

High Speed Automation

Belt Driven Modules

Gantry Robot Systems and Linear Modules

For high speed automation, both gantry and articulated arm robots are widely used throughout industry. Because of the many inherent advantages of the gantry robot, it is rapidly becoming the preferred choice for:

- palletizing • storage and retrieval
- machine loading • parts transfer
- material handling • automated assembly

Parker offers seven standard gantry configurations to solve these and other automation applications. Utilization of these pre-engineered systems enables the user to redirect scarce engineering resources from motion system design to machine or process functionality.

HPLA and HLE Linear Drive Modules are the primary building blocks for Parker's seven standard gantry systems. With six different cross sectional sizes (60, 80, 100, 120, 150, and 180 mm) and three bearing systems (polyamide or steel rollers, and square rail bearings), these modules can effectively, efficiently and economically satisfy the widest range of application requirements.

Parker Gantry Robot Features

- **Parker minimizes your engineering effort with**
 - Pre-engineered multi-axis systems
 - Drawings, documentation, and sizing
- **Parker is your source for unlimited system solutions**
 - Unrivaled breadth of product
 - Proven design and reliability
 - Optimized mechanics and electronic controls
- **Parker is your assurance of short, reliable lead times**
- **Parker systems are supported by the global Parker network 1-800-C-PARKER**

Gantry Robot CD available at www.parkermotion.com

- Sizing
- Software
- CAD Files (Parametric Tools)
- Product Manuals
- Photos/Applications Library
- Movie Gallery



Gantry Robot Elements

HPLA or HLE Linear Drive Module

Proven high-speed, belt driven linear modules are the core motion components of the gantry system.

Vertical Drive Modules

Designed specifically to satisfy thrust, side, and moment load requirements while providing reliable vertical motion.

Cable Management System

Standardized cable carriers with high flex cables ensure system reliability

Home Position Sensor

Fully adjustable mechanical or proximity sensors provide accurate and repeatable homing.

Travel Limit Sensors

Fully adjustable mechanical or proximity sensors provide over-travel protection.

Gear Reducers

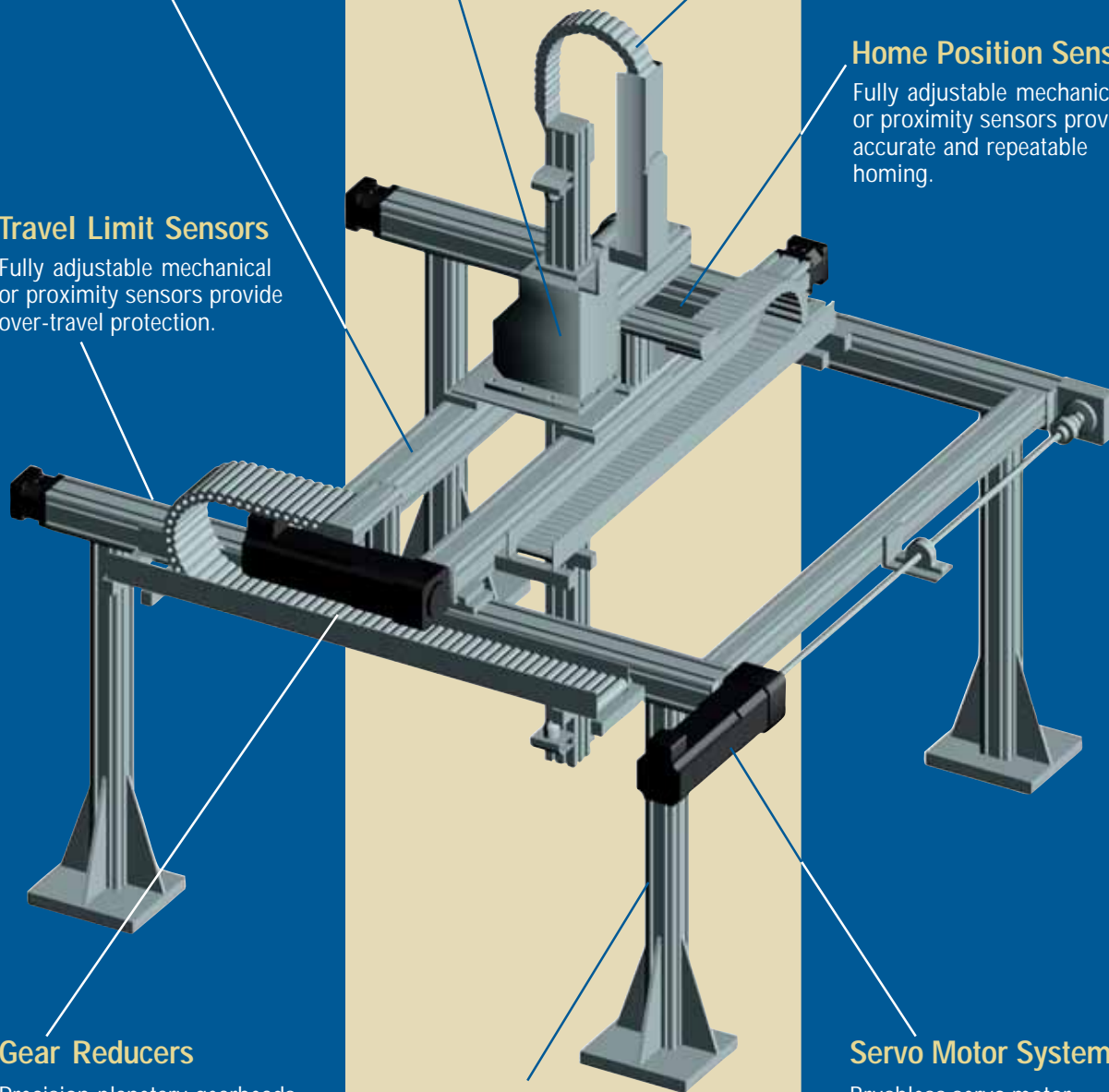
Precision planetary gearheads (in-line and right-angle) accurately transfer motion from the motors and reduce reflected inertia.

Structural Frame

Steel or aluminum support structures are utilized to provide the strength and rigidity needed for high-speed applications.

Servo Motor System

Brushless servo motor system allows closed loop reliability and high dynamic performance.



Gantry Robot Configurations

Parker's seven standard system configurations are designed to satisfy the vast majority of gantry robot applications. By standardizing on these configurations, Parker has simplified sizing and selection, shortened lead times, and reduced costs for users of these systems. The travels and loads indicated are nominal, and should not be considered limiting factors. Longer travels and increased loads are attainable depending upon the combination of parameters.



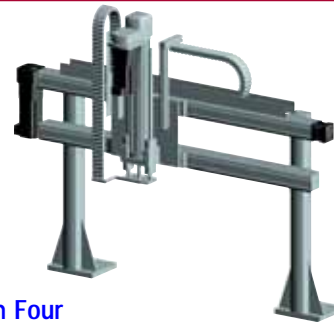
System One
Two Axis: $XX' - Y$



System Two
Two Axis: $XX' - YY'$



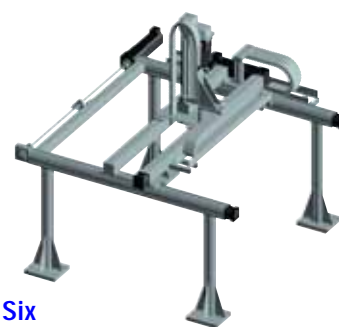
System Three
Two Axis: $XX' - Z$



System Four
Two Axis: $XX' - Z$



System Five
Two Axis: $XX' - Z$



System Six
Three Axis: $XX' - YY' - Z$

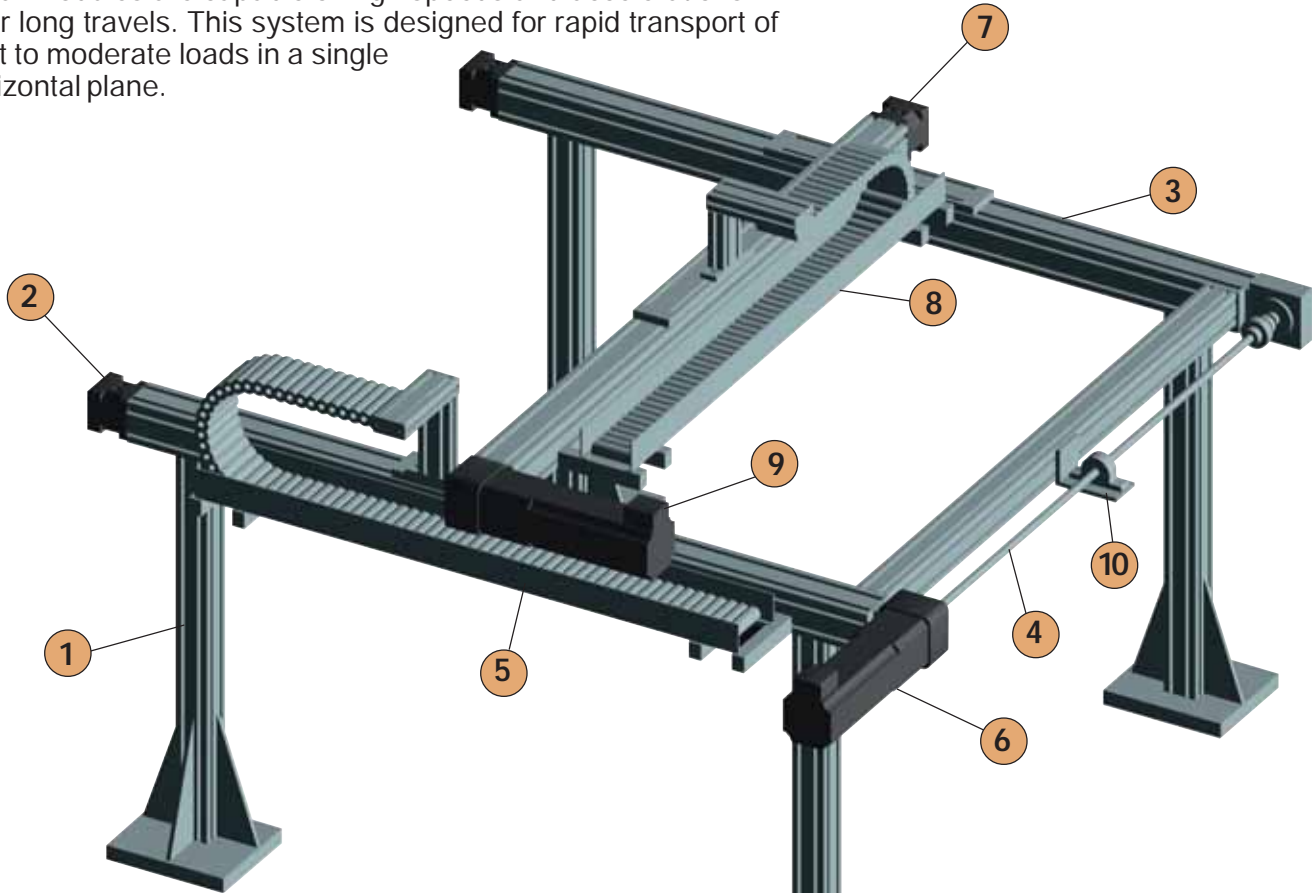
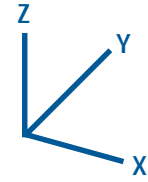


System Seven
Three Axis: $XX' - YY' - Z$

Belt Driven Modules

System One

System One provides two axes of horizontal motion. The primary axis (X) is comprised of two HPLA or HLE Linear Modules linked by a common drive shaft, and the secondary axis (Y) is comprised of one HPLA or HLE Linear Module. These linear modules are capable of high speeds and accelerations over long travels. This system is designed for rapid transport of light to moderate loads in a single horizontal plane.

