Strength Assessment
Range of Motion
Dexterity Testing
Anthropometrics
Sensibilities
Physiological Measures
Exercise Testing
Charts
Models
For over 60 years, professionals in medicine, temporary staffing, human resources, occupational medicine, rehabilitation, vocational rehabilitation and other professions have come to rely on the products of Lafayette Instrument Company for their evaluation and assessment needs. Quality, precision, performance, reliability and economy are built into every product we make and are the foundation of our continuing commitment to the customers we serve.

In this, the newest edition of our Evaluation and Assessment catalog, we are pleased to introduce our newly redesigned Manual Muscle Tester, a new economical Sit and Reach Box, and the new VertiMetric Vertical Jump Assessment System.

As we improve existing products and introduce new ones, we will continue to consult with our customers to make sure that we fulfill your evaluation and assessment needs now and in the future.

Thank you for taking the time to explore our Evaluation and Assessment catalog. If you do not find the instruments or the software that you need, contact us with your requirements, and we would be happy to further assist you in meeting them.

Respectfully,

Brian Brown
Product Manager
Lafayette Evaluation
PHYSICAL WORK CAPACITY AND FUNCTIONAL CAPACITY EVALUATION SYSTEM

Model 32601PWCFC

This system tests an individual’s physical capabilities through a battery of strength, flexibility, and general fitness tests. Input the physical ability test results with demographic data, and the system outputs a computer-generated report that assesses Physical Work Capacity. The report helps employers make either of two employment decisions:

1. **Pre-employment**: The PWC report evaluates a job applicant’s capacity to perform physically demanding work tasks.

2. **Return-to-Work**: The FC report evaluates an employee’s capacity to perform physically demanding tasks at a level that allows for the safe return to work.

Data used to develop the Physical Work Capacity evaluation comes from 20 years of pre-employment research completed at the University of Houston. The purpose of this research was to validate pre-employment tests and define physiologically justified standards or “cut scores.” The ergonomic principle is to match the worker to the demands of the job. This validation research is the linkage between test results and job tasks.

The Functional Capacity component assesses Work Capacity and physical fitness. The fitness components include maximum aerobic capacity (VO$_2$ max), body composition, and flexibility. These are the common components included in adult fitness test batteries (Baumgartner & Jackson, 1999; Golding, Meyers & Sinning, 1989).

**Return on Investment in the form of reduction**

- Compensation claims
- Days away from work
- OSHA recordables
- Repetitive motion claims
- Back injuries claims

**PWC-FC Complete System includes**

- Jackson Strength Evaluation System Model 32628
- JAMAR Hydraulic Hand Dynamometer Model J00105
- Sit and Reach Flexibility Tester Model 01285A
- Lafayette Skinfold Caliper Model 01128
- PWC-FC Version 3.0 Software for Windows® Model 32600-PWC
JACKSON STRENGTH EVALUATION SYSTEM

Model 32628

The Jackson Strength Evaluation System was developed by Dr. Andrew Jackson at the University of Houston. The system is widely used by rehabilitation professionals to monitor progress in recovery from injury and by industrial testing specialists to assess the ability of job applicants to perform physically demanding work tasks.

The system features an electronic load cell for accurate and reliable measurements of isometric strength and a new programmable microprocessor control, offering user-defined standardized test protocols. The system is designed to meet the needs of Jackson lift, torso and pull strength test protocols, and the lift tasks of the National Institute of Occupational Safety and Health (NIOSH).

The system comes complete with detailed instructions for the recommended strength tests and offers validated, standardized test protocols and normative data. It is lightweight and compact making it highly portable. The components of this system can be purchased individually.

ADULT BACK AND LEG DYNAMOMETER PACKAGE

Model 32527A

Includes 600-pound pull dynamometer for testing subjects with normal strength, a foot chain, a solid aluminum lifting bar with comfortable hand grips, and a lifting platform. The solid lifting platform, measuring 24 in x 24 in, is small enough for easy transportation. The pull dynamometer has several heavy-duty springs for long-lasting accuracy and a range of 50 to 600 pounds, in 5-pound increments.
LAFLAYETTE MANUAL MUSCLE TESTING SYSTEM

Model 01165

The new Lafayette Manual Muscle Testing (MMT) System is an ergonomic hand-held device for objectively quantifying muscle strength.

The test is performed with the clinician applying force to the limb of a patient. The objective of the test is for the clinician to overcome or “break” the patient’s resistance. The MMT records the peak force and the time required to achieve the “break” providing reliable, accurate, and stable muscle strength readings that conform to most manual muscle testing protocols.

The MMT also features a wide range of customizable options for data storage, preset test times, and force thresholds.

