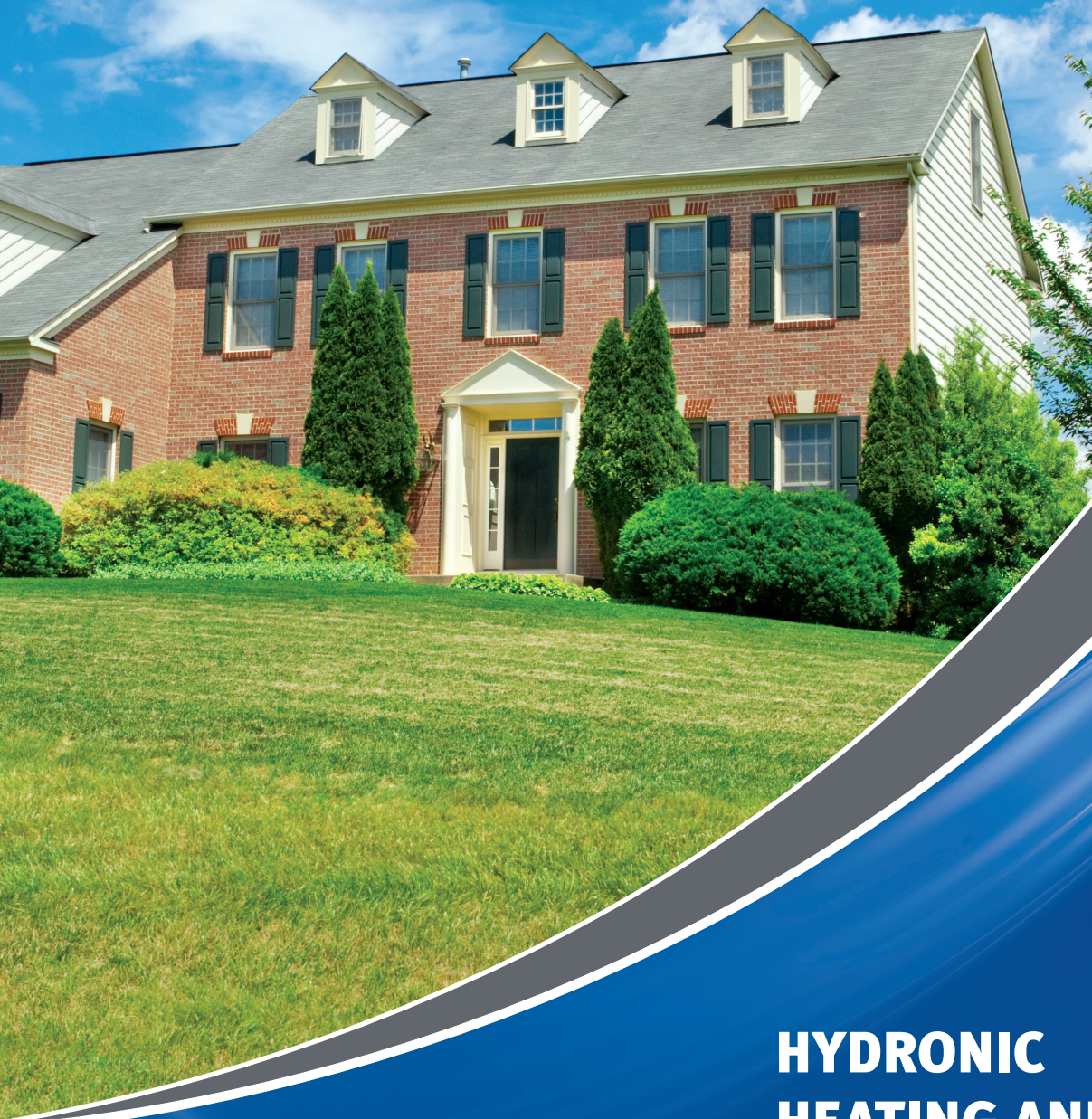


# *DesignLine*<sup>®</sup>



**HYDRONIC  
HEATING AND COOLING**



# WHY HYDRONIC HEATING & COOLING?

The short answer? TOTAL COMFORT.

