Interior Partition Assembly
Installation Guide

New Zealand
118, Wiri Station Road
Maunkau City
Ph# +64 (9) 262 6262, 0800 500 338
Fax# +64 (9) 262 6265
www.ullrich-aluminium.co.nz

Australia
185-187, Woodpark Road
Smithfield, Sydney, NSW
Ph# +61 (2) 8787 7400
Fax# +61 (2) 9725 2400
www.ullrich.com.au
Introduction

The intension of this booklet is to not hard sell to you on the benefits of ‘Designer 1000’ partitioning as opposed to other low recovery partitioning systems, but to simply acquaint you (as the client) with the full range and versatility of the suite, and to better enlighten yourself as to the merits of one concept as opposed to another.

You will achieve a better understanding of your chosen concept, as to exactly what has gone into your office system and conclude that you are indeed achieving value for your investment.

No effort has been spared developing to the fullest all partition suites, as with this booklet to present you with the latest, innovative and most up to date economical solution to any perceived requirement in an unbiased fashion. With this in mind you will note that all concepts have been rigorously tested by ‘BRANZ’ and endorsed as achieving, and indeed exceeding all specifications deemed as necessary for individual concepts.

In conclusion we would add that, should your desired concept not be prepared in this booklet then we can only say that at the time of print it had not been thought of, and that we would gladly welcome your enquiry.
Designer 1000 Partitioning Into 2000 and Beyond

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Sound Transmission Code (STC)

Sound insulation is measured in decibels (dB). If a sound level of 70 dB is generated in one room, and the sound level in the adjacent room is 30 dB, the difference between the sound levels is a measure of insulation provided by the wall and the wall is referred to as having 70 dB – 30 dB = 40 dB sound transmission loss. A factor that must be considered in the background noise level, also measured in dB. This will mask an equivalent amount of sound (in dB) already present in the room. Background noises can be caused by street traffic, trains, mechanical equipment etc, and the level of this background noise is dependent upon the building and room location.

The basic objective, therefore in sound insulation is to reduce the transmitted noise level (i.e. the aforementioned 30 dB level in the second room) below that of the background noise or to an acceptable level, whichever is greater.

To compare the effectiveness of a wall or the floor construction in preventing the passage of airborne sound, a two room sound test method is generally used. A steady, known sound level of a certain frequency is generated on one side of the wall (or floor) and then measured in the room on the other side. This enables a wall sound transmission loss (dB) to be calculated and this recorded. Sound levels of other frequencies are also included in the test procedure, resulting in a variety of wall sound transmission losses.

Obtained from this data is the STC or the Sound Transmission Class of the wall or floor. The STC is a convenient single number acoustic rating for walls and other partitions. The STC rating is easy to use and is currently the most realistic way to compare acoustic performance. The higher the STC value, the better the assembly will resist sound passage.

Sound Transmission Class (STC)

Example of how STCs relate to partition performance

<table>
<thead>
<tr>
<th>25</th>
<th>30</th>
<th>35</th>
<th>42</th>
<th>45</th>
<th>48</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal speech can be heard quite easily</td>
<td>Loud speech can be heard quite easily</td>
<td>Loud speech can be heard but not understood</td>
<td>Loud speech can be heard only as a murmur</td>
<td>Must strain to hear loud speech</td>
<td>Only some loud speech can be barely heard</td>
<td>Loud speech cannot be heard</td>
</tr>
</tbody>
</table>

Wall Performance – Lab and In – Situ

The most common method of rating the wall or floor sound transmission performance is by using the laboratory obtained STC value.

While the manufacturers of building materials and systems may exercise great care to properly determine the acoustic performance of their products, many of the benefits of walls and floors with high STC ratings can be lost because of poor construction details or improper installation. The laboratory measured performance of partitions will not be achieved in buildings unless both the specification of the acoustically rated wall and the construction details described later are strictly followed. Laboratory STC ratings of partitions alone do not necessarily determine the acoustic privacy of the total construction. In fact, a tested partition of STC rating 50 may only achieve STC 40 or worse if in – situ construction is not of the highest standard.
Solid Wall Non – Load Bearing, 10 mm Gibraltar Board Lining

<table>
<thead>
<tr>
<th>Steel Stud</th>
<th>Sound Transmission</th>
<th>Soft Body Test</th>
<th>Deflection</th>
<th>F.R.R.</th>
</tr>
</thead>
</table>

This wall is best suited as a medium quality full height room divider where sound transmission is of low priority. The wall surface is not as flat as that of 13 mm gibboard.

