

**European Distribution & Service** 

Bulletin 212C









**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 and automatic presses with clamping capacities from 12 to 100 tons. Automatic "Auto Series" presses include user-friendly microprocessor based controls and integral safety enclosures. Accessories include new self-contained, electrically operated AutoPak hydraulic power unit for retrofit to 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.

• 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.
 Laminating: credit cards, ID cards, plaques and printed circuit boards.

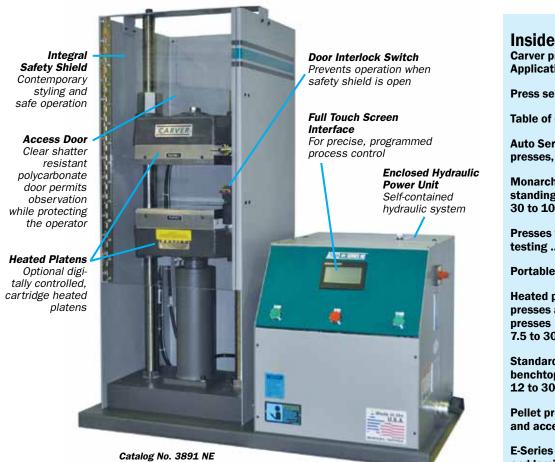
• Other applications: composite molding, compression molding, crushing, encapsulation, extrusion, forming, insert pressing, producing KBr pellets for infrared spectroscopy, metal forming (dimpling), insert molding, oil extraction, pelletizing, specimen preparation, splice molding, splitting chilled oils,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

**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), laminating and rubber stamp molding.

**Custom presses, too** 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.

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## More Choices, More Features, More Performance



Auto M-NE,H 25 ton capacity

8, 9, 10, 11

## 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
- Determine clamp force and choose benchtop or floor standing model.
   Benchtop 12 to 30 tons ......pages 4, 5, 7,

#### Floor Standing

30 to 100 tons ..... pages 6, 11

3.	Decide if heated platens will be needed.
	Heated Floor Modelspages 6, 11
	Benchtoppages 5, 8
	Unheated Floor Models page 6
	Benchtoppages 5, 9

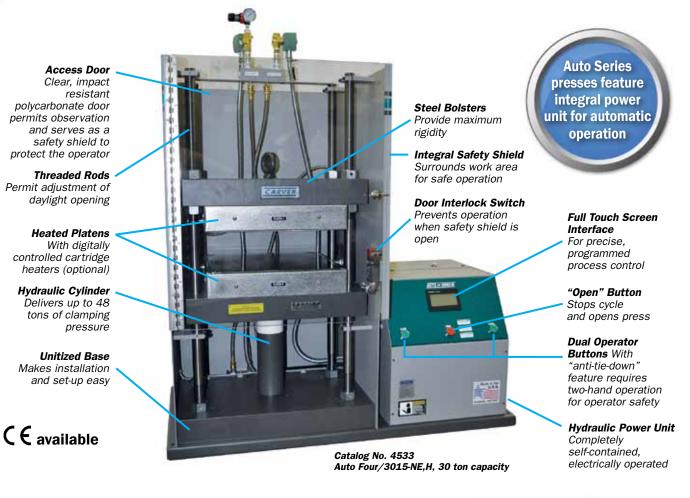
- Refer to specification tables for appropriate work area (platen size) and daylight opening (working height between platens).
- **5.** Refer to photos and descriptions to select two- or four-column configuration.
- 6. Select control level desired and platen options on page 12.
- 7. Refer to pages 12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

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**Cover photo:** Carver presses molding medical components.

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



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



Carver Auto "C" presses molding medical components.\*

Carver has incorporated more than 100 years of experience in laboratory presses into this line of automatic electrically powered benchtop presses for today's labs. Each has a built-in hydraulic system with a microprocessor control for accurate programmable operation. Five models are available ranging in clamp force capacity from 15 to 48 tons, including a pelletizing press and two- or four-column models. All have integral safety enclosures with a clear front door for operator safety and observation.



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

#### \*AutoPak power unit available for existing presses. (See page 16)

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



#### "NE" Control Description:

The new Auto Series automatic hydraulic laboratory presses, features the enhanced "NE" digital control system. Offering 15 to 48 tons of clamping force and 6" x 6" to 18" x 18" platens, these benchtop presses are used in quality control and research and development for test sample preparations, destructive testing, molding, laminating and fluid extraction.

The new "NE" controls feature full touch screen interface, proximity switch for adjustable slowdown position and all heat controlled through PLC and interface. The "NE" controls can easily switch between degrees Fahrenheit and degrees Celsius and between pounds, kilograms, tons and metric tons. Auto reheat at the end of a cycle and automatic bump sequence can be programmed.

