



BFS Heavy-Duty Super Cage

Free Weights 101: The Power Rack

It's time to take another look at this versatile training tool

Although strength coaches are always looking for the next big thing to give their athletes an edge, they must consider that some pieces of equipment will never go out of style. One such item is the power rack.

Sure, there are many accessories

that can be added to a power rack, such as by replacing the crossbar in front with a chin-up bar, or attaching a dip station to the pillars. And yes, the appearance can always be improved, especially with newer production methods and quality paints. But the basic

design is timeless. One person who knew this was the late Anthony Ditillo.

Ditillo was an educator in the iron game who “walked the talk,” and his writing could be considered ahead of his time. At 5-feet-7, Ditillo at one time had bulked up to a massive 300 pounds

and could perform seated presses to his forehead with 435 pounds for three reps. Then, to demonstrate his knowledge of body composition training, he reduced to just 190 pounds. One of his favorite training tools was the power rack.

Ditillo believed that the power rack was more than just a large squat rack, and much of his training focused on power rack exercises. “It goes without saying that the powerlifter and the weightlifter will benefit tremendously from the correct type of training on the power rack,” said Ditillo in an article he wrote in 1971. “However, to be utilized to the fullest, the power rack work that is to be performed must be of a specialized nature.” More on Ditillo’s training methods later, but first let’s establish a working definition of a power rack.

Power Rack Primer

A power rack consists of four vertical posts linked together to increase its strength. The posts have holes in them so that hooks can be attached to them to support a barbell. Although these hooks can be attached outside the rack, the power rack was originally designed to enable the lifter to exercise inside the posts (a design that gave it the nickname “squat cage”). Some power racks are extremely narrow (some less than two feet), which limits the number of exercises that can be performed comfortably inside them – most trainees just use these narrow racks to perform squats, and usually perform them outside the rack, as they are likely to hit the posts as the squat is performed.

But what makes a power rack especially unique, compared to a squat rack, is that it has bar catches that can be adjusted vertically. This is important for safety reasons.

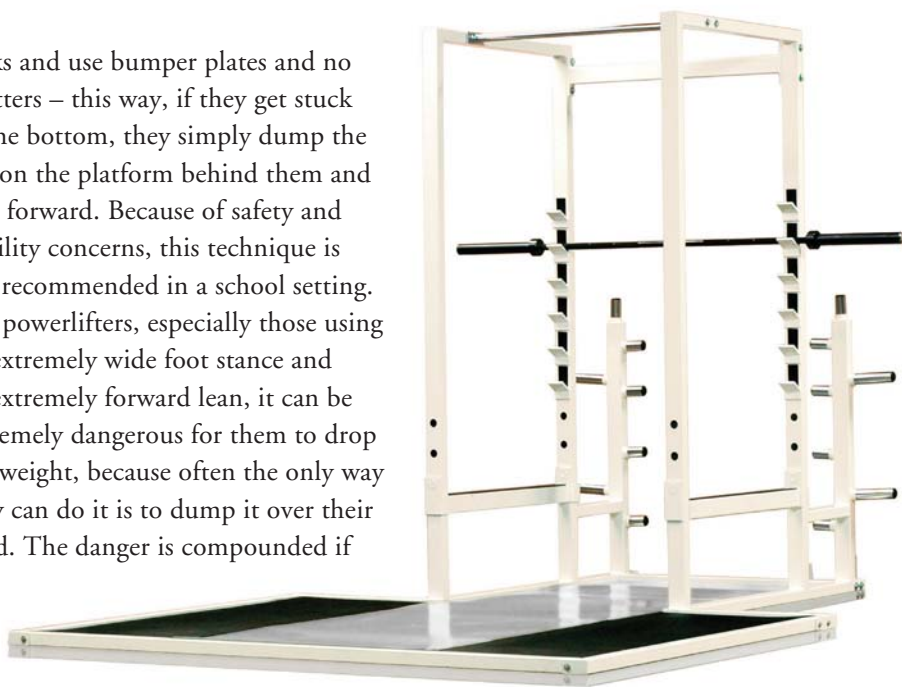
Competitive weightlifters prefer to perform squats on portable squat

racks and use bumper plates and no spotters – this way, if they get stuck at the bottom, they simply dump the bar on the platform behind them and hop forward. Because of safety and liability concerns, this technique is not recommended in a school setting. For powerlifters, especially those using an extremely wide foot stance and an extremely forward lean, it can be extremely dangerous for them to drop the weight, because often the only way they can do it is to dump it over their head. The danger is compounded if

supportive gear is used, as this enables them to use considerably more weight than they could otherwise (at the time of this writing, the current world record squat is 1,250 pounds for men and 854 pounds for women).

