



aluglass®

bautech

Engineering QUIET since 1973

VARIKUST®

Acoustic Doors
Acoustic FIRE DOORS



Varikust® @ Skyrink Studios Johannesburg

Introduction

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What Varikust® Door to use?

What makes the VK acoustic door different?

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What makes the VK acoustic FIRE doors different?

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Finishes for Varikust® & Varikust® Fire doors

Applications

Projects to be proud of...



Varikust® @ JP Morgan

Introduction

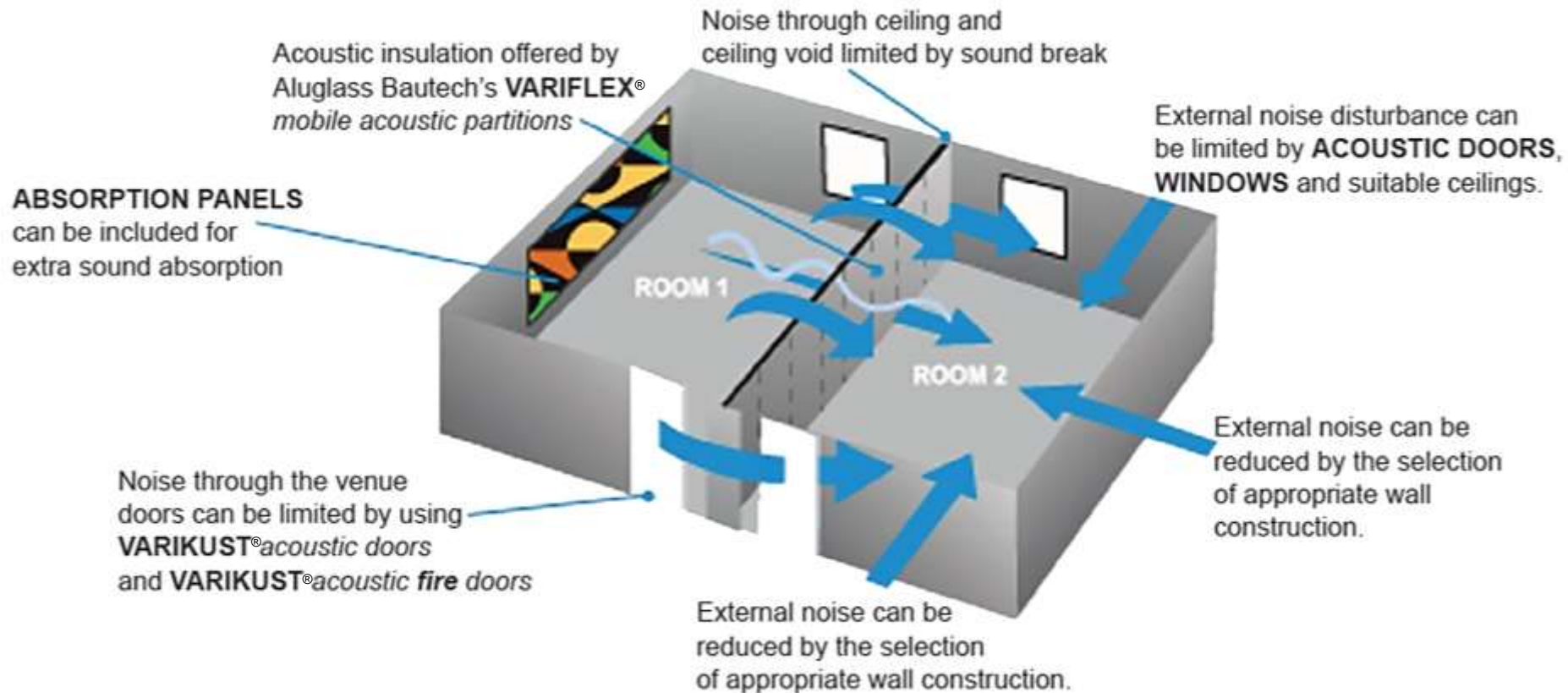


- Standard sizes available
- Up to 4,8 meters wide x 5 meters high
- Easy operation
- Effective sealing mechanism
- Allows for uninterrupted floor finish
- Sound Insulation doors ranging from 40dB to 55dB
(The updated acoustic sound level testing method is an in-situ measurement of the Standardised Level Difference according to ISO 162283-1 2014, analysed according to weighted Standardised Level Difference, DnTw, according to ISO 717-1.)
- Complementary product to the Variflex® system
and GF Serene