- · Proximity switch for adjustable slowdown position
- · Full touch screen interface
- PLC and interface controls all heat
- Degree setting for Fahrenheit and Celsius
- Units of measure setting for lbs., Kg., U.S. tons and metric tons
- Selection for auto reheat at end of cycle
- Programmable automatic bump sequence in any of the 20 segments
- 1,000 lb. minimum clamp force

#### **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-NE	3888	15 (30,000)	No	6 x 6	6	.75 to 17	37 x 22	42.50	350
Auto C-NE,H	3889	15 (30,000)	Yes	6 x 6	6	0 to 14	37 x 22	42.50	400
Auto M-NE	3890	25 (50,000)	No	9 x 9	6	.75 to 16	37 x 22	45	570
Auto M-NE,H	3891	25 (50,000)	Yes	9 x 9	6	0 to 12	37 x 22	45	630
AutoFour/1512-NE AutoFour/1512-NE,H AutoFour/1515-NE AutoFour/1515-NE,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	44.50 x 27.75 44.50 x 27.75 44.50 x 27.75 44.50 x 27.75	46 46 46 46	850 1,050 1,200 1,500
AutoFour/3012-NE	3894	30 (60,000)	No	12 x 12	6	1 to 17	44.50 x 27.75	46	850
AutoFour/3012-NE,H	3895	30 (60,000)	Yes	12 x 12	6	0 to 12	44.50 x 27.75	46	1,050
AutoFour/3015-NE	4532	30 (60,000)	No	15 x 15	6	8 to 17	44.50 x 27.75	46	1,200
AutoFour/3015-NE,H	4533	30 (60,000)	Yes	15 x 15	6	2 to 12	44.50 x 27.75	46	1,500
AutoFour/4815-NE AutoFour/4815-NE,H AutoFour/4818-NE AutoFour/4818-NE,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

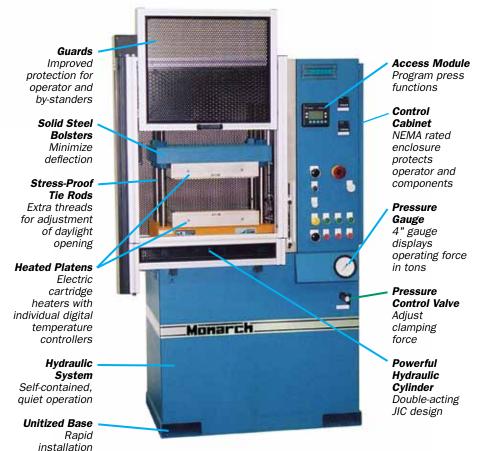
Carver's Monarch laboratory presses with integral hydraulic system and high technology options are based on standard production press models adapted to precision laboratory requirements.

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

Standard features include doubleacting J.I.C. 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°, 800° or 1200°F, with digital temperature controllers, low pressure system, pressing speed control and automatic platen cooling.

## $\mathbf{C} \mathbf{\epsilon}$ available



#### Adjustable Cylinder Tie Rod Maximum Nominal **Floor Space** Approx. Height Model Capacity Work Area Davlight Stroke Dia. WXD Weight (in) (tons) (in) **Opening\*** (in) (in) (in) (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 6 43 x 40 1,850 12 x 12 6 to 12 1.25 72 CMG 50H-12 50 12 x 12 8 to 16 8 1.75 60 x 38 78 4,800 CMG 50H-15 50 15 x 15 8 to 16 8 1.75 60 x 38 78 4.800 50 8 1.75 60 x 38 78 5,000 CMG 50H-18 18 x 18 8 to 16 1.75 CMG 50H-24 50 24 x 24 8 to 16 8 66 x 38 78 5.600 CMG 75H-15 75 15 x 15 8 to 16 8 2 63 x 38 78 5,300 CMG 75H-18 8 69 x 38 78 75 18 x 18 8 to 16 2 5,500 CMG 75H-24 75 24 x 24 8 to 16 8 2 69 x 38 78 6,100 100 3 66 x 38 78 7,000 CMG 100H-15 15 x 15 12 to 22 12 CMG 100H-18 100 18 x 18 12 to 22 12 3 66 x 38 78 7,000 12 to 22 CMG 100H-24 100 24 x 24 12 3 72 x 38 78 7,500

### **Specifications**

## **Presses for Special Applications**





No. 4391-ASTM with Safety Shield



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

#### Molding ASTM Test Specimens Plastics, elastomers and other materials

Carver has developed the following three presses which are specially configured to perform 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  $\pm 2$  °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.

