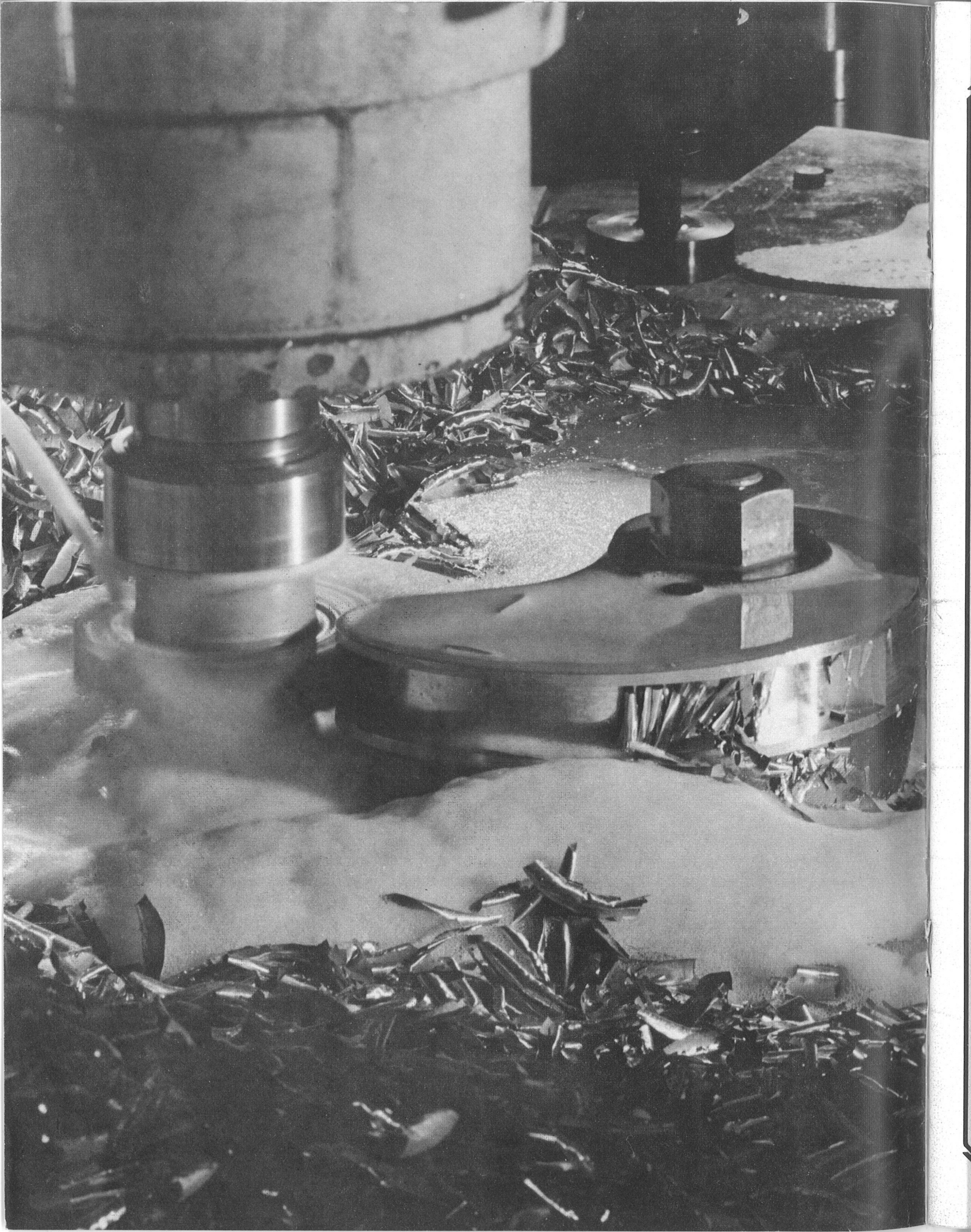


Nautilus

Sports / Medical Industries





At Nautilus Sports/Medical Industries, we welcome the opportunity to shed light on our operational motives.

Through medical research, our goal is to dissolve the fallacies which exist in the realm of sports medicine. Our endeavor is to present the facts of this little understood area to the public, refined by the light of scientific research.

We are concerned with the torrent of false claims against which the public has little defense. As a result, our desire is to build the structure that is legitimate sports medicine.

We welcome inquires regarding our operations, and we extend the invitation to all coaches, trainers, and athletes to examine our facilities and utilize our services.

Additional information is also available from our selection of brochures, which may be had at no charge by contacting:

Nautilus

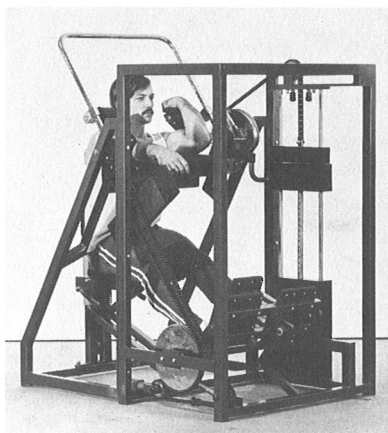
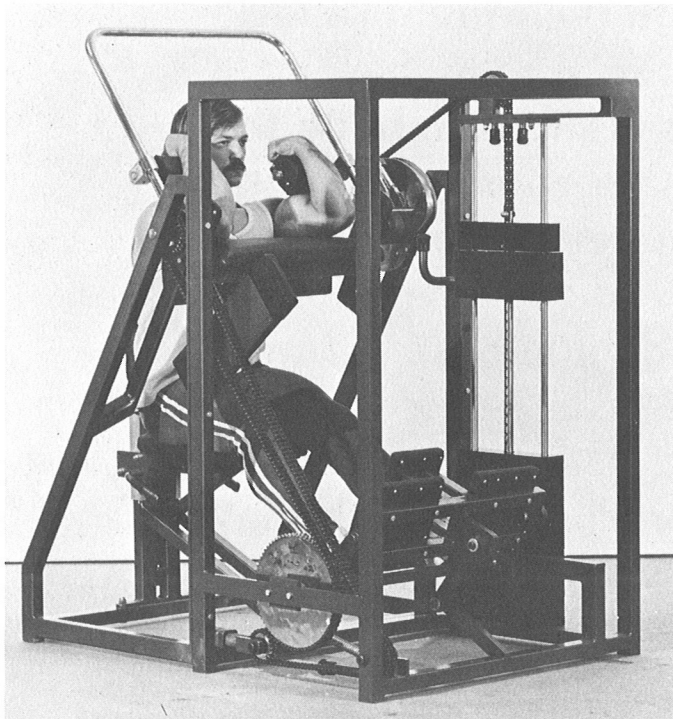
**SPORTS / MEDICAL
INDUSTRIES**

P. O. BOX 1783 DELAND, FLORIDA 32720 PHONE 904 / 228-2884

At a Nautilus production facility in Florida, a Profile Milling Machine hones the required shape of a Nautilus "cam"—from solid block aluminum.

Improving Functional Ability ... In Any Sport

Human performance is a product of five factors . . . (1) bodily proportions, (2) neurological efficiency, (3) cardiovascular ability, (4) skill, and (5) muscular strength.



A Nautilus Omni Curl Machine allows both "positive" and "negative" training without the aid of a training partner.

All of these factors are important . . . but it should be clearly understood that only one factor is actually productive; the other four factors being supportive in nature.

Ideal bodily proportions for a particular activity may be almost entirely responsible for a championship performance . . . if the other four factors are at least average; but bodily proportions perform no work on their own, their contribution to performance consists of providing the working muscles with an advantage in leverage.

Superior neurological efficiency is also important for a high level of performance . . . but again, it performs no work itself; it merely permits the muscles to work with a higher than average degree of efficiency.

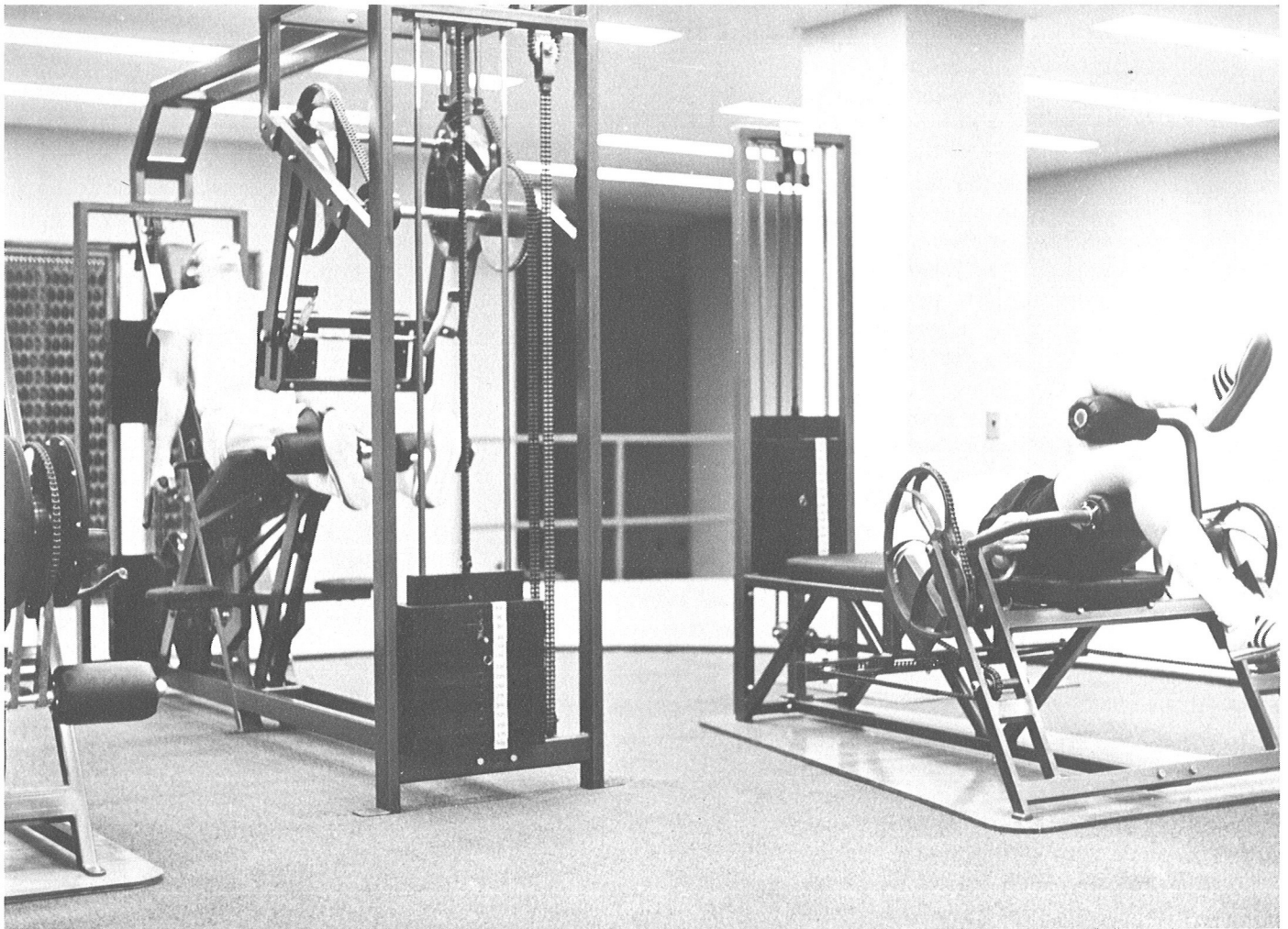
Cardiovascular ability is an absolute requirement for life itself . . . and a lack of cardiovascular ability will certainly prevent a high level of performance; yet . . . no amount of cardiovascular ability will perform work. Movement is produced only by the working muscles.

Skill may well be the single most important factor in any activity; but skill cannot perform work. What it does do is provide the working muscles with the ability to work at a higher level of efficiency . . . it channels the force produced by the muscles into a proper direction, and helps to prevent the waste of energy involved in an unskilled performance.

So all of the first four factors are important . . . but none of them do the slightest amount of work. The fifth factor is the only one that is actually productive . . . all of the others help, but only the muscles perform work.

When the above points are understood, it becomes obvious that the five factors should be divided into two categories . . . four "supportive" factors in one category . . . and one "productive" factor in the other category.

AND . . . the same five factors should also be divided into two other categories, since two of the five factors are determined by genetics



The Nautilus equipped training area at the Athletic Center of Atlanta

and three are not. In a practical sense this simply means that two of the factors cannot be improved . . . and that three factors can be improved. So our attention and efforts should be restricted to the three factors that can be improved.

Absolutely nothing can be done to improve either bodily proportions or neurological efficiency, we must do the best we can with what we have . . . these factors are either good or bad, but are outside our realm of control in any case.

But we can do something about the other three factors . . . these can be improved, and should be. At this point in the history of sports, a very high percentage of training is devoted to the improvement of skill . . . and it should be, since skill is probably the single most important factor in most activities. Cardiovascular ability is also given a lot of attention . . . and again, it should be; since a lack of at least adequate cardiovascular ability will certainly limit performance.

In a sense, cardiovascular ability is linked very closely to skill . . . since skill results only from the practice of a particular activity; which

activity will also help to produce the required level of cardiovascular ability. Skill in basketball (for example) is produced only by playing basketball . . . and the level of cardiovascular ability required for basketball is produced by the same training.

Additionally, most athletes also practice some form of training that is intended only for the purpose of increasing cardiovascular activity . . . so in most sports cardiovascular ability is given the degree of attention that it deserves.

Thus, in practice, two of our three improvable factors are already getting the attention they require . . . while one improvable factor remains largely neglected. And, as it happens, the neglected factor just happens to be the only actually productive factor on the list . . . the only factor capable of producing movement, the only factor able to perform work. Muscular strength being the neglected factor.

Muscular strength, I am tempted to say, is almost the "feared factor" . . . and it is certainly the "misunderstood factor" . . . a misunderstanding based entirely on superstition, ignorance and

outright fear.

The power-train in an automobile consists of several related parts . . . all of which parts are important, but only one of which parts is actually productive. The engine produces power . . . which power is transmitted by the transmission . . . to the drive shaft . . . to the differential . . . and, finally, to the axle. The power produced by the engine cannot be used without the help of the other required parts of the power-train; but only the engine actually produces power . . . only the engine performs work . . . only the engine provides energy . . . only the engine produces movement.

The power-train in a human works much the same . . . several factors are required for performance; but only one factor is actually productive . . . only the muscles produce power . . . only the muscles perform work . . . only the muscles produce movement.

