



Product Comparison

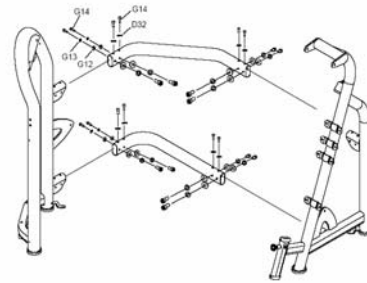
Volume 3

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VR1 vs. Matrix GS

	CYBEX VR1	MATRIX GS
Line Highlights	<p>15 piece line with 11 pieces in production as of June 25, 2007</p> <p>Compact Foot Print</p> <p>Designed to meet ASTM and EN safety standards in standard configuration.</p>	<p>22 piece line</p> <p>The foot print is approximately 20% larger in occupied space when compared to similar machines and comparable movements.</p> <p>Does not meet ASTM or EN safety standards. Weight stacks are open to the user and many are open to the rear and only partially guarded. Partial front shield may be an option though not shown on the website or in literature as an option</p>
	Choice of weight stacks (light or standard) at no additional charge.	No choice of stacks. Standard sliding donut increment weight.
	Optional increment weight is fully enclosed in the weight stack enclosure and evenly loads to top plate to eliminate added drag.	Standard sliding donut increment weight is fully exposed and applies a cantilever load to the top plate which can add significant drag especially with light weights.
	Five standard frame and weight guard colors. Colors can be selected separately at no additional charge. For example Black Chrome frames and Platinum guards. Additional custom colors available for a nominal charge.	One color – “Polarized Titanium”
	Contoured cushions are available in 14 standard colors and may be two-toned for a nominal charge. Additional custom colors and embroidered wear covers available for a nominal charge.	Molded cushions. Black as standard or in “Slate Blue” or “Clay Red” at an additional charge. Custom upholstery colors or embroidered wear guards do not appear to be options.

Fully welded frame for maximum durability



Bolt together frame, Chest Press shown above.

Standard water bottle and towel holder

Standard water bottle and towel holder

Optional gas assist on vertical seat adjustments

Ratcheting seat adjustments

VR1

MATRIX

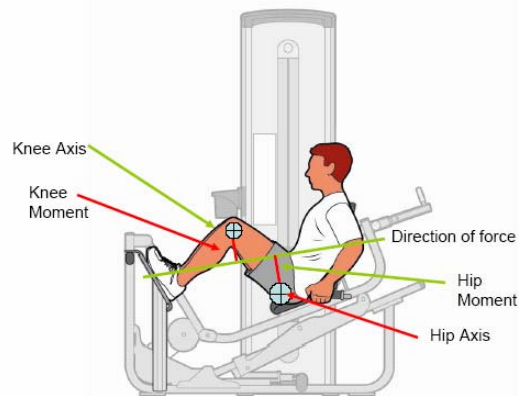
Leg Press



The unique pattern of motion in the VR1 Leg Press ensures that the direction of force is forward of the hip and behind the knee for equal leverage and balanced contribution in producing the motion. This balance of force leads to optimal loading between hip and knee, minimizes joint stress, and maximizes the work done by the muscles. This contrasts most other leg presses which direct the force through the hip, virtually eliminating its contribution to hip extension and requiring high joint loading at the knee.

The four-bar linkage is fairly linear in nature. However, because it lacks a counterbalance (as found on VR3) it must start to the user side of perpendicular at the pivot. This means that the footplate is moving upward as it moves forward. This upward movement limits hip extension and directs the loading towards the hip which emphasizes knee extension and minimizes the ability of the hips to contribute to the movement.

Since VR3 is also a four-bar design comparison here is warranted. VR3 is counterbalanced and therefore the footplate is allowed to start at the top of the pivot arc. The downward and forward movement provides added hip extension which also encourages gluteal involvement.



Leg Extension



Cam based on Cybex experience in isokinetic dynamometry in orthopedic rehab and sports performance.

The input assembly is counterbalanced to so that the user feels only the resistance from the weight stack.

Available with or without start position adjustments.

Precise location of the axis of rotation ensures good alignment and allows the use of a flat tibia pad for greater dispersion of the force into the shin for greater comfort.

Floating tibia pad adjustment maintains start position location and pad location.

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The input is not counterweighted and so the user must always “lift” the input.

Start position adjustment is standard

Inaccurate axis location requires the use of a rolling pad that can slide across the shin.

The short floating pivot always seeks to be 90 degrees from its pivot effectively placing it in the same place for all users.



Seated Leg Curl



Cam based on Cybex experience in isokinetic dynamometry in orthopedic rehab and sports performance.

Available with or without start position adjustments.

Precise location of the axis of rotation ensures good alignment and allows the use of a contoured tibia pad for dispersion of the force.

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Start position adjustment is standard

Inaccurate axis location requires the use of a rolling pad that can slide across the leg.



Hip AB/AD



Single unit provides two actions in one to save floor space



Separate units

Chest Press



Similar geometry and start position adjustment



Side mounted weight stack is easy to access.

Forward mounted weight stack is more difficult to reach and takes up more floor space.

**Overhead
Press**



Similar geometries
Counterbalanced arm for low takeoff weight.
Side mounted weight stack is easy to access.



Counterbalanced but less effectively.
Forward mounted weight stack is more difficult to reach and takes up more floor space.

**Row / Rear
Delt**



Similar geometries
Side mounted weight stack is easy to access.



Forward mounted weight stack is more difficult to reach and places the users feet very close to unprotected moving plates.

Lat Pull



Traditional movement is familiar to all levels of users

Very narrow frame stance could be a tipping hazard.

Arm Extension



No adjustments or axis of rotation position required.

Requires seat adjustment and maintenance of axis of rotation during use.

Back pad supports the user for proper positioning, which in concert with the pulley location provides effective and consistent loading of the triceps.

The glute support does nothing to resist the rearward force from the handle making it difficult to maintain position and loading.

Open and easy access, nothing to step over

Closed based design when combined with getting the user's leg over the glute pad makes ingress /egress difficult.

Swiveling handle provides correct and comfortable hand placement.

The short handle swivel forces ulnar/radial deviation for anyone not of average size.

Arm Curl



No adjustments or axis of rotation position required.

Requires maintenance of axis of rotation during use.

Swiveling cambered handle provides correct and comfortable hand placement.

The short handle in concert with the lack of swivel can be uncomfortable as it can not accommodate for carrying angle.

Rotating, cambered handle allows the user to perform "reverse" curls if desired.

The lack of handle rotation eliminates any pronated grip position and therefore the ability to perform alternate movements like "reverse" curls.