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 Assemblies**

	100			
Descrip- tion	Teflon Coated Steel	Stainless Steel	Brass	100 Mylar Sheets
4"x 4"	4079	4080	4081	4161
6"x 6"	4082	4083	4084	4162
8"x 8"	4085	4086	4087	4163

#### Portable Chillers GP Series, 5-15 HP

- · Environmentally friendly, R410a refrigerant
- Branch motor fusing
- · "Y" strainer on process water line to evaporator
- Off-the-shelf modular controller is accurate to within +/- 1°F (+/- 0.6°C)
  Easy-to-read LCD display showing system operating status, Set Point and To-Process temperature; remote mount without special configuration
- Multiple screen, 20 character x 8 line display
- Stamped, stainless steel, horizontally mounted pump assures reliability
- Air-cooled units feature aluminum fin tube condensers with easy on/off, washable air filters
- Water-cooled units equipped with water regulating valves
  with tube-in-tube condensers
- · Electronic hot gas bypass valve



## Heated Presses with Digital Temperature Controls & Safety Shields 7.5, 12, 25 and 30 ton capacity

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, fourcolumn press with  $15" \times 15"$  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. Daylight to 15". Easy-to-read dual scale gauge is calibrated in pounds and metric tons.

#### No. 4120

(Model 12-10H) Twelve ton, manual, twocolumn 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 is calibrated in pounds and metric tons.

#### No. 4122

(Model 12-12H) Twelve ton, manual, fourcolumn hydraulic press. Four-post construction assures parallelism over 12" x 12" surface. Easy-to-read dual scale gauge is calibrated in pounds 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" daylights. Optional water cooled platens are also available.

#### **25 TON PRESSES**

#### No. 4389

(Model MH) Twenty-five ton, manual, twocolumn hydraulic press with digital heated platens. Daylight opening is adjustable. Rigid cast iron and steel construction for precision and durability. Easy-to-read gauge is calibrated in pounds and metric tons. Optional water cooled platens are also available.

#### No. 3856

(Model 25-12H) Twenty-five ton, manual, fourcolumn hydraulic press. Easy-to-read gauge is calibrated in pounds and metric tons. Electrically heated 12" x 12" platens for temperatures to 650 °F with digital controller for each platen, or special 8" x 8" high temperature platens to 1,100 °F. Optional water cooled platens are 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.

#### 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 are available.

#### **30 TON PRESSES**

#### No. 4128

(Model 30-12H) Thirty ton, manual, fourcolumn, hydraulic press. Has two-speed pump, first stage for rapid closing and second for pressing mode. Full range gauge is calibrated in pounds and metric tons. Electrically heated platens for temperatures to 650°F with digital controller for each platen. Special 8" x 8" high temperature platens to 1,100°F are available. Specify °F or °C display and voltage requirements.

#### 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 are available.

Also available with digital gauges (see page 13)



#### Specifications

Catalog Number	3690	4386	4120	4122	4123	4389	3856	3693	4126	4128	4129
Model	7.5-15H	Model CH	12-10H	12-12H	12-12-2H	Model MH	25-12H	25-15H	25-12-2H	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	5.1	5.1	5.1	5.1	6.5	6.5	5	6.5	6	6
Daylight Opening (in)	5	0 to 15	0 to 11	0 to 10	2@3	0 to 12	0 to 9.5	5	2@3	0 to 12	2@3
Footprint w x d (in)	28 x 19	15 x 16	26 x 18	29 x 27	29 x 27	19 x 24	29 x 27	28 x 19	29 x 27	32 x 27	32 x 27
Height (in)	27	39	39	39	39	42	39	30	43	43	43
Weight (lb)	810	300	420	770	1,035	425	805	1,100	1,070	835	1,100

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.

## **Standard Presses**

12, 25 and 30 ton capacity

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



#### **12 TON PRESSES**

#### No. 3850

(Model Mini C) Twelve ton manual, two-column hydraulic press with 6" x 6" square platens. 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 is calibrated in pounds 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 is calibrated in pounds and metric tons.

#### No. 3968

(Model 12-10) Twelve ton, manual, twocolumn hydraulic press. Similar to No. 3851 press described above, but heavier construction with fully guided moving platen and daylight to 16". Easy-to-read dual scale gauge is calibrated in pounds and metric tons.

#### No. 3969

(Model 12-12) Twelve ton, manual, fourcolumn hydraulic press. Fully guided moving platen assures parallelism over 12" x 12" surface. Easy-to-read dual scale gauge is calibrated in pounds and metric tons.

