

PHI
TRANSFER
ENCAPSULATION
PRESSES

TRANSFER MOLDING and ENCAPSULATION PRESSES

OPERATING & PERFORMANCE FEATURES

- Fast clamp approach followed by slow close, gives faster cycle speeds with complete low pressure mold protection and positive positioning of inserts.
- Fast clamp opening, with adjustable slow speed during ejection, removes parts from mold cavities positively but gently - to prevent part damage.
- Automatic reset for insert loading.
- Wide range clamp and transfer pressure controls for greater flexibility.
- Automatic transfer speed control system includes rapid plunger approach to preset position, followed by accurate transfer speed control from zero to maximum.
- Transfer plunger "follow" and "return" mode selection.
- Manual or semi-automatic operation. "Manual" is tailored for easy mold set-up. "Automatic" includes timed control of automatic reset for part injection.
- OSHA required dual push buttons. Requires two-hand operation for operator safety.
- Individual indicating mode lights and warning lights for ease of operation and maximum safety.
- Exclusive hydraulic system design for whisper-quiet operation.
- Mold air flotation.

DESIGN & CONSTRUCTION FEATURES

- Rugged all-steel frame with heavy duty bolsters.
- Large diameter chrome plated strain rods with lock type nuts.
- Large diameter ram for low pressure hydraulic system.
- Shielded moving bolster.
- Digital set point, time proportioning temperature controllers.
- Temperature/pressure compensating flow control valve for total transfer speed control.
- 3 1/2" dia. gauges for both high and low transfer pressure control.
- Nationally known hydraulic and electrical components and controls.
- Manifold mounted hydraulic valves.
- J.I.C. hydraulic and electrical systems.
- 120V control circuit with grounded secondary.
- Fused main and individualized heater circuits.
- Lock type disconnect switch for electrical panel.
- Oil cooler with over-temperature protection and warning lights.
- Micronic full flow oil filtration.
- Oil and dust-tight control enclosures.
- Large adjustable daylight for simplified mold access.
- Convenient work area on console base.

OPTIONS AVAILABLE

- Heated platens
- "T" slots/mounting holes for platens
- Pot/plunger
- Individual heater wattage control
- Transfer/compression selector switch
- Key actuated selector switches
- Safety gate



Model T100 with Optional Platens

PHI presses are specially designed for precision, high production molding and encapsulation of semiconductors, integrated circuits, capacitors, resistors and countless other electrical and electronic components.

Presses are constructed for rugged, heavy duty service and are fully equipped with precision time, temperature and pressure controls for both manual and semiautomatic operation. Virtually every key operating feature you could want or need has been carefully engineered into the press system, and are standard on all models. Optional controls are normally required only for highly specialized applications.

