

Welcome to Schienle Magnettechnik

#identity #talents #products #experience #innovation



#identity



#talents



#products



#experience

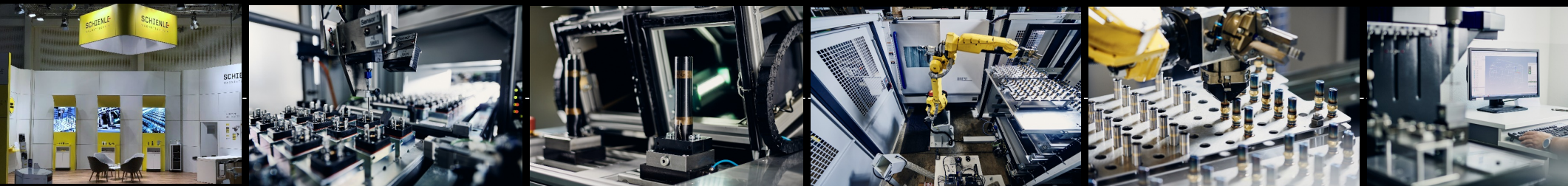


#innovation

#identity

Schienle Magnettechnik + Elektronik GmbH, based near Lake Constance, has been producing electromagnetic linear drives for applications with high technical and quality-related demands for 44 years.

We are the leader in our rapidly expanding product segment explosion protection, as a result of our international experience and worldwide accreditation to ATEX, IECEx and other standards.



#identity

SCHIENLE
MAGNETTECHNIK

WORLD
WIDE
EXPERIENCE

SCHIENLE
MAGNETTECHNIK

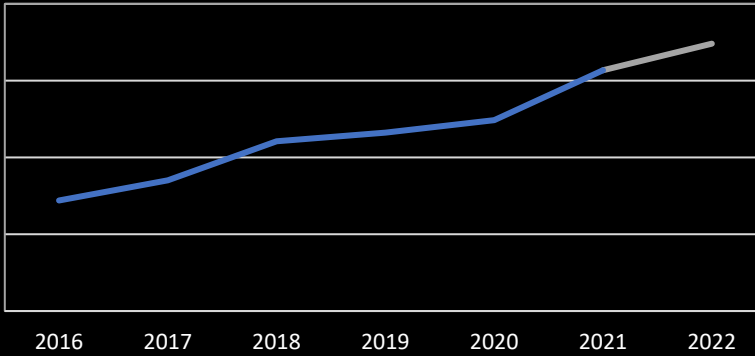
Founded: 1976
1998 Shareholding HAWE SE 100%

Turnover: xx million EUR

Employees: 120

Production : 3200 m²

turnover mio €



#talents

#products

#experience

#innovation

History

1976

Founding by
Mr. Schienle
in Bermatingen



2000
(1.9Mio)

Move to new
premises in
Salem-Neufrach



2002

Certification to
directive
2014/34/EU
(ATEX 95)



**2004 /
2005**

Administrative
area undergoes
expansion

Extension to
expand manufact-
uring and building
of prototypes

2009

IECEX –
certification



2011

M-Approval
audit
Class 1
Division 1
NEC 500,
NEC 505
certificates



2013

Trade fair
presentation
at MDA
Hannover



2018
(10 Mio)

Member of
Europe
Advisory
Council
FM-Approval



2020

Realisation
of „digital
shadow“



1998

Expansion of our
own manufacturing
facilities and switch
to assembly islands

100 % stake acquired
by HAWE Hydraulik



2001

Certification
tot DIN EN
ISO9001:2000



2003

Certification
of the first
explosion-proof
solenoids

2008
(7,7 Mio)

Move of the
administration
and assembly
into the new
building

Expansion of
the distribution

2010
(6,8 Mio)

Expansion
of assembly
& production

new
ANZEx –
certificates

ANZEx

2012

Safety
Certificate
of Approval
for Mining
Products
China



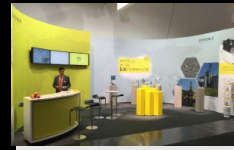
**2015-
2017**
(8.5Mio)

Investments
in high-tech
production
methods



2019
(11,5 Mio)

Presentation of
„digital shadow“
at Hannover
fair IMDA



#talents

#products

#experience

#innovation

#identity

WORLD
WIDE
EXPERIENCE

#talents



development



manufacturing



assembly



services



quality

Self-initiative and passion in all that we do
represent the expression of our values.

