

# The powerful two-platen large machine

duo



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## Available machine sizes of the duo series

Injection unit	1060	1560	2460	3660	5160	8160	12060	17060	23060	36060	51060	67060	88060	130060
Screw diameter mm	50 55 60	55 60 70	60 70 80	70 80 90	80 90 105	90 105 120	105 120 135	120 135 150	135 150 170	150 170 190	170 190 210	190 210 230	210 230 260	230 260
Clamping unit	US tons	kN												
duo 350	400	3500												
duo 400	440	4000												
duo 450	500	4500												
duo 500	550	5000												
duo 550	600	5500												
duo 600	660	6000												
duo 650	700	6500												
duo 700	770	7000												
duo 800	900	8000												
duo 900	1000	9000												
duo 1000	1100	10000												
duo 1150	1300	11500												
duo 1300	1460	13000												
duo 1500	1650	15000												
duo 1600	1750	16000												
duo 1700	1900	17000												
duo 2000	2200	20000												
duo 2300	2500	23000												
duo 2700	3000	27000												
duo 3200	3500	32000												
duo 4000	4400	40000												
duo 5500	6000	55000												

## Prepared for almost any application

### Save energy with ENGEL temperature control systems

With intelligent ENGEL temperature control in injection moulding, you use exactly the amount of energy and water required to produce a good part shot for shot. You save up to 75% of your energy requirements for temperature control.



### Automation

At ENGEL you get complete production cells in all degrees of complexity from a single source. You benefit from a complete solution with perfectly matched components and save time and money.



### Diverse technologies

Whether film back injection, foam injection moulding, polyurethane flooding or a combination of all of these - with our comprehensive process technology know-how, you can produce complex components with consistently high quality on your duo.



## The versatile duo family

From large logistics products to complex, technical multi-component parts to high-quality visible components such as instrument panels and bumpers - our duo two-platen injection moulding machine is equipped for all requirements: The duo tech is your choice for complex processes. Thanks to its extremely short dry cycle time and injection performance, the fast duo speed gets the decisive seconds out of the cycle time for you. With our duo combi, you can produce multi-component parts with up to seven injection units. And for those in a particularly hurry, our duo fast track is at your plant in the shortest possible time from the moment the order is received.

<p><b>Availability</b></p> <p>duo spex duo fast track</p>	<p><b>Flexibility</b></p> <p>duo tech duo combi</p>	<p><b>Performance</b></p> <p>duo speed e-duo</p>
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## Zechmayer demonstrates the flexibility of an ENGEL duo combi M machine in the new technical centre

The mould and die maker Zechmayer came up with something special for its new technical centre - and found a partner in ENGEL who creatively took on the ambitious plans. Visible and decorative parts for car interiors and exteriors, among other things, make high demands: very large, but also very small shot weights, back injection, flooding, injection-compression moulding, foaming and multi-c Applications. All of which the new machine must be able to handle now and in the future. Together, we created a fully equipped injection moulding machine in the truest sense of the word.

“The complexity of the applications continues to increase. That is why we have invested with foresight. Our duo is truly unique in its versatility - the only thing it can't do is fly.”



Jörg Zechmayer, Managing Director Zechmayer Werkzeug- und Formenbau GmbH

More about this story



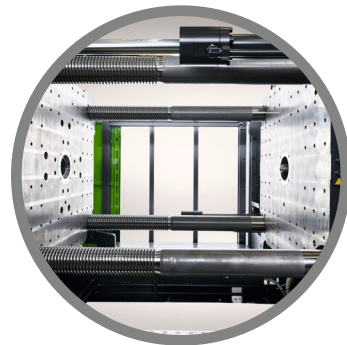
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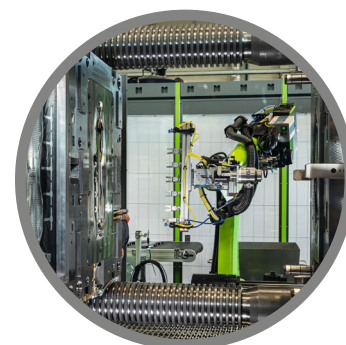
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**Large, ergonomic mould mounting area.**

Each version of our duo is designed for best ergonomics and as much space as possible.

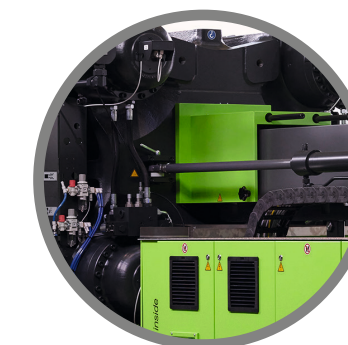
- Particularly large opening strokes, plate spacings and wide plate versions
- Compact machine frame for easy access to the mould
- Standardised media plates close to the mould



**Always the right overall solution.**

A basic machine with many versions, combined with our extensive portfolio, results in a holistic solution from a single source.

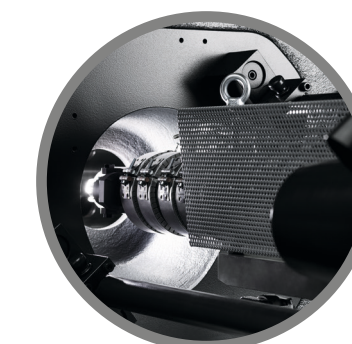
- Precisely tailored to your requirements
- Only one contact person for the entire plant
- CE certified ex works



**Optimum access to the nozzle area.**

Extra space between the pressure pads for ergonomic working in the spraying area.

- Injection plates optimised for each injection unit size
- Easy to open nozzle guard
- Platform for injection area for larger clamping force classes



**Powerful injection units.**

Process many materials without any problems thanks to a wide range of plasticising components, optionally with hydraulically or electrically driven injection units.

- High repeatability
- Space-saving, compact design
- Easy change of the plasticising unit



**Efficient servo-hydraulic drives.**

You can also produce hydraulically in an energy-saving way with the ENGEL ecodrive system.

- Low power loss and minimal cooling water requirement
- Hardly any heat and noise emission
- Parallel movements possible



**Compact and dynamic clamping unit.**

The two-platen clamping unit of the duo is designed for very short dry cycle times and compactness.

- Higher productivity
- Minimum floor space required
- Large clamping force range from 3,500 to over 55,000kN



**Your production staff directly on board.**

Our duo series has the latest control version CC300.

- Intuitive operation
- Intelligent assistance systems
- Central control of all units