Features

- Measures
  - Peak force
  - Time to reach peak force
  - Total test time
  - Time within selectable ranges
  - Average force
- Data storage for up to 150 tests in on-board memory
- Automatic or manual storage of data
- Measurement range 0-300 lbs (136.1 kg/1334 N)
- Selectable test time from 1 – 10 seconds
- Tone to indicate start, stop, and entering within a range
- Microprocessor controlled
- Built-in stored data browsing capability
- Easy to read graphical LCD display
- Automatic shutoff after 5 minutes of inactivity
- Battery indicator on LCD display
- Interactive menus allowing users to select device options
- Battery powered: (1) rechargeable lithium-ion battery

Specifications

- Size: 3.16” x 5.11” x 1.6” (8.03cm x 12.98cm x 4.1cm)
- Range: 0-300 lbs (136.1kg) (1335 N)
- Accuracy: ± 1 % over full scale or ± 0.2 lbs
- Resolution: 0.1lbs/0.1kg/0.1N(0-999.9N) / 1N(1000N-1335N)
- Battery Life: 6 hrs powered on, 30 minutes after low battery condition
- Charge Time: 80% charge => 45 minutes / Full charge => 2 hrs
- Data Storage Capacity: 150 tests
- Calibration Points: 31 point (Every 10lbs, 0 – 300)
- Preset Test Length: 0.5-10 seconds; in 0.1 second increments
JAMAR HYDRAULIC HAND DYNAMOMETER

Model J00105

The JAMAR Hydraulic Hand Dynamometer is designed for both routine screening and for evaluation of hand trauma or diseased hands.

The adjustable handle can be placed in five grip positions, from 1.375 in to 3.375 in, in half-inch increments. This sealed hydraulic system features a dual-scale readout that displays isometric grip force from 0 to 200 pounds (90 kg).

Includes instructions, norms, patient record charts, and carrying case.

JAMAR HYDRAULIC PINCH GAUGE

Model J00111

The unique design of the JAMAR Hydraulic Pinch Gauge frees the client to perform a true pinch pattern because the therapist, not the client, supports the weight of the gauge. A highly accurate pinch-force measurement is the result. It measures pinch force up to 45 pounds.

Includes instructions and carrying case.

JAMAR HAND EVALUATION KIT

Model J00109

All the basics for hand and finger evaluation in one convenient package. Jamar Hand Evaluation Kit includes one each of: JAMAR Hydraulic Hand Dynamometer, JAMAR Hydraulic Pinch Gauge, and JAMAR 5 1/2 inch Finger Goniometer. All three instruments come in a convenient storage and carrying case with individual compartments for each instrument.
**LAFAYETTE HAND DYNAMOMETER**

Model 78010

Health professionals in physical education, corporate fitness, and sports medicine have made the Lafayette Hand Dynamometer their grip test standard because it is accurate, repeatable and durable. Its custom-twisted spring can easily withstand accidental dropping without affecting its accuracy. Also, during a grip test, the spring compresses, providing the handle with life-like dynamic motion. This hand dynamometer features a dual pointer system to retain the maximum effort and 4 cm of handle adjustment for the most comfortable fit. The testing range on a dual scale is 0 to 100 kilograms (0 to 220 pounds). Includes carrying case and norms for ages 5 through adult.

**VERTIMETRIC VERTICAL JUMP ASSESSMENT SYSTEM**

Model 01110

The VertiMetric rethinks the standard methods of measuring a vertical jump. The device introduces the technology of an accelerometer to analyze and interpret a subject’s vertical jump height and power delivered by the lower extremities. With the VertiMetric, users are no longer required to go through setup of large wall mounted apparatuses or required to land on small mats. The user simply straps an accelerometer to his or her leg and jumps.

The VertiMetric is the ideal device for measuring and recording vertical leap and leg power for fitness evaluations, athletic combines, and university research. Its portability, wireless transmission, and storage capabilities give you the perfect combination of a quick, easy to use hand held device that also provides you with the flexibility to store and analyze your data against customizable norm groups.
ACUMAR DIGITAL INCLINOMETER SUITE

The Acumar Digital Inclinometer Suite provides accuracy, repeatability and objective documentation of range of motion measurements.

Supports the AMA Guides

Designed to support the procedures outlined in the *AMA Guides to the Evaluation of Permanent Impairment* using Single or Dual Inclinometers. When 3 measurements in a row are held that are within the 10% variance from the mean (or 5° for angles less than 50°) the display blinks 3 times to signal the clinician that a valid data sequence has been stored.

Measure Joint Range of Motion

Dual Inclinometers are essential for making spinal measurements. The Dual Inclinometer consists of a main unit and companion unit connected by a flexible cord and can be used to measure the range of motion of joints in accordance with AMA Guides. The built in microprocessor automatically calculates and displays the actual range of motion of the joints.

