



## Pope 2" Wiped-Film Stills Parts List

### MOLECULAR STILL VERSION:

- Part No. 40450-01 Two-Inch Molecular Still, complete with variable speed drive mechanism (wetted parts 316 stainless steel), self-supporting still stand, standard glass still body, glass internal condenser, 1000 ml glass graduated feed and degasser flask with stopper, 1000 ml glass distillate receiver flask, 1000 ml glass residue receiver flask, glass cold trap, 316 stainless steel wiper retainer, Teflon wiper blades, 120 VAC, 50/60 Hz. **IMPORTANT: Select heating system from options below.**
- Part No. 40450-02 Two-inch Molecular Still, same as Part No. 40450-01, except that glass jacketed still body with removable fiberglass insulating mantle replaces standard glass still body. **For use with heat transfer fluids. WARNING: Glass jacket cannot be pressurized!**
- \*NOTE:** Heat transfer fluid and recirculating heating system are not included in price. If requested, Pope Scientific will quote and supply a recirculating heating system with oil, hoses, adapters, etc.

### CONCENTRATOR/EVAPORATOR VERSION:

- Part No. 40468-01 Two-Inch Evaporator, complete with variable speed drive mechanism (wetted parts 316 stainless steel), self-supporting still stand, standard glass body, funnel bottom adapter, glass external condenser with stopper, (dry ice trap optional), 2000 ml graduated feed and degasser flask, 2000 ml distillate receiver flask, 2000 ml concentrate receiver flask, 316 stainless steel wiper retainer, Teflon wiper blades, 120 VAC, 50/60 Hz. **IMPORTANT: Select heating system from options below.**
- Part No. 40468-02 Two-inch Evaporator, same as Part No. 40468-01, except that glass jacketed still body with removable fiberglass insulating mantle, replaces standard glass still body. **For use with heat transfer fluids. WARNING: Glass jacket cannot be pressurized! (\*See NOTE above)**

