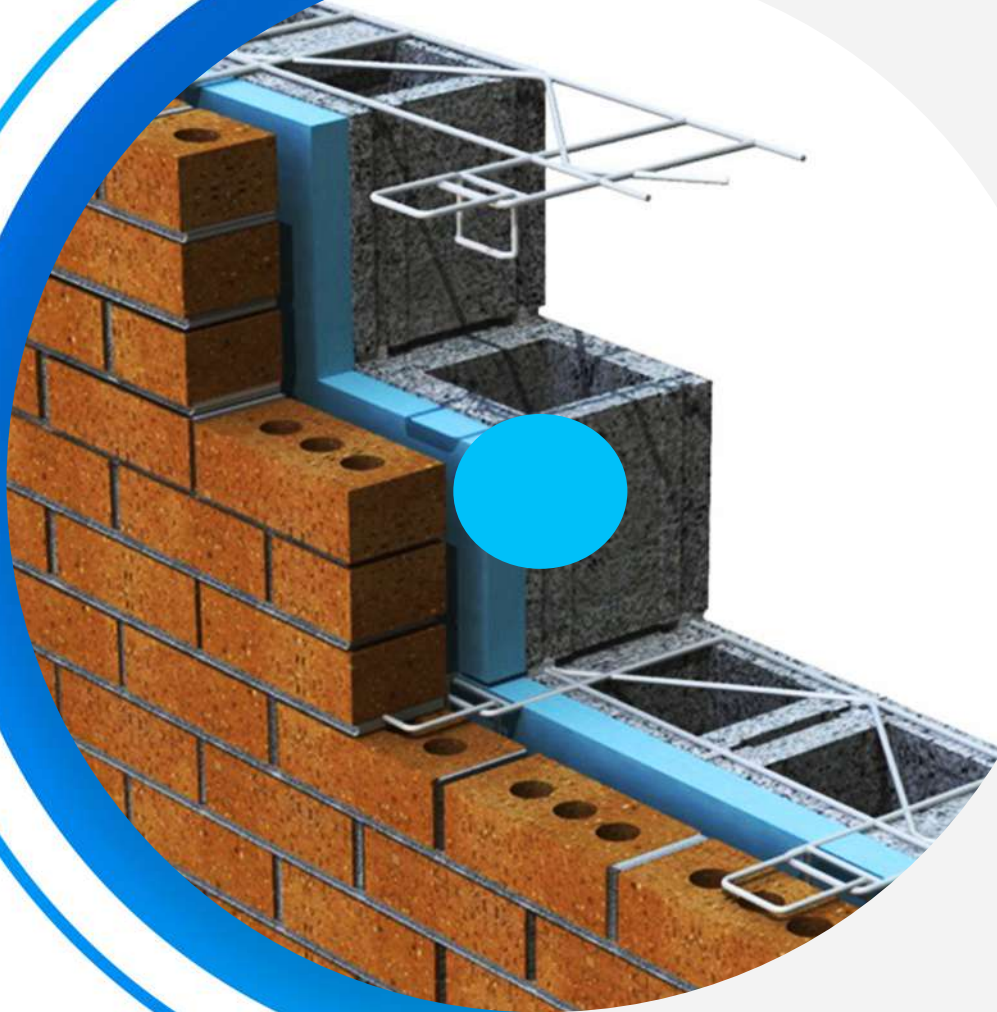


BLOCK WORK

ACCESSORIES



رؤية
VISION
2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA





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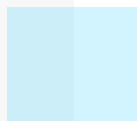
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DISCLAIMER



The information contained in this catalogue has been carefully compiled but we do not accept any responsibility for loss caused by any error contained herein. We reserve the right to alter prices without prior notice.

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. **NIPRAS** does not accept any responsibility whatsoever for potential errors or possible lack of information in this document. We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of **NIPRAS**.

In case of any questions or remarks, feel free to contact the R&D Department via www.nipras.sa

ABOUT US

Nipras Metal Group is a diversified private enterprise and a Saudi organization established in 2010 with a vision to be a preferred partner for our valuable clients in supplying quality and cost effective building construction and Architectural engineering solutions. Since the establishment of Nipras, we have been partnered with major organizations in the kingdom to consistently serve their projects and, we have engaged closely with many key contractors and consultants by meeting their expectations in providing high-quality and certified construction and Architectural products. **Nipras group** operates its business units from three divisions in manufacturing, supplying and sub-contracting of various Architectural products such as Roof Hatch Access, Gratings, Railings, Raised Floors, Garbage Chute System, Cable tray management solutions, and all types of stainless steel & metal fabrication and other building construction materials. The company has two production lines of Architectural products and cable management systems.

At **Nipras** we always strive hard to supply and meet our client's requirements with high-quality products quickly and efficiently. The company adopts modern management concept, adheres to survival by quality and development by integrity, and gradually boarded the local competition platform. We rely on service to enhance the client relationship, sincerely create value for customers, and provide customers with high-quality and reliable products and wholehearted service. Our company has advanced production equipment which guarantees the most advantageous product quality and efficiency.



Nipras is accredited through various quality certifications and standards meeting all project's technical criteria and consultant approvals. We are an ISO-1519 certified company to ensure the quality, safety, and efficiency of our products. We gain trust of our existing clients and new customers with the best products, the best quality, competitive price and the most perfect service.

VISION

Nipras strives to strengthen its manufacturing base in the steel industry to serve the kingdom and contribute to its vision through effective utilization of staff and materials with cutting-edge technology and high productivity, consistent with modern management practices.



MISSION

To be a preferred partner for our valuable customers and consistently exceeds our customer's needs and expectations in quality, delivery, and cost through continuous improvement and enhancing **customer satisfaction**. We go all out to manufacture, deliver and supply superior steel and metal products to our clients utilizing sustainable procedures that meet the international standards.

OBJECTIVES

01

The aim of **NIPRAS** is to fabricate steel and metal work in the construction sector by the development of standards to turn raw metal into Architectural engineering solutions that can be used in construction.

03

To expand our business by offering the best in quality, cost and solutions.

02

To assist clients, kingdom wide, by providing Architectural engineering solutions and expertise.

04

To seek a competitive advantage by developing partnerships with clients, suppliers and subcontractors.

05

To provide our employees with the opportunity to develop their full potential within a safe and productive environment.



LOCATION



Riyadh Gate Industrial City
Al-Musafa district
6353

https://www.google.com/maps?q=24.4828100,46.8915030&hl=en-SA&gl=sa&entry=gps&g_ep=CAISBjYuMzQuMxgAINECAw%3D%3D&g_st=iw



- ||| Nipras Metal Group.
- ✉ Email: info@nipras.sa
- ☎ Sales: 056 880 5050

TECHNICAL TEAM

Technical Division is entrusted with the work in respect of various subjects of technical nature via Research & Development, Energy & Environment Management, Standardization & Quality Control of products, etc. The work being dealt with by this division may be grouped under few categories namely:

- ✓ Research & Development in Metal & Steel Fabrication.
- ✓ Technical Regulations on the Products to promote quality.
- ✓ Technical Inputs on the ongoing / future products etc.



Lead with Engineers and other professionals at **NIPRAS TECHNICAL DEPARTMENT**, we access a vast array of advanced, highly sophisticated testing, modelling, failure analysis and other resources to develop the next generation of products, where the future is born.

SOCIAL RESPONSIBILITY

We **"NIPRAS"** ability to sense, understand and react to others emotions while comprehending on social networks. (Social awareness which encompasses the competency of empathy is the ability to read nonverbal cues for negative emotions, particularly anger and fear and to judge the trustworthiness of others.

It is about understanding others feelings, not experiencing them (Garner, 2009). NIPRAS accentuates on an individual's ability to identify, perceive and react to other's emotions while being a part of the social network circuitry. NIPRAS understand the ability to and be compassionate to the feelings, views, opinions and challenges of other people. Social-awareness cannot only be equated with understanding people's need but as well as caring for them (Goleman, 2006).



SOCIAL RESPONSIBILITY



EMPLOYEES

At **NIPRAS** we empower our employees to leverage the corporate resources at their disposal to do well. Being a socially responsible company can bolster a company's image and build its brand.

CIVIL SOCIETY

According to the Saudi Youth in Numbers report, **37%** of the Saudi population is under 25. This entails that the youth will play a more significant role in undertaking the paths set by Vision 2030 and inheriting the future it's attempting to build.

NIPRAS gives our platform to the young for developing their sense of civic responsibility, involvement, and interconnectedness. Opportunities to equip the upcoming generation with the necessary skills and motivation to become active participants in their communities.

CUSTOMERS

A business cannot work without consumer. The survival and growth of business depends on consumer satisfaction, service and support.

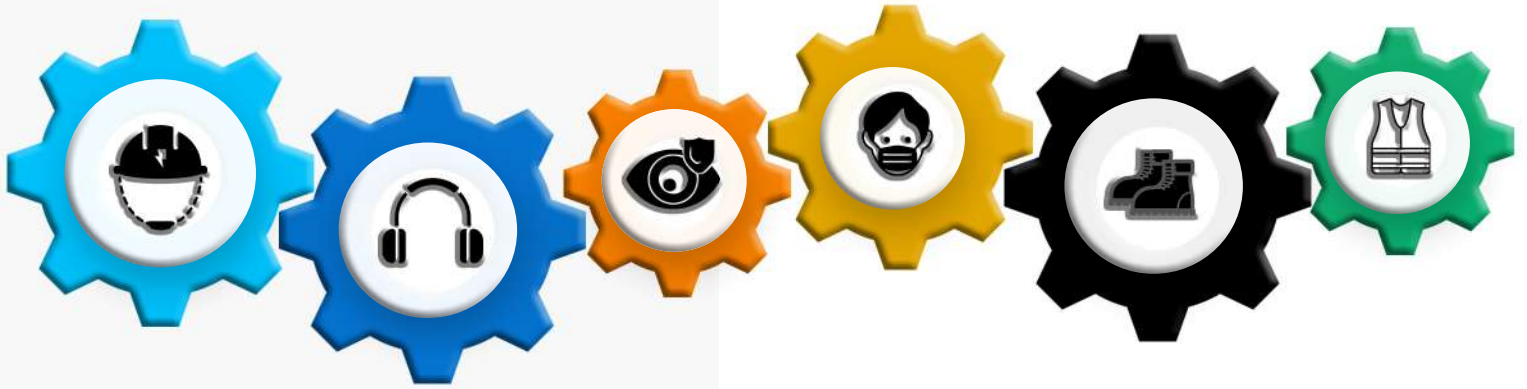
"NIPRAS" winning the confidence of our customers made it possible by following a positive attitude towards customers and fulfilling our social responsibilities by providing them:

- ✓ Quality
- ✓ Fair Prices
- ✓ Honest advertising
- ✓ After sales service
- ✓ Research & Development for their requirements
- ✓ Safety
- ✓ Regular supply

ENVIRONMENT

NIPRAS understands the nature of the relationship between corporate adoption of the concept of societal responsibility [availability of environmental awareness, clear vision of the impact of societal responsibility on financial performance, managers informing employees of the latest developments in societal responsibility programs, managers' response to their corporate social responsibility (CSR) proposals] in the form of an annual report that supports the success of the company's objectives, the company's management encourages employees to participate collectively in societal responsibility programs and to protect the environment from pollution in the industry.

HEALTH & SAFETY



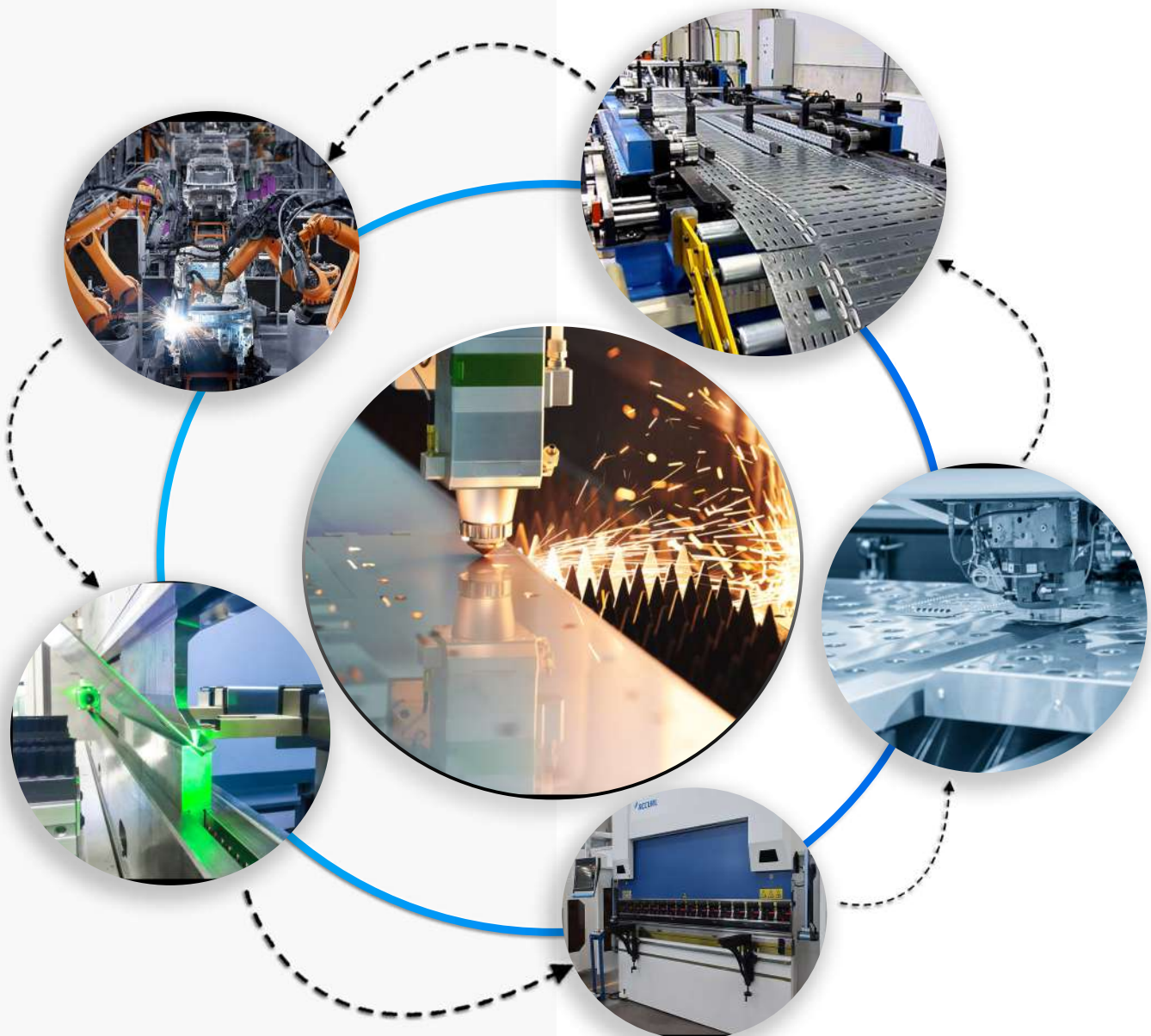
"NIPRAS" as a manufacturing Company for Metal & Steel Products has a large number of hazards because of the strong internal as well as external forward and backward linkages in terms of material flows. Employees are to work in hazardous environment because of complicated equipment layouts, high temperatures, heavy equipment's, moving machinery, hazardous processes, heavy lifting and movements of materials in the work environment etc. Further, several operations involve working at heights or in confined spaces. In short, working involves both very high volume as well as the complexity of operations which results into employees getting exposed to a high level of health and safety risks.



The health, safety, and protection of our employees, equipment, and the environment are perfectly calculated and implied as a crucial since it affects both economic and social factors.. On the other hand, a healthy and safe workplace contributes towards plants competitiveness as well as in profit growth.

ADVANCED MACHINERY

Standardized production lines meeting the complete requirements for the industry. Facility equipped with high end and advanced machinery “NIPRAS” serve our customers with topmost perfection. Our facility comprises with most high end echnology where mentioned few are our key role players as - ***Laser Cutting / Sheering Machines, CNC Bending Machines, CNC Punching Machines, Auto Welding Sets*** and more.



MATERIALS - MILD STEEL PLAIN



A. Hot rolled steel plates, sheets and coils s235 jr, As per :EN 10025-2 / DIN 17100 / BS 4360 / ASTM A653 | ASTM A 1011 ASTM A 1011-011-01 a/ JIS 3101 / JIS 3106 / GB 700 / T1 591ASTM A 907 / ASTM A 572 M.**B.** Cold Rolled Steel DC 01 , As per :EN 10130 / DIN 1623, Part 2 / BS 1449 :1 / ASTM A 1008 JIS G3141 / GB 699, EN 10131 / ASTM A 568M.



NOTE

**Note: All outdated standards / codes are replaced with new/ latest versions and the final product shall comply with the latest version*

MILD STEEL - GALVANIZED

C. Continuously Pre-Galvanized Hot-Dip Zinc Coated Steel DX 51 D +Z, As per :EN 10327 / DIN 17162 / BS 2989 / ASTM /A527M / ASTM A653 M JIS G 3302.EN 10326 / EN 10142 / ASTM A 526, 527, 528 /ASTM A 146 **D.** Electro Galvanized Steel (Electrolytic Coating) DC01 + ZE As per :EN 10152 / DIN 17163 / ASTM A591 / JIS G3313 JIS G3141 / BS 1449:1 / EN 10131.



NOTE

All outdated standards / codes are replaced with new/ latest versions and the final product shall comply with the latest version

STAINLESS STEEL

F. Austenitic Stainless Steels AISI 304 & 316 As per: ASTM A240 / EN 10088 - 2 / DIN 17400 / BS 1449-2 ASTM A480 / ASTM A666 / ISO 3506 / EN 10028-7 JIS G4304
F.1 Stainless Steel Fasteners EN 3506 F.2 Stainless Steel Wire BS 1554, ASTM A 27

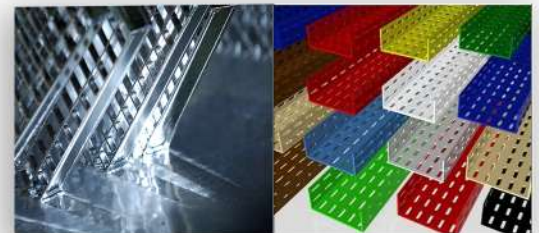


ALUMINIUM

G. Aluminium 5052 & 6063
**Note: All outdated standards / codes are replaced with new/ latest versions and the final product shall comply with the latest version.*

FINISHES

- 1.** HOT - DIP Galvanization After Fabrication As per :ASTM A 123 / ASTM A 153 / ISO 1461 BS 729 / DIN 50976 / BS EN 10143 / BS EN 10346
- 2.** ZINC Electroplating After Fabrication As per : ASTM B633 / EN 12329 / ISO 4042 / BS 1706 / BS 3382 DIN 50961
- 3.** Powder Coating Epoxy / Polyester / Epoxy & Polyester BS 3900 / 2409 / ISO 1519 / ISO 1520



“All outdated standards / codes are replaced with new/ latest versions and the final product shall comply with the latest version”

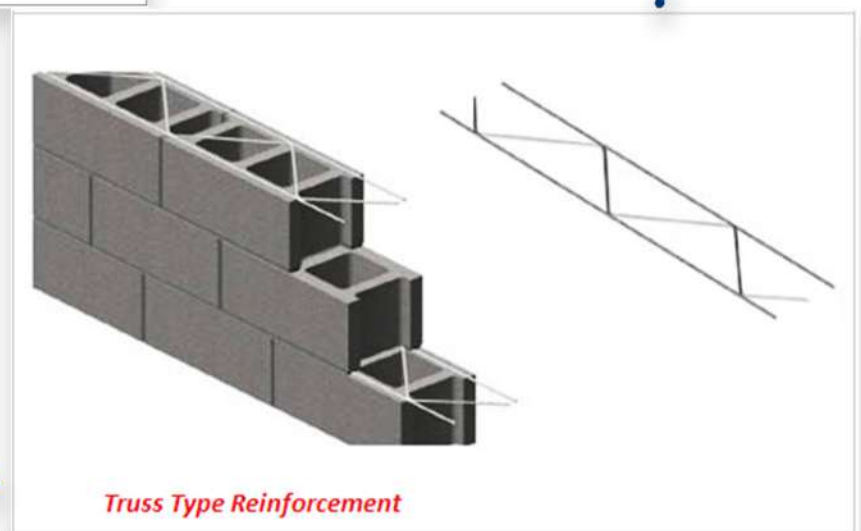
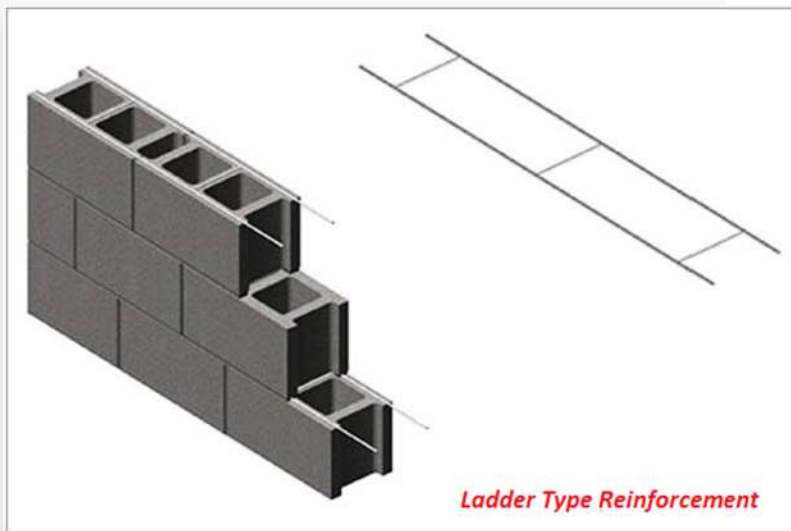


BLOCK LADDER REINFORCEMENT

NIPRAS Ladder Reinforcement (Ladder Type and Truss Type) are used for reinforcement of brick and block works to give high strength to masonry walls subjected to lateral loading e.g., wind and seismic.

It consists of two or more longitudinal wires that are connected with cross wires (weft wires) to form a ladder or truss configuration. Hence, it can be further divided into ladder type reinforcement and truss type reinforcement.

NIPRAS Block Reinforcement are continuous lengths of joint reinforcement that are embedded into the horizontal joints of masonry walls. Block reinforcement reduces the risk of cracking either at stress concentration around opening, differential movement and the effects of temperature changes.



TECHNICAL SPECIFICATIONS

BLOCK REINFORCEMENT (LADDER & TRUSS TYPE)

Manufactured to	BS EN 845-1 : 2003 ASTM A 951 / A 951M
Cold Drawn Steel for Reinforcement	BS 4482 : 2005 ASTM A 1064 / A 1064M (formerly ASTM A 496 & ASTM A 185) ASTM A 82 / A 82M
Hot Dip Galvanizing (After Fabrication)	BS EN ISO 1461 : 1999 (formerly BS 729) ASTM A 123 / A 123M, A 153 / A 153M
Pre-Galvanized wire	BS EN 10244-2 : 2001 (formerly BS 443) ASTM A 641 / A 641M
Stainless Steel wire	BS EN 10088-3 : 2005 (formerly BS 1554 : 1990) Grade 304, 316, 316L ASTM A 580 / A 580M ASTM A 1022 / A 1022M, Grade 304, 316, 316L

DIMENSIONS

- **Hot-Dip Galvanized**
Main wire diameter: 4.0mm / 4.8mm / 5.0mm / 6.0mm
Rung & diagonal wire diameter: 4.0mm / 4.8mm / 5.0mm / 6.0mm
Rung wire centers: 400mm
- **Stainless Steel - AISI 304**
Main wire diameter: 4.0mm / 4.8mm / 5.0mm / 6.0mm
Rung & diagonal wire diameter: 4.0mm / 4.8mm / 5.0mm / 6.0mm
Rung wire centers: 400mm

NOTE : **Main Wires** - not less than 3.8 mm diameter, deformed type, spaced not more than 400 mm between rungs. The use of deformed wires is recommended since it will increase the friction and accordingly the adhesion. It is recommended to use joint reinforcement every two or three courses.



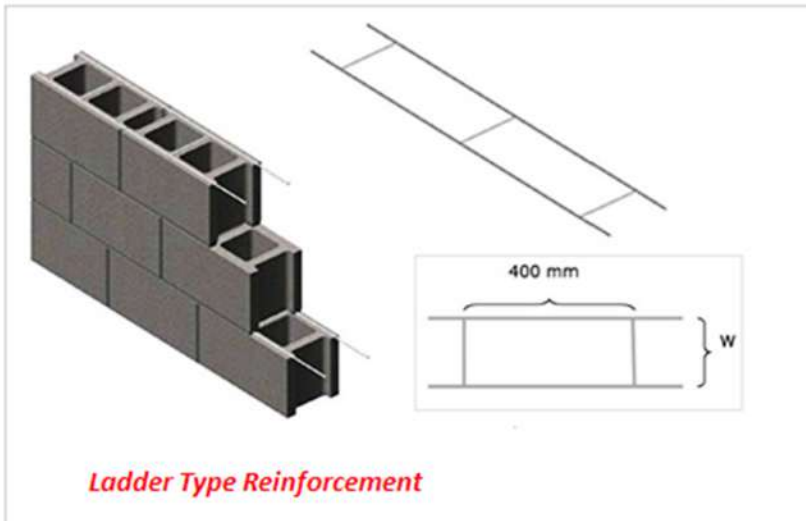
SPECIFICATION FOR STEEL WIRE FOR MASONRY JOINT REINFORCEMENT

- a) **Mechanical Properties**
 - Specified characteristic strength: 460 N/mm² (Mpa)
 - Tensile strength min 510 N/mm² (Mpa)
- b) **Chemical composition of steel**
 - Carbon C max. 0,25 %, Sulphur S: max 0.06 %
 - Carbon equivalent value C_{eq} : max 0.4 %, $C_{eq} = C + Mn/6 + (Cr + V + Mo)/5 + (Cu \times Ni)/15$

BENEFITS OF NIPRAS BLOCK REINFORCEMENT

- Increases lateral flexural strength.
- Reduces cracking that can arise from thermal stresses.
- Bonds exterior and interior masonry withes together in composite or cavity walls.
- Increases performance of masonry wall under various stresses
- Bonds masonry at intersecting walls and corners.

BLOCK REINFORCEMENT - LADDER TYPE



NIPRAS ladder type reinforcement is a welded wire mesh consisting of several parallel longitudinal wires (side wire) flush welded with perpendicular cross wires and creating the appearance of a ladder.

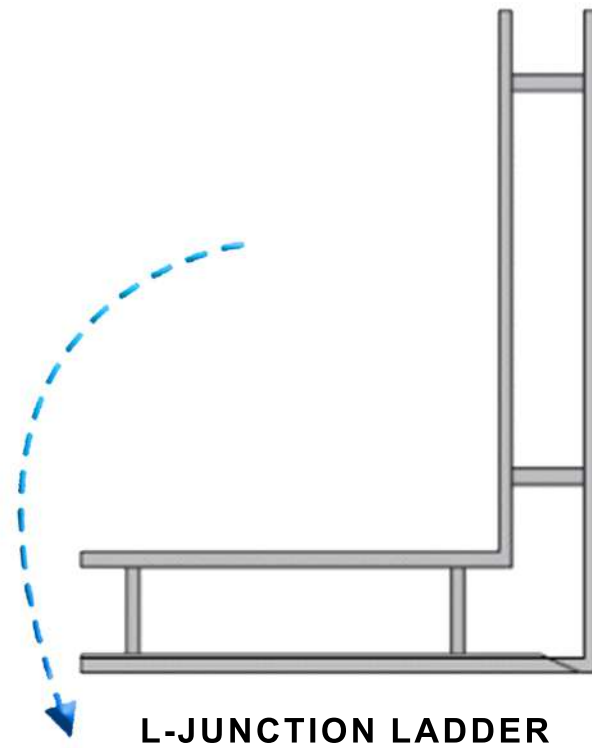
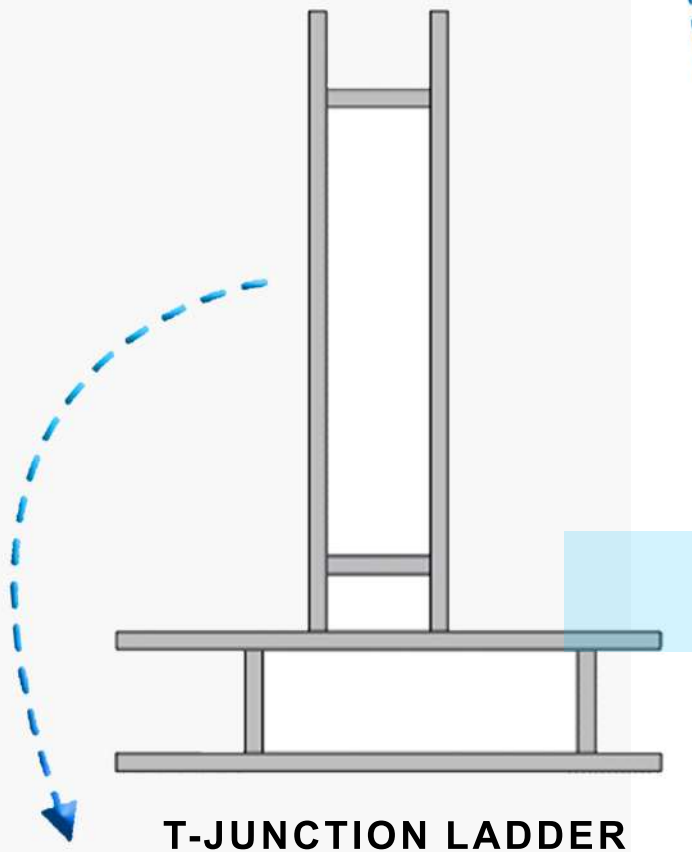
It is recommended for multiwythe walls with cavity spaces or unfilled collar joints as it permits two wythes to move independently, yet still transfers out-of-plane loads from the exterior masonry to the interior masonry wall.

LADDER TYPE - REINFORCEMENT SPECIFICATION

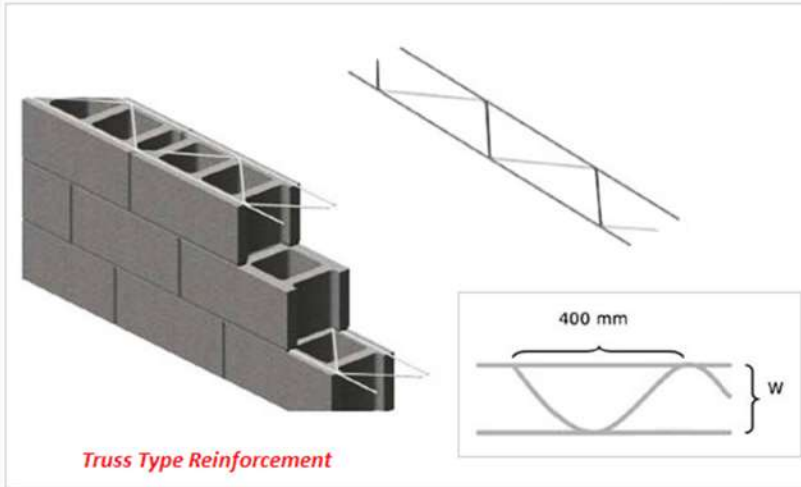
Reference Code #	Width (mm)	Wall Width (mm)	Diameter of Wire (mm)	Length (mm)	Material
LR 050-HD 3.0	50	100	4/4.8/5/6	3000	HDG (plain/deformed)
LR 100-HD 3.0	100	150	4/4.8/5/6	3000	HDG (plain/deformed)
LR 150-HD 3.0	150	200	4/4.8/5/6	3000	HDG (plain/deformed)
LR 200-HD 3.0	200	250	4/4.8/5/6	3000	HDG (plain/deformed)
LR 250-HD 3.0	250	300	4/4.8/5/6	3000	HDG (plain/deformed)
LR 050-GI 3.0	50	100	4/4.8/5/6	3000	Galvanized (plain/deformed)
LR 100-GI 3.0	100	150	4/4.8/5/6	3000	Galvanized (plain/deformed)
LR 150-GI 3.0	150	200	4/4.8/5/6	3000	Galvanized (plain/deformed)
LR 200-GI 3.0	200	250	4/4.8/5/6	3000	Galvanized (plain/deformed)
LR 250-GI 3.0	250	300	4/4.8/5/6	3000	Galvanized (plain/deformed)
LR 050-SS 3.0	50	100	4/4.8/5/6	3000	Stainless Steel (plain/deformed)
LR 100-SS 3.0	100	150	4/4.8/5/6	3000	Stainless Steel (plain/deformed)
LR 150-SS 3.0	150	200	4/4.8/5/6	3000	Stainless Steel (plain/deformed)
LR 200-SS 3.0	200	250	4/4.8/5/6	3000	Stainless Steel (plain/deformed)
LR 250-SS 3.0	250	300	4/4.8/5/6	3000	Stainless Steel (plain/deformed)

ACCESSORIES – LADDER TYPE REINFORCEMENT

Corners, Tee-branches, and intersections can be manufactured upon request. Corner units provide continuity of reinforcement this can be cut and bent on site.



BLOCK REINFORCEMENT - TRUSS TYPE



NIPRAS truss type welded wire mesh consisting of longitudinal wires welded to a continuous diagonal formed cross wire and forming a truss design.

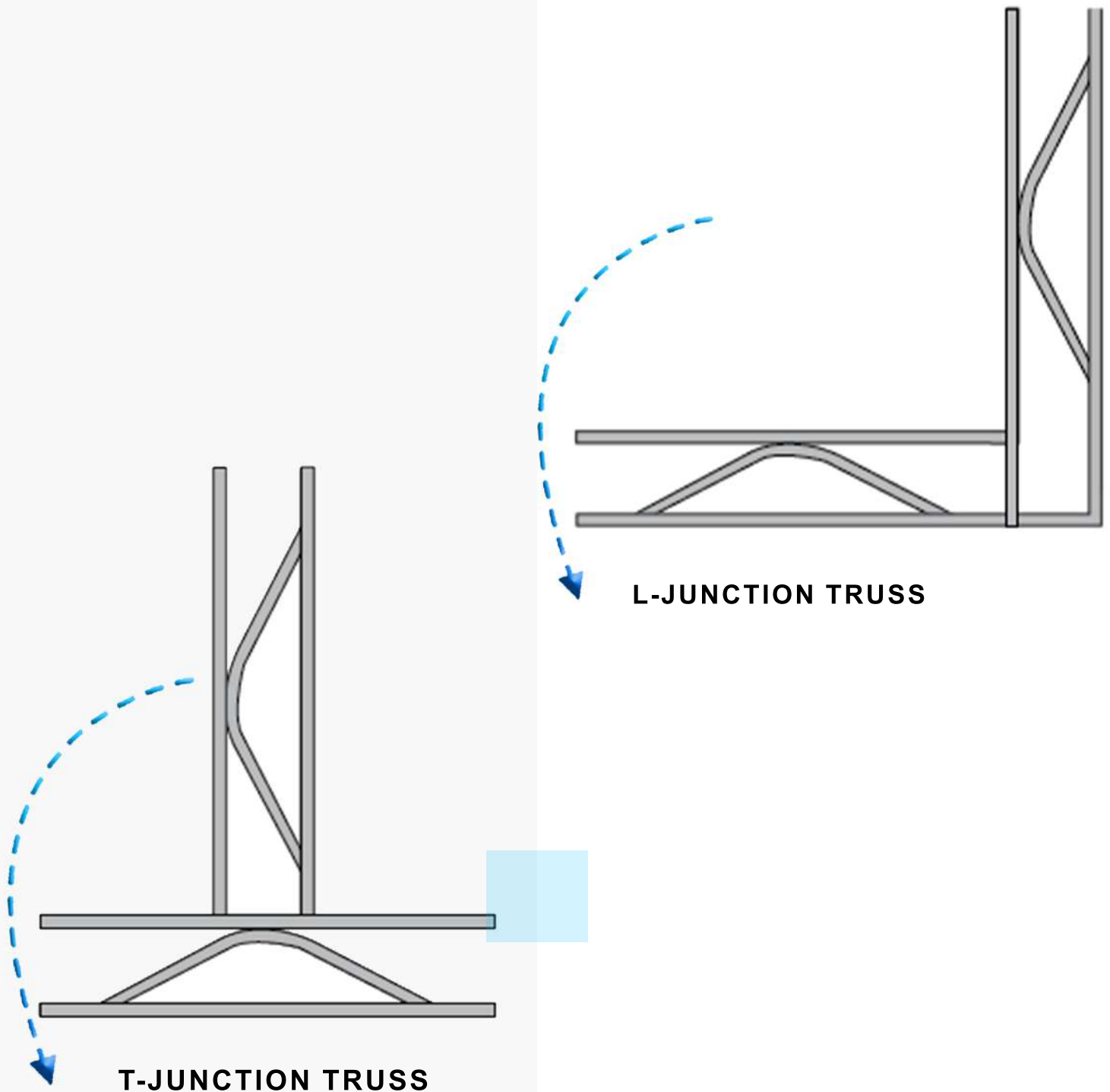
It is recommended for single wythe concrete masonry walls as the diagonal cross wires may interfere with the placement of vertical reinforcing steel and grout. This structure unit allows continuous deformation along each longitudinal rod for superior bonding performance.

TRUSS TYPE - REINFORCEMENT SPECIFICATION

Reference Code #	Width (mm)	Wall Width (mm)	Diameter of Wire (mm)	Length (mm)	Material
LR 050-HD 3.0	50	100	4/4.8/5/6	3000	HDG (plain/deformed)
LR 100-HD 3.0	100	150	4/4.8/5/6	3000	HDG (plain/deformed)
LR 150-HD 3.0	150	200	4/4.8/5/6	3000	HDG (plain/deformed)
LR 200-HD 3.0	200	250	4/4.8/5/6	3000	HDG (plain/deformed)
LR 250-HD 3.0	250	300	4/4.8/5/6	3000	HDG (plain/deformed)
LR 050-GI 3.0	50	100	4/4.8/5/6	3000	Galvanized (plain/deformed)
LR 100-GI 3.0	100	150	4/4.8/5/6	3000	Galvanized (plain/deformed)
LR 150-GI 3.0	150	200	4/4.8/5/6	3000	Galvanized (plain/deformed)
LR 200-GI 3.0	200	250	4/4.8/5/6	3000	Galvanized (plain/deformed)
LR 250-GI 3.0	250	300	4/4.8/5/6	3000	Galvanized (plain/deformed)
LR 050-SS 3.0	50	100	4/4.8/5/6	3000	Stainless Steel (plain/deformed)
LR 100-SS 3.0	100	150	4/4.8/5/6	3000	Stainless Steel (plain/deformed)
LR 150-SS 3.0	150	200	4/4.8/5/6	3000	Stainless Steel (plain/deformed)
LR 200-SS 3.0	200	250	4/4.8/5/6	3000	Stainless Steel (plain/deformed)
LR 250-SS 3.0	250	300	4/4.8/5/6	3000	Stainless Steel (plain/deformed)

ACCESSORIES – TRUSS TYPE REINFORCEMENT

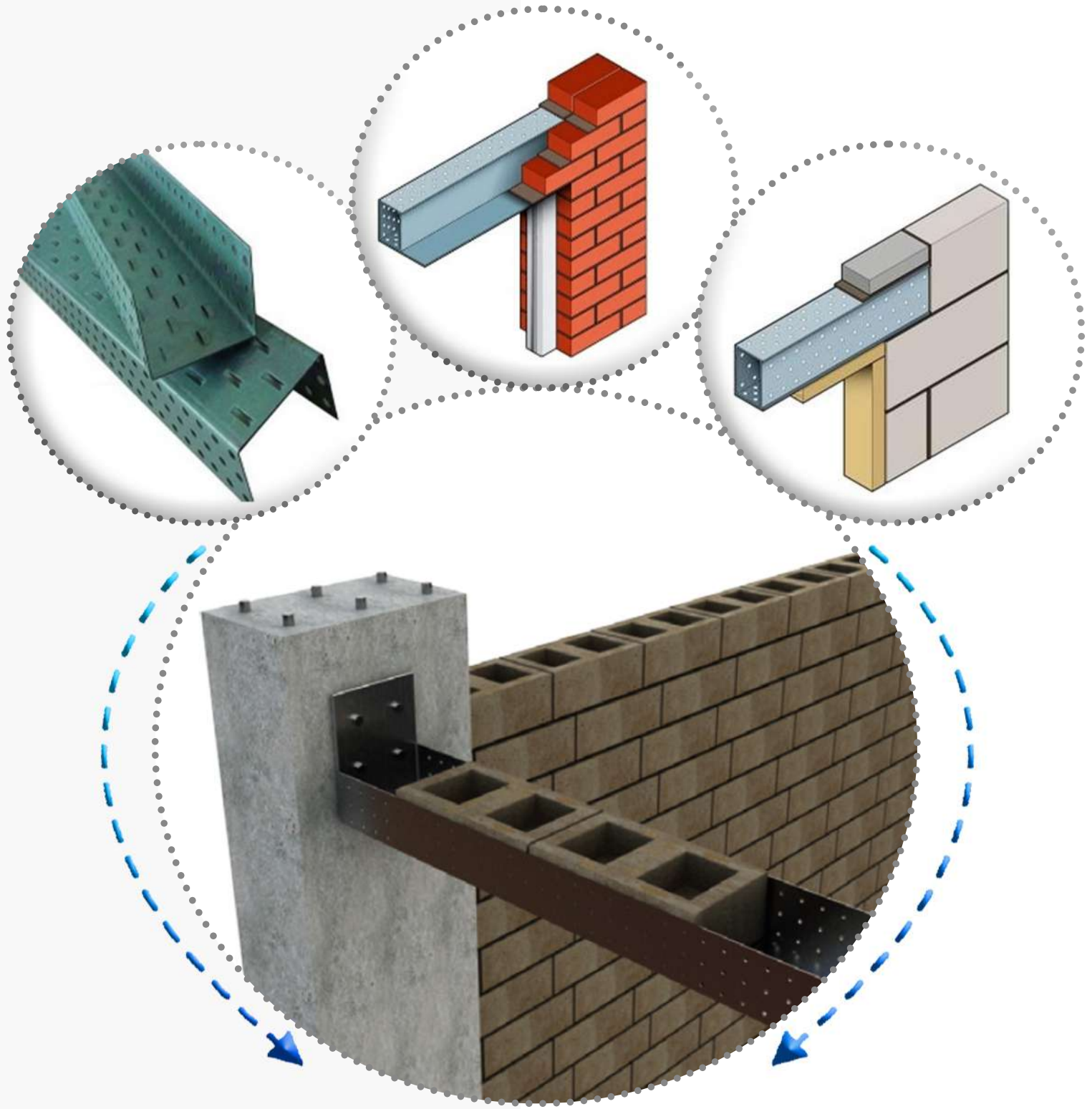
Corners, Tee-branches, and intersections can be manufactured upon request. Corner units provide continuity of reinforcement this can be cut and bent on site.



STEEL LINTELS

Still Lintels are structural components installed over an opening in a wall, like a window or a doorway, to support the loads above the gap and prevent the structure from collapsing.

NIPRAS Steel Lintels provide a combination of strength and light weight, resulting in efficient load bearing performance for all type of block and increased productivity on site.



TECHNICAL SPECIFICATIONS

NIPRAS STEEL LINTELS	
MANUFACTURED TO	BS EN 845-2:2013+A1:2016
	BS 5977 Part 2:1983 / BS5950
FINISHING	Galvanized Steel according to BS EN 10346:2015
	Pre-galvanized steel: According to BS EN 10327 - DX 51 D + Z275 (revised of BS 2989)
	Hot Dipped Galvanized according to BS EN ISO 1461:2009 (formerly BS 729:1971)
	Stainless Steel according to BS EN 10088-2-5 grade 304 (equivalent to BS 1449)
MATERIALS	Hot rolled steel S235JR as per EN 10025 / ASTM A-1011 CS Type B (formerly ASTM A569 or ASTM A570)
	Cold rolled steel DC01 as per EN 10130:2006 / ASTM A1008 CS Type B (formerly ASTM A-366)

ADVANTAGES OF NIPRAS STEEL LINTELS

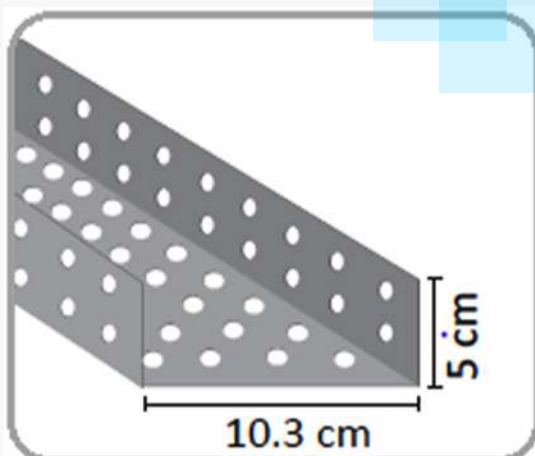
- Ready design by our technical department.
- No need for lifting equipment.
- Our steel lintels are resistant to corrosion and have good adhesion to plaster by the perforations.
- Saving the time for the contractor.
- Brackets for column fixing save the time efficiently.

NIPRAS CHANNEL LINTELS

UML 100/50

WORKING LOAD TABLE

TYPE	UML 100/50		
Reference Code	N-UML 100/50-2	N-UML 100/50-3	N-UML 100/50-4
Sheet Thickness (mm)	2.0	3.0	4.0
Length of opening (In Mtrs)	Uniformly Distributed Loads (KN/M)		
0.90 - 1.20	0.44	1.50	2.55
1.30 - 1.50	0.29	1.00	1.70
1.60 - 1.80	0.20	0.72	1.10
1.90 - 2.10	0.14	0.52	0.68
2.20 - 2.40	0.10	0.33	0.43

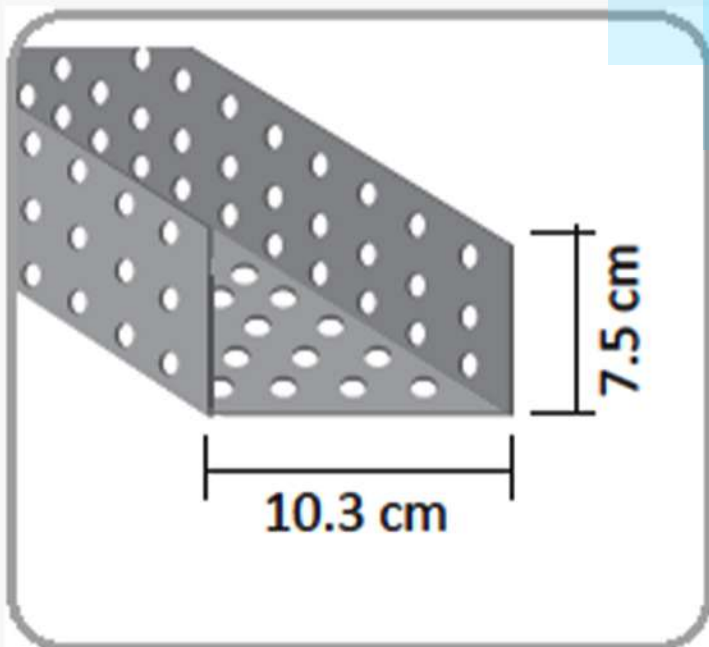


NIPRAS CHANNEL LINTELS

UML 100/75

WORKING LOAD TABLE

TYPE	UML 100/75
Reference Code	N-UML 100/75-4
Sheet Thickness (mm)	4.0
Length of opening (In Mtrs)	Uniformly Distributed Loads (KN/M)
0.90 - 1.20	3.55
1.30 - 1.50	2.40
1.60 - 1.80	1.70
1.90 - 2.10	1.28
2.20 - 2.40	0.98

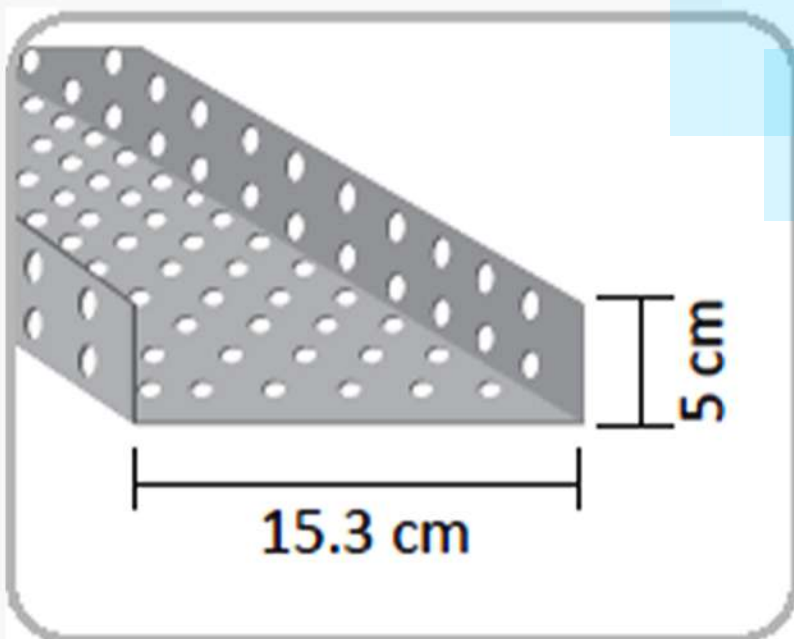


NIPRAS CHANNEL LINTELS

UML 150/50

WORKING LOAD TABLE

TYPE	UML 150/50		
Reference Code	N-UML 150/50-2	N-UML 150/50-3	N-UML 150/50-4
Sheet Thickness (mm)	2.0	3.0	4.0
Length of opening (In Mtrs)	Uniformly Distributed Loads (KN/M)		
0.90 - 1.20	0.44	1.50	2.65
1.30 - 1.50	0.28	1.00	1.76
1.60 - 1.80	0.20	0.72	1.24
1.90 - 2.10	0.14	0.55	0.74
2.20 - 2.40	0.10	0.35	0.47

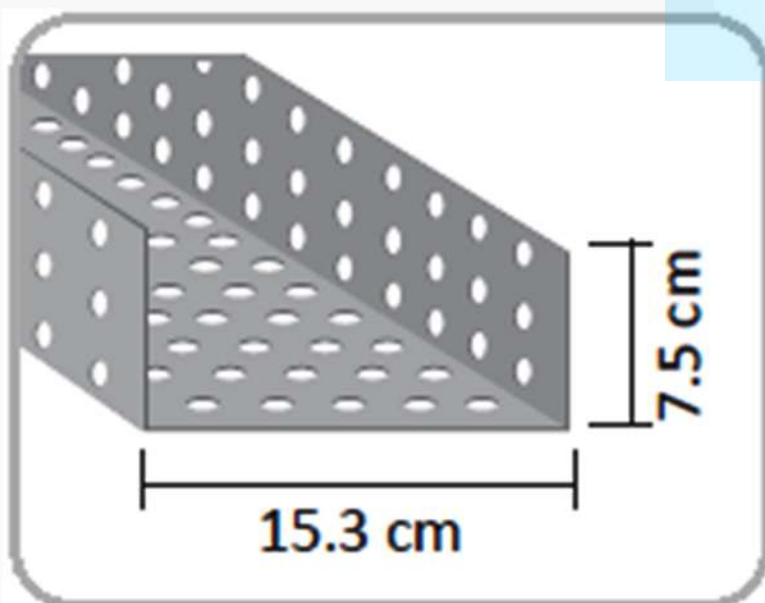


NIPRAS CHANNEL LINTELS

UML 150/75

WORKING LOAD TABLE

TYPE	UML 150/75
Reference Code	N-UML 150/75-4
Sheet Thickness (mm)	4.0
Length of opening (In Mtrs)	Uniformly Distributed Loads (KN/M)
0.90 - 1.20	3.60
1.30 - 1.50	2.40
1.60 - 1.80	1.73
1.90 - 2.10	1.28
2.20 - 2.40	0.98

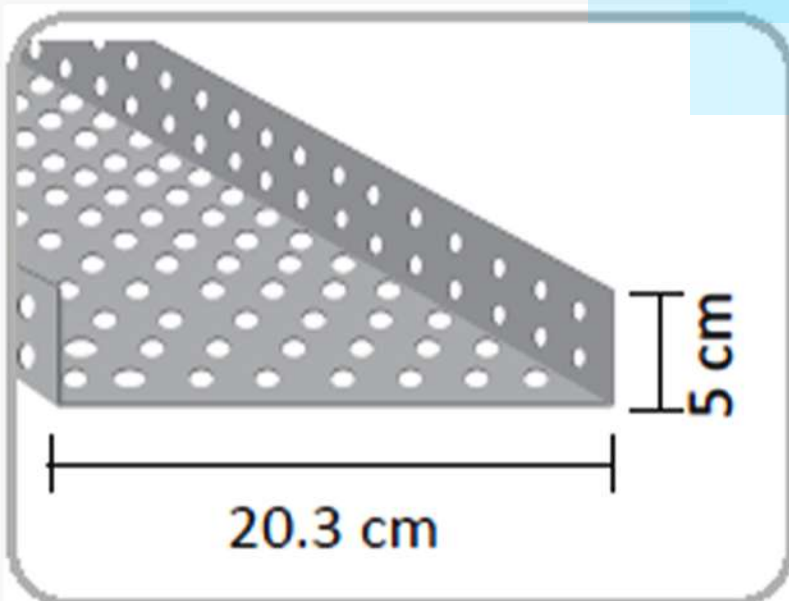


NIPRAS CHANNEL LINTELS

UML 200/50

WORKING LOAD TABLE

TYPE	UML 200/50		
Reference Code	N-UML 200/50-2	N-UML 200/50-3	N-UML 200/50-4
Sheet Thickness (mm)	2.0	3.0	4.0
Length of opening (In Mtrs)	Uniformly Distributed Loads (KN/M)		
0.90 - 1.20	0.42	1.50	2.70
1.30 - 1.50	0.28	1.00	1.80
1.60 - 1.80	0.19	0.70	1.25
1.90 - 2.10	0.13	0.52	0.78
2.20 - 2.40	0.09	0.40	0.49

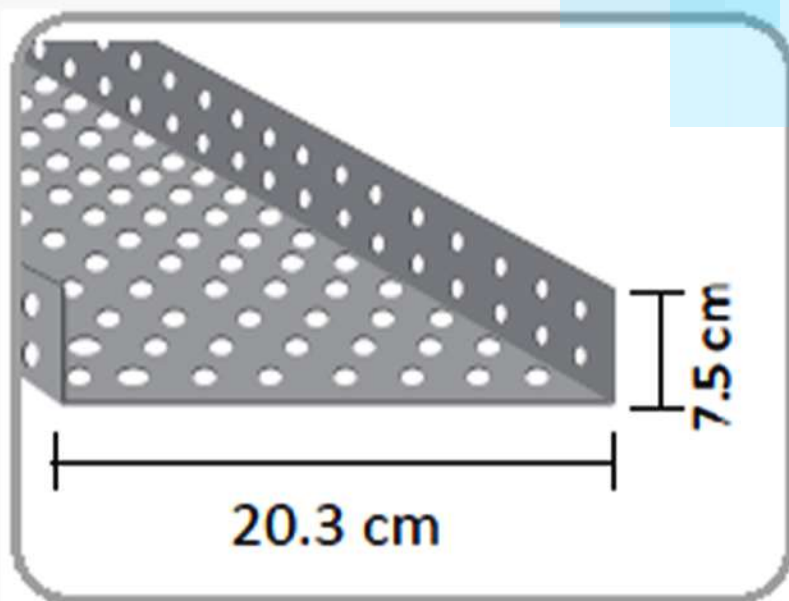


NIPRAS CHANNEL LINTELS

UML 200/75

WORKING LOAD TABLE

TYPE	UML 200/75
Reference Code	N-UML 200/75-4
Sheet Thickness (mm)	4.0
Length of opening (In Mtrs)	Uniformly Distributed Loads (KN/M)
0.90 - 1.20	3.60
1.30 - 1.50	2.40
1.60 - 1.80	1.73
1.90 - 2.10	1.28
2.20 - 2.40	0.98

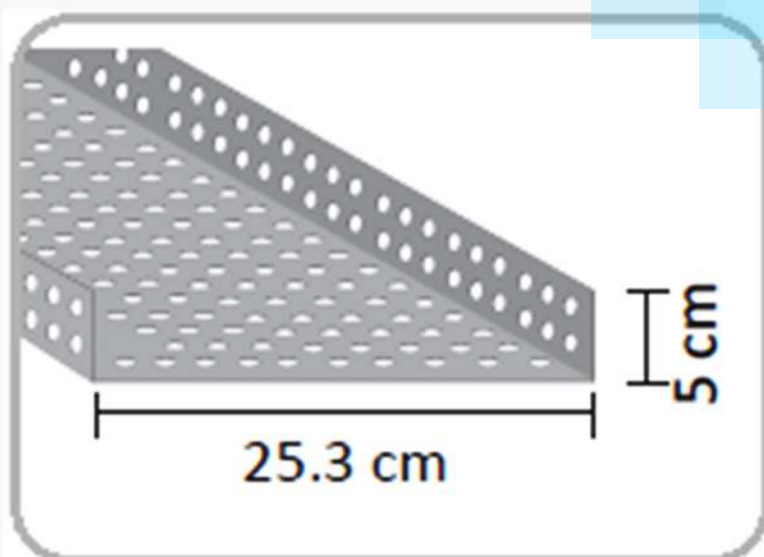


NIPRAS CHANNEL LINTELS

UML 250/50

WORKING LOAD TABLE

TYPE	UML 250/50		
Reference Code	N-UML 250/50-2	N-UML 250/50-3	N-UML 250/50-4
Sheet Thickness (mm)	2.0	3.0	4.0
Length of opening (In Mtrs)	Uniformly Distributed Loads (KN/M)		
0.90 - 1.20	0.43	1.50	2.70
1.30 - 1.50	0.26	1.00	1.80
1.60 - 1.80	0.18	0.70	1.28
1.90 - 2.10	0.13	0.52	0.80
2.20 - 2.40	0.09	0.38	0.50

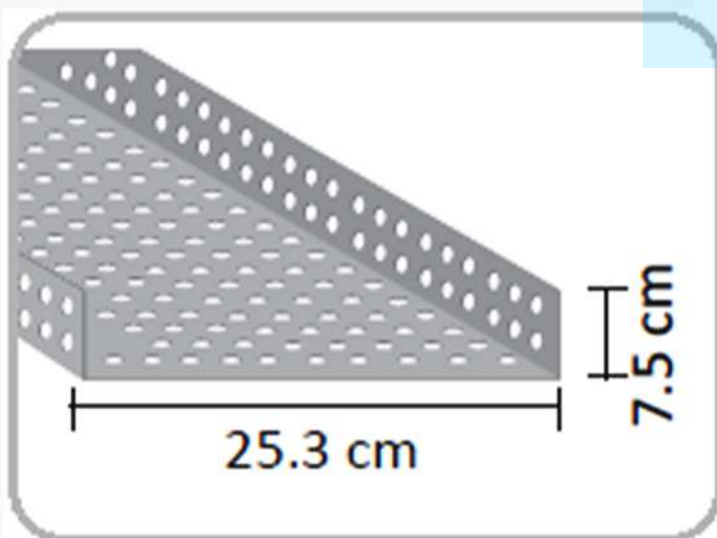


NIPRAS CHANNEL LINTELS

UML 250/75

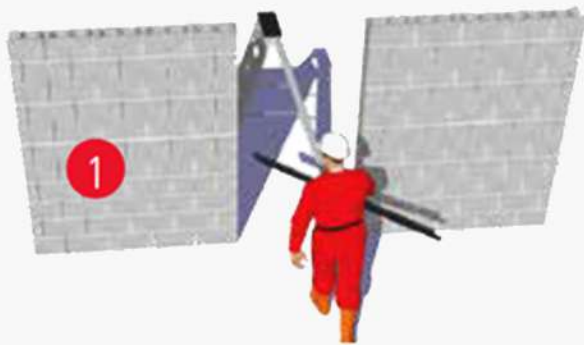
WORKING LOAD TABLE

TYPE	UML 250/75
Reference Code	N-UML 250/75-4
Sheet Thickness (mm)	4.0
Length of opening (In Mtrs)	Uniformly Distributed Loads (KN/M)
0.90 - 1.20	3.63
1.30 - 1.50	2.45
1.60 - 1.80	1.73
1.90 - 2.10	1.25
2.20 - 2.40	0.98



INSTALLATION OF NIPRAS STEEL LINTELS

- Provide a minimum of 20 cm at each side as an end bearing except areas where columns are at the edge of the opening, Angle brackets will be supplied in such cases.
- Lintels should not be cut down in the site.
- Damaged or used Lintels should not be used.



One man can carry the lintel



*Continuation of block work
Can be carried out immediately*



Lintel is placed in position



Before laying the blocks down on lintel, place a temporary support beneath the lintel to provide support and to prevent deflection. Temporary support can be removed after the mortar sets, (approximately in 3 to 5 hours).

LINTEL ANGLE BRACKETS

Used to support lintels at column or edges. Brackets are supplied with fixing holes to suit metal expansion anchor sizes.

FINISHES

- Galvanized Steel/HDG/SS



Reference Code	Dimensions (mm)			Used With Lintel	Minimum Required Anchors
	A	B	C		
N-LB 100	100	170	145	UML 100	4M8*
N-LB 150	150	190	145	UML 150	4M8*
N-LB 200	200	200	145	UML 200	4M10*
N-LB 250	250	200	145	UML 250	4M10*

* Lintel Bracket can be customized in required dimensions and thickness upon request.

LINTEL BRACKETS- OTHER OPTIONS



NIPRAS BLOCK TIES

Wall ties play a vital role in ensuring the stability of a building. Block Ties also called as '**Wall Ties**' and are used in building with cavity walls.

They are used to join the two leaves of a cavity wall together, allowing the two parts to act as a homogeneous unit, hidden from view after construction.



TECHNICAL SPECIFICATIONS – BLOCK TIE

NIPRAS BLOCK TIES / WALL TIES	
WALL TIES (SHEET PRODUCTION)	
Manufactured to	<ul style="list-style-type: none"> • BS EN 845-1: 2003 (formerly BS 1243)
Pre-Galvanized steel complying with	<ul style="list-style-type: none"> • BS EN 10346: 2009 (formerly BS EN 10142:1991) • ASTM A 653 / A 653M
Mild steel complying with	<ul style="list-style-type: none"> • BS EN 10149-3: 1996, ASTM A36 • BS EN ISO 1461:1999 (formerly BS 729)
Hot dip Galvanizing	<ul style="list-style-type: none"> • ASTM A 123 / A 123M, ASTM A 153 / A 153M
Stainless Steel complying with	<ul style="list-style-type: none"> • BS EN 10088-2: 2005 (formerly BS 1449: Part2:1983) in Grade 304, 316L, 2B finish • ASTM A 240 / A 240M in Grade 304, 316 and 316L
WALL TIES (WIRE PRODUCTION)	
Manufactured to	<ul style="list-style-type: none"> • BS EN 845-1: 2003 (formerly BS 1243)
Cold Drawn Steel for Reinforcement	<ul style="list-style-type: none"> • BS 4482: 2005 • ASTM A 496 / A 496M, ASTM A 82 / A 82M
Hot Dip Galvanizing (After Fabrication)	<ul style="list-style-type: none"> • BS EN ISO 1461: 1999 (formerly BS 729) • ASTM A 123 / A 123M, ASTM A 153 / A 153M
Pre-Galvanized wire	<ul style="list-style-type: none"> • BS EN 10244-2: 2001 (formerly BS 443) • ASTM A 641 / A 641M
Stainless Steel wire	<ul style="list-style-type: none"> • BS EN 10088-2: 2005 (formerly BS 1449: Part2:1983) in Grade 304, 316L, 2B finish • ASTM A 240 / A 240M in Grade 304, 316 and 316L

NIPRAS offers a wide selection of wall ties of numerous shapes and sizes made from pre-galvanized steel, galvanized steel, and stainless steel, manufactured in various lengths to suit different wall cavity widths.

1) CAVITY WALL TIES

SPECIFICATIONS

- BS EN 845-1: 2003 (Formerly BS 1234)
- QCS sec 13 Part 3.2
- PD 6697: 2010 (replaced BS 5628)

MATERIALS & FINISH

WIRED / ROD:

- Mild Steel to ASTM A82 and hot dip galvanized after fabrication to ASTM A 123 / ASTM A 153 and BS EN ISO 1461.
- Stainless Steel to ASTM A 276 / BS EN 10088.

SHEET:

- Mild Steel to ASTM A36 and hot dip galvanized after fabrication to ASTM A 123 or ASTM A 153 or BS EN ISO 1461.
- Pre-galvanized to ASTM A 653 / BS EN 10346 (Formerly BS EN 10327).
- Stainless Steel to ASTM A 240 or ASTM A666 / BS EN 10088.

CRITERIA IN CHOOSING TIES AND ANCHOR

TYPE	FIELD OF USE	
	TYPE OF STRUCTURE	GEOGRAPHICAL LOCATION
Type-1	Suitable for most building sizes and types. Should not be used where large differential movements are expected to take place between leaves.	Suitable for most sites. However, for relatively tall buildings or unusually shaped building in exposed areas-coastal areas for instance, the necessary tie provision should be calculated.
Type-2	Suitable for domestic dwellings and small commercial buildings of a height of up to 15m above ground level usually comprised of two leaves blockwork of similar thickness from 90mm to 150mm.	Suitable for buildings on flat sites where the fundamental basic wind velocity is up to 31 m/s except areas where the site is at an altitude of 150m or more above sea level.
Type-3	As type 2	Suitable for buildings on flat sites where the fundamental basic wind velocity is up to 27 m/s.

Minimum Leaf Thickness (one or both)	Nominal Cavity Width (mm)	Tie Length (mm)	Classification
75	75 or less	200 (A)	Type 1, 2, 3 or 4 on the basis of design loading and cavity width.
90	76 to 100	225 (A)	
90	101 to 125	250 (A)	
90	126 to 150	275 (A)	
90	151 to 175	300 (A)	
90	176 to 300	(B)	
Type-4	Light duty ties used in box-frame domestic dwellings of up to 10m in height, comprising two leaves of similar thickness from 90mm to 150mm.	Suitable for flat sites in towns and cities except where the fundamental basic wind velocity exceeds 27 m/s, and any areas where the site is at an altitude of 150m or more above sea level.	

- (A) - embedment length not less than 50mm in both leaves, otherwise the length will be increased accordingly in 25mm increment.
- (B) - For Cavities wider than 175mm, with an embedment of 50mm, calculate the length as nominal cavity width plus 125mm.

A.CAVITY WALL TIES - TYPE 1:

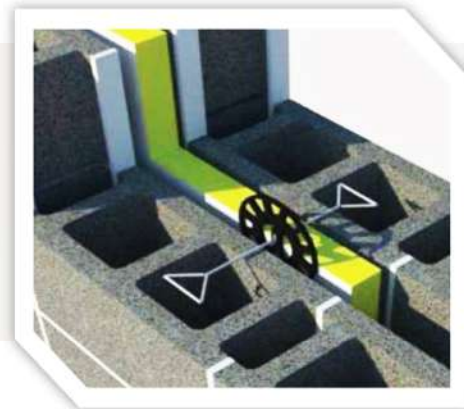
- Suitable for most building sizes and types. Should not be used where large differential movements are expected to take place between leaves.

PRODUCT DETAILS

Type Code	Item Description	Width (mm)	Thickness (mm)	Length (mm)	Cavity Width (mm)
CT1	Corrugated Tie	25 – 40	1.50 – 4.00	190 – 350	50 – 200
CT1 – V	Corrugated Tie w/ V-Rib				
FT1	Fishtail Tie	30 – 40			
FT1 – V	Fishtail Tie w/ V-Rib				
FT1 – Twisted	Fishtail Tie – Twisted				
SDT	Symmetrical Tie – Diamond End	25 – 40			
SDT-V	Symmetrical Tie – Diamond End w/ V-Rib				
S6HT	Symmetrical Tie – 6 holes				

B.CAVITY WALL TIES - TYPE 2 AND 3:

- Suitable for domestic dwellings and small commercial buildings of a height of up to 15m above ground level usually comprised of two leaves blockwork of similar thickness from 90mm to 150mm.



Butterfly Wall Tie



Double Triangle Wall Tie



Z Type Wall Tie

PRODUCT DETAILS

Type Code	Item Description	Diameter (mm)	Width (mm)	Length (mm)
BFT1	Butterfly Wall Tie	3.0 - 3.8	75	200
DTT1	Double Triangle Tie		65 - 75	200 - 300
DZT1	Z-Type Wall Tie			

* Based on Guideline in Selecting Wall Ties: BS 5628 - Code of Practice for Use of Masonry

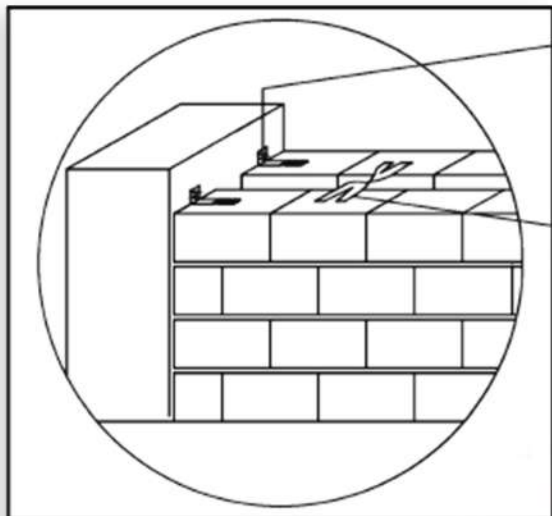
C.CAVITY WALL TIES - TYPE 4:

- Light duty ties used in box-frame domestic dwellings of up to 10m in height, comprising two leaves of similar thickness from 90mm to 150mm.
- **Material/Sheet:** Stainless Steel to ASTM A 240 or ASTM A666 / BS EN 10088



PRODUCT DETAILS

Type Code	Description	Thickness (mm)	Length (mm)	Width (mm)	Cavity Width (mm)
T1	Wall Tie	not less than 0.6	190	19	50
T2	Wall Tie (longer)		220		75
BT3	L-Angle		120		At Column



Block tie (corrugated type or fishtail type)

Width – 30mm; neck height – 50mm with two holes (preferably) Length – same as block width (minimum of 120mm), Min. thickness – 1.50mm

Block tie (corrugated type or fishtail type)

Width – 30mm; neck height – 50mm with two holes (preferably) Length – same as block width (minimum of 120mm) Minimum thickness – 1.50mm

Material






Galvanized steel – for internal application & normal conditions.

Stainless steel – for external application & severe conditions

LENGTH OF TIES IN (MM) TO SUIT CAVITY

Tie	Reference Code	Description	Section Size (mm)	Cavity				Position of Drip (min) mm
				Length 0 - 20 (mm)	Length 15 - 45 (mm)	Length 40 - 70 (mm)	Length 65 - 70 (mm)	
	B/P/30	Brick Facing Tie	20 x 2.0 25 x 2.0	75	100	150	200	
	B/D/30	Brick Facing Tie	20 x 2.0 25 x 2.0		100	150	200	20
	B/F/30	Brick Facing Tie	20 x 2.0 25 x 2.0			150	200	30
	B/P/21	Brick Facing Tie	20 x 2.0 25 x 2.0	75	100	150	200	
	B/D/21	Brick Facing Tie	20 x 2.0 25 x 2.0		100	150	200	20
	B/F/21	Brick Facing Tie	20 x 2.0 25 x 2.0		100	150	200	30
	B/P/28	Brick Facing Tie	20 x 2.0 25 x 2.0	75	100	150	200	
	B/D/28	Brick Facing Tie	20 x 2.0 25 x 2.0		100	150	200	20
	B/F/28	Brick Facing Tie	20 x 2.0 25 x 2.0			150	200	30
	B/P/36	Brick Facing Tie	20 x 2.0 25 x 2.0	75	100	150	200	
	B/D/36	Brick Facing Tie	20 x 2.0 25 x 2.0		100	150	200	20
	B/F/36	Brick Facing Tie	20 x 2.0 25 x 2.0			150	200	30

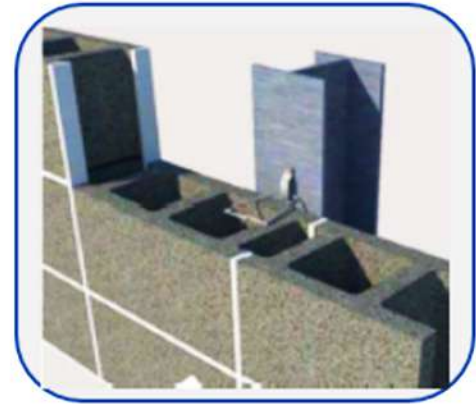
LENGTH OF TIES IN (MM) TO SUIT CAVITY

Tie	Reference Code	Description	Section Size (mm)	Cavity				Position of Drip (min) mm
				Length 0 - 20 (mm)	Length 15 - 45 (mm)	Length 40 - 70 (mm)	Length 65 - 70 (mm)	
	B/F/36	Brick Facing Tie	20 x 2.0 25 x 2.0			150	200	30
	B/P/50	Brick Facing Tie	30 x 2.0 25 x 2.0	75	100			
	B/D/50	Brick Facing Tie	30 x 2.0 25 x 2.0		100			
	B/F/50	Brick Facing Tie	30 x 2.0 25 x 2.0					
	B/P/99	Cavity Wall Tie	30 x 2.0 25 x 2.0	150	200	250	300	
	B/D/99	Cavity Wall Tie	30 x 2.0 25 x 2.0	150	200	250	300	
	B/F/99	Cavity Wall Tie	30 x 2.0 25 x 2.0	150	200	250	300	
	C/C/30	Corrugated Strip	30 x 2.0 25 x 2.0	150	200	250	300	
	C/C/50	Corrugated Bracket	30 x 2.0 25 x 2.0	75	100	150	200	
	V/W/04	VEE Tie	ø 4,5,6	75	100	125	150	
	B/T/25	Wall Tie Anchor	30 x 2.0 25 x 2.0	75	100	125	150	
	S/S/15	Cavity Wall Tie	30 x 2.0 25 x 2.0	150	200	250	300	

2) MASONRY TO CONCRETE TIES

SPECIFICATIONS

- BS EN 845-1: 2003 (replaced BS 1243)
- QCS sec 13 Part 3.2
- PD 6697: 2010 (replaced BS 5628)



MATERIALS & FINISH

WIRED / ROD:

- Mild Steel to ASTM A82 and hot dip galvanized after fabrication to ASTM A 123 / ASTM A 153 and BS EN ISO 1461.
- Stainless Steel to ASTM A 276 / BS EN 10088.

SHEET:

- Mild Steel to ASTM A36 and hot dip galvanized after fabrication to ASTM A 123 or ASTM A 153 or BS EN ISO 1461.
- Pre-galvanized to ASTM A 653 / BS EN 10346 (Formerly BS EN 10327).
- Stainless Steel to ASTM A 240 or ASTM A666 / BS EN 10088.

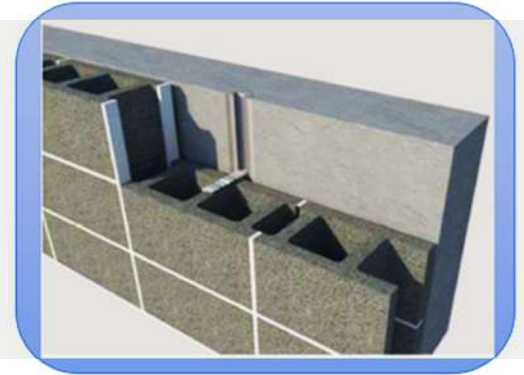
A. ANGLE TIES:

One way of connecting masonry to concrete is with the use of Angle Ties. These ties will be fixed on the concrete and the tie extends to the masonry.

Thickness (mm)	Width(mm)	Return(mm)	Length(mm)
1.5-4.0	30-40	40-50	190-350

B.DOVETAIL CHANNEL SYSTEM TIE:

Another way of connecting masonry to concrete column or any concrete wall it is advisable to use **NSF Dovetail Channel system**. The channels offer a significant cost and time advantage over drilled normal fixings. The channel will be installed on the inside face of the formwork, then concrete will be poured.



*(*Note that the channel should be filled with suitable filler such as Polystyrene to avoid being filled with concrete during pouring. After removing the formwork, the channel is ready to hold the ties.)*



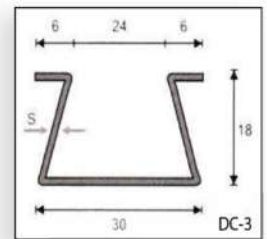
TRIANGULAR WIRE TIE



FISH TAIL END



DOVE TAIL CHANNEL



CORUGGATED END



W/ DEBONDING SIEVE

TABLE

Item	Thickness (mm)
Dovetail Slot /Channel	1.0 -1.5 mm
Dovetail Tab	1.0 -2.0 mm

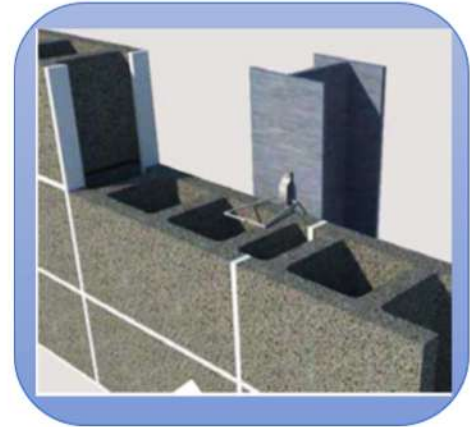
*(*Other size can also be arranged upon request)*

3) MASONRY TO STEEL TIES

Adjustable Anchors and ties connected to structural steel which allow vertical or horizontal adjustment which can resist both tension and compression.

SPECIFICATIONS

- BS EN 845-1: 2003 (replaced BS 1243)
- QCS sec 13 Part 3.2
- PD 6697: 2010 (replaced BS 5628)



MATERIALS & FINISH

WIRED / ROD:

- Mild Steel to ASTM A82 and hot dip galvanized after fabrication to ASTM A 123 / ASTM A 153 and BS EN ISO 1461.
- Stainless Steel to ASTM A 276 / BS EN 10088.

SHEET:

- Mild Steel to ASTM A36 and hot dip galvanized after fabrication to ASTM A 123 or ASTM A 153 or BS EN ISO 1461.
- Pre-galvanized to ASTM A 653 / BS EN 10346 (Formerly BS EN 10327).
- Stainless Steel to ASTM A 240 or ASTM A666 / BS EN 10088.



**ANCHOR - PLATE TIE -
TRINGULAR WIRE**



**ANCHOR - ROD TIE -
TRINGULAR WIRE**

4) OTHER TIES and ANCHORS

MATERIALS

SHEET:

- Mild Steel to ASTM A36 and hot dip galvanized after fabrication to ASTM A 123 or ASTM A 153 or BS EN ISO 1461.
- Pre-galvanized to ASTM A 653 / BS EN 10346 (Formerly BS EN 10327).
- Stainless Steel to ASTM A 240 / ASTM A666 / BS EN 10088.

a. Movement Tie:

Restrains the masonry against the lateral wind loads while the sleeve will allow the masonry to contract or expand during movement.



MOVEMENT TIE WITH CORRUGATED END



MOVEMENT TIE WITH 3 HOLE END

Type Code	Thickness (mm)	Width (mm)	Length (mm)
SWT-1, SWT-3	1.50 - 4.00	25 - 40	190 - 350

b. Rigid Anchor Tie:

MATERIALS & FINISH

- Mild Steel to ASTM A36 and hot dip galvanized after fabrication to ASTM A 123 or ASTM A 153 or BS EN ISO 1461.
- Pre-galvanized to ASTM A 653 / BS EN 10346 (Formerly BS EN 10327) and epoxy coated after fabrication.
- Stainless Steel to ASTM A 240 / ASTM A666 / BS EN 10088.



U - TYPE



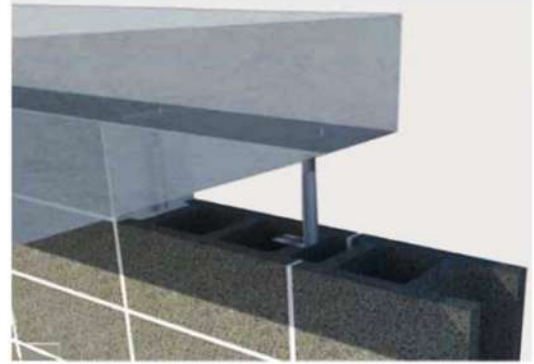
Z - TYPE



5) HEAD RESTRAINTS

MATERIALS & FINISH

- Mild Steel to ASTM A36 and hot dip galvanized after fabrication to ASTM A 123 or ASTM A 153 or BS EN ISO 1461.
- Pre-galvanized to ASTM A 653 / BS EN 10346 (Formerly BS EN 10327).
- Stainless Steel to ASTM A 240 / ASTM A666 / BS EN 10088.



a. Adjustable Head Restraint:

These are used to restrain the top of the masonry walls and allow vertical movement during shrinkage or thermal movement.



SLOTTED HOLE

	Thickness (mm)	Embedment (mm)	Width (mm)
Tie	1.5–2.0	50–70	30–40
Sleeve	1.0–1.2	70–100	

b. Ceiling Wall Tie:

Used to tie the ceiling to the masonry wall below.

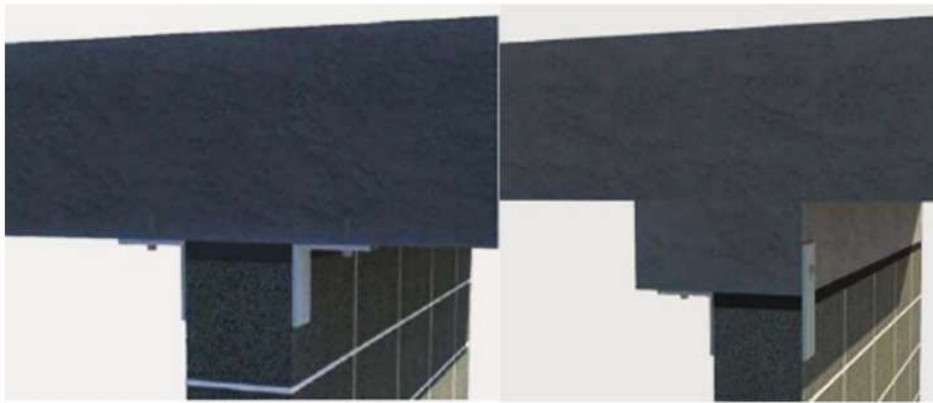
Thickness (mm)	Embedment (mm)	Width (mm)	Length (mm)
1.5–2.0	50–70	30–40	200



CEILING WALL TIE

c. Plates and Loading Brackets:

In some cases, the designer needs to have a masonry wall that resists shear or wind loads. To achieve this, some brackets, angles or plates are used to connect the slabs and the beams to masonry.



MATERIALS & FINISH

- Mild Steel to ASTM A36 and hot dip galvanized after fabrication to ASTM A 123 or ASTM A 153 or BS EN ISO 1461.



ANGLE PLATE



FLATE PLATE

6)PARTITION TOP ANCHORS

Partition Top Anchors provides lateral shear resistance at the upper limit of the masonry walls. They permit vertical deflection of the slab above, without transferring compressive loads to the masonry Below.

PTA- R PARTITION TOP ANCHOR -RO

The anchor is attached to the concrete or steel structure. A Neoprene sponge or any compressible filler is placed between the above structure and the masonry below thus allowing vertical expansion and contraction.

The clear butyrate tubes with compressible polyethylene filler placed over the rod anchor isolates the anchor from the surrounding mortar so the anchor will slide vertically.

Material

Pre-Galvanized, Hot Dip Galvanized or Stainless Steel

Dimensions:

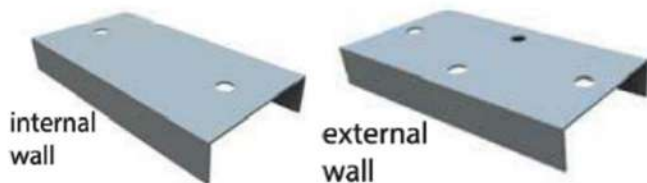
Plate: Thickness - 2 to 3mm

Rod: Diameter - 8 to 12mm



PTA- C PARTITION TOP ANCHOR-CHANNE

The anchor is attached to the concrete or steel structure and Neoprene Sponge or any other compressible filler is placed between the above structure and the masonry below thus allowing vertical expansion and contraction.



Material

Pre-Galvanized, Hot Dip Galvanized or Stainless Steel

Dimensions:

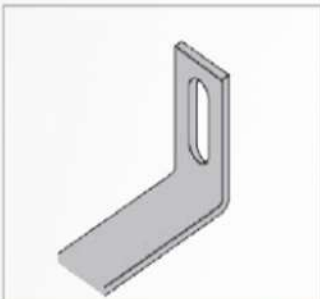
Thickness - 2 to 3mm



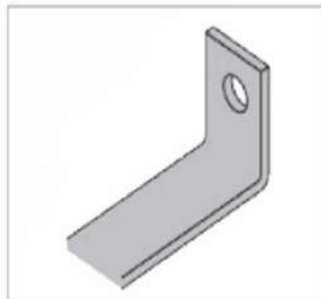
**Other dimensions or sizes and material finishes also available upon request*

HEAD ENDS

Head Ends



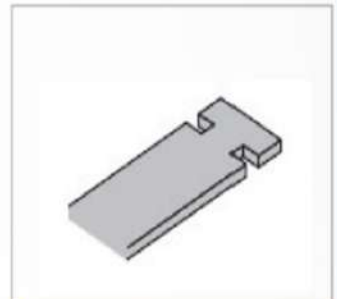
L-ANGLE SLOTTED



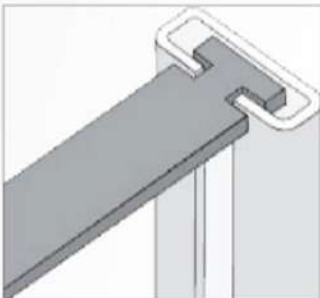
L-ANGLE HOLE



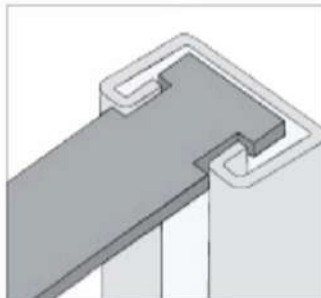
PLAIN



PLAIN



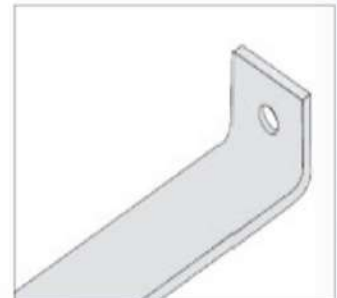
RCH/SCH CHANNEL



CCC CHANNEL



DCC CHANNEL

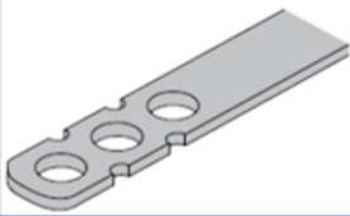


BOLT-SCREW FIXING

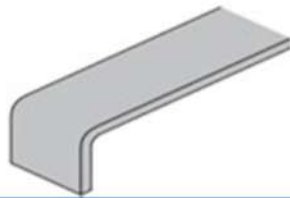
TAIL ENDS

The most common method of anchoring a tie to a slab facing, is by means of a round dowel into a drilled hole, split tangs on the tie may also be used. For bonding into brick work the “**Fishtailed**” end is the traditional.

TAIL ENDS



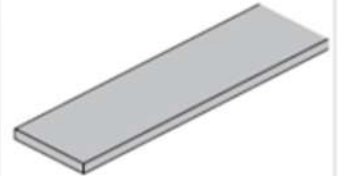
3 HOLES



TURNED DOWN



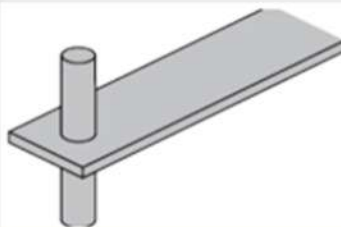
SPLIT TIE



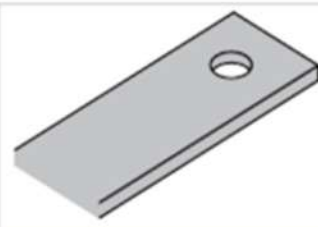
PLAIN



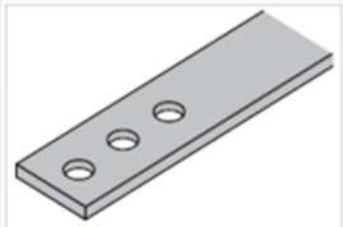
RETURNED Z



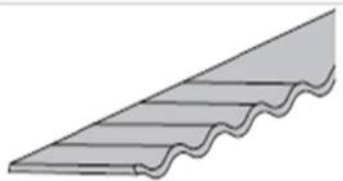
PLAIN WITH PIN



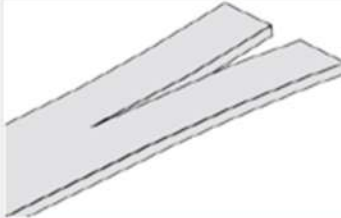
PLAIN 1 HOLE



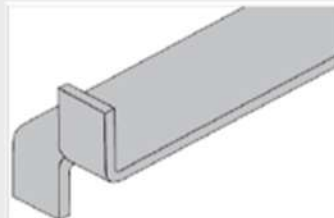
PLAIN 3 HOLES



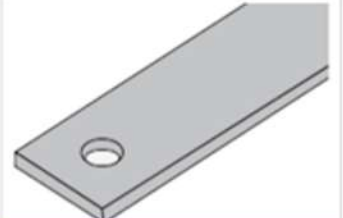
CORRUGATED



FISHTAILED



SPLIT TANG



DOWEL

SHANK OPTIONS

Shanks may be plain or may include a drip to stop the passage of moisture across

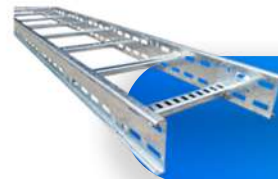


RANGE OF PRODUCTS

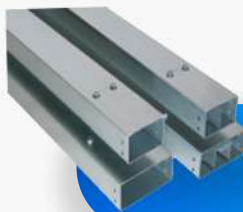
NIPRAS having a wide range of products for Cable Management system, Architectural Engineering Solutions, Building Material and more that are characterized in below categories to support the best interest for our customers.



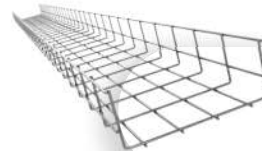
Cable tray & Accessories



Cable ladder & Accessories



Cable trunk & Accessories



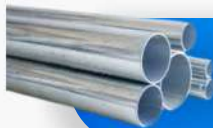
Wire basket tray & accessories



Base plate



Electrical boxes



EMT-Conduits



HFT - Crimped Terminal Lugs



Control panel boxes



C-Channel

ARCHITECTURAL ENGINEERING SOLUTION



Roof Access Hatch



Handrail



Garbage & Linen Chute



Access Raised Floor



Lockers



Ladders



Gratings (Steel / Galvanized)



Steel Bollards



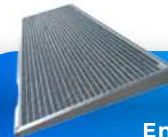
Fence



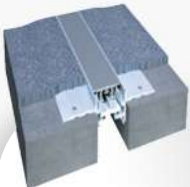
Toilet Partitions



Metal Gates



Entrance Mats



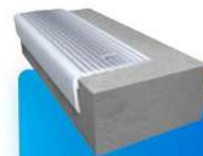
Expansion Joint System



Tile & Carpet Trim

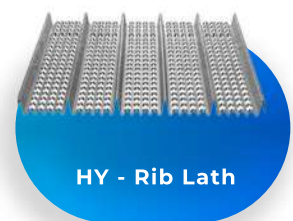
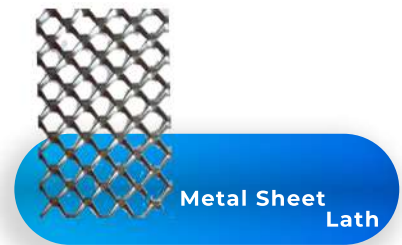
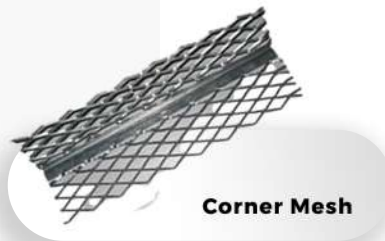
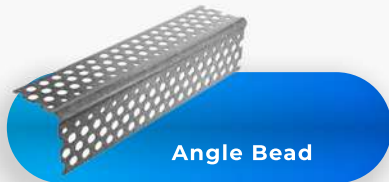


Impact Protection



Stair Nosing

BLOCK WORK & PLASTERING ACCESSORIES



CONCRETE FORM WORK ACCESSORIES



Plywood



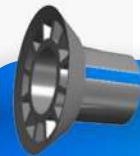
Tie Rods & Accessories



Timber



PVC Pipes



PVC Cones



PVC Chamfer



Rapid clamp



Shutter clamp



Concrete Spacer



Plastic Spacer

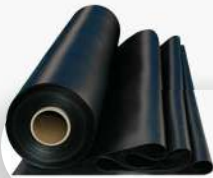


Steel Wire Mesh



Binding wire

WATER PROOF & THERMAL INSULATION



Bitumen Membrane



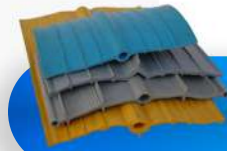
Rock Walls



Geotextile



Extruded Polysterene



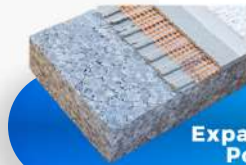
PVC Waterstop



Protection Board



Liquid Membrane



Expanded Polysterene



Foam Backing Rods



Polyethelene Sheet



Cork Sheet



Flashing Aluminium

GYPHUM PARTITIONS & SUSPENDED CIELING



Gypsum Board



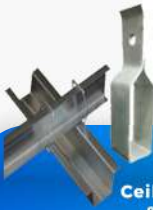
Cement Board



Access Panel



Studs & Runner



Ceiling Furing Channel & Channel Bracket



Perimeter & Dry Wall Angle



Furing Channel



Adjustable Rod Hanger



C- Bracket



Joint Mesh



Wire Connecting Clip



Gypsum Putty



Dry Wall & Self Drilling Screws

PIPE CLAMP, HANGERS & FIXING LETRING



Pipe Clamp With Rubber



Long Nut Pipe Clamp



Channel Clamp



U Clamp



Pipe Clamp (SNAP)



Beam Clamp



Conduit Clamp (Omega)



Clevis Pipe Hanger



Adjustable Band Hanger



Drop In Anchor



Anchor J Bolt



Steel U-Bolt

CLADDING ACCESSORIES



Z-Bracket With Returned Leg Horizontal Joint



Returned Leg Bracket



Up & Down Bracket



L- Bracket



Unistrut Support System & ETC



Anchor Bolt



Through Bolt



Sleeve Anchor Flange Nut



Hex Bolt With Nut Washer & Spring Nut

QUALITY POLICY

NMIC is fully committed to a quality policy which ensures delivery of its products and services “defect free on time”. NMIC provides quality management, co-ordination, production and processing, manufacture and installation services throughout KSA and sometimes outside KSA. Since the establishment NMIC is primarily engaged in providing Architectural Engineering solutions in the market and aims to achieve a high standard of production and trading services.

NMIC possess the policy to:

- Manufacture and supply products which fully confirm to the customer’s requirements relating to quality, reliability, and delivery.
- Use the company’s considerable experience and knowledge in the production of standard products to assist customers in the cost effective design and development of both existing and new products.
- Ensure that suppliers of raw materials, goods and services confirm to all requirements and are of a consistent high quality to enable the company in achieving its commitments to all customers.
- Recognize that the responsibility for quality lies with all employees of the company and hence to stimulate and encourage interest and pride in their work.
- Hold frequent quality Management System review meetings to enable continual review of the suitability of the Quality policy and all aspects of the Quality Management System.



These requirements of quality policies are compared to the requirements of ISO 9001:2015- Quality Policy. NMIC is committed to achieve our customer satisfaction by the use of quality procedures which will be operated to meet or exceed the requirements of ISO 900:2015.



NMG NIPRAS
METAL GROUP



شركة نبراس المعدن للصناعة
NIPRAS METAL INDUSTRY Co.

