**PENDULUM'S SQUAT  PRO**

Randy Roach

Perhaps one of the most debated issues in the strength and body building industry over the past decades has been whether an individual should perform “the squat” or avoid it like the plague. How effectively one can execute this movement usually determines what camp in which one pitches ones’ tent. Anyone with several years of training experience has at one time or another incorporated the squat into a lower body routine. While thousands of athletes have demonstrated tremendous strength with the squat, several thousand others have suffered some level of back or knee injury.

For any experienced trainer who has worked with a variety of people representing all body shapes and sizes, it becomes apparent that some individuals are anatomically structured to perform well with the squat while others simply are not. My personal observations over the years have revealed that individuals with moderate to short femur (thigh) bones, accompanied with moderate to long torsos have a much easier time maintaining their centre of gravity and therefore developing the skills required to accomplish this complex movement in a shorter period of time.

On the other hand, others such as myself having longer femur bones and shorter torsos find it extremely difficult to maintain balance and a centre of gravity. The longer femurs force an individual to sit too far back, resulting in an inability for a short torso to properly re-establish the barbbell’s center of gravity without exposing the lower back to injury. A potential injury may result from the excessive flexion (bending over) at the waist.

Even for those who can squat, there is still a further debate, that being should one squat “to parallel” or go “butt to the floor”. Some experts say knee injuries occur from going to deep into the squat while others claim that the process of stopping at parallel is what creates the strain on the knees. All of this can be quite frustrating for the beginner and even an advanced trainer who wants to be responsible for the safety of trainees through proper exercise selection.

Pendulum Fitness has recently made the trainer’s decision of whether to squat much easier with the introduction of the Pendulum Power Squat Pro. This plate loading, variable resistance, multi pivoting machine allows everyone the option to squat with safety.

Because the machine pivots at the hip and shoulder regions, a free form squat is effectively simulated. The variable resistance allows for a lighter load in the bottom position giving some peace of mind to trainers who are doubtful of deep squats. Pendulum has given the option of loading the plates in two locations to provide more or less resistance in both the bottom and top of the squat movement.

The Power Squat Pro finally makes it possible for individuals such as myself, with structural disadvantages, to perform safe deep squats with no pain and a reduced risk of injury. Having longer thighs and a shorter upper body, the machine allows me to maintain a more erect posture with out falling backward.

The Pros of this machine are its heavy duty construction (1600 lb. capacity), multi pivoting joints for accurate squat simulation, double loading locations for a wide range of variable resistance, and adjustable safety pins to prevent being pinned in the bottom position.

The cons of this machine are that beginners will require some instruction to effectively use the machine. Because it does closely simulate a real squat, there is still some potential for error. For the advanced lifter who can squat with large loads, this machine gives the athlete a leverage advantage, that may require loading a good number of plates on the machine.

In summary, this is the best functional squat apparatus that I have encountered. I train a number of people and 95% of them can squat safely and effectively with this machine. The anatomically advantaged athletes will still excel here, however those less genetically blessed will no longer have to go searching for the old leg press.