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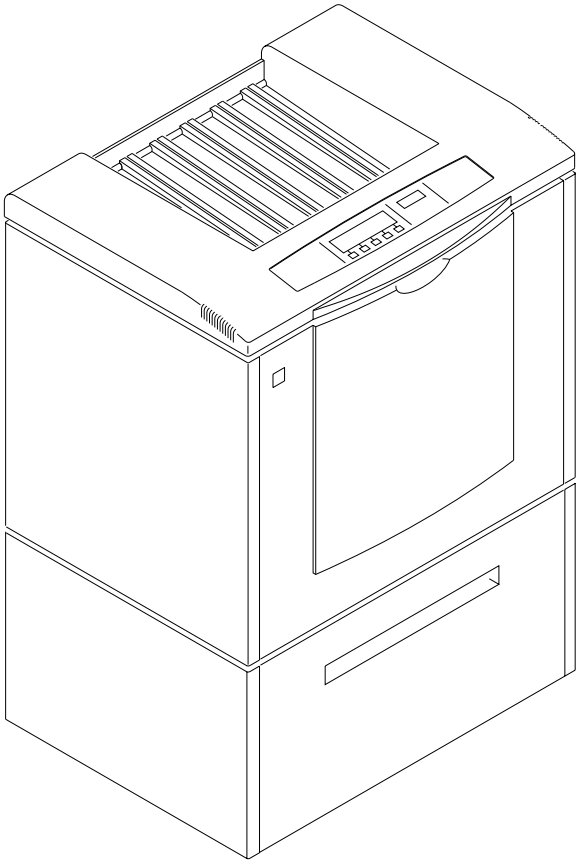
HEALTH IMAGING

SITE SPECIFICATIONS
for the
Kodak X-Omat 3000 RA PROCESSOR
Service Code: 3434



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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 60601-1	Post Vfg 243/1991
FCC	approved to Part 15, Class A limits	
The PROCESSOR is manufactured under ISO 9001 and 9002 processes and certified by the British Standards Institute.		

Checklist:

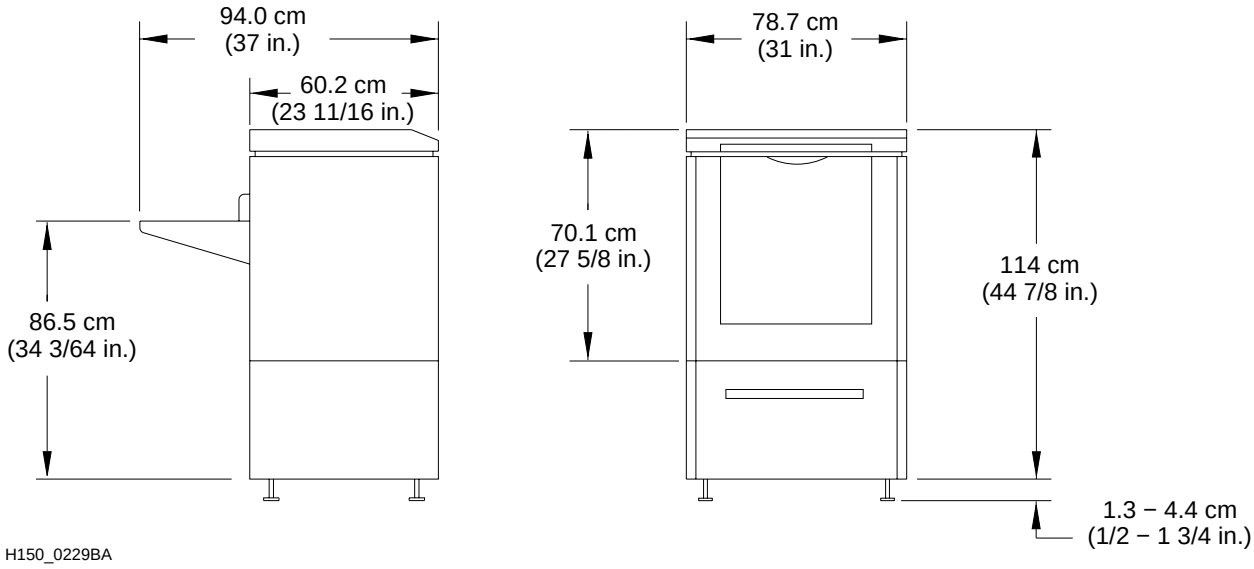
Section 1: Architectural

Parts

Part No.	Description	Qty.	How to obtain the part
914894	Seismic Kit for the PROCESSOR without a Stand	1	If necessary, the customer orders the Kit from SPM.
914895	Seismic Kit for the PROCESSOR with a Stand	1	
650938	Light-Lock Gasket for a Through-the-Wall Installation	1	The Gasket is packed with the PROCESSOR. See Page 6.
------	Plywood or equivalent material for a Through-the-Wall Installation	1	The customer must obtain the material locally.
------	PROCESSOR Stand	1	Order Catalog No. 125 7674 from the Distribution Center.
------	Front Exit Ay	1	Order Catalog No. 874 3890 from the Distribution Center.

Specifications

PROCESSOR



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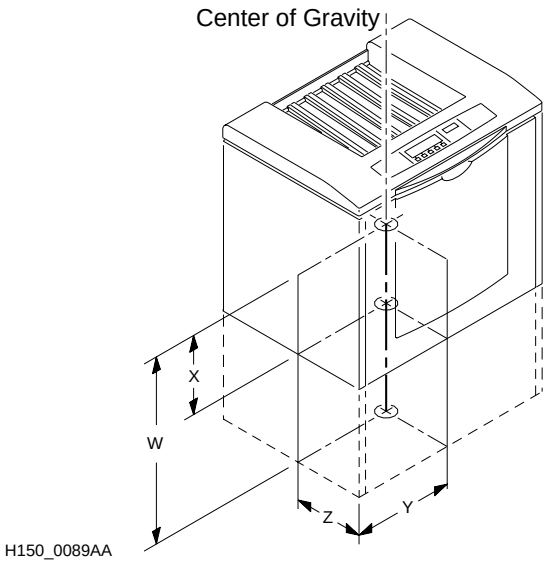
Specifications of the Shipping Crate and PROCESSOR		
	Dimensions	Weight
PROCESSOR	74 x 94 x 114 cm (29 x 37 x 45 in.)	152 kg (335 lb)
Stand	71 x 91 x 46 cm (28 x 36 x 18 in.)	23 kg (50 lb)

Weight of the PROCESSOR		
	With Solution	Without Solution
PROCESSOR with the Stand	157 kg (347 lb)	138 kg (305 lb)
PROCESSOR without the Stand	137 kg (302 lb)	118 kg (260 lb)

Center of Gravity



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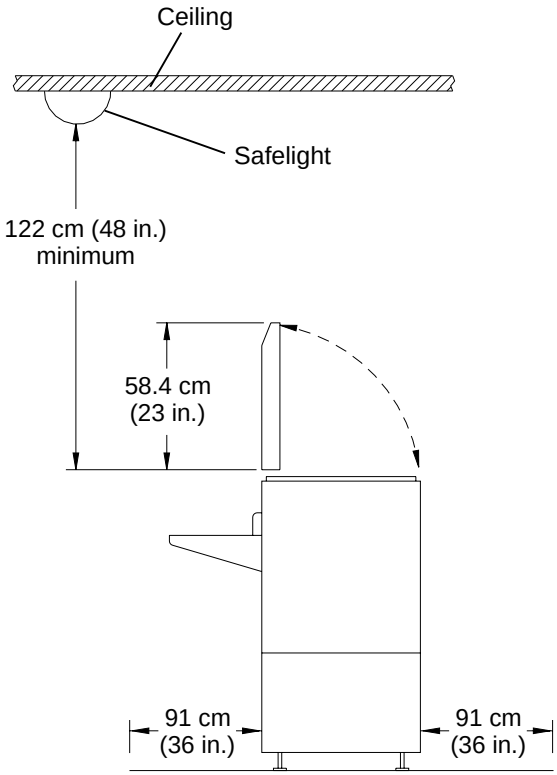
Center of Gravity of the PROCESSOR			
W	**X**	**Y**	**Z**
76 cm (30 in.)	33 cm (13 in.)	38 cm (15 in.)	30 cm (12 in.)