### HEATING SYSTEM OPTIONS:

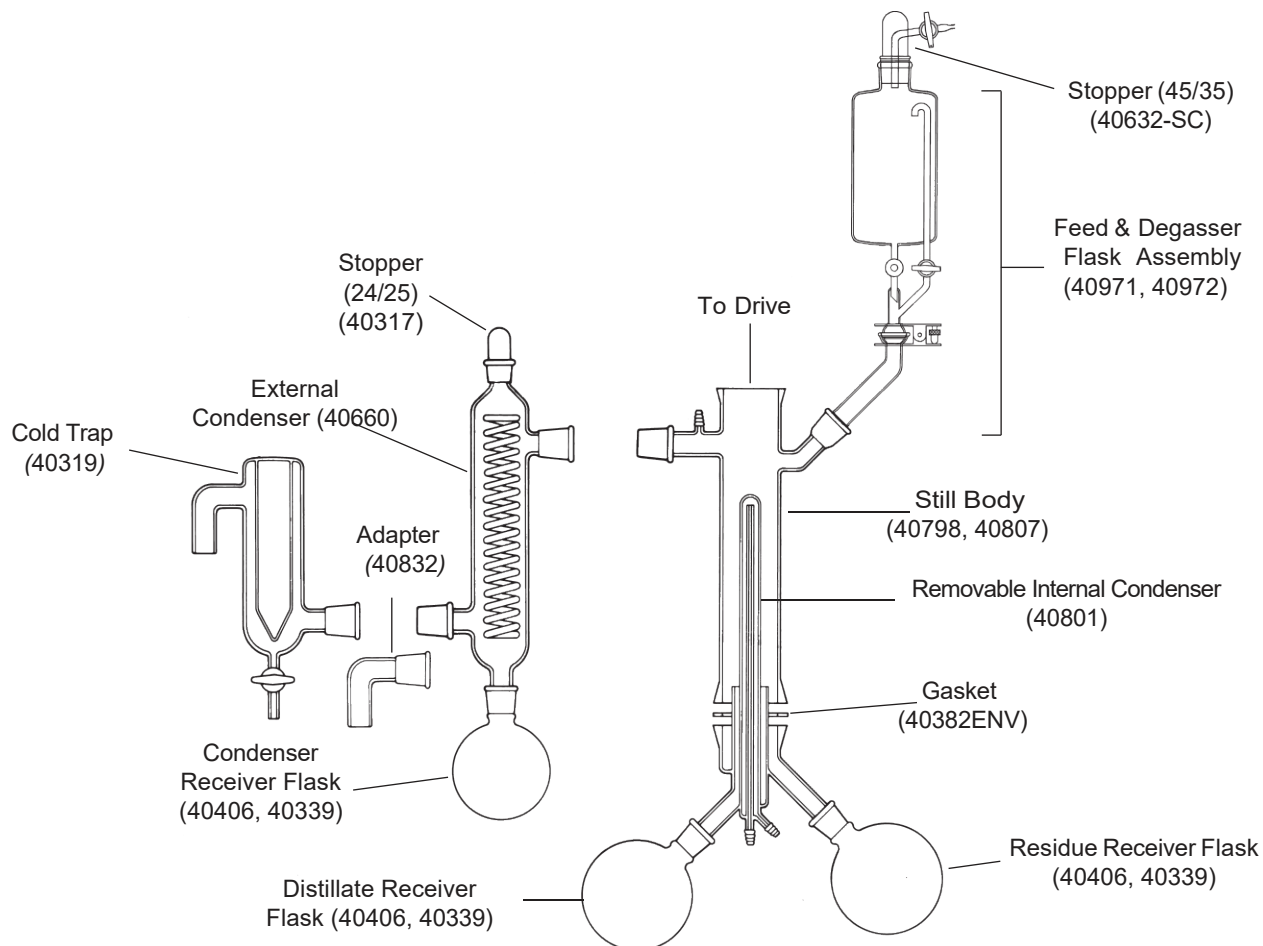
- Part No. 40785 Silicone Rubber Heater with fastener, built-in thermocouple and insulating jacket. For temperatures up to **200°C**. (120 VAC, 50/60 Hz, 450 W).
- Part No. 40782-G1 Metal Band Heater set with high temperature cordset, "J" thermocouple assembly and insulating jacket installed. For temperatures up to **375°C**. (120 VAC, 50/60 Hz, 1500 W).
- Part No. 40782-G2 Metal Band Heater set, same as above, except with two heating zones, upper and lower. Includes 2 ea. cordsets and thermocouples. Provides optimal heat distribution (120 VAC, 50/60 Hz, 750 W per zone).
- NOTE: Requires 2 ea. Part No. 40731-CJ Controllers, below.**
- Part No. 40731-CJ Digital Temperature Controller with automatic tuning of proportional band, integral time and derivative time parameters. Setpoint and process displays. **For use with silicone rubber or metal band heaters, above.** (Maximum output rating: 120 VAC, 50/60 Hz, 15 A)

### IMPORTANT

In addition to components listed herein, various custom modifications can be quoted. Complete turnkey pilot and processing plants are offered in a full range of sizes, and in alternate materials including Stainless Steel, Hastelloy, etc. Consult Pope Scientific. ALL 120 VOLT ITEMS ARE ALSO AVAILABLE IN 240 VOLT (220-240 VOLTS), 50/60 HZ, 1-PH VERSIONS. ADD SUFFIX "-240" TO END OF PART NUMBERS. CONTACT POPE REGARDING ALTERNATE POWER AND AREA CLASSIFICATION REQUIREMENTS.

