



SMO5-2

Applications:

Aging • Asphalt Testing • ASTM, UL and Life Testing
 • Baking, Conditioning, Curing • Burn-in • Drying •
 Curing • Moisture and Stability Testing.

High Temperature Performance:

MRC SMO Series ovens are available in 110-120V, 50/60Hz or 220-240V, 50/60Hz configurations and achieve temperatures up to 306°C with fast ramp-up and recovery times.

Heat-Up Rapid heat-up times to 306°C depend on voltage selected. Published heat-up performance is based on a standard cabinet under controlled testing at a 20°C ambient temperature, line voltage ±10% of specified voltage.

Recovery Upper vents are closed when recovery times following door openings are tested. Published recovery performance is based on a standard cabinet under controlled testing at a (22 ± 3)°C ambient temperature, line voltage ±10% of specified voltage.

Control, Timer Program and Monitoring:

The advanced loop PID (proportional, integral, derivative) controller commands proportional power to the heating element to provide the most accurate and responsive control. Each controller is matched to the oven size to assure faster response to setpoint without overshoot, and quicker recovery following door openings. The on-board timer permits programmed dwell cycles with automatic shut-off for custom applications. Indicator lights are included for visual status feedback on critical functions.

SMO1/3/5-2, Rapid Heat-Up Time to 306°C

Ideal for Industrial, Analytical and General Laboratory Applications.

MRC SMO Series laboratory ovens are recommended for critical scientific and analytical use in laboratory and pilot plant product research. Typical applications include aging, curing, drying, baking, pre-heating, conditioning and life cycle testing. Choose from three cabinet sizes, each with forced-air circulation and reserve heating power for quick recovery after door openings.

- + Fast ramp-up to 306°C for faster cycle times.
- + Temperature range approximately 20°C above ambient to 306°C for multiple applications.

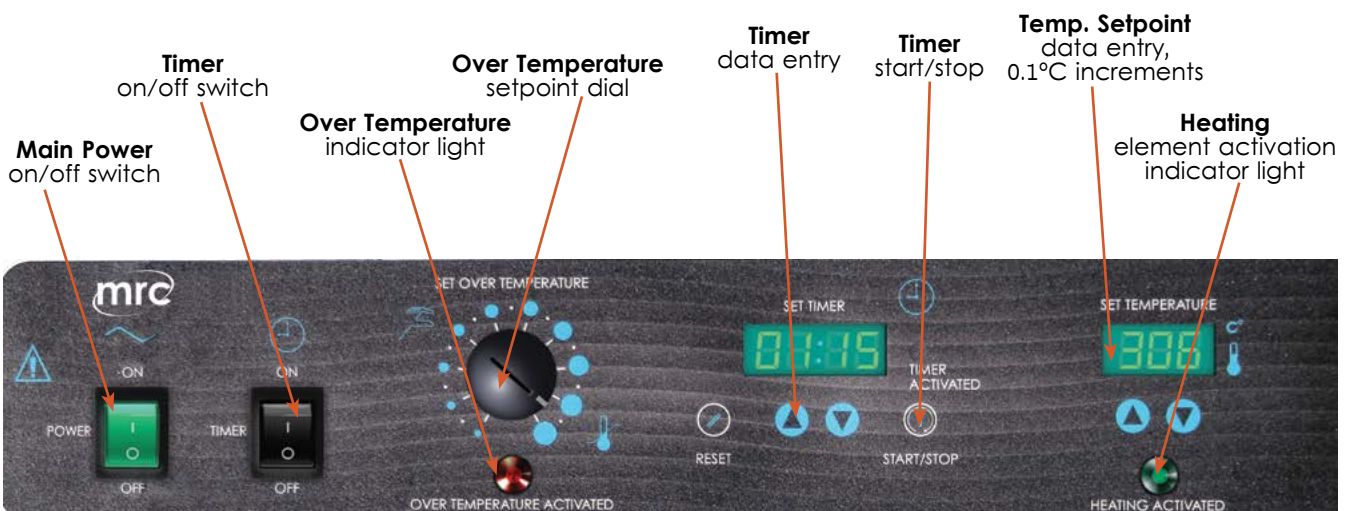
1. Advanced PID temperature control system for sensitive response.
 2. Built-in digital timer for automatic operation following manual start.
 3. Independent overtemperature setpoint and operational control override for additional safety.
 4. Stainless steel interior construction for long life operation, easy cleaning.
 5. Forced-air circulation to assure maximum temperature uniformity.
 6. Triple-wall construction to minimize external surface temperature.
 7. Stainless steel shelves are adjustable on 0.5" (12.7mm) centers to provide flexible inventory options.
 8. Rear access port, 1.75" diameter (44mm) for independent cables, instrumentation.
 9. Exhaust port, 3" diameter (76mm), adjustable, with external connection to customer-supplied vent for effluent exhaust if required.
- + Internationally certified CAN/CSA, UL, EN, IEC 61010, and compliant with CE.

