



**JELENKO**  
**CAST-PRO**  
Centrifugal Casting Machine

**Operating Instructions**

*Handwritten notes:*  
50 530 534 \$1400  
50 530 324 20592

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# Cast-Pro Centrifugal Casting Machine

## Specifications

### Electrical

115 VAC	50/60 Hz	10 Amps	1200 Watts	PN-330300
230 VAC	50/60 Hz	5 Amps	1200 Watts	PN-330305

### Dimensions

Width	27 3/4 inches	(70 cm)
Depth	21 5/8 inches	(55 cm)
Height, cover closed:	13 inches	(33 cm)
cover open:	28 3/4 inches	(73 cm)

### Net Weight

Net weight	118 lbs.	(54 Kg)	115 VAC Model PN-330300
	96 lbs.	(44 Kg)	230 VAC Model PN-330305

### Finish

Enamel on steel

Arm rotational speed	530/640 RPM @ 50/60 Hz
Crucible capacity	100 grams
Casting time	6 to 60 seconds

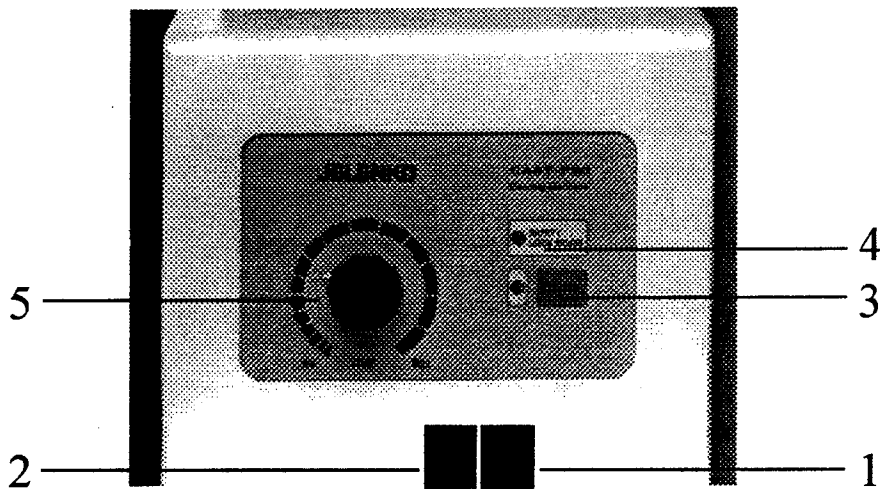
### Supplied Accessories

Five round orifice crucibles PN - 250304

# INSTALLATION

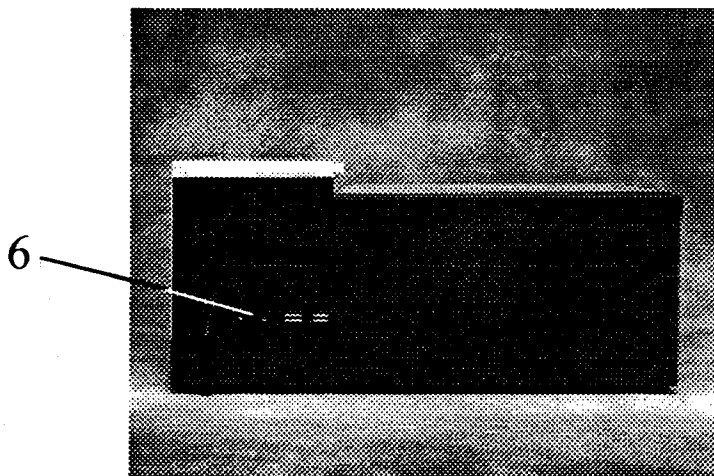
- 1) Remove all packaging material from around the unit and from within the Casting Chamber.
- 2) Position the unit on a sturdy benchtop, countertop or floor stand. Please note that there must be a minimum of 18" (46 cm) clearance above the top surface of the Casting Machine to allow the Chamber Lid to be opened.
- 3) Open the Chamber Lid and install the Door Handle onto the Lid using the supplied hardware.
- 4) Plug the electrical Line Cord into an appropriate wall receptacle.
- 5) Turn the POWER SWITCH to the ON position. The internal indicator lamp will illuminate indicating that your Cast-Pro Centrifugal Casting Machine is now ready for operation.

