

Laboratory **Accessories**



Certified

CARVER

The World's Most Popular Laboratory Presses

Tie Rods

High tensile steel with precision threads for parallelism and rapid daylight adjustment

Bolsters

Iron castings for minimum deflection

Hydraulics Heavy duty

Heavy duty cylinder and matched pressure gauge

Carver laboratory manual presses provide these benefits

Applications

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

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

CARVER

- 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

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 HandleFor 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 7.5 to 100 tons. Automatic "Auto Series" presses include user-friendly control system and integral safety enclosures. Accessories include self-contained, electrically operated AutoPak hydraulic power unit for existing manual Carver presses.

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, 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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ISO 9001:2008 Certified

More Choices, More Features, More Performance



How to select the right Carver press for your application:

1.	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 tonspages 4, 5, 7, 8, 9, 10, 11

Floor Standing

30 to 100 tons page 6

3. Decide if heated platens will be needed.

Benchtoppages 5, 9

7, 11 e 6

4. 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.
- Refer to pages 12 thru 15 to select appropriate accessories for your application.
- 8. 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@acscorporate.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

Access Door

Clear, impact resistant polycarbonate door permits observation and serves as a safety shield to protect the operator

Threaded Rods

Permit adjustment of daylight opening

Heated Platens

With digitally controlled cartridge heaters (optional)

Hydraulic Cylinder

Delivers up to 48 tons of clamping force

Unitized Base

Makes installation and set-up easy

C € available





Full Touch Screen Interface For precise,

> "Open" Button Stops cycle and opens press

programmed

process control

Auto Series

presses feature

integral power

unit for automatic

operation

Dual Operator Buttons With "anti-tie-down" feature requires two-hand operation

for operator safety

Hydraulic Power Unit Completely self-contained. electrically operated

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 over 100 years experience in laboratory presses into the automatic electrically powered benchtop presses for today's labs. Each 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". From pelletizing presses, unheated, heated, heated and cooled with two- or four-column press models. All have integral safety enclosures with a clear front door for operator safety and observation.

Catalog No. 4533

Auto Four/3015-NE,H, 30 ton capacity



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 manual presses. (See page 16)

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



"NE" Control Description:

Carver Auto Series automatic hydraulic laboratory presses feature an enhanced "NE" digital control system. Offering 15 to 48 tons of clamping force (minimum 1,000 lbs). The Auto Series presses also offer a work area (platen size) range of 6" x 6" to 18" x 18". These benchtop presses are typically used in quality control, research and development for test sample preparations, destructive testing, molding, laminating and fluid extraction.

The new "NE" controls feature full touch screen interface with a proximity switch for adjustable slowdown position. Platen heat is controlled through the PLC on heated models and selection for auto reheat at end of cycle is provided. Platen temperature values may be entered in degrees Fahrenheit or Celsius and the display can easily be switched between the two units. Either force

or temperature mode may be chosen per segment. Clamp force values may be entered in pounds, kilograms. US tons or metric tons and the display can easily be switched between the units.

Carver Auto Series Presses also have two hand "anti-tie-down" close buttons and an interlocked safety enclosure with hinged door are provided for operator safety. This programmable control system has storage capacity of 10 recipes, each segmented recipe is capable of 20 programmable setpoints of: clamp force, dwell time, platen temperature and bump (automatic bump sequence may be programmed in any or all segments). Hydraulic power unit is completely self-contained (1/4 HP) and electrically operated. See below table for press specifications.





Model	Catalog Number	Max. Clamp Force, Tons (lb)	Heated Platens	Platen Size (in)	Ram Stroke (in)	Daylight Opening (in)	Dimensions W x D (in)	Height (in)	Weight (lb)
Auto C-NE	3888	15 (30,000)	No	6 x 6	6	.75 to 17	37 x 22	41	350
Auto C-NE,H	3889	15 (30,000)	Yes	6 x 6	6	0 to 14	37 x 22	44	400
Auto M-NE	3890	25 (50,000)	No	9 x 9	6	.75 to 16	37 x 22	44	570
Auto M-NE,H	3891	25 (50,000)	Yes	9 x 9	6	0 to 12	37 x 22	44	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 1 to 15 0 to 12	45 x 28 45 x 28 45 x 28 45 x 28	45 46 46 46	700 865 1,200 1,500
AutoFour/3012-NE AutoFour/3012-NE,H AutoFour/3015-NE AutoFour/3015-NE,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 1 to 17 0 to 12	45 x 28 45 x 28 45 x 28 45 x 28	46 46 46 46	700 865 1,200 1,500
AutoFour/4815-NE	5400	48 (96,000)	No	15 x 15	4	1 to 21	61 x 47	71	3,050
AutoFour/4815-NE,H	5401	48 (96,000)	Yes	15 x 15	4	0 to 15	61 x 47	71	3,384
AutoFour/4818-NE	5402	48 (96,000)	No	18 x 18	4	1 to 21	61 x 47	71	3,050
AutoFour/4818-NE,H	5403	48 (96,000)	Yes	18 x 18	4	0 to 15	61 x 47	71	3,500



