

NEW . . . from

INFItonic - - INFImetric

Infinite Isotonic/Isometric Training Unlimited Exercise...by NAUTILUS

INFItonic - - INFImetric exercise provides both positive and negative work. Isokinetic exercises are limited to positive work.

INFItonic - - INFImetric exercise provides the valuable "pre-stretching" of muscle fibers that is required for involving a high percentage of the available muscle fibers in any form of exercise. Isokinetic exercises produce no pre-stretching at all.

INFItonic - - INFImetric exercise provides the important "extended range of movement" that is essential for improving flexibility. Isokinetic exercises produce no extended movement at all, and thus do nothing for flexibility.

INFItonic - - INFImetric exercise provides any amount of resistance required in the contracted position, as little as might be wanted by a very weak individual to as much as the strongest man can handle, and more if desired. Isokinetic exercises produce no resistance in the contracted position.

INFItonic - - INFImetric exercise has no limitations on speed of movement, exercises can be performed at any possible speed, from "zero speed" (isometric contraction) in any and all positions, to the fastest speed of movement of which you are capable, with proper resistance in every position. Isokinetic exercises are limited to a pre-set speed of movement.

INFItonic - - INFImetric exercise provides "full range" resistance, exactly balanced to your momentarily available strength in every position. Isokinetic exercises are limited "mid-range" movements.

When we first started working with actual full-range exercises, we found that a range of movement of 160 degrees was enough for almost any subject . . . and that most subjects could not demonstrate even that range of movement. Recently, using a Nautilus INFItonic - - INFImetric Pullover Machine, one subject demonstrated a range of movement around the shoulder axis of a full 270 degrees. Three-fourths of a full circle in one plane.

INFItonic - - INFImetric exercise is a development of Nautilus Sports/Medical Industries . . . quality products based on sound physiological requirements for exercise, built to the highest standard in the world and backed by a responsible guarantee.

UNLIMITED Exercise . . . by NAUTILUS.

NAUTILUS

BENCH - PRESS MACHINE

INFItonic -- INFImetric Bench-press Machines . . . available for immediate shipment.

The first bench-press exercise providing FULL RANGE movement.

The first bench-press exercise providing full contraction of the chest and shoulder muscles.

The first bench-press exercise providing maximum resistance in every position during the movement.

The first bench-press exercise providing both heavy resistance and real safety . . . totally removing the chance of dropping the weight.

The first bench-press exercise that can be performed with heavy resistance without the need for "spotters."

The first exercise that provides the ability to make every repetition a "maximum-possible" repetition . . . while providing both positive and negative work.

The first bench-press machine that provides "flat bench" pressing, incline pressing, and decline pressing. Self contained . . . nothing else required, five-second adjustment from flat bench to incline or decline bench.

A quality product from NAUTILUS . . . built to last almost literally FOREVER. \$885. F. O. B. our plant in Florida . . . freight collect; add \$35. for crating if shipment to be made by truck line. Florida residents add 4% state tax.

NAUTILUS SPORTS/MEDICAL INDUSTRIES

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INFItonic - Exercise by

... A Very Simple Explanation

Like most things of value, INFItonic -- INFImetric Exercise was an accidental discovery. We built something else, it produced an unexpected result, and that result pointed our thinking in an entirely new direction.

The Nautilus Compound-position Curling Machine has two separate curling handles, one for each hand. A single curling bar cannot be used in this machine because the two hands do not move in the same direction. And also because a man with long arms cannot curl both arms simultaneously, his hands would hit behind his head.

So a man with long arms curls one arm "up" while the other arm is going "down" in this machine ... one arm is performing positive work while the other arm is performing negative work. And if the two movements are performed smoothly and in perfect synchronization, as they should be ... then the weight-stack hangs motionless in the mid-way position. Both arms are working hard, but the weights are not moving.

When the implications of what is actually happening in such a situation are clearly understood, it becomes obvious that the weights are not required, are not necessary to the function of the machine ... in fact, it becomes possible to actually improve the exercise by removing the weights.

You must understand that both hands move the same weight-stack, and also understand that it is possible to raise (or lower) the weights with both hands at the same time ... possible, but not necessary; because a compensating redirection sprocket located on top of the weight-stack automatically adjusts for any unevenness of movement on the part of the hands and keeps the chain tight at all times regardless of what your two hands are doing. Thus the weight is always applied to both hands, no matter what relative positions your hands may be in. In effect, it is NOT possible for all of the weight to be thrown on one hand; instead, it is always providing resistance for both hands.

The extreme range of movement in this type of machine made such an arrangement necessary ... and having built it and used it, we then were literally forced into the discovery of something of great value. Which is exactly the manner in which most inventions come about.