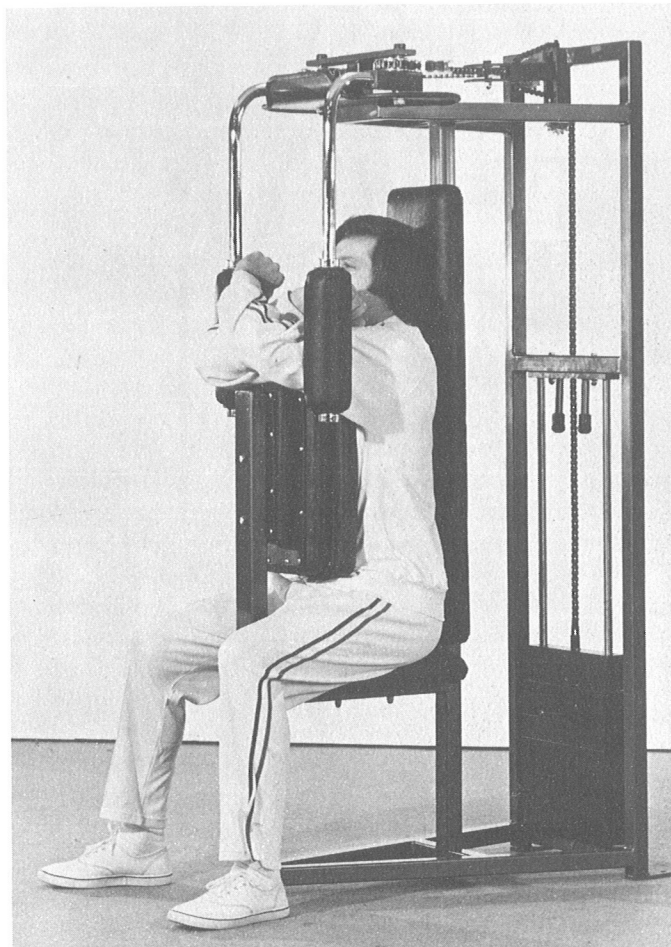
When considering an automobile, most people are clearly aware of the importance of a powerful engine . . . yet many of the same people utterly fail to realize that powerful muscles are equally important in a man. In fact, the situation is actually worse than that . . . many people, probably most people, are literally afraid of powerful muscles; afraid in the sense that they sincerely believe that powerful muscles will somehow limit their performance, reduce their functional ability. Such fear is based on superstition, with no slightest basis in fact; but it is a common fear, a widespread fear, a "well established" fear, a sincerely believed fear . . . and being so well established, it is a fear that is difficult to remove with the light of reason.

So we will be stuck with the results of such a groundless fear for a long time into the future, perhaps forever . . . thousands of injuries will be produced that could have been prevented, a few deaths will result that should have been prevented, much pain will be suffered that could easily have been prevented, and the level of human performance will remain lower than it could have been and should have been.

Thus we have already paid, are now paying, and will continue to pay a very high price as a result of fear based entirely on ignorance.

Individuals vary, on a gross scale . . . but a particular individual will reach his own limit of functional ability only when all three of the improvable factors are improved as much as possible. Additional improvement is impossible only when skill, cardiovascular ability, and strength have all been raised to the highest possible level consistent with the requirements of a particular sport.

Yet, in the real world, we have a situation where literally thousands of coaches and millions of athletes are doing little or nothing in the way

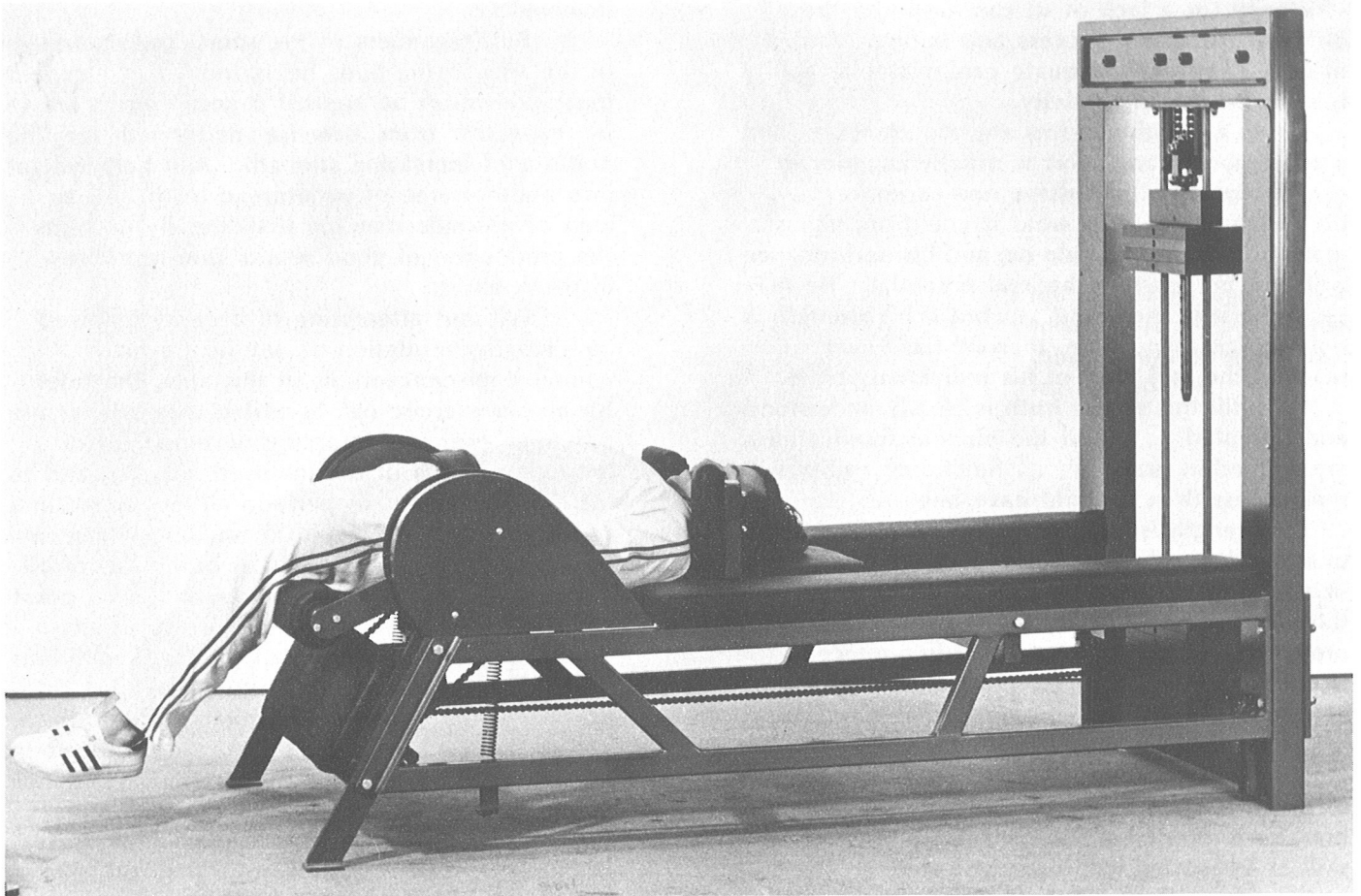


of improving strength . . . usually because they are actually afraid to increase strength; afraid they will reduce the speed of movement . . . afraid they will reduce the range of movement, or flexibility . . . afraid they will somehow limit functional ability. All of which fears are utterly without foundation . . . all of which fears are based on false beliefs that are the exact opposite of the truth.

Stronger muscles will make you FASTER, not slower, in any sport . . . proper strength training will actually increase your flexibility, in any area of movement . . . greater strength will improve your functional ability in any activity related to sports.

And greater muscular strength will go a long way in the direction of preventing injuries.

So, in sports, exercise remains the neglected factor . . . a neglect largely resulting from fear, a fear based on ignorance. Sometime in the far-distant future people will probably look back on the present era of sports as the age of ignorance . . . primarily because of the lack of attention now being given to the intelligent use of exercise. Most athletes still finish their career with absolutely nothing in the way of strength



training . . . and very few (if any) athletes are producing even fifty percent of the potential benefit of a properly conducted program of exercise.

Well under two hours of total time devoted to proper exercise on a weekly basis will produce 100% of the potential benefits of strength training . . . three weekly workouts of less than forty minutes each are all that are required; longer workouts, or more-frequent workouts, are neither necessary nor desirable.

Exercise performed for the purpose of increasing strength should be brief, infrequent, and of very high intensity . . . as "hard" as momentarily possible, carried to a point of momentary muscular failure. Conducted in this fashion, strength training not only can be brief but literally must be brief; more than three such weekly workouts would actually result in a reduction in strength instead of an increase.

But again superstition rears its ugly head . . . common belief tends to equate "more" with "better" . . . in effect, if SOME is good then MORE must be even better; which may be true in some things, but which certainly is not true in the case of proper strength training. The widespread result of this myth being that the few people who do train for strength almost always train far too much . . . and seldom train with a high enough

level of intensity.

So even the few people who are aware of the potential benefit of proper exercise usually miss the mark by a wide margin . . . another result of ignorance; in this instance the ignorance being a result of a lack of accurate knowledge, rather than a belief in a baseless fear.

As a result of the widespread fear of exercise, and lack of factual information on the subject of exercise, most coaches and athletes are overlooking a very important factor . . . while continuing to labor under the mistaken belief that they are doing "everything possible" in the direction of improving functional ability. The "edge" that most coaches are constantly looking for has been in plain sight for a long time . . . but remains largely untapped, unsuspected, even feared, and certainly misunderstood.

Nothing in the above should be misunderstood to imply that strength is the most important factor . . . and there is no implication that the other factors are unimportant. On the contrary; the importance of proper bodily proportions for a particular activity is so great that this one factor may be the difference between a champion and an utter failure . . . with little or no regard for the other factors.

Likewise, skill is almost always the most important factor in any activity. And neurological

efficiency (or a lack of it) can easily be the difference between success and failure. And, of course, at least adequate cardiovascular ability is required for any activity.

So all of the factors are important . . . and a champion in any sport is usually superior in every respect; with perhaps one exception . . . his strength is seldom what it could be, almost never as high as it should be, and his performance will thus be less than his real potential. He may be the best in the world . . . but if his strength is not as high as possible, then he has never reached the real limit of his individual ability.

Until this simple truth is clearly understood and accepted . . . until the obvious implications are applied in practice . . . functional ability will remain less than it could have been.

Strength is "general" . . . the application of strength is selective; the proper use of strength in any activity comes only from the practice of the particular activity. Skill is required for the proper use of strength, and skill is produced in only one way . . . by the practice of a particular activity.

Gymnastics may well produce the strength required for swimming . . . but the skill required to use that strength for swimming can come only from swimming itself. And no amount of skill at swimming will move you through the water without the strength to move your limbs . . . and your limbs are moved by the strength of your muscles.

The proper development of skill requires the application of a great deal of time to the practice of a particular activity . . . and such a large amount of training literally prevents the utilization of high-intensity training methods. The result being that training conducted for the development of skill is not the best type of training for increasing strength. Proper strength training must involve very high intensity . . . which literally cannot be practiced frequently nor for prolonged periods.

So a swimmer will build a certain amount of strength from swimming, while developing skill at swimming . . . but he will never build the degree of strength that is actually helpful to a champion swimmer; will never build such a level of strength from swimming itself. And the same thing applies to a football player, a basketball player, or an athlete in any sport.

Some sports demand "overall" strength . . . and some sports require strength only in some areas; for example, a gymnast requires great strength in the torso and arm muscles . . . but does not require an equal degree of strength in the legs. Whereas, a football player needs overall strength.

So exercise should be applied selectively, depending upon the sport in which an athlete is

involved.

But, regardless of the sport, and regardless of the area of the body being trained . . . certain basic rules must be applied if good results are to be expected from exercise performed for the purpose of increasing strength. And here we get into another area of widespread myth . . . an area of misunderstanding that literally prevents the production of good results from exercise in many cases.

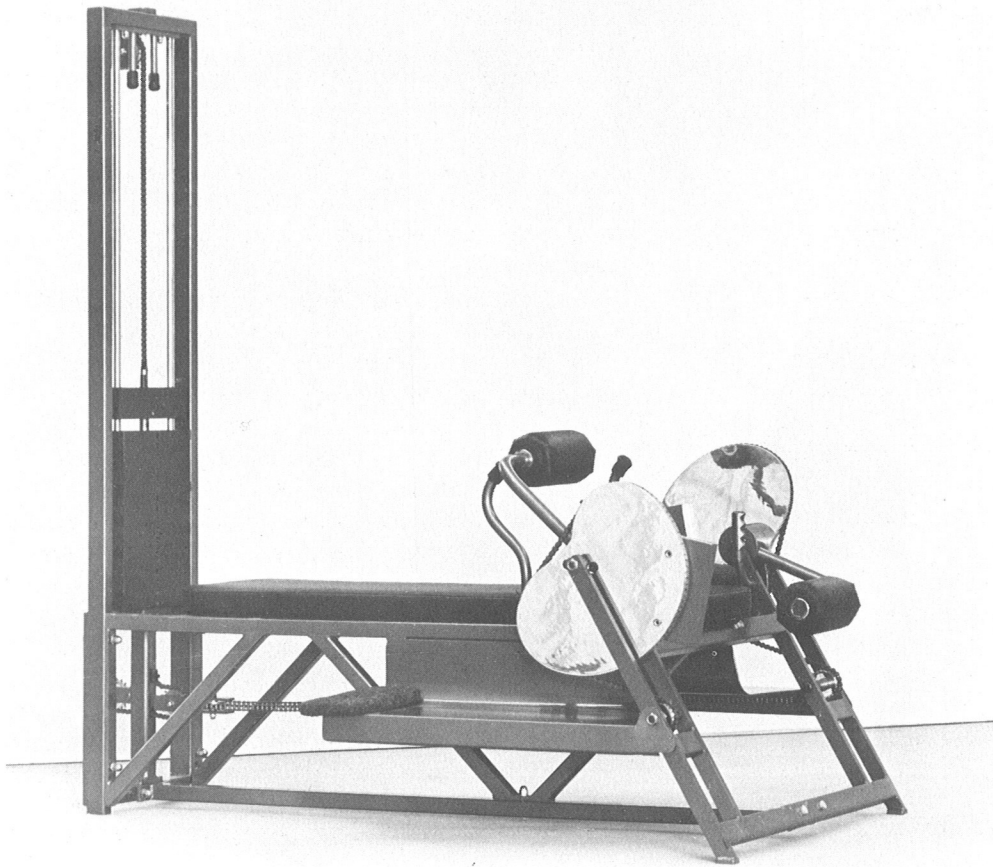
Without attempting to become involved in a lengthy refutation of any of the many common misconceptions in this area, the rules for proper exercise can be stated very briefly; use full-range exercises to assure development of the entire length of the involved muscles, and to increase flexibility . . . perform all movement in a rather slow fashion, avoid all sudden movements or jerking, and pause briefly at both ends of all movements . . . continue the exercise to a point of momentary muscular failure, which point should be reached after ten to twelve repetitions working against as much resistance as possible . . . pay careful attention to the form, or style of performance, and do not permit the form to deteriorate in an effort to use more resistance or increase the number of possible repetitions . . . increase the resistance whenever possible, but not until more resistance can be handled without a sacrifice in form.

