

OPERATING AND CONTROL CHARACTERISTICS

TEMPERATURE RANGE

+12°C. above ambient to +93°C.
(+200°F.).

RELATIVE HUMIDITY RANGE

See Chart I-443A.

STABILIZATION TIME

+25°C. to +93°C.: 1 hour (approx.)
+93°C. to +25°C.: 1 hour (approx.)

STABILITY

(Over 24 hr. period)

Temperature: $\pm 1/2^\circ\text{C}$.

Relative Humidity: $\pm 2\%$

RECOVERY TIME

Average recovery of stabilized temperature and relative humidity when door is opened 5 minutes or less: 45 minutes at +65°C.

Meets MIL-202F, Method 103B including Condition D — continuous operation for 1344 hours . . . 56 days!

BLUE M

Humid-Flow[®] PATENTED AIR-COOLED TEMPERATURE/HUMIDITY CABINETS

with Solid-State Electronic Instrumentation

The most accurate, reliable and economical chamber ever developed for long-term high temperature/humidity testing. Ideal for such steady state requirements as MIL-202F, Method 103B, Condition D — continuous operation for 56 days.

Blue M's exclusive *vertical air-flow* Air-Cooled Temperature/Humidity Cabinets let air do the work — not conditioned water or mechanical refrigeration. Typical unit can save thousands of gallons a year. Eliminating compressor and tap water circulating systems eliminates such components as solenoid valves and timers — assures more trouble-free operation. Ambient room air temperature in most installations is more stable than varying tap water temperatures, making chamber conditions equally stable. This, coupled with the inherent efficiency of the electronic instrumentation for

temperature and humidity regulation, provides unusual accuracy plus built-in constant differential control throughout the range shown on the chart. Air volume is adjustable from 0-30 complete changes of entire work chamber volume per minute.

While this range is limited as compared to other Blue M Temperature/Humidity Cabinets, minimal power requirements and insignificant water consumption sharply reduce operating costs. Specially designed motor/blower cooling system, under control of a separate switch, is not even needed for many standard tests — cutting operating expense even more. In design, operating efficiency and economy, Blue M Air-Cooled Cabinets represent a truly revolutionary development in environmental equipment.

PIPE VENT

SEPARATE SOLID-STATE ELECTRONIC WET AND DRY BULB MONITORING RECORDER

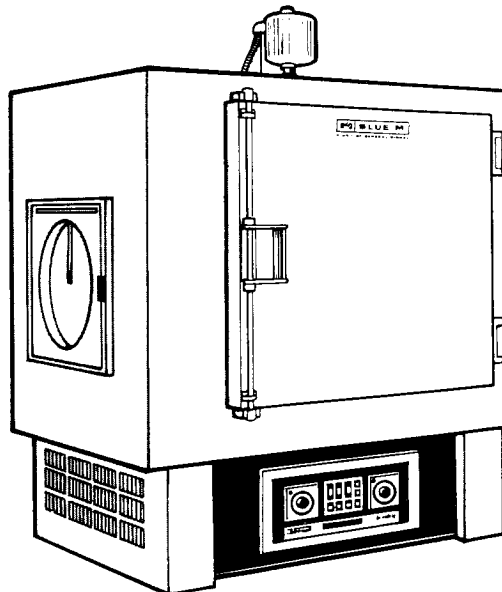
TWO ADJUSTABLE ALLOY WIRE SHELVES

DEMINERALIZING CARTRIDGE

AUTOMATIC SOLID-STATE WATER LEVEL SYSTEM

MAX-SET OVERTEMPERATURE PROTECTION

DRAIN



STAINLESS CONSTRUCTION
TYPE 316, 17-12 INTERIOR
TYPE 304, 18-8 EXTERIOR

MECHANICAL
VERTICAL
AIR-FLOW

3" DIA.
LEAD-IN PORT

INNER GLASS DOOR

SOLID-STATE
ELECTRONIC
INSTRUMENTATION

CHAMBER IS NOT DESIGNED OR INTENDED FOR USE WITH VOLATILE, FLAMMABLE OR HAZARDOUS MATERIALS. OVENS DESIGNED FOR THESE APPLICATIONS ARE SHOWN ELSEWHERE IN THIS CATALOG.

EQUIPMENT COVERED
BY OUR EXCLUSIVE
PARTS WARRANTY
AND REPLACEMENT
SERVICE PROGRAM



A UNIT OF GENERAL SIGNAL
BLUE ISLAND, ILLINOIS 60406

GENERAL SPECIFICATIONS

CONTROL SYSTEM

SOLID-STATE ELECTRONIC INSTRUMENTATION — for precise temperature/humidity regulation.

MAX-SET™ OVERTEMPERATURE PROTECTION

SEPARATE MONITORING RECORDER — 10" diameter. Range: — 18°C. to +93°C.; 0°F. to +200°F. Low mass RTD sensors. 100 ohm Platinum. Electronic, fully solid-state. Blind set overtemperature protection; operates from dry bulb. Not connected electrically or mechanically to control system. Monitors and provides records only.

