DANA

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DANA GROUP

DANA STEEL PROCESSING INDUSTRY L.L.C.

DANA CABLE MANAGEMENT SYSTEM

CABLE LADDERS AND ACCESSORIES

Vision and Mission

Our Vision

We aspire to be the global steel industry benchmark by being the world's most reliable and innovative value added Steel Manufacturer, service and Solution Provider.

Our Mission

To maximize value for our worldwide client base by supply high quality steel products, providing related services and solutions while utilizing innovative technologies and a team of motivated employees, focused on continuous improvement, highest business standards, work ethics and corporate citizenship.

Our Company Policy

The company management preaches Japanese Style of Management where ideas pass on from shop floor level right up to the top management's desk. We make sure that right thing is at right place at right time. This helps us to manufacture our products with high precision and meeting all the specifications. We have capability to deliver and meet urgent needs of our customers and have built their confidence by providing high quality in time. Our manufacturing facilities which are spread out in Al Quoz, Umm-Al-Quwain, Ajman and Libya help us to execute bulky orders in time.

We believe in continuous improvement and follow Lean and Kaizen principles. We are striving to serve you better.

PREFACE

DANA Offers a comprehensive range of components forming the elements of a Complete cable management system. The system offered comprises :

- DANA Cable trays and cable ladders (conforming to BS EN 61537)
- DANA Metal channel cable supports (conforming to BS 6946)
- DANA Steel surface Trunking (conforming to BS EN 50085-1:2005 (which supersedes BS4678-1)
- DANA Pull Boxes
- DANA Cable tray Accessories

DANA Cable Management system's full range of products from are having ISO 9001:2008 certification. We have fully equipped factory with Design, production and Quality control Departments. The load capabilities. Support span requirements, Deflection criteria, site installation problems have been carefully considered by our design department while designing the entire product range. All our products are manufactured using the latest CNC technology which help us to maintain a unique quality product throughout manufacturing. Entire DANA Cable management system has been designed to minimize welding. Last 15 Years of research and development in this field has helped us to develope a system which has taken into account all the requirements of construction sites in the Middle East & Asia.

Dana cable management system do comply with nema standard

Nema VE1

It covers general cable tray defination, manufacturing standards, performance standards, test standards and application information.

Nema VE2

It is a cable tray installation guidelines which covers receiving and unloading material, storage of material and general installation process.

Raw Material

Carbon Steel

This raw material occupies 90% of Cable tray manufactured through out the world, confirms to BS 1449 / BS EN 10130 / BS EN 10131. It combines good strength economy and availability. It has got various coating on top of that to avoid corrosion.

Stainless Steel

Stainless Steel Products, manufactured in accordance with AISI 304, or in accordance with AISI 316L are designed for use in highly aggressive environments. It has an extensive use in various areas like refineries. Chemical industries, Fertilizer factories and Industries where hygiene is a major concern like dairies, Abattoirs food industries and pharmaceutical factories. Apart from the aesthetic appearance it resists fire to a greater extent. Stainless steel can maintain its integrity even in a flame temperature of 1000ºC. The main types available are the following.

Stainless Steel AISI 304 and AISI 316 L

304 is the normal grade used in stainless steel where as 316L is used in highly aggressive environment with high chlorine contents like in marine areas. With the presence of Molybdenum in 316L it has got an improved corrosion resistance against chlorides.

Surface Coatings

HOT DIP Galvanizing After Fabrication (HDGAF)

Hot dip galvanizing is a process where completely manufactured or roll formed steel is chemically cleaned of all contaminants and then dipped in molten zinc. This will allow a coating consisting of Iron/zinc alloys which are usually over coated with a layer of almost pure zinc. The thickness of zinc coating depends on the thickness of the steel. Local coating thickness varies from 45-85 Micron (320-610 gm^2) depending on thickness.

Corten A Steel can be deep galvanized upto 3 to 4 times of normal coating where the operation remain same as aforesid. Grey coating is expected due to the high silicon content of this Steel.

American Standard : ASTM A123, A153 and A767

British Standard : BS EN ISO 1461:1999 (which supersedes BS 729:1971)

PRE-GALVANIZED Finish or Hot DIP Galvanized sheet finish (HDGBF)

This finish is an economical solution in the normally dry indoor applications where the atmosphere is less corrosive. In this finish zinc coating is applied on both sides of the steel sheet during manufacturing itself, resulting in bright and smooth surface finish. Not suitable for any highly corrosive and high humidity atmospheric conditions.

Generally we use the current steel grade of Z 275 (G-90).

British Standard : BS EN 10346; 2009, which supersedes BS EN 10142:2000 (Formerly BS 2989-1982)

American Standard : ASTM A653 / A653M

Electro-Galvanizing (EG)

In this finish a thin zinc layer is deposited in electrolysis process to an average of 8 to 10. Usage is limited only to dry interior spaces due to very less coating tickness. All zinc electroplating with passivation is in accordance to BS7371 for threaded mild steel products up to 19mm in diameter and to BS1706 for other mild steel products.

Epoxy Powder Coatings (PC)

These coatings are applied to mild steel components. The coating can be offered in a wide variety of colours to meet the architectural project requirements. The coatings themselves are resilient to damage and will withstand atmospheric pollution and ultraviolet exposure from sunlight.

LIGHT DUTY METAL CABLE LADDERS

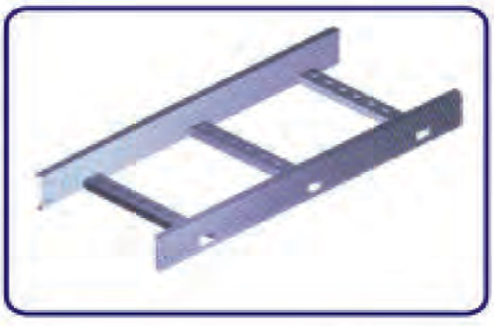
LDL - Cable Ladders are produced up to 600 mm width with inside return flange for light duty applications only.

SIDE HEIGHT : 60 mm
USABLE HEIGHT : 43 mm

MEDIUM DUTY METAL CABLE LADDERS

MDL - Cable Ladders are produced with outside flange to provide strength and rigidity to the component.

SIDE HEIGHT : 100 mm
USABLE HEIGHT : 75 mm



HEAVY DUTY METAL CABLE LADDERS

HDL - Cable Ladders are produced with outside return flange to provide the component increased depth, heavy strength and rigidity to support heavy cable loads.

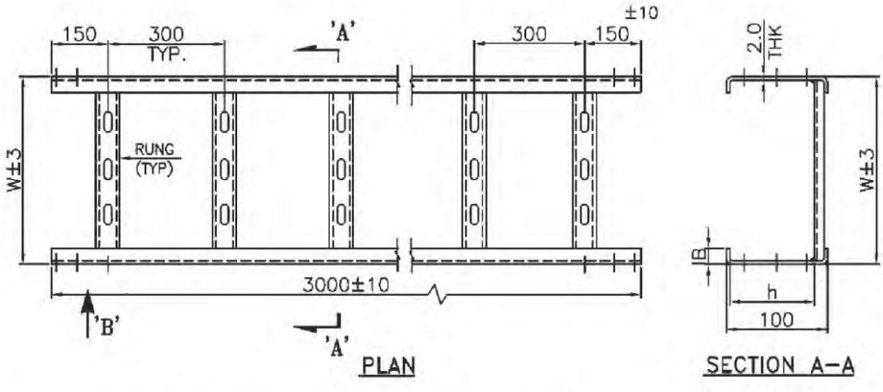
SIDE HEIGHT : 125 mm
USABLE HEIGHT : 100 mm

EXTRA HEAVY DUTY METAL CABLE LADDERS

XDL - Cable Ladders are produced with outside return flange with larger depth for better cable management and increased load bearing capacity.

