

# ACME® Type ESW Water-Cooled Chillers

## NEW Design!

- Semi-Hermetic Compressor
- Models from 20 to 50 tons
- Expandable Concept
- Single Compressor & Single Circuit
- Small Footprint Fits through Doors
- High Efficiency Design
- Compact Construction
- Portable Design Option
- Available - Stock to 3 Weeks

### ALSO AVAILABLE

- **Dual Compressor Units**  
Models EDW - 40 to 100 tons
- **Units Less Condensers**  
Models ESA & EDA for Matching with Remote Air-Cooled or Evaporative Condensers



### Superior By Design

ACME® chillers are known worldwide for providing excellent reliability even under harsh operating conditions. Since 1919, the ACME® chiller line has evolved state-of-the-art designs to provide maximum flexibility and low cost of operation.

The new ESW Series chillers are designed and engineered with genuine ACME® heat exchangers for that extra measure of assured capacity and minimized downtime. Bolt-up design allows access to every major component for service. The high-performance condensers feature removable heads and 3/4" tubing for periodic cleaning.

### Every Chiller is Run Tested

All ACME® chillers are furnished fully assembled, wired, charged with refrigerant, and run tested prior to shipment. This factory testing assures your chiller start-up goes as planned. We test every component and run test each chiller that we manufacture under load in our Refrigeration Test System. Our test procedure includes flow, temperature and pressure sensors that feed their

*Acme® Type ESW Chillers are built for efficient operation & easy maintenance.*

data to modern data-acquisition equipment. You can be confident that equipment you receive operates as designed.

### Expandable Concept

The ESW Series features an all-welded frame with bolt-up components. The frame width is designed to allow access through standard 36" doorways. Optional heavy duty casters allow portable use of ACME® ESW Series Chillers.

### Models & Capacities

Model	Capacity - Tons*
ESW-20 .....	20.5
ESW-30 .....	29.1
ESW-35 .....	34.5
ESW-45 .....	43.5
ESW-50 .....	49.4

\*Standard conditions: R-22 refrigerant, 54°F inlet / 44°F outlet chilled water, 35°F SST, 85°F inlet / 95°F outlet condenser water, 105°F SCT, .00025 fouling factor.

ESW Chillers feature single compressor designs, for higher capacity, we offer EDW Chillers which feature two compressors.

### Ketema LP

Acme® Refrigeration Products

2300 West Marshall Drive  
Grand Prairie, TX 75015  
(972) 647-2626 Fax: (972) 641-1518

Toll-Free: 1-800-483-2263

www.ketemalp.com

- **Frame** - All welded tubular steel frame designed for access through standard 36" doorways. All components are bolted to the frame for easy access and removal.
- **Compressor** - High efficiency and rugged semi-hermetic compressor with high torque, 1750 rpm induction motor with internal thermal protection.
- **Evaporator** - Genuine ACME® DXC series direct expansion shell and tube construction. Carbon steel shell and tube sheet. High performance enhanced surface copper tubing. Constructed and stamped per ASME Code Section VIII, Div 1.
- **Condenser** - Genuine ACME® AHX series featuring the latest technology 3/4" OD seamless enhanced surface copper tubing for compact design and high performance. Cleanable design with removable cast iron heads. Constructed and stamped per ASME Code Section VIII, Div 1.
- **Control Center** - Analog control scheme for ease of use and low cost reliability. Includes the following features:
  - NEMA rated enclosure with access door
  - Compressor motor contactor and fusing
  - Industrial-grade system ON-OFF switch
  - Chilled water set point thermostat
  - Automatic pumpdown control circuit
  - High/low refrigerant pressure safety switch
  - Low pressure freeze control - freezestat
  - Full set of pressure gauges and indicator lights
- **Refrigerant Circuit** - Includes thermal expansion valve, liquid line solenoid, sight glass/moisture indicator, replaceable core filter/drier, charging and shut-off valves.
- **Unit Assembly** - All ACME chillers arrive completely assembled, piped, wired, and run tested. Units are shipped with a full operating charge of the refrigerant specified.

