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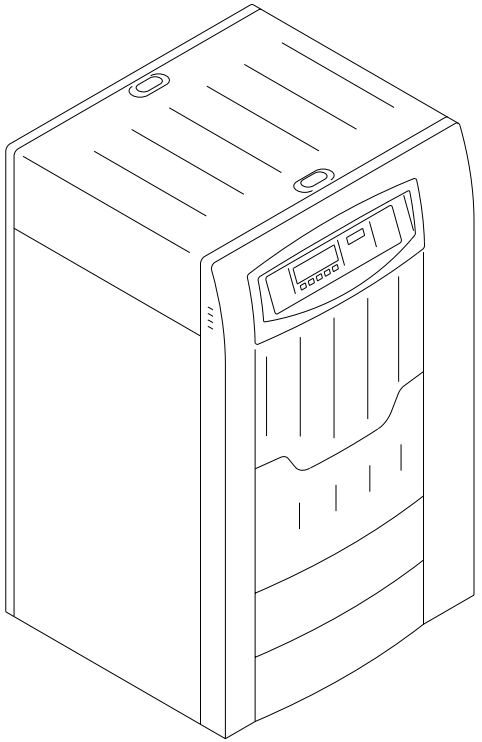
SITE SPECIFICATIONS
for the
Kodak X-Omat 5000 RA Processor



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Warning

To avoid hazardous conditions, keep floors and floor coverings around your KODAK X-OMAT Processor and associated drains 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 an accumulation of liquid due to backup, overflow, or other malfunctions of the drain associated with your KODAK X-OMAT Processor, call a plumber or other contractor to correct any problem with the drain. Kodak accepts no responsibility or liability whatsoever for the serviceability of any drain connected to or associated with a KODAK X-OMAT Processor. Such drains are the sole responsibility of the customer.

Certification

The following Agencies have approved the Processor:		The Processor meets the following EMI limits:
UL	listed to Standard No. 122	CLASS B EN 55022
CSA	certified to Standard C22.2, No. 950-M89	EDD 499/82
TUV	licensed to EN 60950	Post Vfg 243/1991
		FCC Part 15, Class A Limits
The Processor is manufactured under ISO 9001 and 9002 processes and certified by the British Standards Institute.		

Checklist

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Section 1: Architectural

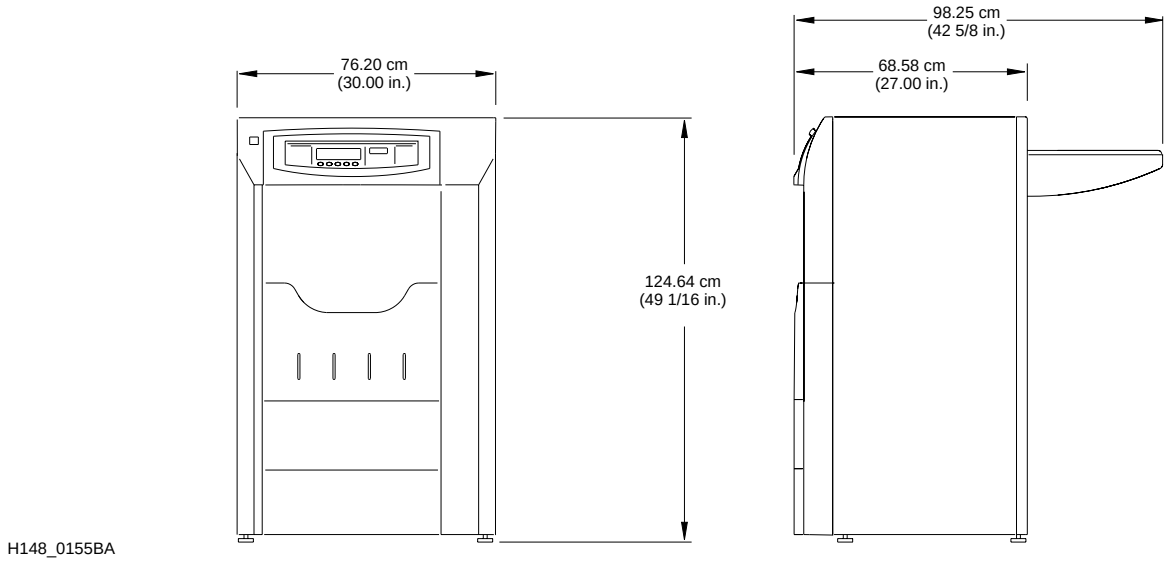
Parts

Part No.	Description	Quantity	How to obtain the part
914894	Seismic Kit	1	If necessary, the customer can order these Kits from Kodak.
898-0815*	Kodak X-Omat 5000 RA Through-the-Wall Light-Lock Kit for installing the Dyer End of the Processor through the wall	1	
650938	Light-Lock Gasket for a Through-the-Wall Installation	1	These parts are packed with the Processor. See Page 6.
5B6910	Light-Lock Bar	1	
------	Plywood or equivalent material for a Through-the-Wall Installation	1	The customer must obtain the material locally.

