MED EL
VIBRANT SOUNDBRIDGE
Med El Vibrant Soundbridge. There are two parts: the implanted component (left) and an “Amade” external processor (4 colour options).
Vibrant Soundbridge implant. The signal from the Amade processor is transferred via the induction coil and converted into current that passes to the floating mass transducer.

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Details of the Soundbridge implanted component. The magnet retains the external processor over the induction coil.
Soundbridge floating mass transducer, containing a tiny electromagnet. This produces sound by vibrating the incus, to which the FMT is clipped.
Detail of the floating mass transducer (FMD) internals, showing the contained electromagnetic components, and the incus attachment clips.
“Amade” external processors. These attach via magnetic attraction to a complementary magnet in the induction coil of the implant. Colour coded for cosmetic purposes.
Dimensions of the Amade external processor.

Dimensions Amadé
Diameter: 29.1 mm
Height: 8.8mm
Weight: ≤ 8g
Vibrant Soundbridge: Functional overview (click on screen to activate).
VSB devices are used when the external ear canal cannot use an ordinary (air conduction) hearing aid

- Atresia
- Narrow / Stenosis / Subluxing concha
- Feedback howl
- Perspiration / Otitis Externa / Myringitis
- Excessive / Hard cerumen
- Mastication / Aid occlusion discomfort
- Manual disability
- Cosmesis
Audiological criteria for successful VSB implantation in sensorineural deafness cases.
VSB audiological criteria for conductive/mixed hearing losses.

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Alternative VSB roles: Incus attachment (above); Round window positioning (below) for stimulation of ears with ossicular damage.

Incus Vibroplasty
used to treat sensorineural hearing loss

Round Window Vibroplasty
used to treat conductive and mixed hearing loss
VSB surgery is undertaken via a small C-incision on the rear of the auricle, on a base diameter of 25 mm.
The implant is stabilised in a pocket between pericranium on skull above and behind the ear.
The FMT is attached to the incus via a mastoidotomy and posterior tympanotomy.
Attachment to the long process of the right incus. Optimally, the grip of the clips is antero-posterior rather than from directly lateral, to minimise any tendency to widen the jaws.
Trans-canal view of the FMT in final attachment to the long process of the incus.
Use of the VSB in a vibroplasty role. The barrel of the FMT is placed against the round window to stimulate the cochlea.
FMT in position, vibroplasty role. The promontory overhang has been reduced and the bed drilled to receive the barrel is lined with fine soft tissue to avoid fixation.
Vibroplasty surgery. FMT in final position. The cable has been stabilised using a fine bony hook fashioned on the relatively high facial ridge.
VSB surgery is undertaken via a small incision on rear of the ear itself. The body of the implant is in a pocket to the rear. Surgery takes about 45 minutes.
VSB. Detail of a hair retention clip.
Bilateral VSBs in a Down syndrome case, mixed losses. Hourglass canals, keratinaceous debris, intolerant of air conduction aids.
“Fishline” clothing clip, designed to avoid Amade processor loss if dislodged off the internal magnet.
A unique active middle ear implant
Sited on the incus or the round window
Useful over a medium range of cases
Bypasses an aid-compromised EAC.