

# KNIGHT HCI-SYSTEM™ RAIN SCREEN ATTACHMENT

## DATA SHEET



PRODUCT NAMES	MANUFACTURER	AVAILABILITY	TECHNICAL SUPPORT
HCI-System™	Knight Wall Systems, inc.	The HCI-System is purchased directly through Knight Wall Systems. Customer service and ordering assistance is available through an extensive network of sales representatives.	Knight Wall Systems can provide technical information and support when developing details with our system and help with determining proper configuration. For assistance, please call 1.855.KWS.WALL
HCI-Girt™	28308 North Cedar Rd		
PanelRail™	Deer Park, WA 99006		
ThermaStop™	1.855.KWS.WALL		
Reveal-Rail™	info@knightwallsystems.com		
	www.knightwallsystems.com		

PRODUCT DESCRIPTION	PRODUCT USE
<p>The HCI-System™ rain screen attachment is a façade attachment system providing for use of up to 3" of rigid board continuous insulation. Combined with Knight's patented ThermaStop™ thermal isolation system used at each fastener penetrating the thermal barrier, the assembly increases the effectiveness of the insulation and therefore overall energy efficiency of the building envelope. The HCI-System delivers real continuous insulation across all structural members with nothing penetrating the insulation but fasteners minimizing thermal bridging, slowing heat loss (or heat gain) through the wall assembly. This system of unique girts and rails eliminates any furring penetrating the thermal barrier (as with traditional Z-girt assemblies). Thermal bridges, or thermal shorts, through the fasteners are also reduced with thermal isolation washers.</p> <p>The HCI-System typically consists of ventilated, stiffened, horizontal HCI-Girts™ and stainless steel fasteners with preassembled thermal isolation washers. Secondary vertical rails, such as Knight's PanelRails or Reveal-Rails, may be attached to the horizontal HCI-Girt for increased versatility and to meet cladding requirements.</p> <p>The air cavity (measured from the backside of the cladding to the face of the insulation) is 0.75 inch when only the HCI-Girt is used or 1.5 inch air cavity when the HCI-Girt + PanelRail or Reveal-Rail are used.</p>	<p>The HCI-System continuous insulation rain screen attachment is designed to be used in conjunction with a variety of cladding and panel types for maximum versatility. The HCI-System can easily meet requirements of design live load wind pressures exceeding 70 PSF (allowable) and building over 150 feet tall.</p> <p>Virtually any cladding or panel can be used in conjunction with the HCI-System rain screen attachment. Typically if the cladding product has the ability or approval to be attached over Z-girts and/or hat channels, it can be installed over Knight's HCI-System.</p> <p>The horizontal HCI-Girts can be spaced up to 30" O.C. for and support claddings that weigh up to 9 PSF. The maximum allowable spacing of the components and dead load are functions of the total load imposed on the wall anchors at a given spacing, calculated by Knight Wall Systems on a project specific basis.</p> <p>The system can be installed over steel studs (with or without gypsum sheathing), wood studs (with sheathing), CMU and concrete substrates when the appropriate fasteners are used. Knight will specify the exact anchor type, embedment depth and spacing for anchors into CMU, concrete and masonry. Knight typically supplies wall anchors, and must supply the wall anchors to qualify for a 10 year limited warranty. The ThermaStop thermal isolation washer assembly must be used with all wall anchors, even when wall anchors are chosen to be supplied by others. Wedge anchors or expansion anchors should not be used since specified torque to set anchor cannot be met during install.</p>

