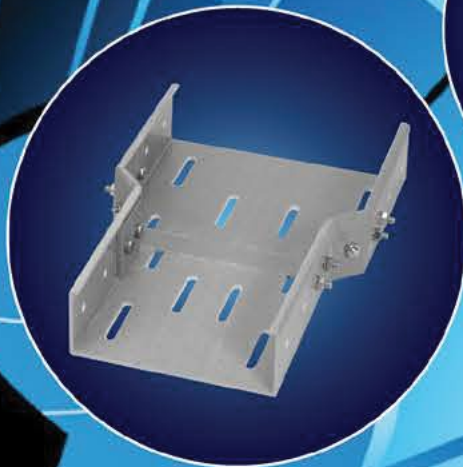
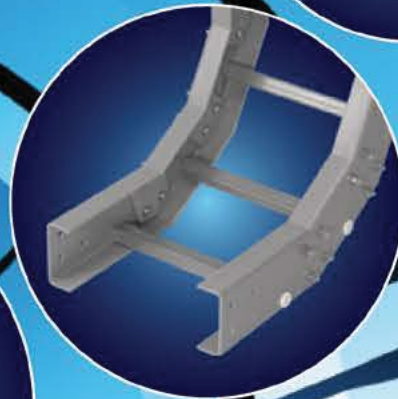
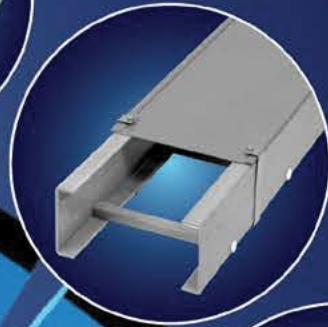
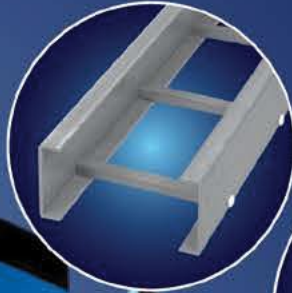




**PULTRUDED FRP / GRP**  
CABLE LADDER & TRAY



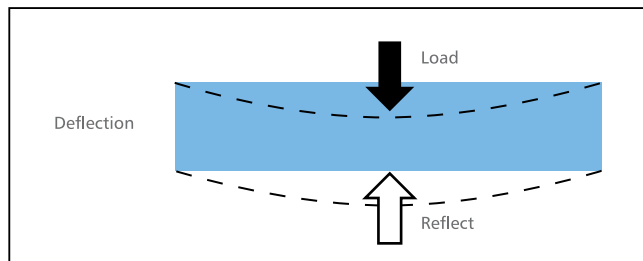
## The Material of The Future

**FRP** (Fiberglass Reinforced Plastic) is produced from a combination of fiberglass reinforcements and thermosetting resins.

Since its introduction, this special millennium product has gained wide acceptance for its superior benefits and is presently used all over the world.



**PULTRUSION** is a process whereby glass fibre (Roving) is continuously pulled through a liquid resin bath until it reaches a heated die at the exit of the line. Here, the resin solidifies into the different profiles according to the various moulds. (Refer to diagram on page 2)



This continuous process gives added resistance to the tension, compression and flexibility of its products. It also provides higher strength resulting in a reinforced structure system that is capable of taking high loads. (For details, please refer to the safe working load graph).

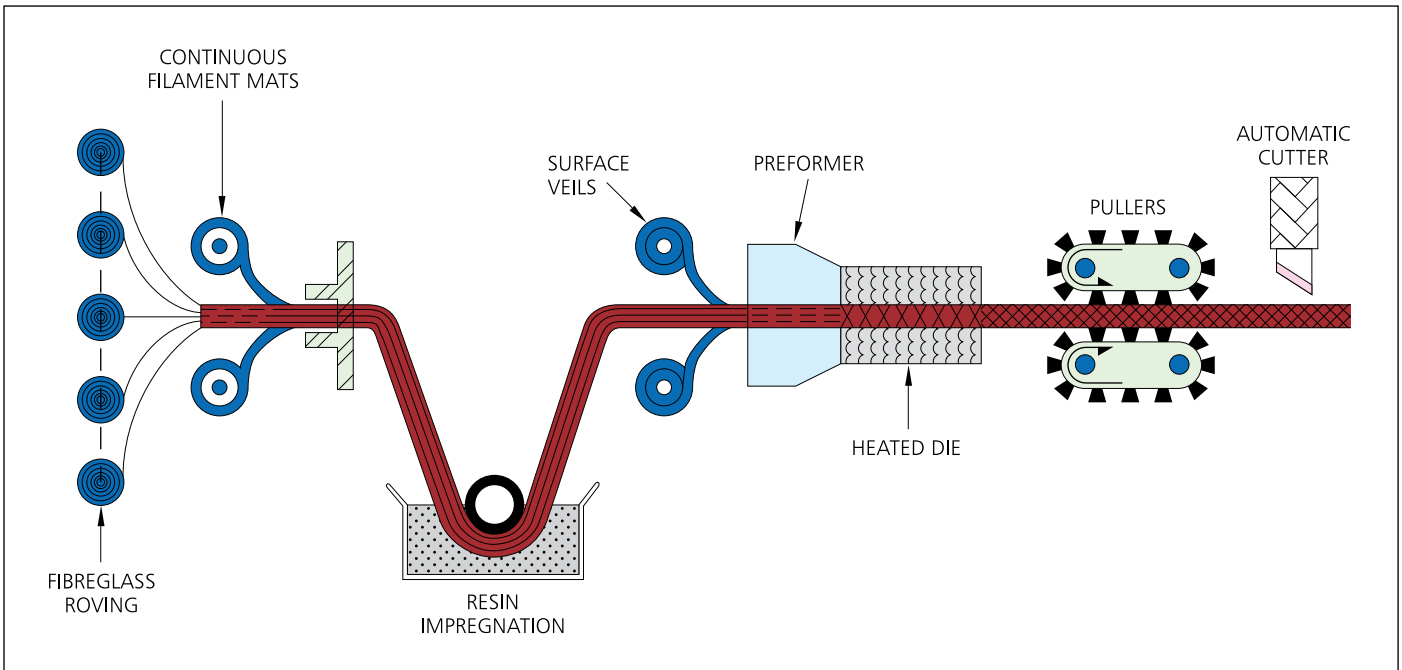
## Benefits of Pultrusion FRP Products

- **Corrosion Resistant**
  - No rusting, peeling or flaking even under the most aggressive conditions in any part of the world.
- **Lightweight and Durable**
  - Allows easy handling and cutting.
  - Reduces size of platform structure.
- **Cost Effective**
  - Extremely long life compared to metal and other plastic materials.
  - Completely maintenance-free.
- **High Strength and Stiffness**
  - High glass content and continuous reinforcement, pultruded FRP products give extremely high strength and stiffness compared to molded FRP and other engineering plastic.
- **High Impact Resistant & Elastic**
  - Returns to original position without any permanent deflection or distortion within recommended allowable loads.
- **Superior UV Protection**
  - INTECH's integral UV protection system gives long-term shield against the damaging effects of UV rays.
- **Non-Conductive & Non-Interfering**
  - Complies to international electrical safety specifications.
  - Allows transmission of radio waves.
  - Non-magnetic.
- **Low Thermal Conductivity & Expansion Rate**
  - Will not transfer heat unlike metal.
  - No problem of expansion under heat.
- **Fire Retardant**
  - Complies to ASTM-E84 and BS 476 standards.



## FRP Pultrusion Process

### CONTINUOUS PULTRUSION



#### Roving & Mat

Unidirectional glass roving fibres give longitudinal reinforcement of the profile while mats give transverse strength

#### Resin

Bonds with the reinforcement, and provide resistance to chemicals.

#### Heated Die

Where polymerisation or curing takes place and product forms into the shape of the profile.

#### Pullers

Assures continuous drawing of the profile.

#### Automatic Cutter

Cuts product to the pre-set length.

### PULTRUSION PROCESS

Pultrusion is a continuous moulding process fabricating products of uniform cross section such as I Beams, Channels, Flat Bars, Rods, Hollow Sections, etc. utilising glass fibre, resin, filler, peroxide and a release agent. The glass reinforcement is drawn into a resin impregnation zone where the glass substrate is thoroughly impregnated with the resin mixture. The wet fibrous material will be pulled through a preformer into a heated die. The shape of the end product is determined by the configuration of the die and the resin is then polymerised. This continuous and uniform method ensures consistency throughout the entire product length, therefore eliminating the possibility of weak spots.



**INTECH's** dedication towards excellent quality is reflected in all its FRP products that have been tested to comply with major international standards such as the ASTM, BS, NEMA and UL. The company's focus has always been to provide products and services that not only meet customers' requirements but also exceed their expectations, both locally and around the world.

|                                                                                   |                                                                                                                              |                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Plastics Technology Group</b><br><b>Advanced Polymer &amp; Composites Programme</b><br><b>SIRIM Berhad</b>                |                                                                                                                                                                                  |
|                                                                                   | (Company No. 387474-V)<br>Tel: (603) 55444095-90                                                                             |                                                                                                                                                                                  |
|                                                                                   | Fax: (603) 55440039                                                                                                          |                                                                                                                                                                                  |
| CONFIDENTIAL                                                                      |                                                                                                                              |                                                                                                                                                                                  |
| <b>EVALUATION REPORT</b>                                                          |                                                                                                                              |                                                                                                                                                                                  |
| <b>Title:</b>                                                                     | <b>Tensile Properties of "INTECH GRP Product"</b>                                                                            |                                                                                                                                                                                  |
| <b>Report No:</b>                                                                 | PTC/ERC7/496                                                                                                                 |                                                                                                                                                                                  |
| <b>Date:</b>                                                                      | 3 December 2007                                                                                                              |                                                                                                                                                                                  |
| <b>Project No:</b>                                                                | P07582                                                                                                                       |                                                                                                                                                                                  |
| <b>Sample:</b>                                                                    | "INTECH GRP Product"                                                                                                         |                                                                                                                                                                                  |
| <b>Company Name:</b>                                                              | Intabank Techno Sdn. Bhd                                                                                                     |                                                                                                                                                                                  |
| <b>Address:</b>                                                                   | Lot 7647 & 7980, Jalan P46/1<br>Bandar Teknologi Kajang<br>Batu 18, Jalan Semenyih<br>43500 Semenyih<br>Selangor Darul Ehsan |                                                                                                                                                                                  |
| <b>Evaluated by:</b>                                                              | <br>Ahmad Tarmizi Muz Yusoff              |                                                                                                                                                                                  |
| <b>Checked by:</b>                                                                | <br>Dr Norzalia Sulaiman                  |                                                                                               |
|                                                                                   |                                                                                                                              | Approved by<br><br>Dr Ahmad Fuzal Ma Yusoff<br>Head of Programme<br>Plastics Technology Group |
| Page 1 of 3                                                                       |                                                                                                                              |                                                                                                                                                                                  |

- **SIRIM**
- **SGS**
- **ABS**
- **Lloyds**
- **PSB**

**SGS Malaysia Sdn Bhd** (Incorporated in Malaysia)  
 Wisma SGS, Lot 60/1, Jalan Pagar  
 Kemuning Industrial Park,  
 Perumahan, 43000 Putrajaya  
 Selangor, Malaysia  
 Tel : 603 - 5447 2730  
 Fax: 603 - 5403 0936

**SGS**

CERTIFICATE

Certificate No.: FTSB0101010101360 (10029943)  
 Page 1/1

Date: 9<sup>th</sup> June 2006.

### CERTIFICATE OF INSPECTION ITECH FRP Cable Ladder (3in Series, 999mm W x 152mm H)

"We hereby certify that the ITECH FRP Cable Ladder was tested in our presence at Institut Teknologi Sepuluh Nopember, Tasek Tenggong Jaya, Batuanying, Malaysia and findings are as follows:

**Details of FRP Cable Ladder**  
 Type 0099

**Details of Load Test**

| Span (mm) | Max Load Applied (kg/m) | Static Working Load used (kg/m) | Total Deflection (mm) |
|-----------|-------------------------|---------------------------------|-----------------------|
| 8096      | 209.74                  | 189.829                         | 753                   |

See attached Appendix A-1 for details of load test.

**Application of load.**

The load was applied throughout the total length of the straight cable ladder gradually (linearly distributed weight) and deflection readings were taken.

**Requirements as per NEMA FG1-1993, Revision 1, Table 3-1**  
 Working Load            145.8 kg/m  
 Static Length             6.296 meters (20 Feet)  
 Class Designation as per 3.1:        20C

**Details of Equipment used.**

**Deflection:**  
     Automatic Level  
     Model Sokkia C-41, Serial No. G25329  
     Measuring Staff – Model ALG-58

**Weight Bricks –**  
     6 pcc Slab Blocks with an total weight of 47.2 kg  
     Stand Steps with weights of 20 kg, 8 kg and 2.5 kg

Date of Inspection :    8<sup>th</sup> June 2006

**SGS (Malaysia) Sdn Bhd**  
 Industrial Services

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In the event that any of the information contained herein is determined to be incorrect, it shall remain the responsibility of the customer to inform SGS Malaysia Sdn Bhd immediately.

SGSPAPER

051518915

Certificate Number: 01-50225570-POA/1

The logo for the ABS Type Approval Program. It features the letters 'ABS' in a large, bold, blue serif font. Below 'ABS' is the text 'TYPE APPROVAL PROGRAM' in a smaller, blue, sans-serif font, enclosed within a rectangular border.

## ***Confirmation of Product Type Approval 31/MAR/2009***

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This is to certify that, pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 14/JAN/2013. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits, as required by the ABS Rules.

**Unit:** a Product Design Assessment (PDA) valid until 24/SEP/2011 subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above noted the product to be called Product Type Approval.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on unclassified, MODUs or facilities (such other use of the ABS Rules) until after the evaluation of the Product.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that, whatever the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for compliance with the standard.

### **INTRALINK TECHNO SDN BHD Model Name(s): "INTECH" Cable Ladder**

**Presented to:**

INTRALINK TECHNO SDN BHD  
LOT 47 & 7550, JALAN PAJ  
BANDAR TEKNOLOGI KAJANG, BATU 19  
SEMENYING  
SELANGOR 43000  
MALAYSIA

**Intended Service:**

Marine and Offshore Installation

**Description:**

Polyester FRP Cable Ladder and Tray

**Rating:**

Flame Retardant meeting ASTM E84 Class 1 (FBI-25/50°C-450) and BS 674 Part 7 Class 1

**Service Restrictions:**

<<<Unit Certification is required for this product>>><<<Unit Certification is not required for this product. If the manufacturer or purchaser is required to request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.>>>  
 Not Applicable  
 Not Applicable

**Comments:**

Not Applicable

**Notes / Documentation:**

**Notes of Validity:**

Certificate 01-50225570-POA/1, dated 25/09/2006 is valid as noted from date of issue or until the applicable Rules or standards are revised (whichever occurs first). Product use on or after 1 January 2007, will be subject to compliance with the ABS Rules or specifications in effect when the review, MODU or facility is constructed. This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the

**ABS Rules:**



**CERTIFICATE OF APPROVAL**

This is to certify that the Quality Management System of:

**Intralink Techno Sdn. Bhd. (495364-M)**  
**Semenyih, Selangor**  
**Malaysia**

has been approved by Lloyd's Register Quality Assurance  
to the following Quality Management System Standards:

**ISO 9001:2008**  
**MS ISO 9001:2008**

The Quality Management System is applicable to:

**Design and manufacture of advanced composite materials  
such as fibreglass reinforced composite products.**

|                                         |                                                                                                             |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Approval<br>Certificate No. KLR 0403767 | Original Approval: 11 March 2002<br>Current Certificate: 30 March 2011<br>Certificate Expiry: 10 March 2014 |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------|



Issued by Lloyd's Register of Shipping Ltd Bhd  
for and on behalf of Lloyd's Register Quality Assurance Ltd.

  
2011

This document is subject to the provisions of the website:  
Syll 21 UK, Level 21, Manxway Ltd & Co., 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 260

[illegible]



## INTECH Cable Support System

**INTECH Cable Support System (Tray & Ladder)** are designed to comply and exceed the global recognized NEMA & IEC standards. Our products are designed and built to be anti-corrosive and non conductive coming with customizable options for different grades of fire retardant and antistatic elements. INTECH cable support products are widely used to service the growing market segment within oil & gas, power generation, water treatment and renewable energy industry, solving all corrosion problems.

**INTECH** offers a comprehensive selection of resin options to align precisely with our customers' unique specifications. Ranging from our standard ISO resin to the high corrosion resistant VE resin, we are well-equipped to accommodate your requirements spanning chemical compatibility, fire resistance and smoke control. To specify your preferred resin variant, please append the appropriate resin code to the standard FRP article numbers, as illustrated below. This ensures precise alignment with your required specification.

### INTECH FRP RESIN GUIDELINE

| FRP RESIN                                                                                                                                                      | DESCRIPTION                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ISOPHTHALIC RESIN</b><br>Code: ISO (standard default)                                                                                                       | Isophthalic Resin is the most commonly used resin that provides good corrosion and ultraviolet light resistance for various application.                                                                                                                      |
| <b>VINYL ESTER</b><br>Code: VE                                                                                                                                 | VE resin is formulated for higher performance in the harshest chemical environment, providing superior resistance to corrosion and elevated temperatures. They are particularly well-suited for industries that handle robust chemical and caustic materials. |
| <b>FIRE RETARDANT</b><br>Code: FR (standard default)                                                                                                           | INTECH FR products' resin has been specially formulated to meet flame retardant standards measuring a Flame spread index (FSI) of $\leq 25$ in accordance to ASTM E84.                                                                                        |
| <b>LOW SMOKE</b><br>Code : Class A (reference to ASTM E84)                                                                                                     | INTECH Class A Resin formulation has been designed to meet, not just the fire retardancy (FSI<25) but also, low smoke development index (SDI<400), achieving the highest specification of Class A standard in accordance to ASTM E84                          |
| <b>ANTI STATIC</b><br>Code: NT                                                                                                                                 | INTECH resins can be imbued with anti-static properties to align with project specifications. Anti-static resins incorporate carbon powder, enhancing the material's conductivity in accordance to IEC60079.                                                  |
| <b>Example of Description with Resin Code</b><br>INTECH FRP C-Type Cable Tray, 50Ht Series <b>ISO-FR</b> , INTECH FRP Cable Ladder,LM Series, <b>ISO-FR-NT</b> |                                                                                                                                                                                                                                                               |

### HOW TO READ INTECH PRODUCT DESCRIPTION

INTECH system utilize letters and numbers to properly describe each of Intech product for effective identification. Refer below example for your reference.

| ITLM-HB-90-300R-450-N |                                                                         |
|-----------------------|-------------------------------------------------------------------------|
| CODE                  | DESCRIPTION                                                             |
| <b>IT</b>             | Intralink Techno as Intech product manufacturer                         |
| <b>LM</b>             | Product Series. For this example, LM is our LM Cable Ladder Series      |
| <b>HB</b>             | Body / Fittings. For this example HB is Horizontal Bend                 |
| <b>90</b>             | Angle                                                                   |
| <b>300 R</b>          | Radius. For this example, 300R is 300mm radius                          |
| <b>450</b>            | Product Width. For this example, 450 is 450mm Width                     |
| <b>N</b>              | Perforation. For this example N is Non-Perforated Rung. P is Perforated |

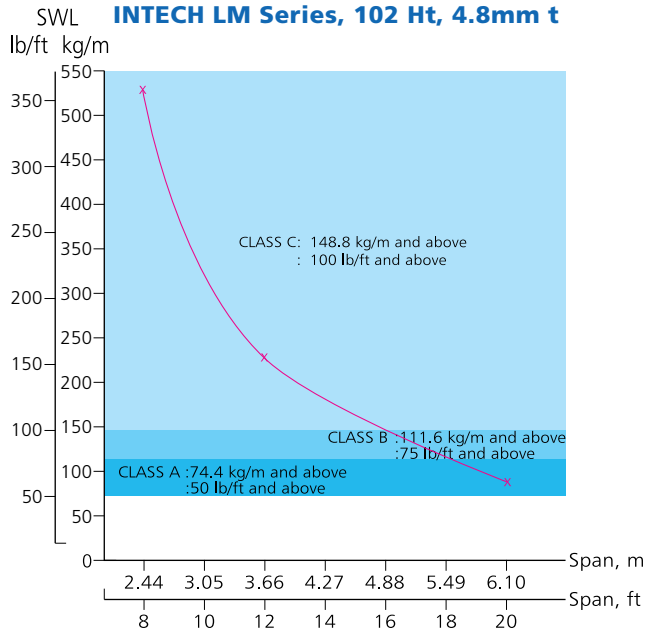
For full code description, please refer to our appendix

| INTECH APPENDIX |                                                                    |
|-----------------|--------------------------------------------------------------------|
| CODE            | DESCRIPTION                                                        |
| <b>FRP</b>      | Fibre Glass Reinforced Plastic                                     |
| <b>SS316</b>    | Stainless Steel 316                                                |
| <b>Ht</b>       | Height (mm) of ladder and tray side rail                           |
| <b>W</b>        | Width (mm) of ladder & tray                                        |
| <b>t</b>        | Thickness (mm) of ladder & tray                                    |
| <b>R</b>        | Radius (mm) for ladder & tray fitting                              |
| <b>LH</b>       | LH Ladder Series. 152mm Ht, 6.0mm t                                |
| <b>LMH</b>      | LMH Ladder Series. 152mm Ht, 4.5mm t                               |
| <b>LM</b>       | LM Ladder Series. 102mm Ht, 4.8mm t                                |
| <b>LSH</b>      | LSH Ladder Series. 152mm Ht, 8.0mm t                               |
| <b>SWL</b>      | Safe Working Load.                                                 |
| <b>50Ht</b>     | 50mm height Tray Series                                            |
| <b>110Ht</b>    | 110mm height Tray Series                                           |
| <b>P</b>        | Perforated Rung (for ladder), Perforated Bottom (for tray)         |
| <b>N</b>        | Non-Perforated Rung (for ladder), Non-Perforated Bottom (for tray) |
| <b>SS</b>       | Straight Section                                                   |
| <b>HB</b>       | Horizontal Bend                                                    |
| <b>IVB</b>      | Inside Vertical Bend                                               |
| <b>OVb</b>      | Outside Vertical Bend                                              |
| <b>HT</b>       | Horizontal Tee (Equal)                                             |
| <b>HUT</b>      | Horizontal Unequal Tee                                             |
| <b>HEC</b>      | Horizontal Equal Cross                                             |
| <b>RHR</b>      | Right Hand Reducer                                                 |
| <b>LHR</b>      | Left Hand Reducer                                                  |
| <b>SR</b>       | Straight Reducer                                                   |

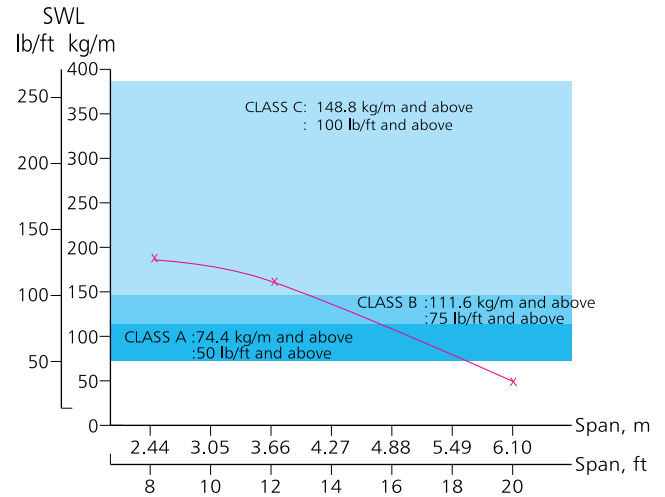


## Safe Working Load-Cable Ladder

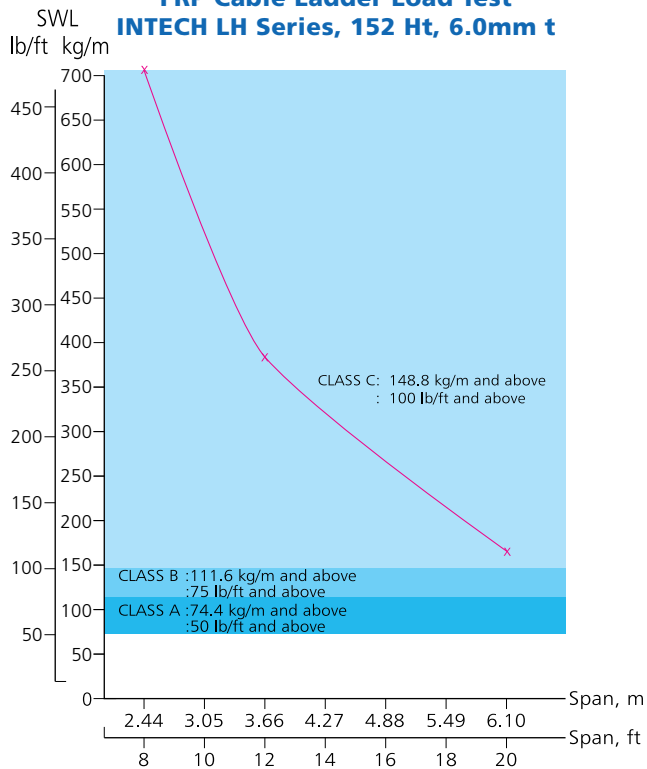
**FRP Cable Ladder Load Test**  
**INTECH LM Series, 102 Ht, 4.8mm t**



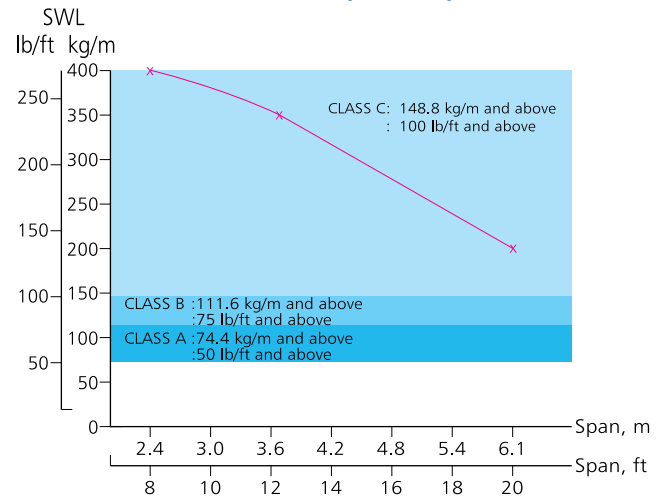
**FRP Cable Ladder Load Test**  
**INTECH LMH Series, 152 Ht, 4.5mm t**



**FRP Cable Ladder Load Test**  
**INTECH LH Series, 152 Ht, 6.0mm t**



**FRP Cable Ladder Load Test**  
**INTECH LSH Series, 152 Ht, 8.0mm t**



**INTECH FRP Cable Ladder Classification (NEMA FG1)**

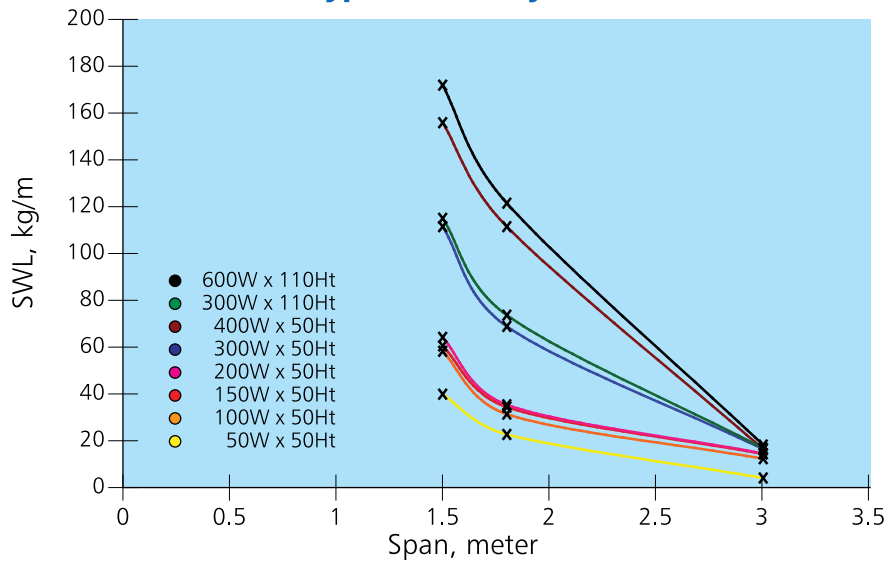
|   |                       | Span, ft | Class | Classification |   |                       | Span, ft | Class | Classification |
|---|-----------------------|----------|-------|----------------|---|-----------------------|----------|-------|----------------|
| 1 | LSH Series<br>152 Ht, | 8        | 8C    | *NEMA FG1 20C  | 3 | LMH Series<br>152 Ht, | 8        | 8C    | *NEMA FG1 12C  |
|   |                       | 12       | 12C   |                |   |                       | 12       | 12C   |                |
|   |                       | 16       | 16C   |                |   |                       | 16       | 16A   |                |
|   |                       | 20       | 20C   |                |   |                       |          |       |                |
| 2 | LH Series<br>152 Ht,  | 8        | 8C    | *NEMA FG1 20C  | 4 | LM Series<br>102 Ht,  | 8        | 8C    | *NEMA FG1 12C  |
|   |                       | 12       | 12C   |                |   |                       | 12       | 12C   |                |
|   |                       | 16       | 16C   |                |   |                       | 16       | 16B   |                |
|   |                       | 20       | 20C   |                |   |                       |          | 20A   |                |

\*Other range available upon request

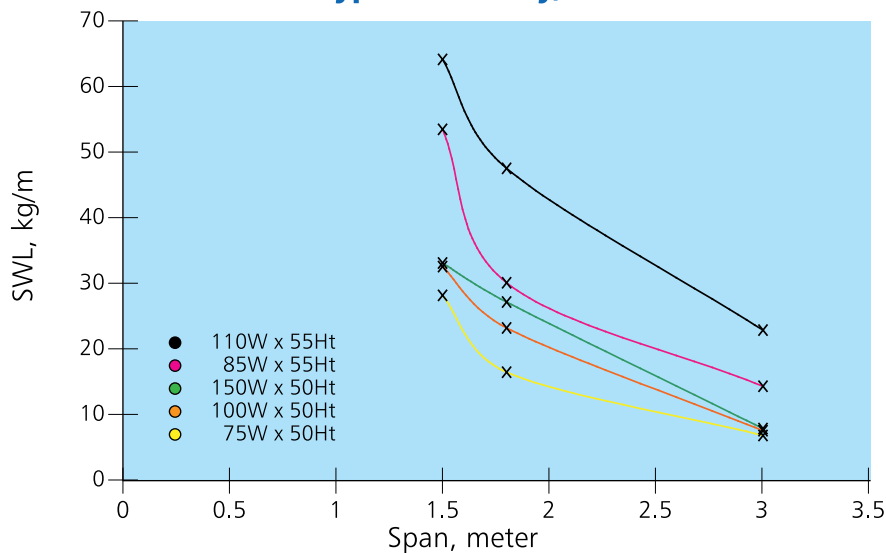
\*SWL determined from load test in accordance with item 4.1 of NEMA FG1 with Safety Factor of 1.5.



## Safe Working Load-Cable Tray

**INTECH C Type Cable Tray, 50Ht & 110Ht**

| INTECH C Type Cable Tray, 50Ht & 110Ht |           |           |                                       |
|----------------------------------------|-----------|-----------|---------------------------------------|
| Thk, mm                                | Width, mm | Height,mm | Safe Working Load for Span 1500, kg/m |
| 3                                      | 50        | 50        | 39.5                                  |
| 3                                      | 100       | 50        | 57.9                                  |
| 3                                      | 150       | 50        | 60.2                                  |
| 3                                      | 200       | 50        | 63.8                                  |
| 3                                      | 300       | 50        | 111.1                                 |
| 4                                      | 400       | 50        | 155.6                                 |
| 3                                      | 300       | 110       | 114.7                                 |
| 3                                      | 600       | 110       | 171.5                                 |

**INTECH U Type Cable Tray, 50Ht & 55Ht**

| INTECH U Type Cable Tray, 50Ht & 55Ht |           |           |                                       |
|---------------------------------------|-----------|-----------|---------------------------------------|
| Thk, mm                               | Width, mm | Height,mm | Safe Working Load for Span 1500, kg/m |
| 3                                     | 75        | 50        | 28.5                                  |
| 3                                     | 100       | 50        | 32.4                                  |
| 3                                     | 150       | 50        | 33.0                                  |
| 5                                     | 85        | 55        | 53.3                                  |
| 5                                     | 110       | 55        | 64.0                                  |

**\*SWL determined from load test in accordance with item 4.1 of NEMA FG1 with Safety Factor of 1.5.**

**\*Other range available upon request**



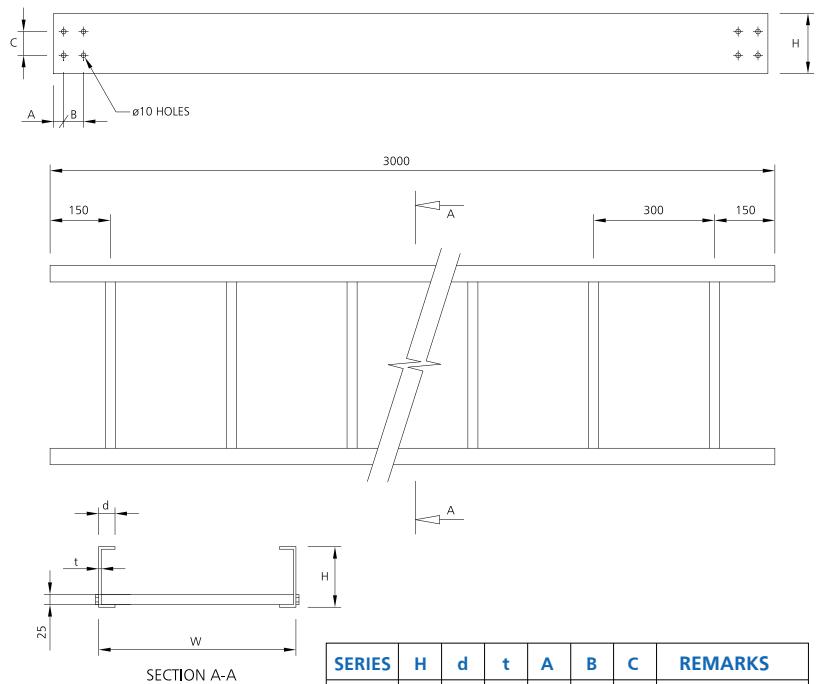
## Cable Ladder - LM Series



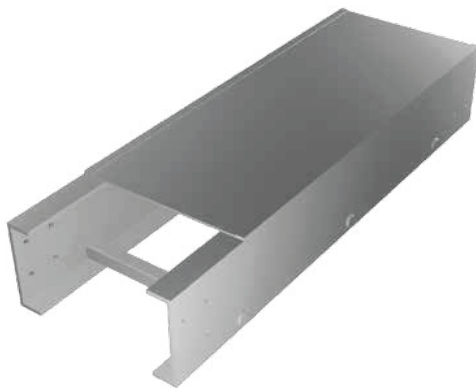
LM Series-Straight Run

| PART NO       | WIDTH (mm) | PERFORATION         |
|---------------|------------|---------------------|
| ITLM-SS-150-N | 150        | Non Perforated Rung |
| ITLM-SS-200-N | 200        | Non Perforated Rung |
| ITLM-SS-300-N | 300        | Non Perforated Rung |
| ITLM-SS-450-N | 450        | Non Perforated Rung |
| ITLM-SS-600-N | 600        | Non Perforated Rung |
| ITLM-SS-750-N | 750        | Non Perforated Rung |
| ITLM-SS-900-N | 900        | Non Perforated Rung |

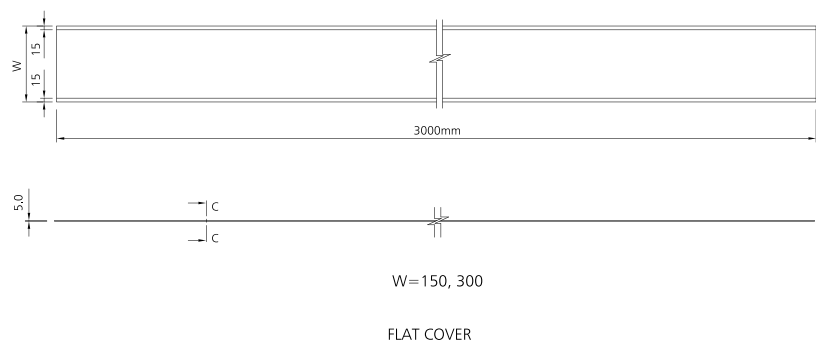
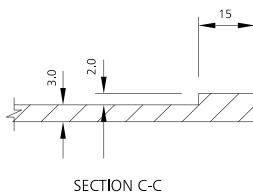
Straight Sections are available for Perforated Rung (-P)  
For instance, **ITLM-SS-150-P**



| SERIES | H   | d  | t   | A  | B  | C  | REMARKS          |
|--------|-----|----|-----|----|----|----|------------------|
| LM     | 102 | 41 | 4.8 | 24 | 50 | 40 | All values in mm |

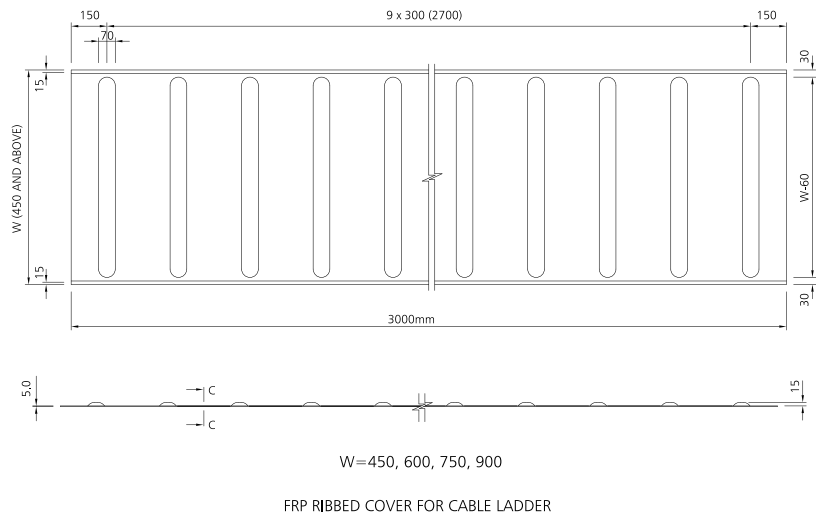


LM Series-Cover



W= 150, 300

FLAT COVER



W=450, 600, 750, 900

FRP RIBBED COVER FOR CABLE LADDER

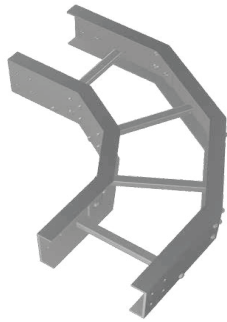
| PART NO         | WIDTH (mm) | VENTILATION          |
|-----------------|------------|----------------------|
| ITCL-SS-150-C-N | 150        | Non-Ventilated Cover |
| ITCL-SS-200-C-N | 200        | Non-Ventilated Cover |
| ITCL-SS-300-C-N | 300        | Non-Ventilated Cover |
| ITCL-SS-450-C-N | 450        | Non-Ventilated Cover |
| ITCL-SS-600-C-N | 600        | Non-Ventilated Cover |
| ITCL-SS-750-C-N | 750        | Non-Ventilated Cover |
| ITCL-SS-900-C-N | 900        | Non-Ventilated Cover |

Covers are available for Ventilated (-V) option  
For instance, **ITCL-SS-150-C-V**

\* Thickness of FRP side rail for LM Series is 4.8mm unless otherwise specified.

