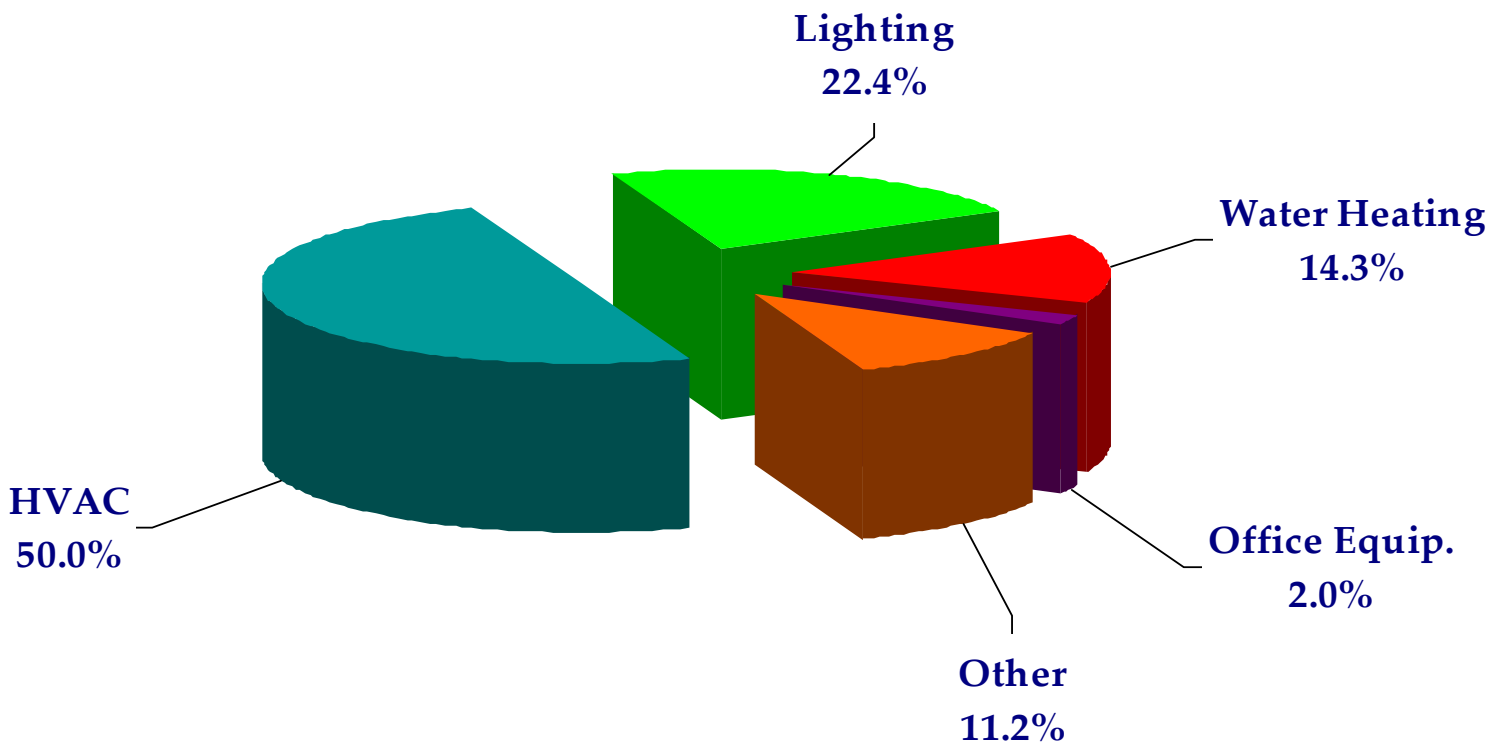
ArticMaster

Taking the high cost out of cooling

INDUSTRY

- The industry posted sales of approx. $28 billion in ‘02
- More than 6.7 mil. ac’s were sold in last year
- Upgrades accounted for over 50% of all sales
- US market is controlled by four companies (94%)
- Sales of ac’s are exploding in Asia and Europe
- Refrigeration sales are soaring worldwide

FACILITIES ENERGY COSTS



INDUSTRY (Cont)

- **Commercial air conditioners:**

  -More than 40 million installed

  -Represent 30%-50% of cost of commercial structure

  -Consume more than 5% of nation's electrical

  -Highly inefficient

- **Commercial refrigeration:**

  -$1.4 billion sold each year

  -Account for 158 trillion BTU annually

PRODUCTS

- **ArticMaster**

  The ArticMaster is a patented device that reduces the amount of energy consumed by an air conditioner or refrigeration system by 20 to 40 percent.

WHAT IS THE ARTICMASTER™?

The ArticMaster™ is a simple add-on, side control that increases cooling efficiency and reduces energy costs or air conditioners, heat pumps and refrigeration systems.

ARTICMASTER

- Awarded patent 1995, 2002
- UL approved (“Receiver”)
- ASHRAE certified (#207)
- TXU certified (KWH reduction device)
- Recipient of Best New Product Award