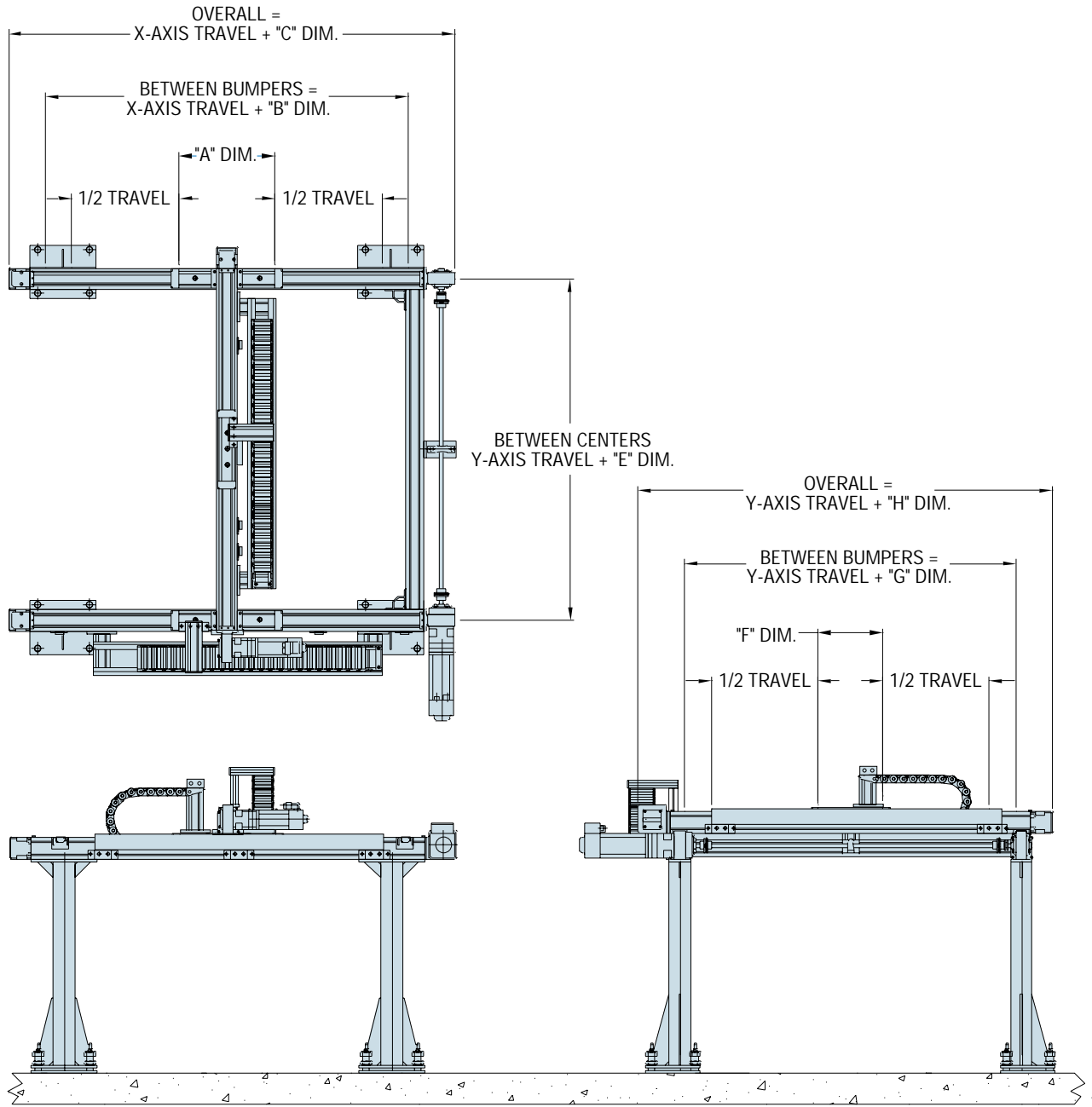


- | | | | |
|---|---|----|---|
| 1 | Support Structure Available (steel or aluminum framing) | 8 | Y-Axis Cable Carrier |
| 2 | X-Axis Drive Rail Assembly | 9 | Y-Axis Drive Motor |
| 3 | X-Axis Driven Rail Assembly | 10 | Pillow Block Bearing & Support (Based on Application) |
| 4 | X-Axis Link Shaft Assembly | | |
| 5 | X-Axis Cable Carrier | | |
| 6 | X-Axis Drive Motor | | |
| 7 | Y-Axis Drive Rail Assembly | | |

Note: Loads, travels, and velocities shown are interdependent. Increased values are attainable.

Series No.	Axis Model Number			Load (kg)	Travel			Velocity		
	X-Axis	Y-Axis	Z-Axis		X-Axis (meters)	Y-Axis (meters)	Z-Axis (meters)	X-Axis (m/sec.)	Y-Axis (m/sec.)	Z-Axis (m/sec.)
1	HLE60RB	HLE60RB	—	15	2.9	1.3	—	2.0	2.0	—
2	HLE60SR	HLE60SR	—	25	2.8	1.3	—	2.0	2.0	—
3	HPLA080	HPLA080	—	30	5.4	2.0	—	2.0	3.0	—
4	HLE100RB	HLE100RB	—	35	6.0	2.0	—	2.0	3.0	—
5	HLE100SR	HLE100SR	—	75	6.0	2.0	—	2.0	3.0	—
6	HPLA120	HPLA120	—	85	9.3	3.0	—	2.0	3.0	—
7	HLE150RB	HLE150RB	—	100	7.9	3.0	—	2.0	3.0	—

System One Dimensions



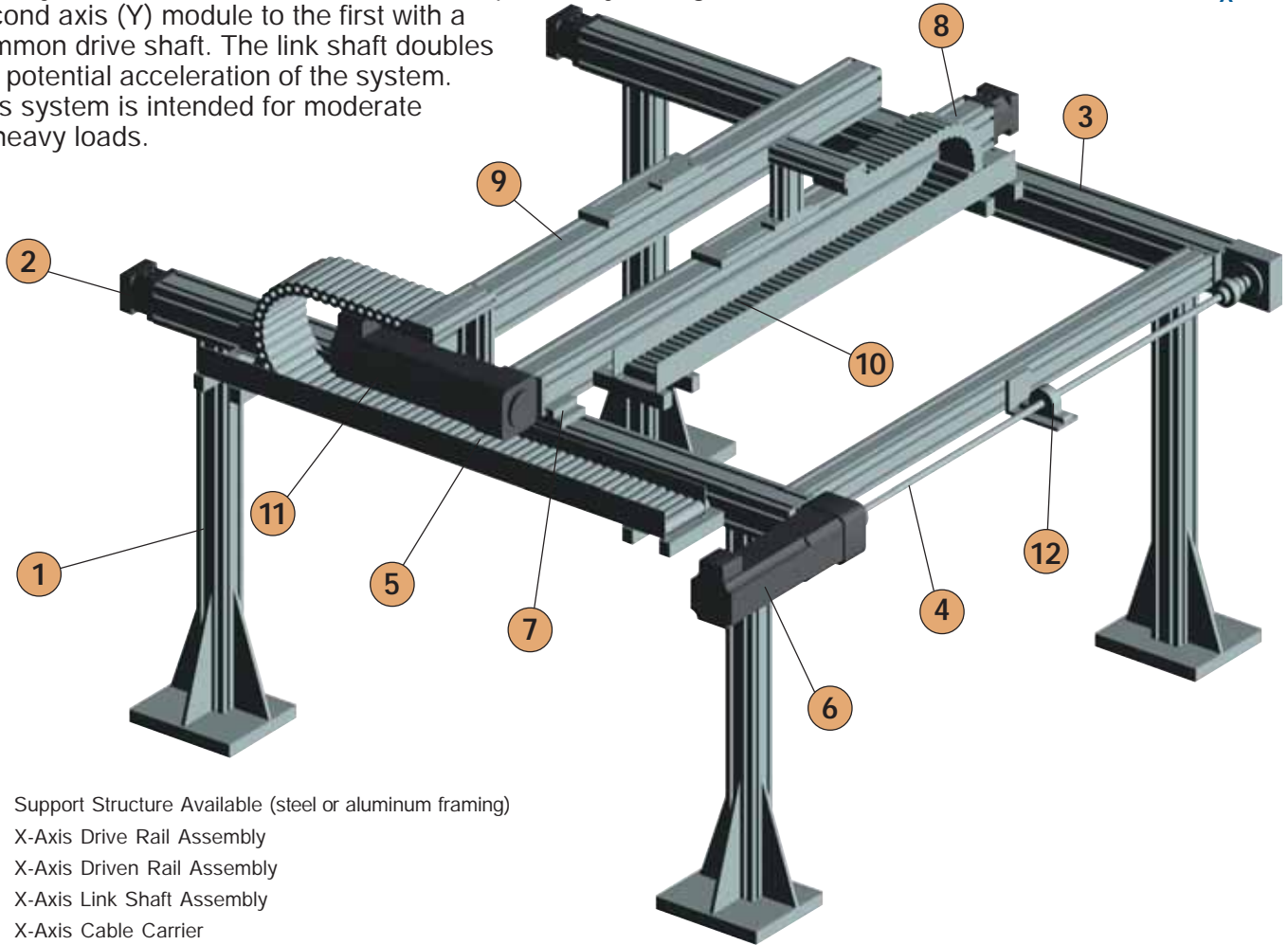
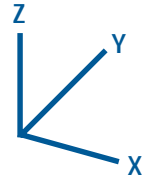
Belt Driven Modules

Series No.	System One (XX'-Y)						
	"A" Dim. mm (in)	"B" Dim. mm (in)	"C" Dim. mm (in)	"E" Dim. mm (in)	"F" Dim. mm (in)	"G" Dim. mm (in)	"H" Dim. mm (in)
1	254.0 (10.00)	504.0 (19.84)	730.0 (28.74)	406.2 (15.99)	152.4 (6.00)	402.4 (15.84)	628.4 (24.74)
2	254.0 (10.00)	504.0 (19.84)	720.0 (28.35)	380.2 (14.97)	152.4 (6.00)	402.4 (15.84)	618.0 (24.33)
3	400.0 (15.75)	650.0 (25.59)	1012.0 (39.84)	530.0 (20.87)	250.0 (9.84)	500.0 (19.69)	862.0 (33.94)
4	450.0 (17.72)	700.0 (27.56)	1090.0 (42.91)	588.0 (23.15)	300.0 (11.81)	550.0 (21.65)	940.0 (37.01)
5	450.0 (17.72)	700.0 (27.56)	1141.0 (44.92)	605.0 (23.82)	300.0 (11.81)	550.0 (21.65)	991.0 (39.02)
6	500.0 (19.69)	750.0 (29.53)	1205.0 (47.44)	560.0 (22.05)	300.0 (11.81)	550.0 (21.65)	1005.0 (39.57)
7	500.0 (19.69)	750.0 (29.53)	1220.0 (48.03)	612.0 (24.09)	350.0 (13.78)	600.0 (23.62)	1070.0 (42.13)



System Two

System Two utilizes two linear modules in both axes (X & Y). The second linear module of the Y-axis is an idler unit which increases load capacity (normal and moment) and permits longer travel. The addition of this unit doubles the load capacity over System One. Traction force can be improved by linking the second axis (Y) module to the first with a common drive shaft. The link shaft doubles the potential acceleration of the system. This system is intended for moderate to heavy loads.