# 2" WIPED-FILM STILL

## STANDARD & OPTIONAL REPLACEMENT PARTS

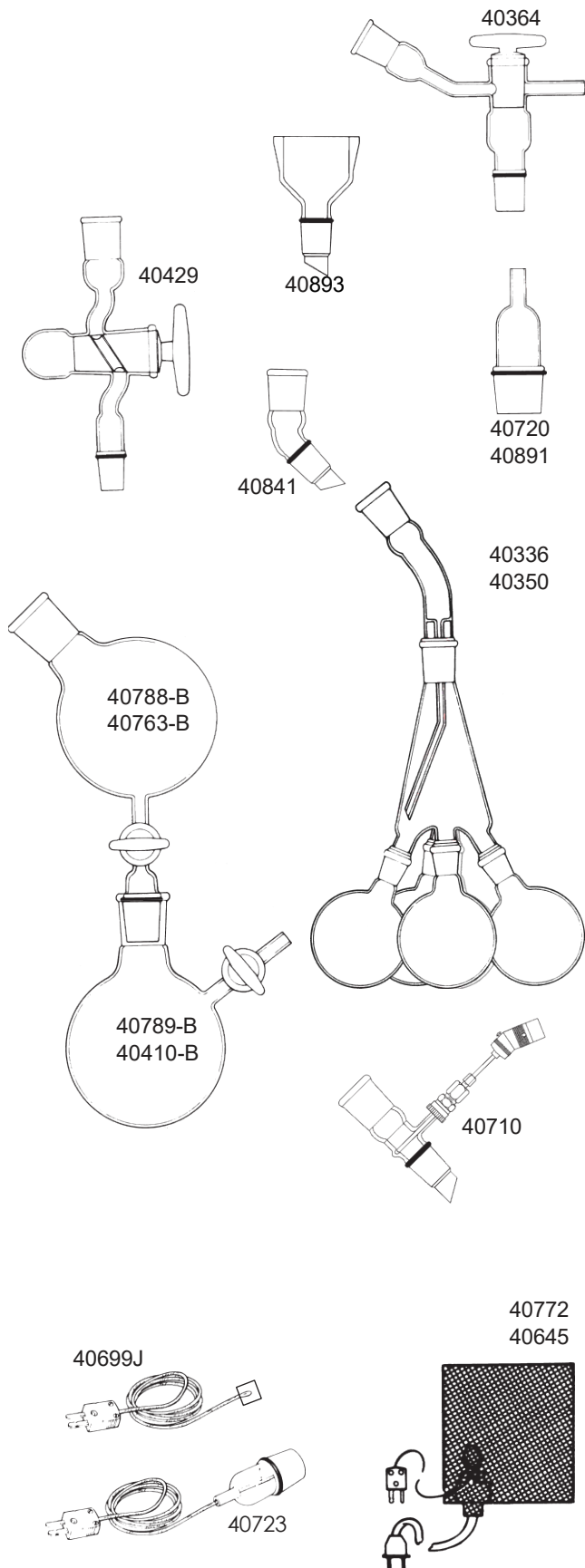


PART NO.	DESCRIPTION
40798	2" Glass Still Body, without Internal Condenser, with 2" conical pipe flange at bottom
40807	2" Jacketed Glass Still Body, without Internal Condenser, with 2" conical pipe flange at bottom (Insulating Mantle, Part No. 40662, available for this body)
40801	Removable All Glass Internal Condenser and Outlets for 2" Still, with 2" conical pipe flange Teflon
40382ENV	Envelope Gasket, Still Body to Internal Condenser
40971	1000 ml Graduated Feed & Degasser Flask, New Style, with Pinch Clamp and Inlet Adapter (Stopper not included) (used on Part No. 40450)
40972	2000 ml Graduated Feed & Degasser Flask, New Style, with Pinch Clamp and Inlet Adapter (Stopper not included) (used on Part No. 40468)
40632-SC	Stopper for Feed Flask (with venting/liquid addition stopcock) (supplied with Part Nos. 40450, 40468)
40325	200 ml Receiver Flask for smaller batches (4 Used on Accessory Part No. 40336)
40318	500 ml Receiver Flask for smaller batches (4 Used on Accessory Part No. 40350)
40406	1000 ml Receiver Flask (2 Used on Part No. 40450)
40339	2000 ml Receiver Flask (2 Used on Part No. 40468)
40319	Cold Trap (Used on Part No. 40450)
40660	External Condenser with 24/25 Stopper (Used on Part No. 40468)
40317	Stopper for External Condenser (24/25)
40832	Adapter, External Condenser to Vacuum System (Used on Part No. 40468)
40320	Teflon Wipers (Set of 3, Incl. Springs) (0 - 250°C)
40352	Carbon Wipers (Set of 3, Incl. Springs) (Over 250°C)

