



20, 30, 50 Ton Capacity

MANUAL LAMINATING PRESSES

For over a quarter century, PHI manual laminating presses have been the unquestioned industry standard. Today, almost 15,000 of these compact, efficient presses are in industrial and laboratory service around the world.

Highly versatile, PHI manual laminating presses are ideal for short run plastic and rubber molding, batch testing, materials development and evaluation, briquetting, adhesive bonding, printed circuit board laminating and numerous other laboratory and light production applications.

Regardless of model or capacity, each PHI press is designed and ruggedly constructed for years of heavy duty service. The finest hydraulic, electrical and mechanical components, controls and safety devices are used, and all components are conveniently located for ready access for operation and maintenance.

PHI's new manual laminating presses provide, in the case of a four platen press, two electrically heated upper platens and two water cooled lower platens.

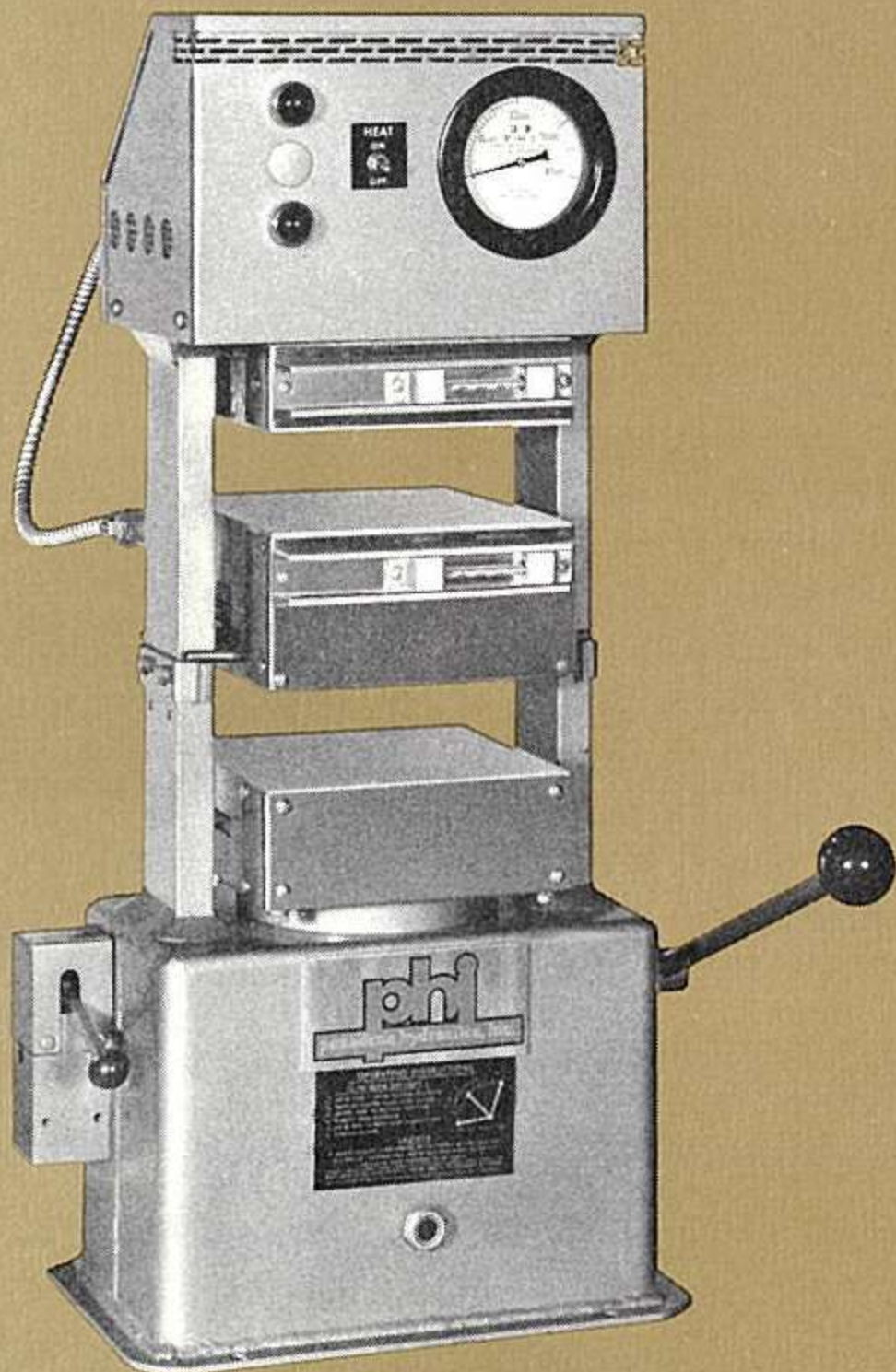
Work to be laminated is placed on a stainless steel tray and brought to laminating temperature between the hot platens, then quickly removed and placed between the cold platens to be cooled.

