



NAUTILUS SPORTS/MEDICAL INDUSTRIES

**N**utilus Sports/Medical Industries, since its inception in 1970, has pioneered many physical fitness concepts. But it took almost 50 years of research and trial-and-error experimentation to reach the present state of the art. Nautilus exercise equipment culminated primarily from the diligent work and diverse experience of one man: Arthur Jones.

Arthur Jones invented the Nautilus machines and discovered the basic requirements of full-range exercise. He searched for and found the safest and most productive exercise system ever developed.

The value of an exercise largely depends on the quality of the overload or resistance. The barbell, for example, is a highly productive tool if it is used properly. But when the barbell is used properly, there are basic problems.

A barbell provides limited rotary resistance. Human beings are rotary animals. Basic movement occurs around the axis of a joint. A barbell is not a rotational device, since it is totally dependent on the straight-line nature of gravity for its resistance. Only a rotational machine applies proper resistance to the body's rotary movement.

In 1948, Arthur Jones built the first prototype Nautilus machine. It was a pullover model designed to apply rotary and direct resistance to the upper arms and against muscles that work around the axes of the shoulders. This prototype was a major design breakthrough. It solved the problems of rotary and direct resistance, and exposed other deficiencies of the barbell. One of these is the requirement for variable resistance.

As a muscle contracts, its effective strength changes. It does not remain the same. Optimum exercise provides correct variable resistance in every possible position.

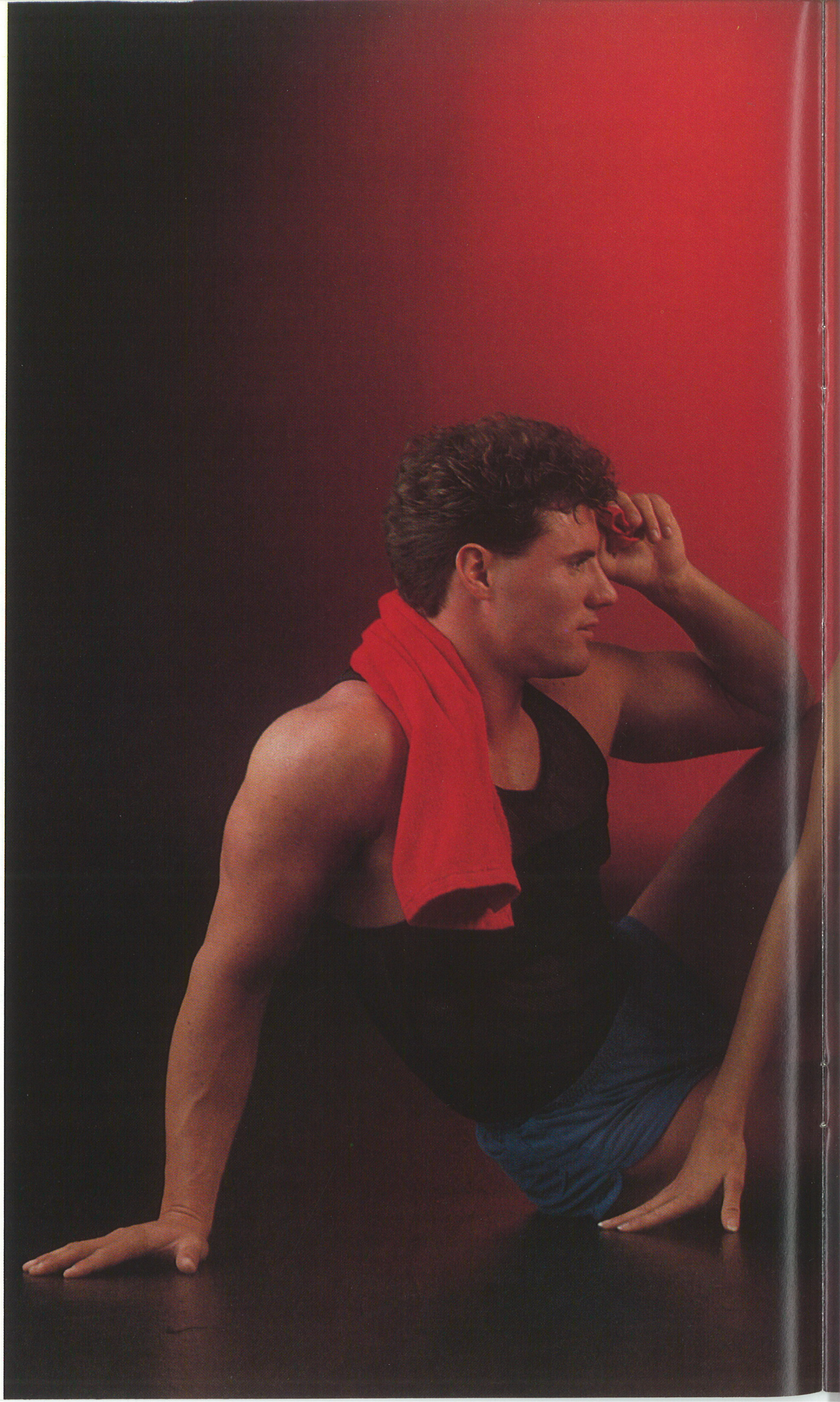
Because of changing leverage and directions of movement, the resistance supplied by a barbell changes, but it varies arbitrarily. It does not vary according to the need of the muscle. Although the resistance provided must vary, it must vary in relation to the muscular requirements. A barbell's resistance varies inconsistently and incorrectly. Efficient exercise requires variable and balanced resistance; resistance that is properly balanced to the potential strength of the muscle in every position.