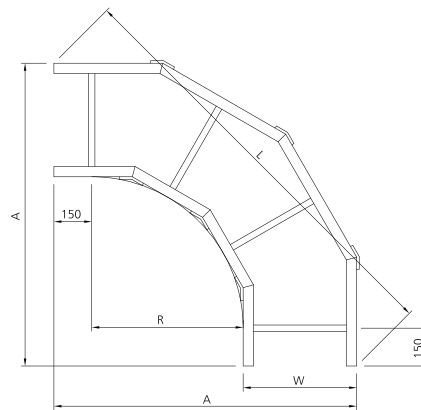


## Cable Ladder - LM Series

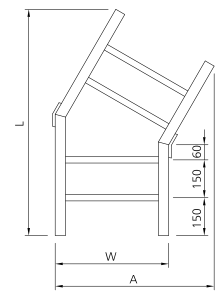


### LM Series-Horizontal Bend

Fittings are available for R300, R450, R600, R900  
Fittings are available for Perforated Rung (-P)  
For instance, **ITLM-HB-90-900R-150-P**



90° HORIZONTAL BEND  
(90° HB)



30°/45° HORIZONTAL BEND  
(30°/45° HB)

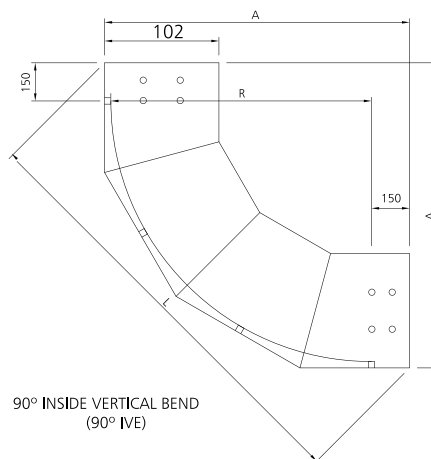
| PART NO               | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|-----------------------|-------------|-------------|------------|---------------------|
| ITLM-HB-90-300R-150-N | 90          | 300         | 150        | Non Perforated Rung |
| ITLM-HB-90-300R-200-N | 90          | 300         | 200        | Non Perforated Rung |
| ITLM-HB-90-300R-300-N | 90          | 300         | 300        | Non Perforated Rung |
| ITLM-HB-90-300R-450-N | 90          | 300         | 450        | Non Perforated Rung |
| ITLM-HB-90-300R-600-N | 90          | 300         | 600        | Non Perforated Rung |
| ITLM-HB-90-300R-750-N | 90          | 300         | 750        | Non Perforated Rung |
| ITLM-HB-90-300R-900-N | 90          | 300         | 900        | Non Perforated Rung |
| ITLM-HB-60-300R-150-N | 60          | 300         | 150        | Non Perforated Rung |
| ITLM-HB-60-300R-200-N | 60          | 300         | 200        | Non Perforated Rung |
| ITLM-HB-60-300R-300-N | 60          | 300         | 300        | Non Perforated Rung |
| ITLM-HB-60-300R-450-N | 60          | 300         | 450        | Non Perforated Rung |
| ITLM-HB-60-300R-600-N | 60          | 300         | 600        | Non Perforated Rung |
| ITLM-HB-60-300R-750-N | 60          | 300         | 750        | Non Perforated Rung |
| ITLM-HB-60-300R-900-N | 60          | 300         | 900        | Non Perforated Rung |

| PART NO               | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|-----------------------|-------------|-------------|------------|---------------------|
| ITLM-HB-45-300R-150-N | 45          | 300         | 150        | Non Perforated Rung |
| ITLM-HB-45-300R-200-N | 45          | 300         | 200        | Non Perforated Rung |
| ITLM-HB-45-300R-300-N | 45          | 300         | 300        | Non Perforated Rung |
| ITLM-HB-45-300R-450-N | 45          | 300         | 450        | Non Perforated Rung |
| ITLM-HB-45-300R-600-N | 45          | 300         | 600        | Non Perforated Rung |
| ITLM-HB-45-300R-750-N | 45          | 300         | 750        | Non Perforated Rung |
| ITLM-HB-45-300R-900-N | 45          | 300         | 900        | Non Perforated Rung |
| ITLM-HB-30-300R-150-N | 30          | 300         | 150        | Non Perforated Rung |
| ITLM-HB-30-300R-200-N | 30          | 300         | 200        | Non Perforated Rung |
| ITLM-HB-30-300R-300-N | 30          | 300         | 300        | Non Perforated Rung |
| ITLM-HB-30-300R-450-N | 30          | 300         | 450        | Non Perforated Rung |
| ITLM-HB-30-300R-600-N | 30          | 300         | 600        | Non Perforated Rung |
| ITLM-HB-30-300R-750-N | 30          | 300         | 700        | Non Perforated Rung |
| ITLM-HB-30-300R-900-N | 30          | 300         | 900        | Non Perforated Rung |

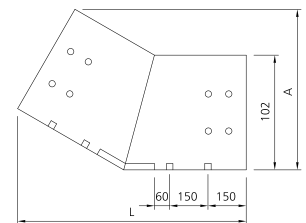


### LM Series-Inside Vertical Bend

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLM-IVB-90-900R-150-P**



90° INSIDE VERTICAL BEND  
(90° IVE)



30°/45° INSIDE VERTICAL BEND  
(30°/45° IVE)

| PART NO                | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|------------------------|-------------|-------------|------------|---------------------|
| ITLM-IVB-90-300R-150-N | 90          | 300         | 150        | Non Perforated Rung |
| ITLM-IVB-90-300R-200-N | 90          | 300         | 200        | Non Perforated Rung |
| ITLM-IVB-90-300R-300-N | 90          | 300         | 300        | Non Perforated Rung |
| ITLM-IVB-90-300R-450-N | 90          | 300         | 450        | Non Perforated Rung |
| ITLM-IVB-90-300R-600-N | 90          | 300         | 600        | Non Perforated Rung |
| ITLM-IVB-90-300R-750-N | 90          | 300         | 750        | Non Perforated Rung |
| ITLM-IVB-90-300R-900-N | 90          | 300         | 900        | Non Perforated Rung |
| ITLM-IVB-60-300R-150-N | 60          | 300         | 150        | Non Perforated Rung |
| ITLM-IVB-60-300R-200-N | 60          | 300         | 200        | Non Perforated Rung |
| ITLM-IVB-60-300R-300-N | 60          | 300         | 300        | Non Perforated Rung |
| ITLM-IVB-60-300R-450-N | 60          | 300         | 450        | Non Perforated Rung |
| ITLM-IVB-60-300R-600-N | 60          | 300         | 600        | Non Perforated Rung |
| ITLM-IVB-60-300R-750-N | 60          | 300         | 750        | Non Perforated Rung |
| ITLM-IVB-60-300R-900-N | 60          | 300         | 900        | Non Perforated Rung |

| PART NO                | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|------------------------|-------------|-------------|------------|---------------------|
| ITLM-IVB-45-300R-150-N | 45          | 300         | 150        | Non Perforated Rung |
| ITLM-IVB-45-300R-200-N | 45          | 300         | 200        | Non Perforated Rung |
| ITLM-IVB-45-300R-300-N | 45          | 300         | 300        | Non Perforated Rung |
| ITLM-IVB-45-300R-450-N | 45          | 300         | 450        | Non Perforated Rung |
| ITLM-IVB-45-300R-600-N | 45          | 300         | 600        | Non Perforated Rung |
| ITLM-IVB-45-300R-750-N | 45          | 300         | 750        | Non Perforated Rung |
| ITLM-IVB-45-300R-900-N | 45          | 300         | 900        | Non Perforated Rung |
| ITLM-IVB-30-300R-150-N | 30          | 300         | 150        | Non Perforated Rung |
| ITLM-IVB-30-300R-200-N | 30          | 300         | 200        | Non Perforated Rung |
| ITLM-IVB-30-300R-300-N | 30          | 300         | 300        | Non Perforated Rung |
| ITLM-IVB-30-300R-450-N | 30          | 300         | 450        | Non Perforated Rung |
| ITLM-IVB-30-300R-600-N | 30          | 300         | 600        | Non Perforated Rung |
| ITLM-IVB-30-300R-750-N | 30          | 300         | 750        | Non Perforated Rung |
| ITLM-IVB-30-300R-900-N | 30          | 300         | 900        | Non Perforated Rung |

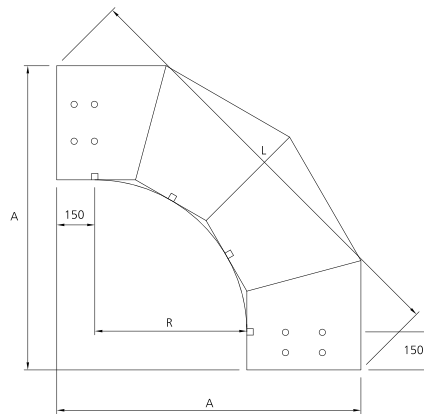


## Cable Ladder - LM Series

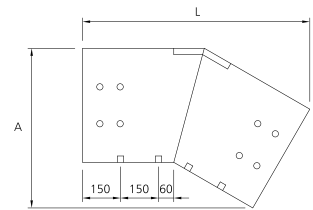


LM Series-Outside Vertical Bend

Fittings are available for R300, R450, R600, R900  
Fittings are available for Perforated Rung (-P)  
For instance, **ITLM-OVB-90-900R-150-P**



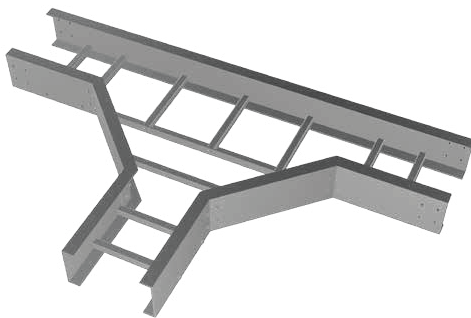
90° OUTSIDE VERTICAL BEND  
(90° OVE)



30°/45° OUTSIDE VERTICAL BEND  
(30°/45° OVE)

| PART NO                | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|------------------------|-------------|-------------|------------|---------------------|
| ITLM-OVB-90-300R-150-N | 90          | 300         | 150        | Non Perforated Rung |
| ITLM-OVB-90-300R-200-N | 90          | 300         | 200        | Non Perforated Rung |
| ITLM-OVB-90-300R-300-N | 90          | 300         | 300        | Non Perforated Rung |
| ITLM-OVB-90-300R-450-N | 90          | 300         | 450        | Non Perforated Rung |
| ITLM-OVB-90-300R-600-N | 90          | 300         | 600        | Non Perforated Rung |
| ITLM-OVB-90-300R-750-N | 90          | 300         | 750        | Non Perforated Rung |
| ITLM-OVB-90-300R-900-N | 90          | 300         | 900        | Non Perforated Rung |
| ITLM-OVB-60-300R-200-N | 60          | 300         | 150        | Non Perforated Rung |
| ITLM-OVB-60-300R-200-N | 60          | 300         | 200        | Non Perforated Rung |
| ITLM-OVB-60-300R-300-N | 60          | 300         | 300        | Non Perforated Rung |
| ITLM-OVB-60-300R-450-N | 60          | 300         | 450        | Non Perforated Rung |
| ITLM-OVB-60-300R-600-N | 60          | 300         | 600        | Non Perforated Rung |
| ITLM-OVB-60-300R-750-N | 60          | 300         | 750        | Non Perforated Rung |
| ITLM-OVB-60-300R-900-N | 60          | 300         | 900        | Non Perforated Rung |

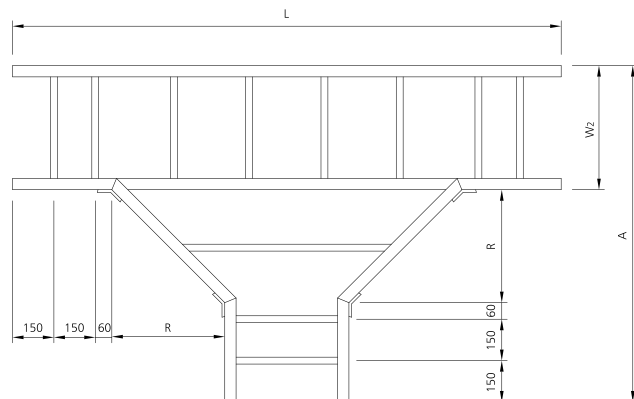
| PART NO                | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|------------------------|-------------|-------------|------------|---------------------|
| ITLM-OVB-45-300R-150-N | 45          | 300         | 150        | Non Perforated Rung |
| ITLM-OVB-45-300R-200-N | 45          | 300         | 200        | Non Perforated Rung |
| ITLM-OVB-45-300R-300-N | 45          | 300         | 300        | Non Perforated Rung |
| ITLM-OVB-45-300R-450-N | 45          | 300         | 450        | Non Perforated Rung |
| ITLM-OVB-45-300R-600-N | 45          | 300         | 600        | Non Perforated Rung |
| ITLM-OVB-45-300R-750-N | 45          | 300         | 750        | Non Perforated Rung |
| ITLM-OVB-45-300R-900-N | 45          | 300         | 900        | Non Perforated Rung |
| ITLM-OVB-30-300R-150-N | 30          | 300         | 150        | Non Perforated Rung |
| ITLM-OVB-30-300R-200-N | 30          | 300         | 200        | Non Perforated Rung |
| ITLM-OVB-30-300R-300-N | 30          | 300         | 300        | Non Perforated Rung |
| ITLM-OVB-30-300R-450-N | 30          | 300         | 450        | Non Perforated Rung |
| ITLM-OVB-30-300R-600-N | 30          | 300         | 600        | Non Perforated Rung |
| ITLM-OVB-30-300R-750-N | 30          | 300         | 700        | Non Perforated Rung |
| ITLM-OVB-30-300R-900-N | 30          | 300         | 900        | Non Perforated Rung |



LM Series-Horizontal Tee

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLM-HT-900R-150-P**

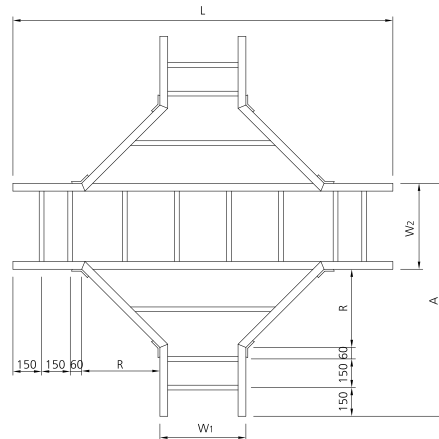
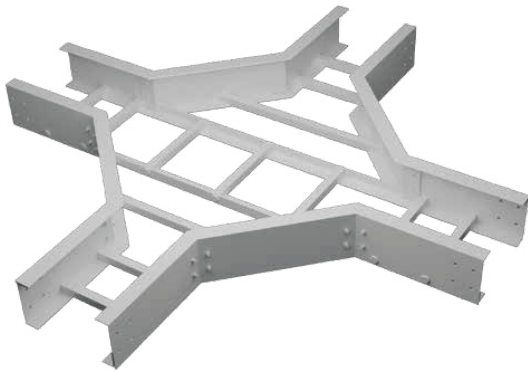
| PART NO            | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|--------------------|-------------|------------|---------------------|
| ITLM-HT-300R-150-N | 300         | 150        | Non Perforated Rung |
| ITLM-HT-300R-200-N | 300         | 200        | Non Perforated Rung |
| ITLM-HT-300R-300-N | 300         | 300        | Non Perforated Rung |
| ITLM-HT-300R-450-N | 300         | 450        | Non Perforated Rung |
| ITLM-HT-300R-600-N | 300         | 600        | Non Perforated Rung |
| ITLM-HT-300R-750-N | 300         | 750        | Non Perforated Rung |
| ITLM-HT-300R-900-N | 300         | 900        | Non Perforated Rung |



HORIZONTAL EQUAL TEE  
(HT)



## Cable Ladder - LM Series

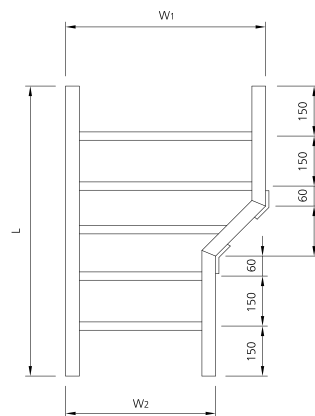
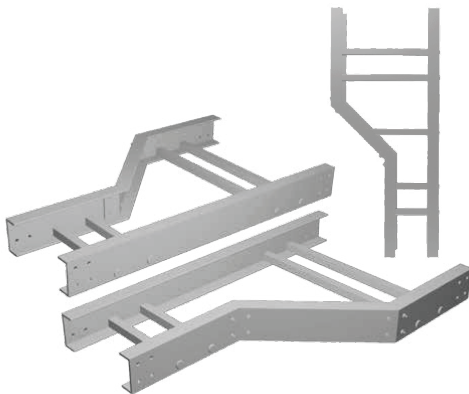


HORIZONTAL EQUAL CROSS  
(HC)

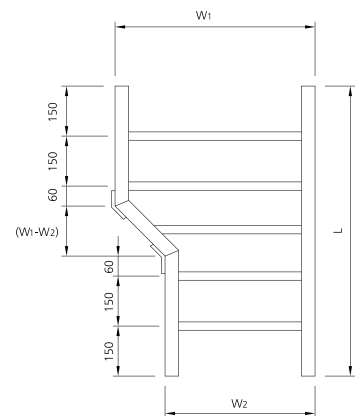
### LM Series-Horizontal Cross

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLM-HEC-900R-150-P**

| PART NO             | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION         |
|---------------------|----------------|---------------|---------------------|
| ITLM-HEC-300R-150-N | 300            | 150           | Non Perforated Rung |
| ITLM-HEC-300R-200-N | 300            | 200           | Non Perforated Rung |
| ITLM-HEC-300R-300-N | 300            | 300           | Non Perforated Rung |
| ITLM-HEC-300R-450-N | 300            | 450           | Non Perforated Rung |
| ITLM-HEC-300R-600-N | 300            | 600           | Non Perforated Rung |
| ITLM-HEC-300R-750-N | 300            | 750           | Non Perforated Rung |
| ITLM-HEC-300R-900-N | 300            | 900           | Non Perforated Rung |



RIGHT HAND REDUCER  
(RHR)



LEFT HAND REDUCER  
(LHR)

### LM Series-Left/Right Hand Reducer

Fittings are available for -P (Perforated Rung).  
For instance, **ITLM-RHR-900-750-P**

| PART NO            | WIDTH<br>(mm) | PERFORATION         |
|--------------------|---------------|---------------------|
| ITLM-RHR-900-750-N | 900 - 750     | Non Perforated Rung |
| ITLM-RHR-900-600-N | 900 - 600     | Non Perforated Rung |
| ITLM-RHR-900-450-N | 900 - 450     | Non Perforated Rung |
| ITLM-RHR-900-300-N | 900 - 300     | Non Perforated Rung |
| ITLM-RHR-900-150-N | 900 - 150     | Non Perforated Rung |
| ITLM-RHR-750-600-N | 750 - 600     | Non Perforated Rung |
| ITLM-RHR-750-450-N | 750 - 450     | Non Perforated Rung |
| ITLM-RHR-750-300-N | 750 - 300     | Non Perforated Rung |
| ITLM-RHR-750-150-N | 750 - 150     | Non Perforated Rung |
| ITLM-RHR-600-450-N | 600 - 450     | Non Perforated Rung |
| ITLM-RHR-600-300-N | 600 - 300     | Non Perforated Rung |
| ITLM-RHR-600-150-N | 600 - 150     | Non Perforated Rung |
| ITLM-RHR-450-300-N | 450 - 300     | Non Perforated Rung |
| ITLM-RHR-450-150-N | 450 - 150     | Non Perforated Rung |
| ITLM-RHR-300-150-N | 300 - 150     | Non Perforated Rung |

Fittings are available for -P (Perforated Rung).  
For instance, **ITLM-LHR-900-750-P**

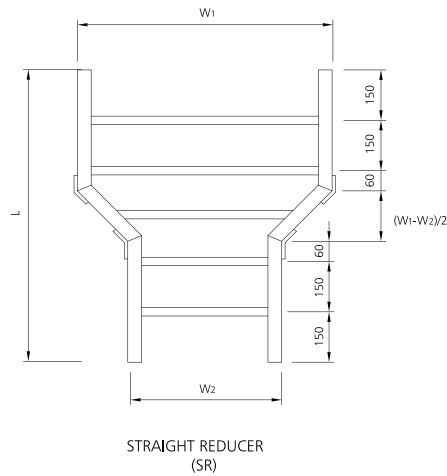
| PART NO            | WIDTH<br>(mm) | PERFORATION         |
|--------------------|---------------|---------------------|
| ITLM-LHR-900-750-N | 900 - 750     | Non Perforated Rung |
| ITLM-LHR-900-600-N | 900 - 600     | Non Perforated Rung |
| ITLM-LHR-900-450-N | 900 - 450     | Non Perforated Rung |
| ITLM-LHR-900-300-N | 900 - 300     | Non Perforated Rung |
| ITLM-LHR-900-150-N | 900 - 150     | Non Perforated Rung |
| ITLM-LHR-750-600-N | 750 - 600     | Non Perforated Rung |
| ITLM-LHR-750-450-N | 750 - 450     | Non Perforated Rung |
| ITLM-LHR-750-300-N | 750 - 300     | Non Perforated Rung |
| ITLM-LHR-750-150-N | 750 - 150     | Non Perforated Rung |
| ITLM-LHR-600-450-N | 600 - 450     | Non Perforated Rung |
| ITLM-LHR-600-300-N | 600 - 300     | Non Perforated Rung |
| ITLM-LHR-600-150-N | 600 - 150     | Non Perforated Rung |
| ITLM-LHR-450-300-N | 450 - 300     | Non Perforated Rung |
| ITLM-LHR-450-150-N | 450 - 150     | Non Perforated Rung |
| ITLM-LHR-300-150-N | 300 - 150     | Non Perforated Rung |



## Cable Ladder - LM Series

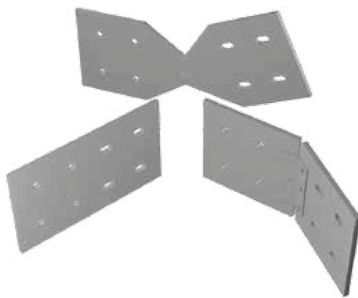


LM Series-Straight Reducer

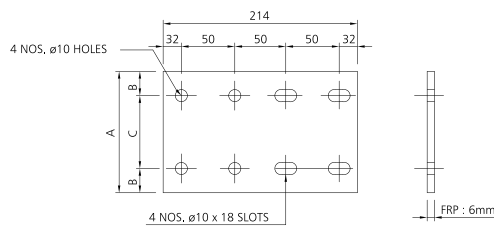


Fittings are available for -P (Perforated Rung).  
For instance, **ITLM-SR-900-750-P**

| PART NO           | WIDTH (mm) | PERFORATION         |
|-------------------|------------|---------------------|
| ITLM-SR-900-750-N | 900 - 750  | Non Perforated Rung |
| ITLM-SR-900-600-N | 900 - 600  | Non Perforated Rung |
| ITLM-SR-900-450-N | 900 - 450  | Non Perforated Rung |
| ITLM-SR-900-300-N | 900 - 300  | Non Perforated Rung |
| ITLM-SR-900-150-N | 900 - 150  | Non Perforated Rung |
| ITLM-SR-750-600-N | 750 - 600  | Non Perforated Rung |
| ITLM-SR-750-450-N | 750 - 450  | Non Perforated Rung |
| ITLM-SR-750-300-N | 750 - 300  | Non Perforated Rung |
| ITLM-SR-750-150-N | 750 - 150  | Non Perforated Rung |
| ITLM-SR-600-450-N | 600 - 450  | Non Perforated Rung |
| ITLM-SR-600-300-N | 600 - 300  | Non Perforated Rung |
| ITLM-SR-600-150-N | 600 - 150  | Non Perforated Rung |
| ITLM-SR-450-300-N | 450 - 300  | Non Perforated Rung |
| ITLM-SR-450-150-N | 450 - 150  | Non Perforated Rung |
| ITLM-SR-300-150-N | 300 - 150  | Non Perforated Rung |



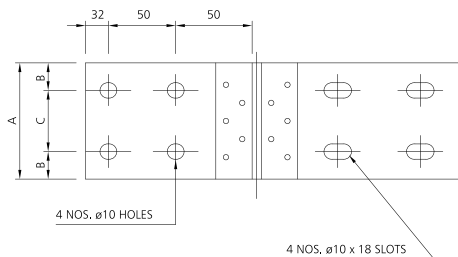
LM Series-Splice Plate



LM-EXPANSION SPLICE PLATE (ESP)

| PART NUMBER                     | ITEM DESCRIPTION                                                                        |
|---------------------------------|-----------------------------------------------------------------------------------------|
| ITLM-ESP-FRP<br>SET-BN PH M8X25 | LM Cable Ladder FRP<br>Expansion Splice Plate<br>SS316 Pan Head<br>M8 x 25 B&N, SW & FW |

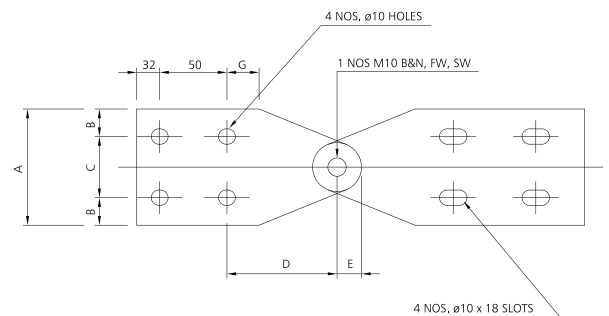
Expansion splice plates are available for SS316 type.  
For instance **ITLM-ESP-SS**



HORIZONTAL ADJUSTABLE SPLICE PLATE (HESP)

| PART NUMBER                      | ITEM DESCRIPTION                                                                              |
|----------------------------------|-----------------------------------------------------------------------------------------------|
| ITLM-HASP-FRP<br>SET-BN PH M8X25 | LM Cable Ladder FRP Horizontal Adjustable Splice Plate<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

Horizontal adjustable splice plates are available for SS316 type.  
For instance **ITLM-HASP-SS**



VERTICAL ADJUSTABLE SPLICE PLATE (VESP)

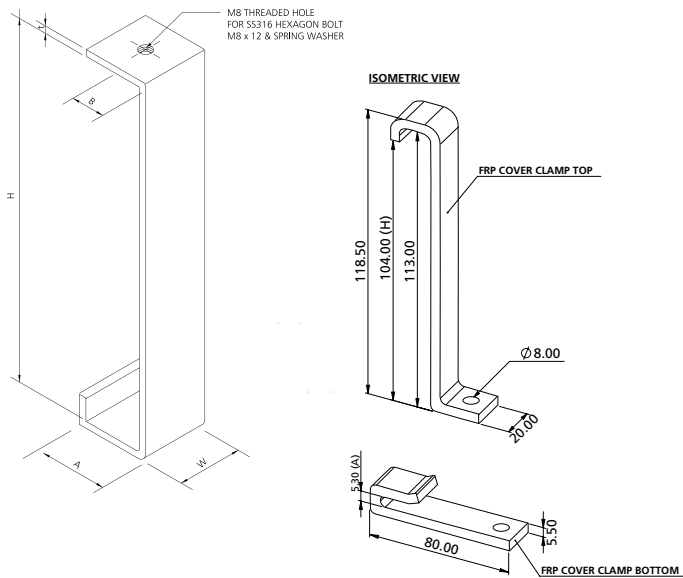
| PART NUMBER                      | ITEM DESCRIPTION                                                                            |
|----------------------------------|---------------------------------------------------------------------------------------------|
| ITLM-VASP-FRP<br>SET-BN PH M8X25 | LM Cable Ladder FRP Vertical Adjustable Splice Plate<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

Vertical adjustable splice plates are available for SS316 type.  
For instance **ITLM-VASP-SS**



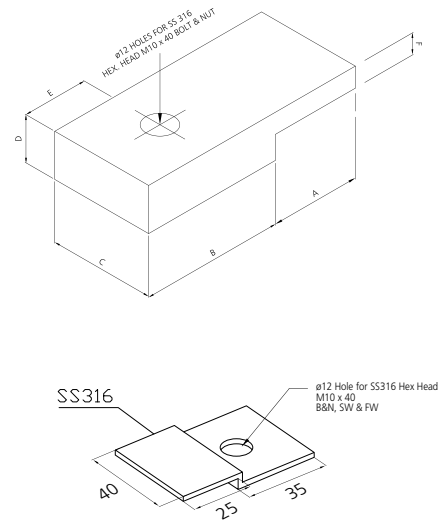
## Cable Ladder - LM Series

### LM Series-Cover Clamp



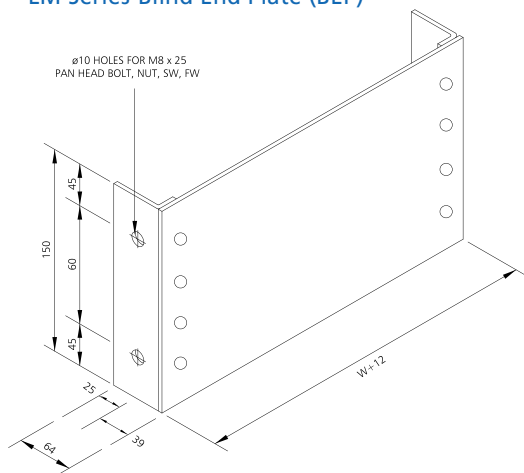
| PART NUMBER                    | ITEM DESCRIPTION                                                       |
|--------------------------------|------------------------------------------------------------------------|
| ITLM-CC-SS<br>SET-BN HH M8X12  | LM Cable Ladder SS316 Cover Clamp<br>SS316 Hex Head M8 x 12 Bolt & SW  |
| ITLM-CC-FRP<br>SET-BN PH M8X25 | LM Cable Ladder FRP Cover Clamp<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

### LM Series-Hold Down Clamp - ITLM-HDC-FRP & ITLM-ZHDC-SS



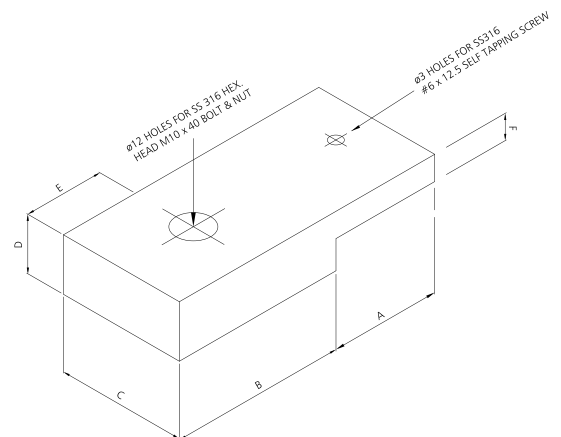
| PART NUMBER                                      | ITEM DESCRIPTION                                                                                                       |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| ITLM-HDC-FRP<br>ITLM-ZHDC-SS<br>SET-BN HH M10X40 | LM Cable Ladder FRP Hold Down Clamp<br>LM Cable Ladder SS316 Z Hold Down Clamp<br>SS316 Hex Head M10 x 40 B&N, SW & FW |

### LM Series-Blind End Plate (BEP)



| PART NUMBER  | ITEM DESCRIPTION                                                                |
|--------------|---------------------------------------------------------------------------------|
| ITLM-BEP-150 | LM Cable Ladder FRP Blind End Plate 150W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLM-BEP-200 | LM Cable Ladder FRP Blind End Plate 200W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLM-BEP-300 | LM Cable Ladder FRP Blind End Plate 300W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLM-BEP-450 | LM Cable Ladder FRP Blind End Plate 450W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLM-BEP-600 | LM Cable Ladder FRP Blind End Plate 600W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLM-BEP-750 | LM Cable Ladder FRP Blind End Plate 750W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLM-BEP-900 | LM Cable Ladder FRP Blind End Plate 900W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

### LM Series-Vertical Fixing Clamp (VFC)



| PART NUMBER  | ITEM DESCRIPTION                                                                                              |
|--------------|---------------------------------------------------------------------------------------------------------------|
| ITLM-VFC-FRP | LM Cable Ladder FRP Vertical Fixing Clamp<br>SS316 Hex Head M10 x 40 B&N, SW & FW<br>SS316 Self Tapping Screw |

Vertical fixing clamps are available for SS316 type. For instance **ITLM-VFC-SS**



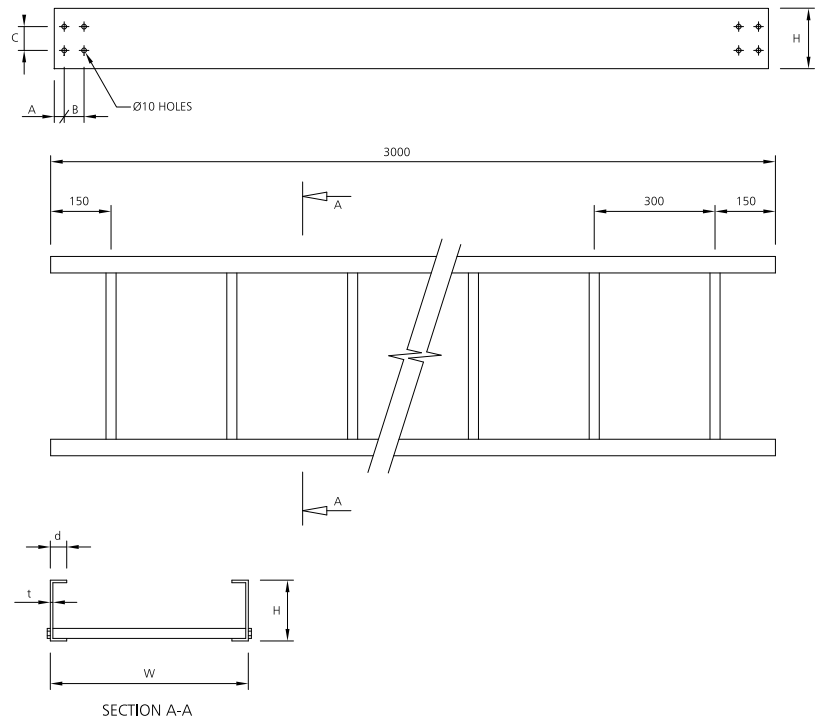
## Cable Ladder - LMH Series



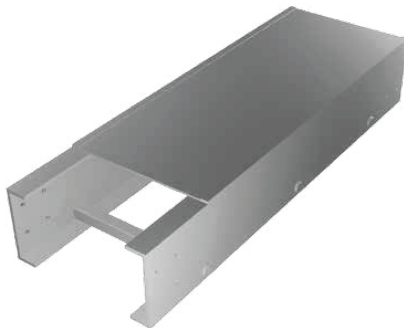
LMH Series-Straight Run

| PART NO        | WIDTH (mm) | PERFORATION         |
|----------------|------------|---------------------|
| ITLMH-SS-150-N | 150        | Non Perforated Rung |
| ITLMH-SS-200-N | 200        | Non Perforated Rung |
| ITLMH-SS-300-N | 300        | Non Perforated Rung |
| ITLMH-SS-450-N | 450        | Non Perforated Rung |
| ITLMH-SS-600-N | 600        | Non Perforated Rung |
| ITLMH-SS-750-N | 750        | Non Perforated Rung |
| ITLMH-SS-900-N | 900        | Non Perforated Rung |

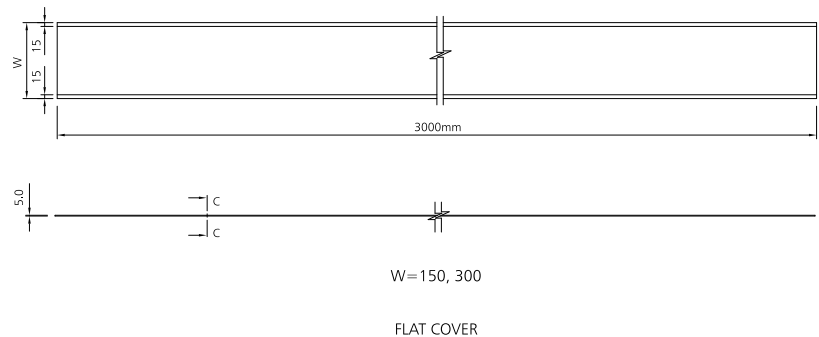
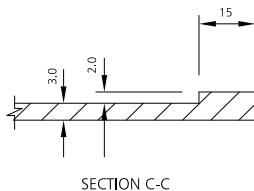
Straight Sections are available for Perforated Rung (-P)  
For instance, **ITLMH-SS-150-P**



| SERIES | H   | d  | t   | A  | B  | C  | REMARKS          |
|--------|-----|----|-----|----|----|----|------------------|
| LMH    | 152 | 41 | 4.5 | 24 | 50 | 60 | All values in mm |

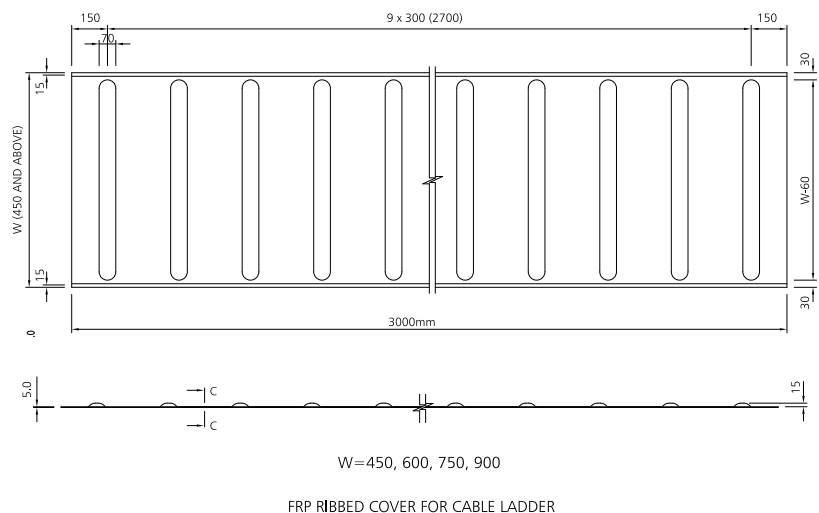


LMH Series-Cover



| PART NO         | WIDTH (mm) | VENTILATION          |
|-----------------|------------|----------------------|
| ITCL-SS-150-C-N | 150        | Non-Ventilated Cover |
| ITCL-SS-200-C-N | 200        | Non-Ventilated Cover |
| ITCL-SS-300-C-N | 300        | Non-Ventilated Cover |
| ITCL-SS-450-C-N | 450        | Non-Ventilated Cover |
| ITCL-SS-600-C-N | 600        | Non-Ventilated Cover |
| ITCL-SS-750-C-N | 750        | Non-Ventilated Cover |
| ITCL-SS-900-C-N | 900        | Non-Ventilated Cover |

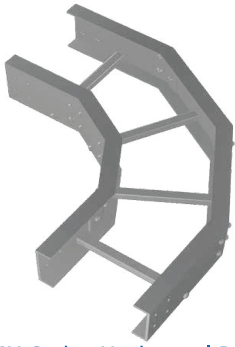
Covers are available for Ventilated (-V) option  
For instance, **ITCL-SS-150-C-V**



\* Thickness of FRP side rail for LMH Series is 4.5mm unless otherwise specified.

