



# TYPESOF

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the combination of different door concepts can be incorporated in the same façade.

The sliding door offers an array of unique features, providing maximum security for large openings, where minimum headroom of only 160mm is required.

Additional features include:

Opening to one or two sides With or without bottom rail Manual operation with optional electrical drive Maximum width 100m & Height 13m, Certified wind load resistance Class 4: (EN 12424)

The each door section is bottom rolling and top guided. Configurations include: uni-directional, bi-parting, individually operated, 3-way traveling group and

These options allow you to choose the best for your requirement. These types of door provide an excellent application for corporate, FBO, charter and airline hangars.

The door system is built to endure massive wind loads and withstand strong weather conditions. The vertical weather seal bulbs offer most reliable all-weather protection.

Sliding Type Hanger Doors Available in Steel & Aluminium Structures. Steel Type can go upto maximum height of 25 meters and cladded with Insulated Sandwich panel &/or Glazing. Extruded Aluminium type door has max height of 13.6 meters, and filled with insulated sandwich panel & /or Glazing.

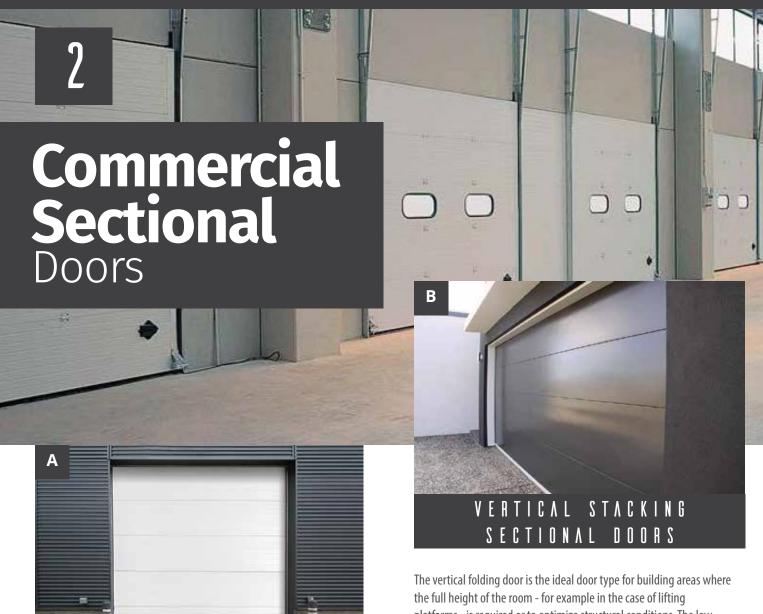
For high durability, energy saving and reliability, with minimum maintenance. Each door is individually designed to be customized and to withstand winds and bad weather, which can be different based on the area where the product is installed.

MEGA FOLD-UP HANGAR DOOR

FABRIC

These doors consist of an inner panel, an outer panel and some bars for more stability. This door is ideal for industrial environments designed for material handling.

**Maximum Dimension** 30000mm x 20000 mm H Wind load: Class 4 (140km/hr)



Strong in Construction for reliable performance, the insulated sectional Aluminum / steel-back door, is perfect for commercial and industrial applications. Three-layer sandwich construction with inner and outer Aluminum / galvanized steel provides durability and reliability.

INSULATED SECTIONAL

OVERHEND DOOR

### Panel thickness:

Steel: Available in 40mm, 42mm and 45mm,

Aluminium: 42mm and 51mm

Maximum Size - 7000mm W & 7000mm Height

Track System: 2" and 3" track available in Standard Lift, High lift and Full

vertical, low headroom, and follow roof line options

Available Options: Wind load options; Electric operator; Chain hoist, Photocell, Remote, Bottom-sensing edge, Window Glazing Options



**Maximum Dimension** 10000mm x 6000 mm H Wind load: Upto Class 4 (140km/hr) platforms - is required or to optimize structural conditions. The low insertion depth is particularly advantageous in halls with light couplings, glass roofs and facades. The light and the view remain free under all circumstances.

The Aluminum sectional door leaf is divided into 4 or 6 horizontal sections, which are connected to one another by special hinges. Maximum Size – 4000mm W & 5000mm Height Wind load: Class 4 (140km/hr)



# Industrial Rolling shutter Doors

Roller Shutters are one of the most versatile door product available for access control to almost all sizes of opening and perfect for covering and securing doorways, windows and other apertures.

The roller shutter door is always made to order and requires very little space above, outside, or inside any opening.

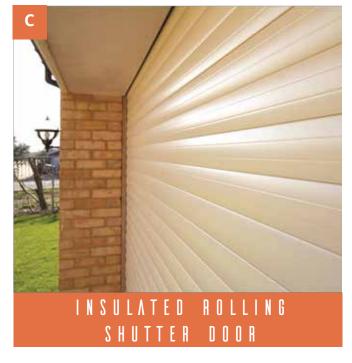
There are well over 50 different curtain slat types that can be used to construct a roller shutter curtain and all of them have different levels of strength, security, insulation and surface finishes available. Steel or aluminium are the 2 main materials for the roller door curtain construction in Single Skin and Double Skin slats options.



# (ELECTRICAL OPERATED - STEEL / STAINLESS STEEL)

HMI Doors supply a wide range of Solid slat roller Shutter doors for the industrial sector where the environment is often harsh with high usage and very large sizes. Industrial warehouses and factories can often also be exposed so the wind becomes a key factor in the specification for the roller doors used.