Hydronic systems provide unparalleled heating & cooling comfort throughout an occupied space. Today's innovative technologies allow hydronic systems to not only distribute energy more efficiently but also more comfortably than any other HVAC system including refrigerant based mini-splits and traditional ducted systems.

When it comes to moving energy (heating/cooling) throughout a building, water is a far more superior medium than air. Water holds more energy, transfers more energy and moves more energy than forced air.

Whether heating or cooling, the song remains the same. Water does more.

Heating is simple. Distribute hot water to an emitter as efficiently as possible. Cooling is similar only it is the removal

of heat from an occupied space. With the thermal absorption of water being up 3500x more than a traditional air conditioning system the use of hydronics for both heating and cooling makes perfect sense.

Designline's high efficiency terminal units provide clean, quiet, comfortable living with no invasive ductwork or renovations and no noisy forced-air fan noise.





## PACKAGED SOLUTIONS

Designline offers modern innovative solutions for comfort distribution suitable for all residential and light commercial applications.

Any combination of our aesthetically pleasing style of emitters coupled with a heating and cooling capable hydronic source (heat pump) provide the ultimate in total year-round comfort.

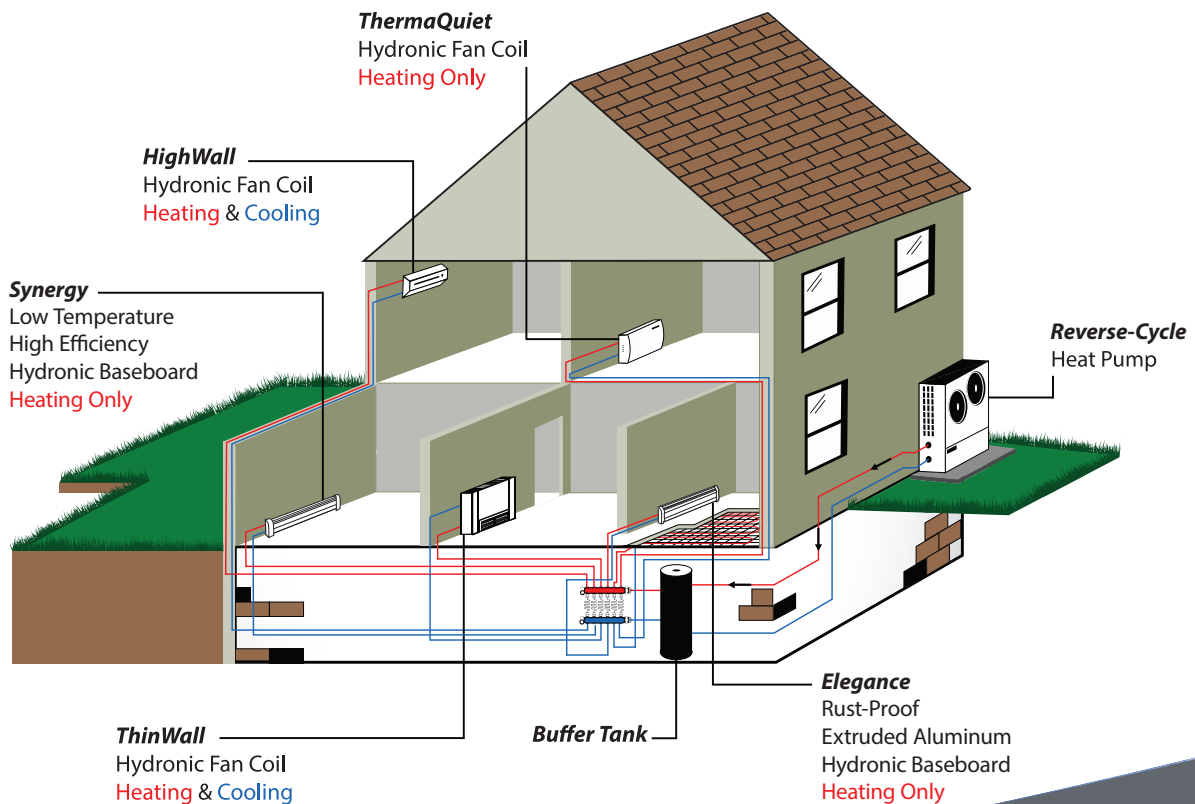
Hydronic based systems are the safest and most environmentally friendly choice for both heating and cooling as they keep all refrigerant safely contained outside of the occupied space eliminating the potential for any harmful HFC's in the building envelope.