* This item is a catalog number.

Specifications

Processor



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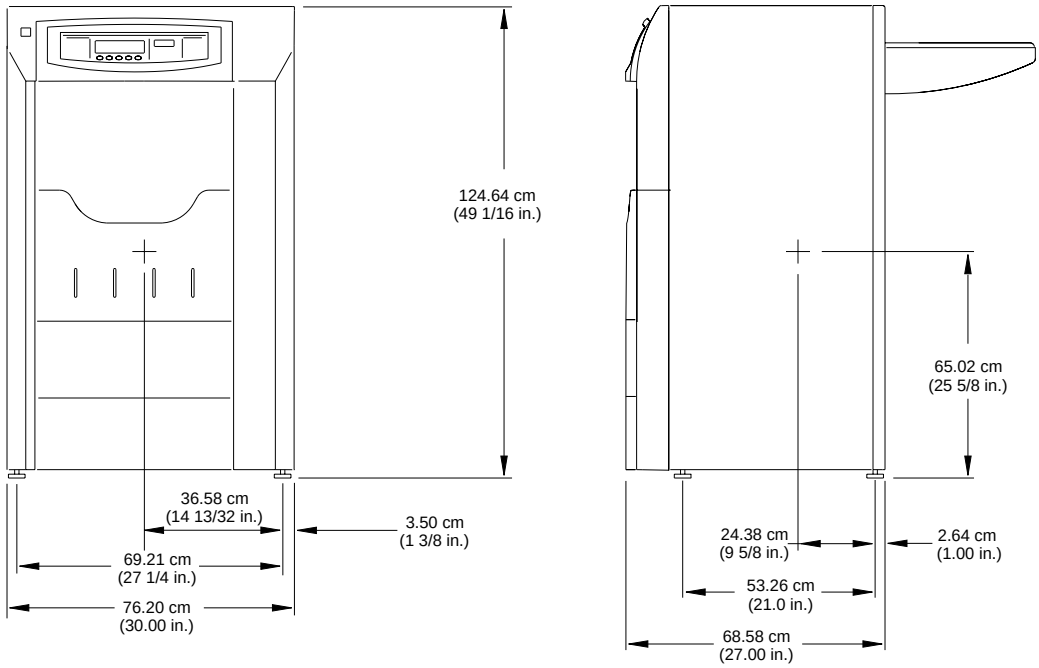
Specifications of the Shipping Crate and Processor	
Dimensions	Weight
86.4 x 88.9 x 141.0 cm (34 x 35 x 55 1/2in.)	238 kg (555 lb)

Weight of the Processor	
With Solution	Without Solution
244 kg (570 lb)	207 kg (490 lb)

Center of Gravity



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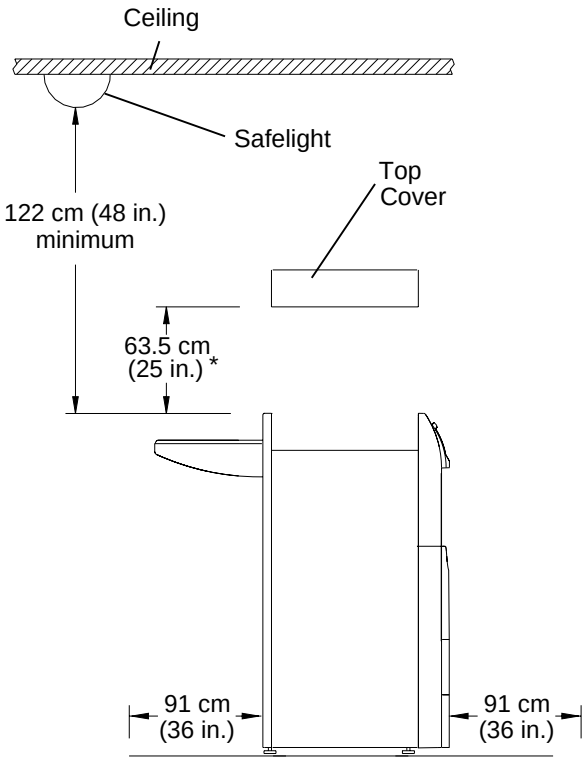
Access and Ceiling Requirements



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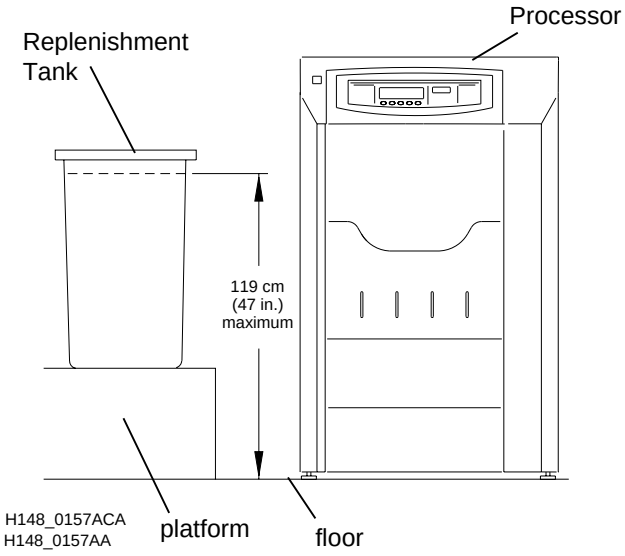
*Minimum clearance for removing the Racks

Important

If these access requirements are not provided, service time and cost may increase.