#products

#experience

#innovation

#talents



manufacturing



assembly



services



quality

Development



Together with our partners, we develop and certify innovative customer-specific electromagnet solutions. Thanks to decades of experience and standardised workflows, Schienle is able to fulfil orders of any size and on schedule.

#talents



#products

#experience

#innovation



manufacturing



assembly



services



quality

#talents

Manufacturing



We consistently manufacture with a high level of vertical integration and using a common part construction approach.

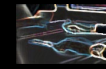
The secret of our success lies in our highly qualified expert personnel, modern machinery and lean processes. The result is the maximum degree of efficiency and flexibility – for economical premium solutions.



#products

#experience

#innovation



manufacturing



assembly



services



quality

#talents

Assembly



For small batches we use flexible assembly islands based on the Kanban principle. For larger series we use efficient assembly lines.

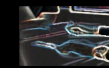
Before delivery, every single one of our products passes through fully or partially automated test benches, as appropriate. And afterwards, the test results are precisely documented.



#products

#experience

#innovation



development



manufacturing



assembly



quality

#talents

Services



Our services:

- ✓ Electromagnets, from concept to serial product
- ✓ Customisation of serial products
- ✓ Worldwide explosion protection certificates
- ✓ Digital shadow

„Only the customer can decide whether a service is good“

#products

#experience

#innovation





development



manufacturing



assembly



services

#talents

Quality



In addition to the basic certification to DIN ISO 9001:2015, Schienle is subject to the following international monitoring audits:

- + FM-Approval USA / CDN
- + ATEX
- + IECEX
- + MA Chinese Mining
- + UL
- + CCC Ex

#products

#experience

#innovation

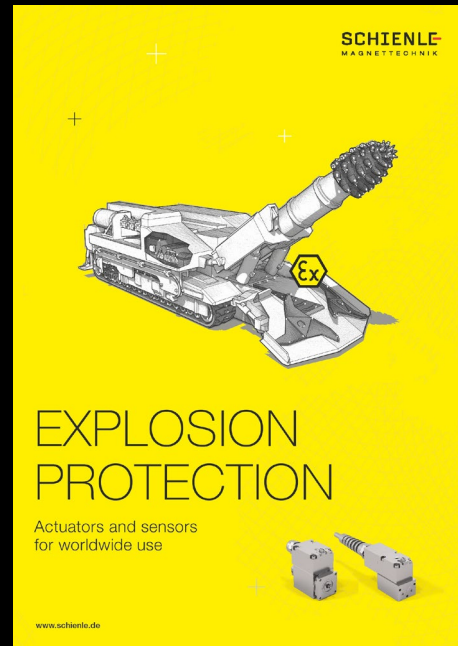


#products

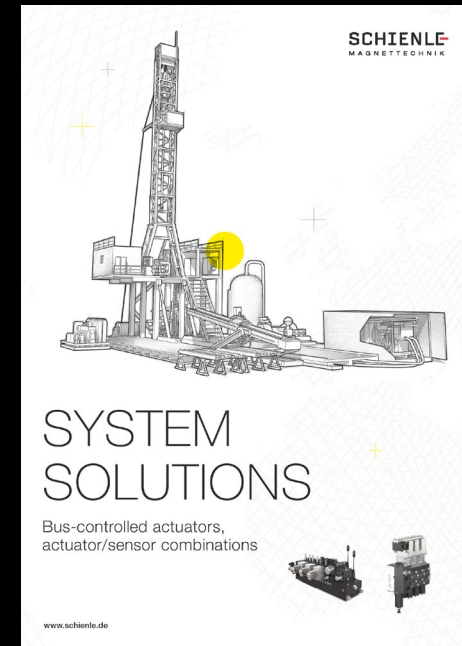
Components



Explosion protection



System solutions



Components



Pressure tubes and
exciter coils

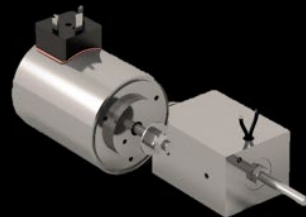


Proportional- and
switching solenoids
(pressure proof)



