SPECIFICATION AND BID FOR A NEW PIPE ORGAN FOR PETERHOUSE CHAPEL, CAMBRIDGE

Bonn / Zaandam, May 22, 2018
1 TABLE OF CONTENT

1 TABLE OF CONTENT 2
2 INSTRUMENT 3
2.1 HISTORY 3
2.2 VISION 4
2.3 CONCEPT 4
2.4 CASE 5
2.5 PIPES 5
2.6 CONSOLES 5
2.7 WIND SUPPLY 6
2.8 LAYOUT 6
2.9 STOPLIST 7
3 STATEMENT OF COSTS 9
4 SCOPE OF PROVISION AND PAYMENT 11
4.1 TERM OF DELIVERY 11
4.2 PAYMENT TERMS 11
5 MISCELLANEOUS 12
5.1 SAMPLE WARRANTY DOCUMENT 12
5.2 ITEMS INCLUDED IN OUR BID 12
5.3 ITEMS NOT INCLUDED IN OUR BID 13
6 COOPERATION OF WORKSHOPS 14
7 THE WORKSHOPS 15
7.1 FLENTROP 15
7.2 KLAIS 16
8 COMPANY PROFILE 17
8.1 FLENTROP 17
8.2 KLAIS 20
2 INSTRUMENT

2.1 HISTORY

The organ at Peterhouse Chapel was built by John Snetzler in 1765. Snetzler, born in Schaffhausen / Switzerland in 1710 and trained with the Egedacher workshop at Passau, came to England around 1741. By 1765 when he contracted for the Peterhouse instrument, his instruments completely followed the English tradition as developed to full bloom under the ingenious hands of such famous organ builders like Renatus Harris and ‘Father’ Bernhard Smith, the latter having been an immigrant from the continent as Snetzler himself.

The instrument featured two manuals with a compass from GG to E with the first manual playing the Great and the second the Choir and the Echo. The Echo division with a reduced compass of Tenor F to E obviously had no action and pallets of its own but was mounted and tubed of the Choir chest.

There was no pedal division or keyboard.

As early as 1804, a set of pedals and unison (8’) Pedal pipes were added. Later, the Echo Organ was converted into a Swell by fitting either shutters or a sliding panel in the front of the box, and in 1830 an inter-manual coupler was introduced. In 1852, William Hill installed a C-compass pedal board of 27 notes and a set of 16’ pedal pipes, and undertook other minor repairs and alterations.

Hill & Son returned in 1893-4 when a major reconstruction took place. New mechanical key and stop actions were built, and the compasses were brought up to modern standards (C to G, 56 notes). The pedals had a compass of C to F (30 notes) with a pneumatic connection to the Pedal chests. The tonal scheme was enlarged, notably with the addition of a modern Swell division of 6 stops; the third manual played the Choir Organ, which consisted exclusively of Snetzler pipework. On the Great, Snetzler’s mixture stop was discarded, and his Hautboy and possibly Trumpet stops were also replaced. In order to accommodate the enlarged instrument the Snetzler case was deepened. The organ survived in this form until 1963 when another major rebuild took place.

The specification of Great and Swell was at least partly turned back to a more pre-romantic scheme. An independent Choir division was added and the Pedal augmented. As space was scarce, some extension work was incorporated within the Choir and between Great and Pedal. This resulted in additional electric unit chests for half of the Choir stops, the Pedal Diapasons and the Trumpet, which dates back to the Hill, rebuilt.

As a result of this last rebuilt the case, originally built to house 13 stops, now contains 33 including the extended and borrowed ranks. Maintenance is difficult due to impeded access, tuning stability limited due to equally limited space on the chests.

The combination of partly mechanical and partly electric key action with different characteristics makes musical phrasing at least difficult.
2.2 VISION

Receiving an invitation to submit ideas for a new pipe organ at Peterhouse Chapel is a great honour. As the oldest yet smallest College in Cambridge elusive tradition is rich and at the base of any new development. This equally applies to the musical tradition, which is kept at the highest possible standards by the new Director of Music, the two organ scholars and the chapel choir.

The training situation for the two organ scholars is almost unique. The possibility of directing a semi-professional choir on a twice-weekly basis with additional responsibility for the musical programme and the presented musical quality is a rare opportunity for prospective organists and choir directors.