**NOTE:** For parts not listed, or for special modifications, contact Pope Scientific, Inc.

# 2" WIPED-FILM STILL ACCESSORIES PARTS LIST

## ACCESSORY GLASS COMPONENTS



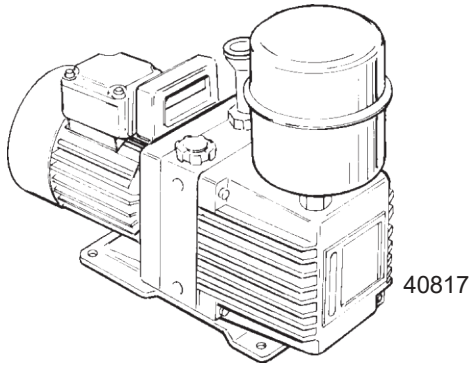
Part No.	Description
40893	Funnel Bottom Adapter, 2" Conical to 24/25M. Allows use of Standard Receivers with 2" Still Body (no Internal Condenser) (incl. with Part No. 40468)
40336	Multiple Flask Receiver, Rotatable, Incl. 4 - 200 ml Flasks
40350	Multiple Flask Receiver, Rotatable, Incl. 4 - 500 ml Flasks
40364	Stopcock Adapter for Still Outlets, 45° Angle, with 6 mm 3-way Stopcock
40429	8 mm Bore Stopcock Adapter for External Condenser, to permit isolation of Receiver Flask when removing condensate
40788-B	1000 ml Receiver Flask with Vacuum Stopcock (8 mm bore) and 28/15 Ball Joint at Bottom - when used with Part Nos. 40789-B or 40410-B, permits removal of distillate or residue without interrupting operation
40763-B	2000 ml Receiver Flask with Vacuum Stopcock (8 mm bore) and 28/15 Ball Joint at Bottom - when used with Part Nos. 40789-B or 40410-B, permits removal of distillate or residue without interrupting operation
40789-B	1000 ml Receiver Flask with 4 mm Vacuum Take-Off Stopcock
40410-B	2000 ml Receiver Flask with 4 mm Vacuum Take-Off Stopcock
40720	Adapter, Feed Pump to Still Body - 24/25M to 1/4" OD Tubing (replaces Feed & Degasser Flask)
40891	Adapter, Feed Pump, 24/25M to 3/8" OD Tubing
40841	45° Elbow, 24/25M to 24/25F

## ACCESSORY HEATING SYSTEM COMPONENTS

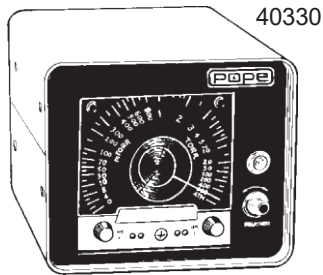
Part No.	Description
40731-CJ	Digital Temperature Controller with setpoint and process displays. For use with silicone rubber heater or heat tracing tape below. (Latter requires addition of Part No. 40699-J thermocouple) (Maximum output rating 120 VAC, 50/60 Hz, 15 A)
40724	Heat Controller for non-critical feed/degasser flask or heat tracing tape applications. Manual intervalometer adjustment, no temperature feedback or display. (Maximum output rating: 120 VAC, 50/60 Hz, 12 A)
40725-S	Heat Tracing Tape for feed inlet or product outlet sections. Silicone covered, chemical and moisture resistant. Easily applied and removed. (120 VAC, 50/60 Hz, 210 W), 1/4" wide by 96" long
40699J	Type J Thermocouple Assembly, surface type
40723	Type J Thermocouple Assembly, with 24/25M joint. (Typically used with external condenser)
40710	Product Discharge J Thermocouple Assembly with 24/25 Adapter
40772	Silicone Rubber Heater and Thermocouple for 1000 ml Feed and Degasser Flask (120 VAC, 50/60 Hz, 400 W)
40645	Silicone Rubber Heater and Thermocouple for 2000 ml Feed and Degasser Flask (120 VAC, 50/60 Hz, 400 W)
40773	Insulating Jacket for 1000 ml Feed and Degasser Silicone Rubber Heater (not illustrated)
40669	Insulating Jacket for 2000 ml Feed and Degasser Flask Silicone Rubber Heater (not illustrated)

ALL 120 VOLT ITEMS ARE ALSO AVAILABLE IN 240 VOLT (220-240 VOLTS), 50/60 HZ, 1-PH VERSIONS. ADD SUFFIX "-240" TO END OF PART NUMBERS. CONTACT POPE REGARDING ALTERNATE POWER REQUIREMENTS.