Multiple Data Storage and Viewing

To validate the data, the AMA Guides suggest up to six readings of which at least three need to be within 5 degrees or 10% of the mean.

Why Acumar™?

- Measurement storage frees user from having to record measurements between readings.
- Optional wireless transmission eliminates transcribing errors and saves considerable time.
- Examiner is freed up to devote attention to the examination procedure resulting in a more accurate assessment in less time.

Features

- Easy to Read Digital LCD with Hold button
- Large liquid crystal display readout
- Covers 360° (Displays +180° to -180°)
- Measurements can be gravity or reference based
- Stores an entire series of measurements
- Stored data can be retrieved manually or sent wirelessly to a computer
- Measure Joint Range of Motion
- Multiple Data Storage and Viewing
ACUMAR SINGLE DIGITAL INCLINOMETER

Model ACU001

Compact, handheld unit features large digital display for easy reading. Store measurements and review each measurement’s maximum, minimum and average values. This compact unit reduces examination time and enhances the objectivity of measurement and documentation. Supports range of motion evaluation as described in the *AMA Guides to the Evaluation of Permanent Impairment*.

ACUMAR DUAL INCLINOMETER

Model ACU002

Two-inclinometer techniques and procedures are well defined in the *AMA Guides to the Evaluation of Permanent Impairment*. It is emphasized that spinal motion is compound, thus it is essential to measure both angles. Dual Inclinometer comes standard with built-in wireless transmitter which requires optional computer interface. Package contains Digital Inclinometer Main Unit, Companion Unit, along with mini-manual, manual, measurement illustrations, and case. Dual Inclinometer can simultaneously capture both angles by the press of a single button. It allows up to six pairs of data for viewing and recording to greatly speed up data capture and analysis.

ACUMAR COMPLETE KIT

Model ACU015

Complete Kit includes the Dual Inclinometer Set (Model ACU002), Wireless Computer Interface (Model ACU010), and the Ruler Attachment (Model ACU011).
COMPANION UNIT AND CONNECTING CABLE
Model ACU003

The Companion Unit and Connecting Cable allows you to upgrade your Acumar™ Single Inclinometer to an Acumar™ Dual Inclinometer. The Dual-inclinometer technique and procedure is well defined in the *AMA Guides to the Evaluation of Permanent Impairment*.

ACCESSORY RULER ATTACHMENT
Model ACU010

Inclinometer may be attached to the ruler by a magnetic catch on either side of the ruler. The measurement axis may be rotated 90° to read angles with respect to the vertical axis by pressing the zero button while holding the inclinometer close to vertical. Can be used for x-ray film evaluations, orthopedic, podiatric, or chiropractic examinations. Especially useful for Upper and Lower Extremity measurements.

WIRELESS COMPUTER INTERFACE
Model ACU011

Optional infrared wireless computer interface eases data transfer from inclinometer to a computer. Calculates Max ROM, Average ROM, Standard Deviation, and Percent of Norm. You can also print summary and history reports for insurance reimbursement.
LAFAYETTE GOLLEHON EXTENDABLE GONIOMETER

Model 01135

The Lafayette Gollehon Extendable Goniometer is an innovative tool for the use in the assessment of range of motion. This lightweight and versatile Goniometer features extendable arms which can extend to 28 inches to measure large joints or retract to 8 inches to measure all but the smallest of joints. Unlike standard goniometers that require the examiner to estimate alignment, the extendable arms can be manipulated to lie across the anatomical landmarks for increased accuracy.

A 4x magnified reading window allows for easy viewing of results and the durable, portable nature of the Goniometer makes this a excellent instrument for the accurate measurement of joint movement.

Features
• Dual Scale
• 1° Increments
• Extendable and Retractable Arms that adjust
• Magnified Reading Window: More accurate readings can be taken
• Range: 1- 180 degrees
• Maximum arm length: 28 inches
• Minimum arm length: 8 inches
• Compact, Lightweight, and Portable Design
• Versatile, Reliable and Accurate

12 INCH PLASTIC GONIOMETER

Model J00240

This goniometer has a clear plastic construction that permits observation of joint’s axis of motion and its range of motion. The 360° head has three scales calibrated to use with the ISOM (International Standards of Measurement) system, marked in 1° increments.

