

BROOKER®

PRECISION-ENGINEERED METAL PROFILES AND
ACCESSORIES FOR DRYWALL CEILING &
PARTITION



BROOKER®
METAL INDUSTRIES L.L.C

OUR MISSION

We at Broer Metal Industries L.L.C take pride in declaring the company's commitment to satisfy our customers by providing high quality products and promptly delivering them as per the agreed contractual requirement.



OUR VISION

To provide such high quality engineering and manufacturing services that it become fundamental to our customer success that they think of Broer Metal Industries L.L.C as part of their business.



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TESTING AND CERTIFICATES



WEIGHT

Weight per unit area of the Product (kg/m²).



COLOURS

Custom colours available for products With this icon.



DIMENSIONS

Custom sizes available for products with this icon



GRID SYSTEMS

Additional compatible grid systems for Tech Zone available upon request.



SHAPES

Custom shapes available for Products with this icon.



PERFORATIONS / PATTERNS

Custom perforations / patterns available for products with this icon.



BIOGUARD / ANTIMICROBIAL

Bioguard antimicrobial finish as standard on Bioguard Plain and Bioguard Acoustic mineral tiles, and available as a custom option for metal products with this icon.



TRIOGUARD

Trio Guard dirt resistant coating available for products with this icon.



ACOUSTIC INFILLS

Custom acoustic infills available for products with this icon.



SECURITY

Secure solutions using specifically designed components and assemblies available For systems with this icon.



EFFECTS

Effects on Metal finishes available on request for product with this icon.



SERVICE INTEGRATION

Custom factory cut-outs for service integration available for products with this icon.



EXTERIOR SOLUTIONS

Exterior ceiling tiles available for products with this icon.

Introduction

The increasing environmental concerns in the world today have caused us all to examine the way we live. These issues have affected every aspect of our lives, including the materials we use in construction. The use of cold-formed steel members as an alternative is an intelligent choice with benefits too, not only the environmental, but also to the contractor, designer and developer.

Steel is not only a recyclable product, but also a stronger product allowing for longer clear-spans in the design process. Cold-formed steel is lighter providing ease of handling, it is a straighter product giving a "true" wall with which to work. It doesn't suffer fluctuation in price, making it easier to bid a project, quality control stressed all phases of the manufacturing process so the highest possible quality is delivered to the job site.

The structural shapes manufactured are easily used for non-structural and structural assemblies, floor and ceiling, joist assemblies, and panelized systems. They can be used as the main structural support system or as a supplement to heavy structural steel or concrete construction.

Manufacturers have been producing cold-formed steel framing members for many years, with each manufacturer having its own nomenclature and design values. A steel member with identical properties would be identified by different names based on which manufacturer produced it. This created some confusion at all levels of the construction process. The Brooer Metal Industries LLC mission is to proactively represent member firms engaged in the manufacture, marketing and sale of cold-formed steel framing members, as a unified voice to the residential and light commercial construction industry serviced by its products, which includes contractors, distributors, design professionals, code officials and standards organization, to this end Brooer Metal Industries LLC will endeavor to supply products which meet or exceed standards established by national, state and local code bodies and by recognized industry associations.

Material Specification

Products manufactured by us are formed from steel with a minimum Yield Stress of 33 Ksi or 50 Ksi. All products covered in the catalog are engineered to meet the 1996 edition of American Iron and Steel Institute (AISI) "Specification for the Design of Cold-Formed Steel Structural Members." The structural properties included in this Brochure have been computed based on allowable stress design to conform with the same AISI Document.

Technical Assistance

Professional Technical Assistance is available through any of our technical staff to our customer and using our catalog. Specifically for the technical analysis of load condition, deflection criteria and lateral bracing conditions etc.

Disclaimer

All data, specification and detail contained in this Brochure are intended as a general guide for using our products. These products should not be used in design or construction without an independent evaluation by a qualified engineer or architect to verify the suitability of a particular product for use in specific application. The company and its members assume no liability for failure resulting from the use or misapplication of computation, detail drawings and specification contained herein. This brochure contains the latest information available at the time of printing. The Company and its members reserve the right to make modification and/or change materials of any of their products without prior notice or obligation. For the latest information regarding a particular manufacturer's products, contact us. The Company may not produce all of the products contained in this catalog. Please contact our sales staff to verify product availability.

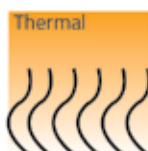
TECHNICAL PERFORMANCE

Definition Of Technical Performance And Benefits Of Drywall Ceilling & Partition Aluminum & Gypsum Tile Ceiling Sysytem



Black Felt

A black felt is applied to the back of every single perforated panel. The black f supplied al-ready fixed to the panel. The black felt has extremely powerful noise absorption forties, doesn't release noxious fibers into the air and doesn't decompose over time.



Thermal Insulating

Thermal insulation can be achieved with the application of absorbing pads or insulating materials which can be selected on the market for the specific applications.



Fire Performance & Hygiene

These Metal Ceilings are classified noncombustible fire proof class 0, aseptic, hun - proof, bacterium - proof, and corrosion - proof, not dangerous for the health. The coating ii subject to any toxicological classification or identification requirements.



Noise Reduction Coefficient (NRC)

Tested as per ASTM E 795 and the result was over 90% for standard white plain tile over 80% for standard white perforated tile.



Light Reflection Coefficient (LR)

Tested as per ASTM E 795 and the result was over 90% for standard white plain tile over 80% for standard white perforated tile.



Gloss

Metal LX panels with a degree of gloss upto 22%. Can be provided upon request.



Sound Attenuation

Ceiling Attenuation Class (CAC) .

The following specifications apply to all Broer Metal Industries products presented in this catalogue unless otherwise indicated.

Steel Specifications

All Broer Metal Industries .profiles confirm to the the finest steel standards accepted by the ASTM. Broer Metal Industries steel profile has minimum yield strength of 230 Mpa (33,000 psi) according to ASTM A446-83, grade a steel. The actual steel thickness used in Broer Metal Industries profiles may differ from the thickness specified in this catalogue with a maximum of 0.05 MM. Most of Broer Metal Industries products can be manufactured in any gage as required by the customer. However, in this catalogue we limit the data presented to the following gages:

Thickness mm No.	Thickness Inch	Nearest U.S.Gage
0.45	0.020	26
0.50	0.024	25
0.60	0.028	23
1.00	0.039	19
1.20	0.047	18

Corrosion Resistance

According to the ASTM standards the minimum zinc coating requirements for load bearing steel profiles is G 60/Z180. However at Broer Metal Industries we are proud to exceed these requirements since we insist on making our. Profiles from G 90/Z275.This results in more durable quality products .The following table shows the Broer Metal Industries advantage.

Standards: Our Profiles meet the following Standard:

ASTM C645-00, ASTM A924M-95,
ASTM A653M-95,
BS EN 2989:1982 and BS 2994:1976,
BS EN 10162:2003,BS 5950-5:1988

Coating Designation	Mass g/m ²	Zinc Thickness	Notes
G60/Z180	180	12.7	Min ASTM (Microns) Requirement
G90/Z275	275	19.4	Used By (Microns) Broer Metal Ind.

Durability

With the adoption of heavier zinc coatings on galvanized steel Broer Metal Industries products provide superior durability. This is particularly important in aggressive environments such as humid coastal regions. This makes Broer Metal Industries the preferred supplier of steel framing products in the Gulf region.

You may refer to "Improving the Durability of Steel framing "section in this catalogue for addition information on this topic.

Fire Resistance

Building codes require steel framing to have a fire resistance rating based on ASTM standard E-119. Since Broer Technical Industries follow the ASTM standards for material, coatings and manufacturing, than we assure that our products meet the E-119 standard when used as recommended in the application notes sections of this catalogue.

DRY WALL FURRING CHANNEL SYSTEM

Broer Ceiling furring Sections are suitable for most, commercial retail and recreational application as well as residential deployment. The sections offer a high performance support system for Gypsum board providing sound insulation and fire protection that can be used for new ceiling structures or to upgrade existing ceilings, our ceiling furring sections are fully compatible with our other partitioning system consisting of Stud & Track.