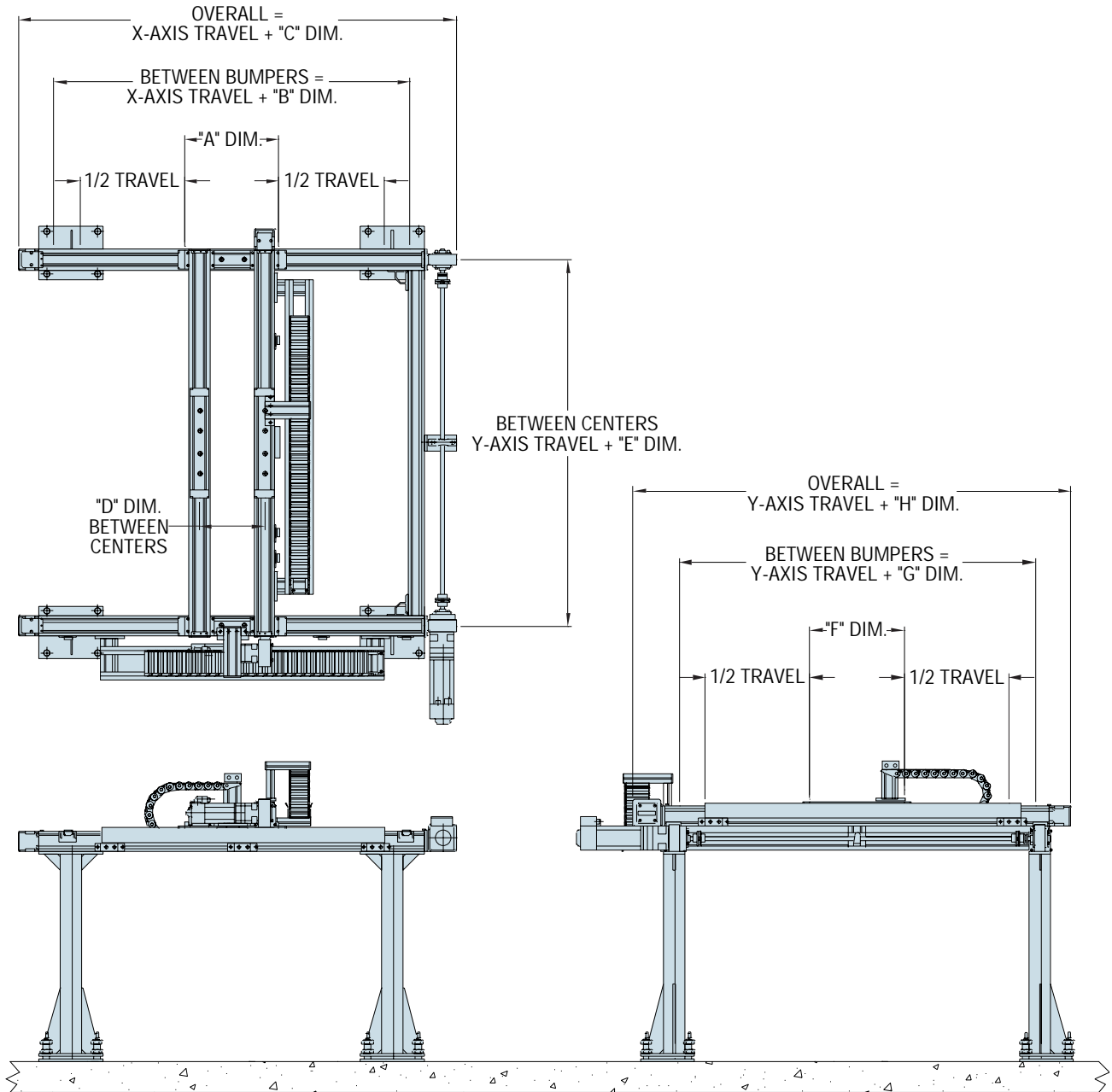


- 1 Support Structure Available (steel or aluminum framing)
- 2 X-Axis Drive Rail Assembly
- 3 X-Axis Driven Rail Assembly
- 4 X-Axis Link Shaft Assembly
- 5 X-Axis Cable Carrier
- 6 X-Axis Drive Motor
- 7 Clamping Profile
- 8 Y-Axis Drive Rail Assembly
- 9 Y-Axis Idler Rail Assembly
- 10 Y-Axis Cable Carrier
- 11 Y-Axis Drive Motor
- 12 Pillow Block Bearing & Support (Based on Application)

Note: Loads, travels, and velocities shown are interdependent. Increased values are attainable.

Series No.	Axis Model Number			Load (kg)	Travel (meters)			Velocity (m/sec.)		
	X-Axis	Y-Axis	Z-Axis		X-Axis	Y-Axis	Z-Axis	X-Axis	Y-Axis	Z-Axis
1	HLE60RB	HLE60RB	—	30	2.9	1.3	—	1.0	2.0	—
2	HLE60SR	HLE60SR	—	50	2.8	1.3	—	1.0	2.0	—
3	HPLA080	HPLA080	—	60	5.4	2.0	—	2.0	3.0	—
4	HLE100RB	HLE100RB	—	70	6.0	2.0	—	1.5	4.0	—
5	HLE100SR	HLE100SR	—	150	6.0	2.0	—	1.5	4.0	—
6	HPLA120	HPLA120	—	170	9.3	3.0	—	2.0	4.0	—
7	HLE150RB	HLE150RB	—	200	7.9	3.0	—	2.0	4.0	—

System Two Dimensions



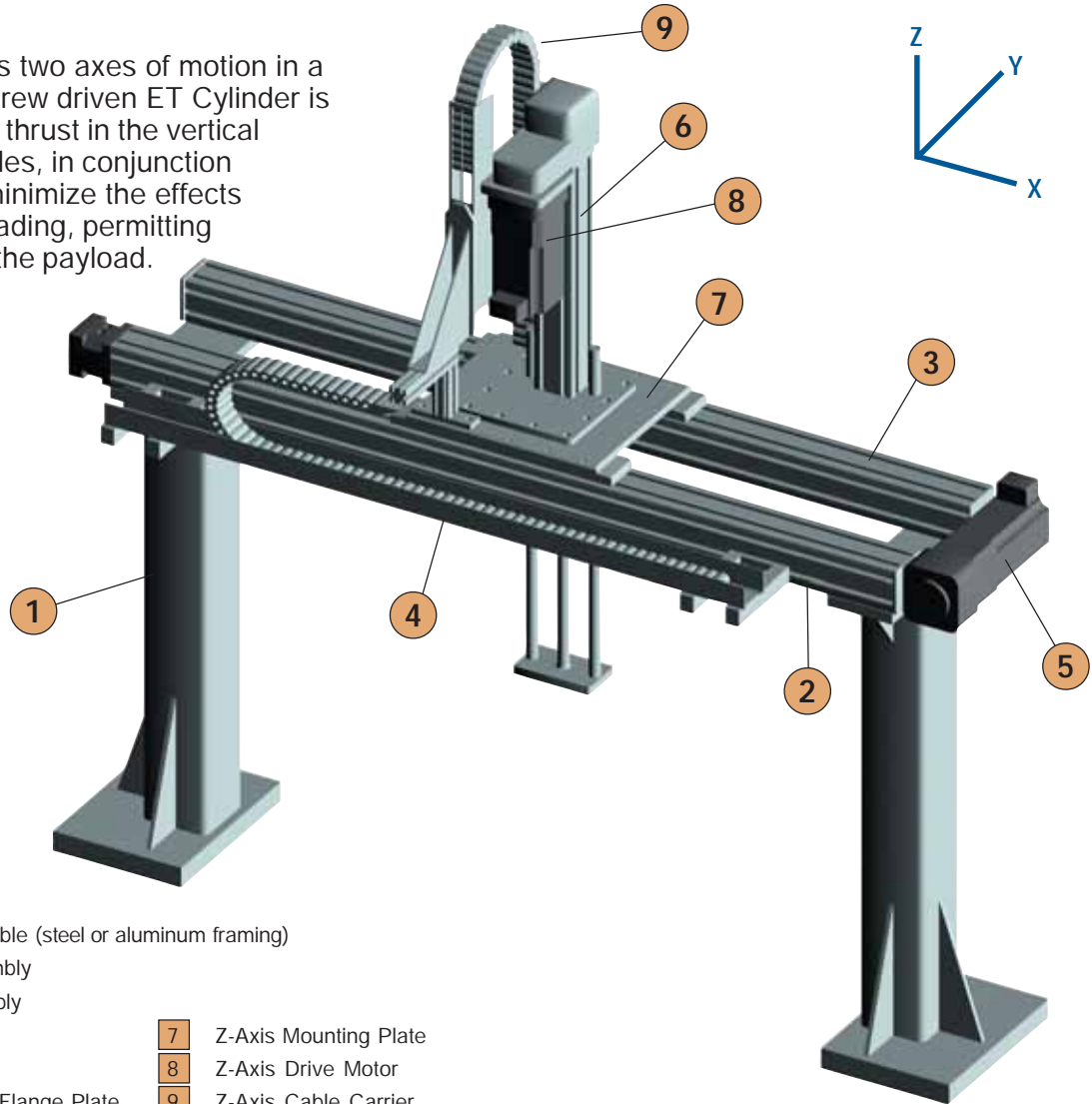
Belt Driven Modules

Series No.	System Two (XX'-YY')							
	"A" Dim. mm (in)	"B" Dim. mm (in)	"C" Dim. mm (in)	"D" Dim. mm (in)	"E" Dim. mm (in)	"F" Dim. mm (in)	"G" Dim. mm (in)	"H" Dim. mm (in)
1	254.0 (10.00)	504.0 (19.84)	730.0 (28.74)	169.8 (6.69)	508.2 (20.01)	254.0 (10.00)	504.0 (19.84)	730.0 (28.74)
2	254.0 (10.00)	504.0 (19.84)	720.0 (28.35)	169.8 (6.69)	482.2 (18.98)	254.0 (10.00)	504.0 (19.84)	720.0 (28.35)
3	400.0 (15.75)	650.0 (25.59)	1012.0 (39.84)	280.0 (11.02)	680.0 (26.77)	400.0 (15.75)	650.0 (25.59)	1012.0 (39.84)
4	450.0 (17.72)	700.0 (27.56)	1090.0 (42.91)	310.0 (12.21)	738.0 (29.06)	450.0 (17.72)	700.0 (27.56)	1090.0 (42.91)
5	450.0 (17.72)	700.0 (27.56)	1141.0 (44.92)	310.0 (12.21)	755.0 (29.72)	450.0 (17.72)	700.0 (27.56)	1141.0 (44.92)
6	500.0 (19.69)	750.0 (29.53)	1205.0 (47.44)	330.0 (12.99)	760.0 (29.92)	500.0 (19.69)	750.0 (29.53)	1205.0 (47.44)
7	500.0 (19.69)	750.0 (29.53)	1220.0 (48.03)	300.0 (11.81)	762.0 (30.00)	500.0 (19.69)	750.0 (29.53)	1220.0 (48.03)



System Three

System Three provides two axes of motion in a vertical plane. A ballscrew driven ET Cylinder is utilized to provide high thrust in the vertical direction. ET Rod Guides, in conjunction with the dual X-axis, minimize the effects of moment and side loading, permitting higher acceleration of the payload.