8 INCH PLASTIC GONIOMETER

Model J00245

This goniometer has clear plastic construction which permits observation of joint’s axis of motion and its range of motion. The 360° head has three scales calibrated to use with the ISOM (International Standards of Measurement) system, marked in 5° increments. Linear scale in both inches and centimeters.
PLURI-DIG FINGER GONIOMETER

Model F00520

A hyper-extension finger goniometer that can be held and operated with one hand. Measures extension / hyperextension and flexion of the digits from the dorsal surface of the hand for increased accuracy. Protractor measures 0-110° in 2° increments. A 10cm scale (millimeter increments) on the grip allows easy measurement of fingertip-to-palm distance. Prominent and easy-to-read grading. Latex free.

14 INCH GONIOMETER - 180 DEGREES

Model J00225

Goniometer has two 180° scales that read in opposite directions. Scales are marked in 1° increments. 14 inches long. Stainless Steel.

14 INCH GONIOMETER - 360 DEGREES

Model J00210

Goniometer features one 360° and two 180° scales that read in opposite directions. Scale is marked in 1° increments. 14 inches long. Stainless steel.

ROBINSON POCKET GONIOMETER

Model J00220

Robinson Pocket Goniometer is ideal for measuring small joints of the hand. Has a 180° scale marked in 5° increments. 7 inches long. Stainless steel.
**STAINLESS STEEL SHORT FINGER GONIOMETER**

Model J00203

The Stainless Steel Short Finger Goniometer is used for easy range-of-motion measurements of metacarpal, phalangeal, and interphalangeal joints. Linear inch and centimeter markings on both sides of protractor in opposite directions. The protractors measure 0-150° in 5° increments. Latex free. Measures 4 inches long.

**STAINLESS STEEL DELUXE SMALL JOINT GONIOMETER**

Model J00205

The Stainless Steel Short Finger Goniometer is used for easy range-of-motion measurements of metacarpal, phalangeal, and interphalangeal joints. There are linear inch and centimeter markings on both sides of the protractors, in opposite directions. The protractors measure 0-150° in 5° increments. Stainless steel. Latex free. Clearly marked numbers make measuring easy. Measures 5.75 inches long.

**PROFESSIONAL 6 PIECE GONIOMETER SET**

Model J00200

This set includes one each of the following: 8 inch Goniometer (180°), 14 inch Goniometer (180°), 14 inch Goniometer (360°), the Robinson Pocket Goniometer, 5.5 inch Finger Goniometer, and the X-Ray Finger Goniometer. Comes complete with a padded carrying case with compartments to hold goniometers firmly in place.
**SIT AND REACH FLEXIBILITY TEST**

**Model 01285A**

The standard sit and reach test will test the maximum flexibility of the back attainable without undue strain on the back muscles. The subject sits with legs straight and feet flat against the no-mar rubber panels affixed to the front. The subject reaches forward, moving the slide bar to maximum reach. The flexibility of the back muscles can indicate the tasks or movements the back is capable of performing. The Sit and Reach Flexibility Test is a highly accurate and valid method of measuring back flexibility. It replaces the crude measuring devices described by Wells / Dillon and Johnson / Nelson.

The top is a platform scale containing an auto-zero slide arm that extends more then 16 inches. The rule is marked in 1/2 inch increments up to 23 inches, and in centimeters to 59cm.

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**ARTHRODIAL PROTRACTOR**

**Model 01145**

This device quickly and accurately measures the range of motion for all major joints of the body. Ideal for difficult-to-measure cervical rotation, lateral flexion of the head, and anterior-posterior cervical flexion. It is durably constructed of one piece of clear acrylic plexi-glass and features a built-in leveling bubble to ensure accuracy. Degree markings are red and black for easy reading. Includes two 180° opposing scales in 5° increments. Latex free. 12in H x 18in W (30cm x 46cm).
LAFAYETTE SKINFOLD CALIPER II

Model 01128

A uniquely designed caliper, our Skinfold Caliper provides precise measurement at an affordable price. The 0-100 mm scale is what sets this instrument apart from other clinical calipers on the market that only have a 0-60 mm scale. The 0-100 mm scale is easy to read and it allows you to accurately measure the skinfold thickness of a larger portion of the population than the other calipers.

The spring-loaded arms and pivoting tips adjust automatically for parallel measurement of skinfolds, and the circular tips provide comfort to the patient. The tension spring provides constant pressure over the entire operating range, meeting the pressure requirements of 10g/mm2. The caliper is lightweight, durable, and never requires calibration.

