



Tech line: 952-985-5675 info@qa1.net

TK09 Advanced Tuning Expansion Kit

Parts included

Qty	Part #	Description
1	7855-183	BLEED DISC KIT, 5-PK 1.300" OD X .006"
1	7855-184	BLEED DISC KIT, 5-PK 1.300" OD X .006"
1	7855-185	BLEED DISC KIT, 5-PK 1.300" OD X .006"
1	7855-186	BLEED DISC KIT, 5-PK 1.300" OD X .006"
1	7855-187	BLEED DISC KIT, 5-PK 1.300" OD X .006"
1	7855-188	BLEED DISC KIT, 5-PK 1.300" OD X .006"
1	7855-189	BLEED DISC KIT, 5-PK 1.300" OD X .006"
1	7855-190	BLEED DISC KIT, 5-PK 1.300" OD X .006"
1	7855-198	RING SHIM KIT, 8-PK 1.300" OD X .010"
1	7855-199	RING SHIM KIT, 8-PK 1.300" OD X .015"
1	7855-200	RING SHIM KIT, 8-PK 1.300" OD X .020"
1	7855-107	VALVE DISC KIT, 8-PK 1.100" OD X .006"
1	7855-108	VALVE DISC KIT, 8-PK 1.100" OD X .008"
1	7855-109	VALVE DISC KIT, 8-PK 1.100" OD X .010"
1	7855-191	VALVE DISC KIT, 8-PK .542" OD X .004"
1	7855-192	VALVE DISC KIT, 8-PK .542" OD X .006"
1	7855-193	VALVE DISC KIT, 8-PK .542" OD X .008"
1	7855-181	VALVE DISC KIT, 8-PK .542" OD X .010"
1	7855-194	VALVE DISC KIT, 8-PK .542" OD X .012"
1	7855-195	VALVE DISC KIT, 8-PK .542" OD X .015"
1	7855-196	VALVE DISC KIT, 8-PK .542" OD X .020"
1	7857-101	KIT PISTON BALL CHECK 8-PK
1	7857-103	KIT PISTON DOWEL PIN 8-PK

Linear/Digressive Piston

QA1's Variable Linear/Digressive piston features .056" of usable preload that can be adjusted by adding or removing pre-load discs on the rebound valve stack.

When setting pre-load on the rebound valve stack, place your .542" diameter valve discs on the digressive face of the piston that has the QA1 logo. The minimum thickness of these shims, when added together, must be at least .020" to prevent deformation of the main valve stack and a maximum of .050" to allow the valve stack to seal against the piston. If you are using 1.3" x .006" or 1.3" x .008" valve discs for your rebound stack, the minimum thickness of the preload shims must be at least .030" to prevent deformation of the main shim stack.

Another feature includes an optional 1° linear rebound face using a 1.1" sealing shim on the QA1 logo side of the piston as well as a bleed option for linear valving only. The independent compression bleed option can be drilled to your desired bleed amount and can be a one-way bleed (no bleed rebound) by inserting a check ball/dowel pin.



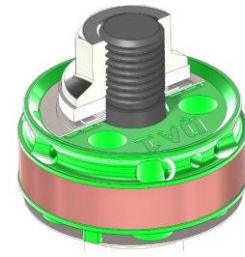
Compression Face



Rebound Face



Digressive Valve Stack



Linear Valve Stack

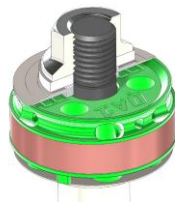
Preload discs

Preload discs are .542" diameter discs used between the digressive side of the piston and the main valve stack to adjust the main valve stack preload. Adding preload discs will decrease the main valve stack preload, decreasing the damping force of the shock whereas removing preload discs will increase the main valve stack preload, increasing the damping force of the shock.

For example, with .056" of usable preload, placing one .020" thick preload disc on the piston will give your main valve stack .036" of preload. Placing two .020" thick preload discs on the piston will give your main valve stack .016" of preload.

Another useful application for the preload discs comes into play when adjusting preload on the main valve stack - it is important to have enough .542" diameter valve discs between the main valve stack and the valve stack plate to allow the valve stack to open and not make contact with the valve stack plate.