Varikust® @ Turbine Square

Acoustic overview



Acoustic selection table



Room 1		louder				
Room 2	Activity	Meeting 50dB (BN) 75dB (Peak)	Discussion 50dB (BN) 80dB (Peak)	Conference 50dB (BN) 85dB (Peak)	Audiovisual (AV) presentation 50dB (BN) 90dB (Peak)	Studio Recording 35dB (BN) 85dB (Peak)
louder	Meeting	40dB	45dB	49dB	≥ 49dB	52dB
	Discussion	45dB	45dB	49dB	≥ 49dB	52dB
	Conference	49dB	49dB	49dB	≥ 49dB	n/a
	AV presentation	≥ 49dB	≥ 49dB	≥ 49dB	45dB	55dB
	Studio recording	52dB	52dB	n/a	55dB	55dB

What Varikust® door to



<i>G = glass</i> <i>E = elephant (huge)</i> <i>T = thutlwa (tall)</i> <i>F = fire</i>	<i>Dnt = 40dB to 55dB</i> <i>(according to ISO</i> <i>162283-1 2014)</i>	<i>single door</i> <i>(size in mm)</i>		<i>double door</i> <i>(size in mm)</i>	
System	Acoustic rating	Max width	Max height	Max width	Max height
VK62 *	35dB / 43dB	950	2750	1800	2750
VK62G	35dB / 43dB	950	2750	1600	2750
VK62F	43dB	900	2400		
VK105	44dB / 48dB / 51dB	1200	3000	2700	3000
VK105F	48dB / 51dB	1200	3000	1800	3000
VK105T	48dB / 51dB	1200	4000	2700	4000
VK105E	40dB / 44dB / 48dB			4800	5000

** In order to offer the best possible price, the VK62 is now available in 3 x standard sizes- please see below*

SUPPLY ONLY - Installation guide and drawings to be supplied

Standard finish - white melawood or painted melawood (additional cost will apply)

VK62 - Standard Single Door size (w x h) (mm)	VK62 - Standard Double Door size (w x h) (mm)
900 x 2100	1600 x 2100
900 x 2400	1600 x 2400
900 x 2700	1600 x 2700

NB! All other sizes for a VK62 would be quoted as 'custom' and a surcharge will apply!

What makes the Varikust® acoustic doors different?



Various doors available to suit your application and requirements

- **Varikust® VK62**

62mm thick acoustic single or double door
also available as an ACOUSTIC FIRE DOOR
to incl panic exit lock + CISA push bar

- **Varikust® VK62G**

100mm melawood finished frame with
glass insert panel- TSG and laminated glass
combination to acoustic specification

- **Varikust® VK105**

44dB / 48dB / 51dB acoustic insulation rating

- **Varikust® VK105T**

up to 4m high acoustic single or double doors

- **Varikust® VK105E**

up to 4,8 meters wide x 5m high

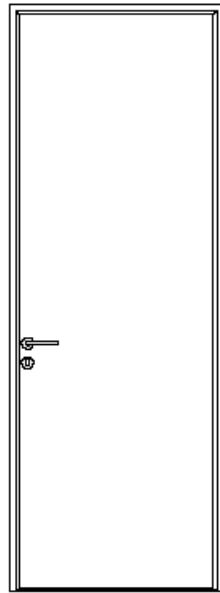
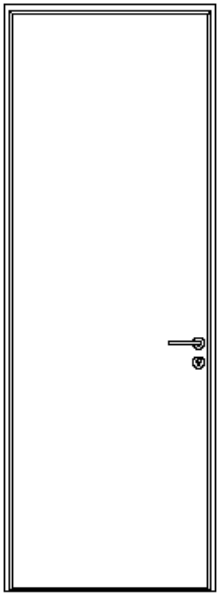


