



Pneumatic Vacuum Elevator PVE30 (Single passenger)

Vacuum Elevator PVE30 (750)

Single passenger

TECHNICAL SPECIFICATIONS

General

- External cylinder diameter: 750mm
- Rated Load: 159 kg (Single passenger)
- Speed: 0.15 m/s
- No pit required. Bottom level floor must be 100% level as elevator rests on existing floor
- No hoistway required
- Minimum overhead clearance:
 - o Standard Head Unit: 2700 mm
 - o Split Unit: 2450 mm
- Penetration required to install through floors and ceilings: 810mm

Mechanical Requirements

- 220 V, 60/50 Hz, 25amp single phase power supply
- 3 turbine motors located in pump using a total of 3kW

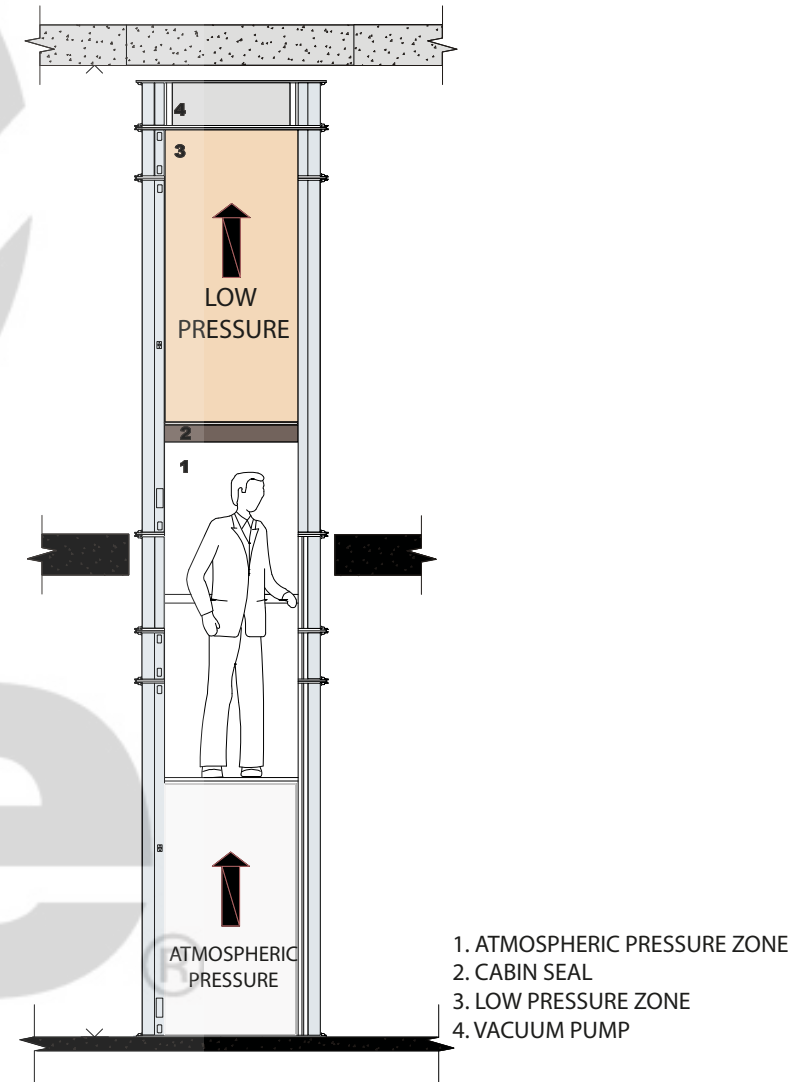
Cabin

- Entrance width opening: 508 mm
- Internal cabin height: 2007mm
- Internal cabin diameter:
 - o Between columns: 560 mm
 - o Without columns: 640 mm
- Automatic LED lighting and cabin fan

- Door openings: same side (in-line) only
 - o All doors are hinged on top left, with door swing to the left, from inside the cabin
- Door Height: 1970 mm
- Height to top of Door Closer : 2020 mm
 - o Each landing level specified will include only one door
- 24 Volt electrical circuits with all controls in cabin
- Push button call controls with precise leveling at each landing
- Telephone

Safety

- Automatic descent to ground level at safety speed in the event of a power failure.
- Mechanical emergency brakes within 5cm of freefall in vacuum loss or catastrophic failure.
- Electromechanical interlocks at each landing.
- Alarm
- Warranty: 24 month limited warranty from installation
- Machinery Directive 2006/42/EC
- CE Marking



* Technical data subject to change. PVE reserves the right to change the information in this document without prior notice.