Although the power rack is seldom used for the bench press, it is ideal for this purpose. This is because the bench press is unquestionably the single most dangerous exercise in the weightroom. Trainees have died from the bar crashing down on their throats, usually from training at home without spotters. BFS always recommends spotters, but the risk of injury is high if the spotters are not alert or if they use a thumbless grip or improper spotting techniques. In fact, on YouTube you can see many horrifying accidents of individuals suffering serious injuries while performing the bench press – every one of these mishaps could have been prevented if these individuals had been lifting in a power rack.

Another unique feature of the power rack’s bar catches is that they allow the performance of heavy partial movements (which is a training method Ditillo strongly believed in). Powerlifters use partial movements to



For those who like to perform a complete workout in a single location, a product that exceeds industry standards is the BFS 8-Foot Power Rack with Platform.

work on a specific range of motion in a lift, such as the finish of a deadlift, or to overload the strongest positions of a lift. Partial movements are often used in the later stages of rehab; for example, an athlete who is overcoming a pectoral injury may be able to perform the end range of the bench press. As the injury heals, the range of motion can be increased. Carl Miller, an accomplished weightlifting coach from New Mexico who has trained several Olympians, has used this method with tremendous success.

The vertical catches also allow the performance of isometrics, a training method that works specific ranges of motion and is used on a limited scale by advanced athletes. Although isometrics is not as popular as it was in the '60s, many strength coaches who work with elite athletes find that isometrics can help them achieve greater strength gains. It is especially helpful in sports such as wrestling, strongman, and the linemen positions in football.

To perform isometrics in the squat, for example, the safety catches will be placed at a specific height, with the barbell supports set below them. The lifter removes the barbell from the supports and then presses the bar upward against the bar catches. A typical protocol is to hold the contraction for six seconds for several sets.

One variation of isometrics, which was promoted by Ditillo, is called isometronics. The term combines two

types of exercise methods, isometrics and isotonic; a practical definition of isotonic is the movement of a muscle with resistance. One exercise that this method of training could be valuable for is the deadlift.

For the deadlift, set the bar catches at a height just above knee level, a position that for most athletes is considerably stronger than the start position. Perform several deadlifts, bringing the bar only to knee height, and on the last repetition bring the bar

up to the bar catches and perform an isometric contraction. Strength coach Charles Poliquin says he has found isometrics to be a great “plateau buster” for many of his elite athletes.

When selecting the ideal power rack(s) for your facility, look at the amount of space you have available and how your workout programs are designed. For example, if your space is limited, then it would be best to purchase power racks with attached plate holders – even if it means that budget



The BFS Ultimate Multi-Use Rack is a versatile power rack that offers 46 inches of work space – you can even perform power cleans inside the unit!

restrictions will force you to wait a bit longer before your weightroom is fully equipped. Having to use plate trees takes up a considerable amount of space, restricts traffic flow and is less convenient; besides, the cost of purchasing weight trees is comparable to the added cost of having the attached plate holders.