### BENEFITS

- Energy Efficient
- Ease of Installation
- Minimally Invasive
- Aesthetically Pleasing
- Easily Zoned
- Environmentally Friendly

### TYPES OF EMITTERS

- HighWall Heating/Cooling Fan Coil
- ThinWall Heating/Cooling Fan Coil
- ThermaQuiet Heating Fan Coil
- Synergy Low Temperature Baseboard
- Elegance Rust-Proof Baseboard
- Buffer Tanks



# HIGHWALL - HEATING AND COOLING

HighWall hydronic fan coils are the ideal indoor companion to any reverse-cycle heat pump. HighWall fan coils provide optimum heating and cooling by providing perfectly conditioned air to any application including those in colder climates requiring higher volume.

HighWall fan coils are available with an optional electronic 3-way valve to reduce the amount of energy consumed while increasing efficiency.

## STANDARD FEATURES

- Quiet Space - Saving Design
- Heating and Cooling
- Low Ambient Capable Heat Emitter
- Hydronic Based- No Refrigerant
- Remote Control Operation
- Auto-Swing Damper for Uniform Air Distribution
- Easy Installation
- EC Step-Less Speed Modulation (15%-100%)
- 14,200-25,700 BTU/hr Heating Capacity
- 7,300-13,100 BTU/hr Cooling Capacity
- Energy Efficient 3-Way Valve (Optional)



## SPECIFICATIONS

Model	Output (BTU/hr)						Dimensional Data			Ship Wt. (lbs)
	Heating			Cooling						
	Entering Water Temperature						Length	Width	Height	
	120°F	140°F	160°F	45°F	47°F	50°F				
HW-06-ECM	8123	11331	14266	7300	6416	5085	34-7/16"	8-2/3"	11-13/16"	28
HW-15-ECM	11843	16553	20853	10614	9420	7475				30
HW-18-ECM	14641	20444	25734	13106	11638	9249				32



# THINWALL - HEATING AND COOLING



ThinWall hydronic fan coils serve as an ultra-sleek alternative to our HighWall fan coils. ThinWall fan coils can be used in conjunction with HighWall fan coils for optimal flexibility.

A cross-flow blower configuration with integral air guidance technology provides perfectly conditioned and clean air to any occupied space.

ThinWall fan coils are 30% more efficient than traditional air delivery systems and offer more versatility for heating and cooling alike.

ThinWall units monitor environmental conditions to establish custom zones through their intuitive control platform.

## STANDARD FEATURES

- Quiet Modern Space-Saving Design
- Heating and Cooling
- Hydronic Based - No Refrigerant
- Cross-Flow Blower
- Easy Installation
- Active Carbon Air Filtration
- 8,700-32,000 BTU/hr Heating Capacity
- 3,400-14,800 BTU/hr Cooling Capacity
- Remote Control Operation (Optional)
- Energy Efficient 3-Way Valve (Optional)



## SPECIFICATIONS

Model	Output (BTU/hr)						Dimensional Data			Ship Wt. (lbs)
	Heating			Cooling						
	Entering Water Temperature									
	120°F	140°F	160°F	45°F	48°F	50°F	Length	Width	Height	
UT-87	4600	6936	8700	3400	2846	2505	27-5/8"	5-1/8"	26-3/8"	40
UT-135	8500	10710	13500	6500	5442	4789	35-3/8"			51
UT-196	11400	15606	19600	8500	7116	6262	43-5/16"			60
UT-246	14600	20114	24600	11900	9963	8767	51-1/2"			68
UT-320	17800	26010	32000	14800	12391	10904	59-1/8"			79

# THERMAQUIET® - HEATING ONLY

ThermaQuiet fan coils are engineered specifically for low temperature, high output hydronic applications.

ThermaQuiet serves as an ideal complement to modern high efficiency condensing boilers, heat pumps and solar equipment.

The sleek design of this unit incorporates the newest EC variable-speed fan technology. ThermaQuiet, compared to traditional fan powered heating systems, will reduce energy consumption up to 35% while providing the cleanest most efficient heat distribution in today's market.

