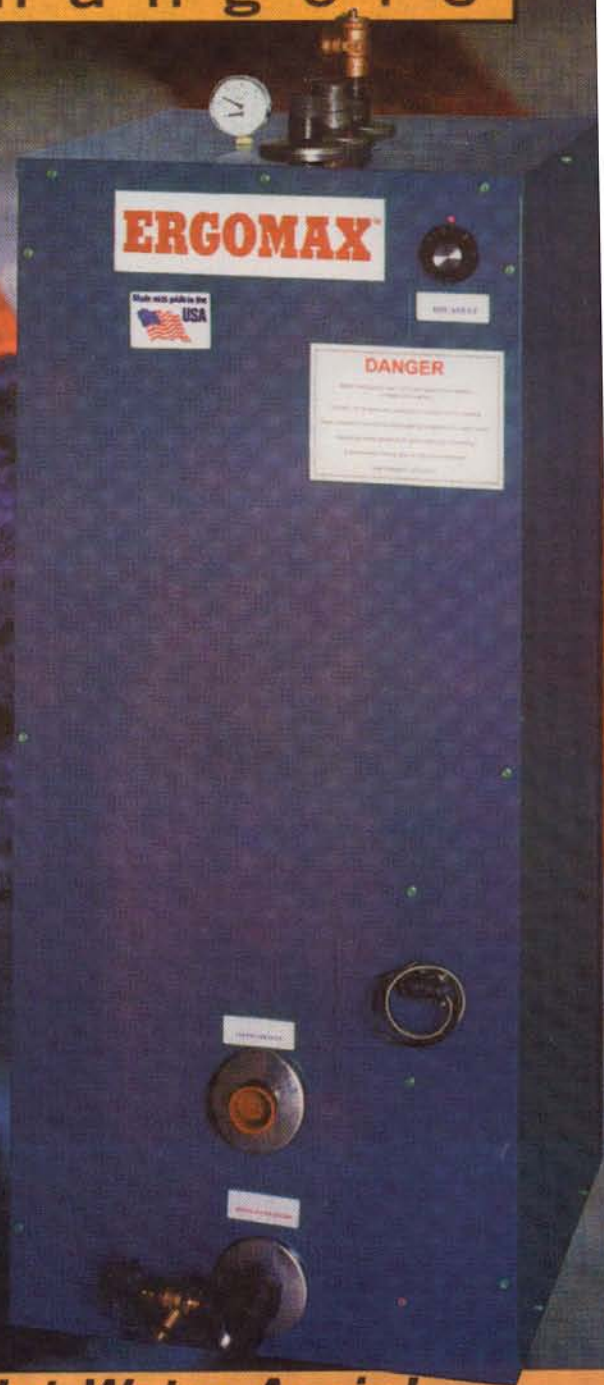


# ERGOMAX<sup>®</sup>

## Heat Exchangers

Since 1992, our  
heat exchangers  
have set the standard  
in hot water production  
in homes and businesses nationwide...

- ▶ 99% Heat Transfer Efficiency Saves Energy
- ▶ Double-Wall Exempt
- ▶ Output up to 1800 gph per unit
- ▶ Output Temperature up to 190°F
- ▶ Instantaneous - No "Recovery" Needed
- ▶ Prevents bacterial Growth
- ▶ Buffers Low-Mass, High Performance Boilers
- ▶ Fits through doorways and in elevators
- ▶ Requires No Maintenance
- ▶ Lowest Lifetime Operating Costs
- ▶ Transferable Lifetime Residential Warranty
- ▶ Industry's Best Commercial Warranty



**Never Run Out of Hot Water Again!**

### ERGOMAX<sup>®</sup>

The **only unit** that can heat domestic water, buffer boilers,  
provide heat for your house (baseboard & radiant)  
and do it all at the same time!

**GROUP THERMO Incorporated**

Tel: 908-757-8955 • Fax: 908-757-1153

www.ergomax.com info@ergomax.com

# ERGOMAX

## Heat Exchangers Deliver High Performance, Maximum Energy Savings



### For the homeowner...

Regardless of the size of your home, an ERGOMAX heat exchanger attached to your heating boiler will give you an instantaneous and continuous supply of hot water -- enough to run the dishwasher and clothes washer, give the kids a bath and still be able to fill your spa tub or take a hot shower.



### For the business owner...

Whether you operate a restaurant and need 180°F dishwashing water, manage apartment buildings or a hotel, installing ERGOMAX heat exchangers means sparkling clean table settings and an end to complaints about not enough hot water from the tenants or overnight guests. Anywhere high volumes of hot water and/or high temperatures are needed -- schools, hospitals, nursing homes, health clubs, sports centers or laundries -- there is an ERGOMAX model to fit your needs. And, the energy savings combined with lower long-term capital expenditures add up to a rapid payback to increase your bottom line.



