

Bulletin 218C





The World's Most Popular Laboratory Presses

Inside

Carver presses/
Applications overview
Press selection3
Table of contents 3
Auto Series benchtop presses, 15 to 48 tons4,5
Monarch floor standing presses, 30 to 100 tons
Presses for plastic ASTM testing7
Proppant presses7
Heated manual benchtop presses 7.5 to 30 tons8
Unheated manual benchtop presses, 12 to 30 tons
Pellet presses and accessories10
Pneumatic and laminating presses11
Heating and cooling platens12
Molds, dies and accessories13
Accessories catalog listings 14
AutoPak [™] power unit for existing manual presses16
Custom presses16
Wabash hydraulic presses and molding machines16

Tie Rods High tensile steel with precision threads for parallelism and rapid daylight adjustment Bolsters Iron castings for minimum deflection

Hydraulics Heavy duty cylinder and matched pressure gauge

Carver Standard Features Safety Shield Standard on all new presses, recommended for all applications

Tie Rod Nuts Dual nuts for precise daylight and parallel adjustment

Oversize Pressure Release Valve Ease of operation

Extension Handle For easy operation

The International Standard For more than 100 years Carver hydraulic presses have been the standard for laboratories around the world. Carver Model C presses alone are in use in more laboratories than any other press. The current Carver line has been expanded and improved with more sizes, options, features, and quality performance than any other line of presses.

The Widest Choices Standard choices now include two-column and four-column, benchtop and floor standing, and manual or automatic presses with clamping capacities from 0.5 to 100 tons. Automatic "Auto Series" presses include a user-friendly control system and integral safety enclosures. Accessories include self-contained, electrically operated AutoPak hydraulic power units for existing manual Carver presses.

Applications —

• Materials research: ceramics, composites, construction materials, cosmetics, drugs, pharmaceuticals, powder metals, printed circuit boards, rubber, silicone and other elastomers, soil, thermoplastic resins and thermosets

Catalog No. 3851-0 Model C, 12 ton capacity

• Quality and performance testing of physical properties: compression strength, flexural strength, shear strength, flow and color dispersion

• Laboratory testing: ASTM test plaque or bar molds for polyethylene & polypropylene

• **Other applications:** composite molding, compression molding, crushing, laminating, encapsulation, extrusion, forming, insert pressing, producing KBr pellets for infrared spectroscopy, metal forming (dimpling), insert molding, oil extraction, pelletizing, specimen preparation, splice molding, splitting chilled oils, transfer molding, and vulcanizing

Specialized Applications Special presses dedicated to specific applications include ASTM test plaque or bar molding, pellet making (KBr specimens for infrared and x-ray spectroscopy) and laminating.

Custom Presses In addition to the models shown in this catalog, Carver designs and manufactures a wide variety of custom made presses and accessories to suit your specific application. Please consult the factory for any equipment not specifically listed in this catalog.

Contact us: Carver, Inc. 1569 Morris St. Wabash, IN 46992-0544 Phone: 260-563-7577, Fax: 260-563-7625 E-mail: carverpress@acscorporate.com Visit our store online at www.carverpress.com ISO 9001:2015 Certified

More Choices, More Features, More Performance

Integral Safety Shield Contemporary styling and safe operation

Access Door Clear shatter resistant polycarbonate door permits observation while protecting the operator

> Heated Platens Optional digitally controlled, cartridge heated platens

Door Interlock Switch Prevents operation when safety shield is open



How to select the right Carver press for your application:

- Determine if you want a general laboratory press or one dedicated to a special application.
 General pages 4, 5, 6, 8, 9
 Special pages 7, 10, 11
- 2. Determine clamp force and choose benchtop or floor standing model. Benchtop

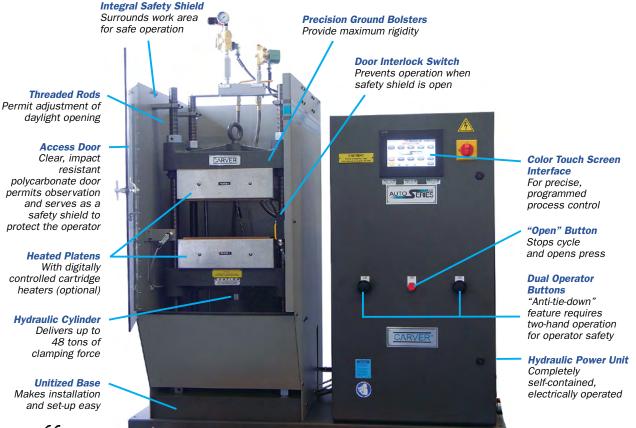
7.5 to 30 tons	pages 4, 5, 7,
	8, 9, 10, 11

Floor Standing 30 to 100 tons page 6

- Refer to specification tables for appropriate work area (platen size) and daylight opening (working height between platens).
- Refer to photos and descriptions to select two- or four-column configuration.
- **6.** Select heat control level desired and platen options on page 12.
- 7. Refer to pages 12 thru 15 to select appropriate accessories for your application.
- Note the catalog numbers of your selections on your letterhead and email to: carverpress@acscorporate.com Or, contact us for prompt assistance: Phone: 260-563-7577 Fax: 260-563-7625

Auto Series Compact Automatic Benchtop Presses 15 to 48 ton capacity

Automatic hydraulic laboratory presses in two- and four-post models up to 48 ton clamp capacity



C É available CULISTED Vanel available

4

Catalog No. 4533 Auto Four/3015-PL,H, 30 ton capacity

Carver's Auto Series presses bring a world of power and control options to your lab

Carver has incorporated over 100 years experience in laboratory presses into their automatic electrically powered benchtop presses for today's labs. Each Auto Series Plus press has a built-in hydraulic system with a control system for accurate programmable operation. A variety of models are available ranging in clamp force capacity from 15 to 48 tons and work areas ranging from 6" x 6" to 18" x 18". Press models include two- or four-column, pelletizing, heated, unheated and cooled configurations. All presses have integral safety enclosures with a clear front door for operator safety and observation. AutoPak power units are available for existing manual presses (see page 16). Auto Series presses feature integral power unit for automatic operation

Many Carver Auto Series (and Manual presses) are available in CE configurations. Please contact Carver for pricing and availability.

