



Tib3111

April 2002

## TECHNICAL INFORMATION BULLETIN

# Drains, Exhaust Venting, and Room Ventilation Requirements

## KODAK Medical Film Processors and Multiloaders

Updated April 02, 2002

Sources: Service Bulletins 101 (October 1992) and 180 (July 1993)

### Drains

To avoid hazardous conditions, keep all floors, floor coverings, and associated drains around the processor clean and dry at all times. Any accumulation of fluids from mixing tanks, drain lines, etc., should be cleaned up immediately. In the event of any problem with the drain (accumulation of liquid due to backup, overflow, or other malfunction), call a plumber or other contractor. Kodak accepts no responsibility or liability for the serviceability of any drain connected to or associated with a Kodak medical film processor. Drains are the sole responsibility of the customer.

**Important:** Drains must be made of a chemically resistant, non-corrosive material (PVC or equivalent), must have a minimum diameter of 3 inches (7.6 cm), and must be free of obstructions. Copper drainage piping is *not* acceptable. Do not make a solid connection between the drain and the equipment.

### Exhaust Venting

#### **Background**

Failure to properly vent the processor or multiloader exhaust can cause corrosion inside the equipment (and any interfaced equipment) and can increase the probability of film artifacts. Venting according to the specifications outlined in this bulletin will help minimize these problems.

Some equipment (like the KODAK X-OMAT 5000 RA Processor) may have different procedures and specifications for exhaust measurement. Service documentation for a particular piece of equipment always takes precedence over these recommendations.

#### **Items Needed**

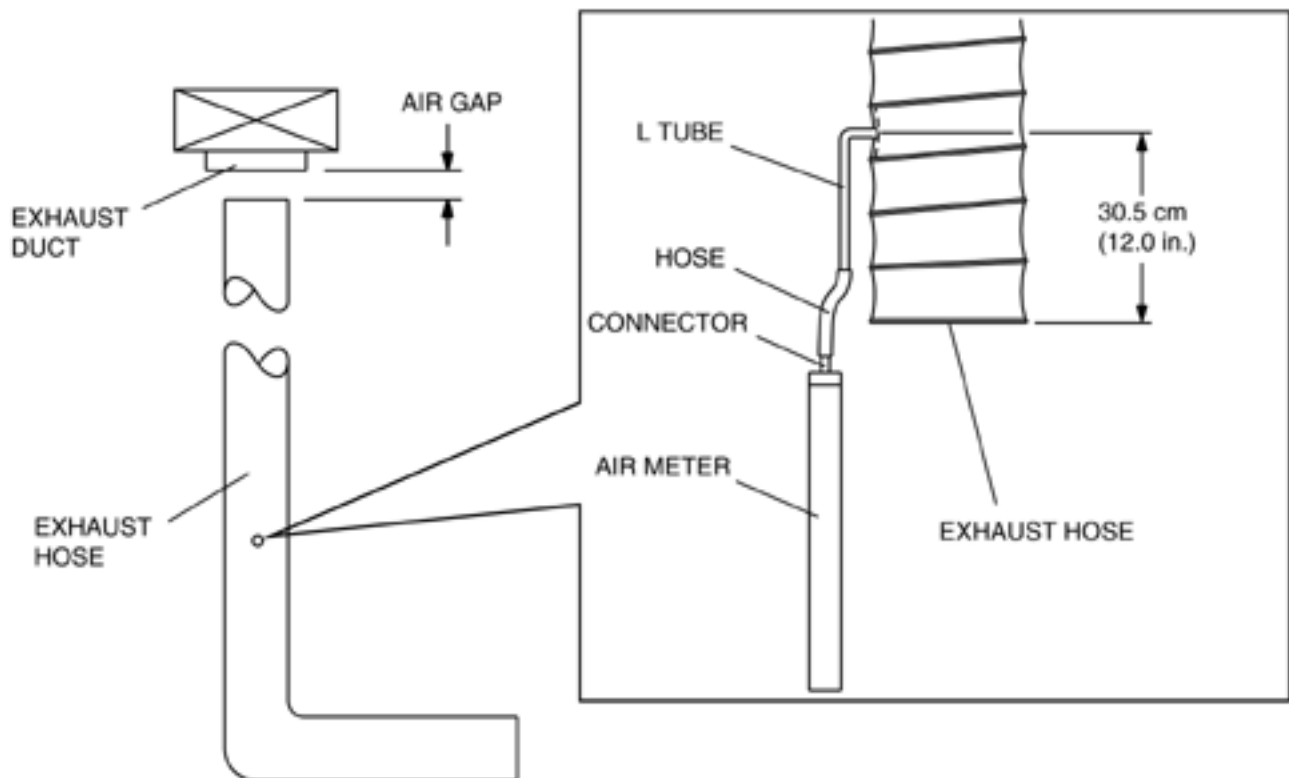
1. Air Meter (TL-2431).