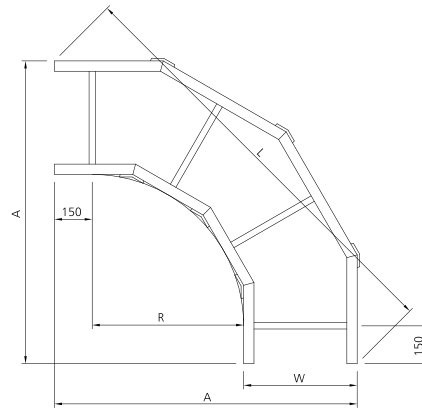


## Cable Ladder - LMH Series

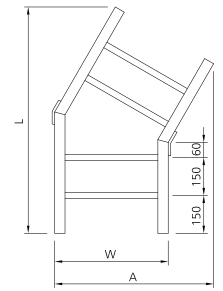


### LMH Series-Horizontal Bend

Fittings are available for R300, R450, R600, R900  
Fittings are available for Perforated Rung (-P)  
For instance, **ITLMH-HB-90-900R-150-P**



90° HORIZONTAL BEND  
(90° HB)



30°/45° HORIZONTAL BEND  
(30°/45° HB)

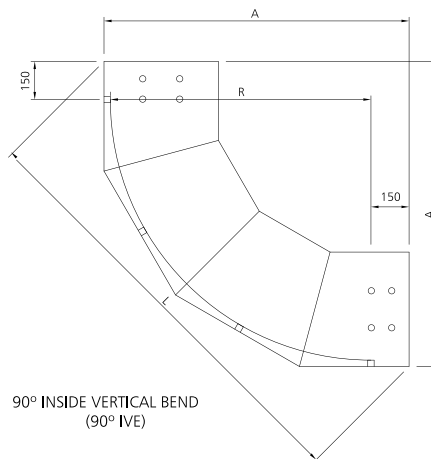
| PART NO                | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|------------------------|-------------|-------------|------------|---------------------|
| ITLMH-HB-90-300R-150-N | 90          | 300         | 150        | Non Perforated Rung |
| ITLMH-HB-90-300R-200-N | 90          | 300         | 200        | Non Perforated Rung |
| ITLMH-HB-90-300R-300-N | 90          | 300         | 300        | Non Perforated Rung |
| ITLMH-HB-90-300R-450-N | 90          | 300         | 450        | Non Perforated Rung |
| ITLMH-HB-90-300R-600-N | 90          | 300         | 600        | Non Perforated Rung |
| ITLMH-HB-90-300R-750-N | 90          | 300         | 750        | Non Perforated Rung |
| ITLMH-HB-90-300R-900-N | 90          | 300         | 900        | Non Perforated Rung |
| ITLMH-HB-60-300R-150-N | 60          | 300         | 150        | Non Perforated Rung |
| ITLMH-HB-60-300R-200-N | 60          | 300         | 200        | Non Perforated Rung |
| ITLMH-HB-60-300R-300-N | 60          | 300         | 300        | Non Perforated Rung |
| ITLMH-HB-60-300R-450-N | 60          | 300         | 450        | Non Perforated Rung |
| ITLMH-HB-60-300R-600-N | 60          | 300         | 600        | Non Perforated Rung |
| ITLMH-HB-60-300R-750-N | 60          | 300         | 750        | Non Perforated Rung |
| ITLMH-HB-60-300R-900-N | 60          | 300         | 900        | Non Perforated Rung |

| PART NO                | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|------------------------|-------------|-------------|------------|---------------------|
| ITLMH-HB-45-300R-150-N | 45          | 300         | 150        | Non Perforated Rung |
| ITLMH-HB-45-300R-200-N | 45          | 300         | 200        | Non Perforated Rung |
| ITLMH-HB-45-300R-300-N | 45          | 300         | 300        | Non Perforated Rung |
| ITLMH-HB-45-300R-450-N | 45          | 300         | 450        | Non Perforated Rung |
| ITLMH-HB-45-300R-600-N | 45          | 300         | 600        | Non Perforated Rung |
| ITLMH-HB-45-300R-750-N | 45          | 300         | 750        | Non Perforated Rung |
| ITLMH-HB-45-300R-900-N | 45          | 300         | 900        | Non Perforated Rung |
| ITLMH-HB-30-300R-150-N | 30          | 300         | 150        | Non Perforated Rung |
| ITLMH-HB-30-300R-200-N | 30          | 300         | 200        | Non Perforated Rung |
| ITLMH-HB-30-300R-300-N | 30          | 300         | 300        | Non Perforated Rung |
| ITLMH-HB-30-300R-450-N | 30          | 300         | 450        | Non Perforated Rung |
| ITLMH-HB-30-300R-600-N | 30          | 300         | 600        | Non Perforated Rung |
| ITLMH-HB-30-300R-750-N | 30          | 300         | 700        | Non Perforated Rung |
| ITLMH-HB-30-300R-900-N | 30          | 300         | 900        | Non Perforated Rung |

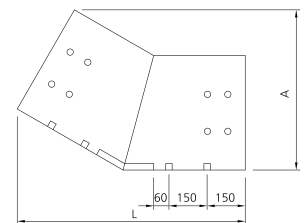


### LMH Series-Inside Vertical Bend

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLMH-IVB-90-900R-150-P**



90° INSIDE VERTICAL BEND  
(90° IVE)



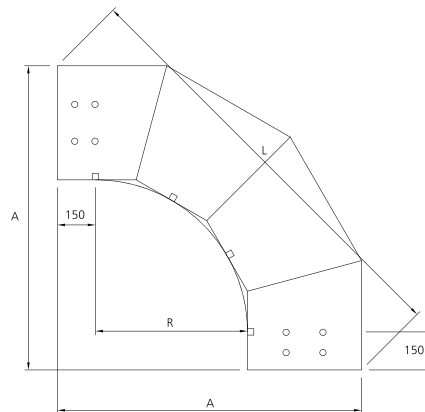
45°/30° INSIDE VERTICAL BEND  
(45°/30° IVE)

| PART NO                 | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|-------------------------|-------------|-------------|------------|---------------------|
| ITLMH-IVB-90-300R-150-N | 90          | 300         | 150        | Non Perforated Rung |
| ITLMH-IVB-90-300R-200-N | 90          | 300         | 200        | Non Perforated Rung |
| ITLMH-IVB-90-300R-300-N | 90          | 300         | 300        | Non Perforated Rung |
| ITLMH-IVB-90-300R-450-N | 90          | 300         | 450        | Non Perforated Rung |
| ITLMH-IVB-90-300R-600-N | 90          | 300         | 600        | Non Perforated Rung |
| ITLMH-IVB-90-300R-750-N | 90          | 300         | 750        | Non Perforated Rung |
| ITLMH-IVB-90-300R-900-N | 90          | 300         | 900        | Non Perforated Rung |
| ITLMH-IVB-60-300R-150-N | 60          | 300         | 150        | Non Perforated Rung |
| ITLMH-IVB-60-300R-200-N | 60          | 300         | 200        | Non Perforated Rung |
| ITLMH-IVB-60-300R-300-N | 60          | 300         | 300        | Non Perforated Rung |
| ITLMH-IVB-60-300R-450-N | 60          | 300         | 450        | Non Perforated Rung |
| ITLMH-IVB-60-300R-600-N | 60          | 300         | 600        | Non Perforated Rung |
| ITLMH-IVB-60-300R-750-N | 60          | 300         | 750        | Non Perforated Rung |
| ITLMH-IVB-60-300R-900-N | 60          | 300         | 900        | Non Perforated Rung |

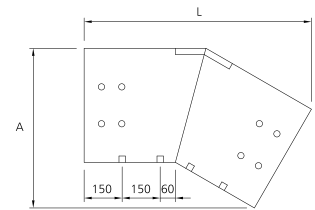
| PART NO                 | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|-------------------------|-------------|-------------|------------|---------------------|
| ITLMH-IVB-45-300R-150-N | 45          | 300         | 150        | Non Perforated Rung |
| ITLMH-IVB-45-300R-200-N | 45          | 300         | 200        | Non Perforated Rung |
| ITLMH-IVB-45-300R-300-N | 45          | 300         | 300        | Non Perforated Rung |
| ITLMH-IVB-45-300R-450-N | 45          | 300         | 450        | Non Perforated Rung |
| ITLMH-IVB-45-300R-600-N | 45          | 300         | 600        | Non Perforated Rung |
| ITLMH-IVB-45-300R-750-N | 45          | 300         | 750        | Non Perforated Rung |
| ITLMH-IVB-45-300R-900-N | 45          | 300         | 900        | Non Perforated Rung |
| ITLMH-IVB-30-300R-150-N | 30          | 300         | 150        | Non Perforated Rung |
| ITLMH-IVB-30-300R-200-N | 30          | 300         | 200        | Non Perforated Rung |
| ITLMH-IVB-30-300R-300-N | 30          | 300         | 300        | Non Perforated Rung |
| ITLMH-IVB-30-300R-450-N | 30          | 300         | 450        | Non Perforated Rung |
| ITLMH-IVB-30-300R-600-N | 30          | 300         | 600        | Non Perforated Rung |
| ITLMH-IVB-30-300R-750-N | 30          | 300         | 750        | Non Perforated Rung |
| ITLMH-IVB-30-300R-900-N | 30          | 300         | 900        | Non Perforated Rung |



## Cable Ladder - LMH Series



90° OUTSIDE VERTICAL BEND  
(90° OVE)



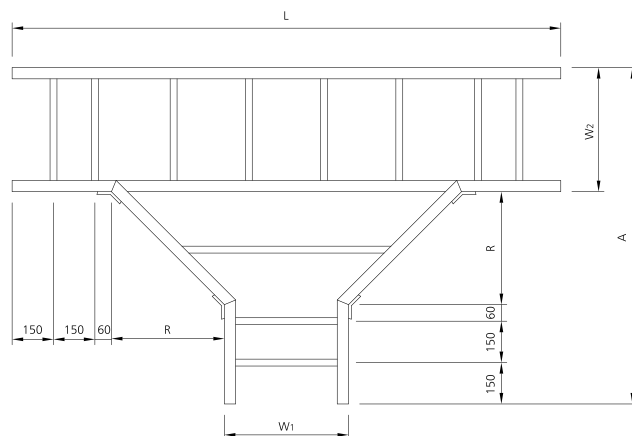
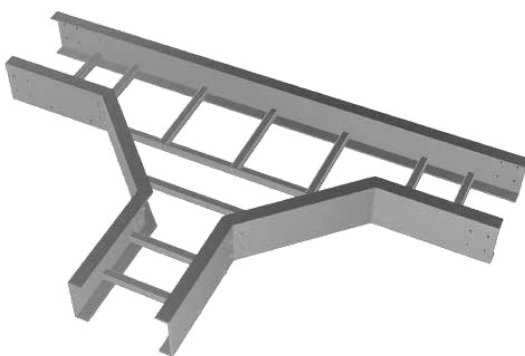
30°/45° OUTSIDE VERTICAL BEND  
(30°/45° OVE)

### LMH Series-Outside Vertical Bend

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLMH-OVB-90-900R-150-P**

| PART NO                 | ANGLE<br>(deg) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION         |
|-------------------------|----------------|----------------|---------------|---------------------|
| ITLMH-OVB-90-300R-150-N | 90             | 300            | 150           | Non Perforated Rung |
| ITLMH-OVB-90-300R-200-N | 90             | 300            | 200           | Non Perforated Rung |
| ITLMH-OVB-90-300R-300-N | 90             | 300            | 300           | Non Perforated Rung |
| ITLMH-OVB-90-300R-450-N | 90             | 300            | 450           | Non Perforated Rung |
| ITLMH-OVB-90-300R-600-N | 90             | 300            | 600           | Non Perforated Rung |
| ITLMH-OVB-90-300R-750-N | 90             | 300            | 750           | Non Perforated Rung |
| ITLMH-OVB-90-300R-900-N | 90             | 300            | 900           | Non Perforated Rung |
| ITLMH-OVB-60-300R-150-N | 60             | 300            | 150           | Non Perforated Rung |
| ITLMH-OVB-60-300R-200-N | 60             | 300            | 200           | Non Perforated Rung |
| ITLMH-OVB-60-300R-300-N | 60             | 300            | 300           | Non Perforated Rung |
| ITLMH-OVB-60-300R-450-N | 60             | 300            | 450           | Non Perforated Rung |
| ITLMH-OVB-60-300R-600-N | 60             | 300            | 600           | Non Perforated Rung |
| ITLMH-OVB-60-300R-750-N | 60             | 300            | 750           | Non Perforated Rung |
| ITLMH-OVB-60-300R-900-N | 60             | 300            | 900           | Non Perforated Rung |

| PART NO                 | ANGLE<br>(deg) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION         |
|-------------------------|----------------|----------------|---------------|---------------------|
| ITLMH-OVB-45-300R-150-N | 45             | 300            | 150           | Non Perforated Rung |
| ITLMH-OVB-45-300R-200-N | 45             | 300            | 200           | Non Perforated Rung |
| ITLMH-OVB-45-300R-300-N | 45             | 300            | 300           | Non Perforated Rung |
| ITLMH-OVB-45-300R-450-N | 45             | 300            | 450           | Non Perforated Rung |
| ITLMH-OVB-45-300R-600-N | 45             | 300            | 600           | Non Perforated Rung |
| ITLMH-OVB-45-300R-750-N | 45             | 300            | 750           | Non Perforated Rung |
| ITLMH-OVB-45-300R-900-N | 45             | 300            | 900           | Non Perforated Rung |
| ITLMH-OVB-30-300R-150-N | 30             | 300            | 150           | Non Perforated Rung |
| ITLMH-OVB-30-300R-200-N | 30             | 300            | 200           | Non Perforated Rung |
| ITLMH-OVB-30-300R-300-N | 30             | 300            | 300           | Non Perforated Rung |
| ITLMH-OVB-30-300R-450-N | 30             | 300            | 450           | Non Perforated Rung |
| ITLMH-OVB-30-300R-600-N | 30             | 300            | 600           | Non Perforated Rung |
| ITLMH-OVB-30-300R-750-N | 30             | 300            | 700           | Non Perforated Rung |
| ITLMH-OVB-30-300R-900-N | 30             | 300            | 900           | Non Perforated Rung |



HORIZONTAL EQUAL TEE  
(HT)

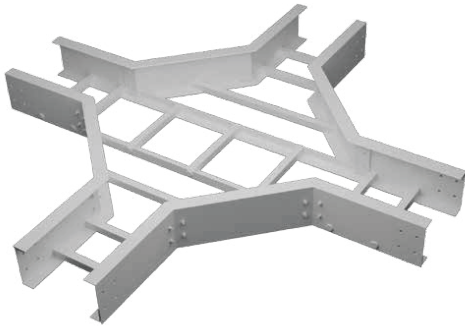
### LMH Series-Horizontal Tee

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLMH-HT-900R-150-P**

| PART NO             | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION         |
|---------------------|----------------|---------------|---------------------|
| ITLMH-HT-300R-150-N | 300            | 150           | Non Perforated Rung |
| ITLMH-HT-300R-200-N | 300            | 200           | Non Perforated Rung |
| ITLMH-HT-300R-300-N | 300            | 300           | Non Perforated Rung |
| ITLMH-HT-300R-450-N | 300            | 450           | Non Perforated Rung |
| ITLMH-HT-300R-600-N | 300            | 600           | Non Perforated Rung |
| ITLMH-HT-300R-750-N | 300            | 750           | Non Perforated Rung |
| ITLMH-HT-300R-900-N | 300            | 900           | Non Perforated Rung |

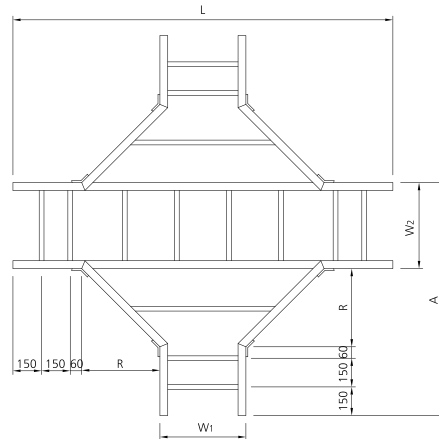


## Cable Ladder - LMH Series



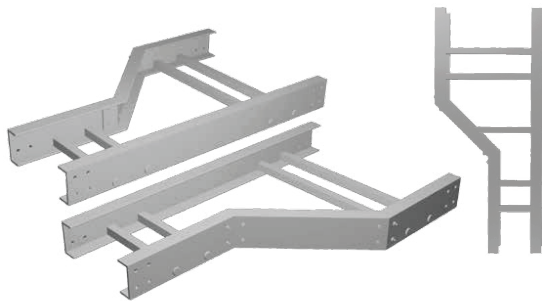
### LMH Series-Horizontal Cross

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLMH-HEC-900R-150-P**



HORIZONTAL EQUAL CROSS  
(HC)

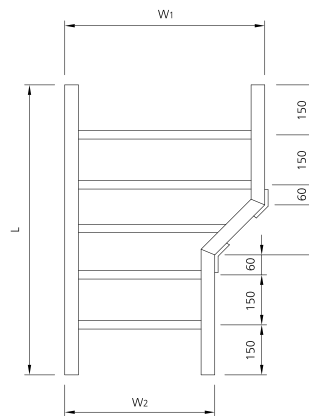
| PART NO              | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION         |
|----------------------|----------------|---------------|---------------------|
| ITLMH-HEC-300R-150-N | 300            | 150           | Non Perforated Rung |
| ITLMH-HEC-300R-200-N | 300            | 200           | Non Perforated Rung |
| ITLMH-HEC-300R-300-N | 300            | 300           | Non Perforated Rung |
| ITLMH-HEC-300R-450-N | 300            | 450           | Non Perforated Rung |
| ITLMH-HEC-300R-600-N | 300            | 600           | Non Perforated Rung |
| ITLMH-HEC-300R-750-N | 300            | 750           | Non Perforated Rung |
| ITLMH-HEC-300R-900-N | 300            | 900           | Non Perforated Rung |



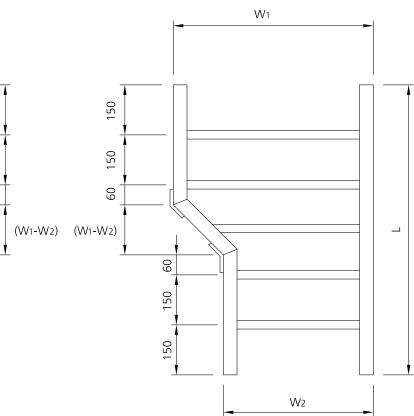
### LMH Series-Left/Right Hand Reducer

Fittings are available for -P (Perforated Rung).  
For instance, **ITLMH-RHR-900-750-P**

| PART NO             | WIDTH<br>(mm) | PERFORATION         |
|---------------------|---------------|---------------------|
| ITLMH-RHR-900-750-N | 900 - 750     | Non Perforated Rung |
| ITLMH-RHR-900-600-N | 900 - 600     | Non Perforated Rung |
| ITLMH-RHR-900-450-N | 900 - 450     | Non Perforated Rung |
| ITLMH-RHR-900-300-N | 900 - 300     | Non Perforated Rung |
| ITLMH-RHR-900-150-N | 900 - 150     | Non Perforated Rung |
| ITLMH-RHR-750-600-N | 750 - 600     | Non Perforated Rung |
| ITLMH-RHR-750-450-N | 750 - 450     | Non Perforated Rung |
| ITLMH-RHR-750-300-N | 750 - 300     | Non Perforated Rung |
| ITLMH-RHR-750-150-N | 750 - 150     | Non Perforated Rung |
| ITLMH-RHR-600-450-N | 600 - 450     | Non Perforated Rung |
| ITLMH-RHR-600-300-N | 600 - 300     | Non Perforated Rung |
| ITLMH-RHR-600-150-N | 600 - 150     | Non Perforated Rung |
| ITLMH-RHR-450-300-N | 450 - 300     | Non Perforated Rung |
| ITLMH-RHR-450-150-N | 450 - 150     | Non Perforated Rung |
| ITLMH-RHR-300-150-N | 300 - 150     | Non Perforated Rung |



RIGHT HAND REDUCER  
(RHR)



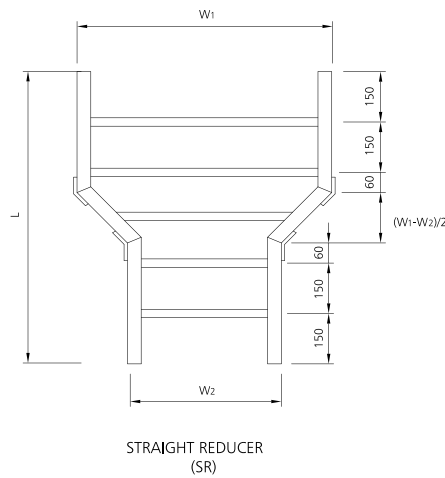
LEFT HAND REDUCER  
(LHR)

Fittings are available for -P (Perforated Rung).  
For instance, **ITLMH-LHR-900-750-P**

| PART NO             | WIDTH<br>(mm) | PERFORATION         |
|---------------------|---------------|---------------------|
| ITLMH-LHR-900-750-N | 900 - 750     | Non Perforated Rung |
| ITLMH-LHR-900-600-N | 900 - 600     | Non Perforated Rung |
| ITLMH-LHR-900-450-N | 900 - 450     | Non Perforated Rung |
| ITLMH-LHR-900-300-N | 900 - 300     | Non Perforated Rung |
| ITLMH-LHR-900-150-N | 900 - 150     | Non Perforated Rung |
| ITLMH-LHR-750-600-N | 750 - 600     | Non Perforated Rung |
| ITLMH-LHR-750-450-N | 750 - 450     | Non Perforated Rung |
| ITLMH-LHR-750-300-N | 750 - 300     | Non Perforated Rung |
| ITLMH-LHR-750-150-N | 750 - 150     | Non Perforated Rung |
| ITLMH-LHR-600-450-N | 600 - 450     | Non Perforated Rung |
| ITLMH-LHR-600-300-N | 600 - 300     | Non Perforated Rung |
| ITLMH-LHR-600-150-N | 600 - 150     | Non Perforated Rung |
| ITLMH-LHR-450-300-N | 450 - 300     | Non Perforated Rung |
| ITLMH-LHR-450-150-N | 450 - 150     | Non Perforated Rung |
| ITLMH-LHR-300-150-N | 300 - 150     | Non Perforated Rung |



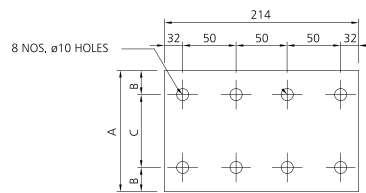
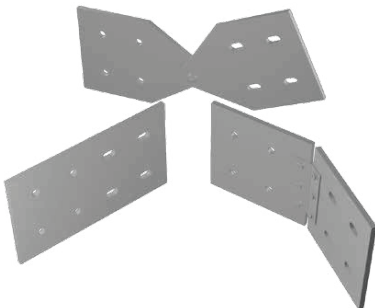
## Cable Ladder - LMH Series



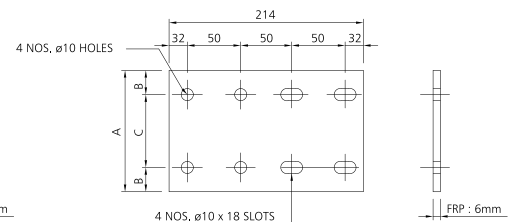
Fittings are available for -P (Perforated Rung).  
For instance, **ITLMH-SR-900-750-P**

| PART NO            | WIDTH (mm) | PERFORATION         |
|--------------------|------------|---------------------|
| ITLMH-SR-900-750-N | 900 - 750  | Non Perforated Rung |
| ITLMH-SR-900-600-N | 900 - 600  | Non Perforated Rung |
| ITLMH-SR-900-450-N | 900 - 450  | Non Perforated Rung |
| ITLMH-SR-900-300-N | 900 - 300  | Non Perforated Rung |
| ITLMH-SR-900-150-N | 900 - 150  | Non Perforated Rung |
| ITLMH-SR-750-600-N | 750 - 600  | Non Perforated Rung |
| ITLMH-SR-750-450-N | 750 - 450  | Non Perforated Rung |
| ITLMH-SR-750-300-N | 750 - 300  | Non Perforated Rung |
| ITLMH-SR-750-150-N | 750 - 150  | Non Perforated Rung |
| ITLMH-SR-600-450-N | 600 - 450  | Non Perforated Rung |
| ITLMH-SR-600-300-N | 600 - 300  | Non Perforated Rung |
| ITLMH-SR-600-150-N | 600 - 150  | Non Perforated Rung |
| ITLMH-SR-450-300-N | 450 - 300  | Non Perforated Rung |
| ITLMH-SR-450-150-N | 450 - 150  | Non Perforated Rung |
| ITLMH-SR-300-150-N | 300 - 150  | Non Perforated Rung |

LMH Series-Straight Reducer



LMH-FIXED SPLICE PLATE (FSP)

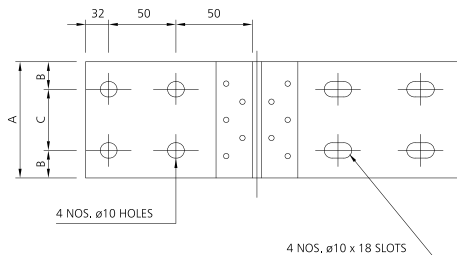


LMH-EXPANSION SPLICE PLATE (ESP)

| PART NUMBER                      | ITEM DESCRIPTION                                                                   |
|----------------------------------|------------------------------------------------------------------------------------|
| ITLMH-ESP-FRP<br>SET-BN PH M8X25 | LMH Cable Ladder FRP Expansion Splice Plate<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

Expansion splice plates are available for SS316 type. For instance **ITLMH-ESP-SS**

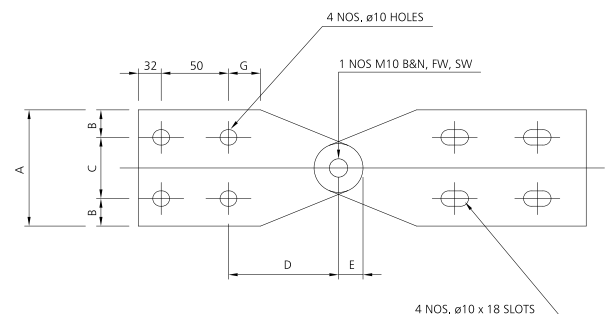
LMH Series-Splice Plate



HORIZONTAL ADJUSTABLE SPLICE PLATE (HESP)

| PART NUMBER                       | ITEM DESCRIPTION                                                                               |
|-----------------------------------|------------------------------------------------------------------------------------------------|
| ITLMH-HASP-FRP<br>SET-BN PH M8X25 | LMH Cable Ladder FRP Horizontal Adjustable Splice Plate<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

Horizontal adjustable splice plates are available for SS316 type.  
For instance **ITLMH-HASP-SS**



VERTICAL ADJUSTABLE SPLICE PLATE (VESP)

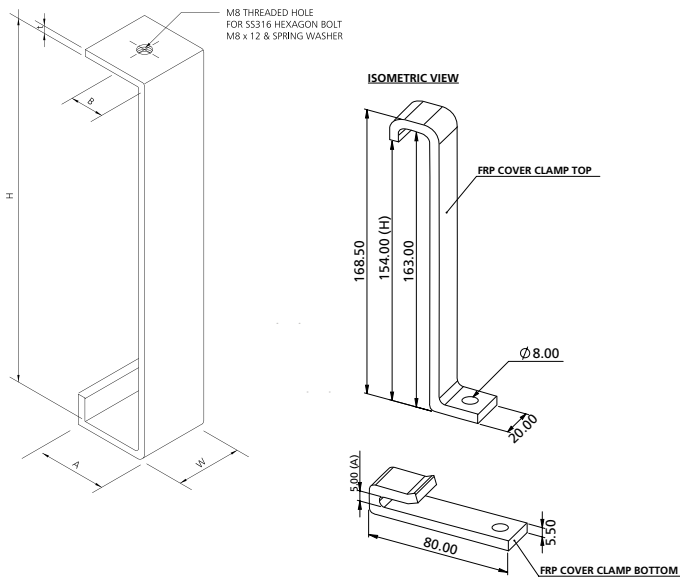
| PART NUMBER                       | ITEM DESCRIPTION                                                                             |
|-----------------------------------|----------------------------------------------------------------------------------------------|
| ITLMH-VASP-FRP<br>SET-BN PH M8X25 | LMH Cable Ladder FRP Vertical Adjustable Splice Plate<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

Vertical adjustable splice plates are available for SS316 type.  
For instance **ITLMH-VASP-SS**



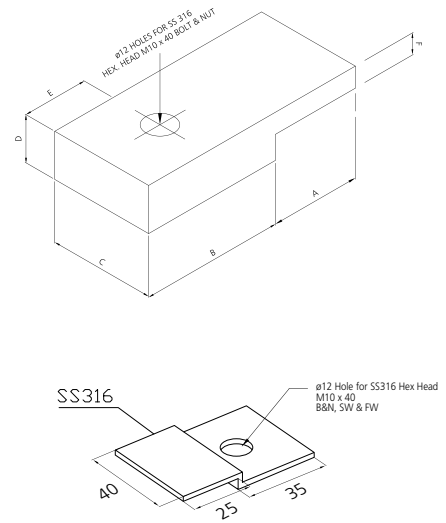
## Cable Ladder - LMH Series

### LMH Series-Cover Clamp



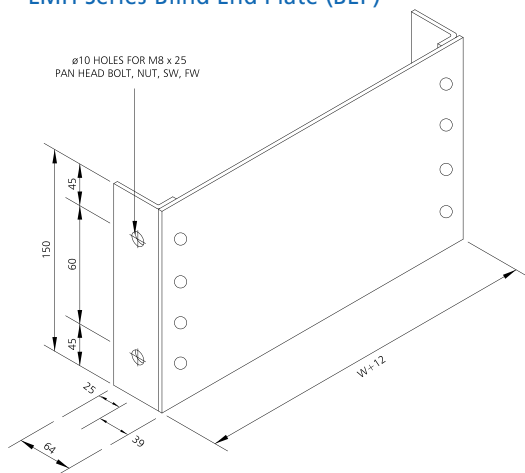
| PART NUMBER                     | ITEM DESCRIPTION                                                        |
|---------------------------------|-------------------------------------------------------------------------|
| ITLMH-CC-SS<br>SET-BN HH M8X12  | LMH Cable Ladder SS316 Cover Clamp<br>SS316 Hex Head M8 x 12 Bolt & SW  |
| ITLMH-CC-FRP<br>SET-BN PH M8X25 | LMH Cable Ladder FRP Cover Clamp<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

### LMH Series-Hold Down Clamp - ITLMH-HDC-FRP & ITLMH-ZHDC-SS



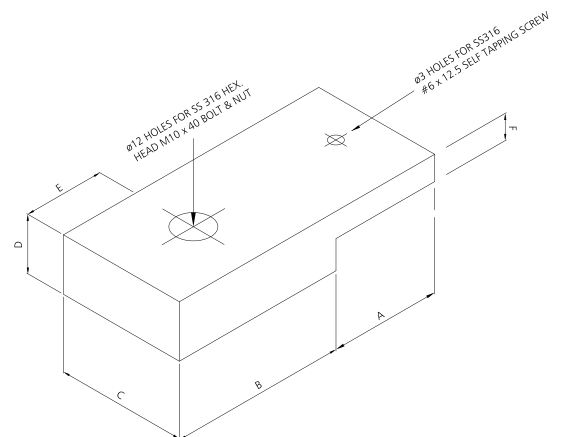
| PART NUMBER                                        | ITEM DESCRIPTION                                                                                                         |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| ITLMH-HDC-FRP<br>ITLMH-ZHDC-SS<br>SET-BN HH M10X40 | LMH Cable Ladder FRP Hold Down Clamp<br>LMH Cable Ladder SS316 Z Hold Down Clamp<br>SS316 Hex Head M10 x 40 B&N, SW & FW |

### LMH Series-Blind End Plate (BEP)



| PART NUMBER                      | ITEM DESCRIPTION                                                                 |
|----------------------------------|----------------------------------------------------------------------------------|
| ITLMH-BEP-150<br>SET-BN PH M8X25 | LMH Cable Ladder FRP Blind End Plate 150W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLMH-BEP-200<br>SET-BN PH M8X25 | LMH Cable Ladder FRP Blind End Plate 200W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLMH-BEP-300<br>SET-BN PH M8X25 | LMH Cable Ladder FRP Blind End Plate 300W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLMH-BEP-450<br>SET-BN PH M8X25 | LMH Cable Ladder FRP Blind End Plate 450W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLMH-BEP-600<br>SET-BN PH M8X25 | LMH Cable Ladder FRP Blind End Plate 600W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLMH-BEP-750<br>SET-BN PH M8X25 | LMH Cable Ladder FRP Blind End Plate 750W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLMH-BEP-900<br>SET-BN PH M8X25 | LMH Cable Ladder FRP Blind End Plate 900W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

### LMH Series-Vertical Fixing Clamp (VFC)



| PART NUMBER                              | ITEM DESCRIPTION                                                                                               |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| ITLMH-VFC-FRP<br>SET-BN HH M10X40<br>STS | LMH Cable Ladder FRP Vertical Fixing Clamp<br>SS316 Hex Head M10 x 40 B&N, SW & FW<br>SS316 Self Tapping Screw |

Vertical fixing clamps are available for SS316 type. For instance **ITLMH-VFC-SS**



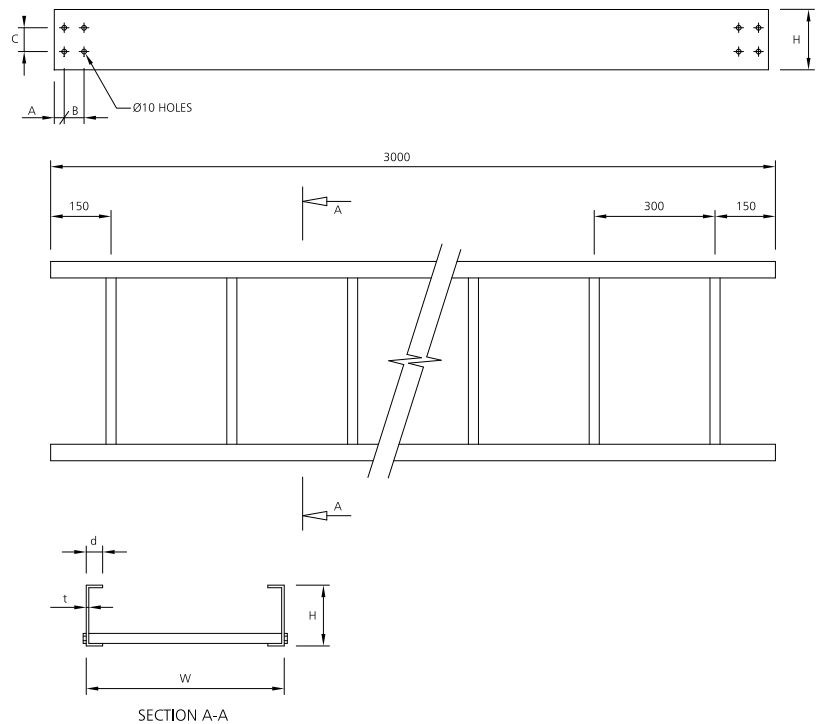
## Cable Ladder - LH Series



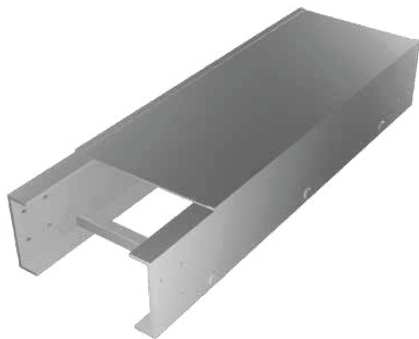
LH Series-Straight Run

| PART NO       | WIDTH (mm) | PERFORATION         |
|---------------|------------|---------------------|
| ITLH-SS-150-N | 150        | Non Perforated Rung |
| ITLH-SS-200-N | 200        | Non Perforated Rung |
| ITLH-SS-300-N | 300        | Non Perforated Rung |
| ITLH-SS-450-N | 450        | Non Perforated Rung |
| ITLH-SS-600-N | 600        | Non Perforated Rung |
| ITLH-SS-750-N | 750        | Non Perforated Rung |
| ITLH-SS-900-N | 900        | Non Perforated Rung |

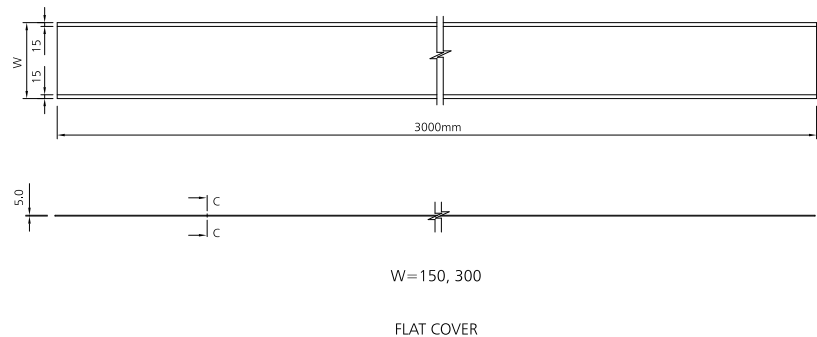
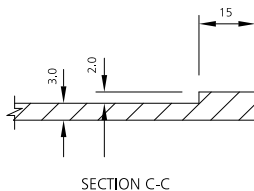
Straight Sections are available for Perforated Rung (-P)  
For instance, **ITLH-SS-150-P**



| SERIES | H   | d  | t   | A  | B  | C  | REMARKS          |
|--------|-----|----|-----|----|----|----|------------------|
| LH     | 152 | 41 | 6.0 | 24 | 50 | 60 | All values in mm |

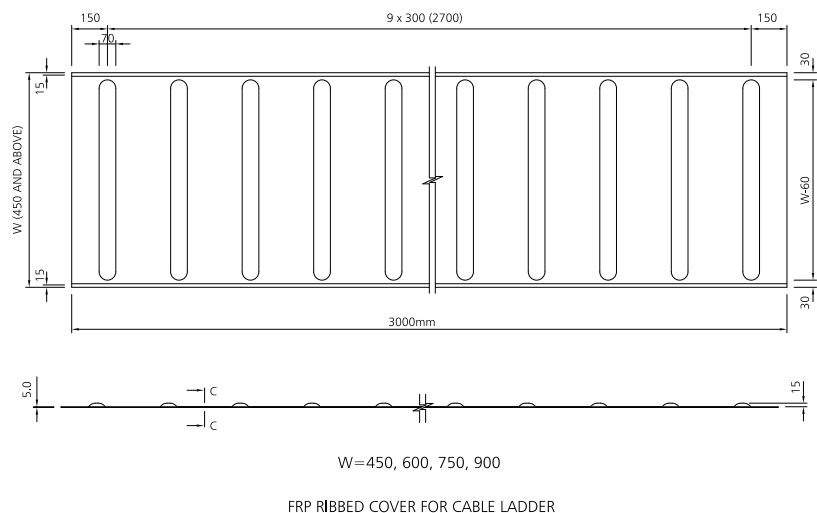


LH Series-Cover



| PART NO         | WIDTH (mm) | VENTILATION          |
|-----------------|------------|----------------------|
| ITCL-SS-150-C-N | 150        | Non-Ventilated Cover |
| ITCL-SS-200-C-N | 200        | Non-Ventilated Cover |
| ITCL-SS-300-C-N | 300        | Non-Ventilated Cover |
| ITCL-SS-450-C-N | 450        | Non-Ventilated Cover |
| ITCL-SS-600-C-N | 600        | Non-Ventilated Cover |
| ITCL-SS-750-C-N | 750        | Non-Ventilated Cover |
| ITCL-SS-900-C-N | 900        | Non-Ventilated Cover |

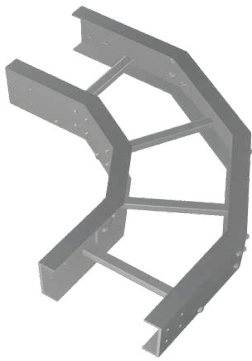
Covers are available for Ventilated (-V) option  
For instance, **ITCL-SS-150-C-V**



\* Thickness of FRP side rail for LH Series is 6mm unless otherwise specified.