Varikust® @ Eskom

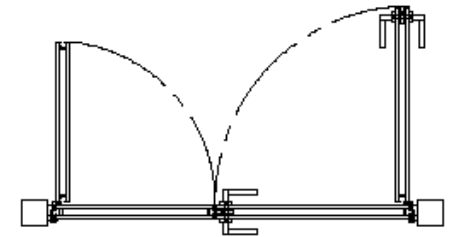
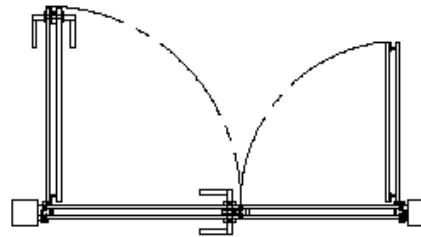
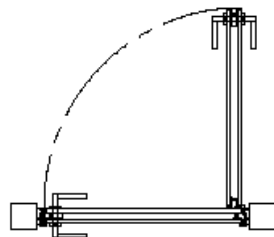
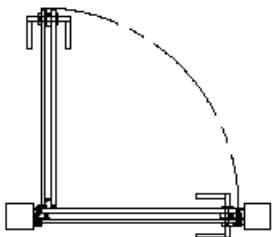
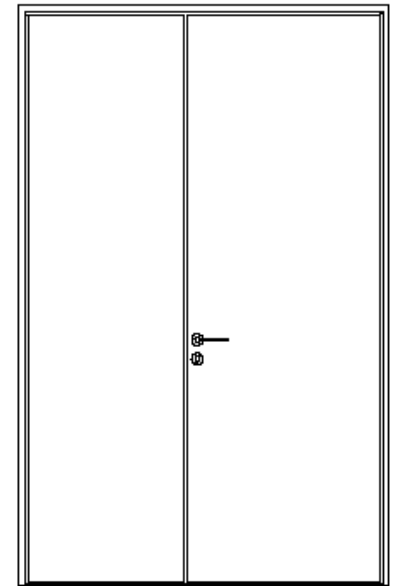
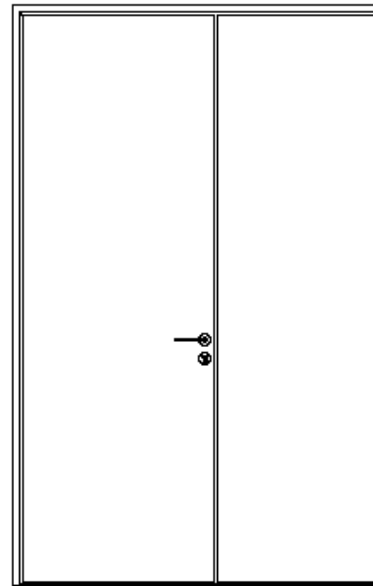
Typical layout examples

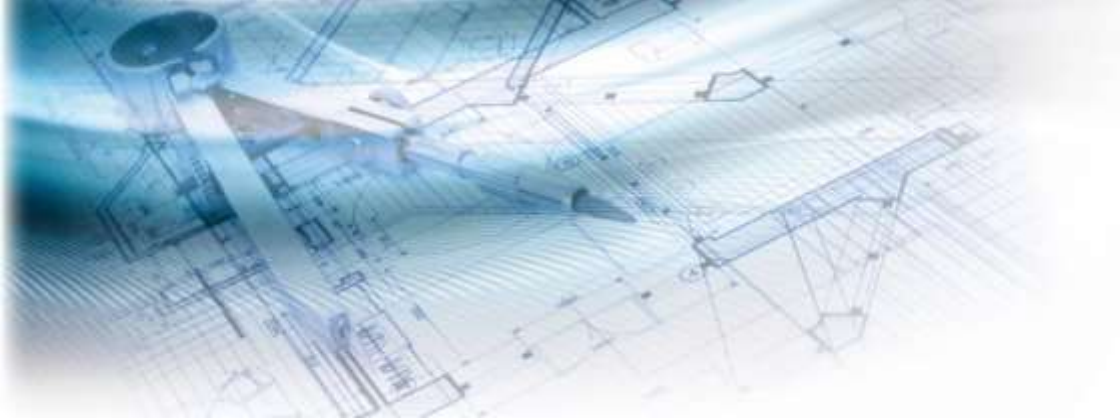


Single Varikust® acoustic doors

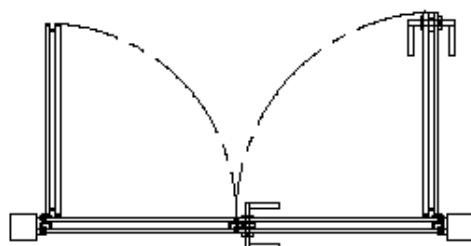
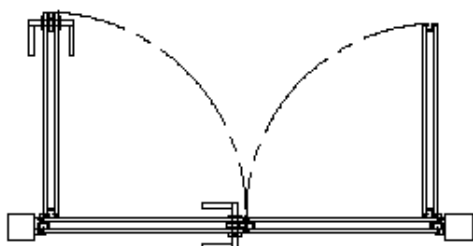
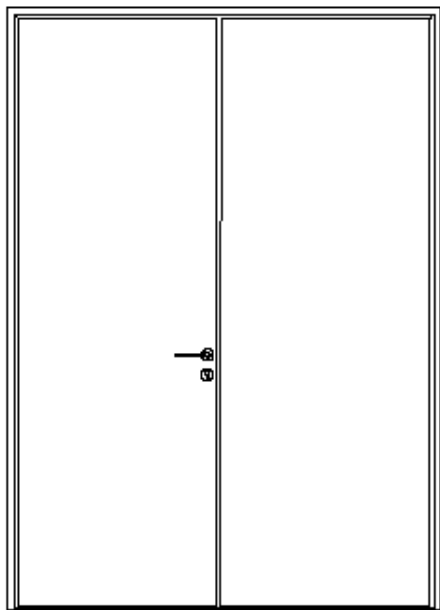