Monarch Hydraulic Lab Presses

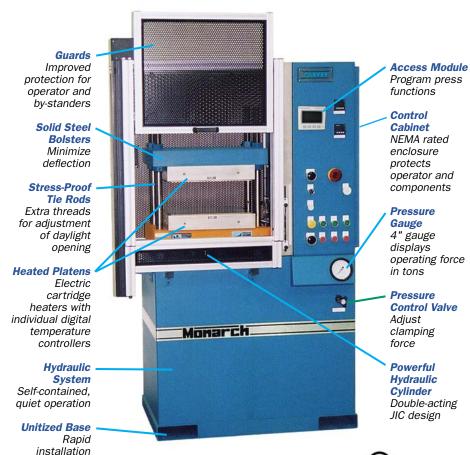
30, 50, 75, 100 ton capacity

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.



C € available

US Panel available

Model	Maximum Capacity (tons)	Nominal Work Area (in)	Adjustable Daylight Opening*	Cylinder Stroke (in)	Tie Rod Dia. (in)	Floor Space 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 38	78	4,800
CMG 50H-15	50	15 x 15	8 to 16	8	1.75	60 x 38	78	4,800
CMG 50H-18	50	18 x 18	8 to 16	8	1.75	60 x 38	78	5,000
CMG 50H-24	50	24 x 24	8 to 16	8	1.75	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	75	18 x 18	8 to 16	8	2	69 x 38	78	5,500
CMG 75H-24	75	24 x 24	8 to 16	8	2	69 x 38	78	6,100
CMG 100H-15	100	15 x 15	12 to 22	12	3	66 x 38	78	7,000
CMG 100H-18	100	18 x 18	12 to 22	12	3	66 x 38	78	7,200
CMG 100H-24	100	24 x 24	12 to 22	12	3	72 x 38	78	7,500

Presses for Special Applications









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 $15\,^\circ/$ minute $\pm 2\,^\circ C$ 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

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*

	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.



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.

- 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.



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



CARVER

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













No. 3690 No. 4386 No. 4120 No. 3856 No. 4126 No. 4128

7.5 TON PRESSES

No. 3690

(Model 7.5-15H) Seven and a half ton, four-column 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, 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 $12'' \times 12''$ 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" daylights. Optional water cooled platens are 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 are 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 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. 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 are 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 are available.

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

€ 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.

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)	5.1	5.1	5.1	5.1	5.1	6.5	6.5	6.5	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)	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	42	42	35	46	46	46
Weight (lb)	900	300	420	770	1,035	425	805	1,200	1,075	835	1,100

Standard Unheated Manual Presses

12, 25 and 30 ton capacity

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













No. 3850

No. 3851

No. 3968

No. 3853

No. 3855

No. 3970

12 TON PRESSES

No. 3850

(Model Mini C) Twelve ton manual, two-column hydraulic press with 6" x 6" square 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 16". 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 $12^{\prime\prime} \times 12^{\prime\prime}$ 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).

C € available

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.

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)	.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	10.5 x 15	15 x 16	17 x 18	21 x 28	19 x 24	21 x 28	24 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 € available



Manual Pellet Presses (4350, 4555 & 4565)

The compact 12, 40 or 50 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

€ available

US Panel available

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

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.

No. 2091-1 Filter pads for 2.25" Test Cylinder Outfit.



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.

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. Additional options include Low friction seals in the clamp cylinder, linear ball bushings in the moving bolster and an 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 € 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
Footprint w x d x h (in)	16 x 19 x 39	32 x 27 x 46
Weight (lb)	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.

CARVER

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



Heated Platens
Thermostat Control



Heating/Cooling Platens Thermostat Control



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



Cooling Platens

Specifications

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 x 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	0.0	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)
Four-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

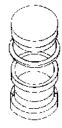
- Accuracy and uniformity up to ±1 F° approx.
- Standard sizes include; 6" x 6", 9" x 9", 12" x 12", 15" x 15", 18" x 18" and 24" x 24"
- · Custom engineered sizes quoted upon request
- 500°F maximum temperature
- Heated/cooled configuration also available
- Can be designed to fit existing Carver or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

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 Application Test Cylinder (See page 7)

Catalog Number	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. 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)



■ 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 tonnage maximum of press (12, 25 or 30 tons). Consult factory for press details.

