For more information, literature, IOM or complete warranty coverage visit <https://www.uticaboilers.com>

MGC Gas-Fired Hot Water Boiler

A Cast Iron Boiler Made in the USA

Exceptional Heat Exchanger Design

- Features a dependable cast iron heat exchanger with cast iron push nipple connections. The sections and push nipples expand at the same rate when heated. By using similar materials instead of less expensive gaskets, the boiler maintains a water tight seal.

Hydrolevel Operating Control

- Features digital display and diagnostics
- Adjusts the water temperature based on your heating system demand which further reduces your heating costs
- Built-in low water cut-off (LWCO) to protect the boiler from potentially dangerous low water conditions



Integral Draft Diverter

- Features factory installed integrated draft hood diverter, which reduces the risk of improper draft hood installation and unsafe CO levels
- Low profile reduces installation height by up to 30" as compared to models with an external draft diverter hood

20 Year Non-prorated Limited Warranty (Residential)

Built by American Craftsmen

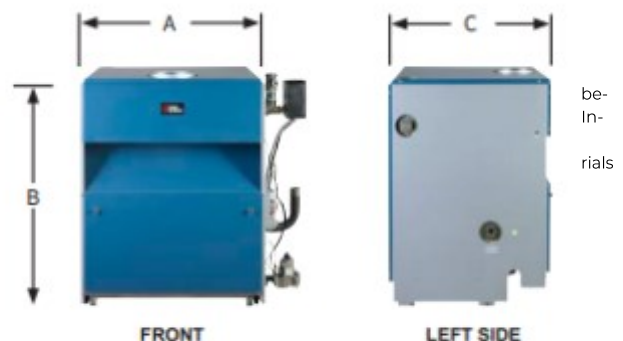
MODEL	AHRI CERTIFIED RATINGS				DIMENSIONS							
	Input MBH	Heating Capacity MBH(1)(3)	Net AHRI Water MBH(1)(3)	Efficiency AFUE%	Recommended Expansion Tank	Flue Diameter(4)	Number of Burners	Water Content (Gal.)	-A- Width	-B- Height	-C- Depth	Weight Lbs.
MGC-8D-B	262	221	192	84.0	60	7"	7	12.7	27-1/2"	36-3/8"	26-1/2"	552
MGC-9D-B	299	252	219	84.0	60	7"	8	14.4	30 3/4"	36-3/8"	26-1/2"	616

(1) 1000 Btu/hr (British Thermal Units Per Hour)

(2) Heating Capacity and AFUE (Annual Fuel Utilization Efficiency) are based on DOE (Department of Energy) test procedures

(3) Net AHRI Rating based on piping and allowance of 1.111. Contact Technical Support for selecting boiler for installations having unusual piping requirements, such as intermittent system operation,

(4) Refer to IOM and vent pipe manufacturer's instructions for approved venting materials and installation methods.



For more information, literature, IOM or complete warranty coverage visit <https://www.utica boilers.com>

SVB Series II Gas-Fired Hot Water Boiler

- Available in 5 sizes from 42.5 MBH to 187.5 MBH
- The SVB features a dependable Cast Iron Heat Exchanger with Cast Iron Push Nipples. The Sections and Push Nipples expand at the same rate when heated. By using similar materials instead of less expensive gaskets the boiler maintains a water tight seal over time.
- The control monitors the water temperature and delays the burner starting until residual heat has been transferred. This maximizes efficiency by turning on the burner only when needed.



Internal Honeywell Operating Control

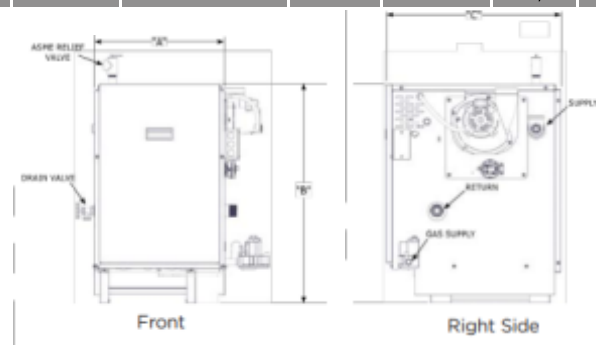
- High Limit/Electronic Ignition
- Digital Temperature Display and Diagnostics
- Plug in Connection for the Inducer Fan
- Plug in Connection for the System Pump

Induced Draft Fan

- Allows flue gases to be pulled through the boiler and exhausted through a chimney or side-wall vent.
- Small Compact Design Ideal for low clearance installations.
- 20 Year Non-prorated Limited Warranty (Residential)
- Assembled in the USA

MODEL	AHRI CERTIFIED RATINGS				DIMENSIONS						
	Input MBH(1)	Heating Capacity MBH(1)	Net Water MBH(1)(3)	Efficiency AFUE%(2)	Vent Pipe Size(4)		Water Content Gallons	-A- Width	-B- Height	-C- Depth	Ship Weight Lbs.
					Chimney	Sidewall					
SVB-2	42.5	36	31	84.4	4"	3"	1.75	11"	29"	23-1/4"	225
SVB-3	75.0	63	55	84.0	4"	3"	3	14-1/4"	29"	23-1/4"	265
SVB-4	112.5	95	82	84.0	4"	3"	4.25	17-1/2"	29"	23-1/4"	322
SVB-5	150.0	127	109	84.0	4"	3"	5.5	20-3/4"	29"	23-1/4"	370
SVB-6	187.5	158	135	84.0	4"	4"	6.75	24"	29"	23-1/4"	431

(1) 1000 Btu/hr (British Units Per Hour)
 (2) Heating capacity and AFUE (Annual Fuel Utilization Efficiency) are based on DOE (Department of Energy) test procedures.



For more information, literature, IOM or complete warranty coverage visit <https://www.uticaboilers.com>

PEG Series E Residential Steam Boiler

Steam Boiler up to 83.4% AFUE Available in 7 sizes from 75 to 299 MBTU Input

- 7 sizes available from 75 MBH to 299 MBH.
- Classic, low profile, compact design.
- LWCO (Probe Type) is located on the side of the boiler allowing for quick inspection and testing.
- Includes Pressure High Limit Control, Pressure Gauge, Gauge Glass.
- Atmospheric Chimney Vent Boiler with rear mounted Integral Draft Hood and Vent Damper. Low profile compact design makes it ideal for low clearance installations.
- Stainless Steel Burners.
- Brass/copper pig tail siphon for long life.
- 10 Year Non-Prorated Limited Warranty (Residential Applications)
- Built by American Craftsmen



MODEL	AHRI CERTIFIED RATINGS						DIMENSIONS					
	Input MBH (1)	Heating Capacity MBH(1)(2)	Steam PPF(1)	Steam MBH(1)(3)	Steam SQ. FT. (1)	Efficiency AFUE%(2)	Number of Sections	Vent Pipe Size(4)	-A- Width	-B- Height	-C- Depth	Ship Weight Lbs.
PEG075BIDE	75	62	1.33	47	195	82.2	3	5"	10-7/8"	35-7/8"	28-3/8"	297
PEG112BIDE	112	93	1.33	70	292	82.4	4	5"	14-1/8"	35-7/8"	28-3/8"	368
PEG150BIDE	150	125	1.33	94	391	82.6	5	6"	17-3/8"	35-7/8"	29-3/8"	440
PEG187BIDE	187	156	1.33	117	488	82.8	6	7"	20-5/8"	35-7/8"	30-3/8"	512
PEG225BIDE	225	188	1.33	141	587	83.0	7	7"	23-7/8"	35-7/8"	30-3/8"	584
PEG262BIDE	262	219	1.33	164	685	83.2	8	7"	27-1/8"	35-7/8"	30-3/8"	659
PEG299BIDE	299	250	1.33	188	782	83.4	9	7"	30-3/8"	35-7/8"	30-3/8"	736

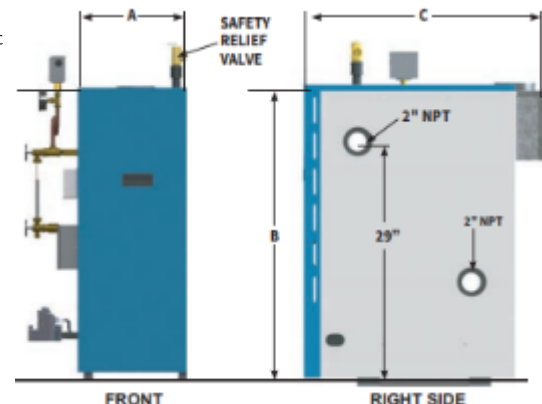
(1)1000 Btu/hr (British Units Per Hour)

(2) Heating capacity and AFUE (Annual Fuel Utilization Efficiency) are based on DOE (Department of Energy) test procedures.

(3) Net AHRI steam ratings shown are based on a piping and pickup allowance of 1.333. Consult manufacturer before selecting a boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

(4) Refer to IOM and vent pipe manufacturer's instructions for equivalent lengths and approved

UTICA PEG & BRYANT BS2 PIPING KITS	
BK1124	Piping Kit for PEG112BIDE or BS2AAN000112
BK1505	Piping Kit for PEG150BIDE or BS2AAN000150
BK1876	Piping Kit for PEG187BIDE or BS2AAN000187
BK2257	Piping Kit for PEG225BIDE or BS2AAN000225
BK2628	Piping Kit for PEG262BIDE or BS2AAN000262
BK2999	Piping Kit for PEG299BIDE or BS2AAN000299



For more information, literature, IOM or complete warranty coverage visit <https://www.uticaboilers.com>

JE Steam

Commercial Gas-Fires Steam Boiler

Electronic Ignition Base Standard Equipment

- Base
- Fire Door
- Burner Orifice
- Manifold
- Main and Pilot Burner
- Electronic Pilot Gas Valve
- Intermittent Pilot Module
- Complete Jacket Assembly

Steam Trim Package

- Low Water Cut-Off
- Glass Gauge Set
- Safety Valve
- Steam Gauge
- Pressure Limit
- Drain Valve

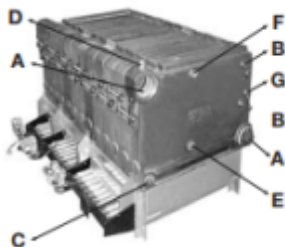


JE Commercial Bases are pre-assembled at the factory with burner manifold, burner orifices, gas valves and electronic ignition installed; ready for field installation of the pre-tested sections and appropriate packages.

Plug 'N Play Harness and Junction Box Individual base and junction box controls are designed for easy installation. The entire boiler links together in a snap with a factory supplied color-coded wiring harness.

CSD1 Option

Available with a CSD-1 option to comply with CSD-1 standards where required by building code. The CSD-1 option provides the increased number of controls and safety devices required to meet CSD-1 standards.

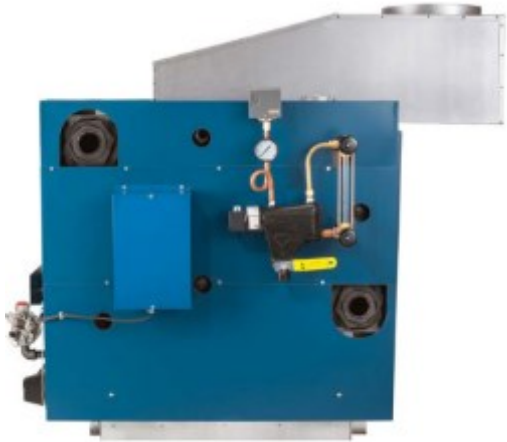


RIGHT & LEFT END TAPPINGS

A: Supply & Return	4"
B: Primary LWCO & Gauge Glass Set	1/2"
C: Drain (Left & Right End)	3/4"
D: Plugged	1/2"
E: Accessories	1"
*F: Safety Valve	1"
G: Plugged or Electronic (Probe Type) LWCO	3/4"

**If opening F is to be used for something other than the Safety Valve or Pressure Relief Valve, or the Safety/Relief Valve is larger than 1", the Safety/Relief Valve must be installed in the Header Piping as near to the boiler as possible.*

For more information, literature, IOM or complete warranty coverage visit <https://www.uticaboilers.com>



MODEL	AHRI CERTIFIED RATINGS						DIMENSIONS					
	Input MBH (1)	Gross Output MBH(1)	Steam PPF(2)	Steam Sq. Ft. (3)	Steam MBH (2)	Thermal Efficiency	Base Size & Flue Outlet			Chimney Size(4) I.D. x Ht.	Flue Collector Size to Chimney	Horsepower Gross Output(3)
							300 8"	400 10"	500 12"			
*JE300-CSD1	300	233	1.333	729	175	77%	1	0	0	8" x 20'	8	6.96
*JE400-CSD1	400	310	1.333	971	233	77%	0	1	0	10" x 20'	10	9.25
*JE500-CSD1	500	388	1.333	1213	291	77%	0	0	1	12" x 20'	12	11.58
*JE600-CSD1	600	465	1.333	1454	349	77%	2	0	0	12" x 20'	12	13.88
*JE700-CSD1	700	543	1.333	1696	407	77%	1	1	0	12" x 20'	12	16.21
*JE800-CSD1	800	620	1.333	1938	465	77%	0	2	0	14" x 20'	14	18.51
*JE900-CSD1	900	698	1.333	2183	524	77%	0	1	1	14" x 20'	14	20.84
*JE1000-CSD1	1000	775	1.333	2421	581	77%	0	0	2	14" x 20'	14	23.13
*JE1100-CSD1	1100	853	1.333	2667	640	77%	1	2	0	16" x 20'	16	25.46
*JE1200-CSD1	1200	930	1.333	2908	698	77%	0	3	0	16" x 20'	16	27.76
*JE1300-CSD1	1300	1008	1.333	3150	756	77%	1	0	2	16" x 20'	16	30.09
*JE1400-CSD1	1400	1085	1.333	3392	814	77%	0	1	2	18" x 20'	18	32.39
*JE1500-CSD1	1500	1163	1.333	3363	872	77%	0	0	3	18" x 20'	18	34.72

(1) Ratings are at sea level to 2,000 feet. For altitudes above 2,000 feet, reduce all ratings 4% for each 1,000 feet above sea level.

(2) Net steam ratings based on piping and pickup allowance of 1.333 (300-1500). Contact Technical Support before selecting boiler for installations having unusual piping and pick-up factors, such as intermittent system operations, extensive piping systems, et.

(3) Ratings in square feet are computed at 240 Btuh/square foot for steam boilers.

(4) Chimney sizes shown are one option based on a typical venting system as shown in Figure 6 of the Installation Manual, and sized according to the National Fuel Gas Code, assuming Type B double wall vent and vent connectors, other venting system designs are acceptable as shown on Flue Connections and Venting Section of the installation manual. For further chimney design and sizing information, consult the National Fuel Gas Code, ANSI Z223.1/NFPA54-latest revision, or ASHRAE HVAC Systems and Equipment Handbook, Chimney, Gas Vent, and Fireplace Systems, or the Standard for Chimneys, Fireplaces, Vents, and Solid Fuel Burning Appliances. NFPA 211. Follow standard engineering practice.

(5) Ratings based on 33,500 Btuh per horsepower.

For more information, literature, IOM or complete warranty coverage visit <https://www.utica boilers.com>

BOILERS

15B Series K

84%AFUE- Efficiency

Energy saving features include the electronic ignition system and motorized vent damper to reduce heating costs.

Proven Cast-Iron Heat Exchanger Design

Features a dependable cast-iron heat exchanger with dry leg sections. Each cast-iron heat exchanger is water and pressure tested prior to assembly.

Internal Operating Control

Digital display and diagnostics. Control adjusts the water temperature based on the heating system demand to reduce your heating costs.

LWCO and Gas Valve

Factory installed low water cut-off (LWCO) protects the boiler from potentially dangerous low water conditions.

Flexible Installation

Left or right hydronic piping and electrical wiring options available.

Easy to Service Burner

Removable burner tray allows for easy cleaning and quick access to change orifices: LP gas, high altitude.

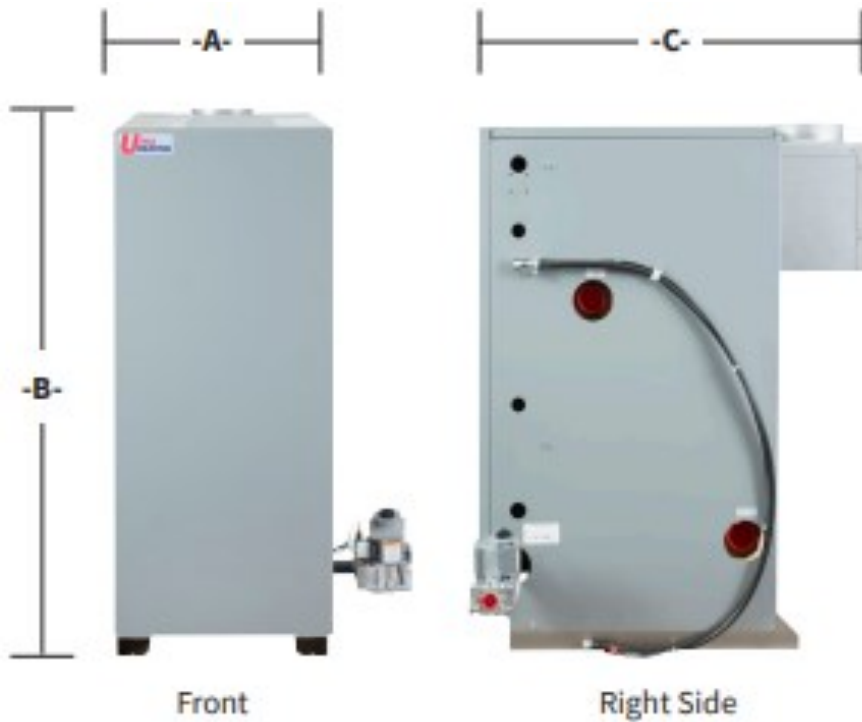
Easy to Install Draft Diverter

Includes a low profile draft diverter hood reducing installation height by up to 30" when compared to models with external hoods.

Warranty

20 Year Limited Warranty (Residential)





MODEL	AHRI CERTIFIED RATINGS					DIMENSIONS					
	Input MBH (1)	Heating Capacity MBH(1)	Net Water MBH(2)	Efficiency AFUE%	Water content Gallons	Flue Diameter (3)	Number Burners	-A- Width	-B- Height	-C- Depth	Ship Weight Lbs.
UH15B-060K	59	50	43	84	1.9	4"	2	13-3/8"	32-1/8"	26"	215
UH15B-095K	92.5	78	68	84	2.3	5"	3	13-1/2"	32-1/8"	26"	250
UH15B-120K	120	101	88	84	2.8	6"	4	16-1/4"	32-1/8"	26"	295
UH15B-150K	149	125	109	84	3.2	6"	5	19"	32-1/8"	26"	335
UH15B-175K	175	147	128	84	3.7	7"	6	21-7/8"	32-1/8"	26"	385
UH15B-205K	205	172	150	84	4.1	7"	7	27-1/2"	32-1/8"	26"	420
UH15B-235k	235	197	171	84	4.6	7"	8	27-1/2"	32-1/8"	26"	465

(1) Input rating for sea level to 2,000 ft. (610m) above sea level. United States, over 2000 ft (610m) above sea level. Reduce input rate 4% for every 1000 ft (304m) above sea level.

(2) Net AHRI Water Rating shown based on piping and pickup allowance of 1.15. Consult manufacturer before selecting boilers for installation having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

(3) Refer to IOM and vent pipe manufacturer's instructions for approved venting materials and installation methods.

For more information, literature, IOM or complete warranty coverage visit <https://uticaboilers.com/products/utica-heating>

Utica Oil-Fired Boilers



OIL-FIRED WATER BOILER TRB RATINGS					
MODEL	AHRI CERTIFIED RATINGS				
	Firing Rate GPH	Input MBH	Heating Capacity MBH	Net AHRI Rating MBH	Efficiency AFUE%
TRB4075	0.75	105	92	80	87.0
TRB4090	0.90	126	110	96	86.0
TRB5100	1.00	140	123	107	87.0
TRB5120	1.20	168	148	129	86.0
TRB6130	1.30	182	160	139	87.0
TRB6145	1.45	203	178	155	86.0
TRB7165	1.65	231	202	176	87.0
TRB7180	1.80	252	220	191	86.0



OIL-FIRED WATER BOILER SFH RATINGS					
MODEL	AHRI CERTIFIED RATINGS				
	Firing Rate GPH	Input MBH	Heating Capacity MBH	Net AHRI Rating MBH	Efficiency AFUE%
SFH-3085(T)	0.85	119	103	90	86
SFH-4100W(T)	1.00	140	124	108	87
SFH-4125W(T)	1.25	175	152	132	86
SFH-5160W(T)	1.60	224	195	170	86
SFH-6185W(T)	1.85	259	226	197	86



OIL-FIRED STEAM BOILER SBO RATINGS						
MODEL	AHRI CERTIFIED RATINGS					
	Firing Rate GPH	Input MBH	Heating Capacity MBH	Net Steam MBH	Net Steam SQ. FT.	Efficiency AFUE%
SBO-3085	0.85	119	104	78	325	85.6
SBO-3105	1.05	147	127	95	396	85.0
SBO-4125	1.25	175	152	114	475	85.6
SBO-4150	1.50	210	180	135	563	85.0

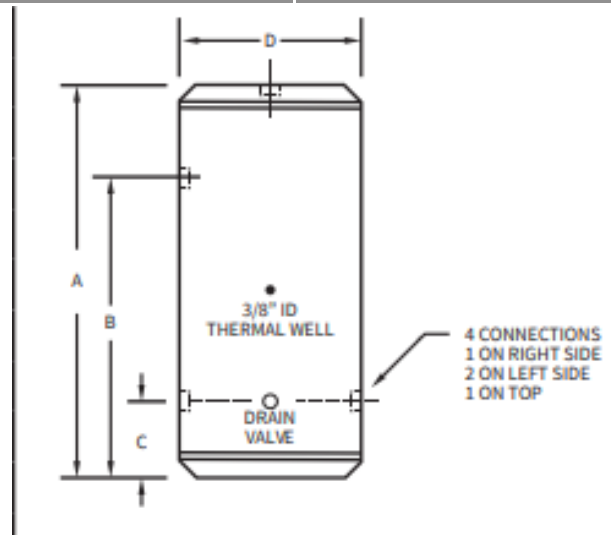
For more information, literature, IOM or complete warranty coverage visit <https://www.utica boilers.com>

Utica Stainless Buffer Tanks



Model	Storage Capacity (Gals.)	Piping Connections NPT (Inches)
H2OBT22114UB	22	1-1/4
H2OBT40114UB	40	1-1/4
H2OBT40112UB	40	1-1/2
H2OBT402UB	40	2
H2OBT60114UB	60	1-1/4
H2OBT60112UB	60	1-1/2
H2OBT602UB	60	2
H2OBT80114UB	80	1-1/4
H2OBT80112UB	80	1-1/2
H2OBT802UB	80	2
H2OBT115114UB	115	1-1/4
H2OBT115112UB	115	1-1/2
H2OBT1152UB	115	2

Dimensions & Weights				
Model	Height -A- (Inches)	B (Inches)	C (Inches)	Ship Wt. (Lbs.)
H2OBT22114UB	24.5	15.0	8.0	35
H2OBT40114UB	42.0	29.0	9.0	87
H2OBT40112UB	42.0	29.0	9.0	87
H2OBT402UB	42.0	29.0	9.0	87
H2OBT60114UB	42.0	29.5	9.5	115
H2OBT60112UB	42.0	29.5	9.5	115
H2OBT602UB	42.0	29.5	9.5	115
H2OBT80114UB	52.0	39.5	9.5	125
H2OBT80112UB	52.0	39.5	9.5	125
H2OBT802UB	52.0	39.5	9.5	125
H2OBT115114UB	72.0	59.5	9.5	160
H2OBT115112UB	72.0	59.5	9.5	160
H2OBT1152UB	72.0	59.5	9.5	160



The following formula determines the tank volume

$$V = T \times (Q \text{ heat input} - Q \text{ min. heat load}) \times \text{Tank temp. rise} \times 500$$

V= Buffer tank volume (gallons)

T= desired heat source "on cycle" (min.)