Double unequal Varikust® acoustic doors



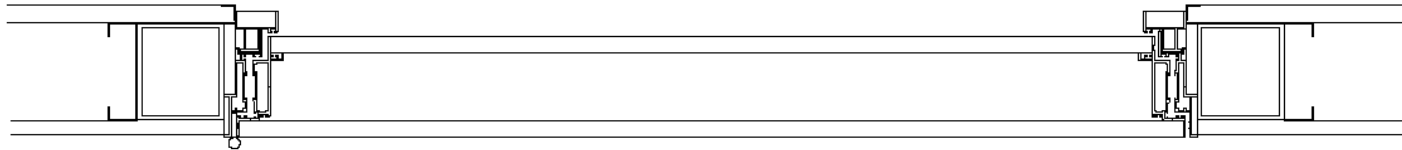


Double equal Varikust® acoustic doors

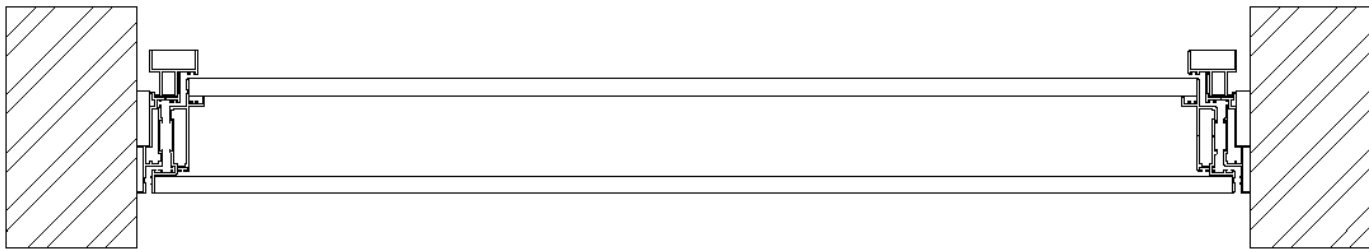


Varikust® @ Alexander
Forbes

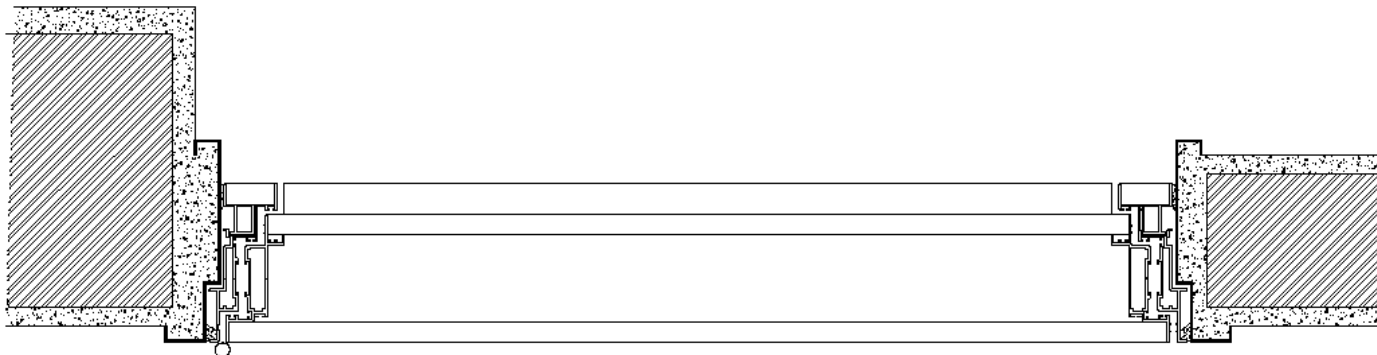
Wall fixing details



into dry wall

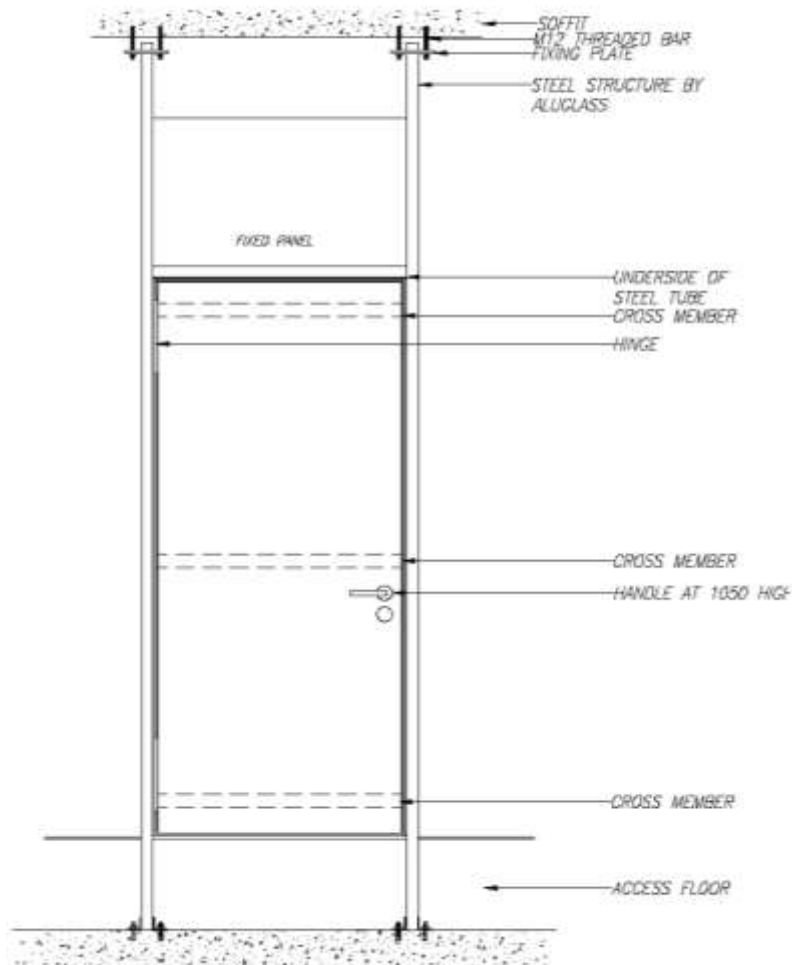


into plastered
opening



into rebated
opening

H-frame detail



Varikust® @ Deutsche Bank

Optional extras, door closure & handles



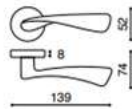
- Viewing Panel
- Panic Bar
- Lockable Handle (Opposite Panic Bar)
- Door closer
- Double Maglock
- Electro Mechanical Solenoid Latch
- Pull Handle
- Auto Trigger Seal



SH 815

Solid Stainless Steel
Stainless Steel

Latch
Keyhole
Cylinder
Bathroom W/C



Standard door Handle - Dorma SH815
(solid stainless steel)



Manual door closure



Utility handle example



Automatic door closure



Pull handle example

Varikust® installation examples



ABSA Tower North

VK62 is available in standard sizes with optional viewing panels if required.