### ACCESSORY VACUUM SYSTEM COMPONENTS



Part No.	Description
40817	Mechanical Rotary Vane Vacuum Pump System for medium vacuum range (to 0.05 Torr), with stainless steel fittings for attachment to 2" Wiped-Film Still; 6.9 CFM free air displacement. Includes oil mist eliminator and vacuum tubing. 1/2 HP, 120 or 240 VAC, 50/60 Hz. (Additional specifications upon request)
40818	Mechanical Rotary Vacuum Pump/Oil Diffusion Pump System for high vacuum range (to 0.001 Torr), with Stainless Steel Fittings for Attachment to 2" Wiped-Film Still; 2.7 CFM free air displacement (mechanical pump), 135 liters/second speed (diffusion pump). Includes oil mist eliminator and vacuum tubing. 1/2 HP, 120 or 240 VAC, 50/60 Hz. (Additional specifications upon request)
40816	Manual bleed valve assembly for controlling and venting vacuum. Includes mounting on vacuum pump.
40626	Diffusion Pump Oil, 500 ml.
40330	Vacuum Gauge, Pirani type, range 0.001 Torr to 1000 Torr (120 VAC, 50/60 Hz). Highly recommended for efficient processing



### MISCELLANEOUS ACCESSORIES

Part No.	Description
40976-NS	Teflon metering valve replacement stem for Feed & Degasser Flask
40975	Inlet Adapter for new style Feed & Degasser Flask
40977	Pinch Clamp for new style Feed & Degasser Flask
40755	Two-Inch Still Replacement Parts Kit, including Gear Drive Belt, Wiper Blade Springs, Spare O-rings and Gasket
40756	Two-Inch Still Replacement Parts Kit for Direct Drive System, including Wiper Blade Springs, Spare O-rings and Gasket

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## Replacement Parts 2", 4" & 6" Wiped-Film Stills

Part No.	Description	Qty Used Per Still
40320	Teflon Wipers for 2" Still (Set of 3, includes springs)	1
40341	Teflon Wipers for 4" Still (Set of 12)	1
40345	Teflon Wipers for 6" Still (Set of 32)	1
40352	Carbon Wipers for 2" Still (Set of 3, includes springs)	1
40351	Carbon Wipers for 4" Still (Set of 18)	1
40366	Carbon Wipers for 6" Still (Set of 32)	1
40381-SET	Stainless steel springs for 2" wiper blades (Set of 9)	1 set of 9
40337	Stainless steel wiper blade retainer (2" Still)	1
40380	Stainless steel drive shaft (2" Still)	1
40745	Teflon bushing, 2" Still drive	1
40746	Flanged bronze bushing, 2" Still drive	1
40607	Drive belt for 2" Still (variable speed motor)	1
40797-NS	Drive belt for 4" and 6" Stills	1
40202-I	Conical Insert for 2" drive/body nut	1
40202	Flange Set - 2" Still	1
40204-B	Flange Set - 4" Still	1
40206	Flange Set - 6" Still	1
40976-NS	Metering valve plug assembly, new style feed flask	1
40571	Glassware clamps, noose type stainless steel, 8" long	Varies
40569	Glassware clamps, noose type stainless steel, 12" long	Varies
40970-4L	Support fork for 4-L feed/degasser flasks	Varies
40970-6L	Support fork for 6-L feed/degasser flasks	Varies
40572	Support ring for receiver flasks	Varies
40370	Rod lattice support clamp, 90°, for above	Varies
<b>O-RINGS AND SEALS (Viton*, unless otherwise indicated)</b>		
40740	Rotary vacuum seal, Viton (2" Still drive shaft)	1
40741	Rotary vacuum seal, Viton (4" and 6" Still drive shaft)	1
40382	O-ring, 2" glass Still body to drive housing	1
40391	Quad ring, 4" glass Still body to drive housing	1
40392	Quad ring, 6" glass Still body to drive housing	1
40382ENV	Gasket, 2" glass Still body to internal condenser, Teflon	1
40825ENV	Gasket, 4" glass Still body to internal condenser, Teflon	1
40826ENV	Gasket, 6" glass Still body to internal condenser, Teflon	1
40499	O-ring, internal 2" drive	1
40890	O-ring, internal 4" and 6" drive	1
40383	O-ring, 2" Still oil cup (under drive shaft housing)	1
40479	O-ring, 4" and 6" Still oil cup (under drive shaft housing)	1
40384	O-ring, 24/25 joint (feed and receiver flasks)	3
40385	O-ring, 29/26 joint (2" Still body vapor arm)	1
40475	O-ring, 45/35 joint (4" Still body vapor arm)	1
40476	O-ring, 71/40 joint (6" Still body vapor arm)	1
*O-rings available in other material, including Kalrez. Consult Pope.		

**NOTE:** For major components of Stills, see Stills and Accessories parts lists. For unlisted parts, contact POPE SCIENTIFIC, INC.