

KODAK INDUSTREX B 2000 Processor



HEALTH SCIENCES

PLEASE NOTE

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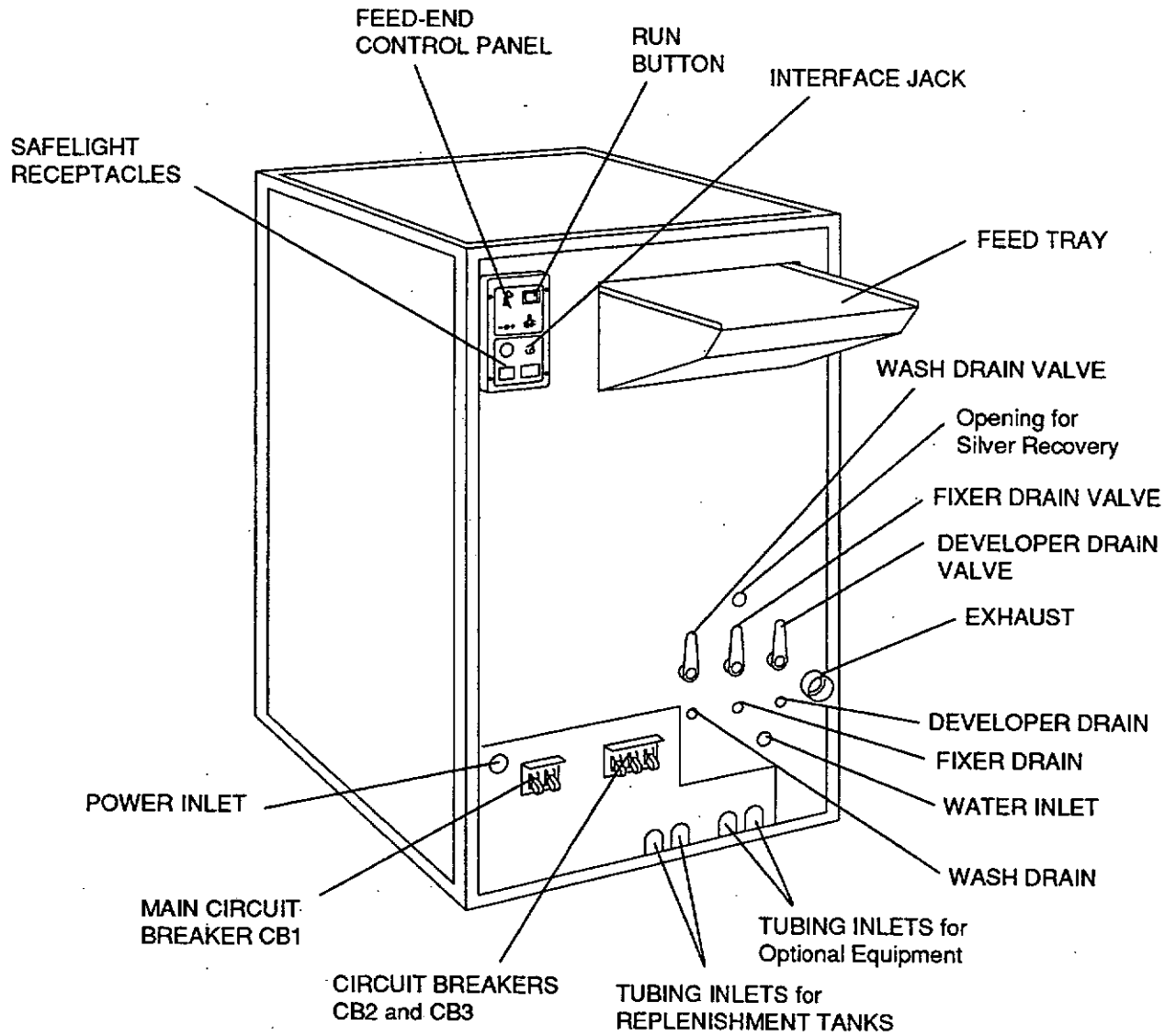
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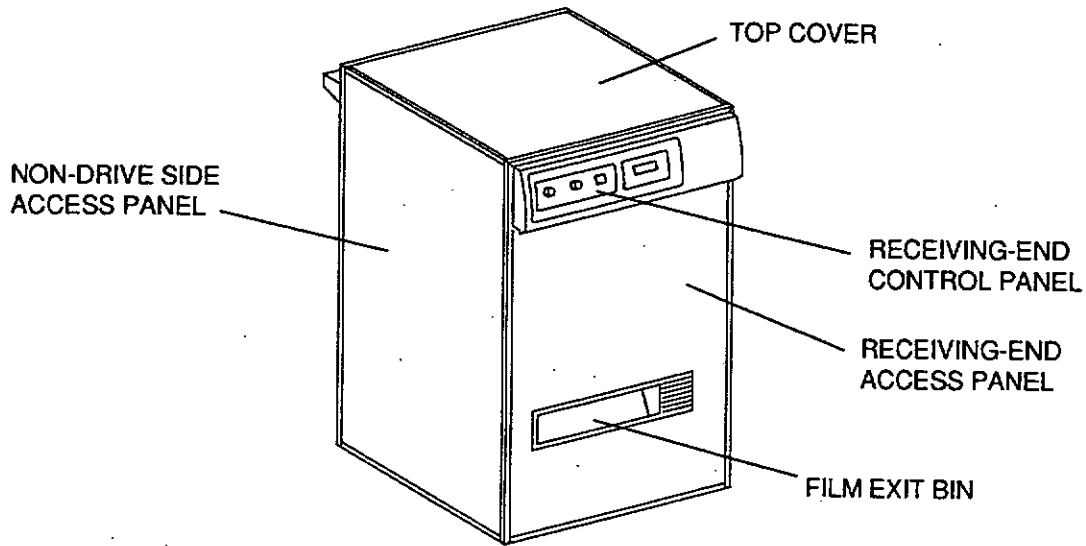
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Overview of the Processor