The shutter doors come in two pitches 75mm and 100mm. With slat thickness of 0.7mm, 1.0mm 1.2mm and 1.5mm



The double skinned curtain Roller Shutter Doors will offer greater Thermal protection keeping the inside temperature as constant as possible and use as a multi-purpose door system in any building requiring good levels of insulation as well as security. The curtain laths available in Aluminum and Steel with a foam filled core and a smooth or microprofile design to the front to provide an attractive and practical surface finish enhancing your building. The majority of insulated roller doors are electrically operated

The standard painted finish (off White) has a superb visual appearance but the slats can also be painted if required to suit your colour requirements and corporate branding. The shutter laths are available in 77mm Pitch and 90mm Pitch to suit to different opening dimensions.



# LIGHT INDUSTRIAL CONTINUOUS PROFILE DOORS

The continuous profile Light Industrial Roller Doors are designed for easy installation, maintenance free operation and a long life. These doors are fast, silent and safe offering customers' value for money. The curtain made of Steel with Zinc alum coating and multiple layers of coating.

The Light Industrial Roller Doors are mostly used in store fronts, shops, warehouses, factories and wherever complete closures are needed at a low cost. The doors can be operated manually, by a hand chain or they could be motor operated.

Max Dimension: 5000mm width & 5000mm Height

Operation: Manual / Electrical

SLAT TYPE	SINGLE SKIN 75 MM ALUMINUM	SINGLE SKIN 75MM GI	SINGLE SKIN OOMM GI	DOUBLE SKIN ROLL Formed 77MM	DOUBLE SKIN ROLL Formed 90mm	DOUBLE SKIN Extruded
SLAT TYPE	ALUMINIUM	GI STEEL / SS	GI STEEL / SS	STEEL / Aluminium	STEEL / Aluminium	EXTRUDED Aluminium
SLAT PITCH (MM)	80/100	75	100	77	90/95	55/77
ТУРЕ	SINGLE SKIN Roll Formed / Extruded	SINGLE SKIN ROLL FORMED SOLID / PERFORATED	SINGLE SKIN Roll Formed / Perforated	DOUBLE SKIN ROLL FORMED INSULATED	DOUBLE SKIN ROLL FORMED INSULATED	DOUBLE SKIN / Double skin Insulated
SKIN THICKNESS (MM)	0.8 / 1.0 / 1.2	0.7 / 1.0 / 1.2	1.0 / 1.2 / 1.5	0.45-STEEL 0.53 ALUM	0.45-STEEL 0.53 ALUM	1.0 / 1.2 / 1.5
OVER ALL Thickness				13 — STEEL 19 - Alum	23-STEEL; 27.5-ALUM	13
MAX DOOR WIDTH (MM)	7000	10000	12000	6000 STEEL 4500 - Alum	8000 STEEL 6000 ALUM	8000
MAX DOOR HEIGHT (MM)	6000	8000	12000	4000	6000 STEEL 6000 ALUM	8000
STANDARD FINISH	POWDER COATED To any STD RAL	POWDER COATED To any STD RAL	POWDER COATED To any STD RAL	BAKED ENAMEL — OFF WHITE	BAKED ENAMEL — OFF WHITE	POWDER COATED To any STD RAL
OPERATION	MANUAL / Electrical	MANUAL / Electrical	ELECTRICAL	ELECTRICAL	ELECTRICAL	ELECTRICAL

# Shop Front Doors



# (TUBE TYPE / RIBBED HINGE TYPE)

HMI polycarbonate roller shutters are of a special design with reinforced Aluminium /SS rods between the panels. The design and materials make our polycarbonate shutters extremely strong and resistant to forced entry. The combination of high visibility with exceptional strength makes our polycarbonate shutters ideal for shops that want to keep valuable goods on display

# PERFORATED GALVANIZED SLAT ROLLING SHUTTER

Perforated see-through is another excellent choice for the Shop front off-time exhibition. This is another alternative for the polycarbonate Shutter. However the slats are roll formed with 48% visibility, with the options of powder coating the slats to any desired colour. These doors offer great visibility, aesthetic look and durability.



GRILL TYPE ROLLING SHUTTER DOOR



HMI's Upward Coiling Grille offers a choice of curtain materials to meet the aesthetic and functional requirements of almost any environment. This security grille is fabricated of galvanized steel, Stainless steel and Aluminium inserts options. The standard curtain pattern for this security grille is a straight lattice configuration, but you can opt for a staggered brick design. These security grilles are built for long-lasting, trouble-free performance. These security grilles are available with an electric operator to provide automatic passage for a variety of commercial and industrial uses, including schools, hospitals, libraries, public access buildings and parking garages.



The Security sliding doors allows for more custom installations where curved or L-shaped pockets are desired. If you're designing a retail space, pharmacy counter, food service counter, or a public space like a school or arena, the sliding security doors can be adapted to a variety of design aesthetics.

Seamless polycarbonate, perforated or solid aluminum panels can reach up to 4200mm high without the need for visually distracting horizontal reinforcements. Clear and black anodized options are standard, with more available. Available in 3 different panel width for different application



INSULATED SECTIONAL DOORS

Traditional Steel garage doors deliver performance and durability at affordable price. These garage doors are available with classic raised panels, Ribbed or Flush type. Two coats of baked-on polyester paint provide a low-maintenance finish that looks great, year after year.

These steel garage doors combine the long-lasting performance of high quality steel with the elegance of clean lines and classic designs. Whether you want to create a subtle statement or a bolder one, our wide assortment of neutral tones will complement the architectural details of your home.

Panel thickness: 38mm / 40 mm

Skin Thickness: 0.45mm

Dimension:

Standard height 2440mm;

 $Standard\ Width-3000mm\ ,\ 3650mm\ ,\ 4250mm\ ,\ 4875mm\ ,\ 5480mm\ ,\ 6000mm$ 

# GI SLAT ROLLING SHUTTER DOOR

Suitable for wider openings where the sectional doors cannot be hung to the ceiling. The shutter doors come in two pitches 75mm and 100mm, with slat thickness of 0.7mm, 1.0mm and 1.2mm. Here full curtain can be either solid or perforated and combination of solid slat and perforated is also possible

# INSULATED ROLLING SHUTTER DOOR

The double skinned curtain Roller Shutter Doors will offer greater Thermal protection keeping the inside temperature as constant as possible and use as a multi-purpose door system in any building requiring good levels of insulation as well as security. The curtain laths available inAluminum and Steel with a foam filled core and a smooth or microprofile design to the front to provide an attractive and practical surface finish enhancing your Villa.