The brilliant engineering genius that made Nautilus the world's leading manufacturer of commercial exercise equipment has been applied to a new line of equipment for the home. Now, in the convenience and privacy of your own home, you can experience the fast, dramatic results of Nautilus equipment.

Please take time to read this catalogue carefully. When you have made your selections, you can rest assured that you'll be giving yourself the finest present you'll ever receive. . . A Nautilus Body!

# NAUTILUS FOR THE HOME

**ABDOMINAL  
LOWER BACK  
HIP & BACK  
BICEPS  
CYCLONE  
VARI-PACER  
ROTARY TORSO  
AER-ROW**





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# ABDOMINAL

## **A shapely waistline is your best asset.**

Few features stand out in a bathing suit as much as a slim waistline. A trim midsection makes your chest look fuller and shoulders broader, and a lean, muscular waist gives you a vibrant, athletic appearance.

Even more important than appearance is health. A soft, flabby belly is a good indication that too much fat surrounds the vital organs. Excessive body fat can overload the heart and lead to serious ailments.

Now, you can have the lean, flat waistline you've dreamed about without leaving your home. By utilizing the same advanced principles that Nautilus developed years earlier for its commercial equipment, the Nautilus Abdominal machine for the home tones and tightens your midsection faster and with far better results than you ever dreamed possible.

## **Get fast results with variable resistance.**

Nautilus reduces the time required to produce noticeable results by isolating the abdominal muscles and working them against variable resistance. Every muscle has a different strength at each point in its contraction. So, to get the maximum benefit from an exercise, the muscle must be worked harder at some points in the movement than at others.

The genius of the Nautilus Abdominal machine is in the application of a uniquely shaped device called a cam. It resembles the deep sea Nautilus shell. When the resistance is geared around the cam, the force transmitted to the movement arm changes continually and automatically to match the potential strength of the muscles at each point in the movement. The harder the abdominal muscles can work, the more resistance the Nautilus machine gives them.

## **Five minutes of Nautilus versus hours of sit-ups.**

The truth is, sit-ups and leg-lifts don't work the abdominals to their capacity because in these exercises the hip flexors are doing most of the work. And, since the resistance is limited to the weight of the upper body, it would take a torturous number of repetitions to increase abdominal strength meaningfully.

With the Nautilus Abdominal machine, instead of long, grueling sessions of sit-ups, all you need are three, 5-minute workouts each week to develop a trim, well-conditioned waistline.

## **As you get stronger, so does Nautilus.**

With the Nautilus Abdominal machine, you get twice the workout. As you push forward, you feel the abdominal muscles at work. And, as you return to the starting position, the machine continues to apply resistance, so the muscles are worked in both the concentric and eccentric phases of the movement.