Marriott Hotel Ghana

Not only painted melwood, carpet, fabric or formica finishes are available but natural veneer too.



Accenture Waterfall Park

VK62 Glass is 62mm thick acoustic single or double door with 35dB or 43dB acoustic insulation rating.

Varikust® acoustic FIRE



- **VK62F – acoustic fire hotel room door**
 - **FIRE RESISTANCE RATING (FRR): 60min**
 - 43dB acoustic insulation rating
 - 62mm thick
 - Single door max size : 900mm wide x 2400mm high
- **VK105F**
 - **Class D -120min (automatically covers lesser classes)**
 - 48dB or 51dB acoustic insulation rating
 - 105mm thick single or double acoustic FIRE door
 - Single door max size : 1200mm wide x 3000mm high
 - Double door max size : 1800mm wide x 3000mm high (minimum side leaf: 400mm)



What makes the Varikust® acoustic FIRE doors different



VK62F – acoustic fire hotel room doors

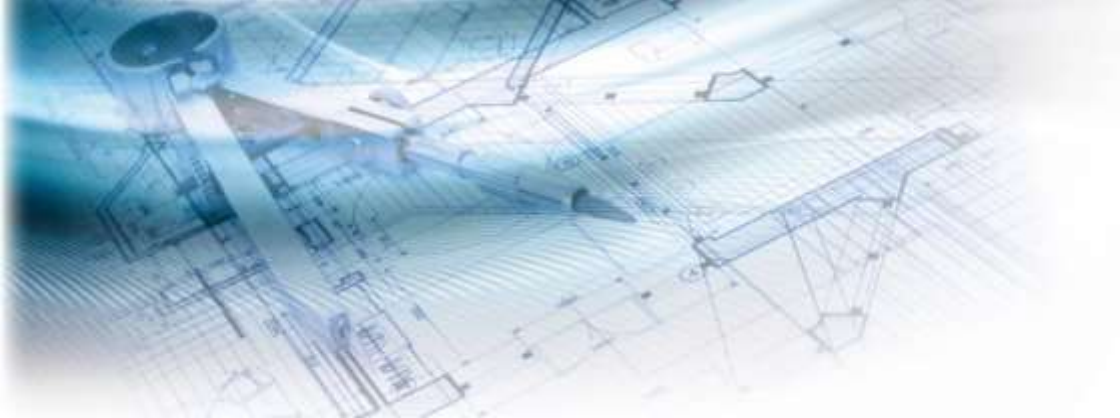
*FIRE TEST RESULTS - ACCORDING TO SANS 1253.
SANS 10177 - 2 (FRR)*

