

Tektronix, Inc.





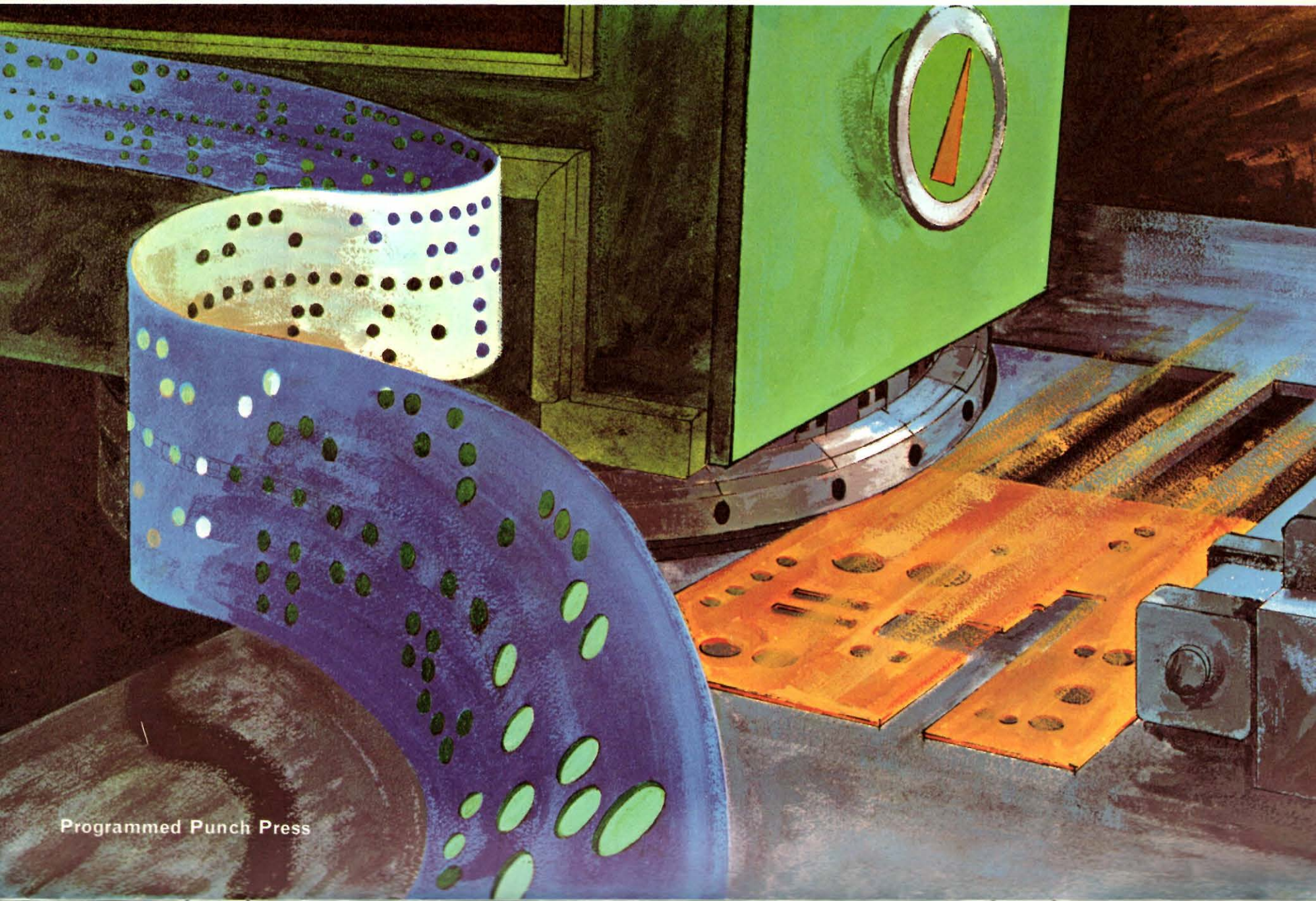
© 1964, Tektronix, Inc. All Rights Reserved. Printed in U.S.A.

Full color paintings by Portland artist Paget Loomis

January 1965

| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|---|--------|---------|-----------|----------|---------------------|----------|
| <p>DECEMBER</p> <p>S M T W T F S</p> <p>1 2 3 4 5</p> <p>6 7 8 9 10 11 12</p> <p>13 14 15 16 17 18 19</p> <p>20 21 22 23 24 25 26</p> <p>27 28 29 30 31</p> | | | | | 1 New Year's Day | 2 |
| 3 Week 1 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 Week 2 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 Week 3 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 31 Week 4 | 25 | 26 | 27 | 28 | 29 | 30 |

Each month tear off bottom calendar to carry as your handy memo minder.
(Holding top of calendar, tear carefully along perforation, then fold along vertical scores to fit neatly in your coat pocket.)



Programmed Punch Press

February 1965

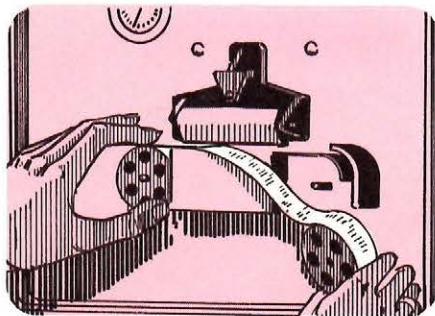
| SUNDAY JANUARY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|---|--------|---------|-----------|----------|--------|----------|
| S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 Week 6 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 Week 7 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 Week 8 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 Week 9 | | | | | | |

Tektronix • field office functions are designed to meet your needs.

PROGRAMMED PUNCHPRESS



A chassis panel is removed from the press, having been punched out to its exact pattern without help from the operator.



The punch press operator is shown here feeding a programmed tape into the master control for the press.

PROGRAMMED PUNCHPRESS

The data-processing system at Tektronix has been mated to our numerically-controlled turret punch press to reduce lead time between engineering drawings and fabricated sheet-metal parts. Hole requirements (size and location) are converted into computer language. This in turn is punched on tape to control turret rotation and sheet-metal position.

The result is a part (like the chassis piece shown in these pictures) produced with greater accuracy, and in a shorter period of time.