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STANDARD COLORS

SPECIAL COLORS

WHITE

NAVY GREY

LIGHT GREY

BLACK

TAUPE



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VACUUM MOTOR CONFIGURATIONS

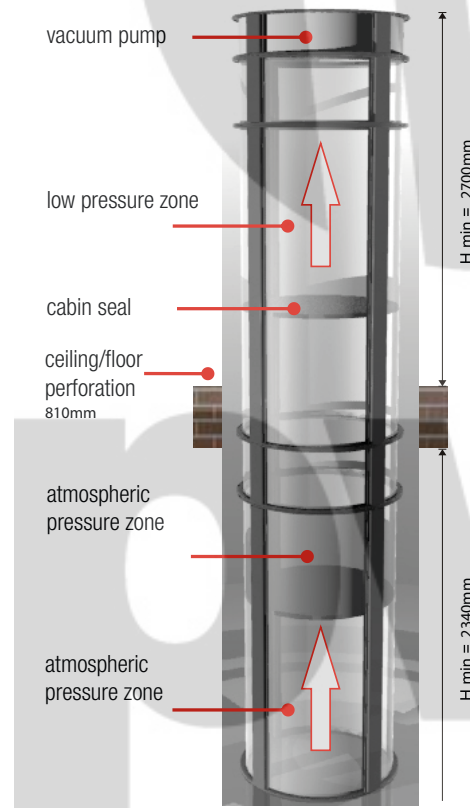
The vacuum system is the “engine” and machinery through which this residential elevator functions. Currently vacuum elevators are installed in two different vacuum motor configurations:

Head Unit - Standard

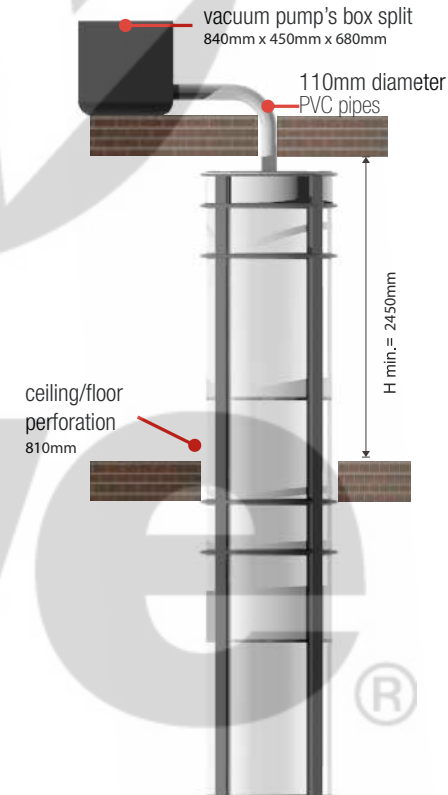
In the head unit configuration, the vacuum system is located directly on top of the upper floor vertical cylinder of the pneumatic vacuum elevator.

The electrical control panel is inside, and the only installation requirements are to connect to a 220v outlet near the machinery.

This format is best in homes that have sufficient height on the top floor (Minimum height for installation 2700mm)



Split Unit



In the split unit configuration, the vacuum system is located in a split box that can be installed at a distance of 10 meters from the top of the vacuum elevator. The split system piping is connected to the top of the cylinder via a 110mm diameter PVC pipe.

The electric control panel can be mounted externally as any electrical box (hanging on the wall, wardrobe ...). There is also the possibility of placing a “false head” on to locate the electrical box and the PVC pipes are connected.

This format is required when the height of the top floor is less than 2700mm (Minimum height for split installation 2450mm).