The organ in the chapel therefore fulfils a double role – not only as the vehicle for chapel music but also as an important attracting factor for future organ scholars. In addition to this double role, it acts as practising and probably teaching instrument for the organ scholars who are to develop their musical personality to new levels during their tenures.

Starting point for any inspired music making by inspired musicians is an inspiring organ. This is the common link between the College in general, the organ scholars in particular and the organ builders called upon to present their ideas.

We believe the Peterhouse organ should be an instrument, which will attract the very best candidates as organ scholars for the College. An excellent instrument will inspire the College's organ scholars to the achievement of the highest standards and will enhance music in chapel and in the College's broader musical life generally.

We very much look forward to further discuss requirements, possibilities and preferences with all involved parties to develop a concept ideally suited to the uniquely individual situation at Peterhouse Chapel.

Inspecting the existing instrument, learning about its history and having gained some experience about music making in the English College and Cathedral tradition during past projects, an idea has shaped in our minds. This idea, laid down in the following concept description, could form the starting point of any such discussion.

2.3 CONCEPT

Analysing history and present state and problems, it becomes evident that the instrument has grown beyond its prime. A new concept, respecting the limitations of the historical case and the available space in the gallery, is needed to reflect the historical and musical value of the original material. At the same time, the concentration on one system for the key action – purely mechanical – will enhance the musical experience of playing the instrument in the fabulous setting of the Chapel.

With this concentration comes the much-desired possibility of recreating the historic ante-chapel, which became more of a dark vestibule when the opening between organ gallery and west wall was covered to gain space for the growing instrument. While the original depth of the gallery of Snetzler's time is somewhat uncertain, it is clearly visible how much of this opening was closed during the
last rebuilt. The re-opening brings back light into the ante-chapel and opens up
the views onto the west window and the back of the new organ from ground
floor level – a situation to be found in many college chapels, where the organ
loft is more of a screen than a traditional gallery.

The nucleus of the new concept are the original Snetzler stops, which
miraculously survived the two rebuilds. Although the decision was made, not to
opt for a pure Snetzler copy, the original stops determine the direction of any
new concept.

2.4 CASE

The existing case will be carefully cleaned and restored. Any necessary
additions will be carried out in the same fashion and material to maintain or
restore the artistic unity of the casework. Especially the lower casework needs
to be checked carefully to decide how far parts are original, additions by Hill or
by Mander in 1963. After determining the origin decision can be made to retain
and restore or to replace individual elements of the lower case.

Any internal structure, especially those parts added in 1963 will be removed and
replaced by a new logical and simple structure from massive wood supporting
the new soundboards.

2.5 PIPES

Prior to the main body of restorative work, we will carefully study the historic
pipework. All historic pipework will be removed from the case, carefully cleaned
and examined regarding original tuning system, pitch and voicing parameters.
Then, the pipework will be put back into place to serve until the restoration
begins. The knowledge to be gained by this measure forms the basis for the
development of the musical and technical concept of the future instrument. This
work will be executed during summer 2018.

All historic pipes to be retained, i.e. the ten surviving stops by Snetzler and
possibly the two reeds Trumpet and Oboe by Hill, will be carefully cleaned and
restored. The half-compass stops by Snetzler – formerly placed in the Echo of
the Snetzler instrument – will receive bass additions in matching shape and
fashion. All stops to be augmented in the treble to match the new manual
compass.

All new pipes will be made to match the original pipework with scalings inspired
by the Snetzler/Hill tradition. Thus, the instrument will gain a musically and
technically coherent unity.

2.6 CONSOLES

To honor and respect the historical background of the instrument on one side
but make it also fit for daily use in a contemporary College Chapel setting, the
new instrument will have two consoles. The console in the organ front – in the
original and traditional position – will be a free copy of a Snetzler console with
three manual keyboards for the three original divisions Great, Choir and Echo
with the top keyboard for the Echo only reaching from Tenor F (bass keys are dummies, as often built in this ear), the others starting at GG as built by Snetzler. Archival material as far as provided gives no clear evidence on any kind of pedal keys. Organs by Snetzler sometimes had none at all, sometimes one or two octaves of keys permanently coupled to the Great. Independent Pedal pipes at Peterhouse were added by Avory in 1804 with unknown compass. Hill added 27 Pipes at 16' pitch in 1852.

