

Operating Instructions

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Precision Dual Ball Rotameters 320 Series

These rotameter-style dual-ball flowmeters are designed specifically for the field calibration of air sample pumps. SKC rotameters are secondary standards and should be calibrated by the user with a primary standard calibrator at regular intervals. Since rotameters are affected by temperature and atmospheric pressure, rotameter calibration should be performed under the conditions of use or a mathematical correction should be used.

Model 320-235-4600 (high flow) has a dual range. Read the scale on the glass tube itself for the black (top) ball **for a flow range of 235 to 2350 ml**. Read the black

and white scale at left for the silver (bottom) ball for an effective flow range of 500 to 5000 ml (scale is 5 to 50 ml; user must multiply reading by 100).

Model 320-5-245 (low flow) has a dual range. Read the scale on the glass tube itself for the black (top) ball for a flow range of 4 to 49 ml. Read the black and white scale at left for the silver (bottom) ball for a flow range of 24.5 to 245 ml. Note: *Low flow rotameters can only be used with pulsation-free pumps.*

Model 320-5-4600 (low and high flow) contains two dual ranges.

On the left side: Read the scale on the glass tube itself for the black (top) ball **for a flow range of 4 to 49 ml.** Read the black and white scale at left for the silver (bottom) ball **for a flow range of 24.5 to 245 ml.** Note: *Low flow rotameters can only be used with pulsation-free pumps.*

On the right side: Read the scale on the glass tube itself for the black (top) ball. **This range is 235 to 2350 ml.** Read the black and white scale at left for the silver (bottom) ball **for a flow range of 500 to 5000 ml (scale is 5 to 50 ml; user must multiply reading by 100).**



Operation

- 1. Using tubing, attach the top fitting (outlet) of the rotameter to the inlet of the sample medium.
- 2. Using another piece of tubing, attach the outlet of the sample medium to the inlet of the sample pump. The sample medium is now in line between the rotameter and the pump.
- 3. Turn on the pump.
- 4. Read the black ball on the rotameter until it goes off scale, then begin reading the silver ball.

Note: Model 320-5-4600 contains two dual scales. When the black and silver balls have both gone off scale on the left side, begin reading the flow on the black ball, then the silver ball on the right side.

Warning Do not attempt to service this device.

Do not exceed 200 PSIG at 200 F. Operations at conditions beyond this point may cause rupture of the flowmeter and serious personal injury.

Congratulations on your purchase of a quality SKC Calibrator -

In today's working environment, Occupational Health and Safety Management Systems include annual maintenance and calibration of all testing equipment. SKC offers you a recalibration service designed to verify that your calibrator is traceable to a primary standard.

Here's how SKC's Recalibration Service works:

- Call our Customer Service Team, 800-752-8475 (U.S.) or 724-941-9701, to purchase this calibration service. Provide a purchase order number and Customer Service will furnish you with a return material authorization (RMA) number and other necessary information.
- Package glass items carefully, mark package "Fragile," and ship your calibrator to SKC Inc.
- Upon arrival, your calibrator will be recalibrated to a primary standard that is traceable to a NIST standard.
- A label will be placed on each calibrator to document the date of calibration and you will also receive a Certificate of Calibration for each calibrator.

The Benefits of Recalibration

- · Accurate measurements of flow rates
- Adherence to Occupational Health and Safety Management Systems or company quality programs
- Documentation of traceability to a primary standard
- *Note:* The frequency of recalibration is a function of use. The user is responsible to ensure calibration is maintained.



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SKC products are subject to the SKC Limited Warranty and Return Policy, which provides SKC's sole liability and the buyer's exclusive remedy. To view the complete SKC Limited Warranty and Return Policy, go to http:// www.skcinc.com/warranty.asp.