Advantages
- Floating Tips
- Measures up to 100mm
- Constant Pressure
- No Calibration Required
- Inexpensive

Specifications
- Size: 5.00” x 5.93” x 0.57”
- Weight: 0.36lbs
- Measurement Range: 0-100mm
- Materials: glass-filled Acrylonitrile-Butadiene-Styrene (ABS)

CHEST DEPTH CALIPER

Model 01140

This aluminum instrument accurately measures chest depth in inches or centimeters. Popular uses include measuring maximum chest expansion from resting to full inspiration. Range is from 0 to 24 inches in 0.50 inch graduations (0 to 60 cm with 2.0 cm graduations).
LARGE ANTHROPOMETER

Model 01290

Our Large Anthropometer has a range of 0 to 60 cm in 0.1 cm increments. Popular uses include measuring shoulder width, long bone length and chest depth for tracking growth, and development of children or for use in motion analysis studies. Aluminum in construction, it uses a spring-loaded ball bearing in a sliding C-shaped arm to provide accurate and precise measurement.

SMALL ANTHROPOMETER

Model 01290

Our Small Anthropometer has a range of 0 to 30 cm in 0.1 cm increments. Popular uses include measuring wrist, elbow, knee, and ankle widths, as well as measuring smaller muscle masses like the bicep and calf. Aluminum in construction, it uses a spring-loaded ball bearing in a sliding C-shaped arm to provide accurate and precise measurement.

60 INCH ANTHROPOMETRIC TAPE

Model J00305

Provides precise circumferential measurement for progressive anthropometric exams, regardless of examiner measurement techniques. Contains spring attachment for constant tension and precision. Tape measures in inches and centimeters.
TWO POINT AESTHESIOMETER

Model 16022

The Two Point Aesthesiometer is a basic sensory device designed to measure a subject’s perception of the cutaneous two-point threshold. The unit is constructed out of aluminum for accurate measurements and has strong insulated tips to minimize the influence of temperature on touch and/or pain thresholds.

THREE POINT AESTHESIOMETER

Model 16023

The Two Point Aesthesiometer is a basic sensory device designed to measure a subject’s perception of the cutaneous two-point threshold. The unit is constructed out of aluminum for accurate measurements and has strong insulated tips to minimize the influence of temperature on touch and/or pain thresholds. In addition, the Model 16023 incorporates a single third point adding to the flexibility of the unit since it is now possible to alternate between single and double point stimulation.

DISK-CRIMINATOR

Model F00620

Excellent instrument to test static and moving one- and two-point discrimination. Set includes two disks that quantify innervation density from 2 to 25 mm. Also useful as a postoperative therapeutic aide for desensitization and home programs following nerve repair, graft, and innervated tissue transfer. Developed by A. Lee Dellon, MD. Includes fabric storage pouch and instructions.

PINWHEEL AESTHESIOMETER

Model F8062

Quality-crafted stainless steel 7.5 inch aesthesiometer with sharp points. Measures cutaneous sensory awareness and evaluates perception of pain.
**KINESTHESIOMETER**

Model 16014

This standardized motor learning tool measures arm movement and is well suited for active movement, passive movement, or for comparing the two. An adjustable finger guide and elbow saddle increases subject comfort while keeping subject's arm in position. Units of measure are given as a degree of displacement along a 90° scale.

**DISCRIMINATION WEIGHTS**

Model 16015

This test can be used with a fingertip grip to measure perception of pressure sensitivity. The discrimination weights consist of two series of 12 weights. The light series weighs from 75 to 125 grams; the heavy series weighs from 175 to 225 grams. They are unbreakable and identical in color, size and texture.

**COLOR BLINDNESS TEST**

Model 14017

This Hardy, Rand, and Ritter (HRR) Pseudoisochromatic Subset Book for Red / Green test contains two demonstration plates, four screener plates, and 10 diagnostic series for a total of 16 plates. Each of these plates has its own tab for easy and clean page selection. The test also includes a set of instructions in English and a laminated copy of the score sheet. The score sheet can then be copied directly onto the patient’s record or copies can be made locally. A pad of score sheets is available separately.

**PROFESSIONAL VISION TESTER WITH PERIPHERAL TEST**

Model 14019A

This precision-built stereoscopic instrument is designed for rapid and concise measurement of visual performance. The results show how well the subject’s eyes perform by using the 12 test slides included with each unit. These test slides provide four basic test classifications: phoria, acuity, stereopsis, and color.
OCCUPATIONAL SKILLS ASSESSMENT TEST BATTERY

Model 32604

This test battery is used to measure the progress in rehabilitation and return-to-work capability of individuals performing jobs/tasks that require manual dexterity, hand-eye coordination, steadiness, and perceptual motor skills. Placement personnel and human resource departments can pretest job applicant suitability for assembly and other jobs where frequent manipulation of objects in confined spaces is required.

