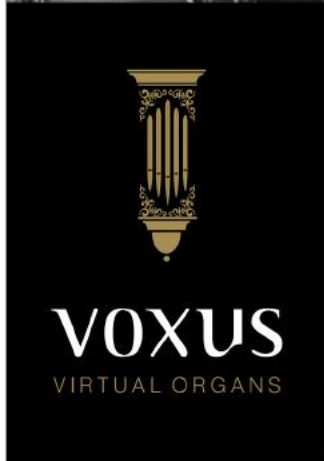


Duitsland
Norden



Duitsland

Norden St. Ludgeri Kerk, Arp Schnitger
1686/1692

Deutschland

Norden St. Ludgeri Kirche, Arp Schnitger
1686/1692

Germany

Norden St. Ludgiri Church, Arp Schnitger
1686/1692

Allemagne

Norden église saint Ludgeri, Arp Schnitger
1686/1692



Norden St. Ludgeri, Arp Schnitger

User Manual v1.0.0

The information contained in this user guide may be subject to change without notice. No part of this document may be transferred or reproduced, digitally or otherwise, including photocopying and recording without prior consent from VOXUS Virtual Organs.

Copyright © 2025 VOXUS Virtual Organs. All rights reserved.

'Hauptwerk', 'Hauptwerk Virtual Pipe Organ', 'Milan Digital Audio' and the Hauptwerk logo are trademarks of Milan Digital Audio LLC.

Visit VOXUS Virtual Organs on the Internet at <https://voxusorgans.com>.

Visit Hauptwerk-Organ.com on the Internet at <https://www.hauptwerk-organ.com>.

Table of Contents

Welcome	5
Requirements	6
Hardware and Software Requirements	6
Storage (Hard-Disk or SSD)	6
RAM and Number of Loadable Stops	6
CPU and Polyphony	6
Installation	8
Installation of the sample-set	8
Using the sample-set	9
Screens	9
Single Jamb	9
Settings Screen	10
Audio Levels	10
Presets	10
Noises	11
Couplers	11
Additional Info	11
Temperament file	11
General Combinations	12
Ludgeri-Kirche (Norden)	13
Arp-Schnitger-Organ Ludgerikirche Norden (EN)	13
Orgue-Arp-Schnitger Ludgerikirche Norden (FR)	15
Arp-Schnitger-Orgel Ludgerikirche Norden (DE)	16
Arp Schnitger-Orgel Ludgerikirche Norden (NL)	17
Stop List	18
Credits	19

List of Figures

Single Jamb screen	9
Settings screen	10
Church map	11
Facade Arp-Schnitger-Organ	13

List of Tables

Screens for the Arp-Schnitger-Orgel Norden sample-set	9
---	---

Section I: Welcome

Welcome to the Arp-Schnitger-Orgel Norden sample-set and congratulations on your purchase! The Arp-Schnitger-Orgel Norden sample-set is a historic virtual pipe organ chromatically sampled stop-by-stop. The organ has 46 speaking stops, 76 ranks of pipes, 3110 pipes, 2 tremulants, 3 manuals and pedal. The organ was built in 1686 by Arp-Schnitger and restored in 1981 by Jürgen Ahrend.

Highlights

The sample-set has many special and unique features, including:

- Eight channels (four stereo channels) of chromatically sampled stop-by-stop pipes.
- Left/right screens are optimized for single and dual touchscreens in landscape and portrait orientation.
- The console has been implemented as a virtual screen.
- Simple screen in both landscape and portrait orientation.
- The sample-set offers recorded tremulants for all stops of the Rückpositiv and Oberpositiv.
- Settingsscreen with Audio Mixer with user presets

Section II: Requirements

Hardware and Software Requirements

The Arp-Schnitger-Orgel Norden sample-set requires the Advanced Edition of the Hauptwerk™ 7 (or higher) virtual pipe organ software, available for both PC and Mac computers from Milan Digital Audio. Hauptwerk™ 7 is supported on Apple computers running macOS X 10.13.6 'High Sierra', macOS X 10.14.6 'Mojave', macOS X 10.15.7 'Catalina', macOS 11.7.9 'Big Sur' or macOS 12.6.8 'Monterey' and on personal computers running 64-bit Windows 11, 64-bit Windows 10 or 64-bit Windows 7. A high-performance computer is required to experience full, flawless and convenient operation of this sample-set. As the Advanced Edition of the Hauptwerk™ 7 virtual pipe organ software is copy protected, an iLok account is required. Hauptwerk is licensed either by means of an iLok dongle (v2 or v3), or via 'iLok Cloud'. The Norden sample-set license can be stored either on an iLok dongle or in the iLok cloud.

Storage (Hard-Disk or SSD)

A minimum of 52 GB of free storage space is required to use Hauptwerk with the Arp-Schnitger-Orgel Norden sample-set. The installation package requires almost 52 GB of free storage space, you must to add another 32 GB (sample resolution 16-bit, lossless compression, all available sample loops, all available release samples, no recorded tremulants) to 79 GB (sample resolution 24-bit, lossless compression, all available sample loops, all available release samples, recorded tremulants) for the cache file. Only the speed of your storage device determines the time it will take Hauptwerk to load the sample-set; real-time performance should not be affected once the sample-set is loaded into memory. SSD drives can be used if you want sample-sets to load quickly. For further information please refer to the Hauptwerk User Guide.

RAM and Number of Loadable Stops

Since Hauptwerk™ loads the sample data into the computer's random access-memory (RAM) — for performance reasons the software does not stream data from hard disk or SSD — the amount of (free) RAM determines the number of stops, that can be loaded for playing at a given time. Hauptwerk™ allows loading sample-sets with different options for each rank, providing the opportunity to balance the number of loadable ranks with varying levels of realism (e.g., for ing RAM it is possible to load only single release samples). Loading all ranks in their most complete multi-looped versions with full release samples will require significantly more RAM than loading them with single loops and / or truncated release tails. It is highly recommended to load the sample-set with the highest possible sample resolution, all loops and all releases. Fully loading the sample set at 16-bit (compressed) requires 31.6 GB of RAM of free memory (excluding Windows and Hauptwerk).

Please refer to the Hauptwerk™ User Guide for a detailed description on how to maximize performance on your computer using these features.

Please refer to the VOXUS Virtual Organs website for further information about RAM requirements.

CPU and Polyphony

It is essential that your computer has a high-performance CPU to experience full polyphony without dropouts or audio distortion. When multiple stops are used and numerous notes are played simultaneously, a substantial polyphony is necessary. We suggest setting the polyphony to a minimum of 6,000.

Note: Polyphony is defined as the number of stops being selected times the number of notes played per stop, including the duration release tails to sound, at any given time. Playing a rapid sequence of staccato chords in tutti can exert considerable strain on your computer, as the lingering release tails continue to sound with

each new chord. For optimal performance, we advise using a 4-core CPU or higher, along with the maximum affordable amount of RAM. Greater CPU power allows for increased polyphony capacity. Please refer to the Hauptwerk™ User Guide for a complete description of how to achieve maximum polyphony with your computer.

Section III: Installation

Installation of the sample-set

Installing the Arp-Schnitger-Orgel Norden sample-set requires that you own a registered and installed copy of the Hauptwerk 7 (or higher) virtual pipe organ software and a registered iLok account. The software is available for download or on a USB stick. An iLok license specifically for Arp-Schnitger-Orgel Norden must be obtained prior to installing the sample-set. If you received the Arp-Schnitger-Orgel Norden sample-set as a downloadable product, please make sure that you download all installation files before you begin with the installation. You must place all files into the same folder. If you received the sample-set on a USB stick it is highly recommended to copy all files into a folder on your hard disk.

1. Launch the Hauptwerk software.
2. From within Hauptwerk go to the File menu and select "*Install organ, sample-set, temperament or impulse response ...*"
3. The program will prompt you to select the file to install.
4. Navigate to the folder with the installation files and select the first file to install.
5. Click "*Open*" and then click "*OK*" on the next screen.
6. After Hauptwerk has finished installing the selected file proceed with the installation of the next file.

Section IV: Using the sample-set

Screens

A total of seven different screens have been implemented in the sample-set. See Table 1 for detailed information about the screens.

Table 1: Screens for the Arp-Schnitger-Orgel Norden sample-set. L = landscape screen, P = portrait screen

Screen	Description	L	P
Console	Photorealistic representation of the console (landscape screen)	●	
Single Jamb	Stop screen optimized for readability for single screen (landscape screen)	●	
Stops L	Representation of the left jamb of the console	●	●
Stops R	Representation of the right jamb of the console	●	●
Simple Screen	Screen optimized for readability for single screen systems	●	●
Settings	User programmable Audio Mixer with presets	●	
Info	Picture with organ information	●	●

Single Jamb

On the additional Single Jamb screen, all stop buttons are combined on a single screen with exactly the same layout as on the console in Norden. On the white stop labels, a letter on the bottom left indicates which division it belongs to. This can also be seen by the color code in the middle of the stop buttons.

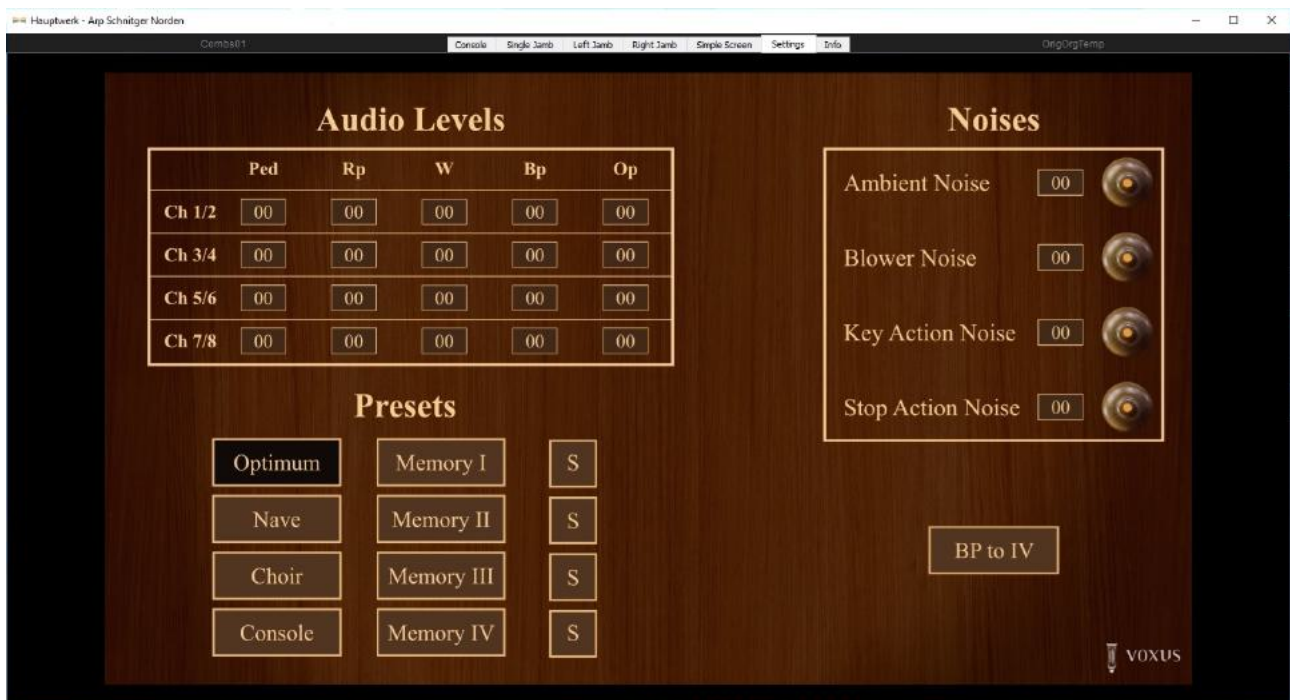
The color coding is as follows:

- I. Rückpositiv : grey dot
- II. Hauptwerk : light brown dot
- III. Oberpositiv : white dot
- III. Brustpositiv : dark brown dot
- P. Pedal : black dot
- Coupler: black dot

Figure 1: Single Jamb screen



Figure 2: Settings screen



Settings Screen

On the settings screen, it is possible to adjust the Arp-Schnitger-Orgel Norden sample-set to personal taste. On this screen it is possible to create a mix of the 8 different audio channels. Four pre-programmed presets and four custom programmable presets are available. It is also possible to adjust the volumes of the various noises.

Audio Levels

Because of the unusual positioning of the organ around the pillar between the choir and the nave of the church, it is very difficult to find an optimal microphone position. In the church map below, microphone positions are highlighted in red. The microphone numbering here corresponds to the channel numbering in the sample-set.

Channel 1/2 : Directly opposite of the Hauptwerk division (direct)

Channel 3/4 : Directly opposite of the Hauptwerk division (omni)

Channel 5/6: Nave (omni)

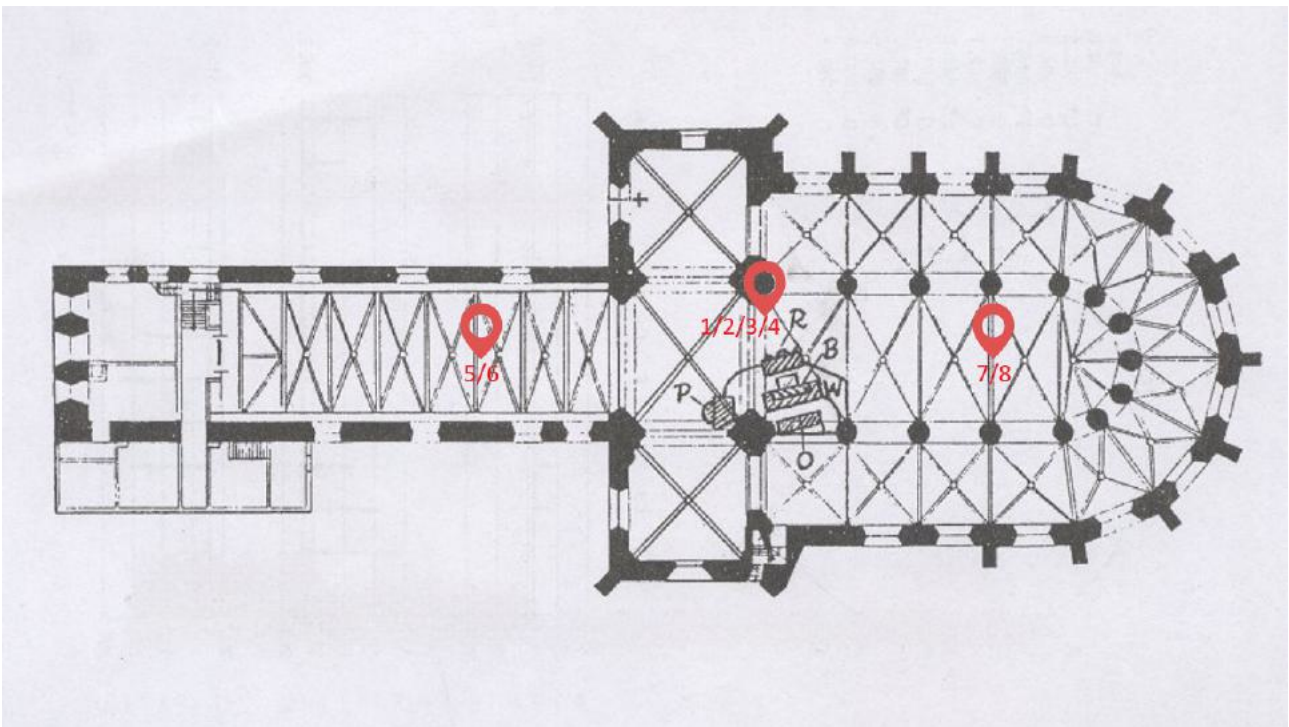
Channel 7/8: Choir (omni)

Because of the organ's arrangement, the pedal division speaks more into the Nave (5/6) channels while the Oberwerk can be heard more in the Choir (7/8). Because of this, it was also decided to create separate settings for each division. In this way it is still to easily correct the proportions per division to one's own taste.

Presets

Four audio mixer presets are pre-configured and cannot be changed. Please note that the "Console" preset is fictitious, as no microphones were placed at that location. In addition, four user-configurable audio mixer presets are available. To save a custom preset, adjust the mixer as desired, then press the "S" button to the right of the corresponding memory button (Memory I-IV). To recall a saved preset, simply press the appropriate memory button.

Figure 3: Church map



Noises

In the noises framework, it is possible for the user to completely disable certain noises or change their volume. These adjustments are of course also possible in Hauptwerk's voicing screen but set it directly for all channels at once. The noise settings are also included in the four audio mixer presets.

Couplers

By default, the Brustpositiv is coupled to the third keyboard as in the original organ. But should there be a desire to play it as a separate division (for example, on a 4-manual console), it is possible to disable this coupling and assign the division to the additional keyboard in Hauptwerk's midi settings.

Except for sliding coupler III/II, the original instrument, like most north German organs of the period, possesses no other couplers. The "missing" standard couplers can still be utilized via Hauptwerk's internal coupler functionality. They are also stored in the Generals and in the Setter. In our opinion, when using the extra couplers a part of the original sound is lost.

Section V: Additional Info

Temperament file

Included in the installation packages of the Norden sampleset is a special temperament file. This temperament file is of the current temperament of the Norden organ. It concerns a modified or extended meantone temperament, which the former organist and cantor at St. Ludgeri, Reinhard Ruge (*1934) developed for this restoration. It achieves a great purity of organ sound without a wolf fifth in the keys with few accidentals, but also allows playing in more keys than is generally considered acceptable in a strictly meantone temperament. When the original organ temperament is chosen, there may be slight detuning in the sound. Should tighter tuning be desired, it is possible to load Norden's special temperament file the Hauptwerk Pitch menu.

General Combinations

The Arp-Schnitger-Orgel Norden sample set includes 20 general combinations. These cannot be MIDI learned from the sample set screens, but they can be assigned via Hauptwerk's touch menu.

Figure 4: Facade Arp-Schnitger-Organ



Section VI: Ludgeri-Kirche (Norden)

The Protestant-Lutheran Ludgeri Church stands in the centre of the market square in the East Frisian town of Norden. The Romanesque-Gothic building was built in several phases from the 13th century to the mid-15th century. At around 80 metres long, Ludgeri Church is the largest preserved medieval sacred building in East Friesland. The building, which is very fragmented on the outside, consists of three parts, which also vary in height, and is mainly characterised by the Gothic choir, which was completed around 1455. It clearly towers over the Gothic transept and Romanesque nave. With its ambulatory, the choir is the only three-aisle church building in East Friesland in the style of Gothic cathedral architecture. The detached Romanesque bell tower south of the church is separated from the church by a road. The Ludgeri Church is particularly richly decorated. Of particular interest are the baptismal altar, the Baroque pulpit, the Gothic choir stalls, the baptismal font and the epitaph of Unico Manninga. Due to the iconoclasm at the time of the Reformation, there are only a few remnants of pre-Reformation medieval art, which can only be seen in the transept and choir.

Arp-Schnitger-Organ Ludgerikirche Norden (EN)

The monumental organ of the Ludgerikirche in Norden (Germany), the largest historical instrument in the rich organ landscape of Germany's East Frisia region, was built in 1686/87 by the Hamburg organ builder Arp Schnitger (1648–1719). Schnitger, the most important organ builder of the Baroque period, was widely renowned in his time.

He built around 150 instruments of various sizes in northern Germany and the Netherlands. The organ in the Ludgerikirche is his second largest instrument and is built according to the *Werkprinzip*. The contract for an organ with two manuals and pedal dates back to 1686, but when the instrument was delivered in 1688, it turned out that Schnitger had exceeded his contract by adding a *Brustpositiv* with six stops. Moreover, in 1691/92, he expanded the organ with an *Oberpositiv* with eight stops, which could be played from the manual of the *Brustpositiv*, resulting in a total of forty-six stops.

Eight stops were taken over from the two previous instruments: the oldest organ dated from 1567 and was built by Andreas de Mare from Groningen (Netherlands) / Emden (East Frisia), while the younger instrument was built in 1618 by Edo Evers from Emden / Jever (East Frisia). The 3110 pipes are distributed among five different divisions, played from three manuals and the pedal. The organ is located on the southeastern crossing pier, with the large pedal tower exceptionally placed in the transept.

During the 18th and 19th centuries, the organ underwent various modifications. The most significant changes occurred in the 19th century when organ-building styles evolved, and some stops were adapted to match the musical taste of the time. Fortunately, much of Schnitger's original pipework was preserved.

In the 20th century, there was renewed appreciation for historical organs, and it was decided to restore the instrument as much as possible to its original state. Between 1981 and 1985, the organ was exemplary restored by Jürgen Ahrend from Leer-Loga. During this restoration, twenty-five stops and three of the six bellows were reconstructed based on Schnitger's models.

The current temperament of the Norden organ is a modified or extended meantone temperament, which the former organist and cantor at St. Ludgeri, Reinhard Ruge (*1934) developed for this restoration. It achieves a great purity of organ sound without a wolf fifth in the keys with few accidentals, but also allows playing in more keys than is generally considered acceptable in a strictly meantone temperament.

The Schnitger organ of Norden is considered one of the most important Baroque organs in the world. Due to its unique tonal color and historical significance, it attracts organists and music lovers from all over the world every year. The organ is regularly played during church services and concerts and remains a living testament to Schnitger's craftsmanship.

Orgue-Arp-Schnitger Ludgerikirche Norden (FR)

L'orgue monumental de la Ludgerikirche à Norden (Allemagne), le plus grand instrument historique du riche paysage organistique de la région de Frise orientale en Allemagne, a été construit en 1686/87 par le facteur d'orgues hambourgeois Arp Schnitger (1648–1719). Schnitger, le plus important facteur d'orgues de la période baroque, était largement renommé à son époque.

Il a construit environ 150 instruments de tailles diverses en Allemagne du Nord et aux Pays-Bas. L'orgue de la Ludgerikirche est son deuxième plus grand instrument et a été construit selon le Werkprinzip. Le contrat pour un orgue avec deux claviers et pédalier date de 1686, mais lorsque l'instrument fut livré en 1688, il s'avéra que Schnitger avait dépassé son contrat en ajoutant un Brustpositiv avec six jeux. De plus, en 1691/92, il agrandit l'orgue avec un Oberpositiv de huit jeux, pouvant être joué à partir du clavier du Brustpositiv, ce qui porta le total à 46 jeux.

Huit jeux ont été repris des deux instruments précédents : le plus ancien datait de 1567 et avait été construit par Andreas de Mare de Groningue (Pays-Bas) / Emden (Frise orientale), tandis que le plus jeune instrument avait été construit en 1618 par Edo Evers d'Emden / Jever (Frise orientale). Les 3110 tuyaux sont répartis en cinq divisions, jouées sur trois claviers et un pédalier. L'orgue est situé sur le pilier sud-est du transept, avec la grande tour de pédale placée de manière exceptionnelle dans le transept.

L'accord actuel de l'orgue de Norden est un tempérament mésotonique modifié ou étendu, développé pour cette restauration par l'ancien organiste et cantor de St. Ludgeri, Reinhard Ruge (*1934). Il permet une grande pureté du son de l'orgue sans quinte du loup dans les tonalités avec peu d'altérations, mais permet également de jouer dans plus de tonalités que ce qui est généralement considéré comme acceptable dans un tempérament strictement mésotonique.

L'orgue est considéré comme l'un des plus importants orgues baroques au monde et continue d'attirer des organistes et des mélomanes du monde entier.

Arp-Schnitger-Orgel Ludgerikirche Norden (DE)

Die monumentale Orgel der Ludgerikirche in Norden (Deutschland), das größte historische Instrument in der reichen Orgellandschaft der ostfriesischen Region Deutschlands, wurde 1686/87 von dem Hamburger Orgelbauer Arp Schnitger (1648–1719) erbaut. Schnitger, der bedeutendste Orgelbauer der Barockzeit, war zu seiner Zeit weithin bekannt.

Er baute etwa 150 Instrumente verschiedener Größen in Norddeutschland und den Niederlanden. Die Orgel in der Ludgerikirche ist sein zweitgrößtes Instrument und wurde nach dem Werkprinzip gebaut. Der Vertrag für eine Orgel mit zwei Manualen und Pedal stammt aus dem Jahr 1686, aber als das Instrument 1688 übergeben wurde, stellte sich heraus, dass Schnitger seinen Vertrag übertroffen hatte, indem er ein Brustpositiv mit sechs Registern hinzufügte. Zudem erweiterte er die Orgel 1691/92 um ein Oberpositiv mit acht Registern, das vom Manual des Brustpositivs aus gespielt werden konnte, was zu insgesamt sechsundvierzig Registern führte.

Acht Register wurden aus den beiden vorherigen Instrumenten übernommen: Die älteste Orgel stammte aus dem Jahr 1567 und wurde von Andreas de Mare aus Groningen (Niederlande) / Emden (Ostfriesland) gebaut, während das jüngere Instrument 1618 von Edo Evers aus Emden / Jever (Ostfriesland) gefertigt wurde. Die 3110 Pfeifen sind auf fünf verschiedene Werke verteilt, die von drei Manualen und dem Pedal gespielt werden. Die Orgel befindet sich an der südöstlichen Vierungssäule, wobei der große Pedalturm außergewöhnlich im Querschiff platziert ist.

Im 18. und 19. Jahrhundert wurde die Orgel mehrfach verändert. Die bedeutendsten Veränderungen erfolgten im 19. Jahrhundert, als sich die Orgelbaustile änderten und einige Register dem damaligen Musikgeschmack angepasst wurden. Glücklicherweise blieb ein Großteil von Schnitgers originalem Pfeifenwerk erhalten.

Im 20. Jahrhundert entstand eine erneute Wertschätzung für historische Orgeln, und es wurde beschlossen, das Instrument so weit wie möglich in seinen Originalzustand zurückzusetzen. Zwischen 1981 und 1985 wurde die Orgel vorbildlich von Jürgen Ahrend aus Leer-Loga restauriert. Während dieser Restaurierung wurden fünfundzwanzig Register und drei der sechs Blasebälge nach Schnitgers Vorbildern rekonstruiert.

Die aktuelle Stimmung der Orgel in Norden ist eine modifizierte oder erweiterte mitteltönige Stimmung, die der ehemalige Organist und Kantor der St. Ludgeri-Kirche, Reinhard Ruge (*1934), für diese Restaurierung entwickelt hat. Sie ermöglicht eine große Reinheit des Orgelklangs ohne eine Wolfsquinte in Tonarten mit wenigen Vorzeichen, erlaubt aber auch das Spielen in mehr Tonarten, als es in einer streng mitteltönigen Stimmung normalerweise als akzeptabel gilt.

Die Schnitger-Orgel von Norden gilt als eine der bedeutendsten Barockorgeln der Welt. Aufgrund ihrer einzigartigen Klangfarbe und historischen Bedeutung zieht sie jährlich Organisten und Musikliebhaber aus aller Welt an. Die Orgel wird regelmäßig in Gottesdiensten und Konzerten gespielt und bleibt ein lebendiges Zeugnis von Schnitgers Handwerkskunst.

Arp Schnitger-Orgel Ludgerikirche Norden (NL)

Het monumentale orgel van de Ludgerikirche in Norden (Duitsland), het grootste historische instrument in het rijke orgellandschap van de Oost-Friese regio van Duitsland, werd in 1686/87 gebouwd door de Hamburgse orgelbouwer Arp Schnitger (1648–1719). Schnitger, de belangrijkste orgelbouwer van de barokperiode, was in zijn tijd alom bekend.

Hij bouwde ongeveer 150 instrumenten van verschillende groottes in Noord-Duitsland en Nederland. Het orgel in de Ludgerikirche is zijn op één na grootste instrument en is gebouwd volgens het Werkprincipe. Het contract voor een orgel met twee manualen en pedaal dateert uit 1686, maar toen het instrument in 1688 werd opgeleverd, bleek dat Schnitger zijn contract had overtroffen door een Brustpositiv met zes registers toe te voegen. Bovendien vergrootte hij het orgel in 1691/92 met een Oberpositiv met acht registers, dat bespeeld kon worden vanaf het manuaal van het Brustpositiv, wat resulteerde in een totaal van zesenzeventig registers.

Acht registers werden overgenomen uit de twee voorgaande instrumenten: het oudste orgel dateerde uit 1567 en was gebouwd door Andreas de Mare uit Groningen (Nederland) / Emden (Oost-Friesland), terwijl het jongere instrument in 1618 werd vervaardigd door Edo Evers uit Emden / Jever (Oost-Friesland). De 3110 pijpen zijn verdeeld over vijf verschillende werken, die worden bespeeld vanaf drie manualen en het pedaal. Het orgel bevindt zich op de zuidoostelijke pijler van de kruising, waarbij de grote pedaaltoren op een uitzonderlijke manier in het transept is geplaatst.

Gedurende de 18e en 19e eeuw onderging het orgel verschillende wijzigingen. De belangrijkste veranderingen vonden plaats in de 19e eeuw, toen de orgelbouwwijze veranderde en men enkele registers aanpaste aan de toenmalige muzikale smaak. Gelukkig bleef een groot deel van Schnitgers oorspronkelijke pijpwerk bewaard.

In de 20e eeuw ontstond hernieuwde waardering voor historische orgels, en men besloot het instrument zoveel mogelijk in de originele staat te herstellen. Tussen 1981 en 1985 werd het orgel op voorbeeldige wijze gerestaureerd door Jürgen Ahrend uit Leer-Loga. Tijdens deze restauratie werden vijfentwintig registers en drie van de zes blaasbalgen gereconstrueerd naar modellen van Schnitger.

De huidige stemming van het orgel in Norden is een gemodificeerde of uitgebreide middentoonstemming, die de voormalige organist en cantor van St. Ludgeri, Reinhard Ruge (*1934), voor deze restauratie heeft ontwikkeld. Het zorgt voor een grote zuiverheid van de orgelklank zonder een wolfsquint in de toonsoorten met weinig voortekens, maar maakt het ook mogelijk om in meer toonsoorten te spelen dan doorgaans als acceptabel wordt beschouwd in een strikt middentoonstemming.

Het Schnitger-orgel van Norden wordt beschouwd als een van de belangrijkste barokorgels ter wereld. Door zijn unieke klankkleur en historische waarde trekt het jaarlijks organisten en muziekliefhebbers van over de hele wereld. Het orgel wordt regelmatig bespeeld tijdens kerkdiensten en concerten en blijft een levend getuigenis van Schnitgers vakmanschap.

Stop List

The organ has 46 speaking stops, 76 ranks, 3110 pipes, 2 tremulants, 3 manuals, and pedal:

I. Rückpositiv CDE – c3	II. Hauptwerk CDEFGA – c3	III. Oberpositiv CDEFGA – c3	P. Pedal CDE – d1
Principal 8' (A)	Quintadena 16' (P)	Hollfloist 8' (S)	Principal 16' (A)
Gedact 8' (P)	Principal 8' (A)	Octav 4' (S)	Octav 8' (P)
Octav 4' (S)	Rohrfloist 8' (P)	Flachfloist 2' (S)	Octav 4' (A)
Rohrfloist 4' (S)	Octav 4' (P)	Rauschpfeiff II (A)	Rauschpfeiff II (A)
Octav 2' (P)	Spitzfloist 4' (A)	Scharff IV–VI (A)	Mixtur VIII (A)
Waldfloist 2' (S)	Quinta 3' (A)	Trommet 8' (A)	Posaun 16' (A)
Ziffloist 1' (S)	Nasat 3' (A)	Vox humana 8' (A)	Trommet 8' (A)
Sexquialt II (P)	Octav 2' (E)	Schalmey 4' (A)	Trommet 4' (A)
Tertian II (S)	Gemshorn 2' (S)	Tremulant	Cornet 2' (A)
Scharff VI (A)	Mixtur VI (A)		
Dulcian 8' (A)	Cimbel III (A)		
Tremulant	Trommet 16' (A)		
Cimbelstern	Vogelgesang		

III. Brustpositiv

CDEFGA–c3

Gedact 8' (S)	notes
Plockfloist 4' (S)	P = Previous organ by
Principal 2' (A)	Edo Evers (or Andreas de
Quinta 1' (S)	Mare)
Scharff IV (S)	S = Arp Schnitger
Regal 8' (A)	A = Jürgen Ahrend

Couplers:

sliding coupler III/II;

Credits

VOXUS Virtual Organs

Marien Stouten *Recording Engineer*

Bert-Jan de Waard *Programmer*

Roland van den Berg *Audio Engineer*

Recording:

Marien Stouten

Recording Assistants:

Roland van den Berg

Technical Advisor:

Bert-Jan de Waard

Audio Editing:

Roland van den Berg

Demo MIDI-file

Ralph Looij

Graphical User Interface:

Adrie-Piet van der Meer

Romain Le Norcy

Christoph Schmitz

Programming:

Bert-Jan de Waard

Christoph Schmitz

Photography:

Harm Nieuwenhuijse

Special thanks to:

Mr. Thiemo Janssen