A Complete Line of Automatic Electrically Powered Benchtop Presses for the Laboratory or Manufacturing Facility

Carver, Inc. introduces their New Auto Series Plus Automatic Hydraulic Laboratory Presses. These new presses feature a 7" color operator interface, enhanced platen temperature control with auto-tuning, ramp heating capability, and real-time trending of force and temperature. Another enhancement includes storage of up to 250 recipes with recipe preview. Optional features include data logging for cycle parameters and a seven day timer for auto platen heat-up.

Auto Series Plus press models are available with 15 to 48 tons of clamping force and $6'' \times 6''$ to $18'' \times 18''$ platens. These benchtop presses are used in quality control, research and development for test sample preparations, destructive testing, molding, laminating and fluid extraction.

- Large 7" color touch screen operator interface
- · Storage of up to 250 recipes
- · Enhanced platen temperature control with auto-tuning
- · Ramp heating capability
- Recipe preview
- · Real-time trending of force and temperature
- · Seven day timer for auto platen heat-up (optional)
- · Datalogging of cycle parameters (optional)
- · Access to logged data through Wi-Fi (optional)
- 48 ton models include an integral wrap-around floor stand

Auto Series "PL" Control Panel



Specifications

Model	Catalog	Max. Clamp	Heated	Platen	Ram	Daylight	Dimensions	Height	Weight
	Number	Force, Tons (lb)	Platens	Size (in)	Stroke (in)	Opening (in)	W x D (in)	(in)	(lb)
Auto C-PL	3888	15 (30,000)	No	6 x 6	6	0.75 to 16	42.50 x 24.00	45	625
Auto C-PL,H	3889	15 (30,000)	Yes	6 x 6	6	0 to 13	42.50 x 24.00	45	670
Auto M-PL	3890	25 (50,000)	No	9 x 9	6	0.75 to 16	42.50 x 24.00	45	625
Auto M-PL,H	3891	25 (50,000)	Yes	9 x 9	6	0 to 12	42.50 x 24.00	45	690
AutoFour/1512-PL AutoFour/1512-PL,H AutoFour/1515-PL AutoFour/1515-PL,H	3892 3893 4530 4531	15 (30,000) 15 (30,000) 15 (30,000) 15 (30,000)	No Yes No Yes	12 x 12 12 x 12 15 x 15 15 x 15	6 6 6	1 to 17 0 to 12 8 to 17 2 to 12	50.00 x 29.25 50.00 x 29.25 50.00 x 29.25 50.00 x 29.25 50.00 x 29.25	46 46 46 46	995 1,200 1,500 1,775
AutoFour/3012-PL AutoFour/3012-PL,H AutoFour/3015-PL AutoFour/3015-PL,H	3894 3895 4532 4533	30 (60,000) 30 (60,000) 30 (60,000) 30 (60,000)	No Yes No Yes	12 x 12 12 x 12 15 x 15 15 x 15	6 6 6	1 to 17 0 to 12 8 to 17 2 to 12	50.00 x 29.25 50.00 x 29.25 50.00 x 29.25 50.00 x 29.25	46 46 46 46	995 1,200 1,500 1,775
AutoFour/4815-PL AutoFour/4815-PL,H AutoFour/4818-PL AutoFour/4818-PL,H	5400 5401 5402 5403	48 (96,000) 48 (96,000) 48 (96,000) 48 (96,000)	No Yes No Yes	15 x 15 15 x 15 18 x 18 18 x 18	4 4 4 4	6 to 19 0 to 15 6 to 19 0 to 15	55 x 36 55 x 36 55 x 36 55 x 36 55 x 36	72 72 72 72 72	3,074 3,384 3,074 3,444

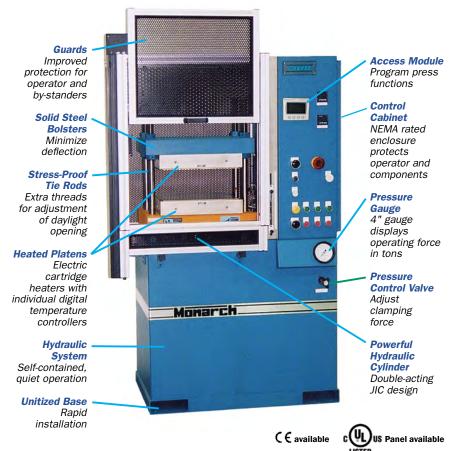
Monarch Hydraulic Lab Presses 30, 50, 75, 100 ton capacity

Carver's Monarch laboratory presses with integral hydraulic system and high technology options are based on standard production press models adapted to precision laboratory requirements.

Recommended for testing or research, compacting, molding rubber or plastic, laminating and assembly where stripping force is required.

Standard features include doubleacting JIC style cylinder for power open and power close. An integral hydraulic reservoir is easily accessible for cleaning and includes a strainer or cartridge filter, air filter/breather, oil level indicator and oil cooler. A programmable controller with access module is standard.

Optional equipment includes electrically heated platens to 500°, 650°, 800° or 1200°F, with digital temperature controllers, low pressure system, pressing speed control and automatic platen cooling.



Specifications

Model	Maximum Capacity (tons)	Nominal Work Area (in)	Adjustable Daylight Opening	Cylinder Stroke (in)	Tie Rod Dia. (in)	Dimensions W x D (in)	Height (in)	Approx. Weight (lb)
CMG 30H-15	30	15 x 15	6 to 12	6	1.25	42 x 40	72	1,850
CMG 30H-12 ASTM	30	12 x 12	6 to 12	6	1.25	43 x 40	72	1,850
CMG 50H-12	50	12 x 12	8 to 16	8	1.75	60 x 48	78	4,800
CMG 50H-15	50	15 x 15	8 to 16	8	1.75	60 x 48	78	4,800
CMG 50H-18	50	18 x 18	8 to 16	8	1.75	60 x 48	78	5,000
CMG 50H-24	50	24 x 24	8 to 16	8	1.75	66 x 50	78	5,600
CMG 75H-15	75	15 x 15	8 to 16	8	2	63 x 52	78	5,300
CMG 75H-18	75	18 x 18	8 to 16	8	2	69 x 52	78	5,500
CMG 75H-24	75	24 x 24	8 to 16	8	2	69 x 54	78	6,100
CMG 100H-15	100	15 x 15	12 to 22	12	3	66 x 54	83	7,000
CMG 100H-18	100	18 x 18	12 to 22	12	3	66 x 54	83	7,200
CMG 100H-24	100	24 x 24	12 to 22	12	3	72 x 54	83	7,500

Presses for Special Applications







No. 4391-ASTM with Safety Shield No. 4393-ASTM & No. 4394-ASTM with Safety Shield

No. 4393-ASTM Model AutoFour/15P-ASTM, 15 tons & No. 4394-ASTM Model AutoFour/30P-ASTM, 30 tons

Carver Auto Series self-contained press with heating/cooling platens and programmable controller. See pages 4 & 5 for press description.