At the side, with an unimpeded view to the altar, the second console will be installed in a position typical for 19th century screen-placed instruments. Key compasses are augmented to a full C to G (56 notes) respectively C to F (30 notes) compass to make the organ suitable to post-Baroque music requirements.

2.7 WIND SUPPLY

In addition to the usual electric blower, the organ will be equipped with a traditional wedge-bellows system comprising of three wedge bellows, all of them acting as feeders. This system – without a large damping reservoir – creates a very typical breathing quality of wind, which is so essential for a lively performance of pre-romantic music.

When fed by the electric blower, installed in the obsolete Northern staircase, one of the three wedge bellows will operate as reservoir to stabilize the wind for post-Baroque music.

2.8 LAYOUT

The Layout of the new instrument follows closely the original Snetzler Layout with the Great windchest on impost level immediately behind the façade and the Choir/Echo combination behind, separated by a tuning board.
2.9 STOPLIST

2.9.1 Snetzler Console
Mechanical key action, mechanical stop action.

<table>
<thead>
<tr>
<th>Nº</th>
<th>Stop</th>
<th>pitch</th>
</tr>
</thead>
</table>

I. MANUAL – GREAT GG, AA, C, D-e³
1. Open Diapason          8'
2. Stopd Diapason         8'
3. Principal              4'
4. Twelfth                2 2/3'
5. Fifteenth              2'
6. Sesquialtra/Cornet III ?

7. Mounted Cornet V (treble) 8'

8. Trumpet B/D            8'
9. Clarion B/D            4'

II. MANUAL – CHOIR GG, AA, C, D-e³
10. Stopd Diapason        8'
11. Principal             4'
12. Flute B/D             4'
13. Fifteenth             2'

III. MANUAL – ECHO f-e³
14. Open Diapason         8'
15. Dulciana              8'
16. Trumpet               8'
17. Hautboy               8'

PEDAL GG, AA, C, D-c⁰
pull down from Great

COUPLERS

18. Echo to Choir
2.9.2 North Console

Mechanical key action, electric stop action, electronic capture system enabling divisional and general combinations, with stepper

<table>
<thead>
<tr>
<th>No.</th>
<th>Stop</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>MANUAL – GREAT C-g³</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Open Diapason</td>
<td>8'</td>
</tr>
<tr>
<td>2.</td>
<td>Stopd Diapason</td>
<td>8'</td>
</tr>
<tr>
<td>3.</td>
<td>Principal</td>
<td>4'</td>
</tr>
<tr>
<td>4.</td>
<td>Twelfth</td>
<td>2 2/3'</td>
</tr>
<tr>
<td>5.</td>
<td>Fifteenth</td>
<td>2'</td>
</tr>
<tr>
<td>6.</td>
<td>Sesquialtra III</td>
<td>?</td>
</tr>
<tr>
<td>7.</td>
<td>Mounted Comet V</td>
<td>8'</td>
</tr>
<tr>
<td>8.</td>
<td>Trumpet</td>
<td>8'</td>
</tr>
<tr>
<td>9.</td>
<td>Clarion</td>
<td>4'</td>
</tr>
<tr>
<td>II.</td>
<td>MANUAL – SWELL C-g³</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Open Diapason</td>
<td>8'</td>
</tr>
<tr>
<td>11.</td>
<td>Stopd Diapason</td>
<td>8'</td>
</tr>
<tr>
<td>12.</td>
<td>Dulciana</td>
<td>8'</td>
</tr>
<tr>
<td>13.</td>
<td>Celeste</td>
<td>8'</td>
</tr>
<tr>
<td>14.</td>
<td>Principal</td>
<td>4'</td>
</tr>
<tr>
<td>15.</td>
<td>Flute</td>
<td>4'</td>
</tr>
<tr>
<td>16.</td>
<td>Fifteenth</td>
<td>2'</td>
</tr>
<tr>
<td>17.</td>
<td>Trumpet</td>
<td>8'</td>
</tr>
<tr>
<td>18.</td>
<td>Hautboy</td>
<td>8'</td>
</tr>
<tr>
<td>19.</td>
<td>Mixture III</td>
<td>1 1/3'</td>
</tr>
</tbody>
</table>

Tremulant (construction and affected stops to be determined)