#### **25 TON PRESSES**

#### No. 3853

(Model M) Twenty-five ton, manual, twocolumn hydraulic press. Daylight opening is adjustable. Rigid cast iron and steel construction for precision and durability. Easy-to-read gauge is calibrated in pounds and metric tons.

#### No. 3855

(Model 25-12) Twenty-five ton, manual, fourcolumn hydraulic press. Easy-to-read gauge is calibrated in pounds and metric tons.

#### **30 TON PRESSES**

#### No. 3970

(Model 30-12) Thirty ton, manual, four-column, hydraulic press. Has two-speed pump, first stage for rapid closing and second for pressing mode. Full range gauge is calibrated in pounds and metric tons.

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

Also available with digital gauges (see page 13)



#### Specifications

Catalog Number with shield	3850	4350	3851	3968	3969	3853	3855	3970
Model	Mini C	—	Model C	12-10	12-12	Model M	25-12	30-12
Old Press*	3393	-	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)	.75 to 7	0 to 5.50	.75 to 18	1 to 16	1 to 15	.75 to 16	1 to 14	1 to 17
Footprint w x d (in)	12 x 16	10.25 x 14	15 x 16	17 x 18	21 x 28	19 x 24	21x 28	24 x 27
Height (in)	22	24.4	36	37	37	42	37	43
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

#### No. 4350 Manual Pellet Press

The compact 12 ton Pellet Press with 4" 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)



No. 3887 25 ton AutoPellet Press

C E available

#### No. 3887 AutoPellet Press

The self-contained 25 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 microprocessor control system with digital force display allows programmable/selectable bleed-off rates.

### **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 14.0	24.4	115
4350L	12 (24,000)	4	N/A	5.1	0.0 to 5.5	10.5 x 14.0	24.4	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	13	1	1.5 to 7.25	31.5 x 22.75	22 (+ handle)	400
AutoPellet 4387	40 (80,000)	5	31*	1	1.5 to 7.25	34 x 22.75	26 (+ handle)	500

\* 40 mm optimal



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

py. The stainless steel die includes a fitting for vacuum source connection when applicable. (6, 12, 13, 25, 31 and 40mm dies available)

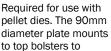


No. 237005 Stainless Steel Pan Fluid pan for use with all Test Cylinder Outfits. When presses are used for fluid extrac-

tion, filter papers sandwich the sample. The stainless steel pan captures the released fluid.



#### No. 2095 KBr **Buffer Plate**



diameter plate mounts to top bolsters to prevent damage by the die plunger during

pressing. The buffer plate can be used with other small dies.

No. 5021 KBr Buffer Plate and One (1) 6"x 6" Steel Plate (for new styles only). Recommended for use with dies.

No. 5022 KBr Buffer Plate and One (1) 9"x 9" Steel Plate (for new styles only). Recommended for use with dies.

No. 5023 Set of (2) Two 6"x 6" Steel Plates (for new styles only). Recommended if solid smooth surface is required.

No. 5024 Set of (2) Two 9"x 9" Steel Plates (for new styles only). Recommended if solid smooth surface is required.



No. 2090-0 1.125" I.D. 440 Stainless Steel Test Cylinder and Pellet Mold

No. 2091-5 2.25" I.D. 440 Stainless

Steel Test Cylinder and Pellet Mold For use with pellet presses for molding, forming bricks, briquettes, pressure forming, crushing, pressing plant and animal tissues, fluid extraction, extrusion and flow tests.



No. 3874 Vacuum Pump Kit

Used with pellet press to evacuate molds or dies. (available 115 or 230V)

## E-Series Electric & Laminating Presses

#### All Electric E-Series Compression Press For Compression Molding of Rubber/Elastomers, Gum Silicones, Various TPR's, Thermosets and Thermoplastics

Carver, Inc. first all electric compression press designed for around-the-clock performance in a lab, clean room or on the production floor. The E-Series is clean, quiet to operate and offers greater precision and reliability over hydraulically driven presses. Energy savings is another key benefit, especially when considering longer dwell time applications.

The E-Series is ideal for compression molding of rubber/elastomers, gum silicones, various TPR's, thermosets and thermoplastics, as well as various bonding and laminating applications. The unique all electric power-drive system provides accurate control of clamp force from 1,000 lbs. to 60,000 lbs.

#### **Specifications – Electric E-Series Press**

Model Number	CGE30H-15
Operating Speed (IPM)	70
Max. Clamp Force (tons)	30
Electrically Heated Platen (in)	15 x 15
Max. Operating Temperature	500°F
Clamp Stroke (in)	12
Daylight Opening (in)	12
Dimensions w x d (in)	48 x 40
Height (in)	84



**Features:** Load cell for force feedback; PLC controls press functions; Segmented program with recipe storage; Touch-screen operator interface; Platens available up to 18"x 18"; Clamp area guards; Patented (US 6990896B2).