ASTM Chase Frame Kits*

	C	Catalog Number					
Description (Sample Size)	Teflon Coated Steel	Stainless Steel	Brass	100 Mylar Sheets			
4" x 4" x 1/8"	4079	4080	4081	4161			
6" x 6" x 1/8"	4082	4083	4084	4162			
8" x 8" x 1/8"	4085	4086	4087	4163			

*Includes two aluminum back-up plates and 50 mylar sheets.

Molding ASTM Test Specimens Plastics, elastomers and other materials Carver has developed three presses which are specially configured

to perform the compression molding of test plaque or bar specially coming the operform the compression molding of test plaque or bar specimens of Type I, II, III or IV polyethylene and other thermoplastic resins. The procedure is in conformance with ASTM Method D 4703, Procedure C. The presses are equipped with heating/cooling platens and a programmable digital controller which has a heating/cooling loop for each platen and built-in program for the required 15°/minute ±2°C cooling rate.

CMG 30H-12 ASTM Model B, 30 tons

Floor standing, four-column, automatic press with heating/cooling platens and programmable controller.

No. 4391-ASTM Model 12-12H-ASTM, 12 tons

Benchtop, four-column manual press with heating/cooling platens and programmable controller.

Optional Portable Chillers available upon request



Proppant Crush Test Press Models CMG28-12-PCR & CMG40-12-PCR Compatible with ISO 13503-2:2006

For use with frac sand, resin coated sand and ceramic proppant

Carver Inc. is proud to introduce Models CMG28-12-PCR & CMG40-12-PCR Proppant Crush Test Presses. These Monarch Series presses meet the critical demands of ISO 13503-2:2006 with unsurpassed cycle repeatability. The proportional hydraulic system is capable of applying a constant rate of 13.8 MPa/min. (2000 PSI min.) from 2 ton to 28 ton clamp force within a $\pm 2.5\%$ deviation. The operator interface allows easy setup of press control parameters and includes ample recipe storage.



No. 5456 Proppant Crush Test Cylinder

Based on ISO 13503-2:2006(E) Crush Cell Cell: 2" ID x 3.38" tall including removeable base, wall thickness is >0.5" Piston: 3.5" tall All parts constructed of D2 Tool Steel, hardened to 52-56 Rockwell C

- 28 and 40 ton models
- Hardened plates: 12" L-R x 12" F-B fully guided platens to ensure parallalism
- Positive stop on plates for centering the crush die
- Open daylight: 6"-12"
- Cylinder stroke: 6"
- · Self-contained hydraulic system
- Available with and without 2" ID crush die
- (compatible with ISO 13503-2) • "Mini" Viewpoint control system including:
 - Allen Bradley programmable controller
 - PanelView Touch Screen Interface
 - · Closed-loop control of clamp pressure
 - Recipe storage (up to 30 recipes of 24 segments)
 - Two hand close buttons
- Polycarbonate safety guards around molding area with manual sliding interlocked operator gate
- Dimensions: 47" W x 34" D x 74" H
- Weight: 1,900 lbs.



7

Heated Manual Presses with Digital Temperature **Controls & Safety Shields**

7.5, 12, 25 and 30 ton capacity (Thermostatic Temperature Control also available. Consult Factory for details)

Used for molding, laminating, embossing, and bonding of various materials



7.5 TON PRESSES

- No. 3690 (Model 7.5-15H)
- Seven and a half ton, four-column press with 15" x 15" electrically heated platens Designed for applications needing lower
- force over a larger area
- · Shown with optional digital gauge

12 TON PRESSES

- **No. 4386** (Model CH)
- Twelve ton, manual, two-column hydraulic lab press with digital heated platens
- Davlight up to 15'
- Easy-to-read dual scale gauge, reading in pounds force and metric tons
- No. 4120 (Model 12-10H) Twelve ton, manual, two-column
- hydraulic press
- Similar to No. 4386 press, but heavier construction and guided moving platen
- Has electrically heated 10" x 7" platens for temperatures to 650°F with digital controller for each platen
- Easy-to-read dual scale gauge, reading in pounds force and metric tons
- **No. 4122** (Model 12-12H)
- Twelve ton, manual, four-column hydraulic press
- Four-post construction assures parallelism over 12" x 12" surface
- Easy-to-read dual scale gauge, reading in pounds force and metric tons
- Has electrically heated platens for temperatures to 650°F with digital controller for each platen

- No. 4123 (Model 12-12-2H) Same press as No. 4122 except has
- four electrically heated platens with two 3" day lights
- Optional water cooled platens also available **25 TON PRESSES**

- No. 4389 (Model MH)
- Twenty-five ton, manual, two-column hydraulic press with digital heated 9" x 9" platens Daylight opening is adjustable
- Rigid cast iron and steel construction for
- precision and durability Easy-to-read dual scale gauge, reading in
- pounds force and metric tons Optional water cooled platens also available
- No. 3856 (Model 25-12H)
- Twenty-five ton, manual, four-column hydraulic press
- Easy-to-read dual scale gauge, reading in pounds force and metric tons
- Electrically heated 12" x 12" platens for temperatures to 650°F with digital controller for each platen
- Optional water cooled platens also available
- No. 3693 (Model 25-15H)
- Twenty-five ton, four-column hydraulic press The 15" x 15" heated platen area allows for
- larger work area Standard with dual scale analog gauge
- Easy-to-read dual scale gauge, reading in pounds force and metric tons

- No. 4126 (Model 25-12-2H)
- Same press as No. 3856 except has four electrically heated platens with two 3" daylights
- Optional water cooled platens also available

30 TON PRESSES

- No. 4128 (Model 30-12H) Thirty ton, manual, four-column,
- hydraulic press Has two-speed pump, first stage for rapid
- closing and second for pressing mode Easy-to-read dual scale gauge, reading in
- pounds force and metric tons 12" x 12" electrically heated platens for temperatures to 650 ° F with digital controller
- for each platen No. 4129 (Model 30-12-2H)
- Same press as No. 4128 except has four electrically heated platens with two 3" daylights
- Optional water cooled platens also available

NOTE: Pictures shown with both analog gauge and digital gauge. Standard manual presses come with analog gauge. Digital gauges available upon request. Consult factory for details. Information on digital gauges may also be found on page 13.