Properly performed, only one "set" of each of ten to twelve exercises will produce very good results in almost all cases . . . multiple sets are seldom if ever required for the purpose of increasing strength, so long as each exercise is continued to a point of momentary failure in good form.

If several sets of an exercise are used, then it quickly becomes literally impossible for an athlete to involve maximum intensity in each set . . . and attempting to do so will produce losses in strength instead of gains; so multiple sets are neither necessary nor desirable in most cases . . . the primary exception being a competitive weightlifter who obviously must develop skill as well as strength, the skill required to lift a weight in a particular fashion.

And do not be misled by advice to the effect that you must train "explosively" in order to build "explosive strength" . . . such a style of training is the least productive style of training possible, and by far the most dangerous style of training. Such training has little if anything to offer except the high probability of injury.

* * *

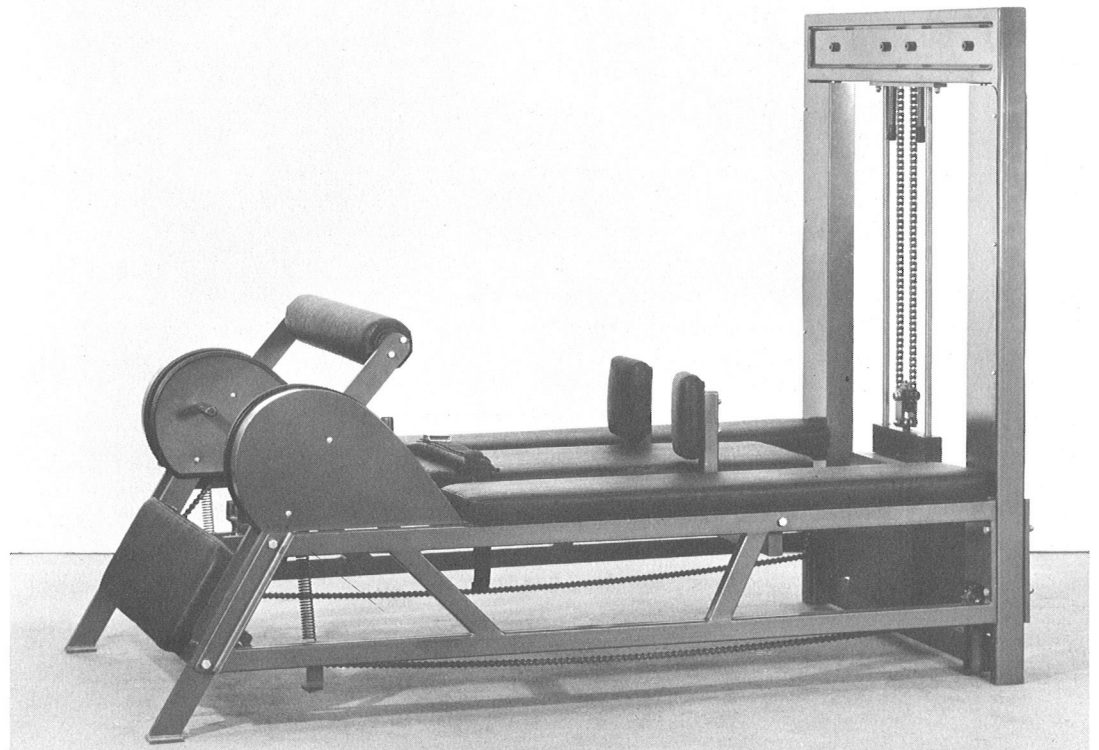


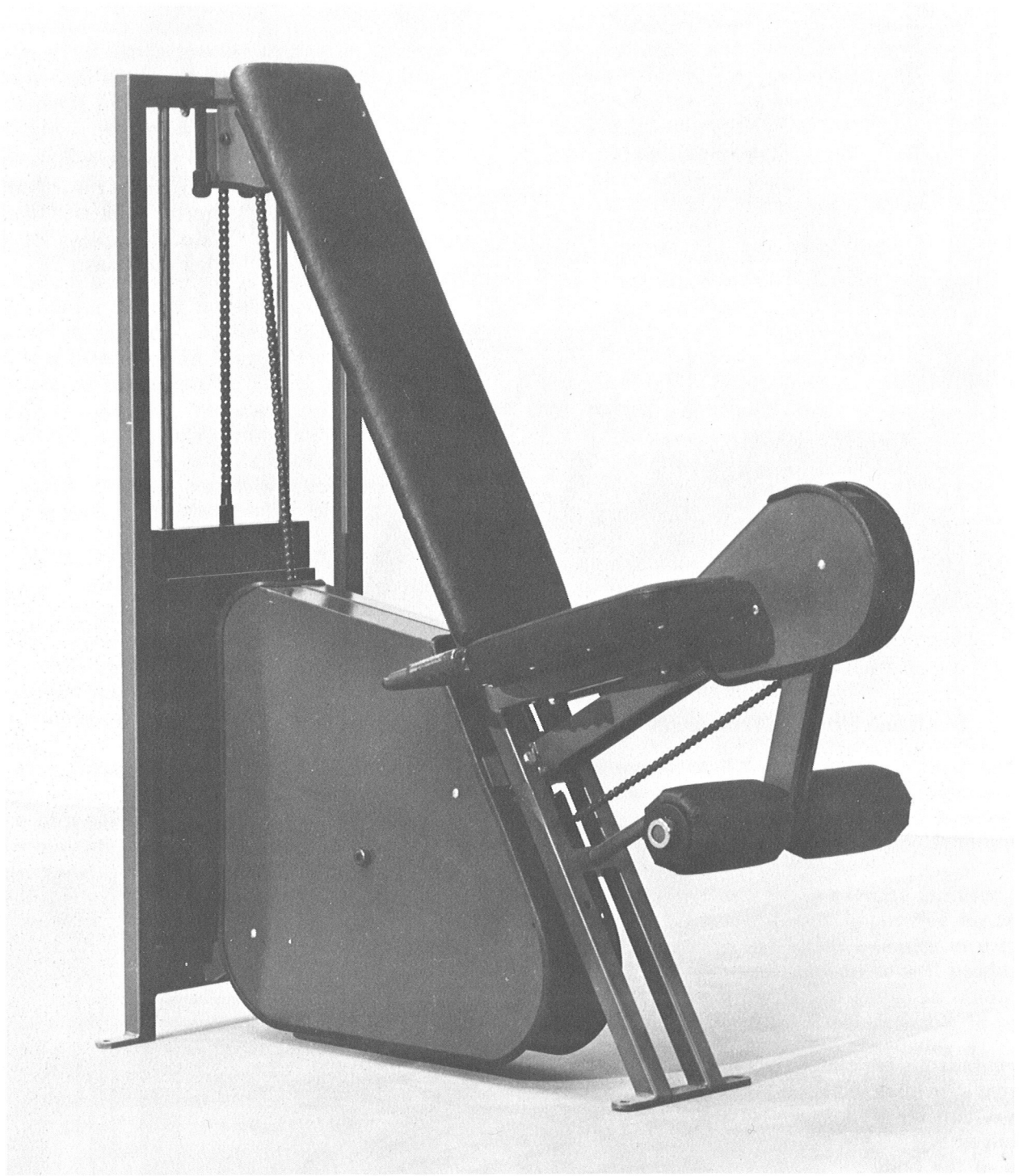
Direct exercise for the muscles of the legs and lower torso. The DUOsymmetric model employs alternate leg movement.

DUOsymmetric/POLYcontractile HIP AND BACK MACHINE

SUPER GEARED HIP AND BACK MACHINE

Simultaneous leg movement providing direct exercise for the strongest muscles of the body —the muscles of the hips and lower back.





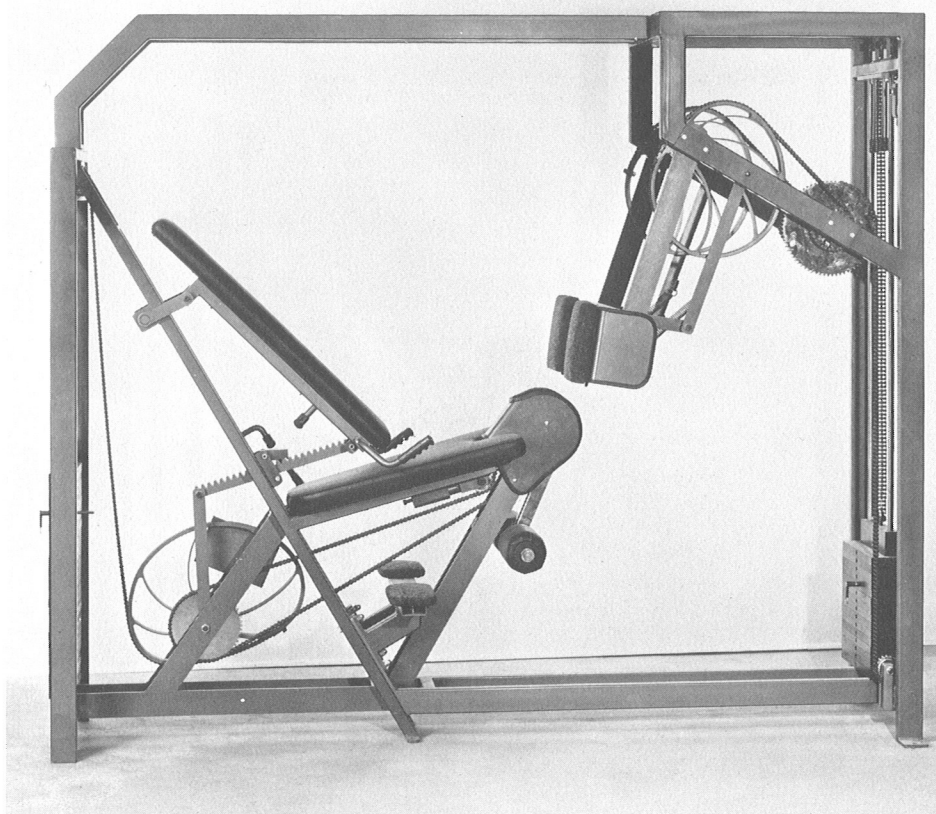
LEG EXTENSION MACHINE

Direct exercise for the large muscles of the frontal thighs.



SUPER LEG EXTENSION MACHINE

**Full-range, direct, rotary-form, automatically variable,
balanced resistance for the frontal thighs.**



COMPOUND LEG MACHINE

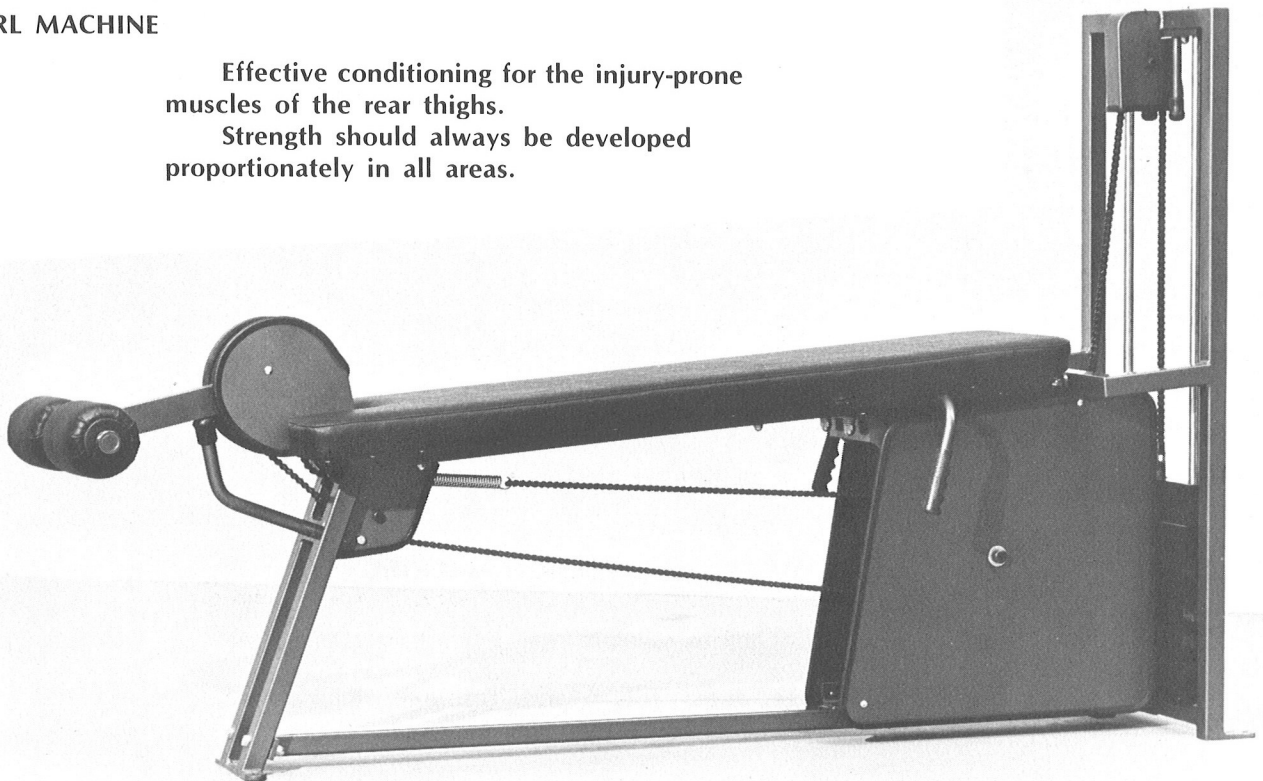
The Compound series of Nautilus machines produce an intensity of exercise that was previously impossible.

