

UNIVERSALL

ESTD 1958



Manufacturers & Suppliers of ; Testing Equipments for Engg. Colleges, Hospitals, Laboratories, all sizes of Autoclaves, Shakers & Vacuum Pumps & other Scientific equipments

# UEW-501 AUTOCLAVE VERTICAL ( BOTH INNER CHAMBER & OUTER WALL OF S.S.)

It is used for sternization under saturated pressure at any selected point between 10 to 20 p.s.i. (adjustable). These are double walled units with inner chamber (Boiler) made of 18 S.W.G. stainless steel and outer chamber is covered with S.S. Lid is tightened by wing nuts/radial locking system (AS ORDERED). Fitted with neoprene rubber gasket, all system are hydraulically tested upto 40 p.s.i. as a safety measure. All autoclaves are fitted with standard accessories such as water indicator, pressure gauge, steam release cock, spring loaded sufety valve and heating element. Supplied complete with S.S. basket, cord and plug to work on 220/230 voits A.C. supply.

ALL THESE MODELS besides being fitted with STAINLESS STEEL/GUNMETAL LID and having inner chamber made of S.S. and outer chamber covered with stainless steel, are also fitted with VACUIUM BREAKER as a SAFETY DEVICE. As per the sizes:

100	DIA X HEIGHT	LOAD		DIA X HEIGHT	LOAD
(a)	250 X 450 m.m.	1.5 KW,	(d)	400 X 600 m.m.	4.0 KW
(b)	300 X 500 m.m.	2.0 KW	(e)	450 X 600 m.m.	4.0 KW,
(c)	350 X 550 m.m.	3.0 KW,	(1)	550 X 750 m.m.	5.0 KW

#### **OPTIONAL ACCESSORIES**

- (a) Automatic pressure control switch (AUTOMATIC INDFOSS PIEZOSTAT)
- (b) Automatic low water level cut-off device
- (c) Automatic 0-60 minutes "GERMAN" Timer.
- (d) Neoprene rubber gasket (spare)

Dia 250 mm 300 mm 350 mm 400 mm 450 mm 550 mm



# UEW-502 AUTOCLAVE VERTICAL HIGH PRESSURE (TRIPLE WALLED)

Most useful for sterilizing the loaded material under a steam pressure of 10 to 20 p.s.l. (adjustable). It has inner chamber, steam jacket and outer wall made of S.S. duly argon arc welded. The space between outer wall and steam jacket is filled with high grade glass wool to minimise the temperature loss. All sterilizers are hydraulically tested upto 40 p.s.l. The lid is made of thick Stainless Steel/Gun Metal and closed by wing nut/radial type closing arrangement. Fitted with a gasket made up of neoperare rubber, safety

closed by wing nut/radial type closing arrangement. Fitted with a gasket made up of neoprene rubber, safety valve, water level indicator, steam release valve, pressure gauge and S.S. basket. Supplied complete with cord and plug to work on 220/230 volts A.C. supply. Fitted with vacuum breaker as a safety device.

750750.00	DIAXHEIGHT	LOAD	and the	DIAXHEIGHT	LOAD
(a)	250 X 450 m.m.	3.00 KW,	(d)	400 X 600 m.m.	5.00 KW
(b)	300 x 500 m.m.	4.00 KW	(e)	450 X 600 m.m.	6.00 KW,
(c)	350 X 550 m.m.	4.00 KW,	(f)	550 X 750 m.m.	6.00 KW

#### **OPTIONAL ACCESSORIES**

- (a) Automatic pressure control switch (AUTOMATIC INDFOSS PIEZOSTAT)
- (b) Automatic low water level cut-off device
- (c) Automatic 0-60 minutes "GERMAN" Timer