Access and Ceiling Requirements



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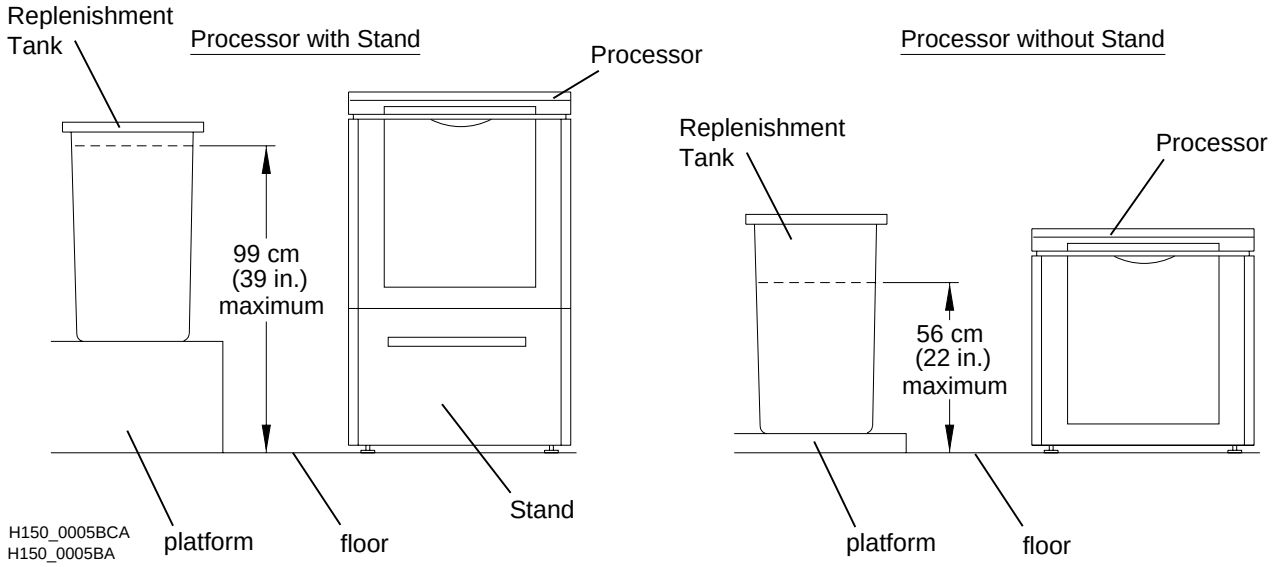
Important

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

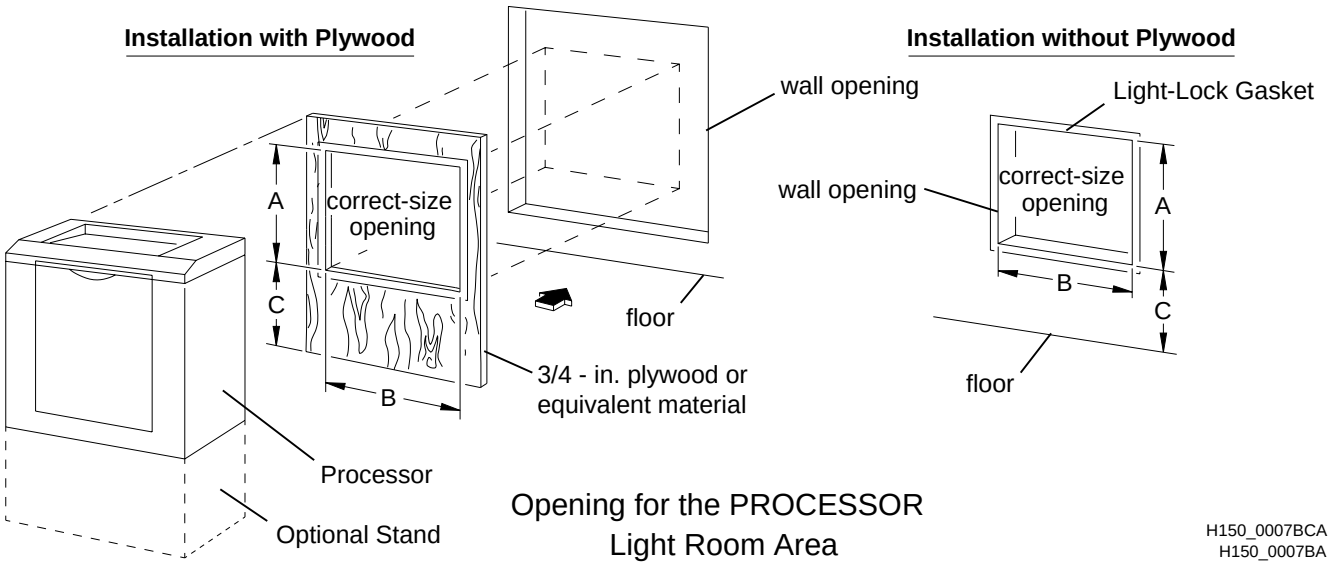
Subject	Requirements
Service Access Area	91 cm (36 in.) on all sides of the PROCESSOR
Safelight	122 cm (48 in.) minimum from the top of the PROCESSOR
Clearance above the PROCESSOR	58.4 cm (23 in.) minimum
Ceiling	A sealed ceiling made of dry wall or Sheetrock material. The ceiling should not be made 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 the distances listed below. See the figure above. • 99 cm (39 in.) for PROCESSORS with the Stand • 56 cm (22 in.) for PROCESSORS without the Stand 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 ¾ in.)	90.8 cm (35 ¾ 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.)
	If you want to place the Tanks in the Stand under the PROCESSOR, use the *Kodak* Developer-Fixer Replenisher Tank Set, Model M7, Catalog No. 150 0537.			