### For the contractor and specifying engineer...

By specifying ERGOMAX heat exchangers, you are confident your clients will be getting a product incorporating a state-of-the-art design, made with high quality materials which will deliver superb performance for many years. And, since every ERGOMAX model is designed to fit through doorways and in freight elevators, many costs often associated with replacing or retrofitting large residential and commercial hot water systems are eliminated.

Stamped ERGOMAX units are available by special order when A.S.M.E. equipment is demanded.

ERGOMAX heat exchangers are exempt from double-wall requirements under BOCA, IAPMO and the UPC.

### *You'll never run out of hot water!*

An ERGOMAX tank produces hot water for as long as it's needed, limited only by the size of your boiler.

With a storage tank, when 70% of its hot water is used, the incoming cold water has cooled the rest. During recovery (refilling and reheating), no hot water is available

— ERGOMAX productivity  
— Storage Tank productivity

## How Ergomax Units Work...

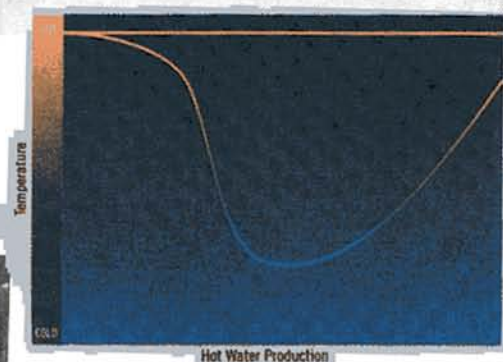
Operating at 99% heat transfer efficiency, Ergomax units heat water instantaneously using less boiler power than traditional water heaters or other indirects, and eliminate the need for large storage tanks in many applications.

## How?

*Turbulence and Thermal Storage.*



### ERGOMAX vs Storage Water Heater



### Turbulence

Boiler water is injected into the tank in a turbulent state which facilitates heat transfer while minimizing stratification and thermal stresses. Similarly, cold water entering the copper coils is accelerated to scrub the coil and make the heat transfer process more efficient.

### Thermal Storage

The Ergomax tank full of hot boiler water acts as a thermal heat sink which is used to heat potable water before the main heat source (boiler, solar panels, etc.) is activated. For this reason, Ergomax heat exchangers are the ideal choice wherever hot water demands exist, such as hotels/motels, apartments, sports clubs, schools, dormitories, dairies and food processing plants.

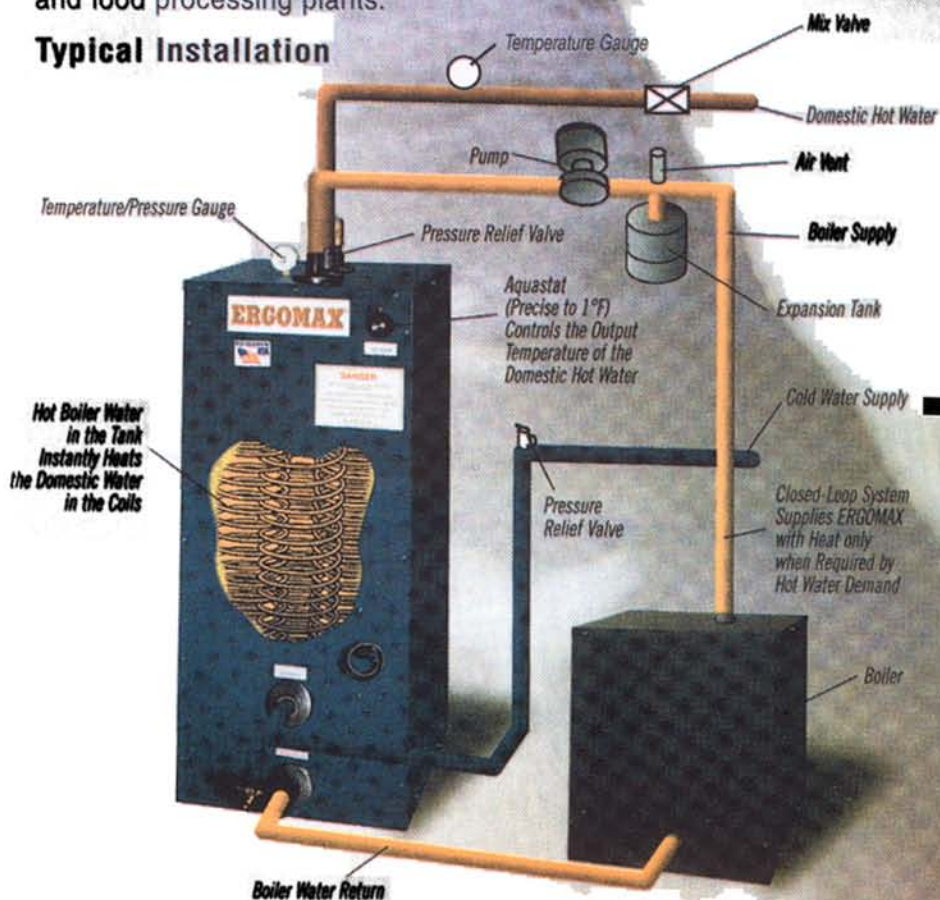
### Prolonged Lifespan

Ergomax heat exchangers will outlive and outperform traditional water heaters because they are designed not to scale-up or corrode.