## Control Panel



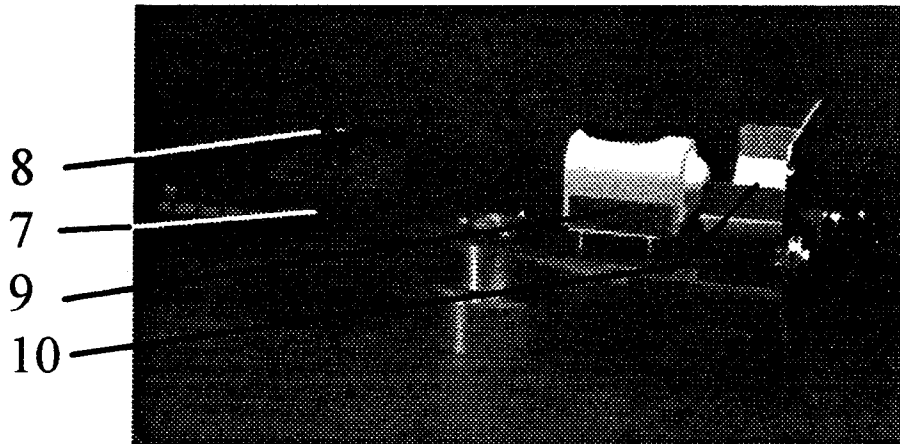
- 1 POWER SWITCH
- 2 TORQUE SELECTOR SWITCH
- 3 SET CYCLE KEY
- 4 SAFETY DOOR LOCK INDICATOR LAMP
- 5 CASTING TIME SELECTOR KNOB

## Rear Panel

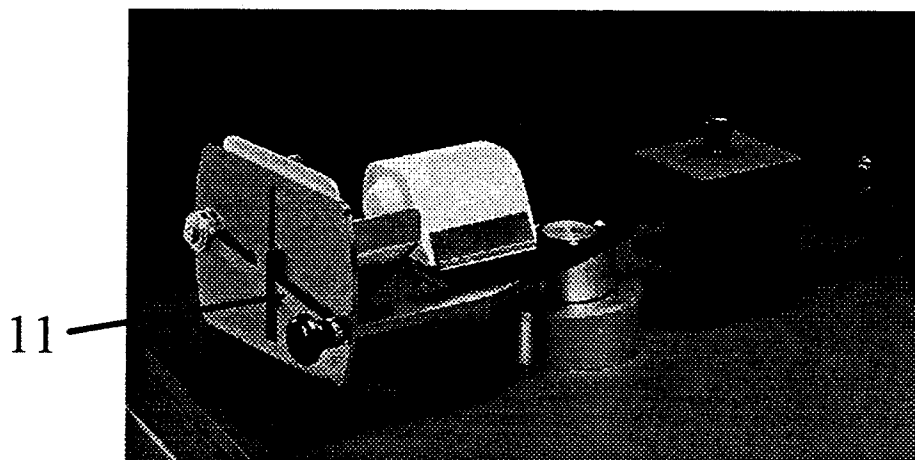


- 6 CIRCUIT BREAKER

## Casting Arm



- 7 COUNTER WEIGHT
- 8 COUNTER WEIGHT RELEASE KNOB
- 9 CRUCIBLE HOLDER
- 10 RING CRADLE - TOL  $\phi 75$  (ugin)



- 11 RING CRADLE ADJUSTMENT LEVER

**POWER SWITCH (1):**

This switch turns the electrical power to the machine on or off. An internal indicator lamp will illuminate when this switch is activated and the unit is "on".

**TORQUE SELECTOR SWITCH (2):**

This switch allows the operator to select the level of Torque, High or Low, which the Casting Arm will develop as it initially begins to rotate.

A High setting would be desired for low density or sluggish alloys (such as non-precious Chrome/Cobalt or semi-precious Silver/Palladium alloys).

A Low setting would be desired for high density (such as precious Gold or High Gold alloys).

**SET CYCLE KEY (3):**

This key is used to arm the machine so that when the Casting Motor will automatically engage when the Chamber Lid has been closed. The internal indicator lamp will illuminate when the machine has been armed.

**Note:** The SET CYCLE KEY will only arm when the Chamber Lid is in the *fully open position*.

**SAFETY DOOR LOCK (4):**

This internal indicator lamp will illuminate when the Door Lock Solenoid is activated and that the Chamber Lid is locked in the closed position.

**CASTING TIME SELECTOR KNOB (5):**

This knob is used to select the desired amount of time (from 6 to 60 seconds) that the Casting Motor will remain in operation.

The countdown begins as soon as the Chamber Lid is closed.

