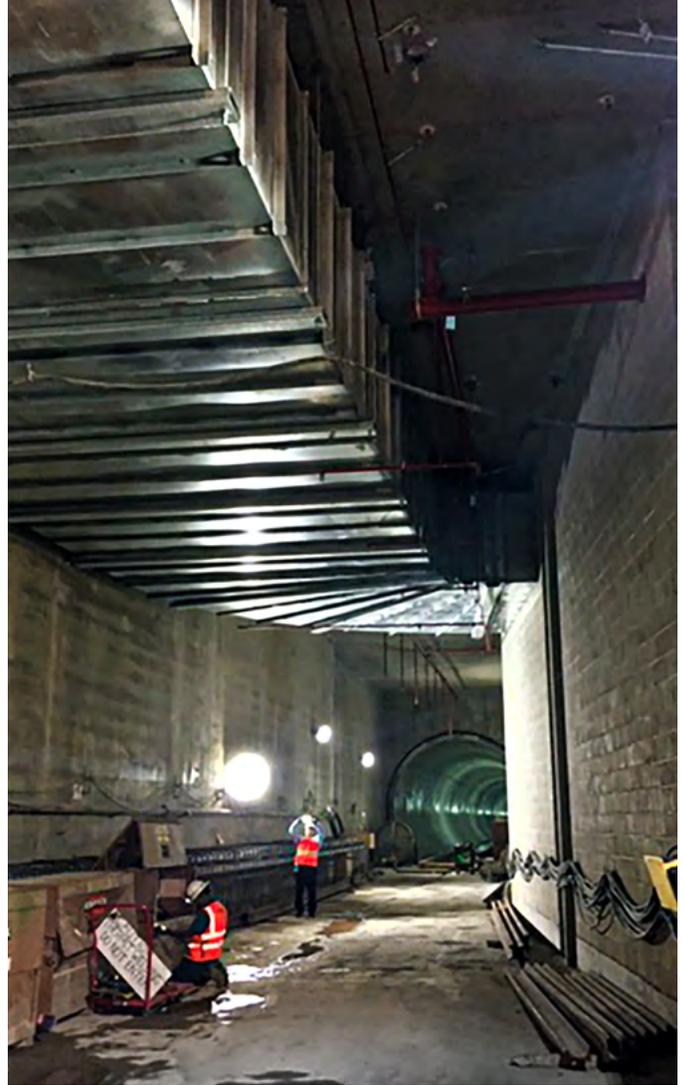
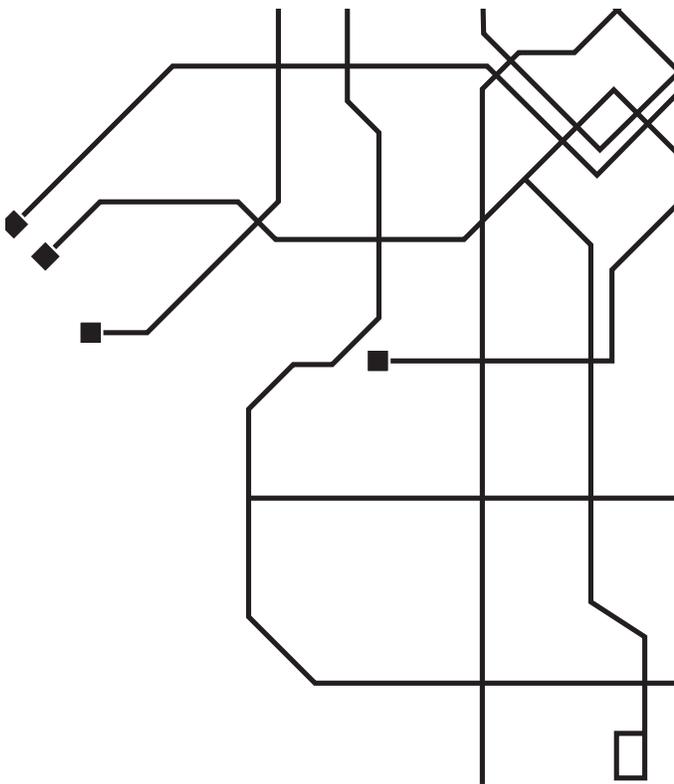


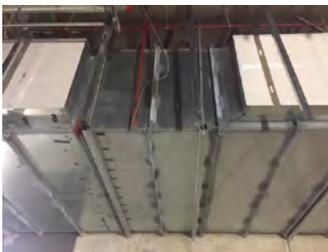
# DUCTMATE 45 INDUSTRIAL DUCT CONNECTOR ON THE *FAST TRACK* IN L.A.!

*Contractors Turn to Ductmate's Industrial  
Duct Connector for City of L.A. Transit Station Project.*



The Los Angeles County California Metro is amongst the nation's largest and premier transportation agencies, and it serves as transportation planner, coordinator, designer, builder, and operator for one of the country's largest, most densely populated and developed counties. More than 9.6 million people – nearly one-third of California's residents – live, work, and play within their 1,433-square-mile service area. Beginning in 2014, the LA Metro began an ambitious project to extend their existing Crenshaw/LAX transit line to better serve the cities of Los Angeles, Inglewood, El Segundo, and portions of unincorporated Los Angeles County. This would extend the existing Metro E Line at Crenshaw and Exposition Boulevards in Los Angeles and merge it with the Metro C (Green) Line at the Aviation/LAX Station on Aviation Boulevard and Interstate 105 in the City of El Segundo.