Opening for a Through-the-Wall Installation



Opening for the PROCESSOR
Light Room Area

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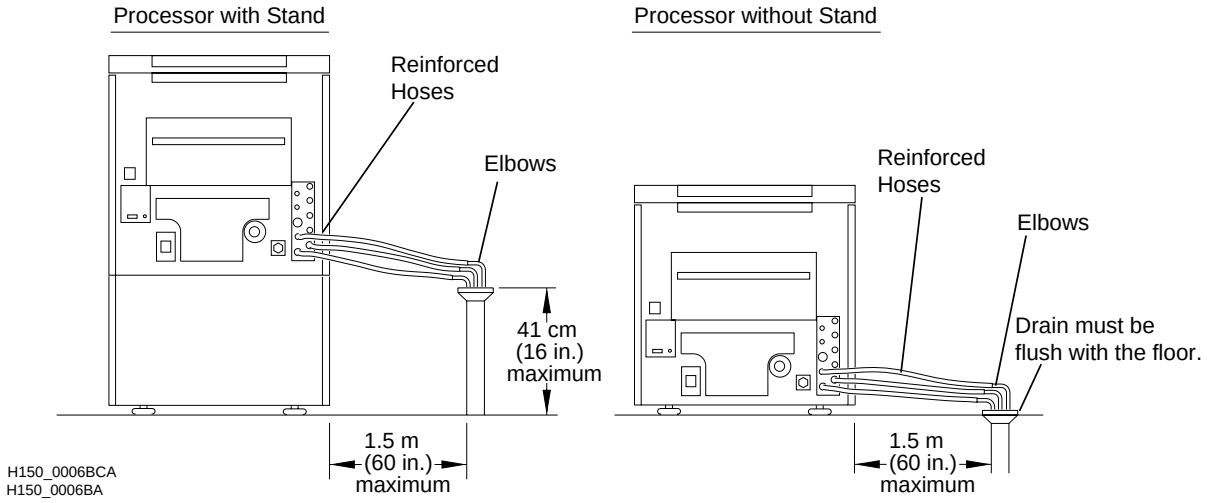
Subject	Requirements	
Opening for the PROCESSOR	**Important** The opening must be the correct size to prevent light leakage around the PROCESSOR. If the opening in the wall is too large, use plywood or an equivalent material to obtain the correct-size opening. Kodak provides a Light-Lock Gasket to install around the opening during installation. Use either of the following procedures to obtain the correct-size opening. Installation with Plywood • Use a ¾ -in. sheet of plywood or equivalent material that is: – exterior grade – fire retardent – 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.	
	Distance A	56.2 cm 0.6 cm (22 1⁄8 in. ¼ in.)
	Distance B	68.9 cm 0.6 cm (27 1⁄8 in. ¼ in.)
	Distance C for a PROCESSOR with a Stand and with the Leveling Feet in mid-position.	47.8 cm (18 13⁄16 in.)
	Distance C for a PROCESSOR without a Stand and with the Leveling Feet in mid-position.	6.2 cm (2 7⁄16 in.)