Linear solenoids with high
protection class and
special solution

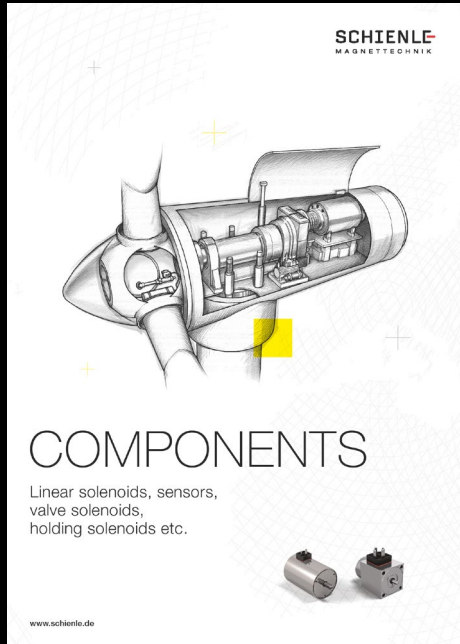
High performance
solenoids



Reverse- and dual-
linear solenoids

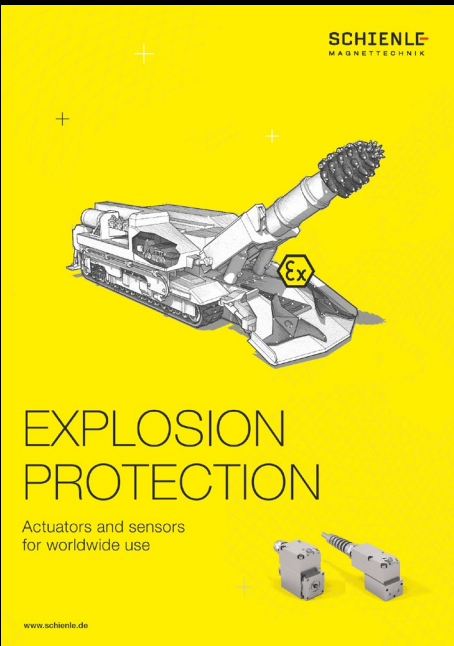


Pressure proofed
linear solenoids for
several media



#products

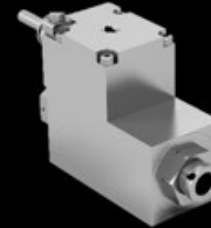
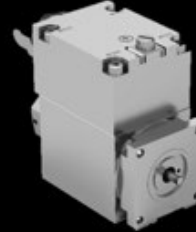
Explosion protection



Ex - twin solenoids



Explosion-proof coil system



Ex - lifting magnets



Ex - sensors



Industry



Mining



Oil and gas

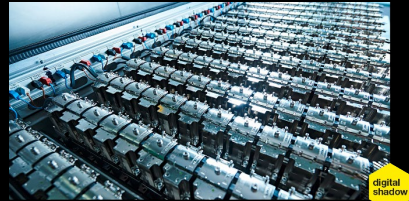
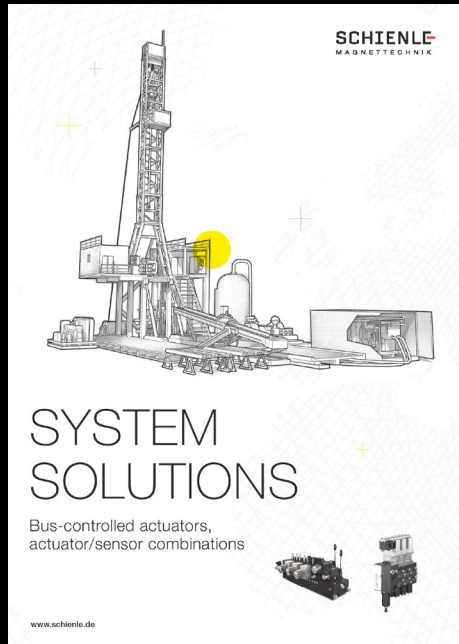