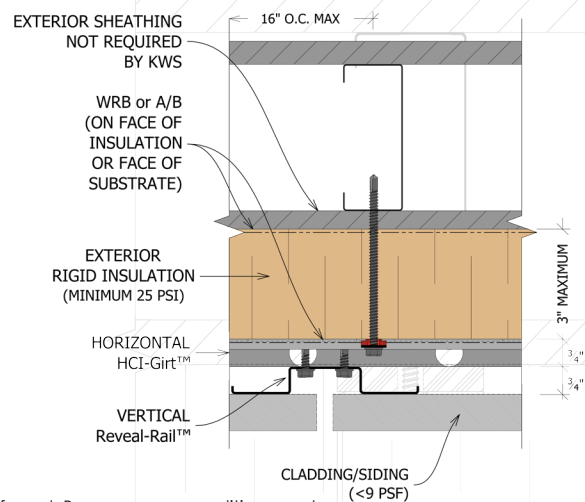
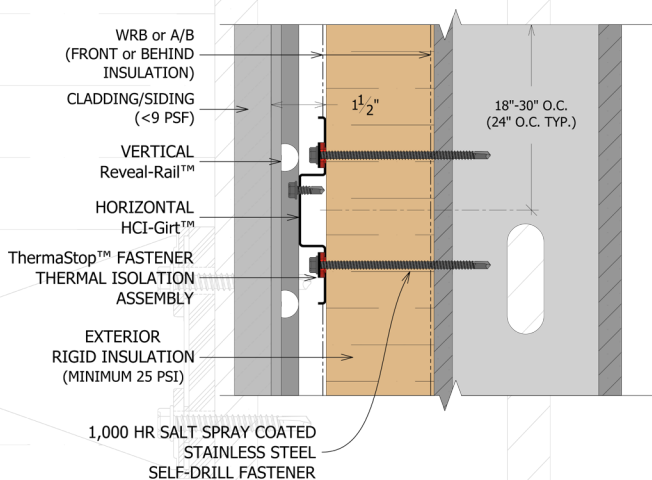
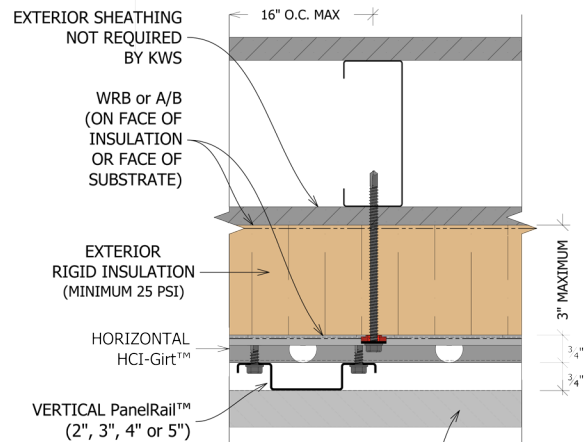
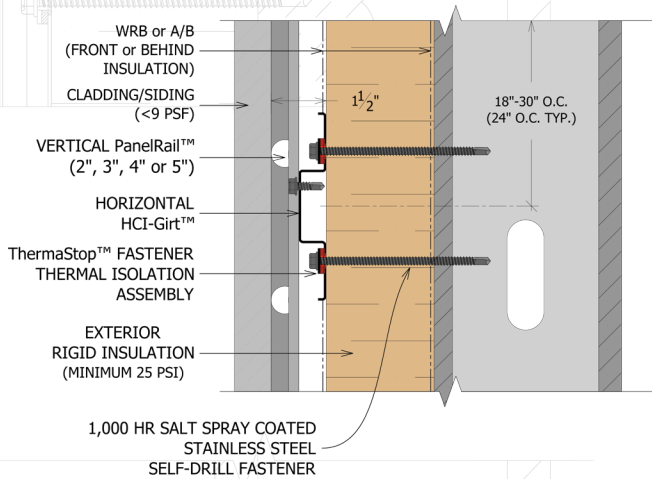
INSTALLATION	WARRANTY
<p>The HCI-System arrives on site in an all-inclusive crate with rails &amp; wall anchors. Installation is quick and simple with common building tools due to the pre-punched regularly spaced holes. HCI-Girts must be installed over 25 psi compression strength rigid insulation up to 3" thick and be oriented horizontally with the two equal flanges against the insulation. The fastener must fasten through the insulation, tying snug tight into a steel stud of 18 gauge minimum thickness (or a minimum 1" embedment into concrete or CMU, verified per project). The use of a self-adhered flashing compatible with the chosen weather resistant barrier, or sealant, is recommended at each screw (specified by others).</p> <p>Installation of the HCI-Girt™ can begin as soon as a portion of the exterior insulation and WRB is correctly installed and flashed. Installation of the facade can begin once the rails are in place according to specifications and engineering requirements. See HCI-System Installation Recommendations for further information and requirements.</p>	<p>KWS enable owners and designers to easily and efficiently fulfill design demands while meeting the requirements of structural and thermal performance. The single-source solutions for pre-engineered, tested, rain screen attachment systems with limited warranties help assure long-lasting performance in the building envelope. Please contact Knight Wall or your local product representative for complete sample warranties.</p> <p><i>Subject to the terms and conditions of the limited warranty, Knight Wall Systems, Inc. warrants to the owner of the Rain Screen Mounting System exterior framework for a period of 10 years from the Completion Date of Installation, the Mounting System will remain intact and be free from manufactures defects. This Warranty does not cover any defects or failures of the Cladding Products, WRB or insulation. Upon completion of the project, during project closeout procedures, Knight Wall Systems must submit a copy of the full warranty for the owner to have on file.</i></p>

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## HCI-GIRT

Material	Cold Formed Steel, 50 ksi (ASTM A568) Stainless Steel, 35 ksi (ASTM A240 304)	Wall Anchor Spacing	(2) fasteners at 16 inch O.C. max
Gauge	- 18 (0.048 +/-0.003 inch) Standard - 16 (0.060 +/-0.003 inch)	Wall Anchor Isolator Inside Diameter	0.28 inch
Coating	Zn-Al-Mg Hot Dip (ASTM A1046 - ZM40)	Number of Wall Anchors per Girt (10 LF)	16
Weight per Girt	10.31 Pounds	Metal Washer	- At each fastener - Stainless Steel; SAE Grade
Weight per SF	24 inch O.C. - 0.53 PSF	Fastener Thermal Isolation Material	Polyoxymethylene (non-fiber reinforced)
Maximum Spacing	30 inch O.C. (service load dependent)	Fastener Thermal Isolator Thickness	0.125 inches (+/-0.003 inch)
Part Dimensions	0.75 inch deep x 2.0 inch web x 1.625 inch legs with 0.25 inch stiffening lips	Thermal Isolator Softening Point	213 °F (ISO 75-1/-2 @ 264 PSI) 321 °F (ISO 306 - B50)



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Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplier including Knight Wall Systems can give assurance that mold will not develop in any specific system.

HCI-SYSTEM, HCI-Girt, CI-SYSTEM, CI-Girt, PanelTek, SidingRail, MFI-System, PanelRail, Reveal-Rail, Reveal-Girt, ThermaBracket and ThermaStop are trademarks of Knight Wall Systems, inc. Patent US 8,429,866 B2 and others pending.



MADE IN THE USA

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