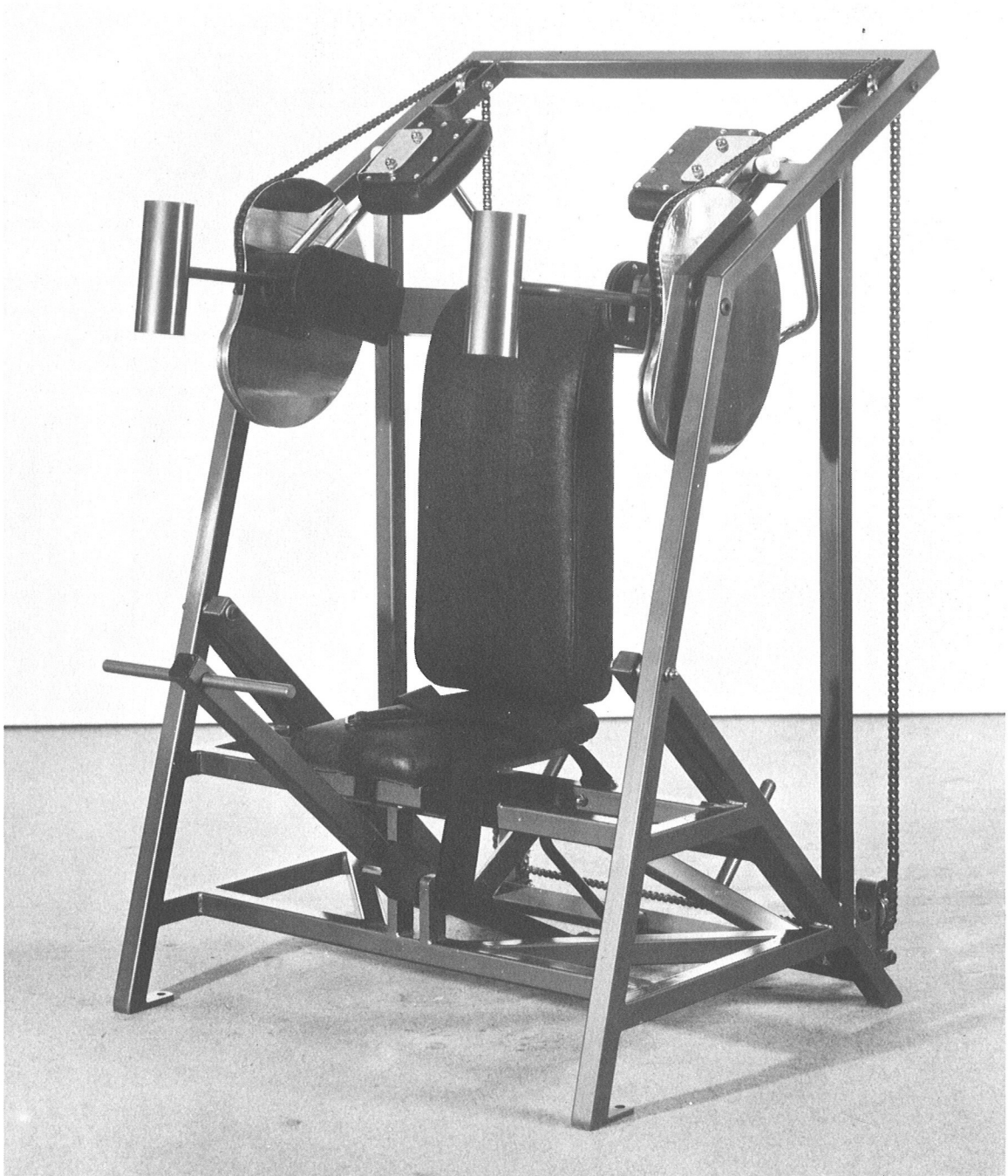
The Compound Leg employs an isolation exercise immediately followed by a high intensity leg press movement - utilizing the productive pre-exhaustion style of training.

LEG CURL MACHINE

Effective conditioning for the injury-prone muscles of the rear thighs.

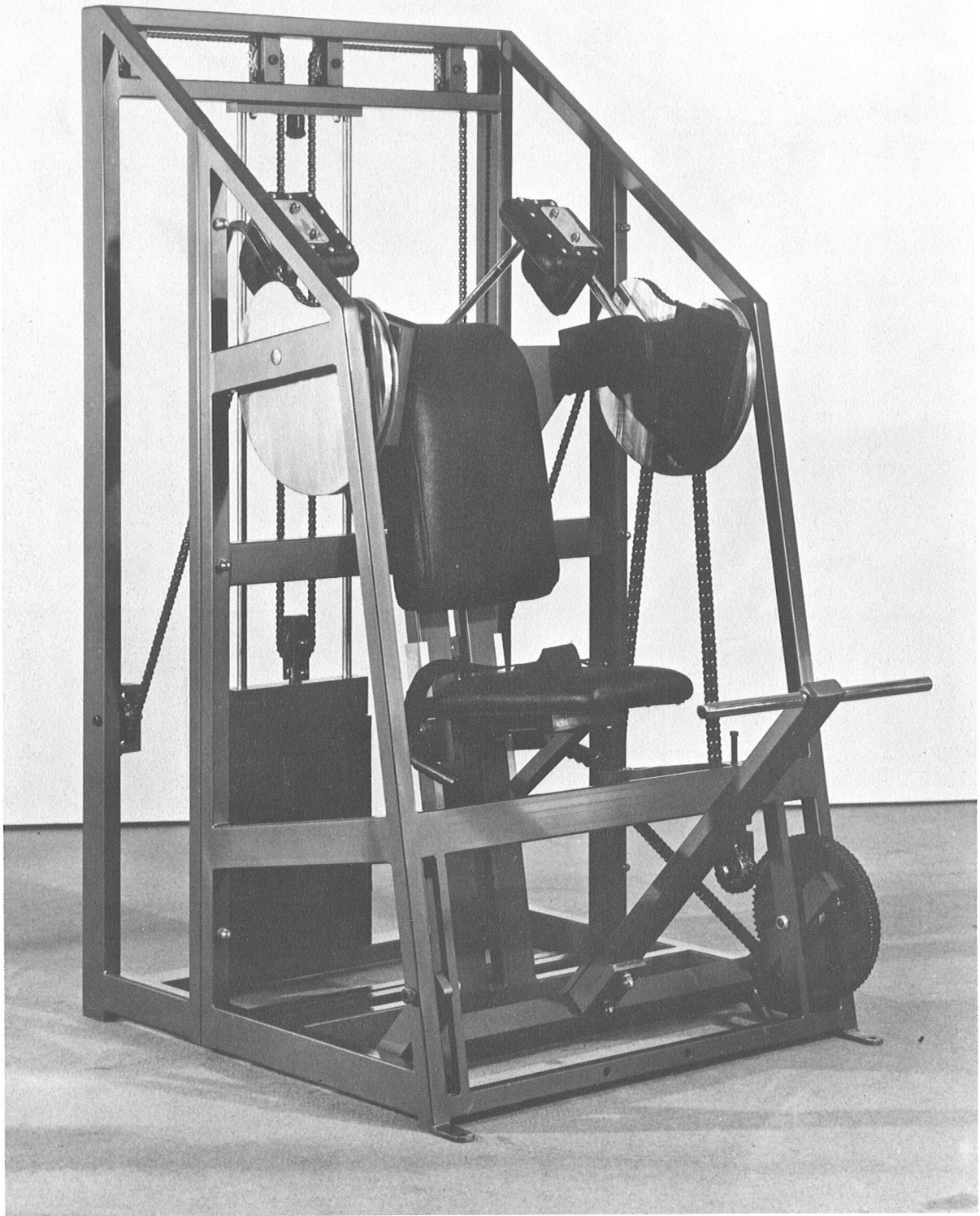
Strength should always be developed proportionately in all areas.





PULLOVER MACHINE [PLATE LOADING]

The Pullover Machine offers direct exercise for the major muscles of the upper torso.



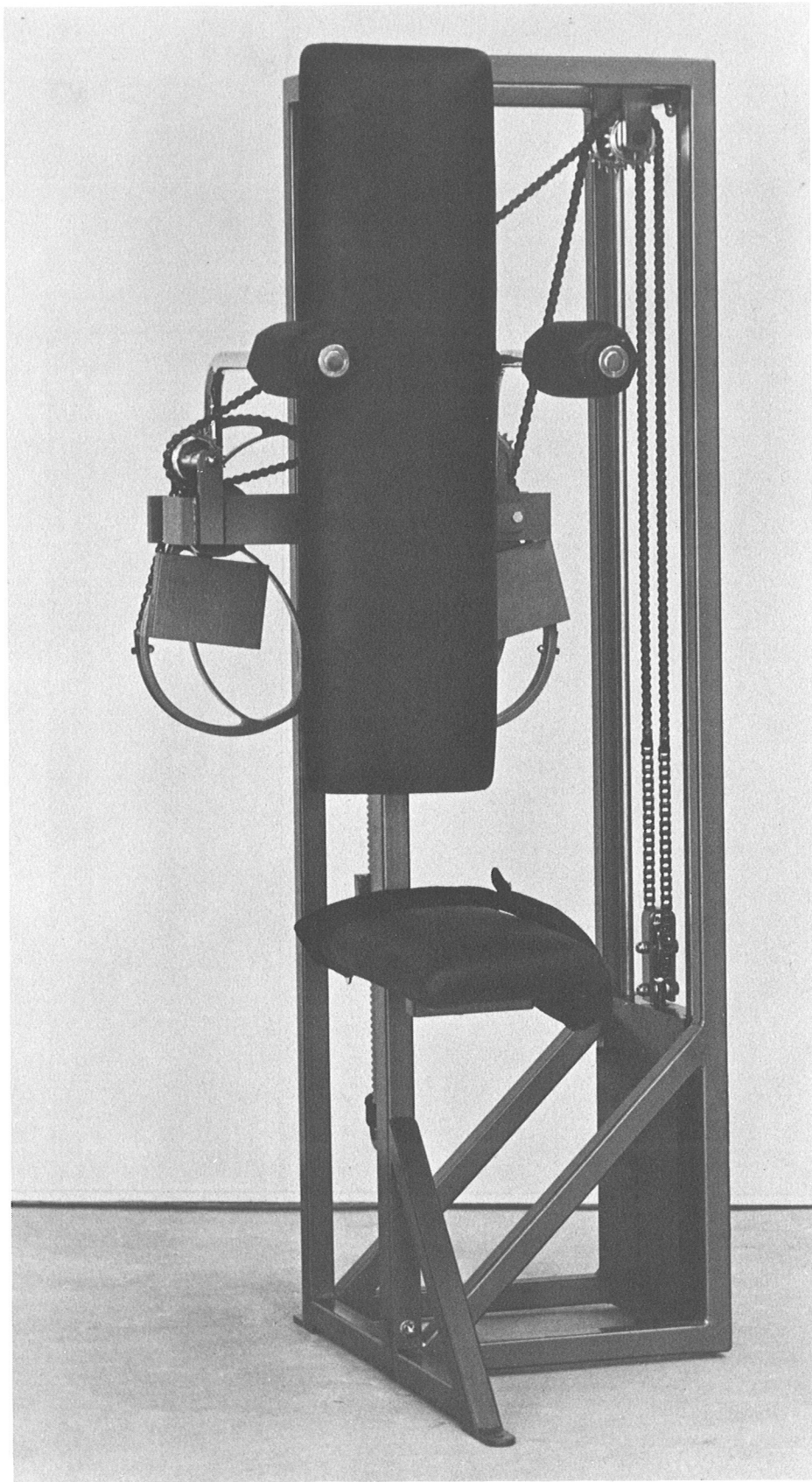
SUPER PULLOVER TORSO MACHINE

The Super Pullover Machine provides the essential pre-stretching that is so important for maximum stimulation of muscle fibers of the upper torso, and equally important for promoting flexibility in the shoulders.



COMBINATION PULLOVER/TORSO ARM MACHINE

The Combination Pullover/Torso Arm Machine allows a training intensity for the upper torso that cannot be attained with conventional equipment.