Tanks made of A.S.M.E. listed steel and copper heat exchangers offer great durability. Insulation reduced heat loss to less than 1/2°F per hour and permits easy access to all parts and fittings under the steel jacket.

All models come with a temperature/pressure gauge, aquastat, pressure relief valve and drain, except the E23 which has no gauge.

### Typical Installation



## ERGOMAX E109

Domestic hot water produced per hour in U.S. gallons†

Net BTUH	First hour			Continuous		
	110°F	140°F	180°F	110°F	140°F	180°F
400 000	807	531	363	687	483	346
500 000	979	651	450	859	603	433
600 000	1151	772	536	1031	724	519
700 000	1323	893	622	1202	845	606
800 000	1494	1014		1374	965	
900 000	1666	1074		1546	1026	
1 050 000	1864			1804		

## ERGOMAX E65

Domestic hot water produced per hour in U.S. gallons†

Net BTUH	First hour			Continuous		
	110°F	140°F	180°F	110°F	140°F	180°F
200 000	416	270	183	344	241	173
250 000	501	331	227	429	302	216
300 000	587	391	270	515	362	260
350 000	673	451	309	601	422	300
400 000	759	512	352	687	483	343
450 000	845	572		773	543	
500 000	931			859		
600 000	1056			1020		

## ERGOMAX E45

Domestic hot water produced per hour in U.S. gallons†

Net BTUH	First hour			Continuous		
	110°F	140°F	180°F	110°F	140°F	180°F
200 000	392	261	180	344	241	173
250 000	477	321	223	429	302	216
300 000	563	381	266	515	362	260
350 000	649	442	300	601	422	292
400 000	735	502		687	483	
450 000	821	562		773	543	
500 000	946	907		859		

## ERGOMAX E44

Domestic hot water produced per hour in U.S. gallons†

Net BTUH	First hour			Continuous		
	110°F	140°F	180°F	110°F	140°F	180°F
150 000	306	200	137	258	181	130
200 000	392	261	180	344	241	173
250 000	477	321	223	429	302	216
300 000	563	381	266	515	362	260
350 000	649	442		601	422	
400 000	735			687		
450 000	797			773		

## ERGOMAX E24

Domestic hot water produced per hour in U.S. gallons†

Net BTUH	First hour			Continuous		
	110°F	140°F	180°F	110°F	140°F	180°F
150 000	284	192	134	258	181	130
200 000	370	252	177	344	241	173
250 000	455	312	220	429	302	216
300 000	542	373		515	362	
350 000	628	433		601	422	
400 000	714			687		

## ERGOMAX E23

Domestic hot water produced per hour in U.S. gallons†

Net BTUH	First hour		Continuous	
	110°F	140°F	110°F	140°F
100 000	198	131	172	121
150 000	284	192	258	181
200 000	370	252	344	241
250 000	456	312	429	302
300 000	542		515	

## SPECIFICATIONS

Model	Tank Volume (U.S. gal)	Heat Transfer Area (sq.ft.)	Domestic Water Connections	Boiler Connections	Height*	Width*	Weight (lbs)
E109	119	58.9	2" sweat	2" NPT	60"	30.5"	625
E65	72	32.7	1 1/2" sweat	1 1/2" NPT	49"	26.5"	385
E45	48	32.7	1 1/2" sweat	1 1/4" NPT	45"	24.5"	265
E44	48	26.2	1 1/2" sweat	1 1/4" NPT	45"	24.5"	235
E24	26	26.2	1 1/4" sweat	1" NPT	42"	19.5"	200
E23	26	19.6	1 1/4" sweat	1" NPT	42"	19.5"	170

† Based on ASHRAE (D.O.E.) Test method with 40°F domestic water and boiler water at 180°F. (Boiler water must be 200°F to obtain 180°F output volumes.) R Factor=15. Standby loss<1/2°F per hour. \* Add four inches to basic tank dimensions to allow for utility (DHW) and boiler connections.

## STANDARD EQUIPMENT



*In residential use, ERGOMAX units are covered by a Limited Lifetime Warranty transferable to a second owner within the first 10 years. Commercial units are covered by a 10 Year Warranty - 100% in Years 1-5, prorated 20% in each of Years 6-10.*

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