When using non-precious metals a Casting Time of 10 to 15 seconds should be used.

When using precious metals a Casting Time of 20 to 25 seconds should be used.

**CIRCUIT BREAKER (6):**

A safety device designed to protect the machine and electronics in the event of an electrical short circuit or overload.

When the Circuit Breaker has tripped the center plunger will extend from the Breaker Housing. Once adequately cooled, the center plunger may then be depressed inward to reset the Circuit Breaker.

**COUNTER WEIGHT (7):**

This weight is used to balance the Casting Arm to provide smooth operation while the Casting Motor is in operation.

The position of the Counter Weight may be varied to accommodate different sized Casting Rings.

**COUNTER WEIGHT  
RELEASE KNOB (8):**

This spring loaded knob "locks" the Counter Weight into position.

To adjust the position of the Counter Weight lift this Knob to "unlock" the Counter Weight, then slide the Counter Weight to the desired position and release the knob to again "lock" the Counter Weight into position.

**CRUCIBLE HOLDER (9):**

This Cradle supports the Crucible during alloy melting and casting.

The Crucible slides into the rear of this Cradle to secure it in position during the casting portion of the cycle.

**RING CRADLE (10):**

This adjustable Ring Cradle supports the Casting Ring during casting.

The height of the Ring Cradle may be varied to allow use with a variety of different sized Casting Rings.

**RING CRADLE ADJUSTMENT  
LEVER (11):**

This Lever slide up and down to adjust the height of the Ring Cradle to provide proper alignment of the Crucible Spout and Sprue Orifice of the Casting Ring.



# OPERATION

- 1) Turn the POWER Switch to the ON position so that the internal indicator lamp within the switch illuminates.
- 2) Select the desired Casting Time using the CASTING TIME SELECTOR KNOB.
- 3) Select the desired Torque Level using the TORQUE SELECTOR SWITCH.
- 4) Open the Chamber Lid.
- 5) Position the Crucible into the Crucible Holder on the Casting Arm and place the alloy into the crucible.
- 6) Balance the Casting Arm and adjust the Casting Ring Cradle to allow proper alignment between the sprue orifice and crucible spout.
- 7) Depress the SET CYCLE Key to arm the Casting Motor.
- 8) Using a Casting Torch, heat the alloy. Once the proper alloy temperature has been reached, place a heated Casting Ring into the Casting Ring Cradle and slide the Crucible so it seats up against the Casting Ring.
- 9) Close the Chamber Lid. The Casting Motor will automatically activate and operate for the amount of time designated on the Casting Time Selector Knob

**Note:** Never change the Torque Selector Switch setting while the Casting Motor is in operation or damage will occur to the Torque Selector Switch.

**Note:** The Chamber Lid will remain locked in the closed position when the Safety Door Lock Indicator Lamp is illuminated.

- 10) Once the Safety Door Lock indicator lamp is no longer illuminated, the Casting Chamber Lid may then be opened and the machine prepared for the next Casting Cycle.

# CAST-PRO REPLACEMENT PARTS

PRODUCT NUMBER	DESCRIPTION
330310	Casting Arm Complete
330311	Crucible Holder
330312	Ring Cradle
330313	Ring Cradle Adjustment Lever
330314	Adjustment Lever Knob
330315	Adjustment Lever Friction Bushing
330316	Counter Weight Release Knob
330317	Counter Weight
330318	Casting Arm Spindle/Bearing Assembly
330319	Drive Belt
330320	Casting Motor — <i>338.36</i>
330321	Motor Capacitor - 20 uFd <i>27.23</i>
330322	Motor Capacitor - 8 uFd <i>?</i>
330323	Power Switch
330324	Torque Selector Switch
330325	Casting Time Selector Knob
330326	Circuit Breaker - 230 Volt Model Only
330327	Line Cord - 115 Volt Model Only
330328	Line Cord - 230 Volt Model Only
330329	Printed Circuit Board
330330	Front Mylar Sheet
330331	Door Hinge Bracket - Left Side
330332	Door Hinge Bushings - Set / 2
330333	Door Microswitch
330334	Door Lock Solenoid — <i>146.00</i>
330335	Door Handle (with Hardware)
330336	Auto-Transformer - 115 Volt Model Only
330337	Power Transformer
330338	Circuit Breaker - 115 Volt Model Only
330339	Rubber Feet - Set / 4
330340	Upper/Lower Spindle Bearing
250304	Ceramic Round Orifice Crucible