

THE RUFFATTI ORGAN

A pipe organ is invariably a very prominent element within a church building. It cannot be easily ignored. For this reason, it is essential that it blends with the architecture. It must feel like it belongs, it must enhance the beauty of the existing space, not fight against it. This is why Piero Ruffatti, one of the two partners of the Fratelli Ruffatti firm of Padova, Italy, has conducted a special study of the existing architectural elements of the United Congregational Church and has created a design which is freely inspired by some motifs which can be easily recognizable, such as the shape of the arch in the pulpit area.

But there is also a lot more “behind the scene” than the front case and pipes. By taking a look inside one realizes how complicated a pipe organ is and how vast a variety of materials is required for the manufacturing of the instrument. The most important material, and the most critical for the reliability over a long period of time, is wood. Choosing the right type of wood, and knowing how to season it and how to use it, is extremely important. Fratelli Ruffatti utilizes, for the most part, one of the most precious varieties of African Mahogany, called Sipo. Huge trees, often as large as 6 to 7 feet in diameter, are cut to the required thickness and stored in the factory for a period of 5 years or more, until they reach a natural seasoning which will ensure stability over the years under a variety of climatic conditions. The entire console of the organ at the United Congregational Church, the front case and most of the interior components (windchests, reservoirs, wooden pipes, supporting structure, even walkboards) are manufactured with first-grade solid Sipo Mahogany. The complete enclosure around the instrument, which is not visible from the church but which is an essential element for the blending and projection of sounds, is also entirely made of solid Sipo Mahogany.

The Mahogany console is hand inlaid with a variety of precious woods: Wenge from Congo, Nigerian Ebony, European Boxwood. The design is unique to this instrument and will never be reproduced exactly in other instruments. The keyboards' naturals are covered with bone, while the sharps are made of solid Nigerian Ebony inlaid with bone. The pedalboard is made of European Oak with Ebony sharps. The draw knobs for the stops, of exclusive design, have all been hand shaped by the Ruffatti skilled technicians utilizing Nigerian Ebony and maple inserts.

The choice of stops for the instrument has been made in consultation with the Church's tonal Director Michael Bahman, while the parameters for the pipes' construction (dimensions, shape and other variables) have been determined by Francesco Ruffatti, partner of the firm.

All pipes have been manufactured by Fratelli Ruffatti in their own shop, starting from the melting of tin and lead ingots and the forming of metal sheets. It is a long, complicated process, which ensures total control over quality and over the many variables involved in the manufacturing. This has made it possible to create "tailormade" pipes for the particular acoustical environment of the United Congregational Church. The choice of materials is again very important for the manufacturing of pipes, and for this organ no effort has been spared to utilize the best quality available. All visible pipes are made with an alloy containing 95% tin. The same material has been used for many other pipes inside the instrument (the bass octave of the Great Trompette and of the Swell Viola da Gamba, and the Pedal Octave). All other pipes of the "Principal" family have been manufactured with 75% tin, while other stops, depending on their tonal style, range from 52% to 30% tin. The large Pedal pipes of the 16' Subbass and 16' Posaune have been manufactured with Sipo Mahogany.

All pipes have been voiced with a technique which produces highly distinctive tonal qualities while retaining a good blend of the various sounds. This makes it possible to utilize each stop in a countless number of combinations with other stops, thus making the instrument versatile in spite of its relatively small size. A distinctive tonal character can be found, for example, in the Flute Traversiere of the Great, which has an attack made to simulate the speech characteristics of a real traverse flute. Another example is the Spitzflöte 4' of the Swell, a gentle, singing flute stop scaled after the eighteenth Century Venetian organbuilding master Gaetano Callido.

The action of the instrument is entirely mechanical, both for the stops and the keys. It has been manufactured with the use of innovative materials and techniques. The result is a remarkably sensitive and responsive touch at the keyboards, especially considering that the console is detached from the organ and connected to the actions with long tracker runs.

All work at the church has been conducted by factory personnel: The assembly and mechanical connections were performed by Piero Ruffatti with the help of Carlo Chiolo; the tonal finishing was performed by Francesco Ruffatti and Fabrizio Scolaro. Fratelli Ruffatti was locally represented in this project by Marshall Ogletree Associates, Inc. of Needham, Massachusetts.

Francesco Ruffatti

STOPLIST

GREAT ORGAN - Unenclosed, Manual I

PRINCIPAL 8' 58 pipes
FLUTE TRAVERSIERE 8' 58 pipes
OCTAVE 4' 58 pipes
BLOCKFLÖTE 4' 58 pipes
SUPEROCTAVE 2' 58 pipes
MIXTURE IV 1 1/3' 232 pipes
TRUMPET 8' 58 pipes

SWELL ORGAN - Enclosed, Manual II

ROHRFLÖTE 8' 58 pipes
VIOLA DA GAMBA 8' 58 pipes
VOIX CELESTE 8' 46 pipes (T.C)
SPITZFLÖTE 4' 58 pipes
NASARD 2 2/3' 58 pipes
TIERCE 1 3/5' 58 pipes
PRINCIPAL 2' 58 pipes
QUINTA 1 1/3' 58 pipes
SCHALMEI 8' 58 pipes
TREMULANT

PEDAL

SUBBASS 16' 32 pipes
OCTAVE 8' 32 pipes
BOURDON 8' 32 pipes
CHORALBASS 4' 32 pipes
POSAUNE 16' 32 pipes

STATISTICS

21 Stops
24 Ranks
1,250 Pipes