SIDE HEIGHT : 150 mm
USABLE HEIGHT : 121 mm

DANA LADDER TYPE CABLE TRAY WITH INSIDE RETURN FLANGE



ORDER PATTERN

To select the required component, please specify the component, width & finish. Angles can be mentioned wherever necessary.

EXAMPLE: For 300 mm wide Cable Ladder.

LDL / COMPONENT / WIDTH / FINISH (WITHOUT ANGLE)

LDL / CL / 300 / HDG

EXAMPLE: For 300 mm wide Elbow Horizontal 90°

LDL / COMPONENT / WIDTH / ANGLE / FINISH (WITH ANGLE)

LDL / EHL / 300 / 90 / HDG

STANDARD FINISHES

HDP	Hot dip Glavanized and Panted
HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

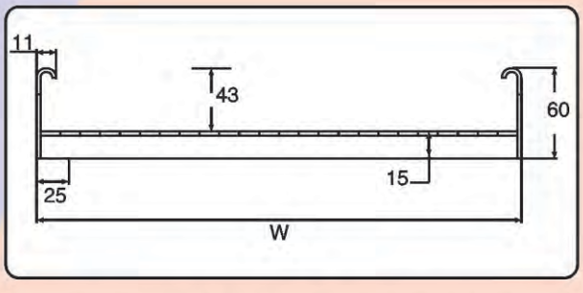
FOR STRAIGHT LENGTHS AND ACCESSORIES

Width (W)	Thickness (T)
All dimensions are in mm	
100 to 600	1.5

Light duty cable ladders are produced in a standard length of 3 mtrs but can be produced in different lengths on request.

Light duty cable ladder accessories are produced to standard radius of 300 mm but can be produced in 450 mm, 600mm and 900 mm as required.

Light duty cable ladders are produced up to 600mm wide only. LDL are provided with inside return flanges to provide extra rigidity and strength to the ladder.



LIGHT DUTY LADDERS

LDL / CL / WIDTH / FINISH

LIGHT DUTY ELBOW HORIZONTAL - 30°/45°/60°/90°

LDL / EHL / WIDTH / ANGLE / FINISH

LIGHT DUTY UNEQUAL ELBOW - 30°/45°/60°/90°

LDL / UEHL / W1 / W2 / ANGLE / FINISH

LIGHT DUTY TEE HORIZONTAL

LDL / THL / WIDTH / FINISH

LIGHT DUTY UNEQUAL TEE

LDL / UTHL / W1 / W2 / W3 / FINISH

LIGHT DUTY EXTERNAL RISER - 30°/45°/60°/90°

LDL / ERL / WIDTH / ANGLE / FINISH

LIGHT DUTY INTERNAL RISER - 30°/45°/60°/90°

LDL / IRL / WIDTH / ANGLE / FINISH

LIGHT DUTY CROSS HORIZONTAL

LDL / CHL / WIDTH / FINISH

LIGHT DUTY REDUCER STRAIGHT

LDL / RSL / W1 / W2 / FINISH

LIGHT DUTY REDUCER LEFT

LDL / RLL / W1 / W2 / FINISH

LIGHT DUTY REDUCER RIGHT

LDL / RRL / W1 / W2 / FINISH

LIGHT DUTY FLANGE CONNECTORS

LDL / FCL / FINISH

RUNG DETAILS

The standard rung spacing is 300mm. Optional Rung spacing is 150mm, 250mm as required.

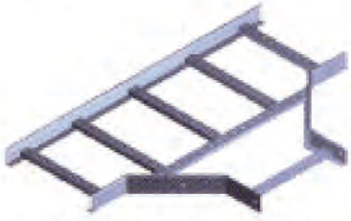
Width (W)	Thickness (T)
All dimensions are in mm	
100 to 600	2.0

Standard rungs for the light duty ladder are slotted C - type.

LDL - CABLE LADDER

LDL - FLANGE CONNECTOR

LDL - ELBOW HORIZONTAL



LDL - TEE HORIZONTAL

LDL - UNEQUAL TEE

LDL - INTERNAL RISER

LDL - EXTERNAL RISER

LDL - CROSS HORIZONTAL

LDL - REDUCER STRAIGHT

LDL REDUCER RIGHT

LDL - REDUCER LEFT

For Unequal Elbow, please specify widths W1 & W2 starting from left hand side.

For Unequal Tee, please specify widths in anti-clockwise direction as W1, W2, W3 starting from left hand side.

For Unequal Cross please specify widths in anti- clockwise direction as W1, W2, W3, W4 starting from the top.

LDL / UCHL / W1 / W2 / W3 / W4 / FINISH

For Reducers consider W1 as the larger size & W2 as the smaller size. Thickness of the Reducer to be followed of the larger size.

Reducing Connectors can also be used for reduction depending on the site application.

Reducer Left can be used where cable Ladders have the limitation of run on the right hand side.

Reducer Right can be used where cable Ladders have the limitation of run on the left hand side.

FLANGE CONNECTORS

LD Ladder connectors are produced with flanges to wrap up the side member of the ladder to provide extra strength to the component.

Connectors are supplied in pairs with a set of M6 x 12 roofing bolts, nuts and washers. To be ordered separately.

Width (W)	Thickness (T)
All dimensions are in mm	
100 to 600	2.0

Expansion connectors are also provided to ease the installation process at site. Refer page 13.

Bonding Jumpers are used for earthing connectivity of ladders. Refer page 13.

LDL Cable Ladder Fittings are produced to suit different and complexed installations of light duty ladder system. Refer page 13.

ORDER PATTERN

To select the required component, please specify the component, width, finish. Angles can be mentioned wherever necessary.

EXAMPLE: For 225 mm wide Cable Ladder.

MDL / COMPONENT / WIDTH / FINISH (WITHOUT ANGLE)

MDL / CL / 225 / HDG

EXAMPLE: For 225 mm wide Elbow Horizontal 90°

MDL / COMPONENT / WIDTH / ANGLE / FINISH (WITH ANGLE)

MDL / EHL / 225 / 90 / HDG

STANDARD FINISHES

HDP	Hot dip Glavanized and Panted
HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

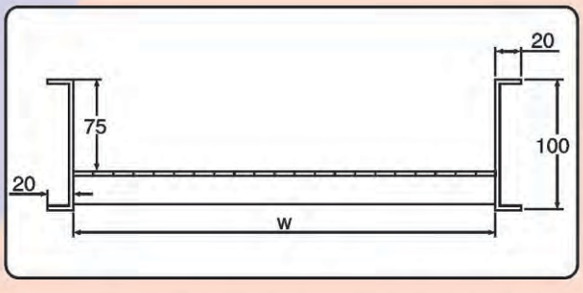
FOR STRAIGHT LENGTHS AND ACCESSORIES

Width (W)	Thickness (T)
All dimensions are in mm	
150 to 600	1.5
750 to 1000	2.0

Medium duty cable ladders are produced in a standard length of 3 mtrs but can be produced in different lengths on request.