Section 2: Plumbing

Parts

Part No.	Description	Qty.	Notes
452990	3/8 -in. Tubing for the Replenishment System	Order by the foot.	The customer can obtain these parts locally or order them from Kodak.
696441	1-in. Reinforced Hose for the Drain		
696442	5/8 -in. Reinforced Hose for the Drain		
1C4521	5/8 -in. Elbow for the Drain	4	
1C4524	1-in. Elbow for the Drain	1	
246800	Hose Clamp for the Developer and Fixer Replenishment Hoses	2	These parts are packed with the PROCESSOR.
246803	Hose Clamp for the Developer and Fixer Overflows and the Developer and Fixer Drains	4	
246804	Hose Clamp for the Wash Drain	1	
472261	Replenishment Strainer	2	
594431	Adapter to connect the Water Supply Inlet on the PROCESSOR to a 1/2 -in. NPT.	1	
779470	Adapter to connect the Water Supply Inlet on the PROCESSOR to a 3/4 -in. Hose.	1	

Specifications



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 for a PROCESSOR with a Stand	41 cm (16 in.) maximum
	Height from the floor for a PROCESSOR without a Stand	flush with the floor
	Hoses	Reinforced Hose that will not kink is recommended. The customer can order the Hose from Kodak. See Page 7.
	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.
Water Supply	Location	Accessible to both the PROCESSOR and the Replenishment Tanks.
	Temperature	4.5 - 29C (40 - 84F) The incoming water supply must be a minimum of 5.5C (10F) 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	The PROCESSOR controls the flow for 1.9 L/min (0.5 gal/min), 15%.
	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	Qty.	Notes
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, 30 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="9">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>30</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>30</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>30</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>30</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>20</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>20</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>20</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