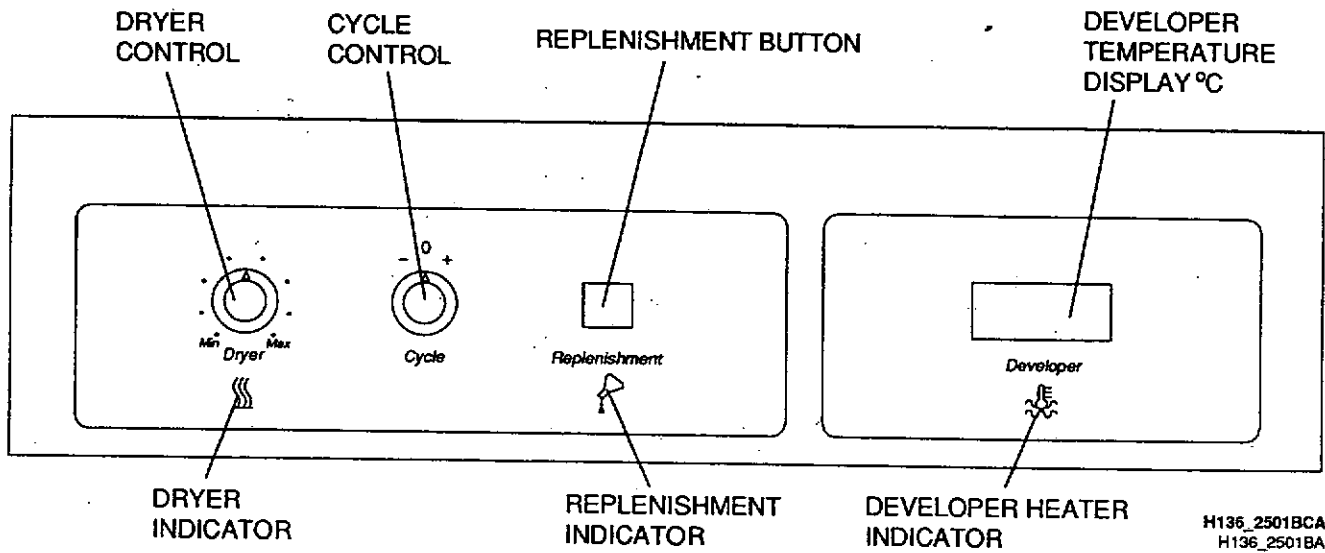
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Figure 1 Feed-End View



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Figure 2 Receiving-End View

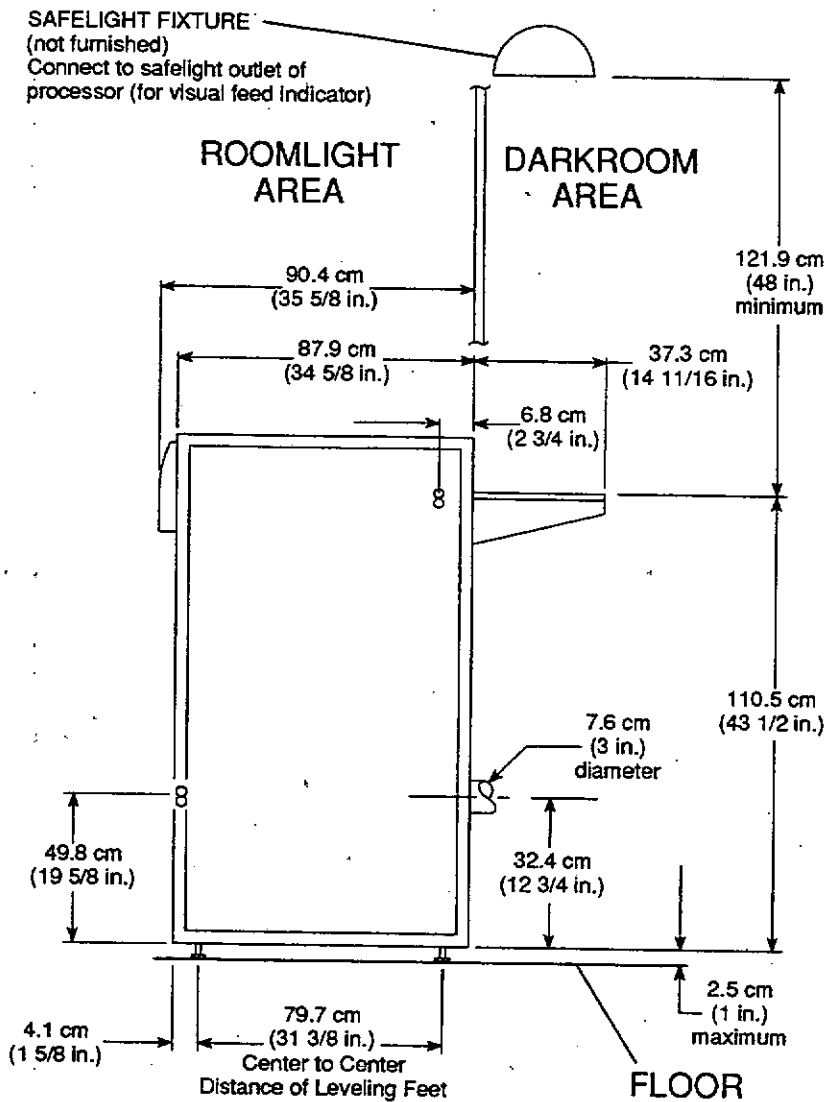


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Figure 3 Receiving-End Control Panel

Dimensions and Weights

Side View



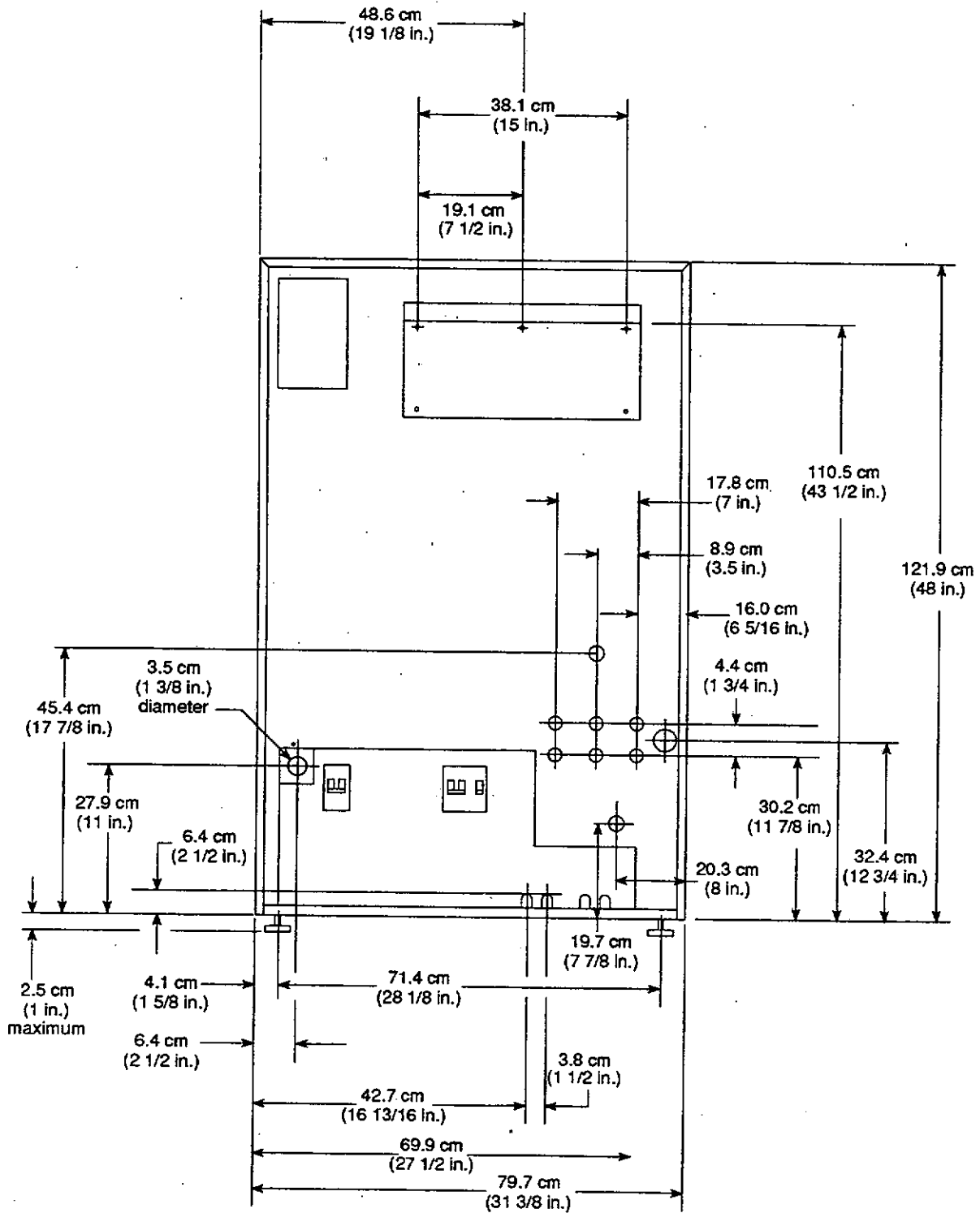
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Figure 4 Side Dimensions