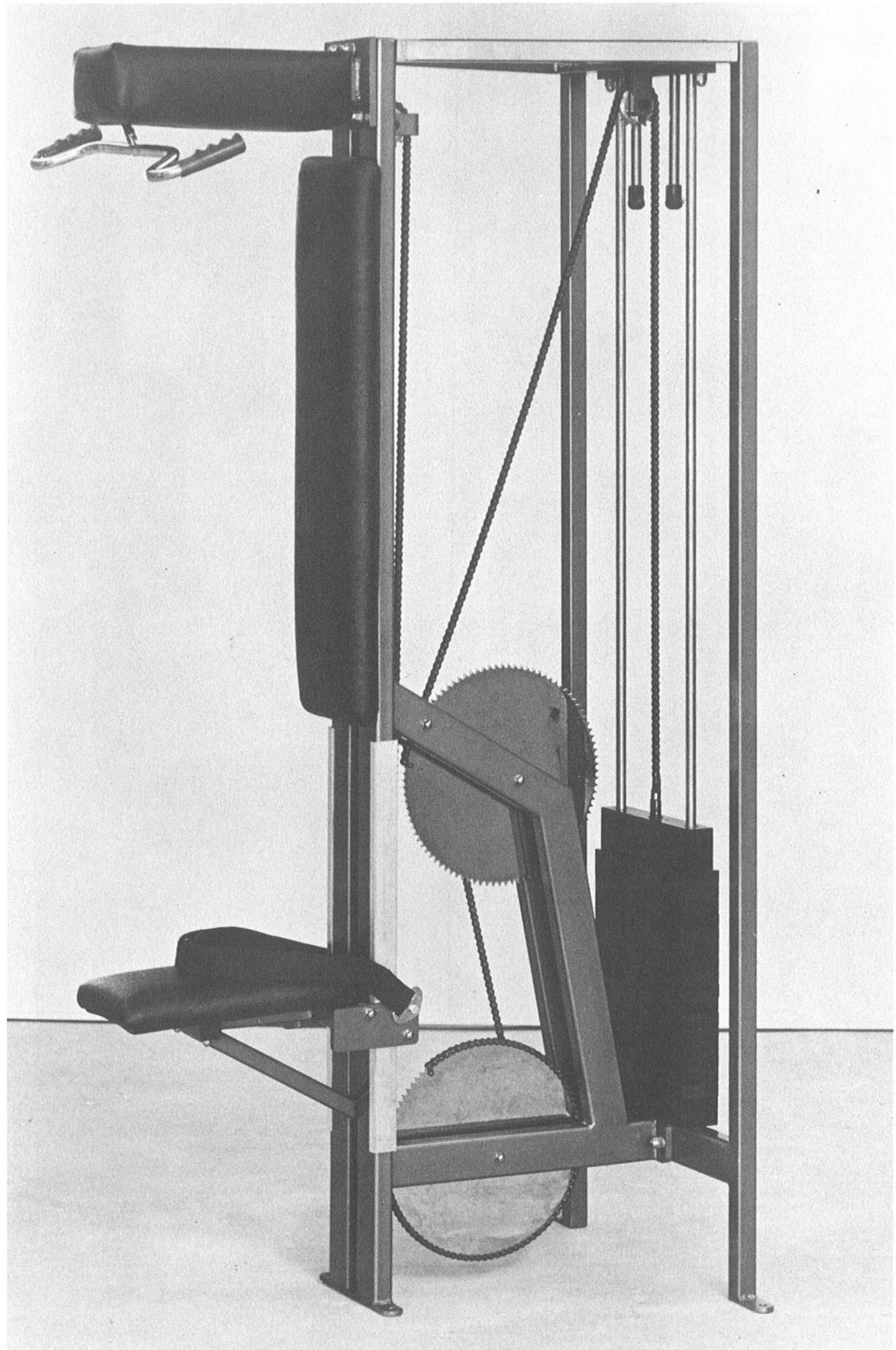
BEHIND NECK TORSO MACHINE

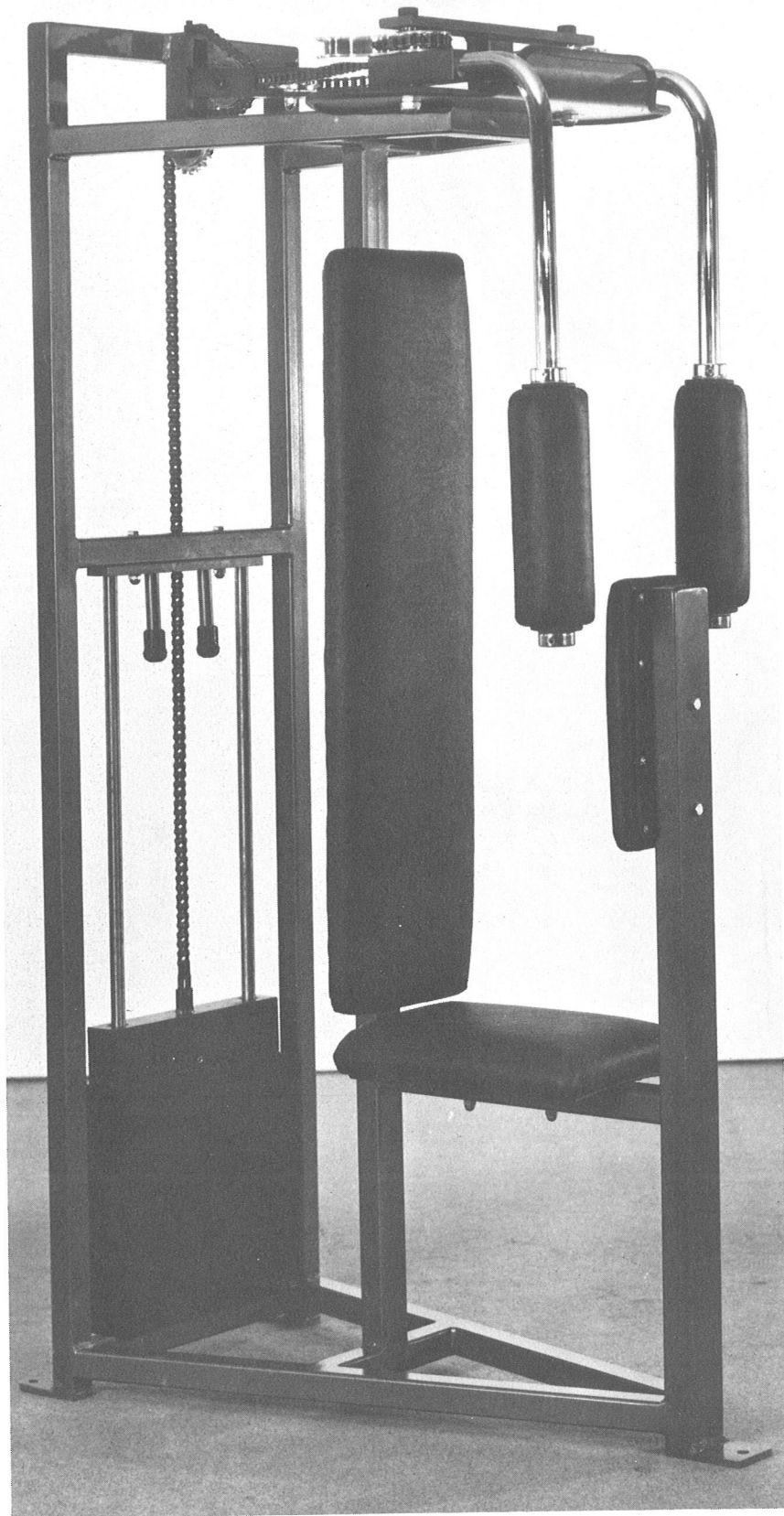
Direct exercise for the major muscles
of the back, shoulders, and chest.

High intensity exercise for the major muscles of the upper torso.

A secondary function provides biceps conditioning.

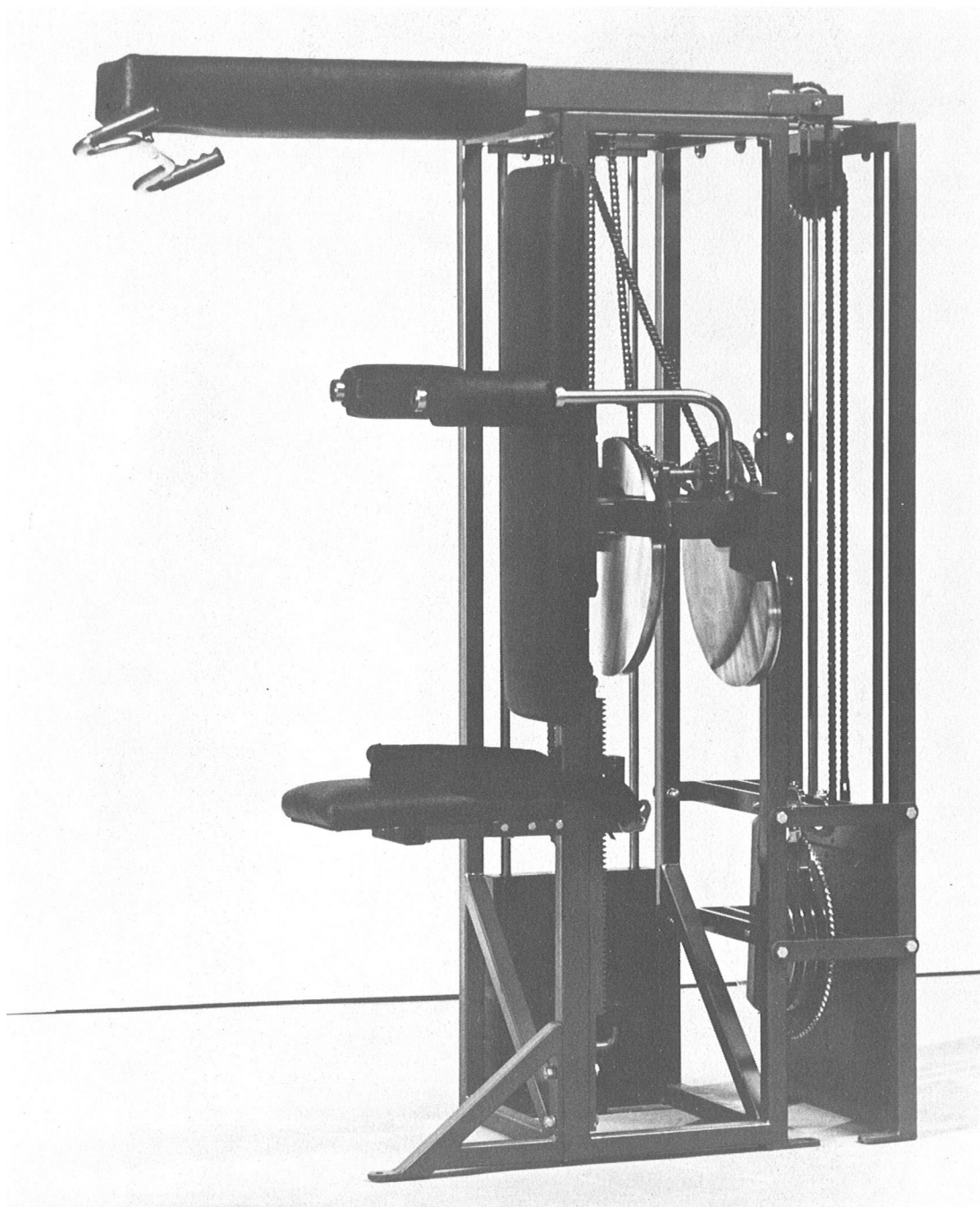
TORSO ARM MACHINE





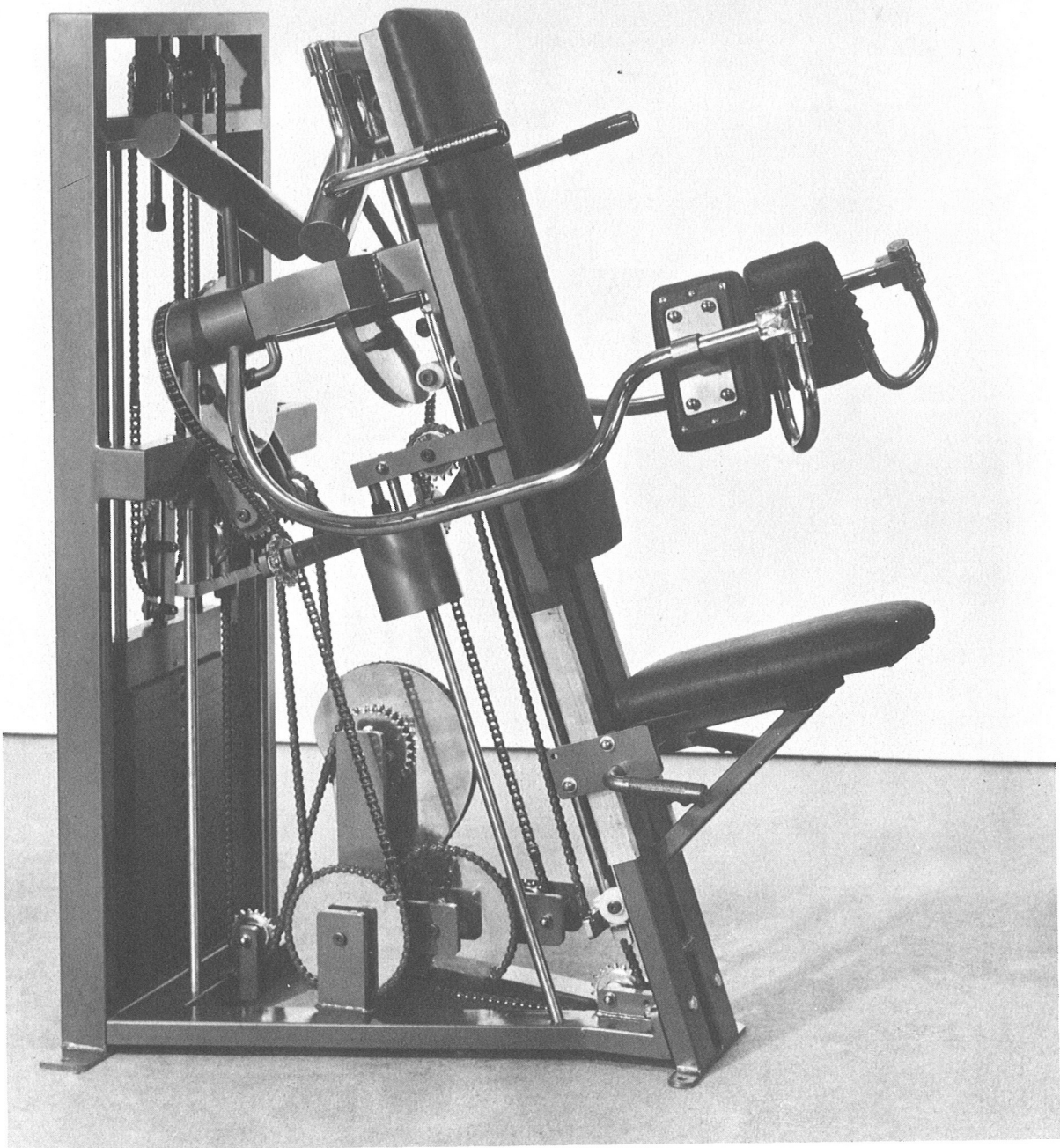
ROWING TORSO MACHINE

Full-range resistance for the neck, shoulders, and upper back.



COMBINATION BEHIND NECK/TORSO ARM MACHINE

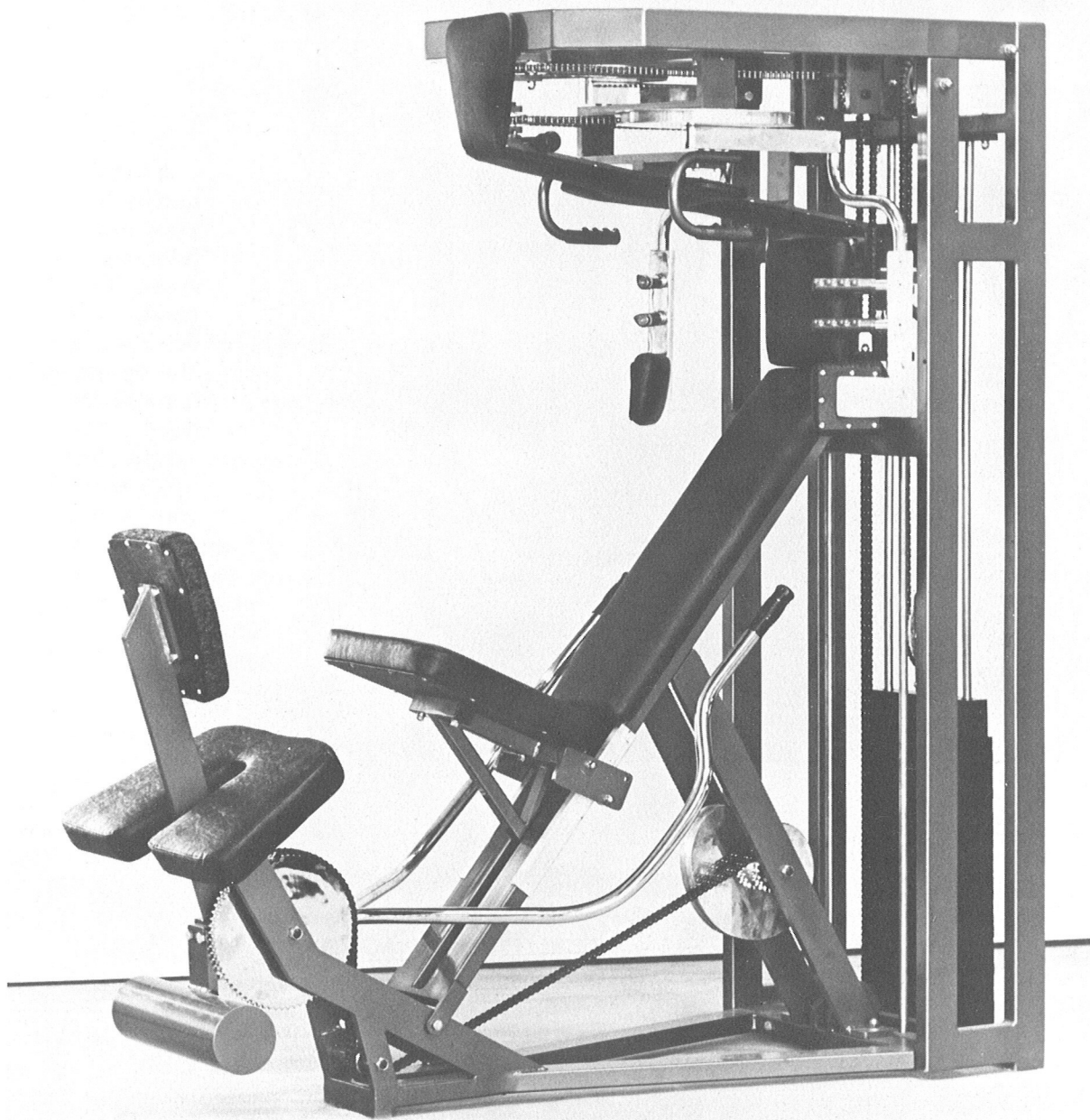
The Behind the Neck Machine and the Torso Arm Machine are combined to provide the highest level of training possible for the major muscles of the upper torso—the back, shoulders, and chest.



