

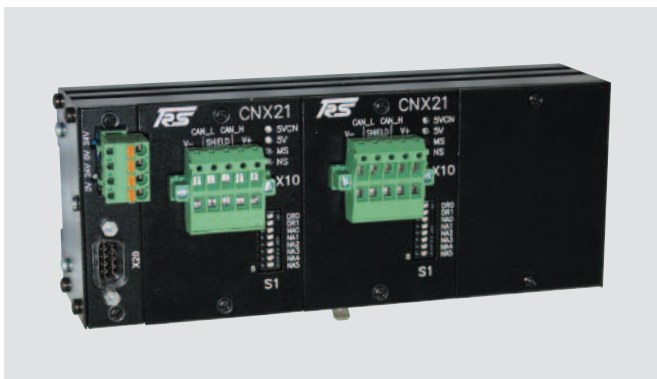
SCHMIDT® Automation Accessories



SCHMIDT® CANOpen-PROFIBUS-Gateway

The **SCHMIDT® PressControl 600** works with the fieldbus system CANopen. In integrated systems, data transfer with system control must often be carried out via PROFIBUS.

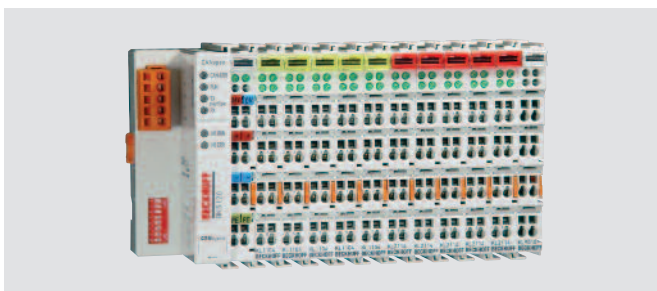
For this purpose, **SCHMIDT Technology** offers a CANopen-PROFIBUS-Gateway. It provides a data area, in which both sides can write or from which both sides can read (on each side, 64 bit input and 64 bit output). Thus, an application-specific data exchange can be realized. The gateway behaves on both sides as a slave. The update rate of the CANopen side is 5 ms.



SCHMIDT® CANOpen-DeviceNet-Gateway

The **SCHMIDT® PressControl 5000** works with the fieldbus system CANopen. In integrated systems, data transfer with system control must often be carried out via DeviceNet.

For this purpose, **SCHMIDT Technology** offers a CANopen-DeviceNet-Gateway. It provides a data area, in which both sides can write or from which both sides can read (on each side, 64 bit input and 64 bit output). Thus, an application-specific data exchange can be realized. The gateway behaves on both sides as a slave. The update rate of the CANopen side is 5 ms.



I/O connection

Different terminal modules are offered, if required, for the integration of analog and digital signals. The connection of these modules is achieved via CAN bus.

SCHMIDT® NC axis

The **SCHMIDT® PressControl 5000** control unit offers a large variety of automation possibilities. In total, the control unit allows integrating up to 6 NC axis or **SCHMIDT® ServoPress / TorquePress** modules.

Thus, flexible automation of the assembly cells can be achieved.

We can design and manufacture XY tables to your specific requirements.



SCHMIDT® ServoPress
with NC linear table

SCHMIDT® Slide tables

For efficient production



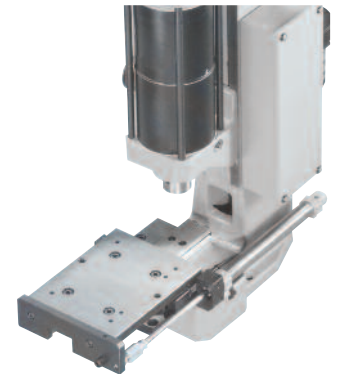
SCHMIDT® Slide tables are specially designed for the high forces of press systems and where a position requires high precision against an adjustable stop. It is an economic solution for tall parts and for placement of parts outside of the danger area. They can be mounted, depending on the type, both in longitudinal and lateral positions, and can be adapted for automated processes.

