

AIRPORT SOLUTIONS

Floor Pit - Pit System - POP UP System – Connection Columns



MOSER Range of Services



MOSER Airport Technology - Versatility to meet the highest demands

For over 20 years MOSER underground systems represent high-quality system solutions that reflect state-of-the-art products with regard to the materials and installation technology used in their production. All components must comply with strict quality assurance standards and are aligned in the course of our dynamic innovation process to the continuously changing demands of humans and the environment as far as installation expenditure, user friendliness, maintenance and durability are concerned.

MOSER engineers have developed special solutions to prevent condensation and surface runoff, icing, flooding and the effects of sand storms so that our systems can be employed worldwide. Valuable MOSER attributes of the airport underground systems, whether retractable supply posts, supply posts with hinged lid or TerraMo, are technological progress, long service life, multi-functionality and the very highest safety standards.

Our connection columns can boast a 35-year success story. The fields of application for both indoor and outdoor use and customised equipping enable virtually unlimited areas of application. Power connections for air passengers and their laptops for example, can be cost-effectively retrofitted in the waiting areas. Check-in counters can be ergonomically designed. Areas requiring special access authorization are secured and gate intercom columns provide additional security.

However, the outstanding feature of MOSER products is the intensive consultation that we offer our customers during planning, installation and maintenance and a very special tradition to which MOSER has committed itself - MOSER SYSTEMELEKTRIK stands for over 40 years of quality!





HERBERT MOSER

Tradition always begins with a story and HERBERT MOSER as founder of MOSER SYSTEMELEKTRIK can proudly look back on his very own success story. During his 40 years of entrepreneurial initiative, however it is not only his pioneering past that has influenced the company but also his vision for the future coupled with technical progress. „We maintain our traditions“ and a 40-year tradition of the company is to invest in the future. In 1965 HERBERT MOSER decided to steer his future in the right direction and founded the engineering office Herbert Moser. From 1967 until 1975 he extended his business segment to include electrical installations. The designer and engineer took a courageous step into a new future for his company and developed the first connection columns. Success followed - VDE-Certification and the extension of this business segment allowed him adequate freedom for further developments and a completely new approach. In 1985 HERBERT MOSER developed the first retractable connection units. This technology was refined up to 1988 when MOSER - as the first company worldwide - presented its retractable supply posts. They are highly suitable not only for communal use but also for applications in the aviation industry. Imitators soon appeared on the scene but MOSER remained a step ahead thanks to his „Designer gene“. His perpetual aim was to improve and optimize his own products. Adaptations that are continuously required by changing environmental conditions and structural and safety requirements. However, despite his inclination to a technical way of thinking, HERBERT MOSER focussed both his developments and his company on satisfying the need of people. The highest demand that he has to meet every day with his developments still remains the ever increasing demand on quality. MOSER develops quality - that others cannot imitate, because this quality is based on the skills of staff with long years of experience, competent suppliers and a team of engineers who support and advise the founder of the company in his developments. MOSER is a company with a long tradition and that tradition is based on QUALITY.

References (Excerpt)

- | | |
|---|----------------------------------|
| VW Glass Manufacture Dresden | State Horticultural Show Potsdam |
| University of Applied Sciences Furtwangen | University of Freiburg |
| Reichstag Berlin | Main Station Berlin |
| Robert-Bosch Foundation Stuttgart | Castle Garden Edinburgh |
| EADS Airbus Hamburg | LUFTHANSA Hamburg |
| Airport Zürich-Kloten | Airport Baden-Baden |

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MOSER Underground Systems – numerous advantages



Excellent back-up consulting

Our trained specialists are at your disposal at all times from planning and installation through to maintenance.

Made in Germany

Long-standing MOSER tradition, competent suppliers whom we trust, qualified staff and modern production technology guarantee quality at the very highest level.

Underground systems directly from the designer

MOSER was the first company worldwide to develop the so-called „Retractable Supply Post“ - connection systems that can be lowered into the ground. Thanks to further developments, numerous underground systems for meeting a wide variety of demands are now available.

A reliable partner

MOSER supplies its underground systems as a complete unit including system pit, so that we always remain your direct contact for the entire installation. If necessary, we can also supply the underground systems without a system pit.

Better than other systems

A major factor for MOSER engineers is the regulation of moisture - an attribute that other systems renounce on. Our drainage system „Dry Inside“ and an integrated heater keep the supply tower and the mechanical components dry and ready for use during all weather conditions. MOSER technology against icing, formation of condensation, surface runoff, flooding and sand storms.

Optimum surface management

Employing underground systems enables the optimum use of space at airports that is often limited. Lowered into the ground, they create space, mobile supply units are no longer required and once retracted they are passable for vehicles of up to 90 tons.

