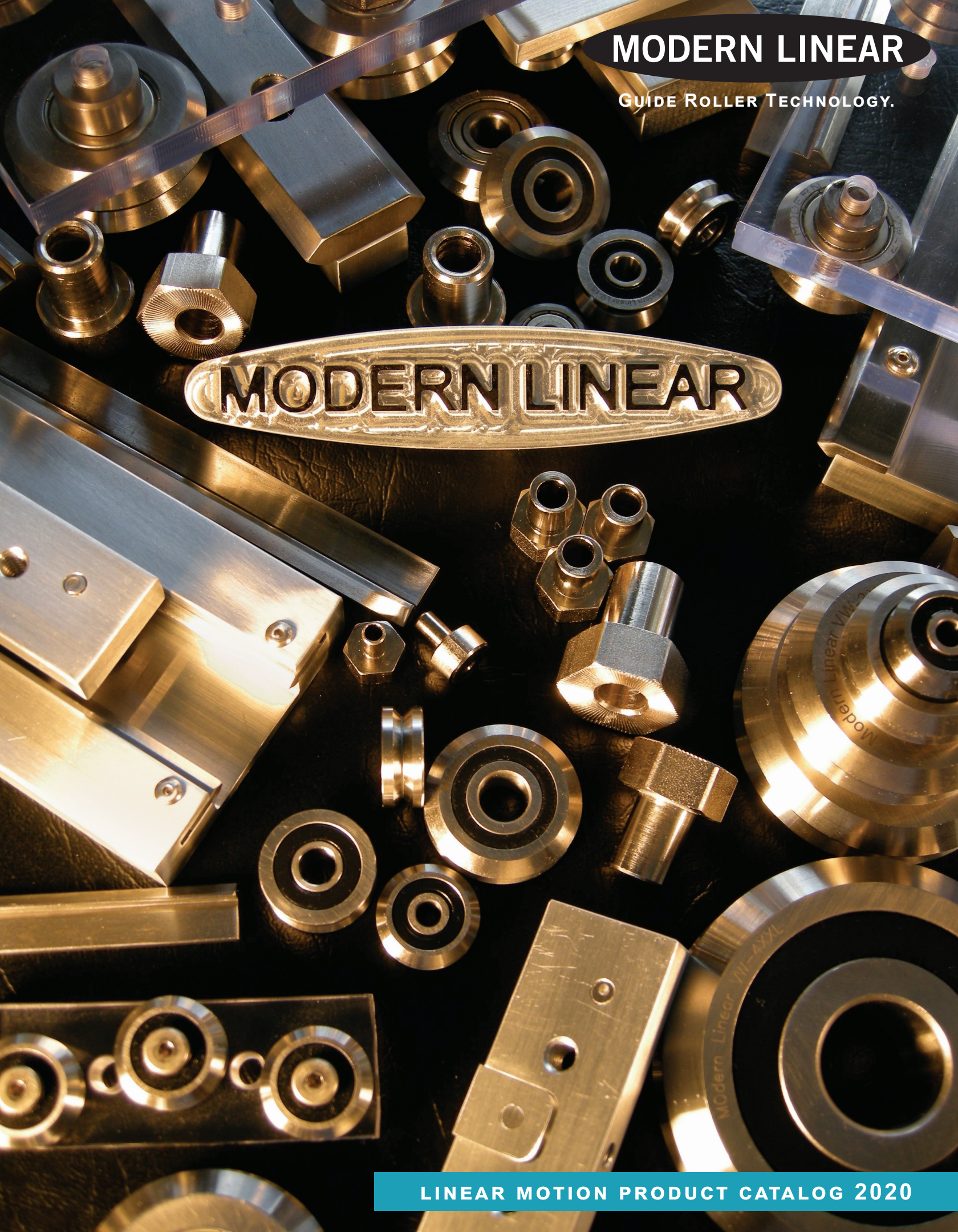


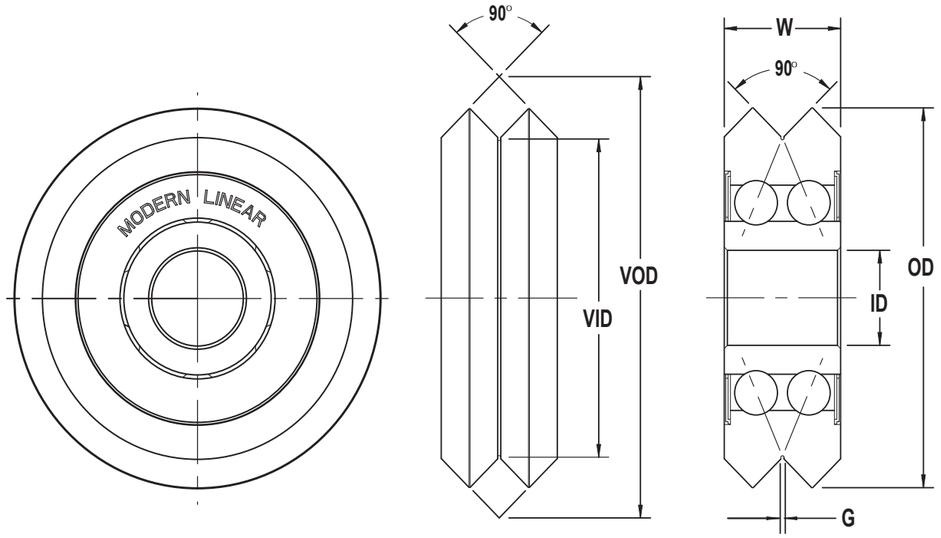
MODERN LINEAR

GUIDE ROLLER TECHNOLOGY.

LINEAR MOTION PRODUCT CATALOG 2020

MODERN LINEAR

GUIDE ROLLERS



DIMENSIONS (in.)

SHIELDS	SEALED	SEALED SS	OD	ID	W	VID	VOD	G ± .002
VW-1	VW-1X	VW-1SSX	0.770	0.188	0.310	0.625	0.936	0.050
VW-2	VW-2X	VW-2SSX	1.210	0.375	0.437	1.000	1.437	0.040
VW-3	VW-3X	VW-3SSX	1.800	0.472	0.625	1.500	2.125	0.040
VW-4	VW-4X	VW-4SSX	2.360	0.591	0.750	2.000	2.750	0.040
VW-4XL	VW-4XXL	VW-4XLSSX	2.970	0.866	1.000	2.500	3.500	0.045

SPECIFICATIONS & OPTIONS

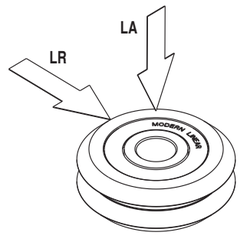
- Ground, double row angular contact ball bearings.
- ABEC-5, pre-lubricated with NLGI #2 grease.
- Working temperature range of guide roller -30° C-100° C.
- Bearings can be modified to extend range.
- All dimensions are industry standard (± .005 inches), unless otherwise specified.

MATERIALS

ROLLER	STEEL	STAINLESS
Outer	52100	440 SS
Inner	52100	440 SS
Balls	52100	440 SS
Retainers	NYLON66	NYLON66
Grease	NLGI #2	NLGI #2

GUIDE ROLLER CAPACITY (lbs.)

SIZE	LR	LA	MAX RPM	WEIGHT
VW-1	134	57	2400	0.04
VW-2	322	140	1500	0.13
VW-3	691	382	1000	0.43
VW-4	1058	899	750	0.90
VW-4XL	1710	1480	500	1.20



Working load capacities reflect lubricated roller/track interface.
Ratings based on 2 million inches of travel life.