As your strength increases, you need increased resistance so that the muscles are always being worked to their capacity. The Nautilus Abdominal machine lets you vary the resistance by offering nine different settings to accommodate every level of strength from the very weak to the very strong.



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## LOWER BACK

### **Let Nautilus save your back.**

If you happen to be one of those relatively rare people who have never suffered from lower back problems, then the importance of the Nautilus Lower Back machine may be lost to you. . . for the moment!

Lower back pain takes a back seat only to the headache as the most common medical complaint and is second only to the common cold as a reason for missed work. In fact, the odds are 10 to 1 that eventually you will suffer from lower back pain.

### **A safer exercise using a rotary form of movement.**

The few exercises that have been developed to help the lower back often cause more injuries than they cure. The most common of them, the so-called "dead lift" is appropriately named. The spinal loading that results from quickly lifting weights off the floor, with the legs stiff and back rigid, can cause dangerous compression of the vertebrae.

The unique design of the Nautilus Lower Back machine eliminates these dangers entirely. By applying the resistance in a direct, rotary manner, you eliminate the problem of vertical loading as the direction of the resistance always stays perpendicular to your spine.

### **Variable resistance gives maximum results in minimum time.**

Muscles are not equally strong in all positions, and any movement produces changes in the mechanical efficiency of the joints involved. The problem of the varying degrees of strength is solved by the Nautilus Lower Back machine. Instead of using a constant resistance, as with a barbell exercise, the Nautilus uses a special lever-arm system that continually and automatically changes the resistance as the movement occurs.

Because the level of resistance is closely matched to the available strength of the lower back muscles, at each point in the movement, the Nautilus Lower Back machine provides the most efficient workout possible. So, instead of hours of strenuous and non-productive work, all you need are a few minutes, three times a week to significantly improve the condition of your lower back.

### **As you get stronger, Nautilus makes you work harder.**

The Lower Back machine lets you increase the level of resistance as your strength increases. By simply inserting the selector pin into one of the nine possible settings, you can choose the right level of resistance for your workout, from the very weak to the very strong. Then, once you reach the highest setting, you can make a simple adjustment and have nine higher resistance settings to choose from.

**CAUTION: CONSULT YOUR PHYSICIAN BEFORE USING.**





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## HIP & BACK

### **Builds strength in the most important muscles of your body.**

There's nothing more attractive than a firm, shapely figure. Everyone wants one. . .but simply watching your diet isn't enough. A proper exercise program is essential for developing and keeping an attractive body.

Most exercises do little or nothing to improve the appearance of the hips, the lower back and the rear of the thighs. Cycling and walking do not, largely because the intensity of the exercise is well below the minimum threshold where muscle development can occur.

The Hip and Back machine from Nautilus is the only fitness product for the home that isolates and tones all the muscles of the hips, the lower back and the rear of the thighs. And like the commercial Nautilus Hip and Back machine, it does so in just a few minutes a day.

### **Unlimited levels of resistance. . .unlimited speed of movement.**

The secret to Nautilus' quick results is in the machine's infimetric design, where the muscles of one side of the body are used as the source of resistance for the other side. As one leg is rotated back, the muscles of the buttocks and the lower back are stretched into their fully extended position.

The pressure exerted against the movement arm by the leg moving backward serves as the source of resistance for the leg moving forward. By providing both positive and negative resistance through the full range of movement, the Hip and Back works the muscles to their capacity. And, because the source of resistance is the muscles themselves, the system lets you automatically increase the load as the muscles become stronger.

### **Improves flexibility without the danger of injury involved in many stretching movements.**

Flexibility is a result of stretching, pure and simple. However, stretching is possible only when a muscle is forced to exceed its present range of possible movement.

The synchronized movement of the Nautilus Hip and Back machine allows you to stretch the muscles smoothly and slowly into positions that were previously impossible, thus improving flexibility.

### **The only exercise machine that provides all of the requirements for strength training, aerobic training and flexibility. . .with none of the problems.**

Many exercises can build muscular strength to a higher level, with little or no improvement in cardiovascular ability. And it is well established that exercises that have traditionally been used for the improvement of cardiovascular condition will do almost nothing in the way of strengthening muscles.