#### **Laminating Presses**

Manually operated hydraulic presses with stacked heating and cooling platens. Heating one opening while simultaneously cooling the other results in faster production of laminated ID cards, licenses, photos and other important documents. Temperature control to 500 °F.

**No. 4130 (formerly 2112) Laminating Press, 12 ton capacity** with Safety Shield Four 6"x 6" platens for one hot and one cold daylight opening

No. 4132 (formerly 2630) Laminating Press, 30 ton capacity with Safety Shield Four 12"x12" 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
Clamping Force, U.S. tons (lb)	12 (24,000)	30 (60,000)
Platens (in)	6 x 6	12 x 12
Footprint w x d (in)	16 x 18	19 x 19
Height (in)	30	42
Weight (lb)	190	1,000
Electrical	115 or 2	30/1/60

## 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.

**Automatic cooling** Programmable controls permit automatic switching from heating to cooling and preset timed cycles. Consult factory with specific applications.

Note: All heaters are single phase unless otherwise noted.



Heated Platens Thermostat Control



Heating/Cooling Platens Thermostat Control



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



**Cooling Platens** 

## \*Platen packages with temperature ranges to 1,100°F available upon request

For Presses Catalog Number/Model	Platen Size (in)	Heated Platens Thermostat Control	Heated Platens Digital Control	Heating/Cooling Platens Thermostat Control	Heating/Cooling Platens Digital Control	Cooling Platens			
3850/Mini C	6 x 6	<b>2101</b> - aluminum 150 to 500°F <b>2102.1</b> - steel	<b>3796</b> - steel to 650°F (115V)	<b>2103.1</b> - steel	<b>3772 -</b> steel, with hoses to 650°F (115V)	<b>2104 -</b> aluminum,			
<b>3851-0</b> /Model C <b>4130</b> /150-C	6 X 6	150 to 500°F <b>2105</b> - aluminum, cored for steam heat	<b>4286</b> - steel, to 650°F (230V)	150 to 500°F	<b>3988 -</b> steel to 650 ° F with hoses (230V)	with valve and hose assemblies			
	9 x 9				<b>2107.1 -</b> steel 150 to 500°F	<b>3973 -</b> steel	<b>2108.1</b> - steel	<b>3972 -</b> steel,	
3853-0/Model M		<b>2109 -</b> steel, cored for steam heat	to 650°F (230V)	150 to 500°F	with hoses to 65°F (230V)				
Four-column	12 x 12		<b>3906 -</b> steel to 650°F (230V)		<b>3749 -</b> steel with hose assemblies to 650°F (230V)				
Presses	15 x 15		<b>6316 -</b> steel to 650° F (230V)						



#### Accu-Heat<sup>™</sup> Heat Tube Platens

- Accurate and uniform up to ±1 F° in many applications
- 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 Carver for pricing and lead times

#### **Specifications**

## Laboratory Accessories for Carver Presses

#### Carver Molds and Dies

See pages 10-11 for information on pellet molds and dies and ASTM specimen molds.



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 and lower punch. Spacers available for optional film thicknesses.

#### Specifications

Catalog Number	Description	Sample Dimensions	Sample Thicknesses	Material	Max. Clamping Force
818701D	Tile Mold	50mm x 50mm	1mm, 2mm, 5mm	440 Stainless Steel	N/A
818702D	Tile Mold	100mm x 100mm	1mm, 2mm, 5mm	440 Stainless Steel	N/A
818703D	Tile Mold	150mm x 150mm	1mm, 2mm, 5mm	440 Stainless Steel	N/A
818704C	Color Dispersion	50mm diameter	0.1mm, 0.2mm, 0.5mm	440 Stainless Steel	N/A
818705C	Color Dispersion	100mm diameter	0.1mm, 0.2mm, 0.5mm	440 Stainless Steel	N/A
4417	Pellet Die	6mm	N/A	440 Stainless Steel	1.75 US Tons
4946	Pellet Die	12mm	N/A	440 Stainless Steel	6.5 US Tons
3619	Pellet Die	13mm	N/A	440 Stainless Steel	9 US Tons
4369	Pellet Die	25mm	N/A	440 Stainless Steel	23.5 US Tons
3902	Pellet Die	31mm	N/A	440 Stainless Steel	30 US Tons
3876	Pellet Die	40mm	N/A	440 Stainless Steel	35 US Tons
2090-0	Test Cylinder	1.125	N/A	440 Stainless Steel	19 US Tons
2091-5	Test Cylinder	2.25	N/A	440 Stainless Steel	51 US Tons
818698D	Tile Mold	4" x 4"	1mm, 2mm, 5mm	440 Stainless Steel	N/A
818699D	Tile Mold	6" x 6"	1mm, 2mm, 5mm	440 Stainless Steel	N/A
818700D	Tile Mold	10" x 10"	1mm, 2mm, 5mm	440 Stainless Steel	N/A