Part #	Description
7855-191	VALVE DISC KIT, 8-PK .542" OD X .004"
7855-192	VALVE DISC KIT, 8-PK .542" OD X .006"
7855-193	VALVE DISC KIT, 8-PK .542" OD X .008"
7855-181	VALVE DISC KIT, 8-PK .542" OD X .010"
7855-194	VALVE DISC KIT, 8-PK .542" OD X .012"
7855-195	VALVE DISC KIT, 8-PK .542" OD X .015"
7855-196	VALVE DISC KIT, 8-PK .542" OD X .020"



0.006" Preload

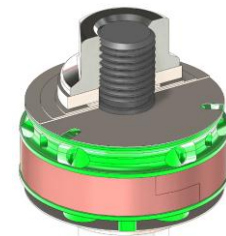


.036" preload

Bleed Shims

Bleed shims allow you to adjust the bleed in both directions without having to drill bleed holes in the piston itself. Place a 1.3" diameter bleed shim on the piston as the sealing shim and make sure the bleed slot is clocked to the piston port if using on a linear face. If using the bleed shim on the QA1 face of the green piston, the slot does not need to be positioned. However, regardless of the piston, the valve stack behind the bleed shim must include a 1.3" diameter shim directly after the bleed shim for it to work properly. When tightening the valve stack, always make sure the bleed shim does not rotate.

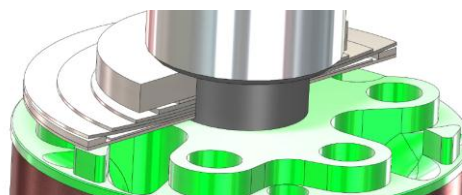
Part #	Description	QA1 SecondDesc	Hole diameter equivalent
7855-183	BLEED DISC KIT, 5-PK 1.300" OD X .006"	.010", 1 SLOT	0.00874
7855-184	BLEED DISC KIT, 5-PK 1.300" OD X .006"	.025", 1 SLOT	0.01382
7855-185	BLEED DISC KIT, 5-PK 1.300" OD X .006"	.025", 2 SLOT	0.019544
7855-186	BLEED DISC KIT, 5-PK 1.300" OD X .006"	.080", 1 SLOT	0.024722
7855-187	BLEED DISC KIT, 5-PK 1.300" OD X .006"	.080", 2 SLOT	0.034962
7855-188	BLEED DISC KIT, 5-PK 1.300" OD X .006"	.080", 3 SLOT	0.042819
7855-189	BLEED DISC KIT, 5-PK 1.300" OD X .006"	.188", 2 SLOT	0.053595
7855-190	BLEED DISC KIT, 5-PK 1.300" OD X .006"	.188", 3 SLOT	0.06564