DOUBLE SHOULDER MACHINE

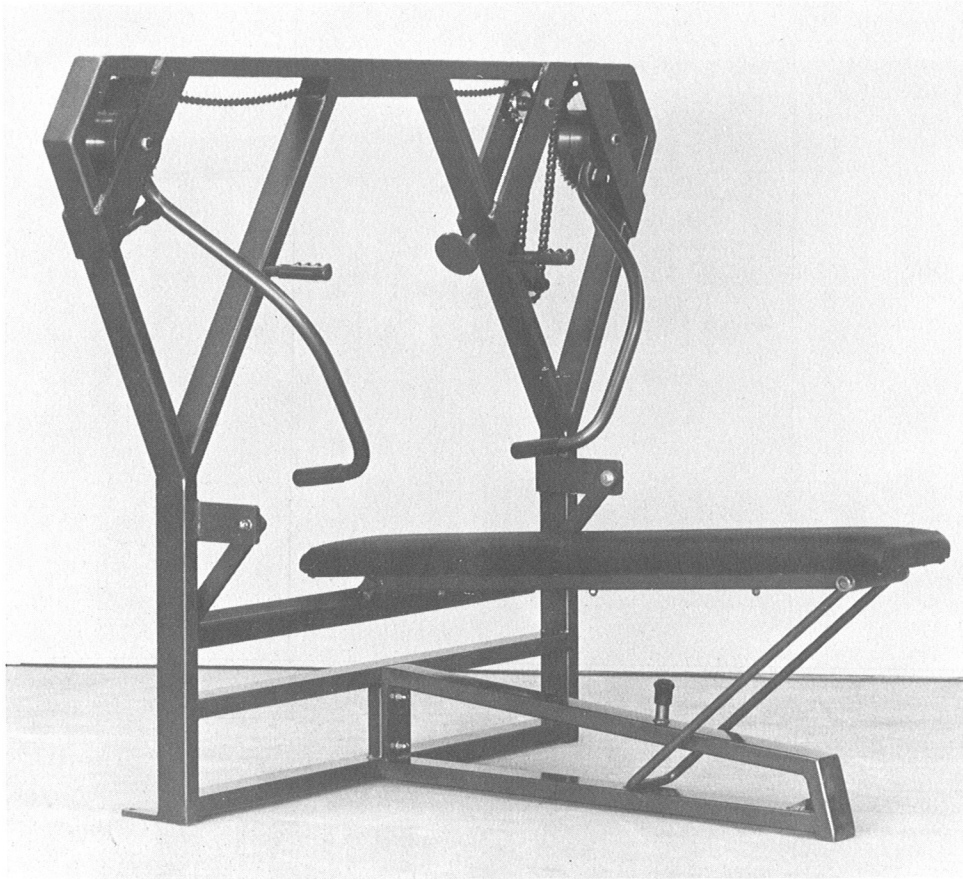
A pre-exhaustion principle allows high intensity exercise for the neck, shoulders, and upper back and arms.

A primary movement consists of strict lateral raises, while the secondary movement is a high intensity behind-the-neck - all in one machine.



DOUBLE CHEST MACHINE

This compound machine utilizes the pre-exhaustion principle for maximum conditioning of the chest and shoulders, with involvement of the arms during the secondary bench press movement.

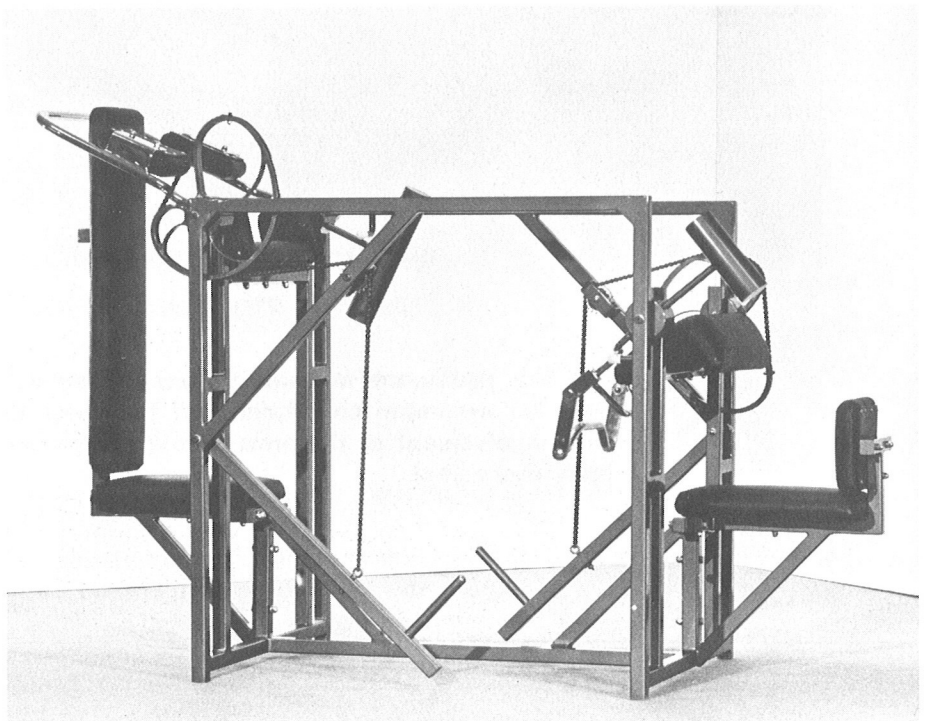


A high-quality bench press providing high-intensity exercise for the chest, shoulders, and arms. The design eliminates the need for a weight stack.

INFIMETRIC BENCH PRESS MACHINE

CURL/TRICEPS MACHINE [PLATE LOADING]

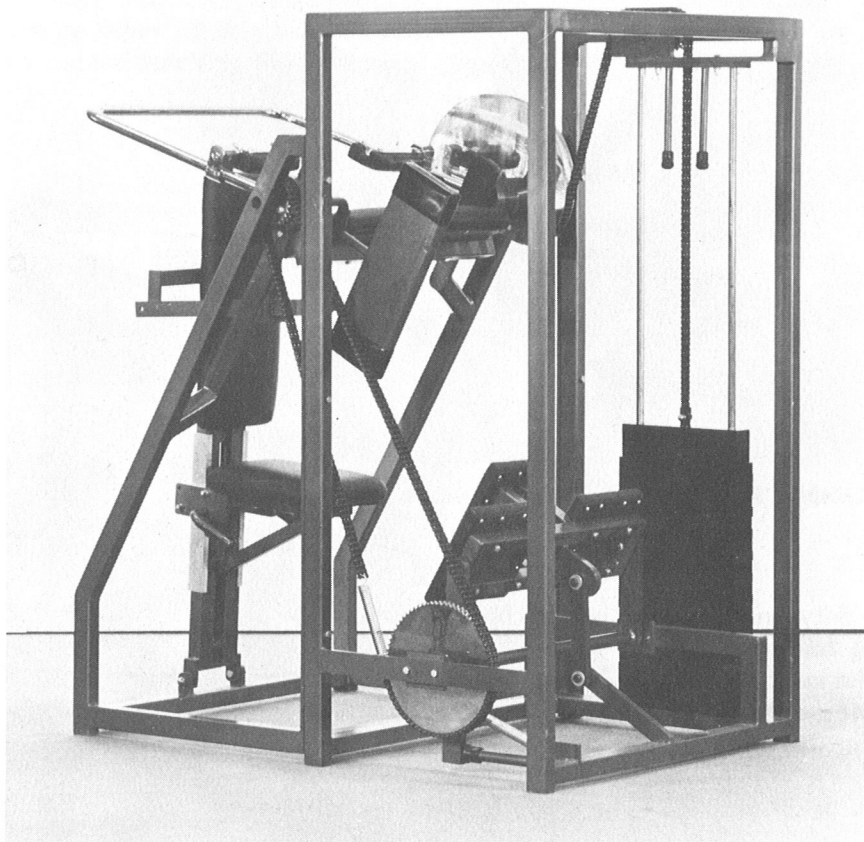
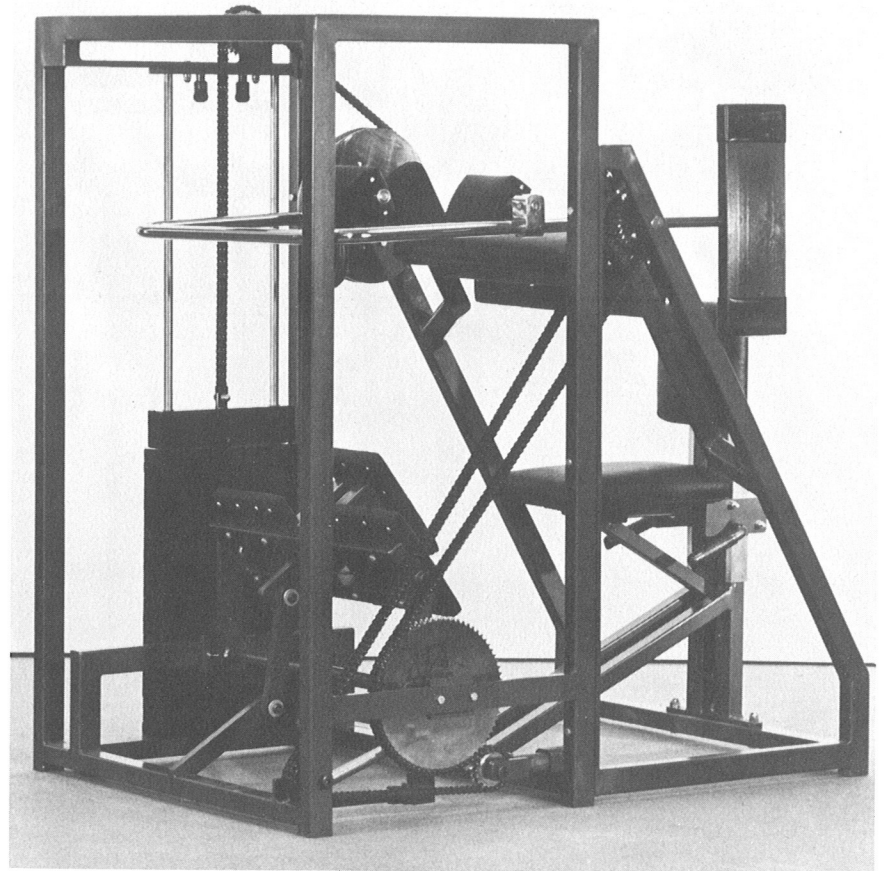
Full-range exercise for the entire mass of the upper arms is offered with the Curl/Triceps Machine. The space-saving design is both practical and economical.



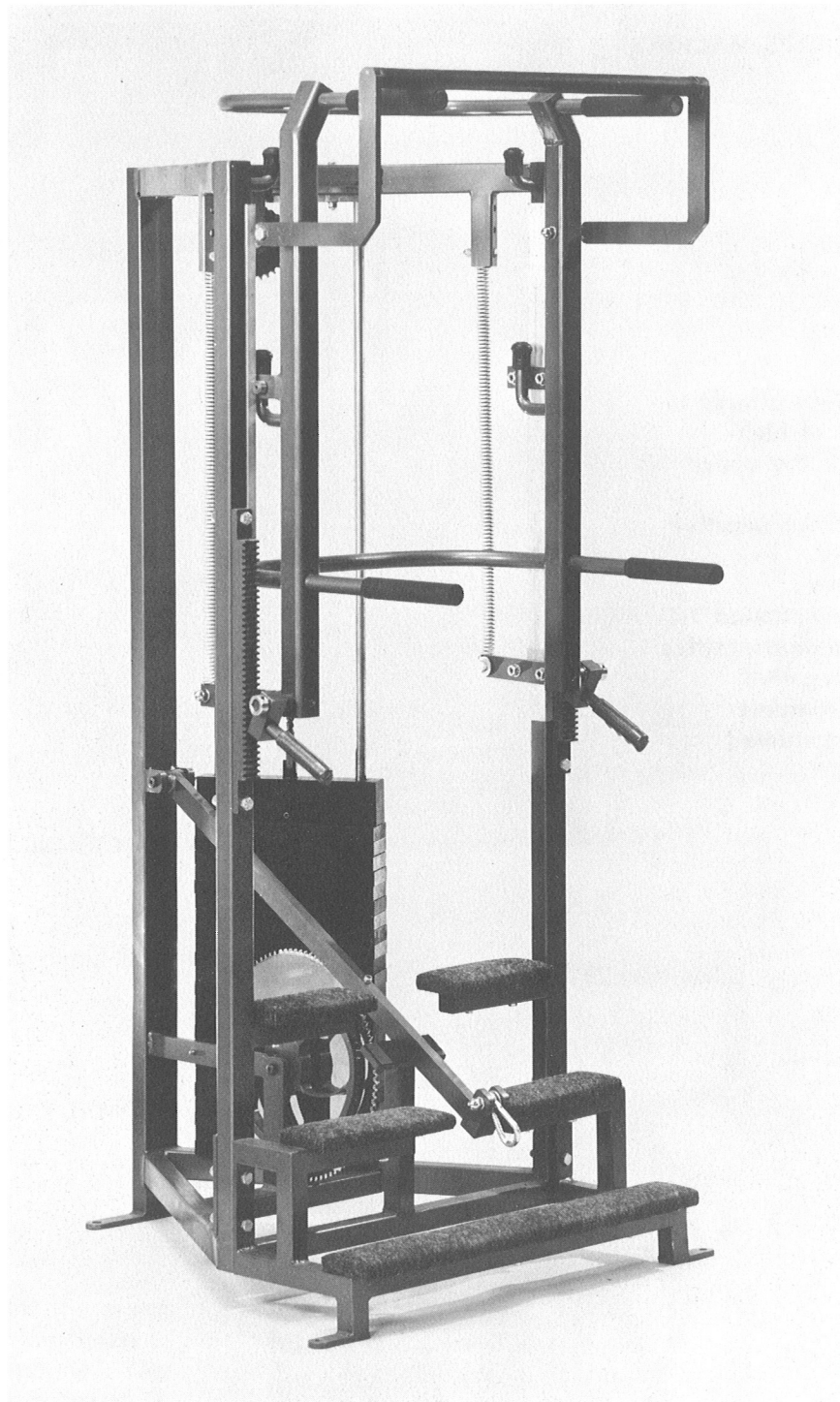
OMNI BICEPS MACHINE

The "Omni" series affords the trainee seven styles of high-intensity exercise for the upper arms.