#### 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. 6306 Digital Gauge Kit** Digital force gauges for all manual presses and available in 10 or 100 pound increments. They are scaled per press model.





#### No. 2096CE Two Gauge Manifold

Permits mounting of both high and low range analog gauges for more precise application of pressure. Hand operated shutoff valve protects low pressure gauge when using high pressure. **Gauges sold separately.** (see page 15)

#### No. 818744C Punch and Die Holder

This punch and die holder permits off-line testing of pellet and tablet samples. It works with standard BB2 production tooling in most Carver presses, including Auto Series presses. The set includes an anodized aluminum holding fixture, steel shims to adjust for various size samples, and an anodized aluminum ejector. (does not includes dies)

## Laboratory Accessories for Carver Presses



- No. 223171D Press Floor Stand 30" high enclosed floor stand for all 2 and 4 column presses.
- No. 223160C **Press Floor Stand** 30" high, open floor stand with work table.



- No. 223215C Press Stand for 2 & 4 Post Presses 30" high enclosed floor stand with casters.
- No. 223219D Press Stand for Auto Series 30" high enclosed floor stand. No. 223229C
  - Press Stand for Auto Series 30" high with casters.



Shield Rigid steel shield with hinged, polycarbonate door.

- No. 3404 Safety Shield Mini C No. 3392, 3393
- No. 3295 Safety Shield Model C No. 2086
- No. 3253 Safety Shield Model M No. 2089
- No. 3322 Safety Shield Model 12-10 No. 3724
- No. 3418 Safety Shield Model 12-12 No. 2696, Model 25-12 No. 2702 & Model 30-12 No. 2698
- No. 4427 Safety Shield Model 3690, Model 3693



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

<b>S</b>					3973	9" x 9" heating steel platens, digital tempera- ture controllers, to 650° F, 230V with mounting feet
sses I cases) ating tically platen,				_	2108.1	9" x 9" heating & cooling thermostatically controlled steel platens, 150° to 500°F with hoses
00°F ating tically				-	2109	9" x 9" steam heating steel platens with hoses
ns, 00°F ating ns, pera- ollers, 115V					3972	9" x 9" heating & cooling steel platens, digital temperature con- trollers, to 650 ° F, 230V, platens for two-column presses
ating ns,	N.					<b>r four-column presses</b> able in °C in all cases)
pera- bllers, 230V ating	3772	6" x 6" heating & cooling steel platens, digital	2105	6" x 6" steam heat aluminum with insulation and	3906	12" x 12" heating steel platens, digital temperature controllers, to 650° F, 230V
tically steel 50° to h hoses		temperature controllers, to 650°F, 115V		hoses r Model M Presses able in °C in all cases)	3749	12" x 12" heating & cooling steel platens, digital temperature
oling tically aluminum ith valve assemblies	3988	6" x 6" heating & cooling steel platens, digital temperature controllers, to 650° F, 230V	2107.1	9" x 9" heating thermostatically controlled steel platens, 150° to 500°F	6316	controllers, to 650° F, 230V 15" x 15" heating steel platens, digital temperature controllers, to 650° F, 230V

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.

#### ACCESSORIES

Catalog number cross reference index

#### **HEATING/COOLING**

**Platens for Model C Press** (also available in °C in all o

2101	6" x 6" heating thermostatically controlled aluminum platen, 150° to 500° F
2102.1	6" x 6" heating thermostatically controlled steel platens, 150° to 500° F
3796	6" x 6" heating steel platens, digital tempera- ture controllers, to 650°F, 115V
4286	6" x 6" heating steel platens, digital tempera- ture controllers, to 650° F, 230V
2103.1	6" x 6" heating & cooling thermostatically controlled steel platens, 150° to 500° F with hoses
2104	6" x 6" cooling thermostatically controlled aluminu platens, with valve and hose assembli

