

How Does IVT Fit as a Solution to Your Application?

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How and where does Integral V[™] fit into an application? When IVT was first introduced, PBC Linear presented the new linear guide technology as the solution to innumberable fastening components and painstaking alignment. But how does IVT accomplish this, and where can customers look for an Integral V[™] solution in their applications?

IVT: The Genius of Simplification

Integral V[™] Technology (IVT) was designed as an easily specifiable linear guide system that dramatically reduces the amount of requried mounting fasteners, and as a result, significantly drives down installation time and labor costs.

This is possible due to IVT's patent pending design. Hardened steel inserts are embedded directly into aluminum structural framing—requiring no fastening, additional mounting plates or alignment. The steel inserts and smooth aluminum-anodized rails provide IVT with superior precision, tight tolerances (±0.001"/0.025mm), and unmatched linear





straightness (±0.002"/ft/0.050mm). PBC Linear's proprietary SIMO™ process provides IVT with qualified machined rail surfaces on all critical edges to ensure high accuracy travel. The final product is a sophisticated linear guide system that drives down total installed cost by eliminating fasteners and reducing alignment time. Available in several different profile options, Integral V™ can be outfitted as a solution for multiple applications.



A Solution to Several Applications

CNC Gantry

Suggested Product: IVT Double bolt-on, Integrated, or Custom

IVT has carved out an instant niche modernizing and simplifying bulky structural framing into a streamlined linear positioning system. Using Integrated, Double bolton, or custom designed profiles, IVT provides sophisticated, accurate and precise positioning of CNC routers, water jet cutters, laser etching machines and machine tooling systems.



Sliding Door/Drawer Slides

Suggested product: Modular bolt-on

The mounting and profile versatility of IVT's modular bolt-on configuration instantly makes it an attractive candidate for drawer slide and sliding door applications. The modular configuration bolts directly on with little alignment time due to its precision-machined surfaces, tight tolerances, and embedded steel races. Machine tool doors smoothly slide along the rail, even in the midst of dust, dirt and other contamination.





Patient Assist/Adjustable Tables

Suggested product: Bolt-on, Double bolt-on, or Compact guides

Patient assist tables require smooth, seamless linear positioning to ensure comfort and support. IVT linear guides are end-joinable with dowel pins for longer length applications. Their incredibly smooth/flat surfaces (±.002"), and parallelism (±0.001") allow for smooth, quiet and reliable positioning and adjustments. IVT's innovative carriage employs double-row ball-bearing wheels for fast, efficient travel. This results in a reliable, smooth linear system



that caters to both ergonomics and patient satisfaction. Depending on the table design, IVT Bolt-on, Double bolt-on, or compact guides could all excel in this application.

Overhead Guidance

Suggested Product: IVT Double bolt-on

Usability, functionality and high load capacities—particularly cantilevered loads—are all necessary for these applications. Whether the linear guide system is supporting an overhead TV monitor for easy-viewing access, or large tools for maneuverable work-assist applications, IVT's Double bolt-on profile can easily handle the job. Tested for high static and dynamic loads, IVT double bolt-on was built for durable, smooth and quiet linear guidance—even when inversely mounted.

Series	Static Load Ratings					Dynamic Load Ratings															
	Radial F ^{OF} (N)	Axial F ^{ee} (N)	Roll M ^{os} (N-m)	Pitch M ^{ey} (N-m)	Yaw M ^{cz} (N-m)	Radial Fy (N)	Axial Fz (N)	Roll Mx (N-m)	Pitch My (N-m)	Yaw Mz (N-m)											
											IVTAAD	8,900	5,560	199	348	556	10,020	6,150	220	384	626
											IVTAAE	8,900	5,560	255	487	778	10,020	6,150	282	538	877
IVTAAF	8,900	5,560	338	556	890	10,020	6,150	374	615	1,002											
IVTAAQ	8,900	5,560	283	278	445	10,020	6,150	313	308	501											

Dynamic load ratings based on 100 kilometer travel in optimum operating environments, 1 N = 0.2248 fbf 1 N - m = 0.7376 ft, lbs.

Load Ratings for Double Bolt-on



For more information on **Integral V[™] Technology** or any other PBC Linear products, please call 1.800.729.9085, email to <u>marketing@pbclinear.com</u>, or visit us at our Integral V[™] dedicated website, IVT.pbclinear.com, for downloadable materials and other application examples.