The above item can be ordered through Service Parts Management at 800-431-7278 (U.S.) or 716-724-7278 (Outside U.S.).

**Procedure: Preparation**

Step	Action
1	Make sure the processor/multiloader exhaust hose is connected to the building exhaust duct system. Disposal of effluent air must comply with prevailing environmental codes.
2	<b>Power down the processor/multiloader.</b>
3	Disconnect the exhaust hose from the rear of the equipment.
4	Connect the rubber hose on the Air Meter's <b>center</b> connector.
5	Connect the L Tube to the rubber hose.
6	Make a 6.4 mm (1/4 in.) hole approximately 30.5 cm (12 in.) from the end of the exhaust hose that will be connected to the processor.
7	Insert the L Tube into the hole (Step 6) so the end of the L Tube is flush with the inside of the exhaust hose and perpendicular to the wall of the exhaust hose.

**Important:** Do not connect the exhaust hose to the processor when checking negative static pressure.



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**Procedure: Measuring the Static Pressure**

Step	Action
1	Hold the Air Meter vertically to assure the greatest accuracy. Make sure the meter tubing is not kinked.
2	Record the average of several readings.
3	Compare the average reading with the information in the table below (Measuring the Static Pressure). <b>Important:</b> The negative airflow in the processor exhaust duct must remain constant when the processor is in the run, standby, and shut-down mode; therefore, the building exhaust system must be on 24 hours a day and have the same negative airflow throughout the day.
4	If the average reading is not within the tolerances specified in the table, adjust the Air Gap Assembly to obtain the tolerances. If the tolerances still can not be obtained and you must exceed the maximum in order to obtain the correct negative static pressure, contact site management personnel to have the building exhaust corrected. <b>Important:</b> There must be an adequate air gap (maximum 5.08 cm / 2 inches) between the processor exhaust hose and the building exhaust to prevent positive airflow from flowing back into the processor. If the building exhaust venting system can not meet specifications, an Auxiliary Ventilation Fan Kit can be ordered through Service Parts Management. For additional information, see <a href="#">KODAK Auxiliary Ventilation Fan Kit</a> .
5	Reconnect the exhaust hose to the processor.

**Measuring the Static Pressure**

Duct Diameter	Negative Static Pressure of Water Head	
	Minimum	Maximum
76 mm (3 in.)	0.76 mm (0.03 in.)	1.02 mm (0.04 in.)
102 mm (4 in.)	0.25 mm (0.01 in.)	0.51 mm (0.02 in.)

**Additional Notes**

If the processor/multiloader is installed in a darkroom wall opening, the darkroom air pressure *must exceed the air pressure of the area outside the darkroom*. This will:

- Prevent air from cascading through the processor and into the darkroom area.
- Assure correct dryer venting.
- Minimize chemical fume and vapor containment inside the processor and its dryer exhausting system.
- Reduce film artifacts in the out-of-solution transport roller sections.
- Reduce corrosion of the processor/multiloader.

**Room Ventilation**

The room must have a minimum of 10 air exchanges each hour.

*Note: Technical Information Bulletins provide information of limited or specific application. Responsibility for judging the applicability of the information for a specific use rests with the end user.*

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