# UEW-502

# UEW-503 AUTOCLAVE HORIZONTAL (CYLINDRICAL)

This is a double walled unit mounted horizontal on a sturdy, heavy mild steel tubular stand duly painted. Pressure is adjustable from 10 20psi. Fitted with pressure gauge, safety valve and steam release valve. Available with or without boiler. For unit fitted with S.S. Boiler, separate valves for injecting the steam into the main chamber and releasing the steam in atmosphere after use are provided. Hydraulically

tested up to 40psi, Automatic vacuum breaker is provided to break the vacuum in case of formation of vacuum due to steam condensation. Inner chamber made of S.S. and outer of Mild Steel duly painted. Fitted with Automatic Pressure Control Switch and Automatic Low Water Level Cut-Off device. Lid is made of S.S. plate with radial locking system, without steam jecket, Available with or without boiler & outer of S.S. As per the size:

	DIAXDEPTH	LOAD		DIAX DEPTH	LOAD:
(a)	250 X 450 m.m.	2.0 KW.	(e)	450 X 680 m.m.	6.0 KW,
(b)	300 X 500 m.m.	3.0 KW.	(f)	550 X 750 m.m.	8.0 KW
(c)	350 x 550 m.m.	4.0 KW,	(9)	400 X 1100 m.m.	9.0 KW
Cell	400 X 600 m.m.	6.0 KW	3.9(0)	The second of the second	



# UEW-504 HORIZONTAL HIGH PRESSURE CYLINDRICAL STEAM STERILIZER (TRIPLE WALLED WITH STEAM JACKET AND SEPARATE BOILER)

This inner chamber, steam jacket, outer chamber and boiler are made of heavy gauge stainless steel with leak proof arc welding. The radial locking lid is of thick S.S. plate. All units are hydraulically tested upto 40psi. The space between the outer chamber and steam jacket is fitted with asbestos sheet of glass wool to minimise thermal losses. Steam boiler is fitted with water level indicator, pressure gauge, low water cut-off device and automatic pressure control device fitted with a dial thermometer to indicate

water cut-off device and automatic pressure control device fitted with a dial thermometer to indica inner temperature and vaccumdne to steam condensation. Two separate valves are provided for evacuating steam from inner chamber and jackets as and when desired. Sterilization Cycle is Controlled by Multiport Valve and the unit is fitted with all standard accessories such as Automatic Pressure Control Switch and Automatic Low Water Cut-Off Device.

To work on 440 volts. 3 phase supply. As per the size:

	DIACOSPTH	LOAD		DIA X DEPTH	LOAD
lat	400 X 600 m.m.	6.0 KW.	(c)	500 X 900 m.m.	9.0 KW
(b)	400 X 1100 m.m.	9.0 KW,	(d)	500 X 1200 m.m.	9.0 KW



### UEW-505 HORIZONTAL HIGH PRESSURE RECTANGULAR STEAM STERILIZER

Inner Chamber is made up of thick non-magnetic steel of 304/316 quality and jacket is made out of rolled steel. Single door made of rolled steel lined with S.S. sheet has radial locking system. All units are hydraulically tested upto 40 psi. The space between outer cover made of thick rolled steel sheet and the steam jacket is filled with asbestos sheet or glass wool to minimise thermal losses. Boiler is made of thick S.S. sheet and is located under the sterilizer. It is fitted with water level indicator, safety valve, pressure gauge, water inlet and drain valves. Unit is fitted with low-water level cut-off device and automatic pressure control device. All "UNIVERSAL" rectangular sterilizers are fitted with SELF LOCKING SAFETY DOOR device. The door cannot be opened when chamber is under pressure. Two separate valves are provided for evacuating steam from inner chamber and tacket, as and when desired.

Fitted with a dial thermometer and automatic vacuum breaker. To work on 440 volts, 3Phase, A.C. supply Triple Walled with Steam Jacket and Separate Boiler, Sterilization cycle is controlled by Multiport Valve. The unit is fitted with all standard accessories.

	MIDTH	X	HEIGHT	8	DEPTH		WHOTH	X	HEIGHT	X.	DEPTH
53	450	X	450	X	900 m.m.,	(d)	600	X	600	×	1200 m.m.
)	450	X	600	X	900 m.m.,	(c)	600	X	750	X	1200 m.m.
					900 m.m.						