SPECIAL 30 TON HIGH TEMPERATURE (1,100°F) PRESSES AVAILABLE. Consult factory for details.



Specifications

opeemeatione											
Catalog Number	3690	4386	4120	4122	4123	4389	3856	3693	4126	4128	4129
Model	7.5-15H	Model CH	12-10H	12-12H	12-12H,C	Model MH,C	25-12H	25-15H	25-12H,C	30-12H	30-12-2H
Clamping Force											
U.S. Tons Lbs	7.5 15,000	12 24,000	12 24,000	12 24,000	12 24,000	25 50,000	25 50,000	25 50,000	25 50,000	30 60,000	30 60,000
Max. Temp. (°F)	650°	650°	650°	650°	650°	650°	650°	650°	650°	650°	650°
Platens (in)	15 x 15	6 x 6	10 x 7	12 x 12	12 x 12	9 x 9	12 x 12	15 x 15	12 x 12	12 x 12	12 x 12
Ram Stroke (in)	5.1	5.1	5.1	5.1	5.125	6.5	6.5	6.5	6.5	6	6
Daylight Opening (in)	5	0 to 15	0 to 9	0 to 10	2@2.5	2@3	0 to 9.5	5	2@3	0 to 12	2@3
Dimensions w x d (in)	32 x 28	19 x 16	26 x 18	29 x 27	29 x 27	23 x 24	29 x 27	32 x 28	29 x 27	32 x 27	32 x 27
Height (in)	30	39	39	44	46	38	42	35	46	46	46
Weight (lb)	900	300	420	770	1,062	450	805	1,200	1,065	835	1,100

Standard Unheated Manual Presses

12, 25 and 30 ton capacity

For pelletizing, destructive testing, fluid extraction, pressure forming, etc.



12 TON PRESSES

No. 3850 (Mini C)

- Twelve ton, manual, two-column hydraulic press with 6" x 6" work area
- Compact and portable, requiring less bench space than our Model C
- This press is ideal for constricted bench space or glove box applications, as well as field work
- It features adjustable daylight, steel construction for rigid precision and includes safety shield for operator protection
- Easy-to-read dual scale gauge, reading in pounds force and metric tons

No. 4350

- Pellet press with 4" round platen
- Available with and without pellet die (see page 10)
- **No. 3851** (Model C)
- Twelve ton, manual, two-column hydraulic lab press
- Similar to Mini C above, but larger, heavier construction with daylight to 18"
- Easy-to-read dual scale gauge, reading in pounds force and metric tons

- No. 3968 (Model 12-10)
- Twelve ton, manual, two-column hydraulic press, with 10" x 7" work area
- Similar to No. 3851 press described above, but heavier construction with fully guided moving platen and daylight to 14"
- Easy-to-read dual scale gauge, reading in pounds force and metric tons
- No. 3969 (Model 12-12)
- Twelve ton, manual, four-column hydraulic press
- Fully guided moving platen assures parallelism over 12" x 12" surface
- Easy-to-read dual scale gauge, reading in pounds force and metric tons

25 TON PRESSES

- No. 3853 (Model M)
- Twenty-five ton, manual, two-column hydraulic press, with a 9" x 9" work area
- Daylight opening is adjustable
- Rigid cast iron and steel construction for precision and durability
- Easy-to-read dual scale gauge, reading in pounds force and metric tons

- **No. 3855** (Model 25-12)
- Twenty-five ton, manual, four-column hydraulic press with a 12" x 12" work area
- Easy-to-read dual scale gauge, reading in pounds force and metric tons

30 TON PRESSES

- **No. 3970** (Model 30-12)
- Thirty ton, manual, four-column, hydraulic press with a 12" x 12" work area
- Has two-speed pump, first stage for rapid closing and second for pressing mode
- Easy-to-read dual scale gauge, reading in pounds force and metric tons

Note: Existing Carver presses can be automated with an optional AutoPak power package (see back cover).

NOTE: Standard manual presses come with analog gauge (as shown in pictures). Digital gauges available upon request. Consult factory for details. Information on digital gauges may also be found on page 13.

C E available

Specifications

Catalog Number with shield	3850	4350	3851	3968	3969	3853	3855	3970
Model	Mini C	Pellet	Model C	12-10	12-12	Model M	25-12	30-12
Old Press*	3393	3620	2086	3724	2696	2089	2702	2698
Clamping Force Tons (lb)	12 (24,000)	12 (24,000)	12 (24,000)	12 (24,000)	12 (24,000)	25 (50,000)	25 (50,000)	30 (60,000)
Platens (in)	6 x 6	4 round	6 x 6	10 x 7	12 x 12	9 x 9	12 x 12	12 x 12
Ram Stroke (in)	5.1	5.1	5.1	5.1	5.1	6.5	6.5	6
Daylight Opening (in)	0.75 to 7	0 to 5.50	0.75 to 18	1 to 14	1 to 15	0.75 to 16	1 to 14	1 to 17
Dimensions w x d (in)	12 x 16	10.5 x 15	15 x 16	17 x 18	21 x 28	19 x 24	21 x 28	29 x 27
Height (in)	25	23	39	39	44	42	42	46
Weight (lb)	125	115	200	345	560	350	600	625

*Use to refer to old models which are no longer available.

Presses for preparing pellets, bricks, briquettes and cakes

No. 4350, 12 ton Manual Pellet Press (less the die)

C E available



Manual Pellet Presses (4350, 4555 & 4565)

The compact 12, 40 or 50 ton Pellet Press with $4^{\prime\prime}$ diameter platen is perfectly suited for KBr pellet pressing. It can also be used for Glove Box applications, compound and formula testing, compression strength tests, fluid extractions and on-site field testing. Includes integral Safety Shield, buffer plate and 13mm evacuable die. (not shown in picture)



AutoPellet Presses (3887 & 4387)

The self-contained 25 & 40 ton AutoPellet press has 5" diameter platen and integral safety shield cabinet enclosing electrically powered hydraulic system. Rigid slab side construction maintains precise alignment and includes provision for a vacuum line connection to the pellet die. The touch screen control interface allows for programmable force and programmable decompression rate.