Features:

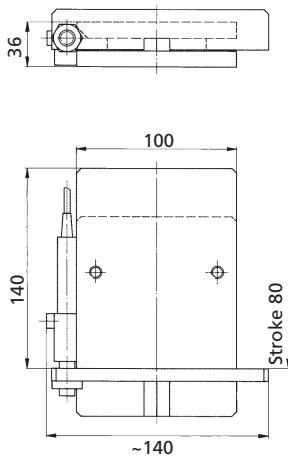
- Cross roller bearings for high-precision guidance
- Play-free adjustment of the table guidance is possible
- Maintains its working position via pneumatic cylinders
- Position detection of the slide table via integrated sensors
- Integrated shock absorbers cushion impact at end positions
- Positioning via pneumatic cylinders in automatic mode
- The press stroke is activated only when the slide is in its proper position.



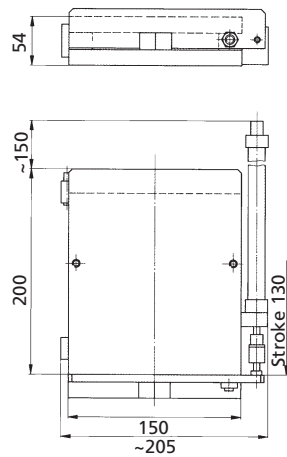
SCHMIDT® ST 45 P
Longitudinal slide table



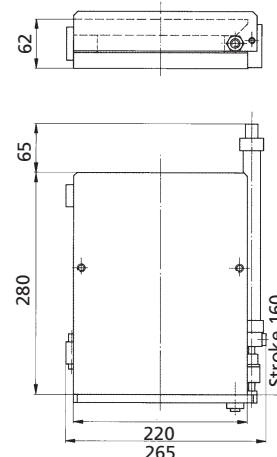
ST 10 / ST 10 P
(stroke 80 mm)



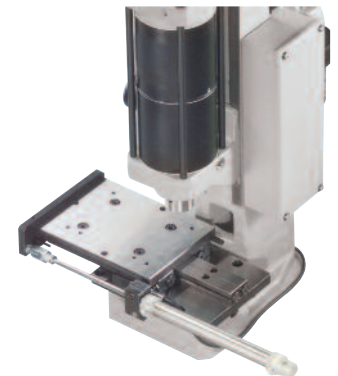
ST 45 P
(stroke 130 mm)



ST 140 P
(stroke 160 mm)



SCHMIDT® ST 45 P
Lateral slide table
with adapter plate for fastening
on the fixture mounting platen



SCHMIDT® ST45 Slide table
with bow-type handle, manual



| Type | ST 10 | ST 10P | ST 45 | ST 45P | ST 140P |
|-------------------------|---------------|---------------|---|---|--|
| Pressure load | kN 10 | 10 | 45 | 45 | 140 |
| Stroke | mm 80, 160 | 80, 160 | 130, 200, 250 | 130, 200, 250 | 160, 200, 250, 300 |
| suitable for press type | 20, 23, 24 | 20, 23, 24 | 20, 23, 24, 25, 27, 32, 33, 34, 61, 62, 65, 323, 327, 361 | 20, 23, 24, 25, 27, 32, 33, 34, 61, 62, 65, 323, 327, 361 | 29, 36, 65, 68, 74, 76, 329, 362, 365, 368, 374, 376 |
| Manual presses | up to 10 kN | up to 10 kN | all | all | all |
| ServoPresses | 405, 415, 416 | 405, 415, 416 | 420 max. | 420 max. | all |
| Shock absorber | ● | ● | ● | ● | ● |
| Bow-type handle | ● | ● | ● | ● | ● |
| Operating mode | manual | pneumatic | manual | pneumatic | pneumatic |

Mounting holes available upon request
● = Standard

Special designs for very long strokes on request
manual = without cylinder, without sensors, without shock absorber

SCHMIDT® Four-column gantry

SCHMIDT® four-column gantries used in manual workstations, and automated assembly lines, are suitable for all **SCHMIDT® presses** with extraordinary requirements in all working area.

