PEAK POWER. EVERY SET. EVERY REP. EVERY TIME.



PRODUCT GUIDE 2018

The Ultimate Circuit For **POWER ENDURANCE TRAINING**



In 2018, FDF will launch its **Concentric Fluid Power Training System - PowerZone™**. A six-piece circuit, the first four

PowerZone™ pieces are due for release in Q2, with the final two pieces, Power Climb™ and Power Press™ released early in Q3.

> WHAT IS POWERZONE™?

PowerZone™ is a concentric circuit training system designed for all commercial applications. PowerZone™ brings together six complementary fluid resistance machines that combine strength, endurance and power training into one. The PowerZone™ pieces form the basis for the ultimate circuit workout and include:

POWERCUBE · POWERUBE · POWERCLIMB · POWERROW · POWERPRESS · POWERERG

WHAT IS CONCENTRIC FLUID POWER TRAINING?



PowerZone[™] machines provide concentric resistance only; the resistance is applied in the drive phase of a movement, while the recovery phase is virtually resistance free. An exerciser can explode with ballistic movements and not have to deal with any recovery phase consequences. This could be compared to an Olympic weightlifter who applies large effort through the drive [lift] phase and then drops the weight.

Concentric Fluid Power Training is perfect for High Intensity Interval Training [HIIT]. PowerZone™ machines can provide both the load for the explosive intense effort phase and the lighter rhythmic recovery phase. HIIT helps build muscle mass and strength, burn calories rapidly for weight loss and conditions the cardiovascular system in a very time efficient manner.

While HIIT has been very successful in a group training format, PowerZone™ takes this to a new level.

CONCENTRIC

Concentric muscle contractions are where the muscles are contracting while shortening, as in any lift, pull or push. An Eccentric muscle contraction is where the muscles are contracting while lengthening, as in the recovery phase of any lift, pull or push.

The reason Olympic weightlifters, used as an example above, drop the weight is because there is too much risk (and no benefit) associated in dealing with the lowering of such a great weight. The lifter would compromise many joints, ligaments and muscles to control the weight back to its starting position.

The patented Fluid Resistance technology of all PowerZone™ machines allows for concentric training to be completed at virtually any speed because the fluid tank does not develop any internal momentum. The exerciser can "explode" with power, then repeat and repeat because the recovery phase allows the exerciser to safely return to their starting position.

> FLUID

Moving explosively with weights is counterproductive for most training purposes. Moving weights at higher speeds means the weight develops momentum. This momentum results in a reduction of the load through the later stages of the specific movement. FDF's patented Fluid Technology, applied to PowerZoneTM machines, develops virtually zero momentum. The water resistance twin tank technology provides a consistent load at virtually any speed.

Low momentum is often associated with uneven and jerky resistance, the Fluid Technology Tank completely alleviates this to produce the smoothest feel, the coolest low volume sound and a great look.

> POWER

Power is the combination of load and speed, it is measured in Watts.

With no momentum being developed in our tank, regardless of speed, and since the tank has a large range of resistance, the power output possible is immense. There is enough power available to handle the training regime of any athlete, while the increments are so small and the load so smooth it can handle the most deconditioned individual looking to improve their overall health.

> FLUID TECHNOLOGY



WHY IS POWERZONE™ CIRCUIT TRAINING A GAME CHANGER?

The six PowerZone™ machines can form the basis of a large group training session or be the complete set for a small group PT session. Instructors or individuals can create work out routines to deliver the best training responses possible. Training everyone in their specific power zone has never been easier or more fun.

The PowerZone™ Monitor will guide you during your workout to make sure you stay in Zone and achieve your goals.

PowerZone™ offers something for every commercial facility. Suitable for Defence Forces, PT Centres, Apartment Complexes, Corporate Offices, Health Clubs and Recreation Centres, anywhere that needs compact complete commercial grade fitness equipment.



Power $Cube^{TM}$ is an effective posterior chain and functional trainer, working the biggest and strongest muscles in the body at a high volume, without overloading. The foundation of Power $Cube^{TM}$ is the deadlift, making it a great core trainer and accessible to any ability no matter their orthopaedic limitation.

Designed to support complex lifting routines, consisting of a sequence of several exercises, Power Cube™ removes the weak muscular or mechanical link of traditional weight training to provide a Progressive Concentric Load Cycle to the targeted muscles. You can train at peak power throughout the entire range of motion.