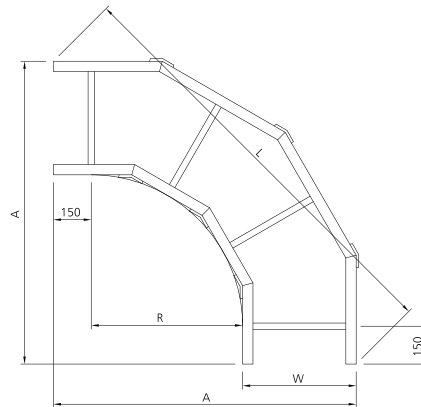


## Cable Ladder - LH Series

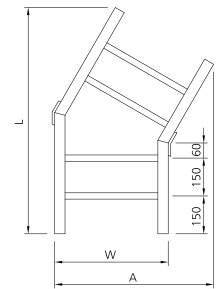


### LH Series-Horizontal Bend

Fittings are available for R300, R450, R600, R900  
Fittings are available for Perforated Rung (-P)  
For instance, **ITLH-HB-90-900R-150-P**



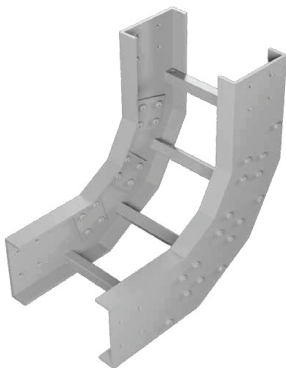
90° HORIZONTAL BEND  
(90° HB)



30°/45° HORIZONTAL BEND  
(30°/45° HB)

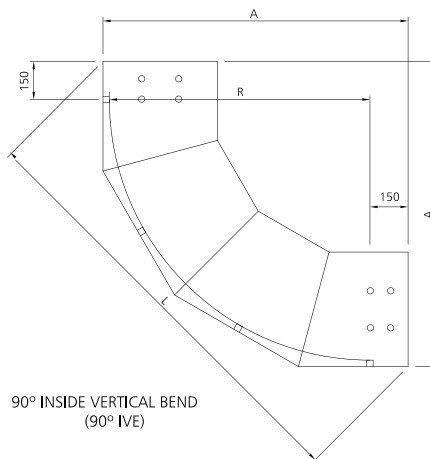
| PART NO               | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|-----------------------|-------------|-------------|------------|---------------------|
| ITLH-HB-90-300R-150-N | 90          | 300         | 150        | Non Perforated Rung |
| ITLH-HB-90-300R-200-N | 90          | 300         | 200        | Non Perforated Rung |
| ITLH-HB-90-300R-300-N | 90          | 300         | 300        | Non Perforated Rung |
| ITLH-HB-90-300R-450-N | 90          | 300         | 450        | Non Perforated Rung |
| ITLH-HB-90-300R-600-N | 90          | 300         | 600        | Non Perforated Rung |
| ITLH-HB-90-300R-750-N | 90          | 300         | 750        | Non Perforated Rung |
| ITLH-HB-90-300R-900-N | 90          | 300         | 900        | Non Perforated Rung |
| ITLH-HB-60-300R-150-N | 60          | 300         | 150        | Non Perforated Rung |
| ITLH-HB-60-300R-200-N | 60          | 300         | 200        | Non Perforated Rung |
| ITLH-HB-60-300R-300-N | 60          | 300         | 300        | Non Perforated Rung |
| ITLH-HB-60-300R-450-N | 60          | 300         | 450        | Non Perforated Rung |
| ITLH-HB-60-300R-600-N | 60          | 300         | 600        | Non Perforated Rung |
| ITLH-HB-60-300R-750-N | 60          | 300         | 750        | Non Perforated Rung |
| ITLH-HB-60-300R-900-N | 60          | 300         | 900        | Non Perforated Rung |

| PART NO               | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|-----------------------|-------------|-------------|------------|---------------------|
| ITLH-HB-45-300R-150-N | 45          | 300         | 150        | Non Perforated Rung |
| ITLH-HB-45-300R-200-N | 45          | 300         | 200        | Non Perforated Rung |
| ITLH-HB-45-300R-300-N | 45          | 300         | 300        | Non Perforated Rung |
| ITLH-HB-45-300R-450-N | 45          | 300         | 450        | Non Perforated Rung |
| ITLH-HB-45-300R-600-N | 45          | 300         | 600        | Non Perforated Rung |
| ITLH-HB-45-300R-750-N | 45          | 300         | 750        | Non Perforated Rung |
| ITLH-HB-45-300R-900-N | 45          | 300         | 900        | Non Perforated Rung |
| ITLH-HB-30-300R-150-N | 30          | 300         | 150        | Non Perforated Rung |
| ITLH-HB-30-300R-200-N | 30          | 300         | 200        | Non Perforated Rung |
| ITLH-HB-30-300R-300-N | 30          | 300         | 300        | Non Perforated Rung |
| ITLH-HB-30-300R-450-N | 30          | 300         | 450        | Non Perforated Rung |
| ITLH-HB-30-300R-600-N | 30          | 300         | 600        | Non Perforated Rung |
| ITLH-HB-30-300R-750-N | 30          | 300         | 700        | Non Perforated Rung |
| ITLH-HB-30-300R-900-N | 30          | 300         | 900        | Non Perforated Rung |

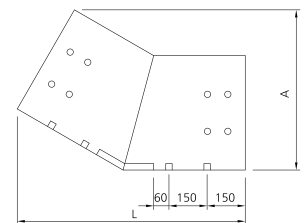


### LH Series-Inside Vertical Bend

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLH-IVB-90-900R-150-P**



90° INSIDE VERTICAL BEND  
(90° IVE)



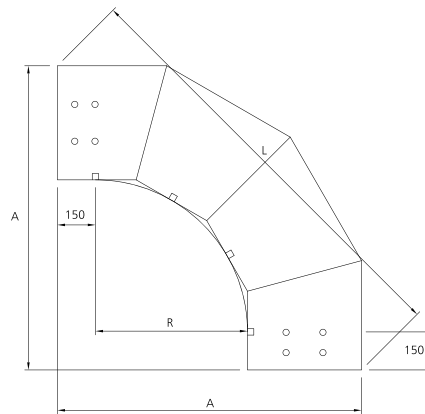
45°/30° INSIDE VERTICAL BEND  
(45°/30° IVE)

| PART NO                | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|------------------------|-------------|-------------|------------|---------------------|
| ITLH-IVB-90-300R-150-N | 90          | 300         | 150        | Non Perforated Rung |
| ITLH-IVB-90-300R-200-N | 90          | 300         | 200        | Non Perforated Rung |
| ITLH-IVB-90-300R-300-N | 90          | 300         | 300        | Non Perforated Rung |
| ITLH-IVB-90-300R-450-N | 90          | 300         | 450        | Non Perforated Rung |
| ITLH-IVB-90-300R-600-N | 90          | 300         | 600        | Non Perforated Rung |
| ITLH-IVB-90-300R-750-N | 90          | 300         | 750        | Non Perforated Rung |
| ITLH-IVB-90-300R-900-N | 90          | 300         | 900        | Non Perforated Rung |
| ITLH-IVB-60-300R-150-N | 60          | 300         | 150        | Non Perforated Rung |
| ITLH-IVB-60-300R-200-N | 60          | 300         | 200        | Non Perforated Rung |
| ITLH-IVB-60-300R-300-N | 60          | 300         | 300        | Non Perforated Rung |
| ITLH-IVB-60-300R-450-N | 60          | 300         | 450        | Non Perforated Rung |
| ITLH-IVB-60-300R-600-N | 60          | 300         | 600        | Non Perforated Rung |
| ITLH-IVB-60-300R-750-N | 60          | 300         | 750        | Non Perforated Rung |
| ITLH-IVB-60-300R-900-N | 60          | 300         | 900        | Non Perforated Rung |

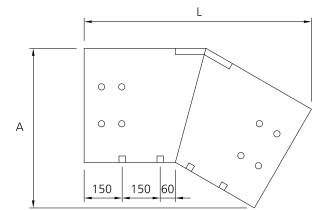
| PART NO                | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|------------------------|-------------|-------------|------------|---------------------|
| ITLH-IVB-45-300R-150-N | 45          | 300         | 150        | Non Perforated Rung |
| ITLH-IVB-45-300R-200-N | 45          | 300         | 200        | Non Perforated Rung |
| ITLH-IVB-45-300R-300-N | 45          | 300         | 300        | Non Perforated Rung |
| ITLH-IVB-45-300R-450-N | 45          | 300         | 450        | Non Perforated Rung |
| ITLH-IVB-45-300R-600-N | 45          | 300         | 600        | Non Perforated Rung |
| ITLH-IVB-45-300R-750-N | 45          | 300         | 750        | Non Perforated Rung |
| ITLH-IVB-45-300R-900-N | 45          | 300         | 900        | Non Perforated Rung |
| ITLH-IVB-30-300R-150-N | 30          | 300         | 150        | Non Perforated Rung |
| ITLH-IVB-30-300R-200-N | 30          | 300         | 200        | Non Perforated Rung |
| ITLH-IVB-30-300R-300-N | 30          | 300         | 300        | Non Perforated Rung |
| ITLH-IVB-30-300R-450-N | 30          | 300         | 450        | Non Perforated Rung |
| ITLH-IVB-30-300R-600-N | 30          | 300         | 600        | Non Perforated Rung |
| ITLH-IVB-30-300R-750-N | 30          | 300         | 750        | Non Perforated Rung |
| ITLH-IVB-30-300R-900-N | 30          | 300         | 900        | Non Perforated Rung |



## Cable Ladder - LH Series



90° OUTSIDE VERTICAL BEND  
(90° OVE)



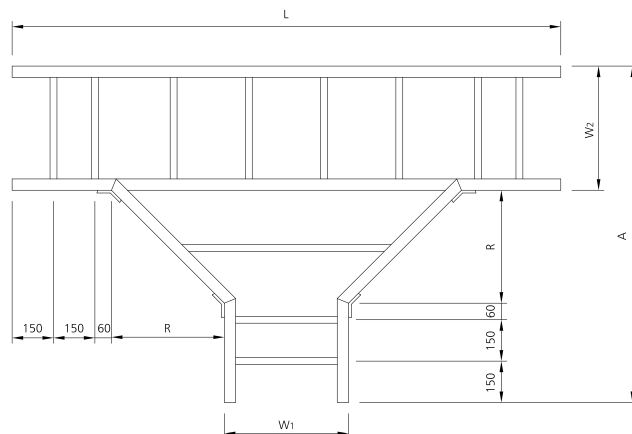
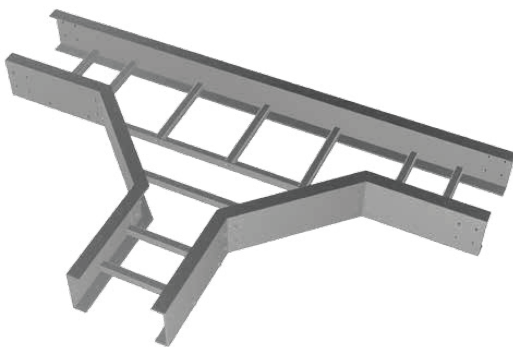
30°/45° OUTSIDE VERTICAL BEND  
(30°/45° OVE)

### LH Series-Outside Vertical Bend

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLH-OVB-90-900R-150-P**

| PART NO                | ANGLE<br>(deg) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION         |
|------------------------|----------------|----------------|---------------|---------------------|
| ITLH-OVB-90-300R-150-N | 90             | 300            | 150           | Non Perforated Rung |
| ITLH-OVB-90-300R-200-N | 90             | 300            | 200           | Non Perforated Rung |
| ITLH-OVB-90-300R-300-N | 90             | 300            | 300           | Non Perforated Rung |
| ITLH-OVB-90-300R-450-N | 90             | 300            | 450           | Non Perforated Rung |
| ITLH-OVB-90-300R-600-N | 90             | 300            | 600           | Non Perforated Rung |
| ITLH-OVB-90-300R-750-N | 90             | 300            | 750           | Non Perforated Rung |
| ITLH-OVB-90-300R-900-N | 90             | 300            | 900           | Non Perforated Rung |
| ITLH-OVB-60-300R-150-N | 60             | 300            | 150           | Non Perforated Rung |
| ITLH-OVB-60-300R-200-N | 60             | 300            | 200           | Non Perforated Rung |
| ITLH-OVB-60-300R-300-N | 60             | 300            | 300           | Non Perforated Rung |
| ITLH-OVB-60-300R-450-N | 60             | 300            | 450           | Non Perforated Rung |
| ITLH-OVB-60-300R-600-N | 60             | 300            | 600           | Non Perforated Rung |
| ITLH-OVB-60-300R-750-N | 60             | 300            | 750           | Non Perforated Rung |
| ITLH-OVB-60-300R-900-N | 60             | 300            | 900           | Non Perforated Rung |

| PART NO                | ANGLE<br>(deg) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION         |
|------------------------|----------------|----------------|---------------|---------------------|
| ITLH-OVB-45-300R-150-N | 45             | 300            | 150           | Non Perforated Rung |
| ITLH-OVB-45-300R-200-N | 45             | 300            | 200           | Non Perforated Rung |
| ITLH-OVB-45-300R-300-N | 45             | 300            | 300           | Non Perforated Rung |
| ITLH-OVB-45-300R-450-N | 45             | 300            | 450           | Non Perforated Rung |
| ITLH-OVB-45-300R-600-N | 45             | 300            | 600           | Non Perforated Rung |
| ITLH-OVB-45-300R-750-N | 45             | 300            | 750           | Non Perforated Rung |
| ITLH-OVB-45-300R-900-N | 45             | 300            | 900           | Non Perforated Rung |
| ITLH-OVB-30-300R-150-N | 30             | 300            | 150           | Non Perforated Rung |
| ITLH-OVB-30-300R-200-N | 30             | 300            | 200           | Non Perforated Rung |
| ITLH-OVB-30-300R-300-N | 30             | 300            | 300           | Non Perforated Rung |
| ITLH-OVB-30-300R-450-N | 30             | 300            | 450           | Non Perforated Rung |
| ITLH-OVB-30-300R-600-N | 30             | 300            | 600           | Non Perforated Rung |
| ITLH-OVB-30-300R-750-N | 30             | 300            | 700           | Non Perforated Rung |
| ITLH-OVB-30-300R-900-N | 30             | 300            | 900           | Non Perforated Rung |



HORIZONTAL EQUAL TEE  
(HT)

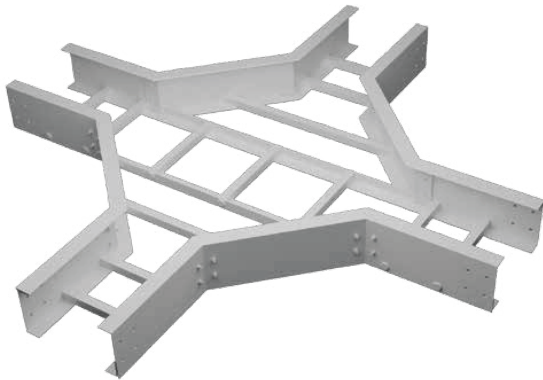
### LH Series-Horizontal Tee

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLH-HT-900R-150-P**

| PART NO            | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION         |
|--------------------|----------------|---------------|---------------------|
| ITLH-HT-300R-150-N | 300            | 150           | Non Perforated Rung |
| ITLH-HT-300R-200-N | 300            | 200           | Non Perforated Rung |
| ITLH-HT-300R-300-N | 300            | 300           | Non Perforated Rung |
| ITLH-HT-300R-450-N | 300            | 450           | Non Perforated Rung |
| ITLH-HT-300R-600-N | 300            | 600           | Non Perforated Rung |
| ITLH-HT-300R-750-N | 300            | 750           | Non Perforated Rung |
| ITLH-HT-300R-900-N | 300            | 900           | Non Perforated Rung |



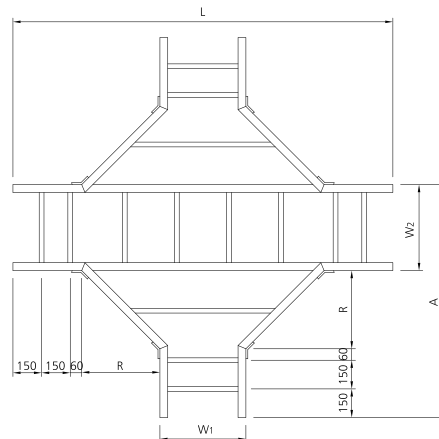
## Cable Ladder - LH Series



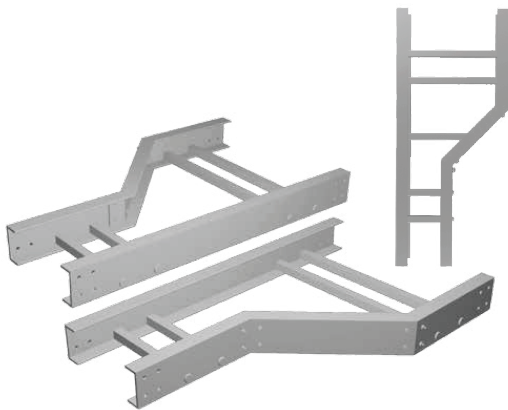
### LH Series-Horizontal Cross

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLH-HEC-900R-150-P**

| PART NO             | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION         |
|---------------------|----------------|---------------|---------------------|
| ITLH-HEC-300R-150-N | 300            | 150           | Non Perforated Rung |
| ITLH-HEC-300R-200-N | 300            | 200           | Non Perforated Rung |
| ITLH-HEC-300R-300-N | 300            | 300           | Non Perforated Rung |
| ITLH-HEC-300R-450-N | 300            | 450           | Non Perforated Rung |
| ITLH-HEC-300R-600-N | 300            | 600           | Non Perforated Rung |
| ITLH-HEC-300R-750-N | 300            | 750           | Non Perforated Rung |
| ITLH-HEC-300R-900-N | 300            | 900           | Non Perforated Rung |



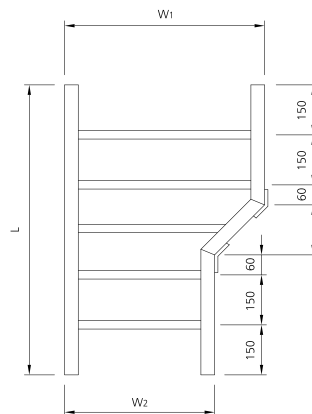
HORIZONTAL EQUAL CROSS  
(HC)



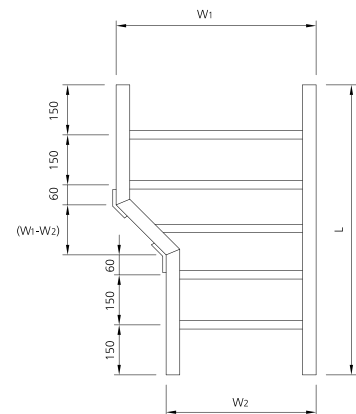
### LH Series-Left/Right Hand Reducer

Fittings are available for -P (Perforated Rung).  
For instance, **ITLH-RHR-900-750-P**

| PART NO            | WIDTH<br>(mm) | PERFORATION         |
|--------------------|---------------|---------------------|
| ITLH-RHR-900-750-N | 900 - 750     | Non Perforated Rung |
| ITLH-RHR-900-600-N | 900 - 600     | Non Perforated Rung |
| ITLH-RHR-900-450-N | 900 - 450     | Non Perforated Rung |
| ITLH-RHR-900-300-N | 900 - 300     | Non Perforated Rung |
| ITLH-RHR-900-150-N | 900 - 150     | Non Perforated Rung |
| ITLH-RHR-750-600-N | 750 - 600     | Non Perforated Rung |
| ITLH-RHR-750-450-N | 750 - 450     | Non Perforated Rung |
| ITLH-RHR-750-300-N | 750 - 300     | Non Perforated Rung |
| ITLH-RHR-750-150-N | 750 - 150     | Non Perforated Rung |
| ITLH-RHR-600-450-N | 600 - 450     | Non Perforated Rung |
| ITLH-RHR-600-300-N | 600 - 300     | Non Perforated Rung |
| ITLH-RHR-600-150-N | 600 - 150     | Non Perforated Rung |
| ITLH-RHR-450-300-N | 450 - 300     | Non Perforated Rung |
| ITLH-RHR-450-150-N | 450 - 150     | Non Perforated Rung |
| ITLH-RHR-300-150-N | 300 - 150     | Non Perforated Rung |



RIGHT HAND REDUCER  
(RHR)



LEFT HAND REDUCER  
(LHR)

Fittings are available for -P (Perforated Rung).  
For instance, **ITLH-LHR-900-750-P**

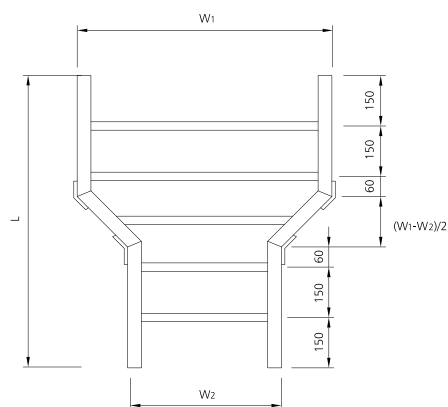
| PART NO            | WIDTH<br>(mm) | PERFORATION         |
|--------------------|---------------|---------------------|
| ITLH-LHR-900-750-N | 900 - 750     | Non Perforated Rung |
| ITLH-LHR-900-600-N | 900 - 600     | Non Perforated Rung |
| ITLH-LHR-900-450-N | 900 - 450     | Non Perforated Rung |
| ITLH-LHR-900-300-N | 900 - 300     | Non Perforated Rung |
| ITLH-LHR-900-150-N | 900 - 150     | Non Perforated Rung |
| ITLH-LHR-750-600-N | 750 - 600     | Non Perforated Rung |
| ITLH-LHR-750-450-N | 750 - 450     | Non Perforated Rung |
| ITLH-LHR-750-300-N | 750 - 300     | Non Perforated Rung |
| ITLH-LHR-750-150-N | 750 - 150     | Non Perforated Rung |
| ITLH-LHR-600-450-N | 600 - 450     | Non Perforated Rung |
| ITLH-LHR-600-300-N | 600 - 300     | Non Perforated Rung |
| ITLH-LHR-600-150-N | 600 - 150     | Non Perforated Rung |
| ITLH-LHR-450-300-N | 450 - 300     | Non Perforated Rung |
| ITLH-LHR-450-150-N | 450 - 150     | Non Perforated Rung |
| ITLH-LHR-300-150-N | 300 - 150     | Non Perforated Rung |



## Cable Ladder - LH Series



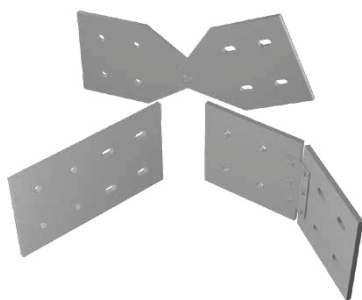
LH Series-Straight Reducer



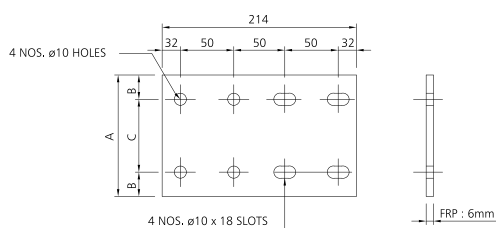
STRAIGHT REDUCER (SR)

Fittings are available for -P (Perforated Rung).  
For instance, **ITLH-SR-900-750-P**

| PART NO           | WIDTH (mm) | PERFORATION         |
|-------------------|------------|---------------------|
| ITLH-SR-900-750-N | 900 - 750  | Non Perforated Rung |
| ITLH-SR-900-600-N | 900 - 600  | Non Perforated Rung |
| ITLH-SR-900-450-N | 900 - 450  | Non Perforated Rung |
| ITLH-SR-900-300-N | 900 - 300  | Non Perforated Rung |
| ITLH-SR-900-150-N | 900 - 150  | Non Perforated Rung |
| ITLH-SR-750-600-N | 750 - 600  | Non Perforated Rung |
| ITLH-SR-750-450-N | 750 - 450  | Non Perforated Rung |
| ITLH-SR-750-300-N | 750 - 300  | Non Perforated Rung |
| ITLH-SR-750-150-N | 750 - 150  | Non Perforated Rung |
| ITLH-SR-600-450-N | 600 - 450  | Non Perforated Rung |
| ITLH-SR-600-300-N | 600 - 300  | Non Perforated Rung |
| ITLH-SR-600-150-N | 600 - 150  | Non Perforated Rung |
| ITLH-SR-450-300-N | 450 - 300  | Non Perforated Rung |
| ITLH-SR-450-150-N | 450 - 150  | Non Perforated Rung |
| ITLH-SR-300-150-N | 300 - 150  | Non Perforated Rung |



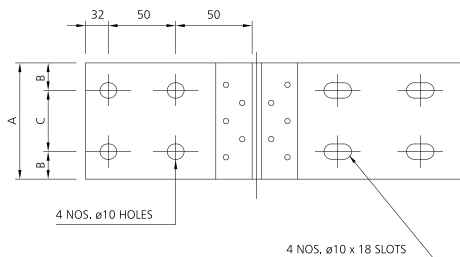
LH Series-Splice Plate



LH-EXPANSION SPLICE PLATE (ESP)

| PART NUMBER                     | ITEM DESCRIPTION                                                                        |
|---------------------------------|-----------------------------------------------------------------------------------------|
| ITLH-ESP-FRP<br>SET-BN PH M8X25 | LH Cable Ladder FRP<br>Expansion Splice Plate<br>SS316 Pan Head<br>M8 x 25 B&N, SW & FW |

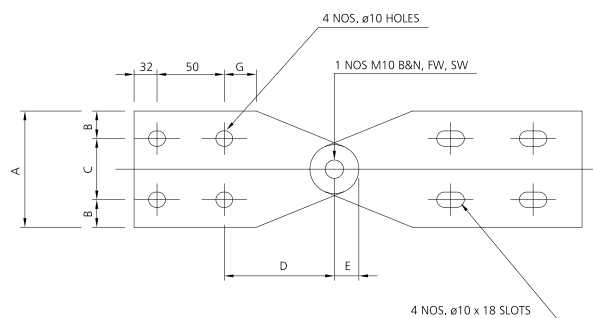
Expansion splice plates are available for SS316 type.  
For instance **ITLH-ESP-SS**



HORIZONTAL ADJUSTABLE SPLICE PLATE (HESP)

| PART NUMBER                      | ITEM DESCRIPTION                                                                              |
|----------------------------------|-----------------------------------------------------------------------------------------------|
| ITLH-HASP-FRP<br>SET-BN PH M8X25 | LH Cable Ladder FRP Horizontal Adjustable Splice Plate<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

Horizontal adjustable splice plates are available for SS316 type.  
For instance **ITLH-HASP-SS**



VERTICAL ADJUSTABLE SPLICE PLATE (VESP)

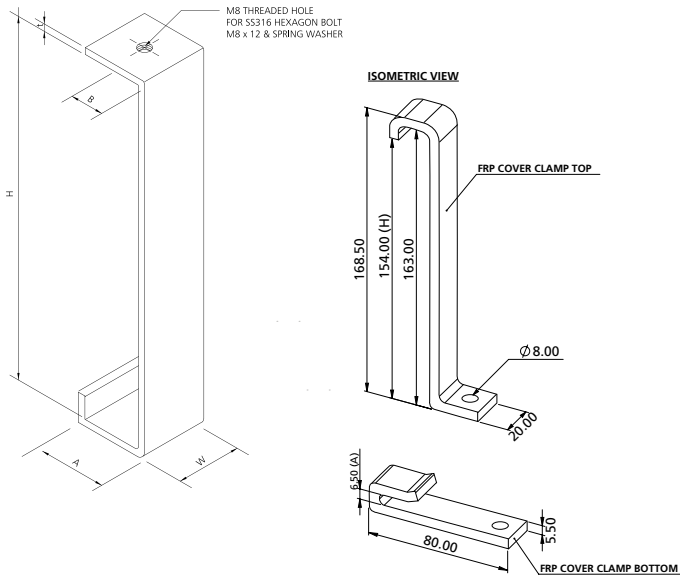
| PART NUMBER                      | ITEM DESCRIPTION                                                                           |
|----------------------------------|--------------------------------------------------------------------------------------------|
| ITLH-VASP-FRP<br>SET-BN PH M8X25 | LH Cable Ladder FRP Vertical Adjustable Splice Plate<br>S316 Pan Head M8 x 25 B&N, SW & FW |

Vertical adjustable splice plates are available for SS316 type.  
For instance **ITLH-VASP-SS**



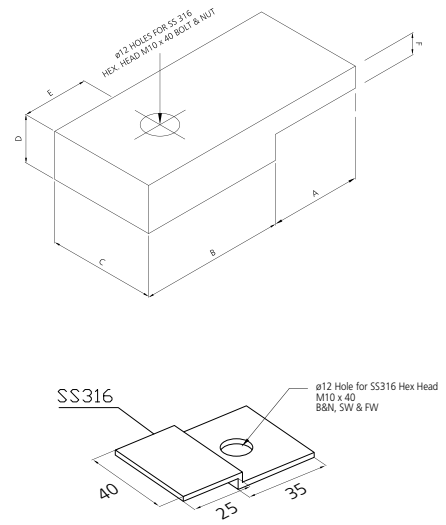
## Cable Ladder - LH Series

### LH Series-Cover Clamp



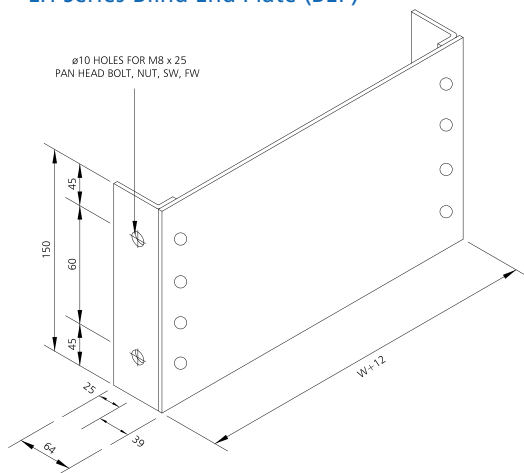
| PART NUMBER                    | ITEM DESCRIPTION                                                       |
|--------------------------------|------------------------------------------------------------------------|
| ITLH-CC-SS<br>SET-BN HH M8X12  | LH Cable Ladder SS316 Cover Clamp<br>SS316 Hex Head M8 x 12 Bolt & SW  |
| ITLH-CC-FRP<br>SET-BN PH M8X25 | LH Cable Ladder FRP Cover Clamp<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

### LH Series-Hold Down Clamp - ITLH-HDC-FRP & ITLH-ZHDC-SS



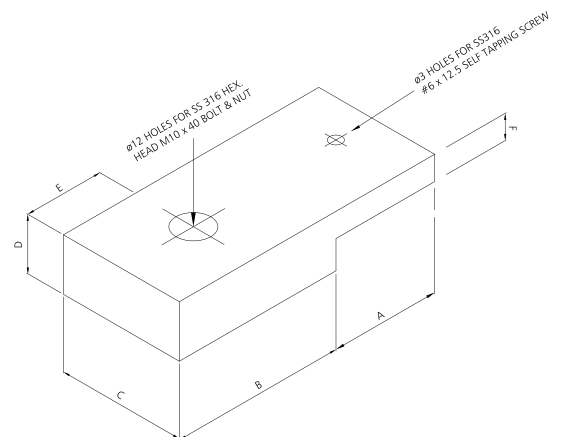
| PART NUMBER                                      | ITEM DESCRIPTION                                                                                                       |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| ITLH-HDC-FRP<br>ITLH-ZHDC-SS<br>SET-BN HH M10X40 | LH Cable Ladder FRP Hold Down Clamp<br>LH Cable Ladder SS316 Z Hold Down Clamp<br>SS316 Hex Head M10 x 40 B&N, SW & FW |

### LH Series-Blind End Plate (BEP)



| PART NUMBER                     | ITEM DESCRIPTION                                                                |
|---------------------------------|---------------------------------------------------------------------------------|
| ITLH-BEP-150<br>SET-BN PH M8X25 | LH Cable Ladder FRP Blind End Plate 150W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLH-BEP-200<br>SET-BN PH M8X25 | LH Cable Ladder FRP Blind End Plate 200W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLH-BEP-300<br>SET-BN PH M8X25 | LH Cable Ladder FRP Blind End Plate 300W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLH-BEP-450<br>SET-BN PH M8X25 | LH Cable Ladder FRP Blind End Plate 450W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLH-BEP-600<br>SET-BN PH M8X25 | LH Cable Ladder FRP Blind End Plate 600W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLH-BEP-750<br>SET-BN PH M8X25 | LH Cable Ladder FRP Blind End Plate 750W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLH-BEP-900<br>SET-BN PH M8X25 | LH Cable Ladder FRP Blind End Plate 900W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