Since the Nautilus Hip and Back machine can be used at any possible speed of movement, it can serve a dual purpose. At slower speeds; four to five seconds per repetition, eight to twelve repetitions per set; significant increases in strength can be achieved. On the other hand, a faster pace will elevate the heart rate. And, if sustained at a higher level for a recommended length of time, the exercise can help you attain tremendous aerobic benefit.





**Nautilus**  
HIP & BACK

# BICEPS

## **Strong biceps make a statement of good health.**

Few muscles receive as much attention as the biceps. And in today's society, both men and women are finding that well-developed biceps make a statement about their overall strength and physical condition.

Through the years, conventional exercises like the barbell curl and the chin-up have been used for strengthening the arms. But these exercises, as popular as they are, actually limit muscle development because they fail to apply resistance properly.

## **Infimetric exercise. . . the most efficient way to build muscle.**

The Nautilus Biceps Machine overcomes the limitations of other types of strength-training tools by utilizing a principle called infimetrics. This highly efficient form of exercise uses the muscles of one arm as the source of resistance for the muscles of the other arm.

As one arm is bent into its fully contracted position, the alternating movement of the Nautilus machine lets the other arm oppose the motion. Then, when no further movement is possible, the system automatically reverses itself, allowing the arms to work in both directions through their full range of movement.

When one arm reaches its fully flexed position, the other arm is fully extended. This allows the muscles of the extended arm to be smoothly and slowly stretched into positions that were previously unobtainable, thus improving flexibility.

## **Get the most from your workout with automatically variable resistance.**

Muscles are not equally strong in all positions. In the case of the biceps, their strength tapers off at both ends of their range of movement.

By utilizing the symmetrically changing strength of the biceps, the infimetric design automatically provides the proper resistance, proportional to the potential strength of the muscles along each point in their range. The proper application of resistance assures the muscles are worked to their capacity and that maximum muscle development will occur.

## **Electronic indicator provides feedback on your progress.**

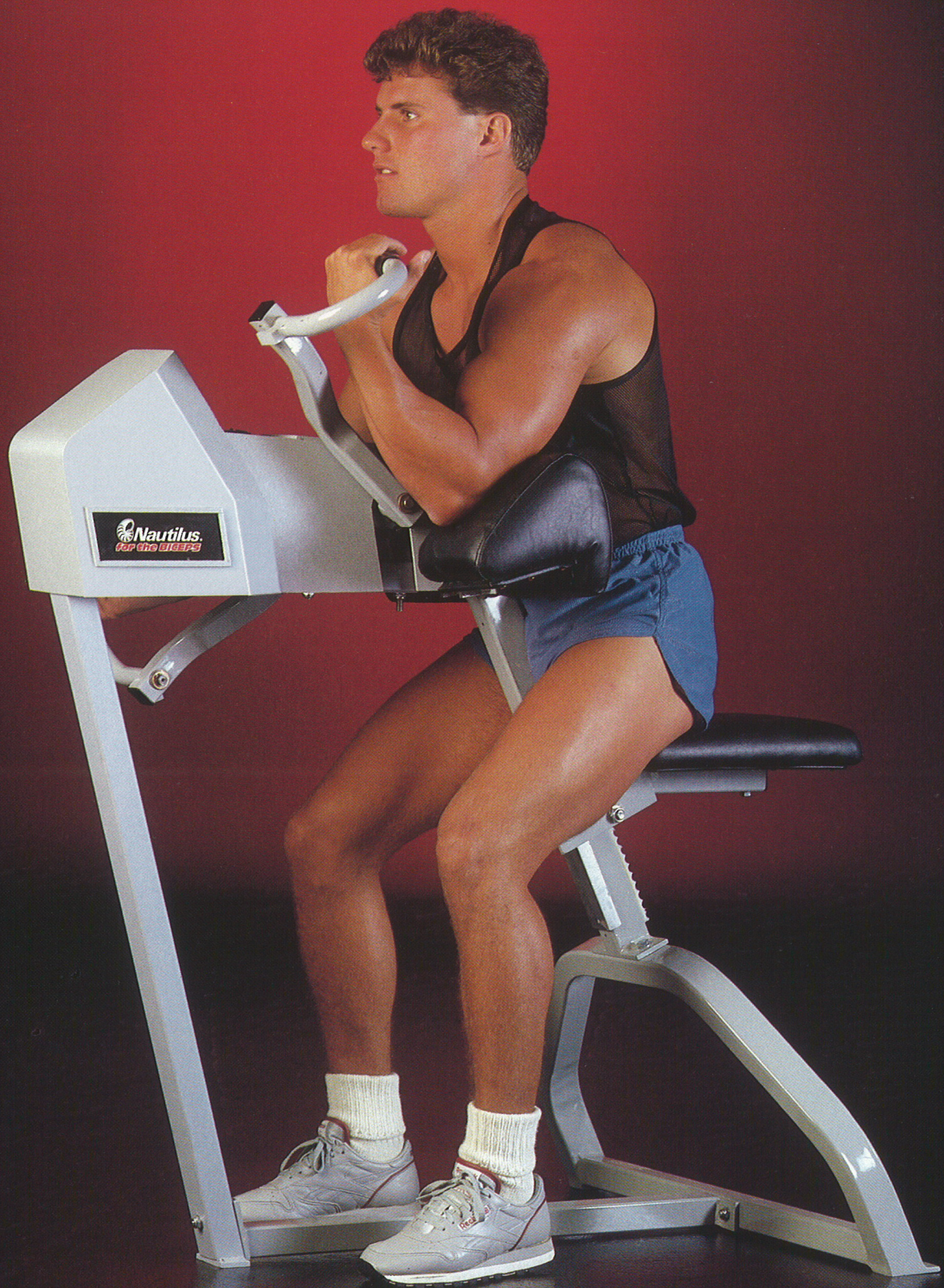
With most exercises, the level of resistance is gauged by the position of a selector pin or by the amount of weight added to the bar. As the muscle grows, more weight is added so that progress can be maintained.