Construction

The Furring system for the ceiling comprises of a Broer Metal frame work fixed with Furring section attached to primary channel.

The Furring channel system supported by 25 x25 Broer perimeter angle and the entire system suspended from the structural support using various type of hanging methods. (Mention below).



Rigid Angle

Method of fixing ceiling With help of 25 x 25 Broer Angle fixed to the main Channel using self-tapping Screw and connect to the Ceiling area by use of brackets and screwed to the angle.



Galvanized Wire 2.5mm

Method of fixing ceiling with help of Galvanized wire to be fixed to the the roof above the ceiling by attaching the wire to to hooks /bolts and then Securing the wire to the Main channel.



Hangers with adjustable spring Clip

Method of fixing ceiling with help of Hangers & adjustable spring clip may also used as method of fixing the furring system, and allow adjustment where necessary to the framework.

The Suspended ceiling provides a best ceiling capable of accepting a degree of loading. The variable ceiling cavity can be used to route ducting and other types of services.

Broer perimeter Angle is fixed to the wall around the edge of the room providing support for the ceiling.

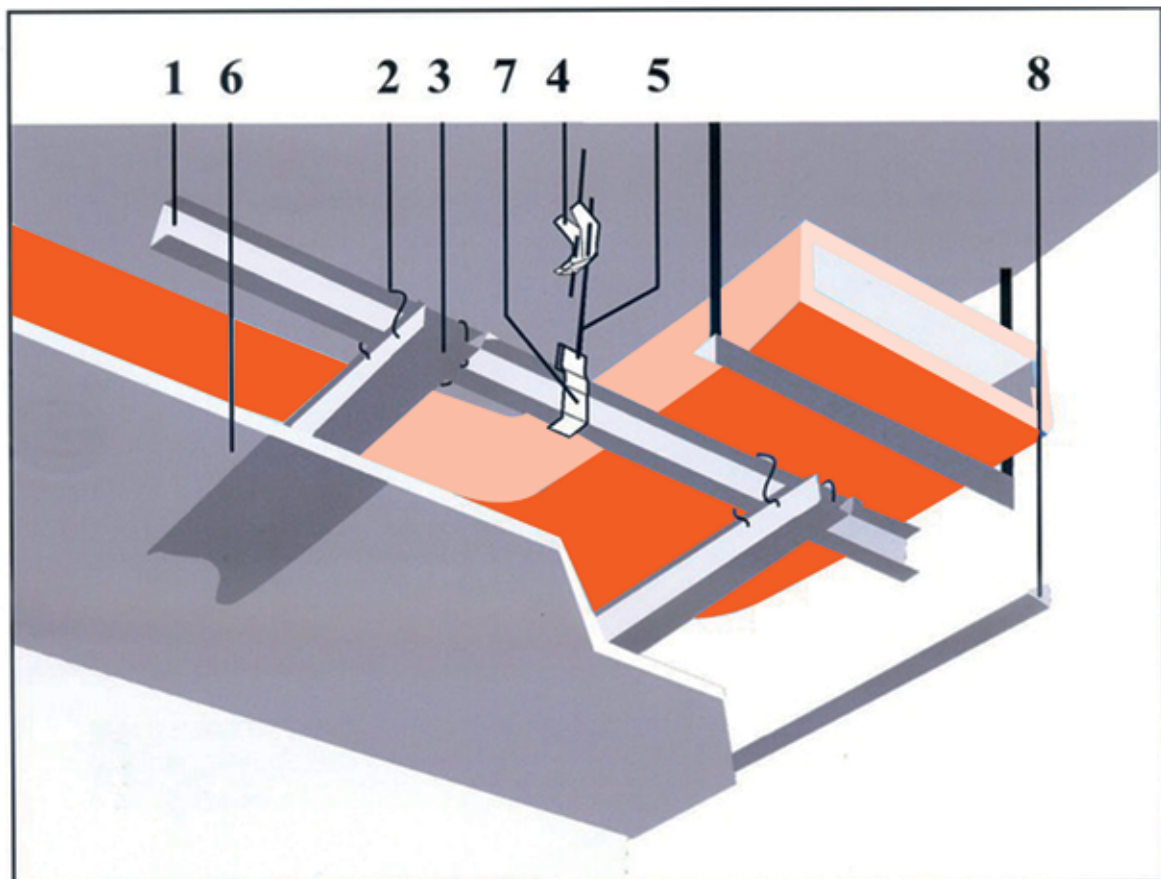
Broer-Furring Ceiling System Is a method of fixing one or two layers of Plaster Board to a metal Suspended grid to provide a smooth ceiling to receive direct decoration. It comprises Suspended main channel with Furring Channel attached to each other by preformed clip.

The plaster board is screwed up to furring Channel using drywall screws. Adjustable Clips with rigid rod allow for height Adjustment to correct the level before the application of the plaster board.

Both the 35mm and the 50mm furring channel can be used for this application however, the 35mm furring May proved more useful and give more strength, if architect want to increase The clear height of the ceiling recommended main channel spacing is 1200 mm maximum.

Furring channel 35 mm to be placed at 600 mm when used with one 12.5mm Plaster Board.

When Two Plasters board to be fixed in furring channel to place at 450mm or you can used 50mm furring channel. This furring channel system has been fire testing in accordance with BS 476: Part 23:1987 section B.



1. Main Channel

2. Wire Coupling Clip

3. Furring Channel

4. Adjustable Clip

5. Wire Hanger

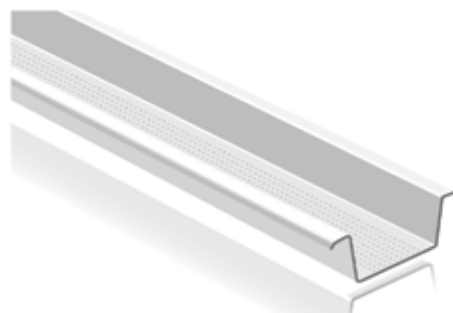
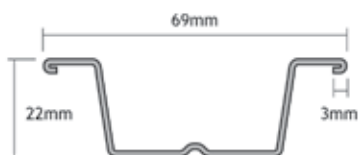
6. Gypsum Board

7. Channel Bracket

8. G.I. Angle

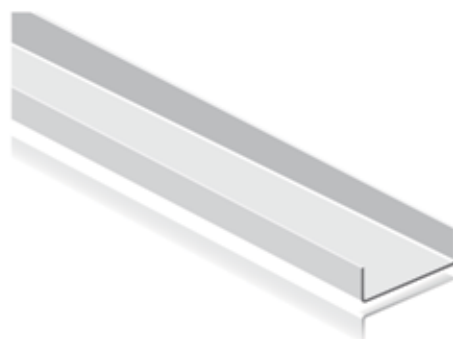
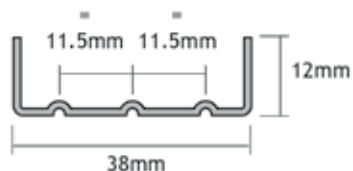
PRODUCT RANGE OF DRY WALL CEILING /DIMENSION

Broer Furring Channel



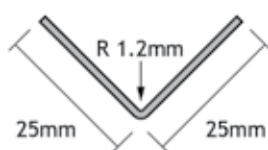
Reference :	Dimensions (mm)			Thickness (mm)		Length (mm)	
	A	B	C	Standard	Available	Standard	Available
BFC 35	35	22	69	0.45	Up to 0.80	3000	Up to 7000
BFC 50	50	22	85	0.45	Up to 0.80	3000	Up to 7000

Broer Main Channel



Reference :	Dimensions (mm)			Thickness (mm)		Length (mm)	
	A	B	C	Standard	Available	Standard	Available
BMC 38	12	38	12	0.45	Up to 1.20	3000	Up to 7000
BMC 45	12	45	12	0.45	Up to 1.20	3000	Up to 7000