### LH Series-Vertical Fixing Clamp (VFC)

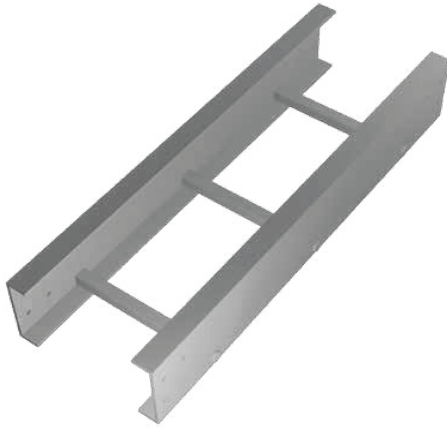


| PART NUMBER                             | ITEM DESCRIPTION                                                                                              |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------|
| ITLH-VFC-FRP<br>SET-BN HH M10X40<br>STS | LH Cable Ladder FRP Vertical Fixing Clamp<br>SS316 Hex Head M10 x 40 B&N, SW & FW<br>SS316 Self Tapping Screw |

Vertical fixing clamps are available for SS316 type. For instance **ITLH-VFC-SS**



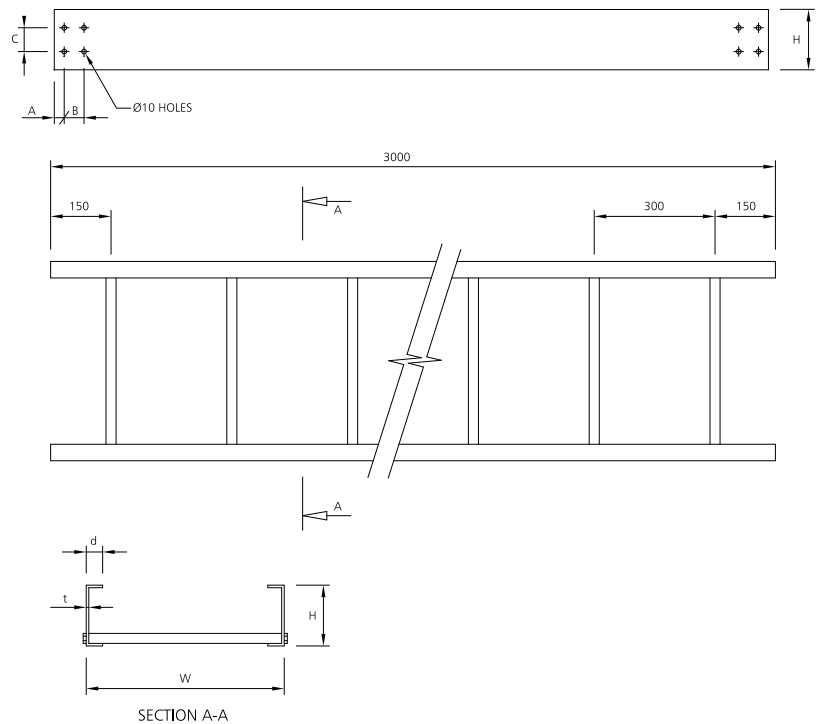
## Cable Ladder - LSH Series



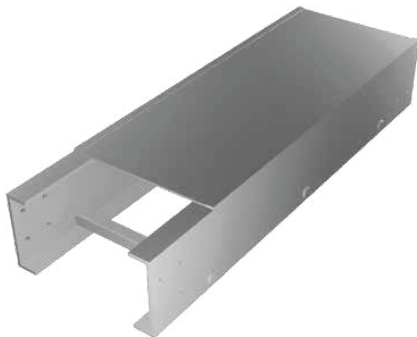
LSH Series-Straight Run

| PART NO        | WIDTH (mm) | PERFORATION         |
|----------------|------------|---------------------|
| ITLSH-SS-150-N | 150        | Non Perforated Rung |
| ITLSH-SS-200-N | 200        | Non Perforated Rung |
| ITLSH-SS-300-N | 300        | Non Perforated Rung |
| ITLSH-SS-450-N | 450        | Non Perforated Rung |
| ITLSH-SS-600-N | 600        | Non Perforated Rung |
| ITLSH-SS-750-N | 750        | Non Perforated Rung |
| ITLSH-SS-900-N | 900        | Non Perforated Rung |

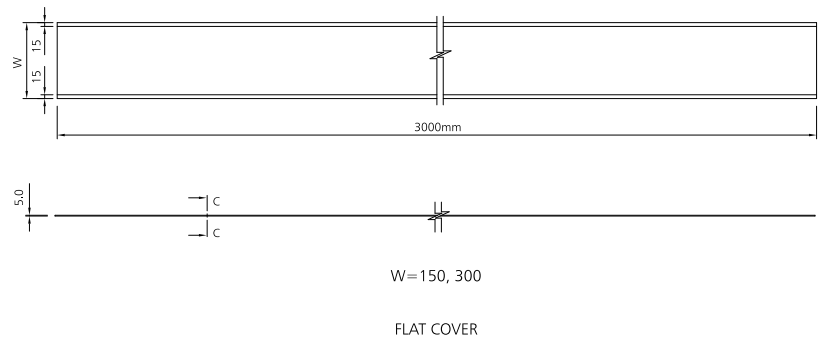
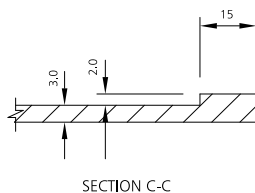
Straight Sections are available for Perforated Rung (-P)  
For instance, **ITLSH-SS-150-P**



| SERIES | H   | d  | t   | A  | B  | C  | REMARKS          |
|--------|-----|----|-----|----|----|----|------------------|
| LSH    | 152 | 41 | 8.0 | 24 | 50 | 60 | All values in mm |

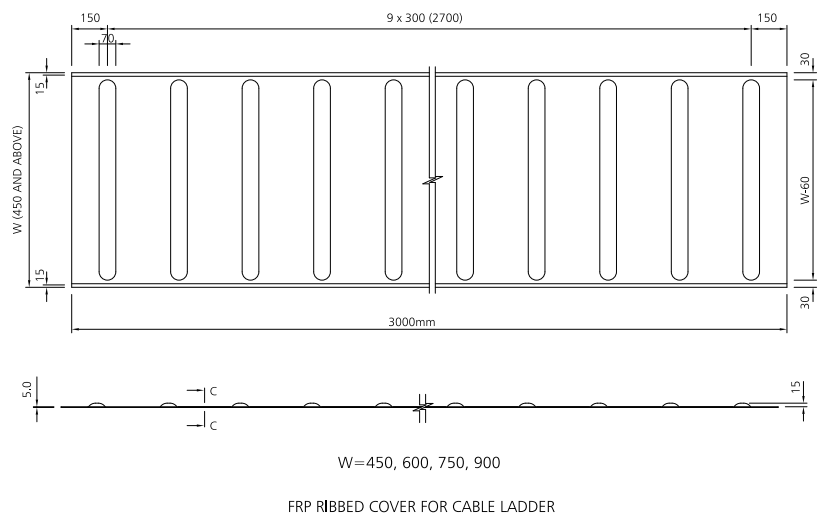


LSH Series-Cover



| PART NO         | WIDTH (mm) | VENTILATION          |
|-----------------|------------|----------------------|
| ITCL-SS-150-C-N | 150        | Non-Ventilated Cover |
| ITCL-SS-200-C-N | 200        | Non-Ventilated Cover |
| ITCL-SS-300-C-N | 300        | Non-Ventilated Cover |
| ITCL-SS-450-C-N | 450        | Non-Ventilated Cover |
| ITCL-SS-600-C-N | 600        | Non-Ventilated Cover |
| ITCL-SS-750-C-N | 750        | Non-Ventilated Cover |
| ITCL-SS-900-C-N | 900        | Non-Ventilated Cover |

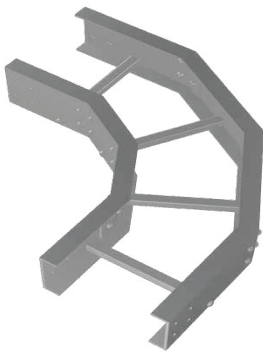
Covers are available for Ventilated (-V) option  
For instance, **ITCL-SS-150-C-V**



\* Thickness of FRP side rail for LSH Series is 6mm unless otherwise specified.

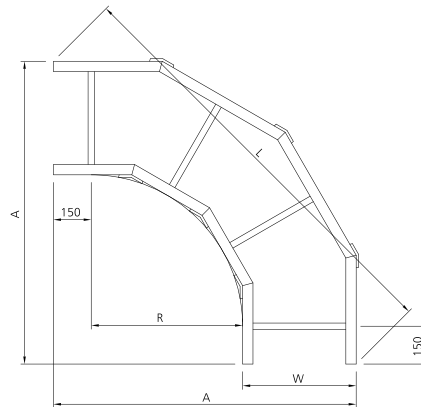


## Cable Ladder - LSH Series

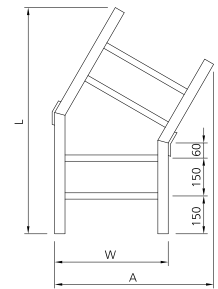


### LSH Series-Horizontal Bend

Fittings are available for R300, R450, R600, R900  
Fittings are available for Perforated Rung (-P)  
For instance, **ITLSH-HB-90-900R-150-P**



90° HORIZONTAL BEND  
(90° HB)



30°/45° HORIZONTAL BEND  
(30°/45° HB)

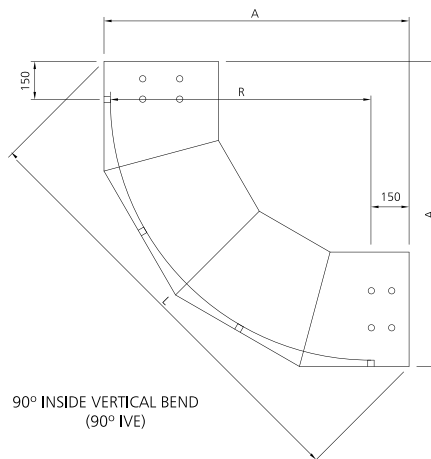
| PART NO                | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|------------------------|-------------|-------------|------------|---------------------|
| ITLSH-HB-90-300R-150-N | 90          | 300         | 150        | Non Perforated Rung |
| ITLSH-HB-90-300R-200-N | 90          | 300         | 200        | Non Perforated Rung |
| ITLSH-HB-90-300R-300-N | 90          | 300         | 300        | Non Perforated Rung |
| ITLSH-HB-90-300R-450-N | 90          | 300         | 450        | Non Perforated Rung |
| ITLSH-HB-90-300R-600-N | 90          | 300         | 600        | Non Perforated Rung |
| ITLSH-HB-90-300R-750-N | 90          | 300         | 750        | Non Perforated Rung |
| ITLSH-HB-90-300R-900-N | 90          | 300         | 900        | Non Perforated Rung |
| ITLSH-HB-60-300R-150-N | 60          | 300         | 150        | Non Perforated Rung |
| ITLSH-HB-60-300R-200-N | 60          | 300         | 200        | Non Perforated Rung |
| ITLSH-HB-60-300R-300-N | 60          | 300         | 300        | Non Perforated Rung |
| ITLSH-HB-60-300R-450-N | 60          | 300         | 450        | Non Perforated Rung |
| ITLSH-HB-60-300R-600-N | 60          | 300         | 600        | Non Perforated Rung |
| ITLSH-HB-60-300R-750-N | 60          | 300         | 750        | Non Perforated Rung |
| ITLSH-HB-60-300R-900-N | 60          | 300         | 900        | Non Perforated Rung |

| PART NO                | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|------------------------|-------------|-------------|------------|---------------------|
| ITLSH-HB-45-300R-150-N | 45          | 300         | 150        | Non Perforated Rung |
| ITLSH-HB-45-300R-200-N | 45          | 300         | 200        | Non Perforated Rung |
| ITLSH-HB-45-300R-300-N | 45          | 300         | 300        | Non Perforated Rung |
| ITLSH-HB-45-300R-450-N | 45          | 300         | 450        | Non Perforated Rung |
| ITLSH-HB-45-300R-600-N | 45          | 300         | 600        | Non Perforated Rung |
| ITLSH-HB-45-300R-750-N | 45          | 300         | 750        | Non Perforated Rung |
| ITLSH-HB-45-300R-900-N | 45          | 300         | 900        | Non Perforated Rung |
| ITLSH-HB-30-300R-150-N | 30          | 300         | 150        | Non Perforated Rung |
| ITLSH-HB-30-300R-200-N | 30          | 300         | 200        | Non Perforated Rung |
| ITLSH-HB-30-300R-300-N | 30          | 300         | 300        | Non Perforated Rung |
| ITLSH-HB-30-300R-450-N | 30          | 300         | 450        | Non Perforated Rung |
| ITLSH-HB-30-300R-600-N | 30          | 300         | 600        | Non Perforated Rung |
| ITLSH-HB-30-300R-750-N | 30          | 300         | 700        | Non Perforated Rung |
| ITLSH-HB-30-300R-900-N | 30          | 300         | 900        | Non Perforated Rung |

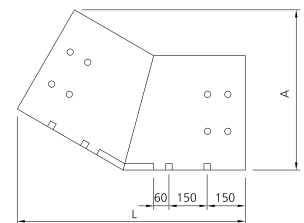


### LSH Series-Inside Vertical Bend

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLSH-IVB-90-900R-150-P**



90° INSIDE VERTICAL BEND  
(90° IVE)



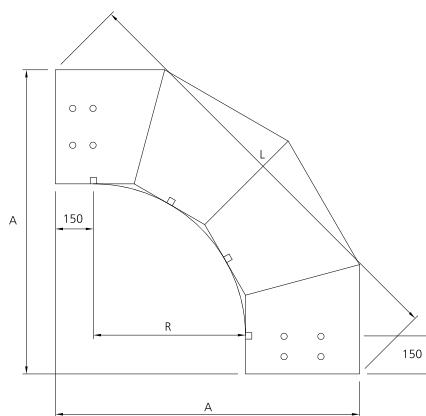
45°/30° INSIDE VERTICAL BEND  
(45°/30° IVE)

| PART NO                 | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|-------------------------|-------------|-------------|------------|---------------------|
| ITLSH-IVB-90-300R-150-N | 90          | 300         | 150        | Non Perforated Rung |
| ITLSH-IVB-90-300R-200-N | 90          | 300         | 200        | Non Perforated Rung |
| ITLSH-IVB-90-300R-300-N | 90          | 300         | 300        | Non Perforated Rung |
| ITLSH-IVB-90-300R-450-N | 90          | 300         | 450        | Non Perforated Rung |
| ITLSH-IVB-90-300R-600-N | 90          | 300         | 600        | Non Perforated Rung |
| ITLSH-IVB-90-300R-750-N | 90          | 300         | 750        | Non Perforated Rung |
| ITLSH-IVB-90-300R-900-N | 90          | 300         | 900        | Non Perforated Rung |
| ITLSH-IVB-60-300R-150-N | 60          | 300         | 150        | Non Perforated Rung |
| ITLSH-IVB-60-300R-200-N | 60          | 300         | 200        | Non Perforated Rung |
| ITLSH-IVB-60-300R-300-N | 60          | 300         | 300        | Non Perforated Rung |
| ITLSH-IVB-60-300R-450-N | 60          | 300         | 450        | Non Perforated Rung |
| ITLSH-IVB-60-300R-600-N | 60          | 300         | 600        | Non Perforated Rung |
| ITLSH-IVB-60-300R-750-N | 60          | 300         | 750        | Non Perforated Rung |
| ITLSH-IVB-60-300R-900-N | 60          | 300         | 900        | Non Perforated Rung |

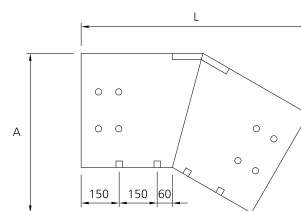
| PART NO                 | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION         |
|-------------------------|-------------|-------------|------------|---------------------|
| ITLSH-IVB-45-300R-150-N | 45          | 300         | 150        | Non Perforated Rung |
| ITLSH-IVB-45-300R-200-N | 45          | 300         | 200        | Non Perforated Rung |
| ITLSH-IVB-45-300R-300-N | 45          | 300         | 300        | Non Perforated Rung |
| ITLSH-IVB-45-300R-450-N | 45          | 300         | 450        | Non Perforated Rung |
| ITLSH-IVB-45-300R-600-N | 45          | 300         | 600        | Non Perforated Rung |
| ITLSH-IVB-45-300R-750-N | 45          | 300         | 750        | Non Perforated Rung |
| ITLSH-IVB-45-300R-900-N | 45          | 300         | 900        | Non Perforated Rung |
| ITLSH-IVB-30-300R-150-N | 30          | 300         | 150        | Non Perforated Rung |
| ITLSH-IVB-30-300R-200-N | 30          | 300         | 200        | Non Perforated Rung |
| ITLSH-IVB-30-300R-300-N | 30          | 300         | 300        | Non Perforated Rung |
| ITLSH-IVB-30-300R-450-N | 30          | 300         | 450        | Non Perforated Rung |
| ITLSH-IVB-30-300R-600-N | 30          | 300         | 600        | Non Perforated Rung |
| ITLSH-IVB-30-300R-750-N | 30          | 300         | 750        | Non Perforated Rung |
| ITLSH-IVB-30-300R-900-N | 30          | 300         | 900        | Non Perforated Rung |



## Cable Ladder - LSH Series



90° OUTSIDE VERTICAL BEND  
(90° OVE)



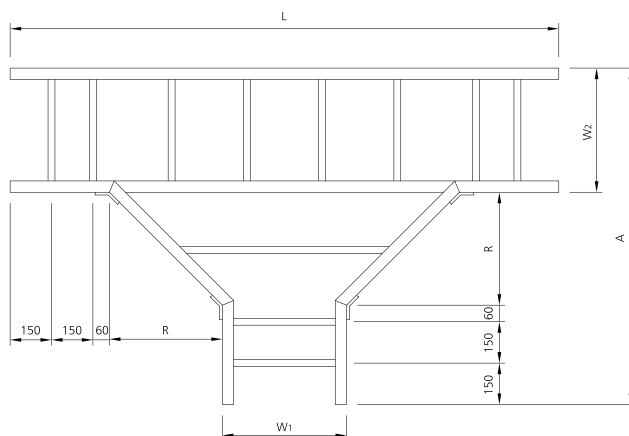
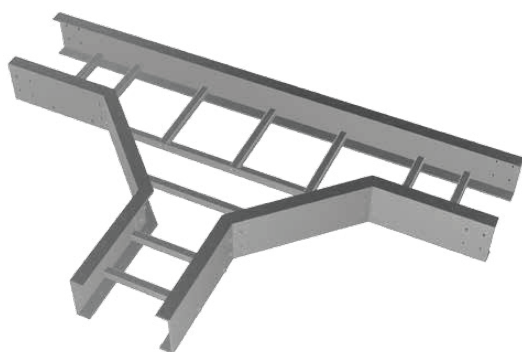
30°/45° OUTSIDE VERTICAL BEND  
(30°/45° OVE)

### LSH Series-Outside Vertical Bend

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLSH-OVB-90-900R-150-P**

| PART NO                 | ANGLE<br>(deg) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION         |
|-------------------------|----------------|----------------|---------------|---------------------|
| ITLSH-OVB-90-300R-150-N | 90             | 300            | 150           | Non Perforated Rung |
| ITLSH-OVB-90-300R-200-N | 90             | 300            | 200           | Non Perforated Rung |
| ITLSH-OVB-90-300R-300-N | 90             | 300            | 300           | Non Perforated Rung |
| ITLSH-OVB-90-300R-450-N | 90             | 300            | 450           | Non Perforated Rung |
| ITLSH-OVB-90-300R-600-N | 90             | 300            | 600           | Non Perforated Rung |
| ITLSH-OVB-90-300R-750-N | 90             | 300            | 750           | Non Perforated Rung |
| ITLSH-OVB-90-300R-900-N | 90             | 300            | 900           | Non Perforated Rung |
| ITLSH-OVB-60-300R-150-N | 60             | 300            | 150           | Non Perforated Rung |
| ITLSH-OVB-60-300R-200-N | 60             | 300            | 200           | Non Perforated Rung |
| ITLSH-OVB-60-300R-300-N | 60             | 300            | 300           | Non Perforated Rung |
| ITLSH-OVB-60-300R-450-N | 60             | 300            | 450           | Non Perforated Rung |
| ITLSH-OVB-60-300R-600-N | 60             | 300            | 600           | Non Perforated Rung |
| ITLSH-OVB-60-300R-750-N | 60             | 300            | 750           | Non Perforated Rung |
| ITLSH-OVB-60-300R-900-N | 60             | 300            | 900           | Non Perforated Rung |

| PART NO                 | ANGLE<br>(deg) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION         |
|-------------------------|----------------|----------------|---------------|---------------------|
| ITLSH-OVB-45-300R-150-N | 45             | 300            | 150           | Non Perforated Rung |
| ITLSH-OVB-45-300R-200-N | 45             | 300            | 200           | Non Perforated Rung |
| ITLSH-OVB-45-300R-300-N | 45             | 300            | 300           | Non Perforated Rung |
| ITLSH-OVB-45-300R-450-N | 45             | 300            | 450           | Non Perforated Rung |
| ITLSH-OVB-45-300R-600-N | 45             | 300            | 600           | Non Perforated Rung |
| ITLSH-OVB-45-300R-750-N | 45             | 300            | 750           | Non Perforated Rung |
| ITLSH-OVB-45-300R-900-N | 45             | 300            | 900           | Non Perforated Rung |
| ITLSH-OVB-30-300R-150-N | 30             | 300            | 150           | Non Perforated Rung |
| ITLSH-OVB-30-300R-200-N | 30             | 300            | 200           | Non Perforated Rung |
| ITLSH-OVB-30-300R-300-N | 30             | 300            | 300           | Non Perforated Rung |
| ITLSH-OVB-30-300R-450-N | 30             | 300            | 450           | Non Perforated Rung |
| ITLSH-OVB-30-300R-600-N | 30             | 300            | 600           | Non Perforated Rung |
| ITLSH-OVB-30-300R-750-N | 30             | 300            | 700           | Non Perforated Rung |
| ITLSH-OVB-30-300R-900-N | 30             | 300            | 900           | Non Perforated Rung |



HORIZONTAL EQUAL TEE  
(HT)

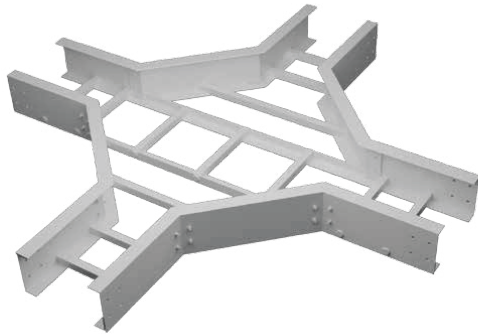
### LSH Series-Horizontal Tee

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLH-HT-900R-150-P**

| PART NO             | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION         |
|---------------------|----------------|---------------|---------------------|
| ITLSH-HT-300R-150-N | 300            | 150           | Non Perforated Rung |
| ITLSH-HT-300R-200-N | 300            | 200           | Non Perforated Rung |
| ITLSH-HT-300R-300-N | 300            | 300           | Non Perforated Rung |
| ITLSH-HT-300R-450-N | 300            | 450           | Non Perforated Rung |
| ITLSH-HT-300R-600-N | 300            | 600           | Non Perforated Rung |
| ITLSH-HT-300R-750-N | 300            | 750           | Non Perforated Rung |
| ITLSH-HT-300R-900-N | 300            | 900           | Non Perforated Rung |



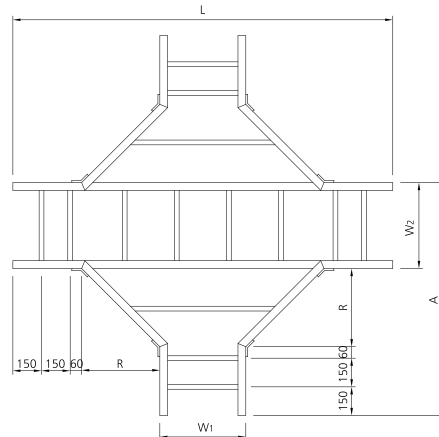
## Cable Ladder - LSH Series



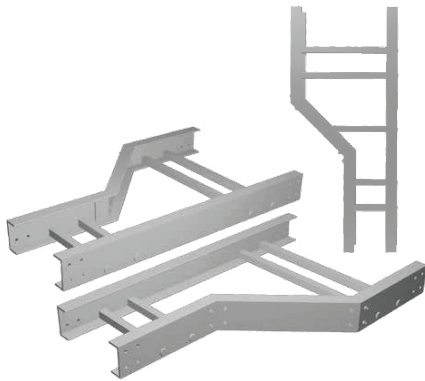
### LSH Series-Horizontal Cross

Fittings are available for R300, R450, R600, R900  
Fittings are available for -P (Perforated Rung).  
For instance, **ITLSH-HEC-900R-150-P**

| PART NO              | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION         |
|----------------------|----------------|---------------|---------------------|
| ITLSH-HEC-300R-150-N | 300            | 150           | Non Perforated Rung |
| ITLSH-HEC-300R-200-N | 300            | 200           | Non Perforated Rung |
| ITLSH-HEC-300R-300-N | 300            | 300           | Non Perforated Rung |
| ITLSH-HEC-300R-450-N | 300            | 450           | Non Perforated Rung |
| ITLSH-HEC-300R-600-N | 300            | 600           | Non Perforated Rung |
| ITLSH-HEC-300R-750-N | 300            | 750           | Non Perforated Rung |
| ITLSH-HEC-300R-900-N | 300            | 900           | Non Perforated Rung |



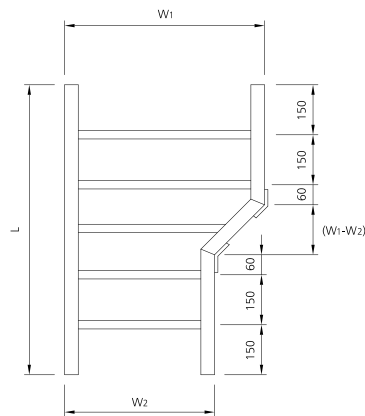
HORIZONTAL EQUAL CROSS  
(HC)



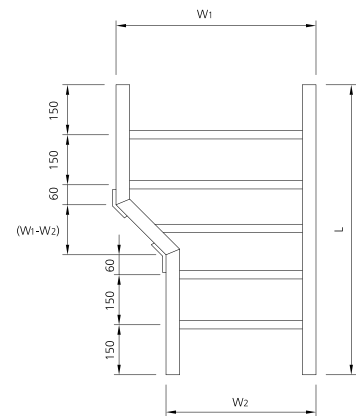
### LSH Series-Left/Right Hand Reducer

Fittings are available for -P (Perforated Rung).  
For instance, **ITLSH-RHR-900-750-P**

| PART NO             | WIDTH<br>(mm) | PERFORATION         |
|---------------------|---------------|---------------------|
| ITLSH-RHR-900-750-N | 900 - 750     | Non Perforated Rung |
| ITLSH-RHR-900-600-N | 900 - 600     | Non Perforated Rung |
| ITLSH-RHR-900-450-N | 900 - 450     | Non Perforated Rung |
| ITLSH-RHR-900-300-N | 900 - 300     | Non Perforated Rung |
| ITLSH-RHR-900-150-N | 900 - 150     | Non Perforated Rung |
| ITLSH-RHR-750-600-N | 750 - 600     | Non Perforated Rung |
| ITLSH-RHR-750-450-N | 750 - 450     | Non Perforated Rung |
| ITLSH-RHR-750-300-N | 750 - 300     | Non Perforated Rung |
| ITLSH-RHR-750-150-N | 750 - 150     | Non Perforated Rung |
| ITLSH-RHR-600-450-N | 600 - 450     | Non Perforated Rung |
| ITLSH-RHR-600-300-N | 600 - 300     | Non Perforated Rung |
| ITLSH-RHR-600-150-N | 600 - 150     | Non Perforated Rung |
| ITLSH-RHR-450-300-N | 450 - 300     | Non Perforated Rung |
| ITLSH-RHR-450-150-N | 450 - 150     | Non Perforated Rung |
| ITLSH-RHR-300-150-N | 300 - 150     | Non Perforated Rung |



RIGHT HAND REDUCER  
(RHR)



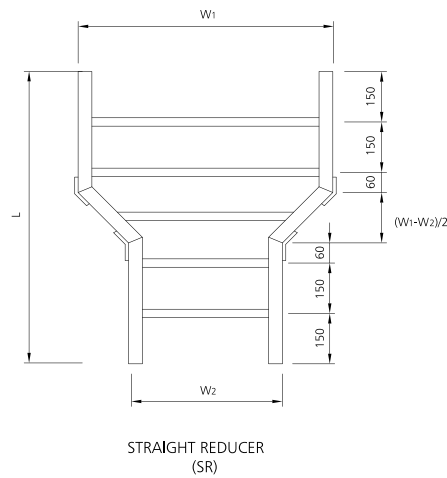
LEFT HAND REDUCER  
(LHR)

Fittings are available for -P (Perforated Rung).  
For instance, **ITLSH-LHR-900-750-P**

| PART NO             | WIDTH<br>(mm) | PERFORATION         |
|---------------------|---------------|---------------------|
| ITLSH-LHR-900-750-N | 900 - 750     | Non Perforated Rung |
| ITLSH-LHR-900-600-N | 900 - 600     | Non Perforated Rung |
| ITLSH-LHR-900-450-N | 900 - 450     | Non Perforated Rung |
| ITLSH-LHR-900-300-N | 900 - 300     | Non Perforated Rung |
| ITLSH-LHR-900-150-N | 900 - 150     | Non Perforated Rung |
| ITLSH-LHR-750-600-N | 750 - 600     | Non Perforated Rung |
| ITLSH-LHR-750-450-N | 750 - 450     | Non Perforated Rung |
| ITLSH-LHR-750-300-N | 750 - 300     | Non Perforated Rung |
| ITLSH-LHR-750-150-N | 750 - 150     | Non Perforated Rung |
| ITLSH-LHR-600-450-N | 600 - 450     | Non Perforated Rung |
| ITLSH-LHR-600-300-N | 600 - 300     | Non Perforated Rung |
| ITLSH-LHR-600-150-N | 600 - 150     | Non Perforated Rung |
| ITLSH-LHR-450-300-N | 450 - 300     | Non Perforated Rung |
| ITLSH-LHR-450-150-N | 450 - 150     | Non Perforated Rung |
| ITLSH-LHR-300-150-N | 300 - 150     | Non Perforated Rung |



## Cable Ladder - LSH Series

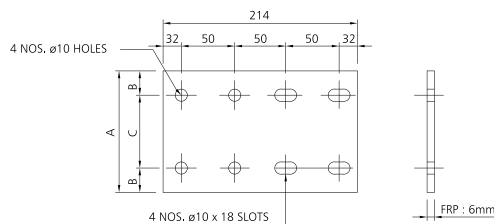
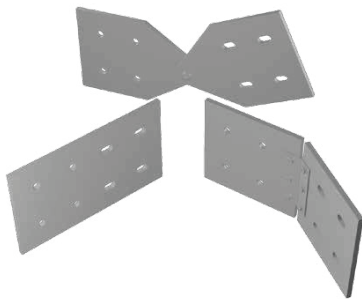


STRAIGHT REDUCER (SR)

LSH Series-Straight Reducer

Fittings are available for -P (Perforated Rung).  
For instance, **ITLSH-SR-900-750-P**

| PART NO            | WIDTH (mm) | PERFORATION         |
|--------------------|------------|---------------------|
| ITLSH-SR-900-750-N | 900 - 750  | Non Perforated Rung |
| ITLSH-SR-900-600-N | 900 - 600  | Non Perforated Rung |
| ITLSH-SR-900-450-N | 900 - 450  | Non Perforated Rung |
| ITLSH-SR-900-300-N | 900 - 300  | Non Perforated Rung |
| ITLSH-SR-900-150-N | 900 - 150  | Non Perforated Rung |
| ITLSH-SR-750-600-N | 750 - 600  | Non Perforated Rung |
| ITLSH-SR-750-450-N | 750 - 450  | Non Perforated Rung |
| ITLSH-SR-750-300-N | 750 - 300  | Non Perforated Rung |
| ITLSH-SR-750-150-N | 750 - 150  | Non Perforated Rung |
| ITLSH-SR-600-450-N | 600 - 450  | Non Perforated Rung |
| ITLSH-SR-600-300-N | 600 - 300  | Non Perforated Rung |
| ITLSH-SR-600-150-N | 600 - 150  | Non Perforated Rung |
| ITLSH-SR-450-300-N | 450 - 300  | Non Perforated Rung |
| ITLSH-SR-450-150-N | 450 - 150  | Non Perforated Rung |
| ITLSH-SR-300-150-N | 300 - 150  | Non Perforated Rung |

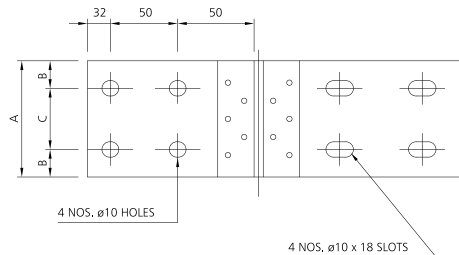


LH-EXPANSION SPLICE PLATE (ESP)

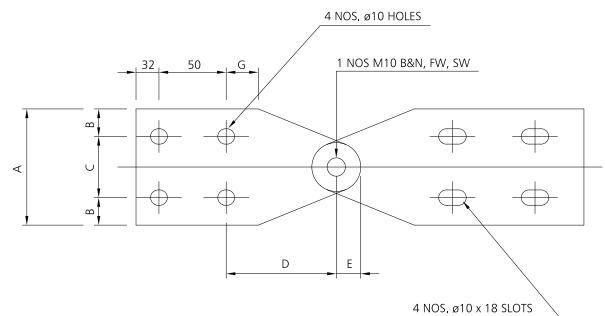
| PART NUMBER                      | ITEM DESCRIPTION                                                                         |
|----------------------------------|------------------------------------------------------------------------------------------|
| ITLSH-ESP-FRP<br>SET-BN PH M8X25 | LSH Cable Ladder FRP<br>Expansion Splice Plate<br>SS316 Pan Head<br>M8 x 25 B&N, SW & FW |

Expansion splice plates are available for SS316 type.  
For instance **ITLSH-ESP-SS**

LSH Series-Splice Plate



HORIZONTAL ADJUSTABLE SPLICE PLATE (HESP)



VERTICAL ADJUSTABLE SPLICE PLATE (VESP)

| PART NUMBER                       | ITEM DESCRIPTION                                                                               |
|-----------------------------------|------------------------------------------------------------------------------------------------|
| ITLSH-HASP-FRP<br>SET-BN PH M8X25 | LSH Cable Ladder FRP Horizontal Adjustable Splice Plate<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

Horizontal adjustable splice plates are available for SS316 type.  
For instance **ITLSH-HASP-SS**

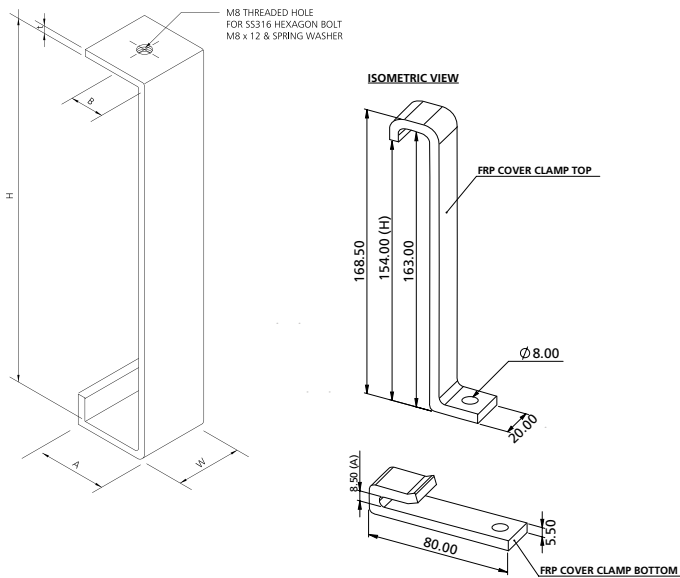
| PART NUMBER                       | ITEM DESCRIPTION                                                                             |
|-----------------------------------|----------------------------------------------------------------------------------------------|
| ITLSH-VASP-FRP<br>SET-BN PH M8X25 | LSH Cable Ladder FRP Vertical Adjustable Splice Plate<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

Vertical adjustable splice plates are available for SS316 type.  
For instance **ITLSH-VASP-SS**



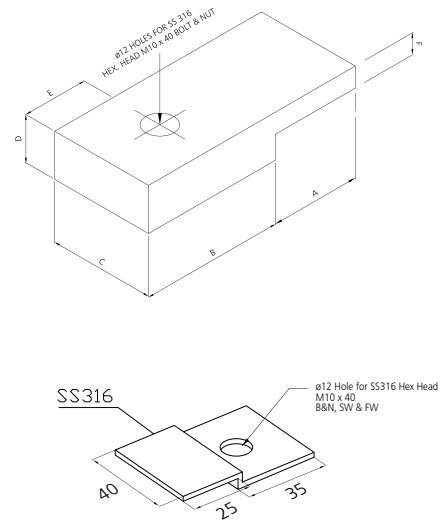
## Cable Ladder - LSH Series

### LSH Series-Cover Clamp



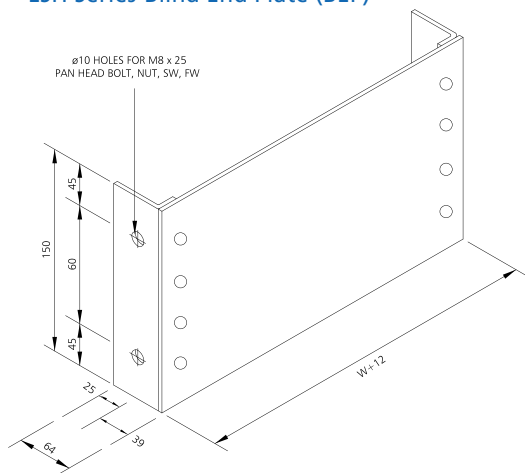
| PART NUMBER                     | ITEM DESCRIPTION                                                        |
|---------------------------------|-------------------------------------------------------------------------|
| ITLSH-CC-SS<br>SET-BN HH M8X12  | LSH Cable Ladder SS316 Cover Clamp<br>SS316 Hex Head M8 x 12 Bolt & SW  |
| ITLSH-CC-FRP<br>SET-BN PH M8X25 | LSH Cable Ladder FRP Cover Clamp<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