FIRE RESISTANCE RATING (FRR): 60min

- INTEGRITY: criteria satisfied for a period of approximately 1hr 14minutes
 - STABILITY: criteria satisfied for a period of approximately 1hr 15minutes
 - INSULATION: the maximum single temperature reached before the test was terminated at 1hr 15minutes was 80.2°C and the maximum average temperature at the time was 71.1°C
- This door exceeds the requirements for INTEGRITY, STABILITY & INSULATION for a **CLASS A FIRE DOOR**



VK62 Fire Test @ FireLab



VK105F – acoustic fire doors

Fire rating complies with SABS fire test and certificate

Aluglass Bautech has designed, constructed and tested the VK 105 F in a Class D double door configuration, 2.88m high and 1.95m wide (the largest the SABS test furnace can accommodate and the largest ever tested in the country)!

- INTEGRITY: 120min
- STABILITY: 120min and
- THERMAL PERFORMANCE: 120min

followed by a drop bag test.

We have a collaborative framework with a competent person fire to facilitate rational design implementations for doors larger than this.

- **Class D -120min (automatically covers lesser classes)**



VK105F @ UJ Auditorium

Varikust® acoustic FIRE door installation examples



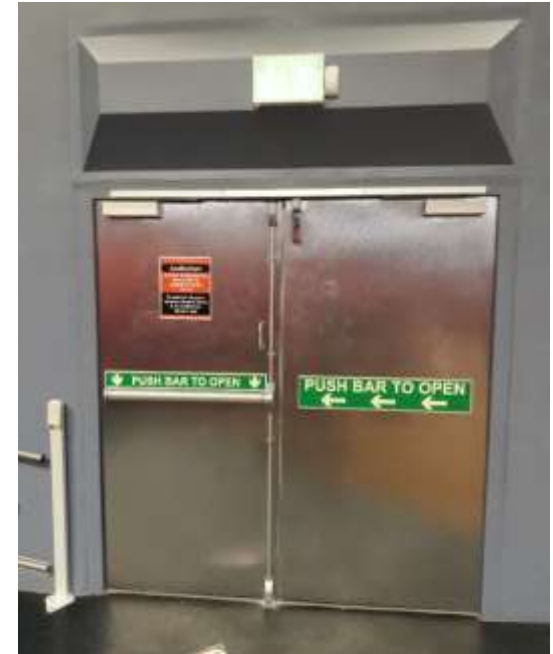
Cape Town Film Studio

These Varikust® acoustic FIRE door is finished in painted supawood and includes pull handle and door closures.



SA Banknote Company

Fire side requires a SS430 grade rigidised finish (typically 5WL) that can be powdercoated.



Uni of Johannesburg

Single door max size :
1,2m wide x 3m high
Double door max size : 1,8m wide
x 3m high (min side leaf: 400mm)

Finishes for Varikust® & Varikust® Fire doors



- HPL – formica, fenix, merino
- Formica finishes
- Valcromat
- Marine Ply – for external finishes
- Glass (only VK62)
- Aluminium treadplate sheet – only for utility doors

VK62F - 4mm door skin finishes:

- superwhite
- MDF (can be painted by other)
- HPL – formica, fenix, merino
- Natural wood veneers

VK105F

- 1.2mm Galvanised Steel – for fire side
- 430 grade Stainless Steel Rigidized 5WL or 6WL – for fire side
- Rimes platinum rigidized 5WL SS430

- **Natural wood veneers:**
Beech, Cherry, Etimoe, Kiaat, Mahogany, Maple, Oak, Rosewood, Walnut, Wenge (stains, waxes and oils can also be applied)



Applications



Varikust® @ Turbine Square

- Entrance Door to Hotel Rooms
- Home Theater Studios
- Radio and Television Studios
- Office doors
- Auditoria
- Meeting rooms
- Conference facilities and venues
- Plant and Control Rooms
- Music Rooms