The infimetric design of the Nautilus Biceps Machine has no weights or selector pin. Instead, a specially designed electronic indicator precisely displays the amount of force being exerted against the movement arms. As you pull back on the handles, the needle sweeps across the dial and indicates instantaneously the level of resistance that you are working against.

## **Nautilus. . . the fastest way to increase size and strength.**

A tricolor work range dial allows you to preset the resistance range that you wish to use. By applying enough force to hold the needle within the selected range for 8 to 12 repetitions, you can achieve a full workout of the biceps.

With as little as two to three minutes a day, three times a week, the Nautilus biceps machine will increase the size and strength of your upper arms faster and with far better results than with any other exercise.



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# CYCLONE

## **End the agony of stationary cycling.**

More often than not, a sore backside, rather than the end of the workout, compels most people to get off a conventional stationary cycle. And, while proper exercise was never meant to be easy, it certainly shouldn't be a negative experience.

The awkward design of most stationary cycles forces you to pedal perched atop a small, uncomfortable platform. The Nautilus Cyclone, on the other hand, lets you enjoy the comfort of a seat that supports your whole body as you ride.

## **Greater muscle involvement means a more productive workout.**

The Cyclone's distinctive recumbent position offers more than just comfort. The contoured back design provides the necessary support for the lumbar area, while producing the required position for proper involvement of the larger muscles of the hips, lower back and rear of the thighs. This brings into play the largest muscle groups in this part of the body, muscles which are utilized only slightly and inefficiently in other forms of cycling exercises.

With other cycling exercises, the muscle involvement is limited largely to the quadriceps. The Cyclone uniquely provides an equal degree of involvement for all of the muscles in the hips, lower back and rear of the thighs. The increased muscle involvement allows you to train with higher levels of resistance, sustain longer workouts and gain greater cardiovascular benefit.

## **Designed with the body in mind.**

A tight grip during exercise causes a significant rise in blood pressure. The Cyclone solves this problem too, by eliminating the need for handlebars. What's more, this improved body position brings the heart and legs closer to the same level, which minimizes gravity-induced pressure on the circulatory system.