PEDAL C-f¹

<table>
<thead>
<tr>
<th>No.</th>
<th>Stop</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.</td>
<td>Sub Bass</td>
<td>16'</td>
</tr>
<tr>
<td>21.</td>
<td>Principal</td>
<td>8'</td>
</tr>
<tr>
<td>22.</td>
<td>Bassoon</td>
<td>16'</td>
</tr>
</tbody>
</table>

COUPLERS

<table>
<thead>
<tr>
<th>No.</th>
<th>Coupler</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.</td>
<td>Swell to Great</td>
</tr>
<tr>
<td>24.</td>
<td>Great to Pedal</td>
</tr>
<tr>
<td>25.</td>
<td>Swell to Pedal</td>
</tr>
</tbody>
</table>
5 MISCELLANEOUS

5.1 SAMPLE WARRANTY DOCUMENT

Against defects of materials or workmanship for 2 years on electrical apparatus (e.g. electric blower) and for 10 years on the remainder of the organ. This ten-year guarantee is based on the precondition that the organ is carefully maintained and tuned by the organbuilder’s staff or by another local qualified organ builder mutually agreed upon between client and organ builder. Otherwise, the guarantee ceases after the minimum period determined by law.

During this time, upon determination of shortcomings, the purchaser has to immediately inform the contractor of failures occurred by reasons of defects in material or workmanship. The respective faulty parts shall be exchanged within a certain time at no cost, or shall be properly repaired in a workmanlike manner by the contractor.

However, the guarantee does not apply to re-adjustments of mechanical connections, re-voicing and tuning at a later date.

Electrical devices and parts such a blower, rectifier, switching installations, etc., are covered by guarantees furnished by their respective manufacturers.

The guarantee does not cover damages caused by natural wear and tear, dirt, the effects of plant and animal pests, nor by weather-caused, climatic, or chemical influences, nor by dryness or dampness or improper treatment. A relative humidity of the erection site of between 45% and 80% shall be considered in order, insofar as it only changes slowly within these limits.

The contractor’s liability for guarantee ceases to exist if the purchaser has work or tuning done or has changes made by someone else without the agreement of the contractor.

In the case of rebuilds and repairs the guarantee is limited to the newly installed parts.

5.2 ITEMS INCLUDED IN OUR BID

Installation, voicing and final tuning of the organ on site are part of the bid price.

Transport and transport insurance as well as work insurance during installation are also included (liability insurance against damage of objects and persons up to EUR 10,000,000.00 for any one insured event).

With arrival at the destination room perils are transferred to the customer/contracting body.
5.3 **ITEMS NOT INCLUDED IN OUR BID**

Our bid does not include following positions, which have to be provided by the buyer:

- Any taxes, duties, customs and custom fees due in the UK and/or when importing the instrument into the UK.
- Disposal of organ parts not to be used again
- Preparation of the installation site and review of the statics of the site
- Provision of necessary scaffolding and lifting equipment
- Costs for, provision and installation of any protection of the access ways from the unloading position to the storage place at and/or around installation site of the organ
- Provision of helpers during unloading organ parts and for lifting and carrying heavy parts during the first days of installation
- Connecting and cabling of the heavy current consumers including all necessary control and security units. Delivery and connection of maintenance lamps and plug-ins inside the organ by an authorized electrician. The electronic material (junctions, installation material, cables, plug-ins, lamps, protected switches and separators) is to be provided by the building contractor
- Board and lodging of our staff during installation and voicing on site.
6  COOPERATION OF WORKSHOPS

For the project of restoring, rebuilding and re-creating the fascinating instrument at Peterhouse Chapel, Cambridge, we decided to form a project team consisting of organ builders Flentrop, Zaandam, and Klais, Bonn, for a very exciting and interesting task.

Each of the two workshops would be in a position to carry out such a project on its own. However, we have decided to work together because both workshops have been intensively involved in the restoration of historical instruments from various epochs and organ landscapes.

Our idea was to develop a concept for this precious instrument, in which these different experiences of both workshops come together in one team.

From the study of organ history, we learned that it is important to design an organ for today and tomorrow, which has a strong personality of its own, and at the same time allows the interpretation of a wide range of organ literature from different eras.

Specifically, this means:

Organ builders Klais and Flentrop will put together a team internally, which consists of employees of the two workshops. This team will accompany, design, build and voice the instrument from start to finish. The voicing will also be performed in collaboration with both tonal directors, Frits Elshout (Flentrop) and Andreas Saage (Klais).

