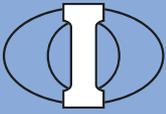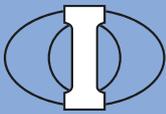# TERMINAL PIN MACHINERY

The **Oakley Terminal Pin Production System** consists of two machines: a Wire Cutoff and Straightener and a Cold Heading machine. These machines can accommodate wire diameters from 1.57mm (.062") to 3.18mm (.125") and pin lengths from 50mm (2.0") to 229mm (9.0".).

Summary

ADVANTAGES

- HIGH PRODUCTION MACHINE – 5160 TO 7740 PINS PER HOUR
- PIN LENGTHS FROM 2" TO 9" (50 mm TO 229 mm)
- PIN DIAMETERS FROM .062" TO .125" IN DIAMETER (1.57 mm TO 3.18 mm)
- 20 TO 40 MINUTE LENGTH CHANGE
- 1-2 HOUR DIE CHANGE FOR DIFFERENT DIMENSIONS ON ENDS OF PINS
- PIN DIAMETER CHANGE IN 2-3 HOURS
- HOLDS CLOSE TOLERANCE ON REDUCED DIAMETERS OF +/-.001" (+/-0.025 mm)

CHARACTERISTICS

The wire is taken from spools or stems and then fed through a rotary straightener and cut to the desired length. This straightener will cut pin blanks from 50mm (2.0") to 140mm (5.5") at a rate of 10,000 per hour and pin blanks from 140mm (5.5") to 229mm (9.0") at a reduced rate of 5,000 per hour. The wire is also cleaned as it is fed into the machine.

The pin blanks are then placed in the hopper located at the rear of the Cold Heading Machine. The pin blanks are then fed through a series of progressive dies that gradually form the ends of the terminal pins. The production rate on the cold heading machine is 7,740 pieces per hour for pins with wire diameters from 1.57mm (.062") to 2.0mm (.079") and 5,160 pieces per our for pins with wire diameters from 2.1mm (.083") to 3.18mm (.125").

The Cold Heading Machine can be changed for different length pins in 20 to 40 minutes. The machine can be changed for different dimensions on the ends of the pins in 1-2 hours by removing and replacing the forming dies. The machine can also be changed for different wire diameters in 2-3 hours.

The Cold-Heading machine is capable of holding a tolerance of +/- 0.25mm (.010") on the length of the pins and +/- 0.025mm (.001") on the reduced diameters.

Because the machine must form the pins, the wire must have a tensile strength between 60,000psi and 75,000psi (4218 kg/cc² and 5273 kg/cc².) Stainless steel wire is definitely not suitable for these machines.
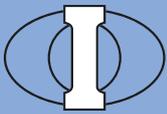
The following are the types of pins that can be made on these machines.

Typical upper terminal pin
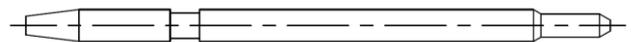
Typical lower terminal pin
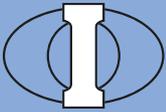with optional washer groove

