

ABOUT T-SOK

T-SOK Co. Ltd. is the leading globe manufactures of multi-slide hot chamber die casting machines for zinc and the relevant equipment. With many years of experience in the production and sales of multi-slide die-casting machines, we have successfully developed the world's first fully-electric multi-slide die-casting machine, it has significantly increased the density and surface quality of casting to a new standard. Apart from being the supplier of multi-slide die casting machines, T-SOK has a tool shop well equipped with the most modern machineries, and experienced tool makers with the know-how which can offer our customers a complete service: from the design and manufacturing to the testing and sampling; delivering high quality dies ready for production.

Since the foundation of T-SOK, the business has continued to grow based upon our ability to source and supply die casting services of the highest standard, ranging from individual machines for small to medium size businesses to tailored solutions for larger organizations.

To T-SOK, selling is not the end of the contract, but the beginning of a lasting relationship. We provide full service capabilities from the installation and training of the machine, to the design and manufacturing of the multi-slide die casting tooling. Our technicians have extensive experience with this machinery, as well as the die casting industry. They provide all the necessary training to help our clients install, operate, and maintain the die casting machine. In addition, we also offer a one-stop service for all the spare parts and tooling for multi-slide die casting machines. Clients can count on us in designing and manufacturing high quality molds targeted specifically for their needs, and providing spare parts and consumables in real time.

In the future, T-SOK will work to become a "Strong Company" through the development of products that are both user- and environment-friendly. Wherever cost saving and increase productivity are a priority, wherever the quality and precision are a requirement, T-SOK will continue to win and maintain the leading share of the global market for multi-slide die casting, and provide its utmost services to the customers.

T-SOK ELECTRIC MULTI-SLIDE TECHNOLOGY

A conventional hot chamber die casting tool is usually made of two die halves: a fixed die half and an ejector die half. When the die casting machine clamps together, the two die halves are locked and held together by the machine's hydraulic pressure. The surface where the ejector and fixed halves of the die meet and lock is referred to as the die parting line. Once the dies are clamped together, an injection process takes place in the fixed die half. The cavity is fed through a sprue and runner system. This cavity is filled with liquid metal each time a shot is made. It is common practice to add overflows to vent the tool to avoid trapping air during the injection process. Although this conventional die casting technology has become one of the dominant methods people make parts, it still has its drawbacks. The ratio of part weight to scrap weight is too high, the tooling is expensive, and its high energy consumption rate, are all examples of this conventional technology's disadvantages.

T-SOK's electric multi-slide hot chamber die casting helps solve these problems. Instead of using two die halves, T-SOK electric multi-slide die casting machine consists of two to **four** slides all moving independently and each with its own die blocks. When the die casting machine closes, the die blocks form a complete cavity to inject the material. Instead of feeding the cavity through a sprue and runner system, it is directly injected through the parting line, thus eliminating the need of the sprue. Evolutionary multi-slide design, mold design diversity, wide selection of mold parting directions (two to **four** directions), the core can be removed from any angle and direction. High mold precision, suitable for high precision and high complexity parts production. High speed production, up to 40 shots per minute, and easy die change over in 20 minutes.



Control system

T-SOK developed fully electric multi-slide die casting control system. User-friendly design and program control. Great flexibility and expandability.



Industrial safety control cabinet

To ensure safety of the internal power unit and servo controller.

ELECTRIC v.s. HYDRAULIC

- Energy-saving. The electric energy is directly converted into kinetic energy. Energy consumption reduces **50-70%**.
- Reduce operating noise. No messy leaks. Improve the working environment. No fire risk and contamination issues.
- Fewer components, less maintenance, and lower production waste.
- Fewer transmission parts, compact structure, and clean appearance (less wires and without oil pipes).
- Less mechanical wear and there's no slamming of the mold hence longer tool life.
- Simplified installation and control. Less manual control. Easier to control by touch panel.
- Accurately control the die opening/closing and injection motions.
- Reduction the cooling consumption. There's no necessary hydraulic oil cooling system.
- Precise control of speed and position. Eliminate the "Hammer Effect" and minimize burrs.
- High stability, good parts density, and a superior surface finish.
- An operator can work on the machine without needing to understand hydraulics
- Servo motors run independently with every axis, much easier to troubleshoot and repair.



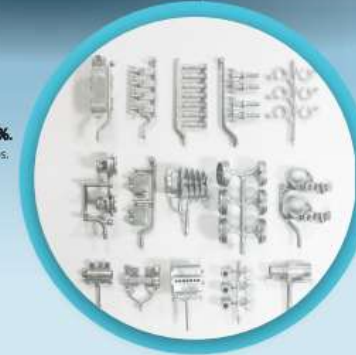
New injection motions design

- The injection performance is stable for every shot
- Injection speed is easier to adjust by touch panel
- It can be detailed injection setting such as injection control which makes less flash by high response
- High reliability
- High density and precision casting
- Similar Closed-loop system design is used to eliminate the "Hammer Effect" and minimize burrs



New concept of multiple-slide die locking unit

- High stability, repeatability and accuracy
- Provide more powerful clamping pressure to achieve stable quality
- Program control increase flexibility
- Less wear parts and lowest maintenance
- Easier to adjust by touch panel