Subject	Requirements
Service Access Area	91 cm (36 in.) on all sides of the Processor
Safelight	122 cm (48 in.) minimum from the top of the Processor
Clearance above the Processor	63.5 cm (25 in.) minimum clearance for removing the Racks
Ceiling	A sealed ceiling made of dry wall or Sheetrock material. The ceiling should not be made of removable panels that can cause dust.

Replenishment Tanks

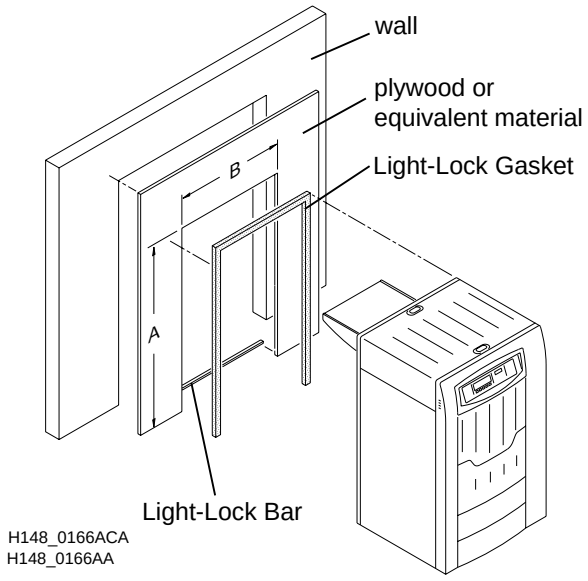


Subject	Requirements			
Position of the Tanks	**Important** To prevent solution from flowing through the Replenishment Pumps, the maximum distance between the top of the solution in the Tank and the floor cannot exceed: • 119 cm (47 in.) Locate the Tanks close to the water supply for mixing chemicals. Kodak provides 2 Replenishment Strainers to be installed in the Hoses between the Tanks and the Processor during installation.			
Dimensions		**14 gallon**	**30 gallon**	**55 gallon**
	Diameter of a Tank	43.2 cm (17 in.)	55.9 cm (22 in.)	61.0 cm (24 in.)
	Height of a Tank	58.4 cm (23 in.)	70.5 cm (27 3/4 in.)	90.8 cm (35 3/4 in)
	Floor area of 2 Tanks	61.0 x 12.7 cm (24 x 50 in.)	61.0 x 152.4 cm (24 x 60 in.)	66.0 x 172.7 cm (26 x 68 in.)

Opening for a Through-the-Wall Installation

Subject	Requirements	
Procedure	**Important** The opening must be the correct size to prevent light leakage around the Processor. Use either of the following procedures to obtain the correct-size opening. Kodak provides a Light-Lock Gasket for installation around the opening and a Light-Lock Bar for installation on the floor. Installation with Plywood: • Use a ¾-in. sheet of plywood or equivalent material that is: – exterior grade – fire retardant – medium density overlay (MDO) • Make the correct-size opening in the plywood. • Make a larger opening in the wall. • Install the plywood against the wall in the light room. Installation without Plywood: • Make the correct-size opening in the wall.	
Opening for the Feed End	Distance A	120.0 cm ± 12.7 cm (47 ¼ in. ± ½ in.)
	Distance B	72.4 cm ± 12.7 cm (28 ½ in. ± ½ in.)
Opening for the Dryer End	Distance A	126.7 cm ± 12.7 cm (49 15⁄16 in. ± ½ in.)
	Distance B	78.7 cm ± 12.7 cm (31 in. ± ½ in.)

Feed End



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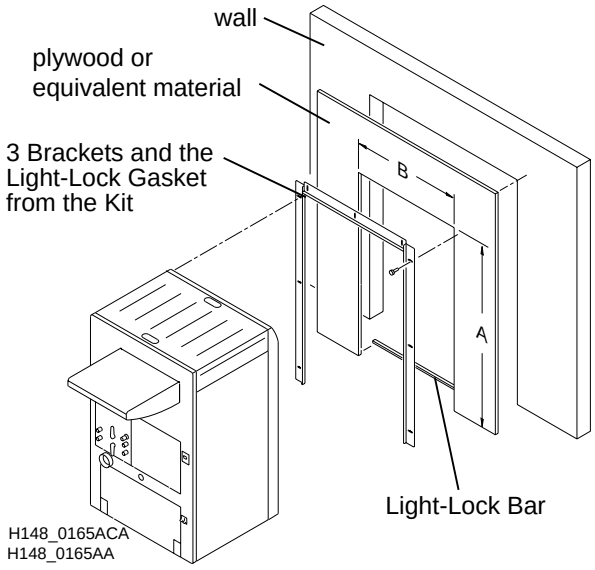
Dryer End