In order to consider the large number of applications and cases, the design is adapted specifically to your requirements. All individual requirements can be taken into account. Short delivery times are realized because of in-house production. Contact us with dimensions (see table), and we can supply you with a proposal.

Features:

Base-plate

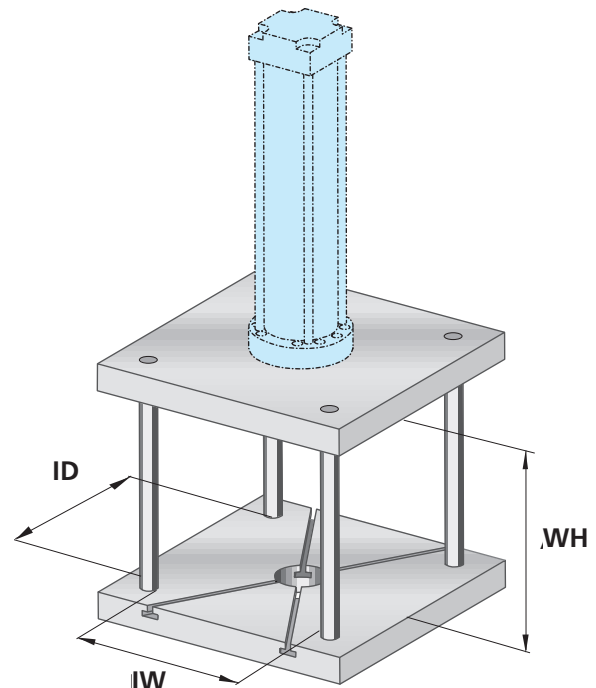
- Coated: RAL 7035 (light-grey)
- Cross T-slot 45° 14H7
- Central bore 40H7, other bores on request

Cover plate

- Coated: RAL 7035 (light-grey)
- Connection drill pattern for the required press
- Chromium-plated columns

Dimensions

| | |
|---|----|
| Inner width | IW |
| Inner depth | ID |
| Working height (referred to the TDC position of the press ram) | WH |



SCHMIDT® Workstation

The **SCHMIDT® Workstation** offers a safe base for the vibration-free installation of all **SCHMIDT® Press systems**. They are designed as seated workstations according to the latest ergonomic guidelines.

The basic structure is a robust welded frame that is coated with RAL 7024 graphite grey. All surfaces are coated with RAL 7035 light-grey. The adjustable legs allow a height adjustment of 60 mm. The table top is made of duplex laminated wood.

The **SCHMIDT® PU 10 Workstation** offers a good base for integrating further Automation Accessories such as workpiece clamping devices, feeding units, separating units, etc.



PU 10

Options:

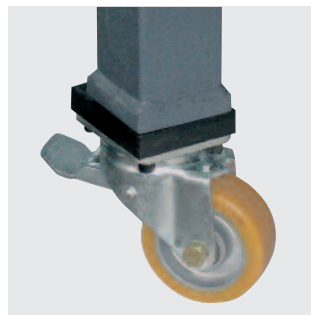
- Adjustable foot support
- Four casters, two of them swivel, two fixed ¹⁾
(not height-adjustable)
- Standing workstation
- Aluminum table top (flat, sand-blasted or anodized)
- Nickel-plated steel table top
- Plastic-coated table top

The supporting spacers for the table top are adapted to the press frame configuration and are available for C-Frame, gantry and rotary indexing systems.

Height as seated workstation: 820 – 880 mm, with casters 920 mm

Height in standing position: 1020 – 1070 mm, with casters

1110 mm



Castors for PU 10 ¹⁾

¹⁾ not for HydroPneumaticPress No. 64, 68, 74, 76 and ServoPress No. 420, 450, 460 and TorquePress 200