## **Accessories for Many Applications**

3295

For all Model C

#### MOLDS AND DIES (See page 13)

(See page 13)		
	s and Pellet Molds	
2090-0	Test cylinder	
2090-1	outfit, 1.125" I.D. Set of 12 filter	
2091-5	pads for 2090 Test cylinder outfit	
	all stainless steel, 2.25" I.D.	
2091-1	Set of 12 filter pads for 2091	
237005	Stainless steel pan for either	
4417	6mm pellet die 440 stainless steel	
4946	12mm pellet die 440 stainless steel	
3619	13mm pellet die for KBr pellets	
4369	25mm pellet die 440 stainless steel	
3902	31mm pellet die, 440 stainless steel	
3876	40mm pellet die, 440 stainless steel	
2092	Swivel bearing plate (Requires safety shield)	
2095	KBr buffer plate	
ASTM Molds (See page 10	)	
4079	4" x 4" chase	
4080	assembly, Teflon 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,	
	Stainless steel	
4084	6" x 6" chase assembly, Brass	
4085	8" x 8" chase assembly, Teflon	
4086	8" x 8" chase assembly,	
4087	Stainless steel 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	
4163	6" x 6" molds	
4103	(100) 10" x 10" mylar sheets for	
0400000	8" x 8" molds	
818698D	4" x 4" tile mold, 1mm, 2mm or	
	5mm thick, Stainless steel	

818699D	6" x 6" tile mold,
	1mm, 2mm or 5mm thick, Stainless steel
818700D	10" x 10" tile
	mold, 1mm, 2mm or 5mm thick,
818701D	Stainless steel 50mm x 50mm
	tile mold, 1mm, 2mm or 5mm thick,
818702D	Stainless steel 100mm x 100mm
	tile mold, 1mm, 2mm or 5mm thick,
818703D	Stainless steel 150mm x 150mm
	tile mold, 1mm, 2mm or 5mm thick
818704C	Stainless steel 50mm diameter
	color dispersion disc, .1mm, .2mm
	or .5mm thick, Stainless steel
818705D	100mm diameter color dispersion
	disc, .1mm, .2mm or .5mm thick, Stainless steel
818744C	Pharmaceutical
TESTING/PR	pellet die holder
(See pages 9	
(For laminatin	inless Steel Plates ng applications)
	inless Steel Plates ng applications) Plate with #8 mirror finish,
(For laminatin <b>235020</b>	inless Steel Plates ng applications) Plate with #8 mirror finish, 1 side polished, 6" x 6" x .035" thick
(For laminatin	inless Steel Plates ng applications) Plate with #8 mirror finish, 1 side polished, 6" x 6" x .035" thick Plate with #8 mirror finish,
(For laminatir 235020 235021	inless Steel Plates ng applications) Plate with #8 mirror finish, 1 side polished, 6" x 6" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 9" x .035" thick
(For laminatin <b>235020</b>	inless Steel Plates g applications) Plate with #8 mirror finish, 1 side polished, 6" x 6" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 9" x .035" thick Plate with #8 mirror finish,
(For laminatir 235020 235021 235022	inless Steel Plates ng applications) Plate with #8 mirror finish, 1 side polished, 6" x 6" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 9" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 12" x .035" thick
(For laminatir 235020 235021	inless Steel Plates ng applications) Plate with #8 mirror finish, 1 side polished, 6" x 6" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 9" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 12" x .035" thick Plate with #8 mirror finish,
(For laminatir 235020 235021 235022	Inless Steel Plates ng applications) Plate with #8 mirror finish, 1 side polished, 6" x 6" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 9" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 12" x .035" thick Plate with #8
(For laminatir 235020 235021 235022	inless Steel Plates ng applications) Plate with #8 mirror finish, 1 side polished, 6" x 6" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 9" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick
(For laminatir 235020 235021 235022 235023	Inless Steel Plates ng applications) Plate with #8 mirror finish, 1 side polished, 6" x 6" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 9" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Plate with #8
(For laminatin 235020 235021 235022 235023 Heated Test	inless Steel Plates ng applications) Plate with #8 mirror finish, 1 side polished, 6" x 6" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 9" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick <b>Cylinders</b>
(For laminatin 235020 235021 235022 235023 Heated Test 2472	Inless Steel Plates ng applications) Plate with #8 mirror finish, 1 side polished, 6" x 6" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 9" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Cylinders Heating jacket with 1.125" test cylinder Heating jacket with 2.25" test cylinder
(For laminatin 235020 235021 235022 235023 Heated Test 2472 2417 SAFETY SHIE	Inless Steel Plates ng applications) Plate with #8 mirror finish, 1 side polished, 6" x 6" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 9" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Cylinders Heating jacket with 1.125" test cylinder Heating jacket with 2.25" test cylinder
(For laminatin 235020 235021 235022 235023 Heated Test 2472 2417 SAFETY SHIE (See page 14	Inless Steel Plates ng applications) Plate with #8 mirror finish, 1 side polished, 6" x 6" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 9" x .035" thick Plate with #8 mirror finish, 1 side polished, 9" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Plate with #8 mirror finish, 1 side polished, 12" x 12" x .035" thick Cylinders Heating jacket with 1.125" test cylinder Heating jacket with 2.25" test cylinder Heating jacket with 2.25" test cylinder