The One piece traditional UP and OVER garage doors comes in standard or made to order in various materials, like Steel, GRP, UPVC and Timber, in various different designs and finishes. Many designs incorporate windows for light and visual appeal.

UP & OVER

GARAGE DOORS

All doors can be either manual or remote control electric operated. The simplicity of operation and diversity of panel design is one key factor. Up and over garage doors can be a standard size or made to measure if extra width or height is required to optimize the drive through sizes. drive through sizes.

Panel Finish: Wooden finish, Painted

Dimension:

Standard height 2000mm – 3480mm; Standard Width :3000mm – 6000mm

# CONTINUOUS PROFILE GARAGE DOOR

These doors are mostly used for garages in villas. They can be operated manually or electronically with a remote control and have an auto reversing safety system. It is a light duty economic solution for the Garage Doors.

Max Dimension 4000mm width & 4000mm Height Operation: Manual / Electrical



Hollow Metal Steel Doors are design based on SDI and NFPA technological data in the interest of improving the safety for the public benefits. HMI Hollow Metal fire rated Steel Doors are produced with the toughest UL and SDI standards to prevent any spread of smoke fire breakup.



HMI offers a wide range of rolling shutter doors to meet the most demanding fire safety standards, unusual opening sizes and discerning aesthetic requirements. Designed to close automatically in the event of a fire or alarmed event. Our fire-rated doors are available for service door and counter applications in commercial, industrial, institutional and retail projects. We provides fire doors with BS or UL labels, and are listed for both masonry and non-masonry applications.

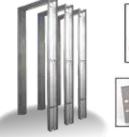


Our Fire Curtains and Smoke Curtains are tested to the British Standards, European Norm, ASTM and UL Standards and are produced in accordance with the quality procedures. We are certified and listed by UL for our Smoke Curtains and Fire Curtains and have also achieved Third Party Accreditation for our Smoke Curtains.

# **Hollow Metal** Doors & Frames

Maximum Door opening Size: 1220x2438mm. for single, 2438x2438mm. for pair. Jamb Depth: 120mm.Min. thru 323mm. Max. (4 3/4" thru 12 3/4') Maximum throat Opening: 114mm.

For masonry wall; 92mm. for dry wall





# FIRE RATED STEEL FRAME

This specification applies to standard steel frames as shown on the plan and door schedules and as manufactured. HMI Hollow Metal will provide frames in compliance with ANSI/SDI-100 requirements. We provide fire rated frames labeled and listed by UL (or) Warringtonfire-Mideast

# STEEL DOORS

- Steel Doors Non Fire Rated
- Steel Doors Fire Rated
- Sound Proof (Acoustic) Doors and Frames
- Stainless Steel Doors and Frames
- **Bullet Proof Doors and Frames**
- X-ray Room Doors and Frames
- **Transom and Sidelite Frames**
- **Detention (Cell Doors) Doors and Frames**
- Access Doors and Frames
- Window Frames and security screens
- Seamless Doors and Frames
- **Dutch Doors and Frames**
- Gas Tight Doors and Frames (Air Tight)



#### PANEL D O O RCORE

Available in Honeycomb core, Polystyrene core, Stiffened Door with fiberglass insulation, Stiffened Door with Rock wool insulation.

# DOOR CONSTRUCTION

45mm (13/4") thick full flush construction with the details confirming to SDI-111A-EDGE considered.

Manufactured from cold rolled steel sheets to ASTM A366 or from galvan steel to ASTM

Available in nominal 1.2mm (18ga.) or 1.5mm (16ga.). Vertical edges are interlocked. 1.5mm (16ga.) deep end channels at top and bottom of door for lasting integrity

Hardware reinforcing in accordance to ANSI, SDI, NFPA standards requirements. Tested according to UL10(B) and labeled up to 3 hours.

Available with wide range of glass light and louver preparations.

Fire rated, Labeled: Available in sizes up to 4'x8' single and 8'x8' double. Larger sizes are also available with oversize certification.

# FRAME CONSTRUCTION

Frames are constructed of 1.2mm (18 gauge) or 1.5mm (16 gauge) or 2mm (14 gauge) or 2.5mm (12 gauge) commercial quality cold rolled steel ASTM A366 or hot dip galvanized steel sheet ASTM A526, G90 for doors of either 45mm (13/4") or 35mm (13/8") thickness with the details conforming to SDI-111A. All bends shall be formed with true sharp radii.

Transom side light frames may be of 1.5mm. (16ga.) or 2.0mm (14ga.) Steel Sheet. Maximum Frame size: 3650 X 3048mm. or 3048x 3650mm. for masonry Wall installations and for dry wall installations.





Swing & Sliding Type Blast resistant doors for High bar pressure.

HMI can supply and fit a range of doors that provide protection from the use of firearms. The blast/bulletproof doors have been tested and certified in accordance with reputed Test

Designed and built for protection in the event of fire, blast of ballistic attack and engineered for long term durability, HMI design and manufacture doors to withstand blast, ballistic and forced entry threats combined in one product.



Special Design and built solution for Oversized Opening Dimension and Requirement. We offer solutions both in Rolling shutter and Sectional Doors

HMI offers a wide range of hinged doors and sliding doors for cold rooms:

- Single and double leaf hinged doors
- Single-and double-leaf sliding doors, manually or automatically



We offer cold store doors which are free of corroding components. In the design the strict hygienic rules were paid special attention. The surfaces are made of galvanized sheets painted in different colors or stainless steel circular graining.