TEKTRONIX *pocket* CALENDAR

February



Ceramic Terminal Strip Silvering

March 1965

| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|--|--------|---------|-----------|----------|--------|----------|
| <div>FEBRUARY</div> <div>S M T W T F S</div> <div>1 2 3 4 5 6</div> <div>7 8 9 10 11 12 13</div> <div>14 15 16 17 18 19 20</div> <div>21 22 23 24 25 26 27</div> <div>28</div> | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Week 10 | | | | | | |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Week 11 | | | | | | |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| Week 12 | | | | | | |
| 28 | 29 | 30 | 31 | | | |
| Week 13 | | | | | | |

Tektronix • calibration and repair offered at 20 service centers.



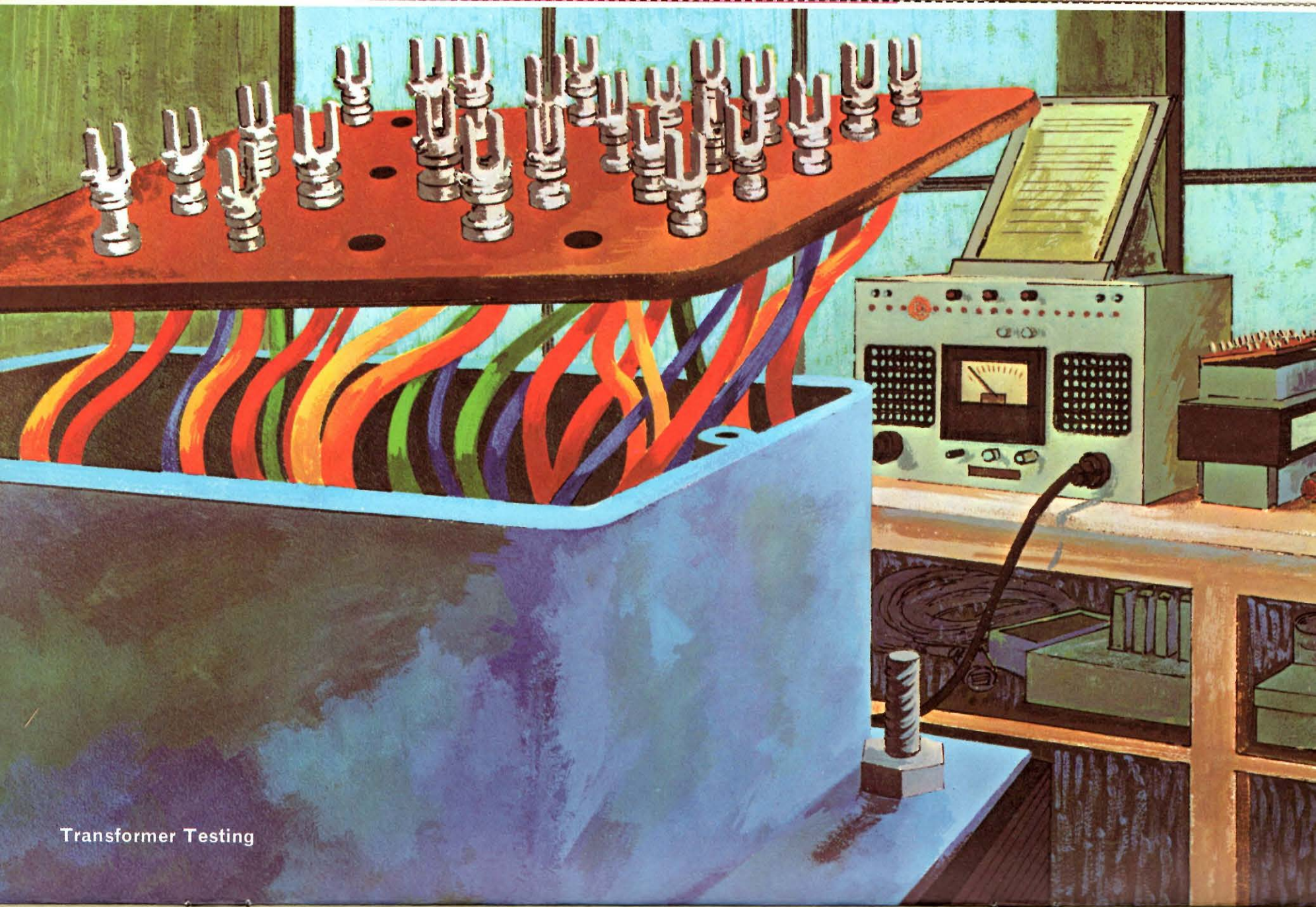
Isostatic Pressure Forming

p. get loomis

April 1965

| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|--|--------|---------|-----------|----------|--------|----------|
| <p>MARCH</p> <p>S M T W T F S</p> <p>1 2 3 4 5 6</p> <p>7 8 9 10 11 12 13</p> <p>14 15 16 17 18 19 20</p> <p>21 22 23 24 25 26 27</p> <p>28 29 30 31</p> | | | | 1 | 2 | 3 |
| 4 Week 14 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 Week 15 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 Week 16 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 Week 17 | 26 | 27 | 28 | 29 | 30 | |

Tektronix • over 100 field engineers are factory-trained to assist you.