3295	For all Model C Presses	ין
3253	For all Model M Presses	
3322	For all presses with 10" x 7" platens	
3418	For all presses with	
4427	12" x 12" platens For 3690 and 3693	
	with 15" x 15" platens	
ANALOG GAU THERMOME	TERS	3
(See page 10	,)	3
Į		•
Gauges for N	Indel B/C	3
-	,	3
381005	Gauge normally furnished with	
	Model C, 0 - 24,000 lb	3
	applied force, 11 metric tons,	3
	200 lb increments	`
381042	Model C gauge, 0 - 500 lb,	3
	.225 metric tons, 5 lb increments	2
381001	Model C gauge,	
	0 - 1,000 lb, .45 metric tons,	F (1
381002	10 lb increments	3
381002	Model C gauge, 0 - 2,000 lb,	
	.9 metric tons, 20 lb increments	3
381003	Model C gauge, 0 - 5,000 lb,	
	2.25 metric tons, 50 lb increments	3
381004	Model C gauge,	
	0 -10,000 lb, 4.5 metric tons,	F (1
	100 lb increments	
Gauges for N		
381008	Gauge normally fur- nished with Model M,	2
	0 - 50,000 lb applied force,	2
	22.5 metric tons, 500 lb increments	
381006	Model M Gauge,	
	0 - 5,000 lb, 2.25 metric tons,	2
201007	50 lb increments	
381007	Model M Gauge, 0 - 10,000 lb,	
	4.5 metric tons, 100 lb increments	
381176A	Model M Gauge,	
	1 - 1,000 lb, .45 metric tons,	
	10 lb increments	

#### Two Gauge Manifold

2096(€	Two gauge manifol	
2096(€-1	(mini C only)	

#### **Dial Thermometers**



385001	Dial face thermometer 150°F to 750°F	
385002	Dial face thermometer 100°C to 400°C	
HYDRAULIC U Specify press	JNITS S Catalog Number)	
3912	12 ton hydraulic unit	
3925	25 ton hydraulic unit	
321007	Pump and reservoir for 30 ton presses	
3467	Hydraulic cylinder for 30 ton presses	
3729	12 ton repair kit	
3730	25 ton repair kit	
2170	Carver hydraulic fluid	
AUTOPAK™ POWER UNITS See page 16)		
3946NE	AutoPak/12, for 12 ton presses, digital control	
3947NE	AutoPak/25, for 25 ton presses, digital control	
3948NE	AutoPak/30, for 30 ton presses, digital control	
FLOOR STAN		
223160C	Press stand for	
	presses, 30" high	
223171D	Press stand for 2 column and 4 column presses	
223215C	Press stand for 2 column and 4 column presses	
223219D	with casters Press stand for Auto Series 30" high	
223229C	Press stand for Auto Series with casters	

## **Add Power to Existing Presses**

### AutoPak<sup>™</sup> Power Units

A self-contained, electrically operated automatic power unit is available for retrofit to most existing manual presses. Its compact benchtop design is just 23" x 20" x 24".

It is equipped with a 1/4 hp DC motor and two-stage hydraulic pump. The AutoPak<sup>™</sup> utilizes the same "NE" pressure control system as the Carver Auto Series line (see page 5). Two-hand "anti-tie-down" controls protect the operator.



Catalog No.	Model	Capacity (tons)	Control
3946-NE	AutoPak/12	.5 - 12	Programmable
3947-NE	AutoPak/25	.5 - 25	Programmable
3948-NE	AutoPak/30	.5 - 30	Programmable

Specify 115/1/60 or 230/1/60 and press model to be used with.



#### **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 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.

## Rely on Carver and WABASH Presses for Every Need

Carver, Inc. and WABASH MPI are sister companies located in Wabash, Indiana. For over 70 years WABASH MPI has met the challenge of designing and manufacturing standard and special presses for industry worldwide. All Carver and WABASH presses are manufactured in the USA. Parts, service and support information are readily available. Ask to see installations of Carver or WABASH presses performing productively in your



area. Consult us to discuss all of your molding requirements. 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, Die-cut and Trim presses. For more information on any of our presses call, fax or visit our website.







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