Medium duty cable ladder accessories are produced to standard radius of 300 mm but can be produced in 450 mm, 600mm and 900 mm as required.

Medium duty cable ladders are produced above 150mm only. MDL are provided with outside flanges to provide rigidity and strength to the ladder.



MEDIUM DUTY LADDERS

MDL / CL / WIDTH / FINISH

MEDIUM DUTY ELBOW HORIZONTAL - 30°/45°/60°/90°

MDL / EHL / WIDTH / ANGLE / FINISH

MEDIUM DUTY ADJUSTABLE ELBOW

MDL / AEHL / WIDTH / FINISH

MEDIUM DUTY TEE HORIZONTAL

MDL / THL / WIDTH / FINISH

MEDIUM DUTY UNEQUAL TEE

MDL / UTHL / W1 / W2 / W3 / FINISH

MEDIUM DUTY INTERNAL RISER - 30°/45°/60°/90°

MDL / IRL / WIDTH / ANGLE / FINISH

MEDIUM DUTY EXTERNAL RISER - 30°/45°/60°/90°

MDL / ERL / WIDTH / ANGLE / FINISH

MEDIUM DUTY ADJUSTABLE RISER

MDL / ARL / WIDTH / FINISH

MEDIUM DUTY CROSS HORIZONTAL

MDL / CHL / WIDTH / FINISH

MEDIUM DUTY REDUCER STRAIGHT

MDL / RSL / W1 / W2 / FINISH

MEDIUM DUTY REDUCER RIGHT

MDL / RRL / W1 / W2 / FINISH

MEDIUM DUTY REDUCER LEFT

MDL / RLL / W1 / W2 / FINISH

MEDIUM DUTY STRAIGHT CONNECTOR

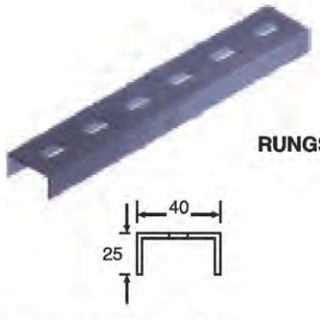
MDL / SCL / FINISH

RUNG DETAILS

The standard rung spacing is 300mm. Optional Rung spacing is 150mm, 250mm as required.

Standard rungs for the medium duty ladder are slotted C - type.

Width (W)	Thickness (T)
All dimensions are in mm	
150 to 600	1.5
700 to 1000	2.0



RUNGS

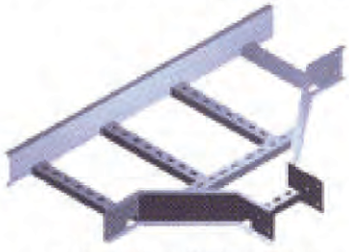
MDL - CABLE LADDER

MDL - STRAIGHT CONNECTOR

MDL - ELBOW HORIZONTAL

MDL - ADJUSTABLE ELBOW

MDL - TEE HORIZONTAL



MDL - UNEQUAL TEE

MDL - INTERNAL RISER

MDL - EXTERNAL RISER

MDL - REDUCER STRAIGHT

MDL - CROSS HORIZONTAL

MDL - REDUCER LEFT

MDL - REDUCER RIGHT

For Unequal Elbow, please specify widths W1 & W2 starting from left hand side.

MDL / UEHL / W1 / W2 / ANGLE / FINISH

For Unequal Tee, please specify widths in anti-clockwise direction as W1, W2, W3 starting from left hand side.

For Unequal Cross please specify widths in anti- clockwise direction as W1, W2, W3, W4 starting from the top.

MDL / UCHL / W1 / W2 / W3 / W4 / FINISH

Thickness for unequal Tee, Unequal Cross and Reducers to be considered of the larger size of the accessory.

Reducing Connectors can also be used for reduction depending on the site application.

For Reducers consider W1 as the larger size & W2 as the smaller size.

Reducer Right can be used where cable Ladders have the limitation of run on the left hand side.

Reducer Left can be used where cable Ladders have the limitation of run on the right hand side.

STRAIGHT CONNECTORS

MDL Cable Ladders are joined together by straight connectors. Connectors are supplied in pairs with a set of M8 x 16 carriage bolts, nuts and washers. To be ordered separately.

Width (W)	Thickness (T)
All dimensions are in mm	
150 to 1000	2.0

Expansion connectors are also provided to ease the installation process at site. Refer page 17.

Bonding Jumpers are used for earthing connectivity of ladders. Refer page 17.

MDL Cable Ladder Fittings are produced to suit standard and complexed installations of medium duty ladder system. Refer page 14.

ORDER PATTERN

To select the required component, please specify the component, width, finish. Angles can be mentioned wherever necessary.

EXAMPLE: For 300 mm wide Cable Ladder.

HDL / COMPONENT / WIDTH / FINISH (WITHOUT ANGLE)

HDL / CL / 300 / HDG

EXAMPLE: For 300 mm wide Elbow Horizontal 90°

HDL / COMPONENT / WIDTH / ANGLE / FINISH (WITH ANGLE)

HDL / EHL / 300 / 90 / HDG

STANDARD FINISHES

HDP	Hot dip Glavanized and Panted
HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

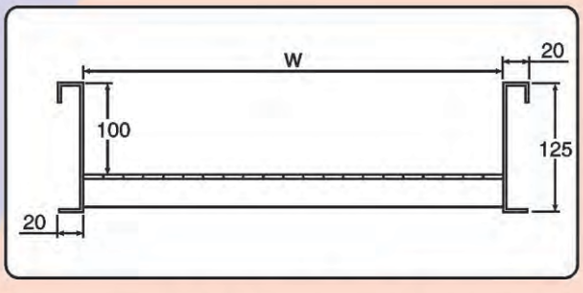
FOR STRAIGHT LENGTHS AND ACCESSORIES

Width (W)	Thickness (T)
All dimensions are in mm	
150 to 1000	2.0

Heavy Duty Cable Ladders are produced in a standard length of 3 mtrs but can be produced in different lengths on request.

Heavy Duty Cable Ladders accessories are produced to standard radius of 300 mm but can be produced in 450 mm, 600mm and 900 mm as required.

Heavy duty cable ladders are produced with 125mm side height to give the user the increased usable height of the ladder. HDL are produced with outside return flanges to provide rigidity and strength to the ladder.