Specifications

Catalog Number	Max. Clamp Force, U.S. Tons (lb)	Platen Dia. (in)	Die (mm)	Ram Stroke Stroke (in)	Daylight Opening (in)	Footprint W x D (in)	Height (in)	Weight (lb)
4350	12 (24,000)	4	13	5.1	0.0 to 5.5	10.5 x 15.0	23	115
4350L	12 (24,000)	4	N/A	5.1	0.0 to 5.5	10.5 x 15.0	23	115
4555	40 (80,000)	4	31	6.0	0.0 to 6.0	32.5 x 15.0	31.2	400
4555L	40 (80,000)	4	N/A	6.0	0.0 to 6.0	32.5 x 15.0	31.2	400
4565	50 (100,000)	4	31	6.0	0.0 to 6.0	32.5 x 15.0	31.2	420
4565L	50 (100,000)	4	N/A	6.0	0.0 to 6.0	32.5 x 15.0	31.2	420
AutoPellet 3887	25 (50,000)	5	N/A	1	1.5 to 7.25	31.5 x 19.75	22 (+ handle)	400
AutoPellet 4387	40 (80,000)	5	N/A	1	1.5 to 7.25	32.5 x 19.75	22 (+ handle)	450

Note: Pellet Models with an "L" means less die. Additional Pellet Die sizes available below and on page 13 and 15 (sold separately).



Evacuable Pellet Dies Used with Pellet Presses to form the pellets for use in IR and x-ray spectros-

copy. Complete with plunger, cylinder base plug, ejector and (2) polished anvils, along with a fitting for vacuum source connection when applicable. Constructed of 440 stainless steel. Available in sample diameter sizes 6, 12, 13, 25, 31 & 40mm. Not recommended for use in heated presses. (See pages 13 & 15 for additional details)



■ No. 5021 KBr Buffer Plate Kit Assembly Includes: (1) KBr Buffer Plate (90mm diameter), mounts to the Top Bolster and (1) 6" x 6" hardened steel plate with centering grooves, mounts to the Moving Bolster on top of

ram. For use with pellet dies and test cylinder outfits. (Picture shows 5021 plate kit installed in 3851 press)

No. 5022 KBr Buffer Plate Kit

Assembly Includes: (1) KBr Buffer Plate (90mm diameter), mounts to the Top Bolster and (1) 9" x 9" hardened steel plate with centering grooves, mounts to the Moving Bolster on top of ram. For use with pellet dies and test cylinder outfits.



No. 3874 Vacuum Pump Kit Used with pellet press to evacuate dies. (Available in 115 or 230V)



No. 5023 Set of (2) 6" x 6" Unheated Hardened Steel Plates for smooth surface pressing. Steel Plates

mount to top and moving bolsters.

No. 5024 Set of (2) 9" x 9" Unheated Hardened Steel Plates for smooth surface pressing. Steel Plates mount to top and moving bolsters.



No. 2090-0, 1.125" ID x 3" High, 440 Stainless Steel Test Cylinder Outfit (TCO)

■ No. 2091-5, 2.25" ID x 3" High, 440 Stainless Steel Test Cylinder Outfit (TCO) For use with standard unheated presses (excluding 4350 Series) for molding, forming bricks, briquettes, pressure forming, crushing, pressing plant and animal tissues, fluid extraction, extrusion and flow tests. Not recommended for use in heated presses. (See pages 13 & 15 for additional details)



No. 2090-1 Filter pads for 1.125" Test Cylinder Outfit. (set of 12)

No. 2091-1 Filter pads for 2.25" Test Cylinder Outfit. (set of 12)

■ No. 237005 Stainless Steel Pan Used for fluid extraction when using the

Test Cylinder Outfits and filter pads to make a sandwich sample. The stainless steel pan captures the released fluid.

Carver reserves the right to change specifications without notice. Presses and accessories may differ from photos shown. Carver strongly recommends the use of a safety shield and personal protection equipment when operating Carver equipment. Carver Inc 1569 Morris Street • Wabash Indiana USA • (P) 260-563-7577 • (F) 260-563-7625 • carverpress@acscorporate.com

10

Pneumatic Low Force & Laminating Presses

Pneumatic Low Force Press

Carver's Pneumatic Low Force presses are fully guided with either two or four post construction. Benchtop or Floor Standing model presses available. The Pneumatic models provide accurate force control custom design to fit your specifications. Proportional force control or manual precision air regulator with analog gauge and/or digital force display options also available. Features include low friction seals in the clamp cylinder, linear ball bushings in the moving bolster and an optional integrated load cell design for accurate force feedback. Multiple clamp force and platen size configurations are available.

Please consult factory for details and available options.

C E available





Shown with enhanced control options

Laminating Presses

Manually operated hydraulic laminating presses with stacked heating and cooling platens in bench top model. Thermostatic control, aluminium platens, heating one opening while simultaneously cooling the other results in faster production of laminated samples, plastic plaques and other R&D items. Temperature control 150-500°F (Shown with analog gauge)



No. 4130 (formerly 2112) Laminating Press, 12 ton capacity with Safety Shield Four 6" x 6" aluminum platens for one hot and one cold daylight opening. Thermostat control of heated platens in top opening as shown in picture to the left.

No. 4132 (formerly 2630) Laminating Press, 30 ton capacity with Safety Shield Four 12" x 12" aluminum platens for one hot and one cold daylight opening. Digital control of heated platens in top opening.

Specifications – Laminating Presses

Catalog Number	4130	4132				
Model Number	150-C	30-12-L				
Old Model Number*	2112	2630				
Clamping Force, U.S. tons (lb)	12 (24,000)	30 (60,000)				
Platens Size (in)	6 x 6	12 x 12				
Stroke (in)	5-1/8	6				
Daylight Openings (in)	2@1-3/4	2@3				
Dimensions w x d x h (in)	16 x 19 x 39	32 x 27 x 46				
Weight (Ib)	265	1,000				
Supply Voltage	115V or 230V - 1ph	230V - 1ph				
Temperature Range	150-500 deg F	150-500 deg F				
Note: Available in deg C upon request. *Use to refer to old models which are no longer available.						

Heating and Cooling Platen Options

Carver Heat Control Options

There are several levels of control for heating and cooling to give you a choice to meet the specific demands of your application.

Manual thermostat control Basic heated platens are controlled by an integral sensor and individual manual thermostats.

Digital control For more precise control, individual digital temperature controllers automatically control platen temperature from a separate control panel.

No. 3984

Digital control assembly for existing hotplates.

Manual cooling Manual water cooling permits hand operated cooling of platens with monitoring by analog thermometers for thermostatically controlled platens and digitally on the digital platen packages.