Projects to be proud of



Varikust® VK105 @ 15 Alice Road Sandton



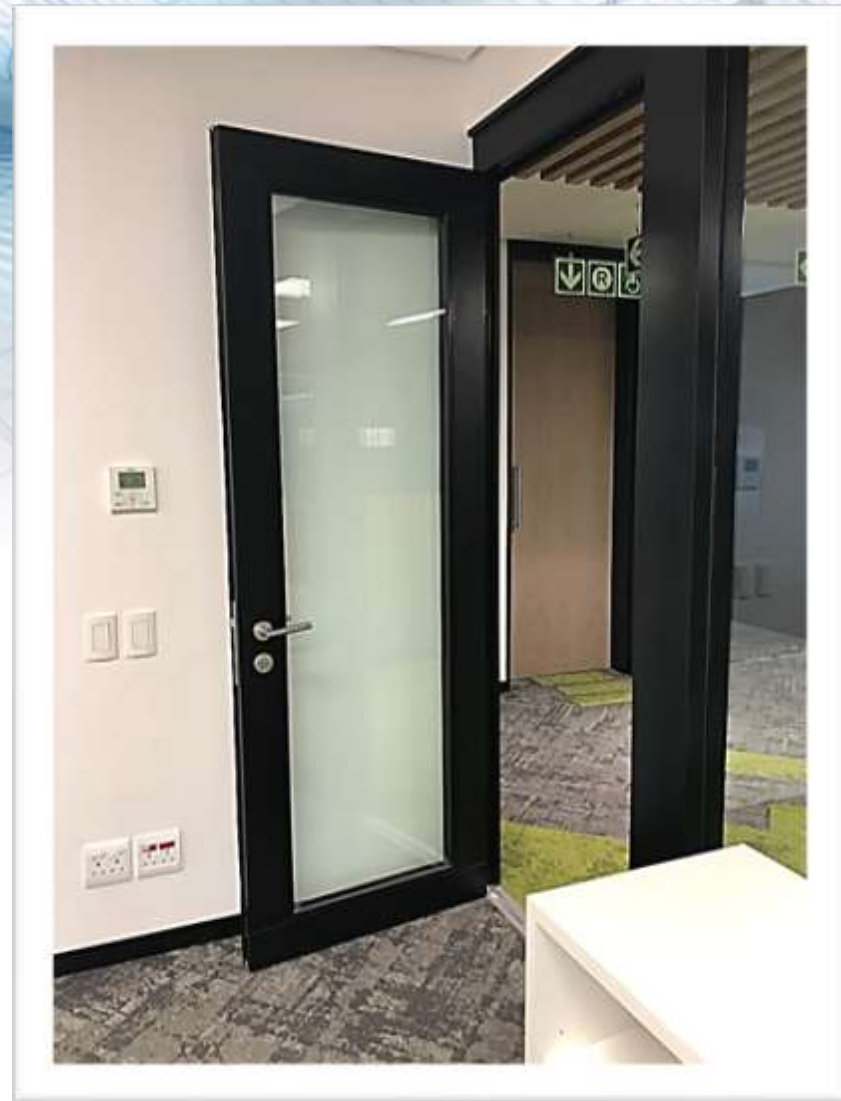
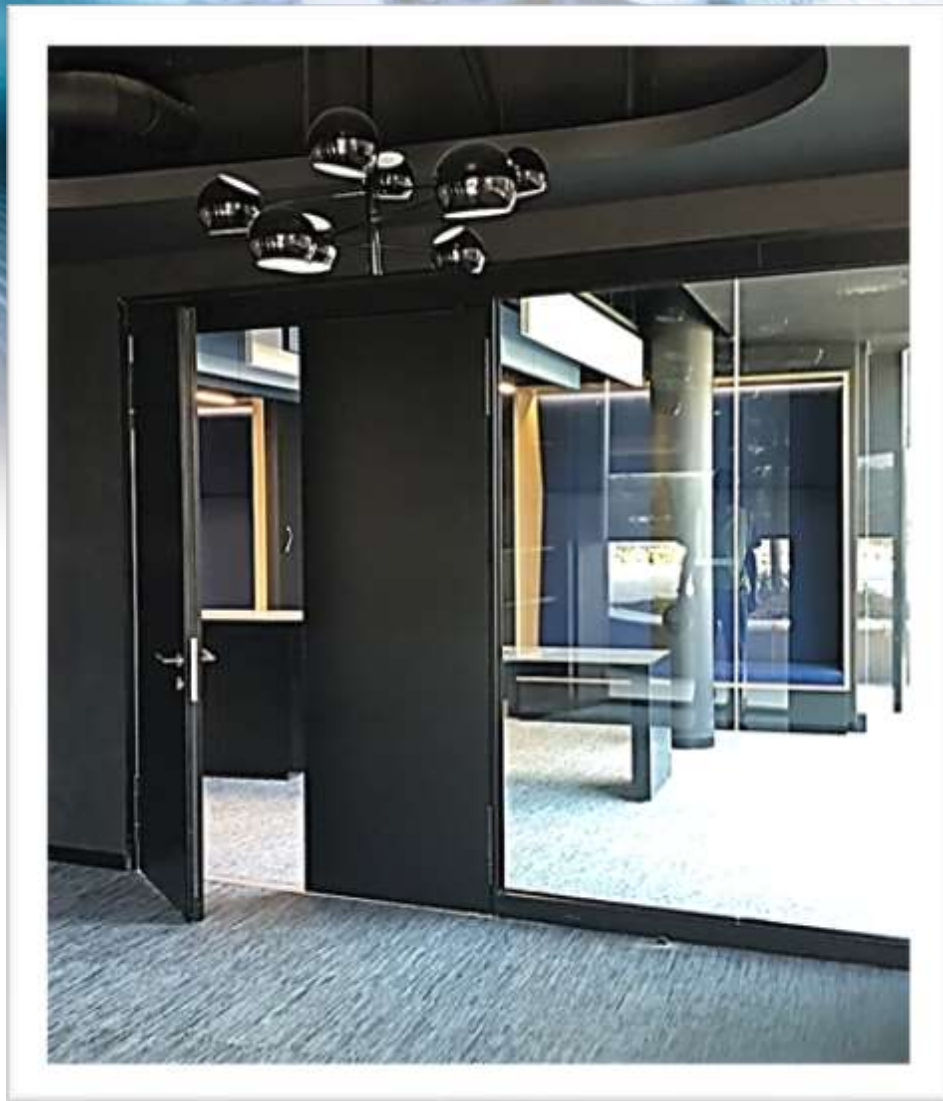
Varikust® VK105 Fire @ University of JHB