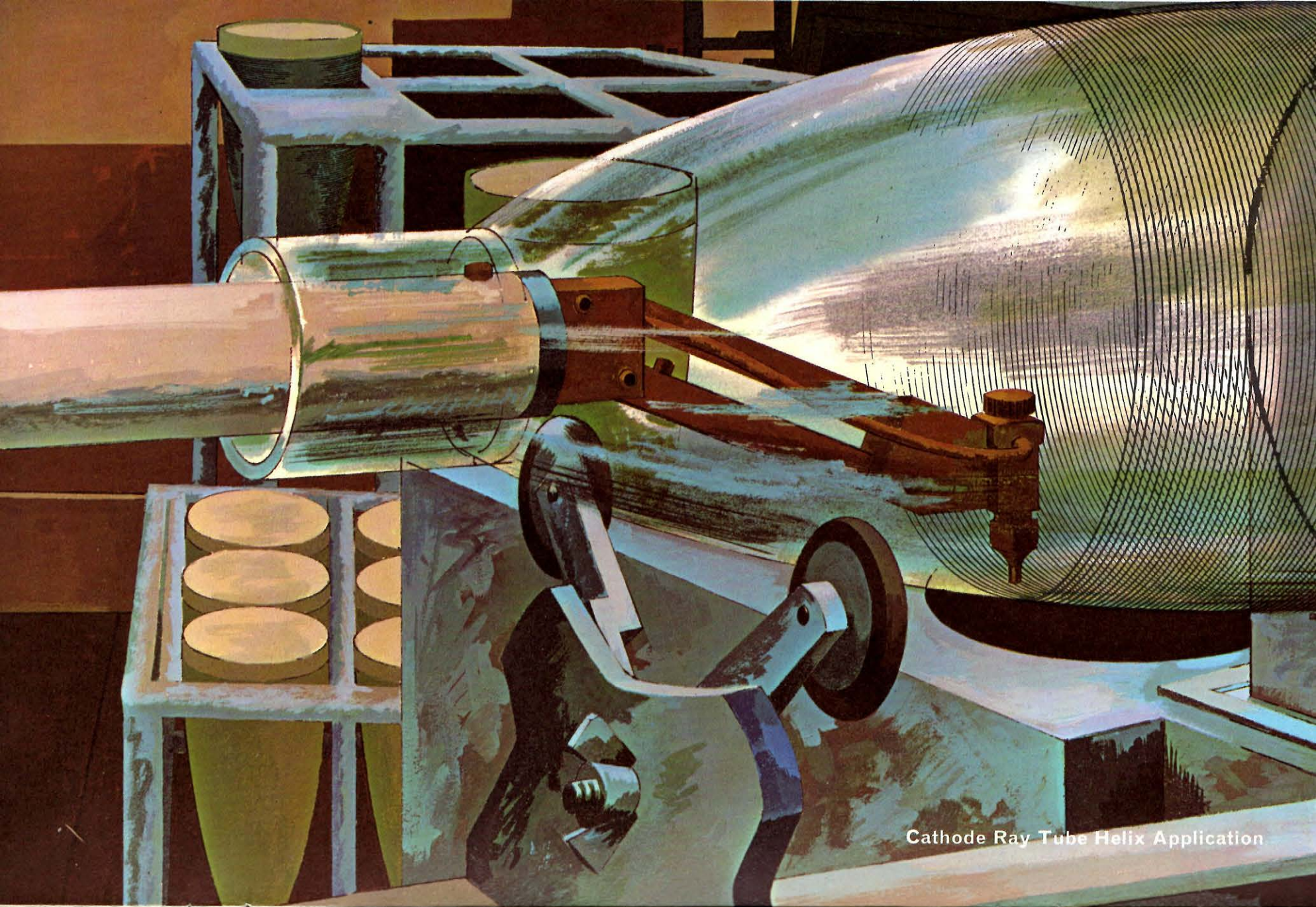


Transformer Testing

May 1965

| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|---|----------|---------|-----------|----------|--------|----------|
| <p>APRIL</p> <p>S M T W T F S</p> <p>1 2 3</p> <p>4 5 6 7 8 9 10</p> <p>11 12 13 14 15 16 17</p> <p>18 19 20 21 22 23 24</p> <p>25 26 27 28 29 30</p> | | | | | | 1 |
| 2 Week 18 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 Week 19 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 Week 20 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 30 Memorial Day | 24 31 | 25 | 26 | 27 | 28 | 29 |

Tektronix • over 30 auxiliary instruments complement the line.



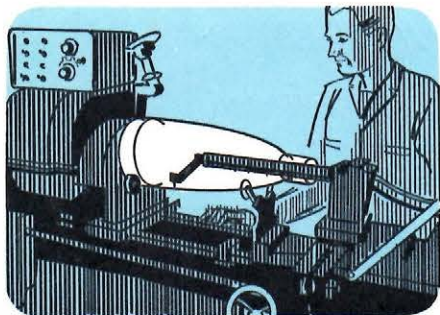
Cathode Ray Tube Helix Application

June 1965

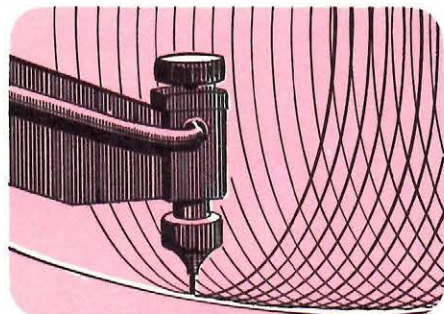
| SUNDAY | | | | | | | | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|---------|----|----|----|----|----|----|---|--------|---------|-----------|----------|--------|----------|
| MAY | | | | | | | | | 1 | 2 | 3 | 4 | 5 |
| S | M | T | W | T | F | S | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | | | |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | | | | | |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 | | | | | | | |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 | | | | | | | |
| 30 | 31 | | | | | | | | | | | | |
| 6 | | | | | | | | 7 | 8 | 9 | 10 | 11 | 12 |
| Week 23 | | | | | | | | | | | | | |
| 13 | | | | | | | | 14 | 15 | 16 | 17 | 18 | 19 |
| Week 24 | | | | | | | | | | | | | |
| 20 | | | | | | | | 21 | 22 | 23 | 24 | 25 | 26 |
| Week 25 | | | | | | | | | | | | | |
| 27 | | | | | | | | 28 | 29 | 30 | | | |
| Week 26 | | | | | | | | | | | | | |

Tektronix • makes more than 50 oscilloscopes to meet every need.

CRT HELIX WINDING APPLICATION



As shown in this drawing, the CRT envelope is held in place as on a lathe, where it is revolved automatically as the graphite is applied by a specially designed pen in its continuous spiral helix inside the glass envelope.



The machine must be capable of applying the graphite helix in exacting thickness, in varying widths and spiral spacing—all calibrated so as to create uniform acceleration of the electron beam on its path to the CRT display face.

CRT HELIX WINDING APPLICATION

A helix of graphite is deposited inside the cathode-ray tube. The effect of distributed resistance in the helix (as opposed to the lumped effect in previous band designs) is uniform beam acceleration, improved vertical linearity, and smaller spot size.

The idea of helix winding was not new, but manufacturing problems were numerous. Tektronix engineers met the challenge and perfected the technique: a milestone in cathode-ray tube development.



TEKTRONIX *pocket* CALENDAR

June



Electroplating Control

paget/oomis

July 1965

| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|--|--------|---------|-----------|----------|--------|----------|
| <p>JUNE</p> <p>S M T W T F S</p> <p>1 2 3 4 5</p> <p>6 7 8 9 10 11 12</p> <p>13 14 15 16 17 18 19</p> <p>20 21 22 23 24 25 26</p> <p>27 28 29 30</p> | | | | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Independence Day | | | | | | |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| Week 28 | | | | | | |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| Week 29 | | | | | | |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Week 30 | | | | | | |

Tektronix • customer training available at plant or point of use.