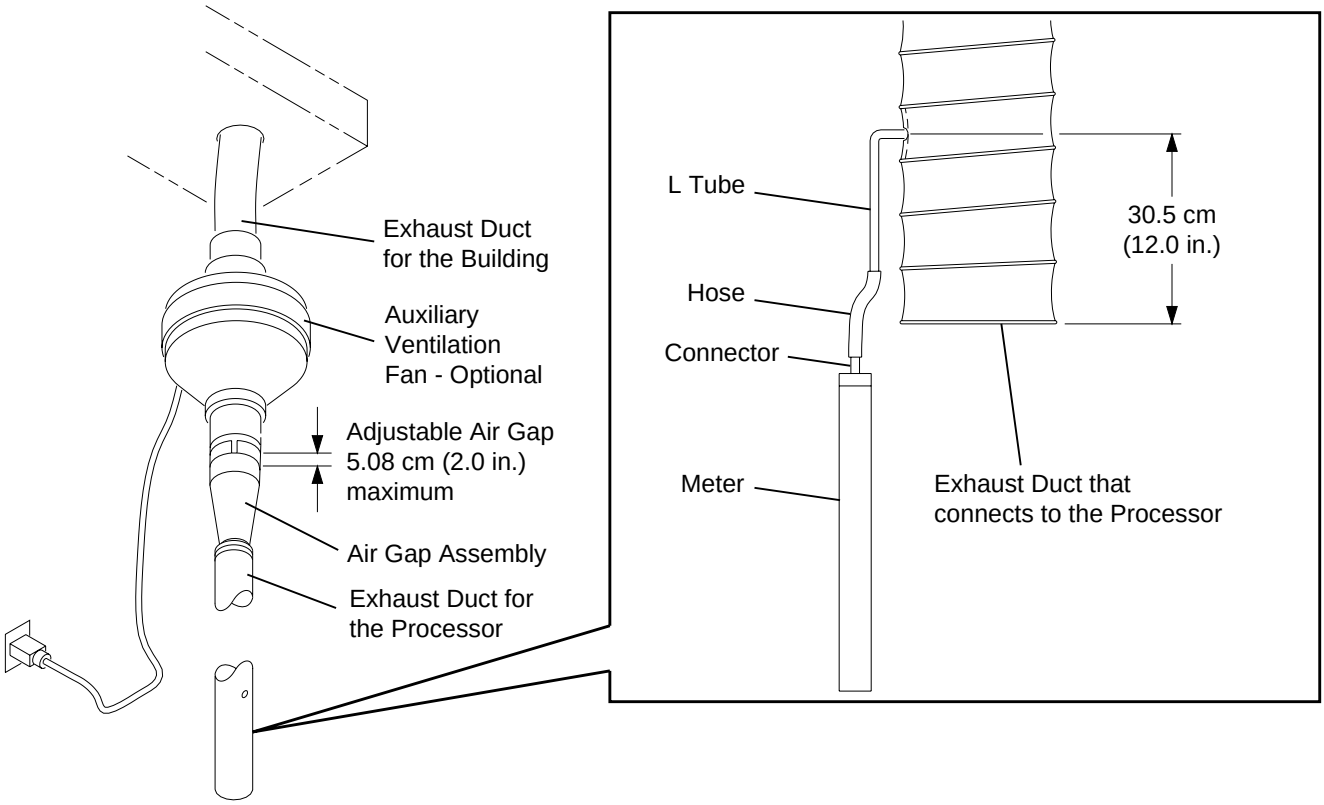
Parts

Part No.	Description	Qty.	Notes
264503	*Kodak* Auxilliary Ventilation Fan Kit / 110 V AC Includes: Air Gap Assembly 264519	1	The customer can order these parts from Kodak or obtain equivalent parts locally.
264519	Air Gap Assembly	1	
8B7105	*Kodak* Auxilliary Ventilation Fan Kit / 95 - 250 V AC, 47 - 63 Hz Includes: Air Gap Assembly 264519	1	

Specifications

Subject	Requirements		