### LSH Series-Hold Down Clamp - ITLSH-HDC-FRP & ITLSH-ZHDC-SS



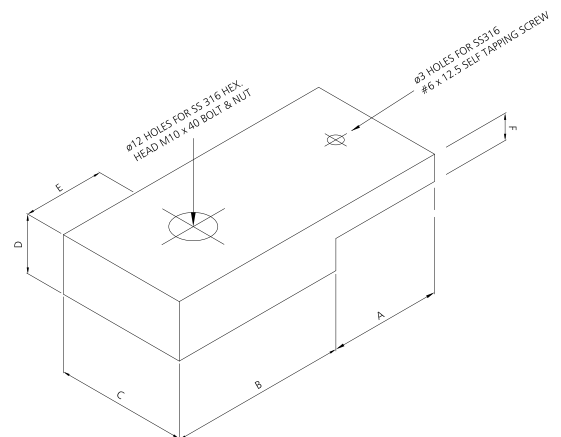
| PART NUMBER                                        | ITEM DESCRIPTION                                                                                                         |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| ITLSH-HDC-FRP<br>ITLSH-ZHDC-SS<br>SET-BN HH M10X40 | LSH Cable Ladder FRP Hold Down Clamp<br>LSH Cable Ladder SS316 Z Hold Down Clamp<br>SS316 Hex Head M10 x 40 B&N, SW & FW |

### LSH Series-Blind End Plate (BEP)



| PART NUMBER                      | ITEM DESCRIPTION                                                                 |
|----------------------------------|----------------------------------------------------------------------------------|
| ITLSH-BEP-150<br>SET-BN PH M8X25 | LSH Cable Ladder FRP Blind End Plate 150W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLSH-BEP-200<br>SET-BN PH M8X25 | LSH Cable Ladder FRP Blind End Plate 200W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLSH-BEP-300<br>SET-BN PH M8X25 | LSH Cable Ladder FRP Blind End Plate 300W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLSH-BEP-450<br>SET-BN PH M8X25 | LSH Cable Ladder FRP Blind End Plate 450W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLSH-BEP-600<br>SET-BN PH M8X25 | LSH Cable Ladder FRP Blind End Plate 600W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLSH-BEP-750<br>SET-BN PH M8X25 | LSH Cable Ladder FRP Blind End Plate 750W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |
| ITLSH-BEP-900<br>SET-BN PH M8X25 | LSH Cable Ladder FRP Blind End Plate 900W<br>SS316 Pan Head M8 x 25 B&N, SW & FW |

### LSH Series-Vertical Fixing Clamp (VFC)

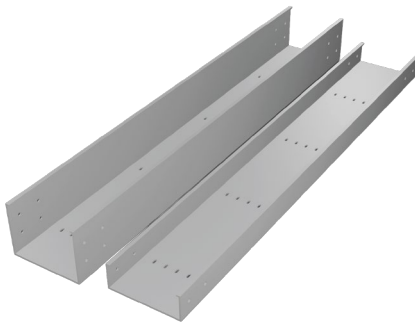


| PART NUMBER                              | ITEM DESCRIPTION                                                                                               |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| ITLSH-VFC-FRP<br>SET-BN HH M10X40<br>STS | LSH Cable Ladder FRP Vertical Fixing Clamp<br>SS316 Hex Head M10 x 40 B&N, SW & FW<br>SS316 Self Tapping Screw |

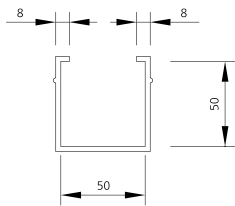
Vertical fixing clamps are available for SS316 type. For instance **ITLSH-VFC-SS**



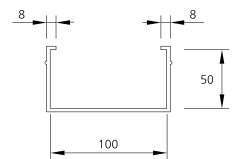
## Cable Tray



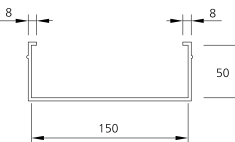
Cable Tray Pultruded Type,  
"C" Shape



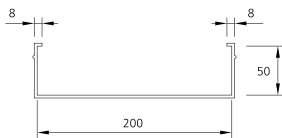
SECTION A-A



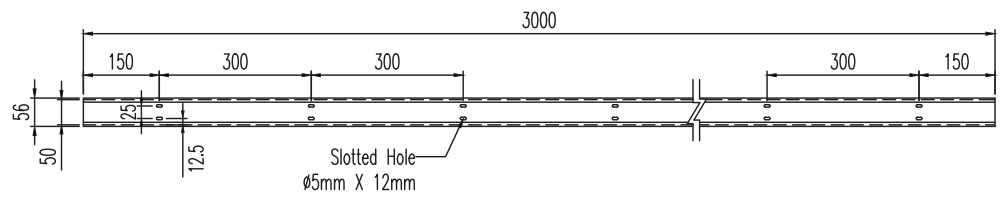
SECTION A-A



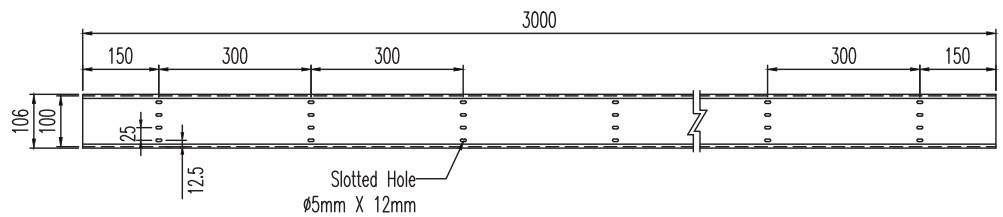
SECTION A-A



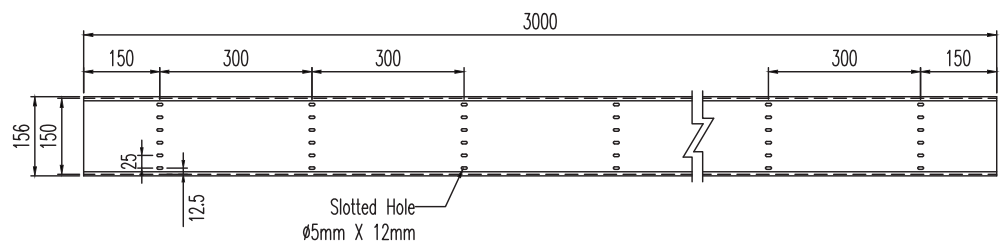
SECTION A-A



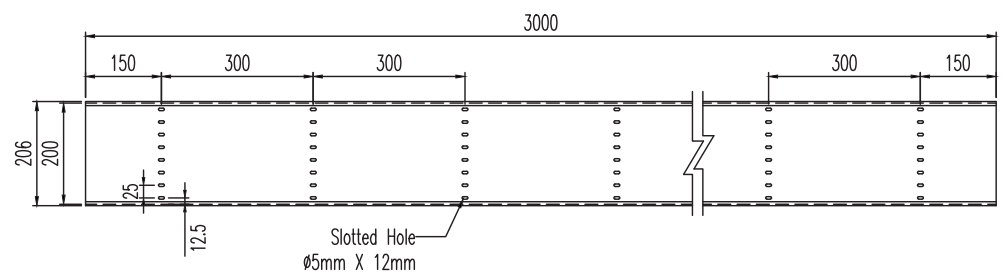
TP 050 50 C-STRAIGHT RUN



TP 100 50 C-STRAIGHT RUN



TP 150 50 C-STRAIGHT RUN



TP 200 50 C-STRAIGHT RUN

Straight Sections are available for Non-Perforated Bottom (-N)  
For instance, **ITCT50-SS-50-N**

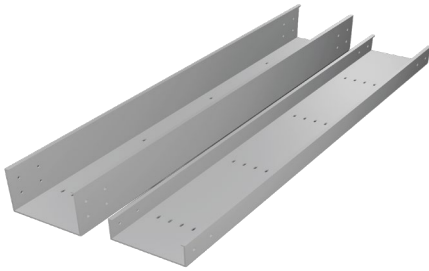
\* Thickness of Cable Tray = 3mm

| PART NO         | HEIGHT<br>(mm) | WIDTH<br>(mm) | PERFORATION       |
|-----------------|----------------|---------------|-------------------|
| ITCT50-SS-50-P  | 50             | 50            | Perforated Bottom |
| ITCT50-SS-75-P  | 50             | 75            | Perforated Bottom |
| ITCT50-SS-100-P | 50             | 100           | Perforated Bottom |
| ITCT50-SS-150-P | 50             | 150           | Perforated Bottom |
| ITCT50-SS-200-P | 50             | 200           | Perforated Bottom |
| ITCT50-SS-300-P | 50             | 300           | Perforated Bottom |

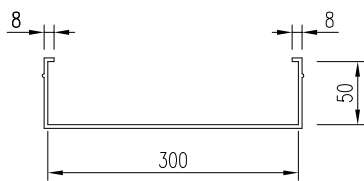
| PART NO          | HEIGHT<br>(mm) | WIDTH<br>(mm) | PERFORATION       |
|------------------|----------------|---------------|-------------------|
| ITCT50-SS-400-P  | 50             | 400           | Perforated Bottom |
| ITCT110-SS-150-P | 110            | 150           | Perforated Bottom |
| ITCT110-SS-200-P | 110            | 200           | Perforated Bottom |
| ITCT110-SS-300-P | 110            | 300           | Perforated Bottom |
| ITCT110-SS-450-P | 110            | 450           | Perforated Bottom |
| ITCT110-SS-600-P | 110            | 600           | Perforated Bottom |



## Cable Tray

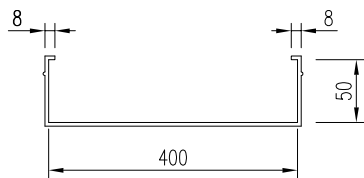
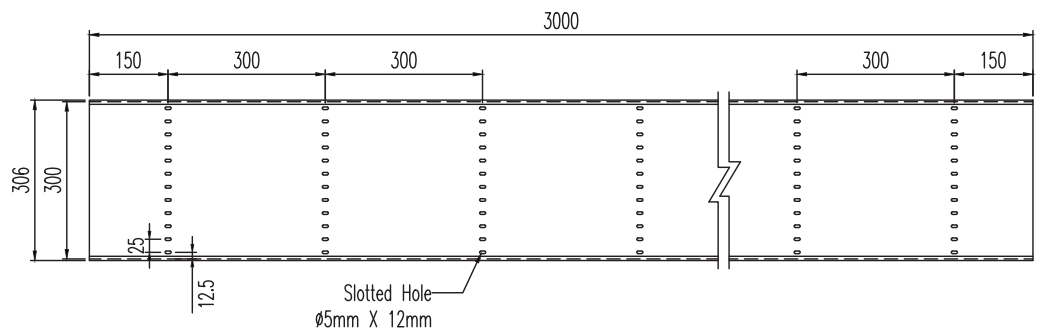


Cable Tray Pultruded Type,  
"C" Shape



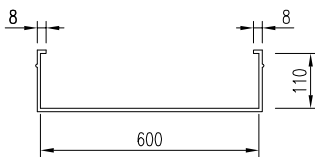
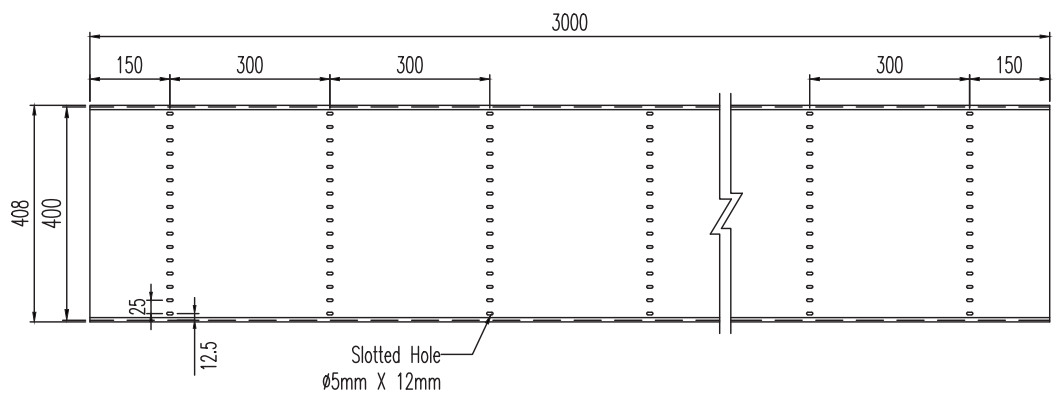
SECTION A-A

TP 300 50 C-STRAIGHT RUN



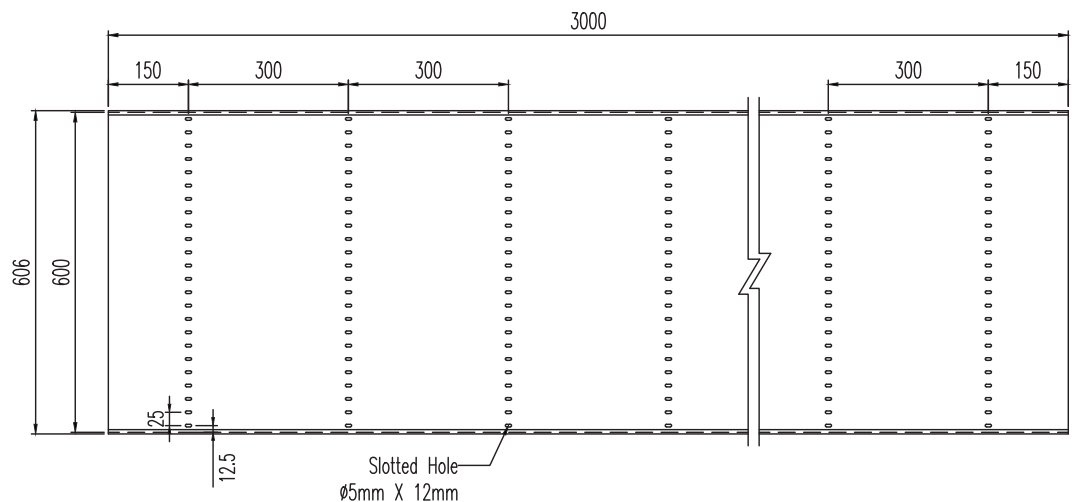
SECTION A-A

TP 400 50 C-STRAIGHT RUN



SECTION A-A

TP 600 110 C-STRAIGHT RUN

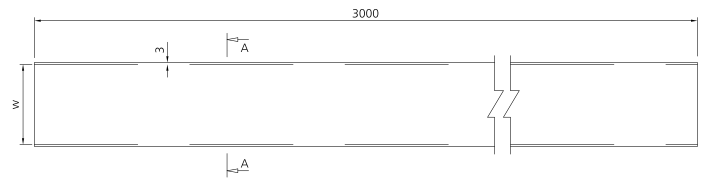
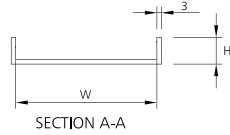




## Cable Tray



Cable Tray-C Series & U Series-Cover

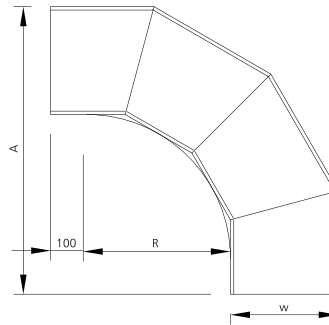


For instance, ITCT-SS-50-C-V

Covers are available for Ventilated (-V) option  
For instance, ITCT-SS-50-C-V

| PART NO         | WIDTH (mm) | VENTILATION          |
|-----------------|------------|----------------------|
| ITCT-SS-50-C-N  | 50         | Non-Ventilated Cover |
| ITCT-SS-75-C-N  | 75         | Non-Ventilated Cover |
| ITCT-SS-100-C-N | 100        | Non-Ventilated Cover |
| ITCT-SS-150-C-N | 150        | Non-Ventilated Cover |

| PART NO         | WIDTH (mm) | VENTILATION          |
|-----------------|------------|----------------------|
| ITCT-SS-200-C-N | 200        | Non-Ventilated Cover |
| ITCT-SS-300-C-N | 300        | Non-Ventilated Cover |
| ITCT-SS-400-C-N | 400        | Non-Ventilated Cover |
| ITCT-SS-450-C-N | 450        | Non-Ventilated Cover |
| ITCT-SS-600-C-N | 600        | Non-Ventilated Cover |



## Cable Tray-Horizontal Bend

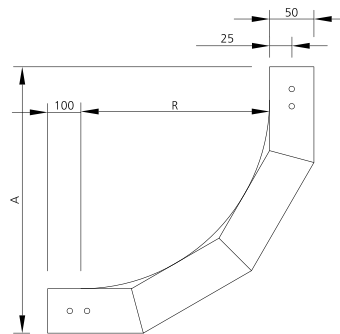
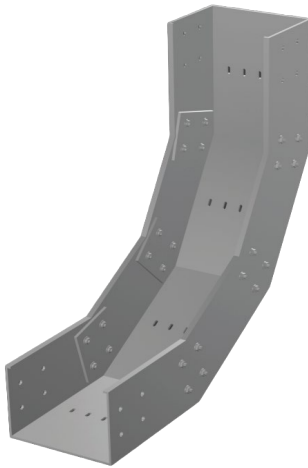
Fittings are available for R300, R450, R600  
Fittings are available for Non-Perforated Bottom (-N)  
For instance, ITCT50-HB-90-600R-50-N

| PART NO                 | HEIGHT (mm) | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION       |
|-------------------------|-------------|-------------|-------------|------------|-------------------|
| ITCT50-HB-90-300R-50-P  | 50          | 90          | 300         | 50         | Perforated Bottom |
| ITCT50-HB-90-300R-75-P  | 50          | 90          | 300         | 75         | Perforated Bottom |
| ITCT50-HB-90-300R-100-P | 50          | 90          | 300         | 100        | Perforated Bottom |
| ITCT50-HB-90-300R-150-P | 50          | 90          | 300         | 150        | Perforated Bottom |
| ITCT50-HB-90-300R-200-P | 50          | 90          | 300         | 200        | Perforated Bottom |
| ITCT50-HB-90-300R-300-P | 50          | 90          | 300         | 300        | Perforated Bottom |
| ITCT50-HB-90-300R-400-P | 50          | 90          | 300         | 400        | Perforated Bottom |
| ITCT50-HB-60-300R-50-P  | 50          | 60          | 300         | 50         | Perforated Bottom |
| ITCT50-HB-60-300R-75-P  | 50          | 60          | 300         | 75         | Perforated Bottom |
| ITCT50-HB-60-300R-100-P | 50          | 60          | 300         | 100        | Perforated Bottom |
| ITCT50-HB-60-300R-150-P | 50          | 60          | 300         | 150        | Perforated Bottom |
| ITCT50-HB-60-300R-200-P | 50          | 60          | 300         | 200        | Perforated Bottom |
| ITCT50-HB-60-300R-300-P | 50          | 60          | 300         | 300        | Perforated Bottom |
| ITCT50-HB-60-300R-400-P | 50          | 60          | 300         | 400        | Perforated Bottom |
| ITCT50-HB-45-300R-50-P  | 50          | 45          | 300         | 50         | Perforated Bottom |
| ITCT50-HB-45-300R-75-P  | 50          | 45          | 300         | 75         | Perforated Bottom |
| ITCT50-HB-45-300R-100-P | 50          | 45          | 300         | 100        | Perforated Bottom |
| ITCT50-HB-45-300R-150-P | 50          | 45          | 300         | 150        | Perforated Bottom |
| ITCT50-HB-45-300R-200-P | 50          | 45          | 300         | 200        | Perforated Bottom |
| ITCT50-HB-45-300R-300-P | 50          | 45          | 300         | 300        | Perforated Bottom |
| ITCT50-HB-45-300R-400-P | 50          | 45          | 300         | 400        | Perforated Bottom |
| ITCT50-HB-30-300R-50-P  | 50          | 30          | 300         | 50         | Perforated Bottom |
| ITCT50-HB-30-300R-75-P  | 50          | 30          | 300         | 75         | Perforated Bottom |
| ITCT50-HB-30-300R-100-P | 50          | 30          | 300         | 100        | Perforated Bottom |

| PART NO                  | HEIGHT (mm) | ANGLE (deg) | RADIUS (mm) | WIDTH (mm) | PERFORATION       |
|--------------------------|-------------|-------------|-------------|------------|-------------------|
| ITCT50-HB-30-300R-150-P  | 50          | 30          | 300         | 150        | Perforated Bottom |
| ITCT50-HB-30-300R-200-P  | 50          | 30          | 300         | 200        | Perforated Bottom |
| ITCT50-HB-30-300R-300-P  | 50          | 30          | 300         | 300        | Perforated Bottom |
| ITCT50-HB-30-300R-400-P  | 50          | 30          | 300         | 400        | Perforated Bottom |
| ITCT110-HB-90-300R-150-P | 110         | 90          | 300         | 150        | Perforated Bottom |
| ITCT110-HB-90-300R-200-P | 110         | 90          | 300         | 200        | Perforated Bottom |
| ITCT110-HB-90-300R-300-P | 110         | 90          | 300         | 300        | Perforated Bottom |
| ITCT110-HB-90-300R-450-P | 110         | 90          | 300         | 450        | Perforated Bottom |
| ITCT110-HB-90-300R-600-P | 110         | 90          | 300         | 600        | Perforated Bottom |
| ITCT110-HB-60-300R-150-P | 110         | 60          | 300         | 150        | Perforated Bottom |
| ITCT110-HB-60-300R-200-P | 110         | 60          | 300         | 200        | Perforated Bottom |
| ITCT110-HB-60-300R-300-P | 110         | 60          | 300         | 300        | Perforated Bottom |
| ITCT110-HB-60-300R-450-P | 110         | 60          | 300         | 450        | Perforated Bottom |
| ITCT110-HB-60-300R-600-P | 110         | 60          | 300         | 600        | Perforated Bottom |
| ITCT110-HB-45-300R-150-P | 110         | 45          | 300         | 150        | Perforated Bottom |
| ITCT110-HB-45-300R-200-P | 110         | 45          | 300         | 200        | Perforated Bottom |
| ITCT110-HB-45-300R-300-P | 110         | 45          | 300         | 300        | Perforated Bottom |
| ITCT110-HB-45-300R-450-P | 110         | 45          | 300         | 450        | Perforated Bottom |
| ITCT110-HB-45-300R-600-P | 110         | 45          | 300         | 600        | Perforated Bottom |
| ITCT110-HB-30-300R-150-P | 110         | 30          | 300         | 150        | Perforated Bottom |
| ITCT110-HB-30-300R-200-P | 110         | 30          | 300         | 200        | Perforated Bottom |
| ITCT110-HB-30-300R-300-P | 110         | 30          | 300         | 300        | Perforated Bottom |
| ITCT110-HB-30-300R-450-P | 110         | 30          | 300         | 450        | Perforated Bottom |
| ITCT110-HB-30-300R-600-P | 110         | 30          | 300         | 600        | Perforated Bottom |



## Cable Tray



### Cable Tray-Inside Vertical Bend

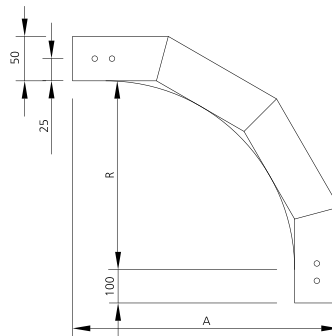
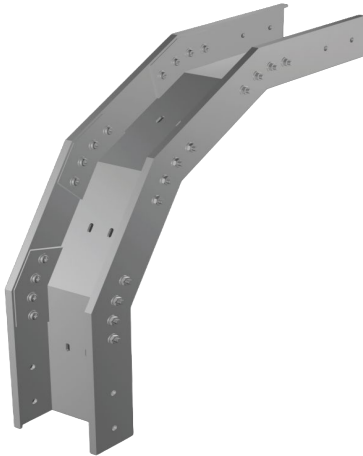
Fittings are available for R300, R450, R600  
Fittings are available for Non-Perforated Bottom (-N)  
For instance, **ITCT50-IVB-90-600R-50-N**

| PART NO                  | HEIGHT<br>(mm) | ANGLE<br>(deg) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION       |
|--------------------------|----------------|----------------|----------------|---------------|-------------------|
| ITCT50-IVB-90-300R-50-P  | 50             | 90             | 300            | 50            | Perforated Bottom |
| ITCT50-IVB-90-300R-75-P  | 50             | 90             | 300            | 75            | Perforated Bottom |
| ITCT50-IVB-90-300R-100-P | 50             | 90             | 300            | 100           | Perforated Bottom |
| ITCT50-IVB-90-300R-150-P | 50             | 90             | 300            | 150           | Perforated Bottom |
| ITCT50-IVB-90-300R-200-P | 50             | 90             | 300            | 200           | Perforated Bottom |
| ITCT50-IVB-90-300R-300-P | 50             | 90             | 300            | 300           | Perforated Bottom |
| ITCT50-IVB-90-300R-400-P | 50             | 90             | 300            | 400           | Perforated Bottom |
| ITCT50-IVB-60-300R-50-P  | 50             | 60             | 300            | 50            | Perforated Bottom |
| ITCT50-IVB-60-300R-75-P  | 50             | 60             | 300            | 75            | Perforated Bottom |
| ITCT50-IVB-60-300R-100-P | 50             | 60             | 300            | 100           | Perforated Bottom |
| ITCT50-IVB-60-300R-150-P | 50             | 60             | 300            | 150           | Perforated Bottom |
| ITCT50-IVB-60-300R-200-P | 50             | 60             | 300            | 200           | Perforated Bottom |
| ITCT50-IVB-60-300R-300-P | 50             | 60             | 300            | 300           | Perforated Bottom |
| ITCT50-IVB-60-300R-400-P | 50             | 60             | 300            | 400           | Perforated Bottom |
| ITCT50-IVB-45-300R-50-P  | 50             | 45             | 300            | 50            | Perforated Bottom |
| ITCT50-IVB-45-300R-75-P  | 50             | 45             | 300            | 75            | Perforated Bottom |
| ITCT50-IVB-45-300R-100-P | 50             | 45             | 300            | 100           | Perforated Bottom |
| ITCT50-IVB-45-300R-150-P | 50             | 45             | 300            | 150           | Perforated Bottom |
| ITCT50-IVB-45-300R-200-P | 50             | 45             | 300            | 200           | Perforated Bottom |
| ITCT50-IVB-45-300R-300-P | 50             | 45             | 300            | 300           | Perforated Bottom |
| ITCT50-IVB-45-300R-400-P | 50             | 45             | 300            | 400           | Perforated Bottom |
| ITCT50-IVB-30-300R-50-P  | 50             | 30             | 300            | 50            | Perforated Bottom |
| ITCT50-IVB-30-300R-75-P  | 50             | 30             | 300            | 75            | Perforated Bottom |
| ITCT50-IVB-30-300R-100-P | 50             | 30             | 300            | 100           | Perforated Bottom |

| PART NO                   | HEIGHT<br>(mm) | ANGLE<br>(deg) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION       |
|---------------------------|----------------|----------------|----------------|---------------|-------------------|
| ITCT50-IVB-30-300R-150-P  | 50             | 30             | 300            | 150           | Perforated Bottom |
| ITCT50-IVB-30-300R-200-P  | 50             | 30             | 300            | 200           | Perforated Bottom |
| ITCT50-IVB-30-300R-300-P  | 50             | 30             | 300            | 300           | Perforated Bottom |
| ITCT50-IVB-30-300R-400-P  | 50             | 30             | 300            | 400           | Perforated Bottom |
| ITCT110-IVB-90-300R-150-P | 110            | 90             | 300            | 150           | Perforated Bottom |
| ITCT110-IVB-90-300R-200-P | 110            | 90             | 300            | 200           | Perforated Bottom |
| ITCT110-IVB-90-300R-300-P | 110            | 90             | 300            | 300           | Perforated Bottom |
| ITCT110-IVB-90-300R-450-P | 110            | 90             | 300            | 450           | Perforated Bottom |
| ITCT110-IVB-90-300R-600-P | 110            | 90             | 300            | 600           | Perforated Bottom |
| ITCT110-IVB-60-300R-150-P | 110            | 60             | 300            | 150           | Perforated Bottom |
| ITCT110-IVB-60-300R-200-P | 110            | 60             | 300            | 200           | Perforated Bottom |
| ITCT110-IVB-60-300R-300-P | 110            | 60             | 300            | 300           | Perforated Bottom |
| ITCT110-IVB-60-300R-450-P | 110            | 60             | 300            | 450           | Perforated Bottom |
| ITCT110-IVB-60-300R-600-P | 110            | 60             | 300            | 600           | Perforated Bottom |
| ITCT110-IVB-45-300R-150-P | 110            | 45             | 300            | 150           | Perforated Bottom |
| ITCT110-IVB-45-300R-200-P | 110            | 45             | 300            | 200           | Perforated Bottom |
| ITCT110-IVB-45-300R-300-P | 110            | 45             | 300            | 300           | Perforated Bottom |
| ITCT110-IVB-45-300R-450-P | 110            | 45             | 300            | 450           | Perforated Bottom |
| ITCT110-IVB-45-300R-600-P | 110            | 45             | 300            | 600           | Perforated Bottom |
| ITCT110-IVB-30-300R-150-P | 110            | 30             | 300            | 150           | Perforated Bottom |
| ITCT110-IVB-30-300R-200-P | 110            | 30             | 300            | 200           | Perforated Bottom |
| ITCT110-IVB-30-300R-300-P | 110            | 30             | 300            | 300           | Perforated Bottom |
| ITCT110-IVB-30-300R-450-P | 110            | 30             | 300            | 450           | Perforated Bottom |
| ITCT110-IVB-30-300R-600-P | 110            | 30             | 300            | 600           | Perforated Bottom |



## Cable Tray



### Cable Tray-Outside Vertical Bend

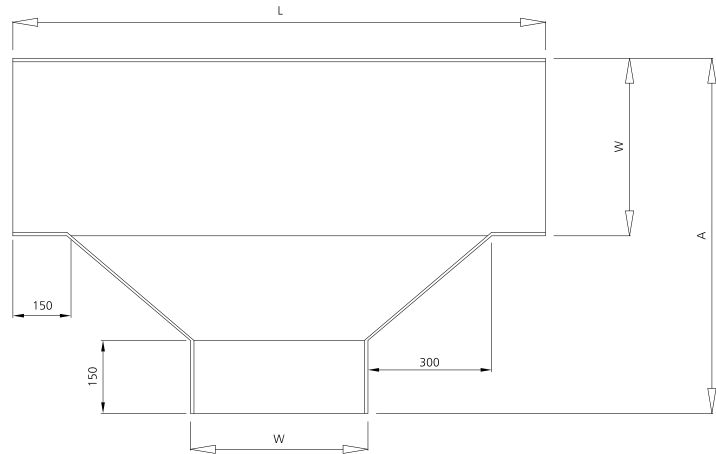
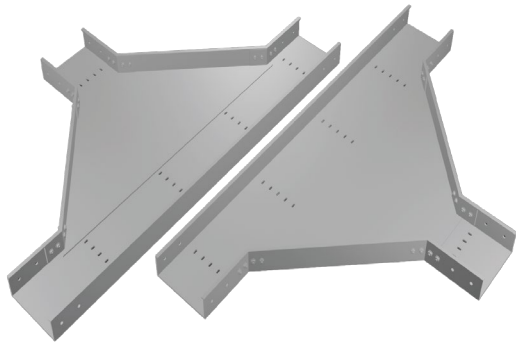
Fittings are available for R300, R450, R600  
Fittings are available for Non-Perforated Bottom (-N)  
For instance, **ITCT50-OVB-90-600R-50-N**

| PART NO                  | HEIGHT<br>(mm) | ANGLE<br>(deg) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION       |
|--------------------------|----------------|----------------|----------------|---------------|-------------------|
| ITCT50-OVB-90-300R-50-P  | 50             | 90             | 300            | 50            | Perforated Bottom |
| ITCT50-OVB-90-300R-75-P  | 50             | 90             | 300            | 75            | Perforated Bottom |
| ITCT50-OVB-90-300R-100-P | 50             | 90             | 300            | 100           | Perforated Bottom |
| ITCT50-OVB-90-300R-150-P | 50             | 90             | 300            | 150           | Perforated Bottom |
| ITCT50-OVB-90-300R-200-P | 50             | 90             | 300            | 200           | Perforated Bottom |
| ITCT50-OVB-90-300R-300-P | 50             | 90             | 300            | 300           | Perforated Bottom |
| ITCT50-OVB-90-300R-400-P | 50             | 90             | 300            | 400           | Perforated Bottom |
| ITCT50-OVB-60-300R-50-P  | 50             | 60             | 300            | 50            | Perforated Bottom |
| ITCT50-OVB-60-300R-75-P  | 50             | 60             | 300            | 75            | Perforated Bottom |
| ITCT50-OVB-60-300R-100-P | 50             | 60             | 300            | 100           | Perforated Bottom |
| ITCT50-OVB-60-300R-150-P | 50             | 60             | 300            | 150           | Perforated Bottom |
| ITCT50-OVB-60-300R-200-P | 50             | 60             | 300            | 200           | Perforated Bottom |
| ITCT50-OVB-60-300R-300-P | 50             | 60             | 300            | 300           | Perforated Bottom |
| ITCT50-OVB-60-300R-400-P | 50             | 60             | 300            | 400           | Perforated Bottom |
| ITCT50-OVB-45-300R-50-P  | 50             | 45             | 300            | 50            | Perforated Bottom |
| ITCT50-OVB-45-300R-75-P  | 50             | 45             | 300            | 75            | Perforated Bottom |
| ITCT50-OVB-45-300R-100-P | 50             | 45             | 300            | 100           | Perforated Bottom |
| ITCT50-OVB-45-300R-150-P | 50             | 45             | 300            | 150           | Perforated Bottom |
| ITCT50-OVB-45-300R-200-P | 50             | 45             | 300            | 200           | Perforated Bottom |
| ITCT50-OVB-45-300R-300-P | 50             | 45             | 300            | 300           | Perforated Bottom |
| ITCT50-OVB-45-300R-400-P | 50             | 45             | 300            | 400           | Perforated Bottom |
| ITCT50-OVB-30-300R-50-P  | 50             | 30             | 300            | 50            | Perforated Bottom |
| ITCT50-OVB-30-300R-75-P  | 50             | 30             | 300            | 75            | Perforated Bottom |
| ITCT50-OVB-30-300R-100-P | 50             | 30             | 300            | 100           | Perforated Bottom |

| PART NO                   | HEIGHT<br>(mm) | ANGLE<br>(deg) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION       |
|---------------------------|----------------|----------------|----------------|---------------|-------------------|
| ITCT50-OVB-30-300R-150-P  | 50             | 30             | 300            | 150           | Perforated Bottom |
| ITCT50-OVB-30-300R-200-P  | 50             | 30             | 300            | 200           | Perforated Bottom |
| ITCT50-OVB-30-300R-300-P  | 50             | 30             | 300            | 300           | Perforated Bottom |
| ITCT50-OVB-30-300R-400-P  | 50             | 30             | 300            | 400           | Perforated Bottom |
| ITCT110-OVB-90-300R-150-P | 110            | 90             | 300            | 150           | Perforated Bottom |
| ITCT110-OVB-90-300R-200-P | 110            | 90             | 300            | 200           | Perforated Bottom |
| ITCT110-OVB-90-300R-300-P | 110            | 90             | 300            | 300           | Perforated Bottom |
| ITCT110-OVB-90-300R-450-P | 110            | 90             | 300            | 450           | Perforated Bottom |
| ITCT110-OVB-90-300R-600-P | 110            | 90             | 300            | 600           | Perforated Bottom |
| ITCT110-OVB-60-300R-150-P | 110            | 60             | 300            | 150           | Perforated Bottom |
| ITCT110-OVB-60-300R-200-P | 110            | 60             | 300            | 200           | Perforated Bottom |
| ITCT110-OVB-60-300R-300-P | 110            | 60             | 300            | 300           | Perforated Bottom |
| ITCT110-OVB-60-300R-450-P | 110            | 60             | 300            | 450           | Perforated Bottom |
| ITCT110-OVB-60-300R-600-P | 110            | 60             | 300            | 600           | Perforated Bottom |
| ITCT110-OVB-45-300R-150-P | 110            | 45             | 300            | 150           | Perforated Bottom |
| ITCT110-OVB-45-300R-200-P | 110            | 45             | 300            | 200           | Perforated Bottom |
| ITCT110-OVB-45-300R-300-P | 110            | 45             | 300            | 300           | Perforated Bottom |
| ITCT110-OVB-45-300R-450-P | 110            | 45             | 300            | 450           | Perforated Bottom |
| ITCT110-OVB-45-300R-600-P | 110            | 45             | 300            | 600           | Perforated Bottom |
| ITCT110-OVB-30-300R-150-P | 110            | 30             | 300            | 150           | Perforated Bottom |
| ITCT110-OVB-30-300R-200-P | 110            | 30             | 300            | 200           | Perforated Bottom |
| ITCT110-OVB-30-300R-300-P | 110            | 30             | 300            | 300           | Perforated Bottom |
| ITCT110-OVB-30-300R-450-P | 110            | 30             | 300            | 450           | Perforated Bottom |
| ITCT110-OVB-30-300R-600-P | 110            | 30             | 300            | 600           | Perforated Bottom |