#experience

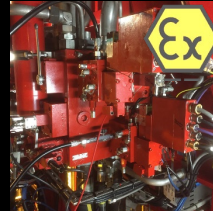
#innovation

#products

System solutions



Integration
electronics
sensors
and actuators



Integration
electronics
explosion protection
sensors
and actuators



Confectioning
switchboxes
and
components

#experience

#innovation

#experience

Our products can be found worldwide in a variety of well-known products of well-known manufacturers

ENERGY



RESSOURCES

**HUMAN NUTRITION
+ HEALTH**



INFRASTRUCTURE

EFFICIENT PRODUCTION



#innovation

#experience

WORLD
WIDE
EXPERIENCE

USA/Canada*

CERTIFICATION SCHEME - LOCAL
No certificate name. Products must be tested and listed by a NRTL (Nationally Recognized Testing Laboratory) accredited by OSHA (Occupational Safety and Health Administration). The apparatus must be protected against the National Electrical Code - Also referred to as NFPA 70, NEC or NESC which is following IEC Standard.

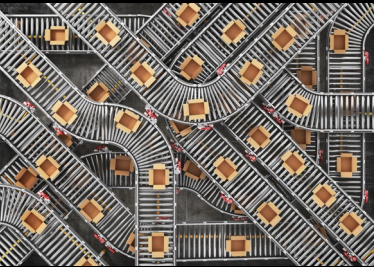


ACCEPTED CERTIFICATION SCHEME - GLOBAL
No direct acceptance of any other certificate - US-Code Guard is accepting EEC

CERTIFICATION SCHEME - LOCAL
For the United States of America
NSHA
No direct acceptance of any other certificate

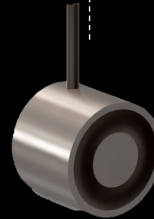


AUTOMATION



Holding, locking and braking
automation technology

Hold- lifting and brake magnets



Success factors:

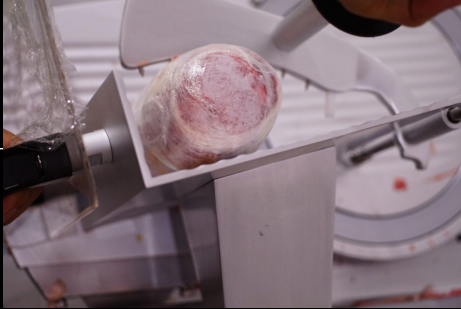
- ✓ Low power high force
- ✓ Very short development time
- ✓ high holding force

Success factors:

- ✓ High operating force
- ✓ High functional reliability
- ✓ Favourable price



Food Industry



Cutting machine

Drives hold and stack the goods



Success factors

- ✓ Highest power density
- ✓ Compact design



Success factors:

- ✓ High operating force
- ✓ High functional reliability
- ✓ Better price

#innovation

WORLD
WIDE
EXPERIENCE
#experience

USA/Canada*

CERTIFICATION SCHEME - LOCAL

No certificate name. Products must be tested and listed by a NRTL (Nationally Recognized Testing Laboratory) accredited by OSHA (Occupational Safety and Health Administration). The apparatus must be protected against the National Electrical Code - Also referred to as NFPA 70, NEC or NEC500 which is following IEC Standard.