Table 1 Dimensions and Weight of the Processor

Description	Crated	Uncrated
Length	145.7 cm (57 3/8 in.)	90.5 cm (35 5/8 in.) Without feed tray 127.8 cm (50 5/16 in.) With feed tray
Width	104.5 cm (41 1/8 in.)	79.69 cm (31 3/8 in.)
Height	146.1 cm (57 1/2 in.)	121.92 cm (48 in.)
Weight (Tanks Empty)	364 kg (800 lb)	268 kg (590 lb)
Weight (Tanks Full)	Not Applicable	386 kg (850 lb)

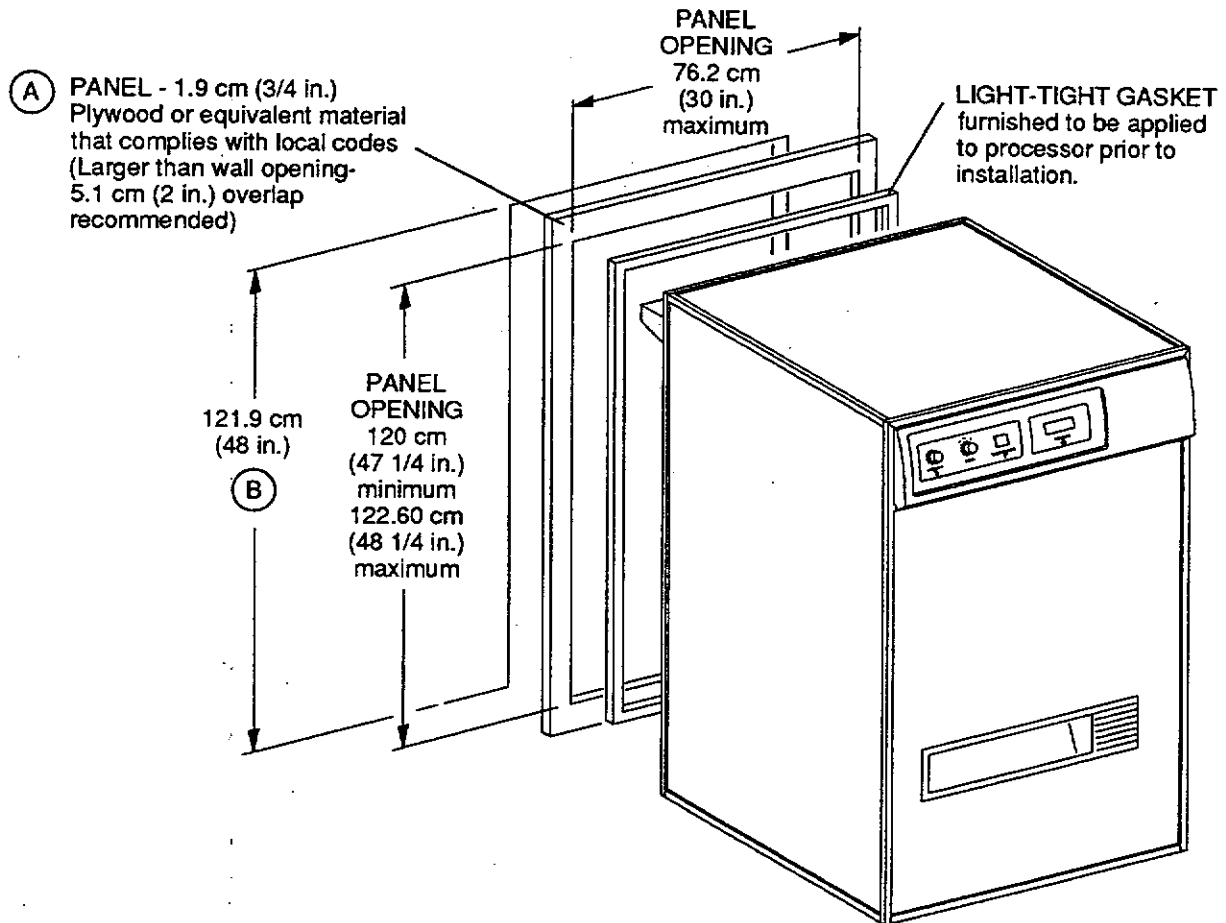
Feed-End View



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Figure 5 Feed-End Dimensions

New Wall Installation



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Figure 6 New Wall Installation - Feed End

- A** If the wall around the opening is straight and exactly perpendicular to the floor, this panel may not be necessary. The wall opening dimensions should match the inside dimensions of the panel opening.
- B** Make sure that the vertical dimension of $48 \pm 1/16$ in. for the wall opening is measured from the finished floor.

Electrical Requirements

Agency Listings

The processor complies with the requirements of the following agencies:

- UL Listed to Standard #122
- CSA Certified to Standard C22.2 No. 950-M89

Basic Requirements

- 30 A, single-phase
or
- 30 A, three-phase
- single-phase 2 or 3-wire, or 3-phase 3 or 4-wire service
- earth ground

IMPORTANT

All electrical services, including earth ground, must comply with local and national electrical codes.