#### **UEW-506 AUTOCLAVE PORTABLE**

Fitted with pressure gauge up to 20 psl, the unit has spring loaded safety valve for pressure adjustment and a dead weight safety valve. It is hydraulically tested up to 40 psi and is supplied with electric fittings, cord and plug to work on 220/230 volts A.C. supply. Supplied complete with tripod stand. Size 300 X300 m.m.

(a) Body made of Aluminium

(b)

(b) Body made of S.S. ()OINTLESS)



## UEW-507 CEMENT AUTOCLAVE (AS PER IS:4031)

Complete with safety valve, pressure gauge and automatic pressure control switch.

(a) Inner Chamber made of MILD STEEL, (b) Inner Chamber made of STAINLESS STEEL

1. The high pressure autoclave is designed for conducting accelerated soundness tests on cement or the autoclave expension test. It is also suitable for other testing purposes requiring constant steam pressures between 60 and 350 pounds per squire inch, with the correspondent constant temperature. The autoclave consists of a drawn steel cylinder with a boilted cover. It is mounted in a sturdy supporting frame and enclosed in a heat insulated metal housing which is attractively finished in stove krankle paint. The control unit attached to the side of the housing encloses a sensitive pressure regulator and pressure gauge, power switches, pilot-light for controlling the electric heating units. Inside chamber dimensions are 6-d1/8" in dia by 16" hight fitted with 3 Nos. heating elements of 2400 watts.

 TEST BAR HOLDER: Special rack to hold specimens above the water level in the autoclave cylinder and in a vertical position so that all specimens are exposed to steam in the same manner. For 10" long 1sq. length bar of 8 No.

3. TEST BAR MOLD: 25mm X 25mm by cement bar mold to form specimens. Molds are made of steel and designed for a gauge length of 101 between the inner ends of the indeeded gaug contact point.

#### **UEW-508 ROTARY FLASK SHAKER**

Designed for continues shaking of solutions in Erlynmeyer Flasks form 50ml to 1000ml capacity. It is a compact bench type table top model with platform fitted with rubber discs mounted on ball bearing crank shafts to give an orbital motion to the flasks, within a diameter of approximately 2". The motor is coupled by means of a V-belt with pitch pulley, and is mounted on a heavy and stundy angle iron frame. Speed is controlled by mechanical speed controller. To work on 220/230 A.C. supply.

0.402.444	PLATFORM	MOTOR	HOLDING
	SIZE	CAPACITY	CAPACITY
(a)	45 X 45 cm	0.25 HP	49 flasks of 25 ml.
(b)	45 X 45 cm	0.25 HP	36 flasks of 50 ml.
(c)	45 X 45 cm	0.25 HP	25 flasks of 100 ml.
(d)	45 X 45 cm	0.25 HP	16 flusics of 250 ml.
(e)	45 X 45 cm	0.25 HP	09 flasks of 500 ml.
(1)	55 X 55 cm	0.25 HP	36 flasks of 100 ml.
(0)	55 X 55 cm	0.25 HP	25 flasks of 250 ml.
(h)	55 X 55 cm	0.25 HP	16 flasks of 500 mi.
(0)	65 X 65 cm	0.50 HP	36 flasks of 250 ml.
(1)	65 X 65 cm	0.50 HP	25 flasks of 500 ml.
(k)	105 X 105 cm	1.00 HP	81 flasks of 250 mt.
(1)	105 X 105 cm	1.00 HP	64 flasks of 500 ml.
(m)	105 X 105 cm	1.00 HP	49 flasks of 1000 ml.
(n)	180 X 180 cm	2.00 HP	(as per configuration)
<b>OPTI</b>	<b>ONAL ACCESSOR</b>	UES	



OPTIONAL ACCESSORIES

(a) DC MOTOR DRIVE with CONTINUOUSLY VARIABLE ELECTRONIC SPEED REGULATOR

in lieu of mechanical speed control and A.C. motor.

SIZE: 45 X45 cm 55 X 55 cm 65 X 65 cm 105 X 105 cm 180 X 180 cm
(b) Spare platform having any configuration other than the one supplied with the unit.