Room	Temperature	15 - 30C (59 - 86F)	
	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	71C (160F) maximum	
	Heat Load to the Room with the PROCESSOR	4000 kJ/hr (3800 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.	

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 (¼ 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.

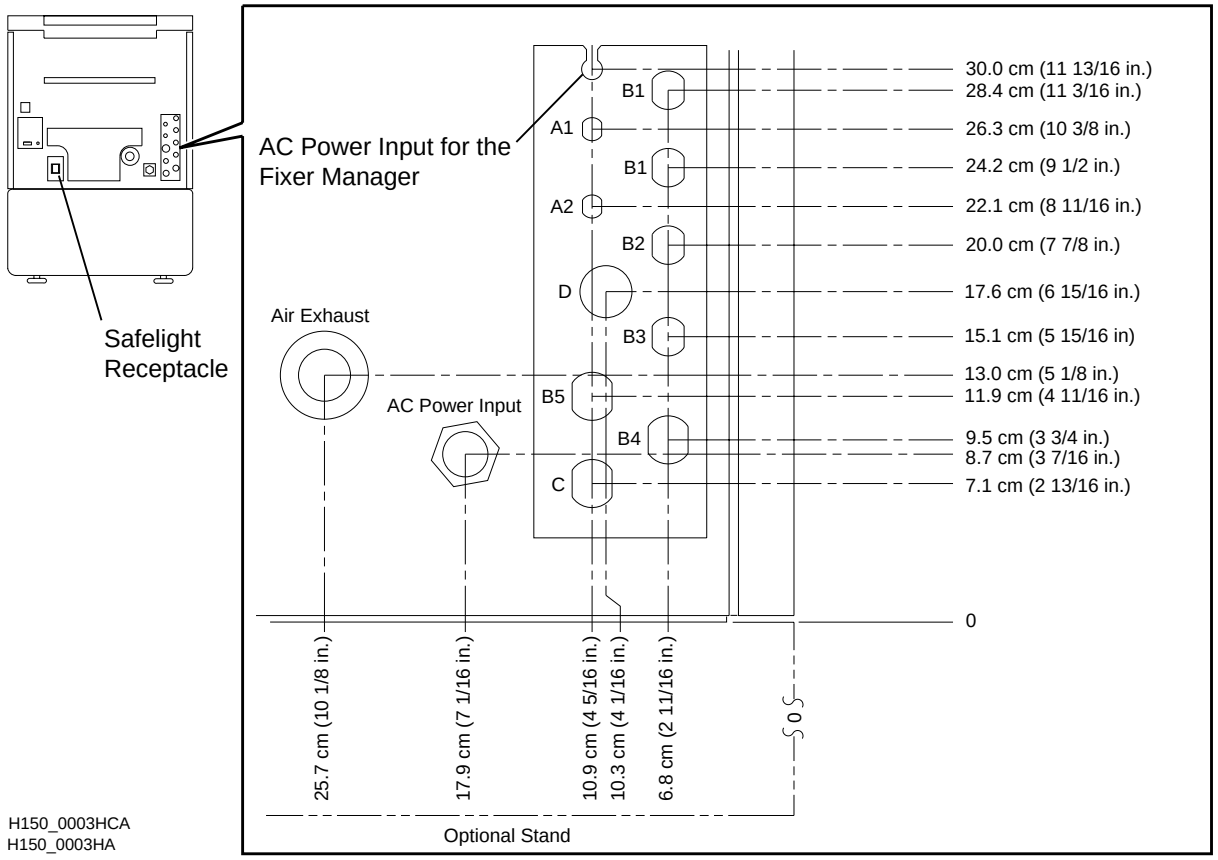
- Do not connect the Exhaust Duct to the PROCESSOR.
- Hold the Meter vertically.