Features and Benefits:

The SMO Series ovens are engineered for safe, accurate and uniform performance in demanding laboratory environments.

Integrated Control Panel:

All controls are centrally located on the main panel including manual power & timer on/off switches, independent overtemperature control, digital temperature and timer setpoint adjustments, and indicator lights for all functions.

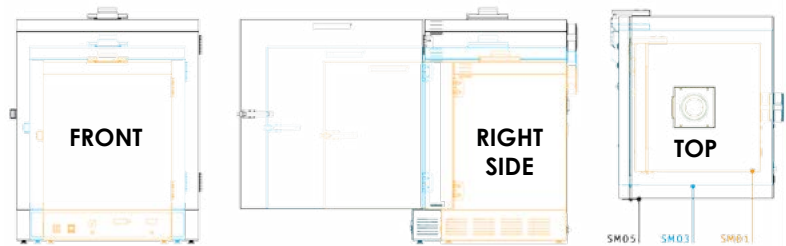


Model	SMO1-2	SMO3-2	SMO5-2
Interior Volume, Nominal	39.4 liters	85 liters	138 liters
Exterior Dimensions (W x H x D)	57.7 x 80.0 x 59.6cm	68.4 x 86.4 x 72.7cm	79.8 x 98.5 x 71.4cm
Interior Dimensions (W x H x D)	30.7 x 36.8 x 39.4cm	41.9 x 41.2 x 49.5cm	53.3 x 52.7 x 49.4cm
Interior Construction	400 series stainless steel		
Exterior Construction	20 gauge steel, powder coated		
Shelves (See Accessories)*	2 standard, 6 total	2 standard, 7 total	2 standard, 9 total
Maximum Weight Per Shelf*	22.7kg		
Permitted Total Load	45kg	91kg	

* Extra standard and reinforced shelves available. See Accessories.

Model	SMO1-2	SMO3-2	SMO5-2
Electrical, 50/60Hz, AC, 1Ø			
Voltage	220V-240V		
Full Load Amps	8	10	10
Nominal Power (watts @150°C)	650	675	725
Recommended Breaker, Amps	15		
NEMA Plug Supplied	6-15P*		
Energy Consumption (kWh/day)			
At 80°C	5.7	6.5	6.7
At 150°C	11.8	12.2	12.7
At 306°C	18.8	22.1	22.7
Temperature Range 20°C above ambient to 306°C			
Heat-Up to Ambient - Minutes to 80°C	8	6	
Heat-Up to Ambient - Minutes to 150°C	20	15	28
Heat-Up to Ambient - Minutes to 306°C	52	57	80
Recovery after Door Opening (30sec.)-Minutes to 80°C	2.5	1	2
Recovery after Door Opening (30sec.)-Minutes to 150°C	3.5	1.5	3
Recovery after Door Opening (30sec.)-Minutes to 306°C	7	5.5	20
Recovery after Door Opening (60sec.)-Minutes to 80°C	3	2	3
Recovery after Door Opening (60sec.)-Minutes to 150°C	4.5	3.5	5.5
Recovery after Door Opening (60sec.)-Minutes to 306°C	9	11	26
Temperature Uniformity			
At 80°C	0.75°C		
At 150°C	1.75°C	2.50°C	1.50°C
At 306°C	4.00°C	5.00°C	3.50°C
Ventilation			
Air Changes/Hr @80°C	330	225	180
Velocity	5.6 cfm	11.3 cfm	15.2 cfm

* Both NEMA 6-15P, 2.5M and CEE7/7 (EU1-16P), 2.5M are supplied with 220V-240V models.



Site Preparation and Installation Guides:

Model	SMO1-2	SMO3-2	SMO5-2
Door Swing Clearance (Nominal)	58.5cm	68.6cm	81.3cm
Wall Clearance, Sides	10.0cm		
Wall Clearance, Rear	15.2cm		
Exhaust Duct (Outer Diameter)	7.62cm		
Net Weight Empty (with Standard Shelves)	57.4kg	77.3kg	94.3kg
Shipping Weight	76.5kg	97.8kg	117kg