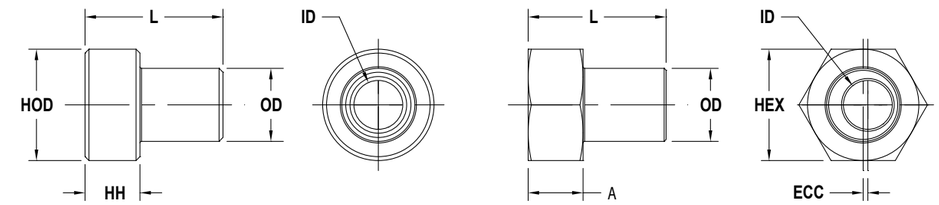
NOMENCLATURE

GUIDE ROLLER VW - 2 - SS - X
(Roller; Size; Stainless Steel; Sealed)

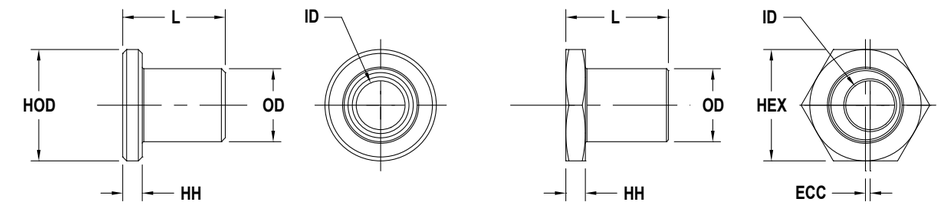
MODERN LINEAR

GUIDE ROLLER BUSHINGS

STANDARD



LOW HEAD



STANDARD DIMENSIONS (in.)

CON	ECC	ROLLER	L	OD	HEX	ID	EC	ECC	HH	HOD
B-1	BX-1	VW-1	0.550	0.1873	7/16	0.140	#6	0.012	0.250	0.440
B-2	BX-2	VW-2	0.706	0.3748	9/16	0.250	1/4	0.024	0.281	0.560
B-3	BX-3	VW-3	0.990	0.4722	3/4	0.312	5/16	0.042	0.375	0.750
B-4	BX-4	VW-4	1.177	0.5904	7/8	0.375	3/8	0.060	0.437	0.880
B-4XL	BX-4XL	VW-4XL	1.555	0.8650	1-1/4	0.563	9/16	0.060	0.565	1.250

LOW HEAD DIMENSIONS (in.)

CON	ECC	ROLLER	L	OD	HEX	ID	EC	ECC	HH	HOD
B-1 LH	BX-1 LH	VW-1	0.380	0.1873	7/16	0.140	#6	0.012	0.080	0.440
B-2 LH	BX-2 LH	VW-2	0.525	0.3748	9/16	0.250	1/4	0.024	0.100	0.560
B-3 LH	BX-3 LH	VW-3	0.740	0.4722	3/4	0.312	5/16	0.042	0.125	0.750
B-4 LH	BX-4 LH	VW-4	0.865	0.5904	7/8	0.375	3/8	0.060	0.125	0.880
B-4XL LH	BX-4XL LH	VW-4XL	1.178	0.8650	1-1/4	0.563	9/16	0.060	0.188	1.250

SPECIFICATIONS & OPTIONS

- BX = Eccentric Bushing.
- Eccentric mounting hole.
- By rotating the BX bushing on its fastener, the clearance between the wheel and track can be adjusted.
- Eccentric bushing has knurled face to hold position.
- B = Stationary Bushing.
- Concentric mounting hole.
- The major load should be carried on the stationary bushing.
- SS Signifies Stainless Steel.
- All dimensions are industry standard (± .005 inches), unless otherwise specified.

MATERIALS

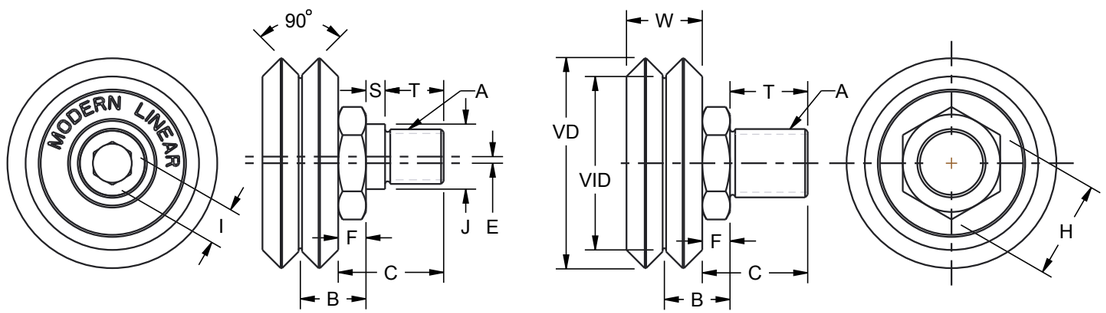
- Carbon steel with electroless nickel plating.
- 303 SS

NOMENCLATURE

BUSHINGS B X - 2 SS - LH
(Bushing; Eccentric; Size; Stainless Steel; Low Head)

MODERN LINEAR

STUDDED GUIDE ROLLERS: SHORT



ECCENTRIC

CONCENTRIC

DIMENSIONS (mm)

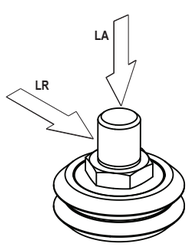
SIZE	A	B	C	E	F	H (in.)	I	J	S	T	VID (in.)	VD (in.)	W (in.)
VWIC-1	M8x1.25	7.3	11.5	-	3.4	7/16	2.5	-	-	8.1	0.625	0.781	0.310
VWIC-2	M10x1.5	9.6	15.4	-	4.1	9/16	5.5	-	-	11.4	1.000	1.219	0.437
VWIC-3	M12x1.75	13.6	20.8	-	5.7	3/4	6.0	-	-	15.1	1.500	1.813	0.625
VWIC-4	M14x2.0	16.4	25.8	-	6.8	7/8	8.0	-	-	19.0	2.000	2.375	0.750
VWIE-1	M6x1.0	7.3	11.5	0.61	3.4	7/16	2.5	6.30	2.2	5.9	0.625	0.781	0.310
VWIE-2	M8x1.25	9.6	15.4	0.97	4.1	9/16	5.5	9.53	2.8	8.6	1.000	1.219	0.437
VWIE-3	M10x1.5	13.6	20.8	1.50	5.7	3/4	6.0	10.72	4.3	10.8	1.500	1.813	0.625
VWIE-4	M12x1.75	16.4	25.8	2.01	6.8	7/8	8.0	12.70	4.5	14.5	2.000	2.375	0.750

SPECIFICATIONS & OPTIONS

- Studded guide rollers are made from standard Modern Linear “VW” guide rollers and a swaged stainless steel mounting stud.
- They are available in concentric (non-adjustable) versions, (VWIC) and eccentric (adjustable) versions (VWIE).
- All studded rollers include a hex socket for easy mounting.
- They can be ordered with 52100 steel “VW” rollers as well as stainless steel, sealed rollers, designated with - SSX suffix.
- Stainless steel nut and washer available if needed.
- All dimensions are industry standard (± .005 inches), unless otherwise specified.

MATERIALS

ROLLER	STEEL	STAINLESS
Outer	52100	440 SS
Inner	52100	440 SS
Balls	52100	440 SS
Retainer	NYLON66	NYLON66
Grease	NLGI #2	NLGI #2
Stud	303 SS	303 SS



GUIDE ROLLER CAPACITY (lbs.)