ACCEPTED CERTIFICATION SCHEME - GLOBAL

No direct acceptance of any other certificate - US Coast Guard is accepting IEC

CERTIFICATION SCHEME - LOCAL



USA/Canada*

CERTIFICATION SCHEME - LOCAL

No certificate name. Products must be tested and listed by a NRTL (Nationally Recognized Testing Laboratory) accredited by OSHA (Occupational Safety and Health Administration). The apparatus must be printed against the National Electrical Code - Also referred to as NFPA 70, NEC or NESC which is following ENEC.

ACCEPTED CERTIFICATION SCHEME - GLOBAL

No direct acceptance of any other certificate - US Coast Guard is accepting ECEs

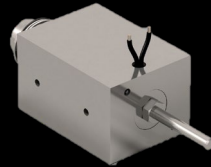
CERTIFICATION SCHEME - LOCAL

ACCEPTED CERTIFICATION SCHEME - GLOBAL

No direct acceptance of any other certificate



Holding and Linear solenoids tight and high output



Success factors:

- ✓ High acceleration
- ✓ Large end forces
- ✓ Very short development time

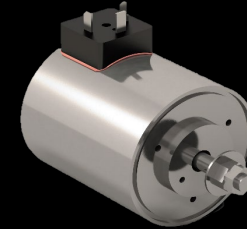
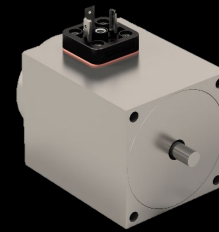
#innovation

ENERGY



Lubrication technology in wind power

Actuators for directly driven valves



Success factors:

- ✓ High actuating force
- ✓ High functional safety
- ✓ Better price

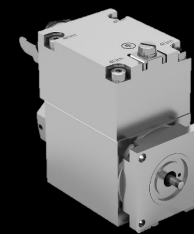


RESSOURCES



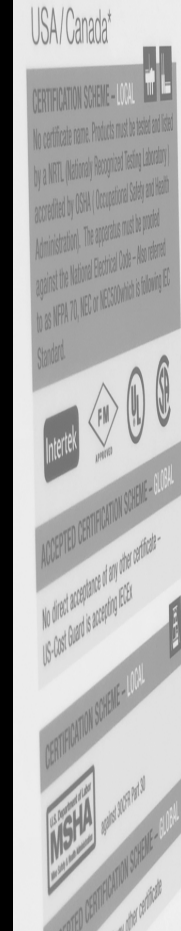
Hydraulic mining machines

Actuators for directly driven and pilot-controlled valves

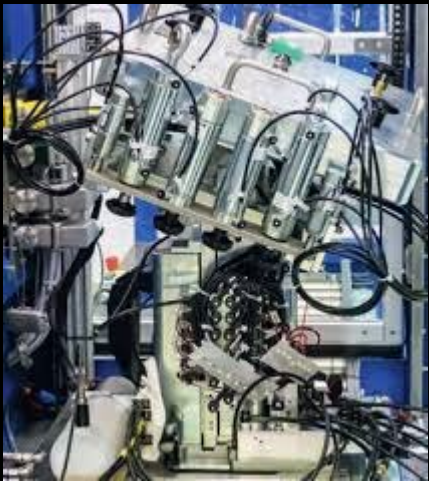


Success factors:

- ✓ International certificates
- ✓ Mechanically robust designs
- ✓ Wide variety of accessories



HUMAN NUTRITION + HEALTH



Patient storage systems
Lifting pillar

Miniature pressure tubes for directly driven valves



Success factors :

- ✓ Residual dirt compliance
- ✓ Availability
- ✓ Pressure area 320 bar
- ✓ Better price
- ✓ Force characterisic curve