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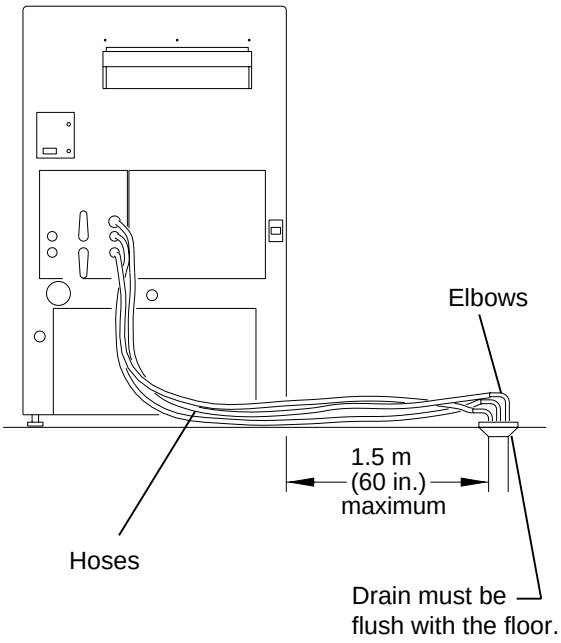
Section 2: Plumbing

Parts

Part No.	Description	Quantity	How to obtain the part
452990	3/8-in. Tubing for the Replenishment System	Order by the foot.	The customer can obtain this Tubing locally or order it from Kodak.
246808	Hose Clamp for the Developer, Fixer, and Wash Drains	3	These parts are packed with the Processor.
246811	Hose Clamp for the Replenishment Hoses	6	
264986	1/4 x 60-in. formed Tubing for the Developer, Fixer, and Wash Overflows and Drains	3	
286756	3/8 x 3/8-in. Elbow for the Replenishment Hoses	2	
472261	Replenishment Strainer	2	
581094	Washer for Hose Adapter	1	
594431	Adapter for the Water Supply Inlet on the Processor to accept a 1/2-in. NPT	1	
459970	3/8 x 3/8-in. Connector for the Replenishment Hoses	2	

Specifications



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Subject	Requirements	
Codes	**Warning** All plumbing requirements must comply with local and national codes.	
Drain	**Warning** All drain material must be made of chemically resistant, non-corrosive material. Use PVC or the equivalent. The Drain must have a minimum diameter of 7.6 cm (3 in.) and no obstructions.	
	Minimum diameter	7.6 cm (3 in.)
	Capacity	15 L/min (4 gal/min)
	Distance from the Processor	1.5 m (60 in.) maximum
	Height from the floor	flush with the floor
	Hoses	Tubing is packed with the Processor.
	Drain	Do not make a solid connections between the Hoses and the Drain. Use corrosive resistant connections. Elbows are recommended to direct the Hoses into the Drain. The customer can order the Elbows from Kodak. See Page 7.

Subject	Requirements	
Water Supply	Location	accessible to both the Processor and the Replenishment Tanks
	Temperature	4.5 - 29.5°C (40 - 85°F) The incoming water supply must be a minimum of 5.5°C (10°F) below the developer temperature setpoint to provide the correct control of the developer temperature. Kodak suggests a tempered water supply for cleaning the Processor and for mixing chemicals manually.
	Pressure	173 - 448 kPa (25 - 65 psi) If necessary, install a Pressure Regulator and Gauge.
	Flow volume	3.9 L/min (1.0 gal/min), ± 10% without a Kodak X-Omat 5000 RA Intregrated Chemical Mixer (ICM)
		7.8 L/min (2.0 gal/min), ± 10% with an ICM
	Filtration	50 micron Water Filter in the input water line
	Check Valve or Vacuum Breaker	The Processor has an internal 2.54 cm (1 in.) water gap in the wash supply system. A Check Valve should not be necessary, unless local codes require one.

Section 3: Electrical

Parts

Part No.	Description	Quantity	How to obtain the part.
744714	Utility Safelight Plug	1	These parts are packed with the Processor.*
955747	Adapter Cord Set	1	

* To use the Safelight Receptacle for an Optional Accessory, the Receptacle on the Processor and the Plug on the Accessory must be compatible. If the Accessory has a:

- standard 120 V Plug, use the Adapter Cord Set between the Accessory and the Processor.
- non-standard 120 V Plug, use the Utility Safelight Plug in place of the existing Plug on the Accessory.