ELECTROPLATING CONTROL

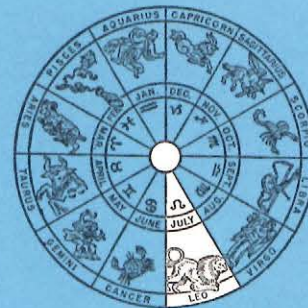


The operator of the metallograph is trained for the painstaking effort required to check out or photograph plating surfaces.

ELECTROPLATING CONTROL

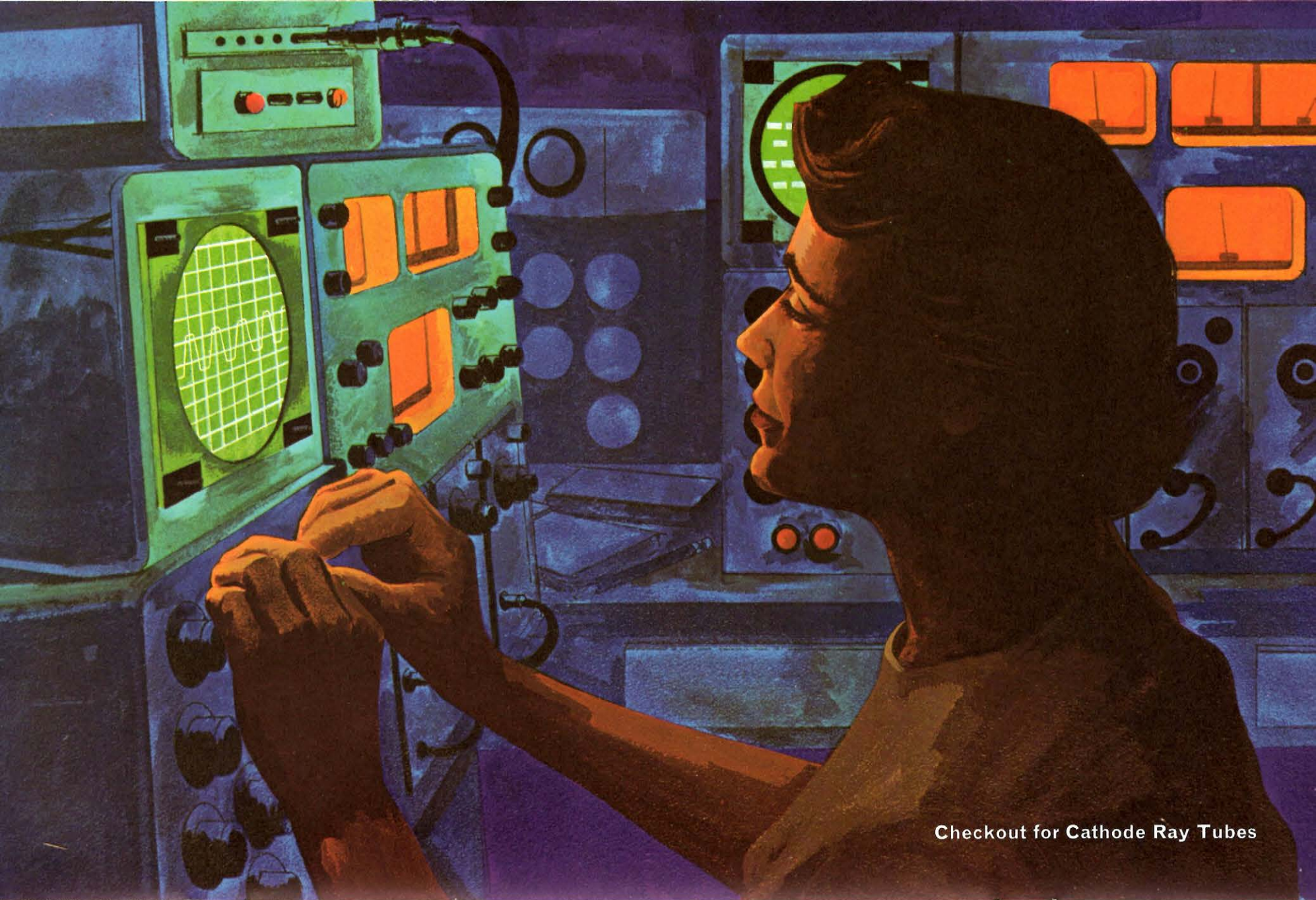
The Electrochemical Department at Tektronix performs such processes as electroplating, photo etching, photo anodizing, photo lithography, and electrochemical etching. To certify exact tolerances, the department maintains a Metallographic Laboratory with traceability to the National Bureau of Standards.

Samples from each production batch are prepared for examination and studied with instruments such as the metallograph. This precision optical device allows magnification of up to 2000X for direct viewing or photography. Color photography allows detailed study of crystal structure and plating thickness—vital considerations for components such as cathode cups in cathode-ray tubes.



TEKTRONIX *pocket* CALENDAR

July



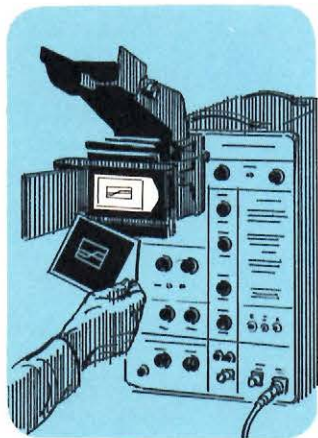
Checkout for Cathode Ray Tubes

August 1965

| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|--------|---------|-----------|----------|--------|---|---|---|---|---|---|---|---|--|--|--|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 Week 31 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 Week 32 | 9 | 10 | 11 | 12 | 13 | 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 Week 33 | 16 | 17 | 18 | 19 | 20 | 21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 Week 34 | 23 | 24 | 25 | 26 | 27 | 28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 Week 35 | 30 | 31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | <div>JULY</div> <table><tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr><tr><td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td></tr><tr><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr><tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td></tr><tr><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td></tr><tr><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td></tr></table> | S | M | T | W | T | F | S | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| S | M | T | W | T | F | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | 1 | 2 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Tektronix • where quality assurance begins with employee attitude.