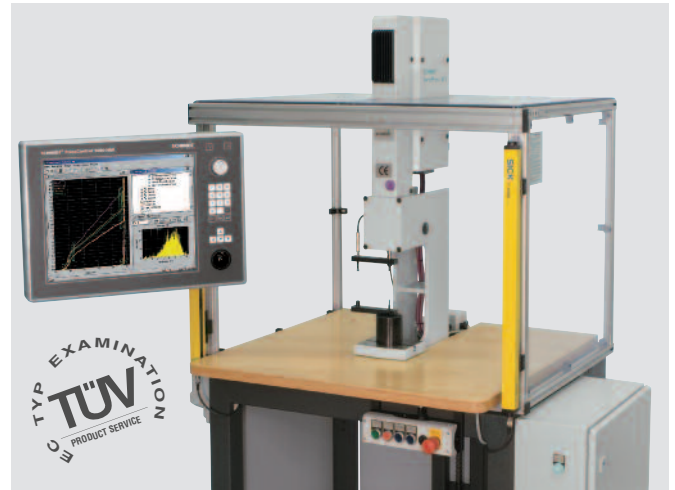
Two-hand and automatic operation can be carried out using the press control unit **SCHMIDT® PressControl 70, 500 A and 3000**.

SCHMIDT® single workstations are EC type-approved. Safety devices including pneumatic system exist twice in all models.



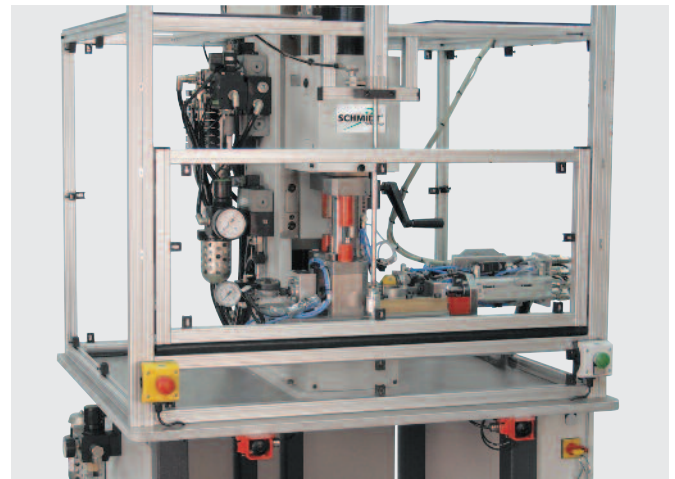
Two-hand safety switching

In basic design, **SCHMIDT® PneumaticPress** and **HydropneumaticPress** are operated with **two-hand safety switching**. The user must keep both switches in release position. If one switch is released ahead of time, the press stroke is interrupted. This applies to all positions above the automatic stroke takeover that is started from the point where the dangerous closing movement is finished. From the stroke takeover, the stroke is continued automatically.



Light curtain with transparent protective housing

The **light curtain control** provides optimum safety to the user. The danger area is protected with macrolon windows against contact. A light curtain protects the access to the danger area on the side of insertion. The working process is immediately interrupted and the press is stopped when intervening. The cycle can be continued automatically after leaving the danger area. In combination with **SCHMIDT® ServoPress**, the light curtain control is the basic version. The press can be activated via the light curtain. Depending on the application, it can be selected between 1-cycle and 2-cycle activation.



Transparent protective housing with pneumatic sliding door

The version with pneumatically operated safety door is completely protected with macrolon windows. First, the safety door is closed and locked via hand or foot switch. This is two-channel monitored. As soon as the door is locked, the press process is automatically started.

SCHMIDT® Rotary indexing systems

For efficient production

SCHMIDT® rotary indexing systems are the basis for an economic rationalization. All **SCHMIDT® press types** can be integrated in a rotary indexing system. Mostly, the machines are designed for manual loading. The machine designs are as varied as the requirements. Depending on the requirements of the customer, an individual design is planned.

Rotary indexing systems with automatically rotary indexing plate

The press base PU10 with mounted, ground plate serves as the platform. Press and rotary indexing table are aligned and pinned together. The indexer table resist safely the occurring forces. The switch cabinet and the operating elements are defined according to requirements.

Typically, other systems, such as a second press, automatic parts feeder or automatic parts ejector, are integrated. Optionally, receptacles and tools are delivered.



