

# HERZOG FUEL TESTING

## HDA 620 Manual Distillation Apparatus

**ASTM D 86, D 850, and D 1078  
IP 123, IP 191, and IP 195  
DIN 51 751, ISO 3405**

- Ergonomic, space-saving design.
- Electric flask heater with analog temperature control.
- High-efficiency condenser bath with integral bath level indicator; curved condenser tube.
- Stainless steel bath with bath level indicator and cooling coil; may be connected to a user-supplied external chiller.
- Standard equipment for ASTM D 86 and DIN 51 751 testing included.
- Flask cooling fan and fire extinguishing system available as built-in options; digital bath temperature controller available as add-on option.
- Suitable for solvent distillation according to ASTM D 850 and D 1078 with a different flask volume and a different thermometer. See accessories.

## HDA 601 Manual Distillation Apparatus

**ASTM D 86, D 850, and D 1078  
IP 123 and IP 195  
DIN 51 751, ISO 3405**

- Straight condenser tube as specified in the ASTM and DIN test methods.
- Gas powered flask heater.
- Straight stainless steel condenser tube and cooling bath.
- Standard equipment for ASTM D 86 and DIN 51 751 testing included.
- Suitable for solvent distillation according to ASTM D 850 and D 1078 with a different flask volume and a different thermometer. See accessories.

*Shown with optional temperature controller and fire extinguisher system.*



## Specifications

### HDA 620 Manual Distillation Apparatus

Description	Ordering Number		
	230 VAC	208 VAC	115 VAC
Distillation Apparatus	06201-000-00	06201-000-13	06201-000-01
Distillation Apparatus with built-in flask cooling fan	06201-000-02	06201-000-14	06201-000-03
Distillation Apparatus with built-in fire extinguisher system	06201-000-04	06201-000-15	06201-000-05
Distillation Apparatus with built-in flask cooling fan and fire extinguisher system	06201-000-06	06201-000-16	06201-000-07
<b>Standard Accessories</b>			
ASTM E1 7C Thermometer	502-020	ASTM E1 8C Thermometer	502-021
One Measuring Cylinder Pad	412-212	Stopper for taper joint neck	413-125
Ceran Flask Carrier Board (38 mm opening)	305-052	Ceran Flask Carrier Board (50 mm opening)	305-053
		100 ml measuring receiver	511-001
		Drip Tray	301-016
		125 ml distillation flask with taper-joint neck	510-011
<b>Electrical</b>	230 V, 50 Hz., 208 V, 60 Hz., or 115 V, 60 Hz.; internally switch selectable.		
<b>Dimensions</b>	43.0 x 36.8 x 47.0 cm (16.9 x 14.5 x 18.5 inches).		
<b>Weight</b>	37 kg (81.6 pounds)		

### HDA 601 Manual Distillation Apparatus

Description	Ordering Number
Gas burner for town gas	06011-000-00
Gas burner for propane gas	06012-000-00
Gas burner for natural gas	06013-000-00
<b>Standard Accessories</b>	
ASTM E1 7C Thermometer	502-020
ASTM E1 8C Thermometer	502-021
One Measuring Cylinder Pad	412-212
Stopper for taper joint neck	413-125
Ceran Flask Carrier Board (39 mm opening)	305-047
Ceran Flask Carrier Board (50 mm opening)	305-002
100 ml measuring receiver	511-001
Drip Tray	301-016
125 ml distillation flask with taper-joint neck	510-011
<b>Electrical</b>	230 V, 50 Hz., 208 V, 60 Hz., or 115 V, 60 Hz.; internally switch selectable.
<b>Dimensions</b>	70.0 x 30.0 x 48.0 cm (27.6 x 11.8 x 18.9 inches).
<b>Weight</b>	11.0 kg (24.3 pounds)

### Accessories and Spare Parts

Description	Ordering Number
<b>For distillations according to ASTM D 860 and D 1078</b>	
Glass-ceramic flask carrier board (150 x 150 mm)	
Gas heated apparatus, 32mm opening	305-001
Electric heated apparatus, 32mm opening	305-051
<b>For distillations according to ASTM D 850 and D 1078</b>	
Distillation Flask, 200 ml, with tapered joint neck	510-012
<b>Thermometers (according to ASTM E 1)</b>	
39 C (48° to 102°C:0.2°C)	505-023
40 C (72° to 106°C:0.2°C)	505-024
41 C (98° to 152°C:0.2°C)	505-025
42 C (95° to 255°C:0.5°C)	505-026
102 C (123° to 177°C:0.2°C)	505-027
103 C (148° to 202°C:0.2°C)	505-028
104 C (173° to 227°C:0.2°C)	505-029
105 C (198° to 252°C:0.2°C)	505-030

### Accessories and Spare Parts

Description	Ordering Number
<b>For distillations according to ASTM D 850</b>	
Glass-ceramic flask carrier board (150 x 150 mm)	
Gas heated apparatus, 25 mm opening	305-046
Electric heated apparatus, 25 mm opening	305-050
<b>For distillations according to ASTM D 850 and D 1078</b>	
Distillation Flask, 200 ml, with tapered joint neck	510-012
<b>Thermometers (according to ASTM E 1)</b>	
2 C (-5° to 300°C:1.0°C)	505-020
37 C (-2° to 52°C:0.2°C)	505-021
38 C (24° to 78°C:0.2°C)	505-022
106 C (223° to 277°C:0.2°C)	505-031
107 C (248° to 302°C:0.2°C)	505-032

## OPTIONAL EQUIPMENT

**Digital Bath Temperature Controller** for electric distillation apparatus. Controls bath temperature from ambient to +60°C. Net weight 15 kg (33.1 pounds).