## **Centrifugal fan resistance system for smooth pedaling.**

The Cyclone's flow-activated resistance provides a smooth load at all speeds. Pedal torque is maintained through a unique system of centrifugal fans mounted within the main frame. As you pedal, air is channeled into the front of the seat and released through small vents in the base and back.

## **Watch your progress with the ergometric data readout.**

Positioned conveniently between the pedals for easy access, a sophisticated LCD readout provides continuous and accurate monitoring of important information. The Cyclone can display two functions simultaneously, including trip distance, total distance traveled, pedal RPM, elapsed time and time of day. And, with the special earlobe input sensor, heart rate can be monitored too.



# VARI-PACER

## **You're at the mercy of the weather and the elements.**

One of the oldest and most popular forms of exercise is running. In fact, many people who include it in their regular exercise routine maintain there is nothing like the feeling they get from moving their legs over a few miles of pavement. As with any outdoor activity, the weather can discourage even the most faithful runner. And for many, finding a suitable place to walk or run has become increasingly difficult. Most streets are far from ideal. Not only do they subject you to the dangers of traffic and treacherous terrain, but their hard, unforgiving surfaces jar your skeletal frame.

## **If you want it to last, buy the best.**

In the last few years, treadmills have become a popular alternative to the streets. The convenience and added safety of exercising while watching the championship game or the favorite soap has a natural appeal.

With the number of treadmills on the market, how can you be sure that you are buying the right one?

The Vari-Pacer treadmill is a prime example of how Nautilus builds equipment that exceeds the demands of even the most serious exercise enthusiast. While many competitive units use a lightweight aluminum construction, the Nautilus Vari-Pacer features only quality components and a rugged tubular steel frame for a lifetime of trouble-free performance.

## **Balanced fly-wheel design lets you keep a smooth pace.**

Unlike many motorized machines that do some of the work of running for you, the Vari-Pacer is powered only by the leg muscles and gravity. The harder you push, the faster the surface moves. The carefully balanced fly-wheel, mounted on the forward axle, helps maintain the running surface at a uniform speed.

The speed and resistance of the running surface can be adjusted simply by raising or lowering the front of the machine. Increasing the angle of inclination just a few degrees causes the surface to move faster and the resistance to decrease. Gas springs counter-balance the forebody weight and make changing the angle of inclination a snap.

## **The features you want. . . the quality you need.**

The Vari-Pacer is equipped with other features, like foam-covered handle bars, that help to make workouts safer and more productive. By angling the gripping surface slightly forward of vertical, the Vari-Pacer provides a more natural position for the hands.

A new textured belt provides a long-lasting, non-slip running surface. Wide running boards give you plenty of room to step off in the event you lose your balance.





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# ROTARY TORSO

## **Powerful hip rotation, the key to success in sports.**

Today, almost everyone is involved in activities like golf, tennis, softball or karate where hip rotation is an integral part of the sport. The smooth, controlled rotation of the upper body about the hips is crucial in delivering maximum power at the point of impact.

While a powerful torso rotation can improve form and performance in sports, it can also help prevent injury to the ribs and spine. And though exercise without proper diet is not enough, strengthening the critical muscles of the midsection can go a long way to giving you a trim, attractive waistline.

## **The internal and external obliques. . . necessary but underworked.**

On both sides of the waist lie the external and internal obliques. The external oblique muscles attach to the lower ribs and extend around the outer waist until they join the hipbone. Running at right angles to the external obliques are the internal obliques. Together their primary functions are to bend the spine to the side and to rotate the torso.

Although there are literally thousands of activities that depend on these muscles, until the Nautilus Rotary Torso, there hasn't been a truly effective exercise for the obliques that can be performed in the home.

## **Isolating the muscles.**

Isolating the targeted muscle group is one of the most important elements in proper strength training. The Nautilus Rotary Torso isolates the obliques by effectively bypassing the shoulders and forcing the rotation to occur between the torso and the hips.

The key to the Rotary Torso's effectiveness is the unique design of the movement arm. By locking the elbows back over the padded arms, you remove the shoulders from the exercise altogether.