C O L DROOMD O O R S



Material: PVC Fabric (900 / 1200 gsm)

Maximum Dimension: 6000 mm Width & 6000mm Height Speed: up to 2.0 m/s (depending on the size& model)

These rapid Doors are designed for indoor use and ensure rapid transition operations between different areas that should remain separated. These safe and efficient industrial doors come with safety features like photocells and light barriers. The doors could be operated by simple Push Button, Radar, Magnetic Loop, Pull switch or by Hand held Remote control options.

The doors are of two types

- 1). Rapid roll up standard type: Suitable for All standard **Aplications**
- 2) Rapid roll up Self repairing type: Suitable for Food & Pharmaceutical Industries, Car Wash, clean Room etc.

These doors are safe and fast, able to withstand high winds and to ensure safe opening and closing operations within large spaces. They consist of a frame made of steel bars covered with PVC, able to withstand very strong winds even up to 150 km/h.

Material: PVC Fabric (900 / 1200 gsm)

Speed: 0.7 m/s

# SPEED SPIRAL HIGH NSULATED SECTIONAL DOORS

These Technologically advanced New Spiral doors designed to separate different working areas, where different acoustic and thermal intensity or intended for different uses. These doors are extremely versatile and achieve very high speed of up to 2m/s.

The system is made of high density polyethylene, while the structure is made of aluminum panels or double-walled steel ensuring high thermal and acoustic insulation with the possibility to install polycarbonate windows.

High-quality materials and advanced technology make this door ideal for both outdoor and indoor use.

Curtain: Double skin Insulated Lath of thickness 40mm /50 mm /& 80mm Max Dimension: 6500 mm W x 6000mm H Speed: upto 1.1 to 2.0 m/s (depending on the size).



# **Energy**Efficiency Solutions



Air curtains are curtains of flowing air that is blown over the opening of an entrance or doorway not allowing air to flow through it. They are efficient in separating one environment from another. The technology with precisely adjusted air velocity gives an even protection through the door ways. Mitzvah provides best possible separation through lowest energy consumption.



PVC strip Curtain rolls is a cost effective solution for the openings requiring Temperature control. From standard smooth clear to heavy-duty low temp ribbed rolls, HMI Doors carries over 20 varieties to meet a wide array of needs. Available in Plain & Ribbed design strips both in Normal & Freezer Grade.

Sizes of: 200mm x 2mm Thick; 300mm x 3mm Thick and 400mm x 4mm Thick - in 50 meters Rolls



A cost effective solution to divide working areas in Industrial and Commercial Sites.

Structure: Made of GI, Stainless Steel or GI with Powder Coating.

Flexible Panels: Made of PVC for crystal Transparency and Double Layer Black Rubber for Aggressive environment.

# **Gates &** Automation



HMI Offers wide range of barriers to suit your site requirements.

Available in 230V AC and 24V DC motors.

Barrier Arm Sizes: 3.5m /6 m / 8m

Opening: By Push Button / remote/ Access Card / Long Distance Reader / Open by Mobile Phone / Magnetic Loop





Gate Operators: Operators designed for Flexible automation to suit different type of frame, different duty cycle and differenct environment.

Swing Gate: Operators suitable for gates of dimension 3000mm up to 5000mm Double Swing gate / single swing gate

Sling Gate Operators: Operators Suitable for gate weight of 300 kg, 500kg, 700kg, 1000kg, 1800kg and 3000kg.





TURNSTI [FULL HEIGHT & WAIST HEIGHT]

# 2 Docking Solutions

Loading Capacity Standard 6Tons\*/60kN Dynamic & 84kN Static; \*other on request)



- Swing Lip
- Telescopic Lip
- Tapered Lip

Width: 1750mm, 2000mm, 2200mm, 2250mm, Length: 2000mm, 2450mm, 3000mm, 3500mm Lip Length: Swing & Tapered - 400mm; Telescopic Lip-500mm & 1000mm

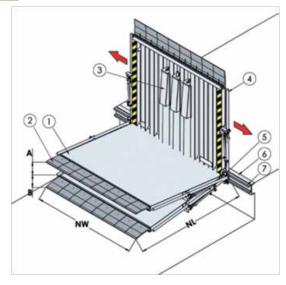
# DOCK LEVELERS



Nominal Width: 3200mm, 3250, 3300, 3350,3400, 3450, 3500, 3550, 3600mm Nominal Height: 3200 - 4700mm, Nominal Dept: 600/900mm; Top Curtain Height 1000/1200mm Side curtain 600 or 700mm

# TYPE

- Mechanical
- Inflatable Dock Shelter



# **TYPE**

- Fixed Drawbridge
- Sliding Type Draw Bridge

Width: 1500mm, 1750mm, 2000mm

Length: 1250mm, 1500mm, 1750mm, 2000mm

Capacity: 6 tons

[FIXED & SLIDING TYPE]



# **TYPE**

- Single Scissors Lift
- Double Scissors Lift
- Custom made Scissors Lift

Width: 2000mm to 3000mm, Length: 1500mm - 3000mm

SCISSORS

ACCESSORIES DOCKING

Bumpers, Vehicle Guide, Wheel Choke, Traffic Light

# 3 Motor Operators



Direct drive Motor with chain transmission Available Motor Capacity (Kg): 200, 300, 500, 600, 750, 800, 1000, 1200, 1500,

Available in Single Phase and Bigger Models in 3 Phase Power Supply

# ROLLING SHUTTER OPERATORS - EXTERNAL SIDE



Direct Drive Motor available in Motor Capacity (Kg): 200, 300, Available in Single Phase

### ROLLING SHUTTER TUBULAR OPERATORS



Spring Balance Door Motor Suitable for Counter balanced doors up to 170 kg and 340 kg

# ROLLING SHUTTER OPERATORS - CENTRAL MOTOR



# Garage Door Operator (Trolley Type)

Solution for Sectional Overhead garage door for Residential use Torque 700N / 800N / 1000 N

Trolley Length: suitable for 2500mm / 3000 mm Clear Height Door

# Garage Door Operator (Direct Drive Type):

Fitted Directly to the shaft of the Sectional Garage Door. An ideal solution for openings having site conditions where trolley type roofing mounted installation is not possible.