Complete with the following tools (photos not to scale)

- 32011 Steadiness Tester, Hole Type
- 32020 Purdue Pegboard Test
- 32022 O’Connor Tweezer Test
- 32023 Minnesota Manual Dexterity Test
- 32026 Roeder Manipulative Aptitude Test
- 32521 Hand Tool Dexterity Test
- 32532 Two-Arm Coordination Test
- 58024A Auto-Scoring Mirror Tracer
**PURDUE PEGBOARD TEST**

**Model 32020**

The Purdue Pegboard Test was first developed by Joseph Tiffin, Ph.D., an Industrial Psychologist at Purdue University in 1948. Since that time, this device has been used extensively to aid in the selection of employees for jobs that require fine and gross motor dexterity and coordination. It measures gross movements of hands, fingers, arms, and fingertip dexterity as necessary in assembly tasks.

Intended for industrial use and assembly work in a factory setting, the test is now being studied for use in other special areas such as patients with Parkinson’s, Multiple Sclerosis, Stroke sufferers, and similar illnesses. Physical and Occupational Therapists also use the Purdue Pegboard for injury rehabilitation, using the test as a tool to obtain baseline data on a patient documenting the progress and/or degree of disability.

**Complete with the following tools**
The Pegboard is equipped with pins, collars, and washers which are located in four cups at the top of the board. An examiner’s manual with norms is also included for administering the test.

**Replacement Models**
- 32103 Replacement set of 55 pegs, 45 washers, and 25 collars
- 32107 Record blanks, 25 per package

**GROOVED PEGBOARD TEST**

**Model 32025**

This manipulative dexterity test contains twenty-five holes with randomly positioned slots and pegs which have a key along one side. Pegs must be rotated to match the hole before they can be inserted.

This procedure measures performance speed in a fine motor task by examining both sides of the body, inferences may be drawn regarding possible lateral brain damage.

The test requires more complete visual motor coordination than most of our pegboards and has been used in several neuropsychological test batteries, in student labs, and as a screening technique in industrial environment.

The Grooved Pegboard is equipped with pegs, and examiner’s manual with norms.

**Replacement Models**
- 32104 Replacement Pegs, 32 per package
HAND TOOL DEXTERITY TEST

Model 32521

This test measures proficiency in using ordinary mechanical tools. The test consists of tools and two uprights with bolts, washers, and nuts. The object is to disassemble all the bolts from one upright and reassemble them on corresponding rows of the other upright with the heads of the bolts inside.

This type of skill is important to many industrial jobs and apprentice training. Results of the test have been used to determine vocational interest and as an indicator of success where job/tasks require the use of these or similar tools.

The Hand Tool Dexterity Test is complete with examiner’s manual, norms, 15/16 inch Open End Wrench, 1/2 inch Open End Wrench, 10 inch Crescent Wrench, Screw Driver, and all required Bolts, Nuts, and Washers.

Replacement Models

32521A 15/16 inch Open End Wrench
32521B 1/2 inch Open End Wrench
32521C 10 inch Crescent Wrench
32521D Screwdriver
32521E Bolts, Nuts, and Washers

ROEDER MANIPULATIVE APTITUDE TEST

Model 32026

This test measures hand, arm, finger dexterity, and speed. It is designed to test individuals for employment and to test elementary through college students when dexterity is a primary requirement.

The board has four receptacles for holding washers, rods, caps, and nuts. The performance board also is comprised of a horizontal T-bar and 40 inserts arranged in a predetermined pattern.

The Roeder Manipulative Aptitude Test is complete with examiner’s manual, norms, board, as well as all washers, rods, caps, and nuts.

Replacement Models

32026RB Set of Record Blanks, 50 per package
32026P Replacement Washers, Rods, Caps, and Nuts
MINNESOTA MANUAL DEXTERITY TESTS

Model 32023  Model 32023A

Minnesota Manual Dexterity Test (1 Board)
Model 32023

This widely used test measures capacity for simple but rapid hand-eye coordination. This is particularly applicable in shop and office occupations requiring quick movement in handling simple tools and production materials without differentiating size and shape. The Minnesota Manual Dexterity Test consists of the following two tests:
- Placing
- Turning

Complete Minnesota Manual Dexterity Test (2 Boards)
Model 32023A

The Complete Minnesota Manual Dexterity Test measures simple hand-eye coordination and gross motor skills. It consists of a battery of five tests:
- Placing
- Turning
- Displacing
- One-Hand Turning and Placing
- Two-Hand Turning and Placing

Commonly used for: This test is applicable for testing workers in occupations requiring quick movement in handling simple tools and production material without differentiating size and shape.

Complete with the following tools
The Minnesota Manual Dexterity testing kit includes sixty plastic cylinders, board with sixty round holes, carrying case, manual with norms, and record blanks.

The Complete Minnesota Manual Dexterity Test kit includes 2 folding boards, 60 blocks, carrying case, and instruction manual with norms.

