

# SCHMIDT® ElectricPress

## A new approach to assembly technology

To use electric drives instead of pneumatic or hydropneumatic driven cylinders, is a modern advancement in assembly technology. **SCHMIDT Technology** combined its proven rugged mechanics with the latest electric drive technology to create assembly presses for industrial production applications. The high efficiency of electric drives may not be the only reason to choose them. The individual process, the infrastructure and the quality of the compressed air should also have a bearing on that decision.

The key advantages of the **SCHMIDT® ElectricPress**:

- Easy programming of parameters reduces set-up time
- Stored press ram motion profiles allow for quick changeover
- Enhanced flexibility
- Reduced tooling costs and wear due to precise positioning
- The stick-slip effect does not occur due to our design. As a result the assembly process will be optimized compared to pneumatic drives, especially at low speeds
- Low noise level reduces operator fatigue and stress

An efficient and reliable assembly process is the key to the success of your products and hence success in competitive markets. The new **SCHMIDT® ElectricPress 345** with **SCHMIDT® PressControl 75** or **PressControl 700** improves production significantly:

- reduced assembly cost, due to the innovative electrical drive technology
- trustworthiness of its precise monitoring

The **SCHMIDT® ElectricPress 345** comes now with up to **10 kN** force and is based on proven system components. Designed for a durable automation technology the new **SCHMIDT® ElectricPress 345** will safeguard your success.

To meet the highest quality standards expected of a **SCHMIDT® Press**, the **SCHMIDT® ElectricPress 345** press system underwent a rigorous press-stroke test cycle continuously over a period of 4 months at a maximum force of 10 kN. All mechanical, electrical and motor elements have passed that stress test with flying colours.

- Process monitoring in real-time
- Extremely energy efficient
- Integration friendly
- Drive profile repeatability
- All-electric



# SCHMIDT® ElectricPress 43/45 with PressControl 75



SCHMIDT® ElectricPress manual workstation with SafetyModule on PU 20

**SCHMIDT® PressControl 75** for quick set-up or rapid change-over and easy programming of press parameters; stores up to 24 datasets.

This combination can be used both in manual workstations as well as in automation solution.



SCHMIDT® ElectricPress 43 automation

## Characteristics:

- Reproducible values for position, velocity, acceleration and deceleration
- Combination of up to 14 individual ram motion profiles into one complete profile by using a standard PLC
- Press to exact position (closed loop control stroke)
- Press to force (determined by motor current) to
  - press to final force
  - press to position but interrupt if force is exceeded
  - touch force to determine position of workpiece



# SCHMIDT<sup>®</sup> ElectricPress 343/345 with PressControl 700

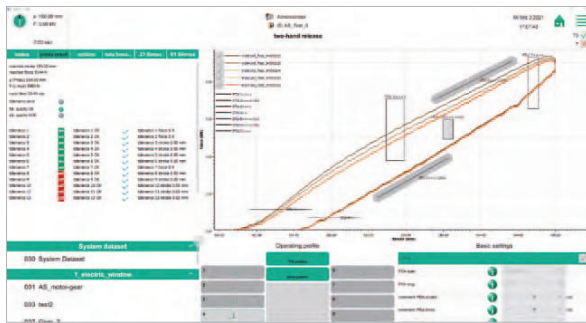
In conjunction with the **SCHMIDT<sup>®</sup> PressControl 700**, the **SCHMIDT<sup>®</sup> ElectricPress** becomes a force/stroke monitored system. The continuous force control provides maximum precision and allows for realization of individual and complex displacement profiles for assembly processes.

**SCHMIDT<sup>®</sup> ElectricPress** utilises an integrated load cell. That means:

- Quickly reaching the nominal values
- No overshooting of the target values
- Precise positioning in the 1/100 mm range, even with dynamically changing force outputs
- The system works with predefined optimum acceleration values (no incorrect entries possible)
- Optimization of the processing times is possible due to an additional graphical display force/time [F/t], stroke/time [s/t] for an analysis of the behaviour of the process.



**SCHMIDT<sup>®</sup> ElectricPress 343 and 345** with the **SCHMIDT<sup>®</sup> PressControl 700** can be used both in manual workstations as well as in automation solutions.



Process visualization



Optional:  
Integrated remote hand-wheel for set-up of  
- stroke control  
- force control

**SCHMIDT<sup>®</sup> ElectricPress 345**

Press Type			43	343	45	345
Force F max. <sup>1)</sup>		kN	4	4	10	10
Force F at 100 % duty cycle <sup>2)</sup>		kN	2,5 <sup>3)</sup>	2,5 <sup>3)</sup>	6 <sup>3)</sup>	6 <sup>3)</sup>
Ram stroke	A	mm	100	100	150	150
Ram speed max.		mm/s	200	200	200	200
Drive resolution		µm	< 1	< 1	< 1	< 1
Resolution PDA						
- Stroke		µm/inc		1,69		2,4
- Force		N/inc		1,25		3,0
Throat depth	C	mm	129	129	129	129
Decibel level		dBA	60	60	60	60
Power supply						
- Motor power			200 – 240 V AC / < 6 A	200 – 240 V AC / < 6 A	200 – 240 V AC / < 10 A	200 – 240 V AC / < 10 A
- Logic unit			24 V DC / 0,5 A	24 V DC / 0,5 A	24 V DC / 0,5 A	24 V DC / 0,5 A
Working height frame 7-420 <sup>4)</sup>	F	mm	62 – 420	62 – 420	50 – 360	50 – 360
Working height frame 7-600 <sup>4)</sup>			100 – 610	100 – 610		
S-H x S-B x S-T		mm	402 x 207 x 385	402 x 240 x 385	530 x 245 x 410	530 x 275 x 410
Weight		kg	35	35	59	59
PRC Gateway, number of I/O's				16 inputs / 16 outputs		16 inputs / 16 outputs

Frame Overview	Press Type	Frame Height M (mm)	Table Size B x T (mm)	Table Bore D Ø (mm)	Table Height K (mm)	Mounting surface (mm)
No. 7-420	43, 343, 45, 345	740	180 x 150	20 <sup>H7</sup>	90	220 x 362
No. 7-600	43, 343	960	180 x 280	20 <sup>H7</sup>	110	220 x 465

<sup>1)</sup> Temporary peak load

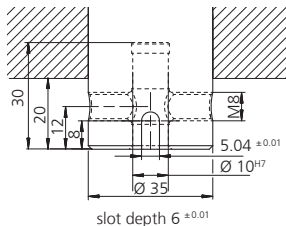
<sup>2)</sup> Nominal power in continuous operation

<sup>3)</sup> Minimum force for free positioning application is 400 N

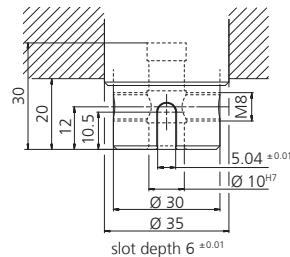
<sup>4)</sup> Typical values; can vary  $\pm 3$  mm due to casting and production tolerances

<sup>5)</sup> Max. dimensions

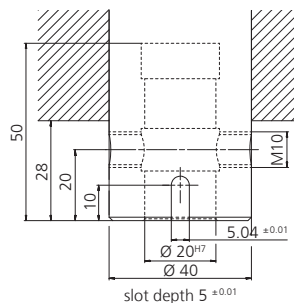
Ram press type 43



Ram press type 343



Ram press type 45



Ram press type 345