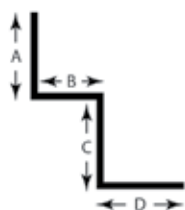
Broer Angle



Reference :	Dimensions (mm)		Thickness (mm)		Length (mm)	
	A	B	Standard	Available	Standard	Available
BWA 25	25	25	0.45	Up to 0.80	3000	Up to 7000
BWA 30	30	30	0.45	Up to 0.80	3000	Up to 7000

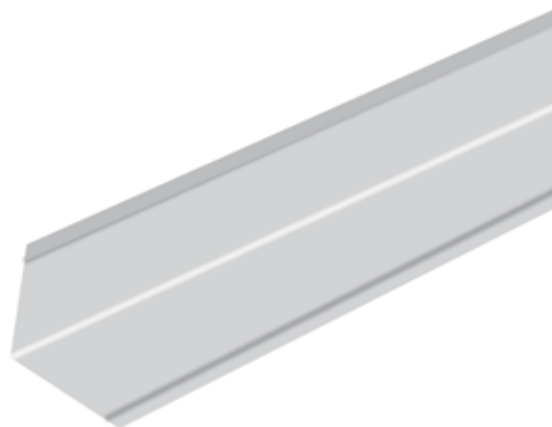
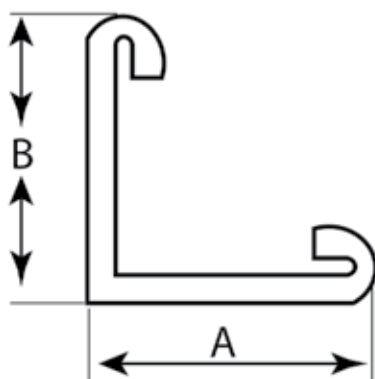
PRODUCT RANGE OF DRY WALL CEILING /DIMENSION

Broer W - Wall Angle:



Reference :	Dimensions (mm)				Thickness (mm)		Length (mm)	
	A	B	C	D	Standard	Available	Standard	Available
BWWA 20x20	20	19	19	20	0.45	Up to 0.80	3000	Up to 7000
BWWA 20x20	20	9	9	20	0.45	Up to 0.80	3000	Up to 7000

Broer Bend Angle:



Reference :	Dimensions (mm)		Thickness (mm)		Length (mm)	
	A	B	Standard	Available	Standard	Available
BBWA 24x24	24	24	0.45	Up to 0.80	3000	Up to 7000

ALUMINUM TILES CEILING SYSTEM (CLIP-IN)



Broer Ceiling System (Clip In)

Aluminum Tiles (Clip in) System

Broer spring tee concealed suspension system used by designers and contractors to meet the increasing demand for the metal pan.

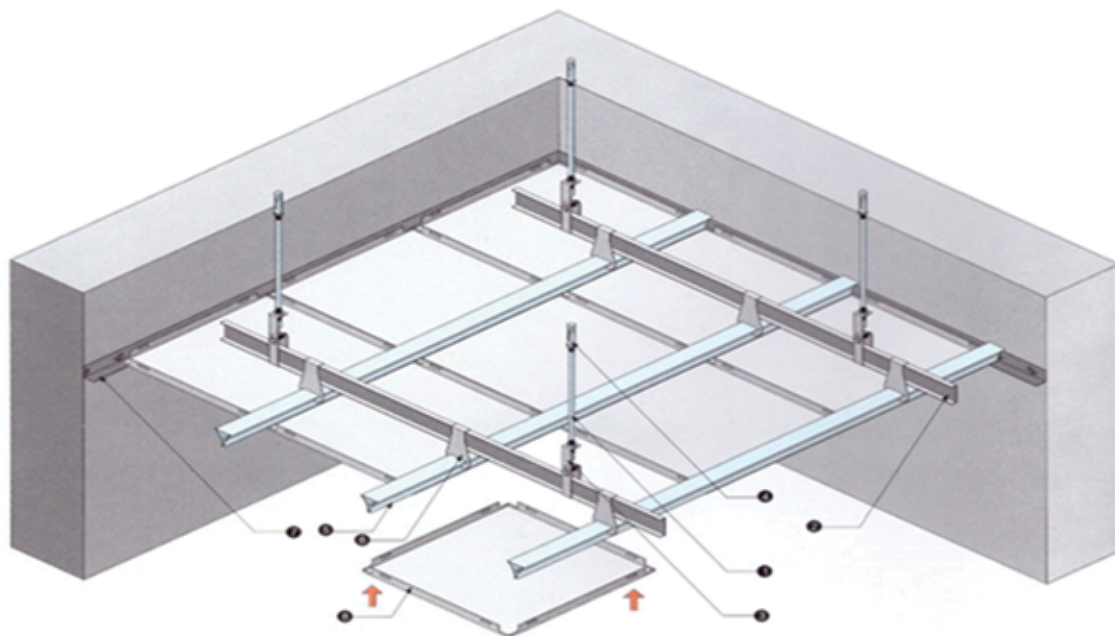
Broer spring tee systems is most suited for this ceiling application. When used in conjunction with any range of Broer metal tiles architects and designers can meet their customers need.

Broer Spring tee system is manufacture specifically of combine the maximum "Springiness" with optimum grip. These provide the major advantages of demount ability and security.

In addition to suspension component, Broer spring tee system also includes accessories such as clip sets and connector which ensures that a totally integrated system is available.

Broer spring tee ceiling system has been successfully tested and attained BS test of building material and structures BS 476 Part 20 or ASTM E-119 using Broer Metal pan tiles. Further information regarding fire production tests is available from the sales department .all component have a corrosion resistant finish suitable for areas of normal temperature and humidity. The system will not deteriorate physically unless exposed to rough treatment or aggressive atmospheres. Spring tee and primary channel are easily assembled without the need for special tools. The tiles simply clip into .No routine maintenance is required.

Invisible Frame Type Square Ceiling Installation (Clip-in)



1. Hanging Pole
2. Main channel 38mm
3. Hanging Parts of 38mm main Channel
4. Explosive Bolt
5. Triangle Keel
6. Hanging Parts of Triangle keel
7. Wall Angle /U Term
8. Square Plate

Installing the side-line in the same height, installing light steel main channel in appropriate space. Suspension hanger can be: suspension wire, rigid, strap hanger, rigid adjustable rods or threaded bar. Please refer to architect's recommendation. Hanger should not exceed 1200 mm of span across the primary structure. Perimeter trims or channel should be securely fixed at 450mm centers and joints neatly aligned especially at internal and external conditions. Binding the light main channel with the prepared hanging parts on the Triangle keel, then clamp it under the light steel main keel in the vertical direction, the space of the triangle keel accords to the width of plate. Then it is necessary to adjust its plane after finishing installation. Pressing the two parallel edges into triangle keel slot, firstly installing one row of plate breadthwise and lengthways, make sure they are perpendicular, then installing the rest plates.

Pressing the Square plates lightly, make sure the gap is perpendicular. Wearing gloves when installing plate, if fingerprints or stains on the plate, please remove it off with warm water and detergent, then dry it.

PRODUCT RANGE/DIMENSION (CLIP-IN)

Broer Clip-in Tiles System



Plain & Perforated Tiles (Clip-in)

Reference :	Dimensions (mm)			Thickness (mm)		Length (mm)	
	A	B	C	Standard	Available	Standard	Available
BAT (PLAIN) C-I	600	25	600	0.55	0.60/0.70	600X600	600X1200
BAT (PERFORATED) C-I	600	30	600	0.55	0.60/0.70	600X600	600X1200

Broer clip-in system (Spring Tee /Main Channel/U-Trim)

Images	Reference Picture	Dimensions (mm)		Thickness (mm)		Length (mm)	
		H	W	Standard	Available	Standard	Available
	BST/35/4000	30	35	0.50	0.50	3000 4000	3000 4000
	BMC/38/3000	12	38	0.50	0.50	3000	3000
	BU-T/38/3000	14	38	0.50	0.50	3000	3000
	BWA/20/19/19/20	20x19	20x19	0.50	0.50	3000	3000



Brooer Ceiling System (Lay –in or Lay on)

Aluminum Tiles (Lay in/Lay-on) System

Brooer Lay-in/lay-on ceiling system offers the combination of style and functionality for which we are known, this system is available in different installation concepts.