Specifications

<table>
<tr><th>Subject</th><th colspan="8">Requirements</th></tr>
<tr><td>Basic Service</td><td colspan="8">Warning
Earth ground is required.
All electrical service must comply with local and national codes.</td></tr>
<tr><td>Suggested Service for most U.S. sites</td><td colspan="8">120/208 V, 35 A, 60 Hz, 4 wires (Line 1, Line 2, Neutral, and Ground). This configuration is frequently referred to as single phase.</td></tr>
<tr><td rowspan="10">Service Options</td><td colspan="4">Voltage</td><td>Amps</td><td>Hertz</td><td colspan="2">Service</td></tr>
<tr><td>200</td><td>220</td><td>230</td><td>240</td><td>35</td><td>50/60</td><td colspan="2">3 wires (Line 1, Line 2, and Ground), single phase</td></tr>
<tr><td>100/200</td><td>120/240</td><td></td><td></td><td>35</td><td>50/60</td><td colspan="2">4 wires (Line 1, Line 2, Neutral, and Ground), single phase</td></tr>
<tr><td>120/208</td><td></td><td></td><td></td><td>35</td><td>60</td><td colspan="2">4 wires (Line 1, Line 2, Neutral, and Ground), 3-phase*, wye</td></tr>
<tr><td>127/220</td><td>220/380</td><td>230/400</td><td>240/415</td><td>35</td><td>50</td><td colspan="2">4 wires (Line 1, Line 2, Neutral, and Ground), 3-phase*, wye</td></tr>
<tr><td>200</td><td></td><td></td><td></td><td>25</td><td>50/60</td><td colspan="2">4 wires (Line 1, Line 2, Line 3, and Ground), 3-phase, delta</td></tr>
<tr><td>120/208</td><td></td><td></td><td></td><td>25</td><td>60</td><td colspan="2">5 wires (Line 1, Line 2, Line 3, Neutral, and Ground), 3-phase, wye</td></tr>
<tr><td>127/220</td><td>220/380</td><td>230/400</td><td>240/415</td><td>25</td><td>50</td><td colspan="2">5 wires (Line 1, Line 2, Line 3, Neutral, and Ground), 3-phase, wye</td></tr>
<tr><td colspan="8">*In this configuration, only a single phase is used.</td></tr>
<tr><td>Main Power Disconnect Switch</td><td colspan="8">This Switch must be:
• located on a wall adjacent to the Processor in the light room area
• visible and accessible from the Processor
• a safe distance from water</td></tr>
</table>

Section 4: Heating, Ventilation, and Air Conditioning

Parts

Part No.	Description	Quantity	How to obtain the part
264503	*Kodak* Auxiliary Ventilation Fan Kit / 110 V Includes: Air Gap Assembly 264519	1	The customer can order these parts from Kodak or obtain equivalent parts locally.
264519	Air Gap Assembly	1	

Specifications

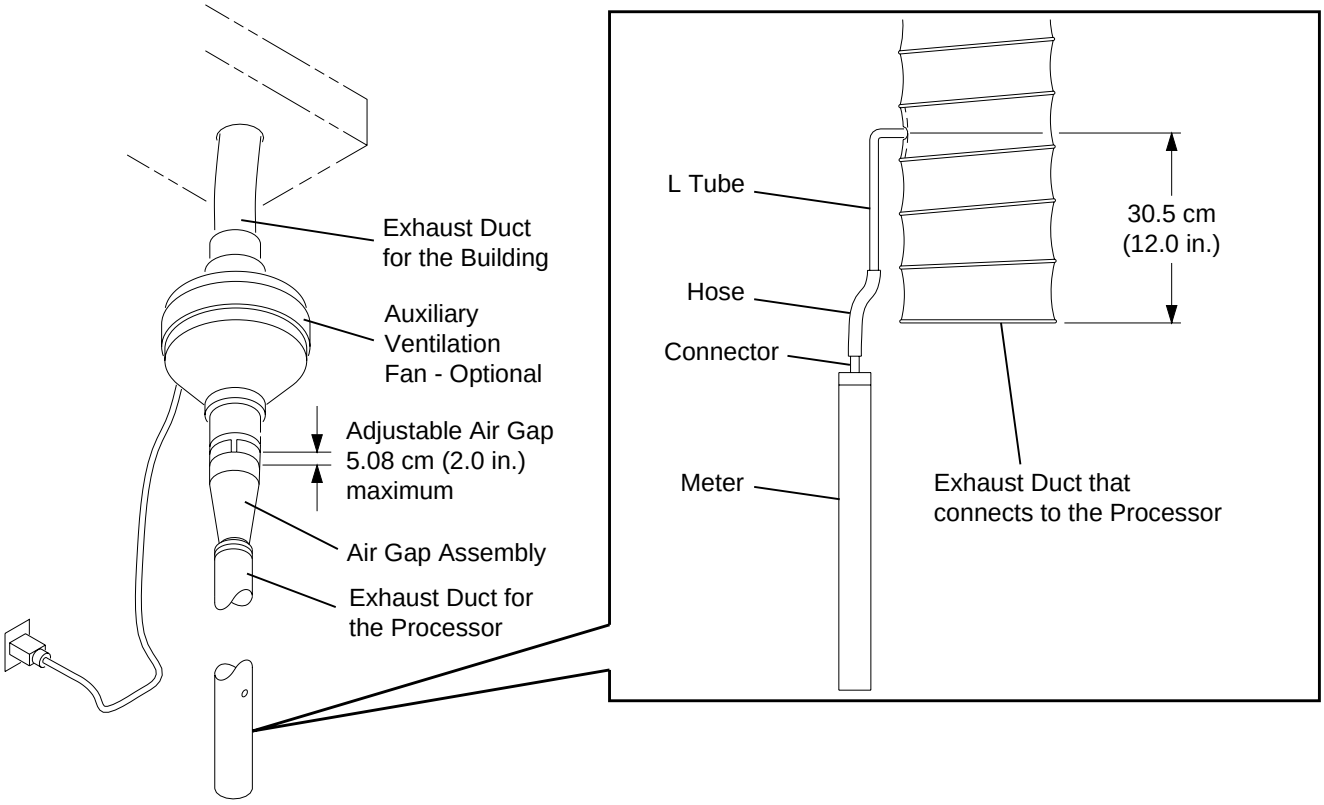
Subject	Requirements		
Room	Temperataure	15 - 30°C (59 - 86°F)	
	Relative Humidity	15 - 76%	
	Ventilation	10 room air exchanges/hr for a room that is 3 x 3 x 3 m (10 x 10 x 10 ft)	
Building Exhaust System	The system must have the following ratings:		
	Volume -- full load	2,124 L/min (75 ft^3/min) maximum, 24 hours per day	
	Temperature	66°C (150°F) maximum	
	Heat Load to the Room with the Processor	2780 W (9485 BTU/hr)	
	Exhaust Duct from the Processor	Diameter = 7.6 cm (3 in.)	
	Exhaust Duct from the Building with an Adjustable Air Gap	Negative Pressure*	
		7.6 cm (3 in.) Duct	0.76 - 2.54 mm (0.03 - 0.10 in.) of water
		10.2 cm (4 in.) Duct	0.25 - 1.02 mm (0.01 - 0.04 in.) of water
		*See the next page for the procedure for checking the negative pressure. If the negative pressure is not correct, an Auxiliary Ventilation Fan must be installed.	

