

What's special about our pipe organ

Pipe organs are unique because they can produce multiple types of sound at one time.



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The famous 'Henry Willis' sound

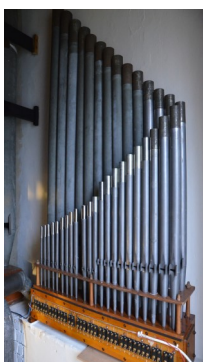
Some pipes make a pure organ sound ('diapason' pipes). Other pipes are built to sound like brass, wind or string instruments.

'Father' Henry Willis was famous for building organs with beautiful, bold reed and string sounds – making pipes sound like a clarinet, or a violin, for example. His grandson, Henry Willis III, was noted for 'voicing' organ pipes like this too.

The Willis firm was also famous for building organs that can quickly build up a very loud 'swell' sound.



Henry Willis III assisted by his son in the voicing workshop



Rank of pipes on a wooden soundboard

Suitable for a wide range of music

Pipes are grouped in rows ('ranks') on wooden soundboards. Each rank of pipes has a particular sound tone (trombone, for example) and each pipe on the rank plays a single note in that tone. The longer the pipe, the lower the note.

Our pipe organ started with 21 ranks. Willis II enlarged it to 28, and Willis III enlarged it again to 39 ranks (including the three we installed following his plan). In total our organ now has 1,987 pipes.

This means a wide range of music can be played on it, from Baroque and Classical (Bach, Handel, Mozart), to music of the Romantic era (Widor, Vierne), to popular songs and silent movie soundtracks.

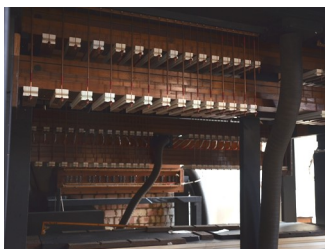
The way our organ works

The organist pulls out a stop on the console. This operates a large magnet ('solenoid') which moves a slider on the soundboard to allow air to go to particular ranks of pipes.



Organist at the console pulling out a stop

The organist then presses keys or pedals related to particular notes on those ranks. A switch completes an electrical circuit which opens a valve that lets the air ('wind') into a small leather bellows ('motor'). As this opens, it pulls down a tracker rod which opens a leather-covered wooden valve ('pallet'). This lets wind into a grooved channel immediately below the pipes of those notes.



Motors opening and pulling down tracker rods

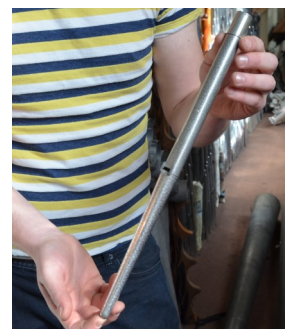


Magnets moving wooden sliders on soundboard

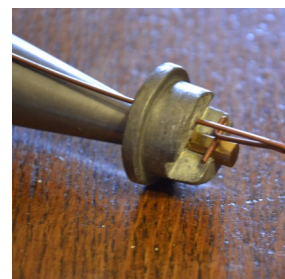


Springs holding pallets shut until tracker rods pull them open

The wind hits an opening in a 'flue' pipe, or a metal tongue inside a 'reed' pipe, and sound vibrates along the length of the pipe. A flue pipe makes sound like a flute does; a reed pipe works more like an oboe or clarinet.



Flue pipe, tuned with a metal slider to lengthen or shorten the air space



Reed pipe with metal tongue on brass shallot, tuned with a wire that adjusts the length of the tongue