Specification Sheet

HUMAC NORM

The **HUMAC NORM** is your solution for measuring and improving human performance in the clinic, training room, and research laboratory. In one machine the HUMAC NORM offers 22 isolated-joint movement patterns, four resistance modes (isokinetic, isotonic, isometric, and passive) and numerous reports to meet the measurement and exercise needs of today's clinicians and researchers.

MEASUREMENT

Only with testing can you determine baselines, set goals, and track change. The HUMAC NORM offers two primary measurement solutions.

- Isometric Testing: when dynamic movement is a concern, isometric testing is the answer. The HUMAC NORM will safely position the patient to each angle in the protocol. Protocol options include angles, hold-times, rest periods, repetitions, and sets.
- Isokinetic Testing: to determine maximum dynamic capability throughout the range-of-motion isokinetic testing is the solution. The HUMAC NORM offers concentric and eccentric resistance testing. Isokinetic curve results make it easy determine areas of pain or weakness and determine capability.

EXERCISE

Exercise is performed to improve mobility, stability, strength, and control. The HUMAC NORM offers four modes of resistance and numerous feedback options to meet these goals

- Passive Mode: develop the mobility that the patient requires, from straight pattern movements to complex PNF patterns.
- Isometric Mode: stabilize the joint to perform angle specific strength training.
- Isokinetic Mode: continue to strengthen using proven methods to enhance return-to-function including concentric and eccentric loading and deceleration training.
- Isotonic Mode: complete the return-to-function training using our simulated mass isotonic mode.

CSMi HUMACNORM™

KIKKO HEALTH

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HUMAC NORM SPECIFICATION SHEET

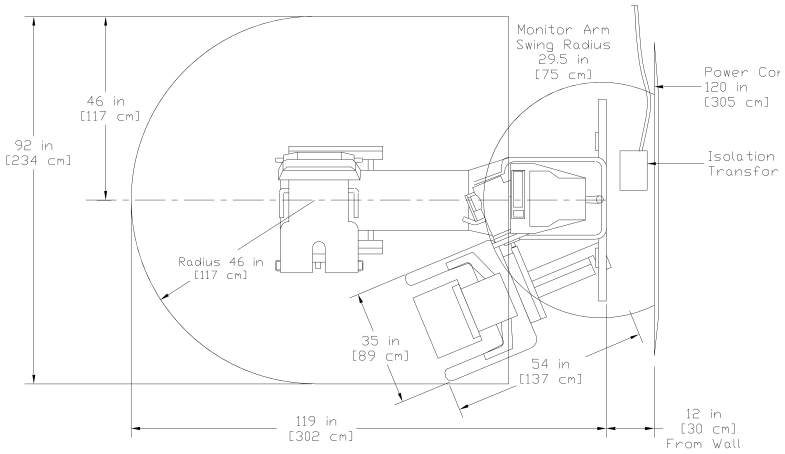
AVAILABLE RESISTANCE MODES:

- **Continuous Passive Motion (CPM):** constant speed, variable resistance, always moving.
- **Isokinetic:** Constant speed, variable resistance, patient controlled
- **Isometric:** Zero speed, variable resistance, patient controlled
- **Isotonic:** Variable speed, fixed resistance, patient controlled
- **Zero Gravity Mode:** Software/dynamometer removes weight of the limb and attachment during test & exercise.

THE DYNAMOMETER

Performance	Minimum	Maximum
Isokinetic Concentric Speed	1/16 deg/sec	500 ft-lbs / 678 Nm
Isokinetic Eccentric Speed	1/16 deg/sec	500 deg/sec
CPM Speed	1/16 deg/sec	500 deg/sec
Isokinetic Concentric Torque	1/10 ft-lbs	500 ft-lbs / 678 Nm
Isokinetic Eccentric Torque	1/10 ft-lbs	500 ft-lbs / 678 Nm
CPM Torque	1/10 ft-lbs	500 ft-lbs / 678 Nm

SUGGESTED FLOOR PLAN:



POWER SPECIFICATION:

- Type: Hospital Grade, UK 13A (BS1363) Plug, Contact, Arrangement Issolated Ground
- Voltage Rating: 250 Volts, 20 AMPS
- Input Frequency: 60Hz (50Hz available)
- Contact Material: Solid Brass
- Note: Ground position is at the top

STANDARD COLOUR:

- Bright White, Winkle Paint Finish
- Sun Burst Yellow for moveable attachments
- Black Upholstery and Seat Belt

STANDARD TEST AND EXERCISE PATTERNS:

- Ankle: Plantar / Dorsiflexion Prone
- Ankle: Plantar / Dorsiflexion Supine
- Ankle: Inversion / Eversion
- Elbow: Extension / Flexion
- Hip: Abduction / Adduction
- Hip: Flexion / Extension
- Hip: Internal / External Rotation
- Knee: Extension / Flexion Seated
- Knee: Extension / Flexion Prone
- Knee: Tibial Internal / External
- Shoulder: Abduction/Adduction
- Shoulder: Extension / Flexion
- Shoulder: Horizontal Abduction / Adduction
- Shoulder: Internal / External Rotation in 90° Abduction
- Shoulder: Internal / External Rotation, Mod Standing
- Shoulder: Internal / External Rotation, Mod Seated
- Shoulder: Internal / External Rotation in 90° Flexion
- PNF D1: Flexion - Adduction / Extension – Abduction
- PNF D2: Flexion-Abduction/Extension-Adduction
- Wrist / Forearm: Pronation / Supination
- Wrist: Extension / Flexion
- Wrist: Radial / Ulnar Deviation

OPTIONAL SOFTWARE MODULES:

- **Research Toolkit** – Allows the user finer control of the HUMAC NORM Dynamometer. For example: adjust speed in increments of 1/16 deg-sec.
- **HUMAC EMG Module** – Allows the user to stream EMG into the HUMAC Software. Currently compatible with Delsys and Noraxon EMG Systems. Please let us know if you have another brand.
- **HUMAC E-Stim Module** – Allows the user to program the HUMAC Software to control Digitimer or Gras Electrical Simulator.

STANDARD TEST AND EXERCISE PATTERNS:

- Johnson Anti-shear (JAS)
- Work simulation tools
- Closed Kinetic Chain (CKC)
- Trunk Modular Component (TMC)
- Wheel

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