Note

For through-the-wall installations, the air pressure in the dark room must be greater than the air pressure in the light room to prevent air flowing through the Processor into the dark room. When the air pressure is correctly balanced and the Processor is correctly vented, the:

- chemical fumes and vapors will be contained
- film artifacts will be reduced

Procedure for Checking the Negative Pressure



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Diameter of the DUCT	Negative Pressure
7.6 cm (3.0 in.)	0.76 - 2.54 mm (0.03 - 0.10 in.) of water
10.2 cm (4.0 in.)	0.25 - 1.02 mm (0.01 - 0.04 in.) of water

[1] Connect the rubber Hose from the Air Meter TL-2431 to the:

- L Tube
- center Connector on the Meter

[2] Make a 6.4 mm (1/4 in.) hole approximately 30.5 cm (12 in.) from the end of the Exhaust Duct that will be connected to the Processor.

[3] Insert the L Tube into the hole you just made until the end of the Tube is flush with the inside of the Exhaust Duct.

[4] Check that the negative pressure on the Meter is correct.

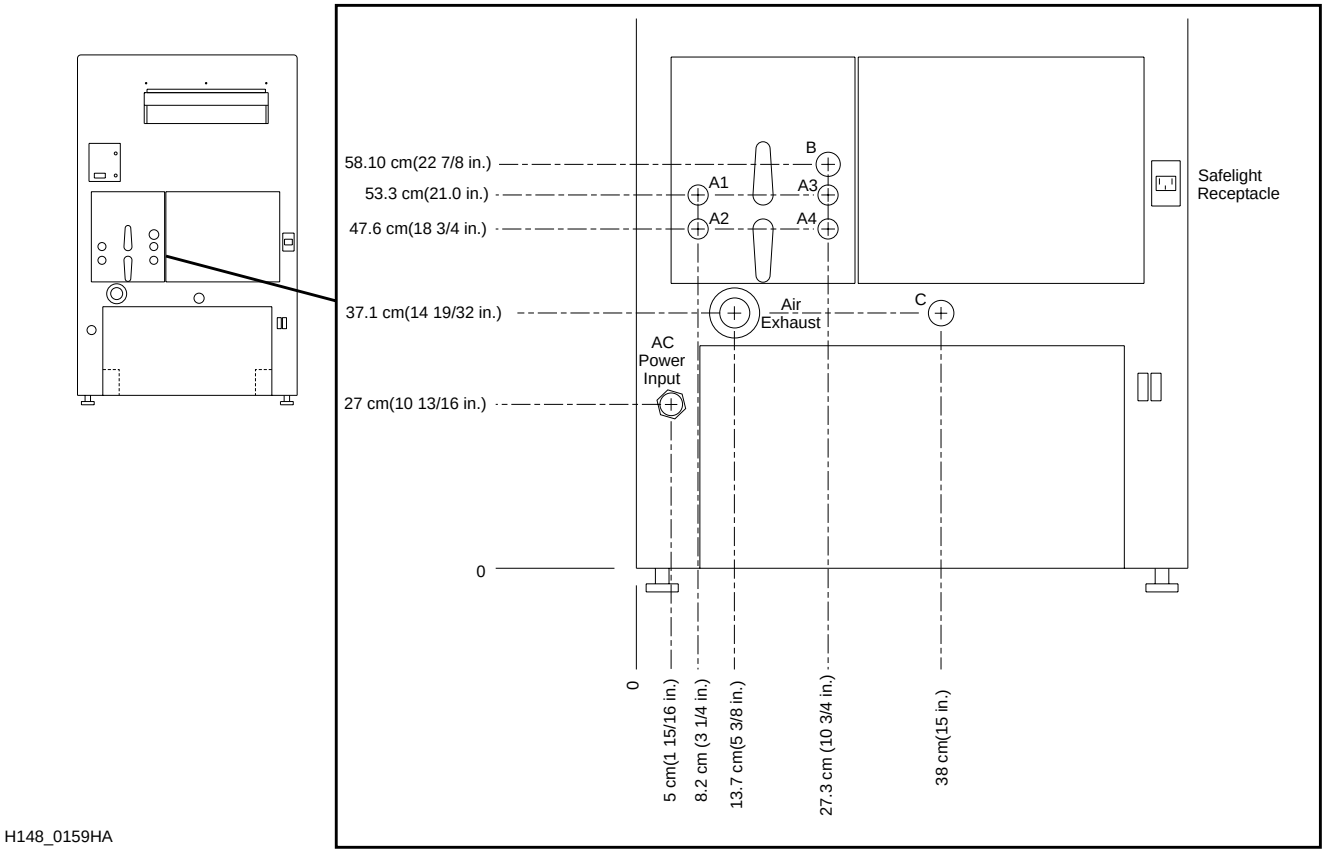
- Do not connect the Exhaust Duct to the Processor.
- Hold the Meter vertically.

[5] If necessary, adjust the distance between the Exhaust Duct for the Building and the Exhaust Duct for the Processor until the negative pressure is correct. If you cannot obtain the correct negative pressure, an Auxiliary Ventilation Fan must be installed.

[6] Remove the L Tube from the Exhaust Duct and seal the remaining hole.