CHECKOUT FOR CATHODE-RAY TUBES



The Tektronix Quality Assurance program carries through all accessories and auxiliary products, such as the trace recording camera shown here. Instruments that receive 100% performance checkouts include Sampling Systems, Inductance and Capacitance Meters, various Wave and Pulse Generators, Amplifiers, Probes and the many Plug-in Units.

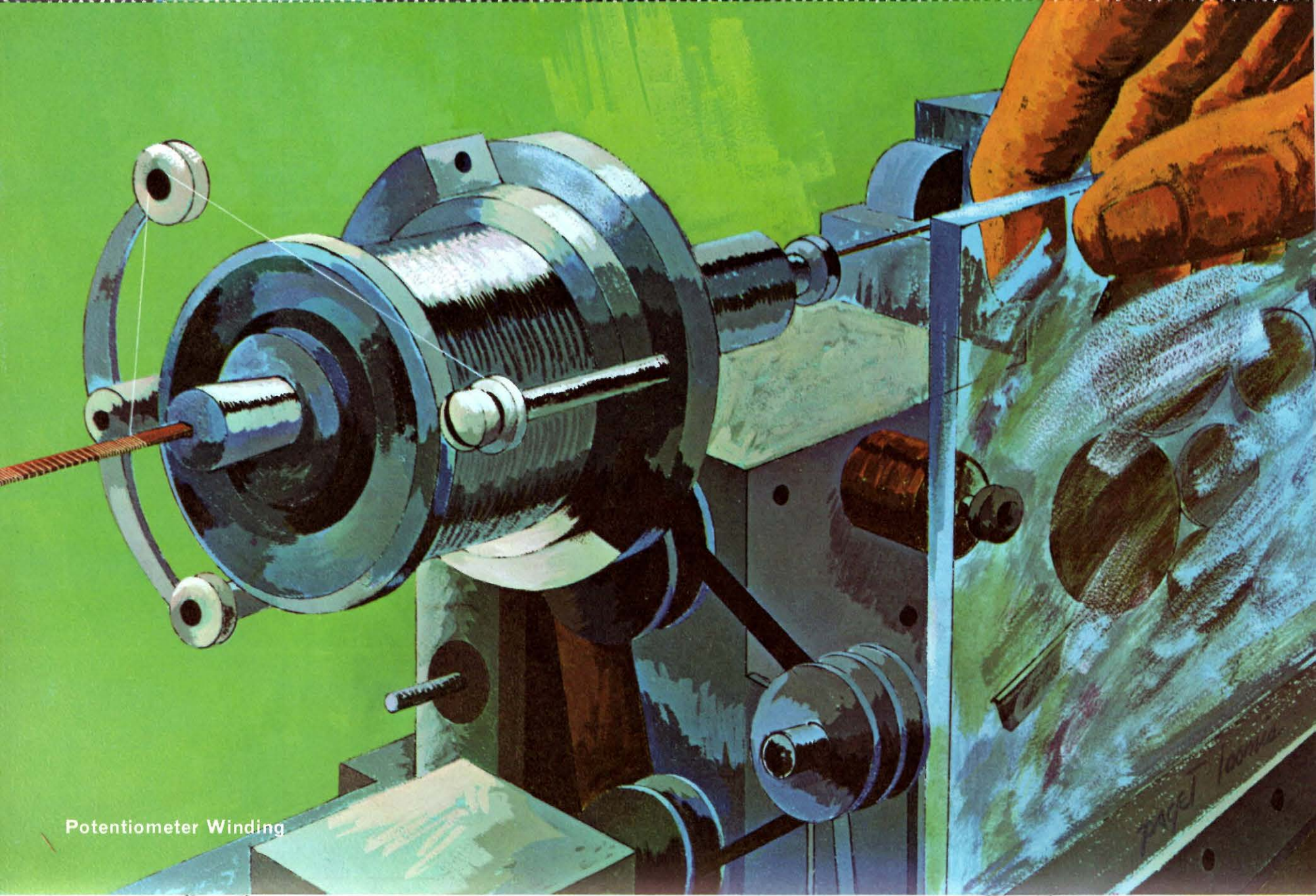
CHECKOUT FOR CATHODE-RAY TUBES

Final performance checks are made on each tube prior to shipment. *Every* tube is tested under simulated oscilloscope operating conditions. The operator (as depicted in our color illustration for August) checks geometry, focus, beam registration and other pertinent characteristics. This 100% quality control helps to insure maximum performance and satisfaction.



TEKTRONIX *pocket* CALENDAR

August



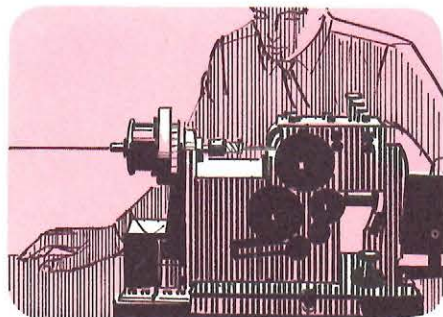
Potentiometer Winding

September 1965

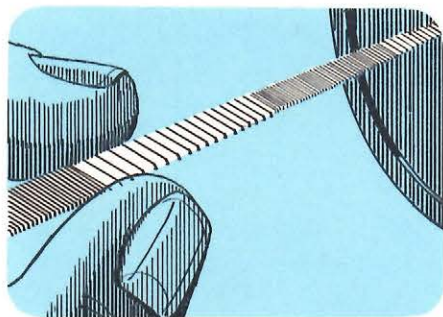
| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|--|----------------|---------|-----------|----------|--------|----------------------|
| AUGUST S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 | | | 1 | 2 | 3 | 4 |
| 5 Week 36 | 6 Labor Day | 7 | 8 | 9 | 10 | 11 |
| 12 Week 37 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 Week 38 | 20 | 21 | 22 | 23 | 24 | 25 MOON BOUNCE |
| 26 Week 39 | 27 | 28 | 29 | 30 | | |

Tektronix • world-wide service by over 30 overseas representatives.

POTENTIOMETER WINDING



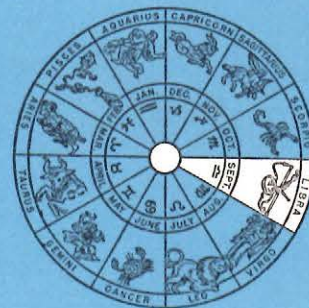
By changing cams the operator can establish the desired ratio of inductance to resistance—a critical ratio for optimum transient response.



Here's a close-up showing how the winding is varied by the cam setting described above. This winding machine is thus able to maintain close consistency from one potentiometer to the next.