SIZE	LR	LA	MAX RPM	WEIGHT
1	134	57	2400	0.04
2	322	140	1500	0.13
3	691	382	1000	0.43
4	1058	899	750	0.90

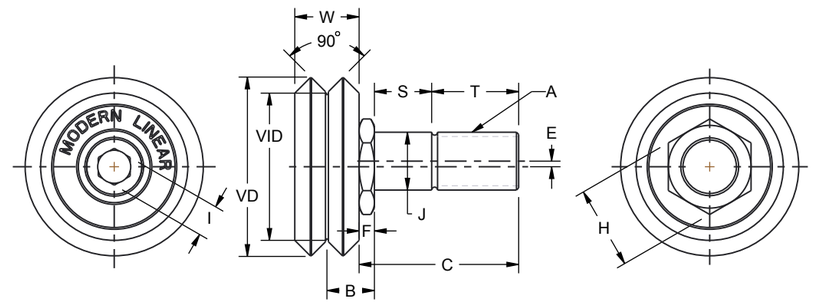
NOMENCLATURE

STUDDED GUIDE ROLLER VWIE - 2 - SS - X

Studded Guide Roller | Size | Stainless Steel | Sealed

MODERN LINEAR

STUDDED GUIDE ROLLERS: LONG



ECCENTRIC / CONCENTRIC

DIMENSIONS (mm)

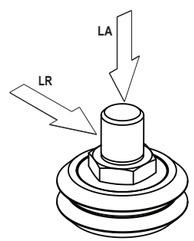
SIZE	A	B	C	E	F	H (in.)	I	J	S	T	VID (in.)	VD (in.)	W (in.)
VWAC-1	M6x1.0	6.0	17.1	-	2.1	7/16	2.5	5.97	6.1	8.9	0.625	0.781	0.310
VWAC-2	M10x1.5	8.2	27.5	-	2.6	9/16	5.5	9.97	9.9	15.0	1.000	1.219	0.437
VWAC-3	M12x1.75	11.4	33.5	-	3.5	3/4	6.0	11.97	12.1	17.9	1.500	1.813	0.625
VWAC-4	M16x2.0	12.6	43.2	-	3.1	7/8	8.0	15.97	16.0	24.1	2.750	2.375	0.750
VWAE-1	M6x1.0	6.0	17.1	0.61	2.1	7/16	2.5	5.97	6.1	8.9	0.625	0.781	0.310
VWAE-2	M10x1.5	8.2	27.5	0.97	2.6	9/16	5.5	9.97	9.9	15.0	1.000	1.219	0.437
VWAE-3	M12x1.75	11.4	33.5	1.50	3.5	3/4	6.0	11.97	12.1	17.9	1.500	1.813	0.625
VWAE-4	M16x2.0	12.6	43.2	1.50	3.1	7/8	8.0	15.97	16.0	24.1	2.750	2.375	0.750

SPECIFICATIONS & OPTIONS

- Studded guide rollers are made from standard Modern Linear “VW” guide rollers and a swaged stainless steel mounting stud.
- They are available in concentric (non-adjustable) versions, (VWIC) and eccentric (adjustable) versions (VWIE).
- All studded rollers include a hex socket for easy mounting.
- They can be ordered with 52100 steel “VW” rollers as well as stainless steel, sealed rollers, designated with - SSX suffix.
- Stainless steel nut and washer available if needed.
- All dimensions are industry standard (± .005 inches), unless otherwise specified.

MATERIALS

ROLLER	STEEL	STAINLESS
Outer	52100	440 SS
Inner	52100	440 SS
Balls	52100	440 SS
Retainer	NYLON66	NYLON66
Grease	NLGI #2	NLGI #2
Stud	303 SS	303 SS



GUIDE ROLLER CAPACITY (lbs.)

SIZE	LR	LA	MAX RPM	WEIGHT
1	134	57	2400	0.04
2	322	140	1500	0.13
3	691	382	1000	0.43
4	1058	899	750	0.90

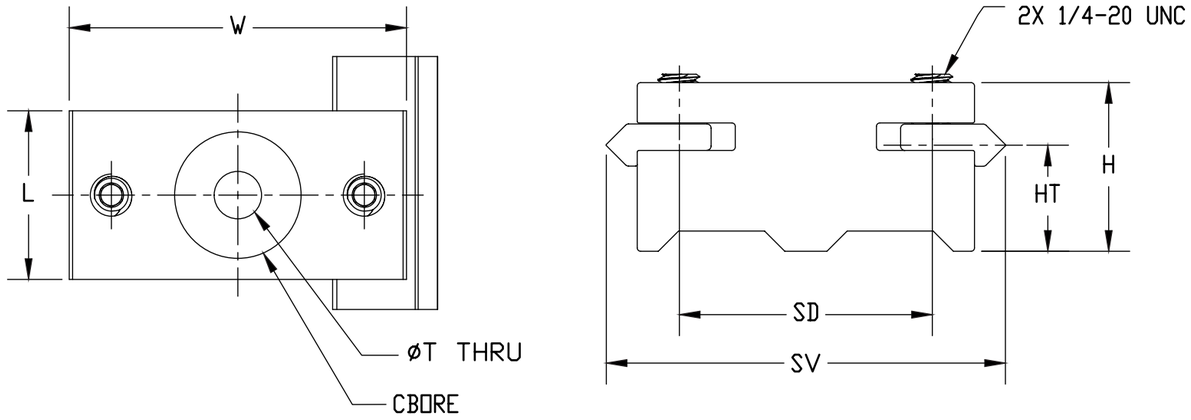
NOMENCLATURE

STUDDED GUIDE ROLLER VWAC - 2 - SS - X

Studded Guide Roller | Size | Stainless Steel | Sealed

MODERN LINEAR

TRACK CLAMP

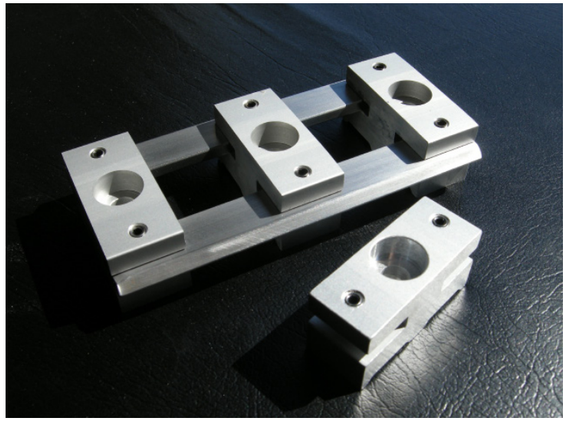


DIMENSIONS (in)

SIZE	W	L	HT	H	SD	SV	CBORE	THRU	Track
TC-1	1.500	1.000	0.505	0.750	1.500	1.750	0.500	0.156	T-1
TC-2	2.000	1.000	0.679	1.000	1.500	2.374	0.750	0.281	T-2
TC-3	2.500	1.000	0.750	1.250	1.500	3.000	0.750	0.344	T-3

* All dimensions are industry standard (± .005 inches), unless otherwise specified.

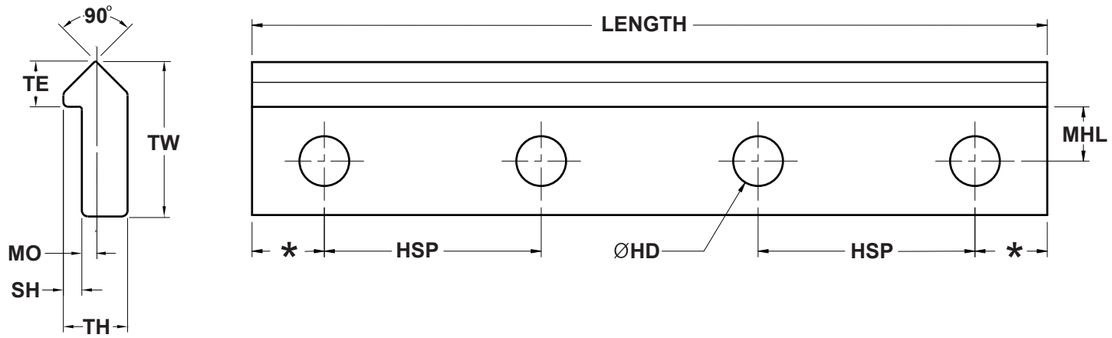
* Track sold separately



- Track Clamps act as a stand-off and intermittent support to reduce areas for debris to accumulate.
- Profile is the same as the Vector Quad extrusion base.
- Made of machined, anodized 6063 aluminum.
- Design ensures parallelism across two pieces of track.
- Track sections are held in position with setscrews.
- Allows for linear guide to span gap if necessary.
- Save time and money with ease of installation.
- Also compatible with Vector Quad Carriages

MODERN LINEAR

SINGLE EDGE TRACK



* End spacing dimension is equal at both ends based on customer specified length.

