# MANUAL COMPRESSION PRESSES

## 20, 30, & 50 TON CAPACITY

For over 50 years, PHI manual compression presses have been the unquestioned industry standard. Today, thousands of these compact, efficient presses are in industrial and laboratory service around the world.

Highly versatile, PHI manual compression 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. Featuring flexible "building block" design and construction, the many standard and optional features available on PHI manual compression presses allow you to easily and economically tailor your press to meet your individual testing or production requirements.

### PROVEN DESIGN FEATURES

**UNITIZED FRAME—**In PHI manual compression 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 design 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.

### STANDARD FEATURES:

- Rigid, all-steel construction
- Electric, water cooled, ground steel platens
- Platen sizes from 8" x 8" to 18½" x 18½"
- Thermal insulation between bolsters and heated platens
- Patented two-stage manual hydraulic pump
- Two-stage dump/ decompression valve
- Upacting, single acting, low friction ram
- Removable adapter for increased daylight
- Unitized frame construction
- Digital temperature controllers
- Easy-to-read, accurate pressure gage
- Enclosed, contamination-free hydraulic system
- Quiet, trouble-free operation

Model PW 220C — 20 ton capacity

Model Q - 240C — 30 ton capacity

Model PW 220C with optional cure and cooling timers with auto press opening

| MANUAL OPERATION | 20 TON CAPACITY | | 30 TON CAPACITY | | 50 TON CAPACITY | | |
|---|---|---|---|---|---|---|---|
| | P-21 SERIES | PW-22 SERIES | Q-23 SERIES | Q-24 SERIES | B-23 SERIES | B-24 SERIES | B-25 SERIES |
| Platen Size (inches) | 8 x 8 | 12½ x 9½ | 12½ x 12½ | 18½ x 12½ | 12½ x 12½ | 18½ x 12½ | 18½ x 18½ |
| Watts per Platen | 800 | 1500 | 2000 | 3000 | 2000 | 3000 | 4000 |
| Press Electric Service | 120V 240V | AS SPECIFIED PER CUSTOMER ① | | | | | |
| Maximum Temperature (°F) | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| Heat Rise (°F/Min) | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Ram Diameter (inches) | 4 | 4 | 5 | 5 | 6½ | 6½ | 6½ |
| Ram Stroke (inches) | 4 | 4 | 4 | 4 | 6 | 6 | 6 |
| Daylight (adjustable) (inches) | 4 to 8 | 4 to 8 | 4 to 8 | 4 to 8 | 6 to 10 | 6 to 10 | 6 to 10 |
| Control Range (tons) | 3 to 20 | 3 to 20 | 3 to 30 | 3 to 30 | 5 to 50 | 5 to 50 | 5 to 50 |
| Height (inches) | 33" | 33" | 30" | 36" | 31" | 36" | 44" |
| Base Dimensions (inches) | 28 x 16 | 28 x 24 | 31 x 17 | 37 x 17 | 31 x 17 | 37 x 17 | 37 x 19 |
| Weight (lbs) | 340 | 465 | 730 | 965 | 930 | 1220 | 1500 |

① As specified: 208V-single or 3 phase; 240V-single or 3 phase; 380V-3 phase; 460V-3 phase; either 50 or 60 cycle service

## OPTIONAL:

- High pressure precision readout gages
- Low pressure precision readout gages
- Solid state, adjustable timers
- Intermediate platen for increased productivity
- Steam heated steel platens
- Aluminum platens
- Plain (non-heated) steel platens
- Stainless steel — high temperature platens - 600°F & 800°F
- Rapid platen heating rates
- T-slot platens
- Peripheral platen insulation
- Floor standing bases
- Programmable temperature controllers
- Motorized hydraulic systems


Model B 240C - 50 ton capacity with optional motorized system & cure timer

***Need ACCURATE CONTROL of: PARALLELISM, TEMPERATURE PRESSURE – CALL PHI FOR A PRECISION PRESS!***

PHI

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