

For Critical Applications

equitron®

AUTOCLAVE PRAANO Series



www.medicainstrument.com

Integrated technologies to meet the most exacting sterilisation requirements

equitron® PRAANO Series Autoclaves are ideal for *Pharma, QC, QA, Micro, R&D Labs, Production, Bio Labs and Healthcare.*

With five decades of experience in steam pressure sterilisation, Medica's **EQUITRON PRAANO** Autoclave empowers you to take total control over your autoclaving process.

With built in monitoring and documenting features of pressure & multiple temperature sensors with control on all, PC connectivity and many more, the PRAANO is a work horse which will to a variety of sterilisation jobs with consistency and reliability.

At the heart of PRAANO is the touch screen graphical Programmable Logic Controller which delivers exceptional temperature management with progressive notifications.



The image shows a blue and white Equitron PRAANO Autoclave. The top lid is open, revealing a wire mesh basket containing several vials with orange caps. The front panel features a digital display and control buttons. The side of the unit has a decorative graphic of blue bubbles. Red lines connect various callout boxes to specific parts of the machine.

- Chamber hydro statically tested at 1.5 times its working pressure**
- Over pressure safety**
- Safe and sturdy chamber manufactured to ASME standards in SS 304**
- Better penetration with SS wire mesh carriers**
- Independent safety for over temperature**
- Saves Power bills by 20~30%**
- Dual scales of psi and kPA with temperature readout on pressure gauge**
- Solenoid valve for auto purging air & normal exhaust**
- Easy draining of chamber**
- Internal chamber, cover lid and all wetted parts fabricated from SS304 & Outer body of SS 304 with matt finish**
- Convenient and fast single locking of lid**
- Heater and pressure interlock for lid lock safety**
- Effortless lifting of lid with assisted support**
- Automatic water filling, purging and exhaust**
- Touchscreen PLC for accurate temperature control with 4 temperature channels & 1 pressure channel, built in recipes, power failure restore and password protection upto 3 levels**
- User settable alphanumeric batch number and operator name.**
- Online documenting to DMP of 4 temperature sensors with F_0 , plus one pressure channel along with status information. PC connectivity (offline)**
- Service and calibration reminders**
- Electrical on/off safety switch**
- Easy manoeuvrability and placement**

SAFETY FOR

- Over pressure
- Over temperature
- Electric overload
- Lid locked under pressure
- Process will not start if lid not locked fully
- Audio and visual alarms for sensor open and over pressure
- Chamber manufactured and tested as per ASME guidelines

SOFTWARE

Provided with a PC based 21 CFR Part 11 compliant software with 2 levels of electronic signature facility with meaning, name of signer, date and time of signature execution, and their comments

Provided with a desktop PC with 18-inch monitor of appropriate configuration

Specimen of the Documentation Cycle

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*****
MEDICA INSTRUMENT MANUFACTURING COMPANY
DATE :04-10-2012    CUSTOMER: THE BEST PHARMA COMPANY    BATCH NO: 01
EQUIPMENT NO: 7441pr    RECIPE: UNWRAPPED
SET TEMP: 121.0 DEG C    HOLD TIME: 30 min
OPERATOR: ABC    +VE Pulsing:00
*****
Time (A)DEG C (B)DEG C (C)DEG C (D)DEG C (P)mBar (F0) STATUS
10:33:05 101.6 108.9 101.9 102.0 1153 0.00 HEATING
10:34:05 103.2 103.5 103.6 103.6 1259 0.00 HEATING
10:35:05 104.8 105.1 105.1 105.2 1153 0.00 HEATING
10:36:05 106.4 106.7 106.7 106.8 1107 0.00 HEATING
10:37:05 108.0 108.2 108.2 108.3 1425 0.00 HEATING
10:38:05 109.5 109.7 109.8 109.9 1535 0.00 HEATING
10:39:05 111.0 111.3 111.3 111.3 1601 0.00 HEATING
10:40:05 112.5 112.7 112.7 112.8 1744 0.00 HEATING
10:41:05 114.0 114.1 114.1 114.2 1841 0.00 HEATING
10:42:05 115.5 115.7 115.6 115.7 1849 0.00 HEATING
10:43:05 116.9 117.0 117.0 117.1 1951 0.00 HEATING
10:44:05 118.4 118.5 118.5 118.5 1985 0.00 HEATING
10:45:05 119.9 119.9 119.9 120.0 2040 0.00 HEATING
10:46:05 120.3 120.2 120.2 120.2 2138 0.00 HEATING
10:47:31 121.3 121.3 121.3 121.3 2185 0.00 STERILE
10:48:31 122.1 122.0 122.0 122.0 2203 1.26 STERILE
10:49:31 122.4 122.1 122.0 122.0 2262 2.50 STERILE
10:50:31 122.1 121.8 121.7 121.7 2198 3.70 STERILE
10:51:31 121.9 121.6 121.5 121.5 2184 4.93 STERILE
10:52:31 121.9 121.6 121.5 121.5 2163 6.20 STERILE
10:53:31 121.9 121.5 121.5 121.5 2112 7.44 STERILE
10:54:31 121.9 121.6 121.5 121.5 2156 8.55 STERILE
10:55:31 122.0 121.6 121.6 121.6 2148 9.87 STERILE
10:56:31 122.1 121.7 121.6 121.6 2154 11.12 STERILE
10:57:31 122.0 121.6 121.5 121.5 2168 12.39 STERILE
10:58:31 122.0 121.6 121.5 121.5 2172 13.65 STERILE
10:59:31 122.1 121.6 121.5 121.5 2156 14.65 STERILE
11:00:31 122.1 121.5 121.5 121.5 2197 15.30 STERILE
11:01:31 122.1 121.5 121.4 121.4 2133 16.05 STERILE
11:02:31 122.2 121.6 121.5 121.6 2168 17.09 STERILE
11:03:31 122.1 121.5 121.4 121.4 2173 18.55 STERILE
11:04:31 122.0 121.6 121.5 121.6 2190 19.78 STERILE
11:05:31 122.1 121.5 121.4 121.4 2140 21.04 STERILE
11:06:31 122.2 121.6 121.5 121.6 2149 22.25 STERILE
11:07:31 122.1 121.5 121.4 121.4 2178 23.60 STERILE
11:08:31 122.2 121.6 121.5 121.6 2166 24.65 STERILE
11:09:31 122.1 121.5 121.4 121.4 2139 25.85 STERILE
11:10:31 122.2 121.6 121.5 121.6 2142 27.03 STERILE
11:11:31 122.1 121.5 121.4 121.4 2144 28.05 STERILE
11:12:31 122.2 121.6 121.5 121.6 2197 29.46 STERILE
11:13:31 122.1 121.5 121.4 121.4 2169 30.66 STERILE
11:14:31 122.2 121.6 121.5 121.6 2142 31.55 STERILE
11:15:31 122.1 121.5 121.4 121.4 2138 32.02 STERILE
11:16:31 122.1 121.6 121.5 121.6 2132 33.12 STERILE
11:17:31 122.1 121.5 121.4 121.4 2160 34.70 STERILE
11:18:31 120.3 120.2 120.2 120.2 2060 34.70 EXHAUST
11:19:31 115.7 114.9 115.3 114.8 1670 34.70 EXHAUST
11:20:31 112.1 113.4 113.1 112.9 1590 34.70 EXHAUST
11:21:31 110.5 109.9 110.1 110.0 1480 34.70 EXHAUST
11:22:31 108.3 107.1 107.9 108.0 1414 34.70 EXHAUST
11:23:31 106.0 105.2 103.2 104.0 1260 34.70 EXHAUST
*****END OF CYCLE*****