HEAVY DUTY CABLE LADDERS

HDL / CL / WIDTH / FINISH

HEAVY DUTY ELBOW HORIZONTAL - 30°/45°/60°/90°

HDL / EHL / WIDTH / ANGLE / FINISH

HEAVY DUTY ADJUSTABLE ELBOW

HDL / AEHL / WIDTH / FINISH

HEAVY DUTY TEE HORIZONTAL

HDL / THL / WIDTH / FINISH

HEAVY DUTY UNEQUAL TEE

HDL / UTHL / W1 / W2 / W3 / FINISH

HEAVY DUTY EXTERNAL RISER - 30°/45°/60°/90°

HDL / ERL / WIDTH / ANGLE / FINISH

HEAVY DUTY INTERNAL RISER - 30°/45°/60°/90°

HDL / IRL / WIDTH / ANGLE / FINISH

HEAVY DUTY CROSS HORIZONTAL

HDL / CHL / WIDTH / FINISH

HEAVY DUTY REDUCER STRAIGHT

HDL / RSL / W1 / W2 / FINISH

HEAVY DUTY REDUCER RIGHT

HDL / RRL / W1 / W2 / FINISH

HEAVY DUTY REDUCER LEFT

HDL / RLL / W1 / W2 / FINISH

HEAVY DUTY STRAIGHT CONNECTOR

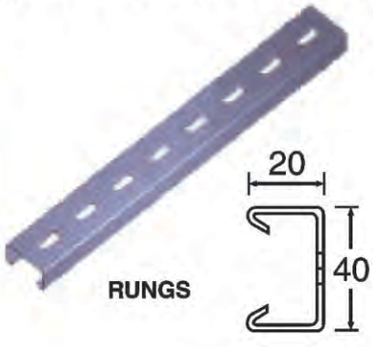
HDL / SCL / FINISH

RUNG DETAILS

The standard rung spacing is 300mm. Optional Rung spacing is 150mm, 250mm as required.

Standard rungs for the heavy duty ladder are slotted C - type with return flanges.

Width (W)	Thickness (T)
All dimensions are in mm	
150 to 600	1.5
750 to 1000	2.0



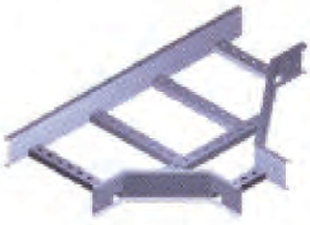
HDL CABLE LADDER

DL - STRAIGHT CONNECTOR

HDL - ELBOW HORIZONTAL

HDL - ADJUSTABLE ELBOW

HDL - TEE HORIZONTAL



HDL - UNEQUAL TEE

HDL - INTERNAL RISER

HDL - EXTERNAL RISER

HDL - REDUCER STRAIGHT

HDL - CROSS HORIZONTAL

HDL - REDUCER RIGHT

HDL - REDUCER LEFT

For Unequal Elbow, please specify widths W1 & W2 starting from left hand side.

HDL / UEHL / W1 / W2 / ANGLE / FINISH

For Unequal Tee, please specify widths in anti-clockwise direction as W1, W2, W3 starting from left hand side.

For Unequal Cross please specify widths in anti- clockwise direction as W1, W2, W3, W4 starting from the top.

HDL / UCHL / W1 / W2 / W3 / W4 / FINISH

Thickness for Unequal Tee, Unequal Cross and Reducers to be considered of the larger size of the accessory.

Reducing Connectors can also be used for reduction depending on the site application.

For Reducers consider W1 as the larger size & W2 as the smaller size.

Reducer Right can be used where cable Ladders have the limitation of run on the left hand side.

Reducer Left can be used where cable Ladders have the limitation of run on the right hand side.

STRAIGHT CONNECTORS

HDL Cable Ladders are joined together by straight connectors. Connectors are supplied in pairs with a set of M8 x 16 carriage bolts, nuts and washers. To be ordered separately.

Width (W)	Thickness (T)
All dimensions are in mm	
150 to 1000	2.0

Expansion connectors are also provided to ease the installation process at site. Refer page 16.

Bonding Jumpers are used for earthing connectivity of ladders. Refer page 16.

HDL Cable Ladder Fittings are produced to suit standard and complexed installations of heavy duty ladder system. Refer page 14.

ORDER PATTERN

To select the required cover, please specify the component, width, finish. Angles can be mentioned wherever necessary.

EXAMPLE: For 450 mm wide Cable Ladder Ventilated Cover

TYPE / COMPONENT COVER / WIDTH / FINISH (WITHOUT ANGLE)

TYPE / CLVC / 450 / HDG

EXAMPLE: For 450 mm wide Elbow Horizontal 90° Closed Cover

TYPE / COMPONENT COVER / WIDTH / ANGLE / FINISH (WITH ANGLE)

TYPE / EHLCC / 450 / 90 / HDG

STANDARD FINISHES

HDP Hot dip Glavanized and Panted

HDG Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)

PG Pre-galvanized to BS EN 10142 & 10143

PC Powder Coating to suit clients requirements

SS Stainless steel finish to required grades

COVERS FOR STRAIGHT LENGTHS AND ACCESSORIES

Width (W)	Thickness (T)	Side Height (H)
All dimensions are in mm		
100 to 300	1.0	11
450 to 600	1.2 2.0	11
750 to 1000	1.5	11

LDL - VENTILATED COVER CLAMP

LDL / VCC cover clamp is supplied for LDL ventilated cover arrangement with the set of M6 x 12 roofing bolts, nuts & washers. To be ordered separately.

LDL - CLOSED COVER CLAMP

LDL / CCC scre type closed cover clamp is supplied for LDL closed cover arrangement with the set of M6 x 12 roofing bolt. To be ordered separately.

MDL - VENTILATED COVER CLAMP

MDL / VCC cover clamp is supplied for MDL ventilated cover arrangement with the set of M6 x 12 roofing bolts, nuts & washers. To be ordered separately.

HDL / XDL - VENTILATED COVER CLAMP

TYPE / VCC cover clamp is supplied for HDL & XDL ventilated cover arrangement with the set of M6 x 12 roofing bolts, nuts, washers & hexagonal bolt M6 x 20. To be ordered separately. Please specify the type of order your requirement.

MDL / HDL / XDL - CLOSED COVER CLAMP

TYPE / CCC screw type closed cover clamp is supplied for closed cover arrangement with the set of M6 x 15 hexagonal bolt & washer. To be ordered separately. Please specify the type of order your requirement.