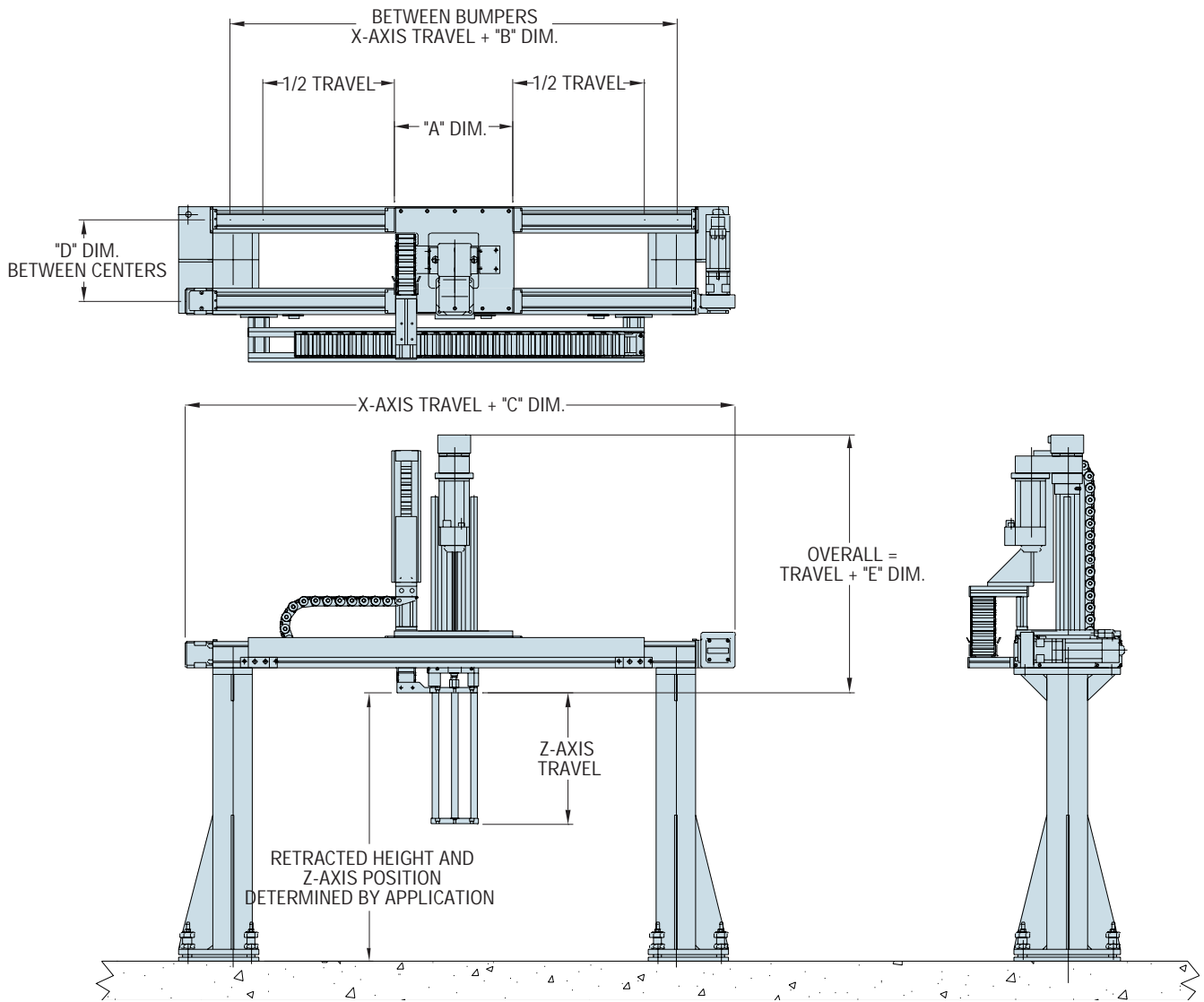


- 1 Support Structure Available (steel or aluminum framing)
- 2 X-Axis Drive Rail Assembly
- 3 X-Axis Idler Rail Assembly
- 4 X-Axis Cable Carrier
- 5 X-Axis Drive Motor
- 6 ET Cylinder Z-Axis with Flange Plate
- 7 Z-Axis Mounting Plate
- 8 Z-Axis Drive Motor
- 9 Z-Axis Cable Carrier

Note: Loads, travels, and velocities shown are interdependent. Increased values are attainable.

Series No.	Axis Model Number			Load (kg)	Travel			Velocity		
	X-Axis	Y-Axis	Z-Axis		X-Axis (meters)	Y-Axis (meters)	Z-Axis (meters)	X-Axis (m/sec.)	Y-Axis (m/sec.)	Z-Axis (m/sec.)
1	HLE60RB	—	ETB32	10	2.9	—	0.3	1.5	—	0.5
2	HLE60RB	—	ETB50	20	2.9	—	0.5	1.5	—	0.8
3	HLE60SR	—	ETB32	10	2.8	—	0.3	1.5	—	0.5
4	HLE60SR	—	ETB50	20	2.8	—	0.5	1.5	—	0.8
5	HPLA080	—	ETB50	35	5.4	—	0.5	2.0	—	0.8
6	HLE100RB	—	ETB50	40	6.0	—	0.5	2.0	—	0.8
7	HLE100RB	—	ETB80	50	6.0	—	1.0	2.0	—	0.5
8	HLE100SR	—	ETB50	40	6.0	—	0.5	2.0	—	0.5
9	HLE100SR	—	ETB80	50	6.0	—	1.0	2.0	—	0.5
10	HPLA120	—	ETB80	75	9.3	—	1.0	2.5	—	0.5
11	HPLA120	—	ETB100	100	9.3	—	1.0	2.5	—	1.0
12	HLE150RB	—	ETB80	75	7.9	—	1.0	2.5	—	0.5
13	HLE150RB	—	ETB100	100	7.9	—	1.0	2.5	—	1.0

System Three Dimensions

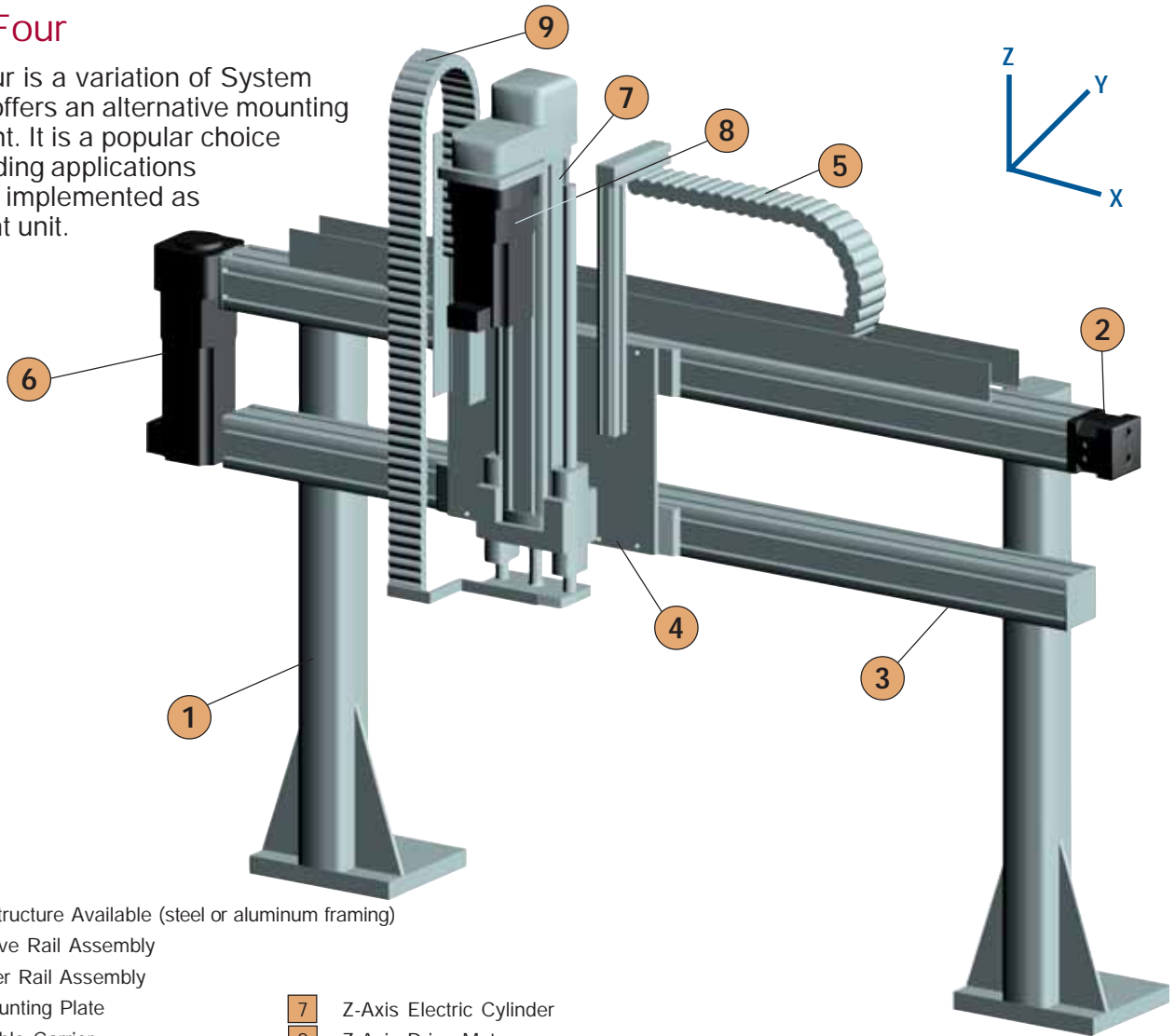


Series No.	System Three XX'-Z (Electric Cylinder)				
	"A" Dim. mm (in)	"B" Dim. mm (in)	"C" Dim. mm (in)	"D" Dim. mm (in)	"E" Dim. mm (in)
1	254.0 (10.00)	504.0 (19.84)	730.0 (28.74)	200.0 (7.87)	238.0 (9.37)
2	254.0 (10.00)	504.0 (19.84)	730.0 (28.74)	200.0 (7.87)	304.1 (11.97)
3	254.0 (10.00)	504.0 (19.84)	720.0 (28.35)	200.0 (7.87)	238.0 (9.37)
4	254.0 (10.00)	504.0 (19.84)	720.0 (28.35)	200.0 (7.87)	304.1 (11.97)
5	400.0 (15.75)	650.0 (25.59)	1012.0 (39.84)	250.0 (9.84)	304.1 (11.97)
6	450.0 (17.72)	700.0 (27.56)	1090.0 (42.91)	300.0 (11.81)	304.1 (11.97)
7	450.0 (17.72)	700.0 (27.56)	1090.0 (42.91)	300.0 (11.81)	321.9 (12.67)
8	450.0 (17.72)	700.0 (27.56)	1141.0 (44.92)	300.0 (11.81)	304.1 (11.97)
9	450.0 (17.72)	700.0 (27.56)	1141.0 (44.92)	300.0 (11.81)	321.9 (12.67)
10	500.0 (19.69)	750.0 (29.53)	1205.0 (47.44)	350.0 (13.78)	321.9 (12.67)
11	500.0 (19.69)	750.0 (29.53)	1205.0 (47.44)	350.0 (13.78)	494.0 (19.45)
12	500.0 (19.69)	750.0 (29.53)	1220.0 (48.03)	350.0 (13.78)	321.9 (12.67)
13	500.0 (19.69)	750.0 (29.53)	1220.0 (48.03)	350.0 (13.78)	494.0 (19.45)



System Four

System Four is a variation of System Three that offers an alternative mounting arrangement. It is a popular choice for front loading applications and is often implemented as a wall mount unit.