Section 5: Appendix A

Position of AC Power Input, Air Exhaust, and Plumbing Connections



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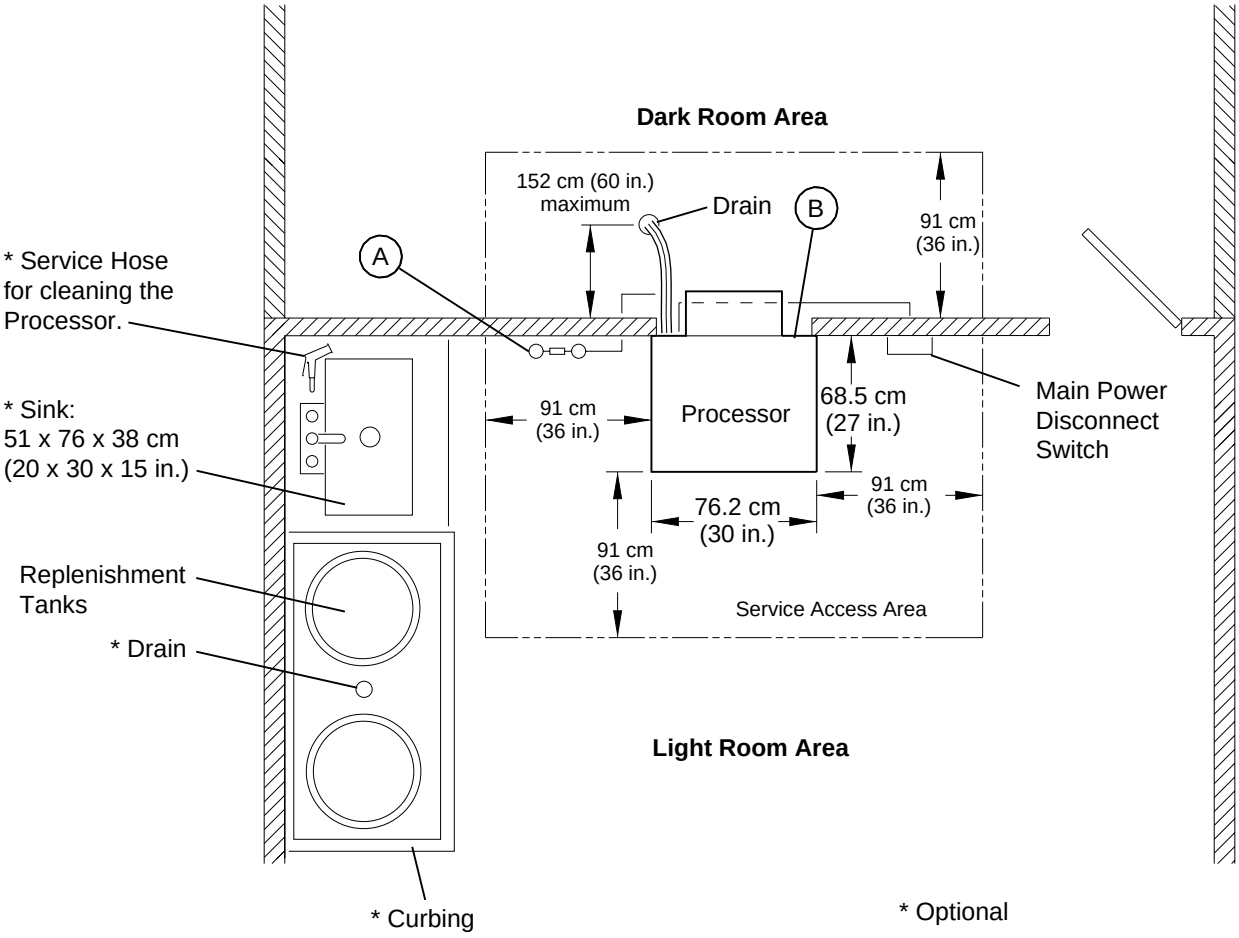
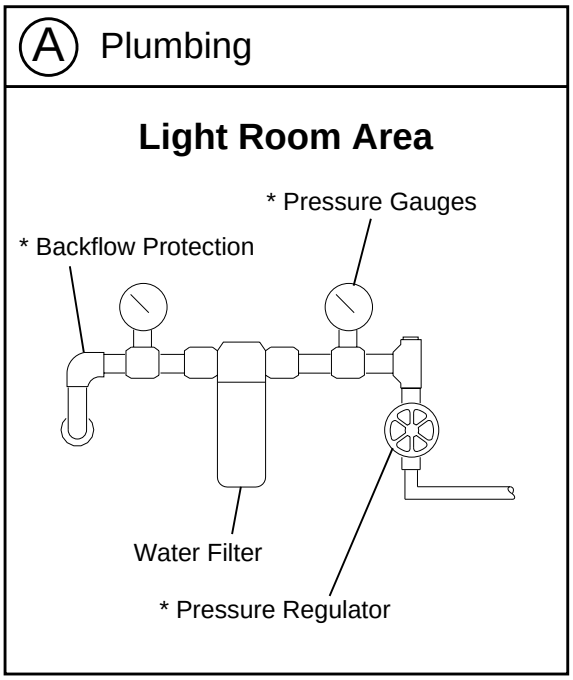
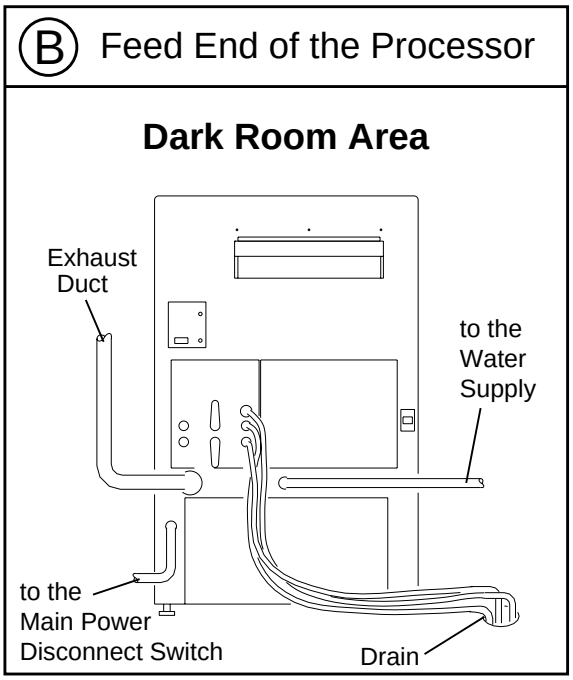
Item	Description	Hose Fitting
A1	Fixer Auxiliary Drain	¾-in. ID
A2	Developer Auxiliary Drain	
A3	Fixer Overflow and Drain	
A4	Developer Overflow and Drain	
B	Wash Overflow and Drain	
C	Water Supply Inlet	¾-in. diameter 11½ Garden Hose Thread (GHT)*

* Kodak provides an Adapter during installation. The Adapter enable you to connect the Processor to a ½ in. NPT.

Suggested Room Layout







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Section 6: Publication History

Print Date	Pub. No.	ECO No.	Affected Pages	File Name	Notes
October 1995	5B6338	2649-029	All	ss3425_1_029.doc	First printing
January 1996	5B6338	2649-062	Covers	ss3425_1_062.doc	Graphic Unification.
February 1996	5B6338 (PCN Pub. No. 8B7490)	2649-087	Covers and 10	ss3425_1_087.doc	PCN 1 — Current change from 30 A to 35 A.
April 1996	5B6338	2649-098	All	ss3425_1_098.doc	Incorporated PCN 1 when reprinting.
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