## Cable Tray



### Cable Tray-Horizontal Equal Tee

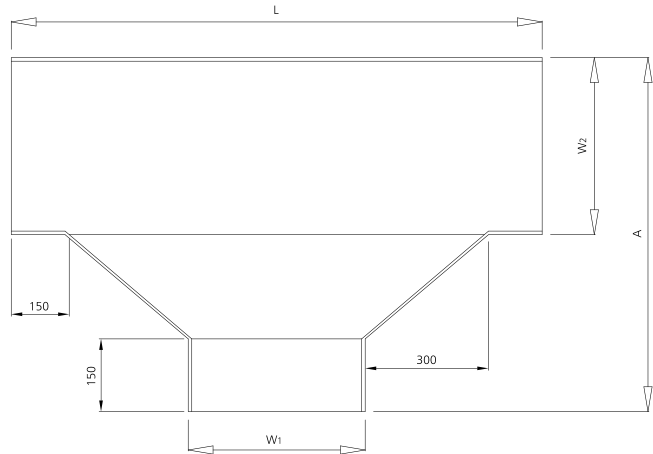
Fittings are available for R300, R450, R600  
Fittings are available for Non-Perforated Bottom (-N)  
For instance, **ITCT50-HT-600R-50-N**

| PART NO              | HEIGHT<br>(mm) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION       |
|----------------------|----------------|----------------|---------------|-------------------|
| ITCT50-HT-300R-50-P  | 50             | 300            | 50            | Perforated Bottom |
| ITCT50-HT-300R-75-P  | 50             | 300            | 75            | Perforated Bottom |
| ITCT50-HT-300R-100-P | 50             | 300            | 100           | Perforated Bottom |
| ITCT50-HT-300R-150-P | 50             | 300            | 150           | Perforated Bottom |
| ITCT50-HT-300R-200-P | 50             | 300            | 200           | Perforated Bottom |
| ITCT50-HT-300R-300-P | 50             | 300            | 300           | Perforated Bottom |

| PART NO               | HEIGHT<br>(mm) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION       |
|-----------------------|----------------|----------------|---------------|-------------------|
| ITCT50-HT-300R-400-P  | 50             | 300            | 400           | Perforated Bottom |
| ITCT110-HT-300R-150-P | 110            | 300            | 150           | Perforated Bottom |
| ITCT110-HT-300R-200-P | 110            | 300            | 200           | Perforated Bottom |
| ITCT110-HT-300R-300-P | 110            | 300            | 300           | Perforated Bottom |
| ITCT110-HT-300R-450-P | 110            | 300            | 450           | Perforated Bottom |
| ITCT110-HT-300R-600-P | 110            | 300            | 600           | Perforated Bottom |



## Cable Tray



### Cable Tray-Horizontal Unequal Tee

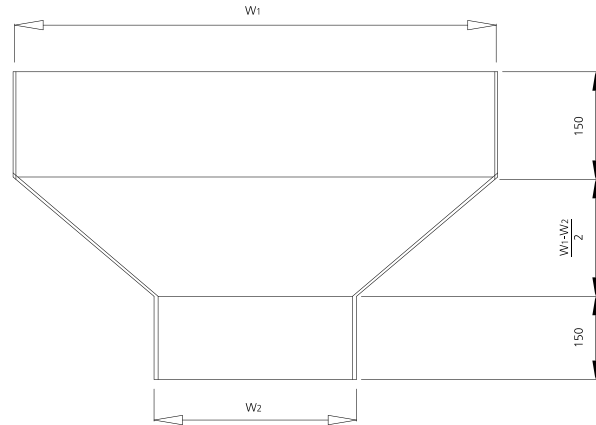
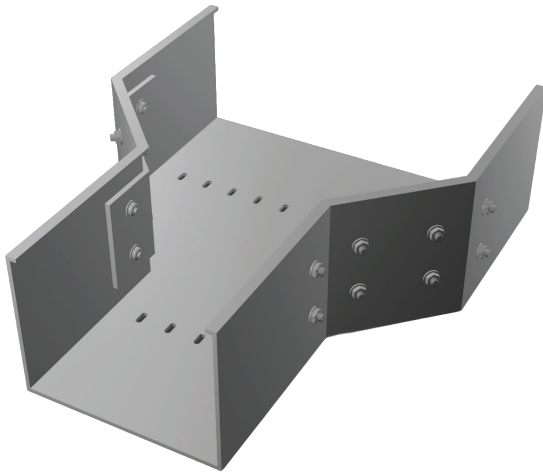
Fittings are available for R300, R450, R600  
Fittings are available for Non-Perforated Bottom (-N)  
For instance, **ITCT50-HUT-600R-50-N**

| PART NO                   | HEIGHT (mm) | RADIUS (mm) | WIDTH (mm) | PERFORATION       |
|---------------------------|-------------|-------------|------------|-------------------|
| ITCT50-HUT-300R-50-75-P   | 50          | 300         | 50 - 75    | Perforated Bottom |
| ITCT50-HUT-300R-50-100-P  | 50          | 300         | 50 - 100   | Perforated Bottom |
| ITCT50-HUT-300R-50-150-P  | 50          | 300         | 50 - 150   | Perforated Bottom |
| ITCT50-HUT-300R-50-200-P  | 50          | 300         | 50 - 200   | Perforated Bottom |
| ITCT50-HUT-300R-50-300-P  | 50          | 300         | 50 - 300   | Perforated Bottom |
| ITCT50-HUT-300R-50-400-P  | 50          | 300         | 50 - 400   | Perforated Bottom |
| ITCT50-HUT-300R-75-50-P   | 50          | 300         | 75 - 50    | Perforated Bottom |
| ITCT50-HUT-300R-75-100-P  | 50          | 300         | 75 - 100   | Perforated Bottom |
| ITCT50-HUT-300R-75-150-P  | 50          | 300         | 75 - 150   | Perforated Bottom |
| ITCT50-HUT-300R-75-200-P  | 50          | 300         | 75 - 200   | Perforated Bottom |
| ITCT50-HUT-300R-75-300-P  | 50          | 300         | 75 - 300   | Perforated Bottom |
| ITCT50-HUT-300R-75-400-P  | 50          | 300         | 75 - 400   | Perforated Bottom |
| ITCT50-HUT-300R-100-50-P  | 50          | 300         | 100 - 50   | Perforated Bottom |
| ITCT50-HUT-300R-100-75-P  | 50          | 300         | 100 - 75   | Perforated Bottom |
| ITCT50-HUT-300R-100-150-P | 50          | 300         | 100 - 150  | Perforated Bottom |
| ITCT50-HUT-300R-100-200-P | 50          | 300         | 100 - 200  | Perforated Bottom |
| ITCT50-HUT-300R-100-300-P | 50          | 300         | 100 - 300  | Perforated Bottom |
| ITCT50-HUT-300R-100-400-P | 50          | 300         | 100 - 400  | Perforated Bottom |
| ITCT50-HUT-300R-150-50-P  | 50          | 300         | 150 - 50   | Perforated Bottom |
| ITCT50-HUT-300R-150-75-P  | 50          | 300         | 150 - 75   | Perforated Bottom |
| ITCT50-HUT-300R-150-100-P | 50          | 300         | 150 - 100  | Perforated Bottom |
| ITCT50-HUT-300R-150-200-P | 50          | 300         | 150 - 150  | Perforated Bottom |
| ITCT50-HUT-300R-150-300-P | 50          | 300         | 150 - 300  | Perforated Bottom |
| ITCT50-HUT-300R-150-400-P | 50          | 300         | 150 - 400  | Perforated Bottom |
| ITCT50-HUT-300R-200-50-P  | 50          | 300         | 200 - 50   | Perforated Bottom |
| ITCT50-HUT-300R-200-75-P  | 50          | 300         | 200 - 75   | Perforated Bottom |
| ITCT50-HUT-300R-200-100-P | 50          | 300         | 200 - 100  | Perforated Bottom |
| ITCT50-HUT-300R-200-150-P | 50          | 300         | 200 - 150  | Perforated Bottom |
| ITCT50-HUT-300R-200-300-P | 50          | 300         | 200 - 300  | Perforated Bottom |
| ITCT50-HUT-300R-200-400-P | 50          | 300         | 200 - 400  | Perforated Bottom |
| ITCT50-HUT-300R-300-50-P  | 50          | 300         | 300 - 50   | Perforated Bottom |

| PART NO                    | HEIGHT (mm) | RADIUS (mm) | WIDTH (mm) | PERFORATION       |
|----------------------------|-------------|-------------|------------|-------------------|
| ITCT50-HUT-300R-300-75-P   | 50          | 300         | 300 - 75   | Perforated Bottom |
| ITCT50-HUT-300R-300-100-P  | 50          | 300         | 300 - 100  | Perforated Bottom |
| ITCT50-HUT-300R-300-150-P  | 50          | 300         | 300 - 150  | Perforated Bottom |
| ITCT50-HUT-300R-300-200-P  | 50          | 300         | 300 - 200  | Perforated Bottom |
| ITCT50-HUT-300R-300-400-P  | 50          | 300         | 300 - 400  | Perforated Bottom |
| ITCT50-HUT-300R-400-50-P   | 50          | 300         | 400 - 50   | Perforated Bottom |
| ITCT50-HUT-300R-400-75-P   | 50          | 300         | 400 - 75   | Perforated Bottom |
| ITCT50-HUT-300R-400-100-P  | 50          | 300         | 400 - 100  | Perforated Bottom |
| ITCT50-HUT-300R-400-150-P  | 50          | 300         | 400 - 150  | Perforated Bottom |
| ITCT50-HUT-300R-400-200-P  | 50          | 300         | 400 - 200  | Perforated Bottom |
| ITCT50-HUT-300R-400-300-P  | 50          | 300         | 400 - 300  | Perforated Bottom |
| ITCT110-HUT-300R-150-200-P | 110         | 300         | 150 - 200  | Perforated Bottom |
| ITCT110-HUT-300R-150-300-P | 110         | 300         | 150 - 300  | Perforated Bottom |
| ITCT110-HUT-300R-150-450-P | 110         | 300         | 150 - 450  | Perforated Bottom |
| ITCT110-HUT-300R-150-600-P | 110         | 300         | 150 - 600  | Perforated Bottom |
| ITCT110-HUT-300R-200-150-P | 110         | 300         | 200 - 150  | Perforated Bottom |
| ITCT110-HUT-300R-200-300-P | 110         | 300         | 200 - 300  | Perforated Bottom |
| ITCT110-HUT-300R-200-450-P | 110         | 300         | 200 - 450  | Perforated Bottom |
| ITCT110-HUT-300R-200-600-P | 110         | 300         | 200 - 600  | Perforated Bottom |
| ITCT110-HUT-300R-300-150-P | 110         | 300         | 300 - 150  | Perforated Bottom |
| ITCT110-HUT-300R-300-200-P | 110         | 300         | 300 - 200  | Perforated Bottom |
| ITCT110-HUT-300R-300-450-P | 110         | 300         | 300 - 450  | Perforated Bottom |
| ITCT110-HUT-300R-300-600-P | 110         | 300         | 300 - 600  | Perforated Bottom |
| ITCT110-HUT-300R-450-150-P | 110         | 300         | 450 - 150  | Perforated Bottom |
| ITCT110-HUT-300R-450-200-P | 110         | 300         | 450 - 200  | Perforated Bottom |
| ITCT110-HUT-300R-450-300-P | 110         | 300         | 450 - 300  | Perforated Bottom |
| ITCT110-HUT-300R-450-600-P | 110         | 300         | 450 - 600  | Perforated Bottom |
| ITCT110-HUT-300R-600-150-P | 110         | 300         | 600 - 150  | Perforated Bottom |
| ITCT110-HUT-300R-600-200-P | 110         | 300         | 600 - 200  | Perforated Bottom |
| ITCT110-HUT-300R-600-300-P | 110         | 300         | 600 - 300  | Perforated Bottom |
| ITCT110-HUT-300R-600-450-P | 110         | 300         | 600 - 450  | Perforated Bottom |



## Cable Tray



### Cable Tray-Straight Reducer

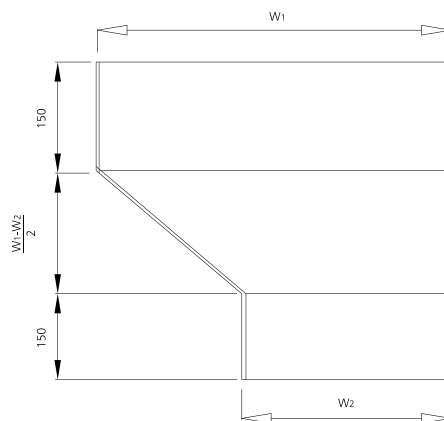
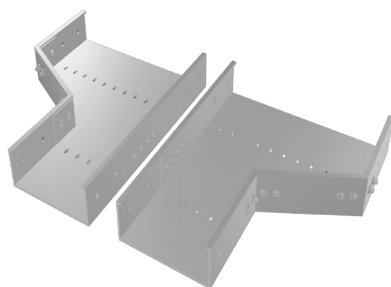
Fittings are available for Non-Perforated Bottom (-N)  
For instance, **ITCT50-SR-75-50-N**

| PART NO             | HEIGHT<br>(mm) | WIDTH<br>(mm) | PERFORATION       |
|---------------------|----------------|---------------|-------------------|
| ITCT50-SR-75-50-P   | 50             | 75 - 50       | Perforated Bottom |
| ITCT50-SR-100-50-P  | 50             | 100 - 50      | Perforated Bottom |
| ITCT50-SR-100-75-P  | 50             | 100 - 75      | Perforated Bottom |
| ITCT50-SR-150-50-P  | 50             | 150 - 50      | Perforated Bottom |
| ITCT50-SR-150-75-P  | 50             | 150 - 75      | Perforated Bottom |
| ITCT50-SR-150-100-P | 50             | 150 - 100     | Perforated Bottom |
| ITCT50-SR-200-50-P  | 50             | 200 - 50      | Perforated Bottom |
| ITCT50-SR-200-75-P  | 50             | 200 - 75      | Perforated Bottom |
| ITCT50-SR-200-100-P | 50             | 200 - 100     | Perforated Bottom |
| ITCT50-SR-200-150-P | 50             | 200 - 150     | Perforated Bottom |
| ITCT50-SR-300-50-P  | 50             | 300 - 50      | Perforated Bottom |
| ITCT50-SR-300-75-P  | 50             | 300 - 75      | Perforated Bottom |
| ITCT50-SR-300-100-P | 50             | 300 - 100     | Perforated Bottom |
| ITCT50-SR-300-150-P | 50             | 300 - 150     | Perforated Bottom |
| ITCT50-SR-300-200-P | 50             | 300 - 200     | Perforated Bottom |
| ITCT50-SR-400-50-P  | 50             | 400 - 50      | Perforated Bottom |

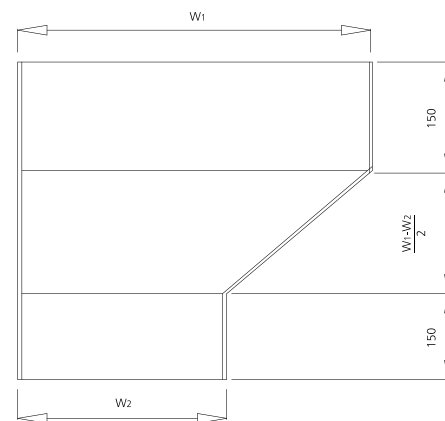
| PART NO              | HEIGHT<br>(mm) | WIDTH<br>(mm) | PERFORATION       |
|----------------------|----------------|---------------|-------------------|
| ITCT50-SR-400-75-P   | 50             | 400 - 75      | Perforated Bottom |
| ITCT50-SR-400-100-P  | 50             | 400 - 100     | Perforated Bottom |
| ITCT50-SR-400-150-P  | 50             | 400 - 150     | Perforated Bottom |
| ITCT50-SR-400-200-P  | 50             | 400 - 200     | Perforated Bottom |
| ITCT50-SR-400-300-P  | 50             | 400 - 300     | Perforated Bottom |
| ITCT110-SR-200-150-P | 110            | 200 - 150     | Perforated Bottom |
| ITCT110-SR-300-150-P | 110            | 300 - 150     | Perforated Bottom |
| ITCT110-SR-300-200-P | 110            | 300 - 200     | Perforated Bottom |
| ITCT110-SR-450-150-P | 110            | 450 - 150     | Perforated Bottom |
| ITCT110-SR-450-200-P | 110            | 450 - 200     | Perforated Bottom |
| ITCT110-SR-450-300-P | 110            | 450 - 300     | Perforated Bottom |
| ITCT110-SR-600-150-P | 110            | 600 - 150     | Perforated Bottom |
| ITCT110-SR-600-200-P | 110            | 600 - 200     | Perforated Bottom |
| ITCT110-SR-600-300-P | 110            | 600 - 300     | Perforated Bottom |
| ITCT110-SR-600-450-P | 110            | 600 - 450     | Perforated Bottom |



## Cable Tray



LEFT HAND REDUCER (LHR)



RIGHT HAND REDUCER (RHR)

### Cable Tray-Right/Left Hand Reducer

Fittings are available for Non-Perforated Bottom (-N)  
For instance, **ITCT50-LHR-75-50-N**

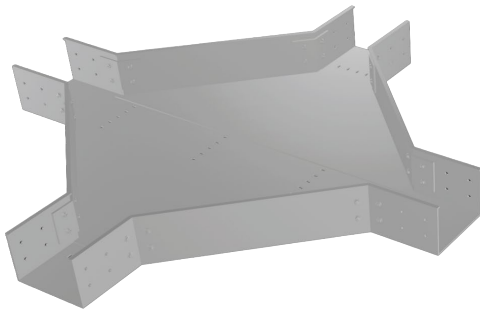
| PART NO               | HEIGHT (mm) | WIDTH (mm) | PERFORATION       |
|-----------------------|-------------|------------|-------------------|
| ITCT50-LHR-75-50-P    | 50          | 75 - 50    | Perforated Bottom |
| ITCT50-LHR-100-50-P   | 50          | 100 - 50   | Perforated Bottom |
| ITCT50-LHR-100-75-P   | 50          | 100 - 75   | Perforated Bottom |
| ITCT50-LHR-150-50-P   | 50          | 150 - 50   | Perforated Bottom |
| ITCT50-LHR-150-75-P   | 50          | 150 - 75   | Perforated Bottom |
| ITCT50-LHR-150-100-P  | 50          | 150 - 100  | Perforated Bottom |
| ITCT50-LHR-200-50-P   | 50          | 200 - 50   | Perforated Bottom |
| ITCT50-LHR-200-75-P   | 50          | 200 - 75   | Perforated Bottom |
| ITCT50-LHR-200-100-P  | 50          | 200 - 100  | Perforated Bottom |
| ITCT50-LHR-200-150-P  | 50          | 200 - 150  | Perforated Bottom |
| ITCT50-LHR-300-50-P   | 50          | 300 - 50   | Perforated Bottom |
| ITCT50-LHR-300-75-P   | 50          | 300 - 75   | Perforated Bottom |
| ITCT50-LHR-300-100-P  | 50          | 300 - 100  | Perforated Bottom |
| ITCT50-LHR-300-150-P  | 50          | 300 - 150  | Perforated Bottom |
| ITCT50-LHR-300-200-P  | 50          | 300 - 200  | Perforated Bottom |
| ITCT50-LHR-400-50-P   | 50          | 400 - 50   | Perforated Bottom |
| ITCT50-LHR-400-75-P   | 50          | 400 - 75   | Perforated Bottom |
| ITCT50-LHR-400-100-P  | 50          | 400 - 100  | Perforated Bottom |
| ITCT50-LHR-400-150-P  | 50          | 400 - 150  | Perforated Bottom |
| ITCT50-LHR-400-200-P  | 50          | 400 - 200  | Perforated Bottom |
| ITCT50-LHR-400-300-P  | 50          | 400 - 300  | Perforated Bottom |
| ITCT110-LHR-200-150-P | 110         | 200 - 150  | Perforated Bottom |
| ITCT110-LHR-300-150-P | 110         | 300 - 150  | Perforated Bottom |
| ITCT110-LHR-300-200-P | 110         | 300 - 200  | Perforated Bottom |
| ITCT110-LHR-450-150-P | 110         | 450 - 150  | Perforated Bottom |
| ITCT110-LHR-450-200-P | 110         | 450 - 200  | Perforated Bottom |
| ITCT110-LHR-450-300-P | 110         | 450 - 300  | Perforated Bottom |
| ITCT110-LHR-600-150-P | 110         | 600 - 150  | Perforated Bottom |
| ITCT110-LHR-600-200-P | 110         | 600 - 200  | Perforated Bottom |
| ITCT110-LHR-600-300-P | 110         | 600 - 300  | Perforated Bottom |
| ITCT110-LHR-600-300-P | 110         | 600 - 450  | Perforated Bottom |

Fittings are available for Non-Perforated Bottom (-N)  
For instance, **ITCT50-RHR-75-50-N**

| PART NO               | HEIGHT (mm) | WIDTH (mm) | PERFORATION       |
|-----------------------|-------------|------------|-------------------|
| ITCT50-RHR-75-50-P    | 50          | 75 - 50    | Perforated Bottom |
| ITCT50-RHR-100-50-P   | 50          | 100 - 50   | Perforated Bottom |
| ITCT50-RHR-100-75-P   | 50          | 100 - 75   | Perforated Bottom |
| ITCT50-RHR-150-50-P   | 50          | 150 - 50   | Perforated Bottom |
| ITCT50-RHR-150-75-P   | 50          | 150 - 75   | Perforated Bottom |
| ITCT50-RHR-150-100-P  | 50          | 150 - 100  | Perforated Bottom |
| ITCT50-RHR-200-50-P   | 50          | 200 - 50   | Perforated Bottom |
| ITCT50-RHR-200-75-P   | 50          | 200 - 75   | Perforated Bottom |
| ITCT50-RHR-200-100-P  | 50          | 200 - 100  | Perforated Bottom |
| ITCT50-RHR-200-150-P  | 50          | 200 - 150  | Perforated Bottom |
| ITCT50-RHR-300-50-P   | 50          | 300 - 50   | Perforated Bottom |
| ITCT50-RHR-300-75-P   | 50          | 300 - 75   | Perforated Bottom |
| ITCT50-RHR-300-100-P  | 50          | 300 - 100  | Perforated Bottom |
| ITCT50-RHR-300-150-P  | 50          | 300 - 150  | Perforated Bottom |
| ITCT50-RHR-300-200-P  | 50          | 300 - 200  | Perforated Bottom |
| ITCT50-RHR-400-50-P   | 50          | 400 - 50   | Perforated Bottom |
| ITCT50-RHR-400-75-P   | 50          | 400 - 75   | Perforated Bottom |
| ITCT50-RHR-400-100-P  | 50          | 400 - 100  | Perforated Bottom |
| ITCT50-RHR-400-150-P  | 50          | 400 - 150  | Perforated Bottom |
| ITCT50-RHR-400-200-P  | 50          | 400 - 200  | Perforated Bottom |
| ITCT50-RHR-400-300-P  | 50          | 400 - 300  | Perforated Bottom |
| ITCT110-RHR-200-150-P | 110         | 200 - 150  | Perforated Bottom |
| ITCT110-RHR-300-150-P | 110         | 300 - 150  | Perforated Bottom |
| ITCT110-RHR-300-200-P | 110         | 300 - 200  | Perforated Bottom |
| ITCT110-RHR-450-150-P | 110         | 450 - 150  | Perforated Bottom |
| ITCT110-RHR-450-200-P | 110         | 450 - 200  | Perforated Bottom |
| ITCT110-RHR-450-300-P | 110         | 450 - 300  | Perforated Bottom |
| ITCT110-RHR-600-150-P | 110         | 600 - 150  | Perforated Bottom |
| ITCT110-RHR-600-200-P | 110         | 600 - 200  | Perforated Bottom |
| ITCT110-RHR-600-300-P | 110         | 600 - 300  | Perforated Bottom |
| ITCT110-RHR-600-300-P | 110         | 600 - 450  | Perforated Bottom |

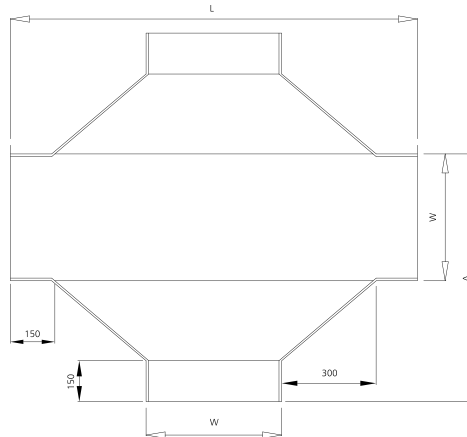


## Cable Tray



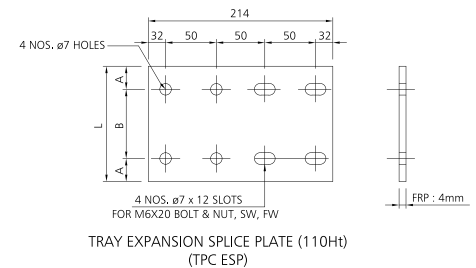
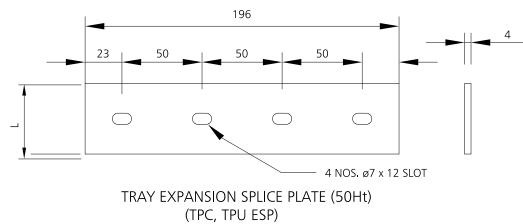
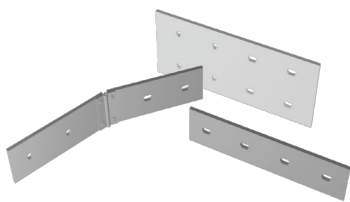
### Cable Tray-Horizontal Equal Cross

Fittings are available for R300, R450, R600  
Fittings are available for Non-Perforated Bottom (-N)  
For instance, **ITCT50-HUT-600R-50-N**



| PART NO               | HEIGHT<br>(mm) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION       |
|-----------------------|----------------|----------------|---------------|-------------------|
| ITCT50-HEC-300R-50-P  | 50             | 300            | 50            | Perforated Bottom |
| ITCT50-HEC-300R-75-P  | 50             | 300            | 75            | Perforated Bottom |
| ITCT50-HEC-300R-100-P | 50             | 300            | 100           | Perforated Bottom |
| ITCT50-HEC-300R-150-P | 50             | 300            | 150           | Perforated Bottom |
| ITCT50-HEC-300R-200-P | 50             | 300            | 200           | Perforated Bottom |
| ITCT50-HEC-300R-300-P | 50             | 300            | 300           | Perforated Bottom |

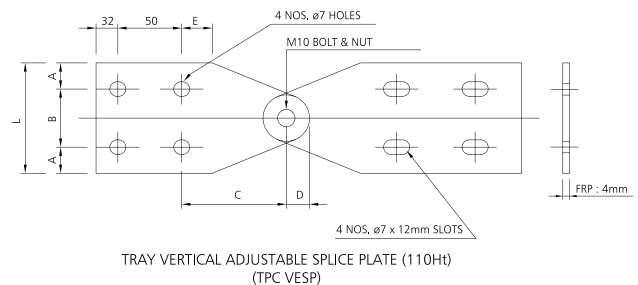
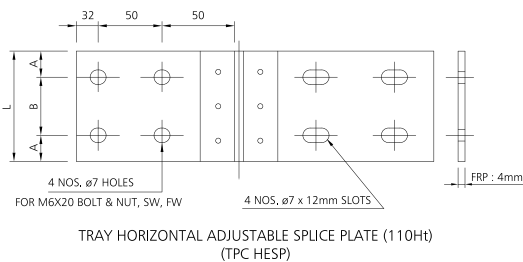
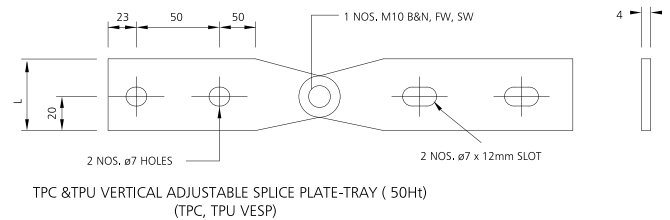
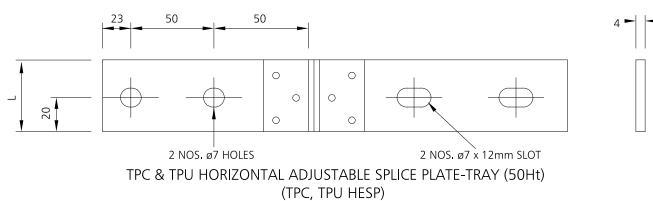
| PART NO                | HEIGHT<br>(mm) | RADIUS<br>(mm) | WIDTH<br>(mm) | PERFORATION       |
|------------------------|----------------|----------------|---------------|-------------------|
| ITCT50-HEC-300R-400-P  | 50             | 300            | 400           | Perforated Bottom |
| ITCT110-HEC-300R-150-P | 110            | 300            | 150           | Perforated Bottom |
| ITCT110-HEC-300R-200-P | 110            | 300            | 200           | Perforated Bottom |
| ITCT110-HEC-300R-300-P | 110            | 300            | 300           | Perforated Bottom |
| ITCT110-HEC-300R-450-P | 110            | 300            | 450           | Perforated Bottom |
| ITCT110-HEC-300R-600-P | 110            | 300            | 600           | Perforated Bottom |



### Cable Tray-Splice Plate

| PART NUMBER                       | ITEM DESCRIPTION                                                                  |
|-----------------------------------|-----------------------------------------------------------------------------------|
| ITCT50-ESP-FRP<br>SET-BN PH M6X20 | Cable Tray FRP Expansion Splice Plate 50Ht<br>SS316 Pan Head M6 x 20 B&N, SW & FW |

| PART NUMBER                        | ITEM DESCRIPTION                                                                   |
|------------------------------------|------------------------------------------------------------------------------------|
| ITCT110-ESP-FRP<br>SET-BN PH M6X20 | Cable Tray FRP Expansion Splice Plate 110Ht<br>SS316 Pan Head M6 x 20 B&N, SW & FW |

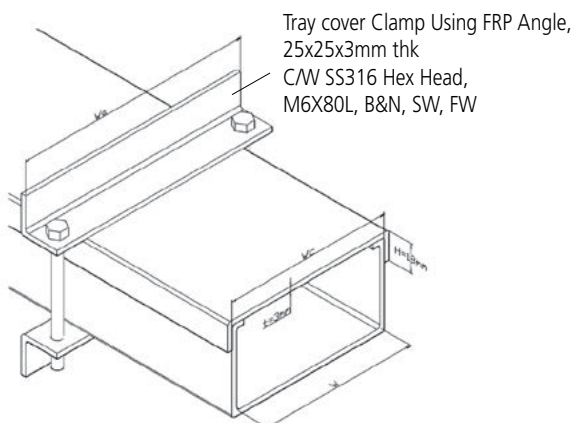


| PART NUMBER                         | ITEM DESCRIPTION                                                                               |
|-------------------------------------|------------------------------------------------------------------------------------------------|
| ITCT50-HASP-FRP                     | Cable Tray FRP Horizontal Adjustable Splice Plate 50Ht                                         |
| ITCT110-HASP-FRP<br>SET-BN PH M6X20 | Cable Tray FRP Horizontal Adjustable Splice Plate 110Ht<br>SS316 Pan Head M6 x 20 B&N, SW & FW |

| PART NUMBER                         | ITEM DESCRIPTION                                                                             |
|-------------------------------------|----------------------------------------------------------------------------------------------|
| ITCT50-VASP-FRP                     | Cable Tray FRP Vertical Adjustable Splice Plate 50Ht                                         |
| ITCT110-VASP-FRP<br>SET-BN PH M6X20 | Cable Tray FRP Vertical Adjustable Splice Plate 110Ht<br>SS316 Pan Head M6 x 20 B&N, SW & FW |

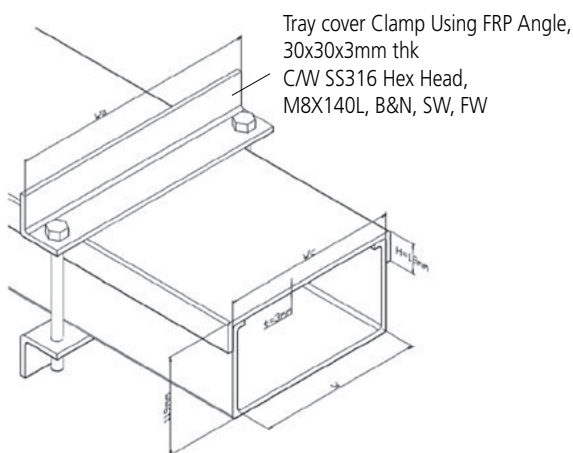


## Cable Tray



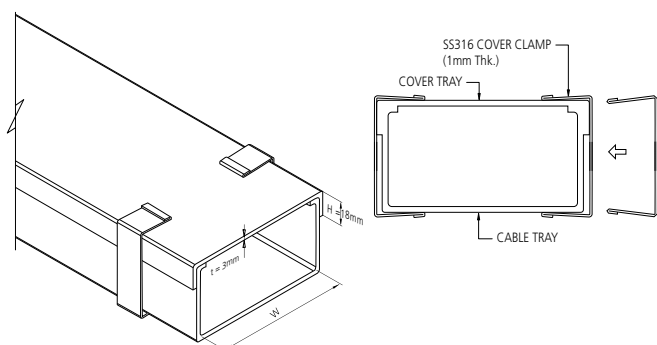
| PART NUMBER       | ITEM DESCRIPTION                       |
|-------------------|----------------------------------------|
| ITCT50-CC-50-FRP  | Cable Tray FRP Cover Clamp 50Ht x 50W  |
| ITCT50-CC-75-FRP  | Cable Tray FRP Cover Clamp 50Ht x 75W  |
| ITCT50-CC-100-FRP | Cable Tray FRP Cover Clamp 50Ht x 100W |
| ITCT50-CC-150-FRP | Cable Tray FRP Cover Clamp 50Ht x 150W |
| ITCT50-CC-200-FRP | Cable Tray FRP Cover Clamp 50Ht x 200W |
| ITCT50-CC-300-FRP | Cable Tray FRP Cover Clamp 50Ht x 300W |
| ITCT50-CC-400-FRP | Cable Tray FRP Cover Clamp 50Ht x 400W |
| SET-BN HH M6X80   | SS316 Hex Head M6 x 80 B&N, SW & FW    |
| L25X25X3          | FRP L-Angle 25 x 25 x 3mm Thk          |

All ITCT50-CC c/w 2 nos L25X25X3 (length following respective width) &  
2 nos SET-BN HH M6X80

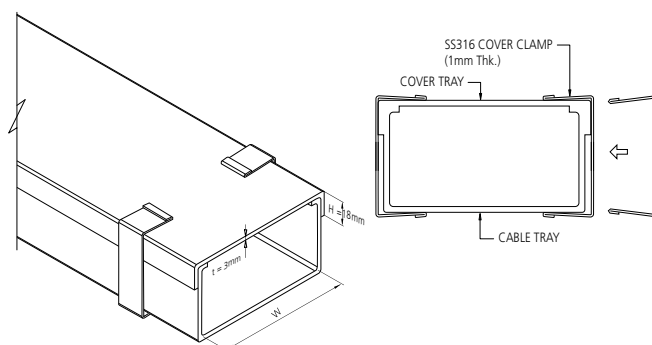


| PART NUMBER        | ITEM DESCRIPTION                                                                                                                     |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| ITCT110-CC-150-FRP | Cable Tray FRP Cover Clamp 110Ht x 150W<br>c/w 2 nos FRP L-Angle 30 x 30 x 3mm Thk<br>c/w 2 nos SS316 Hex Head M8 x 140 B&N, SW & FW |
| ITCT110-CC-200-FRP | Cable Tray FRP Cover Clamp 110Ht x 200W<br>c/w 2 nos FRP L-Angle 30 x 30 x 3mm Thk<br>c/w 2 nos SS316 Hex Head M8 x 140 B&N, SW & FW |
| ITCT110-CC-300-FRP | Cable Tray FRP Cover Clamp 110Ht x 300W<br>c/w 2 nos FRP L-Angle 30 x 30 x 3mm Thk<br>c/w 2 nos SS316 Hex Head M8 x 140 B&N, SW & FW |
| ITCT110-CC-450-FRP | Cable Tray FRP Cover Clamp 110Ht x 450W<br>c/w 2 nos FRP L-Angle 30 x 30 x 3mm Thk<br>c/w 2 nos SS316 Hex Head M8 x 140 B&N, SW & FW |
| ITCT110-CC-600-FRP | Cable Tray FRP Cover Clamp 110Ht x 600W<br>c/w 2 nos FRP L-Angle 30 x 30 x 3mm Thk<br>c/w 2 nos SS316 Hex Head M8 x 140 B&N, SW & FW |
| SET-BN HH M8X140   | SS316 Hex Head M8 x 140 B&N, SW & FW                                                                                                 |
| L30X30X3           | FRP L-Angle 30 x 30 x 3mm Thk                                                                                                        |

All ITCT110-CC c/w 2 nos L30X30X3 (length following respective width) &  
2 nos SET-BN HH M8X140



| PART NUMBER  | ITEM DESCRIPTION                  |
|--------------|-----------------------------------|
| ITCT50-CC-SS | Cable Tray SS316 Cover Clamp 50Ht |

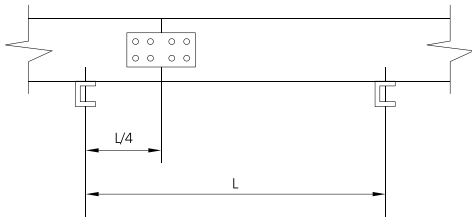


| PART NUMBER   | ITEM DESCRIPTION                   |
|---------------|------------------------------------|
| ITCT110-CC-SS | Cable Tray SS316 Cover Clamp 110Ht |



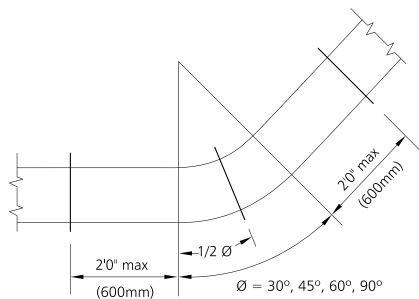
## Recommended Support As Per NEMA Standard

### SPLICE PLATE LOCATION

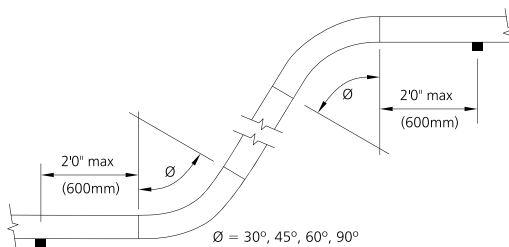


As per NEMA FG1, splice plate is recommended to be located at 1/4 of the span from the support, where the bending moment is zero.