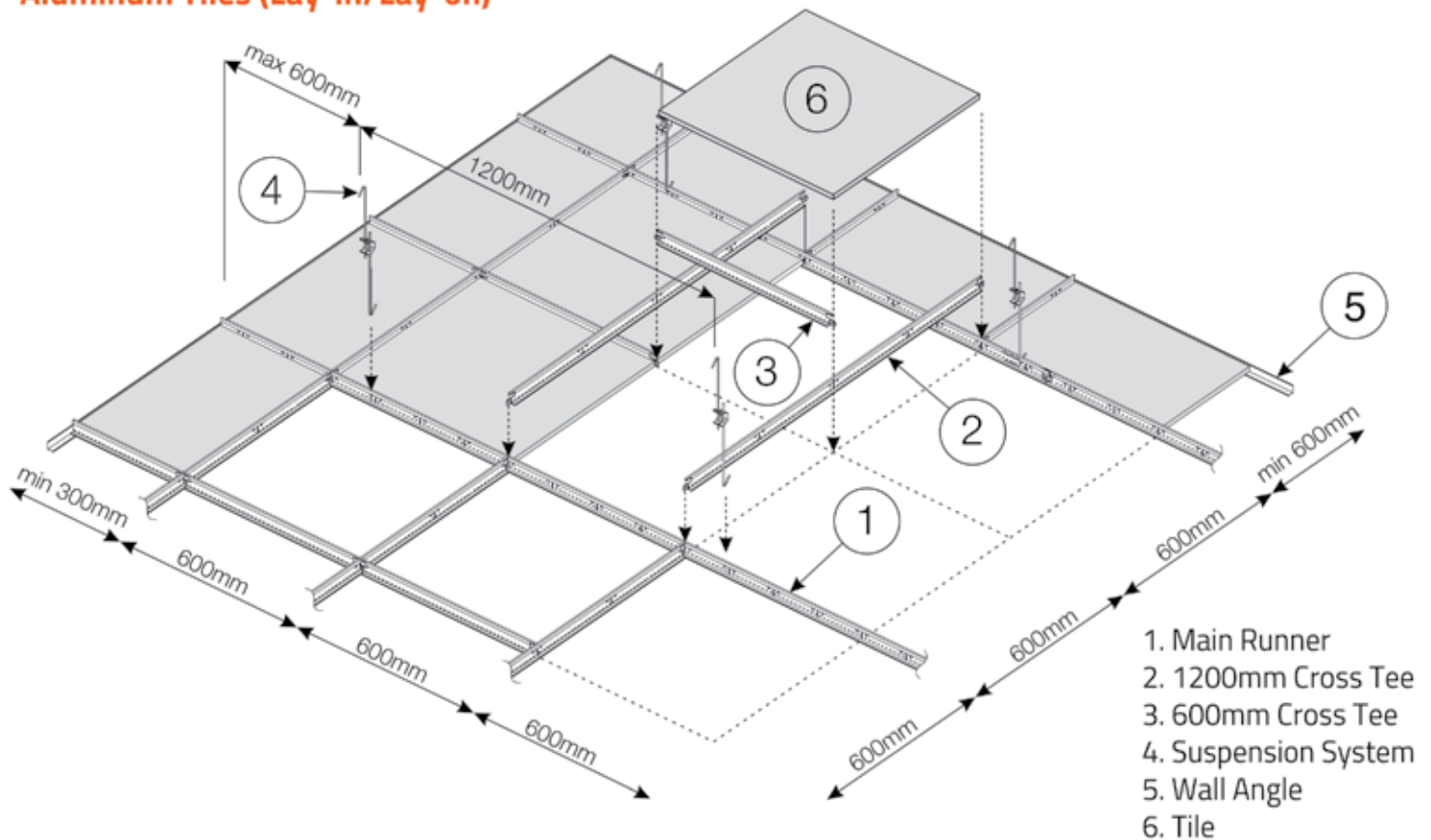
Lay-in and lay-on tiles provide easy access and are ideal for situation where regular maintenance or service is required on installations in the plenum. Lay-in and Lay-out tiles are available in a wide variety of pre-defined square and rectangular module sizes that common used in ceiling design.

Brooer Tiles System are manufactured from durable Aluminum or steel finished with powder coating or produced from durable coil coated material, these ceiling will last longer and require less maintenance. Brooer Tiles allow full plenum access and can be easily demounted by hand. Perforated tiles improve acoustical performance as well as creating aesthetic effects.

Brooer perforated tiles come with a special sound –absorbing non-woven tissue glued into the panel, further enhancing acoustical performance.

INSTALLATION METHOD (LAY-IN)

Aluminum Tiles (Lay-in/Lay-on)



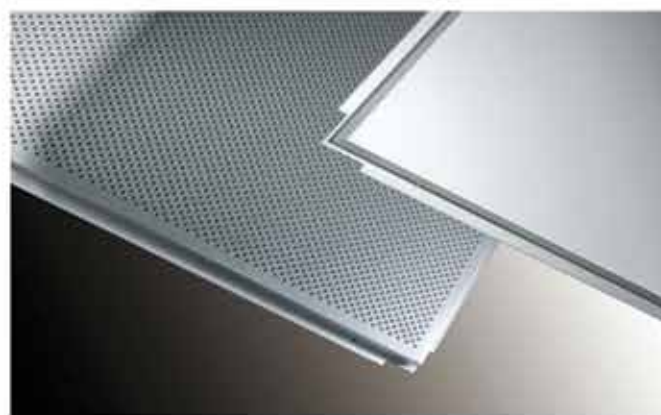
Broer Lay-in or Lay-on system Tiles are designed to be installed in conventional T-Grid System with T-Bar sizes of 15 mm, 24 mm or Black Grove .By pushing Tiles on up-Words or Lay tiles top on Grid System. All Types Provide easy access to plenum without the use of special Tools.

The exposed T-grid of Broer Lay-in & Lay-on Tiles enhances the modular design pattern. Amore distinctive emphasis can be provided by use of wide T-grids and 16mm deep reveals, or less prominent by using 15 mm T-grids and an 8mm reveal.

Broer False ceiling composed of 600 x 600 mm Panel Lay-in /Lay-on Structure. The Square panel is made of Aluminum or steel with high industrial standard. Broer Lay-in/Lay-on tiles provide easy access by lifting and tilting the ceiling tiles. They are ideal for situations where regular maintenance or service is required to ducts, pipes, and airco-system, or computer-or telephone networks. Before selecting this system, care should be taken to ensure that there is enough space in the plenum to left the tiles upward. Because the Broer Lay-in and Lay-on System offer easy access and adaptability .Lighting and services can be conveniently resposited. This is particularly useful for supermarkets, Laboratoires, computer Suites and offices.

In order to improve interior Sound control the Broer tile program can be delivered in two standard perforation patterns .as a standard feature, perforated tiles are be supplied with a sound absorbing non-woven tissue glued into the tile for enhanced acoustical performance .