Efficient use of resources

The use of MOSER underground systems saves time and money, as the necessary connections are ready for use on site at all times and the systems with their ingenious technology are easy to clean and require a minimum of maintenance. The perfect ergonomic design of the devices ensures easy, effortless operation.

Demand-oriented customized versions

MOSER underground systems are available in different sizes, types and modules. The intelligent modular structure enables variable equipping on both sides as well as the possibility to retrofit and convert.

Maximum safety

The small and yet inconspicuous details of the MOSER underground systems ensure safety for people and technology. For example the marker light when extended, an entry hatch in the system pit for maintenance and installation, the „Dry Inside“ system, the self-locking mechanism of the supply tower or the use of a dead man's switch.

Maintenance & Service provided by the manufacturer

Although seldom required, it is nevertheless advantageous that MOSER offers its own maintenance service for its underground systems. The trained qualified staff also from our local representatives ensure quickly and effectively long-term use and a long service life of our products.

MOSER guarantees QUALITY

Based on our experience and skills we offer you underground systems to meet the highest quality demands, a fact that is underlined by many years of customer satisfaction and the continuous growth of the company.



Made in Germany

Developed, produced and tested in Germany, MOSER connection columns give evidence of German perfection based on a symbiosis of high-quality materials from Germany and competent partners.

Experience since 1975

MOSER connection columns were developed in 1975 by Herbert Moser. Since that date they have been continuously further developed and adapted to the changing requirements. Over 30 years of application experience have led to a high degree of trust in the sophisticated MOSER technology.

Customized solutions

As all connection columns are designed and produced in the company, equipping them to meet the demands of the customer is no great problem for the planners. They are suitable for both indoor and outdoor use, variable in height and width, round or square and can be equipped with virtually all the standard switches of varying manufacturers. The installation of a telephone or ISDN connection, intercom system with camera function, card reader, orientation light or other access control devices can also be realized.

Durable yet cost effective

Manufactured from weatherproof aluminium, MOSER columns are sturdy, shock-resistant, robust and both dust and waterproof. The smooth surface is easy to clean. Connections for different floors (tiled, carpeted, concrete, synthetic flooring, screed flooring, double floors) can be realized with MOSER columns cost-efficiently and effortlessly.

Guaranteed safety

To protect both humans and technology, the columns are made from fire-proof materials. They also meet the required safety guidelines, are VDE-tested and bear the CE mark. The square columns have rounded edges. For extra safety purposes MOSER offers columns with lockable doors. Hazardous, untidy cables can be avoided in future by subsequently installing columns.

Attractive into the bargain

The slim columns whether round or square have a contemporary, purist and elegant appearance thanks to the use of aluminium. MOSER columns not only fit discreetly into their environment but also have a high user value.

Trouble-free check-in

Especially at airports, MOSER columns present a cost-favourable way to design efficient workplaces. At check-in counters they can supply the workplaces with the necessary connections. Even subsequent installation is unproblematic and is an easy way to provide clear and effective work environments.

More service quality for air passengers

Whether in airport lounges or shopping areas, power supplies are an elementary requirement in modern times, especially for air passengers who rely on communication via laptop or mobile telephone during long journeys. Freely usable power sources that are easy to reach, improve the service quality at airports immensely. The air passenger is grateful, especially when waiting times become longer. In this case, MOSER columns represent the perfect, speedy solution.