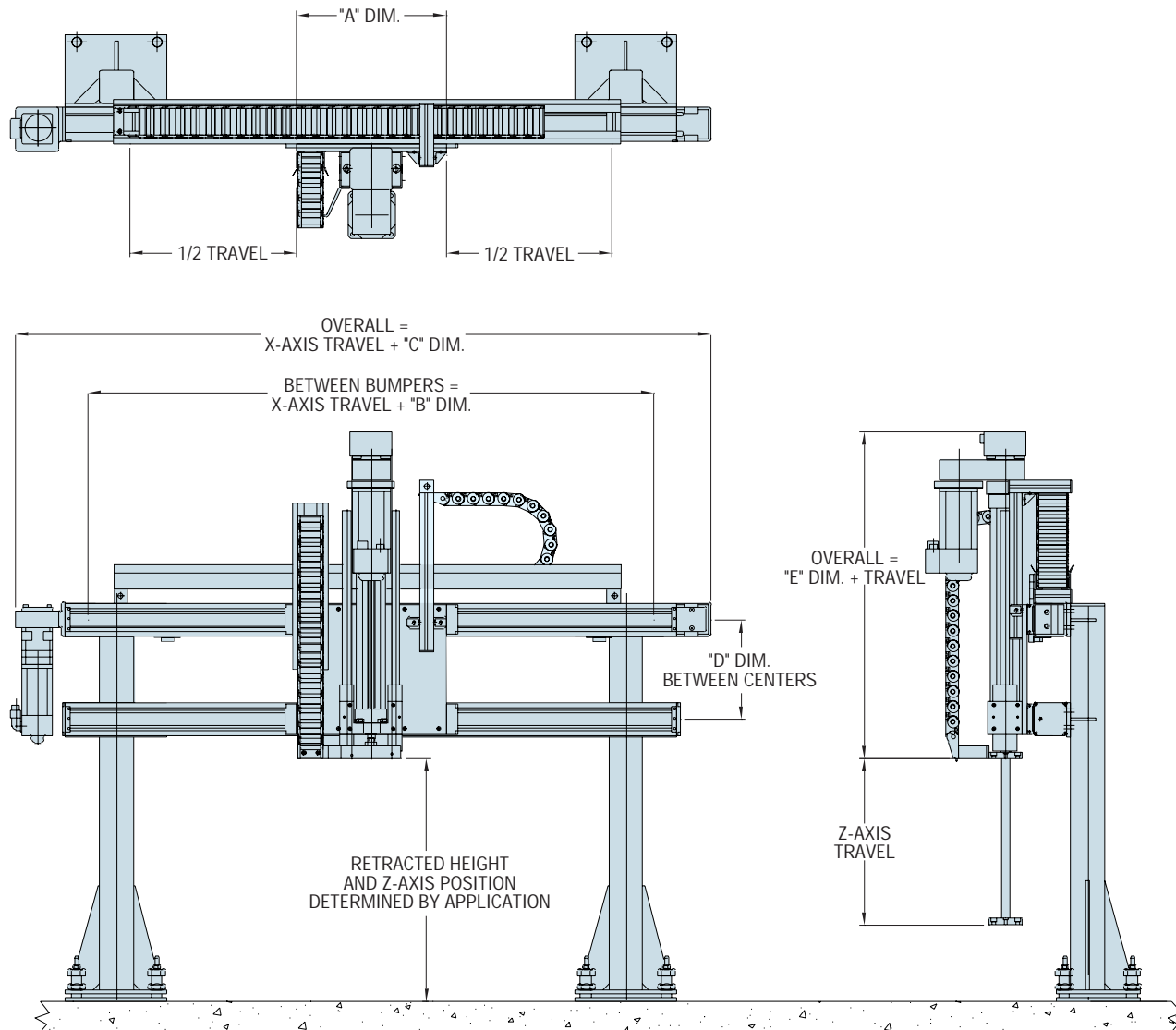


- 1 Support Structure Available (steel or aluminum framing)
- 2 X-Axis Drive Rail Assembly
- 3 X-Axis Idler Rail Assembly
- 4 Z-Axis Mounting Plate
- 5 X-Axis Cable Carrier
- 6 X-Axis Drive Motor
- 7 Z-Axis Electric Cylinder
- 8 Z-Axis Drive Motor
- 9 Z-Axis Cable Carrier

Note: Loads, travels, and velocities shown are interdependent. Increased values are attainable.

Series No.	Axis Model Number			Load (kg)	Travel			Velocity		
	X-Axis	Y-Axis	Z-Axis		X-Axis (meters)	Y-Axis (meters)	Z-Axis (meters)	X-Axis (m/sec.)	Y-Axis (m/sec.)	Z-Axis (m/sec.)
1	HLE60RB	—	ETB32	10	2.9	—	0.3	1.5	—	0.5
2	HLE60RB	—	ETB50	20	2.9	—	0.5	1.5	—	0.8
3	HLE60SR	—	ETB32	10	2.8	—	0.3	1.5	—	0.5
4	HLE60SR	—	ETB50	20	2.8	—	0.5	1.5	—	0.8
5	HPLA080	—	ETB50	35	5.4	—	0.5	2.0	—	0.8
6	HLE100RB	—	ETB50	40	6.0	—	0.5	2.0	—	0.8
7	HLE100RB	—	ETB80	50	6.0	—	1.0	2.0	—	0.5
8	HLE100SR	—	ETB50	40	6.0	—	0.5	2.0	—	0.5
9	HLE100SR	—	ETB80	50	6.0	—	1.0	2.0	—	0.5
10	HPLA120	—	ETB80	75	9.3	—	1.0	2.5	—	0.5
11	HPLA120	—	ETB100	100	9.3	—	1.0	2.5	—	1.0
12	HLE150RB	—	ETB80	75	7.9	—	1.0	2.5	—	0.5
13	HLE150RB	—	ETB100	100	7.9	—	1.0	2.5	—	1.0

System Four Dimensions

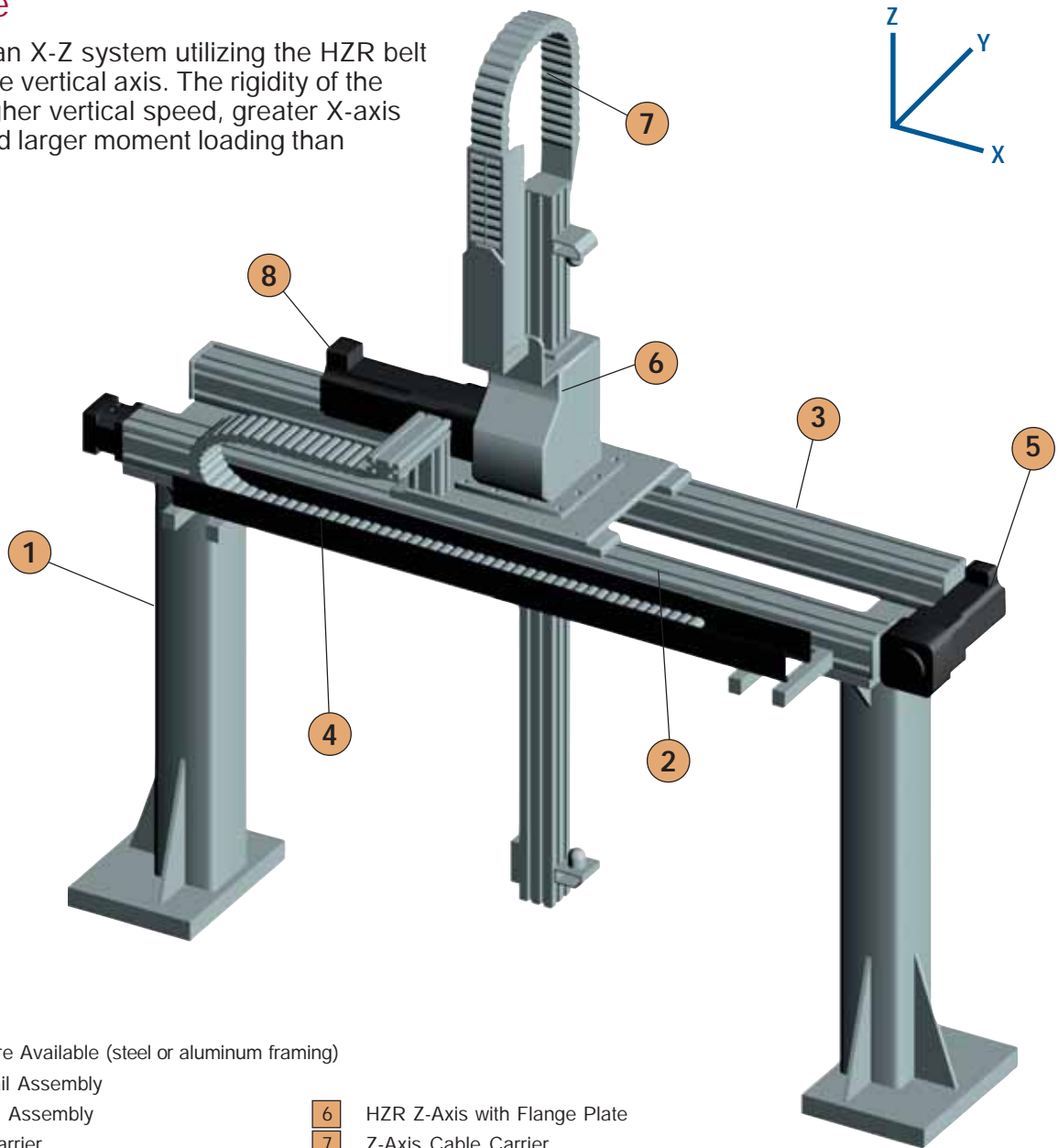


Series No.	System Four XX'-Z (Electric Cylinder)				
	"A" Dim. mm (in)	"B" Dim. mm (in)	"C" Dim. mm (in)	"D" Dim. mm (in)	"E" Dim. mm (in)
1	254.0 (10.00)	504.0 (19.84)	730.0 (28.74)	200.0 (7.87)	238.0 (9.37)
2	254.0 (10.00)	504.0 (19.84)	730.0 (28.74)	200.0 (7.87)	304.1 (11.97)
3	254.0 (10.00)	504.0 (19.84)	720.0 (28.35)	200.0 (7.87)	238.0 (9.37)
4	254.0 (10.00)	504.0 (19.84)	720.0 (28.35)	200.0 (7.87)	304.1 (11.97)
5	400.0 (15.75)	650.0 (25.59)	1012.0 (39.84)	250.0 (9.84)	304.1 (11.97)
6	450.0 (17.72)	700.0 (27.56)	1090.0 (42.91)	300.0 (11.81)	304.1 (11.97)
7	450.0 (17.72)	700.0 (27.56)	1090.0 (42.91)	300.0 (11.81)	321.9 (12.67)
8	450.0 (17.72)	700.0 (27.56)	1141.0 (44.92)	300.0 (11.81)	304.1 (11.97)
9	450.0 (17.72)	700.0 (27.56)	1141.0 (44.92)	300.0 (11.81)	321.9 (12.67)
10	500.0 (19.69)	750.0 (29.53)	1205.0 (47.44)	350.0 (13.78)	321.9 (12.67)
11	500.0 (19.69)	750.0 (29.53)	1205.0 (47.44)	350.0 (13.78)	494.0 (19.45)
12	500.0 (19.69)	750.0 (29.53)	1220.0 (48.03)	350.0 (13.78)	321.9 (12.67)
13	500.0 (19.69)	750.0 (29.53)	1220.0 (48.03)	350.0 (13.78)	494.0 (19.45)