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INSTALLATION REQUIREMENTS - HEAD UNIT STANDARD CONFIGURATION

- Minimum height required at the ground floor is 2340mm.
- Minimum required height at the upper floor is 2700mm.
- Diameter of finished through floor hole must be 810mm.
- When installing a three or four floor elevator, all openings' circular perforations should be perfectly aligned.
- The electric feed shall be 220VAC single phase through an independent line of conductors of AWG N° 10 (6mm²); there shall be ground connection and a thermo-magnetic switch of 25A to be used exclusively for the elevator. The electrical supply is to be near the head (elevator's top portion) and it is required to leave the female electrical receptacle at the top center of the elevator.
- 220VAC (no exceptions 220VAC must be provided, 210VAC or 230VAC is not acceptable, if installation does not have 220VAC on a regular basis, a voltage regulator or transformer must be installed by home owner). Voltage fluctuations are not covered by the warranty.
- If installing a phone line a phone jack is to be provided near the power supply, but isolated.
- It is strongly recommended that a Buck Boost or voltage stabilizer be installed along with the electrical work to prevent any damage to electrical components due to voltage fluctuation.
- When installing the elevator, consider the total dimensions, as a small room will generate a higher noise level. Therefore, it is not advisable to install the split motor in a very small facility.
- There must be an opening to make way for the cylinders of 810mm in diameter and of 2340mm length down to the ground floor. This access may be through door or window openings.
- Install a hook to bear 500kg at the ceiling where the elevator is to be installed to lift the cylinders. If it is impossible to install this hook, the minimum height at the last level shall be at least 2700mm.
- In no case must the perforation of the ceiling be less than 12cm from the wall, in order to allow for the installation tripod.

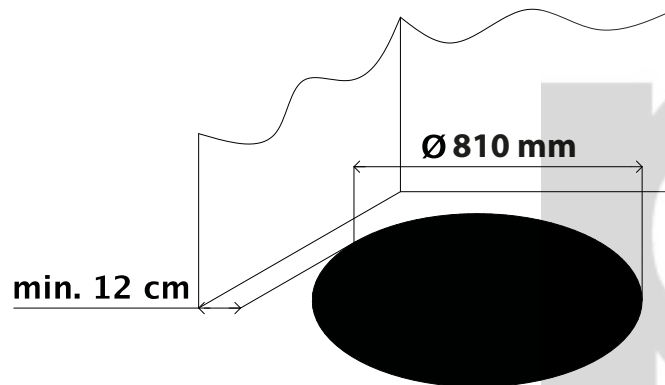
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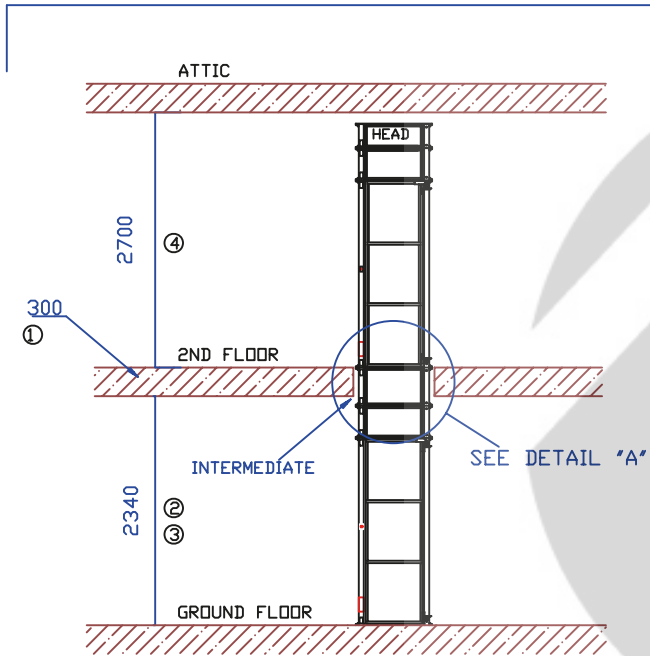
INSTALLATION REQUIREMENTS - SPLIT UNIT CONFIGURATION

All requirements for the split unit model (remote location of head unit) are the same as the standard model except for the following:

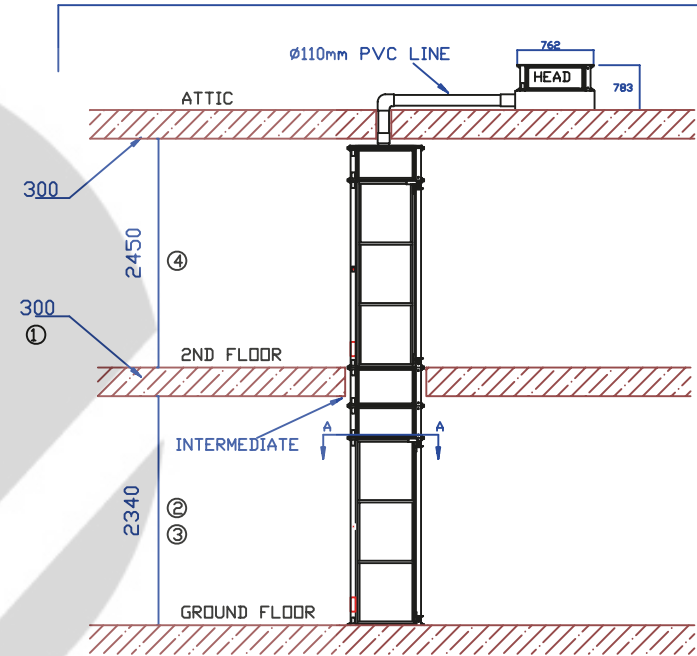
- Minimum required height at the upper floor is 2450mm.
- Required space for remote location of split unit in attic or adjacent closet is 840mm x 450mm x 680mm.
- Remote location of split unit can be accommodated up to 10 m away from the elevator.
- Split unit connections require a 110mm PVC pipe to run the distance from the top of the upper floor cylinder split plate to the remote location of the split unit.
- Air supply to split unit has to be drawn from interior of residence (proper housing of split unit and air duct to interior of home required)
- Electrical power supply to be provided within direct access to remote location of split unit.