Q heat source = heat source output (BTU/HR)

Q min. heat load = heat output to minimum load

Tank temp rise (deg. F)

For more information, literature, IOM or complete warranty coverage visit <https://www.utica boilers.com>

INDIRECT WATER HEATER

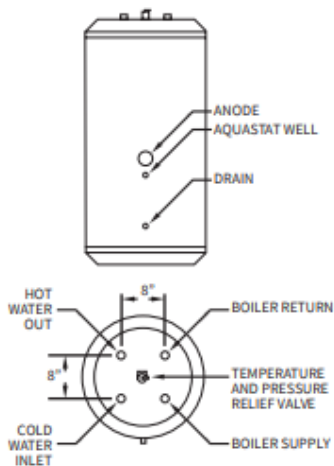
Indirect Water Heater

H2O Single Coil

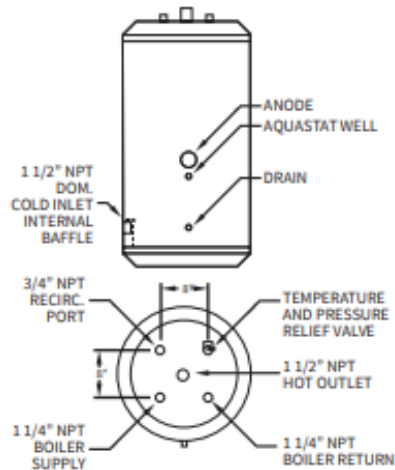
- Easy to install
- All connections on top
- Low pressure drop
- Magnesium anode rod
- Smooth stainless steel coil
- Welded stainless steel cold water dip tube (factory installed)
- Minimal standby losses
- Limited Lifetime Residential Warranty (5-Year Commercial)
- Stainless steel aquastat well, T & P and drain valve (factory installed)
- Aquastat control shipped loose



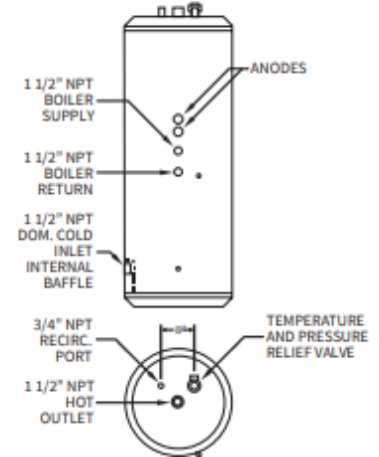
STANDARD & HO UNITS



HOC UNITS



XHOC UNITS



For more information, literature, IOM or complete warranty coverage visit <https://uticaboilers.com>

Model	Storage	Coil	Dimensions			Piping NPT	
	Capacity (Gallons)	Heating Surface (Square Feet)	Height (Inches)	Diameter (Inches)	Weight (lb)	DHW In/Out (Inches)	Boiler Water In/Out (Inches)
H2O130UB	30	7.3	34.0	23.5	85	3/4	1
H2O140UB	40	7.7	44.0	23.5	100	3/4	1
H2O140LUB	42	7.4	36.0	28.0	100	3/4	1
H2O150UB	50	8.2	54.0	23.5	110	3/4	1
H2O160UB	60	8.6	62.0	23.5	125	3/4	1
H2O160LUB	60	7.7	46.0	28.0	120	3/4	1
H2O180UB	80	8.2	56.0	28.0	140	1	1
H2O115UB	115	9.1	74.0	28.0	175	1	1
HIGH OUTPUT UNITS							
H2O160HOUB	60	15.1	62.0	23.5	145	1	1
H2O180HOUB	80	14.8	56.0	28.0	155	1	1
H2O180HOCUB	80	14.8	56.0	28.0	155	1-1/2	1-1/4
H2O115HOUB	115	15.6	74.0	28.0	190	1	1
H2O115HOCUB	115	15.6	74.0	28.0	190	1-1/2	1-1/2
EXTRA HIGH OUTPUT UNITS 85-XHO AND 115-XHO							
H2O185XHOCUB	87	28.7	64.0	28.0	215	1-1/2	1-1/2
H2O115XHOCUB	115	28.7	74.0	28.0	240	1-1/2	1-1/2
NOTE: Max. Tank Working Pressure 150 psi all models. Max. Coil Working Pressure 90 psi all models							
Options	(L) Low profile models for applications with low clearances						
	(HO) High Output models available to meet greater demand.						
	(HOC) High Output Commercial models with larger tappings for higher flow rates.						
	(XHO) Extra High Output models.						
Model	Max First Hour Rating GPH@		Continuous Rating GPH@		Output Needed	Water Flow Through Coil	Pressure Drop Through Coil
	140°F	115°F	140°F	115°F	Btu/h	GPM	FT Water
H2O130UB	202	269	175	242	131,000	14	5.6
H2O140UB	221	292	185	256	139,000	14	5.9
H2O140LUB	212	251	176	215	132,000	14	5.6
H2O150UB	223	291	178	246	133,000	14	6.2
H2O160UB	262	342	208	288	156,000	14	6.4
H2O160LUB	239	310	185	256	139,000	14	5.9
H2O180UB	271	348	201	276	149,000	14	6.2
H2O115UB	324	409	221	306	166,000	14	6.7
HIGH OUTPUT UNITS							
H2O160HOUB	406	541	352	478	264,000	14	10.5
H2O180HOUB	418	551	346	479	259,000	14	10.3
H2O180HOCUB	442	584	370	512	273,000	21	15.8
H2O115HOUB	467	607	364	504	273,000	14	10.8
H2O115HOCUB	479	623	376	520	282,000	21	16.7
EXTRA HIGH OUTPUT UNITS 85-XHO AND 115-XHO							
H2O185XHOCUB	738	992	660	914	495,000	28	13
H2O115XHOCUB	763	1017	660	914	495,000	28	13
NOTE: All ratings are based on 200°F boiler water supply and 50°F cold water inlet							

Output Needed rating is the BTU's needed to achieve rated recovery GPH. Less BTU's will still operate and heat water with more GPH than the typical water heaters. Charts are available with different BTU inputs. Just contact your salesmen or hydronic specialist for the information

For more information, literature, IOM or complete warranty coverage visit <https://www.utica boilers.com>

INDIRECT WATER HEATER

Indirect Water Heater

Buderus Glass lined and Stainless Steel Tanks



Bosch domestic hot water tanks offer features that provide ease of installation, simple maintenance and reliable operation. All Thermoglaze models are equipped with a magnesium anode rod for protection against corrosion, a drain for easy maintenance, and have adjustable screw-on feet for leveling plus easy-access covers aid in cleaning and maintaining the coil and tank interior.

S Series Tank

Thermoglaze Single-Coil Tank

Our single coil indirect DHW storage tanks offer easy installation and simple maintenance to provide excellent value at a competitive price.

SST Series Tank

Stainless Steel Single-Coil Tank

The SST tanks have a welded and passivated 316L stainless steel interior and a 316L stainless steel coil heat exchanger. This provides durability and resistance to corrosion.



Indirect Water Heater

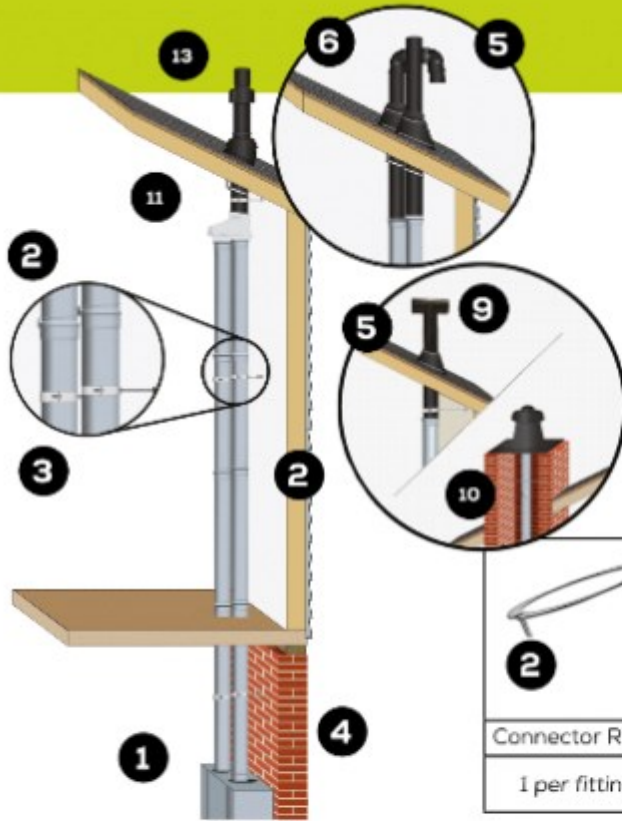
Buderus Glass lined and Stainless Steel Tanks

Tank Model Number	S32(White)(GLASS)	SST150-40(Blue)	SST250-65(Blue)	SST300-80(Blue)	SST450-119(Blue)
PART NO.	7738003203	7738001642	7738001643	7738001644	7738001645
TANK CAPACITY GAL.	30	40	67	81.5	113.4
DIAMETER, IN.	21 3/4	20	24	24	28
HEIGHT, IN.	38 5/8	56	60	70	69
CONNECTION HEAT EXCHANGER COIL, IN.	3/4	1	1	1	1
CONNECTION DHW OUTLET, IN.	3/4	1	1.5	1.5	1.5
CONNECTION COLD WATER INLET, IN.	3/4	1	1.5	1.5	1.5
APPROX. DRY WEIGHT, LBS.	160	105	147	177	213
MAX DHW TEMPERATURE	203	194	194	194	194
MAX. DHW OPERATING PRESSURE, PSI	150	150	150	150	150
STANDBY HEAT LOSS, F//h	1.0	0.9	0.7	0.6	0.5
PERFORMANCE DATA					
HEAT INPUT TO TANK, MPH	87	115	154	160	199
CONTINUOUS RATING: (gph)	137	181	263	266	322
FIRST HOUR RATING: (gph)	165	208	327	347	431
BOILER WATER FLOW RATE, gpm (MIN)	8	14	14	14	14
COIL PRESSURE DROP: ft of HEAD	1.9	4.5	5.7	5.7	6.5

For more information go to: www.bosch-thermotechnology.us/us/en/ocs/residential/indirect-hot-water-tanks-1119179-p/

POLYPROPYLENE VENTING

Installation Quick Guide



Adaptors

Consult InnoFlue OEM Matrix for correct fitting

1			
	PVC Adaptor	Gasketed	Steel Adaptor
	ISAAL	ISAGL	ISSA

Accessories

2	3	4	5
Connector Ring	Support Clamp	Recommended	
1 per fitting	Vertical Every 39"	Horizontal Every 78"	Test Port
			Bird Screen

Termination Options

Consult local codes and OEM IBO manuals for snowline and other requirements

6	7	8	9	10
End Pipe	Snorkel	Horizontal Wall	Term Tee	Chimney Cap
ISEP	ISSNKL	ISLPT	ISTT	ISCP

Concentric Adaptor → Terminations

11	12	13
Required	Select One	
Adaptor	Wall Termination	Roof Term
ICTCR	ICWT	ICRT

For more information go to www.centrotherm.us.com/Home.aspx

Centrotherm Polypropylene Venting

ISAAL0202	APPLIANCE ADAPTER 2" PVC TO POLYPROPYLENE
ISAAL0303	APPLIANCE ADAPTER 3" PVC TO POLYPROPYLENE (BOSCH GREENSTAR)
ISAAL0404	APPLIANCE ADAPTER 4" PVC TO POLYPROPYLENE
IACE50	LUBRICANT 50ml POLYPROPYLENE CENTRO CERIN
2" POLYPROPYLENE VENTING	
IANS02	CONNECTOR RING 2"
IASCP02	SUPPORT CLAMP 2"
IASP02	SPACER 2" SELF-POSITIONING SPACER IN A CHASE/CHIMNEY/B-VENT
IAWP02B	WALL PLATE SQUARE PLASTIC (WALL PLATE ESCUTCHEON)
ISRD0302	REDUCER 3"X2" (FITTING IF REDUCING TO 2" VENT AT BOILER)
ISELL0245	ELBOW LONG 2" 45 DEGREE
ISELL0287	ELBOW LONG 2" 87 DEGREE
ISEL0230	ELBOW LONG 2" 30 DEGREE
ISVL021	VENT PIPE LENGTH 2"X1'
ISVL022	VENT PIPE LENGTH 2"X2'
ISVL023	VENT PIPE LENGTH 2"X3'
ISVL026	VENT PIPE LENGTH 2"X6'
ISVL0210	VENT PIPE LENGTH 2"X10'
ISELL0287UV	ELBOW LONG 2" 87 DEGREE UV
ISVL022UV	VENT PIPE LENGTH 2"X2' UV
ISEP02	END PIPE 2"X20" UV
ISEP0239	END PIPE 2"X39" UV
ISLPT0202	WALL TERMINATION LOW PROFILE 2" UV
ISTT0220	TERMINATION TEE 2"UV
IASPP02	BIRDSCREEN 2" BLACK UV
3" POLYPROPYLENE VENTING	
IANS03	CONNECTOR RING 3"
IASCP03	SUPPORT CLAMP 3"
IASP03	SPACER 3" SELF-POSITIONING SPACER IN A CHASE/CHIMNEY/B-VENT
IAWP03B	WALL PLATE SQUARE PLASTIC 3" (WALL PLATE ESCUTCHEON)
ISRD0403	REDUCER 4"X3"
ISELL0345	ELBOW 3" LONG 45 DEGREE
ISELL0387	ELBOW 3" LONG 87 DEGREE
ISEL0330	ELBOW 3" 30 DEGREE
ISVL031	VENT PIPE LENGTH 3"X1'
ISVL032	VENT PIPE LENGTH 3"X2'

For more information go to www.centrotherm.us.com/Home.aspx

POLYPROPYLENE VENTING

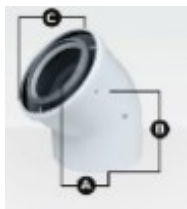
Centrotherm Polypropylene Venting

3" POLYPROPYLENE VENTING CONTINUED	
ISVL033	VENT PIPE LENGTH 3"X3'
ISVL036	VENT PIPE LENGTH 3"X6'
ISVL0310	VENT PIPE LENGTH 3"X10'
ISELL0387UV	ELBOW LONG 3" 87 DEGREE UV
ISVL032UV	VENT PIPE LENGTH 3"X2' UV
ISEP03	END PIPE 3"X20" UV
ISEP0339	END PIPE 3"X39" UV
ISLPT0303	WALL TERMINATION LOW PROFILE 3" UV
ISTT0320	TERMINATION TEE 3" UV
IASPP03	BIRDSCREEN 3" BLACK UV
4" POLYPROPYLENE VENTING	
IANS04	CONNECTOR RING 4"
IASCM04	SUPPORT CLAMP 4" 3/8" NUT
IASCPO4	SUPPORT CLAMP 4"
IASPO4	SPACER 4"
IAWP04B	WALL PLATE ROUND 4" BLACK
ISEL0445	ELBOW 4" 45 DEGREE
ISEL0487	ELBOW 4" 87 DEGREE
ISEL0430	ELBOW 4" 30 DEGREE
ISVL041	VENT PIPE LENGTH 4"X1'
ISVL042	VENT PIPE LENGTH 4"X2'
ISVL043	VENT PIPE LENGTH 4"X3'
ISVL046	VENT PIPE LENGTH 4"X6'
ISEL0487UV	ELBOW 4" 87 DEGREE UV
ISVL042UV	VENT PIPE LENGTH 4"X2' UV
IASPP04	BIRDSCREEN 4" BLACK UV
2"/4" CONCENTRIC (COAXIAL) POLYPROPYLENE VENTING	
ICEL2445	CONCENTRIC ELBOW 2"/4" 45 DEGREE
ICEL2487	CONCENTRIC ELBOW 2"/4" 87 DEGREE
ICVL241	CONCENTRIC VENT PIPE LENGTH 2"/4"X1'
ICVL242	CONCENTRIC VENT PIPE LENGTH 2"/4"X2'
ICVL243	CONCENTRIC VENT PIPE LENGTH 2"/4"X3'
ICRT2439	CONCENTRIC ROOF TERMINATION 2"/4"
ICRF2435	CONCENTRIC ROOF FLASHING 2"/4" OR 3"/5" PP-UV
ICWT242	CONCENTRIC WALL TERMINATION 2"/4" PP-UV
ICVKH24	HORIZONTAL CONCENTRIC VENT KIT 2"/4"

For more information go to www.centrotherm.us.com/Home.aspx

Centrotherm Polypropylene Venting

3"/5" CONCENTRIC (COAXIAL) POLYPROPYLENE VENTING	
ICEL3545	CONCENTRIC ELBOW 3"/5" 45 DEGREE
ICEL3587	CONCENTRIC ELBOW 3"/5" 87 DEGREE
ICVL351	CONCENTRIC VENT PIPE LENGTH 3"/5"X1'
ICVL352	CONCENTRIC VENT PIPE LENGTH 3"/5"X2'
ICVL353	CONCENTRIC VENT PIPE LENGTH 3"/5"X3'
ICRT3539	CONCENTRIC ROOF TERMINATION 3"/5" PP-UV
ICRF2435	CONCENTRIC ROOF FLASHING 2"/4" OR 3"/5"
ICWT352	CONCENTRIC WALL TERMINATION 3"/5" PP-UV
4"/6" CONCENTRIC (COXIAL) POLYPROPYLENE VENTING	
ICRT4679	CONCENTRIC ROOF TERMINATION 4"/6" PP-UV
ICWT462	CONCENTRIC WALL TERMINATION 4"/6" PP-UV



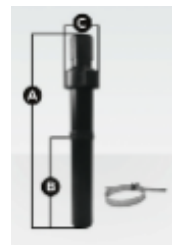
ICELXX45



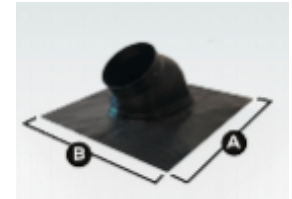
ICELXX87



ICVL



ICRT



ICRF



ICWT242/ICWT352



ICVKH24



ICWT4662



IFVL02



IFVL03/4



IFCK0235



IFCK0335/IFCK0435



IFBK02



IFBK03/04

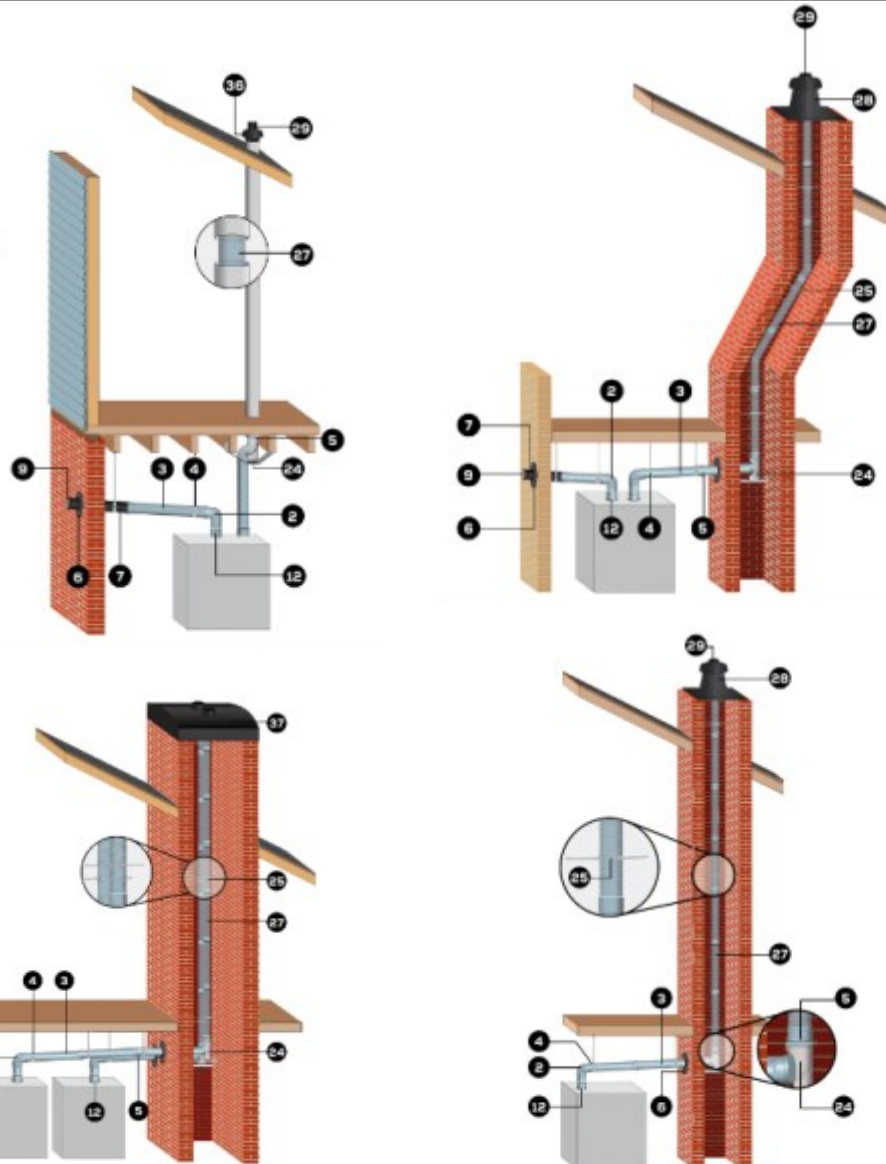
For more information go to www.centrotherm.us.com/Home.aspx

POLYPROPYLENE VENTING

Centrotherm Polypropylene Venting FLEXIBLE POLYPROPYLENE VENTING

IFVL02035	FLEX VENT LENGTH 2"X35'
IFVL03035	FLEX VENT LENGTH 3"X35'
IFVL04035	FLEX VENT LENGTH 4"X35'
IFCK0235	FLEX CHIMNEY KIT 2"X35'
IFCK0335	FLEX CHIMNEY KIT 3"X35'
IFCK0435	FLEX CHIMNEY KIT 4"X35'
IFBK02	FLEX COMPONENT BVENT KIT 2" FOR INSIDE 3"OR 4" BVENT
IFBK03	FLEX COMPONENT BVENT KIT 3" FOR INSIDE 4"OR 5" BVENT
IFBK04	FLEX COMPONENT BVENT KIT 4" FOR INSIDE 5" OR 6" BVENT

- 2 ISEL87: 87° Elbow
- 3 ISVL: Vent Length
- 4 IASCM: Support Clamp
- 5 IANS: Connector Ring
- 6 IAWP: Wall Plate
- 7 ISEP: End Pipe PPs-UV
- 9 IASPP: Bird Screen PPs-UV
- 12 Appliance Adaptor
(See OEM approval Matrix)
- 24 ISBS: Base Support
- 25 IASP: Spacer
- 27 IFVL: Flexible Vent Length
- 28 ISCP: Chimney Cover PPs-UV
- 29 IFEP: Flex End Pipe
- 36 IAUBV: Universal B-Vent Cap
- 37 IFPT: Custom Chimney Cover



For more information go to www.centrotherm.us.com/Home.aspx

RADIANT FLOOR HEATING



Radiant Heating

Energy Efficient Heating for Residential & Commercial Projects

From Radiant Floor Heating to Turf Conditioning and Snow and Ice Melting...

REHAU Radiant Heating and Cooling Systems distribute energy uniformly and efficiently by circulating heated or chilled water through the network of pipes installed in floor, walls or ceilings. A radiant system can be the primary source of heating and cooling or can serve in combination with traditional HVAC application to improve the overall energy efficiency while achieving an ideal level of comfort.



Rehau systems are perfect for new construction and renovation. Most retrofits can be easily accommodated also.

Snow and Ice Melting

Radiant heat applied to walkways and driveways provides the ultimate in snow and ice removal, increasing safety and reducing maintenance costs.



Turf Conditioning

Conditioning the soil beneath a playing field promotes a soft, healthy turf which reduces the chance of injury and eliminates cost over-seeding and re-sodding.



For more information go to www.rehau.com/us-en/radiantallfh

SNOW MELTING CAN BE LESS EXPENSIVE THAN SNOW REMOVAL. ASK A B-Y ASSOCIATE FOR MORE DETAILS!

RADIANT FLOOR HEATING

RAUPANEL™ Radiant Heating System

Innovative Radiant System Offers High Performance

REHAU's RAUPANEL radiant heating system is designed to provide rapid response, optimal performance, and ease of installation. This patented low profile system is an excellent alternative to joist heating and poured thermal mass applications



RAUPANEL

The aluminum RAUPANEL has a customer groove that allows pipe to be easily snapped into place, maintaining excellent thermal contact with out needing silicone or other fillers.

Return Bends

Return bends are available in 6" and 8" on-center configurations for maximum installation flexibility. They are manufactured from construction-grade plywood, and pre-grooved for easy pipe installation.