[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

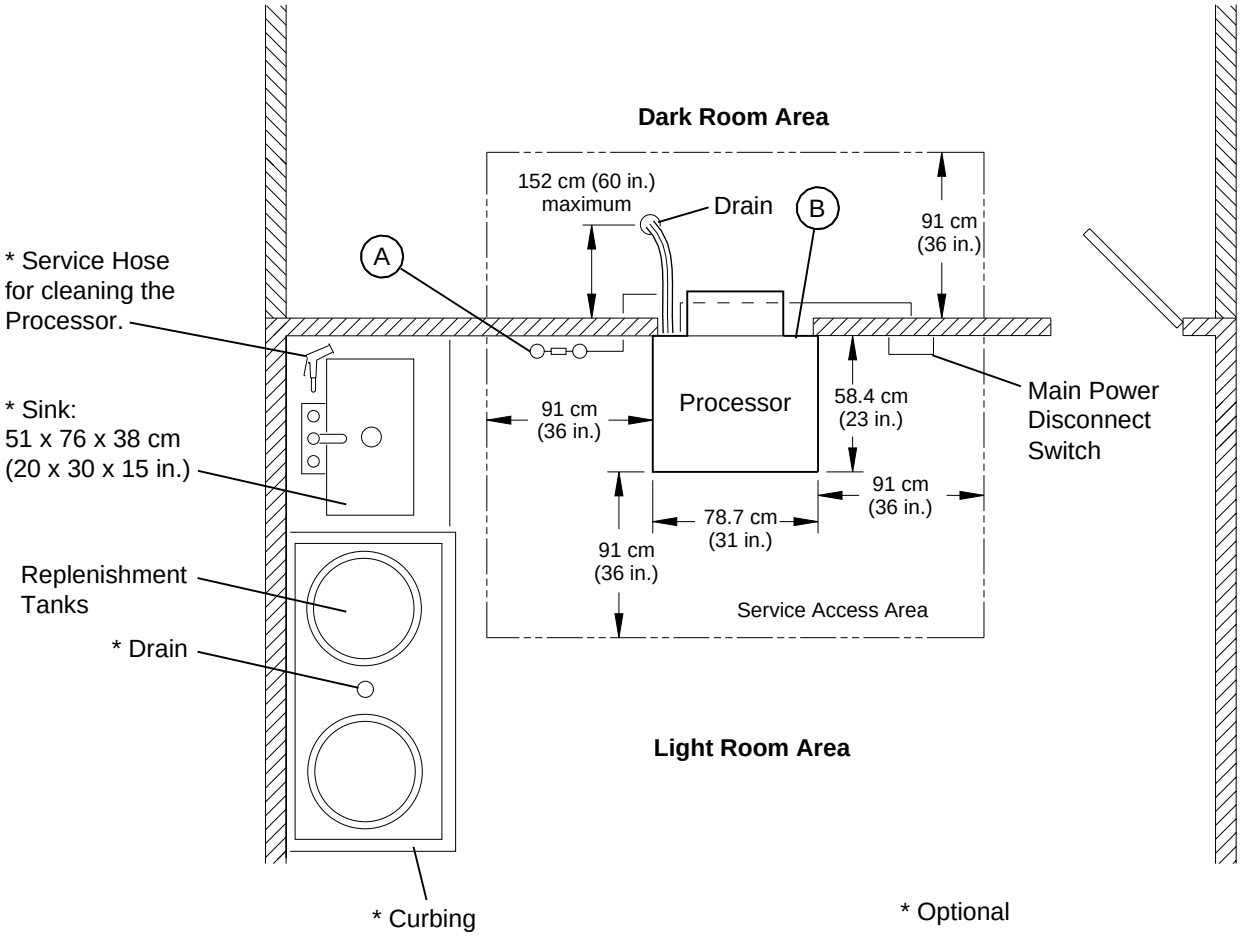


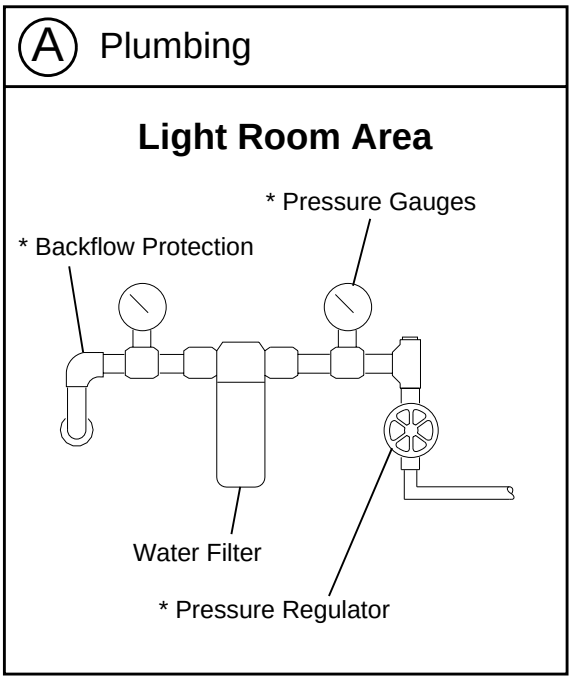
Item	Description	Hose Fitting
A1	Developer Replenishment	⅜ -in. ID
A2	Fixer Replenishment	
B1	Recirculated Silver Recovery	⅝ -in. ID
B2	Developer Overflow	
B3	Fixer Overflow	
B4	Fixer Drain	
B5	Developer Drain	
C	Wash Drain	1-in. ID
D	Water Supply Inlet	¾ -in. diameter 11½ Garden Hose Thread (GHT)*

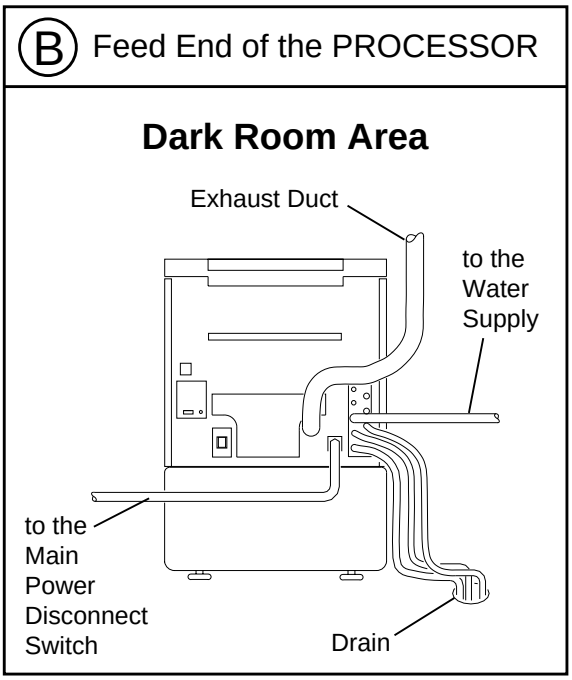
*Kodak provides 2 Adapters during installation. The Adapters enable you to connect the PROCESSOR to a:

- ¾ -in. Hose or
- ½ -in. NPT

Suggested Room Layout







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Publication History Table

Print Date	Pub. No.	ECO No.	Affected Pages	File Name	Description
OCT95	5B6329	2650-030	All Pages	ss3434_1_030.doc	1st Printing of Manual
NOV95	5B6329	2650-039	Front and Back Covers	ss3434_1_039.doc	Graphic Unification Printing
06APR99	5B6329	2650-190 2650-030	All Pages	ss3434_1_06apr99.fm	Updated for patient contact per MDD regulations. This update supersedes the November 1995 printing and revision.

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EASTMAN KODAK COMPANY
Rochester, NY 14650

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