Laboratory Accessories for Carver Presses





FLOOR STANDS - Designed for most vintage 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#
223219D	Press Stand for Standard Auto Series presses (excluding 48 ton models)	30" x 47" x 22.5"	280#
Press Stand for Standard Auto Series presses with 6" casters (excluding 48 ton models)		30" x 47" x 22.5"	280#



SAFETY SHIELDS

Catalog/Item Number	Description (Fits most vintages 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 assembly for 12 & 25 ton jacks

ACCESSORIES

Catalog number cross reference index

HEATING/COOLING

Platens for Model C Presses (also available in deg C upon request)

2101

Set of (2) 6" x 6" heated, aluminium platens, thermostatically controlled, 150° to 500°F (Specify 115 or 230V)

2102.1

Set of (2) 6" x 6" heated, steel platens, thermostatically controlled, 150° to 500°F, (Specify 115 or 230V)

3796

Set of (2) 6" x 6", heated, steel platens, digitally controlled, 650°F, 115V

4286

Set of (2) 6" x 6", heated, steel platens, digitally controlled, 650°F, 230V

2103.1

Set of (2) 6" x 6" heated and cooled, steel platens, thermostatically controlled, 150° to 500°F with hoses (Specify 115 or 230V)

2104

Set of (2) 6" x 6" aluminum cooling plates, with valve



3772 Set of (2) 6" x 6" heated & cooled

steel platens, digitally controlled, 650°F,

115V

3988 Set of (2) 6" x 6"

heated & cooled steel platens, digitally controlled, 650°F,

230V

2105 Set of (2) 6" x 6"

aluminum steam plates, with insulation and braided hoses

Platens for Model M Presses (also available in deg C upon request)

2107.1

Set of (2) 9" x 9" heated, steel platens, thermostatically controlled, 150° to 500°F, (Specify 115 or 230V)

3973

heated, steel platens, digitally controlled, 650°F, 230V

Set of (2) 9" x 9",

2108.1 Set of (2) 9" x 9" heated and cooled, steel platens, thermostatically controlled,

150° to 500°F with hoses (Specify 115 or 230V)

2109 Set of (2) 9" x 9" steel steam heating plates, with

insulation and braided hoses

Set of (2) 9" x 9", heated and cooled, steel platens, digitally controlled,

650°F, 230V

Platens for four-column presses (also available in deg C upon request)

3972

3749

6316

3906 Set of (2) 12" x 12",

heated, steel platens, digitally controlled. 650°F, 230V

Set of (2) 12" x 12"