Plywood furring strips are available for 8" on-center installations

Raupex Barrier Pex

The RAUPANEL system is designed to work with 3/8" RAUPEX O₂ Barrier pipe. RAUPEX is a durable, yet flexible, pipe with enhance temperature capability and long-term strength

RAUPEX meets requirements of ASTM F 876, F 877, CSA B 137.5 and PPI TR-3, and is certified to MSF Standard 14. Additionally, RAUPEX O₂ Barrier complies with the strict requirement of DIN 4726.

For more information go to www.rehau.com/us-en/radiantallfh

RAUPLATE™ Joist Space Heating

Easy, Fast And Efficient

- Joist space installations don't have to be cumbersome anymore

Easy Installation

- With RAUPLATE, you can run two pipes in the same plate! RAUPLATE's Predrilled single plate design makes installation fast and easy

Fast Installation

- RAUPLATE is screwed to the underside of the subfloor between the joists from the ceiling below. REHAU 1/2" RAUPEX O₂ Barrier pipe is then clipped quickly and firmly into the two pipe channels on the edges of the plate and fed through holes in the joists.

Efficient Installation

- The conductive properties of the aluminum plates provide excellent and even heat output without striping



RAUPEX SPEED



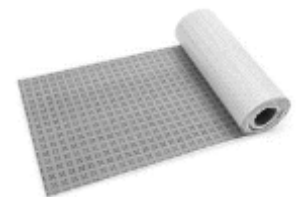
RAUPEX SPEED pipe

Designed specifically to firmly grip the RAUPEX SPEED mat or iBoard, RAUPEX SPEED pipe is an 1/2 in. O₂ barrier pipe with a hook-and-loop wrap. RAUPEX O₂ barrier pipe provides an extra layer of protection with its co-extruded ethylene-vinyl alcohol (EVOH) oxygen diffusion barrier, which limits oxygen permeability. This durable yet flexible PEXa pipe offers enhanced temperature/pressure capabilities and long-term strength. RAUPEX SPEED pipe is available in 300 or 1,000 ft coils.



RAUPEX SPEED mat

The RAUPEX SPEED mat has a self-adhesive backing which allows it to be installed on different thermal insulation, concrete and plywood surfaces. The "loop" part of the "hook-and-loop system" on the mat's surface and the "hook" material on the RAUPEX SPEED O₂ barrier pipe fasten together instantly. A grid pattern on the mat enables fast and accurate pipe layout. Measures 3.1 ft (0.93 m) wide by 52.9 ft (16.13 m) long; 3 mm thick.



For more information go to www.rehau.com/us-en/radiantallfh

RADIANT FLOOR HEATING

Everloc+® Fittings

We back you up on it. Uniquely designed for quick, consistent, secure connections in any weather, EVERLOC+® eliminates many of the variables that can complicate installation. An added bonus: Immediate pressure testing.

A complete system solution from REHAU. The EVERLOC+ system includes our polymer and lead-free brass fittings, PEXa sleeves and battery-powered tools. It is specifically designed for use with REHAU RAUPEX® pipe, known and trusted by installers around the world, backed by a 25-year limited warranty.



4x more secure

- Compression-sleeve technology
- Multiple sealing edges
- Textured sleeve

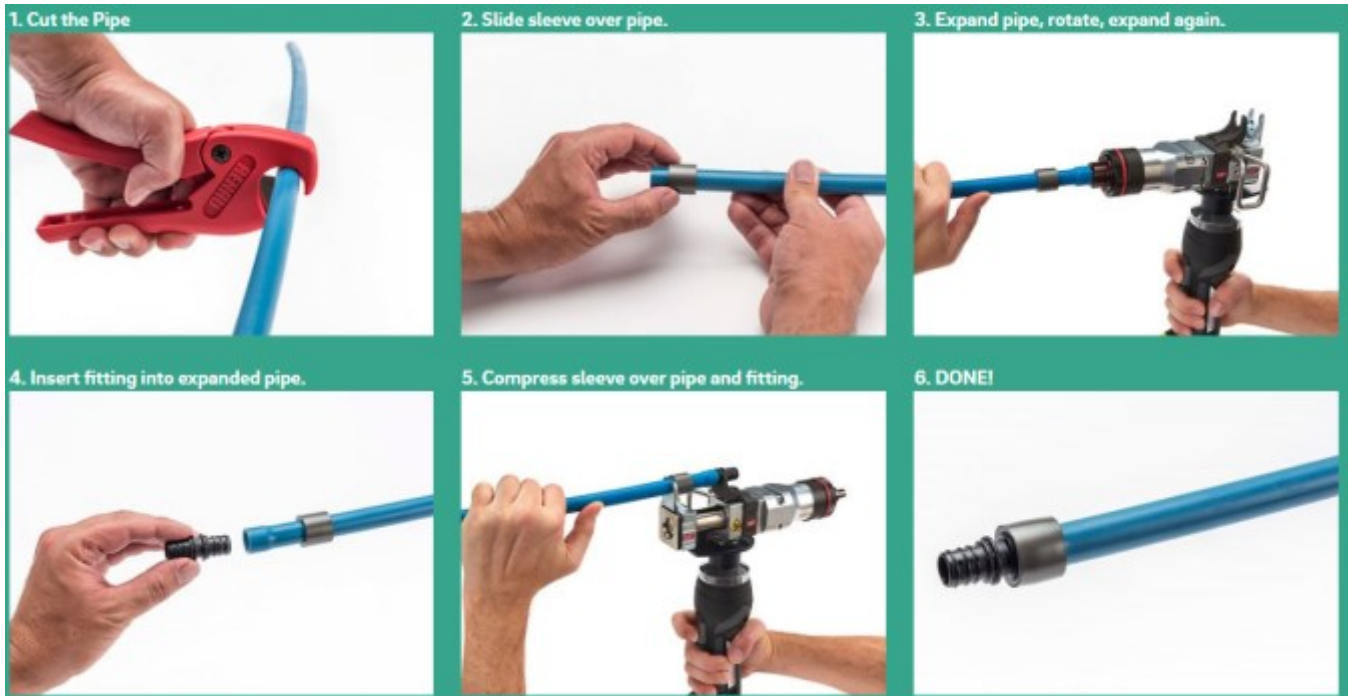
360° connection control

- Immediately secure connection
- Easy visual verification
- Consistent technique

Up to 3x faster

- Always 2 expansions, 1 compression
- Immediate pressure testing
- All-weather system

How it works: No matter the circumstances, only two expansions and one compression are all that's ever needed with EVERLOC+. That goes for all sizes and weather conditions. And unlike other common fitting systems, there is no waiting to pressure test.



For more information go to www.rehau.com/us-en/radiantallfh

Stocked Rehau Pipe and Everloc+ Fittings

Raupex O₂ Barrier pipe coils	136008-500	3/8" RAUPEX 500'	EVERLOC+ Sleeves	104815-001	3/8" EVERLOC+ sleeve	
	136008-000	3/8 RAUPEX 1000'		104816-001	1/2" EVERLOC+ sleeve	
	136031-300	1/2" RAUPEX 300'		104817-001	5/8" EVERLOC+ sleeve	
	136031-500	1/2" RAUPEX 500'		104818-001	3/4" EVERLOC+ sleeve	
	136031-000	1/2" RAUPEX 1000'		104819-001	1" EVERLOC+ sleeve	
	136880-400	5/8" RAUPEX 400'		104820-001	1-1/4" EVERLOC+ sleeve	
	136880-000	5/8" RAUPEX 1000'		104821-001	1-1/2" EVERLOC+ sleeve	
	136051-100	3/4" RAUPEX 100'		104822-001	2" EVERLOC+ sleeve	
	136051-300	3/4" RAUPEX 300'		EVERLOC+ Couplings Polymer	104824-001	1/2" EVERLOC+ Coupling
	136051-500	3/4" RAUPEX 500'			104825-001	3/4" EVERLOC+ Coupling
	136051-000	3/4" RAUPEX 1000'			104826-001	1" EVERLOC+ Coupling
	136011-100	1" RAUPEX 100'			104827-001	1 1/4" EVERLOC+ Coupling
	136011-500	1" RAUPEX 500'			104828-001	1 1/2" EVERLOC+ Coupling
	136283-100	1-1/4" RAUPEX 100'			104829-001	2" EVERLOC+ Coupling
	136293-100	1-1/2" RAUPEX 100'		EVERLOC+ COUP LF BRASS	317138-001	3/8" EVERLOC+ Coupling
	136303-100	2" RAUPEX 100'	317142-001		5/8" EVERLOC+ Coupling	
Raupex Straight Lengths	136051-020	3/4" RAUPEX 20'	EVERLOC+ Copper Adapters	317185-001	1/2" EVERLOC+ X 3/8" CF or 1/2" CM	
	136011-020	1" RAUPEX 20'		317184-001	1/2" EVERLOC+ X 1/2" CF	
	136283-020	1-1/4" RAUPEX 20'		317186-001	3/4" EVERLOC+ X 3/4" CM	
	136293-020	1-1/2" RAUPEX 20'		317187-001	3/4" EVERLOC+ X 3/4" CF	
	136303-020	2" RAUPEX 20'		317189-001	3/4" EVERLOC+ X 1" CF	
EVERLOC+ MPT Adapters	317174-001	3/8" X 1/2" MPT	317190-001	1" EVERLOC+ X 1" CM		
	317171-001	1/2" x 1/2" MPT	317191-001	1" EVERLOC+ X 1" CF		
	317175-001	5/8" X 1/2" MPT	317192-001	1 1/4" EVERLOC+ X 1-1/4" CM		
	317172-001	3/4" X 3/4" MPT	317193-001	1-1/4" EVERLOC+ X 1-1/4" CF		
	317177-001	3/4" X 1" MPT	317194-001	1-1/2" EVERLOC+ X 1-1/2" CM		
	317178-001	1" X 1" MPT	317196-001	2" EVERLOC+ X 2" CM		
	317179-001	1-1/4" X 1-1/4" MPT	317197-001	2" EVERLOC+ X 2" CF		
	317180-001	1-1/2" X 1-1/2" MPT	RAUPEX SPEED	160950-300	1/2" RAUPEX SPEED 300' PIPE	
EVERLOC+ Plug	104856-001	1/2" EVERLOC+ Plug		160950-000	1/2" RAUPEX SPEED 1000' PIPE	
	104857-001	3/4" EVERLOC+ Plug		316110-100	RAUPEX SPEED MAT 161.4FT ROLL	
	104858-001	1" EVERLOC+ Plug				

*Single and Two Pipe Pre-insulated pex lengths are available for special order.

For more information go to www.rehau.com/us-en/radiantallfh

Stocked Rehau Pipe and Everloc+ Fittings

EVERLOC+ Elbows	104859-001	1/2" EVERLOC+ Elbow	Rehau Accessories	235307	RAUPANEL Aluminum Panel	
	104860-001	3/4" EVERLOC+ Elbow		235327-001	6" Plywood Return Bends	
	104861-001	1" EVERLOC+ Elbow		235337-001	8" Plywood Return Bends	
	104862-001	1-1/4" EVERLOC+ Elbow		235377-001	2" Plywood Furring Strips	
	104863-001	1-1/2" EVERLOC+ Elbow		298926-001	RAUPLATE 4' Heat Transfer Plate	
	104864-001	2" EVERLOC+ Elbow		266170	3/8" and 1/2" Bend Guide	
EVERLOC+ Tees	104836-001	3/4" EVERLOC+ Tee		266175	5/8" and 3/4" Bend Guide	
	104837-001	1" EVERLOC+ Tee		266180	1" PVC Bend Guide	
	104838-001	1-1/4" EVERLOC+ Tee		236107	Protection Sleeve for 3/8" & 1/2"	
PRO-BALANCE 1" Stainless Steel Heating Manifold	381102-001	1" Manifold 2 Station		236117	Protection Sleeve for 5/8" & 3/4"	
	381103-001	1" Manifold 3 Station		236127	Protection Sleeve for 1"	
	381104-001	1" Manifold 4 Station		298956-001	Rautacker Foam stapler tool	
	381105-001	1" Manifold 5 Station		298196-001	2-3/8" Rautacker staples 400 pack	
	381106-001	1" Manifold 6 Station		261016	Pneumatic Stapler	
	381107-001	1" Manifold 7 Station		261016-STP	Pneumatic Staples 10,000 pack	
	381108-001	1" Manifold 8 Station		257334	Air Pressure Tester	
	381109-001	1" Manifold 9 Station		282191	RAUPEX Uncoiler	
	381110-001	1" Manifold 10 Station		105107-003	EVERLOC+ TOOL KIT 1/2"-1"	
	381111-001	1" Manifold 11 Station		105733-002	EVERLOC+ TOOL KIT 1-1/4" to 2"	
	381112-001	1" Manifold 12 Station		250212	3/8" automatic air vent	
	PRO-BALANCE 1-1/4" Stainless Steel Heating Manifold	343373-001		1-1/4" Manifold 2 Station	250214	1" 90 DEG BSPP Angle Piece
343374-001		1-1/4" Manifold 3 Station		281981-001	1-1/4" 90 DEG angle Piece	
343375-001		1-1/4" Manifold 4 Station		260407	1" PRO-BALANCE Union	
343376-001		1-1/4" Manifold 5 Station		260166	4-Wire Manifold Valve Actuator	
343377-001		1-1/4" Manifold 6 Station		RAUPEX Connector to manifold	267507-101	3/8" PAUPEX x R-20 Outlet Brass
343378-001		1-1/4" Manifold 7 Station			261007-101	1/2" RAUPEX x R-20 Outlet Brass
343379-001		1-1/4" Manifold 8 Station			267557-101	5/8" RAUPEX x R-20 Outlet Brass
343381-001		1-1/4" Manifold 9 Station			267007-101	3/4" RAUPEX x R-20 Outlet Brass
343382-001		1-1/4" Manifold 10 Station	418315-001		3/8" PAUPEX x R-20 Outlet Nickel	
343383-001		1-1/4" Manifold 11 Station	418317-001		1/2" RAUPEX x R-20 Outlet Nickel	
343384-001		1-1/4" Manifold 12 Station	418318-001		5/8" RAUPEX x R-20 Outlet Nickel	
250218		Replacement Thermometer	418319-001		3/4" RAUPEX x R-20 Outlet Nickel	

For more information go to www.rehau.com/us-en/radiantallfh

BASEBOARD RADIATION



BASE/LINE® 2000

Hot Water Baseboard Radiation

Base/Line 2000, the competitive baseboard from slant/Fin, is ideal for heating in tract housing, apartments and renovations. It provides gentle full room convection heating that blocks chilling drafts at the outside walls. Its attractive design and nu-White baked enamel finish looks good in any room.

Base/Line 2000 includes these important features:

- Flared element tubes facilitate joining sections.
- Heavy gauge front cover and reinforced brackets give enclosure exceptional strength.
- Ample space above each heating element for a return line using standard copper fittings.
- 1 3/4" floor-to-front cover opening promotes good air circulation for effective convection heating.
- Fully modulation, pivot mounted damper helps control individual room temperatures.
- Neat fitting accessories that stay in place help maintain beautiful appearance.

Renowned Slant/Fin element provides high-performance heating.

Base/line 2000 is made with the premium quality slant/Fin e-series 3/4" or 1/2" copper/aluminum heating element. the exclusive double bent aluminum fins pack extra heating surface in a slim enclosure. interconnecting fin design lets fins reinforce each other while preventing vibration noises. self-adjusting velvet-smooth plastic expansion cradles eliminate noisy metal-to-metal contact with bracket and enclosure. Base/line 2000 is made by slant/Fin in the industry's most advanced baseboard manufacturing facility. You can count on consistent high quality from piece to piece and job to job.



"Contractor-friendly" for trouble-free installation Base/Line 2000 is manufactured with contractor-friendly features for quick, trouble free installation, without annoying callbacks. Each length of baseboard is fully assembled, ready for box-to-wall installation



Choice of element size broadens range

Hot Water Baseboard Radiation Accessories:

Please Specify part number and name when ordering.

					
Hinged End Cap P#LECH-BL P#RECH-BL 4" Wide with piano hinged door. Allows 3" adjustment.	2" Splice Plate P#SP-2-BL One piece splice plate included with every baseboard unit 5' and over.	Filler Sleeve P#FS-7-BL One piece filler sleeve covers gaps from 1" to 6".	Non-Hinged End Cap P#LEC-BL P#REC-BL 2" Solid Metal End Cap.	Inside Corner P#IS-90-BL P#IS-135-BL 3-3/4" Wide at top.	Outside Corner P#OS-2-BL 4-3/4" Wide(2" wide at top), One-piece unit.

For more information and Data sheets visit www.slantfinbaseboard.com/Products

BASEBOARD RADIATION

BASE/LINE® 2000

Ratings:

Base/Line 2000 Series Hot Water ratings. BTU/HR per linear ft. with 65°F entering air.

ELEMENT	WATER FLOW	PRESSURE DROP ¹	HOT WATER RATINGS BTU/HR. per linear ft. with 65°F entering air												
			110°F	120°F	130°F	140°F	150°F	160°F	170°F	180°F	190°F	200°F	210°F	215°F	220°F
NO. BL-75 Baseboard with 3/4" element	1 GPM	47	150*	200*	250*	300*	360	430	500	570	630	700	770	810	840
	4 GPM	525	160*	210*	260*	320*	380	450	530	600	670	740	810	860	890
NO. BL-50 Baseboard with 1/2" element	1GPM	260	150*	200*	250*	300*	360	430	500	570	630	700	770	810	840
	4 GPM	2880	160*	210*	260*	320*	380	450	530	600	670	740	810	860	890

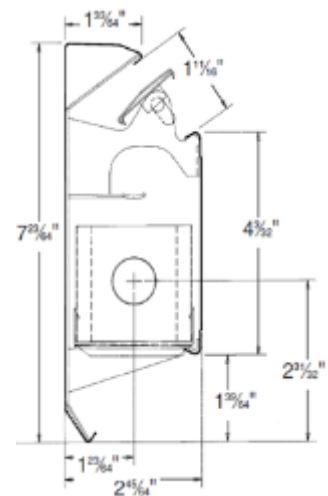
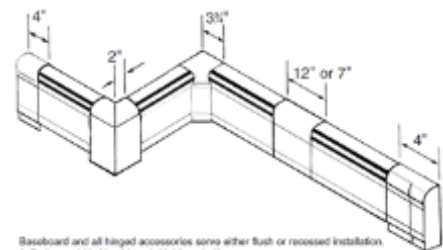
¹ Millinches per foot. *Ratings at 140°F and lower temperatures determined by multiplying 150°F rating by the applicable factor specified in Table E in the I-B-R Testing and Rating Standard for Baseboard radiation.

NOTE: Ratings are for element installed as per drawing shown in "Dimensional Data" window (open "Dimensional Data" window to view) with damper open, with expansion cradles. Ratings are based on active finned length (5" to 6" less than overall length) and include 15% heating effect factor. Ratings are also based on 3/4" (BL-75) or 1/2" (BL-50) nominal copper tubing with 2-5/8" x 2-1/8" x .009" aluminum fins, bent to 2-19/64" x 2-1/8" or 2-5/16" x 2-1/8", spaced 56.35 per linear foot (BL-75) or 55 per linear foot (BL-50) (unpainted). Use 4 gpm ratings only when flow is known to be equal to or greater than 4 gpm; otherwise, 1 gpm ratings must be used.



Specially designed support bracket accommodates return tubing above the heating element using standard fittings.

Dimensional and Installation Data:



Part #	Description
BL-75-2	2' Slant Fin Baseboard Assembly BL Series
BL-75-3	3' Slant Fin Baseboard Assembly BL Series
BL-75-4	4' Slant Fin Baseboard Assembly BL Series
BL-75-5	5' Slant Fin Baseboard Assembly BL Series
BL-75-6	6' Slant Fin Baseboard Assembly BL Series
BL-75-7	7' Slant Fin Baseboard Assembly BL Series
BL-75-8	8' Slant Fin Baseboard Assembly BL Series
BL-75-10	10' Slant Fin Baseboard Assembly BL Series
LECH-BL	Left Hinged End Cap
RECH-BL	Right Hinged End Cap
LEC-BL	Left End Cap
REC-BL	Right End Cap
SP-2-BL	2" Splice Plate
FS-7-BL	Filler Sleeve 1" to 6" gap
IS-90-BL	Inside corner 90°
IS-135-BL	Inside corner 135°
OS-2-BL	Outside corner

*Baseboard can also be order as element only and enclosure only.

For more information and Data sheets visit www.slantfinbaseboard.com/Products

Commercial Baseboard Available for Special Order.



Multi/Pak 80



HD Series



350 Series

Revital/Line®

Replacement Residential Baseboard Covers

- Revital/Line fits over 90% of standard residential baseboard overall dimensions are 8.5"H x 2 15/16"D coming in lengths from 2' to 8'.
- Standard finish is Brite-White Powder-coated. Available for order in other decorator colors.
- Up to 40% higher heat output than other replacement covers on the market.
- No tools needed for most installations.
- To install simply remove old covers and slip on Revital/Line over fin tube directly over the back panel.



For more information and Data sheets visit www.slantfinbaseboard.com/Products

Twin-Flo III

Toe Kick space Heaters

Kick space heaters are the space-saving alternative to hot water baseboard. Designed to fit inconspicuously under a cabinet, in the floor, on or in the wall. Kick space heaters are ideal for hard to heat areas such as foyers, kitchens, and bathrooms. Hot water from the home's boiler is circulated through the kick space unit and the fan gently blows heated air into the room. The homeowner simply selects the fan speed, then the unit turns on and off automatically according to the heating demand.



Entering Water Temperature (°F)	WATER FLOW RATE (GALLONS PER MINUTE)								
	1 Gal.			2 Gal.			3 Gal.		
	Model 42	Model 84	Model 120	Model 42	Model 84	Model 120	Model 42	Model 84	Model 120
110	1480	3370	8425	1520	3440	8535	1560	3515	8730
120	1800	4055	8875	1840	4145	8995	1875	4230	9205
130	2175	4770	9330	2220	4875	9455	2260	4980	9680
140	2590	5540	9780	2640	5670	9915	2690	5795	10150
150	3050	6300	10230	3120	6440	10375	3190	6585	10625
160	3510	7000	10685	3590	7155	10835	3670	7310	11100
170	3895	7730	11135	3980	7900	11295	4065	8070	11570
180	4278	8460	11585	4375	8650	11755	4470	8840	12045
190	4660	9180	12035	4770	9390	12215	4875	9600	12520
200	5015	9910	12490	5127	10135	12675	5240	10360	12990

Convectors

Available by Special order

Beacon/Morris Convectors are engineered for both forced hot water and two-pipe steam heating systems installation with heating elements of lightweight non-ferrous construction. They are available in 7 basic types to meet a wide range of heating applications in institutional buildings, hospitals, hotels, office buildings, schools, apartments and other structures. A variety of cabinet enclosure styles permits the selections of an attractive and functional installation to blend with any buildings interior.



Designed for maximum flexibility of installation arrangement, Beacon/Morris Convectors are available in free-standing, semi-recessed, wall hung and fully recessed models. Enclosures are formed from heavy-gauge steel, and finished in prime coat for complete protection against corrosion during shipment and providing a base for final finish to meet architectural requirements after installation.

For more information and Data sheets visit www.beacon-morris.com

Panel Radiators

Available by Special order

- 1,472 – 18,355 BTU/h
- Reversible Radiator*
- Top Grille & Side Panels
- Air Vent / 1 Blind Stop
- 10-Year Warranty
- Pretreated Steel with Powder Coated White Finish
- High Scratch and Impact Resistance
- Optimal Corrosion Resistance
- Valve Inserts for Thermostatic Head
- Max Working Pressure 145 PSI
- Max Operating Temperature 200°F
- Each Unit Individually Pressure Tested



Multiple Connections for Ease of Installation

- Bottom Connections 3/4"
- (4) Side Connections 1/2"

Bottom Connection - Install Right or Left Side
(Type 11 - Right Side Only)

Towel Warmers

Available by Special order

Features and Benefits

- Electrically Laser Welded
- Cathodic Dip Primer w/ Durable Powder Coat Finish
- Standard Operating Pressure: 145 PSI
- Maximum Operating Temperature 200°F
- Connections: 1/2" (inner thread)
- 10-Year Warranty



For more information and Data sheets visit www.beacon-morris.com

Bosch Panel Radiators

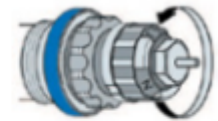
Model 21 and 22

- Hydronic steel panel radiators provide the perfect combination of both radiant and convective heat
- A higher level of comfort, at a lower operating cost
- Designed to match and add character to any room décor
- A more flexible, efficient, and cleaner alternative to baseboard heating
- Panel radiators are clean, do not blow air or stir up dust, and their operation is virtually silent.
- Panel radiators are ideal in new construction, as well as suitable for retro-fit applications



Revolutionary Flowsetter Valve

A unique design feature on all Buderus panel radiators is the FlowSetter Valve, which enables the installer to quickly and easily regulate water flow through the radiator room by room. The result is a consistent, even heat throughout all panel units in the house. Low cost panel radiators from Bosch are available in a variety of lengths and heights offering many design and heating options. They are stocked in four heights, 12", 20", 24", and 36" and in two depths, Model 21 (2-1/2") and Model 22 (4").