We are convinced that through such cooperation "at eye level" and by exchanging over a century of experience of both workshops and their staff, a technically and sonorous inspiring instrument for the college will emerge, which builds on the traditions of organ building history and looks forward into the Future.
7 THE WORKSHOPS

7.1 FLENTROP

Name of Company: Flentrop Orgelbouw B.V.
Legal Status: LLC with shares owned by active staff
Adresse: Westzijde 57
          1506 EC Zaandam
          Niederlande
Phone: +31 75 616865 1
Fax: +31 75 616865 2
E-mail: info@flentrop.nl
Homepage: www.flentrop.nl
Managing Director: Erik Winkel
Registration numbers: 35000768
Membership: V.O.N. (Vereniging van Orgelbouwers in Nederland)
            ISO (International Society of Organbuilders)
VAT ID-Number.: NL 8019.70.933.B.01
7.2 KLAIS

<table>
<thead>
<tr>
<th>Name of Company:</th>
<th>Johannes Klais Orgelbau GmbH &amp; Co. KG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Status:</td>
<td>GmbH (LLC) &amp; Co. KG</td>
</tr>
<tr>
<td>Address:</td>
<td>Koelnstrasse 148</td>
</tr>
<tr>
<td></td>
<td>53111 Bonn</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
</tr>
<tr>
<td>Phone:</td>
<td>+49-228-98240-0</td>
</tr>
<tr>
<td>Fax:</td>
<td>+49-228-98240-30</td>
</tr>
<tr>
<td>E-mail:</td>
<td><a href="mailto:mail@klais.de">mail@klais.de</a></td>
</tr>
<tr>
<td>Homepage:</td>
<td><a href="http://www.klais.de">www.klais.de</a></td>
</tr>
<tr>
<td>Managing Directors:</td>
<td>Philipp C. A. Klais</td>
</tr>
<tr>
<td></td>
<td>Johannes zurmieden</td>
</tr>
<tr>
<td>Company registered at:</td>
<td>Registergericht Bonn / Bonn / Germany</td>
</tr>
<tr>
<td>Registration numbers:</td>
<td>GmbH &amp; Co. KG: Bonn HRA 806</td>
</tr>
<tr>
<td></td>
<td>GmbH: Bonn HRB 597</td>
</tr>
<tr>
<td>Membership:</td>
<td>BDO (Bund Deutscher Orgelbaumeister)</td>
</tr>
<tr>
<td></td>
<td>ISO (International Society of Organbuilders)</td>
</tr>
<tr>
<td>VAT ID-Number:</td>
<td>DE 122 121 943</td>
</tr>
<tr>
<td>Bank account details:</td>
<td>Commerzbank Bonn (bank code 380 400 07)</td>
</tr>
<tr>
<td></td>
<td>Account Number: 1033950</td>
</tr>
<tr>
<td></td>
<td>BIC: COBADEFFXXX</td>
</tr>
<tr>
<td></td>
<td>IBAN: DE 53 3804 0007 0103 395000</td>
</tr>
<tr>
<td></td>
<td>Deutsche Bank Bonn (bank code 380 700 59)</td>
</tr>
<tr>
<td></td>
<td>Account Number: 0424242</td>
</tr>
<tr>
<td></td>
<td>BIC: DEUTDEDK380</td>
</tr>
<tr>
<td></td>
<td>IBAN: DE 64 3807 0059 0042 4242 00</td>
</tr>
<tr>
<td></td>
<td>Sparkasse Bonn (bank code 370 501 98)</td>
</tr>
<tr>
<td></td>
<td>Account Number: 42721</td>
</tr>
<tr>
<td></td>
<td>BIC: COLSDE33</td>
</tr>
<tr>
<td></td>
<td>IBAN: DE 10 3705 0198 0000 0427 21</td>
</tr>
</tbody>
</table>
8 COMPANY PROFILE

8.1 FLENTROP

Rediscovering, re-evaluating and actively applying the conditions that make the pipe organ a unique musical instrument: this is the mission that goes into all the activities of our company.

After the founding of the organ building workshop in 1903 by Hendrik Wicher Flentrop, the revaluation was directed in particular to tonal design and voicing.