The new state of the art Metro Rail extension would offer an alternative transportation option to congested roadways and provide significant environmental benefits, economic development, and employment opportunities throughout Los Angeles County. Riders will be able to make easy connections within the entire Metro Rail system, municipal bus lines, and other regional transportation services. Equally important, it will dramatically reduce travel times, inefficiencies, and lower transportation costs while improving the quality of life for commuters and residents as well as benefiting the surrounding



environment. The ability to foresee such an innovative concept, let alone engineer such a monumental and technically complex project that would ultimately result in such a vast number of socioeconomic solutions, is hard to put into words.

It was the underground stations where Metro had a particularly challenging objective. Tunneling under countless buildings and congested streets overhead in a seismically active area, engineers and contractors had to bring in fresh air for the passengers waiting to board. At this point, the HVAC Contracting Companies of Limbach and Superior Duct were tasked with sourcing and installing the critical air systems needed. With ductwork exceeding 45 square feet in 20' sections, the contractors had to be extremely selective in the connection system they would use on the job. It would be imperative they complete their work in a timely fashion to ensure the project kept moving and on schedule. Because of the unique belowground operation, the HVAC system has to withstand very rigorous operating standards, as well as meet the engineering standards for catastrophic events such as an earthquake. The ductwork would have to tolerate up to 14" positive and negative pressure and operating temperatures exceeding 480 degrees.

*"Because we have so many types of construction, it requires so many types of specialties. The construction managers all have to have different types of training, and coordinating that to make sure we have the right resources at the project at the right time based on what's going on - that's complexity for us, and something we have to manage."*

**- Stephanie Leslie**

*Deputy Executive Officer, Construction*

One of the key points the contractors have stressed as a primary reason for turning to Ductmate Industries, and making the switch from companion angle frames to Ductmate 45 Industrial Rectangular Duct Connector System on this project, is the universal acceptance of the Ductmate Brand, the product's performance, and the engineering and technical support behind the product.

The Ductmate 35 and Ductmate 45 Rectangular Duct Connector Systems both were designed and engineered to increase the overall performance (airtight and structural integrity) of commercial and industrial HVAC systems, and are the most independently tested and widely used connector systems in the world. Ductmate Industries' engineering department built industrial sections of duct using the DM 45 connector system and tested it well beyond the performance requirements of the LA Metro project to confirm and support testing completed to achieve approval for this project. The Ductmate Connection system has been through rigorous shaker testing and simulations specifically for critical projects in earthquake prone regions. Also, because of the extremely high temperature requirements of this project, a specialized silicone sealant was used between the flange faces at each 20' duct joint. The silicone sealant worked perfectly with the Ductmate 45 System and achieved optimal results for this high temperature application.

In addition to the high-performance characteristics of the Ductmate system, possibly the most compelling reason the

product was selected was the inherent cost savings associated with the Ductmate 45 system versus companion angle flanges. The fabrication of connections for HVAC systems utilizing companion angle is an egregiously labor-intensive process. Although project specifications can vary from project to project, in general companion angle is hard to cut, requires countless number of holes to be drilled, must be painted to prevent rust, requires certified welders to join angle together and to attach to the duct wall, and then attached with equally countless number of nuts and bolts. Ductmate 45 is a self-sealing slide-on connector system where no welding is needed to achieve an airtight seal. Its 4-bolt design with optional bolt-on or snap-on cleat (which replaces countless nuts and bolts) makes ease of installation and airtight integrity simple, thus it has become the clear choice over labor-intensive companion angle.

Ductmate Industries has always been viewed as the industry leader within the commercial and industrial HVAC industry. Needless to say, due to the performance characteristics and being vastly more labor-saving, the Ductmate 45 System was approved and used over the initially specified companion angle. Once approved, the contractor drew upon Bay Insulation/CWCI for just-in-time delivery and service to ensure a seamless supply of Ductmate 45 components.

It is a unique project like the Crenshaw/LAX Transit Stations where the versatility and quality of Ductmate products and its engineering staff truly shine. For over 40 years, Ductmate has been partnering with companies in the commercial and industrial HVAC space to solve challenging and unique mechanical problems in every conceivable alloy. Ductmate products have been installed in virtually every type of commercial and industrial HVAC system imaginable including transportation hubs, data centers, waste-water treatment plants, processing plants, and countless other project types for companies such as Google, Microsoft, Facebook and Disney, to name a few. Upon the project's expected completion in 2021, the LA Transit line will be one of the most advanced, efficient, safest, and environmentally friendly transit systems in the world, consisting of 3 underground terminal stations and miles of below and above grade track. Ductmate Industries is proud to assist in making this project a success.

Sources

[https://www.metro.net/projects/crenshaw\\_corridor/](https://www.metro.net/projects/crenshaw_corridor/)

<https://www.youtube.com/watch?v=BgDqv1QWQng>

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