Broer Lay-in & Lay-on Tiles System



Plain & Perforated tiles (Lay-in or Lay-on)

Reference :	Dimensions (mm)			Thickness (mm)		Length (mm)	
	A	B	C	Standard	Available	Standard	Available
BAT (PLAIN)	600	25	600	0.55	0.60/0.70	600X600	600X1200
BAT (PERFORATED)	600	30	600	0.55	0.60/0.70	600X600	600X1200

T-Grid24 mm (Main Tee/Cross Tee/Angle)

Images	Reference Picture	Dimensions (mm)		Thickness (mm)		Length (mm)	
		H	W	Standard	Available	Standard	Available
	BMT/24/3600	38	24	0.35	0.35	3600	3600
	BCT/24/1200	28	24	0.35	0.35	1200	1200
	BCT/24/600	28	24	0.35	0.35	600	600
	BAE/24/3000	24	24	0.40	0.40	3000	3000

PRODUCT RANGE /DIMENSION (LAY-IN)

T-Grid 15mm (Main Tee/Cross Tee /Angle)

Images	Reference Picture	Dimensions (mm)		Thickness (mm)		Length (mm)	
		H	W	Standard	Available	Standard	Available
	BMT/15/3600	38	15	0.35	0.35	3600	3600
	BCT/15/1200	26	15	0.35	0.35	1200	1200
	BCT/15/600	26	15	0.35	0.35	600	600
	BAE/20/3000	20	14.5	0.40	0.40	3000	3000

T-Grid 15mm Black Grove (Main Tee/Cross Tee/Angle)

Images	Reference Picture	Dimensions (mm)		Thickness (mm)		Length (mm)	
		H	W	Standard	Available	Standard	Available
	BGMT/15/3600	38	15	0.35	0.35	3600	3600
	BGCT/15/1200	38	15	0.35	0.35	1200	1200
	BGCT/15/600	38	15	0.35	0.35	600	600
	AE/20/3000	20	14.5	0.40	0.40	3000	3000



Brooer T-Grids suspension system with Gypsum Tiles is a highly durable acoustic tile for the suspension ceiling in Rooms with Stringent Requirements for the Good Hygiene and cleaning .The Surface is a white Reinforced preprinted, that is particularly scratch resistant and tolerates high and low –pressure washing and cleaning with disinfectants. Brooer grid system installation using corrosion proof grid system is recommended in humid and wet environment. The reinforced and durable surface makes the product suitable even in areas that are particularly subject to wear such as e.g. School and office corridors and changing room of Gem etc.

Brooer Guarantee of quality of their products, we are proud of our ability to consistently supply high quality gypsum based, acoustic for the benefit and comfort of our customers and end-user.

Brooer Suspended Ceiling System offers numerous suspension system and edge detail options to help meet your design needs. Select a grid system and match it with a corresponding panel edge detail, or vice versa, to assure proper system fit and assembly. Either system integrates seamlessly with Brooer acoustical & gypsum ceiling panels to provide an extensive range of options whether it is for acoustic, aesthetic or budget reason. The systems differ in design, compatibility with certain styles of panels and the resulting appearance of the finished ceiling.

Features and benefits ■ World most advanced manufacturing facilities and technology ensure highest grid quality. ■ Cross tee with override-ends resists twisting and give a professional finished look with no exposed steel edges. ■ Fully compatible with square-edge and reveal-edge ceiling tile. ■ Hot dipped steel galvanization coating system on grid components resists corrosion and rust. ■ Patented QRC (Quick Release Clips) are easy to remove without tools, fast to install, ensure grid module squareness and firmness. ■ Comply with ASTM C 635 standards.

Prior to installation, Brooer ceiling and gypsum tiles products must be stored clean, dry area with a relative humidity and not subject to any abnormal conditions.

INSTALLATION METHOD T-GRIDS WITH GYPSUM TILES



Installation of Broer T-Grids 24 / 15mm and Black Grove with gypsum tiles

The placement of the wall angle should be marked with a bubble level/chalk line and mounted with a flatheaded screw suitable for the foundation per max. 300 mm, the first screw for no more than 50 mm from a corner. The wall angle should not be shorter than 300 mm, cut the profiles in close meter at the corner joints. If the foundation is uneven mount a thin wooden list behind the wall angle.

Hangers for the main beams should be placed in rows per 1200 mm. The first main beam max. 300 mm from the wall. First hanger in main beam max. 300 mm. from the wall. The other hangers per max. 1200 mm. The hook of the hanger is squeezed together with a pair of Pliers. The hangers should be adjusted, so the main beam is elevated 44 mm above the wall angle. At the longitudinal assembly of the main beams the couplings should be pushed together until they click. The cross-lock connectors are to be placed with a center distance of 600 mm on the main beam (maximum 600 mm from the wall). The tap in the connector should aligned with the vertically slot in the main beam. The connectors should be pushed down on the main beam until they click. Connect the cross profile to the main beam, by twisting the cross profile onto the cross-lock connector. This is done by placing the legs of the connector into the dedicated cut-outs on the cross profile. For safety and for a stabile connection between the main beam and the cross profile, fold the locking mechanism on the cross lock connector with a pair of Pliers. Make final adjustments to the grid system, to make sure that the cross profiles is elevated 6 mm above the wall angle.

This means that the cross profiles and main beams are located above the wall angle. Once the grid system is adjusted, every second main beam should be connected to the wall with a connecting bracket. This is due to better stability in the grid system. When installing the gypsum tiles, use cotton gloves. Lift one side of the tile, the E edge, up above the cross profile. Then slide the opposite side of the tile, the D2 edge, into the opposite cross profile. When the tile is mounted in the grid system, it can be slide into place. All installations should be finished before mounting the gypsum tiles. Always start in the center of the room, when laying the tiles into the grid system. When mounting the last tile against the wall, place 2 wall springs for each tile. The wall springs is installed before the last tiles are laid into the grid system.

PRODUCT RANGE /DIMENSION (GYPSUM TILES)



SAFARI



NEW SHADE



ELEFOIL



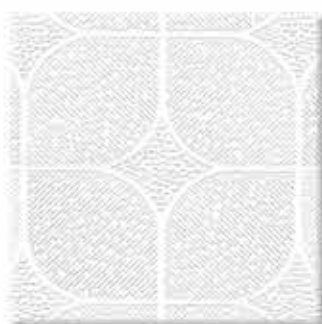
FLEX FOIL



ALLURA



DIAMOND



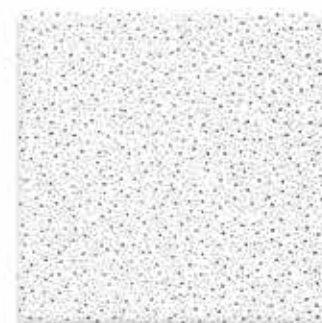
PEARL



ISLAMIC



FISSURED 1

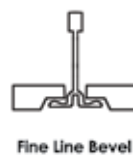
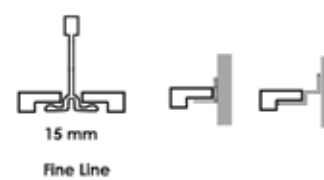
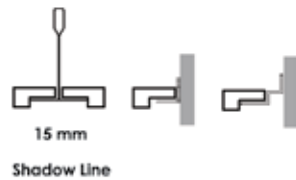
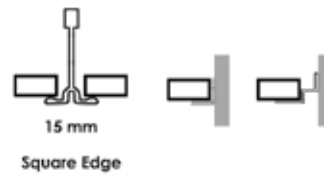
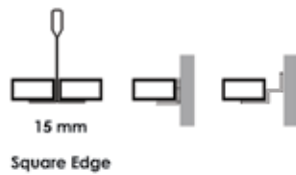
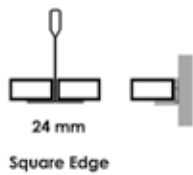


FISSURED 2

Reference :	Dimensions (mm)			Thickness (mm)		Length (mm)	
	A		B	Standard	Available	Standard	Available
Gypsum Tiles	595	X	595	7	7/8/9/12	595x595	600X1200
Mineral fiber Tiles	595	X	595	12	12/15	595x595	600X1200

Note : All Pattern of Embossed Vinyl and Mineral Fiber Tiles is arrange on order

INSTALLATION METHOD OR GRID OPTION

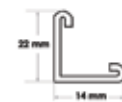
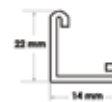
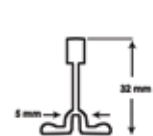
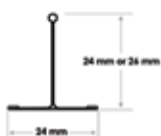
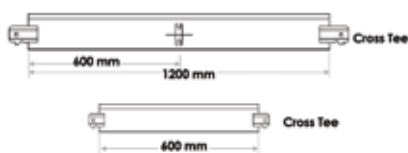
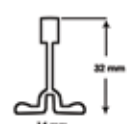
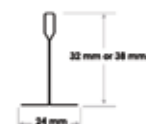
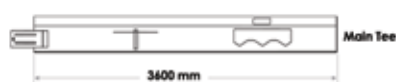


Suspension System

24mm

15mm

Black Grove(Fine line)





Broer dry wall partition system is a metal partition system consisting of studs, ceiling and floor tracks. Broer Stud & Track partitions are lightweight, non-loadbearing and quickly assembled on site. They provide cost effective partitions suitable for all types of commercial, Recreational and Industrial building as well as residential Development.