DIMENSIONS (in.)

Guide Roller Size	Width	Height	Mounting Shoulder Location	Mounting Shoulder to Center Line	Mounting Shoulder Depth	Hole to Hole Spacing	Hole Size (Diameter)	Mounting Hole Location	Weight Per Foot (Lbs.)
SIZE	TW	TH	TE	MO	SH	HSP	HD	MHL	
T-1	0.437	0.187	0.125	0.031	0.062	2.000	0.156	0.156	0.18
T-2	0.625	0.250	0.187	0.031	0.094	3.000	0.203	0.219	0.34
T-3	0.875	0.343	0.250	0.062	0.109	3.000	0.281	0.313	0.69
T-4	1.062	0.437	0.312	0.093	0.125	4.000	0.344	0.375	1.10

SPECIFICATIONS & OPTIONS

- Cut to length tolerance ± .063”.
- Hole spacing and size tolerance is ± .005”.
- V-edge is case hardened to 55+ Rc.
- Track is available undrilled or pre-drilled and cut to length.
- Track can be ordered with corrosion resistant options: Black Oxide, Electroless Nickel, Nedox.
- Track can be All dimensions are industry standard (± .005 inches), unless otherwise specified.

MATERIALS

- Track material is 1045.
- Stainless Material is 420 SS, designated by - SS.

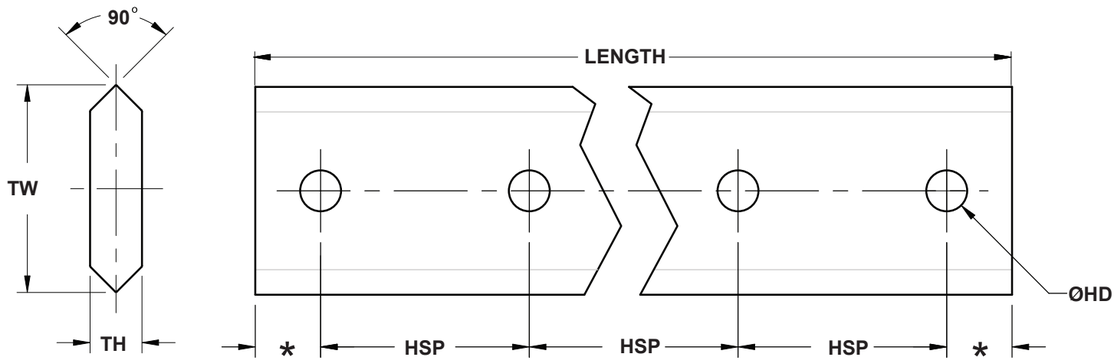
NOMENCLATURE

SINGLE TRACK T D - 2 SS - 1263 - 5

- T: Track
- D: Drilled
- 2: Size
- SS: Stainless Steel
- 1263: Length (12.63")
- 5: Holes

MODERN LINEAR

DOUBLE TRACK



* End spacing dimension is equal at both ends based on customer specified length.

DIMENSIONS (in.)

Guide Roller Size	Width	Height	Hole to Hole Spacing	Hole Size (Diameter)	Weight Per Foot (Lbs.)
SIZE	**TW**	**TH**	**HSP**	**HD**	
DT-1	0.750	0.187	4.000	0.156	0.45
DT-2	1.000	0.250	6.000	0.281	0.73
DT-3	1.250	0.343	8.000	0.343	1.33
DT-4	1.500	0.438	8.000	0.406	2.03

SPECIFICATIONS & OPTIONS

- Cut to length tolerance ± .063”.
- Hole spacing and size tolerance is ± .005”.
- V-edge is case hardened to 55+ Rc.
- Double Track is only available pre-drilled.
- Track can be ordered with corrosion resistant options: Black Oxide, Electroless Nickel, Nedox.
- All dimensions are industry standard (± .005 inches), unless otherwise specified.

MATERIALS

- Track material is 1045.

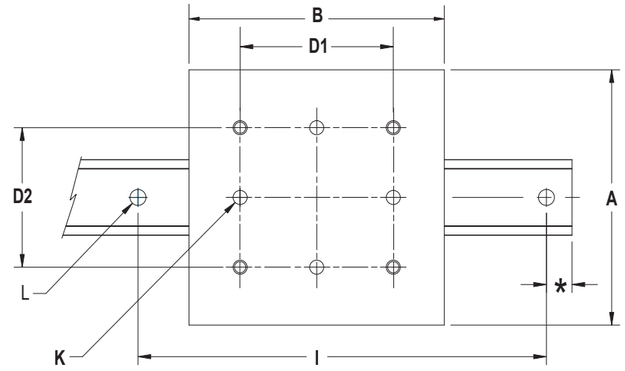
NOMENCLATURE

DOUBLE TRACK **DT - 2 - 2600 - 5**

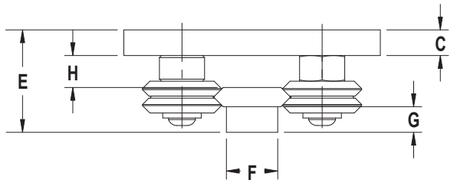
Double Track | Size | Length (26") | # Holes

MODERN LINEAR

DOUBLE TRACK LINEAR GUIDE



- Compact overall package.
- Standard and custom lengths.
- Easy to Install.



* End spacing dimension is equal at both ends based on customer specified length.

DIMENSIONS (in.)

SIZE	A	B	C	D1	D2	E	F	G	H	I	K	L	CARRIAGE	RAIL
DT-1	2.500	2.500	0.250	1.500	1.366	1.030	0.500	0.250	0.312	4.000	#6-32 UNC	0.156	DTC-1	DTR-1
DT-2	4.000	4.000	0.500	2.500	1.993	1.625	0.750	0.500	0.375	6.000	1/4-20 UNC	0.281	DTC-2	DTR-2
DT-3	5.000	5.000	0.500	3.000	2.738	1.750	0.750	0.500	0.500	8.000	5/16-18 UNC	0.343	DTC-3	DTR-3
DT-4	6.000	6.000	0.625	3.500	3.483	2.280	1.000	0.625	0.594	8.000	3/8-16 UNC	0.406	DTC-4	DTR-4

SPECIFICATIONS & OPTIONS

- Carriage and Rail are ordered separately.
- Carriage: DTC (Rollers Pre-assembled to *Aluminum Plate
- Rail: DTR (Includes track and spacer.) *
- *Steel spacer and plate available as option.
- Double Track is only available in 1045 Steel.
- All dimensions are industry standard (± .005 inches), unless otherwise specified.

MATERIALS

Carriage Plate	6061-T6 Aluminum Clear Anodized
Track Spacer	6061-T6 Aluminum Clear Anodized
Fasteners	18-8 Stainless Steel
Double Track	See Double Track
Bushings	See Guide Roller Bushings
Rollers	See Guide Rollers

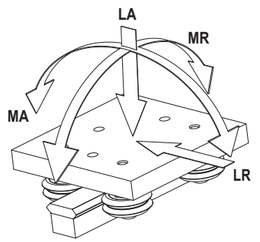
NOMENCLATURE

CARRIAGE **DTC - 2 - SSX**

Double Track Carrige | Size | Stainless Steel Rollers

QUAD **DTR - 2 - 5000 - 5**

Double Track Rail | Size | Length 50" | # Holes



LOAD CAPACITY

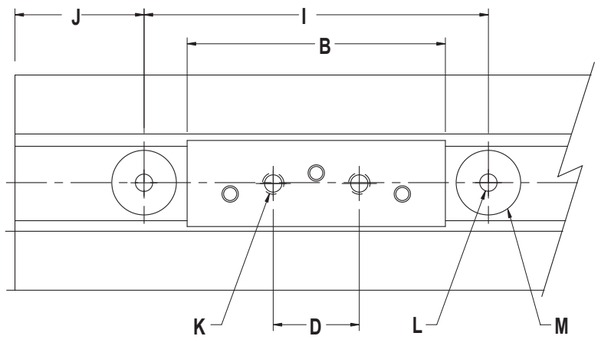
	LBS.		IN - LBS.	
SIZE	**LA**	**LR**	**MA**	**MR**
DT-1	228	268	125	118
DT-2	560	644	505	434
DT-3	1528	1382	1776	1676
DT-4	3596	2116	5106	5091

Working load capacities reflect lubricated wheel/track interface.