Note: All heaters are single phase unless otherwise noted.



CUL available for digital controls only

Specifications



Heated Platens Thermostat Control



Heating/Cooling Platens Thermostat Control



Heated Platens w/Digital Control and Disconnect (available with cooling channels)



Cooling Platens

For Presses Catalog Number/Model	Platen Size (in)	Heated Platens Thermostat Control (230V available upon request)	Heated Platens Digital Control	Heating/Cooling Platens Thermostat Control	Heating/Cooling Platens Digital Control
3850 /Mini C	6 × 6	2101 - aluminum 150 to 500°F, 115V	3796 - steel to 650°F (115V)	2103.1 - steel	3772 - steel, with hoses to 650°F (115V)
3851/Model C 4130/150-C	6 x 6	2102.1 - steel 150 to 500°F, 115V	4286 - steel, to 650°F (230V)	150 to 500°F	3988 - steel to 650°F with hoses (230V)
3853/Model M	9 x 9	2107.1 - steel 150 to 500°F, 115V	3973 - steel to 650°F (230V)	2108.1 - steel 150 to 500°F	3972 - steel, with hoses to 650 °F (230V)
<u>F</u> our-column	12 x 12		3906 - steel to 650 °F (230V)		3749 - steel with hose assemblies to 650°F (230V)
Presses	15 x 15		6316 - steel to 650°F (230V)		

Optional Heat Tube Platens Available

For both Carver Benchtop and Floor Standing Presses



Accu-Heat[™] Heat Tube Platens – For heat uniformity

- Accuracy and uniformity up to ±1 F° approx.
- Standard sizes include; $6'' x \, 6'', 9'' x \, 9'', 12'' x \, 12'', 15'' x \, 15'', 18'' x \, 18'' and 24'' x \, 24''$
- · Custom engineered sizes quoted upon request
- 500°F maximum temperature
- Heated/cooled configuration also available
- · Can be designed to fit existing Carver or other brand presses
- · Contact factory for details and/or to request a quotation

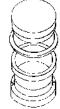
12

Laboratory Accessories for Carver Presses



Tile Mold

Plated steel or stainless steel frame with polished steel top and bottom covers. Can be used up to 400°F to form plastic or rubber sheets. Use with Carver heated, or heated and cooled platens.



Color Dispersion Disc Mold

For making plastic film to check color dispersion or clarity. Provides precise film thickness and parallelism. Made of stainless steel or hardened tool steel. Includes die, upper punch, lower punch and 3 spacers for optional film thicknesses.

Molds, Dies and Test Cylinder Specifications

Catalog Number	Description	Sample Dimensions	Sample Thicknesses	Maximum Applied Load				
818701D	Tile Mold, 440 Stainless Steel	50mm x 50mm	1mm, 2mm & 5mm	N/A				
818702D	Tile Mold, 440 Stainless Steel	100mm x 100mm	1mm, 2mm & 5mm	N/A				
818703D	Tile Mold, 440 Stainless Steel	150mm x 150mm	1mm, 2mm & 5mm	N/A				
818704C	Color Dispersion, 440 Stainless Steel	50mm diameter	0.1mm, 0.2mm & 0.5mm	N/A				
818705C	Color Dispersion, 440 Stainless Steel	100mm diameter	0.1mm, 0.2mm & 0.5mm	N/A				
4417	Pellet Die, 440 Stainless Steel	6mm	N/A	3,500 Lbs Max				
4946	Pellet Die, 440 Stainless Steel	12mm	N/A	13,000 Lbs Max				
3619	Pellet Die, 440 Stainless Steel	13mm	N/A	18,000 Lbs Max				
4369	Pellet Die, 440 Stainless Steel	25mm	N/A	47,000 Lbs Max				
3902	Pellet Die, 440 Stainless Steel	31mm	N/A	60,000 Lbs Max				
3876	Pellet Die, 440 Stainless Steel	40mm	N/A	70,000 Lbs Max				
2090-0	Test Cylinder, 440 Stainless Steel	1.125″	N/A	19 US Tons Max				
2091-5	Test Cylinder, 440 Stainless Steel	2.25″	N/A	51 US Tons Max				
818698D	Tile Mold, 440 Stainless Steel	4″ x 4″	1mm, 2mm & 5mm	N/A				
818699D	Tile Mold, 440 Stainless Steel	6″ x 6″	1mm, 2mm & 5mm	N/A				
818700D	Tile Mold, 440 Stainless Steel	10" x 10"	1mm, 2mm & 5mm	N/A				
Special Applic	Special Application Test Cylinder (See page 7)							

Catalog Number

ber

Description

5456

Based on ISO 13503-2:2006(E) Crush Cell; Cell: 2" ID x 3.38" tall including removeable base, wall thickness is >0.5" Piston: 3.5" tall: All parts constructed of D2 Tool Steel, hardened to 52-56 Rockwell C





No. 2092 Swivel Bearing Plates

Carver presses are frequently used for crushing and breaking tests of standard 2" x 2" cubes and 2" x 4" cylinders of concrete samples or similar crushing tests. Swivel Bearing Plates adjust slightly to the sample to assure proper application of pressure. **Requires safety shield.**



No. 2096CE & 2096-1CE Two Gauge Manifolds

The 2096CE is for most standard manual presses, except the Mini C. The 2096-1CE is specifically designed for the Mini C Model Press only. These manifolds permit mounting of both high (right) and low (left) range gauges for more precise application of force. Hand operated shut-off valve

protects low pressure gauge when using high pressure. Analog Gauges sold separately. (see page 15)



No. 6306 Digital Gauge

Optional digital force gauges for manual presses. Available in 10 or 100 pound increments. They are scaled per press model. Approximate accuracy: ±1% of reading between 1,000 lbs up to maximum tonnage of press (12, 25 or 30 tons). Consult factory for press details.