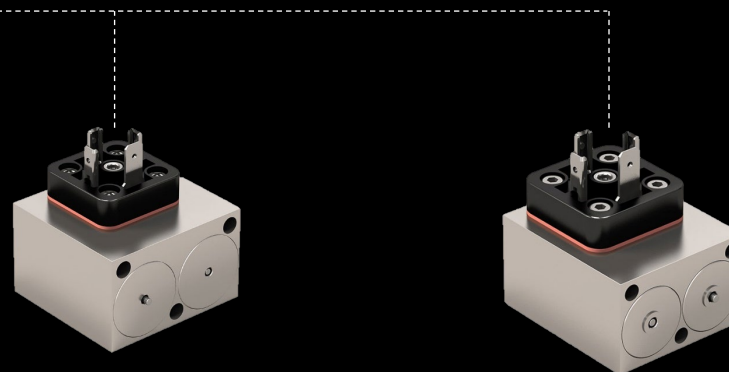


INFRASTRUCTURE



Hydraulic cementation pump

Tight twin solenoids



Success factors:

- ✓ Range of products 108 versions
- ✓ Tight design
- ✓ Robustness and reliability
- ✓ Better price

USA/Canada*

CERTIFICATION SCHEME - LOCAL
No certificate name. Products must be tested and listed by a NRTL (Nationally Recognized Testing Laboratory) accredited by OSHA (Occupational Safety and Health Administration). The apparatus must be protected against the National Electrical Code - Also referred to as NFPA 70, NEC or NCS300 which is following IEC Standard.



ACCEPTED CERTIFICATION SCHEME - GLOBAL
No direct acceptance of any other certificate - US Coast Guard is accepting IECs

CERTIFICATION SCHEME - LOCAL
Listed by OSHA
OSHA 201722-101-10

ACCEPTED CERTIFICATION SCHEME - GLOBAL
No direct acceptance of any other certificate



#innovation

Let's develop and realize new ideas together

#innovation

digital
shadow

Digital position detection

Digital shadow in the explosion protection

 Bus-controlled actuators

#innovation

digital
shadow

Digital position detection

#teachyoursensor

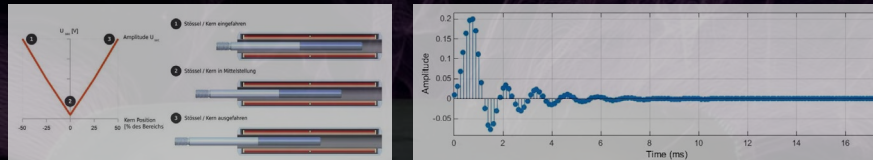


$$E_1 = M_{21} \frac{di_2}{dt}$$

$$E_2 = M_{12} \frac{di_1}{dt}$$

$$M_{12} = M_{21} = M \quad (H)$$

Intelligent position detection of linear movements with the mathematical - physical principle of step response.



- Tool-less "Teach me" calibration
- Digital signal processing
- Variable support points of the path characteristic curve
- Multi signal output

#innovation

digital
shadow



Digital shadow in the explosion protection

#innovation

„up-to-date“

Update service for base certificates



REGISTRATION

The Update Service is an online subscription that allows you to keep your IECEx based local certificates up-to-date.



DOCUMENTATION

The download Service is a Serial number related access to the valid apparatus documentation.

E.g. Operating manuals, Certificates and declarations, Technical information, Product life cycle related-information

ACTIVE DIGITAL DATA FOOTPRINT

Get access to Serial number related uniquely product data. Define your data requirement.

E.g. Test bench data



„Connection“

Serial number specific documentation



„Transparency“

Individual test data set

digital shadow

Bus-controlled actuators

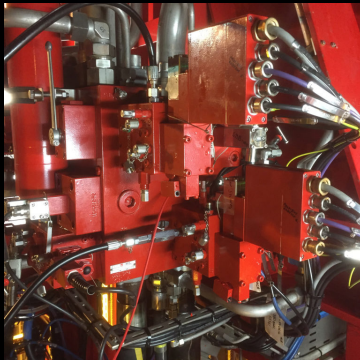
We integrate our customers' electronics into our electromagnetic drives in conformity with explosion protection requirements.

MSHA

IECE_x

ATEX

intrinsically safe - flameproof encapsulation - encapsulation



#innovation

digital
shadow

SCHIENLE

MAGNETTECHNIK

We look forward to

working with you