Suitable for doors upto 20sqm and 35 sqm

SECTIONAL GARAGE DOOR OPERATORS



Keyed on driving shaft or featuring pinion and chain transmission, making other moving parts superfluous. Adjustable rotating limit-switch unit complete with 3 limit switches. Fitting with pinion and crown favours adapting movement speed to one's own needs or installation when side space is restricted.

Making this motor complete with safety accessories and controls in compliance with standards in force.

# Motor Capacity:

60 Nm (Single Phase)

65 Nm (ThreePhase)

Manual Operation in case of Power Failure: by Pull rope / Manual Chain

# INDUSTRIAL SECTIONAL DOORS OPERATORS

D





(Dual Drive Operators) Motors for counterbalance light duty Continuous profile Garage doors.

# CONTINUOUS PROFILE DOOR MOTOR







**CONTROL PANEL** 



**PHOTOCELL** 



**SAFETY EDGE** 

# OUR OTHER DIVISIONS

HMI-SCAFFOLDING

RAISED FLOOR SYSTEM

CONSTRUCTION SERVICES











# Cuplock System Scaffolding

# STANDARD / VERTICAL (OPEN END)

# Cuplock Standards are made from 48.3mm $\times 3.2$ mm steel tube and

have every 500mm a unique fixed lower cup with a captive free top cup to allow horizontal components of the Cuplock system to connect.

Size (Mtr.)	Wt. (Kg)
1.0	5.0
1.3	6.6
1.5	7.9
1.8	9.1
2.0	10.9
2.3	11.6
2.5	13.4
2.8	14.3
3.0	16.1

# **LEDGER / HORIZONTAL**

Cuplock Ledgers are made from 48.3mm x 3.2mm steel tube which has forged ends blades welded at both the end of the tube.

	Size (Mtr.)	Wt. (Kg)
	0.6	2.3
	0.9	3.7
1	1.0	4.1
	1.2	4.8
	1.3	5.2
	1.5	5.8
	1.6	6.2
	1.8	7.0
	2.5	9.5

# **INTERMEDIATE TRANSOM**



Cuplock Intermediate Transom provides a safe mid-bay support for 38mm scaffold boards. They hold the ledgers in their jaw sections and prevent the central bending of the platform boards.

Size (Mtr.)	Wt. (Kg)
0.6	4.3
0.9	5.2
1.0	5.7
1.2	6.3
1.3	6.7
1.6	7.9
1.8	8.4
2.5	10.8

# SPIGOT CONNECTOR (SQUARE / ROUND)



WITH NUT & BOLT Spigots are bolted to lower vertical and are used when necessary vertical are connected end to end.

# Couplers & Fittings



# Double Coupler

**Drop Forged** For Tube OD 48.3mm Used to connect two tubes at right angle



# Board Retaining Coupler

For Tube OD 48.3mm Used to secure boards to to the transom below. Sometimes referred to as a left/right board clip as it secures two boards by its unique design.



# **Swivel Coupler**

**Drop Forged** For Tube OD 48.3mm to connect two tubes at any



# .Joint Pin

Pressed Steel For Tube OD 48.3mm Used to connect two tubes internally end to end.



# Single Coupler

**Drop Forged** For Tube OD 48.3mm This coupler is designed to secure putlogs and transoms to ledger



# Toe Board Clamp

Pressed Steel



# Sleeve Coupler

**Drop Forged** For Tube OD 48.3mm Used to join two tubes externally end to end.



# **Gravlok Coupler**

**Drop Forged** For Tube OD 48.3mm Used to attach 48mm barrel to a girder / beam at 90 degrees. It is important to note these couplers must be used in pairs as supplied



Safely and securely clamps a ladder to a scaffold tube. Used in pairs to ensure that a ladder cannot slip or lean

# **Scaffold** Boards



Laminated Veneer Lumber (LVL) is an engineered wood product that uses multiple layers of thin wood assembled with adhesives, we supply LVL Scaffold Boards made from the highest grade of lumber, glue, and workmanship. Laminated LVL Scaffold Boards comply with OSHA standards.

The LVL Scaffold Boards are 38mm thick, 225mm wide, and available primarily in two lengths, 3000mm and 4000mm (cut sizes are also available.) Country of Origin: Finland, Russia and China.



# B. BS2482 Normal Scaffold Boards

BS2482 Scaffold Boards are 38mm thick, 225mm wide, and available primarily in two lengths, 3000mm and 3900mm (cut sizes are also available.) The Scaffold Boards are also banded with galvanized steel end bands at the two ends for longer life and durability. All Timber Scaffold Boards are made from Austrian, Germany, Swedish wood or other European



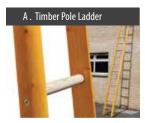
Steel Planks extensively used in all types of work platforms, and their relatively high strength to weight ratio makes them particularly suitable for safe working. Steel Planks have high slip resistance and flex naturally to make standing on them comfortable to the user. Thus they increase safety in working areas. We offer a range the planks with or without hooks. Standard thickness is 38mm and width is 225mm in various lengths.

Scaffold Tube are 48.3mm Outer Diameter in 4.0mm and

3.2mm wall thickness in various lengths. The Scaffold Tubes are available in Black and Galvanized steel finish.