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UTILITIES REQUIRED

Electric Supply: 230 VAC, 50 Hz, single phase

Distilled / demineralised water line: with line pressure between 0.5 to 2.0 bar

Exhaust / drain line: capable of handling steam temperatures up to 135°C (if drain cooling not opted for) and slopes downwards into the drain

Well ventilated room: with space of at least two feet on right side and one foot on back side



DOCUMENTING FEATURES

Real time printing of four temperature sensors along with F₀ summation, plus pressure channel

Printing in smart tabular format with date, time, batch number, operator name and status

Prints online to external DMP (part of standard supply)

Enables authentic documenting of every autoclave cycle

CONTROL SYSTEM:

- Inbuilt 6 recipes for different loads
- Retentive timer and settable up to 95 mins
- In case of power failure, the autoclave gives an option of resuming cycle with automatic adjustment of sterilization hold time
- Safety valve to protect the equipment in case of over-pressurisation
- If temperature falls below temperature set point the sterilization timer automatically gets adjusted.

Technical Data

Model	Unit	#7440PR	#7441PR	#7451PR	#74403PR
Capacity	L	75	113	180	75
Working Chamber Dimensions	mm	Ø 400 x 600	Ø 450 x 710	Ø 550 x 760	Ø 400 x 600
Loading Type	-	Top			
Carrier Dimensions	mm (nos)	Ø 350 x 550 (1) with separator	Ø 400 x 330 (2)	Ø 500 x 350 (2)	Ø 350 x 550 (1) with separator
Dressing Drum (Optional)	mm (inch) part code	Ø 380 x 300 (15x12") #S0082-25 (2 reqd)	Ø 380 x 300 (15x12") #S0082-25 (2 reqd)	NA	Ø 380 x 300 (15x12") #S0082-25 (2 reqd)
Heater power	kW	2.5	3.5	5.0	2.5
Temperature Range upto	°C	122.0	122.0	122.0	135.0
Operating Pressure	Psi / kPA	15 / 103.4	15 / 103.4	15 / 103.4	30 / 206.8
Duty Cycle	-	Four cycles in eight hour shift with a 30 minute cooling period			
Erlenmeyer Flasks capacity 250 ml	nos	9 x 2	14 x 2	22 x 2	8 x 2
Erlenmeyer Flasks capacity 500 ml	nos	7 x 2	9 x 2	14 x 2	5 x 2
Erlenmeyer Flasks capacity 1000 ml	nos	4 x 2	5 x 2	9 x 2	3 x 2
Duran Bottles capacity 250 ml	nos	16 x 2	21 x 2	34 x 2	11 x 2
Duran Bottles capacity 500 ml	nos	9 x 2	14 x 2	22 x 2	8 x 2
Duran Bottles capacity 1000 ml	nos	7 x 2	9 x 2	14 x 2	5 x 2
External Dimensions** (WxDxH + lid open)	mm	750 x 500 x 1040 + 420	800 x 550 x 1120 + 470	910 x 660 x 1160 + 580	750 x 500 x 1040 + 420
Packing Dimensions (WxDxH)	mm	920 x 660 x 1290	970 x 720 x 1350	1090 x 810 x 1420	920 x 660 x 1290
Gross Weight / Volume	kg / m ³	97 / 0.78	121 / 0.94	150 / 1.25	97 / 0.78

Options (to be ordered along with PRAANO order)

#DC	-	Drain (exhaust) cooling
#PP	-	Positive pulsing
#AB**	-	Air Ballast through micron filter (post sterilisation)

** Depth would increase by 180mm if #AB is opted for.

All electrical appliances work on 230V AC, 50Hz, single phase. Other Voltages available on request.
Due to continuous improvement in design, the product supplied may have modified features.



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