UNIQUE SELLING POINTS

- Combines a huge range of movement options into one machine.
- Doubles as a functional and strength power trainer providing the same benefits you would get from a set of kettle bells, Olympic weights, squat rack, and articulating arms with cables.
- Works on both the upper and lower extremities and facilitates functional patterns like diagonal, chopping and swinging motions.
- Suitable for rehabilitation and sports applications.

CONCENTRIC FLUID POWER TRAINING

- Trains lifts that complement rowing strength, as well as supports Olympic style movements without the technical skill and risk of injury, e.g. lifting with upward acceleration of a heavy weight without supporting the force of its return on the way back down.
- The level of resistance is managed at three separate pulley points as well as the tank lever, providing four points of adjustment.
- Instantaneous catch, no lag or slip. Apply power, feel resistance.

- + Dead lift high pull bent row high curl
- + High curl high pull bent row dead lift
- Diagonal pattern pulling, chopping and swinging for upper and lower extremity work

Accessories:

hip and squat belt, single handle, ankle and thigh strap and straight bar (with swivel) attachments Auto-level,
Bluetooth monitor
- real time power
in watts per
repetition

Ergonomic support bar for squat and lower extremity cable work

3 separate attachment points with different gearing loads

10 x Fluid Force
- massive range
of resistance at
the turn of a lever

2:1 ratio

Power and speed C

- jump squats, high pulls, compound curl

Wide footplates for maximum stability

Transport wheels

1:2 ratio Functional and sport

 chopping patterns, kettlebell patterns, rehabilitation, upper extremity and lower extremity abduction/ adduction patterns, extension and flexion 1:1 ratio O

Power and strength

- squats, deadlifts, bent rows

POWER ZONE"



Power $\operatorname{Erg^{IM}}$ is an anterior chain and functional trainer, supporting full body pulling movements that combine body weight and fluid resistance to achieve an impact free workout. The adjustable Fluid Force allows the user to create greater resistance throughout the entire range of motion while training at peak power.

Targeting the core, triceps and latissimus dorsi, the design of Power Erg^{TM} creates an inertial mass that is not only influenced by Fluid Force but also by the load of your own body weight as you push up from a squat position.

UNIQUE SELLING POINTS

- POWER TRAINING
- Independent arms with articulating heads to allow diagonal, chopping and swinging motions.
- Supports alternating and symmetrical arm swings.
- Works on both the upper and lower extremities

 overcoming body mass resistance on the
 way up for a more taxing workout.
- Suitable for rehabilitation and sports applications.
- Instantaneous catch, no lag or slip.
 Apply power, feel resistance.

- Lat pull ski pattern alternating lat pull swim pattern triceps extension diagonal downward chopping pattern
- Parallel and split stance options
- Diagonal pattern pulling, chopping and swinging for upper and lower extremity work





Designed for strength, intensity, agility, stability, flexibility and balance, Power Ube $^{\mathbb{M}}$ is a commercial-grade water resistance ergo. Constructed for high-intensity, powerful workouts this CrossFit ready machine is not for the faint hearted.

This power endurance piece is aerobically oriented and complements the strength focused units in PowerZone™. Ultimate Power Ube™ RPM should be maintained somewhere between 50-65. Anything below 50 may feel too heavy and cause unnecessary strain on joints, while an RPM over 65 may have you spinning out because your load is too light.

UNIQUE SELLING POINTS

- CONCENTRIC FLUID POWER TRAINING
- Step on design, small footprint and wide footplates the user benefits from rapid access and total stability.
- Peak power is generated from the ground up, integrating movement of the user's core and upper body.
- Bi-directional arm rotation with ergonomic hand grips to reduce wrist torque.
- Suitable for rehabilitation purposes, enabling reciprocal muscle group balance, and supporting major muscle joints.

EXAMPLES OF MOVEMENT COMBINATIONS

+ Arms only

- + Full Body
- Arms and shoulders
- + Pushing and pulling





Power Row^{TM} is FDF's strongest rowing platform offering a rugged performance and unique frame design for training at peak power. Its patented twin tank design offers a massive resistance range of $10 \times Fluid$ Force with a side mounted tank for seated level change.

Experience the natural catch and consistent resistance of a rowing stroke on water, this robust indoor rower caters to any age and fitness level.

UNIQUE SELLING POINTS



- + Fast recoil design for ultra-rapid rowing stroke.
- Medically approved by the European Union Devices suitable for rehabilitation and medical applications.
- Huge resistance range for interval training and gradual progression.
- Sliding footplates with advanced heel capture to support leg drive.