Proven Design Features

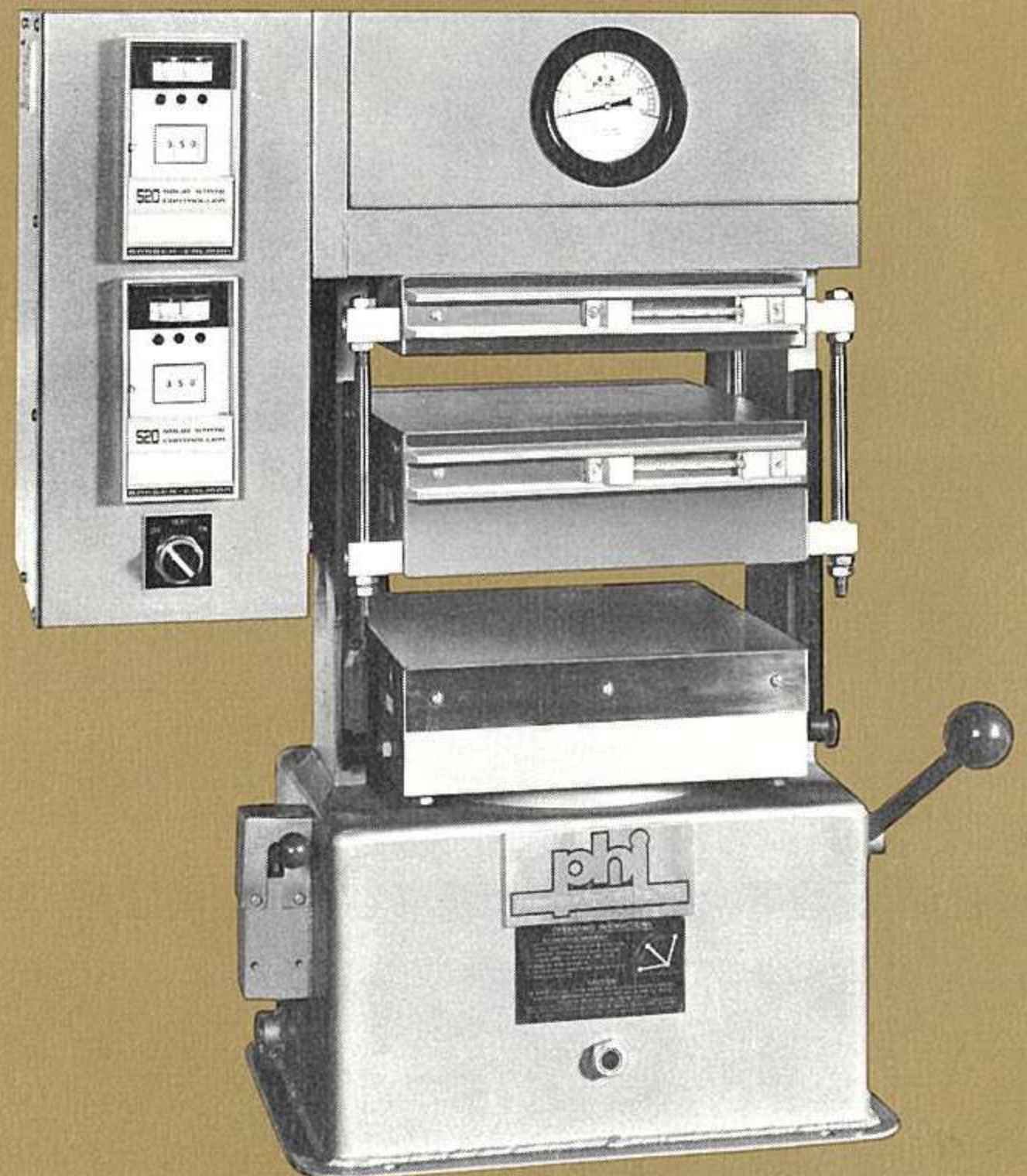
UNITIZED FRAME — In PHI manual laminating presses, the heavy duty frame columns are wide, solid steel plates structurally joined to the solid steel bolsters. Bolsters are ground, and the frame is carefully aligned to insure accurate platen parallelism. The moving bolster is fully guided. This remarkably strong, rigid design affords minimal deflection, assures accurate mold mating and uniform pressure application under all operating conditions.