## **Lever arm design provides automatically variable resistance.**

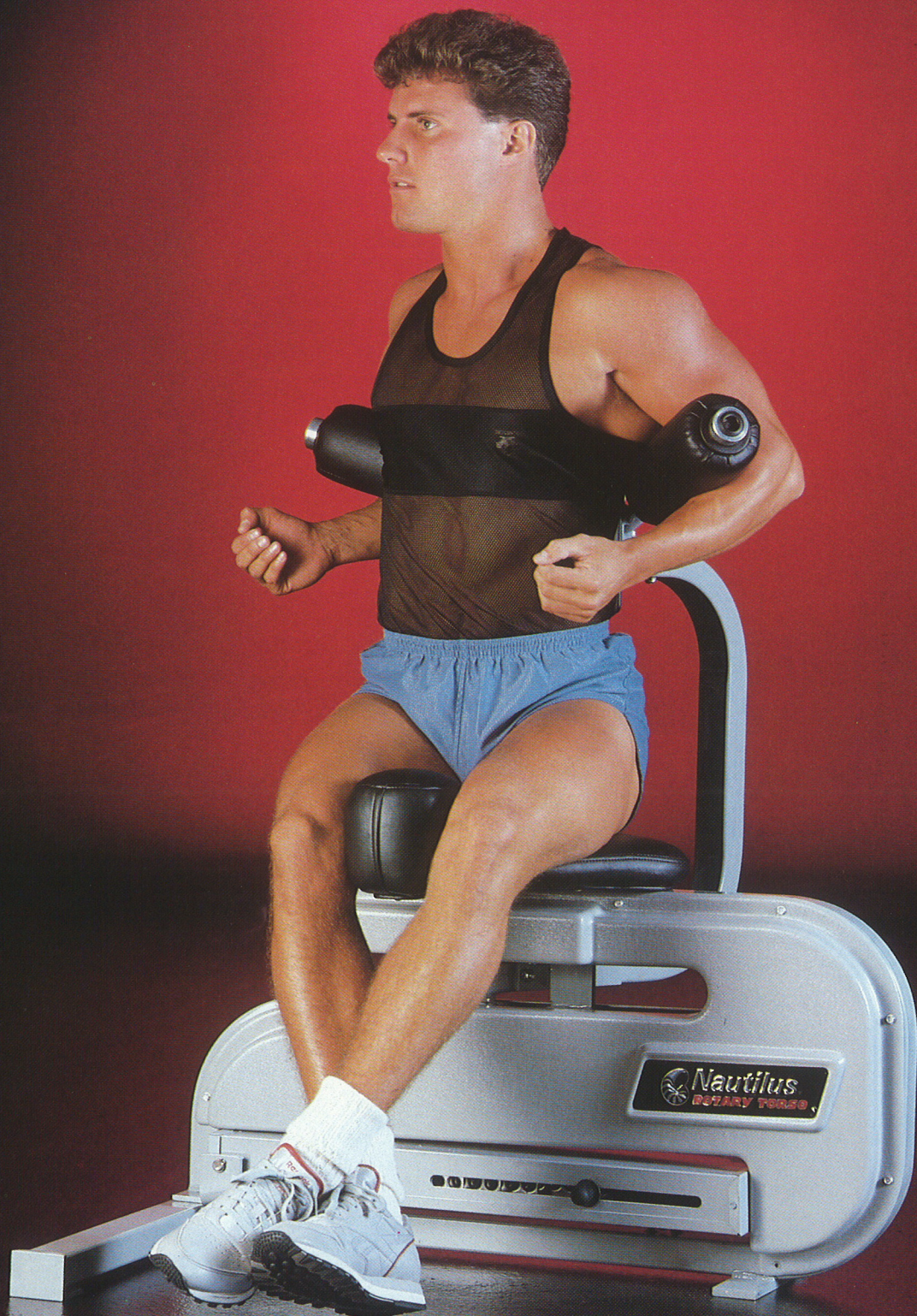
Since muscles have different strengths at each point in their contraction, maximum benefit is possible only when the muscles are worked harder at some points than at others.

The Nautilus Rotary Torso utilizes a special lever-arm system to provide resistance which varies automatically in proportion to the potential strength of the muscles at each point along the range.