TECHNICAL CHARACTERISTICS
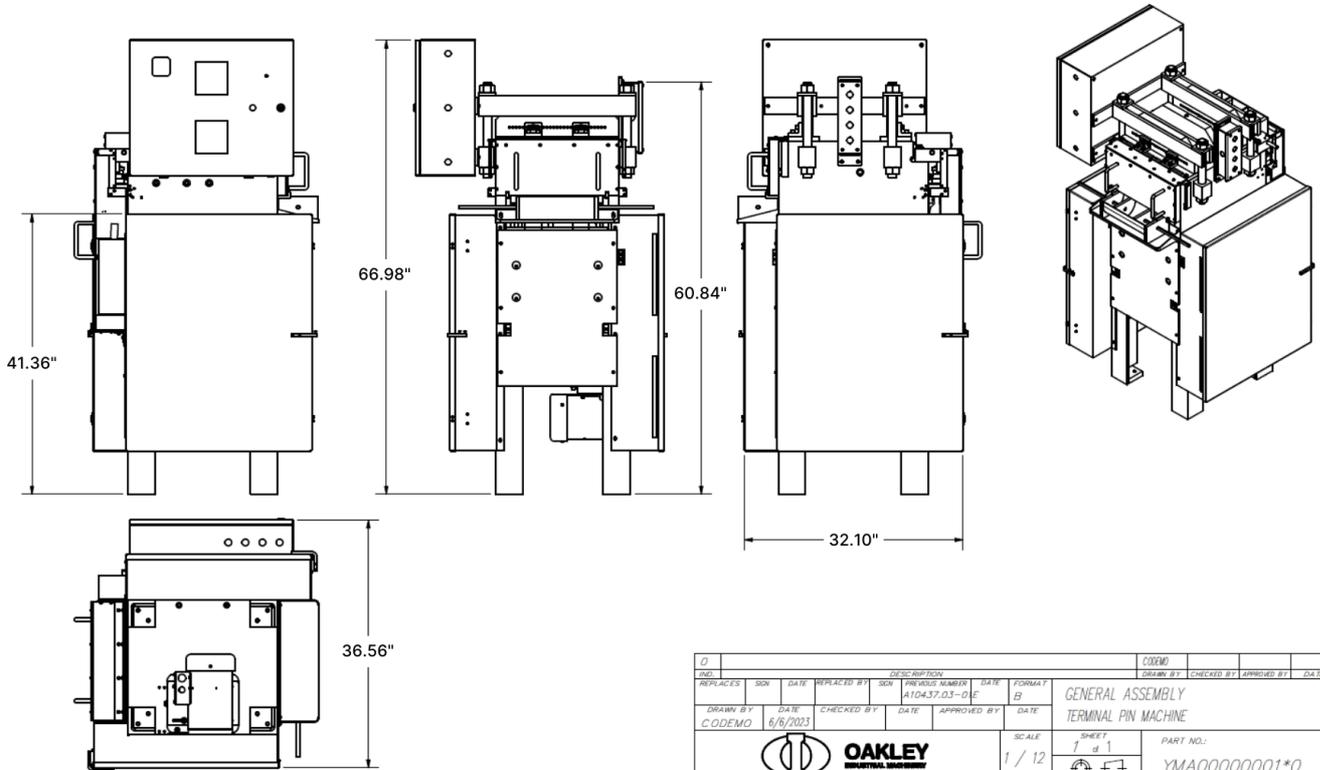
COLD-HEADING MACHINE SPECIFICATIONS

Length	3 ft (915 mm)
Width	3 ft (915 mm)
Height	5.4 ft (1651 mm)
Weight	1500 lbs (680 kg)
Electric Supply	380v/ 3ph/ 50hz or 220/440v/ 3ph/ 60hz
Power Consumption	3.8kw@220v; 4.6kw@380v; 4.15kw@480v
Production Speed	5160 to 7740 pieces per hour depending upon diameter
Min. Pin Diameter	.062 inch (1.57 mm)
Max. Pin Diameter	.125 inch (3.18 mm)
Min. Pin Length	2 inch (50 mm)
Max. Pin Length	9 inch (229 mm)
Pin Material	Must have tensile strength between 65000 to 75000 psi or 4218 to 5273 kg/cc^2

WIRE CUTOFF AND STRAIGHTENER SPECIFICATIONS

Length	3 ft (2438 mm)
Width	3 ft (915 mm)
Height	5.4 ft (1220 mm)
Weight	800 lbs (365 kg)
Electric Supply	380v/ 3ph/ 50hz or 220/440v/ 3ph/ 60hz
Power Consumption	3.8kw@220v; 4.6kw@380v; 4.15kw@480v
Production Speed	5000 to 10000 pieces per hour depending upon length
Min. Pin Diameter	.062 inch (1.57 mm)
Max. Pin Diameter	.125 inch (3.18 mm)
Min. Pin Length	2 inch (50 mm)
Max. Pin Length	9 inch (229 mm)
Pin Material	Must have tensile strength between 65000 to 75000 psi or 4218 to 5273 kg/cc^2

LAYOUT (INCH)

66.98"

41.36"

60.84"

36.56"

32.10"

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DRAWN BY CODEMO	DATE 6/6/2023	CHECKED BY		DATE	APPROVED BY	DATE		TERMINAL PIN MACHINE
						SCALE 1 / 12	SHEET 1 of 1	PART NO.: YMA00000001*0

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