Electromechanical rotary indexing table

| | |
|-----------------------|---|
| Types | Several drive sizes are available depending on the weight of the component or the diameter of the rotary table. |
| Divisions | 2, 3, 4, 6, 8, 10, 12, 16, 20, 24, other divisions on request |
| Direction of rotation | Every rotary table can either be indexed to the left or to the right. |
| Brake | Auto-adjusting |

NC rotary table

| | |
|----------------------------------|---|
| Types | Several drive sizes are available depending on the weight of the component or the diameter of the rotary table. |
| Divisions, direction of rotation | Freely programmable |

Indexing plate

| | |
|--------------------------------|--|
| Diameter of the indexing plate | Standard: Diameter 520 mm or other diameters up to 1200 mm also possible depending on the requirements |
| Drill pattern in pitch circle | Standard: Fit bore 20 H7, or drill pattern in consultation with the customer. |
| Material | Standard: Barnished steel, 18 mm thick, or anodized aluminum, 20 mm, with larger diameters |

Safety concepts

For the safety of the users, the machine is completely protected with aluminum profiles and macrolon windows. There are different possibilities for protection on the front side:



Light curtain



Swivable flap

The indexing plate moves out of the protective device – manual loading.

With this concept, the parts are fed from the outside. Simultaneously, the press processes are carried out in the interior of the machine.

Light Curtain

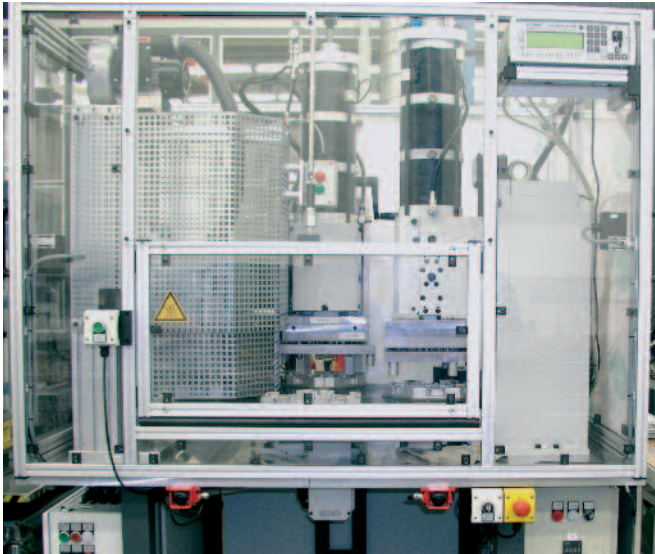
The use of a light curtain requires that possible trap points due to the rotary indexing plate are avoided. For this, the height of the component is decisive among other things.

Front cover flap to the inside

The components rotate through the small aperture in the protective guarding. With each possible intervention in this position the flap moves to the inside and stops the rotary table.

SCHMIDT® Rotary indexing systems

For efficient production



Complete indexing table inside the protective guarding

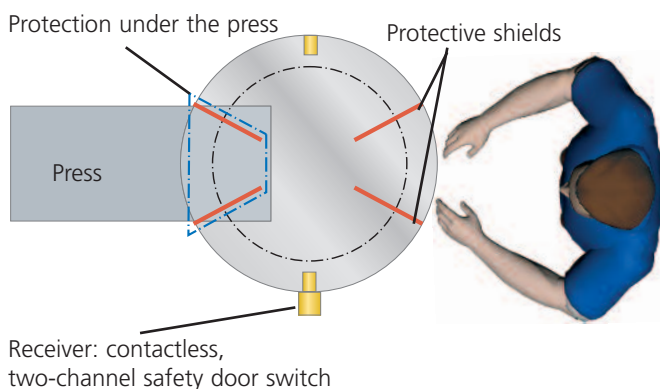
Full covering

- Automatic loading
With this version, the front guarding is closed
- Manual loading
With this version a light curtain or pneumatic safety door is available



Without guarding

The delivery of machine components is carried out after consultation with the customer.