## CAPACITY DATA - ESW-Series Chillers

ACME ESW Model	Evap LFT °F	Entering Condenser Water Temperature									
		65°F		75°F		85°F		95°F		105°F	
		tons	kW	tons	kW	tons	kW	tons	kW	tons	kW
<b>ESW-20</b>	42	21.9	14.4	20.4	16.1	19.6	17.8	18.6	19.4	17.2	21.0
	44	22.1	14.4	21.5	16.2	20.5	18.0	19.0	19.7	18.0	21.3
	46	23.1	14.4	22.6	16.3	20.8	18.1	19.5	19.9	18.5	21.6
	48	24.0	14.5	22.9	16.4	22.1	18.3	20.6	20.1	19.4	21.9
	50	25.5	14.5	23.9	16.5	22.3	18.5	21.5	20.3	20.0	22.2
<b>ESW-30</b>	42	31.4	21.2	30.0	23.7	28.6	26.1	27.1	28.5	25.4	30.9
	44	33.1	21.3	31.4	23.9	29.1	26.4	27.7	28.9	26.3	31.3
	46	34.5	21.3	31.4	24.0	30.0	26.6	28.6	29.1	26.9	31.6
	48	35.8	21.4	32.9	24.1	31.5	26.9	29.9	29.4	28.5	32.0
	50	37.5	21.4	34.6	24.2	33.0	27.0	31.4	29.7	28.6	32.4
<b>ESW-35</b>	42	35.9	26.5	35.1	29.3	33.2	32.1	30.8	34.9	29.9	37.7
	44	37.3	26.7	36.8	29.5	34.5	32.5	32.9	35.3	30.0	38.3
	46	39.2	26.8	38.3	29.8	35.8	32.8	33.1	35.8	31.5	38.7
	48	42.1	27.0	39.2	30.1	36.0	33.2	34.7	36.2	33.0	39.3
	50	43.4	27.2	40.7	30.4	38.8	33.5	35.9	36.7	33.8	39.9
<b>ESW-45</b>	42	46.5	33.7	43.3	36.8	42.2	39.8	39.1	43.0	36.8	46.2
	44	47.2	33.9	46.5	37.1	43.5	40.3	41.3	43.5	39.0	46.7
	46	49.5	34.2	47.2	37.5	45.2	40.7	43.3	44.1	39.7	47.4
	48	51.1	34.5	49.5	37.7	47.8	41.1	43.6	44.4	41.5	47.9
	50	52.8	34.9	51.0	38.1	48.0	41.5	46.3	45.0	42.8	48.6
<b>ESW-50</b>	42	54.0	42.6	51.0	46.4	48.1	49.9	45.1	53.3	41.9	56.5
	44	54.0	43.0	52.8	46.8	49.4	50.5	46.4	54.0	43.6	57.3
	46	57.1	43.3	55.7	47.2	51.2	50.9	48.4	54.6	45.2	58.1
	48	60.2	43.7	57.3	47.6	55.6	51.5	51.1	55.2	46.5	58.8
	50	61.8	44.1	58.5	48.1	55.7	52.1	52.7	55.8	48.1	59.6

Capacity based on R-22 refrigerant, 10°F chilled water temperature range, 9°F evaporator leaving temperature difference (LTD), 10°F condenser water temperature range, 20°F condensing temperature minus entering water temperature (GTD), 0.00025 fouling factor.

ESW Model	No. Circuits	Dimensions			Wght Lbs.	Comp HP	No. Cyl.	Evap MPT	Cond MPT	R-22 Lbs.	Oil Ounces	Capacity* Reduction
		Length	Width	Height								
<b>20</b>	1	99	34.5	60	1195	25	4	3	2	25	130	100 / 50
<b>30</b>	1	99	34.5	60	1530	35	6	3	2-1/2	41	160	100 / 67 / 33
<b>35</b>	1	99	34.5	60	1580	40	6	4	2-1/2	67	242	100 / 67 / 33
<b>45</b>	1	99	34.5	60	1825	50	8	4	3	82	260	100 / 75 / 50 / 25
<b>50</b>	1	99	34.5	60	1950	60	8	4	3	94	260	100 / 75 / 50 / 25

\*Capacity reduction based on optional unloading  
Ketema LP reserves the right to change designs or specifications without notice.