CABLE LADDER CLOSED COVER

TYPE / CLCC / WIDTH / FINISH

CABLE LADDER VENTILATED COVER

TYPE / CLVC / WIDTH / FINISH

ELBOW HORIZONTAL CLOSED COVER

TYPE / EHLCC / WIDTH / ANGLE / FINISH

ELBOW HORIZONTAL VENTILATED COVER

TYPE / EHLVC / WIDTH / ANGLE / FINISH

TEE HORIZONTAL CLOSED COVER

TYPE / THLCC / WIDTH / FINISH

TEE HORIZONTAL VENTILATED COVER

TYPE / THLVC / WIDTH / FINISH

CROSS HORIZONTAL CLOSED COVER

TYPE / CHLCC / WIDTH / FINISH

CROSS HORIZONTAL VENTILATED COVER

TYPE / CHLVC / WIDTH / FINISH

INTERNAL RISER CLOSED COVER

TYPE / IRLCC / WIDTH / ANGLE / FINISH

INTERNAL RISER VENTILATED COVER

TYPE / IRLVC / WIDTH / ANGLE / FINISH

EXTERNAL RISER CLOSED COVER

TYPE / ERLCC / WIDTH / ANGLE / FINISH

EXTERNAL RISER VENTILATED COVER

TYPE / ERLVC / WIDTH / ANGLE / FINISH

UN-EQUAL TEE CLOSED COVER

TYPE / UTHLCC / W1 / W2 / W3 / ANGLE / FINISH

UN-EQUAL TEE VENTILATED COVER

TYPE / UTHLVC / W1 / W2 / W3 / ANGLE / FINISH

REDUCER STRAIGHT CLOSED COVER

TYPE / RSLCC / W1 / W2 / FINISH

REDUCER STRAIGHT VENTILATED COVER

TYPE / RSLVC / W1 / W2 / FINISH

REDUCER RIGHT CLOSED COVER

TYPE / RRLCC / W1 / W2 / FINISH

REDUCER RIGHT VENTILATED COVER

TYPE / RRLVC / W1 / W2 / FINISH

REDUCER LEFT CLOSED COVER

TYPE / RLLCC / W1 / W2 / FINISH

REDUCER LEFT VENTILATED COVER

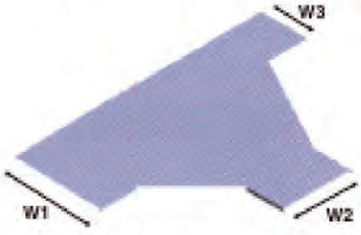
TYPE / RLLVC / W1 / W2 / FINISH

CABLE LADDER CLOSED COVERS

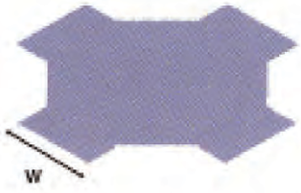
CABLE LADDER VENTILATED COVERS

ELBOW HORIZONTAL COVER

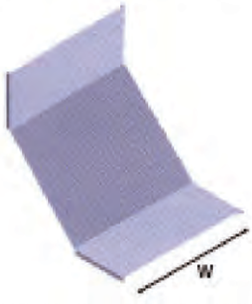
TEE HORIZONTAL COVER



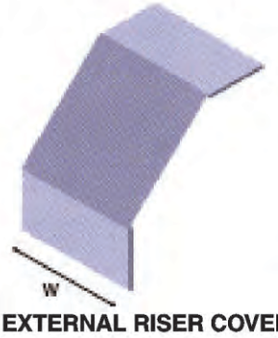
UN-EQUAL TEE COVER



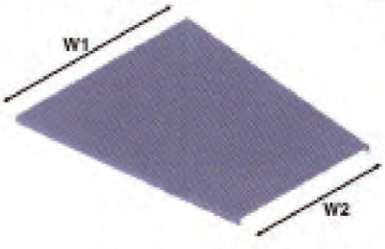
CROSS HORIZONTAL COVER



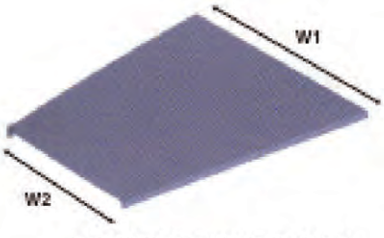
INTERNAL RISER COVER



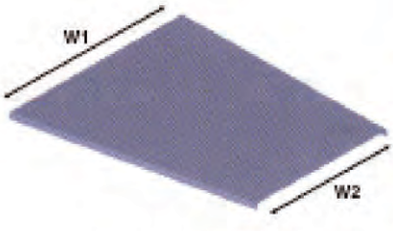
EXTERNAL RISER COVER



REDUCER STRAIGHT COVER



REDUCER RIGHT COVER



REDUCER LEFT COVER

CLOSED COVER CLAMPS

LDL / CCC

Screw type closed cover clamp

TYPE / CCC

● Screw t pe closed cover clamp

LDL / CCC can be used for Light duty ladders only

● Screw type closed cover clamp can be used for MDL/HDL/XDL arrangement. Specify type to order your requirement.

VENTILATED COVER CLAMPS

LDL / VCC

Ventilated cover clamp

MDL / VCC

Ventilated cover clamp

LDL / VCC can be used for Light duty ladders only

MDL / VCC can be used for medium duty ladders only

TYPE / VCC

● Ventilated cover clamp

● Ventilated cover clamp can be used for HDL / XDL arrangement. Specify type to order your requirement.

For Unequal Cross Cover Specify the widths as W1, W2, W3, W4 in anti-clockwise direction starting from the top.

TYPE / UCHLCC / W1 / W2 / W3 / W4 / FINISH
TYPE / UCHLVC / W1 / W2 / W3 / W4 / FINISH

For Unequal Tee Cover, please specify widths in anti- clockwise direction as W1, W2, W3 starting from left hand side.

For Unequal Elbow Cover, please specify widths W1 & W2 starting from left hand side.

TYPE / UEHLCC / W1 / W2 / ANGLE / FINISH
TYPE / UEHLVC / W1 / W2 / ANGLE / FINISH

Covers can be used as closed or ventilated by using appropriate clamps. Necessary holes are provided on the covers for clamping.

Covers can be produced with louvers also on request.

ORDER PATTERN

To select the required component, please specify the component, type, width & finish.

EXAMPLE: For 450 mm wide Blind End.
COMPONENT / LDL / WIDTH / FINISH
BEL / LDL / 450 / HDG

EXAMPLE: For Hold Down Bracket
COMPONENT / LDL / FINISH
HDBL / LDL / HDG

STANDARD FINISHES

HDP	Hot dip Glavanized and Panted
HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

Light Duty Cable Ladder fittings are produced to suit standard and complexed installations of the light duty ladder system.

BLIND END

Standard thickness of blind ends for LDL system is 1.5 mm. Roofing bolt M6 x 12 nuts and washers are used for fastening.

REDUCING CONNECTOR

Standard thickness of Reducing Connector for LDL system is 2.0 mm. Roofing bolt M6 x 12 nuts and washers are used for fastening.

ADJUSTABLE VERTICAL CONNECTOR

Standard thickness of Adjustable Vertical Connector for LDL system is 2.0 mm. Carriage bolt M8 x 16 is used to join two pieces of connectors and Roofing Bolt M6 x 12 nuts and washers are used for connection with ladders.

BOX CONNECTOR

Standard thickness of Box Connector for LDL system is 2.0 mm. Roofing bolt M6 x 12 nuts and washers are used for fastening.

BLIND END

BEL / LDL / WIDTH / FINISH

REDUCING CONNECTOR

RCL / LDL / W1-W2 / FINISH

ADJUSTABLE VERTICAL CONNECTOR

AVCL / LDL / FINISH

BOX CONNECTOR

BXCL / LDL / WIDTH / FINISH

DROP OUT

DOL / LDL / WIDTH / FINISH

BARRIER STRAIGHT

BSL / LDL / FINISH

HOLD DOWN BRACKET

HDBL / LDL / FINISH

EXPANSION CONNECTOR

EXCL / LDL / FINISH

BONDING JUMPER

BJL

HOLD DOWN CLAMP

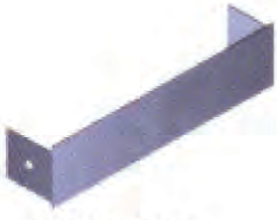
HDCL / LDL / FINISH

MOUNTING PLATE

MP / LDL / WIDTH / FINISH

RIGHT ANGLED CONNECTOR

RACL / LDL / FINISH



BLIND END

REDUCING CONNECTOR

ADJUSTABLE VERTICAL CONNECTOR

BOX CONNECTOR

DROP OUT

RIER STRAIGHT

HOLD DOWN CLAMP

EXPANSION CONNECTOR

BONDING JUMPER

HOLD DOWN BRACKET

MOUNTING PLATE

RIGHT ANGLED CONNECTOR

BONDING JUMPER

AREA : 16 mm^2
LENGHT : 145 mm from center to center

Bonding Jumper for Cable Ladder earthing connectivity is produced from braided tinned copper with M8 copper lugs on both sides. Roofing bolts M6 x 12, nuts & washers are used for fastening. To be ordered separately.