Rotary indexing system with manually rotary indexing plate

This low-cost model consists of a manually rotary indexing plate with automatic indexing. Due to the concept, there is no risk of crushing when rotating the plate so that simple constructions are possible. During indexing, the pressing tool is completely closed. This version is mostly delivered as two-division manual workstation. Thanks to the small and compact design, the rotary indexing table can be mounted directly on the fixture mounting plate of the press.

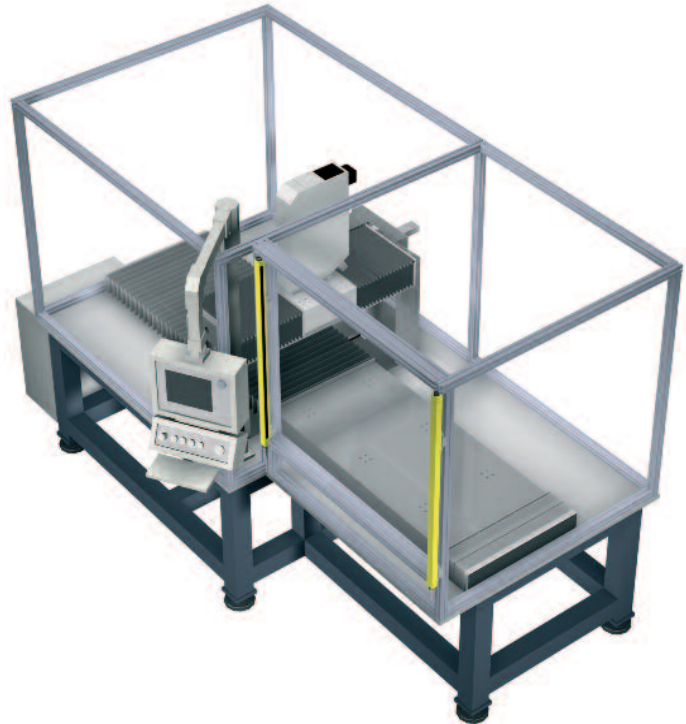
We will be pleased to submit a proposal for your personal requirements. In order to offer the most appropriate solution we may require additional information such as drawings, components, samples, variants and annual production volumes.

SCHMIDT® Cartesian assembly machine

On the basis of high-precision **SCHMIDT® ServoPress** modules in the press force range of 0.5 – 100 kN, a Cartesian assembly machine has been developed, which can be used for fully automated assembly processes in many sectors. The flexible assembly of components with different dimensions in one load becomes reality.

Features

- High-precision assembly technology in 1/100 mm range
- The workstation is equipped with the latest palletised systems for optimum efficiency
- The workstation control system can store many data sets for each type of product to be assembled: reducing the need to re-program for each product type.
- Freely parameterizable, sequential scanning of the working area
- Automatic tool change
- Traceability and documentation complying with ISO 9000
- Statistic Process Control SPC online



This new development is intended for users who want to create fully automated, highly productive assembly workstations.

Instead of the labourious loading of single parts, workpiece carriers are loaded or unloaded to the machine. This reduces loading time considerably.

The workpiece carrier can contain different components. The Cartesian assembly machine scans the working area sequentially, whereby it is possible to carry out automatic tool changes. A linear table moves the workpiece carrier in X direction. The ServoPress module that presses in Z direction is moved in Y direction via a gantry so that any points in the 3D working area can be accessed via the corresponding profiles.

The flexible data set management of the **SCHMIDT® PressControl 4000** and **5000** allows setting up the machines quickly and efficiently. A data set change, for example, if workpiece carriers are loaded with different pieces, can be carried out fully automated from the operating panel. A mechanical retrofitting of the machine is completely avoided.