NOTE: Head Starter UA 4359 if Powder coated / Anodized
**Solid Wall Non – Load Bearing, 13 mm Gibraltar Board Partition**

<table>
<thead>
<tr>
<th>Steel Stud</th>
<th>Sound Transmission</th>
<th>Soft Body Impact Test</th>
<th>Deflection</th>
<th>F.R.R. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>63.5 x 0.55</td>
<td></td>
<td></td>
<td></td>
<td>1 / 2</td>
</tr>
<tr>
<td>63.5 x 0.7</td>
<td></td>
<td></td>
<td></td>
<td>1 / 2</td>
</tr>
</tbody>
</table>

This wall is best suited as a high quality full height room divider where sound transmission is of low priority. The thicker lining gives a flatter and stronger surface.

**NOTE:** Head Starter UA 4362 if Powder coated / Anodized  
Starter Cap  UA 4364 if Anodized  
Starter Cap  UA 4363 if Powder coated
Solid Wall Non – Load Bearing 13 mm, Double Laminated Gibraltar Board

<table>
<thead>
<tr>
<th>Steel Stud</th>
<th>Sound Transmission</th>
<th>Soft Body Impact Test</th>
<th>Deflection</th>
<th>F.R.R. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>63.5 x 0.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63.5 x 0.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

S.B. adhesive by SIKA between gibboard and stud.

Fix with 32x6 drywall screws @300 centres (by Ullrich Aluminium)

13 mm Double Laminated Gibraltar Board Partition Assembly

Sections Showing Inner Details of the Assembly
Partial Height Door

This concept is best suited where standard 1980 mm high doors are required in lieu of the full height door. This option also lends itself well to the addition of a borrowed light window above the door simply be including glazing bar and bead.

NOTE: Head Starter UA 4359 if Powder coated / Anodized

Door Jamb  UA 1788 38 – 42 mm Doors
UA 2062 42 – 47 mm Doors
Full Height Door Solid Wall

This concept is best suited when the least amount of sound transmission is required together with architrave sound.

NOTE: Head Starter  UA 4359 if Powder coated / Anodized
Starter Cap    UA 4360 if Powder coated / Anodized
Door Jamb  UA 1788 38 – 42 mm Doors
           UA 2062 42 – 47 mm Doors
This concept is best suited where standard 1980 mm high doors are required in lieu of the full height door. Not recommended in a high traffic area when a seismic bracing is required, as top of the door jamb is not anchored.

NOTE: Door Jamb UA 1788 38 – 42 mm Doors
UA 2062 42 – 47 mm Doors
Door Framing / Full Height / Glass Wall

S.T.C. Slam Test Soft Body Impact Deflection

NB: Minimum 4 flush butt hinges required.

Ideally suited in a high traffic area where glazed walls are desired, this lands itself well to seismic bracing above the door, as opposed to the partial height option.

NOTE: Door Jamb UA 1788 38 – 42 mm Doors
      UA 2062 42 – 47 mm Doors

Glazing Bead UA 1035 if Powdercoated
              UA 3209 if Anodized

Glazing Bar   UA 1034
Full Height Glazed Partition

<table>
<thead>
<tr>
<th>S.T.C.</th>
<th>Soft Body Impact</th>
<th>Deflection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Full Height Glazed Partition Assembly

This is an ideal wall option when an additional amount of natural light is required together with and / or visual access to other office areas. When the colonial bead option is utilized a greater degree of deflection reduction is achieved.

NOTE: Head Starter UA4360 if Powder coated / Anodized
Glazing Bar UA 1034
Glazing Bead UA 1035 if Powdercoated
UA 3209 if Anodized
# Glazed Partition with Ducting

<table>
<thead>
<tr>
<th>Glass</th>
<th>S.T.C.</th>
<th>Deflection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Single Glazed 3 Channel Ducts Assembly](image.png)

![Vertical Section Showing Inner Details](image.png)

Ideal option where a small amount of telephone, data and power reticulation is required and still retain the benefits of full glazing.

This option can be utilized at either floor level or at desk height, the latter also providing the added benefit of a vision / crash rail in high traffic areas.

**NOTE:**
- Ducting Base    UA 1040
- Ducting Divider UA 1041
- Ducting Lid     UA 1042
**Double Glazed Partition**

<table>
<thead>
<tr>
<th>Glass</th>
<th>S.T.C.</th>
<th>Deflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 mm + 6 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 mm + 10 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 mm + 10 mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This is the ultimate option for sound transmission reduction when high visibility light inter office is required to accommodate occasional requirements for privacy, then the addition of micro blinds between the glass panels is recommended with the added benefit of maintenance free (cleaning).

Remote control operation of blinds is also worth considering.

**NOTE:**
- Double Glazing UA 1314
- Double Glazing Cap UA 1313
- Glazing Bead UA 1035