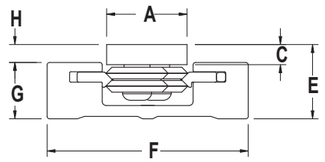
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MODERN LINEAR

VECTOR TRIO LINEAR GUIDE



- 3 roller carriage gives a compact design.
- Patent pending compliant rail feature.
- No need to adjust carriage fit up.
- Compliant rail adjusts to system inaccuracies.
- Standard and custom lengths.



DIMENSIONS (in)

SIZE	A	B	C	D	E	F	G	H	I	K	L	M	CARRIAGE	RAIL
VT-1	1.000	3.000	0.250	1.000	0.960	2.500	0.700	0.223	4.000	1/4-20 UNC	13/64 (0.203)	.75 X .10 DP	VTC-1	VTR-1
VT-2	1.400	4.250	0.375	1.400	1.500	3.500	1.250	0.260	6.000	5/16-18 UNC	9/32 (0.281)	.75 X .20 DP	VTC-2	VTR-2
VT-3	2.000	6.000	0.500	2.000	2.088	4.500	1.750	0.338	8.000	3/8-16 UNC	13/32 (0.406)	1.00 X .30 DP	VTC-3	VTR-3

SPECIFICATIONS & OPTIONS

- Guide is available with adjustable carriage.
- Rigid rail recommended for use with adjustable carriage and/or when rails need to be joined end to end.

  VTC - ____ - A Adjustable Carriage

  VTR - ____ - R Rigid Rail
- Rail and carriages are sold separately.
- All dimensions are industry standard (± .005 inches), unless otherwise specified.

MATERIALS

Carriage Plate	6061 Aluminum Clear Anodized
Track Spacer	6061 Aluminum Clear Anodized
Fasteners	18-8 Stainless Steel
Track	See Single Edge Track
Bushings	See Guide Roller Bushings
Rollers	See Guide Rollers

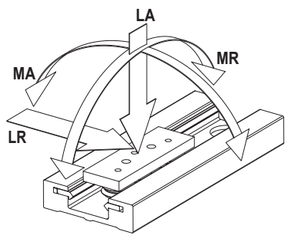
NOMENCLATURE

CARRIAGE VTC - 2 - SSX - A

Vector Trio Carrige | Size | Stainless Steel Rollers (VW2 - SSX) | Adjustable

RAIL VTR - 2 - R - SS - 3800 - 7

Vector Trio Rail | Size | Rigid | Stainless Steel Track | Length 38" | # Holes



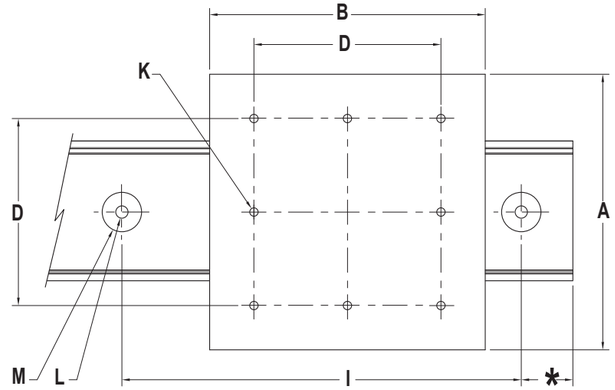
LOAD CAPACITY (lbs.)

	LBS.		IN - LBS.	
SIZE	LA	LR	MA	MR
VT-1	171	268	54	194
VT-2	420	644	190	701
VT-3	1146	1382	726	2789

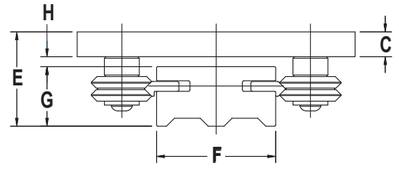
Working load capacities reflect lubricated wheel/track interface.

MODERN LINEAR

VECTOR QUAD LINEAR GUIDE



- 4 Roller Carraige offers good load capacity in all directions.
- Standard and custom lengths.
- Low Profile
- Patent Pending compliant rail feature.



* End spacing dimension is equal at both ends based on customer specified length.

DIMENSIONS (in)

SIZE	A	B	C	D	E	F	G	H	I	K	L	M	CARRIAGE	RAIL
VQ-1	3.500	3.500	0.313	2.375	1.188	1.500	0.750	0.125	4.000	#6-32 UNC	5/32 (0.156)	.50 X .15 DP	VQC-1	VQR-1
VQ-2	4.750	4.750	0.375	3.375	1.520	2.000	1.000	0.125	6.000	1/4-20 UNC	9/32 (0.281)	.75 X .25 DP	VQC-2	VQR-2
VQ-3	6.500	6.500	0.375	4.500	1.755	2.500	1.250	0.130	8.000	5/16-18 UNC	11/32 (0.344)	.75 X .33 DP	VQC-3	VQR-3

SPECIFICATIONS & OPTIONS

- Guide is also available with adjustable carriage.
- Adustable carriage has two eccentric bushings.
- Rigid rail recommended for use with adjustable carriage and/or when rails need to be joined end to end.

  VQC - X ___ - A Adjustable

  VQR - X ___ - R Rigid Rail
- Rails and carriages are sold separately.
- All dimensions are industry standard (± .005 inches), unless otherwise specified.

MATERIALS

Carriage Plate	6061-T6 Aluminum Clear Anodized
Track Spacer	6061-T6 Aluminum Clear Anodized
Fasteners	18-8 Stainless Steel
Double Track	See Double Track
Bushings	See Guide Roller Bushings
Rollers	See Guide Rollers