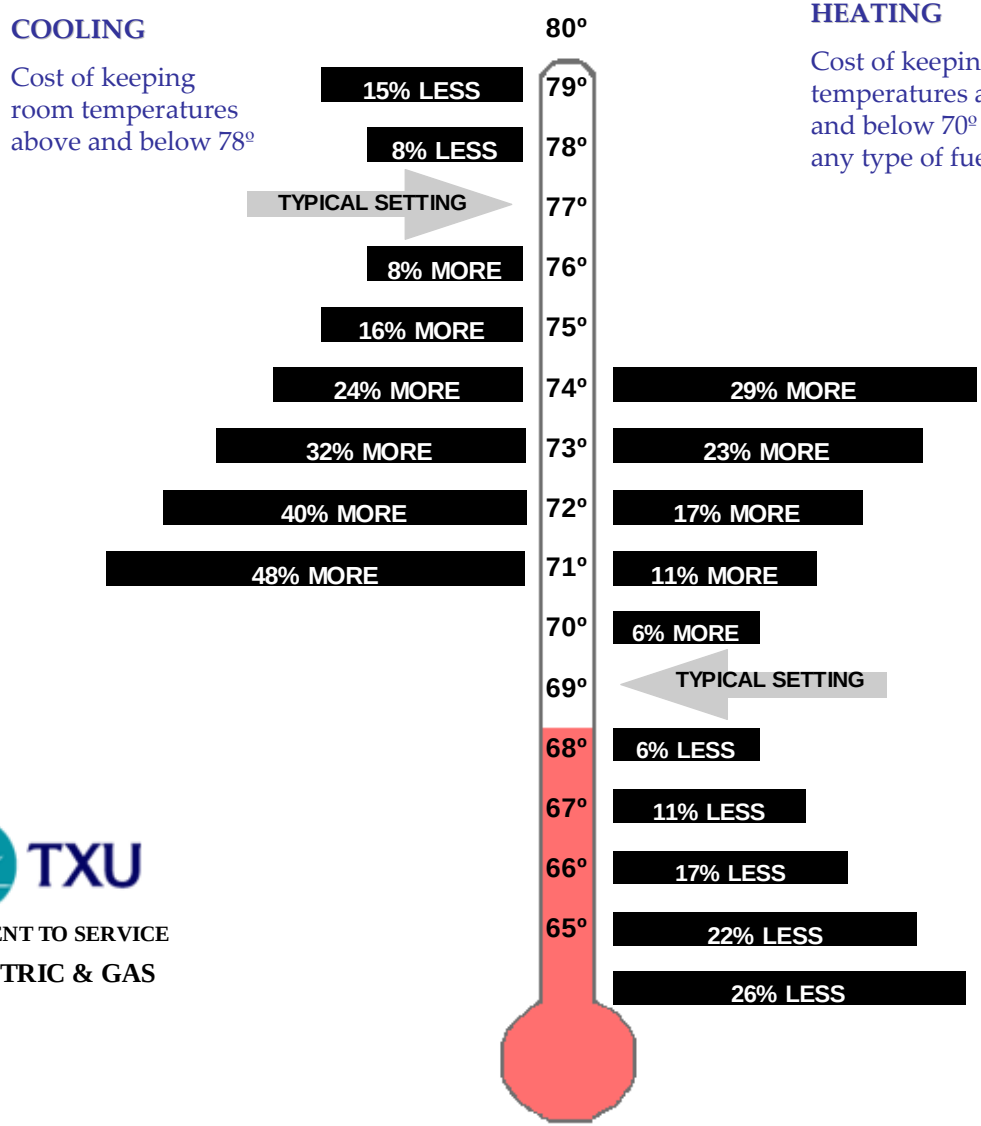
ARTICMASTER - ADVANTAGES

- Reduces energy consumption by 20-40 percent
- Reduces humidity
- Reduces compressor head pressure
- Reduces suction pressure
- Increases heat rejection
- Increases sub-cooling
- Boasts forty year operating life

ARTICMASTER – ADVANTAGES (CONT)

- No moving parts
- Works without benefit of electricity
- Transferable
- Affordably priced
- Efficiency climbs as temperature rises
- Works with air & water cooled systems
- Written guarantee

AIR CONDITIONING & HEATING COSTS



TXU

A COMMITMENT TO SERVICE

TXU ELECTRIC & GAS

NOTE: Percentages of change are for air-conditioning and heating costs only, not total energy bill.

RETURN ON INVESTMENT

Average Amp Draw per hour	19.9	RLA
System Voltage	460	Volts
Enter either Single or Three phase	Three	Phase
Average Hours ran per day	16	Hours
Average Number of days per year system runs	285	Days
Total system cost (individual unit)	$1850	Cost
Unit Type (A/C, Heat Pump, or Refrigeration)	AC	AC,HP,REF
Kilowatt Cost (per hour)	.075	Kwh $ (ex: $.075)
Decrease in power consumed while unit is running (%)	14.2	Decrease in Amps
Increase in Delta T (split) leading to less runtime (%)	11.4	Increase in Delta T

Below is a typical example of a customer's payback for an ArticMaster™ installation.

Kilowatts

19.9	x	.85	x	460	x	1.732	/	1000	=	**13.48**
Amps		Power Factor		Volts		Phase Factor				

Cost Per Day

13.48	x	$.075	x	16.00	=	**$16.18**
KW		KW Cost		Hrs per Day		

Total Yearly Cost

$16.18	x	285	=	**$4,611.30**
Cost per Day		Days per Year		

Estimated Yearly Return

$4,611.30	x	14.2%	+	11.4%	=	**$1,180.49**
Tot. Yearly Cost		Amp Savings		Inc. Efficiency		

Estimated Payback Period

$1,850.00	/	$1,180.49	=	**1.57 years**
Tot. System Cost		Est. Yearly Return		

Return after 10 years

$1,180.49	x	12.062*	=	**$14,239.07**
Est. Yearly Return				

**Based on compound average growth rate of energy costs according to Southern California Edison Company*

TYPICAL INSTALLATION SITE

U.S. Post Office installation in San Antonio, TX

Prince of Peace installation in Carrolton, TX for TXU Gas & Electric testing and monitoring

Custom / Super ARMS Unit

****Standard** ARMS Unit*