From the thirties, Dirk Andries Flentrop’s rediscoverings focused more and more on mechanical action and wind chests, and on a completely new view of the associated sound.

Under the direction of Johannes Anthonie Steketee, the emphasis in the 1970s shifted to the application of historical constructions, proportions and application of materials. In this period, Cees van Oostenbrugge, especially in the technical field, was the driving force in this search.

To this day, we still learn from the many restoration works. The application of our experience also in newly built organs gives the knowledge a special depth.

8.1.1 Hendrik Wicher Flentrop (1866-1950)

founded a piano and organ shop in Zaandam in 1903. Reason for this was his dissatisfaction with the sound result of a profound reconstruction in 1900 of the organ in the Westzijderkerk in Zaandam, where he was organist since 1893.

This instrument was originally built by Johannes Duyschat and completed in 1712. When rebuilt in 1900, this organ got a stoplist adapted to the taste and a pneumatic action.

During the first decades, many restorations, relocations and augmentations of organs were carried out besides maintenance work. In 1915, the first completely new organ was built.

In 1922, the first contacts were made with Albert Schweizer, and father (H.W.) and son (D.A.) Flentrop adopt the ideas of the organ movement.

Initially, attention was focused on disposition and intonation to achieve the sound ideal, but later came the insight that the mechanical action and (grinding) loading are essential.

8.1.2 Dirk Andries Flentrop (1910-2003)

The son Dirk Andries made his experiences in 1927 with several foreign companies, before he joined his father’s service. For his later work, training with Frobenius’ in Denmark has been particularly important. In 1940, D.A. Flentrop took over the company from his father.

In recent years, a number of restorations have been carried out. The starting point was always that the original instrument could not be adapted to the current taste, which led to sensational results.

One example is the restoration in 1939 of the choir organ in the Grote-of St. Laurenskerk in Alkmaar, an instrument built in 1511 by Johan van Covelens.
From 1943, the classic mechanical organ was chosen as the starting point for new instruments. Because the newly invented construction was considered too risky in a tropical climate, a non-mechanical organ was built in 1948 – a rare exception. Thereafter, only mechanical organs were built.

As an immediate consequence of this choice, the establishment of its own pipe workshop was started. By opting for the classical organ, Flentrop fulfilled a pioneering role in the Netherlands, which also led to recognition abroad.

The knowledge gained with the restoration of the large Schnitger organ in the Grote Kerk in Zwolle (1953) was decisive for the newly built organs in the 1950s.

The experience of applying this knowledge led to their further deepening and a more contemporary style in the 60s.

During this period, the opportunity arose to build many instruments abroad, with a focus on the United States.

The recognition of the influence that D.A. Flentrop had had on the development of organ building in the US, expressed in the award of two honorary doctorates.

In addition to the construction of new instruments, many restorations have been carried out, f.e. the two organs in the cathedral of Mexico City.

8.1.3 Johannes Anthonie Steketee (1936-2010)

In 1976, J.A. Steketee became D.A. Flentrop's successor.

In 1958, he started an organ building apprenticeship. One of the first projects under his administration was the reconstruction of the Duyschot instrument at the Westzijderkerk in Zaandam in 1712.

For restorations and new instruments, in subsequent years, more and more attention has been devoted to restoring or realizing the right proportions and dimensional guides found in classical instruments. Consistent more and more the individual parts of the organ were included in the process in order to realize the intended quality.

Under his administration, Flentrop opened up wider fields of work abroad: except in the United States, where the organ for the Holy Name Cathedral in Chicago of course stimulates the imagination, organs were built or restored in Taiwan, Riga, Tokyo, Dunblane, Kazan and Yerevan.

Important restorations have been carried out in the Netherlands, f.e. in the Westerkerk in Amsterdam, in the Concertgebouw in Amsterdam and in the Sint Jans Katedraal in Den Bosch.

8.1.4 Cees P.W. van Oostenbrugge (1947-2008)

joined the company in 1969 as an apprentice organ builder.

In 1998 he followed J.A. Steketee as director. As he has been involved in the preparation of new instruments and restorations for many years, it is understood that the classic line has been continued without further ado.