Model 21 2.5" Deep			Model 22 4" Deep		
Dimensions (H x W)	Part Number	BTU at 180°F	Dimensions (H x W)	Part Number	BTU at 180°F
12" x 24"	7750100306	1838	12" x 16"	7750100604	1573
12" x 36"	7750100309	2756	12" x 24"	7750100606	2359
12" x 48"	7750100312	3675	12" x 36"	7750100609	2539
12" x 59"	7750100315	4594	12" x 48"	7750100612	4719
12" x 71"	7750100318	5513	12" x 59"	7750100615	6291
20" x 24"	7750102306	2713	12" x 71"	7750100618	7078
20" x 36"	7750102309	4070	20" x 16"	7750102604	2341
20" x 48"	7750102312	5427	20" x 24"	7750102606	3511
20" x 59"	7750102315	6758	20" x 36"	7750102609	5266
20" x 71"	7750102318	8140	20" x 48"	7750102612	7022
24" x 24"	7750103306	3138	20" x 59"	7750102615	8777
24" x 36"	7750103309	4706	20" x 71"	7750102618	10,533
24" x 48"	7750103312	6275	24" x 16"	7750103604	2713
24" x 59"	7750103315	7844	24" x 24"	7750103606	4069
24" x 71"	7750103318	9413	24" x 36"	7750103609	6104
			24" x 48"	7750103612	8139
			24" x 59"	7750103615	10,173
			24" x 71"	7750103618	12,208
			36" x 16"	7750105604	3833

For full warranty information, product data and brochures go to www.bosch-thermotechnology.us/us/en/ocs/residential/

Free-Standing Cast Iron Radiators

Available for Special Order

Product Guide



Slenderized



Radiant



Classic

Installer Highlights

- Cast iron reliability and durability
- Water or steam
- Slenderized & Radiant models are pre-primed (water-based latex) for immediate top-coat paint finishing (premium oil or solvent-based)
- Classic models are pre-painted
- Residential or commercial

Homeowner Benefits

- Cast iron offers both convective and radiant heat, providing even heating comfort throughout the room
- Virtually silent operation, does not have the expansion noises associated with "light duty" radiator systems
- Rugged cast iron construction

For more information, literature, www.usboilers.net

CONTROLS

Part #	Thermostats	Optional Sensors (see page 66)
TE-519	Stand alone Heat only 1 stage w/ 079 slab sensor	070, 072, 073, 076, 077, 079, 084
TE-521	Stand alone 2stg Heat or 1Heat/1Cool w/ 079 slab sensor	070, 072, 073, 076, 077, 079, 084
TE-532	tekmarNet 2,4, or stand-alone 1stg heat only	070, 072, 073, 076, 077, 079, 084
TE-552	tekmarNet 2,4, or stand-alone 1stg heat only touchscreen	070, 071, 072, 073, 076, 077, 078, 079, 082, 084
TE-553	tekmarNet 2,4, or stand-alone 2heat/1Cool touchscreen	070, 071, 072, 073, 076, 077, 079, 082, 083, 084
TE-554	tekmarNet 2,4, or stand-alone 1heat/1cool/fan touchscreen (can be used to operate other equipment than radiant)	070, 071, 072, 073, 076, 077, 079, 082, 083, 084
TE-557	tekmarNet 2,4, or stand-alone Radiant floor, 2 heat pump/cool, backup, humidity	070, 072, 073, 076, 077, 079, 083, 084, 086
TE-561	Stand-alone 1stg Heat only touchscreen WiFi optional slab	070, 072, 073, 076, 077, 079, 084
TE-562	Stand-alone 2H/1C/fan touchscreen WiFi optional slab sense (2stg heat can be 1stg rad , 2ndstg forced air)	070, 072, 073, 076, 077, 079, 084
TE-563	Stand-alone Conv 2H/2C or Heat Pump 4H/2C Humidity touchscreen WiFi optional slab sense	070, 072, 073, 076, 077, 079, 084, 086, 087
TE-564	Invita 2 wire WiFi Thermostat (white) 2H/2C Conv,	070, 072, 073, 076, 077, 079, 084, 086, 087
TE-564B	Invita 2 wire WiFi Thermostat (Black) 2H/2C Conv,	070, 072, 073, 076, 077, 079, 084, 086, 087



552 553 554 557



519



521



561, 562, 563



564, 564B



532

For more information, literature go to www.watts.com/our-story/brands/tekmar

Part #	Controls	Optional Sensors (see page 66)
TE-150	1 Stg Setpoint control universal 071 sensor included	070, 071, 072, 073, 076, 077, 078, 079, 082, 083, 084
TE-152	2 Stg Setpoint control universal 071 sensor included	070, 071, 072, 073, 076, 077, 078, 079, 082, 083, 084
TE-161	1 Stg Setpoint control TekmarNet4 compatible universal 071 sensor included	070, 071, 072, 073, 076, 077, 078, 079, 082, 083, 084
TE-162	1 Stg Setpoint control 1H or 1C TekmarNet4 compatible universal 071 sensor included	070, 071, 072, 073, 076, 077, 078, 079, 082, 083, 084
TE-256	1 Stg Boiler Control with Outdoor Temperature Reset outdoor sensor 070 and universal sensor 071 included	033
TE-257	DHW control. Operate multiple boilers to heat DHW only 082 sensor included	078
TE-260	1 Stg Boiler and DHW control with Outdoor Temperature Reset outdoor sensor 070 and universal sensor 082 included	033, 076, 077, 084
TE-261	2 Stg Boiler or 2 1Stg on/off Boiler & Setpoint control with Outdoor Temperature Reset outdoor sensor 070 and universal sensor 082 included	033
TE-268	Multiple boiler control. Stage in up to 9 boilers with Outdoor Temperature Reset outdoor sensor 070, 2 universal sensor 082, and 500 ohm resistor	033
TE-274	4 Stg boiler control TekmarNet4 compatible control up to 4 on/off boilers with Outdoor Temperature Reset outdoor sensor 070, 2 universal sensor 082, and 500 ohm resistor included	none
TE-275	4 Stg boiler control TekmarNet4 compatible control up to 4 Modulating boilers with outdoor reset (Used for multiple boiler control like the Utica UCS models) outdoor sensor 070, 2 universal sensor 082, and 500 ohm resistor included	none
TE-279	1 Stg Steam boiler using Outdoor Temperature Reset outdoor sensor 070 and universal sensor 071 included	071, 076, 077, 078, 082, 084
TE-284	Designed to operate up to 4 boilers condensing and non-condensing and modulating, TekmarNet4 compatible, works with Modbus or BAS, outdoor sensor 070, 2 universal sensor 082 included	071, 078, 082
TE-356	Mixing Control designed to operate an injection pump using Outdoor Temperature Reset, outdoor sensor 070 and 2 universal sensor 071	None
TE-360	Mixing Control designed to operate a mixing valve using Outdoor Temperature Reset, outdoor sensor 070 and 2 universal sensor 082	033, 076, 077, 084
TE-361	Mixing Control designed to operate an injection pump using Outdoor Temperature Reset and optional indoor sensor feedback and setback control, outdoor sensor 070 and 2 universal sensor 082	033, 076, 077, 084
TE-374	Universal Outdoor Temperature Reset Control 2 mixing temps, 2 Stg Boiler, and Setpoint/DHW, outdoor sensor 070 and 3 universal sensor 082	033

For more information, literature go to www.watts.com/our-story/brands/tekmar

How does RoomResponse™ signal improve comfort & efficiency?

During milder conditions and times when heat is added through indoor activity, appliance operation and solar gain, the RoomResponse™ signal lowers the boiler temperature to use less energy. Boiler temperature control also enhances comfort through reduced temperature swings. Traditional systems that combine on/off control with high boiler temperatures miss out on these benefits.



Save money while on vacation!

Pair zoning controls with tekmar thermostats and put the entire system into Away with one touch. Save with ANY thermostat. By factoring in how long and how often connected thermostats call for heat, the RoomResponse™ signal determines if the boiler temperature is too low, too high, or ideal. This allows you to save energy with any brand of low voltage thermostat.

- RoomResponse™ signal works with boilers that accept 0-10 V (dc) or 4-20 mA temperature signals

TE-301P	Single Zone Relay Panel
TE-302P	2 Zone, pump control relay panel
TE-303P	3 Zone, pump control relay panel
TE-304P	4 Zone, pump control relay panel
TE-306P	6 Zone, pump control relay panel
TE-303V	3 Zone, zone valve control relay panel
TE-304V	4 Zone, zone valve control relay panel
TE-305V	5 Zone, zone valve control relay panel
TE-306V	6 Zone, zone valve control relay panel

For more information, literature go to www.watts.com/our-story/brands/tekmar

Panel	Description	Optional Sensors	Compatible controls
TE-313	4 Zone valve control, Wiring Center, independent operation or operate with a boiler control TekmarNet4 or universal, TekmarNet 2 Thermostats only (532, 552, 553, 554, 557)	070	400, 402, 406, 482, 486
TE-314	4 Zone pump control Wiring Center, independent operation or operate with a boiler control TekmarNet4 or universal, TekmarNet 2 Thermostats only (532, 552, 553, 554, 557)	070	401, 403, 482, 486
TE-315	6 Zone valve control Wiring Center, independent operation or operate with a boiler control TekmarNet4 or universal, TekmarNet 4 thermostats or conventional (not all functions) TekmarNet 4 Thermostats (532, 552, 553, 554, 557)	None	335, 422, 423, 482, 486
TE-316	4 Zone pump control Wiring Center, independent operation or operate with a boiler control TekmarNet4 or universal, TekmarNet 4 thermostats or conventional (not all functions) TekmarNet 4 Thermostats (532, 552, 553, 554, 557)	None	336, 422, 423, 482, 486
TE-334	4 Zone Manager, control 4 zones pumps or valves, 1 may be cooling, enclosure allows for multiple options of expanding, TekmarNet 2 thermostats only (532, 552, 553, 554, 557)	None	324, 422, 423, 274, 275, 482, 486
TE-335	6 Zone Manager, control 6 zone valves, enclosure allows for multiple options of expanding, TekmarNet4 thermostats or conventional (not all functions), (532, 552, 553, 554, 557)	None	325, 422, 423, 274, 275, 284, 482, 486
TE-336	4 Zone Manager, control 4 zone pumps, enclosure allows for multiple options of expanding, TekmarNet4 thermostats or conventional (not all functions), (532, 552, 553, 554, 557)	None	326, 422, 423, 274, 275, 284, 482, 486
TE-324	4 Zone Expansion module, 4 zones pumps or valves, 1 may be cooling, 334 Zone Manager required, TekmarNet 2 thermostats only (532, 552, 553, 554, 557)	None	334 required, 274, 275, 284
TE-325	6 Zone Expansion module, 6 zone valve, 335 Zone Manager required, TekmarNet4 thermostats or conventional (not all functions), (532, 552, 553, 554, 557)	None	335 required, 274, 275, 284
TE-326	3 Zone Expansion module, 3 zone pumps, 336 Zone Manager required, TekmarNet4 thermostats or conventional (not all functions), (532, 552, 553, 554, 557)	None	336 required, 274, 275, 284
TE-422	Universal Reset Module, operate single on/off, 2 Stg, or modulating boiler through Outdoor Temp. Reset and Indoor Temp. Feedback, outdoor Sensor 070 and 2 universal sensors 082, Zone Manager 334, 335, 336 required	None	334, 335, 336 required, 441,
TE-423	Universal Reset Module, operate up to 2 on/off boilers or 2 modulating boilers, out sen 070 and univ 082, Outdoor Temp Reset, Indoor Feedback, 4 water temps 3 can be mix temps, Zone Manager 334, 335, 336 required	None	334, 335, 336, required, 441

For more information, literature go to www.watts.com/our-story/brands/tekmar

House Controls and Remote Access Interfaces

Panel	Description	Optional Sensors	Compatible Controls
TE-400	House Control, 4 zone valve expandable to 24, Outdoor Temp Reset with Indoor Feedback, DHW/Setpoint, on/off or modulating boiler, 070 an 082 sensor included	None	313, 314, 482, 485
TE-401	House Control, 4 zone pumps expandable to 24, Outdoor Temp Reset with Indoor Feedback, DHW/Setpoint, on/off or modulating boiler, 070 an 082 sensor included	None	313, 314, 482, 485
TE-402	House Control, 4 zone valve expandable to 24, 2 Outdoor Temp Reset with Indoor Feedback temps , Mix temp either mixing valve or pump, DHW/Setpoint, on/off or modulating boiler, 070 and two 082 sensor included	None	313, 314, 441, 482, 485
TE-403	House Control, 4 zone pumps expandable to 24, 2 Outdoor Temp Reset with Indoor Feedback temps, Mix temp either mixing valve or pump, DHW/Setpoint, on/off or modulating boiler, 070 and two 082 sensor included	None	313, 314, 441, 482, 485
TE-406	House Control, 4 zone valve expandable to 52 zones, Hydronic 2 stg heat pump 1 stg backup heat providing hot or chilled water to a buffer tank, DHW from backup source, outdoor sensor 070 and 4 universal sensor 082,	None	313, 314, 482, 485
TE-441	Mixing Expansion Module, operate any tekmar 3-way or 4-way brass mixing valves from type 710-724, universal	None	402, 403, 422, 423
TE-482	TekmarNet 4 Gateway RS 232 serial communication between TekmarNet thermostats and 3rd party home automation systems	None	274, 275, 313, 314, 315, 316, 334, 335, 336, 400, 401, 402, 403, 406, 486
TE-486	TekmarNet Gateway remote access WiFi or Ethernet connection to Internet Mobile app for iOS or Android and Web browsers. Supports multiuser accounts	None	274, 275, 284, 313, 314, 315, 316, 334, 335, 336, 400, 401, 402, 403, 406, 482



TE-400, 401, 402, 403, and 406



TE-482



TE-486

For more information, literature go to www.watts.com/our-story/brands/tekmar

Snow Melt Controls and Sensors

Control/	Description
TE-654	Snow Melting Control, operate snowmelt electric or hydronic automatic with sensors 090, 094, or 095
TE-670	Snow Melting Control, WiFi, operate hydronic or electric with 090, or 095, has a return water sensor to protect
TE-671	Snow Melting Control, WiFi, operate hydronic or electric with 090 or 095, 1 Stg Boiler, PWM
TE-680	Snow Melting Control, BAS, Boiler and Mixing
TE-090	Snow/Ice Sensor in the ground sensor with 65 foot cable. Slab temperature feedback, requires 091 sensor
TE-091	Snow/Ice Sensor Socket for Sensor 090 or 094
TE-094	Snow/Ice Sensor with 208 foot cable, Slab temperature feedback, requires 091 sensor socket
TE-095	Snow Sensor aerial mounted sensor detects falling snow and allows a Tekmar snow melt control to automati-



090 and 094



091



095



654



670 and 671



680

For more information, literature go to www.watts.com/our-story/brands/tekmar

Tekmar Sensors

TE-070	Outdoor Sensor
TE-071	Universal Sensor 1' wire
TE-072	Slab Sensor 20' wire
TE-073	Slab Sensor 40' wire
TE-076	Indoor Sensor-G Enclosure
TE-077	Indoor Sensor-Cover Plate
TE-078	Universal Sensor-15' wire
TE-079	Slab Sensor-10' wire
TE-080	Universal Sensor Enclosure, mounting a universal sensor into a 3/8 well or strap on pipe. 1/2" knockout
TE-081	Three Outdoor Sensor Module, allows up to 4 sensors to be mounted in one 070 enclosure
TE-082	Universal Sensor 8' wire
TE-083	Duct Sensor—6" probe
TE-084	Indoor Sensor—Flush Mount
TE-086	Humidity & Temperature Sensor—flush mount
TE-087	Wireless Outdoor Sensor, transmitter and receiver pre-linked, 10 year battery
TE-033	TekmarNet4 Timer, provides setback schedule for entire TekmarNet system
TE-009K	24V Transformer Kit—includes Mounting Box
TE-M3069	Replacement 40VA Transformer (302p, 303p, 304p, 306p, 303v, 304v, 305v, 306v)



070



071



072 & 073



076



077



078



079



080



081



082



083



084



086



087



033



009K



M3069

For more information, literature go to www.watts.com/our-story/brands/tekmar

Tekmar Actuators and Valves

TE-441	Mixing Expansion Module, operates a 3-way & 4-way mixing valve, requires TekmarNet 4 mix bus
TE-741	Actuating Motor—24 volt floating
TE-742	Actuating Motor—0-10 volt (dc)
TE-710	3-Way Mixing Valve 3/4" Brass
TE-711	3-Way Mixing Valve 1" Brass
TE-712	3-Way Mixing Valve 1 1/4" Brass
TE-713	3-Way Mixing Valve 1 1/2" Brass
TE-714	3-Way Mixing Valve 2" Brass
TE-720	4-Way Mixing Valve 3/4" Brass
TE-721	4-Way Mixing Valve 1" Brass
TE-722	4-Way Mixing Valve 1 1/4" Brass
TE-723	4-Way Mixing Valve 1 1/2" Brass
TE-724	4-Way Mixing Valve 2" Brass



441



741



742



710-714



720-724

For more information, literature go to www.watts.com/our-story/brands/tekmar

Boiler Controls

CPU-0550

- Stand-Alone Boiler Control
- 5 control modes in one control: Staging, Mixing, Differential Setpoint, Dual Setpoint, and Pump Sequencer



ECO-0550

- Stand-Alone Wi-Fi Geothermal Control
- Can be used to control 2 stage heat pump and a boiler back-up



ORC-0100

- Outdoor Reset Control
- Reduces Thermal Shock
- WWSD Feature
- Constant Water Circulation
- DHW Priority



WAV-0100

- Wireless Outdoor Sensor
- Generic Control can be used with any control that uses a thermistor input
- 500/5/10/12K Thermistor



TMX-0100

- Wi-Fi Communication Module
- Can be used with ZON-0550 and SNO-0550 to allow communication with Thermolink App.



For More information go to www.HBXControls.com

Snow Melt Controls

SNO-0550

- Stand-Alone Snow Melt Control
- Wi-Fi enabled Control
- Multiple slab demand modes (Idle, Standby, Force Melt)



SNO-0110

- Optical Snow Melt Sensor
- Sensor comes with 100' wire



SNO-0111

- Socket for Snow Melt Sensor
- Must be used for in slab installations



Zoning Controls

ZON-0600

- Expandable Module, 4 zones per module
- Wi-Fi enabled
- 2 Wire thermostat (THM-0600)
- Pump, Valve, Damper control



ZON-0550

- Wi-Fi Zone Control
- 4 Zone Pump/Valve Control
- Expandable up to 20 Zones
- To connect to mobile app, must be used with TMX-0100



ZON-500

- Stand alone/expandable zone control
- 4 Zone pump or valve control



For More information go to www.HBXControls.com

Thermostats and Zone Thermostat Controls

THM-0100

- Non-Programmable/Setpoint Stat
- Single Stage Heat OR Cool modes
- 10' Sensor allows for floor, room, or dual sensing

THM-0200

- Programmable 5/2 day Stat
- Heat/Cool, 2 Heat, or 2 Cool Modes
- 10' Sensor allows for floor, room, or dual sensing

THM-0300

- Wi-Fi Zoning Stat
- 5/2 day Programmable
- Must be used with ZON-0550
- 2 Wire connections
- 10' sensor for floor sensing

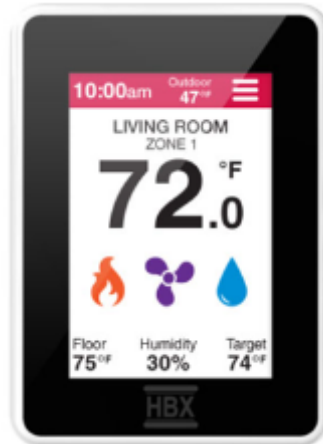


THM-0500

- Wi-Fi Touch Screen Zoning Stat
- Must be used with ZON-0550
- 2 Wire connections
- 10' Sensor for floor

THM-0600

- Wi-Fi Touch Screen Zoning Stat
- Must be used with ZON-0600
- 2 Wire connections
- 10' Sensor for floor



For More information go to www.HBXControls.com

Switching Relays

- Single and Multiple Zone Pump Control
- Interfaces with a 24v thermostat to control pumps
- Dry contacts to activate a boiler
- Switchable priority for DHW



Part Number	Number of Zones	Maximum Combined Load	Width	Height	Depth
SR-501	1 Zone	12 amps	4-7/8"	6-5/8"	2-3/4"
SR502	2 with priority	15 amps	10-1/4"	7"	2-3/4"
SR-503	3 with priority	15 amps	10-1/4"	7"	2-3/4"
SR504	4 with priority	20 amps	10-1/4"	7"	2-3/4"
SR-506	6 with priority	20 amps	12-1/4"	8"	3"

Zone Valve Control

- Multiple Zone Valve Control
- Interfaces with 24 Volt thermostats to control zone valves, primary pump, and boiler firing
- Switchable Priority
- Simplifies Zone valve wiring



Part Number	Number of Zones	Transforming Rating	Width	Height	Depth
ZVC403-2	3 with priority	40VA	10-1/4"	7"	2-3/4"
ZVC404-4	4 with priority	40VA	10-1/4"	7"	2-3/4"
ZVC405-4	5 with priority	80VA	12-1/4"	8"	3"

For more information go to www.tacomfort.com

Zone Valves

Zone Sentry Zone Valves

- 2-Way Zone Valves with End Switch
- Ease of installation with easy to remove actuator and wiring terminal blocks
- Available in NPT, Sweat, and Press



Product	Connection type	Pipe Size	Voltage	CV Rating
ESP075C2-1	Sweat	3/4"	24 Volt	10.3
E100C2-3	Sweat	1"	24 Volt	8.9
Z075T2-1	Threaded	3/4"	24 Volt	10.3
Z100T2-1	Threaded	1"	24 Volt	8.9
Z075P2-2	Press	3/4"	24 Volt	10.3
Z100P2-2	Press	1"	24 Volt	8.9

570 Gold Series Heat Motor Zone Valves

- Silent Operation
- Twist Off head
- Proven Performance



Product	Connection Type	Pipe Size	Voltage	CV Rating
571	Sweat	3/4"	24 Volt	6.1
572	Sweat	1"	24 Volt	7.0

Replacement Zone Valve Heat motor PN # 555-050RP

For more information go to www.tacomfort.com

Switching Relay

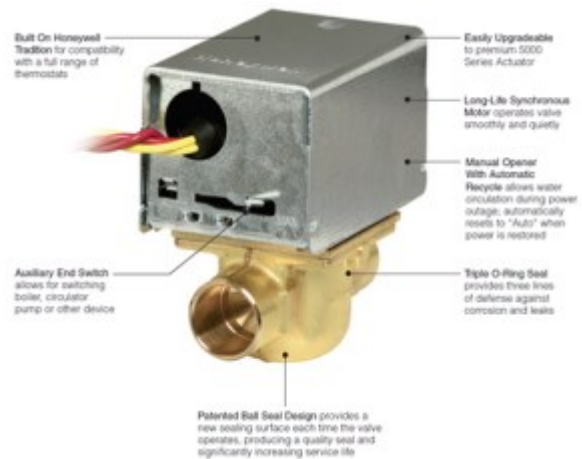


- 120 Volt input
- Reliable Low Voltage Control

Product	Switch Action	Coil Voltage	Contact Rating	Aux Contacts
RA832A1066	DPST	24	7.4	Yes
RA89A1074	SPST	24	10.2	No
R845A1030	DPST	24	7.4	No

Zone Valve

- 2 position zone valve with end switch
- Complete powerhead may be removed or replaced without draining the system.
- Manual opener for valve operation on power failure.