When combined together they form a framework which is designed to accept gypsum wallboard in single and double thickness. Broer Stud and Track is available in several widths and when the gypsum board is fitted it provides a solid wall. Studs can also be joined together to form a box when additional strength is required for the finished drywall partition.

Broer Stud and Track Partitions weight much less than traditional partition of a comparable thickness, therefore effectively saving in structural design. The section also allows for the inclusion of service during construction. Our Stud & Track partitioning is fully compatible our ceiling section furring sections.

Studs have a knurled face to assist straight screw penetration when fixing the wallboard with drywall screws; this allows the contractor to complete drywalls with the minimum amount of time and effort. Broer Metal industries Stud and Track metal partition system can be used as solid walls in domestic and commercial buildings.

The quality and strength of all Stud and Track components and accessories is guaranteed by our manufacturing method. All stud, ceiling and floor tracks have been tested or assessed for fire resistance levels to BS 476 or E-119.

INSTALLATION METHOD (DRY WALL PARTITION SYSTEM)



Fixing Ceiling and Floor Track

Floor & Ceiling Track must be securely fixed with a Row of Fixings, at 600mm max center. If the concrete or Screeded floor is new, consideration should be given to the installation of damp proof membrane between the floor surface and the track section. When width of finished wall is important and heights in excess of 3600mm are required, two studs can be interlocked to make a box section.

50mm Stud 2 Layers of board max. Height 4200mm

70mm Stud 2 Layers of board max. Height 4800mm

Similarly, two Xtrawide Studs formed into a box can provide wall height in excess of 7200mm

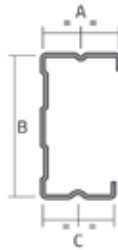
146mm Xtrawide Stud 2 Layers of board max Height 10500 mm.

When studs are boxed it is important that only one thickness of stud should be within the floor and ceiling track. Studs should be cut so that one fits into floor track and stops at ceiling track while the other fits into ceiling track and stop at top of floor track.

Electrical conducts and pipes can be easily accommodated up to a maximum diameter of 25 mm with the wall cavity. For heavy fixtures such as bathroom and sanitary fixings, additional support may be required.

Door openings-The designers should consider thickness tolerance of the partition types in relation to the proposed door frame detail. A standard door frame is formed by locating full height studs on each of the openings. The head is formed from a section of track fixed to studs on each side. Where additional provision is required to support heavy door sets, the studs can be sleeved with track section of appropriate gauge.

Broer Dry Wall Partitioning System Stud



Reference :	Dimensions (mm)			Thickness (mm)		Length (mm)	
	A	B	C	Standard	Available	Standard	Available
BSD 50	34	50	32	0.45	Up to 0.80	3000	Up to 7000
BSD 63	34	63	32	0.45	Up to 0.80	3000	Up to 7000
BSD 70	34	70	32	0.45	Up to 0.80	3000	Up to 7000
BSD 73	34	73	32	0.45	Up to 0.80	3000	Up to 7000
BSD 92	34	92	32	0.45	Up to 0.80	3000	Up to 7000
BSD 98	34	98	32	0.45	Up to 0.80	3000	Up to 7000
BSD 146	34	146	32	0.45	Up to 0.80	3000	Up to 7000
BSD 150	34	150	32	0.45	Up to 0.80	3000	Up to 7000

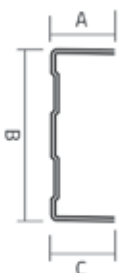
Other Size of Thickness ,Length,Depth & Flange can be made upon request.

Material Standard :Galvanized Steel –BS EN 10346-2009 (formerly)

BS EN 10142:1991)Coating Type as per ASTM A 653/ A653M.

Note : All dimensions are in mm.

Track



Reference :	Dimensions (mm)			Thickness (mm)		Length (mm)	
	A	B	C	Standard	Available	Standard	Available
BTK 52	25	52	25	0.45	Up to 0.80	3000	Up to 7000
BTK 65	25	65	25	0.45	Up to 0.80	3000	Up to 7000
BTK 72	25	72	25	0.45	Up to 0.80	3000	Up to 7000
BTK 75	25	75	25	0.45	Up to 0.80	3000	Up to 7000
BTK 94	25	94	25	0.45	Up to 0.80	3000	Up to 7000
BTK 100	25	100	25	0.45	Up to 0.80	3000	Up to 7000
BTK 148	25	148	25	0.45	Up to 0.80	3000	Up to 7000
BTK 152	25	152	25	0.45	Up to 0.80	3000	Up to 7000

Other Size of Thickness ,Length,Depth & Flange can be made upon request.

Material Standard :Galvanized Steel –BS EN 10346-2009 (formerly)

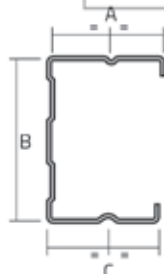
BS EN 10142:1991)Coating Type as per ASTM A 653/ A653M.

Note : All dimensions are in mm.

Depth Stud



Reference :	Dimensions (mm)			Thickness (mm)		Length (mm)	
	A	B	C	Standard	Available	Standard	Available
BDSD 50	50	50	50	0.45	Up to 0.80	3000	Up to 7000
BDSD 63	50	63	50	0.45	Up to 0.80	3000	Up to 7000
BDSD 70	50	70	50	0.45	Up to 0.80	3000	Up to 7000
BDSD 73	50	73	50	0.45	Up to 0.80	3000	Up to 7000
BDSD 92	50	92	50	0.45	Up to 0.80	3000	Up to 7000
BDSD 98	50	98	50	0.45	Up to 0.80	3000	Up to 7000



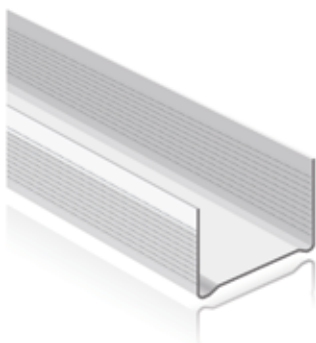
Other Size of Thickness ,Length,Depth & Flange can be made upon request.

Material Standard :Galvanized Steel –BS EN 10346-2009 (formerly

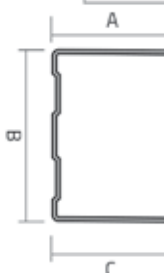
BS EN 10142:1991)Coating Type as per ASTM A 653/ A653M.

Note : All dimensions are in mm.