All ThermaQuiet units are controlled through an easy-to-use micro-processor control platform. The micro-processor control platform minimizes energy consumption while maximizing operating efficiencies by monitoring room temperatures through its unique temperature compensation protocol.

## STANDARD FEATURES

- Sleek Profile Offers Application Flexibility
- Compatible with Solar and Heat Pumps
- "Insta-Heat" Overrides Setting for Immediate "Boost" of Heat
- Microprocessor Control Platform
- Cool-Touch Exterior for Safe Operation
- Diagnostic and Performance LED indicators
- Less Expensive than Radiant Flooring
- 3,300-13,400 BTU/hr
- End Switch for Individual Communication to Heat Source



## SPECIFICATIONS

Model	GPM	Fan Speed	Heating Capacity (BTU/HR)						
			Entering Water Temperature						
			120°F	130°F	140°F	150°F	160°F	170°F	180°F
DL65-WM	1	Low	1402	1926	2487	2971	3296	3550	3858
		Boost	2876	3358	3922	4644	5144	5693	6487
	4	Low	1584	2176	2810	3357	3724	4012	4360
		Boost	3250	3795	4432	5248	5813	6433	7330
DL145-WM	1	Low	3152	3877	4501	5463	6855	7654	8195
		Boost	5805	6215	8352	10243	11865	12951	14340
	4	Low	3562	4381	5086	6173	7746	8649	9260
		Boost	6560	7023	9438	11575	13407	14635	16204

	DL65-WM			DL145-WM		
	Low	Medium	Boost	Low	Medium	Boost
CFM	29	36	48	59	91	118
Voltage	115			115		
AMP	.64			1.28		
Max HP	.03			.06		
dBa	22	33	49	22	34	50
Velocity (ft/sec)	1.31	1.74	2.3	1.48	2.23	2.66
Dimensions (In)	16.14H x 24W x 4.25D			16.14H x 38.78W x 4.25D		
Weight	19 lbs.			29 lbs.		



# SYNERGY® - HEATING ONLY BASEBOARD

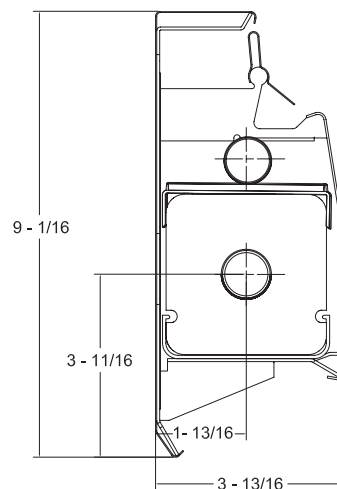


Synergy low temperature high efficiency baseboard is designed to complement today's high efficiency modulating boilers operating in condensing mode. Synergy allows modern high efficiency modulating boilers to operate at their full potential maximizing system efficiency and providing all the cost-saving benefits of a condensing boiler. Durable 18-gauge galvanized enclosure (16-gauge option available) makes it ideal for installation in residential or light commercial settings.

## STANDARD FEATURES

- Lower Temperatures - Premium Performance
- Durable Galvanized Enclosure
- Aesthetically Pleasing
- Residential and Light Commercial Applications
- Unique Fin Design for Maximum Heat Transfer
- White Baked Enamel Finish
- Manually Modulating Damper
- Clean Hydronic Heat
- Easy Installation
- Powder Coated Accessories

## SPECIFICATIONS



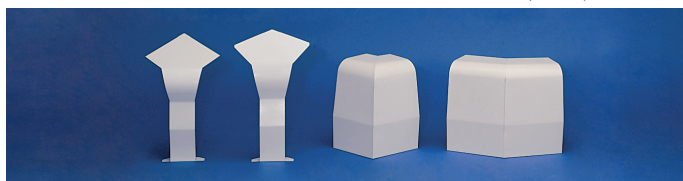
## ACCESSORIES



End Caps - 3"      Extension Sets - 14"      Wall Joiners - 5"



Valve Enclosure - 9"      Valve Enclosure (slotted) - 9"



Inside Corner - 90°      Outside corner - 90°

Model	GPM	Average Hot Water Temperature - BTU/HR./LIN. FT.						
		120°F	130°F	140°F	150°F	160°F	170°F	180°F
SG-750 3/4"	4	328	411	502	597	707	810	913
	1	312	390	477	567	664	771	862

# ELEGANCE® - HEATING ONLY BASEBOARD

Elegance is a stylish and durable baseboard that is designed to last forever.