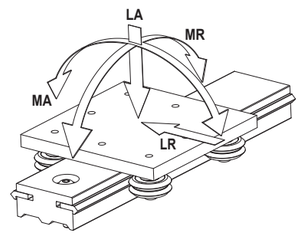
NOMENCLATURE

CARRIAGE VQC - 2 - SSX - A

Vector Quad Carriage | Size | Stainless Steel Rollers (VW2 - SSX) | Adjustable

RAIL VQR - 2 - R - SS - 3800 - 7

Vector Quad Rail | Size | Rigid | Stainless Steel Track | Length 38" | # Holes



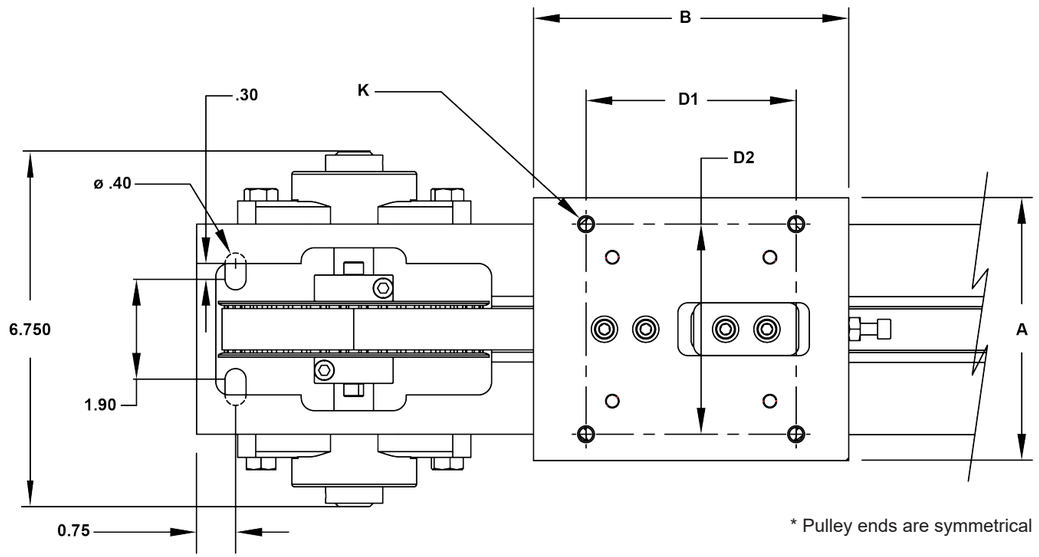
LOAD CAPACITY

	LBS.		IN - LBS.	
SIZE	LA	LR	MA	MR
VQ-1	228	268	175	175
VQ-2	560	644	680	680
VQ-3	1528	1382	2349	2349

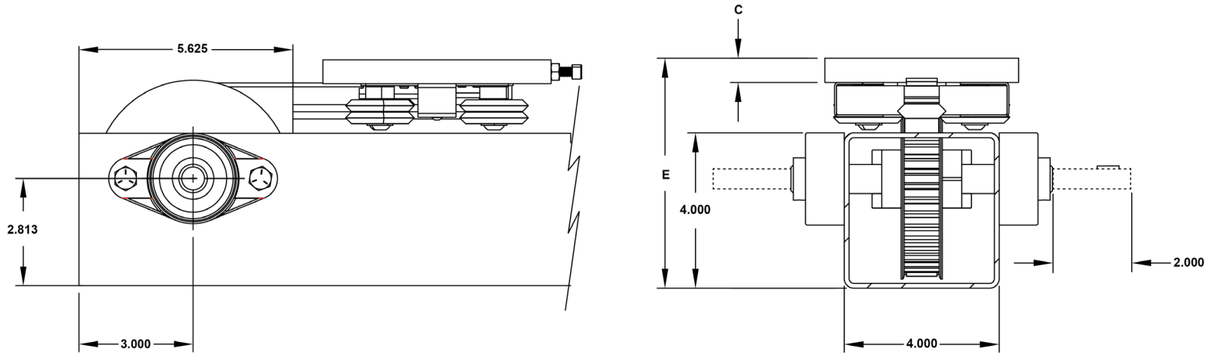
Working load capacities reflect lubricated wheel/track interface.

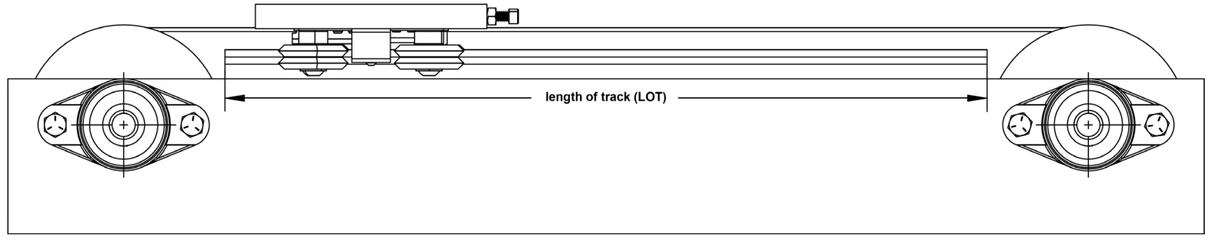
ENDURO

BELT DRIVE LINEAR ACTUATOR



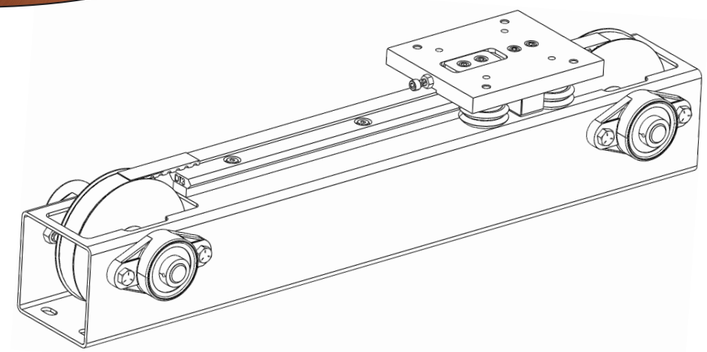
* Pulley ends are symmetrical





ENDURO

BELT DRIVE LINEAR ACTUATOR



DIMENSIONS (in)

SIZE	A	B	C	D1	D2	E	K	Track
DTLGA-2	4.00	6.00	0.62	3.00	4.00	5.62	1/4-20 UNC	DT-2
DTLGA-3	5.00	6.00	0.62	4.00	4.00	5.92	5/16-18 UNC	DT-3

MATERIALS

Tube	4x4, 1/8" wall, Carbon Steel
Carriage	6061-T6 Aluminum
Pulleys	6061-T6 Aluminum
Bushings	303 Stainless Steel
Rollers	1045 Steel
Track	1045 Steel or 440 SS

SPECIFICATIONS & OPTIONS

- Available using size 2 or 3 guide rollers & track
- Load capacity up to 1528 lbs.
- Standard & custom lengths available.
- Fully customizable to suit application.
- Also available with roller chain drive option.
- Felt track lubricator included as standard
- Max standard stroke length 12 ft.

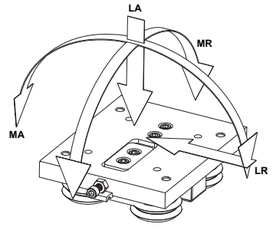
NOMENCLATURE

ACTUATOR DTLGA - 2 - 2000 - TB - LR

- DTLGA: DT Linear Guide Actuator
- 2: Size
- 2000: Stroke Length
- TB: Timing Belt
- LR: Drive Shaft

USEFUL FORMULAS

- LOT = Stroke + Carriage Length
- Stroke = Track Length - Carriage Length
- Overall Length = Track Length + (DE x 2)



LOAD CAPACITY

	LBS.		IN - LBS.	
	LA	LR	MA	MR
DTLGA-2	560	644	505	520
DTLGA-3	1528	1382	1776	1676

Working load capacities reflect lubricated wheel/track interface.

DRIVE SPECIFICATIONS

Belt	AT10x20
Pulley (Size 2)	36t
Pulley (Size 3)	40t
Drive Shaft Diameter	0.750
Drive Shaft Length	2.000
Keyway Size	3/16" x 1" Key

*Single or double drive shaft available

www.modernlinear.com / info@modernlinear.com / P:415.924.7938 / F:415.927.2360

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MOUNTING AND ADJUSTMENT

The fixed bushing should be used to carry the heaviest loading. Preload the adjustable bushing so that the roller can just be easily rotated by hand. Over-tightening will cause premature wear of the components.

TRACK & WHEEL SIZE	**XI** (in.)
1	0.874
2	1.374
3	2.000
4	2.624
4XL	3.124

LUBRICATION / MATERIALS / SYSTEM LIFE

The guide rollers are grease lubricated and will not require any additional lube. The track should be lubricated for optimum performance and service life. Suggested lubricants are Mobil Vactra # 2 Way Oil, or Mobil Polyrex EP 2 Extreme Pressure Grease.

- Lubricated wheel/track interface refers to the presence of lubrication.
- Ratings are based on 2 million inches of travel life.
- Ratings have been confirmed by independent lab tests.