## **As you get stronger, the Rotary Torso increases the challenge.**

In any exercise, as you get stronger the resistance should be increased periodically to give the muscles more of a challenge. With the Rotary Torso, a simple selector pin allows you to choose exactly the right amount of resistance for you. Nine separate settings let you perform your workout in the fastest, most efficient manner possible.

So instead of hours of uncomfortable, inefficient work, all you need are five minutes a day, three times a week to improve your game and give you a trim, healthy waistline.



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## AER-ROW

### **Increased muscle involvement means a better workout.**

The unique action of the Nautilus Aer-Row works your arms and upper body like a rowing machine while exercising your lower body like a leg press. Just a few minutes of rigorous exercise on the Aer-Row works most of the major muscle groups in your body.

The Aer-Row is great for aerobic workouts, too. Because the movement makes you use many of your largest muscles, your body consumes large amounts of oxygen as you exercise. And, the more oxygen that you consume during a given period of time, the greater the cardiovascular benefit.

### **Using gravity as the source of resistance provides a higher quality exercise.**

Most rowing machines require some external form of resistance, such as a viscous cylinder. But these systems offer little or no resistance as you return to the starting position, so your muscles are only worked half of the time. What's more, it is this negative portion of the rowing and leg press movements that is the most effective at stimulating muscle growth.

In contrast, the Nautilus Aer-Row's resistance is produced by gravity, pure and simple. As you pull back on the handle, you lift yourself from a seated to a near standing position, which works the involved muscles through a significant portion of their range of movement. The resistance is smooth and continuous. And, unlike other rowing machines, the Aer-Row makes you work at the end of your stroke too; so you get the benefit of working against substantial resistance as the muscles approach their fully contracted position.

### **Changing your body position changes the resistance.**

The Aer-Row's resistance can easily be increased by simply sliding back on the seat, or by gripping lower on the handle. By moving your torso forward or backward on the Naugahyde covered seat you change the overall resistance, while changing the location of your grip lets you alter the work load on your arms.

The Aer-Row also allows you to concentrate your workout on a specific area of your body. Since the handle and the footrests move as a single system, pushing with less force on the legs makes your arms work harder. And likewise, by de-emphasizing your arms, you make your legs do more of the work.



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## LIMITED WARRANTY

Nautilus warrants only to the original purchaser that the structural frame of the Nautilus machines is free from defects in materials and workmanship under normal use and maintenance for a period of 90 days from delivery and subject to the conditions hereinafter set forth.

It is expressly agreed that NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE or of a particular use nor any other warranty of any other kind whatsoever express, implied or statutory is made by Nautilus.

Liability of Nautilus is limited to either repair or replacement of the defective part or the replacement of the machine at Nautilus' option, or an exchange basis.

This warranty shall not apply to any defect which in Nautilus' judgment has arisen from repair or alteration outside of Nautilus' factories or from misuse.

After all the foregoing conditions have been complied with, if Nautilus shall thereupon attempt repairs and/or replacements which shall for any reason fail, Nautilus shall be allowed to continue to attempt to remedy any defects for so long a period of time as, in Nautilus' sole judgment, such attempt is justified.

The foregoing shall be buyer's sole and exclusive remedy (whether based on tort or otherwise) and Nautilus shall not be liable for injuries to persons or property. In no event shall Nautilus be liable for incidental or consequential damages, nor for any other loss or damage except as above set forth.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty is expressly in lieu of all other warranties, expressed or implied, and of all other obligations or liabilities on the part of Nautilus. No person, firm or corporation is authorized to assume any other liability on behalf of Nautilus.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Extensive research covering all aspects of conditioning and rehabilitation is being conducted by Nautilus Sports/Medical Industries. Results of this research will be incorporated into the production of machines to maintain quality consistent with scientifically proven advances. Nautilus therefore reserves the right to effect modifications in the design of machines shown. Nautilus, the leader, stands for quality. Quality in research, in design, in workmanship, in resistance. . . in the past, the present and the future.



**Nautilus<sup>®</sup>**

Our **NEW** Toll Free  
Number is

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