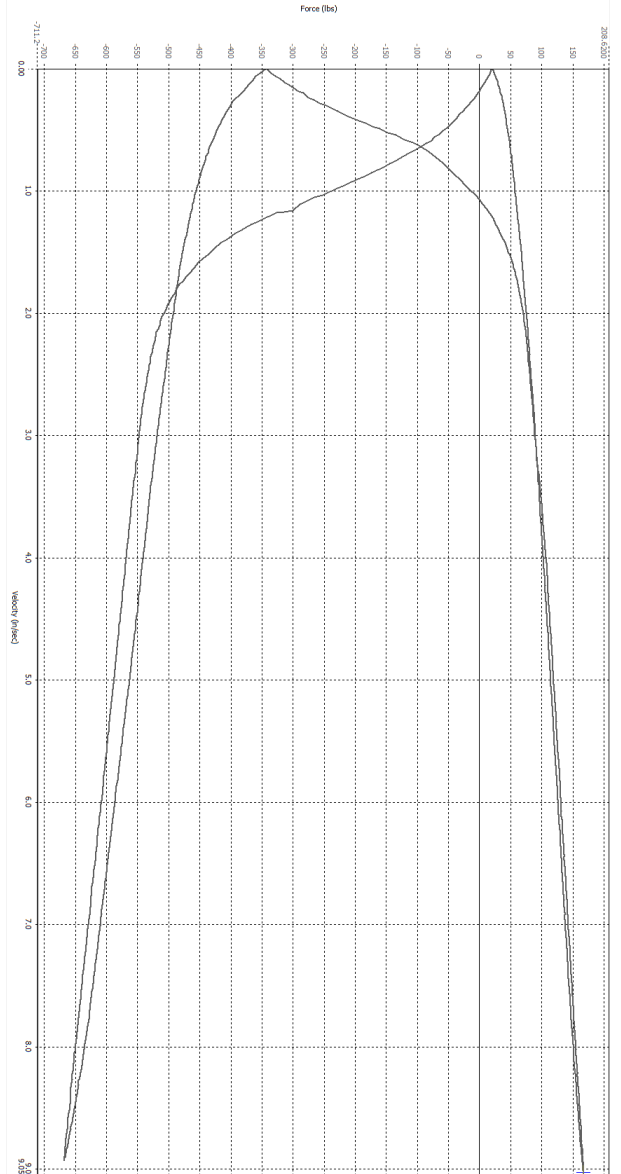
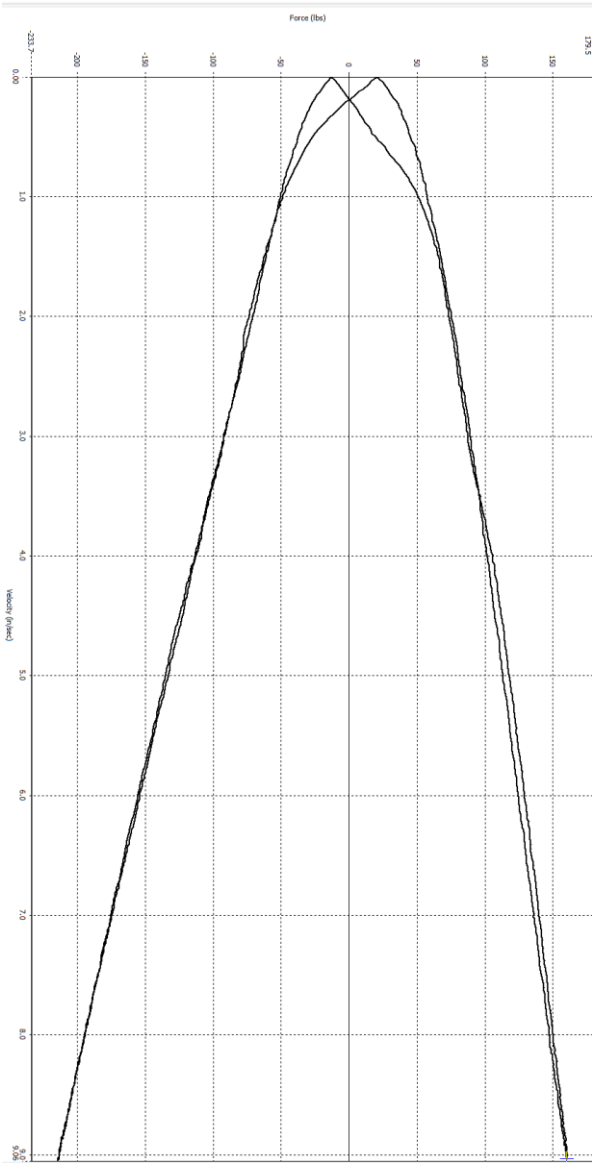
Ring Shims

Ring Shims are designed to add preload on a valve stack of a linear piston to increase the damping force of the shock. When preloading a valve stack, you will need to install a 1.3" diameter sealing disc on the face of the piston. Then, select your desired preload by subtracting the thickness of a 1.1" diameter centering valve disc from the thickness of the ring shim that you have chosen. (For example, a .020" thick ring shim with a .008" thick centering valve disc will give you .012" preload on the valve stack.) Next, install the 1.1" centering disc on the sealing shim followed by the ring shim that will seat outside of the centering valve disc. The valve stack behind the ring shim must start with a 1.3" diameter valve disc with desired valve stack to work properly and retain the ring shim.