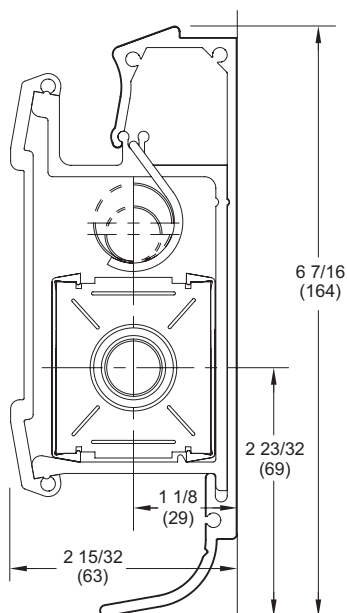
Elegance baseboard is completely rust proof and manufactured using durable extruded aluminum, making it ideal for bathrooms, kitchens and other moisture susceptible areas.

Elegance baseboard comes powder coated in a white solid baked enamel that fits seamlessly with any decor.

## STANDARD FEATURES

- Rust-Proof Extruded Aluminum
- Powder Coated White Finish
- Durable 10-gauge Cover, with 8-gauge Brackets
- Die Cast Aluminum Accessories with Locking Pins for Secure Fit

## SPECIFICATIONS



## ACCESSORIES



End Cap



Inside Corner



Wall Trim



Wall Trim to Floor

Model	GPM	Average Hot Water Temperature - BTU/HR./LIN. FT.						
		120°F	130°F	140°F	150°F	160°F	170°F	180°F
D-500 1/2"	4	149	186	227	270	320	370	420
	1	143	179	218	260	300	350	400



# BUFFER TANKS



Hydronic buffer tanks are used as both hydraulic separators and hydronic buffer tanks.

As a hydraulic separator, buffer tanks will separate the hydronic portion from the energy source loop (heat pump/boiler) from the hydronic flow in the distribution system (air handlers/emitters). Hydraulic separation is mostly used in systems that have a varying distribution for flow rates and utilize variable speed pumps. Therefore, the heating or cooling source can be hydraulically separated from the distribution system.

Buffer tanks are used as hydronic buffer tanks in systems that have low BTU cooling or heating loads calling at different times or systems operating below the design load condition.

## STANDARD FEATURES

- Durable Stainless Steel Construction
- 4-1-1/2" NPT Female Thread
- Inner Tank 304 Stainless
- 3/4" Female Water Drain SS Plug
- Insulation: Polyurethane Resin Form
- White Outer Galvanized Steel Jacket
- 10 Year Warranty

## SPECIFICATIONS

		BT-26(H)	BT-40(H)
Height	Inches	43-1/4	58-1/4
Capacity	Gal	26	40
Max Water Flow	GPM	24	
Heat Capacity*	kW	6	
Min. Circuit at 480V*	Amp	30	
Ship Weight	Lbs	84	104
Weight Empty	Lbs	77	97
Weight Full**	Lbs	278	390

\* For tanks with heat option only.

\*\* Based upon 30% Propylene Glycol solution.

## OPTIONAL FEATURE

- 3kW electric heaters (2)

Model	BTU Outputs Heating	BTU Cooling	Heating	Cooling	Fan Assisted Hydronic Coil	Forced Water
 <b>HighWall</b>	14,200 - 25,700 *	7,300 - 13,100 **	✓	✓	✓	
 <b>ThinWall</b>	8,700 - 32,000 *	3,400 - 14,800 **	✓	✓	✓	
 <b>ThermaQuiet</b>	3,300 - 13,400 *		✓		✓	
 <b>Synergy</b>	660 (BTU/HR/LIN/FT) *		✓			✓
 <b>Elegance</b>	400 (BTU/HR/LIN/FT) ***		✓			✓

\* Output at 160° supply.

\*\* Output at 45° supply.

\*\*\* Output at 180° supply.





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