



### MANUFACTURER

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### MODEL

KPFF 48B

Shock freezer for Plasma on contact

### TECHNICAL CHARACTERISTICS

Wells	12
Plasma Bags Capacity	48 (450 ml filled with 280 ml)
	16 (1000 ml filled with 650 ml)
	12 (1000 ml filled with 800 ml)
Freezing Time	30-40 min
T Regulation Range	-70°C/-80°C
T Setting Resolution	± 0,1°C
T Reading Accuracy	± 0,5°C
Recovery time	max 20 min. after freezing cycle
T Ambient	max +32°C
Power Supply	400V - 3 - 50/60Hz + N + T
Noise Level	<60 dB
Nominal Power	4,2 kW


### STRUCTURE

Wells	Stainless Steel AISI 304	Insulation	PUR foam (175 mm)
External Surface	Satin-finished AISI 304 steel sheet	Door	Mounted on hinges with ABS cover
Handle	Ergonomic design	Standard Equipment	n°4 pivoting wheels
Sealing	Triple silicone gasket		Door-lock with key
External Dimensions	179 W x 88 D x 126 H cm	Shipping Size (with wooden crate)	200 W x 110 D x 170 H cm
Weight	350 kg		500 kg

### FREEZING SYSTEM

Vertical Freezing	The plasma bags are placed vertically in wells whose walls are at -80°C		
	Forces air (possibly present in the plasma bag) upward, minimizing the risk of bag rupture		
Min. Maintenance	No ice formation in the area surrounding the wells and in the sealing gaskets		
Reset T Set -75°C	Max 20 minutes after the extraction of a full load of bags		
Cooling System	Fully sealed circuit with n.2 hermetic compressors arranged in cascade		
Refrigerant Gas	1° Stage	R455a	2° Stage
			R508b
Evaporating System	Copper tube coil thermally connected to the outer peripheral surface of the freezing wells		
	Powered by thermostatic expansion valve with external equalizer for maximum fluid injection		

### THERMOREGULATION AND CONTROLS

μP Digital electronic controller, with LED display			
Functional LEDs	<b>Cooling:</b> indicates that refrigeration is in progress		
	<b>Alarm:</b> presence of T min / max alarm		
	<b>Timer:</b> indicates that the freezing time (which can be set by the user) is counting		
	<b>Power failure:</b> visual acoustic alarm energy failure self-powered by its own 12 Vdc 1.2A battery		
	<b>Remote control of signals:</b> alarms are integrated and connected to a remote signal repeater		

### RTS SYSTEM - BAGS TEMPERATURE RECORDER (OPTIONAL)

RTS System			
Display	Display Touch-Screen TFT 7" - Microprocessor ARM9 technology		
Available Languages	Italian / English / French / Spanish / German		
Functionality	Reading and recording up to a maximum of 8 RTD Pt 100 probes		
	Selection of the active recording probe with the exclusion of the remaining ones		
	Association of barcodes related to bags related to the air / sample bag temperature trace		
	Possibility to select together with the bar code, the type of bag: large (650ml) or small (260ml)		
	Enabling a clean digital input for synchronizing the start of recording with the start of the unit abatement		
	Enable output on/off switch to stop the cycle of freezing when the pre-set temperature is reached in all pockets connected during the test cycle of freezing data management		
Data Management	SD Card	USB Port	
	Ethernet port	Freezing Tracer for reading of cycles/codes	
	Installation and configuration of the embedded FTP server on each machine		

### OPTIONAL ACCESSORIES AVAILABLE ON REQUEST

RTS System - Bags temperature recorder	450ml dummy bag for plasma freezing process validation
Internal/External pass through hole	1000ml dummy bag for plasma freezing process validation