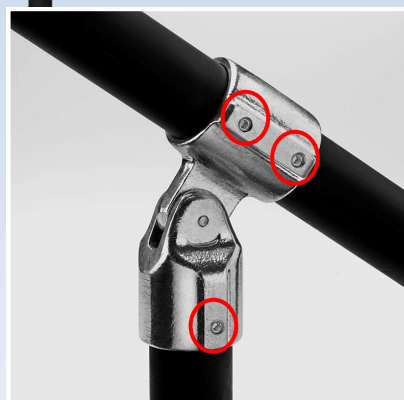
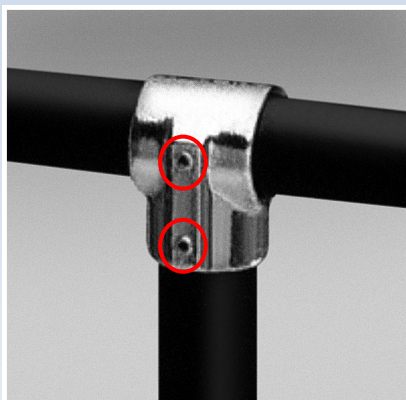




Hollaender Speed-Rail® fittings for solar pipe racks are now approved under Intertek ETL Mark 5006568.



When properly installed, the set screws are electrically bonded to the pipe and bracing, thereby fulfilling the grounding and bonding requirements of UL 2703. This eliminates the need for additional bonding components.

APPROVED FITTING MODELS


TEES (*all sizes*): 5, 5E, 5EX, 5EXT, 5SR, 5X

BRACING FITTINGS (*all sizes*): 17, 17E, 17X, 19, 19E

MOUNTING FLANGES (*all sizes*): 45, 47



Components and Combinations Covered by Certification	
UL2703 Recognized Components, under ETL mark 5006568	
Pipe	Galvanized Steel, Aluminum
Tees	5-7, 5-8, 5-9
	5-89
	5X-9
	5E-7, 5E-8, 5EX-8
	5EXT-8
	5SR-8, 5SR-9
Bracing Fittings	17-7, 17-8, 17-9
	17E-7, 17E-8
	17X-9
	19-7, 19-8, 19-9
	19E-7, 19E-8
Mounting Flanges	45-7, 45-8
	45CE-7, 45CE-8
	47-7, 47-8, 47-9
	47R-8

2.0 Product Description	
Product	PV Bonding Devices
Brand name	
Description	<p>The products covered by this report are the Hollaender Speed-Rail Fittings and Flanges that are intended to provide electrical bonding to Solar Pipe Racking with conductive surface. This report covers several fittings and flanges with different barrel diameters and lengths, and different set screw locations.</p> <p>The fitting or flange is secured in use to solar racking pipe by means of set screw connection. Approved pipe outer-diameters for use with fittings are 1.66" (size 7 fitting), 1.90" (size 8), and 2.375" (size 9).</p> <p>The grounding of the entire system is intended to be in accordance with the latest edition of the National Electrical Code, including NEC 250: Grounding and Bonding, and NEC 690: Solar Photovoltaic Systems. Any local electrical codes must be adhered in addition to the national electrical codes.</p> <p>This product investigation was performed only with respect to specific properties, a limited range of hazards, or suitability for use under limited or special conditions. The following risks and other properties of this product have not been evaluated: The Mechanical Loading Test, mechanical strength of materials, flammability, electric shock, Ultraviolet light exposure, fire resistance class ratings as a roof covering (e.g. Class A, B, or C Film) material.</p>
Models	5, 5E, 5EXT, 5SR, 5X, 17, 17E, 17X, 19, 19E, 45, 47
Model Similarity	<p>5 indicates a "Tee" design (See Illustrations 1-5)</p> <p>17 indicates adjustable brace fitting (See Illustrations 6 & 7)</p> <p>19 indicates cross adjustable brace fitting (See Illustration XXX)</p> <p>45 indicates square base flange</p> <p>47 indicates rectangle base flange</p> <p>E indicates single set-screw design</p> <p>EXT indicates extended barrel design</p> <p>SR indicates side rib supporting set-screw</p> <p>X indicates 90 degree offset between 2 barrel set screws</p>
Ratings	Fuse Rating: 25A
Other Ratings	NA

2.0 Product Description	
Conditions of Acceptability	The products covered in this Report are incomplete in construction features or limited in performance capabilities and are intended for use and evaluation in other products. Consideration should be given to the following when the component is used in or with another product.
	1. Methods of installation to follow the instruction manual documented in this report. Periodic re-inspection is not stated in installation manual
	2. Hollaender Speed-Rail Fittings and Flanges are made of ALMAG 535 aluminum magnesium alloy and intended to be secured to aluminum or galvanized solar-rack piping by set-screw connections. Terminal connections are factory crimped. Hollaender Speed-Rail Fittings and Flanges exceeds minimum size requirements for bonding. These fittings and flanges will be subject to Bonding Path resistance, Temperature Cycling Test, and Humidity Test when used with other mounting surfaces.
	3. The system consists of Aluminum and Galvanized steel materials; therefore, no corrosion-resistant coatings or plating are required.
	4. Overall bonding and grounding of a Photovoltaic Mounting System using the Speed-Rail Fitting and Flanges must be investigated to section 8.0 in the end use product; also in accordance with the latest National Electrical Code, ANSI/NFPA70, including NEC 250.134 or 250.136 (A) regardless of voltage, and NEC 690: Solar Photovoltaic Systems. Any local electrical codes must be adhered to in addition to the National Electrical Code.
	5. The component is to be part of larger system as a recognized component of overall system. UL 2703 Grounding and bonding of complete racking system shall be verified in end use product including evaluation to standard under section 9 for bonding requirements. Additional testing may be required when used with other racking systems which may include but not limited to Humidity Freez, Thermal Cycling, bonding path resistance and bonding conductor testings.