Varikust® VK105 @ Turbine Square



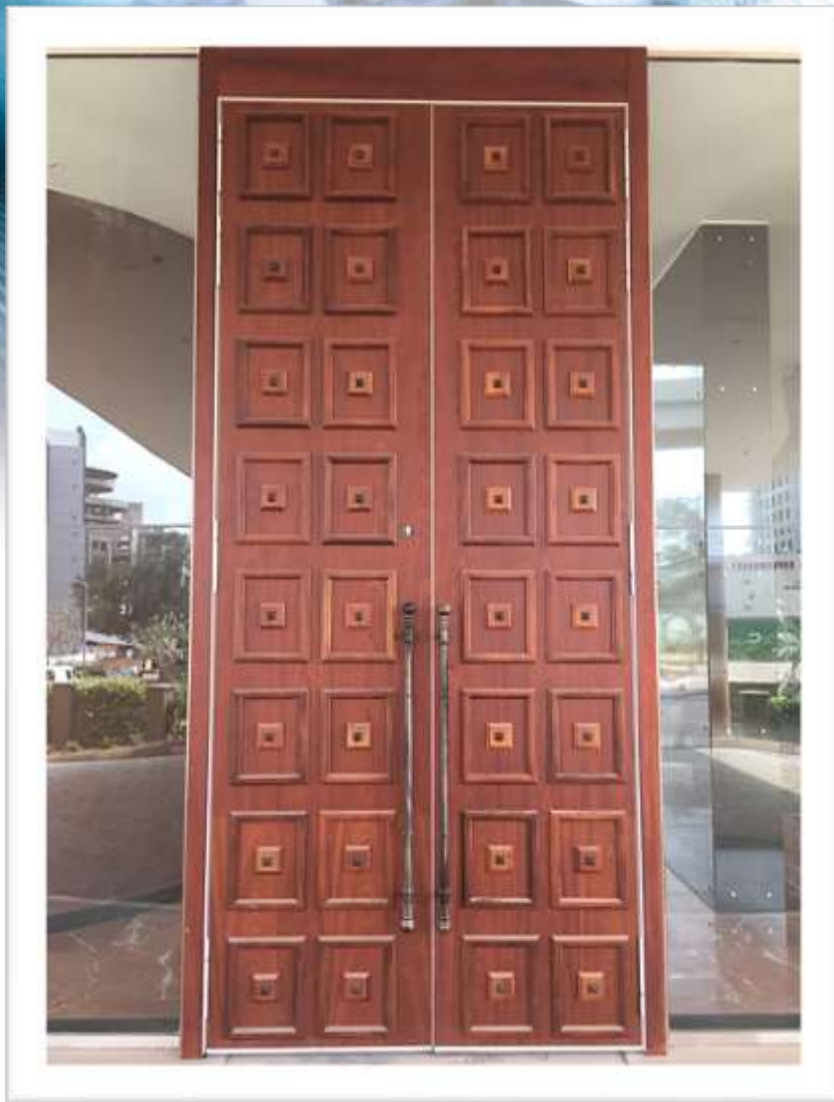
Varikust® VK62 Glass @ SABC Nelspruit



Varikust® @ Accenture Waterfall Park



Variflex® @ ABSA



Varikust® @ Mariott Ghana



Examples of Varikust® Acoustic Elephant Doors

Other product projects
proud of...



GF Serene & Varikust® @ Accenture Waterfall Park



Variflex® @ DIRCO



Flush Glazed Curtain Walls @ Nelson Mandela Square



12m high Variflex® @ Cape Town Film Studios



Absorption Panels, GF Serene and Varikust® doors @ Deutsche Bank



Variflex® @ Am Weinberg Hotel Namibia



Frameless Glass Entrance Doors and Canopy Glass @ Nelson Mandela Square



Showerflex® @ Windhoek Country Club Namibia