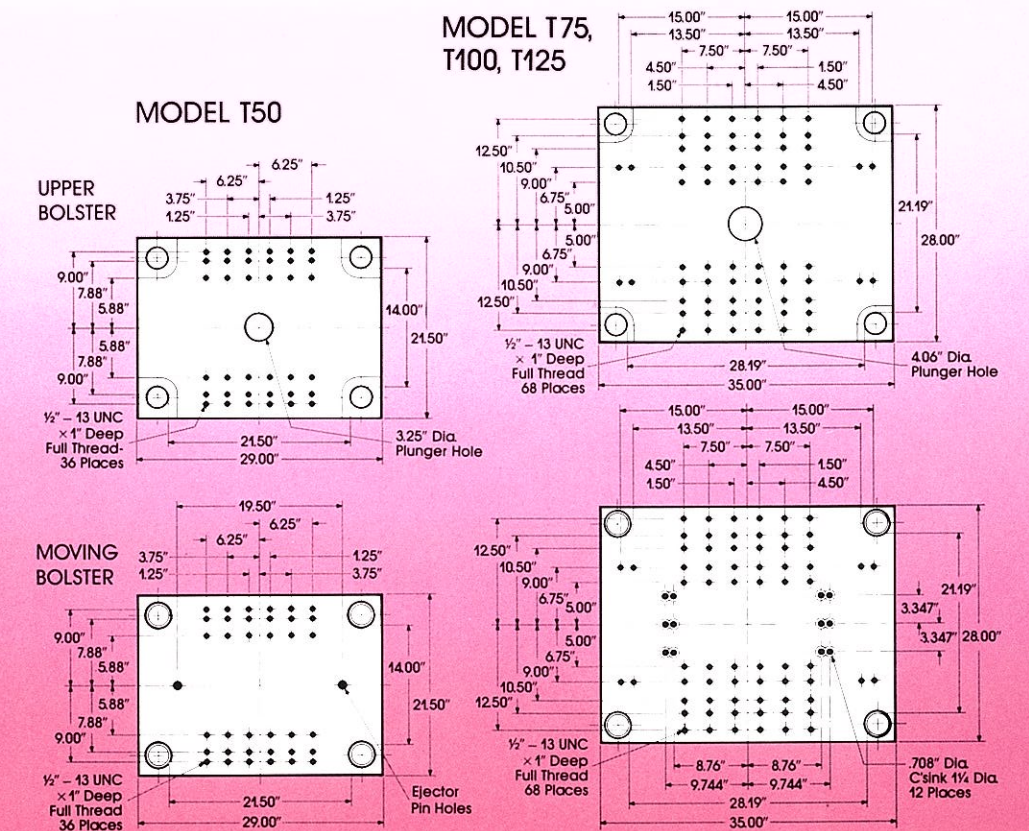
With the PHI transfer and encapsulation press optimum processing of all types of resins, both low pressure encapsulation grades and high pressure molding grades, is assured by the

wide range, precision transfer pressure and speed control features inherent in the press design.

All operating controls are variable, and can be independently set without affecting processing performance. This gives you utmost flexibility for efficient, economical operation.

Mold mounting and set-up is quick and easy. Bolt hole patterns in both upper and lower bolsters are industry standard, and SPI knockout hole patterns are compatible with most present molds. T-slot platens are supplied for 5/8" standard T-bolts to facilitate mold mounting.

Mechanical knockouts are adjustable from 0 to 3 inch stroke by setting a single limit switch.



For Precision High Production Molding

MODEL	CLAMP								TRANSFER				EJECTION		HYDRAULIC			GENERAL								
	CAPACITY (tons)	DIE SPACE (in. x in.)	MAX. STROKE (in.)	DAYLIGHT ADJ. (in.)	FAST CLOSE (in./min.)	SLOW CLOSE (in./max.)	FAST OPEN (in./min.)	CYL. DIA. (in.)	CAPACITY RANGE (lbs.)		STROKE (in.)	FAST APPROACH (in./min.)	TRANSFER SPEED (in./min.)	RAM TAP SIZE (thd.)	CYL. DIA. (in.)	STROKE (in.)	ROD SPACING (in.)	MOTOR (HP)	MAX. PRESSURE (psi)	OIL RESV. (gal.)	MAX. HEATING PER PLATEN (KW)	PHYSICAL DIMENSIONS (in.)				APPROX. WEIGHT (lbs.)
									LOW	HIGH												A*	B*	C*	D*	
T50	50	21.5 x 21.5	8	18 to 24	310	0-25	300	8	250-6000	6000-25000	8.5	600	0-60	1 1/8-12	4	0-3	19.5	7.5	2000	45	6	110	65	41	36	6000
T75	75	28 x 28	12	22 to 28	300	0-10	300	10	250-6000	6000-25000	12.5	600	0-60	1 1/8-12	4	0-3	17.5, 19.5	10	2000	60	9	115	76	41	53	7500
T100	100	28 x 28	12	22 to 28	300	0-10	300	10	400-9000	9000-39000	12.5	600	0-60	1 1/8-12	5	0-3	17.5, 19.5	10	2550	60	9	120	76	41	53	8000
T125	125	28 x 28	12	22 to 28	270	0-10	265	11.5	400-9000	9000-39000	12.5	600	0-60	1 1/8-12	5	0-3	17.5, 19.5	15	2430	75	9	120	76	41	53	8500