Product	Pipe Size	Wiring	Voltage	CV Rating
V8043E1012	3/4"	Wire Leads	24V	3.5
V8043F1028	1/2"	Screw Terminal	24V	3.5
V8043F1036	3/4"	Screw Terminal	24V	3.5
V8043F1051	1"	Screw Terminal	24V	3.5
V8043F1093	3/4"	Screw Terminal	24V	8
V8043F1101	1"	Screw Terminal	24V	8

Replacement Parts	Description
4003916-048	Replacement Powerhead kit with End Switch
802360JA	Replacement Motor for V8043

For more information go to www.resideo.com/us/en

ZSR Switching Relays

- Multiple Zone Pump Control
- Interfaces with low Voltage thermostats to turn on Zone Pumps
- Multiple dry contacts to allow boiler to fire either for Heating or DHW
- On board dip switches allow more control options like: expandable panels (master/slave option), priority zone options, primary pump control, pump exercise, and pump post purging
- 5 amp relay ratings



Product	Number of Zones
ZSR103	3 with priority
ZSR104	4 with priority

ZVR Zone Valve Control

- Multiple Zone Valve Relay Control
- Interfaces with low voltage thermostats to turn on zone valves
- Multiple dry contacts to allow boiler to fire for Heating or DHW when the end switches make
- On board dip switches allow more control options like: expandable panels (master/slave option), priority zone options, and primary pump control



Product	Number of Zones	Transformer Rating
ZVR103	3 with Priority	40 VA
ZVR104	4 with Priority	40 VA
ZVR106	6 with Priority	80 VA

For more Information visit www.caleffi.com/usa/en-us/catalog

Z4 2-Way Zone Valves

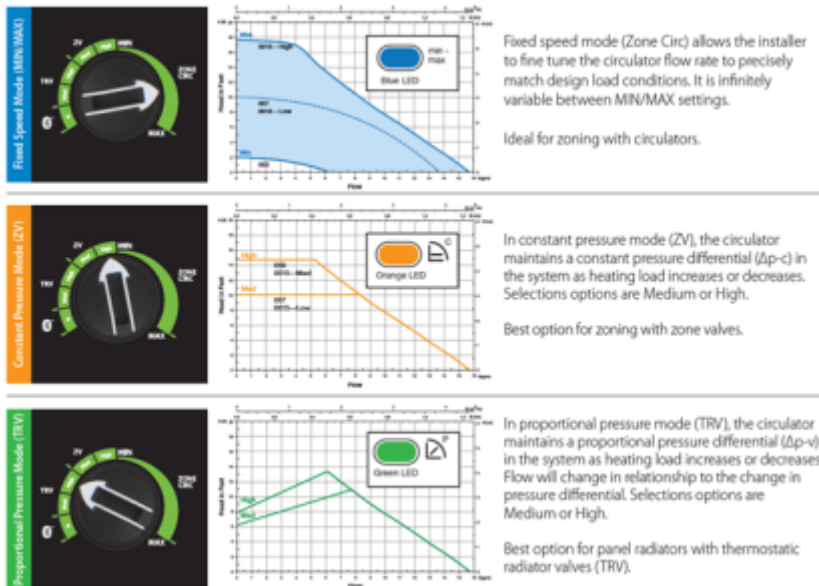


- 24 Volt 2-way zone valve
- Available in sweat and press models
- 4-wire zone valve with end switch for easy wiring
- Easy to change powerhead releases using a push button on the top of the actuator
- Serviceable body via removeable cap

Product	Pipe Size	Connection	Voltage	CV Rating
Z44	1/2"	Sweat	24V	2.5
Z45	3/4"	Sweat	24V	7.5
Z46	1"	Sweat	24V	7.5
Z47	1-1/4"	Sweat	24V	7.5
Z44P	1/2"	Press	24V	3.5
Z45P	3/4"	Press	24V	7.5
Z46P	1"	Press	24V	7.5

For more Information visit www.caleffi.com/usa/en-us/catalog

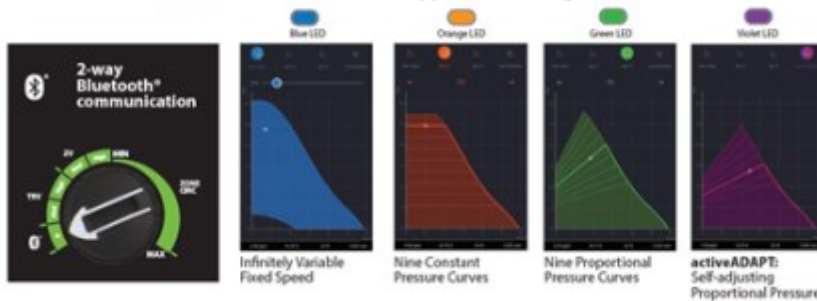
0018e-2F2 ECM High-Efficiency Circulator



2-Way Communication with the Taco 0018e™ ECM Circulator Mobile App featuring Bluetooth®



Go to the App Store or Google Play on your SmartPhone or tablet and download the **FREE Taco 0018e ECM Circulator Mobile App** to start taking control!



- High-efficiency ECM motor uses up to 85% less electricity
- Simple mobile App for reading diagnostic data and setting operating modes
- **SureStart**® automatic unblocking and air purging mode
- **BIO Barrier**® filter protects pump from system contaminants
- Dual electrical knock-outs and 6" stranded wire leads included for easy wiring
- **Operates in 4 different modes:**
 - Ininitely Variable Fixed Speed
 - Constant Pressure — Variable Speed
 - Proportional Pressure — Variable Speed
 - activeADAPT™ — Self-Adjusting, proportional pressure, variable speed

For more information go to www.tacomfort.com

VT2218 ECM High-Efficiency Circulator

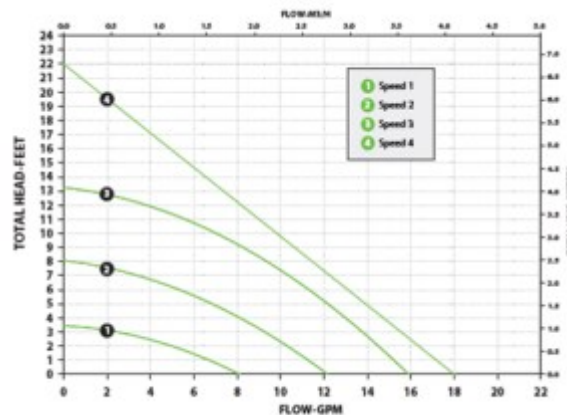
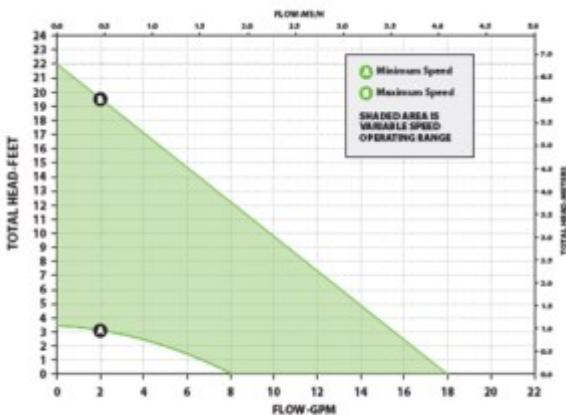
The VT2218 is a temperature sensing, variable speed, high-efficiency wet rotor circulator with an ECM permanent magnet motor. It's ideal for Delta-T or setpoint temperature applications. Typical uses include hydronic systems zoned with zone valves, radiant loops, injection pumping, snowmelt or hydro-air fan coils. Can also be used in constant speed mode for zoning with circulators, indirect water heaters or primary boiler loops

- Delta-T operation maximizes system efficiency and comfort
- High-efficiency ECM motor uses up to 85% less electricity
- Can save hundreds in fuel costs
- LCD displays operating mode, temperature or speed setting, watts, GPM and supply & return temperatures
- Easy to program and install
- Sure Start automatic unblocking mode
- BIO Barrier filter protects pump from system contaminants
- Easy access junction box and 6" stranded wire leads for easy wiring



Pump Dimensions & Weights

Part Number	Flange Code	A		B		C		D		F		G		Ship Wt.
		In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	
VT2218-HY2-FC1A00	S	8-1/8	207	6	153	3-1/4	82	2	54	4-1/4	107	6-3/8	161	7-3/4 3.52



For more information go to www.tacomfort.com

0026e-F2 ECM High-Efficiency Circulator

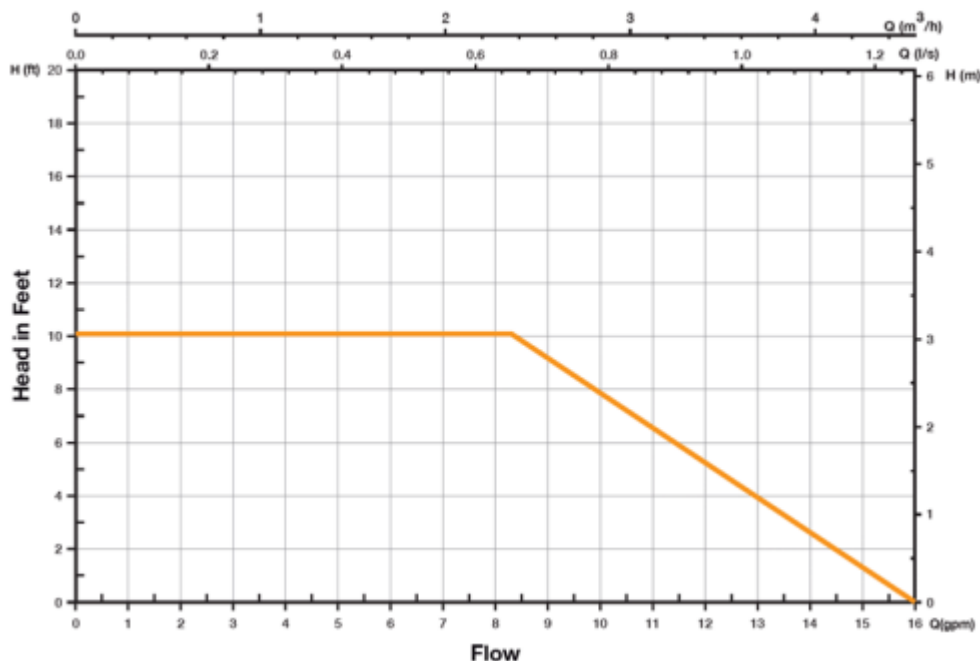
The Taco 007e® is a variable speed, high-efficiency wet rotor circulator with an ECM permanent magnet motor. It is ideal for hydronic systems zoned with circulators or zone valves, or used on potable water systems for domestic water recirculation. The 007e delivers the performance equivalent of the classic 007, plus the reliability and easy installation that made the 00® famous.

Install it, forget it.

- ECM performance equivalent to the legendary 007 circulator
- High-efficiency ECM motor uses up to 85% less electricity
- Ideal for hydronic systems zoned with circulators or zone valves
- BIO Barrier protects pump from system contaminants
- SureStart automatically frees locked rotor condition and self-purges air from pump
- Integral Flow Check (IFC) included



Use the Cast Iron 007e with a Taco Switching Relay or Zone Valve Control

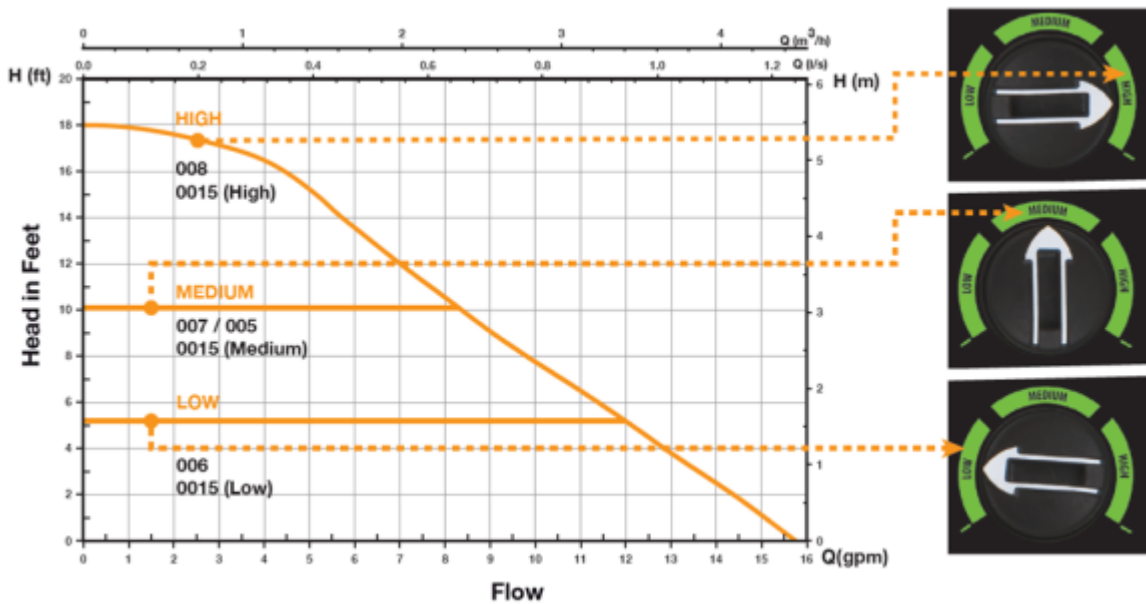


For more information go to www.tacomfort.com

0034e-F4 ECM High-Efficiency Circulator

Taco 0015e3 is a variable speed, high-efficiency wet rotor circulator with an ECM permanent magnet motor. It's ideal for hydronic systems zoned with circulators or zone valves. With 3 easy settings, the 0015e3 delivers performance, reliability and ease of installation that made the 00 famous.

- Replaces ALL 3-speed hydronic circulators in its class
- 3 easy settings, Install it, forget it
- BIO Barrier protects pump from system contaminants
- SureStart automatic unblocking and air purging mode
- High efficiency ECM motor uses up to 85% less electricity
- Integral Flow Check (IFC) included



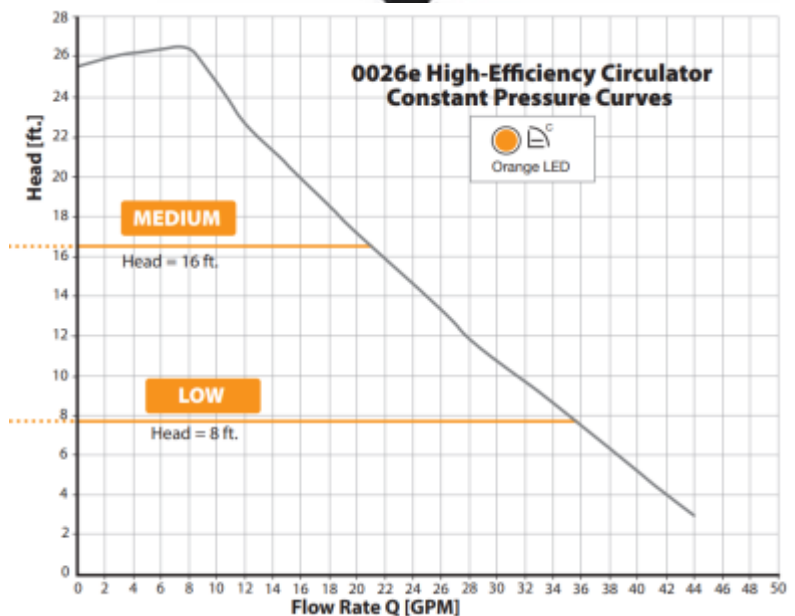
For more information go to www.tacomfort.com

0026e-F2 ECM High-Efficiency Circulator

The 0026e™ is a high-performance, variable speed, wet-rotor circulator with high-efficiency ECM permanent magnet technology. With 5 easy settings, its variable speed performance curves are equivalent to the Taco 0010, 0011, 0012, 0012 3-Speed & 0014. Ideal for large residential and light commercial hydronic heating, chilled water cooling and domestic hot water systems. The 0026e reduces power consumption by up to 85% compared to equivalent AC permanent split capacitor circulators. With a maximum of 26 feet of head and 44 gpm, it is available in either Cast Iron or NSF certified Stainless Steel



- 5 easy dial setting to match system requirements—activeADAPT, LOW, MEDIUM, HIGH, OR 0-10V DC analog or PWM digital signal external input
- SureStart automatic unblocking and air purging mode
- Replaces all single speed and 3-speed circulators in its class
- Whisper quiet operation
- Rotatable control cover to simplify installation



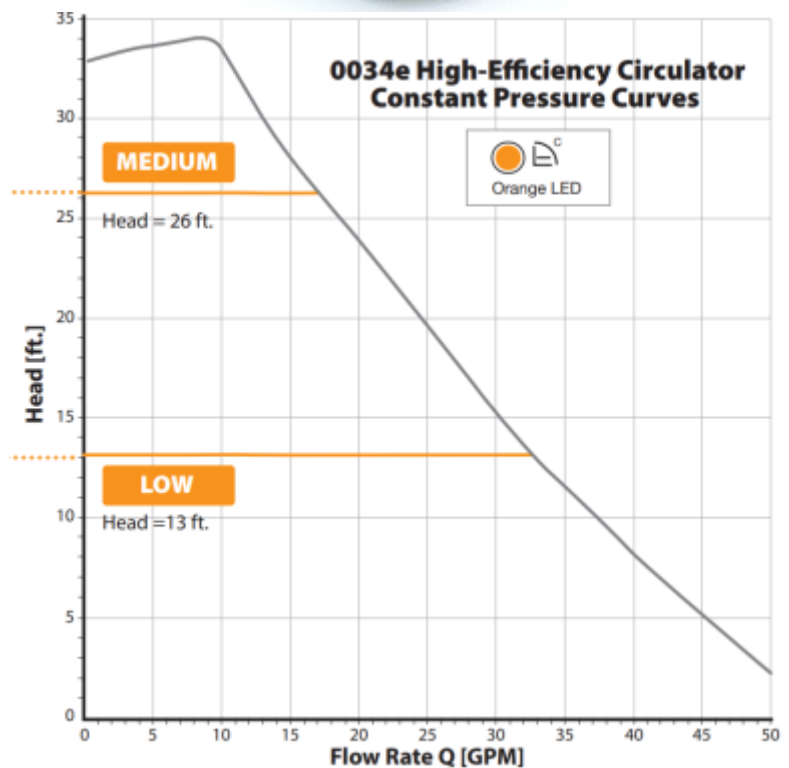
For more information go to www.tacomfort.com

0034e-F2 ECM High-Efficiency Circulator

The 0034e is a high-performance, variable speed, wet-rotor circulator with high-efficiency ECM permanent magnet technology. With 5 easy settings, its variable speed performance curves are equivalent to the Taco 009, 0010, 0011, 0012, 0012 3-speed, 0013, 0013 3-speed & 0014. Ideal for large residential and light commercial hydronic heating, chilled water cooling and domestic hot water systems. The 0034e reduces power consumption by up to 85% compared to equivalent AC permanent split capacitor circulators. With a maximum of 34 feet of head and 50 gpm, it is available in either Cast Iron or NSF certified Stainless Steel.



- 5 easy dial setting to match system requirements—activeADAPT, LOW, MEDIUM, HIGH, OR 0-10V DC analog or PWM digital signal external input
- SureStart automatic unblocking and air purging mode
- Replaces all single speed and 3-speed circulators in its class
- Whisper quiet operation
- Rotatable control cover to simplify installation



For more information go to www.tacomfort.com

006e-3™ ECM High-Efficiency Hot Water Circulator

The 00e® series — 006e3 is an infinitely variable, high-efficiency wet rotor circulator with an ECM permanent magnet motor. With 3 easy settings, the 006e3 delivers performance, reliability and ease of installation that made the 00® famous.



- Taco trusted 00e® series quality and reliability — Install it, forget it.™
- Whisper quiet operation
- 1" union connection with optional ½" & ¾" fitting sets sold separately (See chart below)
- High-efficiency ECM motor uses up to 85% less electricity
- SureStart® automatic unblocking and air purging mode
- 13' Shut-off head, 11 gpm max flow
- Rugged high-performance composite casing

Easy to use dial:

- Low, Medium, High
- 003 & 006 performance point references

Easy installation:

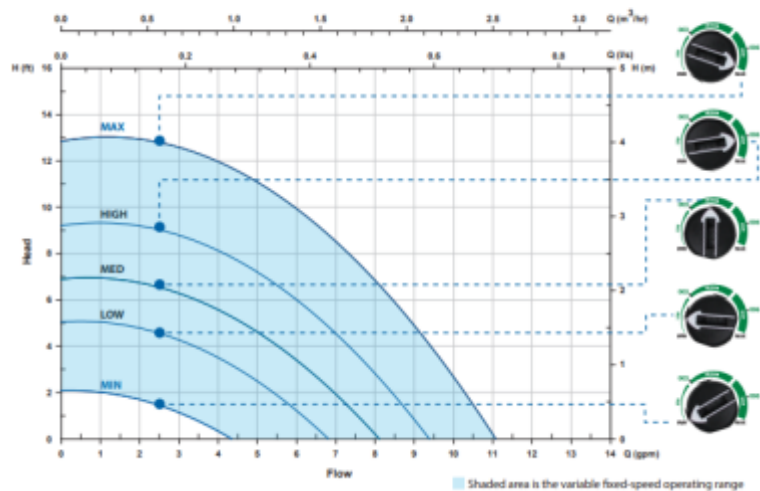
- Compact design for tight spaces
- Multiple connection options available



3 color LED indicator light:

- Blue: Operating mode
- White: SureStart®
- Red: Error diagnostic

006e3™
ECM HIGH-EFFICIENCY
HOT WATER CIRCULATOR


Performance Curves
115V / 60Hz




UFS-050S	1/2" Union Sweat	
UFS075S	3/4" Union Sweat	

Setting Selection Guide


Based on ¾" supply, ½" return copper pipe



HIGH — 500 ft pipe



MEDIUM — 350 ft pipe



LOW — 200 ft pipe or less

NOTE: Figures are for reference purposes only. Refer to ASTM guidelines for piping flow & velocity standards. For PEX, refer to pipe manufacturer guidelines.

For more information go to www.tacomfort.com

008-VDTF6-1 Variable Speed Delta-T 00® Circulator

Taco Variable Speed Delta-T Circulator's all-in-one design combines a microprocessor based variable speed differential controller with the reliability and convenience of our 00® Cartridge Circulators. Simply dial in the design Delta-T of the system or zone (from 5 – 50°F) and then sit back and watch the circulator automatically adjust its performance to match the systems ideal BTU/hr output, while conserving energy and eliminating velocity noise.

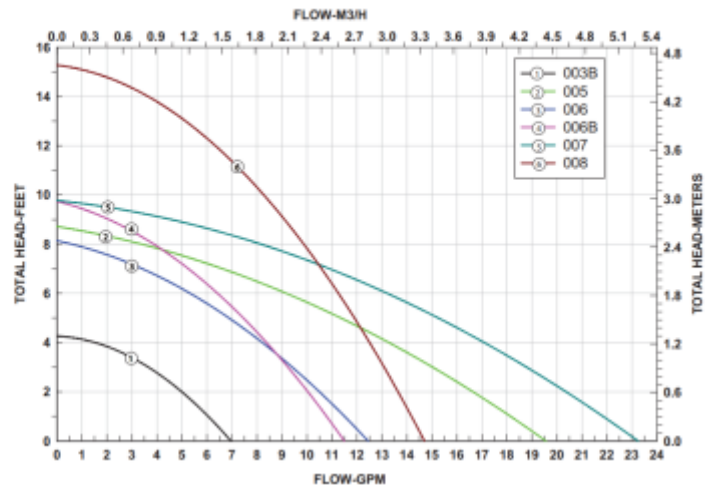


- All-in-One Pump & Control
- Sensors Included
- UL approved
- Snap-in PC Board, replaceable
- LED Status Panel
- Fuse Protected
- Plug-in Low Voltage Wiring Terminal
- Optional Integral Flow Check (IFC)

Easy to Install:

- Attach 2 Sensors
- Dial in the Desired Delta-T

Performance Field - 60Hz  00® CIRCULATORS



For more information go to www.tacomfort.com

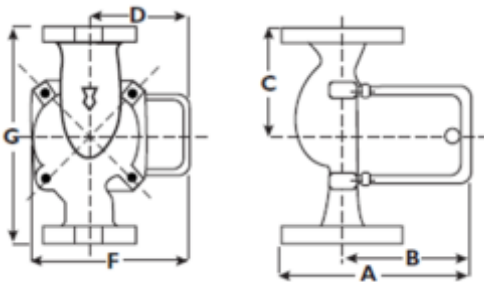
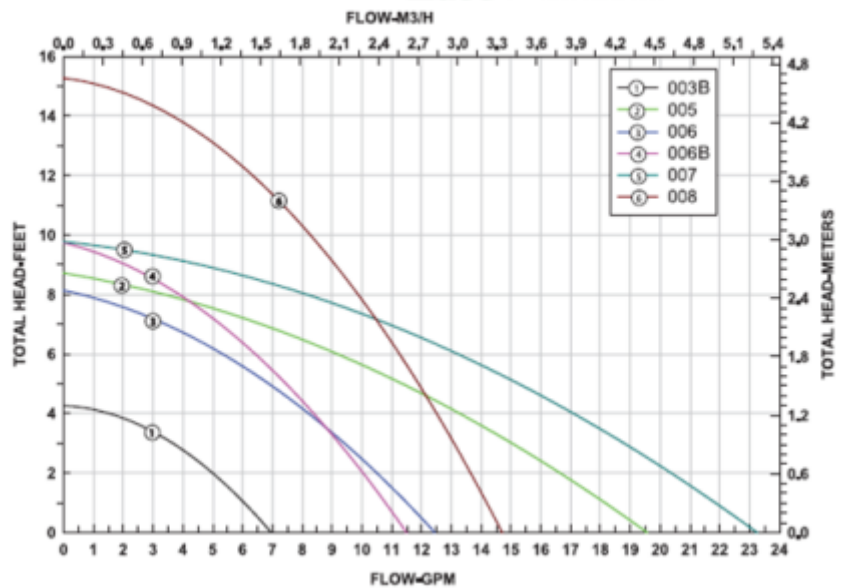
007 Cartridge Single Speed Circulators

The Taco 007 Cartridge Circulator is the most popular hydronic circulator sold today. With its field serviceable cartridge design, the compact 007 provides quite, efficient operation and unmatched reliability. The self-lubricating, maintenance free design and flow characteristics make it the ideal hydronic circulator for a wide range of applications. Available in Cast Iron or Stainless Steel construction with universal flanged connections.



- Standard High Capacity Output-Compact Design
- Quiet, Efficient Operation
- Direct Drive-Low Power Consumption
- Unmatched Reliability-Maintenance Free

Performance Field - 60Hz **Taco** 00⁰ CIRCULATORS

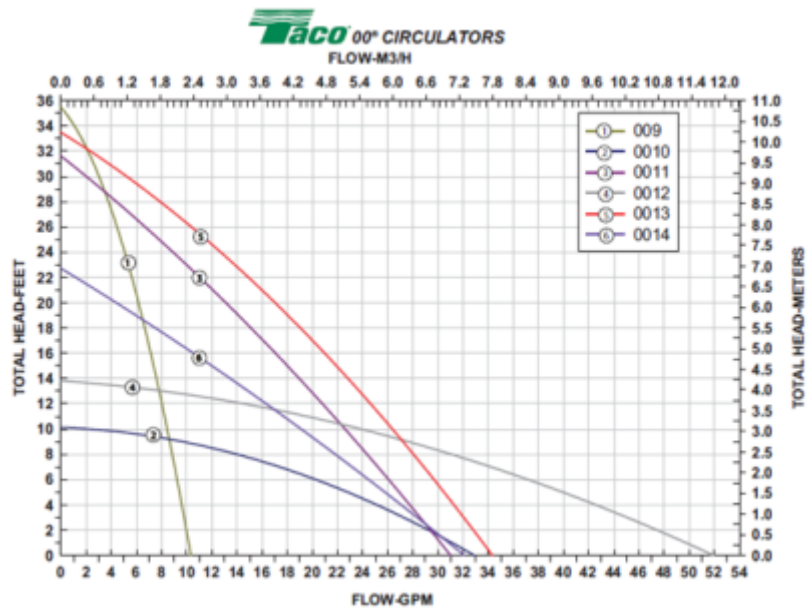
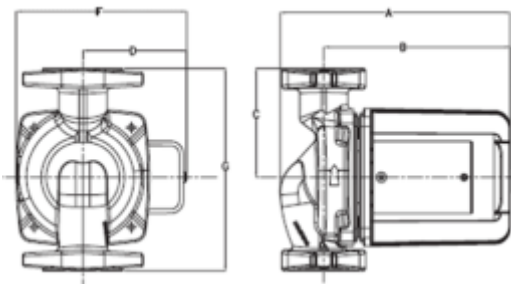


Models	Casing	Flange Type	A in.	B in.	C in.	D in.	F in.	G in.	Ship Wt. lbs
007-F5-71FC	Cast Iron	S	6-3/8	4-1/2	3-3/16	3-15/16	4-3/4	6-3/8	8
007-SF5	St. Steel	S	6-3/8	4-1/2	3-3/16	3-15/16	4-3/4	6-3/8	7

For more information go to www.tacomfort.com

0011 and 0012 Cartridge Single Speed Circulators

The High Velocity series Taco 0011 and 0012 Cartridge Circulator is designed for high head/ medium flow, and high flow/ medium head applications in residential and commercial hydronic heating, radiant heating, and chilled water cooling systems. Its unique field-serviceable cartridge contains all moving parts. Replacing the cartridge rebuilds the circulator. With no mechanical seals, the self-lubricating, maintenance free design provides unmatched reliability. Compact and lightweight, with excellent performance characteristics, these circulators are ideal for installations where space is a premium.



Models	Casing	Flange Type	A in.	B in.	C in.	D in.	F in.	G in.	Ship Wt. lbs
0011-F2	Cast Iron	S	7-1/2	6-1/8	3-1/2	3-3/8	5-5/8	6-1/2	12
0012	Cast Iron	S	8-5/8	6-3/8	4-1/4	3-5/16	5-1/2	8-1/2	13

For more information go to www.tacomfort.com

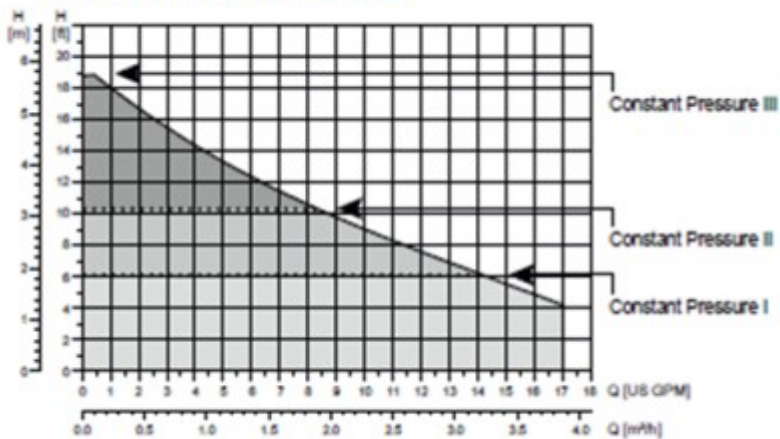
Alpha1-15-55F ECM Circulator

Key Features and Benefits

- ALPHA1 can replace more than 30 other pump models
- Designed with trusted Grundfos ECM technology which has been used by Grundfos for more than 16 years
- ALPHA1 features the highest torque rating and most powerful start feature in its class which attempts to restart indefinitely every seven seconds in blocked rotor conditions
- ALPHA1 features an integrated check-valve and nut captures for flanges
- ALPHA1 features three-constant pressure control modes with easy to use push button settings
- Large LED display shows energy watt consumption and flow indicator in gallons per minute
- Magnetite resistant design with a stainless-steel bearing plate, robust ceramic shaft and ceramic bearing rings
- Extremely quiet 19.2 dB(A) operation – tested in one of the best European sound labs
- ALPHA1 is compatible with either a line cord or terminal box for conduit connections



Performance Data



- • Push-button for selection of pump setting
- Every time the push-button is pressed, the circulator pump setting is changed.
- **Constant Pressure III**
- The duty point of the pump will move left and right along the highest constant-pressure curve depending on the water demand in the system.
- **Constant Pressure II**
- The duty point of the pump will move left and right along the middle constant-pressure curve depending on the water demand in the system.
- **Constant Pressure I**
- The duty point of the pump will move left and right along the lowest constant-pressure curve depending on the water demand in the system.

For more information go to www.grundfos.com/us

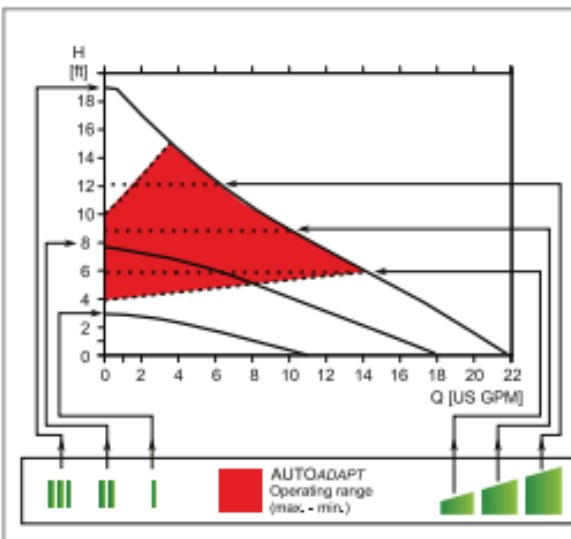
Alpha2-15-55F ECM Circulator

Key Features and Benefits

- Simple push button control enables the ALPHA2 to be programmed in one of 3-constant speed, 3-constant pressure, or AUTOADAPT control modes. The current operating mode is always visible on the ALPHA2's LED display
- The large LED display shows the current energy consumption in Watts and estimated flow in gallons per minute
- For installation, you have the flexibility to use either our unique ALPHA Plug with line cord or the ALPHA2 with terminal box for conduit connections
- ALPHA2 is complete with an integrated check-valve, foam insulation jacket for CI only, and nut captures for flanges. ALPHA2 comes in both cast iron and stainless steel models
- Robust startup enables the ALPHA2 to continuously attempt to restart – indefinitely – in blocked rotor conditions
- ALPHA2 can be used as a replacement for more than 30 competitor pump models



PERFORMANCE DATA



ALPHA APPROXIMATE POWER USAGE

Speed setting		Min.	Max.
High fixed speed		39W	45W
Medium fixed speed		15W	30W
Low fixed speed		5W	8W
Constant pressure	▽	8W	45W
Constant pressure	▽	14W	45W
Constant pressure	▽	22W	45W
AUTOADAPT	AUTO ADAPT	5W	45W

For more information go to www.grundfos.com/us

UPS 3 Speed Series Circulators

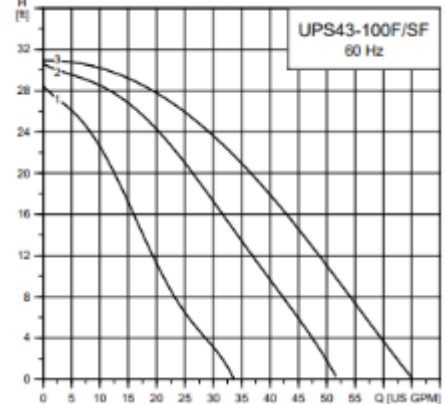
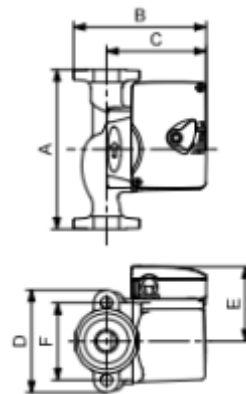
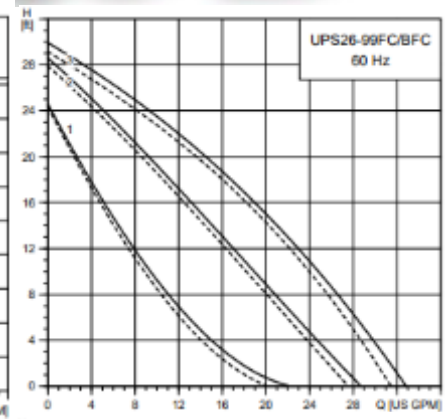
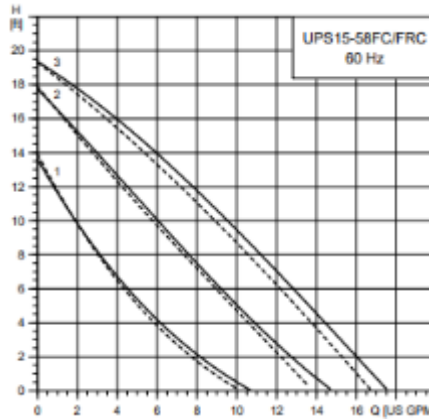
The Power of Flexibility

One of the main features of a UPS is its 3-speed motor. This unique motor advancement, pioneered by Grundfos more than 30 years ago, allows you the ability to adjust the pump speed to fit your specific application. Flexibility to choose your speed gives you the peace of mind that you have the correct pump for the job. The versatility of the UPS not only reduces the number of circulators you have in your truck, but also reduces your installation time and callbacks.



Features

- Lower inventory—increased profitability
- Easy to install—easy to service
- Reliable starts—trouble-free
- Quiet—wet rotor technology
- Industry leading three-year warranty



Model	Voltage	A	B	C	D	E	F
UPS15-58FC	115 Volt	6.5	5.25	4	4.19	3	3.16
UPS26-99FC	115 Volt	6.5	6	4.88	3.5	3.44	3.16
UPS26-99FC-230	230 Volt	6.5	6	4.88	3.5	3.44	3.16
UPS43-100F	115 Volt	8.5	6.69	5.13	4.75	3.19	3.44

For more information go to www.grundfos.com/us

UP15-18SU Hot Water Circulator

The Grundfos UP15-18SU 1/25 HP Recirculator Pump with stainless steel pump housing. The Grundfos circulator pumps, Series UP, are specifically designed for heating systems. The pumps are also suitable for circulation of hot domestic water and for circulation of liquid in cooling and air-conditioning systems

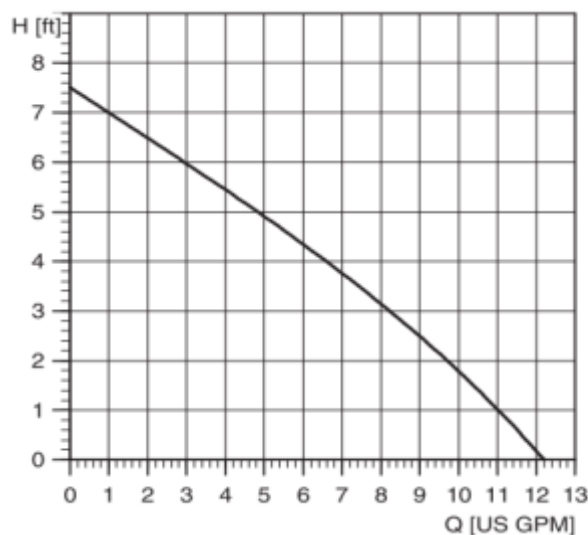
- Stainless Steel construction
- Wet rotor design
- Composite impeller
- Eliminates and prevents corrosive effects of fresh water
- Maintenance-free, low energy consumption, easy to install, quiet running
- Connection: Union 1-1/4"
- Union Connectors required. (See items below)



52.99-11 3/4" Sweat Union



52.99-12 3/4" NPT Union



UP 15-18SU/SF

Open Systems, 60 Hz

For more information go to www.grundfos.com/us

PUMP FLANGES

Isolation Pump Flanges

Part Number	Description
51413KIT	3/4" Pump Isolation Kit 1 Flange & 1 Flange w/ drain
51414HVKIT	1" Pump Isolation Kit 1 Flange & 1 Flange w/ drain
51403HV-1	3/4" SWT Rotating Isolator Flange
51413HV	3/4" SWT Rotating Isolator Flange w/Drain
81403HV	3/4" Press Isolation Flange
81413HV	3/4" Press Isolation Flange w/ Hose Drain
51404HV-1	1" SWT Rotating Isolator Flange
51414HV	1" SWT Rotating Isolator Flange w/Drain
81404HV	1" Press Isolation Flange
81414HV	1" Press Isolation Flange w/ Hose Drain
51405HV-1	1-1/4" SWT Rotating Isolator Flange
51415HV	1-1/4" SWT Rotating Isolator Flange w/Drain
81405HV	1-1/4" Press Isolation Flange
81415HV	1-1/4" Press Isolation Flange w/ Hose Drain
51406HV-1	1-1/2" SWT Rotating Isolator Flange
51416HV	1-1/2" SWT Rotating Isolator Flange w/Drain
50407HV	2" SWT Fixed Isolation Flange
G40403HV	Replacement Gasket for all Isolation Flanges



Pump Isolation Kit



Flange

Flange w/
drain



Press Flange

Press Flange w/
drain

Taco Cast Iron Pump Flanges

110-251F	3/4" Cast Iron Flange Set
110-252F	1" Cast Iron Flange Set
110-253F	1-1/4" Cast Iron Flange Set
110-254F	1-1/2" Cast Iron Flange Set
007-007RP	Flange Set Gasket
110-023RP	Flange Set Gasket



007-007RP

110-023RP

Grundfos Cast Iron Pump Flanges

51.96-01	3/4" Cast Iron Flange Set
51.96-02	1" Cast Iron Flange Set
51.96-03	1-1/4" Cast Iron Flange Set
51.96-04	1-1/2" Cast Iron Flange Set
53.96-05	1-1/2" Cast Iron Flange Set 40/43 pump family



Specialty Trim Fittings

Part Number	Description
50435W	Union Ball Drain 1-1/4" FIP x 1-1/4" SWT
80435W	Union Ball Drain 1-1/4" FIP x 1-1/4" PRESS
50613	3/4" SWT Ball Valve W/Drain
80613	3/4" PRESS Ball Valve W/Drain
50614	1" SWT Ball Valve W/Drain
80614	1" PRESS Ball Valve W/Drain
50615	1-1/4" SWT Ball Valve W/Drain
80615	1-1/4" PRESS Ball Valve W/Drain
50673W	3/4" SWT T-Drain Lead Free
RIK-C	3/4" SWT Tankless Service Kit
84443WPR	3/4" PRESS Tankless Service Kit
54444WPR	1" SWT Tankless Service Kit
84444WPR	1" PRESS Tankless Service Kit
41672	1/2" Expansion Tank Service Valve with drain
58613	3/4" SWT Purge & Fill Valve
88613	3/4" PRESS Purge & Fill Valve
58614	1" SWT Purge & Fill Valve
88614	1" PRESS Purge & Fill Valve
58615	1-1/4" SWT Purge & Fill Valve
88615	1-1/4" PRESS Purge & Fill Valve
58643	1" x 3/4" SWT Purge Tee Prim/Sec Loop
88643	1" x 3/4" PRESS Purge Tee Prim/Sec Loop
58653	1-1/4" X 3/4" SWT Purge Tee Prim/Sec Loop
88653	1-1/4" X 3/4" PRESS Purge Tee Prim/Sec Loop
58654	1-1/4" x 1" SWT Purge Tee Prim/Sec Loop



50435W

80435W



50613

80613

50614

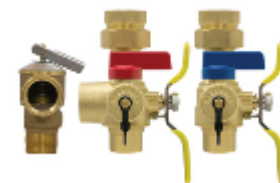
80614

50615

80615



50673W



RIK-C

54444WPR



RIK-C
54444WPR



41672



58613
58614
58615



88613
88614
88615



58643
58653
58654



88643
88653

For more information go to www.webstonevalves.com

Air Elimination

Part Number	Description
337221A	1/4" NPT Manual Air Vent
502243A	1/2" NPT High Capacity Air Vent
502610A	1/8" NPT Automatic Air Vent
508013A	1/8" NPT Hygroscopic Air Vent
508100A	Replacement Hydroscopic Cartridge
546095A	3/4" SWTDISCAL Air and Dirt Separator
546096A	1" SWT DISCAL Air and Dirt Separator
546097A	1-1/4" SWT DISCAL Air and Dirt Separator
546195A	3/4" SWT DIRMAG DISCAL Air and Dirt Sep.
546196A	1" SWT DIRTMAG DISCAL Air and Dirt Sep.
546197A	1-1/4" SWT DIRTMAG DISCAL Air and Dirt Sep.
551003A	3/4" NPT DISCAL Air Separator
551006A	1" NPT DISCAL Air Separator
551007A	1-1/4" NPT DISCAL Air Separator
551008A	1-1/2" NPT DISCAL Air Separator
551009A	2" NPT DISCAL Air Separator
551022A	3/4" SWT DISCAL Air Separator
551028A	1" SWT DISCAL Air Separator
551035A	1-1/4" SWT DISCAL Air Separator
551066A	1" PRESS DISCAL Air Separator
551067A	1-1/4" PRESS DISCAL Air Separator
551068A	1-1/2" PRESS DISCAL Air Separator
551069A	2" PRESS DISCAL Air Separator



337221A



502243A



502610A



508013A



508100A



5461



551



546

Boiler Feed

Part Number	Description
553549A	1/2" Autofill Boiler Feed Valve
573007A	1/2" Autofill Back Flow Preventer Combo PRESS
573009A	1/2" Autofill Back Flow Preventer Combo SWT



553



573

For more information go to www.caleffi.com/usa/en-us/catalog

Boiler Trim Kits

Part Number	Description
NA553366	1" PRESS Boiler Trim Kit (Fill, Exp. Tank, Air Sep.)
NA553369	1" SWT Boiler Trim Kit (Fill, Exp. Tank, Air Sep.)
NA553376	1-1/4" PRESS Boiler Trim Kit (Fill, Exp. Tank, Air Sep.)
NA553379	1-1/4" SWT Boiler Trim Kit (Fill, Exp. Tank, Air Sep.)



NA553

Temperature Mixing

Part Number	Description
521409A	1/2" 3-way Thermostatic Mixing Valve
521509A	3/4" 3-way Thermostatic Mixing Valve
521609A	1" 3-way Thermostatic Mixing Valve
NA10056	3/4" Temperature Probe
NA10058	1" Temperature Probe



521



NA10056

NA10058

Flow Control

Part Number	Description
132432A	1/2" NPT Quick Setter Valve .5-1.75 GPM
132552A	3/4" NPT Quick Setter Valve 1-7 GPM
132662A	1" NPT Quick Setter Valve 3-10 GPM
132772A	1-1/4" NPT Quick Setter Valve 5-19 GPM
132882A	1-1/4" MPT Quick Setter Valve 8-32 GPM



132

For more information go to www.caleffi.com/usa/en-us/catalog

Hydraulic Separation

Part Number	Description
548006US	1" Hydraulic Separator NO Tailpiece
548007US	1-1/4" Hydraulic Separator NO Tailpiece
548008US	1-1/2" Hydraulic Separator NO Tailpiece
548009US	2" Hydraulic Separator NO Tailpiece
549506US	1" Magnetic Hydraulic Separator NO Tailpiece
549507US	1-1/4" Magnetic Hydraulic Separator NO Tailpiece
549508US	1-1/2" Magnetic Hydraulic Separator NO Tailpiece
549509US	2" Magnetic Hydraulic Separator NO Tailpiece
NA10406	1" PRESS Tailpiece
NA10407	1-1/4" PRESS Tailpiece
NA10408	1-1/2" PRESS Tailpiece
NA10409	2" PRESS Tailpiece
31553FD	1" NPT Female Tailpiece
31401FD	1-1/4" NPT Female Tailpiece
R41441	1-1/2" NPT Female Tailpiece
31426FD	2" NPT Female Tailpiece
31554FD	1" SWT Tailpiece
31403FD	1-1/4" SWT Tailpiece
41882A	1-1/2" SWT Tailpiece
31428FD	2" SWT Tailpiece



548



5495



- NA10406
- NA10407
- NA10408
- NA10409



- 31553FD
- 31401FD
- R41441
- 31426FD



- 31554FD
- 31403FD
- 41882A
- 31428FD

For more information go to www.caleffi.com/usa/en-us/catalog

Air Elimination

Part Number	Description
400-Vent	1/8" Air Vent
431-6	1" Air Scoop
432-6	1-1/4" Air Scoop



400-Vent



431-6

432-6

Boiler Feed

Part Number	Description
329-T4	1/2" Cast Iron Pressure Reducing Valve
335-3	3/4" Bronze Pressure Reducing Valve
3350-T3	1/2" Brass Cartridge Style PRV



329-T4



335-3



3350-T3

Electronic Controls

Part Number	Description
EWF024-1	Electric Water Feeder 24v (Steam)
IFS01BR-1	Flow Switch



IFS01BR-1



EWF024-1

For more information go to www.tacomfort.com

Low Water Cut Offs

Part Number	Description
OEM-1100	24V Auto Reset
OEM-1100M	24V Manual Reset
OEM-24SV	24V Auto Reset
OEM-170SV	120V Auto Reset
OEM-550SV	120V Manual Reset
CG400-2090	24V Auto Reset Steam



OEM-1100

OEM-1100M



OEM-24SV

OEM-170SV



OEM-550SV



CG400-2090

System Feeder

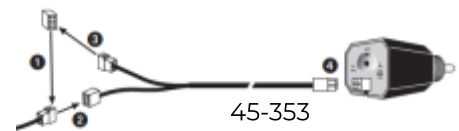
Part Number	Description
VXT-24	24Volt Programmable Water Feeder (Steam)



VXT-24

Accessories

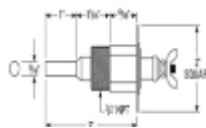
Part Number	Description
45-353	Wire Harness for 1100 LWCO to vent damper
45-350	Wire Harness for 1100 LWCO to Burnham Boiler
EL1214-SV	3/4" MPT Short Ceramic Probe



45-353



45-350



EL1214-SV

For more information go to www.hydrolevel.com

Expansion Tanks

Part Number	Description
15-T	2 Gal Expansion Tank 101-1
30-T	4.4 Gal Expansion Tank 102-1
60-T	7.6 Gal Expansion Tank 103-1
90-T	14 Gal Expansion Tank 112-T
RX-15	2 Gal Expansion Tank (plastic liner & SS connection)
RX-30	4.4 Gal Expansion Tank (plastic liner & SS connection)
RX-60	7.6 Gal Expansion Tank (plastic liner & SS connection)
SX-30V	14 Gal Expansion Tank floor mount
ST-5	2 Gal Expansion Tank Domestic Water Tank
3000	4.4 Gal Expansion Tank/1-1/4" Air Scoop Combination



15-T, 30-T,
60-T, 90-T

RX-15
RX-30
RX-60



SX-30V



3000



ST-5

Fill Trol Expansion Tanks

Part Number	Description
109-T	2 Gal Fill Trol Tank and Valve
109-P	2 Gal Fill Trol Tank, Valve and Air Scoop
110-T	4.4Gal Fill Trol Tank and Valve
110-P	4.4 Gal Fill Trol Tank, Valve, and Air Scoop
111-P	7.6 Gal Fill Trol Tank, Valve, and Air Scoop
109-15	Fill Trol valve



109-T
110-T

109-P
110-P
111-P



109-15

Air Elimination

Part Number	Description
443-PURGER	Air Purger 1"
444-PURGER	Air Purger 1-1/4"
445-PURGER	Air Purger 1-1/2"
700	1/8" Air Vent



Air Purger



Air Vent

For more information go to www.amtrol.com

Low Water Cut Offs & Flow Switch

Part Number	Description
67-MM	Steam Low Water Cut off
14-MM	Blown Down Ball Valve for LWCO
PS802-U-24	24V Steam Low Water Cut Off
RB-24E	24V Hot Water LWCO Auto Reset
RB-122	120V Hot Water LWCO Auto Reset
FS4-3	Flow Switch 1" NPT



67-MM



14-MM



FS4-3



PS802-U-24



RB-122



RB-24E

For more information go to www.mcdonnellmiller.com



Water and Steam Air Vents

Part Number	Description
110-301	1/8" Angle Steam Vent
110-304	3/4"Mx1/2"F Steam Main Vent
110-338	Coin Vent
110-340	Key For Coin Vent



110-301



110-304



110-338



110-340

For more information go to www.legendvalve.com

Hoffman Steam Air Vents

Part Number	Description
H-75	1/2"FPT 3/4 MPT Main Steam Vent



H-75

High Temperature Manual Resets

Part Number	Description
L4006H1004	Strap on Aquastat Manual Reset
L4006E1067	Aquastat Manual Reset Needs Well
121371A	Copper Immersion Well 1/2" NPT
121371B	Copper Immersion Well 3/4" NPT



L4006E1067



L4006H1004



121371A
121371B

Steam Air Vents

Part Number	Description
SRV-AC	0.1285" Angle Steam Vent
SRV-AD	0.1850" Angle Steam Vent
SRV-A4	0.040" Angle Steam Vent
SRV-A5	0.070" Angle Steam Vent
SRV-A6	0.0935" Angle Steam Vent
SRV-SC	0.1285" Straight Steam Vent
SRV-SD	0.1850" Straight Steam Vent
SRV-S4	0.040" Straight Steam Vent
SRV-S5	0.070" Straight Steam Vent
SRV-S6	0.0935" Straight Steam Vent
RO-C	Replacement Orifice #C
RO-D	Replacement Orifice #
RO-4	Replacement Orifice #
RO-5	Replacement Orifice #
RO-6	Replacement Orifice #
SMV-1/2X3/4	1/2" x 3/4" Main Steam Vent 0.1850"

Jacobus®



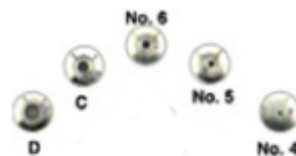
Model 1
SMV-1/2X3/4



1/8 Inch Angle
SRA-XX



1/8 Inch Straight
SRV-XX



REPLACEMENT ORIFICE

For more information go to www.maidmist.com

Valves and Hydronic accessories

Part #	Description
BD-1	1/2" Boiler Drain
BD-2	3/4" Boiler Drain
WGV-1/2	1/2" IPS Gate Valve
WGV-3/4	3/4" IPS Gate Valve
WGV-1-1/4	1-1/4" IPS Gate Valve
WGVS-3/4	3/4" CXC SWT Gate Valve
WGVS-1	1" CXC SWT Gate Valve
WGVS-1-1/4	1-1/4" CXC SWT Gate Valve
101-023	1/2" IPS Ball Valve Full Port
101-043	1/2" CXC SWT Ball Valve Full Port
101-043NL	1/2" CXC SWT Ball Valve Full Port No Lead
101-044	3/4" CXC SWT Ball Valve Full Port
101-044NL	3/4" CXC SWT Ball Valve Full Port No Lead
101-045	1" CXC SWT Ball Valve Full Port
101-045NL	1" CXC SWT Ball Valve Full Port No Lead
101-046	1-1/4" CXC SWT Ball Valve Full Port
101-047	1-1/2" CXC SWT Ball Valve Full Port
101-047NL	1-1/2" CXC SWT Ball Valve Full Port No Lead
101-048	2" CXC SWT Ball Valve Full Port
101-413	1/2" IPS Ball Valve Full Port T-2000 Commercial Grade
101-414	3/4" IPS Ball Valve Full Port T-2000 Commercial Grade
101-415	1" IPS Ball Valve Full Port T-2000 Commercial Grade
101-416	1-1/4" IPS Ball Valve Full Port T-2000 Commercial Grade
101-423	1/2" CXC SWT Ball Valve Full Port S-2000 Commercial Grade
101-424	3/4" CXC SWT Ball Valve Full Port S-2000 Commercial Grade
101-425	1" CXC SWT Ball Valve Full Port S-2000 Commercial Grade
101-426	1-1/4" CXC SWT Ball Valve Full Port S-2000 Commercial Grade
101-520	1/8" MPT x FPT Ball Valve
105-204	3/4" CXC SWT Swing Check
105-205	1" CXC SWT Swing Check
105-206	1-1/4" CXC SWT Swing Check
105-207	1-1/2" CXC SWT Swing Check



Boiler Drain



IPS Gate



SWT Gate



IPS Ball Valve



SWT Ball Valve



IPS Ball Valve Commercial



SWT Ball Valve Commercial



101-520



Swing Check

For more information go to www.legendvalve.com

Valves and Hydronic accessories

Part #	Description
105-464NL	3/4" CXC SWT In-Line Check Valve No Lead
110-143	1/2" Steam 90 Deg Angle Radiator Valve
110-147	3/4" Steam 90 Deg Angle Radiator Valve
110-148	1" Steam 90 Deg Angle Radiator Valve
110-149	1-1/4" Steam 90 Deg Angle Radiator Valve
110-404	3/4" CXC SWT Purge & Balancing Valve
115-113	1/2" IPS Brass Backflow Preventer
115-114	3/4" IPS Brass Backflow Preventer
301-103NL	1/2" FPTxSWT Dielectric Union No Lead
301-104-PNL	3/4" FPTxPRESS Dielectric Union No Lead
301-104NL	3/4" FPTxSWT Dielectric Union No Lead
301-105NL	1" FPTxSWT Dielectric Union No Lead
301-106NL	1-1/4" FPTxSWT Dielectric Union No Lead
301-107NL	1-1/2" FPTxSWT Dielectric Union No Lead
301-108	2" FPTxSWT Dielectric Union
301-108NL	2" FPTXSWT Dielectric Union No Lead
301-123NL	3/4"x1/2" FPTxSWT Dielectric Union No Lead
301-204NL	3/4" MPTxSWT Dielectric Union No Lead
301-404	3/4" EPDM Rubber Gasket
302-253	3/4"x1/8"x3/4" Baseboard Tee SWT
456-151NL	3/4" PUSHx3/4" PUSHx1/4" valve comp Add Ice Maker Tee
456-153NL	1/2" PUSHx1/2" PUSHx1/4" valve comp Add Ice Maker Tee
800-QT200	Radiant Install Panel 1/2", 5/8", or 3/4" Tube R10 2'x4'x2"
800-653	Temperature Gauge 3" Dial 1/2" MPT Well
800-693	Temperature and Pressure 3" Dial 1/2" MPT Rear



105-464NL



Radiator Valve



110-404



Backflow Preventer



Dielectric Union



301-104-PNL



301-404



302-253



456-151NL
456-153NL



800-QT200



800-653



800-693

For more information go to www.legendvalve.com

PIPING, VALVES, & FITTINGS

Copper Pipe and Fittings

BY Part #	Description	BY Part #	Description
M-1/2X10	1/2" x 10' M Copper Tube	W-3326	1/2" SWT ST 45 Angle (5/8"OD)
M-3/4X10	3/4" x 10' M Copper Tube	606ST-3/4	3/4" SWT ST 45 Angle
M-1X10	1" x 10' M Copper Tube	606ST-1	1" SWT ST 45 Angle
M-1X20	1" x 20' M Copper Tube	W-3350	1-1/4" SWT ST 45 Angle (1-3/8"OD)
M-1-1/4X10	1-1/4" x 10' M Copper Tube	W-3355	1-1/2" SWT ST 45 Angle (1-5/8"OD)
M-1-1/2X10	1-1/2" x 10' M Copper Tube	W-3359	2" SWT ST 45 Angle (2-1/8"OD)
M-2X10	2" x 10' M Copper Tube	606ST-3	3" SWT ST 45 Angle
607-1/2	1/2" SWT 90 Elbow	611-1/2	1/2" SWT Tee
607-3/4	3/4" SWT 90 Elbow	611-3/4	3/4" SWT Tee
607-1	1" SWT 90 Elbow	611-3/4x1/2	3/4"x3/4"x1/2" SWT Tee
607-1-1/4	1-1/4" SWT 90 Elbow	611-3/4x1/2x3/4	3/4"x1/2"x3/4" SWT Tee
607-1-1/4X1	1-1/4" x 1" SWT 90 Elbow	611-1	1" SWT Tee
607-1-1/2	1-1/2" SWT 90 Elbow	611-1X1/2	1"x1"x1/2" SWT Tee
607-1-1/2X1	1-1/2" x 1" SWT 90 Elbow	611-1X1/2X1	1"x1/2"x1" SWT Tee
607-1-1/2X1-1/4	1-1/2" x 1-1/4" SWT 90 Elbow	611-1X1/2X1/2	1"x1/2"x1/2" SWT Tee
607-2	2" SWT 90 Elbow	611-1X1/2X3/4	1"x1/2"x3/4" SWT Tee
607-2X1-1/2	2" x 1-1/2" SWT 90 Elbow	611-1X3/4	1"x1"x3/4" SWT Tee
607-2-1/2	2-1/2" SWT 90 Elbow	611-1X3/4X3/4	1"x3/4"x3/4" SWT Tee
607ST-1/2	1/2" SWT Street 90 Elbow	611-1-1/4	1-1/4" SWT Tee
607ST-3/4	3/4" SWT Street 90 Elbow	611-1-1/4x1/2"	1-1/4"x1-1/4"x1/2" SWT Tee
607ST-1	1" SWT Street 90 Elbow	611-1-1/4x1/2x1-1/4	1-1/4"x1/2"x1-1/4" SWT Tee
607ST-1-1/4	1-1/4" SWT Street 90 Elbow	611-1-1/4X3/4	1-1/4"x1-1/4"x3/4" SWT Tee
607ST-1-1/2	1-1/2" SWT Street 90 Elbow	611-1-1/4X3/4X1	1-1/4"x3/4"x1" SWT Tee
607ST-2	2" SWT Street 90 Elbow	611-1-1/4X3/4X1-1/4	1-1/4"x3/4"x1-1/4" SWT Tee
607ST-2-1/2	2-1/2" SWT Street 90 Elbow	611-1-1/4X3/4X3/4	1-1/4"x3/4"x3/4" SWT Tee
607ST-3	3" SWT Street 90 Elbow	611-1-1/2	1-1/2" SWT Tee
606-1/2	1/2" SWT 45 Angle	611-1-1/2X1/2	1-1/2"x1-1/2"x1/2" SWT Tee
606-3/4	3/4" SWT 45 Angle	611-1-1/2X3/4	1-1/2"x1-1/2"x3/4" SWT Tee
606-1	1" SWT 45 Angle	611-1-1/2X1	1-1/2"x1-1/2"x1" SWT Tee
606-1-1/4	1-1/4" SWT 45 Angle	611-1-1/2X1X1	1-1/2"x1"x1" SWT Tee
606-1-1/2	1-1/2" SWT 45 Angle	611-1-1/2x1-1/4	1-1/2"x1-1/2"x1-1/4" SWT Tee
606-2	2" SWT 45 Angle	611-1-1/2x1-1/4x1-1/2	1-1/2"x1-1/4"x1-1/2" SWT Tee
606-2-1/2	2-1/2" SWT 45 Angle	611-1-1/2X1-1/4x1-1/4	1-1/2"x1-1/4"x1-1/4" SWT Tee

Copper Fittings

BY Part #	Description	BY Part #	Description
611-1-1/2X1-1/4"x3/4"	1-1/2"x1-1/4"x3/4" SWT Tee	601-1/2	1/2" SWT Slip Coupling
611-1-1/2X2	1-1/2"x1-1/2"x2" SWT Tee	601-3/4	3/4" SWT Slip Coupling
600-1/2	1/2" SWT Coupling	601-1	1" SWT Slip Coupling
600-3/4	3/4" SWT Coupling	601-1/4	1-1/4" SWT Slip Coupling
600-1	1" SWT Coupling	601-1-1/2"	1-1/2" SWT Slip Coupling
600-1-1/4	1-1/4" SWT Coupling	601-2	2" SWT Slip Coupling
600-1-1/2	1-1/2" SWT Coupling	601-2-1/2	2" SWT Slip Coupling
600-2	2" SWT Coupling	601-3	3" SWT Slip Coupling
600-2-1/2	2-1/2" SWT Coupling	603-1/2	1/2" SWT FPT Adapter
600-3	3" SWT Coupling	603-1/2X3/4	1/2" SWT x 3/4" FPT Adapter
600-3/4X1/2	3/4"x1/2" SWT Coupling	603-3/4	3/4" SWT FPT Adapter
600-1X3/4	1"x3/4" SWT Coupling	603-3/4X1/2	3/4" SWT x 1/2" FPT Adapter
600-1-1/4X1/2	1-1/4"x1/2" SWT Coupling	603-3/4X1	3/4" SWT x 1" FPT Adapter
W-1058	1-1/4"x3/4" SWT Coupling	603-1	1" SWT FPT Adapter
600-1-1/4X1	1-1/4"x1" SWT Coupling	603-1x1/2	1" SWT x 1/2" FPT Adapter
600-1-1/2X1/2	1-1/2"x1/2" SWT Coupling	603-1X3/4"	1" SWT x 3/4" FPT Adapter
600-1-1/2X1	1-1/2"x1" SWT Coupling	603-1-1/4	1-1/4" SWT FPT Adapter
600-1-1/2X1-1/4	1-1/2"x1-1/4" SWT Coupling	603-1-1/4X1	1-1/4" SWT x 1" FPT Adapter
600-2X1/2	2"x1/2" SWT Coupling	603-1-1/2	1-1/2" SWT FPT Adapter
600-2X3/4	2"x3/4" SWT Coupling	603-2	2" SWT FPT Adapter
600-2X1	2"x1" SWT Coupling	603R-1/2	1/2" SWT FTG x FIP Adapter
600-2x1-1/4	2"x1-1/4" SWT Coupling	603R-3/4	3/4" SWT FTG x FIP Adapter
600-2X1-1/2	2"x1-1/2" SWT Coupling	603R-1	1" SWT FTG x FIP Adapter
600-3X2	3"x2" SWT Coupling	603R-1-1/4	1-1/4" SWT FTG x FIP Adapter
W-1326	3/4"x1/2" SWT Fit Red	603R-1-1/2	1-1/2" SWT FTG x FIP Adapter
600R-1X1/2	1"x1/2" SWT Fit Red	604-1/4	1/4" SWT MPT Adapter
600R-1X3/4	1"x3/4" SWT Fit Red	604-1/2	1/2" SWT MPT Adapter
600R-1-1/4X3/4	1-1/4"x3/4" SWT Fit Red	604-1/2X3/4	1/2" SWT x 3/4" MPT Adapter
600R-1-1/4X1	1-1/4"x1" SWT Fit Red	604-1/2X1	1/2" SWT x 1" MPT Adapter
600R-1-1/2X1/2	1-1/2"x1/2" SWT Fit Red	604-3/4	3/4" SWT MPT Adapter
600R-1-1/2X3/4	1-1/2"x3/4" SWT Fit Red	604-3/4X1/2	3/4" SWT x 1/2" MPT Adapter
600R-1-1/2X1-1/4	1-1/2"x1-1/4" SWT Fit Red	604-3/4X1	3/4" SWT x 1" MPT Adapter
		604-1	1" SWT MPT Adapter

Copper Fittings

BY Part #	Description
604-1X3/4	1" SWT x 3/4" MPT Adapter
604-1-1/4	1-1/4" SWT MPT Adapter
604-1-1/4X1	1-1/4" SWT x 1" MPT Adapter
604-1-1/2	1-1/2" SWT MPT Adapter
604-1-1/2X1-1/4	1-1/2" SWT x 1-1/4" MPT Adapter
604-2	2" SWT MPT Adapter
604-2X1-1/2	2" SWT x 1-1/2" MPT Adapter
604-2-1/2	2-1/2" SWT MPT Adapter
604R-1/2	1/2" SWT FTG X MIP
604R-3/4	3/4" SWT FTG X MIP
604R-1	1" SWT FTG X MIP
633-1/2	1/2" SWT Union
633-3/4	3/4" SWT Union
633-1	1" SWT Union
633-1-1/4	1-1/4" SWT Union
633-1-1/2	1-1/2" SWT Union
617-1/4	1/4" SWT Cap
617-1/2	1/2" SWT Cap
617-3/4	3/4" SWT Cap
617-1	1" SWT Cap
617-1-1/4	1-1/4" SWT Cap
617-1-1/2	1-1/2" SWT Cap
617-2	2" SWT Cap
617-2-1/2	2-1/2" SWT Cap
618-3/4X1/2	3/4"x1/2" SWT Flush Bushing
618-1X3/4	1"x3/4" SWT Flush Bushing
712-3/4X1/2	3/4"x1/2" CxCxFIP Tee
712-3/4	3/4" CxCxFIP Tee
712-1X1/2	1"x1/2" CxCxFIP Tee
712-1X3/4	1"x3/4" CxCxFIP Tee
712-1	1" CxCxFIP Tee
712-1-1/4X1	1-1/4"x1" CxCxFIP Tee
712-1-1/2X1	1-1/2"x1" CxCxFIP Tee
712-2X1	2"x1" CxCxFIP Tee



Pro Press Fittings

BY Part #	Description	BY Part #	Description
NPF9012	1/2" PRESS 90 Elbow	NPFC34	3/4" PRESS Coupling no stop
NPF9034	3/4" PRESS 90 Elbow	NPFC1	1" PRESS Coupling no stop
NPF901	1" PRESS 90 Elbow	NPFC114	1-1/4" PRESS Coupling no stop
NPF90114	1-1/4" PRESS 90 Elbow	NPFC112	1-1/2" PRESS Coupling no stop
NPF90112	1-1/2" PRESS 90 Elbow	NPFC2	2" PRESS Coupling no stop
NPF902	2" PRESS 90 Elbow	NPFRED34X12	3/4"x1/2" PRESS Red Coupling
NPF4512	1/2" PRESS 45 Elbow	NPFRED1X34	1"x3/4" PRESS Red Coupling
NPF4534	3/4" PRESS 45 Elbow	NPFRED114X1	1-1/4"x1" PRESS Red Coupling
NPF451	1" PRESS 45 Elbow	NPFRED112X114	1-1/2"x1-1/4" PRESS Red Coupling
NPF45114	1-1/4" PRESS 45 Elbow	NPFRED2X112	2"x1-1/2" PRESS Red Coupling
NPF45112	1-1/2" PRESS 45 Elbow	NPFCAP12	1/2" PRESS Cap
NPF452	2" PRESS 45 Elbow	NPFCAP34	3/4" PRESS Cap
NPFUN112	1/2" PRESS Union	NPFCAP1	1" PRESS Cap
NPFUN134	3/4" PRESS Union	NPFCAP114	1-1/4" PRESS Cap
NPFUN11	1" PRESS Union	NPFCAP112	1-1/2" PRESS Cap
NPFUN1114	1-1/4" PRESS Union	NPFCAP2	2" PRESS Cap
NPFUN1112	1-1/2" PRESS Union	NPFTEE12	1/2" PRESS Tee
NPFUN12	2" PRESS Union	NPFTEE34	3/4" PRESS Tee
NPFMADAPT12	1/2" PRESS MPT Adapter	NPFTEE34X34X12	3/4"x3/4"x1/2" PRESS Tee
NPFMADAPT34	3/4" PRESS MPT Adapter	NPFTEE1	1" PRESS Tee
NPFMADAPT1	1" PRESS MPT Adapter	NPFTEE1X1X3/4	1"x1"x3/4" PRESS Tee
NPFMADAPT114	1-1/4" PRESS MPT Adapter	NPFTEE114	1-1/4" PRESS Tee
NPFMADAPT112	1-1/2" PRESS MPT Adapter	NPFTEE114X114X1	1-1/4"x1-1/4"x1 PRESS Tee
NPFMADAPT2	2" PRESS MPT Adapter	NPFTEE114X114X34	1-1/4"x1-1/4"x3/4" PRESS Tee
NPFFADAPT12	1/2" PRESS FPT Adapter	NPFTEE112	1-1/2" PRESS Tee
NPFFADAPT34	3/4" PRESS FPT Adapter	NPFTEE112X112X1	1-1/2"x1-1/2"x1" PRESS Tee
NPFFADAPT1	1" PRESS FPT Adapter	NPFTEE112X112X3/4	1-1/2"x1-1/2"x3/4" PRESS Tee
NPFFADAPT114	1-1/4" PRESS FPT Adapter	NPFTEE2	2" PRESS Tee
NPFFADAPT112	1-1/2" PRESS FPT Adapter	NPFTEE2X2X1	2"x2"x1" PRESS Tee
NPFFADAPT2	2" PRESS FPT Adapter	NPFTEE2X2X114	2"x2"x1-1/4" PRESS Tee
NPFCST12	1/2" PRESS Coupling w/ stop	NPFTEE2x2x112	2"x2"x1-1/2" PRESS Tee
NPFCST34	3/4" PRESS Coupling w/ stop	NPV-012	1/2" PRESS Water Ball Valve
NPFCST1	1" PRESS Coupling w/ stop	NPV-034	3/4" PRESS Water Ball Valve
NPFCST114	1-1/4" PRESS Coupling w/ stop	NPV-100	1" PRESS Water Ball Valve
NPFCST112	1-1/2" PRESS Coupling w/ stop	NPV-114	1-1/4" PRESS Water Ball Valve
NPFCST2	2" PRESS Coupling w/ stop	NPV-112	1-1/2" PRESS Water Ball Valve
NPFC12	1/2" PRESS Coupling no stop	NPV-200	2" PRESS Water Ball Valve

PIPING, VALVES, & FITTINGS

Falcon Stainless Water Heater Connectors

Part Number	Description
PTCFIPV-18	3/4" Push BALL VALVE with a Connector x 3/4" FIP x 18"
PTC34JG-18	3/4" Push x 3/4" FIP x 18" Water Connector
SWTFX15	3/4" I.D. SS Flex with 3/4" FIP x 7/8" O.D. x 15"



PTCFIPV-18



PTC34JG-18



SWTFX15

For more information go to www.falconstainless.com

Webstone Push Fittings

Part Number	Description
26033-W	Water Connector 3/4" x 18"
62033W-18	Water Connector with Ball Valve 3/4" x 18"
26402	1/2" PUSH 90 Elbow
26403	3/4" PUSH 90 Elbow
26302	1/2" PUSH MPT Adapter
26303	3/4" PUSH MPT Adapter
26102	1/2" PUSH Coupling
26103	3/4" PUSH Coupling
26602	1/2" PUSH Cap
26603	3/4" PUSH Cap
26502	1/2" PUSH Tee
26503	3/4" PUSH Tee
26532	3/4"x3/4"x1/2" PUSH Tee
62702	1/2" PUSH Ball Valve
62703	3/4" PUSH Ball Valve
62704	1" PUSH Ball Valve
26820W	1/2" PUSH x 1/4" COMP Angle Stop
26920W	1/2" PUSH x 1/4" COMP Straight Stop



26033-W



62033W-18



90 Elbow



MPT Adapter



Coupling



Cap



Tee



Ball Valve



26820W



26920W

For more information go to www.webstonevalves.com

Hydronic System Protection Magnetic Filters



Available now!

