

It's time to upgrade to digital!

Why switch from a hydraulic dynamometer to digital?

- Force is measured using load-cell digital technology that gives more accurate, repeatable, consistent measurements
- No hydraulic oil is used to measure force, eliminating the risk of oil leakage and decalibration
- Resetting of max results is digital; standard hydraulic reset knobs are prone to breaking
- LCD screen makes results easy to read
- Saves time by calculating mean, SD, COV, and other statistics on the device

Why should I choose BIMS™ digital dynamometers?

- Extended testing capacity (300 lb grip / 100 lb pinch) is designed for the strongest and weakest patients
- Measures force consistently with $\pm 1\%$ accuracy
- Color LCD display graphically shows results
- Numerous testing protocols for advanced testing
- 5-position hand grip accommodates different hand sizes and tests
- Results saved on device with memory for over 1,000 patients



BIMS™ digital 5-position grip & pinch dynamometers

BIMS™ digital 5-position grip & pinch dynamometers

It's time to upgrade your standard hydraulic grip or pinch dynamometer to the new **Baseline® BIMS™ digital dynamometer!**

This dynamometer uses digital load-cell technology to measure grip and pinch strength with greater **accuracy** and **repeatability** than standard hydraulic dynamometers. With this technology, BIMS™ dynamometers are hydraulic oil-free, and all functions are digital so there are no moving parts that are prone to breaking. Force is digitally measured with $\pm 1\%$ accuracy.

Each dynamometer features adjustable 5-position handles (grip) or paddles (pinch) that fit all hand sizes and enable testing at various grip / pinch positions. Results are shown on a full color LCD screen.

Grip dynamometers have an extended testing capacity that measures grip strength **up to 300 lbs (135 kg)**.

Pinch dynamometers measure pinch strength **up to 100 lbs (45 kg)**.

The pinch and grip BIMS™ dynamometers are available in three models: **Functional**, **Clinic** or **Deluxe**.

Clinic and Deluxe units allow testing results to be saved with memory for over 1,000 patients. These models are Bluetooth-enabled for connection to future applications.



digital grip dynamometer



digital pinch dynamometer



3-piece set with carry case

Functional Model

This model does everything a standard hydraulic dynamometer can do with greater **accuracy** and **repeatability**. Use to view live strength readings with the **Max Force** test.

12-0072	grip
12-0082	pinch
12-0092	3-piece set*

Clinic Model

This model is ideal for clinic practitioners to perform timed tests which are calculated and saved on the device. It includes the **Max Force**, **Quick**, and **GST** tests.

12-0070	grip
12-0080	pinch
12-0090	3-piece set*

Deluxe Model

This model expands upon the Clinic model and includes more advanced timed tests that are ideal for research applications, Workers' Compensation, FCE (Functional Capacity Evaluation) and day-to-day testing. It includes **Max Force**, **Quick**, **GST**, **RET**, **MMVE**, **MVE**, and **Fatigue** tests.

12-0071	grip
12-0081	pinch
12-0091	3-piece set*

*3-piece sets include grip dynamometer, pinch dynamometer, plastic finger goniometer (12-1014), carry case, instructions and norms.

What tests can I perform?

- **Max Force Test:** Just like a standard hydraulic dynamometer, this test shows live, real-time strength readings, and peak maximum values are held until digitally reset.

For the below tests, subject information can be inputted at the time of test: hand, handle/paddle position, exertion/rest times and test type. Results of each test can be saved for future reference.

- **Quick Test:** Shows live, real-time strength readings and maximum value.
- **GST (General Strength Test):** 3 strength trials are performed at a chosen handle position. Peak readings, mean, SD, and COV are calculated.

The following tests are only available with the Deluxe model. They are used for more advanced testing that is ideal for research applications and Workers' Compensation.

- **RET (Rapid Exchange Test):** 6 strength trials (alternating hands) are performed at the same chosen handle position. Peak readings, mean, SD, and COV are calculated.
- **MMVE Test (Modified Maximum Voluntary Effort):** 10 strength trials are performed (alternating hands), 2 trials at each handle position. Peak readings at each position are calculated.
- **MVE Test (Maximum Voluntary Effort):** 15 strength trials are performed per hand, three at each handle position. Peak readings, mean, SD, and COV are calculated.
- **Fatigue Test (Work):** 1 extended time trial is performed. Results are used to compare strength exerted (total work performed) over 2 or more user-defined time periods. Segment work readings are calculated.

5-level adjustment rod



Full color LCD screen



Adjustable pinch paddle



*level 1 does not use paddle.
Use paddle for levels 2-5.

Compare and decide



**Baseline® BIMS™
Dynamometers**



Hydraulic Dynamometers



**Jamar Smart
Dynamometers**



**Jamar Plus +
Dynamometers**

	Baseline® BIMS™ Dynamometers	Hydraulic Dynamometers	Jamar Smart Dynamometers	Jamar Plus + Dynamometers
Capacity	300 lb	200 to 300 lbs	200 lb	200 lb
Display	Full color LCD screen	Analog dial	LCD screen	LCD screen
Force Testing Technology	Load-cell digital technology	Hydraulic oil	Electronic load cells	Electronic load cells
Audible Alert	Beep alerts when tests start / end	n/a	Beep aids in testing	n/a
Data Storage	Patient Data stored on device or can be transferred to a PC	n/a	Only 5 tests stored on device. Patient data stored on APP.	n/a
Results	Testing results are shown graphically on screen. Can be downloaded.	Max force reading shown until reset dial is used.	Only numerical results shown on screen. Other data is seen through an app.	Calculates force peaks, average, standard deviation, and coefficient of deviation
Battery	Rechargeable 9V Battery	n/a	2 (AAA) Batteries	2 (AAA) Batteries
Tests	Quick, GST, RET, MMVE, MVE, Fatigue	Standard Quick	Standard, 5-Position, Rapid Exchange, Sustained Grip	Rapid Exchange
Accuracy	±1%	±2% to ±3%	±2%	±2%

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