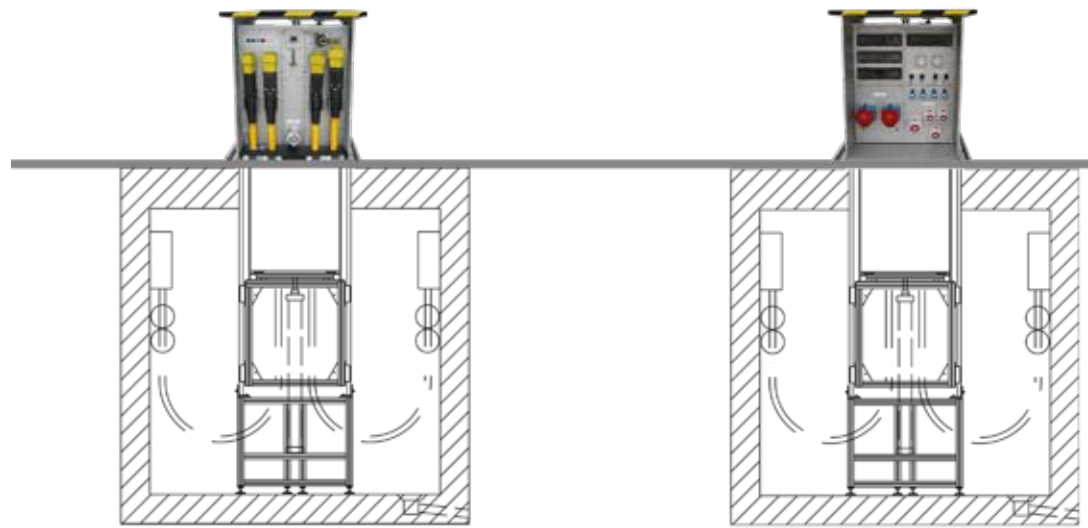
Modern office organisation

The MOSER office terminal for organisation under the desk. A table wire channel, that can be mounted without damage to the table top hides untidy cables. Easy to retrofit at all times. Efficiency not only at the workplace but underneath it.



Your future – flexible and safe

As the European market leader for underground systems with over 10.000 devices already in use, MOSER profits from its experience in particular for a trendsetting further development of airport technology aiming at supplying power more effectively, safely and specifically to aircraft both in hangars and on the airport apron.



Your requirements are decisive!

The specific use of diverse connections directly on site reduces the strain on staff and rationalises the workflows involved in aircraft clearance and maintenance. Not only different aircraft types but also parking and waiting positions require a variety of connections. MOSER underground systems are compatible with all common installation devices for:

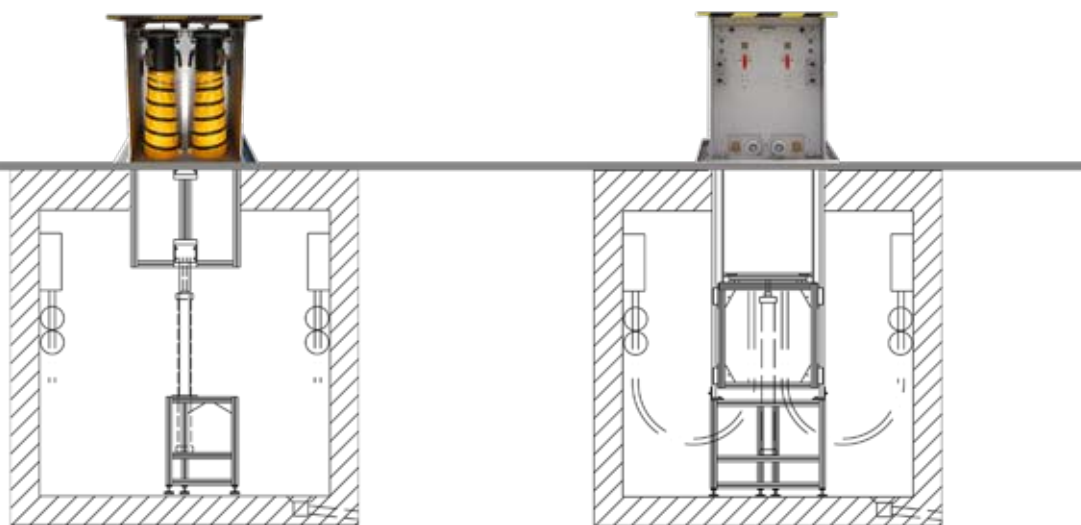
- 50 Hz mains frequency
- Low voltage
- Compressed air supply
- Blue water supply for WC
- Refuelling
- 400 Hz converter supply
- PCA
- Drinking water supply
- Toilet cleaning

Your field of application in the aviation industry!

Versatility and modular equipping enables our systems to be used in all areas of the aviation industry. MOSER Underground systems are especially suitable for:

- Heliports
- Airports (civil and military)
- Aircraft hangars for maintenance purposes
- Aircraft manufacturers in production
- Test systems
- Aerospace industry





Your safety first!

Our systems offer not only protection devices for safe handling but also protective measures against undesired wear and high maintenance costs.

MOSER's measures for your protection:

- All components are made from fire-resistant materials
- Integrated heater and drainage system „Dry Inside“ ensure dry electrical contacts
- Extended systems are always visible thanks to marking and orientation light
- Dead man's switch for lifting mechanism
- Permanently closed ground hole and ground-flush installation
- Entry hatch in the system pit for installation and maintenance purposes
- Non-slip ladder at pit entry



Your comfortable complete solution!

System pits complement the MOSER underground systems for airports. Our system pits are monolithic (from one casting) concrete chambers for installing in the ground and for mounting the supply tower. The advantage of using concrete pits instead of synthetic ones is better air conditioning in the interior which means less condensation. The side walls are equipped with multi-functional cable ducts for all power supplies. A dry interior is guaranteed by a drain pipe that can be shut off in the pit floor.