Deflection Track



Reference :	Dimensions (mm)			Thickness (mm)		Length (mm)	
	A	B	C	Standard	Available	Standard	Available
BDTK 52	50	52	50	0.45	Up to 0.80	3000	Up to 7000
BDTK 63	50	63	50	0.45	Up to 0.80	3000	Up to 7000
BDTK 72	50	72	50	0.45	Up to 0.80	3000	Up to 7000
BDTK 75	50	75	50	0.45	Up to 0.80	3000	Up to 7000
BDTK 94	50	94	50	0.45	Up to 0.80	3000	Up to 7000
BDTK 100	50	100	50	0.45	Up to 0.80	3000	Up to 7000



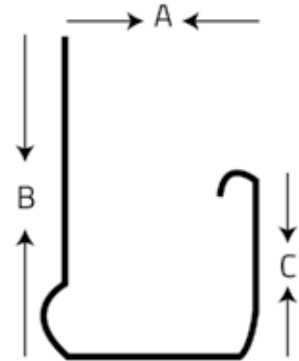
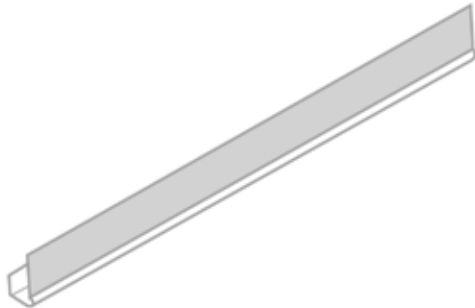
Other Size of Thickness ,Length,Depth & Flange can be made upon request.

Material Standard :Galvanized Steel –BS EN 10346-2009 (formerly

BS EN 10142:1991)Coating Type as per ASTM A 653/ A653M.

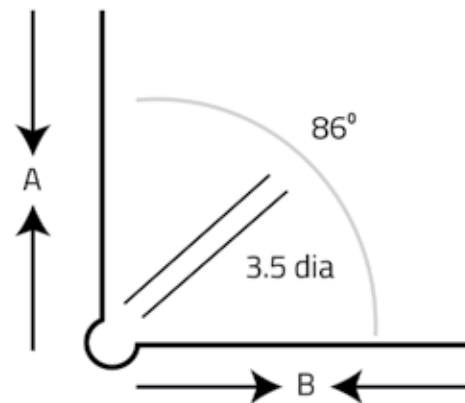
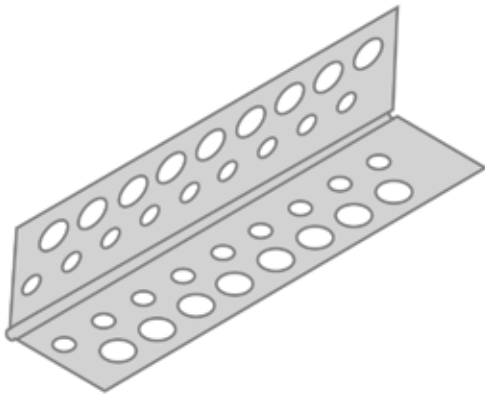
Note : All dimensions are in mm.

Brooer Board Channel / J Trim:



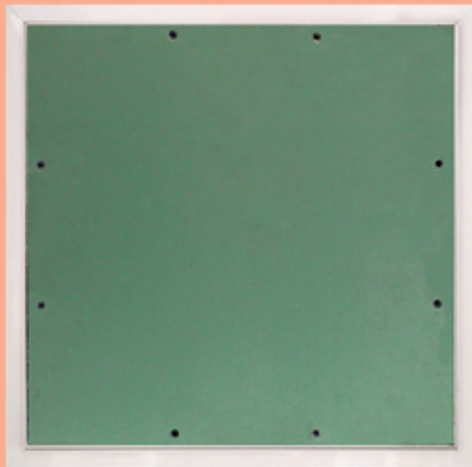
Reference :	Dimensions (mm)			Thickness (mm)		Length (mm)	
	A	B	C	Standard	Available	Standard	Available
BROOER BC13	13	25	10	0.45	Up to 0.50	3000	Up to 7000
BROOER BC15	15	25	10	0.45	Up to 0.50	3000	Up to 7000

Edge Angle



Reference :	Dimensions (mm)		Thickness (mm)		Length (mm)	
	A	B	Standard	Available	Standard	Available
BROOER AB30	30	30	0.45	Up to 0.50	3000	Up to 7000
BROOER AB40	40	40	0.45	Up to 0.50	3000	Up to 7000

GYPSUM BOARD ACCESS PANEL (BROOER)



BROOER® Access Panel (MR)



BROOER® Access Panel (FR)

Brooer Access Panels are purpose-designed for use in Brooer framed systems where there is a requirement to access services for maintenance purposes. Designs are also included for use in masonry backgrounds. Brooer Access Panels can be specified in commercial, industrial, public and residential buildings. They are available as wall or ceiling panels, in either standard or a choice of performance options. Panels are available in different sizes for constructions. The panels are available in a range of standard sizes with a choice of finishes to suit different applications and with a choice of security locks and catches.

Brooer Access panel are Gypsum based build-in accessories for ceiling they are planted in various areas of the suspended ceiling, shaft wall or drywall partition that requires access for constant adjustment, inspections and revision ventilation ducts electrical control outlets, pipe and valves can be given as an example to these areas. Products description.

Brooer panel is designed to fit into the structural membrane of joint less plasterboard ceiling systems. It is supplied with a beaded frame to allow for tape and jointing on site and comes complete with a fully removable flush door. It is inserted directly into a pre-cut hole through the face of the ceiling prior to wet finishes being applied.

Non-fire rated standard aluminum access panel with plaster board facing, providing easy access to plaster-board ceiling .Each panel features a push panel-catch closing mechanism with door retaining safety cable and hook. Suitable for application where acoustic and fire rated are specified.



Product features

Non-fire rated standard aluminum access panel frames are electrostatic powder coated white, Strong Aluminum frame and hardware.

12.5 mm Regular Gypsum Board

12.5 mm Moisture –Resistant Gypsum Board inlay.

12.5mm Fire Resistant board Available on request.

Concealed touch latch standard on all doors.

Removable door panel, with safety cables mounting screw enclose.

Advantages

Functional access in wall or ceiling

Easy installation, common trowel tools

All gypsum surface treatments

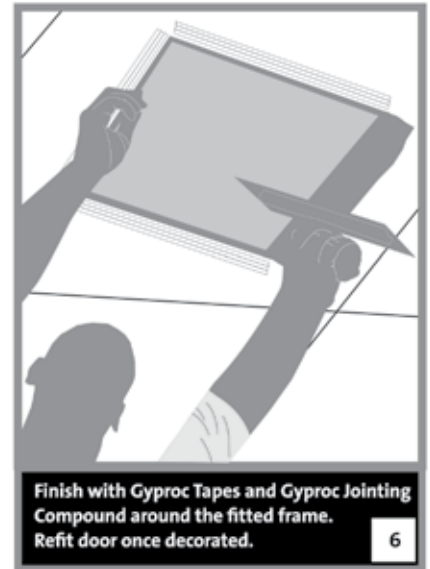
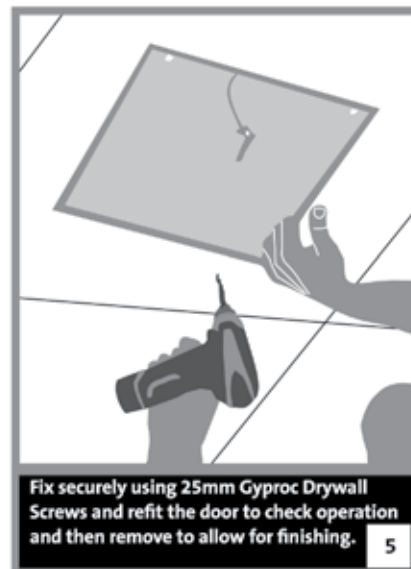
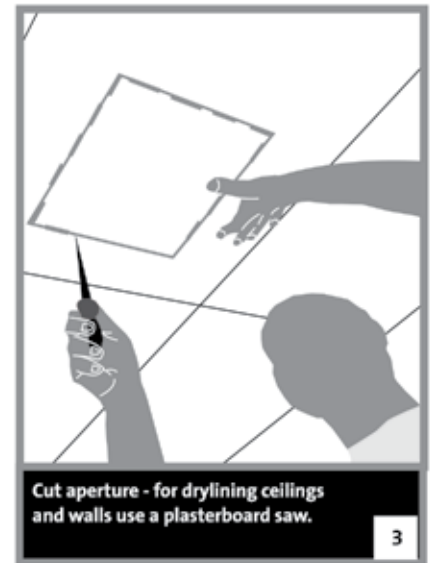
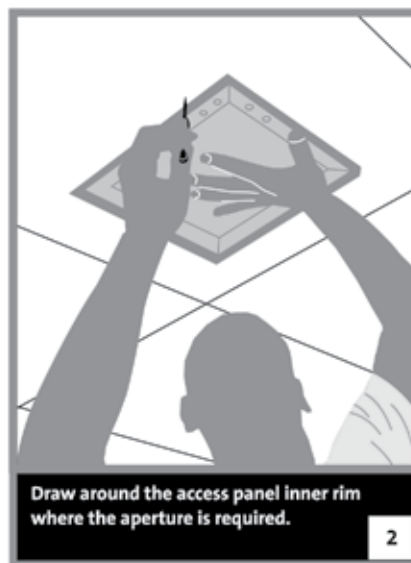
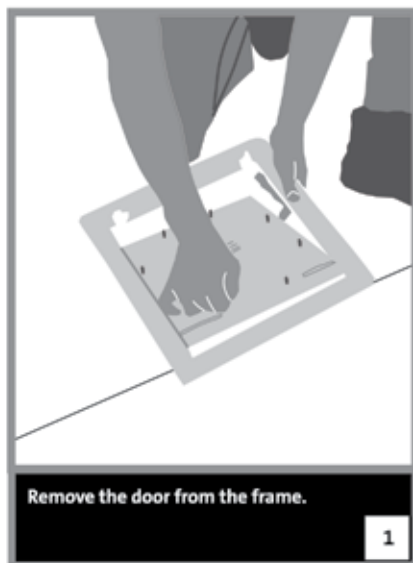
Consistent continuous surfaces