TYPICAL SETUP



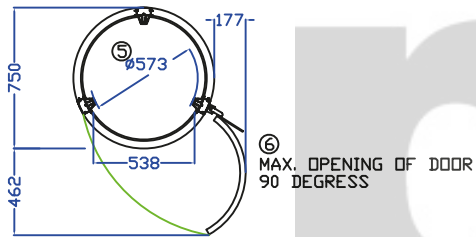
OPTION: REMOTE LOCATION OF HEAD UNIT



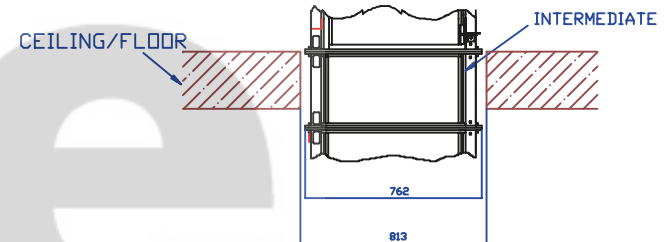
NOTE:

- ① INTERMEDIATE CYLINDER IS CUSTOM MADE AS FLOOR THICKNESS MAY VARY FROM HOME TO HOME.
- ② INTERMEDIATE CYLINDER IS CUSTOM MADE AS ROOM HEIGHT MAY VARY FROM HOME TO HOME.
- ③ MINIMUM ALLOWABLE HEIGHT IS 2340mm
- ④ MINIMUM ALLOWABLE HEIGHT AS SHOWN FOR THIS TYPE OF INSTALLATION
- ⑤ INTERNAL DIAMETER OF CABIN WITHOUT THE COLUMNS IS 640mm AND THE INTERNAL CABIN HEIGHT IS 2007mm
- ⑥ DOOR WIDTH IS 508mm
- ⑦ MAX. ELEVATOR HEIGHT IS 10m

VIEW "A-A"
SCALE 2:1



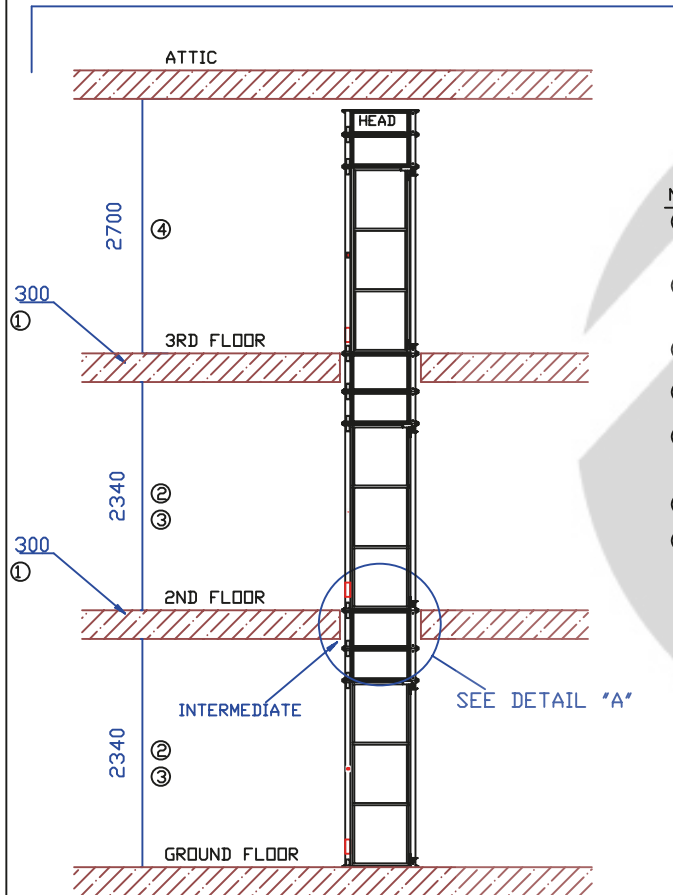
DETAIL "A"
(TYPICAL OF FLOOR PENETRATION)