The result of the restoration of the choir organ in the Grote- or St. Laurenskerk in Alkmaar fits into this line as well. The restoration of this organ, built by Jan van Covelens in 1511, contained many reconstructive elements, with the search for clues playing a major role in the realization of the sounding result.
It is noteworthy that in the same year (2000) the reconstruction of the last organ of Schyven from 1907 was completed in the Petrus en Pauluskerk in Oostende (Belgium). Larger contrasts in a workshop are hardly conceivable: the oldest playable organ in the Netherlands and an instrument built from an industrial idea are judged and treated according to their own, contrary qualities each.

Cees died in December 2008, shortly before his retirement.

8.1.5 Frits Elshout (born 1952)
Director Frits Elshout began his career at Flentrop as a pipe maker.
Under his leadership, complete reed stops were produced for the first time in their own workshop in the 1970s. Over the years, he has acquired exceptional knowledge and skill in this field.
Later he worked as an voicer on many large and small projects. The most notable achievements of various organs in 1998 led to his being appointed deputy director of tonal design.
On January 5, 2009 Frits was named director. He stepped down with the end of 2015.

8.1.6 Erik Winkel (born 1971)
came to Flentrop in 1998. After a short stay in various departments of the company, he found his place in the drawing and preparation department.
As assistant to Cees van Oostenbrugges, he worked intensively on the preparation of many new building and restoration projects, with many business skills of the past half century transferred to him during this time.
Since January 2009, he was deputy director under Frits Elshout. On January 1, 2016, he became managing director.
Making music, especially church music, has played an important role in the life of all people mentioned above.
H. W. Flentrop was initially organist in the Hervormde Kerk Koog aan de Zaan, from 1893 he played the organ in the Westzijderkerk in Zaandam.
D. A. Flentrop has been main organist in the Hervorkde Kerk in Westzaan for many years, as J.A. Steketee in the St. Jozefkerk in Zaandam.
Cees van Oostenbrugges was organist in the Hervormde Kerk in Zaandam, whereby the organ of the Westzijderkerk belonged to his field of work. Frits Elshout is organist in Zaandam, too. Erik Winkel is very active as an (amateur) singer and continuo organist.
8.2 KLAIS

"A pipe organ inspires people when it speaks their language. This is our principal challenge. We know that every human being is affected by his social, cultural and geographical surroundings, and that is why we always inspect the surroundings carefully when planning a pipe organ, to ensure that the Klais organ makes them reverberate – wherever the organ is installed the world over. This begins with the conception and architectural form, and continues with the stop list and the voicing. Because a pipe organ is distinctive and can reach the heart of those for whom we built it – combined, of course, with a certain touch of zest for life embodied by the builder’s homeland on the River Rhine.‘‘ Philipp. C. A. Klais

8.2.1 Johannes Klaiss (1852 – 1925, chief executive 1882 - 1918)

In 1882, as carriages still dominated the streets and composers such as Franz Liszt or César Franck were the outstanding organ virtuosos of the time, Johannes Klaiss (1852–1925) founded his workshop for building organs. During his apprenticeship in Germany and foreign countries, Johannes Klaiss also met and came to appreciate Cavaille-Coll and his special instruments. For this reason Johannes Klaiss adopted the new French scaling, which differed from the Töpfer system common in Germany at that time.

Inventive genius was already a significant characteristic in the first workshop generation of the Klaiss family. This was expressed in the construction of pneumatic setter systems, melody couplers, and high-pressure stops with two lips. Starting with mechanical slider chests Johannes Klaiss built instruments with mechanical, pneumatic and electrical key action – first using slider chests, then cone chests and pouch chests. As early as 1906 he built the first electrically controlled pipe organ with 4 manuals in the Erfurt Cathedral, which combined the main organ and choir organ electrically using a central console.

In addition to organ builders and carpenters, Klaiss employed a group of wood carvers who created the lavish neo-gothic organ cases. Johannes Klaiss thus succeeded very early in giving the workshop national significance and laying the corner stone for the further development.

8.2.2 Hans Klaiss (1890 – 1965, chief executive 1918 - 1965)

Hans Klaiss, the son of the workshop founder, began the age of “New Objectivity”. The mood for radical changes after the First World War found its artistic counterpart in German associations such as the “Bauhaus” and “Werkbund” to which Hans Klaiss maintained close contact. At that time, Klaiss invented the so-called “open façades”, in which the pipes were arranged visibly from smallest to largest, rather than using an open display (“pipe fence”) as usual at that time. This made the entire internal structure including the clear construction of the organ visible, giving a very special interpretation of the work principal to organ construction. At that time, Hans Klaiss was in regular correspondence with Albert Schweitzer – the letters were signed by Hans Klaiss’ famous father.