Part #	Description
7855-198	RING SHIM KIT, 8-PK 1.300" OD X .010"
7855-199	RING SHIM KIT, 8-PK 1.300" OD X .015"
7855-200	RING SHIM KIT, 8-PK 1.300" OD X .020"
7855-107	VALVE DISC KIT, 8-PK 1.100" OD X .006"
7855-108	VALVE DISC KIT, 8-PK 1.100" OD X .008"
7855-109	VALVE DISC KIT, 8-PK 1.100" OD X .010"

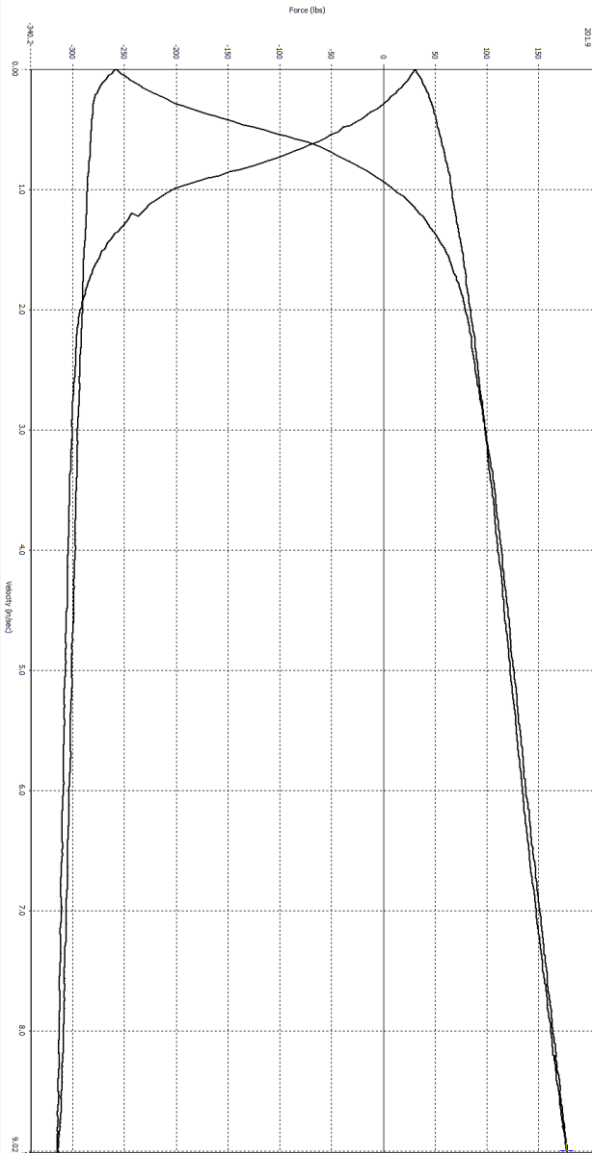


Sample Builds and Dyno Graphs

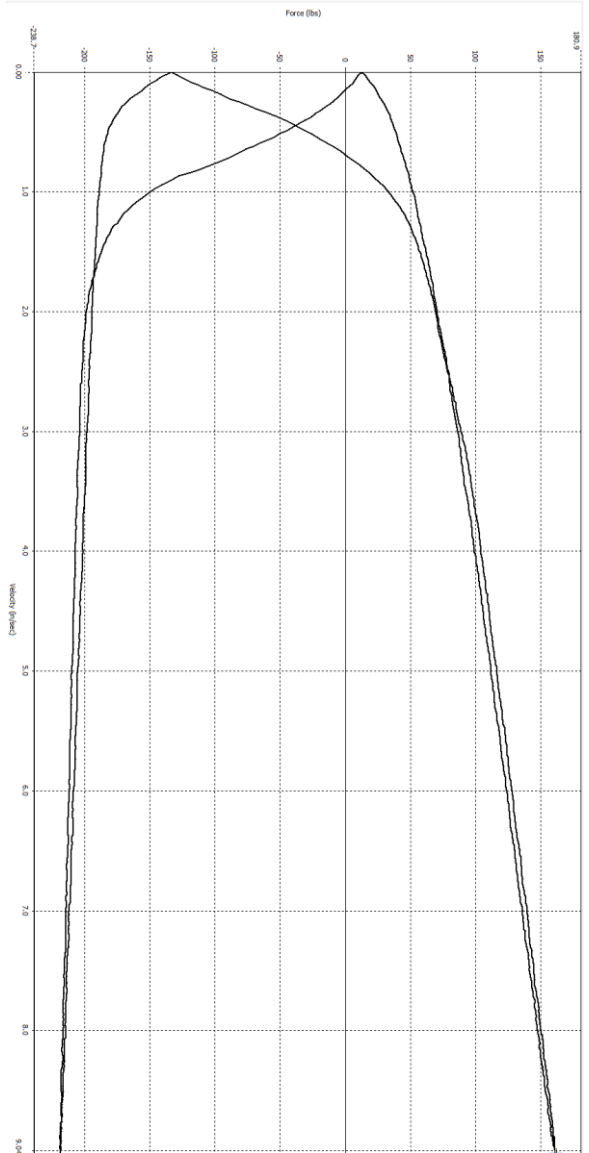


- R** 4-.542" x .010"