ADEY™

MagnaClean® Pro2XP
ChemPack

Don't just diagnose
magnetite, treat it
as well!

For boiler systems up to 300,000 BTU
Max working pressure: 87 PSI
Max working temp: 95* C / 203* F
Max flow: 21 GPM

What's inside...

- Pro2XP with standard 1" copper & 1 1/4" NPT adaptors
- 1 1/4" x 1" ProPress reducing coupling
- 1 pint MC3+™ cleaner
- 1 pint MC1+™ protector
- MagnaClean RapidTest
- Automatic Air Vent
- Installation & Servicing Guide
- Chemical Best Practice Flyer



Product code: **FL1-03-05458-US**

Part Number	Description
FL1-03-05458-US	Chempack Magnaclean Pro2XP Magnetic Dirt Filter
FL1-03-02990	Magnaclean Pro2XP Magnetic Dirt Filter
MC3-PT	Cleaner Pint MC3+
MC3-RD	Cleaner Aerosol Can MC+
MC1-PT	Inhibitor Pint MC1+
MC1-RD	Inhibitor Aerosol Can MC1+

For more information go to www.adey.com/us/

Sentinel System Cleaners and Inhibitors

Sentinel X100 Inhibitor provides protection for clean hydronic heating systems against limescale and corrosion. Suitable for use in all types of indirect heating system, Sentinel X100 Inhibitor will extend the life of the system, ensuring maximum efficiency and minimizing fuel usage.

- Heavy duty inhibitor
- Protects against limescale and corrosion
- TripleTech™ Anti-Corrosion Technology
- Suitable for all system metals
- pH neutral formulation
- Ensures optimum system efficiency
- Suitable for hard, soft and artificially softened water
- Helps prevent the formation of hydrogen gas



Specifically designed for cleaning new closed loop hydronic heating systems, Sentinel X300 System Cleaner is a powerful, heavy-duty cleaner for the removal of installation debris and grease. This prepares the system for the addition of an inhibitor, which will protect the system components and prolong their effective life.

- Cleans new heating systems (up to 6 months old)
- Powerful, heavy duty cleaning action
- Removes installation debris
- Washes off manufacturing greases
- Eliminates corrosive flux residue
- Prevents harmful copper deposits being left in the system
- Prepares system for protection with X100 Inhibitor



Sentinel X400 System Restorer is specifically designed for cleaning older closed loop hydronic heating systems. It is a non-acid treatment which restores circulation to radiators and pipework. Its ruthlessly efficient formula shifts built-up magnetite sludge, eliminating cold spots in radiators and restoring proper heat distribution.

- Restores systems suffering with circulation problems
- Eliminates radiator cold spots
- Prepares older systems for the installation of new components
- Has a non-acid formula which does not cause pin-holing or leaks
- Can be used in all types of indirect heating systems, including those containing aluminum



To quickly remove corrosion deposits and scale in 1 hour, older systems should be cleaned with Sentinel X800 Fast Acting Cleaner to fully restore system efficiency.

- Unrivalled chemical technology reduces circulation time to just 1 hour
- Targeted dissolution of corrosion debris
- Works in cold systems
- Ideal for power flushing



Product	Description	Product	Description
X-100-GL	X-100 Gallon	X-400-GL	X-400 Gallon
X-100-QT	X-100 Quart	X-400-QT	X-400 Quart
X-100-RD	X-100 Aerosol Can	X-400-RD	X-400 Aerosol Can
X-300-GL	X-300 Gallon	X-800-RD	X-800 Aerosol Can
X-300-QT	X-300 Quart		

For more information go to www.sentinelprotects.com/us/



Axiom Hydronic products

- 7 litre (4.6 US gallon) tank for storage and mixing
- All features shown on user friendly digital display screen
- 0-45psig Pressure Setpoint with adjustable dead band
- N.O./N.C. Alert contacts and LED light enabled when low level, low pressure, or high-pressure condition
- Integrated Easy Connect Wall Mount Bracket comes with the unit
- Diaphragm pump can run dry without damage
- No direct connection to potable water supply eliminates need for backflow prevention
- Make-up fluid stored in the feeder tank can be pre-treated to meet appliance manufacturers specifications
- Fluid level switch shuts the pump off and enables alarm contacts if the storage tank level gets too low
- Diverter valve allows easy purging of air on initial start-up, and manual mixing of solution
- Fluid drained for service can easily be put back into the system
- Prevents major floods
- Provides leak detection

The industry leader for pressurizing closed-loop hydronic systems introduces the newest 'PRESSURE PAL' to the Axiom Product Family. The DMF150 utilizes a digital pressure control (0-45 psig) with electronic alert contacts.



The tank design incorporates a wall bracket connection that comes standard in the box. Front fill point makes fluid handling a simple process.

- 1.6 Gal/hr (6.05l/hr)
- NeutraPal prevents acidic condensate from corroding drains and sewer systems
- Neutralized condensate is more environmentally friendly
- Fast and easy installation, includes 3/4" PVC Socket Weld Adaptors for hard pipe installation
- Helps maintain a neutral environment for bacteria in septic systems
- Low profile design for appliances with a near floor condensate drain
- All corrosion resistant materials
- Suitable for use on all types of Natural Gas and Propane appliances
- Includes initial charge of LipHter+ neutralizing agent
- Can be mounted in horizontal or vertical position (see installation instructions)

The 'NeutraPal' is ideal for neutralizing condensate from condensing boilers and furnaces operating on natural gas or propane.

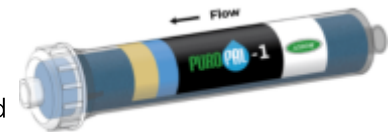
The condensate is acidic and has the potential to harm the environment and the sewer system. The NeutraPal will raise the pH of the condensate to a more neutral level before it is discharged to drain.



* Check with the appliance manufacturer for condensate flowrate. As a guideline 400,000 BTU/hr at 93% efficiency will produce approximately 1.6 Gal/hr.

- Demineralized water meets the strict water quality requirements from boiler and glycol manufacturers
- Removes all the aggressive salts such as chlorides, sulphates, and nitrates which specifically attack metals like stainless steel, copper, and aluminum
- Removes scale producing ions like calcium and magnesium that damage components and block heat transfer
- Lowers electrical conductivity, which reduces corrosion
- The Puropal-300 media changes from blue to beige when spent
- An economical and convenient alternative to pre-blended glycol

The 'PuroPal-1' disposable cartridges are ideal for demineralizing fill water for closed loop hydronic systems. The quality of water, especially when mixed with anti-freeze (glycol), can have an impact on system performance. Marginal water quality can lead to scaling, sediment deposits, accumulation of sludge, and increased corrosion rates.



Product	Description
DMF150	System Feeder Mini 4.5 gallon 0-45psi
NC-1s	Condensate Neutralizer Kit
Puropal-1	H2O Demineralizer W/ Color Resin

For more information go to www.axiomind.com

NOBURST Antifreeze

NOBURST -100

A non-toxic* pre-mixed antifreeze and heat transfer fluid. The product is to be used in place of water and other water-like fluids in systems where freezing may either cause damage or interfere with the functioning of systems or equipment and/or toxicity to humans or animals is a concern. NOBURST -100 is safe for use where contact with potable water is a possibility. Not for use in automotive systems or in systems containing galvanized pipe.



- Active Ingredient: Propylene Glycol
- Corrosion inhibitor
- De-foaming agent
- Essentially non-toxic
- Generally Regarded As Safe

NOBURST -100	Freeze Point	Flow Point	Burst Point
100%	-60°F	-70°F	-100°F
75%	-30°F	-40°F	-80°F
60%	-10°F	-20°F	-70°F
50%	0°F	-10°F	-60°F
40%	+10°F	+2°F	-10°F

NOBURST AL

An antifreeze and heat transfer fluid for systems which contain aluminum components. NOBURST AL has inhibitor technology that is compatible with all metals commonly used in hydronic heating systems including brass, cast iron, steel, solder, copper and aluminum. The product is to be used in place of water and other water-like fluids in systems where freezing may either cause damage or interfere with the functioning of the system. NOBURST AL is not to be used in contact with or potential contact with potable water.



- Use with all metals except galvanized steel
- Special inhibitor package
- Non-corrosive
- High system efficiency
- Blended with deionized water

NOBURST AL	Freeze Point	Flow Point	Burst Point
100%	-60°F	-70°F	-100°F
75%	-30°F	-40°F	-80°F
60%	-10°F	-20°F	-70°F
50%	0°F	-10°F	-60°F

For more information go to www.noblecompany.com

NOBURST Antifreeze

NOBURST Accessories



770 System Pre-Cleaner

- Removes flux, and grease from new systems, assuring maximum performance
- Use one pint to every 50 gallons of system capacity
- Use with NOBURST-100



786 Hydronic System Cleaner

- Penetrates and disperses a broad range of mineral and organic deposits.
- Helps recover efficiency in older, corroded systems
- Cleans aluminum, iron, copper, brass, and stainless steel.
- Suitable for use with Onix & Pex tubing
- Contains no TSP, acids, or heavy metals
- Use one gallon to every 50 gallons of system capacity
- Use with NOBURST-100 or NOBURST AL



772 E-3 Defoaming Agent

- To aid in removing air in the system. Air can cause corrosion, reduce circulation, waste energy and cause noise
- Use one pint for every 25 gallons of system capacity.
- Use with NOBURST-100



1775 Inhibitor Boost

- Regenerates corrosion inhibitors and extends the life of NOBURST in a system
- NOT for use with NOBURST AL
- Use one pint to every 20 gallons of system capacity
- Use with NOBURST-100



779 Inhibitor Boost AL

- Reduces the rate of corrosion and helps prevent scale formation on heat exchanger surfaces
- Safe on all metal systems (including aluminum)
- Can be used with water only systems
- Compatible with PEX and ONIX tubing used in hydronic installations.
- Use one gallon to every 50 gallons of system capacity
- Use with NOBURST AL



782 Test Kit

- Measures the concentration of NOBURST and reserve alkalinity, allowing you to determine the actual level of freeze and corrosion protection in a system
- Each kit will do 10 tests
- Use with NOBURST-100

For more information go to www.noblecompany.com

NOBURST Antifreeze

NOBURST RTU PG

Available by Special Order

NOBURST RTU products are factory premixed with deionized water ensuring no mineral content or hardness levels and the elimination of chlorides, which are second only to oxygen as a leading cause of heating system corrosion. NOBURST RTU blends are available in 30, 35, and 40% propylene glycol concentrations with no minimum order quantity.



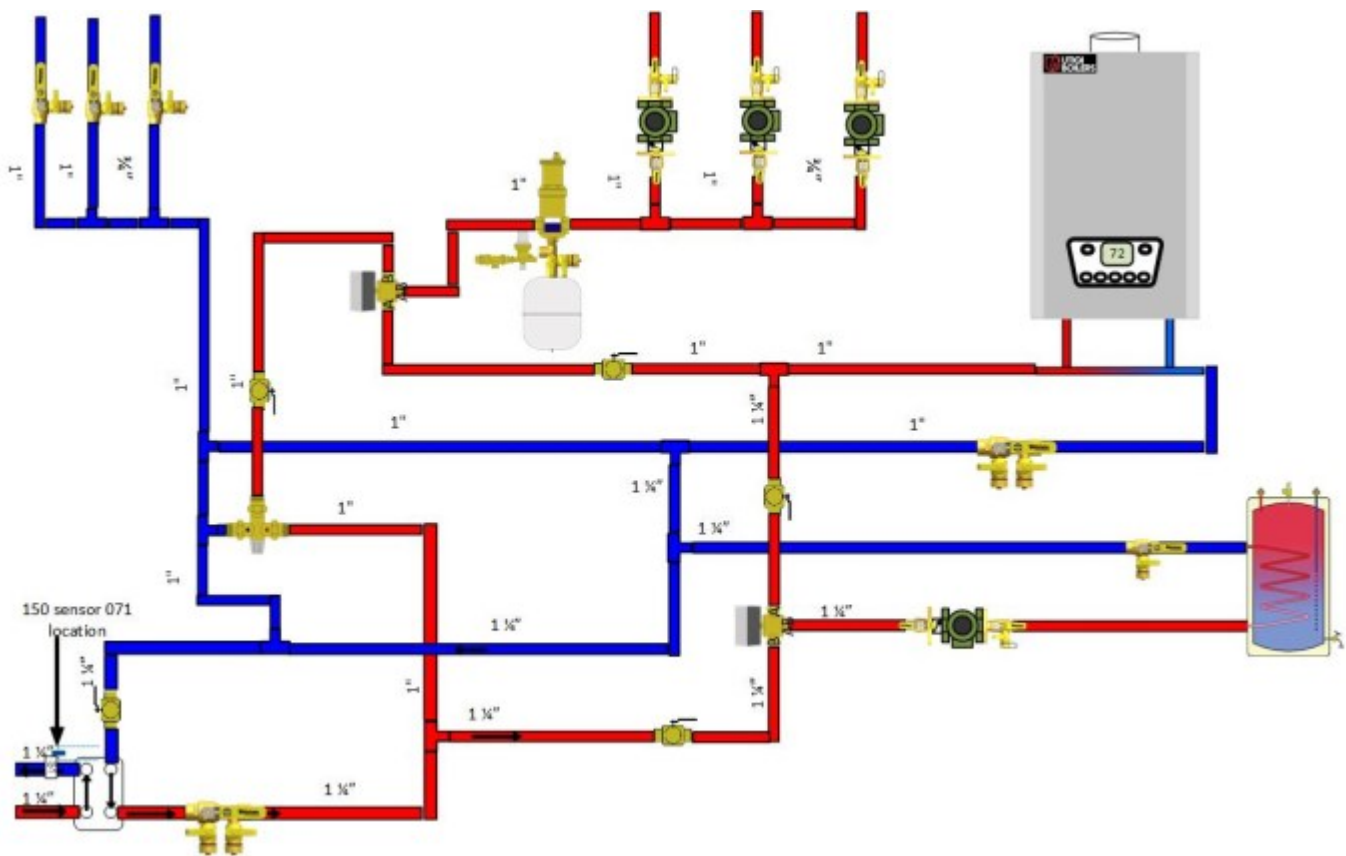
Part Number	Description
754	5 Gal NOBURST AL Aluminum Safe Antifreeze
755	5 Gal NOBURST -100 Antifreeze
770	16oz System Precleaner
772	16oz Defoamer
1775	16oz Inhibitor Boost
779	16oz Inhibitor Boost Aluminum
782	Antifreeze Test Kit NOBURST-100 (10 test strips)
786	1 Gallon Hydronic System Cleaner

For more information go to www.noblecompany.com

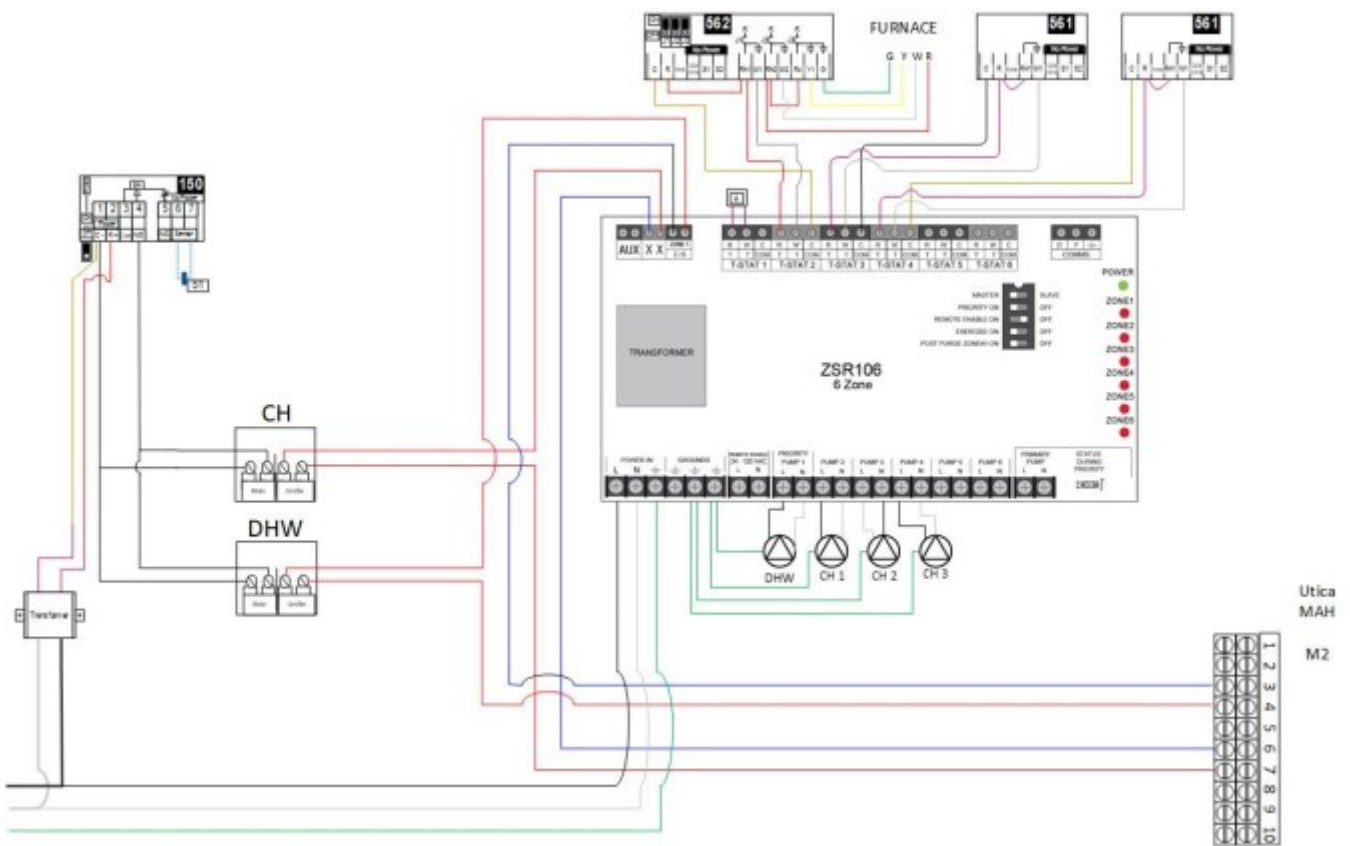
Hydronic Specialists

Behler-Young offers hydronic design assistance when purchasing a system. Contact one of our Hydronic Specialists to assist you when designing your system. Whether you are heating with high efficiency gas, standard gas, electric, or geothermal, we can help. We can assist with numerous items. We can help with floor heat design so you can have a CAD drawing where to install your loops in your project. Another thing we offer is near boiler piping diagrams and wiring diagrams if you desire that for yourself or your installers. If you need assistance in selecting controls for your hydronic system, contact our specialists and they will be happy to assist you. If you want to just know more about the ever changing world of hydronics, give us a call and we would be happy to tell you of all the new and innovative things that are going on.

Near Boiler Piping Diagrams

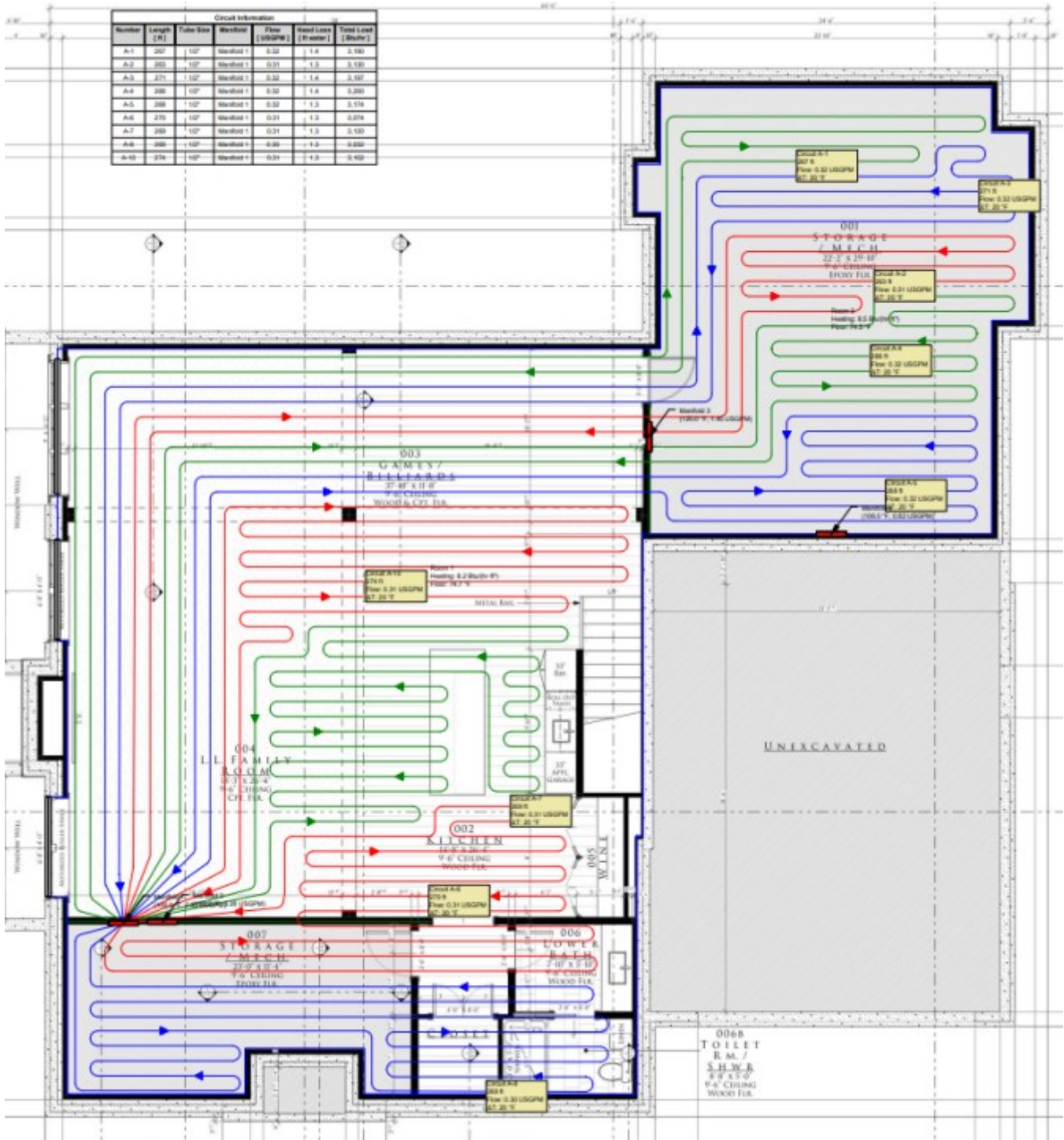


Wiring Diagrams



HYDRONIC DESIGN ASSISTANCE

LoopCAD of a concrete embedded floor



LoopCAD of a suspended floor gypcrete pour over