System Five

System Five is an X-Z system utilizing the HZR belt driven unit for the vertical axis. The rigidity of the HZR permits higher vertical speed, greater X-axis acceleration, and larger moment loading than System Three.

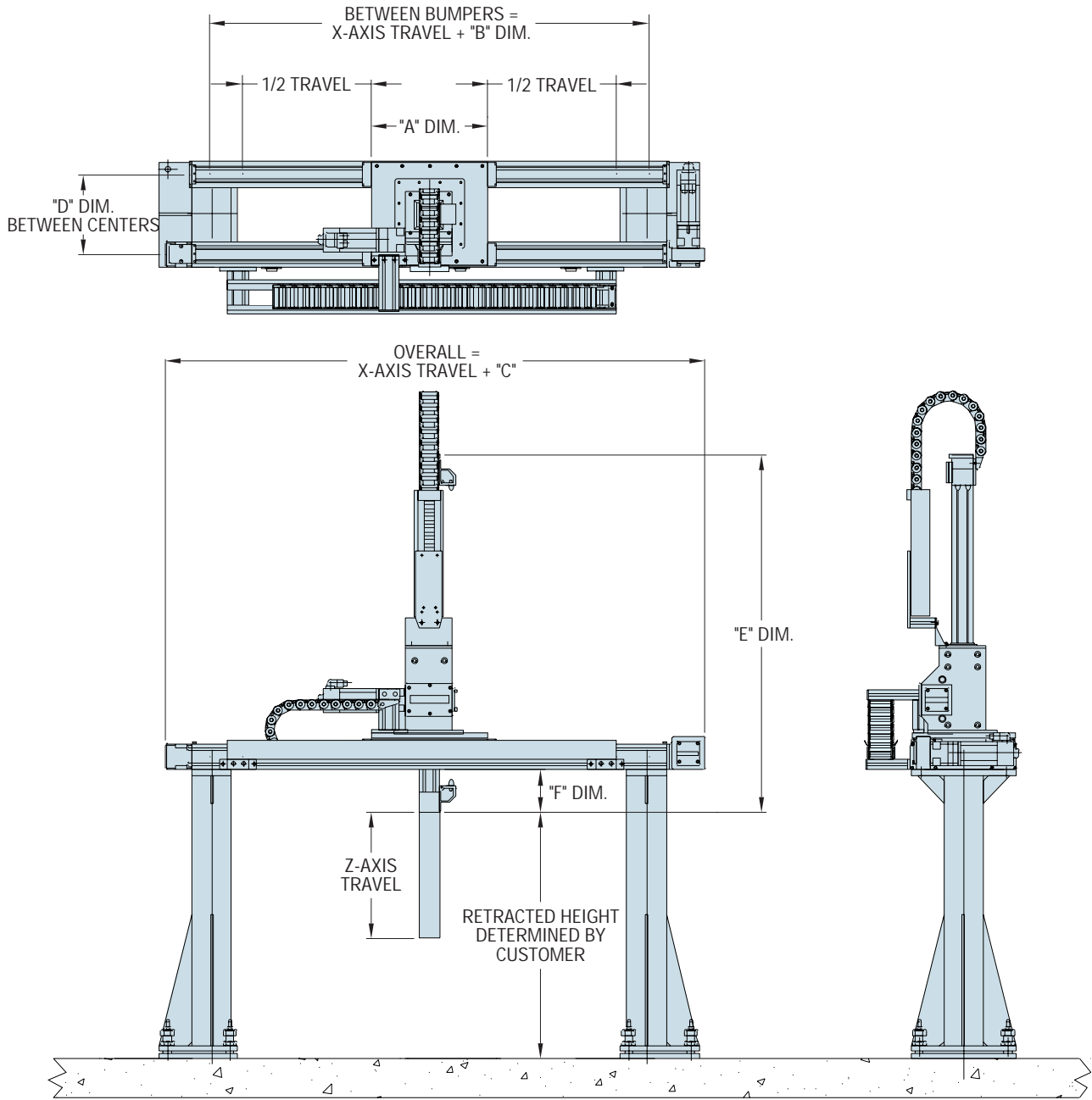


- 1** Support Structure Available (steel or aluminum framing)
- 2** X-Axis Drive Rail Assembly
- 3** X-Axis Idler Rail Assembly
- 4** X-Axis Cable Carrier
- 5** X-Axis Drive Motor
- 6** HZR Z-Axis with Flange Plate
- 7** Z-Axis Cable Carrier
- 8** Z-Axis Drive Motor

Note: Loads, travels, and velocities shown are interdependent. Increased values are attainable.

Series No.	Axis Model Number			Load (kg)	Travel			Velocity		
	X-Axis	Y-Axis	Z-Axis		X-Axis (meters)	Y-Axis (meters)	Z-Axis (meters)	X-Axis (m/sec.)	Y-Axis (m/sec.)	Z-Axis (m/sec.)
1	HLE100RB	—	HZR80	50	6.0	—	1.0	2.0	—	1.5
2	HLE100RB	—	HZR100	100	6.0	—	1.5	2.0	—	1.5
3	HLE100SR	—	HZR80	50	6.0	—	1.0	2.0	—	1.5
4	HLE100SR	—	HZR100	100	6.0	—	1.5	2.0	—	1.5
5	HPLA120	—	HZR80	50	9.3	—	1.0	2.5	—	1.5
6	HPLA120	—	HZR100	100	9.3	—	1.5	2.5	—	1.5
7	HLE150RB	—	HZR80	50	7.9	—	1.0	2.5	—	1.5
8	HLE150RB	—	HZR100	100	7.9	—	1.5	2.5	—	1.5

System Five Dimensions



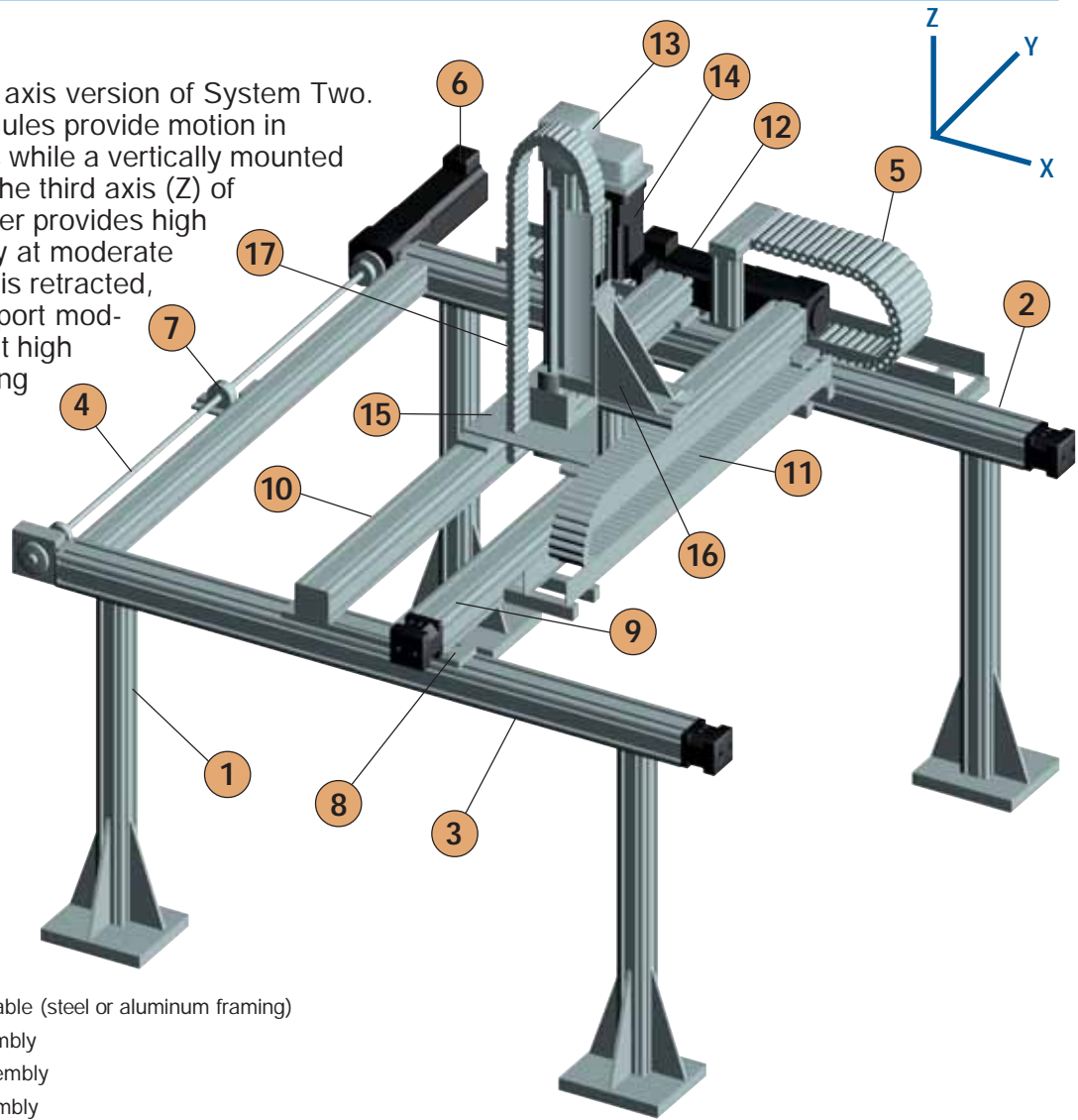
Belt Driven Modules

Series No.	System Five XX'-Z (HZR)					
	"A" Dim. mm (in)	"B" Dim. mm (in)	"C" Dim. mm (in)	"D" Dim. mm (in)	"E" Dim. mm (in)	"F" Dim. mm (in)
1	450.0 (17.72)	700.0 (27.56)	1090.0 (42.91)	310.0 (12.21)	885.0 (34.84)	170.0 (6.69)
2	450.0 (17.72)	700.0 (27.56)	1090.0 (42.91)	360.0 (14.17)	1030.0 (40.55)	245.0 (9.65)
3	450.0 (17.72)	700.0 (27.56)	1141.0 (44.92)	310.0 (12.21)	885.0 (34.84)	170.0 (6.69)
4	450.0 (17.72)	700.0 (27.56)	1141.0 (44.92)	360.0 (14.17)	1030.0 (40.55)	245.0 (9.65)
5	500.0 (19.69)	750.0 (29.53)	1205.0 (47.44)	400.0 (15.75)	885.0 (34.84)	115.0 (4.53)
6	500.0 (19.69)	750.0 (29.53)	1205.0 (47.44)	400.0 (15.75)	1030.0 (40.55)	190.0 (7.48)
7	500.0 (19.69)	750.0 (29.53)	1220.0 (48.03)	400.0 (15.75)	885.0 (34.84)	115.0 (4.53)
8	500.0 (19.69)	750.0 (29.53)	1220.0 (48.03)	400.0 (15.75)	1030.0 (40.55)	190.0 (7.48)



System Six

System Six is a three axis version of System Two. HPLA/HLE linear modules provide motion in the X and Y directions while a vertically mounted ET cylinder provides the third axis (Z) of motion. The ET cylinder provides high vertical thrust capacity at moderate speeds. With the Z-axis retracted, this system can transport moderate to heavy loads at high rates of speed over long travel distances.