Replacement Models
1-04811 Replacement Board
32031 Replacement cylinders (sold individually)
32032 Record blanks for 32023, 50 per package
32033 Record blanks for 32023A, 50 per package
O’CONNOR FINGER DEXTERTY TEST

Model 32021

The O’Connor Finger Dexterity Test requires hand placement of 3 pins per hole. Consisting of 100 holes about 3/16 inches in diameter, holes are arranged in ten rows and spaced ½ inch apart.

Primarily used as a predictive tool wherever rapid manipulation of objects, especially the picking up and placing of small parts, is important.

The O’Connor Finger Dexterity Test is complete with board, pins, examiner’s manual, and norms.

Replacement Models

32106 Set of Replacement Pins, 105 per package

O’CONNOR TWEEZER DEXTERTY TEST

Model 32022

This test is the same as our Model 32021 except the test requires the use of tweezers in placing a single pin in each hole, which are 1/16” diameter. A high score is indicative of manual aptitude for work involving precision and steadiness of small hand tools and requires a high degree of hand-eye coordination.

The O’Connor Tweezer Dexterity Test is complete with board, pins, tweezers, examiner’s manual, and norms.

Replacement Models

32106 Set of Replacement Pins, 105 per package
32109 Replacement Tweezers
GROOVE TYPE STEADINESS TESTER

Model 32010

This device tests dynamic steadiness. The subject is required to move a metal-tipped stylus along a narrowing channel without touching the sides. The channel width can be adjusted for varying difficulty. Centimeter markings along the edge allow measurement of a subject’s performance.

Available Counters

54060 Economy Clock/Counter is a timing device that is capable of accurately recording times down to the millisecond.
54035A Multi-Function Timer/Counter, has timing and counts multiple events simultaneously.
58024C Battery-operated impulse counter that works silently, thus eliminating any cues given by counter clicks.

HOLE TYPE STEADINESS TESTER

Model 32011

This test has been designed to measure one aspect of the psychomotor phenomena of steadiness. The subject’s task is to hold a stylus in each of the nine holes of diminishing size without touching the sides. Analysis can be made of the subject’s total score or for each hole separately.

The effects of: steadiness of handedness, exercise, smoking, alcohol ingestion, and other factors can be observed. Performance curves can be analyzed for practice effects and fatigue.

This unit must be connected to an impulse counter to record the number of errors and/or a stop clock to record the amount of time in error. Norms not included.

Available Counters

54060 Economy Clock/Counter is a timing device that is capable of accurately recording times down to the millisecond.
54035A Multi-Function Timer/Counter, has timing and counts multiple events simultaneously.
58024C Battery-operated impulse counter that works silently, thus eliminating any cues given by counter clicks.
TAPPING BOARD TEST

Model 32012

This apparatus helps evaluate an elementary psychomotor skill. While using a metal-tipped stylus, the subject’s task is to tap, as rapidly as possible, the two fixed 3.5 inch square plates at each end of an 18 inch board. A timer / counter, such as the Model S8024C Silent Impulse Counter, can be used for data collection.

Available Counters

54060 Economy Clock/Counter is a timing device that is capable of accurately recording times down to the millisecond.  
54035A Multi-Function Timer/Counter, has timing and counts multiple events simultaneously.  
58024C Battery-operated impulse counter that works silently, thus eliminating any cues given by counter clicks.

STABILITY PLATFORM WITH DIGITAL CONTROL

Model 32011

The Stability Platform measures balancing ability, which is essential to performing many activities. Each unit features fully integrated timing functions for test control and electronic angle measurement for unsurpassed accuracy. The platform’s control allows a wide range of user customizable parameters including variable test times, selectable angle limits, and digital tilt angle readout. With the Stability Platform’s rugged design and electronic capabilities, it will provide many years of reliable operation.

Features

• Electronic tilt angle measurements with digital angle readout
• User selectable balance thresholds for left, right, and center zones
• Platform re-zero ability
• Built-in timing functions for test and rest timing
• Built-in repeat cycle counter for multiple trials
• Built-in display for test data
• Test parameter storage
• Analog output voltage proportional to tilt angle
• Event marker to indicate test and rest intervals
• Tone indicator to signal beginning and end of tests
• Friction-free tilt action
• Remote start
POLAR RS400 HEART RATE MONITOR

Model 77053-1

The Polar RS400 is a powerful heart rate monitor designed for the ultimate in sports performance. Incredible storage accuracy and memory monitoring are unmatched and long periods of exercise can be checked for future reference. It is specifically intended for in-depth performance data and to complement the work of trainers.

POLAR RS800CX HEART RATE MONITOR

Model 77054-1

The RS800CX has the ability to record a wide range of performance details, the unit works with the WearLink®+ transmitter W.I.N.D. to provide you with the most accurate measurement of your heart rate. This kit at the most basic level is compatible with all W.I.N.D. sensors, so you can create and build on your training system to keep up with all your training challenges - now and in the future.