Standard Service Option Chart

Table 2 Service Options

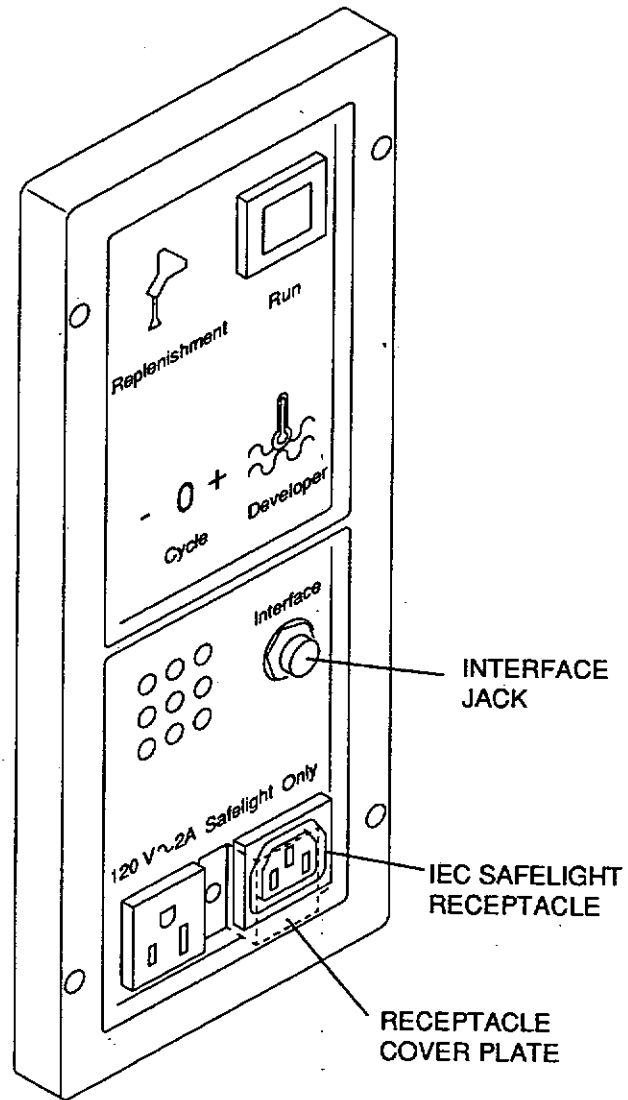
Voltage Volts	Frequency Hz	Service
200	50/60	2 - Wire Single Phase plus Earth Ground
220	50/60	2 - Wire Single Phase plus Earth Ground
230	50/60	2 - Wire Single Phase plus Earth Ground
240	50/60	2 - Wire Single Phase plus Earth Ground
100/200	50/60	3 - Wire Single Phase plus Earth Ground
120/240	50/60	3 - Wire Single Phase plus Earth Ground
200	50/60	3 - Wire 3 - Phase Delta plus Earth Ground
120/208	60	4 - Wire 3 - Phase* Wye plus Earth Ground
127/220	50	4 - Wire 3 - Phase* Wye plus Earth Ground
220/380	50	4 - Wire 3 - Phase* Wye plus Earth Ground
230/400	50	4 - Wire 3 - Phase* Wye plus Earth Ground
240/415	50	4 - Wire 3 - Phase* Wye plus Earth Ground

NOTE

*L1, L2, and Neutral used in this configuration are sometimes referred to as Single-Phase Connections.

**Interface Jack
Specification**

Accepts a standard 3 circuit ¼ in. phone plug: SWITCHCRAFT No. 290 or equivalent.



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Figure 7 Feed-End Control Panel

NOTE

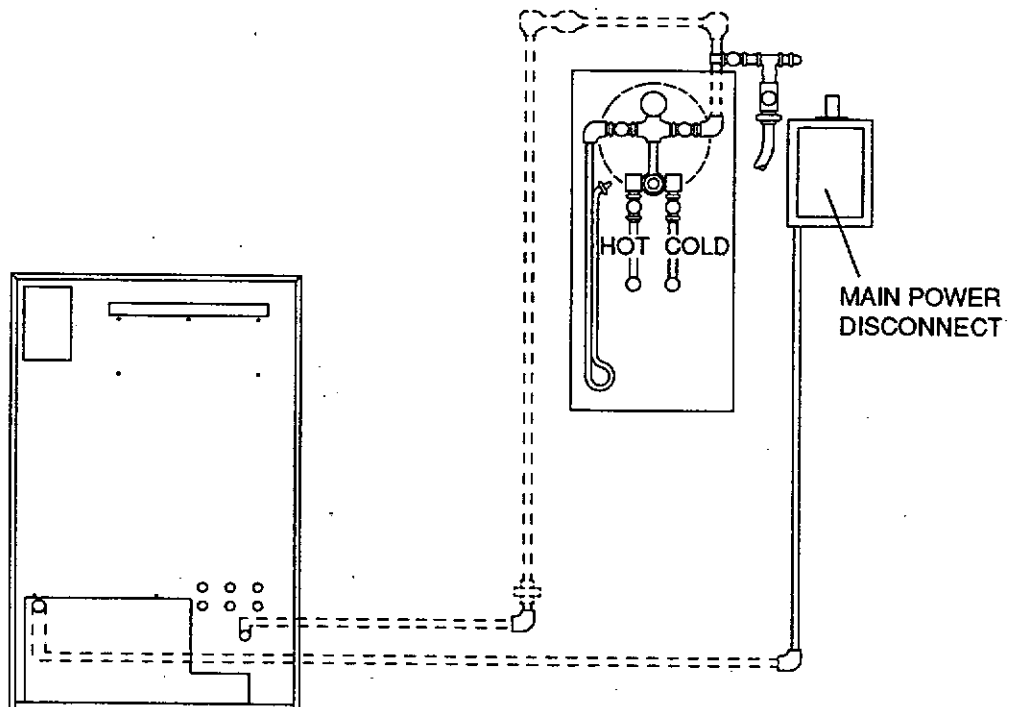
The RECEPTACLE COVER PLATE is removable to access the IEC SAFELIGHT RECEPTACLE for international use.

Main Power Disconnect (Wall mounted, not furnished)

A Main Power Disconnect must be either a fused disconnect or a thermomagnetic circuit breaker, with solid neutral and 2-pole 30 AMP common trip.

The Main Power Disconnect must be—

- (1) located on a wall adjacent to the processor in the lighted area and a safe distance from the water service.
- (2) easily accessible from the processor site.
- (3) visible from the processor site.



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Figure 8 Electrical Connections