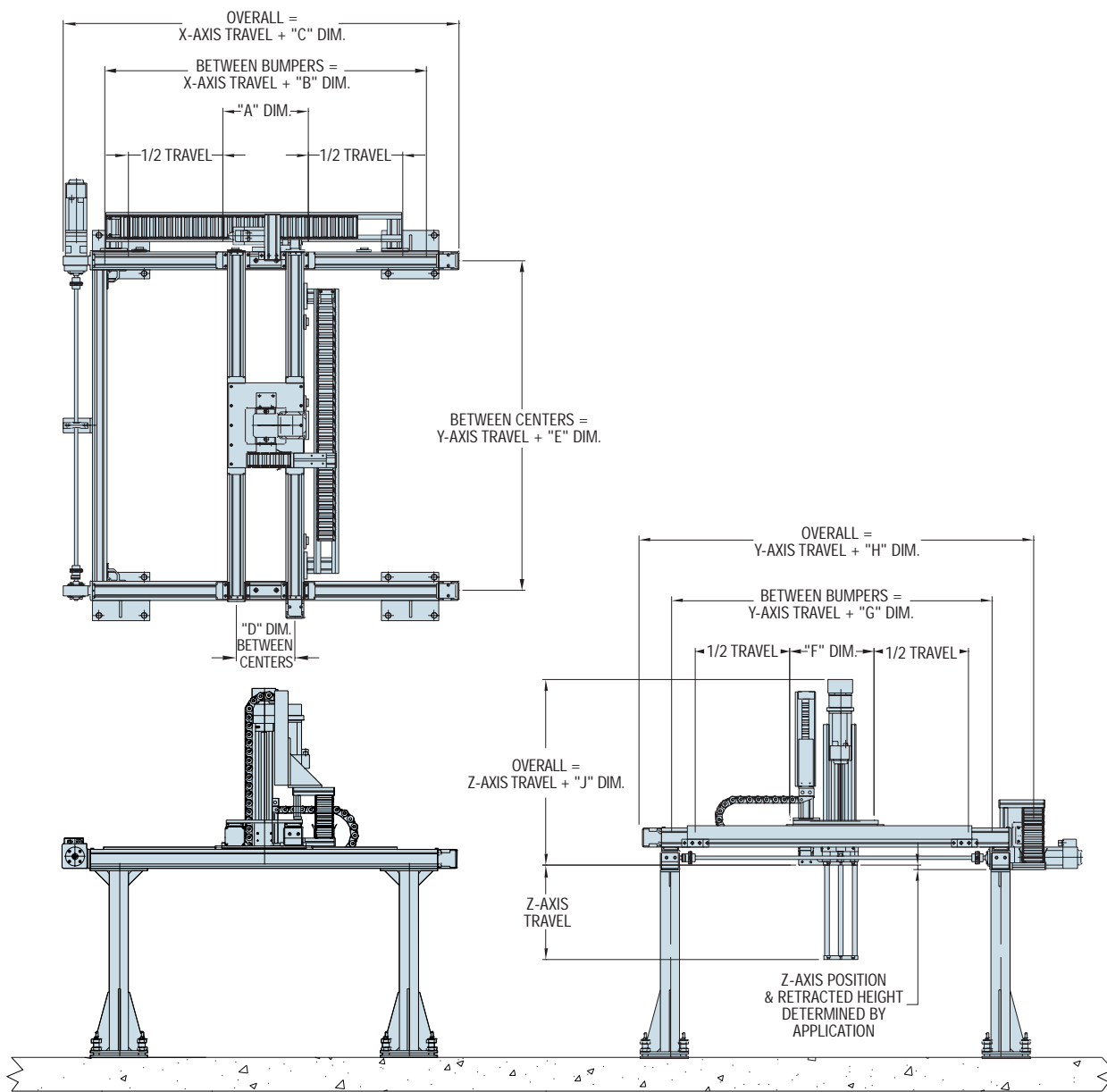


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|---|---|----|-----------------------------|----|------------------------------------|
| 1 | Support Structure Available (steel or aluminum framing) | 10 | Y-Axis Idler Rail Assembly | 14 | Z-Axis Drive Motor |
| 2 | X-Axis Drive Rail Assembly | 11 | Y-Axis Cable Carrier | 15 | Electric Cylinder Mounting Plate |
| 3 | X-Axis Driven Rail Assembly | 12 | Y-Axis Drive Motor | 16 | Electric Cylinder Mounting Bracket |
| 4 | X-Axis Link Shaft Assembly | 13 | Z-Axis ET Electric Cylinder | 17 | Z-Axis Cable Carrier |
| 5 | X-Axis Cable Carrier | | | | |
| 6 | X-Axis Drive Motor | | | | |
| 7 | Pillow Block Bearing Support (Based on Application) | | | | |
| 8 | Clamping Profile | | | | |
| 9 | Y-Axis Drive Rail Assembly | | | | |

Note: Loads, travels, and velocities shown are interdependent. Increased values are attainable.

Series No.	Axis Model Number			Load (kg)	Travel (meters)			Velocity (m/sec.)		
	X-Axis	Y-Axis	Z-Axis		X-Axis	Y-Axis	Z-Axis	X-Axis	Y-Axis	Z-Axis
1	HLE60RB	HLE60RB	ETB32	10	2.9	1.0	0.3	1.0	1.5	0.5
2	HLE60RB	HLE60RB	ETB50	20	2.9	0.5	0.5	1.0	1.5	0.8
3	HLE60SR	HLE60SR	ETB32	10	2.8	1.0	0.3	1.0	1.5	0.5
4	HLE60SR	HLE60SR	ETB50	20	2.8	0.5	0.5	1.0	1.5	0.8
5	HPLA080	HPLA080	ETB50	45	5.4	1.5	0.5	2.0	2.0	0.8
6	HLE100RB	HLE100RB	ETB80	50	6.0	1.5	1.0	2.0	2.0	0.5
7	HLE100SR	HLE100SR	ETB80	50	6.0	1.4	1.0	2.0	2.0	0.5
8	HPLA120	HPLA120	ETB100	100	9.3	3.0	1.0	2.5	2.5	1.0
9	HLE150RB	HLE150RB	ETB100	100	7.9	3.0	1.0	2.5	2.5	1.0