With regard to intelligent assembly, documentation and Statistic Process Control SPC, the machine disposes of all tools that are provided by the control unit **SCHMIDT® PressControl 4000** and **5000**.

| Standard press type | | 405 | 415 | 416 | 417 | 420 | 450 | 460 |
|--------------------------|--------------------|--------|--------|------|--------|-------|-------|--------|
| Nominal force | | 0.5 kN | 1.5 kN | 3 kN | 7.5 kN | 20 kN | 50 kN | 100 kN |
| Working stroke Z | mm | 150 | 200 | 200 | 300 | 400 | 500 | 500 |
| Working area X axis "x" | 1000 mm | ● | ● | ● | ● | ● | ● | ● |
| Working area Y axis "y" | 500 mm | ● | ● | ● | ● | ● | ● | ● |
| Travel speed "Z" | 100 mm/s | | | | | | | ● |
| | 200 mm/s | | ● | ● | ● | ● | ● | |
| | 300 mm/s | ● | | | | | | |
| Travel speed "X" | 300 mm/s | ● | ● | ● | ● | ● | ● | ● |
| Travel speed "Y" | 300 mm/s | ● | ● | ● | ● | ● | ● | ● |
| Positioning accuracy "Z" | 0.01 mm | ● | ● | ● | ● | ● | ● | ● |
| Positioning accuracy "X" | 0.005 mm | ● | ● | ● | ● | ● | ● | ● |
| Positioning accuracy "Y" | 0.005 mm | ● | ● | ● | ● | ● | ● | ● |
| Machine dimensions "Z" | mm | 2000 | 2000 | 2000 | 2570 | 2630 | 2810 | 2810 |
| Machine dimensions "X" | 3200 mm | ● | ● | ● | ● | ● | ● | ● |
| Machine dimensions "Y" | 1500 mm | ● | ● | ● | ● | ● | ● | ● |
| Power consumption | | 3.5 kW | 6 kW | 6 kW | 9 kW | 11 kW | 18 kW | 18 kW |
| Mains voltage | 400 V, three-phase | ● | ● | ● | ● | ● | ● | ● |

Light curtain control
Coated welded frame (RAL 7035)
Pressing station with anvil support
Pneumatic tool change optionally

Other construction sizes are possible

SCHMIDT® can help ... from Application Evaluation to Customer-Specific Solutions



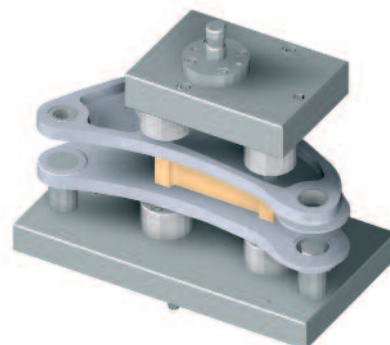
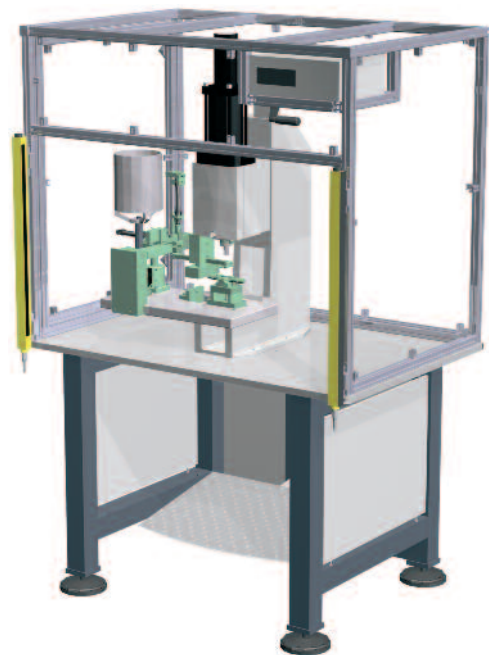
Standard 'out of the catalog' products, customized or complete turn key solutions.

SCHMIDT Technology is an invaluable source for your assembly needs, with the center point being a press. We welcome the opportunity to evaluate your application, perform feasibility studies, process sample parts to determine process capability from a control, as well as monitoring standpoint. We can take your applications from process development and manufacturing of prototype tooling to providing you with custom designed, turn-key solutions.

SCHMIDT engineers and sales force has gained a wealth of experience while working on a wide array of applications. **SCHMIDT Technology** products are suitable for a broad variety of industries and can be tailored to the specific requirements and challenges that applications present, from very basic and simple pressing operations to intelligent, precise and complex processes, combined with monitoring.