1. Normal positive/negative
2. Positive only
3. Negative only
4. Negative accentuated
5. Hyper (maximum positive/
maximum negative)
6. Full-range Isometric
7. Positive accentuated



OMNI TRICEPS MACHINE



OMNI "MULTI EXERCISE" MACHINE

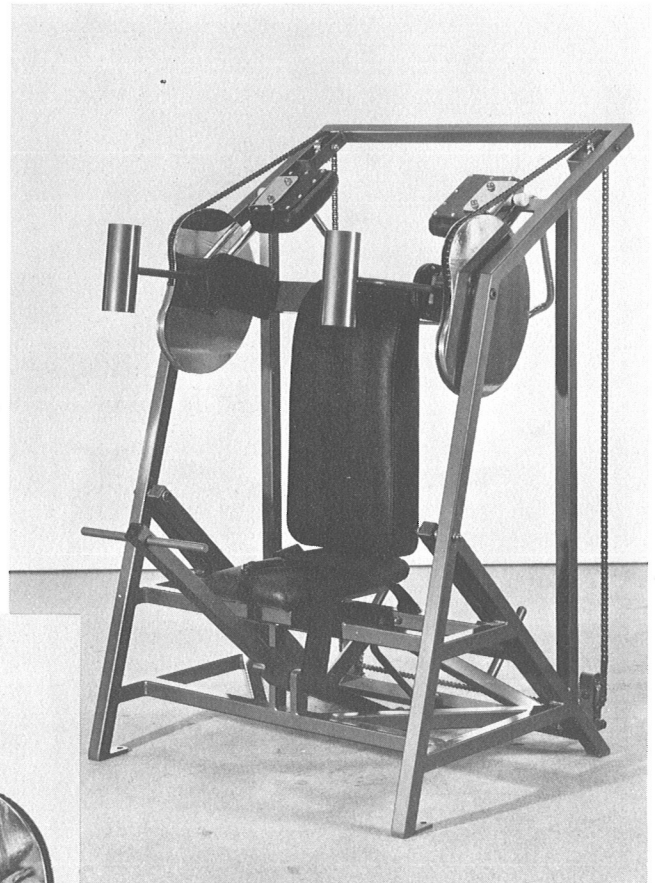
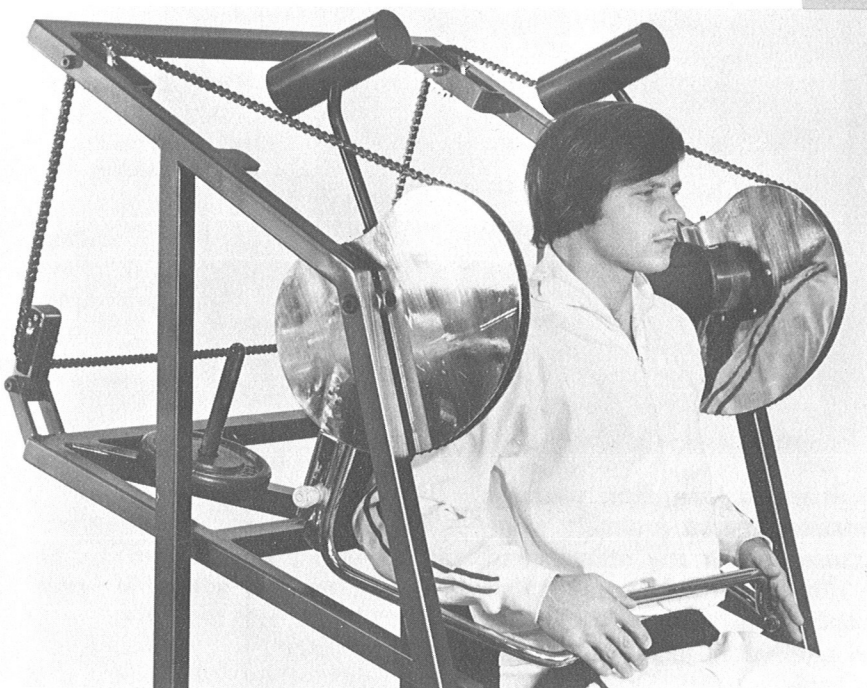
A heavy-duty multiple exercise machine for upper torso and lower leg training.

Dips, wrist curls, calf raises, biceps curls, shoulder shrugs, side bends, triceps extensions, and several chin-up movements are possible in this machine.

Nautilus is Shaping the Future of Exercise

The first Nautilus machine was built in 1948 . . . but the first Nautilus machine produced for sale was built more than twenty two years later, in 1970.

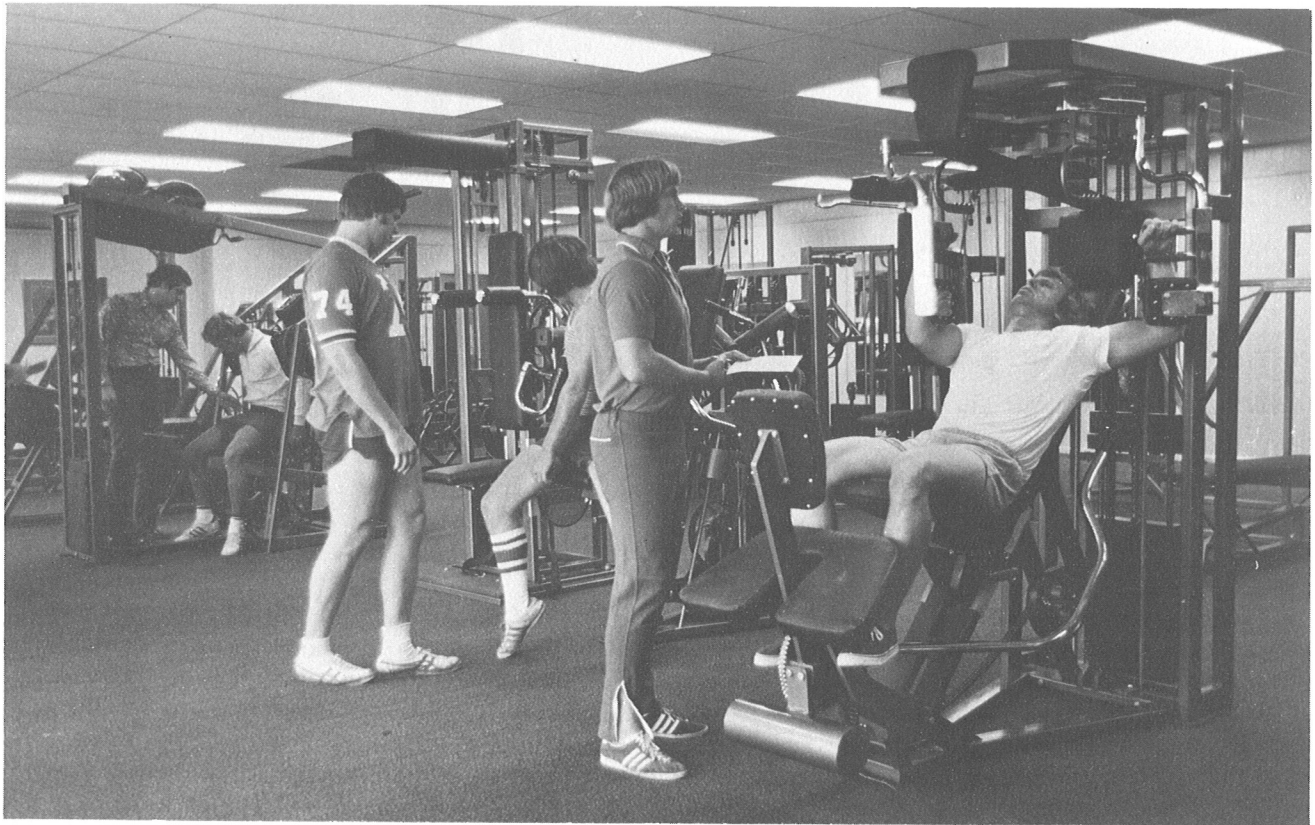
The first type of machine was a Pullover Torso Machine—and the first type delivered to a customer was also a Pullover. But in fact, the two machines—the first built, and the first sold—had little more than the name in common. During the twenty two years of developmental work that passed prior to the first sale of a Nautilus machine, twenty seven distinct models of the Pullover were built and tested—and literally hundreds of other models were considered and rejected before reaching the prototype stage.



The first Nautilus machine was built at a time when quite a number of people were beginning to realize that something basic was missing in conventional exercises. The barbell was (and is) a tool capable of producing outstanding degrees of muscular strength—eventually; but it obviously is not the ideal tool.



In short, it was a long, slow process—leading to a final result that probably would never have occurred under any other set of circumstances. The first Nautilus machine was not built for commercial purposes—instead, it was built in an attempt to produce a literally perfect exercise tool.



The training area at Nautilus of the Southwest, located in Dallas, Texas.

At or about the same time that the first Nautilus machine was built, other people were also making attempts in the direction of improving the tools available for exercise—but they made the mistake of going in exactly the wrong direction. Instead of devoting their attentions and efforts to exercise; they concentrated on attempts to improve the available tool, the barbell.

You can design a better saddle for a horse, you can feed a horse better, you can train a horse better . . . but so long as you restrict your attentions to a horse, you will be forced to work within the limitations of a horse. And you will never travel faster than the maximum speed of a horse.

Modern speed of travel developed only after the horse was scrapped as a means of practical transportation.

Conventional weight machines that merely copy the functions of a barbell are now about as practical for the purpose of exercise as a horse is for the purpose of transportation.

Nautilus was based on the concept that

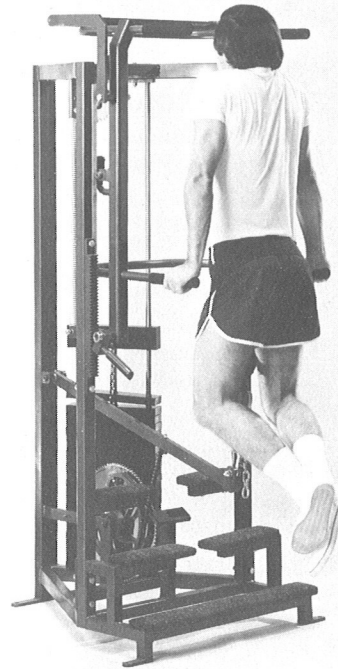
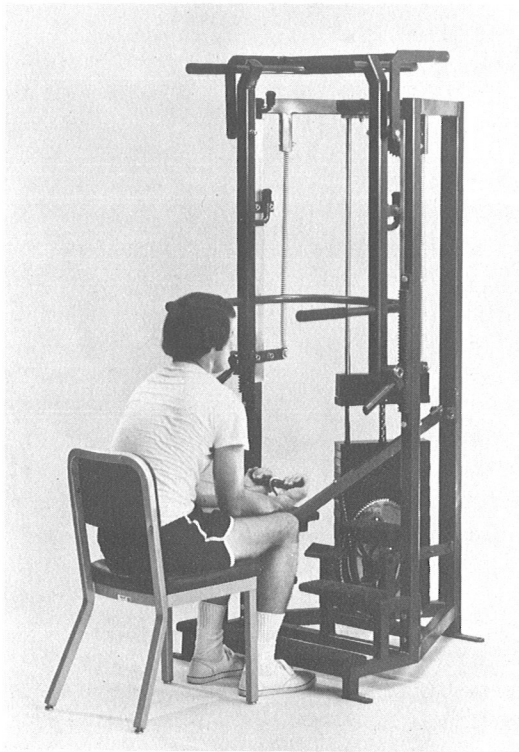
the basic tool was wrong, so the development of Nautilus equipment was a process of determining the functions of human muscular structures—in an effort to design new and much improved tools that could meet the actual requirements of muscles. Instead of trying to fit human muscles to an imperfect tool, the barbell—Nautilus was an attempt to design perfect tools that would exactly fit the requirements of muscles.

But just what are the requirements of muscles?

To answer that question, you must first clearly understand the functions of muscles . . . but that is simple enough, if the problem is approached logically.

Pick a particular muscle, any particular muscle . . . first move into a position where the muscle you are observing is stretched into a fully extended position, where additional movement in the direction of extension is literally impossible.

Next . . . fully contract the same muscle, and carefully observe the resulting movement of the related body part.

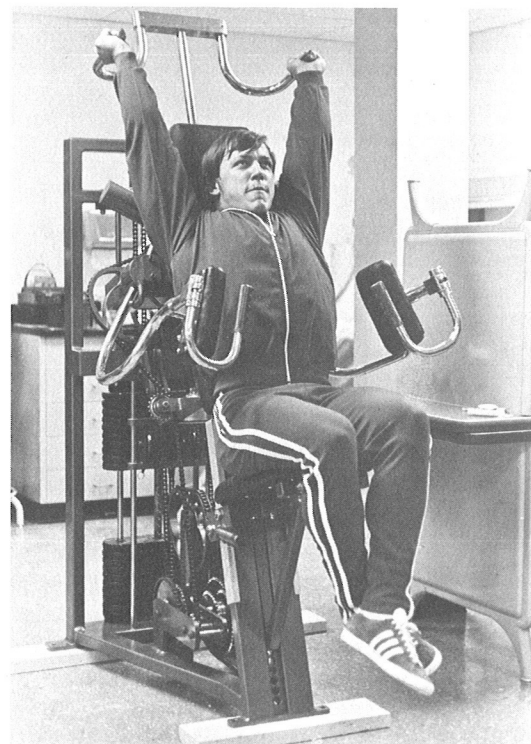
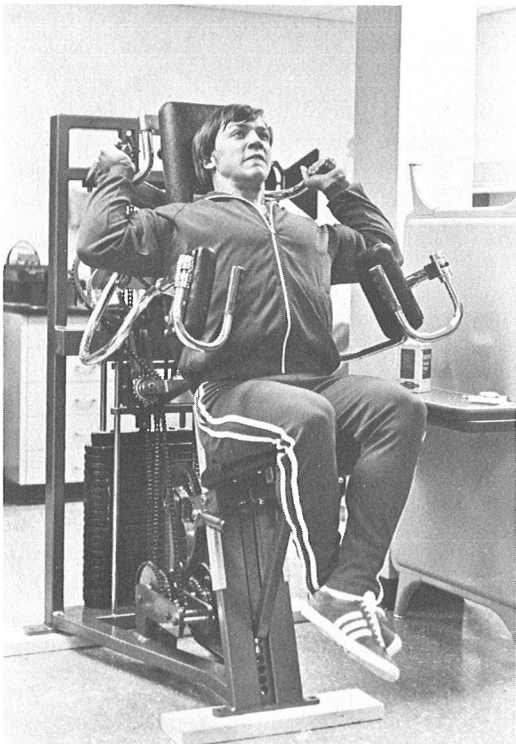


Having done so, you should then be clearly aware of the movement that is produced by that particular muscle . . . the full range of movement, from full extension to full contraction.