SIZE 45 x 45 CM 55 x 55 CM 65 x 65 CM 105 X 105 cm 180 X 180 cm

(c) Microprocessor based digital RPM counter

(d) Automatic 6-60 minute "GERMAN" Timer

#### UEW-509 V.D.R.L. ROTATOR

Used for V.D.R.L. Tests, blood grouping tests, various agglutination tests or mixing of solutions in small bottles, flasks of beakers. It has a platform of size 300 X 300 mm, and can accommodate blood bottles siles or flasks using a spring holder. Supplied complete with cord and plug to work on 220/230 volts A.C.

(a) Fixed speed (fixed at 180 RPM)

(b) Variable speed

ONAL ACCESSORIES

(a) Automatic 0-60 minutes "GERMAN" Timer

#### UEW-510 KAHN (RECIPROCATING) SHAKING MACHINE

Kahn racks, bottles or flasks of different sizes can be shaken by adjusting the compartments provided on the shaking rack. The rate of motion can be adjusted mechanically by belt tension from 140 to 250 r.p.m. approximately. To work on 220/230 volts A.C. supply.

PLATFORM SIZE

BODY

SPEED MOTOR CAPACITY

(a) 20" X 13" X 4"

Open

Fixed

1/4H.P.

(b) 20" X13" X4" Closed Variable TIONAL ACCESSORIES

(a) DC MOTOR DRIVE with CONTINUOLSY VARIABLE ELECTRONIC SPEED REGULATOR in lieu of mechanical speed control and A.C. motor.

SIZE: 20" X 13" X 4"cm,

31" X 17" X 4"cm. 36" X 18" X 4" cm

(b) Microprocessor based digital RPM counter

#### (c) Automatic 0-60 minuted "GERMAN" Timer

#### UEW-511 WRIST ACTION SHAKING MACHINE

It has a heavy cast iron base with rugged construction and two side arms for holding flasks. Fitted with a F.H.P. heavy duty motor with variable speed. Can hold flasks form 100 to 1000ml, Capacity, Supplied with cord and plug to work on 220/230 colts A.C. supply.

(a) To hold 4 flasks.

(b) To hold 4 flasks and top platform to hold 4 flasks/bottles.

(c) To hold 8 flasks.

(d) To hold 8 flasks and top platform to hold 4 flasks/bottles.

OFTIONAL ACCESSORIES

(a) Automatic 0-60 minute "GERMAN" Timer

#### UEW-512 UNIVERSE SHAKING MACHINE (MULTI-PURPOSE)

Complete with 4 flasks holder, one test tube holder shank and sieves holder. To work on 220 volts 50 cycles A.C. only.

FIONAL ACCESSORIES

(a) Automatic 0-60 minute "GERMAN" Timer

#### UEW-513 WNGNER SHAKING MACHINE

For estimation of phosphoric acid in stages and raw phosphates suitable in citrate solutions. The shaking frame is mounted on spindle with pulley for power drive and the spindle is supported on bearing on heavy metal upright base plate. Bottle and flasks of various size from 500 ml. to 1 litre can be accommodate. Fitted with 1/4 H.P. motor to work on 220 volts single phase and speed of 60 to 70 RPM with cord and plug.

(a) To accommodate 6 bottles in 2 rows.

(b) To accommodate 12 bottles in 3rows.

TIONAL ACCESSORIE

(A) Automatic 0-60 minute "GERMAN" Timer

#### UEW-514 VORTEX SHAKE (TEST TUBE SHAKER)

Useful for stirring centrifugal tubes, test tubes of flasks. Fitted with a Neoprene rubber cup mounted eccentrically on the shaft against which at its is held the tube with its lower end pressing against the cup. Mixing action is controlled by varying the angle and pressure of the tube against the cup. Fitted with speed control arrangement. To work on 220/230 volts A.C. Supply.

(a) With On/Off Switch.

(b) With touch On/Off plate type.

UEW-511

UEW-512

UEW-509

**UEW-510** 



UEW-513



UEW-514



# UNIVERSAL ENGINEERING WORKS

F-206-B, Mangal Bazar, Laxmi Nagar, Delhi-110092, Phone: 011-22541821