The ever rising need to log and exchange process data with third party systems can easily be addressed by the various ways our control systems can be interfaced.

Your need is our challenge. We look forward to the opportunity to be of service.



SCHMIDT® Services

Close to the customer thanks to a perfect service

In order to meet the high quality standards of modern production, to comply with legal requirements periodic calibrations and safety tests of the press systems according to DIN ISO 9000, safety measures are required.

SCHMIDT Technology assists you by means of a strong service package in meeting these requirements.

SCHMIDT® Calibration

for the press systems **SCHMIDT® PressControl**

Included in the service:

- Checking the measurement system
- Calibration
- Issue of a test certificate incl. test report
- Calibration sticker on the machine

SCHMIDT® Safety check

for all **SCHMIDT® press systems** with type approval.

Included in the service:

- Test according to ZH 1/456
- Measurement and test of the two-hand switching
- Follow-up measurement
- Functional safety check
- General functional check
- Issue of a test report
- Test sticker on the machine

For light curtain systems

- Additional test according to ZH 1/281



SCHMIDT® CompetenceCenter

We have a large number of presses and press systems in our exhibition and testing area at your disposal.

Visitors are welcomed to our Competence Center to discuss at first hand their specific requirements with our Team of experts, who will be pleased to conduct trials on their tools and offer advice and best solutions for all applications.



Telephone Support

Telephone support is available from 7h15 to 16h00 on work-days. If any technical queries cannot be resolved by telephone, we can provide our engineer on site within 24 hours. This service at your site reduces your production downtime to a minimum.

You can reach our service department by phone on **+49 (77 24) 89 90**.



SCHMIDT® DemoBus

The **SCHMIDT® DemoBus** will come to your premises and save you time and travel.

At your convenience, you will:

- Experience the wide range and benefits of **SCHMIDT® Presses** and accessories
- Get a wide overview over our products
- See the innovative news and trends
- Discuss your assembly applications with our experts
- Conduct trials (by prior arrangements)

SCHMIDT® TrainingCenter

We offer competence



A highly trained and motivated workforce ensures product quality and the success of your company. **SCHMIDT® TrainingCenter** will make a valuable contribution.

Our training packages prepare the participants fully in theory and practice for their daily work with **SCHMIDT® press systems**, by offering comprehensive user training courses and seminars on complex technological products. These training courses deal with the handling of the products as well as the correct use of the control and process software.

SCHMIDT Technology stands for high quality products and their efficient use on site.

We give our customers the highest possible security and sustainable profitability regarding their investment. A large number of training and seminar rooms with the latest presentation Technology is available in our company.



Contents of the training courses

SCHMIDT® ServoPress / TorquePress

Basics, user interface and parameterization

System design

- System architecture
- Operating elements
- Handling

Integrated software tools

- User interface
- Data input
- Process visualization and evaluation
- Production data management

Practical training

- Examples
 - Exercises / set-up
 - Troubleshooting
- Precondition: PC / Windows knowledge
Number of participants: 4 to 10
Duration of the course: 2 days

SCHMIDT® SPC

What is SPC

- Basics
- Terminology
- SPC in the assembly technology

SPC in real time

- User interface
- Control cards
- Data export
- Production tracing

Practical training

- Exercises
- Precondition: the corresponding course PressControl and Windows knowledge
Number of participants: 4 to 10
Duration of the course: 1/2 day

SCHMIDT® Automation

Structure of the press systems

PLC editor

- Basics / User interface
- Special features Programming tools
- Search operations, debugger

Practical training

- Integration of actuators/sensors
 - Bus capability
- Precondition: PLC knowledge
Number of participants: 4 to 6
Duration of the course: 2 days

SCHMIDT® PressControl 3000

System design

- Structure of the control and press
- Operating elements
- Operation of the control unit

Integrated QA

- User interface
- Process visualization and evaluation

Practical training

- Examples, troubleshooting
- Precondition: PC knowledge
Number of participants: 4 to 10
Duration of the course: 1.5 days

Dates

We will provide you course dates and fees on request. We will be pleased to make you an individual offer.