Superior sound barrier

Architecturally pleasing finishes

Virtually invisible access

INSTALLATION METHOD (ACCESS PANEL)



Installation Instruction

Remove the door from the frame and create an aperture within the plasterboard wall or ceiling by drawing around the inner rim of the access panel frame allow an extra 5 mm. Cut aperture using a plaster board saw and install the frame in the ceiling or wall. Insure frame is set square into ceiling aperture, fix frame though face of plaster board using dry wall screw 25mm (minimum of 2 fixings per side and at a maximum of 300 centers). Refit door into frame and check operation prior to finishing remove the door, using the doors Brooer tapes and jointing compound finish around fitted frame and door in accordance with plaster board guidelines. Ensure all jointing material has been removed from the frame and door edge as this will affect the doors operation.

In General

It is important to observe appropriate health and safety legislation when working on site i.e. Personal protective clothing and equipment .the following notes are intended as general guidance only. In practice consideration must be given to design criteria specific project solutions. A light weight non-fire rated penal designed for ease of installation. Suitable for most dry lining wall partitions and ceiling system .minimal maintenance required when installed manufacturer Instruction.

Easy opening push the door leaf and the lock releases the flap



Easy shutting push up and the latch locks



Access Panel Range



Inner (m/m)

Outer (m/m)

200 x 200

350 x 350

300 x 300

450 x 450

400 x 400

550 x 550

450 x 450

600 x 600

500 x 500

650 x 650

600 x 600

750 x 750

600 x 1200

750 x 1350

ACCESSORIES FOR CEILING & PARTITION

Wire Clip 38mm



Part Number	Weight Per 1000	Material	Box Qty's
Wire Clip 38mm	5 kg	Galvanized Wire 3 mm	500 Pcs

Channel Bracket 38mm



Part Number	Weight Per 1000	Material	Box Qty's
C.S.B 38mm	5 kg	Galvanized Mild Steel	500 Pcs

Adjustable Spring Clip 3mm



Part Number	Weight Per 1000	Material	Box Qty's
ASC 3 MM Black/ Silver	5 kg	Spring Steel 0.5 mm	500 Pcs

Hangers Wire Rod 3mm



Part Number	Thickness of Wire	Material	Bundle Qty's
Hangers Wire Rod 400/500 750/1000	3 mm / 4mm	Galvanized Steel Wire	100 Pcs

Broer Gypsum Screw



Part Number	Weight Per Box	Material	Box Qty's
Screw # 6x1"	1.340 kgs	Black Phosphated	1000 Pcs
Screw # 6x1-1/4"	1.650 kgs	Black Phosphated	1000 Pcs
Screw # 6x1-1/2"	1.900 kgs	Black Phosphated	1000 Pcs
Screw # 6x2"	2.420 kgs	Black Phosphated	500 Pcs
W.Head Screw 1/2"	1.000 kgs	Zinc Plated Cr 3	1000 Pcs

Dry Wall Metal Corner Tape



Part Number	Size (Inch)	Material	Box Qty's
Metal Corner Tape	2" x 30 Mtr	Galvanized Mild Steel/Paper	24 Pcs

Fiber Joint Tape



Part Number	Weight Per 24 Pcs	Material	Box Qty's
Fiber Tape 2"	6 kgs	Fiber Tape with Glue	24 Pcs

Hanging Wire



Part Number	Thickness of Wire	Material	Unit / Weight
Hanging Wire	3 mm / 4mm	Galvanized Steel Wire	6 / 7 Kgs

FIRE RESISTANCE TESTS

All fire-resistance classifications described in this Manual are derived from full-scale fire tests conducted in accordance with the requirements of ASTM E 119 (as amended and in effect on the date of the test) by recognized independent laboratories.

Fire-resistance classifications are the results of tests conducted on systems made up of specific materials put together in a specified manner. There are a number of nationally recognized laboratories capable of conducting tests to establish fire resistance classifications according to the procedures outlined in ASTM E 119. The conditions under which tests are conducted are thoroughly detailed and the fire-resistance classification is established as the time at which there is excessive temperature rise, passage of flame, or structural collapse. In addition, failure may result because of penetration by the pressurized hose stream required in the fire test procedure for walls. With reference to all tested systems, ASTM E 119 states: It is the intent that classifications shall register performance during the period of exposure and shall not be construed as having determined suitability for use after fire exposure. Comprehensive research by fire protection experts has determined the average combustible content normally present within any given occupancy.

In addition, evacuation times, the time required for the contents to be consumed by fire, and the resulting temperature rise have been quantified. Fire-resistance requirements are established accordingly in building codes and similar regulations. In ASTM E 119 fire tests, wall, ceiling, column, and beam systems are exposed in a furnace which reaches the indicated average temperatures at the time stated in the standard time-temperature curve and Appendix X1 of ASTM E119. The unexposed surface of all systems refers to the surface away from the fire during a test. The exposed surface refers to the surface facing the fire.

Raw Material Standards

Pre Galvanized steel complying with
BS EN 10346:2009 (formerly BS EN 10142:1991)
ASTM A653/A653M
Coating Type: Z120, Z180 & Z275

Aluminum complying with
BS EN 573-3:2009, BS EN 485-2:2008
ASTM B209M

General Accessories for Ceiling & Partitions

Preformed wire clip complying with
Galvanized Steel Wire to BS EN 10244-2:2009
ASTM A641/A641M
Hanging Wire complying with
Galvanized Steel Wire to BS EN 10244-2:2009
ASTM A641/A641M
Adjustable Spring Clip complying with
Carbon Steel Strip to BS EN 10132-4:2000
Zinc Plated to BS EN ISO 2081:2008
Phosphated to BS 7371-9:1996
Channel Support Bracket complying with

Manufacturing Standards of Steel Profiles

Ceiling Systems & Partitioning Systems complying with
BS EN 10162:2003, BS5234-1:1992,
BS 7364:1990, BS EN 14195:2005 ASTM C 645

Code of Practice for Dry Lining and Partitioning using gypsum Plaster board

BS 8212:1995 Replace by BS 8212:1988
Cross References BS EN 10143 (Building Regulations 1991)

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If you need help or advice give us a call
We've a wealth of experience and are here to help

Brooer Metal Industries publishes updated technical information on various products and topics. In order to request any of Brochures please contact our office at the address given.