Wide range of products - better solutions



Everything under control

The safety aspect at airports plays a significant role in modern times and control instruments must be used effectively. Regardless of whether for retrofitting or replanning purposes, it must be possible to use access restrictions or control units both outdoors and indoors without complications and they must function reliably. The MOSER gate intercom column and the MOSER access control column make both a responsible and functional contribution. Equipping with the security technology of different manufacturers is easy and gives you as planner sufficient freedom and flexibility in making your choice.



Satisfaction has priority

An increasing number of air passengers bridge the waiting time at the terminal with their laptop or by making an important telephone call on their mobile phone. This becomes a problem when batteries run down. Service improvement for air passengers means in this case that they can find conveniently located power outlets and recharge free of charge. Our columns provide an uncomplicated, cost-favourable and space-saving version for retrofitting purposes so that you can meet the needs of your air passengers. Check-in counters too become more ergonomic and safer by using connection columns and office terminals.



Discreet, compact, concealed

The TerraMo is an intelligent solution for all public areas that remain flexible thanks to its use. The closed complete unit is the latest and smallest generation of underground systems. Low installation and operating costs coupled with a long service life and excellent workmanship „Made in Germany“ at a fair price and in best MOSER QUALITY. A quick and uncomplicated power supply is now possible in airport lounges, shopping areas or at check-ins.

The following pages show a brief excerpt from our range of products and innumerable possibilities. During a personal consultation we will establish your requirements and plan the perfect solution.

**Put your trust in MOSER...
...The best decision you can make!**

**Retractable supply post
for airports SE 56**

- 50Hz installation devices max.
- 125A and 50kW
- Low voltage current
- Data network
- Compressed air
- Fresh water
- Waste water



**Retractable supply post
for airports SE 80**

- 50Hz installation devices max.
- 250A and 130kW
- Low voltage current
- Data network
- Compressed air
- Fresh water
- Waste water



**Retractable supply post
for airports SE 100**

- 400Hz technology
- 50Hz installation devices
- Low voltage current
- Data network
- Compressed air
- Fresh water
- Waste water



**Retractable supply post
for airports SE 120**

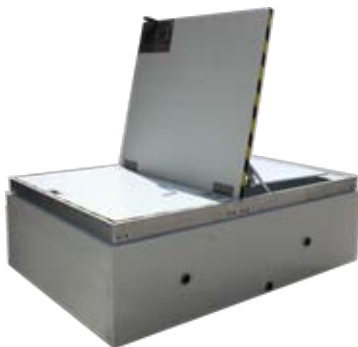
- 400Hz technology
- PCA thermal hoses
- Water
- Compressed air





Supply post with hinged lid for airports SKE 60

50Hz installation devices max.
125A and 50kW
Low voltage current
Data network
Compressed air
Fresh water
Waste water
Refuelling



Supply post with hinged lid for airports SKE 120

50Hz installation devices max.
125A and 50kW
Low voltage current
Data network
Compressed air
Fresh water
Waste water
Refuelling



airport connection terminal MS ACT

A stationary ground system for supplying electrical systems and measuring instruments with power for connecting pneumatic tools.
The MS ACT is made of stainless steel and is protected against condensation.



TerraMo

- lock-proof sockets 16A
- CEE 16A 5-pole
- Distributor max. 4 modules
- Data sockets

**MS 10 / MSR 12
Connection columns**

Access control
High and low voltage devices:
Shock-proof sockets
Data sockets
Network
EDP
Telephone sockets

**MS 18 / MSR 20
Gate intercom columns**

Intercom systems
Access control



**MSD 10 / MSDR 12
ceiling connection columns
(max. 5900 mm high)**

High and low voltage devices:
Shock-proof sockets
Data sockets
Network
EDP
Telephone sockets
Access control



Office terminal

High and low voltage devices:
Shock-proof sockets
Data sockets
Network
EDP
Telephone sockets



MOSER Information

You will find detailed information on all underground systems and connection columns, their dimensions and equipping possibilities in our current product catalogue. Please request same or contact us for a personal consultation!

MOSER Systemelektrik stands for innovative connection technology products for indoor and outdoor use. The main aspects prevailing during development are not only attractive design, functionality but also compliance with all national and international safety regulations. An economical, modern manufacturing, high-quality materials and uncompromising quality control ensure reliable and patented products in excellent quality. Not least are the high satisfaction of our customers since many years and the continued growth of the company important evidence therefor. Especially is our claim for quality ensured by competent, motivated and well trained staff.



AIRPORT SOLUTIONS
Floor Pit - Pit System - POP UP



MOSER Product overview



TerraMo – Underground connection



An intelligent solution for an underground connection –
Energy right where you need it.



Connection technology



Connection technology for every application

Submitted by:

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Subject to technical alterations.
Our conditions of delivery and payment are applicable.

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