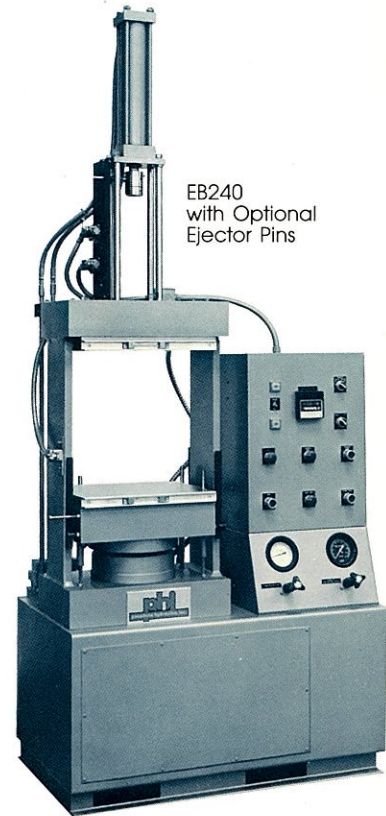
*Note: A = Overall Height, B = Width, C = Height to Working Surface, D = Depth

TRANSFER MOLDING and ENCAPSULATION PRESSES

For Prototype and Small Part Production

These PHI Transfer Presses are of simple, rugged, unitized frame design with columns fabricated from wide steel plate. The frame construction is identical to the PHI compression press, of which literally thousands exist, and which have been in continuous use over the last 40 years. These transfer presses provide laboratories or production departments with a versatile machine for small part molding.

MODEL	EP210	EPW 220	EQ230	EQ240	EB230	EB240
Platen Size (in.)	8 × 8	12.5 × 9.5	12.5 × 12.5	18.5 × 12.5	12.5 × 12.5	18.5 × 12.5
Platen Total Heating (KW)	1.6	3	4	6	4	6
Clamp Force (tons)	20	20	30	30	50	50
Fast Close (ipm)	73	73	78	78	56	56
Slow Close (ipm)	18	18	12	12	7	7
Ram Dia. (in.)	4	4	5	5	6.5	6.5
Ram Stroke (in.)	6	6	6	6	8	8
Daylight (in.)	8	8	8	8	10	10
Transfer Force (tons)	5	5	8	8	12.5	12.5
Approach Speed (ipm)	185	185	190	190	140	140
Transfer Speed (ipm)	0-45	0-45	0-31	0-31	0-18	0-18
Stroke (in.)	10	10	12	12	14	14
Motor (HP)	1.5	1.5	3	3	3	3
Weight (lbs.)	975	1100	1900	2075	2570	2630
Height (in.)	83	86	94	95	98	99
Floor Space (in. × in.)	36 × 19	36 × 19	55 × 21	55 × 21	55 × 21	55 × 21



EB240
with Optional
Ejector Pins

FEATURES

- The unitized frame is constructed of solid steel, insuring a strong and rigid design, relatively free from deflections. Moving bolster is guided to insure accurate mating of mold.
- Platens are precision Blanchard ground on top and bottom surfaces and equipped with replaceable heaters and individual temperature controls.
- Two pressure gages indicate clamp and transfer pressures. Adjustable pressure controls allow accurate settings on clamp and transfer cylinders.
- A water-cooled heat exchanger prevents oil overheating and extends hydraulic component life.
- Cylinders are internally honed prolonging cylinder life and improving sealing efficiency. Seals are quick-change, low maintenance type.

OPTIONS AVAILABLE

- "T" slotted platens
- Automatic cooling cycle
- Pot/plunger
- Adjustable low range transfer force
- Platen cooling
- Adjustable slow close clamp



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REPRESENTED BY: