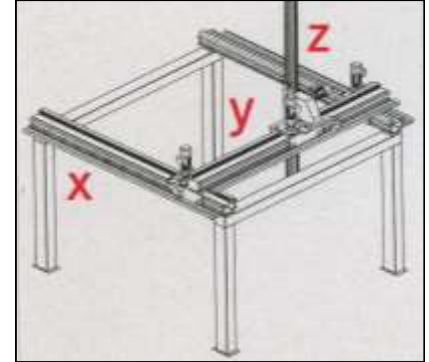
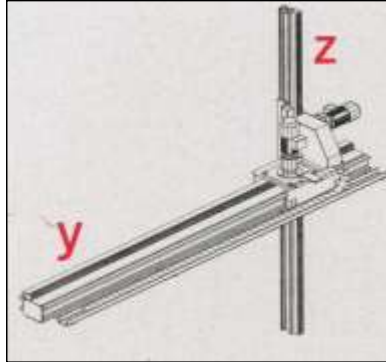


# Design Criteria for Multi-Axis Systems

The schematics below represent various axis for movement. When describing the system needs, some basic concepts will identify parameters. For the drive mechanism, the X-axis is typically the long run length. The Y-axis is the width and Z-axis is the vertical stroke. Other helpful criteria is the length (in or mm) of movement or stroke for each axis, speed (in/sec or mm/sec) of the stroke desired, and acceleration (in/sec<sup>2</sup> or mm/sec<sup>2</sup>) if any. Also identify the frequency of stroke in times per hour or per day.



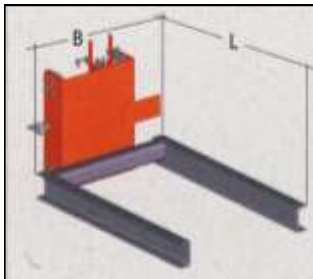
Type of Application: \_\_\_\_\_

Stroke:	X _____ in or mm	Y _____ in or mm	Z _____ in or mm
Speed:	X _____ in/sec or mm/sec	Y _____ in/sec or mm/sec	Z _____ in/sec or mm/sec
Acceleration:	X _____ in/sec <sup>2</sup> or mm/sec <sup>2</sup>	Y _____ in/sec <sup>2</sup> or mm/sec <sup>2</sup>	Z _____ in/sec <sup>2</sup> or mm/sec <sup>2</sup>
Position Accuracy:	X +/- _____ in or mm	Y +/- _____ in or mm	Z +/- _____ in or mm

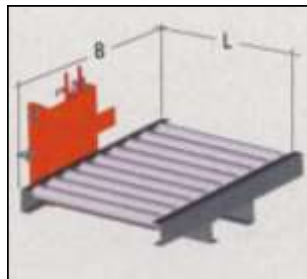
Motor:  AC Motor Frequency Controlled  Servo Load \_\_\_\_\_ Lbs or N Cycle Rate \_\_\_\_\_ cycles/hour

Other: (Ambient Conditions, etc., that may impact function) \_\_\_\_\_

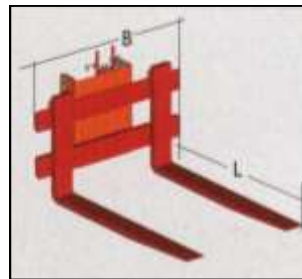
# Criteria for Lift Systems



1. Load Frame



2. Conveyor



3. Frame with Forks

Type 1, 2 or 3 or other (Describe) \_\_\_\_\_

B = \_\_\_\_\_ in or mm L = \_\_\_\_\_ in or mm

Load: \_\_\_\_\_ Load Center: \_\_\_\_\_ Stroke: S = \_\_\_\_\_ in or mm

Max Height of Load Frame: H = \_\_\_\_\_ in or mm

Motor - AC Frequency Controlled or Servo \_\_\_\_\_ Top mount or Floor level \_\_\_\_\_

Lifting Speed: \_\_\_\_\_ ft/sec or m/sec Cycle Rate: \_\_\_\_\_ Cycles Per Hour

Fail Safe Brake: (y/n) \_\_\_\_\_ Lifting Sensors or Proximity Switches: \_\_\_\_\_

Mechanical Locking System: \_\_\_\_\_ Standby By Drive \_\_\_\_\_

Lift Mechanism Type:  Chain  Belt  Rack & Pinion  Hydraulic  Other

Describe Operating Conditions (Surrounding Environment, Temps, Moistures, Contaminants, etc.,

Drawing/Sketch available? ) \_\_\_\_\_

Above detail will provides a basic overview. Additional System concepts are available at [www.winkel.de](http://www.winkel.de). Please contact PTI for additional information. Ph: 704-588-1091; Fax 704-588-5738; [www.ptintl.com](http://www.ptintl.com)