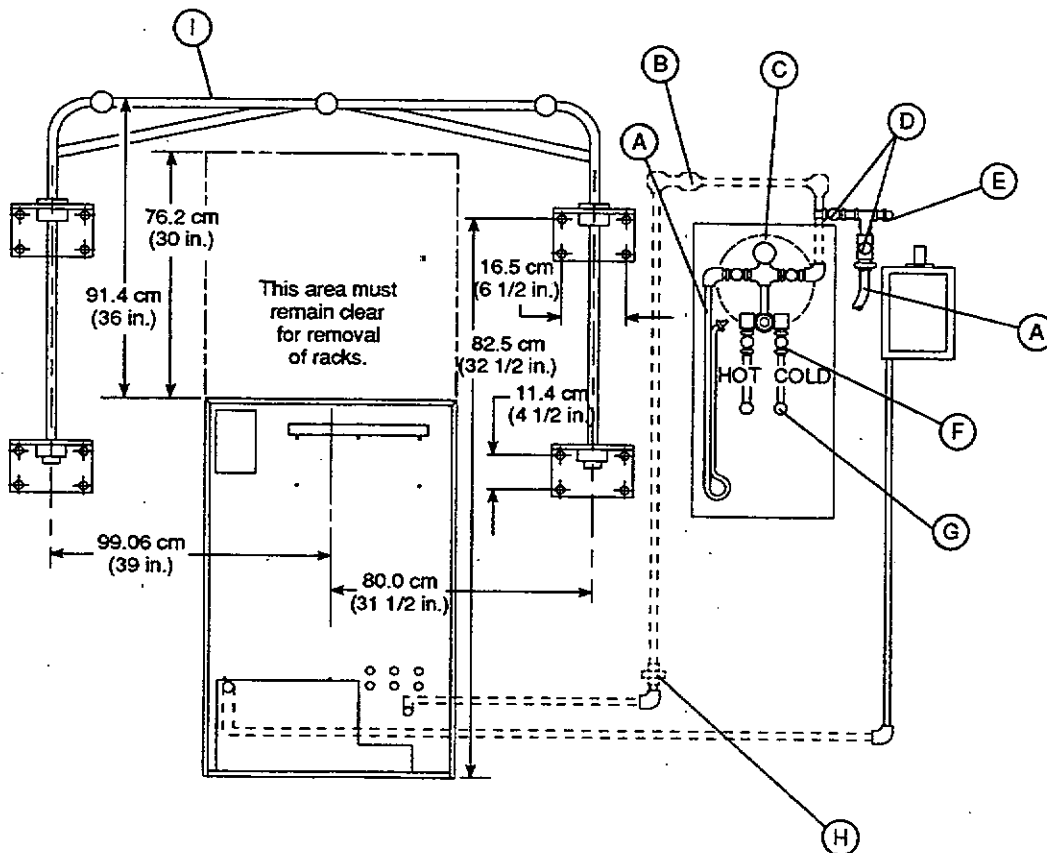
Water and Drain Requirements

Water Supply

- Temperature:** 16 - 21°C (60 - 70°F) A mixing valve might be necessary.
- Pressure:** 173 to 448 kPa (25 to 65 psi); Install a regulator if required.
- Flow:** Controlled within the processor to 5.7 L/min (1.5 gal/min), ±10%.
- Filtration:** 50 micron filter required.

IMPORTANT

- Water supply must comply with local codes; **do not** use iron piping.
- If the upper or lower limit of the room ambient temperature or the water supply temperature is exceeded, the developer and fixer temperatures may not be controlled correctly.
- Tempered water service is suggested for cleaning the processor and for mixing chemicals manually.
- See the "Water Connections" table on page 12.



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Figure 9 Water Connections

Table 3 Water Connections (continued)

A	Service Hose - suggested length to reach the Processor and Replenisher Tanks.
B	13 mm (½ in.) NPT Check Valve
C	Kodak Thermostatic Mixing Valve 13 mm (½ in.) NPT available from Eastman Kodak Company, Part No. 467621 (optional.)
D	Shutoff Valves 13 mm (½ in.) NPT. Two additional required. Available from Eastman Kodak Company, Part No. 459981 (Not supplied with the Processor).
E	Cold Water Supply 13 mm (½ in.) NPT
F	Shutoff Valves 13 mm (½ in.) NPT. Two additional required. Available from Eastman Kodak Company, Part No. 459981.
G	Hot and Cold Water Supply 13 mm (½ in.) NPT.
H	13 mm (½ in.) NPT Union. Locate as close to the Processor as possible.
I	The Rack Crane (optional) can be mounted right or left.

IMPORTANT

- Follow local electrical and plumbing codes.
- Specifications are subject to change without notice.
- Pass service through the wall to the feed end of the processor in the darkroom. Service controls may be located on either side of the processor for easy accessibility.

Drain

IMPORTANT

Do not use brass or copper for the drain lines. Drain service must comply with local codes.

Capacity: 15 L/min (4 gal/min).

Connection: Open drain; avoid a solid connection to the processor to eliminate suction conditions.

Environmental Requirements

Room Ambient Conditions	Temperature: 14 - 30°C (59 - 86°F)
	Humidity: 15% to 76% relative humidity, non-condensing

Air and Heat	Air Exhaust (full load):	<ul style="list-style-type: none"> • 45 CFM maximum • Temperature: 65.5°C (150°F) maximum • Moisture: 600 grains/min
	Heat Load to Room:	2.2 kW (7000 BTU/hr or 1764 kcalories/hr)

Venting

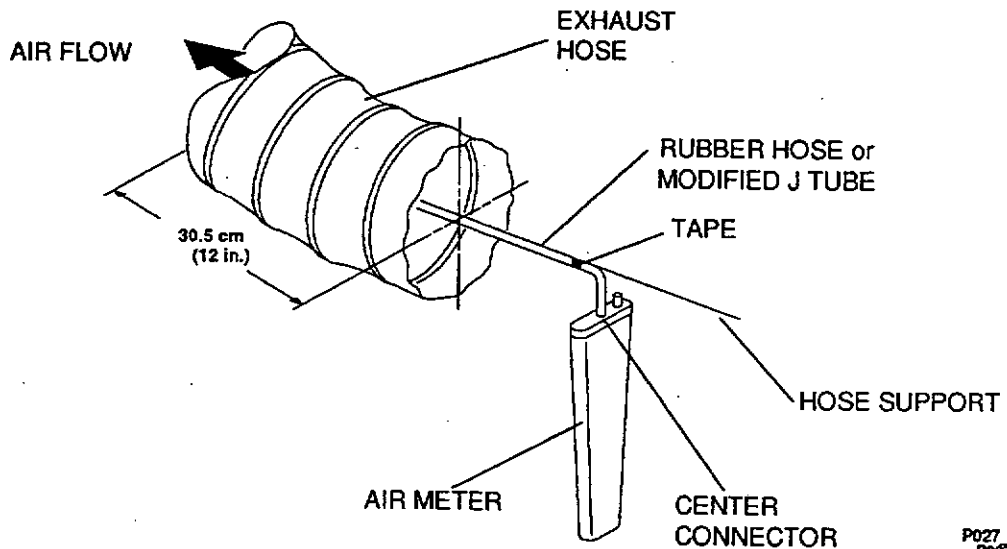


- Prevent corrosion.
- The specifications for venting must be maintained 24 hours a day, 7 days a week. Check with the Kodak representative if installation of an auxiliary ventilation fan is necessary.

Building Exhaust Duct: Use AIR METER TL-2431 and MODIFIED J TUBE (CHECK TUBE 592380) to measure negative static pressure in the EXHAUST DUCT 30.5 cm (12.0 in.) from the end that is to be connected to the processor. See Figures 10 and 11.

NOTE

The processor must be off and the duct must not be connected when measuring the static pressure.