POLAR FS2C HEART RATE MONITOR

Model 77048

If you want a truly affordable and simple way to monitor your heart rate during exercise and do not want any other features, then look no further than the Polar FS2C. It has extra large digits and one-button functionality for ease of use. Yet it gives you the same accuracy you would get with an ECG.
POLAR FS3C HEART RATE MONITOR

Model 77051

The FS3 has additional features beyond the basic heart rate monitor for a complete workout. This well-rounded HRM offers automatic age-based heart rate zones that will keep you exercising on the right track. Features a large easy-to-read display, Target zone settings, Out-of-Zone Alarm, and a Time-of-Day with Alarm. This heart rate monitor has an elapsed timer that displays the duration of your workout, as well as how often you were in and out of your target zone.

EKHO E-10 HEART RATE MONITOR

Model 77E10

The world’s simplest heart rate monitor. The same ECG-accurate heart rate reading found on all of our other models, with time and date. Comes with EKHO TE-12 Transmitter.

EKHO FIT18 HEART RATE MONITOR

Model 77F18

The Ekho FiT18 heart rate monitor helps you reach your fitness goals by delivering all your relevant workout data at the touch of a button. Added features include average and maximum heart readouts. Easy-to-use controls and clear readout make this workout essential perfect for all fitness levels.
**EKHO FIT19 HEART RATE MONITOR**

Model 77F19

The Ekho FiT19 is a women’s specific heart rate monitor from Ekho. Lightweight and sleek, this heart rate monitor does not skimp on function. Added features include average and maximum heart readouts. Easy-to-use controls and clear readout make this workout essential perfect for all fitness levels.

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**EKHO FIT28 HEART RATE MONITOR**

Model 77F28

The Ekho FiT28 is the ultimate workout partner. Easy-to-use controls and a large LCD screen display all your relevant workout data while tracking your fat burned, calories-burned, maximum heart rate, and more. The FiT28 keeps you in the zone.

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**EKHO WMP-68 PULSE MONITOR**

Model 77W68

The EKHO WMP-68 allows you to check your heart rate at the touch of a button without the inconvenience of wearing a transmitter belt.
**MONARK 828E ELECTRONIC FITNESS CYCLE**

Model 78064-1

The 828E Fitness Cycle has a new softer design, a completely housed flywheel and strengthened frame. A new electronic instrument shows effective output in watts and heart rate using telemetry. The Monark pendulum balance ergometer is the most used test cycle for fitness testing at work. Electronic meter that shows pedal turns per minute (RPM), heart rate in beats per minute (HR), cycling time in minutes and seconds (TIME), intended cycling speed in km/miles per hour (SPEED) plus distance covered in km/miles (DISTANCE). In addition, braking power can be set, giving a reading of calorie consumption (CAL) and power in watts (WATT). The pendulum balance is easy to calibrate. Braking of the wheel takes place mechanically via a belt that runs around the rim of the wheel. The two ends of the belt are attached to a revolving drum to which a pendulum is fixed. This arrangement works as a pendulum balance, which measures the difference in pulling power on the two ends of the belt.

**MONARK 827E ELECTRONIC FITNESS CYCLE**

Model 78063-1

The 827E Fitness Cycle has a new softer design, a completely housed flywheel, and strengthened frame. A new electronic instrument shows heart rate using telemetry. Like all Monark models, Monark 827 E is constructed to the highest quality standards and has a long life. Specially designed for intensive use in institutions and gymnasiums. Easy to use and tough, and therefore one of the most popular exercise bicycles. Electronic meter that shows pedal turns per minute (RPM), heart rate in beats per minute (HR), cycling time in minutes and seconds (TIME), intended cycling speed in km/miles per hour (SPEED) plus distance covered in km/miles (DISTANCE).

**MONARK 881E REHAB TRAINER**

Model 78070

Monark Rehab Trainer 881E can be used as either a leg or arm ergometer. It is suitable for use either in the home or in hospitals, where a medical professional can prescribe an exercise program but is not always present to supervise it. The Monark Rehab Trainer is especially important for people who have been hospitalized and require rehabilitation based on reliable measuring methods. Its flexibility as an upper- or lower-body ergometer makes it extremely useful for patients who are confined to wheelchairs or use walking aids. Likewise, it can be used as a cardiovascular upper-body workout for paraplegics, amputees, or people who suffer from other physical handicaps. Thanks to its reliable measuring methods, the Monark Rehab Trainer is an excellent aid to recovery after injury or long-term illness.
## CHARTS

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# MODELS

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