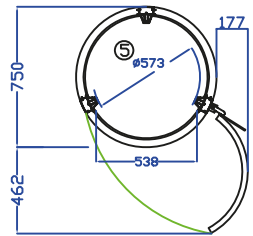
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| Itemref. | Quantity | Material | Dimensions | Article No./ Reference |
|---|----------|-------------|------------|------------------------|
| PNEUMATIC VACUUM ELEVATORS LLC | | | | |
| TYPICAL HOME INSTALLATION FOR A 2STOP ELEVATOR | | | | |
| Designed by | Scale | Drawing No. | Rev | Date |
| HS | 1:1 | D-30-3CYL2 | 0 | 04/10/12 |

TYPICAL SETUP



VIEW "A-A"
SCALE 2:1

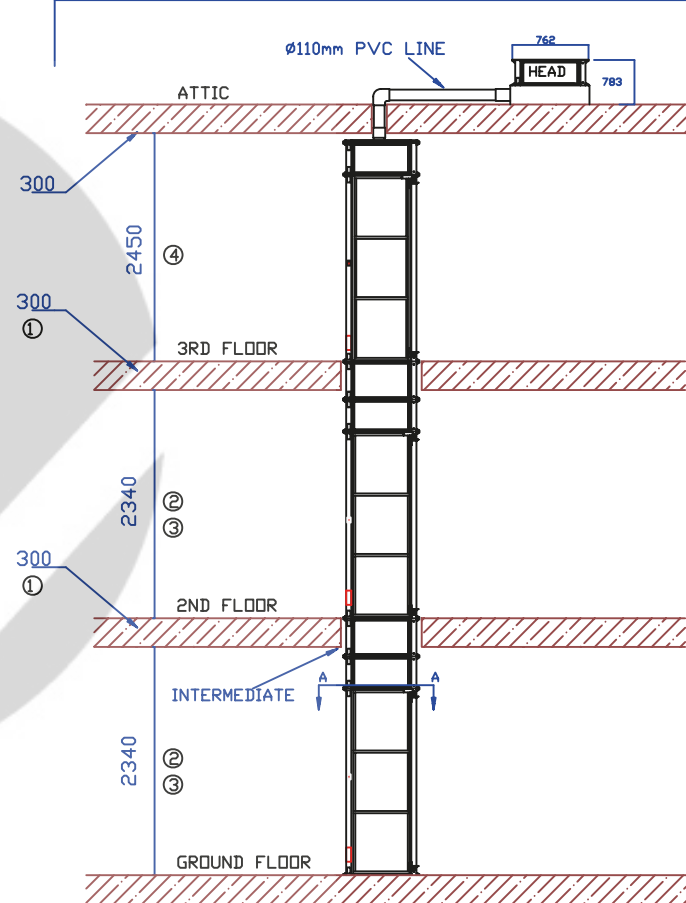


⑤ MAX. OPENING OF DOOR
90 DEGRESS

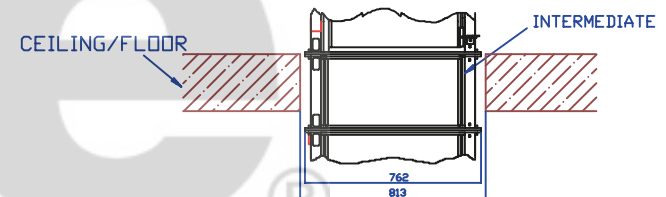
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OPTION: REMOTE LOCATION OF HEAD UNIT



DETAIL "A"
(TYPICAL OF FLOOR PENETRATION)