- E** .900" x .010"
- B** 1.1" x .010"
- Digres. .036"Pl/.00" bld
- Linear/.00" bld
- C** 1.3" x .006"
- O** 1.1" x .006"
- M** .9" x .006"
- P** .542" x .010"

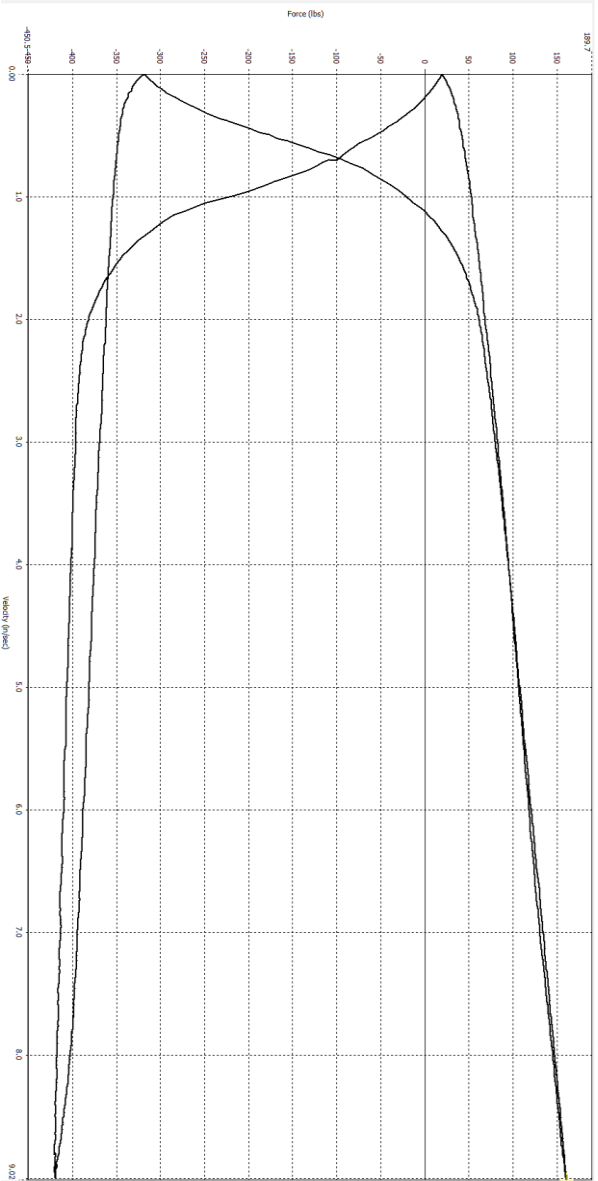
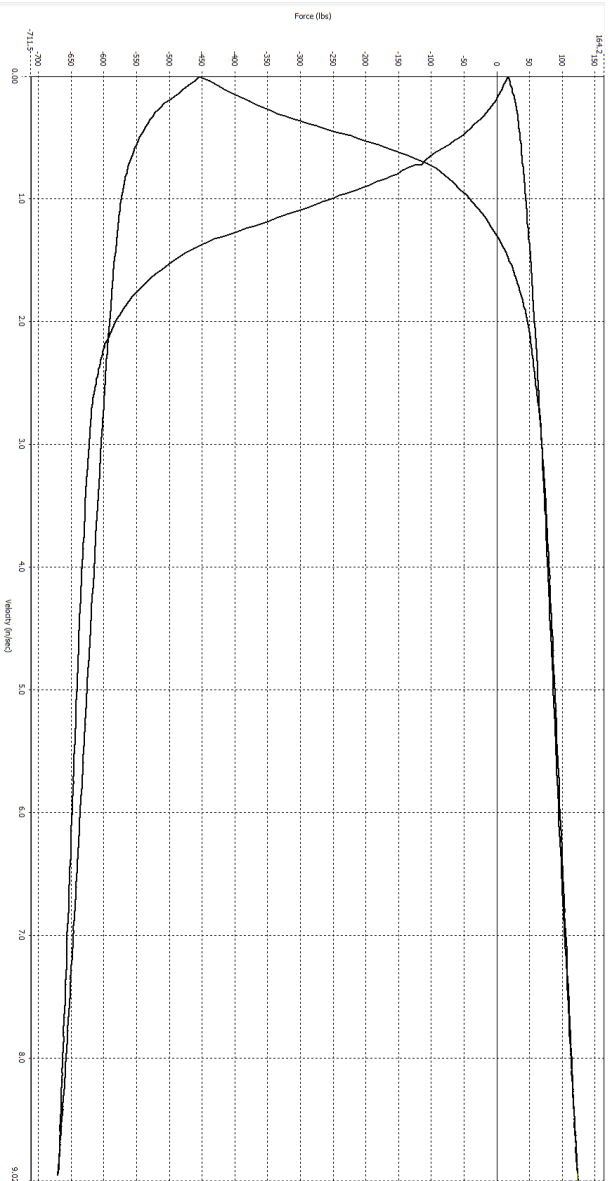
- 4-.542" x .010"
- R** 4-1.3" x .010"
- E** .900" x .010"
- B** 1.1" x .010"
- Digres. .036"Pl/.00" bld
- Linear/.00" bld
- C** 1.3" x .006"
- O** 1.1" x .006"
- M** .9" x .006"
- P** .542" x .010"