Laboratory Accessories for Carver Presses



FLOOR STANDS – Designed for most models

Catalog/ Item Number	Description	Dimensions H x W x D	Weight						
223160C	Press Stand (Model 3690 & 3693 presses)	30″ x 23.5″ x 23.5″	150#						
223171D	Press Stand (2 & 4 column presses)	30" x 19" x 19"	125#						
223215C	Press Stand (2 & 4 column presses with 6" casters)	30" x 36" x 36"	260#						
223321D	Press Stand for Standard PL Auto Series presses (excluding 48 ton models)	24″ x 51″ x 23.5″	385#						
223319C	Press Stand for Standard PL Auto Series presses with 6" casters (excluding 48 ton models)	24″ x 51″ x 23.5″	385#						



SAFETY SHIELDS

Catalog/Item Number	Description (Fits most models with or without heat)
3404	Mini "C" Presses
3295	Model "C" Presses
3253	Model "M" Presses
3322	Presses with 10" x 7" Work Area
3418	Presses with 12" x 12" Work Area
4427	Presses with 15" x 15" Work Area



Repair parts for (gray) Carver hydraulic units. Repair kits contain hydraulic oil, seals, gaskets, pins, fittings, valve parts and jack handle bracket for quick maintenance. (restrictions apply, visit carverpress.com for details)

- No. 3729 12 ton hydraulic unit repair kit
- No. 3730 25 ton
- hydraulic unit repair kit No. 319002 pump assem
- No. 319002 pump assembly for 12 & 25 ton jacks

Catalog n	SSORIES umber erence index			1		2108.1	Set of (2) 9" x 9" heated and cooled, steel platens, thermo- statically controlled,
	COOLING r Model C Presses ble in deg C upon request)		CAR				150° to 500°F with hoses (Specify 115 or 230V)
2101	Set of (2) 6" x 6" heated, aluminium platens, thermo- statically controlled, 150° to 500° F			*	_	2109	Set of (2) 9" x 9" steel steam heating plates, with insulation and braided hoses
2102.1	(Specify 115 or 230V) Set of (2) 6" x 6" heated, steel platens, thermo-	R				3972	Set of (2) 9" x 9", heated and cooled, steel platens, digitally controlled, 650 ° F, 230V
	statically controlled, 150° to 500°F, (Specify 115						r four-column presses ble in deg C upon request)
3796	or 230V) Set of (2) 6" x 6", heated, steel platens, digitally controlled, 650° F. 115V	Ĵ	98.			3906	Set of (2) 12" x 12", heated, steel platens, digitally controlled, 650°F, 230V
4286	Set of (2) 6" x 6", heated, steel platens, digitally controlled.	3772	Set of (2) 6" x 6" heated & cooled		r Model M Presses ble in deg C upon request)	3749	Set of (2) 12" x 12" heated and cooled steel platens, digi- tally controlled, 650°F, 230V
2103.1	650°F, 230V Set of (2) 6" x 6" heated and cooled, steel platens, thermo- statically controlled, 150° to 500°F with hoses (Specify 115 or 230V)	3988	steel platens, digitally controlled, 650°F, 115V Set of (2) 6" x 6" heated & cooled steel platens, digitally controlled, 650°F, 230V	2107.1 3973	Set of (2) 9" x 9" heated, steel platens, thermostatically controlled, 150° to 500° F, (Specify 115 or 230V) Set of (2) 9" x 9", heated, steel	6316	Set of (2) 15" x 15", heated, steel platens, digitally controlled, 650° F, 230V
2104	Set of (2) 6" x 6" aluminum cooling plates, with valve and hose assemblies	2105	Set of (2) 6" x 6" aluminum steam plates, with insulation and braided hoses		platens, digitally controlled, 650°F, 230V		

14

Accessories for Many Applications

MOLDS AND DIES (See page 10 & 13)		
Test Cylinders & Pellet Dies		
2090-0	Test cylinder outfit, 1.125" ID	
2090-1	Set of 12 filter pads for 1.125" ID TCO's	
2091-5	Test cylinder outfit 2.25″ ID	
2091-1	Set of 12 filter pads for 2.25" ID TCO's	
237005	Stainless steel pan for either TCO size	
4417	6mm pellet die 440 stainless steel	
4946	12mm pellet die 440 stainless steel	
3619	13mm pellet die 440 stainless steel	
4369	25mm pellet die 440 stainless steel	
3902	31mm pellet die, 440 stainless steel	
3876	40mm pellet die, 440 stainless steel	
5456	2" ID Proppant Crush Test Cylinder based on ISO 13503-2:2006(E) Page 7 & 13	
2092	Swivel bearing plate (Requires safety shield)	
2095	KBr buffer plate	
818744C	Pharmaceutical pellet die holder	
ASTM Molds		
(See pages 7	and 13)	
4079	4" x 4" chase assembly, Teflon	
4080	4" x 4" chase assembly,	
	Stainless steel	
4081	4" x 4" chase assembly, Brass	
4082	6" x 6" chase assembly, Teflon	
4083	6" x 6" chase assembly,	
4084	Stainless steel 6" x 6" chase	
4085	assembly, Brass 8" x 8" chase	
4086	assembly, Teflon 8" x 8" chase	
	assembly, Stainless steel	
4087	8″ x 8″ chase assembly, Brass	
4161	(100) 6" x 6" mylar sheets for 4" x 4" molds	
4162	(100) 8" x 8" mylar sheets for 6" x 6" molds	

	(100)
4163	(100) 10" x 10" mylar
	sheets for 8" x 8" molds
The Bashda av	
Disc Molds and (See page 13	nd Color Dispersion
818698D	4" x 4" tile mold,
	1mm, 2mm & 5mm thick,
	Stainless steel
818699D	6″ x 6″ tile mold, 1mm, 2mm &
	5mm thick,
818700D	Stainless steel 10" x 10" tile
	mold, 1mm, 2mm
	& 5mm thick, Stainless steel
818701D	50mm x 50mm
	tile mold, 1mm, 2mm & 5mm thick,
818702D	Stainless steel 100mm x 100mm
0101020	tile mold, 1mm,
	2mm & 5mm thick, Stainless steel
818703D	150mm x 150mm
	tile mold, 1mm, 2mm & 5mm thick
	Stainless steel
818704C	50mm diameter color dispersion
	disc, 0.1mm, 0.2mm & 0.5mm thick,
	Stainless steel
818705D	100mm diameter color dispersion
	disc, 0.1mm, 0.2mm
	& 0.5mm thick, Stainless steel
TESTING/PR	OCESSING
Polished Plat (For lamination	tes ng applications)
235020	SS Plate with #8
	mirror finish, polished on 1 side,
	6" x 6" x 0.03" thick
235021	SS Plate with #8 mirror finish,
	polished on 1 side, 9" x 9" x 0.03" thick
235022	SS Plate with #8
	mirror finish, polished on 1 side,
	9" x 12" x 0.03" thick
235023	SS Plate with #8 mirror finish,
	polished on 1 side,
	12″ x 12″ x 0.03″ thick
Heated Test	Cylinders
2472	1.125" heated
2417	test cylinder 2.25″ heated
	test cylinder