# Ladders



Timber Pole Ladders Made to British Standard BS 1129, INDUSTRIAL DUTY Max safe working load 175kg (27.5 stones); Duty Rating 130kg The strongest UK category. These ladders are built for the most rugged and frequent use.

Timber Pole Ladders in standard sizes from 3m to 10m, all with matched Scandinavian White-Wood stiles finished with 2 coats of Ladder varnish.



#### B . Steel Ladder

Steel Ladders, Fully conforming to BS EN 131:1993. Steel Ladder Verticals are Mild Steel of 50mm x 25mm x 2mm wall thickness and the Rungs are 30mm x 30mm x 2mm wall thickness.

# C. Aluminium Ladder

Aluminum Ladders, Fully conforming to BS EN131.

# **Scaffolding Jacks /** Base Plate



# A . Adjustable Base Jack

B . Universal Jack

Made from pipe 38mm OD and 5.0mm Wall Thickness, Base Plate 150 x 150 x 5.0/6.0mm. Available Length 600mm and 760mm.

Made from pipe 38mm OD and 5.0mm Wall Thickness, Length



# C . Adjustable U-Heads Jacks

are designed to be used in conjunction with Adjustable System Scaffolding. The main function of a U-Head is to hold timber beams securely in place.

### D . Base Plate / Plain Base

Made from pipe of 38mm x 100mm welded with a plate 150mm x 150mm x 6mm.

# Ladder Beam & Unit Beam





Ladder Beam are made from 48.3mm 0D x 4.0mm Wall Thickness Tube and saddle welded at every joint, they fully integrate with existing fittings. Ladder Beam in standard sizes from 3.0m to 6.0m.

Unit Beams



Can be used either to provide a clean span between scaffold or may be assembled as prefabricated framework for temporary building or other structure. Complete spans can be quickly erected utilizing individuals beam lengths. Beam ends are self locating to provide fast on side assembly and are secured using Mx20x50 bolt, complete with nut and washer.

Top and bottom chords manufactured from 48.30/D x 4mm thick steel tube to BS 1139, cut to length 2.44m or 3.6m at 610mm centre vertically. Heavy duty spigot welded in one end to chords. End post is 48.3mm0/Dx3.2mm thick to BS 4360

Diagonal brace tubes are 27mm 0/D x 3.2mm thick steel tube grade 13C BS 4380. Coupler Plate with 2 or 3 holes are welded on top and bottom at bottom ends. Supplied complete with bolts and nuts. Finishing: Painted or Galvanized.

# **Aluminium** Scaffolding

# A . Double Width Aluminium Mobile Tower



Aluminium Mobile Tower is for the purpose of light weight use only. The Safe Working Load for the Mobile Tower including self-weight is 700KG inclusive of the structure weight and the Safe Working Load for Platform is 250KG each.



Adjustable leg up to 300mm Working Platform (1390 x 2550)mm Capacity - 200kg / sq. m Rung Distance - 500mm

Number of rungs in a ladder -7 Step ladder in each 2 Omframe Ladder Rung Distance – 280mm

Aluminium Alloy - 6061 T6 Frame Tube Thickness - 2.5mm

Platform - Antislip Plywood with Aluminium Frame



# C . Folding Mobile Tower

Folding Mobile Tower is ideal for all the jobs around the home that requires a steady hand, such as painting windows frames, hanging wallpaper, cleaning the gutters, or just trimming the hedge.

The Folding Mobile Tower is easy to assemble and ready to use in minutes and can be easily transportable, compact when folded flat to fit in a small van, estate car or on a roof rack

Ideal for one man use. Base measurement is 780mm x 1780mm. Wide version 139cm also available.

### Technical Features

Working Platform : 780mm x 1780mm Aluminium Alloy: 6061 T6 Wheel: Dual Pedal Brake Platform: Anti-slip Plywood with Aluminium Frame

Rung Distance: 3300mm Safe working load 150 kgs. Platform Height - 1080mm Total Height - 2300mm Width - 7800mm Length - 1780mm

# B. Single Width Aluminium Mobile Tower



Available in Length of 1580mm, 1780mm, 2080mm and 2000mm. Available height of mainframe 1.5m and 2.0m.

Aluminium Mobile Tower is for the purpose of light weight use only. The Safe Working Load for the Mobile Tower including self-weight is 600KGS inclusive of the structure weight and the Safe Working Load for Platform is 225KGS each.

Adjustable leg up to 300mm. Working Platform 780mm x 1780mm Ladder Rung Distance - 2000mm. Capacity - 200kg/sq. m. Rung Distance — 500mm

Number of rungs in a ladder - 7 step ladder in each 2.0mframe. Aluminium Alloy – 6061 T6 Frame Tube Thickness – 2.5mm Platform - Antislip Plywood with Aluminium Frame



# D. Podium

Stable both when folded for transport and automatically when opened up into work

Fits through a standard doorway when folded Quick and simple assembly using captive deck and stairs Platform heights - 1.0m and 1.3m.

Self latching gate for added safety and security while working. 4 Braked Casters for rigidity when in use. Casters are bolted to unit for a firm fixed connection. Tough design to withstand the rigors of site use.

Designed to be pushed through most standard doorways.

Safe Working Load — 150kg. Overall Height - 2.0m. Platform Height - 1.0m Width - 7500mm Length - 1450mm Step Distance - 3000mm The optional stabilizers deliver additional stability.

# Scaffolding Tools and Accessories







Top Cup

Bottom Cup

Ledger Blade







Castor Wheel

Scaffold Spanner

Ratchet Spanner







Scaffolder Tool Kit Belt

Scafftag Box

# OTHER DIVISIONS O U R

H M I - D O O R S

RAISED SYSTEM FLOOR

CONSTRUCTION SERVICES





info@hmi.group









# **CGW2 - Cellular Gateway**

# **Technical Overview**



# **General Description**

Don't have an existing network connection where you need it most? The Cellular gateway allows your Wireless Sensors to communicate with the Online Wireless Sensor Monitoring and Notification System via cellular transmission. This is the perfect solution for remote locations, or where an existing internet connection is not an option.