- R** 4-.542" x .010"
 - E** 3-1.3" x .010"
 - B** 2-.542" x .010"
- Digres-.036"Pl/.00"bld
- Linear/.00" bld
- C** 1.3" x .008"
 - O** 1.1" x .008"
 - M** .9" x .008"
 - P** .542" x .010"

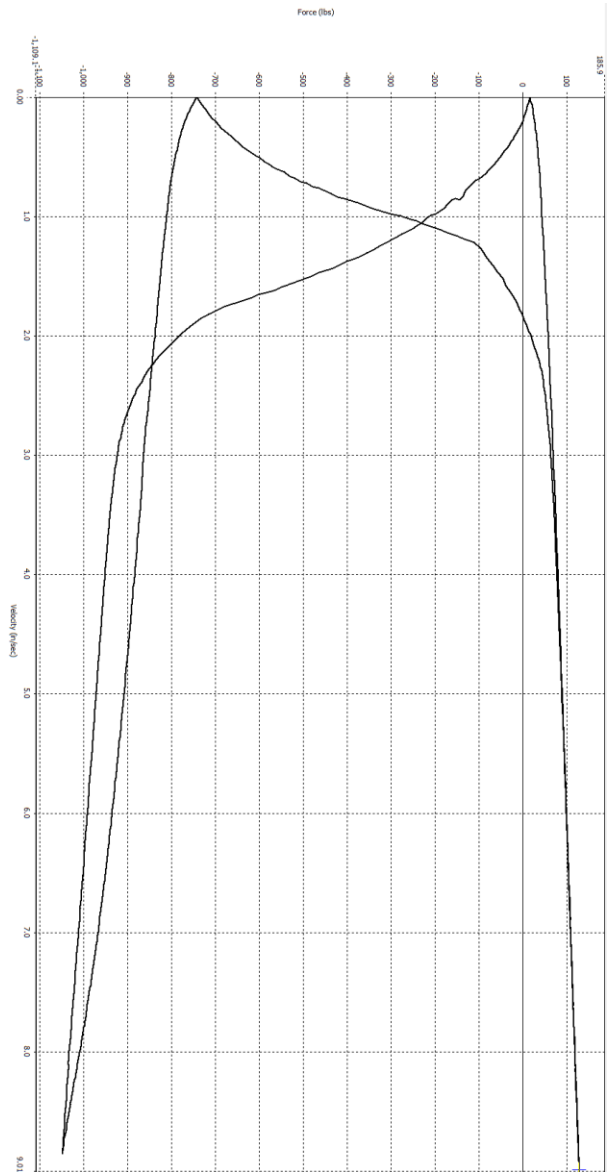
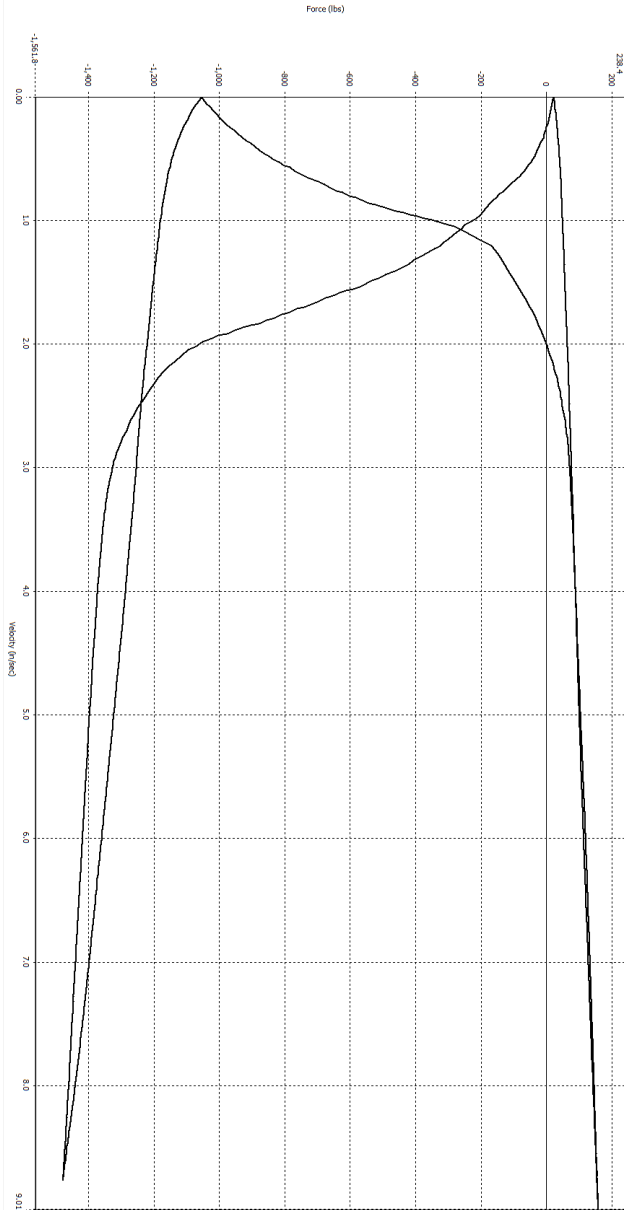


- R** 4-.542" x .010"
 - E** 2-1.3" x .010"
 - B** 2-.542" x .010"
- Digres-.036"Pl/.00"bld
- Linear/.00" bld
- C** 1.3" x .006"
 - O** 1.1" x .006"
 - M** .9" x .006"
 - P** .542" x .010"



- R** 4-.542" x .010"
- E** 4-1.3" x .012"
- B** 2-.542" x .010"
- Digres-.036"Pl/.00"bid
- Linear/.00" bid
- C** 1.3" x .008"
- O** 1.1" x .008"
- M** .9" x .008"
- P** .542" x .010"

- R** 4-.542" x .010"
- E** 4-1.3" x .010"
- B** 2-.542" x .010"
- Digres-.036"Pl/.00"bid
- Linear/.00" bid
- C** 1.3" x .006"
- O** 1.1" x .006"
- M** .9" x .006"
- P** .542" x .010"



- R** 4-.542 x .010"
- E** 6-1.3" x .015"
- B** .542" x .015"
- Digres-.041"PL/.00"bid
- Linear/.00" bid
- C** 1.3" x .006"
- O** 1.1" x .006"
- M** .9" x .006"
- P** .542" x .010"

- R** 4-.542 x .010"
- E** 6-1.3" x .015"
- B** 2-.542" x .010"
- Digres-.036"PL/.00"bid
- Linear/.00" bid
- C** 1.3" x .006"
- O** 1.1" x .006"
- M** .9" x .006"
- P** .542" x .010"