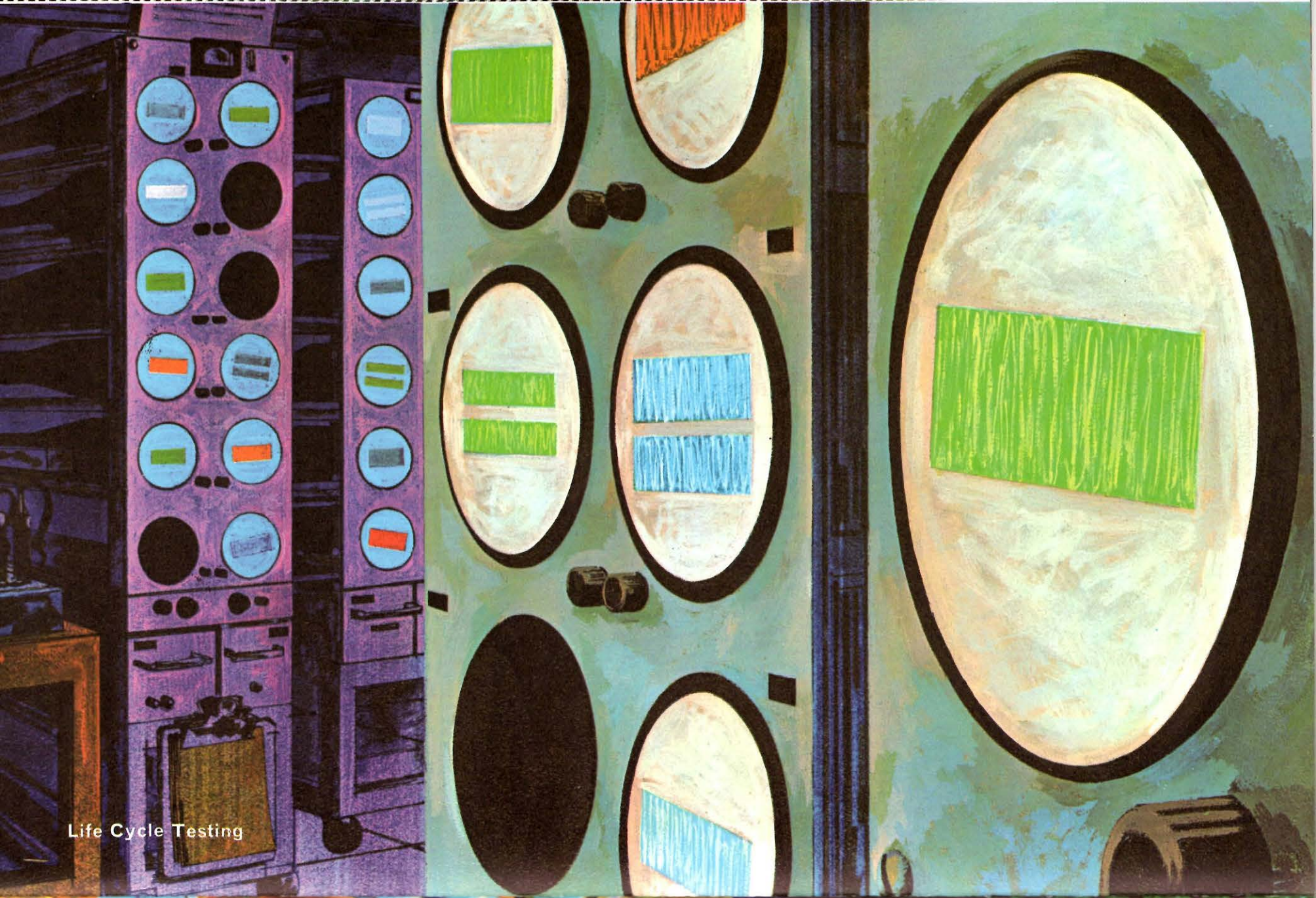
POTENTIOMETER WINDING

Variable amplifier gain controls used in Tektronix Oscilloscopes are individually designed to meet the requirements of a particular circuit. Shown above the September calendar is the special potentiometer winding machine (designed to handle wire thinner than human hair). Each potentiometer is checked with a storage oscilloscope, to display the effect of each turn of wire, and assure a dependable component.



TEKTRONIX *pocket* CALENDAR

September



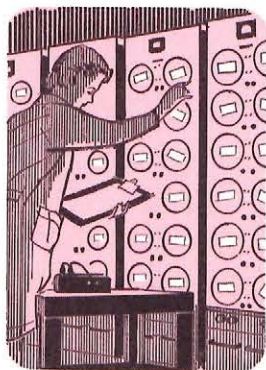
Life Cycle Testing

October 1965

| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|--|--------|---------|-----------|----------|--------|----------|
| SEPTEMBER S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 | | | | | 1 | 2 |
| 3 Week 40 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 Week 41 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 Week 42 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 31 Week 43 | 25 | 26 | 27 | 28 | 29 | 30 |

Tektronix • over 50 plug-in units add versatility to your oscilloscope.

LIFE CYCLE TESTING



As the sample cathode-ray tubes are run, they are periodically checked on various performance points and the results recorded.

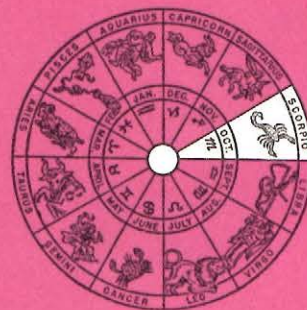


Performance data and date checked are recorded right on the CRT face. This life expectancy test is one of the most revealing in Tektronix' quality assurance program.