heated and cooled steel platens, digitally controlled. 650°F. 230V

Set of (2) 15" x 15", heated, steel

platens, digitally controlled, 650°F,

230V

Accessories for Many Applications

MOLDS AND		4163	(100) 10" x 10" mylar	SAFETY SHII		Two Gauge N	
	rs & Pellet Dies		sheets for	3404	For most Mini C	2096 C €	Two gauge manifold
2090-0	Test cylinder		8" x 8" molds		Presses	2096 (€-1	(mini C only)
	outfit, 1.125" ID	Tile Molds a Disc Molds	ind Color Dispersion	3295	For most Model C Presses		
2090-1	Set of 12 filter pads for 1.125" ID TCO's	(See page 1	,	3253	For most Model M Presses	6	
2091-5	Test cylinder outfit 2.25" ID	818698D	4" x 4" tile mold, 1mm, 2mm or	3322	For most presses		
2091-1	Set of 12 filter pads		5mm thick, Stainless steel	3418	with 10" x 7" platens For most presses		
237005	for 2.25" ID TCO's Stainless steel pan	818699D	6" x 6" tile mold,	3410	with 12" x 12" platens	Dial Thermo	meters
	for either TCO size		1mm, 2mm or 5mm thick,	4427	For 3690 and 3693 with 15" x 15"	385001	Dial face
4417	6mm pellet die 440 stainless steel	818700D	Stainless steel 10" x 10" tile		platens		thermometer 150°F to 750°F
4946	12mm pellet die	9191000	mold, 1mm, 2mm		ANALOG GAUGES	385019	Dial face thermometer
3619	440 stainless steel 13mm pellet die		or 5mm thick, Stainless steel		(See page 13 for digital gauge		50°C to 400°C
4200	440 stainless steel	818701D	50mm x 50mm tile mold, 1mm,		options)	HYDRAULIC	
4369	25mm pellet die 440 stainless steel		2mm or 5mm thick,	=		(Specify pres	s Serial Number) 12 ton hydraulic
3902	31mm pellet die, 440 stainless steel	818702D	Stainless steel 100mm x 100mm	Gauges for N	Model B/C	0312	unit
3876	40mm pellet die,		tile mold, 1mm, 2mm or 5mm thick.	381005	Gauge normally furnished with	3925	25 ton hydraulic unit
E4E0	440 stainless steel		Stainless steel		Model C press,	321007	Pump and
5456	2" ID Proppant Crush Test Cylinder	818703D	150mm x 150mm tile mold, 1mm,		0 - 24,000 lbs applied force,		reservoir for 30 ton presses
	based on ISO 13503-2:2006(E)		2mm or 5mm thick Stainless steel		11 metric tons, 200 lb increments	3467-0	Hydraulic cylinder for 30 ton presses
	Page 7 & 13	818704C	50mm diameter	381042	Model B/C gauge,	3729	12 ton repair kit
2092	Swivel bearing plate (Requires safety		color dispersion disc, .1mm, .2mm		0 - 500 lbs, .225 metric tons,	3730	(gray only) 25 ton repair kit
•••	shield)		or .5mm thick, Stainless steel	381001	5 lb increments Model B/C gauge,		(gray only)
2095 818744C	KBr buffer plate Pharmaceutical	818705D	100mm diameter	301001	0 - 1,000 lbs,	2170	Carver hydraulic fluid (pint size)
0101440	pellet die holder		color dispersion disc, .1mm, .2mm		.45 metric tons, 10 lb increments	AUTOPAK™	POWER UNITS
ASTM Molds			or .5mm thick, Stainless steel	381002	Model B/C gauge, 0 - 2,000 lbs,	(See page 16	
(See pages 7	7 and 13) 4" x 4" chase	TESTING/PF			.9 metric tons, 20 lb increments	3946NE	AutoPak/12, for 12 ton existing
4079	assembly, Teflon	Polished Pla		381003	Model B/C gauge,		manual presses.
4080	4" x 4" chase assembly,	l '	ing applications)		0 - 5,000 lbs, 2.25 metric tons,	3947NE	AutoPak/25, for 25 ton existing
	Stainless steel	235020	SS Plate with #8 mirror finish,		50 lb increments	3948NE	manual presses. AutoPak/30,
4081	4" x 4" chase assembly, Brass		polished on 1 side, 6" x 6" x .03" thick	381004	Model B/C gauge, 0 -10,000 lbs,	0340NE	for 30 ton existing
4082	6" x 6" chase	235021	SS Plate with #8		4.5 metric tons, 100 lb increments		manual presses.
4083	assembly, Teflon 6" x 6" chase		mirror finish, polished on 1 side,	Gauges for N	∕lodel K/M	FLOOR STAN (See page 14	
	assembly, Stainless steel	235022	9" x 9" x .03" thick SS Plate with #8	381008	Gauge normally	223160C	Press stand for
4084	6" x 6" chase	203022	mirror finish,		furnished with Model M press,	223171D	3690 & 3693 presses Press stand for
4085	assembly, Brass 8" x 8" chase		polished on 1 side, 9" x 12" x .03" thick		0 - 50,000 lbs applied force,		2 column and 4 column presses
4000	assembly, Teflon	235023	SS Plate with #8 mirror finish,		22.5 metric tons, 500 lb increments	223215C	Press stand for
4086	8" x 8" chase assembly,		polished on 1 side,	381006	Model K/M Gauge,		2 column and 4 column presses
4087	Stainless steel 8" x 8" chase		12" x 12" x .03" thick		0 - 5,000 lbs, 2.25 metric tons,	0000400	with casters
	assembly, Brass	Heated Test	Cylinders	204007	50 lb increments	223219D	Press stand for standard Auto Series
4161	(100) 6" x 6" mylar sheets for	2472	1.125" heated	381007	Model K/M Gauge, 0 - 10,000 lbs,		presses (excluding 48 ton models)
44.00	4" x 4" molds	2417	test cylinder 2.25" heated		4.5 metric tons, 100 lb increments	223229C	Press stand for
4162	(100) 8" x 8" mylar sheets for		test cylinder	381176A	Model K/M Gauge,		standard Auto Series presses with casters
	6" x 6" molds				0 - 1,000 lbs, .45 metric tons,		(excluding 48 ton models)
					10 lb increments		.5 (01/11/04/01/)

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)
- Full touch screen interface
- 10 recipe storage capability
- 20 programmable segments of clamp force dwell time per recipe
- Programmable in units of Kg, US Tons, Metric Tons & Pounds
- Automatic bump sequence (can be programmed in any or all segments)
- Two "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

Catalog No.	Model	Capacity (tons)	Supply Voltage (230V available upon request)
3946-NE	AutoPak/12	0.5 - 12	115V 1-Ph
3947-NE	AutoPak/25	0.5 - 25	115V 1-Ph
3948-NE	AutoPak/30	0.5 - 30	115V 1-Ph

Specify press model and serial number when ordering





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.

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



Rely on Carver and Wabash Presses for Every Need

Carver, Inc. and Wabash MPI are sister companies 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.



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.



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