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# *Protec OPTIMAX*

## **Rugged & Reliable Automatic X-Ray Film Processor**

*The Standard of Excellence in 90 Second Processing*



*The **OPTIMAX** is the world's premier 90 second automatic x-ray film processor. Designed as a rugged workhorse, the **OPTIMAX** can handle film volumes from very low to a higher capacity*

*The proven design of the **OPTIMAX** is efficient with energy, water & chemical use, saving the **OPTIMAX** owner money while delivering outstanding quality images.*

*The **OPTIMAX** is manufactured by Protec Medical in Germany in compliance with DIN ISO 9001:2000, IEC, TUV, CE, CSA, and UL quality standards.*

*The **OPTIMAX** sets the standard of excellence for 90 second automatic x-ray film processors.*

### **Features & Benefits**

- Lightweight, yet rugged tabletop processor
- 90 second processing speed, leading edge to leading edge
- Energy and water saving design limits run time to when film is actually being processed
- Anti-oxidation and anti-crystallization programs result in chemical savings and outstanding image quality
- Intelligent replenishment sensor limits chemical use resulting in chemical savings
- All components are easily accessible underneath for service
- Temperature control on the front panel for ease of use
- Top film feed and top return for convenience
- Film transport rack design with spring loaded rollers helps eliminate film jam problems found with other brands
- Quality polyurethane & rubber rollers for outstanding image quality and no artifacts
- 1 year parts warranty
- Meets ISO, IEC, CE, TUV, CSA & UL quality standards
- Flame retardant material used for housing
- Made in Germany by Protec GmbH

### **Standard Equipment**

- Comes complete and ready with all components for tabletop processing
- Levelling legs for uneven surfaces
- Spare parts kit
- 6.6 gallon (25 liter) replenishment tanks with filtering replenishment straws
- Floating lid for developer tank
- Water supply hose
- Tubing and hardware
- Installation, Operating and Parts Manual
- 220-240VAC/50-60Hz version standard

### **Options**

- 110/220V Voltage Converter for use with 110-120VAC voltage
- Stand
- No Plumbing Kit for closed loop operation
- Mammography version

# *Protec OPTIMAX*

## **Rugged X-Ray Film Processor**

### **Minimum Darkroom Requirements**

#### **Electrical**

- 230V, 50/60Hz, 10A Service (Operating Range 220-240V)
- Energy use of 1.4 kWh during processing and 0.12 kWh in standby mode.
- Dedicated line strongly recommended.
- Use of a multi-outlet adapter or extension cord will void the warranty.
- 110/220V Voltage Converter supplied for use with 110-120VAC

#### **Water**

- Cold water only with recommended temperature between 41-78°F (5-26°C).
- Water connection of 3/4" with 29 - 145 psi (2 - 10 bar).
- Minimum drain diameter of 2 inches (5 cm) at a maximum of 12 inches (30.5 cm) above the floor.
- Water consumption of 0.50 gal/min (1.9 liter/min) during processing.
- Water consumption of 0.0 gal/min (0.0 l/min) in standby mode.
- In-line water filter strongly recommended when water supply contains contaminants or particulate materials.
- Do not use copper drain pipe or fittings. Use cast iron or PVC.

#### **Space**

- Actual dimensions 30" (77 cm) long by 23" (59 cm) wide by 16.5" (42 cm) tall.
- Please allow adequate clearance on sides, back and top of processor for ease of use, maintenance and service.

Use AC-2000 110/220V Voltage  
Converter for use with 110-120VAC



#### **Film Processing Capacity Measured at 90 Second Processing Speed**

10" X 12" (24 X 30 cm), 129 films per hour

14" X 17" (35 X 43 cm), 75 films per hour

#### **PRODUCT SPECIFICATIONS**

##### **Film Size**

4" x 4" (10 cm x 10 cm) min. to  
14" (43 cm) X any length max.  
Will accept roll film

##### **Processing Time**

90 seconds (factory set),  
leading edge to leading edge

##### **Developer Temp**

82-99 °F (28-37°C), adjustable

##### **Replenishment**

Rates adjustable either  
450 ml per 10 sq. ft. (ml/m<sup>2</sup>) or  
600 ml per 10 sq. ft. (ml/m<sup>2</sup>)  
Manual pumping selection  
allows for automatic fill of the  
internal chemical tanks

##### **Net Weight (Empty/Filled)**

77/110 lbs (35/50 kg)

##### **Tank Capacity**

1.3 gallons (5.0 liters) in each  
section: developer, fixer, water

##### **Film Drying**

Warm circulated air, factory set  
to 149°F (65°C)

##### **Chemical Storage**

6.6 gallon (25 L) tanks

##### **Film & Chemistry**

Use standard medical x-ray film  
and chemistry formulated for  
automatic medical x-ray film  
processors.