

SuperSlow® Systems, INC

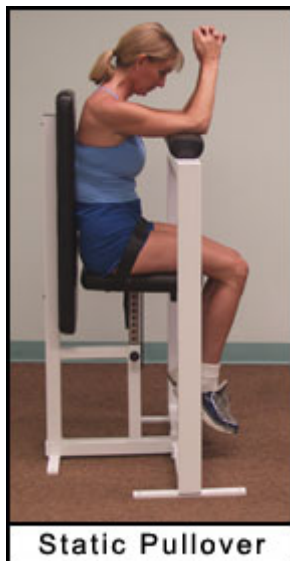
Machines for Time Static Contraction

By Ken Hutchins

Introduction Following are three new products expressly designed for facilitating exercise with Time Static Contraction (TSC). Like most of our products, I first developed these for my personal use as well as for my friends and clients.

The first models of TSC machines will possess no feedback devices. We are presently researching the feasibility of integrating strain gauges with corresponding digital readout displays. These will take somewhat longer to produce, but should not pose any undue obstacles.

This first device is a Static Pullover. Although this is the simplest of these three machines, it might bear the most explanation.



I have long enjoyed performing the Nautilus Pullover machine, especially the one I have reengineered for my personal use, as well as for others who paid me to perform this task.

The Nautilus Pullover machine is the centerpiece of Arthur Jones' monumental contribution to the exercise field. His Pullover was the first Nautilus machine, a machine which he spent almost three decades developing before ever selling the first one. It, alone, was one of the three major reasons I was attracted to go to work for Arthur.

Also, the Pullover was the basis of design that was extrapolated to the other Nautilus Machines. And for many years it was the most popular machine sold by the Nautilus Company. Even if a high school coach was to build a modest weight training program, using mostly barbell and other conventional equipment, he would build the program around a single Nautilus machine, the Pullover.

The Nautilus Pullover was the first Nautilus machine that I purchased for my personal use. I sold it to Jim Flanagan just after I came to work for Nautilus. Jim used it in his Nautilus fitness center business and now has it in his house. A short time ago he paid me to refurbish it for him.

A short while ago, an exercise historian pointed out that few exercise devices are made today that were not already designed and marketed by Zander and his competitors between 1865 and 1925. The only exceptions were Arthur's Pullover and my Linear Spine® machines.

However, about 1990, I began to take a turn against the Pullover. We experienced several injuries in the gym where I worked that seemed due to the Pullover. We were, by then, using

SuperSlow Protocol and applying it strictly to my reengineered Nautilus Pullover machine. It appeared that some of our clients spasmed their interscapular area and nape temporarily although to a debilitating degree. As characteristic of new and disturbing situations regarding my most cherished beliefs, I was in denial, but was forced to refine some of my engineering to assist this problem. The problem persisted among some subjects who were eventually made to avoid the exercise altogether.

Then I injured my neck and scapular area on the Pullover, thus acknowledging the probable fact that my neck debilities restrict me from being a candidate for Pullover, although I still like performing it when the neck permits. Against my own wishes, I caved into the demands of the facility owner to limit Pullover only to those clients already using it pain-free with no history of problems.

Years later, after I opened my own facility, I limited Pullover performance to TSC (only) except for three trusted subjects who have used the machine for years problem-free. I also forbade other instructors from putting new subjects on the machine lest it was used TSC. This last demand has not been strictly obeyed, and I become incensed every time I see a new subject performing the Pullover dynamically.

What's more, I have witnessed dramatically better results in subjects performing TSC. By "TSC" in this machine, I mean that we actually do what some call a "static hold." The subject is presented the movement arm for a transfer from the instructor. Then the subject holds a progressively increased load in midrange as the instructor times the hold and monitors a protractor for position maintenance. The watch is stopped when the subject begins to lose or fear losing control of the loaded movement arm. To clarify: by "static hold," the subject is not exerting against an immovable object as when a purely TSC is applied.

Several conclusions have emerged from this practice:

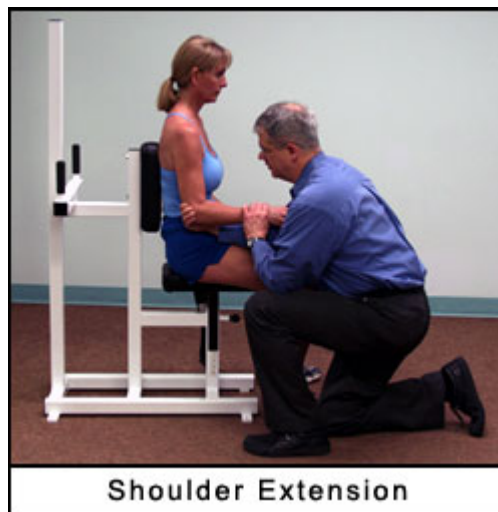
- The neck and scapular injuries are practically nonexistent.
- The subjects now feel their abdominals in the way that they have emotionally needed and demanded for years as we ineffectively blathered to them information regarding this exercise as for their abdominals.
- We could reduce the fear expressed by some subjects if we made a purely static device that required no holding, per se.
- Another advantage would include the obviation that other instructors instruct dynamic Pullover.
- The cost and space of the TSC Pullover would be greatly reduced.

In observing the TCS Pullover, I saw a need among some of my more fragile and debilitated subjects to apply an abdominal exercise that avoided participation of the arms and hands entirely. Therefore, I designed this TSC Abdominal Machine.

This Abdominal Device is incredibly effective. As a bonus, it provides a Trunk Flexion option that avoids floor approaches that pose problems of getting onto and off of the floor. Such logistics are a threat to the shoulders, hands, knees and necks of marginally competent subjects. This device also avoids neck and head support concerns.



The third TSC device that I present in this explanation is the TSC Multi Exercise. Several TSC exercises as well as dynamic exercises can be performed with it as well.



Manual Posterior Neck (no picture)



Static Posterior Neck



Static Anterior Neck



Hip ADduction



Hip ABduction



Shoulder ADduction



Lateral Raise



Compound Row



Abdominal



Chest Press



Chest Fly



External Shoulder Rotation



Internal Shoulder Rotation