SAFETY SHIE (See page 14		
3404	For most Mini C	
3295	Presses For most Model C	
3253	Presses For most Model M	
3322	Presses For most presses	
3418	with 10" x 7" platens	
4427	For most presses with 12" x 12" platens For 3690 and 3693	
4421	with 15" x 15" platens	
	ANALOG GAUGES	
	(See page 13 for digital gauge options)	
Gauges for N	lodel B/C	
381005	Gauge normally	
	furnished with Model C press,	
	0 - 24,000 lbs applied force,	
	11 metric tons, 200 lb increments	
381042	Model B/C gauge,	
	0 - 500 lbs, 0.225 metric tons,	
381001	5 lb increments Model B/C gauge,	
381001	0 - 1,000 lbs,	
	0.45 metric tons, 10 lb increments	
381002	Model B/C gauge, 0 - 2,000 lbs,	
	0.9 metric tons, 20 lb increments	
381003	Model B/C gauge,	
	0 - 5,000 lbs, 2.25 metric tons,	
381004	50 lb increments Model B/C gauge,	
	0 -10,000 lbs, 4.5 metric tons,	
	100 lb increments	
Gauges for N		
381008	Gauge normally furnished with	
	Model M press, 0 - 50,000 lbs	
	applied force, 22.5 metric tons,	
381006	500 lb increments Model K/M Gauge,	
301000	0 - 5,000 lbs,	
	2.25 metric tons, 50 lb increments	
381007	Model K/M Gauge, 0 - 10,000 lbs,	
	4.5 metric tons, 100 lb increments	
381176A	Model K/M Gauge,	
	0 - 1,000 lbs, 0.45 metric tons,	
	10 lb increments	

Two Gauge Manifold (See page 13)

(See page 13)		
2096 🤇 🤅	Two gauge manifold	
2096 ({-1	(mini C only)	



Dial Thermometers

Dial Thermometers		
385001	Dial face thermometer 150°F to 750°F	
385019	Dial face thermometer 50°C to 400°C	
HYDRAULIC (Specify press	UNITS s Serial Number)	
3912	12 ton hydraulic unit	
3925	25 ton hydraulic unit	
321007	Pump and reservoir for 30 ton presses	
3467-0	Hydraulic cylinder for 30 ton presses	
3729	12 ton repair kit (gray only)	
3730	25 ton repair kit (gray only)	
2170	Carver hydraulic fluid (pint size)	
AUTOPAK [™] F (See page 16	POWER UNITS)	
3946NE	AutoPak/12, for 12 ton existing manual presses.	
3947NE	AutoPak/25, for 25 ton existing manual presses.	
3948NE	AutoPak/30, for 30 ton existing manual presses.	
FLOOR STAN (See page 14		
223160C	Press stand for 3690 & 3693 presses	
223171D	Press stand for 2 column and	
223215C	4 column presses Press stand for 2 column and	
	4 column presses with casters	
223321D	Press stand for standard PL Auto	
	Series presses (excluding 48 ton models)	
223319C	Press stand for standard PL Auto	
	Series presses	
	with casters (excluding	
	48 ton models)	

Please feel free to visit our store by going to www.carverpress.com and/or consult factory for additional parts/accessories

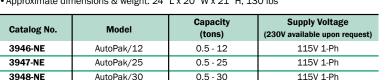
Add Power to Existing Presses

AutoPak[™] Power Units

- Self-contained 1/4 HP hydraulic power unit
- · Develops maximum clamping force for most of our 12, 25 and 30 ton manual press models (minimum 1 000 lbs)
- · Six feet of hose for connecting to existing Carver hand operated press
- · Programmable control system (force only)
- Touch screen interface - 10 recipe storage capability
- 20 programmable segments of clamp force and dwell time per recipe
- Programmable in units of pounds (also available in Kg, US tons, and metric tons)

3

- Automatic bump sequence (can be programmed in any or all segments)
- Two-hand "anti-tie-down" close buttons for operator safety
- · Interlocked switch for existing safety shield door included (See page 14 for recommended safety shield)
- 115V 1-Ph or 230V 1-Ph supply voltage (please specify)
- · Electrical disconnect (non-fused)
- Approximate dimensions & weight: 24" L x 20" W x 21" H, 130 lbs



Specify press model and serial number when ordering

Carver Warranty

Carver Inc. warrants all equipment we manufacture to be free from defects in workmanship and material when used under recommended conditions. The Company's obligation under this warranty is limited to those parts which within twelve (12) months from delivery of equipment to original purchaser are returned to the factory with transportation prepaid, and upon examination shall disclose them to be defective. Carver neither assumes, nor authorizes any other persons to assume any liability in connection with the sale of its equipment except under the conditions of this warranty.

This warranty does not cover any labor charges for replacement of parts, adjustment, repair or any other work done. This warranty shall not apply to any apparatus which in our opinion has been subjected to misuse, negligence or pressures in excess of limits recommended, or which shall have been repaired or altered outside of the Carver factory. Replacement of defective material(s) will be FOB

the Carver factory. Replacement of component parts not of its manufacture will be limited to the warranty of the manufacturers of such parts.

Warranty claims: Please contact our Service Department at 260-563-7577 ext 5238 of service@corpemail.com



Bulletin 2180

Relv on Carver and WABASH Presses for Every Need



WABASH manufactures 15 to 1,000 ton molding machines for elastomers and thermoplastics, Compression molding machines, C-Frame presses, Vacuum chamber molding and laminating presses and Trim presses. For more information on any of our presses call 260-563-1184, fax 260-563-1396, email: wabashleads@acscorporate.com, or visit our website at www.wabashmpi.com.



© 2018 Carver, Inc.





28-8641



Custom Presses

Customized presses can be configured from the many options and accessories listed in this catalog. In addition, Carver engineers will work with you to design special presses for your particular application. Consult the factory for more information. Press shown is a custom designed Auto Series four column press with casters and built in floor stand.

Carver, Inc. and WABASH MPI are sister com-

panies located in Wabash, Indiana. For over 75 years WABASH MPI has met the challenge of designing and manufacturing standard and special presses for industry worldwide. Parts, service and support information are readily available. Ask to see installations of Carver or WABASH presses performing productively in your area. Consult with us to discuss all of your molding requirements.