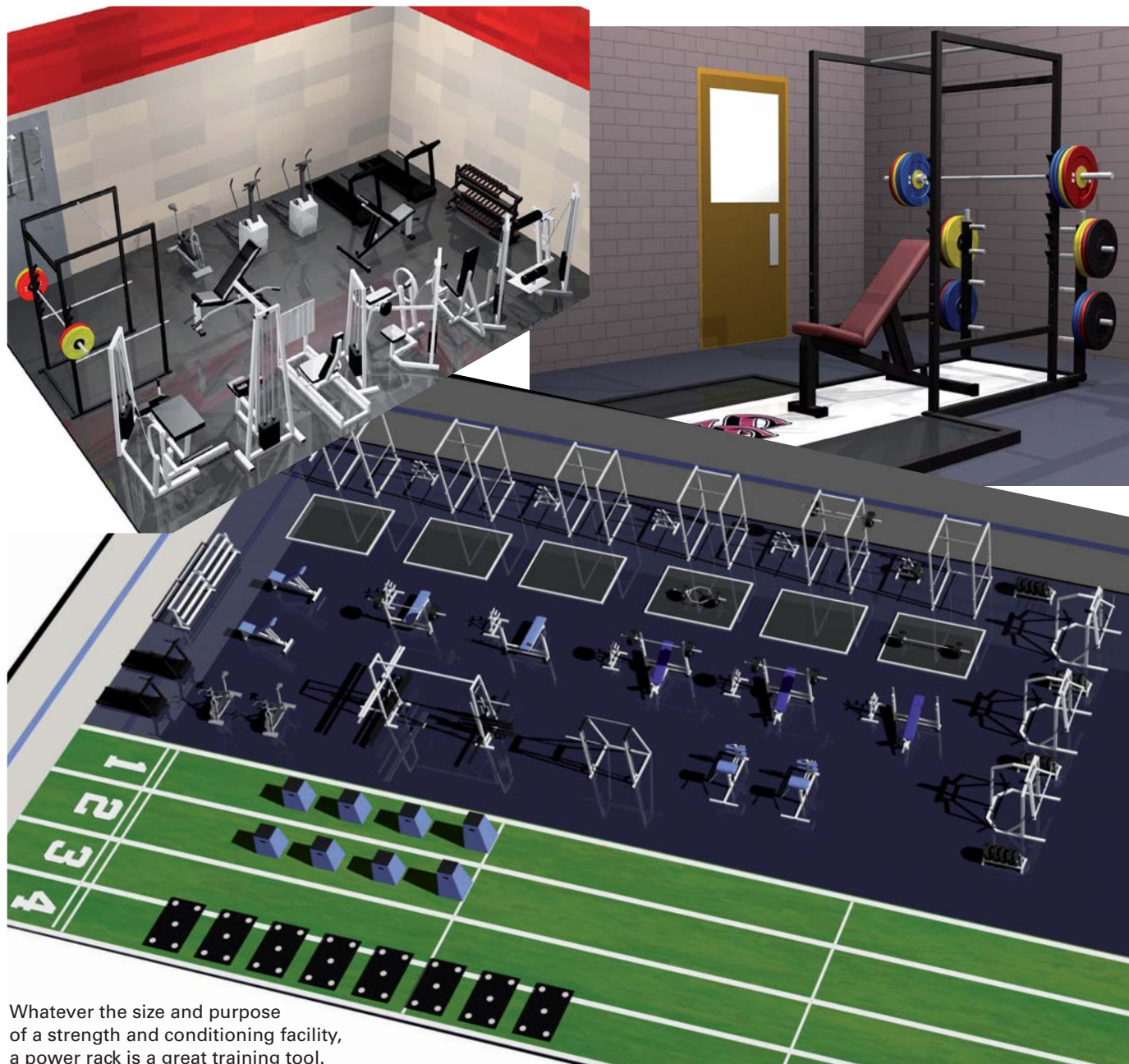
Instead of having removable pins, it's better to have bar catches attached to the vertical supports, as this reduces the amount of time between sets. In

the high school environment these rods often end up on the floor, whereas this is less likely to happen when the bar catches are attached to the vertical supports.

If a coach likes to have his or her athletes perform all their core lifts in one area, then the 8-foot unit is ideal with a lifting platform set in front of it. BFS calls this the 8-Foot Power Rack with Platform because that's exactly what it is. The platform, which can be installed with a coating of

Protect-All®, measures eight feet wide by six feet long and sits flush against an 8-Foot Power Rack. The crossbar in the front of the power rack can be used for chin-ups and pull-ups.

Strength training legends such as Anthony Ditillo promoted heavy free-weight training to get big and strong, and one of Ditillo's basic barbell tools was the power rack. Why not benefit from that knowledge? Make your athletes stronger than ever with this great piece of training equipment. BFS



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