WET BULB TIME DELAY — exclusive feature allows a substantial reduction in condensation when loading or unloading at set temperatures. Automatically drains heated water from conditioning chamber when inner door is opened. After unit is reloaded, wet bulb heat is held off until reservoir is refilled with cool water.

PILOT LIGHTS • AUTOMATIC ELECTRONIC WATER LEVELER • COMPLEMENTARY MOTOR/BLOWER SYSTEMS AND OVERLOAD PROTECTION

CONSTRUCTION

HOUSING — heli-arc welded, all polished stainless.

INTERIOR — type 316, 17-12 stainless. Heli-arc welded and passivated.

EXTERIOR — type 304, 18-8 stainless.

INSULATION — fiberglass.

HARDWARE — exclusive adjustable no-slam, cam action latch and chrome-plated hinges.

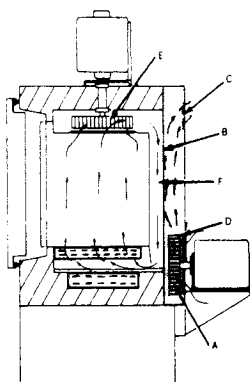
DOOR(S) — same construction and insulation as cabinet. Largest model has double doors but no center mullion. Silicone rubber seal.

INNER GLASS DOOR — stainless framing, latches and fittings. Pyrex® glass viewing window allows observation of chamber interior. Silicone seal. When opened, unit automatically shuts down.

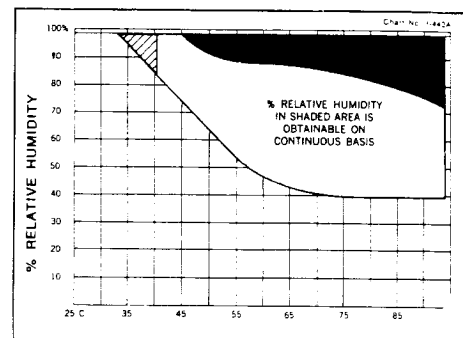
SHELVES — two, adjustable every 2". Electropolished stainless, wire type.

WATER FLOW AND LEVEL SYSTEM — quality "Y" type strainer, pressure regulator valve, flow control solenoid valves and electronic water leveler to meter water exactly on long-term basis. Alloy water receptacle permits visual inspection. Overflow outlet. No needle or float valves. Nominal water use.

DEMINERALIZING CARTRIDGE — assures high purity water for many weeks operation. Minimizes corrosion.



DRY BULB TEMPERATURE (DEGREES CENTIGRADE)
 Chart gives Relative Humidity obtainable using +21°C. (+70°F.) ambient air as the cooling medium.
 NOTE: Area in solid blue indicates percentage of Relative Humidity which can be accurately controlled with the motor blower which propels the cooling air being OFF. Hatch-marked area is variable depending upon ambient temperature.



Model Number	Inside Dimensions Inches (Cm.)			Overall Dimensions Inches (Cm.)			Element KW	Voltage 60 Hz. A.C. 1 Phase	Line Amps	Cubic Feet Cap.
	W.	D.	H.	W.	D.	H.				
AC-7502TDA-3	20 (51)	14 (35)	20 (51)	38 (95)	35 (88)	54 (136)	1.6	*120 V.	20.0	3.2
AC-7602TDA-3	25 (63)	19 (48)	20 (51)	43 (109)	40 (101)	54 (136)	1.6	*120 V.	20.0	5.5
AC-7702TDC-3	37 (93)	19 (48)	25 (63)	55 (139)	40 (101)	59 (150)	2.5/3.3	**208/240 V.	15.0/17.0	10.0

*Models available for 240 V. and 208 V./1 Ph. operation with use of separate autoformer package complete with line cord and plug. Simple installation.

**Unit will operate at 208 V. with reduced element power.

Chamber dimensions are nominal, subject to sheet metal variations and engineering changes. If these values are critical, please contact factory for exact dimensions.

All wiring complete and enclosed to meet N.E. Code, as amended.

Several optional accessories are available for these units. Please contact the factory or your nearest Blue M office for information.

SEND FOR ADDITIONAL INFORMATION AND ALL PRICES

Arizona, Tempe 85281
 California, El Monte 91731
 California, Sunnyvale 94089
 Delaware, Wilmington 19810
 Florida, Casselberry 32707

Georgia, Atlanta 30341
 Illinois, Blue Island 60406
 Kansas, Overland Park 66212
 Massachusetts, Millis 02054

Michigan, Livonia 48152
 New York, Spring Valley 10977
 New York, Syracuse 13206
 North Carolina, Charlotte 28217

Ohio, Cincinnati 45237
 Ohio, Hudson 44236
 Texas, Garland 75042
 Washington, Seattle 98108