The new cellular gateway is an advanced all wireless M2M gateway that enables fast time-to-market solutions for a wide range of M2M applications.

The Cellular Gateway is based on the latest Dual-band CDMA wireless engine and comes integrated with wireless access point network (WAN) for use with all wireless sensors.

Cellular gateway is specifically designed to respond to the increasing market need for global technology that accommodates a variety of vertical M2M application segments and remote wireless sensor management solutions.

# **CGW2 Features**

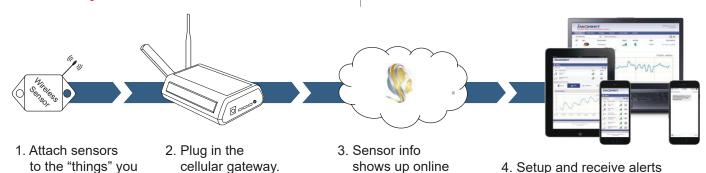
- True plug & play, no hassles for internet configuration set-up
- No PC required for operation
- · Low-cost cellular service packages
- · Remote software upgrade capability
- Local status LEDs with transmission and online status indicators
- 50,000 sensor message memory
- AC power supply
- Optional 24 hour battery backup in event of power outage
- Dual Band CDMA (800/1900 MHz)

# **Applications**

- Remote Location Monitoring
- Shipping and Transportation
- · Agricultural Monitoring
- Vacant Property Management
- Vacation Home Property Management
- Construction Site Monitoring
- Data Center Monitoring

# **How The System Works**

want to monitor.



when something goes wrong.



# **Wireless Temperature Sensor**

# **General Description**

The Wireless Temperature Sensor uses a type NTC thermistor to measure temperature.

### **Features**

- Accurate to ± 1° C (± 1.8° F).
- Increased accuracy by user calibration to ± 0.25° C (± 0.45° F)..



Free basic online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email.

# **Principle of Operation**

The Wireless Temperature Sensor outputs the ambient temperature in degrees Fahrenheit. It is programmed to sleep for a user-given time interval (heartbeat) and then wakeup, send power to the NTC Thermistor and wait for it to stabilize, and convert the analog data, mathematically compute the temperature and transmit the data to the gateway. To stay within the abilities of the processor, the temperature is computed off a data table provided by the manufacturer. To reduce error, a variable resistor configuration is implemented over specified temperature ranges.

# **Example Applications**

- Ambient Temperature Monitoring
- Environmental Monitoring
- Smart Machines & Smart Structures
- HVAC Operation & Testing
- · Data Center Monitoring

And many more...

# **Sensor Core Specifications**

- Wireless Range: 250 300 ft. (non-line-of-sight / indoors through walls, ceilings & floors) \*
- RF Communication: 900, 920, 868 and 433 MHz
- Power: Replaceable batteries (optimized for long battery life, line-power and solar (Industrial only) options are available)
- Battery Life (at 1 hour heartbeat setting): \*\*

Coin Cell > 2-3 years.

AA battery > 4-8 years

Industrial > 4-8 years

Wifi > Up to 5 years

- \* Actual range may vary depending on environment. (Wi-Fi sensor typical range up to 100 ft.)
- \*\* Battery life is determined by sensor reporting frequency and other variables.



# Notes:

# **Commercial Grade Sensors**

The commercial grade sensors are designed for applications in ordinary environments (normal room temperature, humidity and atmospheric pressure). Do not use these sensors under the following conditions as these factors can deteriorate the product characteristics and cause failures and burn-out.

- Corrosive gas or deoxidizing gas chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxides gas, etc.).
- · Volatile or flammable gas.
- Dusty conditions.
- Under low or high pressure.
- · Wet or excessively humid locations.
- Places with salt water, oils chemical liquids or organic solvents.
- Where there are excessively strong vibrations.
- Other places where similar hazardous conditions exist.

Use these products within the specified temperature range. Higher temperature may cause deterioration of the characteristics or the material quality.

# Industrial Grade Sensors - Type 1, 2, 4, 4X, 12 and 13 NEMA Rated Enclosure

The Industrial sensors are enclosed in reliable, weatherproof NEMA rated enclosures. Our NEMA rated enclosures are constructed for both indoor or outdoor use and protect the sensor circuitry against the ingress of solid foreign objects like dust as well as the damaging effects of water (rain, sleet, snow, splashing water, and hose directed water).

- · Safe from falling dirt.
- · Protects against wind-blown dust.
- · Protects against rain, sleet, snow, splashing water, and hose directed water
- · Increased level of corrosion resistance
- · Will remain undamaged by ice formation on the enclosure

# **Other Sensors**





# Wireless Humidity (RH) Sensor

# **General Description**

The Wireless Humidity (RH) Sensor allows you to accurately monitor the relative humidity of the air within a room or enclosure.

# **Features**

Measures relative humidity, temperature and dew point with high accuracy



Free basic online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email.

# **Principle of Operation**

The Wireless Humidity (RH) Sensor measures the relative humidity at the device. The sensor returns RH and temperature values to the Online Sensor Monitoring and Notification System. The system calculates dew point from the data and stores all three data points in the online system where the data can be reviewed and exported as a data sheet or graph. Notifications can be set up through the online system to alert the user when defined thresholds have been met or exceeded.

# **Example Applications**

- Greenhouse humidity monitoring
- · Agriculture environmental monitoring
- Art gallery and museum environmental monitorin
- Humidor monitoring
- General weather and environmental monitoring

And many more...