- + Air glide seat rollers.
- Auto-level Bluetooth monitor real time power in watts per repitition.
- Tripod frame, with shorter length and an 'office chair' height seat for ease of entry and exit.

- + Upright row arms and back half slide full slide
- + Legs only legs and back half slide full slide





Power $Climb^{TM}$ is a fluid resistance climbing machine, challenging users to a high intensity workout with tremendous full body muscle activation. Founded on compound, multi-joint movement the climber builds core stability and demands contralateral integration of the upper and lower extremity simultaneously.

Unlike any other climber on the market, Power Climb™ keeps the user's centre of gravity in a neutral position, encouraging and reinforcing good form such that knees and feet are stabilised and weight is stacked through the heels to demand the muscles, not the joints, do the work.

UNIQUE **SELLING POINTS**

- FDF's famous patented twin tank offers 10 killer levels of adjustable Fluid Force.
- The benefit of fluid resistance means that as you accelerate the water in the tank it is dynamic so no matter the user's power input or fatigue they will continue to train at peak power.
- Functions as a stepper or whole body climber with a smooth and constant resistance throughout the entire range of motion, unlike mechanically induced, chain driven machines.

CONCENTRIC FLUID LPOWER TRAINING.

- Works both the lower and upper extremities integrating multiple muscle groups to build core stability.
- Provides a superior cardiovascular workout through engagement of the whole body, without placing strain on the joints.

- Stepper
- + Whole body climber contralateral movement
- + Compound movement multiple muscle group integration
- + Core stability for upper and lower extremity connectivity

Multiple hand positions for Auto-level, Bluetooth different body types and monitor - real time power recruitment patterns in watts per repetition 10 x Fluid Force massive range of resistance at the turn of a lever Extra stout four bar linkage Transport wheels Footplates promote neutral combined centre of gravity, Concealed air glide reducing knee shear and seat rollers increasing glute activation Rust proof Super smooth e-coating belt drive



A concentric power training device, Power PressTM is a fluid resistance squat press machine. Supporting full body power training movements that engage most major muscle groups in a single motion, this is the perfect trainer to practice controlled Olympic style lifts without the risk of getting hurt, overwhelmed or intimidated.

By eliminating the eccentric phase of the lift, Power Press $^{\text{TM}}$ safely trains technically challenging exercises, such as an isolated military press, ensuring strong form at peak power. The beauty of FDF's patented Fluid Force means that as the user drives up and reaches the top of a movement, there is no weight coming back down – it disappears to support high intensity, high volume workouts with limited recovery time.

UNIQUE SELLING POINTS

- Strengthen your kinetic chains this machine helps you maintain a neutral spine while combining a squat and overhead press to generate a whole-body power movement.
- Opposite to a free weight, Fluid Force means that any weak points or muscular limitations in an athlete's range of motion are removed to enable you to train as light or as heavy as you need. With fluid resistance as you accelerate, you increase the resistance of the Fluid Force, putting the user in control to perform continuous peak power training.



- Suitable for rehabilitation purposes, users can safely train proper and supportive functional neuromuscular patterns.
- There is no resistance on the way down. Unlike an Olympic lifter who must have the technical skill to manage both the amplitude to throw a weight overhead and its decent, fluid power empowers anybody to go through the same motion safely.
- Pairs perfectly with Power Erg™.

- + Squats or lunges
- + Full body squat press or lunge press
- + Traditional overhead press (military press)
- + Overhead squat or lunge arms extended (mimics Olympic style training)



New Bluetooth, AUTO-ADJUST MONITOR (BAM)



MEASURING PEAK POWER IN WATTS

PowerZone $^{\text{TM}}$ measures peak power in watts, calculating the strength and acceleration provided to accurately measure a user's power.

> PROGRESSIVE TRAINING DATA

Data gathered from each workout is displayed in a power curve and cumulative power graph, enabling real-time comparisons for effective progressive training.

> AUTO-ADJUST

This machine supports an impressive range of adjustable resistance that must be complemented by a monitor that accurately measures watts and other exercise parameters. The PowerZone $^{\text{TM}}$ auto-level adjust monitor with inbuilt potentiometer automatically adjusts the computer's resistance level according to the position of the Fluid Force lever on the tank.

> BLUETOOTH CONNECTIVITY

Each PowerZone™ machine is fitted with the most advanced console technology, enabling Bluetooth connectivity with any compatible smart device. Designed to integrate with rowing and fitness apps, the console will assist with effective training progression, capturing and comparing data for the competitive individual.





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