TWO-STAGE HYDRAULIC PUMP — The PHI patented, manual high/low pressure pump is the most efficient and reliable ever developed. It automatically converts from low pressure/high volume to high pressure/low volume for ease of operation and accurate control throughout the range from 0 lbs. to full press capacity, with optional low pressure instrumentation.

DUMP/DECOMPRESSION VALVE—The two-stage PHI decompression and dump valve enables the operator to adjust pressure to laboratory accuracy. The two-stage valve permits precisely bleeding off pressure as required, in the event of pressure overshoot. In addition, the valve provides gradual decompression and fast or slow press opening.



PHI Manual Laminating Press
2 Opening



PHI Manual Laminating Press
2 Opening with Solid-State Temperature Controllers



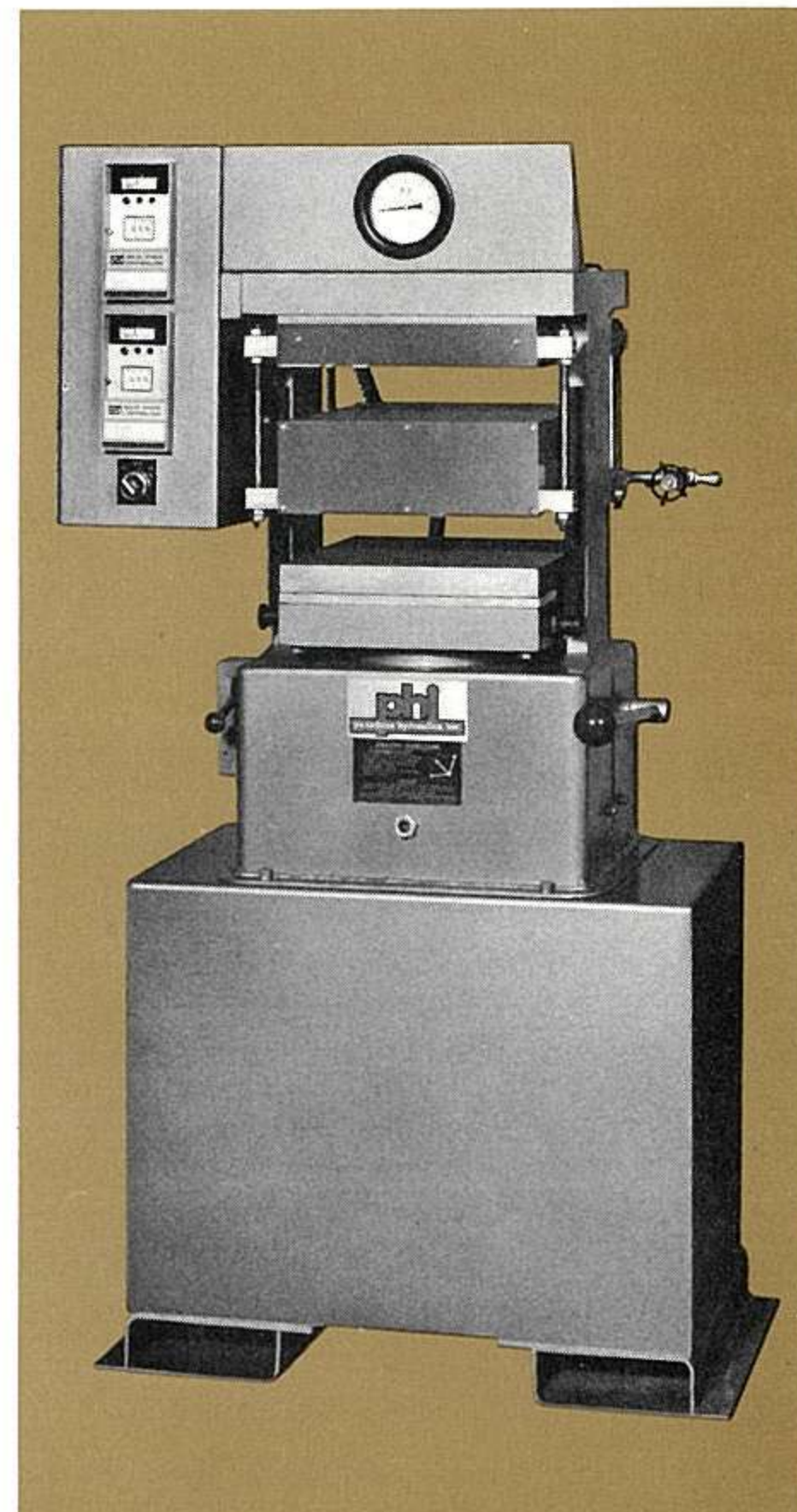
MANUAL LAMINATING PRESSES

STANDARD FEATURES

- Rigid, all steel unitized frame construction
- Electric heated hot platens, water cooled cold platens, all surface ground
- Platen sizes from 8" x 8" to 18.5" x 18.5"
- Two or four hot and cold openings for increased production
- Ground transite insulation between bolsters and hot and cold platens
- Patented two-stage manual hydraulic pump
- Two-stage dump/decompression valve
- Up acting, single acting, low friction ram
- Individual platen Fenwal thermostatic temperature control
- Channel mounted, easily read, thermometer heat indicators
- Easy-to-read, accurate pressure gauge
- Heated platen indicating lights
- Enclosed, contamination-free hydraulic system
- Equipped with one stainless steel transfer tray for each opening