LIFE CYCLE TESTING

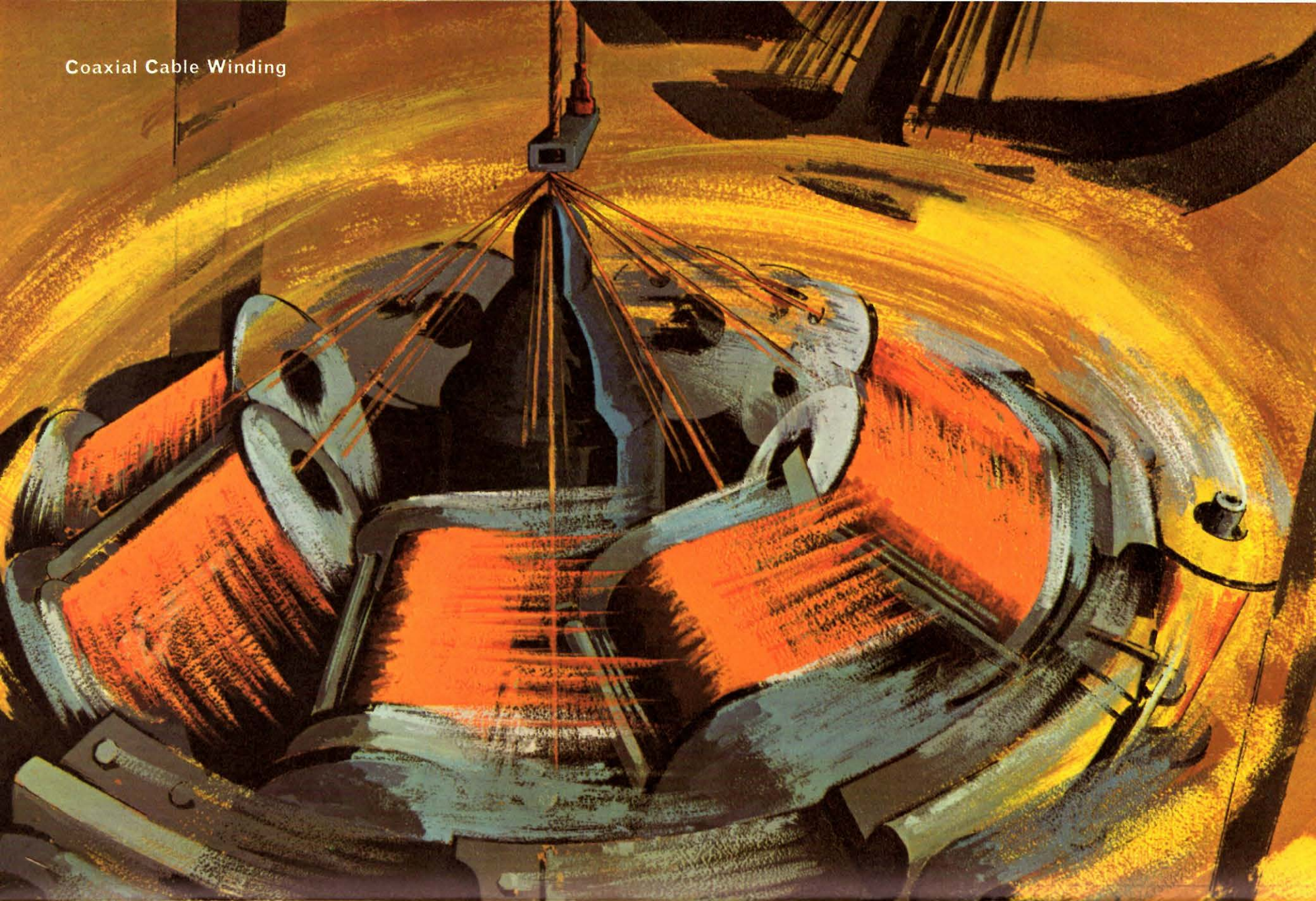
Engineering prototype cathode-ray tubes, and tubes sampled at random from each manufacturing lot, undergo accelerated life testing to determine useful life. Our October painting captures the intriguing patterns of color established by various types of CRT's on the test racks.

A sample must prove acceptable before a lot is released for use. The life-testing program also provides data used to evaluate design and manufacturing techniques, to produce tubes with longer life expectancy, and to insure that present tubes give maximum performance during their lifetime.



TEKTRONIX *pocket* CALENDAR

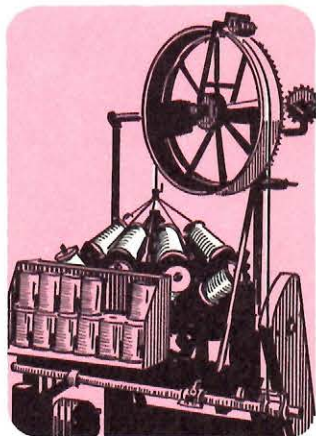
October



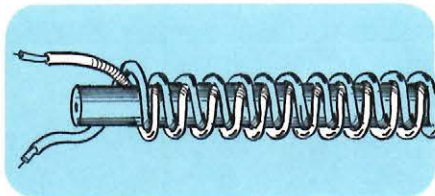
November 1965

| SUNDAY OCTOBER | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|--|--------|---------|-----------|--------------------|--------|----------|
| <div> <div>S M T W T F S</div> <div> <div>1 2</div> <div>3 4 5 6 7 8 9</div> <div>10 11 12 13 14 15 16</div> <div>17 18 19 20 21 22 23</div> <div>24 25 26 27 28 29 30</div> <div>31</div> </div> </div> | 1 | 2 | 3 | 4 | 5 | 6 |
| <div>7</div> <div>Week 45</div> | 8 | 9 | 10 | 11 | 12 | 13 |
| <div>14</div> <div>Week 46</div> | 15 | 16 | 17 | 18 | 19 | 20 |
| <div>21</div> <div>Week 47</div> | 22 | 23 | 24 | 25 Thanksgiving | 26 | 27 |
| <div>28</div> <div>Week 48</div> | 29 | 30 | | | | |

COAXIAL CABLE WINDING



November's color illustration is the artist's interpretation of the speed and intricacy of the cable-winding equipment pictured above. Tektronix uses several of these machines in the Cable Department, where they are capable of sheathing wire as well.

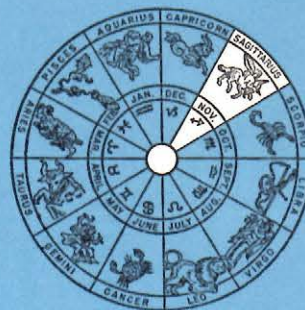


A typical delay line maintains excellent transient response with 150-nsec delay and 250-Mc bandpass. The cross-wound pattern of this push-pull delay-line cable doubles the effective distributed inductance, thereby decreasing the required length by one-half.