The inventive and exploratory urge is also clearly recognizable in the second generation: Hans Klaiss established his own acoustic research laboratory which co-operated closely with the Bonn University. Hans Klaiss considered this contact
very important for organ building; an opinion which still applies today. He also set benchmarks in the construction of consoles: Klais advanced the design of the Cavaille-Coll console to incorporate modern ergonomic principles. These efforts were crowned by construction of the organ for the World Exhibition in Brussels in 1935 and the large cathedral instruments for Bruges and Gent in 1936. Following the Second World War and reconstruction of the workshop, Hans Klais built the Cologne Cathedral instrument in the nave, which was reorganized in 2002 by his grand-son Philipp C. A. Klais.

8.2.3 Hans Gerd Klais (*1930, chief executive 1957 - 1995)
During the period of Germany's miraculous recovery from the war, Hans Gerd Klais took over management of the workshop. His vision was marked by the synthesis of polyphonic and symphonic organs – an artistic fusion of diametrical opposites. This was the reason Hans Gerd Klais returned to his grandfather's design for classical slider chests with mechanical key action.

His inspiration gained through the study of historic organs, did not induce him to concentrate only on the neo-baroque sound concept with only few foundation stops, many mutations and high-pitched upper works; he succeeded in creating a unique synthesis of volume and transparency, far beyond his time, such as the cathedral instrument built in Wurzburg in 1969.

Numerous publications, still appreciated today, document his work and vision of an organ capable of melting its richly colored timbre with a singing sound to accommodate the entire spectrum of the music composed for it.

Hans Gerd Klais believed the basis for responsible traditional organ building included maintaining the substance of older instruments. Such restoration also provided a knowledge base for construction of new instruments. He was one of the first to establish a restoration workshop in 1965, which has developed continuously since that time. Hans Gerd Klais also departed from the beaten path in the design of the facade, seeking cooperation with artists such as the sculptors Hillebrand and Heiermann in the cathedrals in Muenster and Trier as well as in Ingolstadt.

Moreover Klais maintains one of the largest private organ libraries, which today serves as a reference library for the University of Bonn and is therefore linked to all universities in Germany.

8.2.4 Philipp C. A. Klais (*1967, chief executive since 1995)
Innovation is also a tradition for Philipp C. A. Klais, who took over management of the workshop in 1995. For him the depth of manufacturing initiated by his great-grandfather is the basis for high quality, innovative organ construction. Only a closely cooperating team, which has mastered its trade down to the last detail and learned from studying both old and young masters, is able to actively contribute to further development – this is our creed.

The principles for this result from experience with restoration of older instruments, which is then included in modern projects. The motto "Interplay between Time and Space" characterizes the structure of effects which is significant for Philipp C. A. Klais: Starting from the dynamics of time and space – which also include the cultural, social and geographic surroundings of the organ – an artistic reflection is set in motion, leading to a vision of how a new
pipe organ should be constructed – unique and authentic for its purpose and location.

This applies for the main nave organ in the Cologne Cathedral in 1998: It was to be laid out as a crow’s nest on the north wall of the nave, however could not be attached directly to the wall for fear of damaging the structure. Therefore the 30-ton instrument was suspended from the vaulted roof using four steel rods. In Madison Overture Hall, a 150-ton instrument with organ chamber construction was placed on railroad tracks. In the St. Petersburg Philharmonic Hall and in the City Parish Church in Fulda the pneumatic cone chests are controlled by a system developed at the beginning of the 20th century using a mechanical slider chest to combine the precision of the mechanical systems with the tonal advantages of the pneumatic cone chest.

Four generations of the Klais family and their co-workers have left visible and audible marks worldwide and these are increasing with each new project. We appreciate the work of all employees who have contributed to this more than 125 yearlong effort in the past and today. We are grateful for all we have achieved in more than 125 years of workshop history and all we are continuing to do to provide instruments that touch and move people around the world. We will continue to do our very best to revive the inexhaustible, transcendent aura of the organ.

Bonn/Zaandam, May 22, 2018

ORGELBAU KLAIS BONN

[Signature]

Philipp C. A. Klais