ArcTrainer CYBEX'

Quick Definition

The Cybex Arc Trainer is a non-impact cross trainer which utilizes Advanced Stride Technology[™] and a broad dynamic resistance to meet the varied fitness requirements of everyone who trains.

The Snap Shot

- 11 elevation levels
- 101 resistance level form 0 to 900 watts
- 24" stride length
- Multi-position handle bars for variation and purpose
- Quick Start, Manual, Cardio, Weight Loss, Interval Hills and Strength programs
- Contact and Wireless heart rate monitoring
- 30" W x 67" L
- 400 lb max. user weight
- 115V, up to three units may be daisy chained

The Movement

The Arc Trainer's path of motion is that of an arc having a radius of slightly more than 28". In the zero elevation position the cord (basic angle) of the movement is approximately 12 degrees. In it's highest position, the cord of the angle is approximately 34.5 degrees.

In the drawings below, you see that in the lowest position (0) that the movement is basically horizontal, while in the highest setting it has a much higher rise promoting much more knee flexion than the lower (0) setting.



In the lower ranges of the movement the glutes are the prime mover as the majority of the motion occurs at the hip. As the elevation is increased, the quadriceps have greater involvement and the range of motion in the knee increases.

Through out the arc movement the knee is never forced into an acute angle as it does on an elliptical coming over the top.







The Resistance

The resistance profile is ramps in a fashion similar to that of the cycles when in manual mode. The faster you pedal the greater the resistance. This is ideal for interval type training – blast into the machine, then rest without changing a thing.

The resistance profile is also scaled by entering body weight so that body weight is neither an advantage nor disadvantage.

Interestingly, as the resistance level is increased

there is a tendency to lean forward to align the force from the body in line with the resistance from the pedal for greater efficiency.



This is consistent with leaning forward when hiking up a mountain.

The Machine

- Every moving surface runs on a bearing
- PWM-controlled Eddy Current brake has no wear parts
- Elevation motor does not have to absorb rocking loads promoting long life
- 11-gauge steel frame
- 30" wide to fit through standard doorways (with water bottle holder removed)

Q&A

Why lower body only?

The use of large musculature is most efficient. For a given work rate, the lower body workout provides a lower heart rate and lower perceived exertion when compared to total body.

Why plug in?

Plugging in makes it possible to have much lower work rates. A self-powered version would not only have to power the display but also the elevation.

Is the stride always 24"?

Yes, but depending on the elevation the range of motion from the joints varies dramatically giving the perception of a greatly varying stride length. The same 24" can take the user from a "horizontal glide", all the way to a climb.

What are the benefits to being directly coupled?

By keeping the pedals and entire drive train coupled together, the inertia from the system helps carry the user through weak points in the range of motion. This provided befits to the extremes of users from being able to lose themselves in the rhythm of the motion to providing a fluid motion at the high resistance extremes.

Does it come in colors?

The Arc Trainer will be available in our five standard frame colors or more that 175 custom colors.