System Six Dimensions

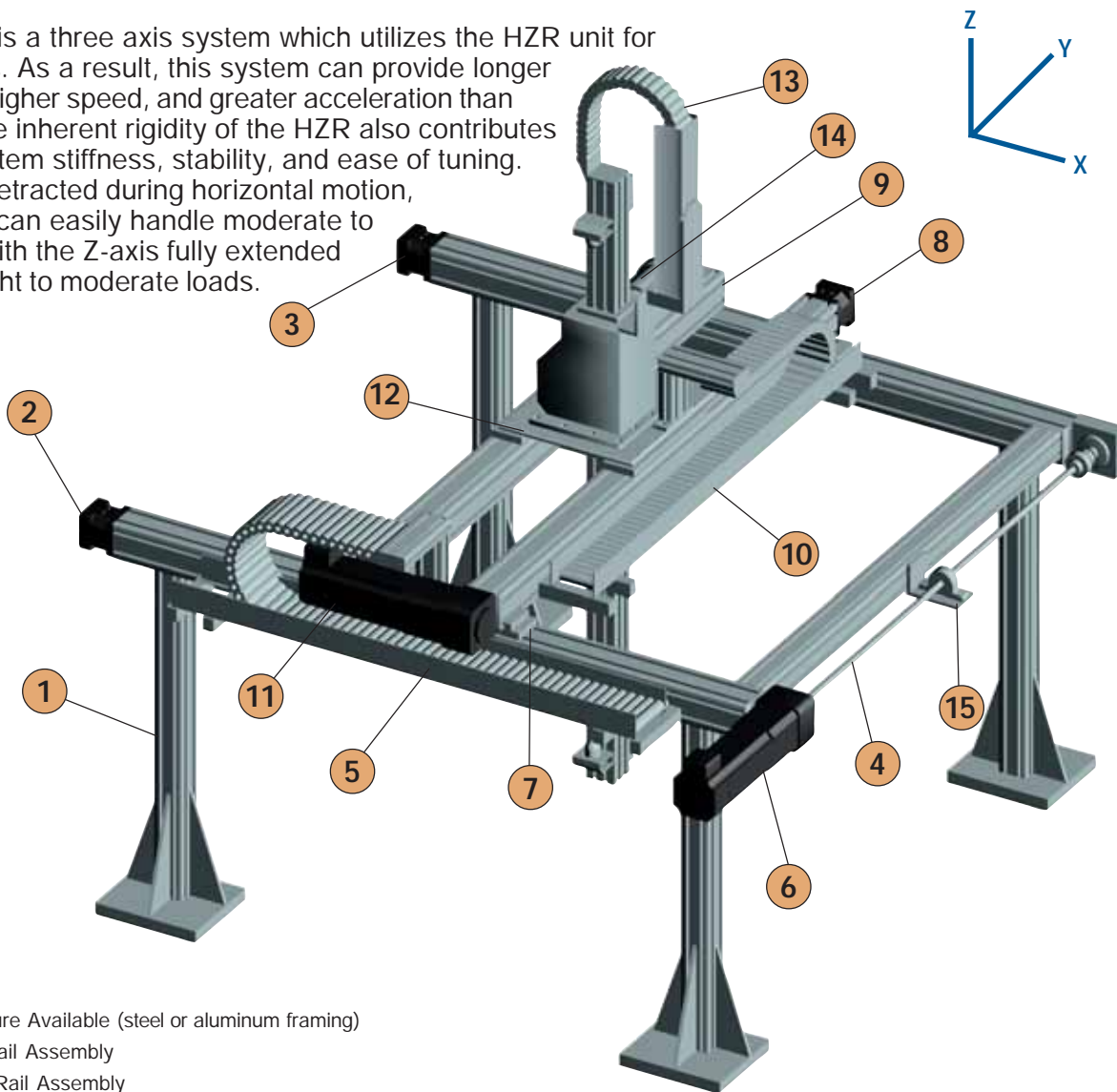


Series No.	System Six XX'-YY'-Z (Electric Cylinder)								
	"A" Dim. mm (in)	"B" Dim. mm (in)	"C" Dim. mm (in)	"D" Dim. mm (in)	"E" Dim. mm (in)	"F" Dim. mm (in)	"G" Dim. mm (in)	"H" Dim. mm (in)	"J" Dim. mm (in)
1	254.0 (10.00)	504.0 (19.84)	730.0 (28.74)	169.8 (6.69)	508.2 (20.01)	254.0 (10.00)	504.0 (19.84)	730.0 (28.74)	238.0 (9.37)
2	254.0 (10.00)	504.0 (19.84)	730.0 (28.74)	169.8 (6.69)	508.2 (20.01)	254.0 (10.00)	504.0 (19.84)	730.0 (28.74)	304.1 (11.97)
3	254.0 (10.00)	504.0 (19.84)	720.0 (28.35)	169.8 (6.69)	482.2 (19.98)	254.0 (10.00)	504.0 (19.84)	720.0 (28.35)	238.0 (9.37)
4	254.0 (10.00)	504.0 (19.84)	720.0 (28.35)	169.8 (6.69)	482.2 (19.98)	254.0 (10.00)	504.0 (19.84)	720.0 (28.35)	304.1 (11.97)
5	400.0 (15.75)	650.0 (25.59)	1012.0 (39.84)	280.0 (0.02)	680.0 (26.77)	400.0 (15.75)	650.0 (25.59)	1012.0 (39.84)	304.1 (11.97)
6	450.0 (17.72)	700.0 (27.56)	1090.0 (42.91)	310.0 (12.21)	738.0 (29.06)	450.0 (17.72)	700.0 (27.56)	1090.0 (42.91)	321.9 (12.67)
7	450.0 (17.72)	700.0 (27.56)	1141.0 (44.92)	310.0 (12.21)	755.0 (29.72)	450.0 (17.72)	700.0 (27.56)	1141.0 (44.92)	321.9 (12.67)
8	500.0 (19.69)	750.0 (29.53)	1205.0 (47.44)	330.0 (12.99)	760.0 (29.92)	500.0 (19.69)	750.0 (29.53)	1205.0 (47.44)	494.0 (19.45)
9	500.0 (19.69)	750.0 (29.53)	1220.0 (48.03)	300.0 (11.81)	762.0 (30.00)	500.0 (19.69)	750.0 (29.53)	1220.0 (48.03)	494.0 (19.45)



System Seven

System Seven is a three axis system which utilizes the HZR unit for the vertical axis. As a result, this system can provide longer vertical travel, higher speed, and greater acceleration than System Six. The inherent rigidity of the HZR also contributes to superior system stiffness, stability, and ease of tuning. If the Z-axis is retracted during horizontal motion, System Seven can easily handle moderate to heavy loads. With the Z-axis fully extended it can handle light to moderate loads.

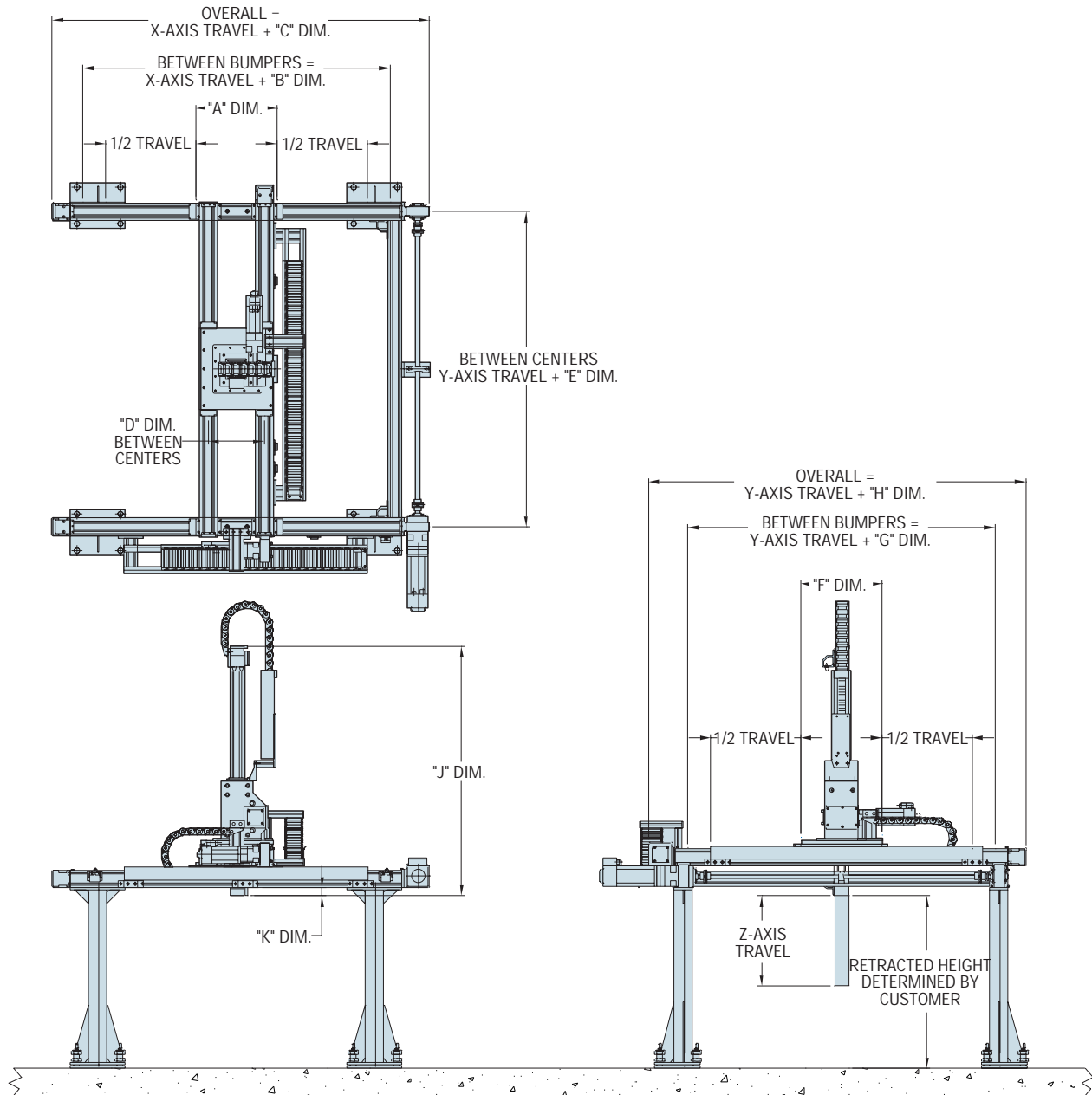


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|---|---|----|----------------------------|----|---|
| 1 | Support Structure Available (steel or aluminum framing) | 8 | Y-Axis Drive Rail Assembly | 12 | HZR Z-Axis with Flange Plate |
| 2 | X-Axis Drive Rail Assembly | 9 | Y-Axis Idler Rail Assembly | 13 | Z-Axis Cable Carrier |
| 3 | X-Axis Driven Rail Assembly | 10 | Y-Axis Cable Carrier | 14 | Z-Axis Drive Motor |
| 4 | X-Axis Link Shaft Assembly | 11 | Y-Axis Drive Motor | 15 | Pillow Block Bearing & Support (Based on Application) |
| 5 | X-Axis Cable Carrier | | | | |
| 6 | X-Axis Drive Motor | | | | |
| 7 | Clamping Profile | | | | |

Note: Loads, travels, and velocities shown are interdependent. Increased values are attainable.

Series No.	Axis Module Number			Load (kg)	Travel (meters)			Velocity (m/sec.)		
	X-Axis	Y-Axis	Z-Axis		X-Axis	Y-Axis	Z-Axis	X-Axis	Y-Axis	Z-Axis
1	HLE100RB	HLE100RB	HZR80	50	6.0	2.0	1.0	2.0	2.0	1.5
2	HLE100RB	HLE100RB	HZR100	100	6.0	1.3	1.5	2.0	2.0	1.5
3	HLE100SR	HLE100SR	HZR80	50	6.0	2.0	1.0	2.0	2.0	1.5
4	HLE100SR	HLE100SR	HZR100	100	6.0	1.3	1.5	2.0	2.0	1.5
5	HPLA120	HPLA120	HZR80	50	9.3	4.0	1.0	2.5	2.5	1.5
6	HPLA120	HPLA120	HZR100	100	9.3	3.3	1.5	2.5	2.5	1.5
7	HLE150RB	HLE150RB	HZR80	50	7.9	4.0	1.0	2.5	2.5	1.5
8	HLE150RB	HLE150RB	HZR100	100	7.9	3.3	1.5	2.5	2.5	1.5

System Seven Dimensions



* Indicates bottom of Z-Axis is above bottom of X-Axis

Series No.	System Seven (XX'-YY'-HZR)									
	"A" Dim. mm (in)	"B" Dim. mm (in)	"C" Dim. mm (in)	"D" Dim. mm (in)	"E" Dim. mm (in)	"F" Dim. mm (in)	"G" Dim. mm (in)	"H" Dim. mm (in)	"J" Dim. mm (in)	"K" Dim. mm (in)
1	450 (17.72)	700 (27.56)	1090 (42.91)	310 (12.21)	738 (29.06)	450 (17.72)	700 (27.56)	1090 (42.91)	885 (34.84)	50 (1.97)
2	450 (17.72)	700 (27.56)	1090 (42.91)	310 (12.21)	738 (29.06)	450 (17.72)	700 (27.56)	1090 (42.91)	1030 (40.55)	125 (4.92)
3	450 (17.72)	700 (27.56)	1141 (44.92)	310 (12.21)	755 (29.72)	450 (17.72)	700 (27.56)	1141 (44.92)	885 (34.84)	50 (1.97)
4	450 (17.72)	700 (27.56)	1141 (44.92)	310 (12.21)	755 (29.72)	450 (17.72)	700 (27.56)	1141 (44.92)	1030 (40.55)	125 (4.92)
5	500 (19.69)	750 (29.53)	1205 (47.44)	330 (12.99)	760 (29.92)	500 (19.69)	750 (29.53)	1205 (47.44)	885 (34.84)	60 (2.36)
6	500 (19.69)	750 (29.53)	1205 (47.44)	330 (12.99)	760 (29.92)	500 (19.69)	750 (29.53)	1205 (47.44)	1030 (40.55)	15 (0.59)
7	550 (21.65)	800 (31.50)	1270 (50.00)	350 (13.78)	762 (30.00)	500 (19.69)	750 (29.53)	1220 (48.03)	885 (34.84)	60 (2.36)
8	600 (23.62)	850 (33.47)	1320 (51.97)	400 (15.75)	762 (30.00)	500 (19.69)	750 (29.53)	1220 (48.03)	1030 (40.55)	15 (0.59)