DROP OUT

Standard thickness of Drop out for LDL system is 2.0 mm. Roofing bolt M6 x 12 nuts and washers are used for fastening.

BARRIER STRAIGHT

Standard thickness of Barrier Straight for LDL system is 1.5 mm. Barrier Straights are produced in 3 mtr length and roofing bolt M6 x 12 nuts and washers are used for fastening.

EXPANSION CONNECTOR

Standard thickness of Expansion Connector for LDL system is 2.0 mm. Roofing bolt M6 x 12 nuts and washers are used for fastening.

HOLD DOWN BRACKET

Standard thickness of Hold down bracket for LDL system is 2.0 mm. Hexagonal bolt M8 x 20 nuts and washers are used for fastening. Spring nuts can also be used depending on site application.

HOLD DOWN CLAMP

Standard thickness of Hold down clamp for LDL system is 5.0 mm. Hexagonal bolt M8 x 25 nuts and washers are used for fastening.

MOUNTING PLATE

Standard thickness of Mounting Plates for LDL system is 2.0 mm. Mounting Plates are used for installation of light electrical equipments on a cable ladder run. Roofing bolt M6 x 12 nuts and washers are used for fastening.

RIGHT ANGLED CONNECTOR

Standard thickness of Right Angled Connector for LDL system is 2.0 mm. Roofing bolt M6 x 12 nuts and washers are used for fastening.

ORDER PATTERN

- **The Cable Ladder Fittings on this page are produced for Medium / Heavy / Extra Heavy Duty Ladder Systems.**

To select the required component, please specify the component, type, width & finish.

EXAMPLE: For 450 mm wide Blind End.
COMPONENT / TYPE / WIDTH / FINISH
BEL / MDL / 450 / HDG

EXAMPLE: For Hold Down Bracket
COMPONENT / TYPE / FINISH
HDBL / MDL / HDG

STANDARD FINISHES

HDP	Hot dip Glavanized and Panted
HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

Specify the type of the ladder in the table to order the component.

BLIND END

BEL / TYPE / WIDTH / FINISH

REDUCING CONNECTOR

RCL / TYPE / W1-W2 / FINISH

ADJUSTABLE VERTICAL CONNECTOR

AVCL / TYPE / FINISH

BOX CONNECTOR

BXCL / TYPE / WIDTH / FINISH

DROP OUT

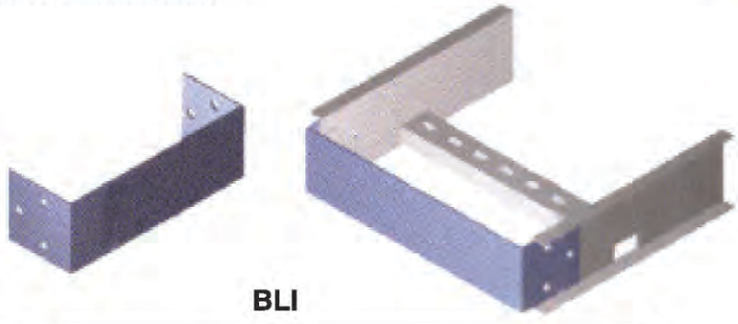
DOL / WIDTH / FINISH

BARRIER STRAIGHT

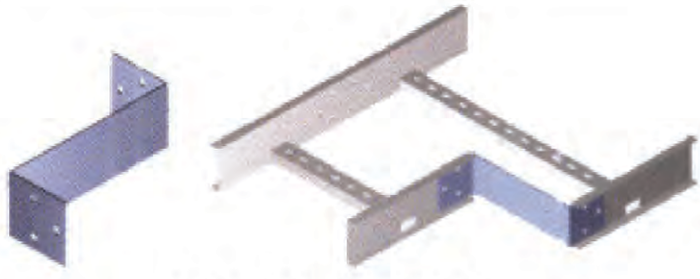
BSL / TYPE / FINISH

HOLD DOWN BRACKET

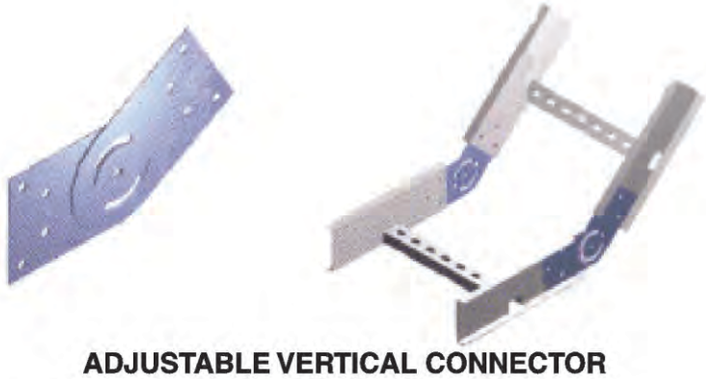
HDBL / TYPE / FINISH



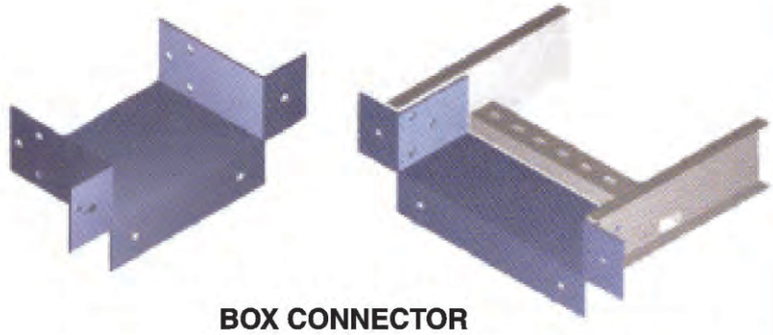
BLI



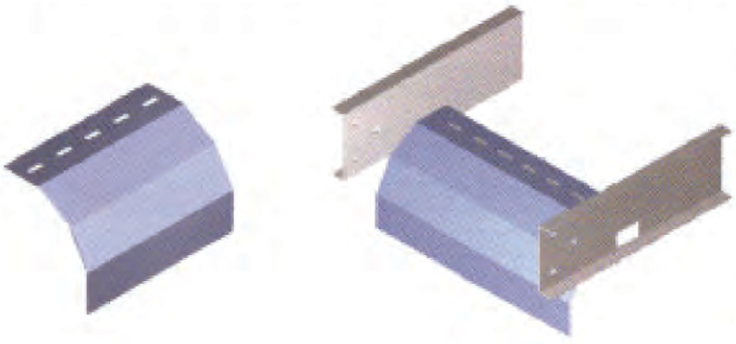
REDUCING CONNECTOR



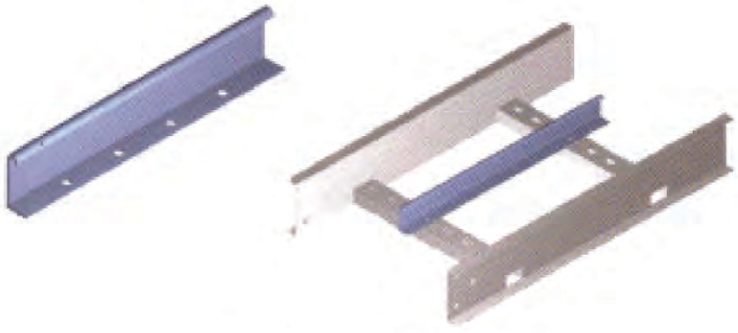
ADJUSTABLE VERTICAL CONNECTOR



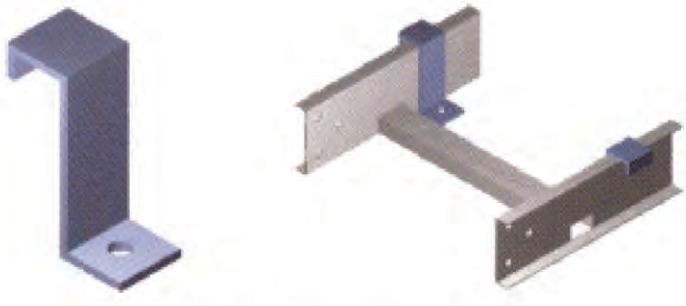
BOX CONNECTOR



DROP OUT



BARRIER STRAIGHT



HOLD DOWN BRACKET

BLIND END

Standard thickness of Blind Ends for Ladder systems is 1.5 mm. Carriage bolt M8 x 16 nuts and washers are used for fastening.

REDUCING CONNECTOR

Standard thickness of Reducing Connector for Ladder systems is 2.0 mm. Carriage bolt M8 x 16 nuts and washers are used for fastening.

ADJUSTABLE VERTICAL CONNECTOR

Standard thickness of Adjustable Vertical Connector for Ladder systems is 2.0 mm. Carriage bolt M8 x 16 nuts and washers are used for fastening.

BOX CONNECTOR

Standard thickness of Box Connector for Ladder systems is 2.0 mm. Carriage bolt M8 x 16 nuts and washers are used for fastening.

DROP OUT

Standard thickness of Drop out for Ladder systems is 2.0 mm. Carriage bolt M8 x 16 nuts and washers are used for fastening.

BARRIER STRAIGHT

Standard thickness of Barrier Straight for Ladder systems is 1.5 mm. Barrier Straights are produced in 3mtr lengths and Carriage bolt M8 x 16 nuts and washers are used for fastening.

HOLD DOWN BRACKET

Standard thickness of Hold down bracket for Ladder systems is 3.0 mm. Hexagonal bolt M10 x 25 nuts and washers are used for fastening. Spring nuts can also be used depending on site application.

ORDER PATTERN

- **The Cable Ladder Fittings displayed on this page are produced for Medium / Heavy / Extra Heavy Duty Ladder Systems.**

To select the required component, please specify the component, type, width & finish.

EXAMPLE: For 450 mm wide Blind End.
COMPONENT / TYPE / WIDTH / FINISH
BEL / MDL / 450 / HDG

EXAMPLE: For Hold Down Bracket
COMPONENT / TYPE / FINISH
HDBL / MDL / HDG

STANDARD FINISHES

HDG	Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)
PG	Pre-galvanized to BS EN 10142 & 10143
PC	Powder Coating to suit clients requirements
SS	Stainless steel finish to required grades

Specify the type of the ladder in the table to order the component.

EXPANSION CONNECTOR

EXCL / TYPE / FINISH

BONDING JUMPER

BJL

HOLD DOWN CLAMP

HDCL / TYPE / FINISH

HINGED CONNECTOR

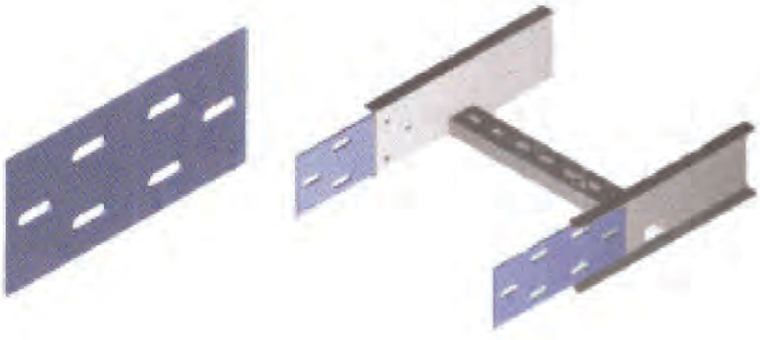
HCL / TYPE / FINISH

DOUBLE COVER CLAMP

DCCL / TYPE / FINISH

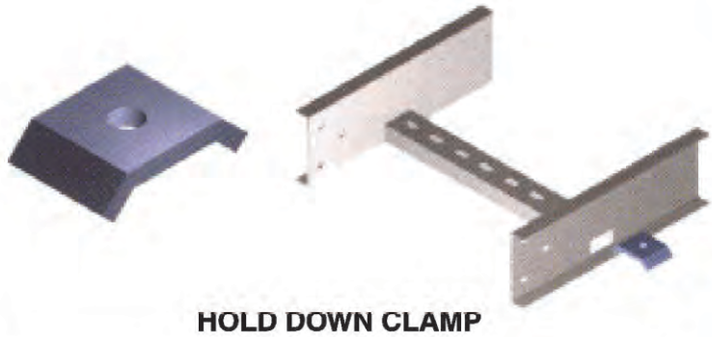
RIGHT ANGLED CONNECTOR

RACL / TYPE / FINISH

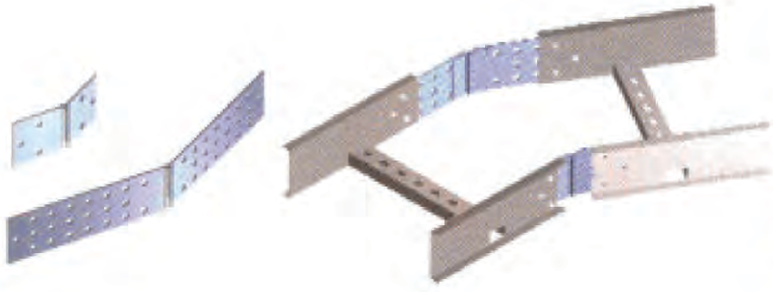


EXPANSION CONNECTOR

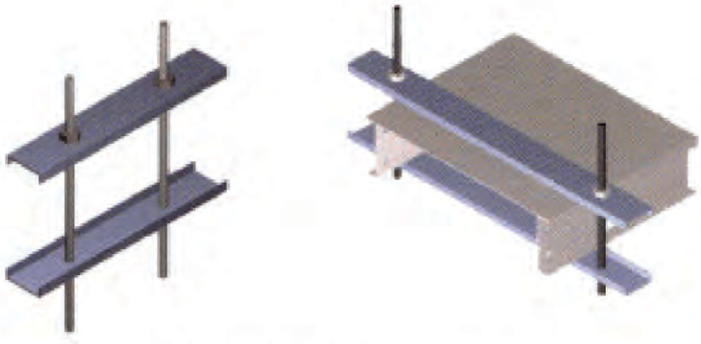
BONDING JUMPER



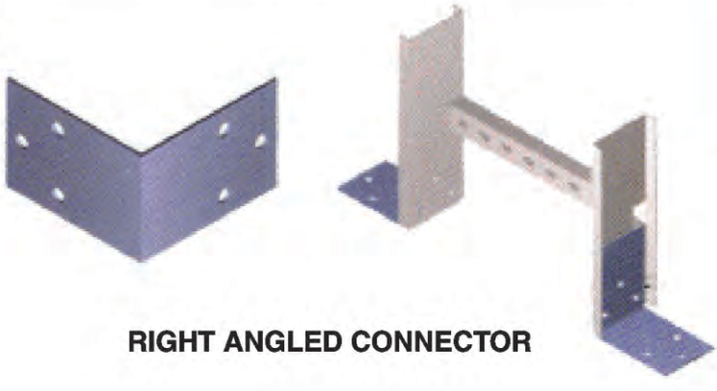
HOLD DOWN CLAMP



HINGED CONNECTOR



DOUBLE COVER CLAMP



RIGHT ANGLED CONNECTOR

EXPANSION CONNECTOR

Standard thickness of Expansion Connector for Ladder systems is 2.0 mm. Carriage bolt M8 x 16 nuts and washers are used for fastening.

BONDING JUMPER

AREA : 16 mm^2
LENGHT : 145 mm from center to center

Bonding Jumper for Cable Ladder earthing connectivity is produced from braided tinned copper with M8 copper lugs on both sides. Carriage bolts M8 x 16 nuts & washers are used for fastening. To be ordered separately.

HOLD DOWN CLAMP

Standard thickness of Hold down clamp for Ladder systems is 5.0 mm. Hexagonal bolt M10 x 35 nuts and washers are used for fastening.

HINGED CONNECTOR

Standard thickness of Hinged Connector for Ladder systems is 2.0 mm. Carriage bolt M8 x 16 nuts and washers are used for fastening.

DOUBLE COVER CLAMP

Standard thickness of Double Cover Clamp for Ladder systems is 2.0 mm and threaded rod M8, nuts and washers are used for fastening.

RIGHT ANGLED CONNECTOR

Standard thickness of Right Angled Connector for Ladder systems is 2.0 mm. Carriage bolt M8 x 16 nuts and washers are used for fastening.

SAFE WORKING LOADS

The following Loading Charts are to give guidance on maximum safe working loads when using Cable Ladders & Trays (installed horizontally) produced by DANA. They are published in accordance with the requirements of the industry standard BS EN 61537:2001. Load tests simulated the conditions of a multiple span of at least 4 spans with the end spans reduced to 75% of the intermediate spans.

The graphical presentation links established maximum safe working loads at specified intermediate spans.

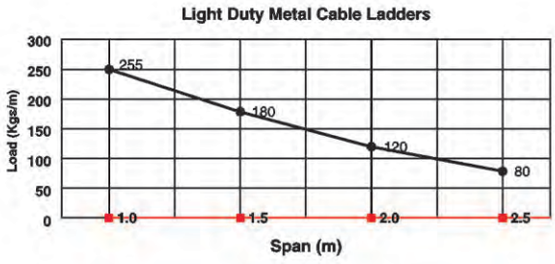
Loads below the drawn line are SAFE - loads above the drawn line are UNSAFE.

When using this information the installer should take into account :

1. The guidance offered in our presentation of system design considerations should be studied
2. Loading is assumed to be uniformly distributed. If point loads are imposed or the installation is less than 4 spans our technical department should be consulted.
3. The graphs should not be extrapolated to shorter or longer spans than those shown.
4. The installer should be satisfied that supports are of adequate strength and that all connections are fully tightened.
5. The loading information is given in good faith based on test s carried out with DANA products. However DANA cannot be held responsible for a variation in performance of this product range.

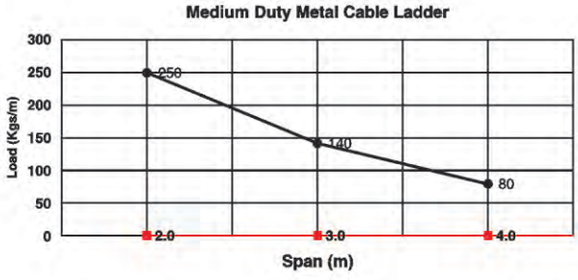
WARNING!

DANA CABLE TRAYS & LADDERS ARE PART OF A CABLE MANAGEMENT SYSTEM. THEY SHOULD NEVER BE USED FOR OTHER STRUCTURAL PURPOSES AND MUST NOT BE USED AS WALKWAYS BY INSTALLATION OR MAINTENANCE PERSONNEL



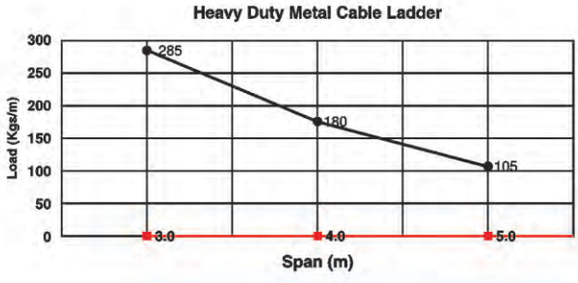
LDL

Uniformly Distributed Load (Kgs/m)	Span - between supports (m)
255	1.0
180	1.5
120	2.0
80	2.5



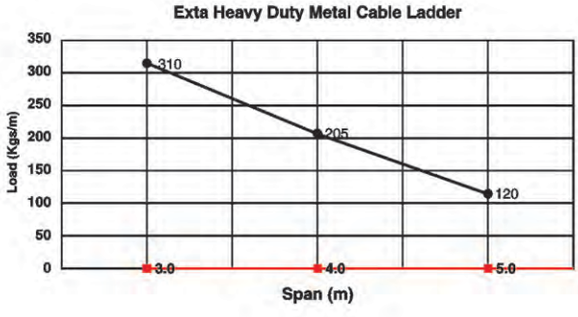
MDL

Uniformly Distributed Load (Kgs/m)	Span - between supports (m)
250	2.0
140	3.0
80	4.0



HDL

Uniformly Distributed Load (Kgs/m)	Span - between supports (m)
285	3.0
180	4.0
105	5.0



XDL

Uniformly Distributed Load (Kgs/m)	Span - between supports (m)
310	3.0
205	4.0
120	5.0

GROUP OF COMPANIES

DANA WATER HEATERS & COOLERS FACTORY L.L.C., DUBAI, U.A.E.
(Glass Lined Water Heaters, Coolers and Chillers, Pool Heat Pumps)

DANA WATER HEATER AND COOLERS FACTORY L.L.C. (BRANCH)
(Cable Management System, Plate and Coil Service Centre, Rollformed Products)

DANA STEEL PROCESSING INDUSTRY L.L.C., UAE
(Cable Management System, Profiles and Claddings, Dry Wall Partioning Systems)

SEVEN EAGLES INTERNATIONAL TRADING L.L.C. DUBAI, U.A.E.
(Flat and Long Steel Products Steel Coils, Plates, Sheets, Pipes)

DANA STEELS PVT. LTD., BHIWADI, RAJASTHAN, INDIA
(Pipe Mill, Black and Galvanized ERW Pipes, Scaffolding and Formwork Systems)

APIKA ENTERPRISES EXPORT HOUSE
Jaipur, INDIA

V IDHYADHAR NAGAR, HOSPITAL PRIVATE LIMITED
Jaipur, INDIA

DELTA STEEL ENGINEERING & ELECTRICAL APPLIANCES FACTORY,
Tripoli, LIBYA

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" Our Other Products "

Printed by : Raj Printers (India) +91-11-9811568084