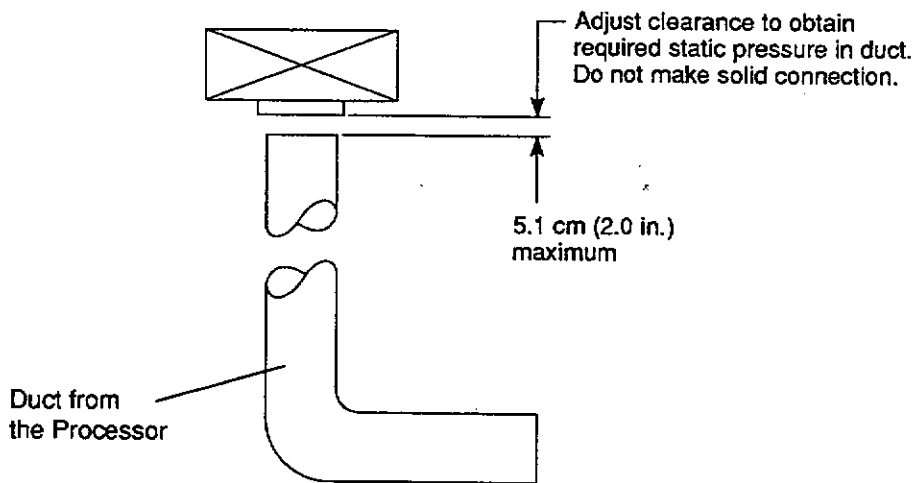
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Figure 10 Measuring the Static Pressure

Adjust the clearance between the building exhaust duct and the duct from the processor as shown in Figure 11 to obtain the required static pressure outlined in Table 4.

Table 4 Required Static Pressures

Duct Diameter	Negative Static Pressure, (Water Head)	
	MIN	MAX
7.6 cm (3.0 in.)	0.76 mm (0.03 in.)	1.02 mm (0.04 in.)
10.2 cm (4.0 in.)	0.25 mm (0.01 in.)	0.51 mm (0.02 in.)



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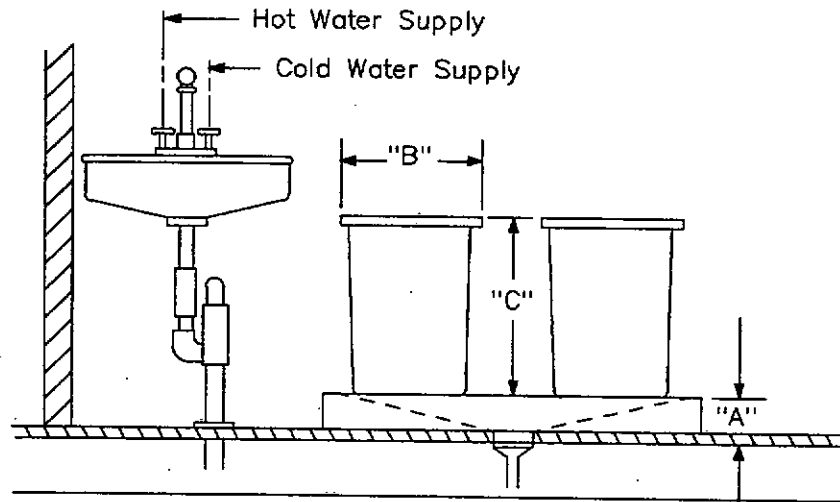
Figure 11 Exhaust Requirements

Replenishment System Requirements

Replenishment Tanks

Table 5 Dimensions for Replenishment Tanks

DESCRIPTION	DIMENSION	30 gal	55 gal
Max Platform Height	"A"	35.6 cm (14 in.)	15.2 cm (6 in.)
Tank Diameter	"B"	55.9 cm (22 in.)	61.0 cm (24 in.)
Tank Height	"C"	70.50 cm (27¾ in.)	90.80 cm (35¾ in.)
External Replenishment Tank Area If an automixer is used, see page 16 for dimensions.	"D" x "E" (MIN) See page 17.	61.0 x 152.4 cm (24 x 60 in.)	66.0 x 172.7 cm (26 x 68 in.)

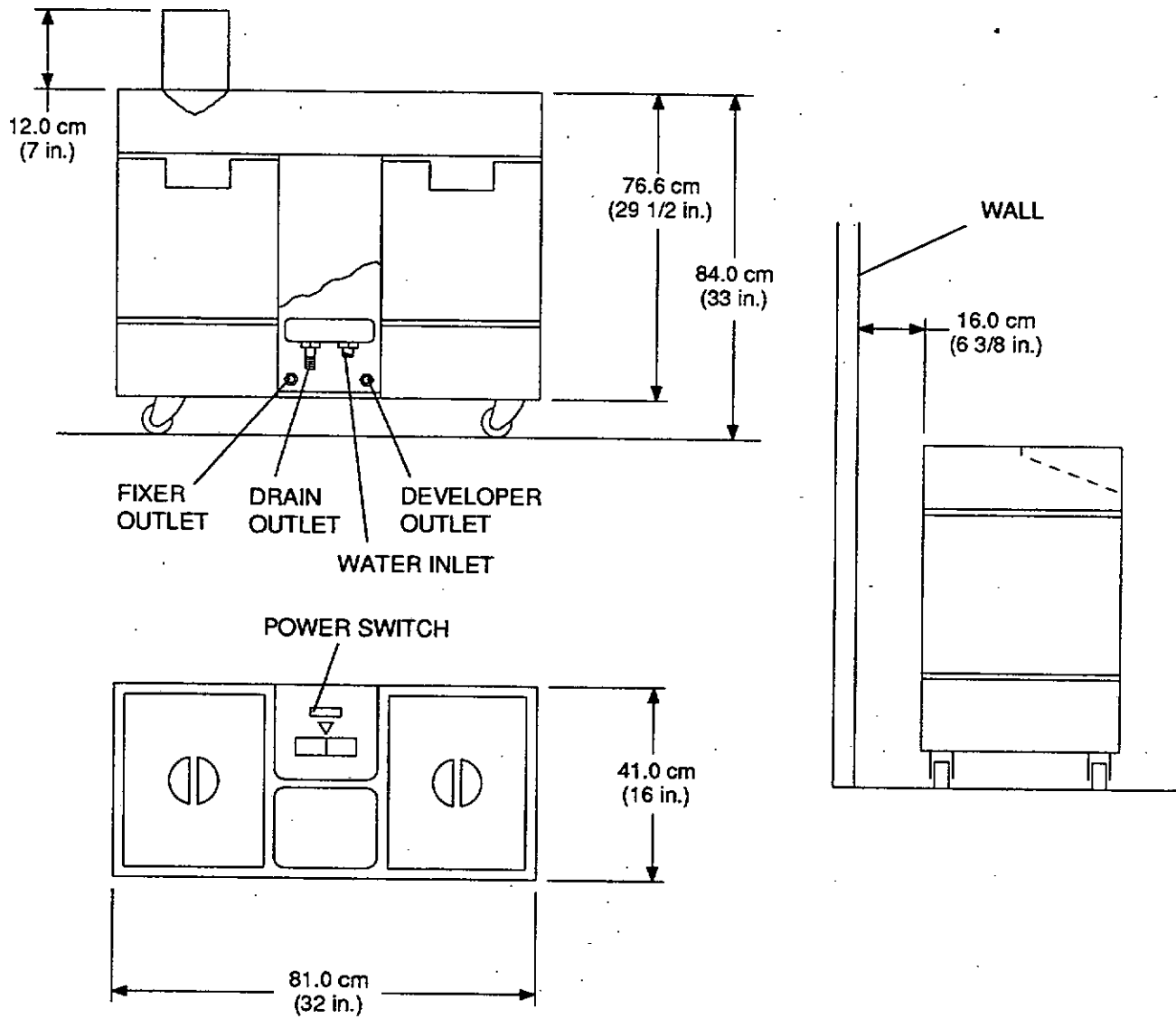


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Figure 12 Replenishment Tanks