# **The Sensor Core Specifications**

- Wireless Range: 250 300 ft. (non-line-of-sight / indoors through walls, ceilings & floors) \*
- RF Communication: 900, 920, 868 and 433 MHz
- Power: Replaceable batteries (optimized for long battery life, line-power and solar (Industrial only) options are available)
- Battery Life (at 1 hour heartbeat setting): \*\*

Coin Cell > 2-3 years.

AA battery > 4-8 years

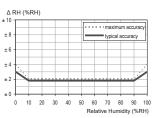
Industrial > 4-8 years

Wifi > Up to 5 years

\* Actual range may vary depending on environment. (Wi-Fi sensors typical range is up to 100 ft.)

Δ T (°C)

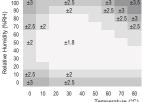
\*\* Battery life is determined by sensor reporting frequency and other variables.



± 1.0
± 0.5
± 0.0
40 -20 0 20 40 60 80 100 120
Temperature (°C)

Figure 1. Typical and maximal tolerance at 25°C.

Figure 2. Maximal tolerance for temperature sensor in °C



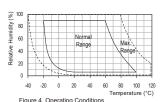


Figure 3. Typical accuracy of relative humidity measurements given in %RH for temperatures between 0 - 80°C.





# Wireless Open / Closed Sensor

# **General Description**

The Wireless Open / Closed Sensor can be used to detect when a door or window is opened and closed using a magnetic switch.

# **Features**

- Detects when a door or window is accessed.
- · Magnet is included.



Free basic online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email.

# **Principle of Operation**

The Wireless Open / Closed Sensor uses an external magnetic switch to detect the presence or removal of a trigger magnet. When the sensor detects that the magnet is removed or returned it sends the information to the Online Sensor Monitoring and Notification System. The data is stored in the online system and can be reviewed and exported as a data sheet or graph. Notifications can be set up through the online system to alert the user when a magnetic source is present or not with the ability to only notify within time of day parameters.

# **Example Applications**

- Doors and windows.
- Cabinets and lockers.
- IT server closets.
- Freezer and cooler doors.

And many more...

# **Sensor Core Specifications**

- Wireless Range: 250 300 ft. (non-line-of-sight / indoors through walls, ceilings & floors) \*
- RF Communication: 900, 920, 868 and 433 MHz
- Power: Replaceable batteries (optimized for long battery life, line-power and solar (Industrial only) options are available)
- Battery Life (at 1 hour heartbeat setting): \*\*

Coin Cell > 2-3 years.

AA battery > 4-8 years

Industrial > 4-8 years

Wifi > Up to 5 years

- \* Actual range may vary depending on environment. (Wi-Fi sensor typical range up to 100 ft.)
- \*\* Battery life is determined by sensor reporting frequency and other variables.



# The Leader in Low-Cost, Remote Monitoring Solutions



# **Wireless Water Detection Sensor**

# **General Description**

The Wireless Water Detection Sensor detects the presence or non-presence of water.

# **Features**

- 3 ft. leaded wires.
- Immediately detects water.



Free basic online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email.

# **Principle of Operation**

The Wireless Water Detection Sensor detects when water is present by completing the circuit between the two leaded wires. When water is present the sensor will immediately turn on the RF radio and transmit the data to the wireless gateway and Online Sensor Monitoring and Notification System, allowing the user to immediately receive an SMS text or email alert. The sensor can be configured to detect both the presence and non-presence of water.

# **Example Applications**

- · Water heater monitoring.
- · Plumbing leak detection.
- Sump monitoring.
- Boat bilge monitoring.
- Reservoir level monitoring.

And many more...

# **Sensor Core Specifications**

- Wireless Range: 250 300 ft. (non-line-of-sight / indoors through walls, ceilings & floors) \*
- RF Communication: 900, 920, 868 and 433 MHz
- Power: Replaceable batteries (optimized for long battery life, line-power and solar (Industrial only) options are available)
- Battery Life (at 1 hour heartbeat setting): \*\*

Coin Cell > 2-3 years.

AA battery > 4-8 years

Industrial > 4-8 years

Wifi > Up to 5 years

- \* Actual range may vary depending on environment. (Wi-Fi sensors typical range is up to 100 ft.)
- \*\* Battery life is determined by sensor reporting frequency and other variables.





# Wireless Carbon Monoxide (CO) Sensor

# **General Description**

The Wireless Carbon Monoxide (CO) sensor allows you to monitor the level of carbon monoxide (CO) gas in the surrounding air.

The wireless CO sensors have a small footprint and low cost but boast industry standard setting, premium performance specifications and are the longest lifetime sensors in the industry (powered by a coin cell battery and last over a year at 1 hour heartbeat)

Measures CO levels in surrounding air.



Free basic online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email.

# Principle of Operation

The Wireless Carbon Monoxide (CO) Sensor measures the the amount of CO gas in the surrounding air. The sensor returns carbon monoxide level and temperature values to the Online Sensor Monitoring and Notification System. The system stores both data points in the online system where the data can be reviewed and exported as a data sheet or graph. Notifications can be set up through the online system to alert the user when defined CO levels have been met or exceeded.

# **Sensor Core Specifications**

- Wireless Range: 250 300 ft. (non-line-of-sight / indoors / through walls, ceilings & floors) \*
- RF Communication: 900, 920, 868 and 433 MHz
- Power: Replaceable batteries (optimized for long battery life, line-power options are available)
- Battery Life (at 1 hour heartbeat setting): \*\*

AA battery > 4-8 years Coin Cell > 2-3 years.

- \* Actual range may vary depending on environment.
- \*\* Battery life is determined by sensor reporting frequency and other variables.

# **Example Applications**

- · Gas ranges and ovens
- Gas clothes dryers
- Furnaces
- Fireplaces
- Grills
- Space heaters
- Vehicles
- Water heaters

And many more...



# **HMI SMART SOLUTIONS**

Solutions for Critical Monitoring Requirments