If you are interested in designing an exercise to develop the strength of that particular muscle, you must build a piece of equipment that will provide constant resistance against the full range of movement—if not, then only part of that muscle will be exposed to exercise, and only part of the muscle will be developed.

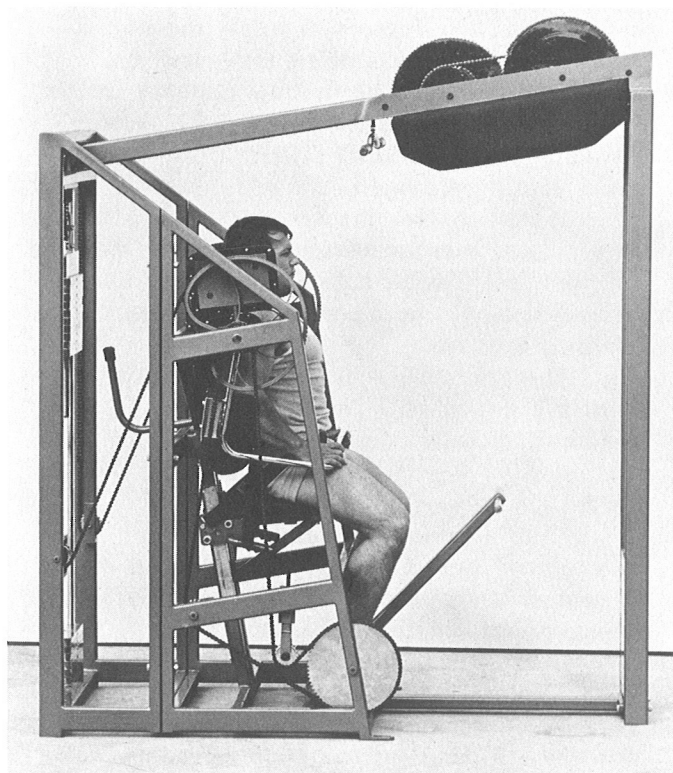
One of the basic faults with the barbell is the fact that the resistance is not “direct”—instead of being directly applied to the prime body part that is actually moved by a particular muscle, the resistance is applied against a secondary body part that is “indirectly” moved.

As an unavoidable result, the muscle you are trying to work is not exposed to resistance in proportion to its own ability—instead, a point of failure is reached when a weaker muscular structure is unable to continue.



To properly exercise the muscles of the torso . . . **THE RESISTANCE MUST BE APPLIED DIRECTLY AGAINST THE UPPER ARMS.** In effect, against the elbows. When this is done—and **ONLY** when this is done—then you have “direct” resistance for the powerful muscles of the torso.

But doing so involved the design and construction of a machine that would provide a rotary form of resistance—since the resulting movement of the elbows is rotary in nature.



So the first basic requirement for a perfect exercise for the muscles of the torso was “direct” resistance—applied against the elbows.

And the second basic requirement was a rotary form of resistance—rotating on a common axis with the upper arms rotating around the axis of the shoulder joints.

When such a machine was first built, it was immediately obvious that we had gone a great distance in the right direction . . . but it was equally obvious that a lot more remained to be done.

For one thing, we then became clearly aware that “constant” resistance was not enough . . . because you are much stronger in some positions than you are in other positions. So the resistance had to change during the actual movement.

If we used a weight that we could handle in our strongest position, then it was far too heavy in any other position . . . and if we used a weight that we could handle in our weakest position, then it was far too light in our strongest positions.

Twenty five years ago, we first approached this problem by using a base weight that was proper to use in our weakest position . . . but then we attached a number of chains to the base weight. As the weight was lifted, the chains were gradually pulled off the floor—steadily adding their weight to the base weight.

It worked . . . even if not perfectly. But it certainly was NOT a practical method of regulating the weight. And while it was thus possible to increase the weight at any desired rate . . . we could not then decrease it if that was required. And it was required; because, in most situations, your available strength increases with movement in the direction of contraction . . . increases up to a point, but then decreases.

So we needed a method of regulating the resistance that would permit us to increase the weight up to a certain point and then decrease it—and we could not do that with chains.

Thus the Nautilus “cam” was born.

The Nautilus cam regulates the resistance automatically, instantly, exactly . . . providing resistance that meets your requirements in all positions.

In a typical situation . . . at the start of the movement your available strength is at its lowest level, so the radius of the cam is small and the resistance is low. But as you move into another position your strength increases, so the radius of the cam becomes larger in proportion—and thus the resistance is increased to match your higher strength level.

When you reach your strongest position, the radius of the cam is also at its maximum—and thus the resistance is maximum.

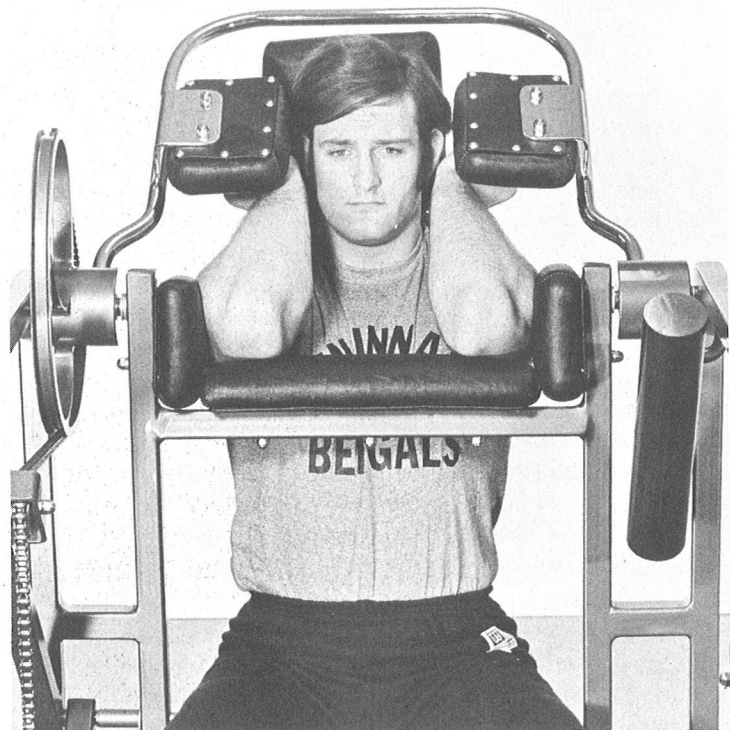
Then, as you pass the point of greatest available strength and start moving into a weaker area of movement . . . the radius of the cam automatically and instantly reduces itself in exact proportion, thus reducing the resistance in proportion to your declining strength.

The actual resistance is thus changing constantly throughout the movement . . . but it doesn’t “feel” like it is changing. Instead, it feels the same in every position. It feels the same because it is always in proportion to your available strength.

If the resistance was actually the same in every position, as it would be if the cam was perfectly round . . . then it would feel like it was

changing. But in such a case it wouldn't be the resistance that was changing . . . instead, it would be your strength that was changing.

You may understand that such a requirement for variable resistance exists . . . but it is very unlikely that you will fully appreciate the enormous **IMPORTANCE** of such variable resistance; until you experience a full-range, direct exercise that does not have variable resistance.



Many of the features incorporated into the design of Nautilus machines are not fully appreciated by people . . . until they experience a full range, direct exercise that does not provide those features.

For example . . . the mass of the "resistance arms" is counter-weighted in such a manner that it is perfectly balanced, effectively weighs literally nothing. In the Pullover machine, this mass would add a total of 383.25 "inch pounds" of torque to the resistance in some areas of the movement—and would subtract an equal amount of resistance in other areas of movement—and would disrupt the variation of resistance throughout the movement.

In some places, this uncontrolled mass would "help" you—in other areas of movement it would "hurt" you—and in all areas of movement it would make exact regulation of the resistance impossible.

So it **MUST BE BALANCED OUT**— and when it has been balanced out, then you might not fully appreciate just how important a

requirement that really is. Unless you tried a machine that had **NOT** been counter-weighted.

In the combination Pullover and Torso/Arm Machine, the required counter-weight weighs 52½ pounds—and one of the sprockets that drives this counter-weight weighs 23 pounds—and the heavy double chain has a test strength of 7,400 pounds. All of which size and strength of construction is **REQUIRED**.

In that machine, the counter-weight is "timed" like an automobile ignition system . . . it must be, in order that it will always exactly "balance out" the mass of the resistance-arm during a full 240 degrees of rotary movement.

Without this counter-weight system . . . the resistance would be much too heavy in the starting position—and too light in the finishing position. And **FAR TOO LIGHT** in the position where you are strongest.

If you remove the counter-weight from a machine, the exercise performed on that machine will then feel like an entirely different exercise—because it would be an entirely different, unbalanced exercise.

There is absolutely nothing "random" about the design of a Nautilus machine . . . "function dictates design," and the functions demanded by a perfect form of exercise dictate the design of Nautilus machines.

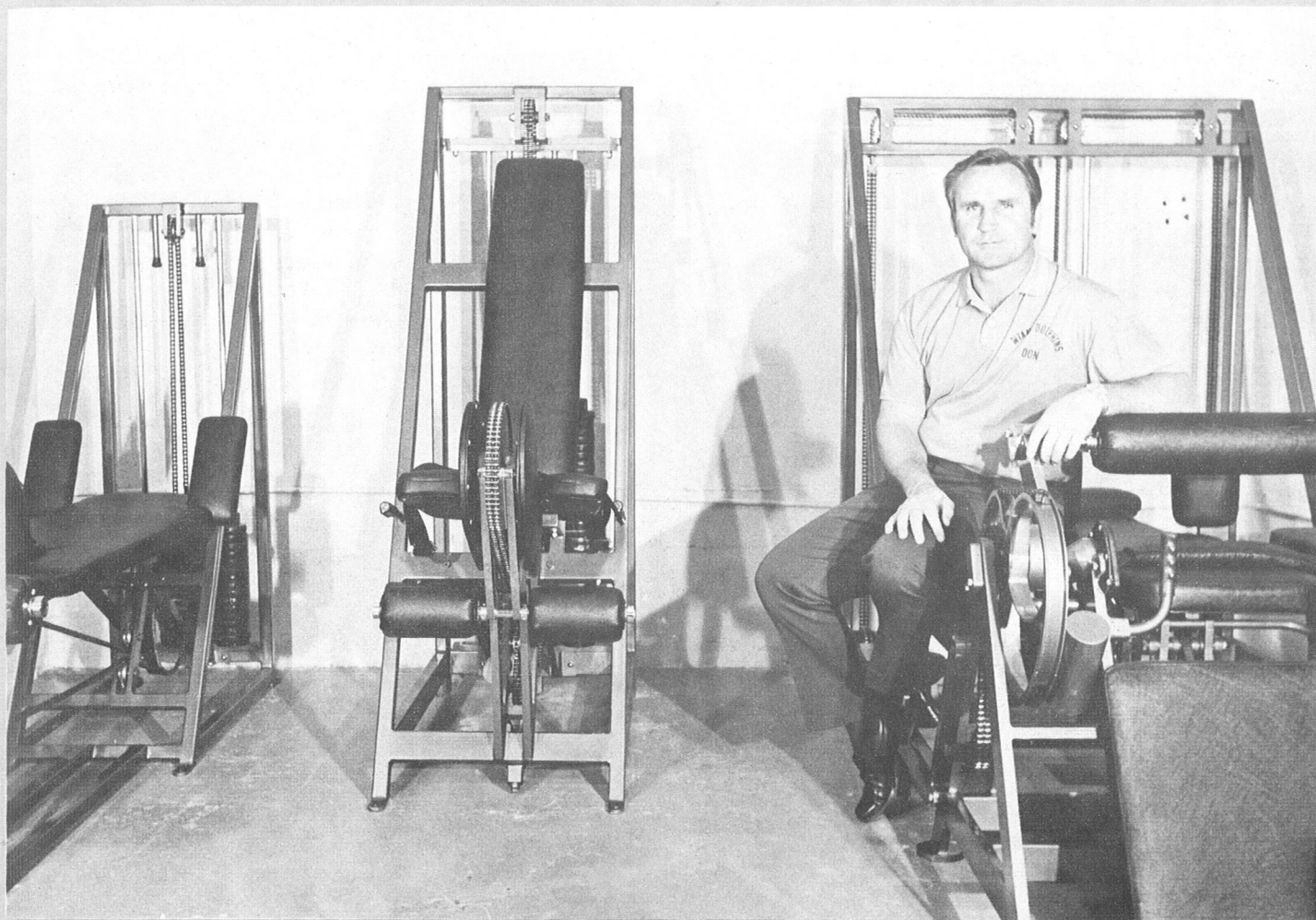
Over a period of more than twenty years we gradually became clearly aware of all of the requirements for a perfect form of exercise . . . these requirements are . . .

- 1—Rotary movement
- 2—Direct resistance
- 3—Automatically-variable resistance
- 4—Balanced resistance
- 5—Positive work
- 6—Negative work
- 7—Stretching
- 8—Pre-stretching
- 9—Resistance in position of full muscular contraction
- 10—Unlimited speed of movement

Conventional exercises provide only three of these absolute requirements, and thus conventional exercises are **NOT** full-range exercises, are **NOT** proper exercises, are nowhere near as productive as they should be in proportion to the amount of time and effort devoted to them.

Isokinetic exercises have **ONE** of these features—and thus Isokinetic resistance is the least productive form of exercise for any purpose.

Nautilus provides all of these requirements. Nautilus is the **ONLY** full-range exercise. Nautilus is the **ONLY** source of "total" exercise.



*“...the finest equipment
I’ve seen in the field...”*

I first became aware of the Nautilus training program through Mercury Morris, who had been training with Nautilus equipment in a commercial gym in Miami.

Upon Merc’s recommendation, I sent our personnel man to the Nautilus plant to personally evaluate the equipment.

When he returned with an enthusiastic recommendation, we purchased the Nautilus equipment for the Miami Dolphins.

When the equipment was delivered, I was im-

pressed by its rugged construction features and obvious durability—so necessary for the training of strong professional athletes.

The finest equipment I’ve seen in the field.

Coach Don Shula

Don Shula

Miami Dolphins

Full-Range Exercise... Only from Nautilus

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