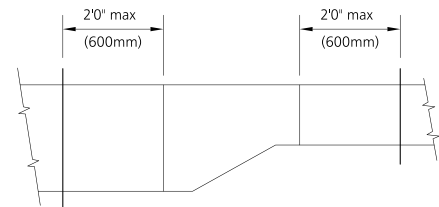
### SUPPORT LOCATION



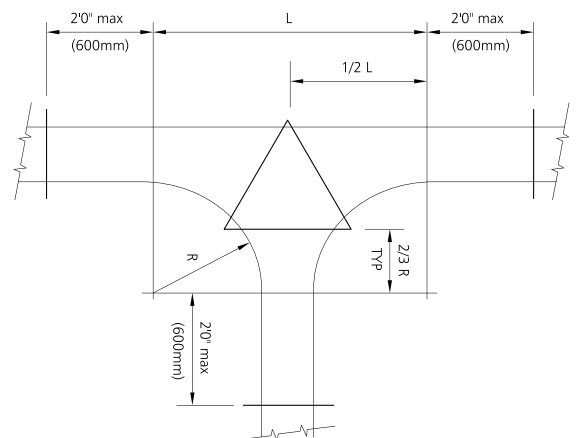
**Horizontal Elbows**



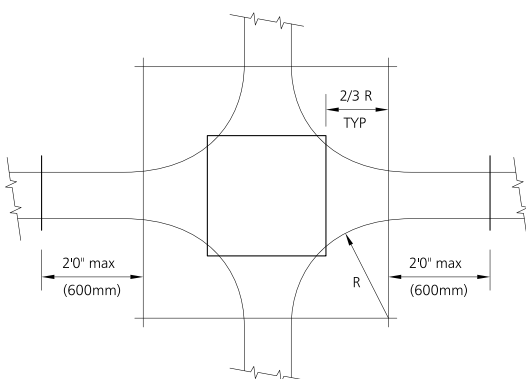
**Vertical Elbows**



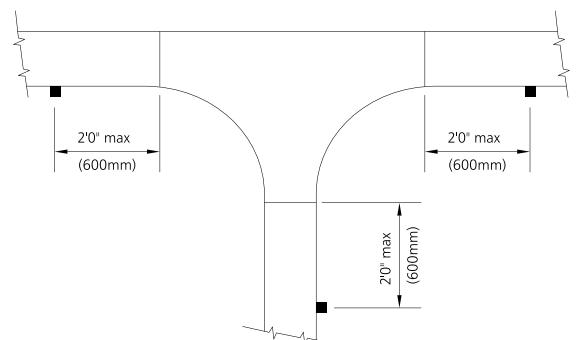
**Offset Reducer**



**Horizontal Tee**



**Horizontal Cross**



**Vertical Tee**

# Chemical Resistance Data

| Up to temperature °C            | Vinylester |     | Isophthalic Polyester |     |
|---------------------------------|------------|-----|-----------------------|-----|
|                                 | 49°        | 99° | 49°                   | 99° |
| Acetaldehyde                    | R          | N   | N                     | N   |
| Acetaldehyde, aq. 40%           | N          | N   | N                     | N   |
| Acetic Acid, glacial            | L          | N   | N                     | N   |
| Acetic Acid, 20% (25)           | R          | R   | R                     | N   |
| Acetic Acid, 80%                | R          | R   | N                     | N   |
| Acetic Anhydride                | L          | N   | N                     | N   |
| Acetone, 10%                    | R          | N   | N                     | N   |
| Adipic Acid                     | R          | N   |                       |     |
| Alcohol, allyl                  | N          | N   | R                     | N   |
| Alcohol, benzyl                 | L          | N   | N                     | N   |
| Alcohol, butyl (n-butanol)      | R          | N   | N                     | N   |
| Alcohol, butyl (2-butanol)      | R          | N   | N                     | N   |
| Alcohol, ethyl                  | L          | N   | R                     | N   |
| Alcohol, hexyl                  | R          | L   | N                     | N   |
| Alcohol, isopropyl (2-propanol) | R          | N   | N                     | N   |
| Alcohol, methyl                 | L          | N   | L                     | N   |
| Alcohol, propyl (1-propanol)    | R          | N   | N                     | N   |
| Allyl chloride                  | N          | N   | N                     | N   |
| Alum                            | R          | R   | R                     | R   |
| Ammonia, gas                    | L          | N   | R                     | N   |
| Ammonia, liquid                 | N          | N   | N                     | N   |
| Ammonia, aq. 20%                | R          | N   | N                     | N   |
| Ammonia salts, except fluoride  | R          | R   | R                     | R   |
| Ammonium fluoride, 25%          | R          | N   | N                     | N   |
| Amlyl acetate                   | R          | N   | N                     | N   |
| Amlyl chloride                  | R          | N   | N                     | N   |
| Aniline                         | N          | N   | N                     | N   |
| Aniline hydrochloride           | R          | N   | R                     | N   |
| Antimony trichloride            |            |     | R                     | N   |
| Aqua regia                      |            |     | N                     | N   |
| Arsenic Acid, 80%               | L          | N   |                       | N   |
| Aryl-sulfonic acid              | R          | R   | N                     | N   |
| Barium salts                    | R          | R   | R                     | N   |
| Beet sugar liquor               | R          | N   |                       |     |
| Benzaldehyde, 10%               |            |     | N                     | N   |
| Benzaldehyde, 10 - 100%         | N          | N   | N                     | N   |
| Benzene (Benzoil)               | L          | N   | N                     | N   |
| Benzene sulfonic acid, 10%      | R          | R   | R                     | N   |
| Benzene sulfonic acid, 50%      | R          | N   | N                     | N   |
| Benzonic acid                   | R          | R   | R                     | N   |
| Black liquor - paper            | R          | R   | N                     | N   |
| Bleach, 12.5% active chlorine   | R          | N   | N                     | N   |
| Bleach, 5.5% active chlorine    | R          | N   | R                     | N   |
| Borax                           | R          | R   | R                     | N   |
| Boric Acid                      | R          | N   | R                     | N   |
| Brine                           | R          | N   | R                     | R   |
| Bromine acid, < 50%             | R          | N   |                       | N   |
| Bromine, liquid 25%             | N          | N   | N                     | N   |
| Bromine, gas 25%                | N          | N   | N                     | N   |
| Bromine, aq                     | R          | N   |                       |     |
| Butane                          | R          | R   | R                     | R   |
| Butanediol (eythriol)           | R          | R   | R                     | R   |
| Butanediol                      | R          | R   | N                     | N   |
| Butyl Acetate                   | N          | N   |                       |     |
| Butyl phenol                    | N          | N   | N                     | N   |
| Butyric acid, < 50%             | R          | R   | N                     | N   |
| Calcium hypochlorite            | R          | N   | R                     | N   |
| Calcium hypochlorite            | R          | N   | R                     | N   |
| Calcium hydroxide, 100%         | R          | R   | R                     | N   |
| Cane sugar liquors              | R          | L   |                       |     |
| Carbon disulfide                | N          | N   | N                     | N   |
| Carbon dioxide                  | R          | R   | R                     | N   |
| Carbon dioxide, aq.             | R          | R   | R                     | R   |
| Carbon monoxide                 | R          | R   | R                     | R   |
| Carbon tetrachloride            | R          | N   | N                     | N   |
| Casein                          | R          | R   | R                     | R   |
| Castor oil                      | R          | N   |                       |     |
| Caustic potash (KOH)            | R          | N   | N                     | N   |
| Caustic soda (NaOH)             | R          | N   | N                     | N   |
| Chlorine, gas, dry              | R          | R   | R                     | N   |
| Chlorine, gas, wet              | N          | R   | N                     | N   |
| Chlorine, liquid                | N          | N   | N                     | N   |
| Chlorine, water                 | R          | R   | N                     | N   |
| Chlorocetic acid                | R          | N   | N                     | N   |
| Chlorobenzene                   | L          | N   | N                     | N   |
| Chloroform                      | N          | N   | N                     | N   |
| Chlorosulfonic acid, 10%        | N          | N   | N                     | N   |
| Chromic acid, 10%               | R          | N   |                       |     |
| Chromic acid, 30%               | N          | N   | N                     | N   |
| Chromic acid, 40%               | N          | N   | N                     | N   |
| Chromic acid, 50%               | N          | N   | N                     | N   |
| Citric acid                     | R          | R   | R                     | N   |
| Coconut oil                     | R          | R   | R                     | N   |
| Copper salts, aq.               | R          | R   | R                     | R   |
| Cottonseed oil                  | R          | R   | R                     | R   |
| Cresylic acid, 50%              | N          | N   | N                     | N   |

| Up to temperature °C      | Vinylester |     | Isophthalic Polyester |     |
|---------------------------|------------|-----|-----------------------|-----|
|                           | 49°        | 99° | 49°                   | 99° |
| Cyclohexane               | R          | N   | R                     | R   |
| Cyclohexanol              | R          | N   | R                     | N   |
| Cyclohexanone             |            |     | N                     | N   |
| Diesel fuels              | R          | R   | R                     | N   |
| Diethyl amine             | N          | N   | N                     | N   |
| Diocetyl phthalate        | R          | R   | N                     | N   |
| Dioxane - 1.4             |            |     | N                     | N   |
| Dimethylamine             | N          | N   | N                     | N   |
| Dimethyl formamide        | N          | N   | N                     | N   |
| Detergents, aq            | R          | R   | R                     | R   |
| Didutylphthalate          | R          | R   | N                     | N   |
| Didutylsebacate           | R          | N   | R                     | R   |
| Dichlorobenzene           | R          | N   | N                     | N   |
| Dichlorethylene           | N          | N   | N                     | N   |
| Ether (diethyl)           | N          | N   | N                     | N   |
| Ethyl halides             | N          | N   | N                     | N   |
| Ethylene halides          | N          | N   | N                     | N   |
| Ethylene glycol           | R          | R   | R                     | R   |
| Ethylene oxide            | N          | N   | N                     | N   |
| Fatty acids               | R          | R   | R                     | R   |
| Ferric salts              | R          | R   | R                     | R   |
| Fluorine, gas, dry        | N          | N   | N                     | N   |
| Fluorine, gas, wet        | N          | N   | N                     | N   |
| Fluoroboric acid, 25%     | R          | R   | N                     | N   |
| Fluorosilicic acid, 10%   | R          | N   | N                     | N   |
| Formaldehyde              | R          | N   | R                     | N   |
| Formic acid               | L          | N   | N                     | N   |
| Freon, F11, F12, 113, 114 | N          | N   | N                     | N   |
| Freon, F21, F22           | N          | N   | N                     | N   |
| Fruit Juices and pulps    | N          | N   | R                     | N   |
| Fuel oil                  | R          | R   | R                     | N   |
| Furfural                  | N          | N   | N                     | N   |
| Gas, natural, methane     | R          | N   | R                     | N   |
| Gasoline                  | R          | L   | R                     | N   |
| Gelation                  | R          | L   | R                     | N   |
| Glycerine (glycerol)      | R          | R   | R                     | N   |
| Glycols                   | R          | R   | R                     | R   |
| Glycolic acid             | L          | N   | R                     | N   |
| Green Liquor - paper      | R          | N   | N                     | N   |
| Heptane                   | R          | R   | R                     | N   |
| Hexane                    | R          | N   | R                     | N   |
| Hydrobromic acid, 25%     | R          | N   | R                     | N   |
| Hydrochloric acid         | R          | R   | R                     | N   |
| Hydrofluoric acid, 10%    | R          | N   | L                     | N   |
| Hydrofluoric acid, 60%    | N          | N   | N                     | N   |
| Hydrofluoric acid, 100%   | N          | N   | N                     | N   |
| Hydrocyanic acid          | R          | R   | N                     | N   |
| Hydrogen peroxide, 50%    |            |     | N                     | N   |
| Hydrogen peroxide, 90%    |            |     | N                     | N   |
| Hydrogen sulfide, dry     | R          | R   | R                     | N   |
| Hydrazine                 | N          | N   | N                     | N   |
| Hypochlorous acid, 10%    | R          | L   | N                     | N   |
| Jet fuels, JP 4 and JP 5  | R          | N   | N                     | N   |
| Kerosene                  | R          | N   | R                     | N   |
| Lactic acid, 25%          | R          | R   | R                     | N   |
| Lauric acid               | R          | R   | R                     | N   |
| Lauryl chloride           | R          | R   | R                     | N   |
| Lauryl sulfate            | R          | R   | R                     | N   |
| Lead salth                | R          | R   | R                     | R   |
| Linoleic acid             | R          | R   | R                     | N   |
| Linseed oil               | R          | R   | R                     | N   |
| Lithium salth             | R          | R   | R                     | N   |
| Lubrication oils          | R          | N   | R                     | N   |
| Machine oil               | R          | N   | R                     | N   |
| Magnesium salts           | R          | R   | R                     | R   |
| Maleic acid               | R          | R   | N                     | N   |
| Manganese sulfate         | R          | R   | R                     | N   |
| Mercuric salts            | R          | R   | R                     | N   |
| Mercury                   | R          | R   | R                     | R   |
| Methane                   | R          | R   | R                     | R   |
| Methyl acetate            | N          | N   | N                     | N   |
| Methyl bromide (gas)      | N          | N   | N                     | N   |
| Methyl cellosolve         |            |     | R                     | N   |
| Methyl chloride           | N          | N   | N                     | N   |
| Methyl chloroform         | N          | N   | N                     | N   |
| Methyl cyclohexanone      | N          | N   | N                     | N   |
| Methyl methacrylate       | N          | N   | N                     | N   |
| Methylene bromide         | N          | N   | N                     | N   |
| Methylene chloride        | N          | N   | N                     | N   |
| Methylene iodide          | N          | N   | N                     | N   |
| Mineral oil               | R          | R   | R                     | N   |
| Molasses                  | R          | N   | R                     | N   |
| Monochlorobenzene         | L          | N   | N                     | N   |
| Monoethanolamine          | N          | N   | N                     | N   |
| Motor oil                 | R          | R   | R                     | R   |
| Naphtha                   | R          | R   | R                     | N   |
| Napthalene                | R          | R   | R                     | N   |
| Nickel salts              | R          | R   | R                     | R   |
| Nitric acid, 0 to 20%     | R          | N   | N                     | N   |

| Up to temperature °C       | Vinylester |     | Isophthalic Polyester |     |
|----------------------------|------------|-----|-----------------------|-----|
|                            | 49°        | 99° | 49°                   | 99° |
| Nitric acid 21 to 100%     | N          | N   | N                     | N   |
| Nitric acid, fuming        | N          | N   | N                     | N   |
| Nitrobenzene               | L          | N   | N                     | N   |
| Nitrous acid               | R          | N   | R                     | N   |
| Oleic acid                 | R          | R   | R                     | R   |
| Oleum                      | N          | N   | N                     | N   |
| Olive oil                  | R          | R   | R                     | R   |
| Oxalic acid                |            | R   | R                     | R   |
| Ozone, gas, 5%             | R          | N   | N                     | N   |
| Palmitic acid, 10%         | R          | R   | R                     | R   |
| Palmitic acid, 70%         | R          | R   | R                     | R   |
| Paraffin                   | R          | R   | R                     | R   |
| Pentane                    | R          | N   | R                     | N   |
| Perchloric acid, 10%       | R          | N   | N                     | N   |
| Perchloric acid, 70%       | R          | N   | N                     | N   |
| Perchloroethylene          | R          | N   | N                     | N   |
| Petroleum, sour            | R          | R   | R                     | N   |
| Petroleum, refined         | R          | R   | R                     | N   |
| Phenol, 88%                | N          | N   | N                     | N   |
| Phenylcarbinol             | N          | N   | N                     | N   |
| Phenylhydrazine            | N          | N   | N                     | N   |
| Phosphoric acid            | R          | R   | R                     | L   |
| Phosphorous, yellow        | N          | N   | N                     | N   |
| Phosphorous, red           | N          | N   | N                     | N   |
| Phosphorous, trichloride   | N          | N   | N                     | N   |
| Phthalic acid              | R          | R   |                       |     |
| Potassium salts, aq.       | R          | R   | R                     | R   |
| Potassium permanganate 25% | R          | R   | R                     | N   |
| Propane                    | R          | R   | R                     | R   |
| Propylene dichloride       | N          | N   | N                     | N   |
| Propylene glycol           | R          | R   | R                     | N   |
| Propylene oxide            | N          | N   |                       |     |
| Pyridine                   | N          | N   | N                     | N   |
| Rayon coagulating bath     | R          | N   | N                     | N   |
| Sea water                  | R          | R   | R                     | R   |
| Salicylic acid             | R          | N   | R                     | N   |
| Sewage, residential        | R          | L   | R                     | N   |
| Silicic acid               | R          | R   | R                     | N   |
| Silicone oil               | R          | R   | R                     | R   |
| Silver salts               | R          | R   | R                     | R   |
| Soaps                      | R          | R   | R                     | R   |
| Sodium hydroxide           |            |     | N                     | N   |
| Sodium salts, aq. except   | R          | R   | R                     | R   |
| Sodium chlorite 10%        | R          | N   |                       |     |
| Sodium chlorate            | R          | R   |                       |     |
| Sodium dichromate, acid    | R          | R   |                       |     |
| Stannic chloride           | R          | R   | R                     | N   |
| Stannous chloride          | R          | R   | R                     | R   |
| Stearic acid               | R          | R   | R                     | R   |
| Sulfite liquor             | R          | R   | R                     | N   |
| Sulfur                     | R          | R   | R                     | N   |
| Sugars, aq.                |            |     | R                     | R   |
| Sulfur dioxide, dry        | R          | R   | R                     | R   |
| Sulfur dioxide, wet        | R          | R   | R                     | R   |
| Sulfur trioxide, gas, dry  | R          | R   | N                     | N   |
| Sulfur trioxide, wet       | N          | N   | N                     | N   |
| Sulfuric acid, < 26%       | R          | R   | R                     | N   |
| Sulfuric acid, 26% to 80%  | R          | N   | N                     | N   |
| Sulfuric acid, 81% to 100% | N          | N   | N                     | N   |
| Sulfurous acid, 10%        | R          | N   | N                     | N   |
| Tall oil                   | R          | R   | R                     | N   |
| Tannic acid                | R          | R   | R                     | R   |
| Tartaric acid              | R          | R   | R                     | R   |
| Tetrachloroethane          | R          | N   | N                     | N   |
| Tetrahydrofuran            | N          | N   | N                     | N   |
| Thionyl chloride           | N          | N   | N                     | N   |
| Thread cutting oil         | R          | N   | R                     | N   |
| Terpineol                  | R          | R   | R                     | R   |
| Toluene                    | R          | N   | R                     | N   |
| Tributyl phosphate         | R          | N   | N                     | N   |
| Tricresyl phosphate        | R          | N   | N                     | N   |
| Trichloroacetic acid       | R          | R   | N                     | N   |
| Trichloroethylene          | N          | N   | N                     | N   |
| Triethanolamine            | R          | N   | N                     | N   |
| Triethylamine              | R          | N   | N                     | N   |
| Turpentine                 | R          | R   | N                     | N   |
| Urea, 50%                  | R          | N   | R                     | N   |
| Vaseline                   | R          | R   | N                     | R   |
| Vegetable oils             | N          | R   | N                     | R   |
| Vinegar                    | R          | R   | R                     | N   |
| Vinyl acetate              | N          | N   | N                     | N   |
| Water, distilled           | R          | R   | R                     | N   |
| Water, fresh               | R          | R   | R                     | R   |
| Water, mine                | R          | R   | R                     | N   |
| Water, salt                | R          | N   | R                     | R   |
| Water, tap                 | R          | R   | R                     | R   |
| Whiskey                    | R          | N   | R                     | N   |
| Wines                      | R          | N   | R                     | N   |
| Xylene                     | R          | N   | N                     | N   |
| Zinc salts                 | R          | R   | R                     | R   |

R=Resistant, N=Not resistant, L=Less resistant than R, but still suitable for some conditions



## Comparison of Intech and Subsitude Products

### Comparison of Intech Pultruded FRP Products vs others Products

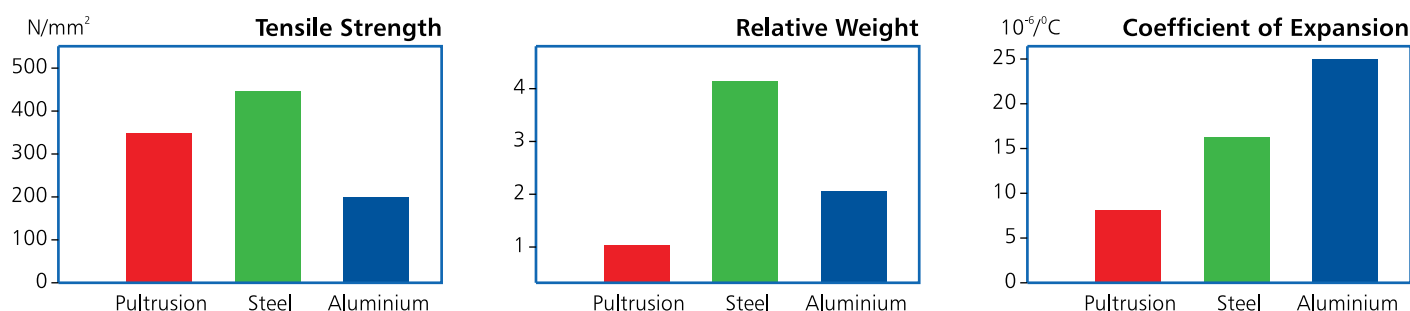
| PROPERTY                                    | INTECH Pultruded FRP PRODUCTS                                                                                                                                                                                                                                                     | Other FRP PRODUCTS                                                                                                                                                                            | Mild Steel                                                                                                                                     | Stainless Steel                                                                                                                                | ALUMINUM PRODUCTS.                                                                                                                            |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cost Effective</b>                       | Extremely long life compare to other materials. Maintenance free.                                                                                                                                                                                                                 | Long life compare to other materials. Maintenance free.                                                                                                                                       | Maintenance required.                                                                                                                          | Depend on application and grade.                                                                                                               | Depend on application.                                                                                                                        |
| <b>Flatness &amp; Thickness Consistency</b> | Pultusion is pultruded from heated die, therefore flatness is consistence even cut into smaller sizes. Thickness is even and consistent.                                                                                                                                          | Production of FRP hand-lay products is based on the workmanship and has a high probability of uneven surfaces due to the production process.                                                  | Flatness and thickness is even and consistent.                                                                                                 | Flatness and thickness is even and consistent.                                                                                                 | Flatness and thickness is even and consistent.                                                                                                |
| <b>Impact Resistance</b>                    | Continuous strand glass mat in FRP Products distributes the impact load to prevent surface damage even under sub-zero temperature and will not permanently deform and stay flat for the life of the product under closed mold pultrusion processing. High in mechanical strength. | Chopped strand mat used in FRP hand-lay products will probably deform or crack under impact without going under the closed mold processing and pultrusion system. Low in mechanical strength. | Will permanently deform under impact and take a permanent set (dishing in trench application due to overloading). High in mechanical strength. | Will permanently deform under impact and take a permanent set (dishing in trench application due to overloading). High in mechanical strength. | Will permanently deform under impact and take a permanent set (dishing in trench application due to overloading). Low in mechanical strength. |
| <b>Corrosion Resistant</b>                  | Corrosion resistant under the most aggressive conditions                                                                                                                                                                                                                          | Corrosion resistant.                                                                                                                                                                          | Non-corrosion resistant                                                                                                                        | Depends on grade. SS304 not recommended in off-shore. SS316 better corrosive resistant.                                                        | Corrosion resistant.                                                                                                                          |
| <b>Safety</b>                               | Electrically non-conductive and non-magnetic. Low in thermal conductivity. No sharp edges after cutting.                                                                                                                                                                          | Electrically non-conductive. Low in thermal conductivity. No sharp edges after cutting.                                                                                                       | Conductive. Grounding potential around electrical equipment. High in thermal conductivity. Sharp edges after cutting.                          | Conductive. Grounding potential around electrical equipment. High in thermal conductivity. Sharp edges after cutting.                          | Conductive. Grounding potential around electrical equipment. High in thermal conductivity. Sharp edges after cutting.                         |
| <b>Fabrication</b>                          | Produced in light weight and it can be shipped to the site or fabricated and installed on site with simple carpenter tools.                                                                                                                                                       | Produced in light weight and it can be shipped to the site or fabricated and installed on site with simple carpenter tools.                                                                   | Require special blade, torch, and harder to cut it. Sometimes requires more manpower to move and place.                                        | Require special blade, torch, and harder to cut it. Sometimes requires more manpower to move and place.                                        | Require special blade, torch, and harder to cut it. Sometimes requires more manpower to move and place.                                       |
| <b>Vandalism</b>                            | Totally no recycle value, and this will not encourage any theft or vandalism.                                                                                                                                                                                                     | Totally no recycle value, and this will not encourage any theft or vandalism.                                                                                                                 | Mild steel products carry good recycle value.                                                                                                  | Stainless steel products carry good recycle value.                                                                                             | Aluminum Products carry good recycle value.                                                                                                   |



## Typical Properties of Pultrusion FRP Products

The information given is a guide to the typical properties of Pultruded Glass Reinforced Plastic sections. The pultruded profiles are made from a combination of continuous Logitudinal Rovings, Continuous Filament Mats and Resin, thus properties will vary depending on reinforcement and resin choice.

### COMPARISONS



### PROPERTIES

#### Mechanical:

|                                          |                 |                   |
|------------------------------------------|-----------------|-------------------|
| Tensile Strength, Longitudinal:          | 250 - 350       | N/mm <sup>2</sup> |
| Flexural Stress, Longitudinal:           | 250 - 350       | N/mm <sup>2</sup> |
| Elastic Modulus, Flexural, Longitudinal: | 15,000 - 30,000 | N/mm <sup>2</sup> |
| Compressive Strength:                    | 150 - 300       | N/mm <sup>2</sup> |
| Impact Strength:                         | 1 - 2           | kJ/M              |
| Elongation at Rupture                    | 2               | %                 |
| Hardness (Barcol 934-1):                 | 40 - 60         |                   |
| Specific Gravity:                        | 1.7 - 1.9       |                   |

#### Electrical:

|                      |                                     |                   |
|----------------------|-------------------------------------|-------------------|
| Dielectric Strength: | 12                                  | kV/mm             |
| Volume Resistivity:  | 10 <sup>10</sup> - 10 <sup>12</sup> | Ω/cm <sup>2</sup> |

#### Thermal:

|                                                |             |                      |
|------------------------------------------------|-------------|----------------------|
| Coefficient of Thermal Expansion:              | 8 - 10      | 10 <sup>-6</sup> /°K |
| Thermal Conductivity:                          | 0.2 - 0.3   | W/°K.M               |
| Operating Temperature Range (Resin dependent): | -70 to +120 | °C                   |

#### Fire:

|           |                    |
|-----------|--------------------|
| B.S.476   | Class 1            |
| ASTM E84  | Class A (FSI < 25) |
| IEC 60695 | 960°C Max          |
| UL 94     | VO                 |

#### Smoke:

|           |                      |
|-----------|----------------------|
| ASTM E662 | Ds at 1.5 min = 0.68 |
| ASTM E84  | Class A (SDI < 450)  |

#### Antistatic (optional)

|             |         |
|-------------|---------|
| BS EN 50014 | 2.27 MΩ |
|-------------|---------|

## Typical Applications

### TYPICAL APPLICATIONS

INTECH products can be used in either new application or for replacing existing application which is exposed to corrosive environment. The application can be found in all type of industrial such as:



Offshore O&G



Onshore O&G



Data Centre



Marine & FPSO



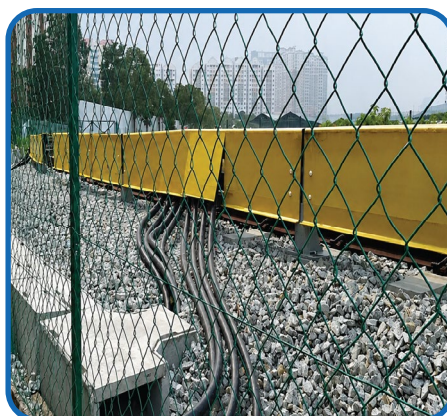
Cooling Tower



Water Desalination Plant



Water Treatment Plant



Railway



Jetty



## Applications of other INTECH FRP Pultruded Products



FRP Cable Ladder & Tray & Grating for Offshore Platform



FRP Structural for Cooling Tower



FRP Protective Cover for 3rd rail



FRP Handrail and walkway



FRP Road side grating



FRP Heavy Duty Panel for Jetty



FRP Grating For Chemical Plant



FRP Cable Ladder & Tray, Grating for FPSO



## Applications of other INTECH FRP Pultruded Products



FRP Structural for Cooling Tower



FRP Structural for Cooling Tower



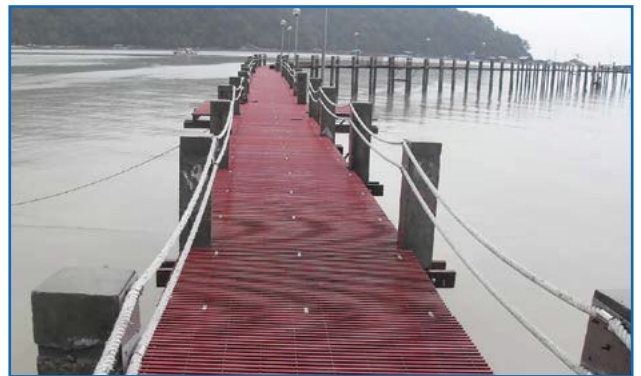
FRP Cable Ladder & Tray for Onshore Facilities



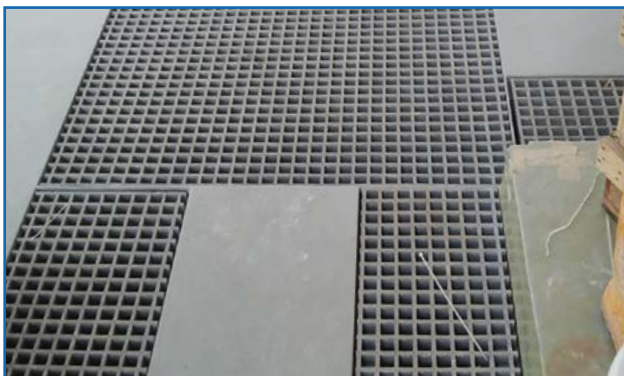
FRP Cable Ladder & Tray for Desalination Plant



FRP Grating for Floating Platform



FRP Grating for Jetty



FRP Grating for Sewerage Treatment Plant



FRP Grating for Rig Ship



## Project Reference

(Note : Full list of job reference can be provided upon request)

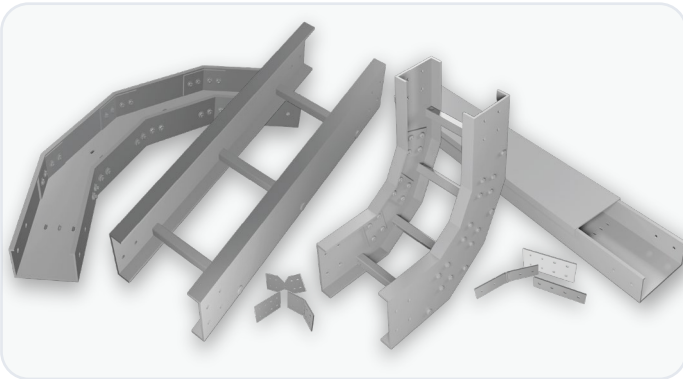
| INDUSTRY                        | PRODUCT GROUP  | PROJECT NAME                       | END USER                                            | YEAR | REGION    |
|---------------------------------|----------------|------------------------------------|-----------------------------------------------------|------|-----------|
| <b>Offshore</b>                 | LH series (NT) | Dai Hung 3                         | Vietsovpetro                                        | 2023 | Vietnam   |
|                                 | LMH series     | Shell Crux                         | Shell                                               | 2023 | Singapore |
|                                 | LH series (NT) | Zawtika Dev Phase 1D               | PTTEP                                               | 2022 | Thailand  |
|                                 | LSH series     | SaoVang DaiNguyet                  | Petrovietnam                                        | 2020 | Vietnam   |
| <b>Oil &amp; Gas</b>            | LH series (NT) | Laffan Refinery 2                  | Qatargas                                            | 2016 | Qatar     |
|                                 | LH series (NT) | JDA B-17 Field Phase 3 Development | CPOC                                                | 2016 | Thailand  |
|                                 | LM series      | Su Tu Trang Full Field Development | CLJOC                                               | 2015 | Vietnam   |
|                                 | LMH series     | Kanowit PFLNG Tir-in Project       | Petronas                                            | 2015 | Malaysia  |
|                                 | LMH series     | South Pars Iran                    | NIOC                                                | 2014 | Iran      |
| <b>Power &amp; Utilities</b>    | LM series      | Kimanis Power Plant Sabah          | Petronas Gas                                        | 2022 | Malaysia  |
|                                 | LMH series     | Malakoff Prai Powerplant           | Malakoff Corporation Berhad                         | 2021 | Malaysia  |
|                                 | Cable trough   | Singapore Power NDC                | Singapore power                                     | 2020 | Singapore |
|                                 | LM series      | Jawa Power Plant                   | PT Perusahaan Listrik Negara (Persero)              | 2020 | Indonesia |
|                                 | Cable tray     | Bang Pakong Hybrid                 | Electricity Generating Authority of Thailand (EGAT) | 2019 | Thailand  |
|                                 | LMH series     | Al Madina Al Shamaliya (AMAS) STP  | Ministry of Housing, Bahrain                        | 2017 | Bahrain   |
|                                 | LM series      | Dubai Power Plant, UAE             | Dubai Electricity & Water Authority (DEWA)          | 2017 | UAE       |
|                                 | LM series      | Victoria Desalination Plant        | Victorian Government                                | 2022 | Australia |
| <b>Mining</b>                   | LE series      | MCD Copper Gold Mining             | Merdeka Copper Gold                                 | 2023 | Indonesia |
|                                 | LE series      | Roy Hill Project                   | Hancock Prospecting Pty Ltd                         | 2016 | Australia |
| <b>Renewable energy</b>         | LMH series     | Hailong Offshore Windfarm          | HaiLong                                             | 2022 | Vietnam   |
| <b>Construction</b>             | Cable tray     | LTA Singapore                      | Land Transport Authority (LTA) Singapore            | 2022 | Singapore |
| <b>Chemical / Petrochemical</b> | Cable tray     | Silica Plant                       | Petrotech                                           | 2022 | Malaysia  |
|                                 | Cable tray     | W R Grace Chemical Plant           | W.R. Grace                                          | 2021 | Malaysia  |
|                                 | Cable tray     | Westport Fertilizer Plant          | Westport                                            | 2020 | Malaysia  |
|                                 | Cable tray     | Diversatech Fertilizer Plant       | Diversatech Fertilizer Sdn. Bhd.                    | 2018 | Malaysia  |
|                                 | Cable tray     | PT Indah Kiat Pulp & Paper         | PT Indah Kiat Pulp & Paper                          | 2017 | Indonesia |
| <b>FPSO</b>                     | LMH series     | La Noumbi FPSO                     | Dixtone Holdings                                    | 2018 | Singapore |



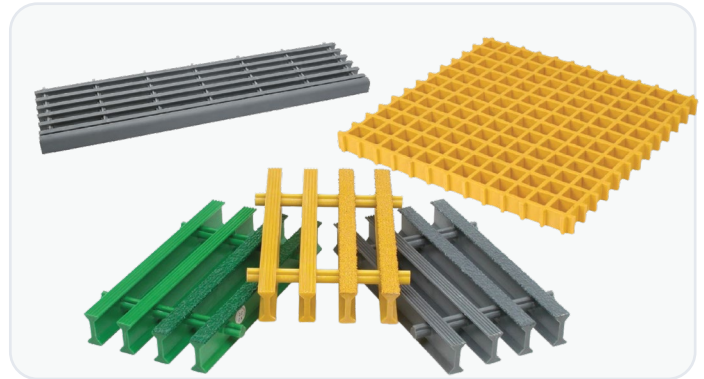
## Full Range of INTECH FRP Products

Assisting you to make a better choice from the best for your successful project with INTECH FRP composite industrial products.

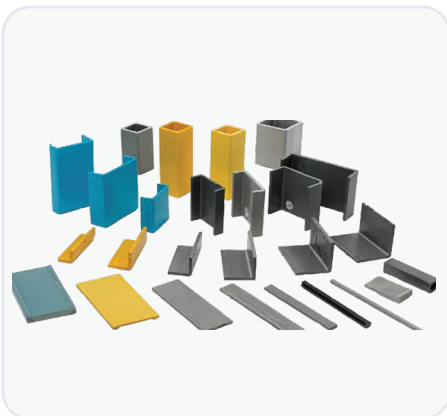
### INTECH CABLE LADDER & CABLE TRAY



### INTECH GRATING & STAIRTREAD



### INTECH STRUCTURAL SUPPORT SYSTEM



### INTECH STRUCT CHANNEL

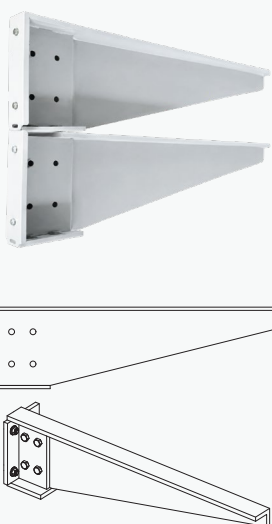


### INTECH HANDRAIL & CAGED LADDER SYSTEM

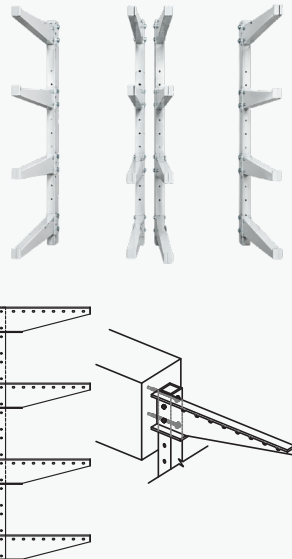


### INTECH CANTILEVER & SUPPORT BRACKET SYSTEM

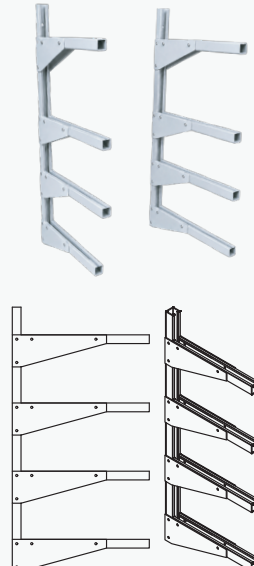
#### SINGLE CHANNEL



#### MULTI TIER CHANNEL



#### UNISTRUT TYPE



#### LADDER