COAXIAL CABLE WINDING

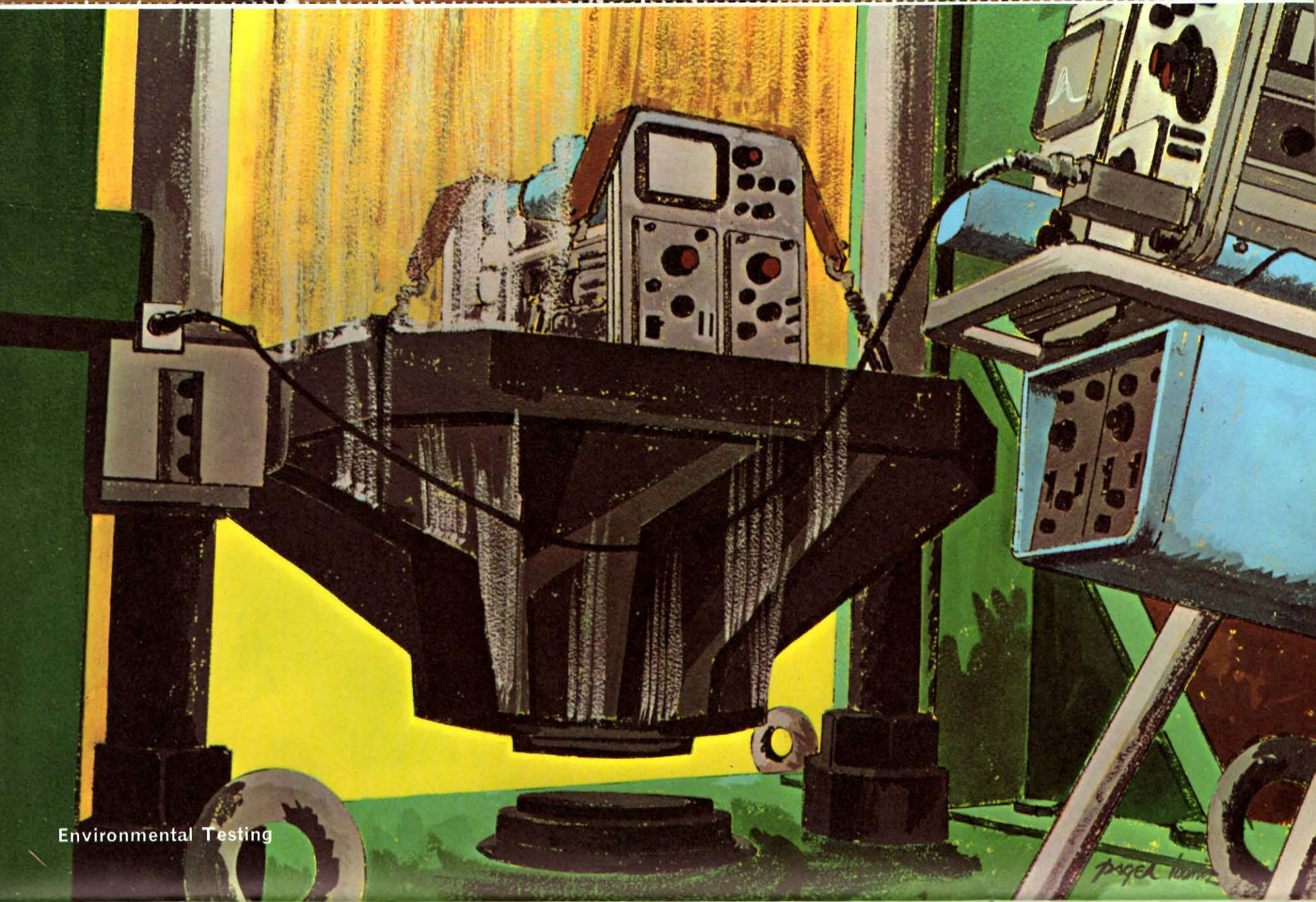
Some years ago, Tektronix became the manufacturer of cables used in attenuator probes, signal delay lines, and multi-conductor applications in order to satisfy exacting specifications from their design engineers.

The customer can be assured that each design is appropriate to its application, and that exact specifications (capacitance, delay time, etc.) are met through rigid quality control by testing each cable.



TEKTRONIX *pocket* CALENDAR

November



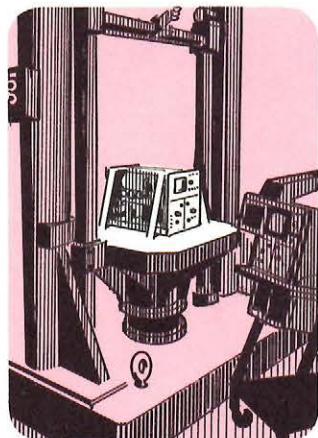
Environmental Testing

December 1965

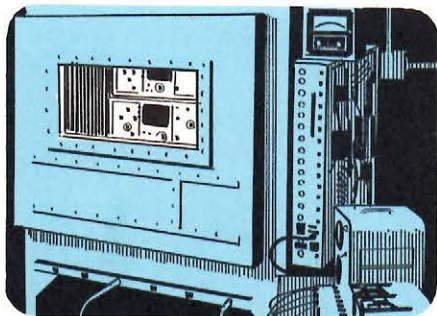
| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|---|--------|---------|-----------|----------|--------|-----------------|
| NOVEMBER S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 | | | 1 | 2 | 3 | 4 |
| 5 Week 49 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 Week 50 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 Week 51 | 20 | 21 | 22 | 23 | 24 | 25 Christmas |
| 26 Week 52 | 27 | 28 | 29 | 30 | 31 | |

Tektronix • now offering new spectrum analysis plug-in unit.

ENVIRONMENTAL TESTING



Shock forces measured in scores of G's are applied to Tektronix oscilloscopes on this drop-test apparatus weighing several tons. The shock wave is recorded on another storage oscilloscope.



In this custom-built freezer, oscilloscopes are subjected to temperatures far below freezing to learn how it may affect their operation.

ENVIRONMENTAL TESTING

A new cathode-ray tube undergoes a vibration test, a portable oscilloscope is heated in an oven, radio frequency interference is monitored in a double-wall steel room, fungus attempts to grow on an oscilloscope chassis, a high-voltage power supply is evaluated in an altitude simulator—these and many other tests are performed in our environmental laboratory. Shown in our main illustration for December is an oscilloscope being subjected to a drop-shock test.

Tektronix constantly strives to improve its products, both electrically and mechanically. Environmental testing is just another way in which we express our continuing creed: serving Tektronix customers with products and policies that are unexcelled in the electronics industry and limited only by the current state of the art.



TEKTRONIX *pocket* CALENDAR

December