Tank Kit	Catalogue No.	
	30 gal	55 gal
<i>Kodak Developer Replenisher Tank Kit</i>	102 2987	151 1823
<i>Kodak Fixer Replenisher Tank Kit</i>	102 2961	151 1849

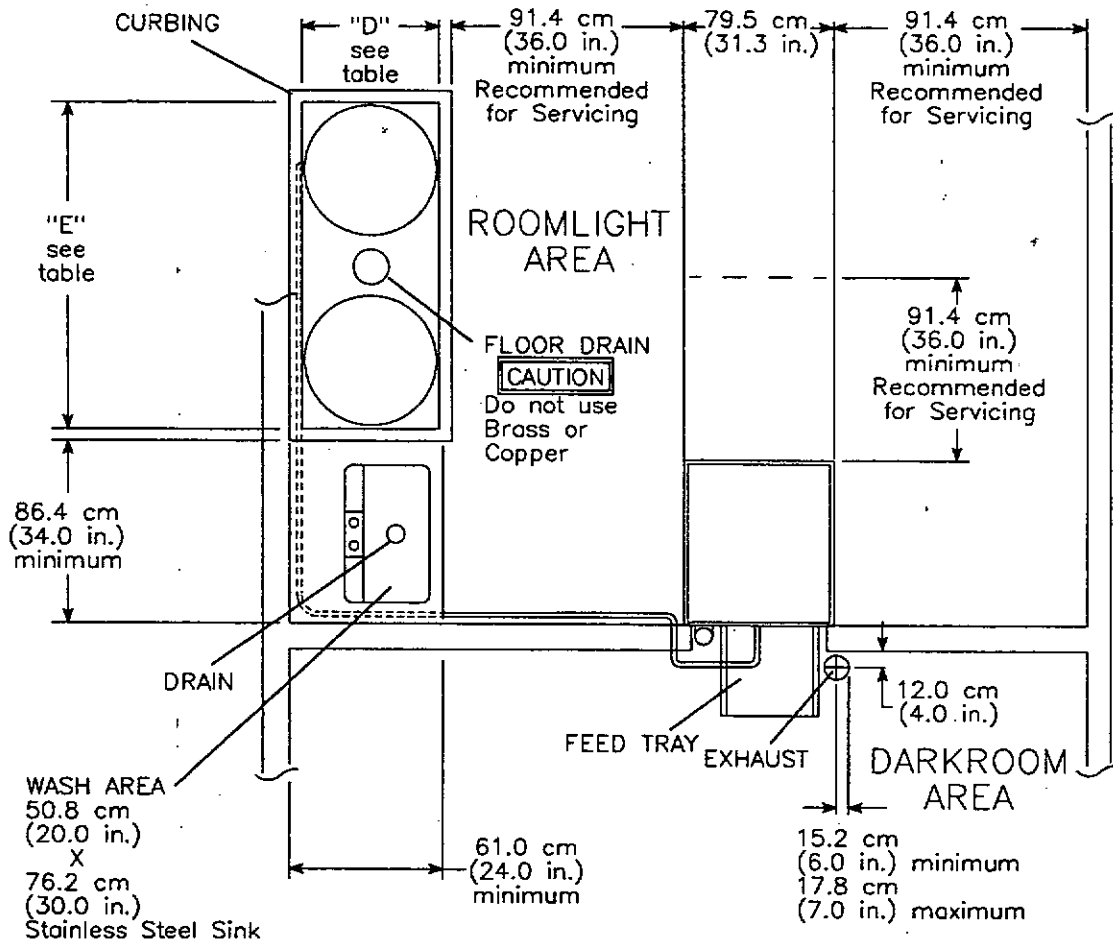
Automixer



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Figure 13 Automixer

Recommended Room Layout



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Figure 14 Suggested Room Layout Showing Replenishment Tanks and Drain Locations

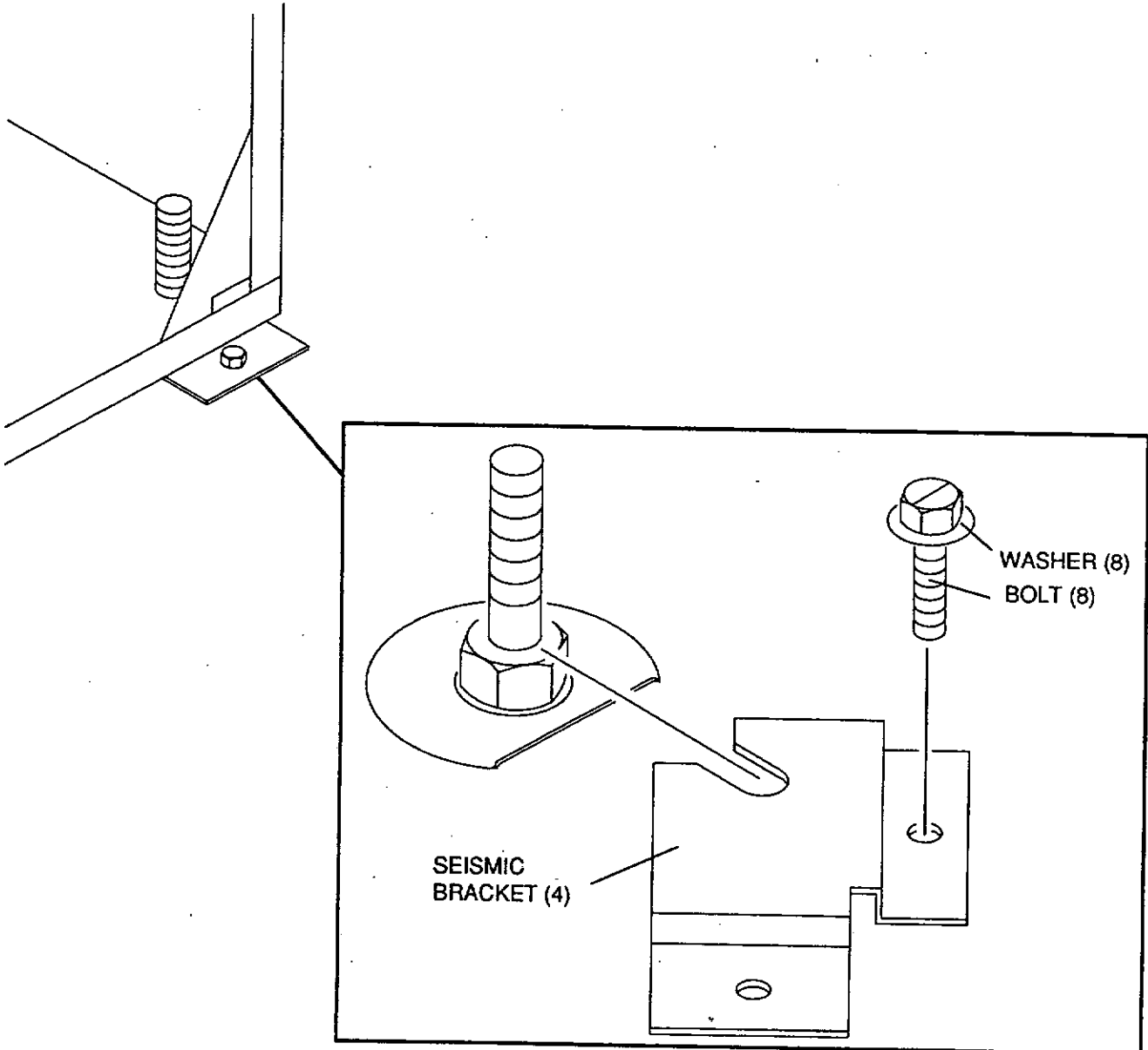
Table 6 Maintenance and Operation Access Requirements