Ordering No. 110-165 (230 V)

Ordering No. 110-166 (115 V)

**Distillation Aid** for using any manual distillation apparatus as a semi-automatic analyzer. Records and documents test results and conditions with just the push of a button. Corrects for evaporative loss and standard pressure automatically. Converts manual instruments into semi-automatic distillation analyzers. Includes digital vapor thermometer, boiling flask, centering stopper, and printer paper. Operates on 115/230 VAC, 50/60 Hz. Net weight 5 kg (11 pounds).

Ordering No. 75010 (115/230 V)

# Semi-Automatic Reid Apparatus

**ASTM D 323, IP 69, DIN 51 754,  
EN 12, ISO 3007**

- Two models – digital or analog pressure readouts.
- Suitable for determining RVP according to ASTM D-323, DIN 51 754, IP 69, EN 12, and ISO 3007.
- Permits simultaneous RVP determinations on up to three samples.
- Automatic sample agitation.
- Electronic heating with over-temperature protection.



## Specifications

### Semi-Automatic Reid Apparatus with Digital Readout

	With Reid Bombs	Without Reid Bombs*
<b>Ordering Number</b>	09063-000-00 230 V 09064-000-00 115 V	09061-000-00 230 V 09062-000-00 115 V
<b>Net Weight</b>	47.5 kg (104.7 lbs.)	40.0 kg (88.2 lbs.)
<b>Dimensions</b>	86 x 51 x 42cm (33.9 x 20.1 x 16.5 inches)	
<b>Digital Readout</b>	With Pressure Gauge 0-600 kPa, 0.1 kPa resolution and 0-87.0 psi, 0.015 psi resolution. Switch selectable.	

*\*NOTE: Reid bombs consisting of one air chamber and one liquid chamber must be ordered separately (see Accessories and Spare Parts).*

### Semi-Automatic Reid Apparatus with Analog Pressure Gauges

<b>Ordering Number</b>	09141-000-00* 230 V 09142-000-00* 115 V
<b>Net Weight</b>	35.0 kg (77.2 lbs.)
<b>Dimensions</b>	86 x 51 x 42cm (33.9 x 20.1 x 16.5 inches)

*\*NOTE: Reid bombs consisting of one air chamber and one liquid chamber must be ordered separately (see Accessories and Spare Parts).*



# Thermostat for Manual Reid Vapor Pressure Determinations

- Holds 3 Reid bombs.
- Thermostatically controlled electric heater.
- Built-in circulation pump.
- Stainless steel bath vessel and cup.



## Specifications

### Thermostat for Manual Reid Vapor Pressure Determinations

<b>Ordering Number</b>	09121-000-00 230 V 09122-000-00 115 V
<b>Capacity</b>	Three Bomb*
<b>Net Weight</b>	29.0 kg (63.9 lbs.)
<b>Dimensions</b>	85 (H) x 47 (Ø) cm 33.5 x 18.5 inches

\*NOTE: Reid test components, such as bombs, pressure gauges, etc., must be ordered separately.

## Accessories and Spare Parts

Description	Ordering Number
Air Chamber	09081-000-00
Liquid Chamber with 1 opening	09091-000-00
Air Chamber Thermometer, 0° to 50°C	502-030
Precision Pressure Gauge, 0 to 1.6 bar	304-020
Precision Pressure Gauge, 0 to 2.5 bar	304-021
Precision Pressure Gauge, 0 to 4.0 bar	304-022
Precision Pressure Gauge, 0 to 6.0 bar	304-023
Precision Pressure Gauge, 0 to 15 PSI	304-024
Precision Pressure Gauge, 0 to 30 PSI	304-025
Precision Pressure Gauge, 0 to 45 PSI	304-026
Precision Pressure Gauge, 0 to 35 kPa	304-014
Precision Pressure Gauge, 0 to 160 kPa	304-017
Precision Pressure Gauge, 0 to 200 kPa	304-030

Automatic instrument for determining the vapor pressure of gasoline using the Mini Vapor Pressure (ASTM D 5191) and other associated methods available. Consult your PAC representative for details.

Due to our commitment to continual product improvement, specifications subject to change without notice.



Pressure Gauge  
304-XXX

Air Chamber  
09081-000-00

Liquid Chamber  
09091-000-00



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