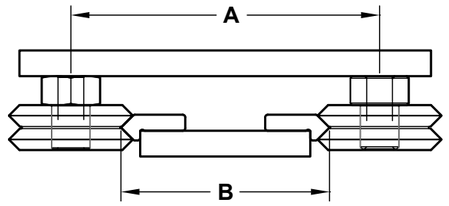
TRACK DERATE FACTORS		
	LUBRICATION	NO LUBRICATION
HARDENED TRACK	1.00	0.50
UNHARDENDED TRACK	0.75	0.25

SUGGESTED FASTENERS

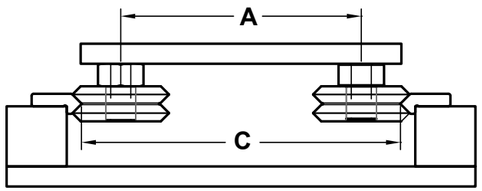
BUSHINGS	
SIZE	ENGLISH
B-1	#6
B-2	1/4"
B-3	5/16"
B-4	3/8"
B-4XL	9/16"

TRACK		
SIZE	ENGLISH	METRIC
T-1	#6	M3
T-2	#10	M4
T-3	1/4"	M6
T-4	5/16"	M8
DT-1	#8	M4
DT-2	1/4"	M6
DT-3	5/16"	M8
DT-4	3/8"	M10

CENTER DISTANCE FORMULA



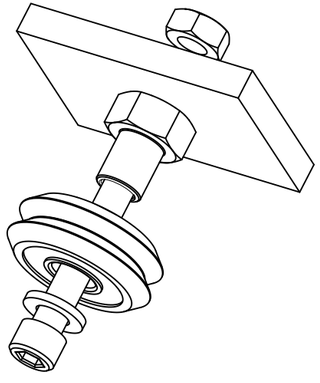
A = B + XI
B = Customer Specified Width.



A = C - XI
C = Customer Specified Width.

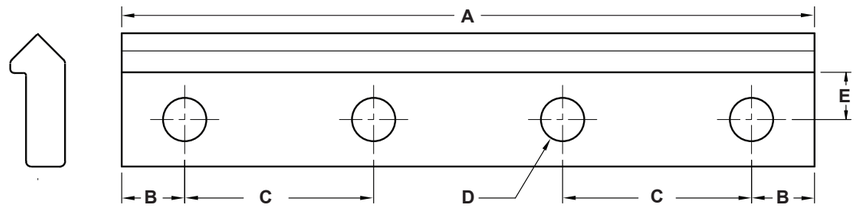
ROLLER / BUSHING ASSEMBLY

Use SAE series N flat washers and lock washers to secure the roller bushing assemblies. Components may be mounted in through or tapped holes.



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STANDARD DRILLED TRACK HOLE SPACING



PART #	# OF HOLES	A ± 0.003	B	C	D	E
TD-1 - 1250 - 7	7	12.50				
TD-1 - 2450 - 13	13	24.50				
TD-1 - 3650 - 19	19	36.50				
TD-1 - 4850 - 25	25	48.50				
TD-1 - 6050 - 31	31	60.50	0.250	2.000	0.156	0.156
TD-1 - 7250 - 37	37	72.50				
TD-1 - 8450 - 43	43	84.50				
TD-1 - 9650 - 49	49	96.50				
TD-2 - 1263 - 5	5	12.63				
TD-2 - 2463 - 9	9	24.63				
TD-2 - 3663 - 13	13	36.63				
TD-2 - 4863 - 17	17	48.63				
TD-2 - 6063 - 21	21	60.63	0.310	3.000	0.203	0.219
TD-2 - 7263 - 25	25	72.63				
TD-2 - 8463 - 29	29	84.63				
TD-2 - 9663 - 33	33	96.63				
TD-3 - 1275 - 5	5	12.75				
TD-3 - 2475 - 9	9	24.75				
TD-3 - 3675 - 13	13	36.75				
TD-3 - 4875 - 17	17	48.75				
TD-3 - 6075 - 21	21	60.75	0.380	3.000	0.281	0.313
TD-3 - 7275 - 25	25	72.75				
TD-3 - 8475 - 29	29	84.75				
TD-3 - 9675 - 33	33	96.75				
TD-4 - 1300 - 4	4	13.00				
TD-4 - 2500 - 7	7	25.00				
TD-4 - 3700 - 10	10	37.00				
TD-4 - 4900 - 13	13	49.00				
TD-4 - 6100 - 16	16	61.00	0.500	4.000	0.344	0.375
TD-4 - 7300 - 19	19	73.00				
TD-4 - 8500 - 22	22	85.00				
TD-4 - 9700 - 25	25	97.00				

- All dimensions are industry standard (± .005 inches), unless otherwise specified.
- Standard drilled track also available in stainless steel.

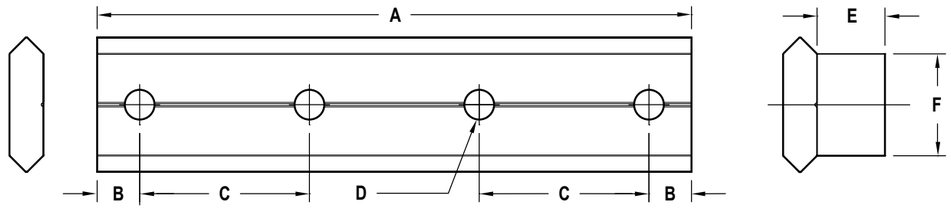
NOMENCLATURE

SINGLE TRACK T D - 2 SS - 1263 - 5

Track · Drilled · Size · Stainless Steel · Length (12.63") · Holes

MODERN LINEAR

DT/DTR DRILLED TRACK HOLE SPACING



PART #	# OF HOLES	A	B	C	D	DTR E	DTR F
DT-1 - 1400 - 4	4	14.00					
DT-1 - 2600 - 7	7	26.00	1.000	4.000	0.156	0.250	0.500
DT-1 - 3800 - 10	10	38.00					
DT-1 - 5000 - 13	13	50.00					
DT-2 - 1400 - 3	3	14.00					
DT-2 - 2600 - 5	5	26.00					
DT-2 - 3800 - 7	7	38.00					
DT-2 - 5000 - 9	9	50.00					
DT-2 - 6200 - 11	11	62.00	1.000	6.000	0.281	0.500	0.750
DT-2 - 6800 - 12	12	68.00					
DT-2 - 7400 - 13	13	74.00					
DT-2 - 8000 - 14	14	80.00					
DT-2 - 8600 - 15	15	86.00					
DT-3 - 1000 - 2	2	10.00					
DT-3 - 1800 - 3	3	18.00					
DT-3 - 2600 - 4	4	26.00					
DT-3 - 3400 - 5	5	34.00					
DT-3 - 4200 - 6	6	42.00	1.000	8.000	0.343	0.500	0.750
DT-3 - 5000 - 7	7	50.00					
DT-3 - 5800 - 8	8	58.00					
DT-3 - 6600 - 9	9	66.00					
DT-3 - 7400 - 10	10	74.00					
DT-3 - 8200 - 11	11	82.00					
DT-4 - 1000 - 2	2	10.00					
DT-4 - 1800 - 3	3	18.00					
DT-4 - 2600 - 4	4	26.00					
DT-4 - 3400 - 5	5	34.00					
DT-4 - 4200 - 6	6	42.00	1.000	8.000	0.406	0.625	1.000
DT-4 - 5000 - 7	7	50.00					
DT-4 - 5800 - 8	8	58.00					
DT-4 - 6600 - 9	9	66.00					
DT-4 - 7400 - 10	10	74.00					
DT-4 - 8200 - 11	11	82.00					

- All dimensions are industry standard (± .005 inches), unless otherwise specified.
- Available with matching spacer to make DTR (Double Track Rail).