Description	Recommendation
Receiving End of Processor	91.4 cm (36 in.)
Feed End of Processor	91.4 cm (36 in.)
Drive Side of Processor	91.4 cm (36 in.)
Non-Drive Side of Processor	91.4 cm (36 in.)
Top of Processor	91.4 cm (36 in.)

Seismic Kit

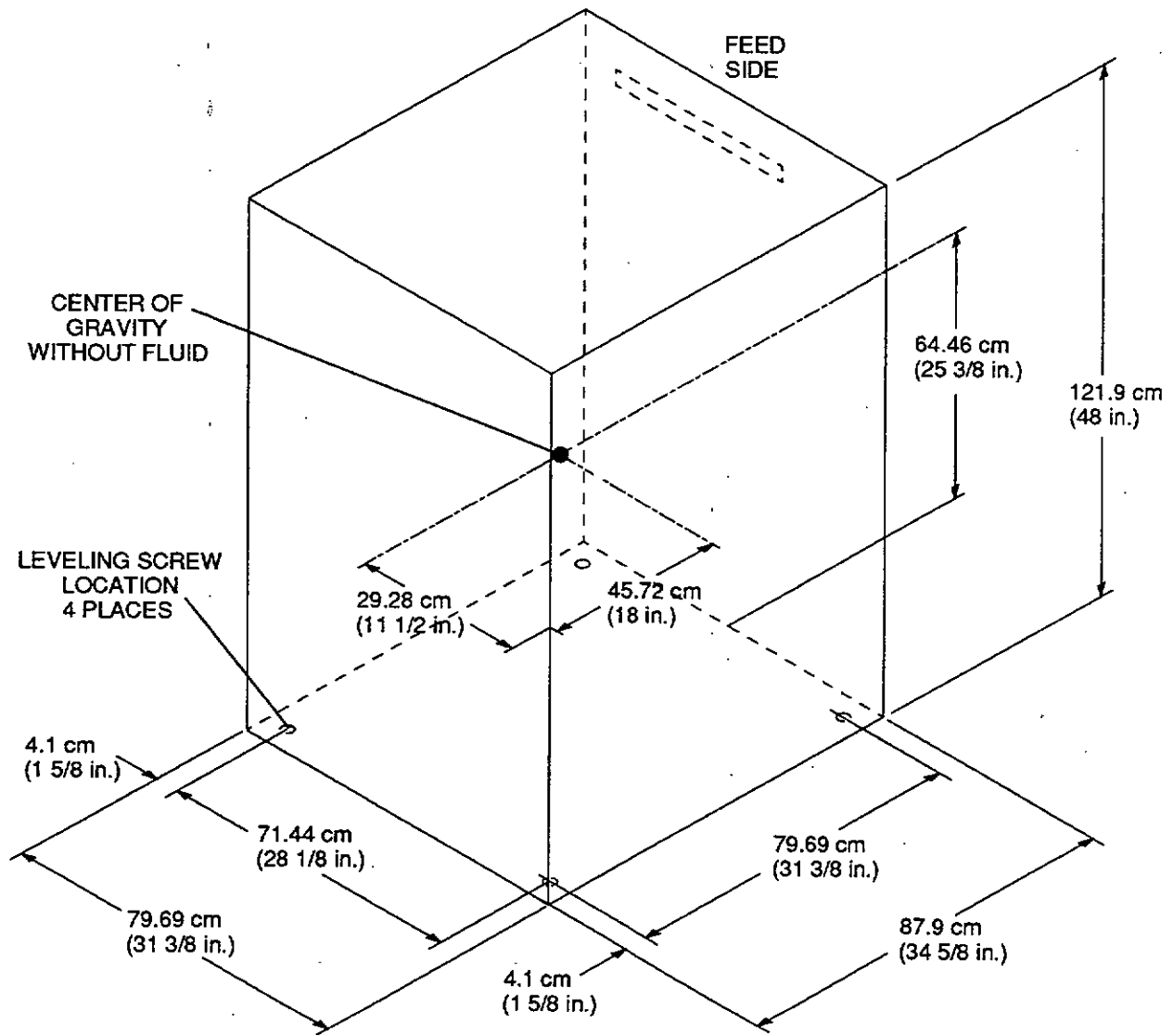
IMPORTANT

Local building codes may require installation of Seismic Brackets. If necessary, use Seismic Kit 779133.



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Center of Gravity



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Figure 15 Center of Gravity

NOTE

Center of gravity is shown for the processor with the developer, fixer, and wash tanks empty.

Warranty

Kodak warrants this *Kodak Industrex B 2000 Processor* to function correctly for one year from the date of initial installation, when installed within one year from date of shipment.

Warranty Repair Coverage

If this equipment does not function correctly during the warranty period, the dealer (for *Kodak Industrex B 2000 Processors*) who sold the equipment will provide or arrange for repair of the equipment during the dealer's normal working hours. Such repair service will include any adjustments and/or replacement of parts required to maintain your equipment in good working order.

How To Obtain Service

Should equipment require service, refer to the sales contract for details on whom to call for service, or contact the dealer (for *Kodak Industrex B 2000 Processors*) who sold the equipment.

Limitations

Warranty service is limited to the contiguous United States, the island of Oahu in Hawaii, and certain areas of Alaska.

This warranty does not cover—

- circumstances beyond the control of Kodak,
- misuse,
- abuse,
- attachments,
- accessories,
- alterations not marketed by Kodak (including service or parts to correct problems resulting from the use of such attachments, accessories, or alterations),
- failure to follow the operating instructions as recommended by Kodak,
- supply items.

Kodak makes no other warranties, express or implied, for this equipment.

Repair without charge is the only obligation of both Kodak and the dealer under this warranty. **Kodak will not be responsible for any consequential or incidental damages resulting from the sale, use, or incorrectly functioning of this equipment, even if loss or damage is caused by the negligence or other fault of Kodak.**

Such damages for which Kodak **will not** be responsible, include, but are not limited to, loss of revenue or profit, downtime costs, loss of use of the equipment, cost of any substitute equipment, facilities or services or claims of your customers for such damages.

This limitation of liability will not apply to claims for injury to persons or damage to property caused by the sole negligence or fault of Kodak or by persons under its direction or control.

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Rochester, New York 14650

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The new vision of Kodak