OPTIONAL FEATURES

- Double acting ram
- High pressure readout gauges
- Low pressure readout gauges
- Solid state temperature controllers and indicators
- Solid state adjustment timers
- Up to 6" extra daylight
- Aluminum platens
- Stainless steel - high temperature platens
- Rapid platen heating rates
- Peripheral platen insulation
- Semi-automatic control
- Accumulator for compensation of thermal expansion in workpiece
- Thermometers and pressure gauges in metric system
- Centerless ground conductive platen heaters
- Floor standing bases



CAPACITY (TONS)	MODEL	PLATEN SIZE (INCHES)	NO. OF OPENINGS	TOTAL WATTS OF HEAT PLATEN	DAYLIGHT EACH OPENING (INCHES)	CONTROL RANGE (TONS)	RAM DIA. (INCHES)	RAM STROKE (INCHES)	HEIGHT (INCHES)	BASE DIMENSIONS (INCHES)	WEIGHT (LBS)
20	PL41	8 x 8	2	1600	2	2 to 20	4	4	32	15 x 10	350
	PL61	8 x 8	4	2400	1 or 2	2 to 20	4	4	39	15 x 10	400
	PWL42	12.5 x 9.5	2	3000	2	2 to 20	4	4	35	19 x 12	565
	PWL62	12.5 x 9.5	4	4500	1 or 2	2 to 20	4	4	41	19 x 12	665
30	QL43	12.5 x 12.5	2	4000	2	3 to 30	5	4	38	19 x 14	875
	QL 63	12.5 x 12.5	4	6000	1 or 2	3 to 30	5	4	45	19 x 14	1025
	QL44	18.5 x 12.5	2	6000	2	3 to 30	5	4	39	24 x 14	1225
	QL64	18.5 x 12.5	4	9000	1 or 2	3 to 30	5	4	47	25 x 14	1470
50	BL43	12.5 x 12.5	2	4000	3	5 to 50	6.5	6	41	19 x 17	1100
	BL63	12.5 x 12.5	4	6000	1.5 or 2.5	5 to 50	6.5	6	49	19 x 17	1250
	BL44	18.5 x 12.5	2	6000	3	5 to 50	6.5	6	44	25 x 17	1500
	BL64	18.5 x 12.5	4	9000	1.5 or 2.5	5 to 50	6.5	6	52	25 x 17	1750

Maximum temperature of hot platens 600°F.

Represented by:



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