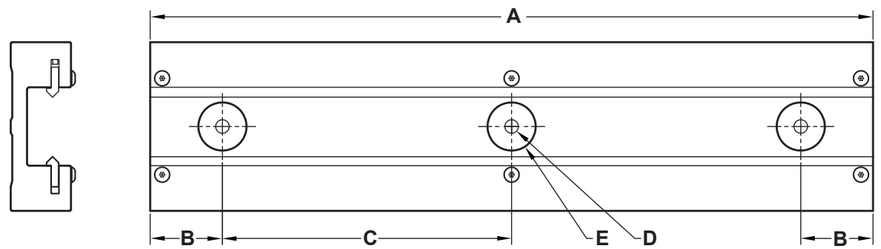
NOMENCLATURE

TRACK/RAIL DTR - 2 - 5000 - 5

Double Track Rail | Size | Length 50" | # Holes

MODERN LINEAR

VECTOR TRIO RAIL (VTR)



PART #	# OF HOLES	A	B	C	D	E
VTR -1 - 1400 - 4	4	14.00				
VTR -1 - 2600 - 7	7	26.00				
VTR -1 - 3800 - 10	10	38.00				
VTR -1 - 5000 - 13	13	50.00	1.000	4.000	0.203	.75 x .10DP
VTR -1 - 6200 - 16	16	62.00				
VTR -1 - 7000 - 18	18	70.00				
VTR -1 - 7800 - 20	20	78.00				
VTR -2 - 1400 - 3	3	14.00				
VTR -2 - 2600 - 5	5	26.00				
VTR -2 - 3800 - 7	7	38.00				
VTR -2 - 5000 - 9	9	50.00				
VTR -2 - 6200 - 11	11	62.00	1.000	6.000	0.281	.75 x .20DP
VTR -2 - 6800 - 12	12	68.00				
VTR -2 - 7400 - 13	13	74.00				
VTR -2 - 8000 - 14	14	80.00				
VTR -3 - 1000 - 2	2	10.00				
VTR -3 - 1800 - 3	3	18.00				
VTR -3 - 2600 - 4	4	26.00				
VTR -3 - 3400 - 5	5	34.00	1.000	8.000	0.406	1.00 x .30DP
VTR -3 - 4200 - 6	6	42.00				
VTR -3 - 5000 - 7	7	50.00				
VTR -3 - 5800 - 8	8	58.00				
VTR -3 - 6600 - 9	9	66.00				

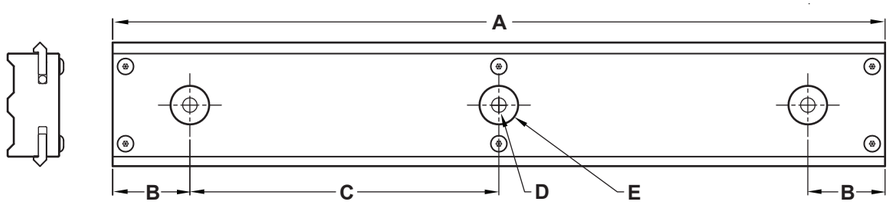
- All dimensions are industry standard (± .005 inches), unless otherwise specified.
- Also available in:
  Equipped with Stainless Track - SS
  Rigid Version - R

NOMENCLATURE

RAIL VTR - 2 - R - SS - 3800 - 7

Vector Trio Rail | Size | Rigid | Stainless Steel Track | Length 38" | # Holes

VECTOR QUAD RAIL (VQR)



PART #	# OF HOLES	A	B	C	D	E
VQR -1 - 1400 - 4	4	14.00				
VQR -1 - 2600 - 7	7	26.00				
VQR -1 - 3800 - 10	10	38.00				
VQR -1 - 5000 - 13	13	50.00	1.000	4.000	0.156	.50 x .150DP
VQR -1 - 6200 - 16	16	62.00				
VQR -1 - 7000 - 18	18	70.00				
VQR -1 - 7800 - 20	20	78.00				
VQR -2 - 1400 - 3	3	14.00				
VQR -2 - 2600 - 5	5	26.00				
VQR -2 - 3800 - 7	7	38.00				
VQR -2 - 5000 - 9	9	50.00	1.000	6.000	0.281	.75 x .250DP
VQR -2 - 6200 - 11	11	62.00				
VQR -2 - 6800 - 12	12	68.00				
VQR -2 - 7400 - 13	13	74.00				
VQR -2 - 8000 - 14	14	80.00				
VQR -3 - 1000 - 2	2	10.00				
VQR -3 - 1800 - 3	3	18.00				
VQR -3 - 2600 - 4	4	26.00				
VQR -3 - 3400 - 5	5	34.00	1.000	8.000	0.406	1.00 x .300DP
VQR -3 - 4200 - 6	6	42.00				
VQR -3 - 5000 - 7	7	50.00				
VQR -3 - 5800 - 8	8	58.00				
VQR -3 - 6600 - 9	9	66.00				

- All dimensions are industry standard (± .005 inches), unless otherwise specified.
- Also Available in:
  Equipped with Stainless Track - SS
  Rigid Version - R

NOMENCLATURE

RAIL VQR - 2 - R - SS - 3800 - 7

- VQR: Vector Quad Rail
- 2: Size
- R: Rigid
- SS: Stainless Steel Track
- 3800: Length 38"
- 7: # Holes

LOAD CALCULATIONS

L = applied load / number of roller pairs

LR = roller radial load

Lo = roller load from applied moment

A = load offset dimension

B = track width dimension

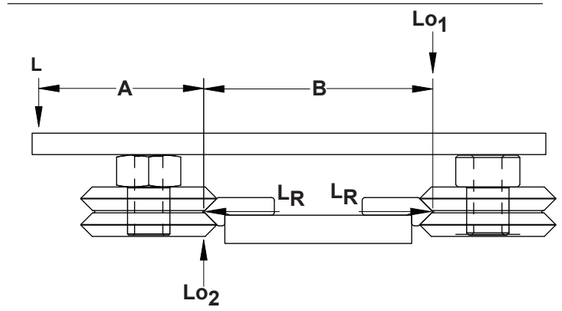
FA = .5 for light duty, well lubricated use*

FA = 1 for normal lubricated use*

FA = 2 for dry, or harsh environments*

*Also consider lubrication comments.

LOAD CONDITION B

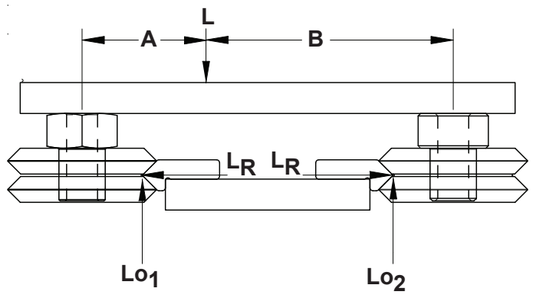


$$Lo_1 = \frac{L \times A}{B} \times F_A$$

$$Lo_2 = (L \times F_A) + Lo_1$$

Compare the greater of these loads to the rated moment and radial load capacities.

LOAD CONDITION A



$$Lo_1 = \frac{L \times B}{A + B} \times F_A$$

$$Lo_2 = (L \times F_A) - Lo_1$$

Compare the greater of these loads to the rated moment and radial load capacities.

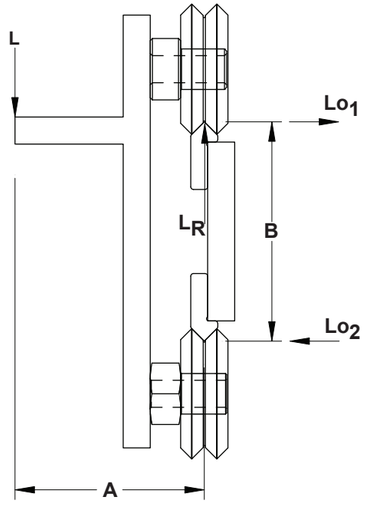
LOAD CONDITION C

$$Lo_2 = \frac{L \times A}{B} \times F_A$$

$$L_R = (L \times F_A) + Lo_1$$

$$Lo_1 = Lo_2$$

Compare the greater of these loads to the rated axial and radial load capacities of the roller.



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