If the redirection sprocket that is normally located above and attached to the weight-stack is moved into the "halfway" position, where it would be if one arm was curled up and the other arm was still straight ... and if the sprocket is firmly attached to the frame of the machine in that position ... the weights can then be removed from the machine entirely, since they no longer serve any purpose at all.

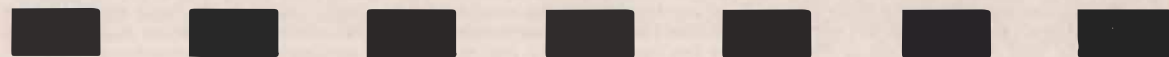
It then becomes impossible to curl both arms at the same time; because one arm cannot go up without pulling the other arm down. In order for one arm to be fully bent, the other arm must be perfectly straight. You can have both arms "half" bent ... but you can not fully bend or straighten both arms together.

When you enter the machine, both curling handles are in the mid-way position. Grip a handle in each hand and then bend one arm fully ... which action will pull the other arm into a straight position. You are now ready to start the curling exercise.

As you curl one arm you are forced to straighten the other arm ... so, as one arm performs positive work, the other arm is performing negative work. Regardless of your level of strength you will always be able to provide literally ANY AMOUNT of required resistance ... because the resistance is coming from your negative working arm, and negative strength is always much higher than your positive strength. You pull with one arm and resist with the other ... and the result is both positive and negative work throughout a full range of movement. When you become stronger you will then be able to pull harder, but you will always be able to resist more than you can pull ... because your positive and negative strength levels increase in pace with each other.

Any speed of movement is possible ... from maximum isometric contraction in any and every position to the fastest movement you are capable of. You have both stretching and pre-stretching in the starting position and heavy resistance in the fully-contracted finishing position. You cannot "cheat" because one arm is moving up while the other is going down ... so good form during the positive part of the movement assures equally good form during the negative movement.

All of the features of Nautilus Machines except the weights are still required, of course ... you still must have full-range, rotary form, double direct, omnidirectional, automatically variable, balanced resistance; all of which features are required with or without weights.



A more detailed explanation is provided in the article in this same issue, titled "STRENGTH-TRAINING ... THE PRESENT STATE OF THE ART." And even more details can be obtained by writing or calling the Nautilus plant in Florida.

INFLImetric NAUTILUS

Bench - Press Machines

The Nautilus INFLtonic -- INFLImetric Bench-press Machines are the first available models of an entirely new line of heavy-duty exercise machines. Incorporating a number of valuable features that were previously unavailable in any type of exercise equipment.

The first bench-press exercise providing full-range movement for the pectoral muscles, allowing full contraction of the chest muscles in the finishing position . . . as well as full extension and stretching in the starting position.

The first bench-press exercise providing maximum resistance in every position throughout a full range of movement . . . no "sticking points" . . . no areas of little or no resistance.

The first bench-press exercise providing both heavy resistance and real safety . . . totally removing the chance of dropping the weight.

The first bench-press exercise that can be performed with heavy resistance without the need for "spotters."

The first bench-press exercise that provides the ability to make every repetition a "maximum possible" repetition . . . while providing both positive and negative work. The Nautilus staff does NOT recommend training in that fashion; but for those who wish to do so, it is possible to use absolutely maximum resistance in every repetition.

Instead, we suggest the use of seven or eight repetitions that are somewhat below maximum . . . followed by two or three maximum repetitions at the end of a set of about ten repetitions.

Any possible speed-of-movement can be used in this exercise . . . from a static, ZERO speed-of-movement to the fastest speed-of-movement that you are capable of. We suggest a fairly slow speed-of-movement with no jerking . . . with a very brief pause at both ends of each repetition; during which pause the muscles should be relaxed for approximately one second in order to encourage free circulation into the working muscles.

The "stroke" of the machine (the range of movement of the resistance handles) is adjustable in a quick and simple manner; push one handle to the top position against no resistance, and then turn the adjustment wheel until resistance is felt against the other arm. That's all there is to it . . . a two-second adjustment makes the machine fit a midget or a giant.

In the three-position model that incorporates flat-bench pressing, incline-bench pressing, and decline-bench pressing, the adjustment of the bench is equally quick and simple . . . two-second adjustment from flat to incline or decline position.

Both models of this machine are fairly large, heavy and extremely rugged pieces of equipment . . . heavy, solid-steel resistance-arms, extra-heavy chain and sprocket drive with a tested strength of 6,100 pounds; the adjustable-bench model of this machine weighs approximately 330 pounds, the flat-bench model a bit less.