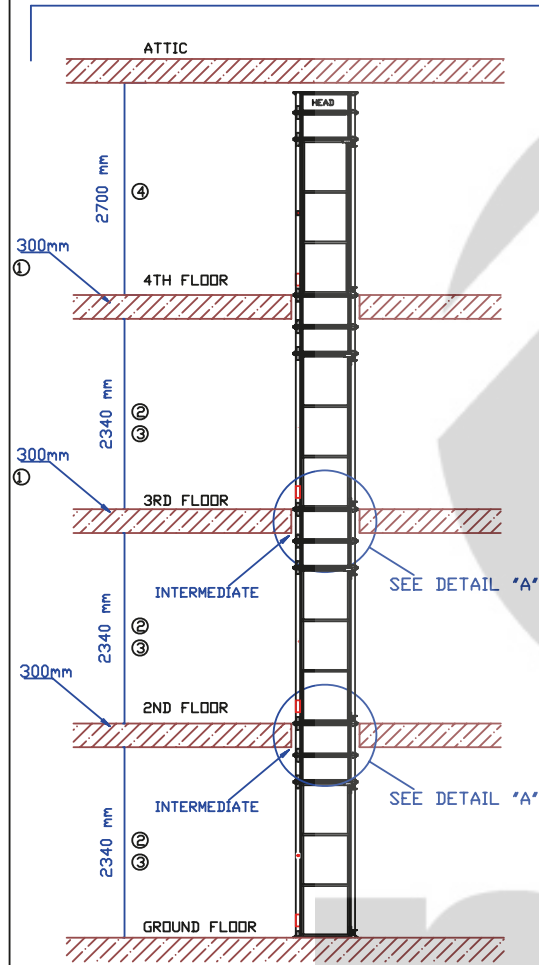
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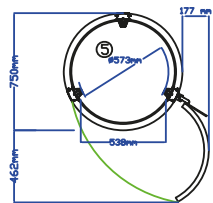
TYPICAL HOME INSTALLATION
FOR A 3STOP ELEVATOR

| Designed by | Scale | Drawing No. | Rev | Date |
|-------------|-------|-------------|-----|----------|
| HS | 1:1 | D-30-3CYL3 | 0 | 04/10/12 |

TYPICAL SETUP



VIEW "A-A"
SCALE 2:1

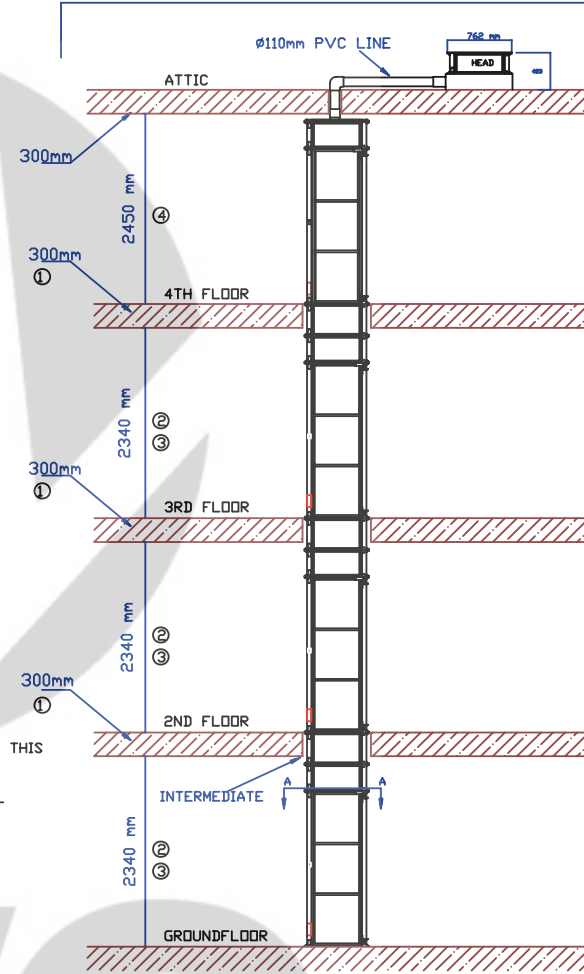


⑤ MAX. OPENING OF DOOR
90 DEGRESS

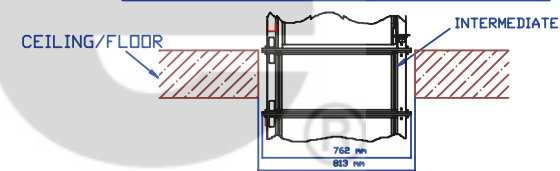
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OPTION: REMOTE LOCATION OF HEAD UNIT



DETAIL "A"
(TYPICAL OF FLOOR PENETRATION)



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VACUUM ELEVATORS LLC

TYPICAL PVE30 HOME INSTALLATION
FOR A 4STOP ELEVATOR

| Designed by | Scale | Drawing No. | Rev | Date |
|-------------|-------|-------------|-----|----------|
| HS | 1:1 | D-30-3CYL4 | 0 | 04/10/12 |



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