Overall construction is of heavy-walled tubing with an outside dimension of one and one-half by three inches, with solid-steel inserts at all points of stress and with solid-steel rotational-axis anchor points. These machines, in fact, are built for the heaviest possible use and should perform perfectly in heavy service almost literally FOREVER. You will eventually wear out the upholstery, although it is of extra heavy quality . . . and you might scratch the painted portions, although it is a very tough automobile-grade finish . . . but you will never wear out the machine. It would, in fact, be difficult if not outright impossible to damage the machines with a sledge-hammer.

Two heavy bolts attach the bench portion of the machine to the main body of the machine . . . so it is a simple matter to remove the bench in order to move the machine through a narrow door. In service, the machine requires a "working area" of approximately 6 feet by 5 feet, only 30 square feet. Shaped in the form of the letter T, the body of the machine can be placed next to and parallel with a wall, so that only the bench protrudes into the room.

A quality product from NAUTILUS . . . adjustable-bench model \$785. F. O. B. our plant in Florida. Flat-bench model \$685. F. O. B. Florida. Freight collect; add \$35. for crating if shipment is to be made by truck. Florida residents add 4% state sales tax.



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COMPARE FACTS

...not claims!

Full-range exercise has certain basic requirements . . . lacking even one of these requirements, full-range exercise is simply impossible.

Exercise can be provided in a number of ways . . . but full-range exercise can be provided in only one way. Nautilus is the **ONLY** source of full-range exercise. "Function dictates design" . . . and the requirements for full-range exercise dictated the design of Nautilus equipment.

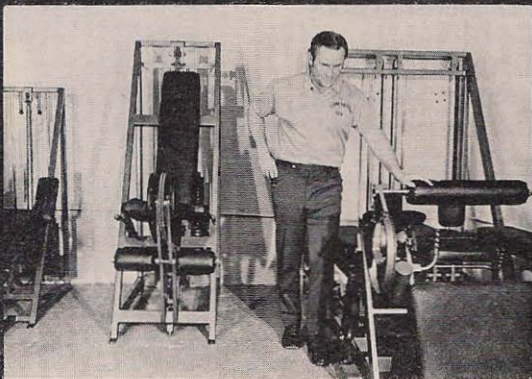
Improved flexibility increases speed and greatly reduces the chances of injury . . . and improvements in flexibility are a direct result of full-range exercise.

Increased strength throughout the entire length of a muscular structure improves functional athletic ability, in any sport . . . another direct result of full-range exercise.

Nautilus equipment is now being used by the World Champion Miami Dolphins . . . the Cincinnati Bengals . . . the Denver Broncos . . . the St. Louis Cardinals . . . the Washington Redskins . . . the Buffalo Bills . . . Notre Dame University . . . the University of Alabama . . . the U. S. Military Academy at West Point . . . the University of Tennessee . . . Clemson University . . . University of Arizona . . . University of Kentucky . . . University of Colorado . . . Syracuse University . . . Louisiana State University . . . plus a dozen other professional football teams and hundreds of other universities and high schools.

Nautilus equipment is also being used exclusively in a number of Sports/Medical Clinics operated by leading orthopedic surgeons.

The leaders in American sports and sports/medicine chose Nautilus on the basis of fact, not claims . . . and the fact is that Nautilus is the **ONLY** source of Full-range exercise.



Coach Don Shula in the World Champion Miami Dolphins' Nautilus training facility.

NAUTILUS . . . the **ONLY**

THE REQUIREMENTS FOR FULL-RANGE EXERCISE	Universal Machines	Isokinetics	Barbells	Nautilus Machines
1 Rotary movement	NO	NO	NO	YES
2 Direct resistance	NO	NO	NO	YES
3 Automatically - variable resistance	NO	NO	NO	YES
4 Balanced resistance	NO	NO	NO	YES
5 Positive work	YES	YES	YES	YES
6 Negative work	YES	NO	YES	YES
7 Stretching	NO	NO	NO	YES
8 Pre-stretching	NO	NO	NO	YES
9 Resistance in position of full muscular contraction	NO	NO	NO	YES
10 Unlimited speed-of-movement	YES	NO	YES	YES
SCORE:	30%	10%	30%	100%

During the last three years, hundreds of coaches, trainers and athletes from all over the world have been trained by the Nautilus staff in Florida . . . at no charge. At the moment, we are building the largest and finest training and rehabilitation clinic in the world . . . 30,000 square-feet under one roof, with several additional acres of outdoor facilities. Upon completion, the clinic will be fully equipped with all of the latest developments

for testing human performance . . . and will be staffed by recognized leaders in Physiology. The facilities and services of this clinic will be available to any coach, trainer or athlete . . . at no charge.

In the meantime, we will continue to train as many people as possible in our present facility . . . but we are momentarily limited to approximately 300 trainees on a full-time basis, so arrangements should be made in advance.

For additional information, contact . . .



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source of full-range exercise