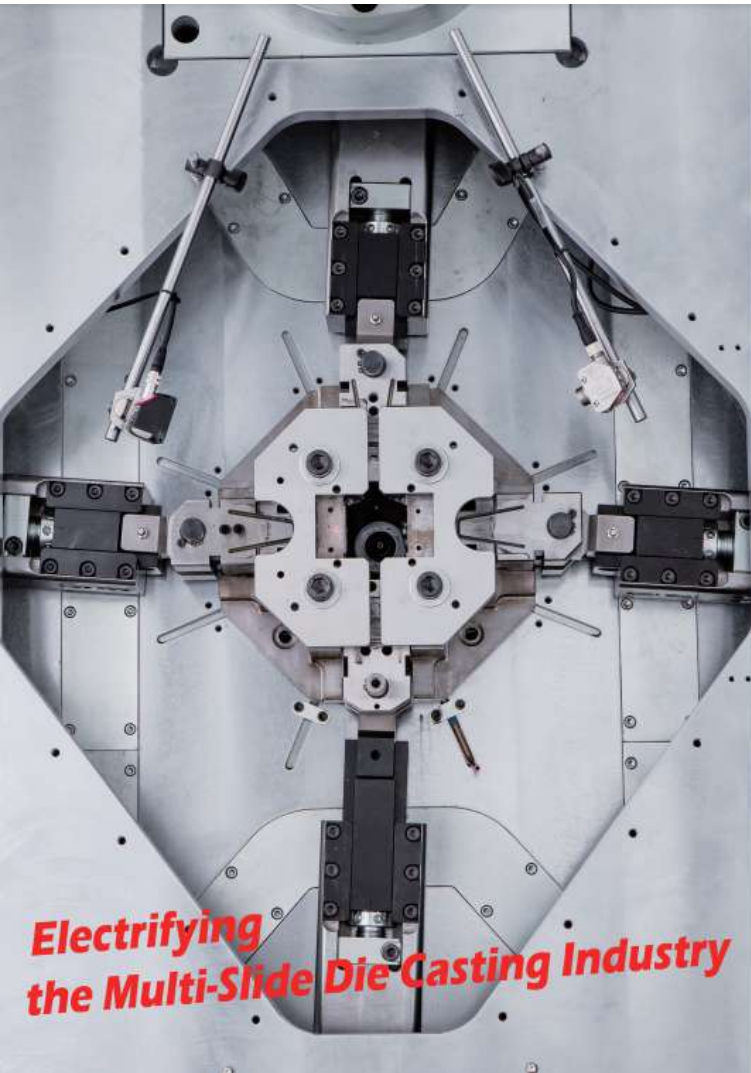
CD reader head

Conventional	T-SOK
49g	20g
7pcs/min	20pcs/min



Cell phone cover

Conventional	T-SOK
70g	35g
7pcs/min	15pcs/min



**Electrifying
the Multi-Slide Die Casting Industry**

Machine		Art-1	Art-2	Art-2 EC	Art-3
Mold	Number of Die Motions	4 axis	4 axis	2 axis	2 axis
	Die Size	65 x 100 mm	101.6 x 101.6 mm	101.6 x 120mm	160 x 160 mm
	Stroke of Each Die Section	4 x 50 mm	4 x 50 mm	2 x 50 mm	2 x 80 mm
	Maximum Total Die Opening	100 mm	100 mm	100 mm	160 mm
Injection	Injection Motor	7.5/11 kW	11 kW	11 kW	11/15 kW
	GSK Motor	2.0 kW	2.0 kW	2.0 kW	3.5 kW
	Injection Plunger	Ø 31.75 mm	Ø 31.75 mm	Ø 31.75 mm	Ø 41.27 mm
	Injection Plunger Stroke	50 mm	50 mm	50 mm	100 mm
	Injection Capacity (max. theoretical)	150 g	150 g	150 g	550 g
	Injection Capacity (max. recommended)	60 g	60 g	60 g	250 g
	Nozzle Heater	1.4 kW	1.4 kW	1.4 kW	1.8 kW
Clamping System	Left Motor	5.5 kW	7.5 kW	7.5 kW	7.5 kW
	Right Motor	5.5 kW	7.5 kW	7.5 kW	7.5 kW
	Top Motor	3.5 kW	5.5 kW	x	x
	Bottom Motor	3.5 kW	5.5 kW	x	x
	Clamping Force (max.)	8 tons	25 tons	25 tons	36 tons
Melt Pot (electric)	Heater	18 kW	18 kW	18 kW	25.2 kW
	Melt Pot Capacity	150 kg	150 kg	150 kg	180 kg
	Melt Rate	80 kg/hr	80 kg/hr	80 kg/hr	100 kg/hr

*Remark: T-SOK reserves the right to modify specifications at any time without notice



T-SOK Co. Ltd.
 No. 288-22, Xinshu Rd. Xinzhuang Dist,
 New Taipei City 24262 Taiwan (R.O.C.)
 Tel: +886-2-22040165 Fax: +886-2-22040185
 E-mail: tsok@t-sok.com URL: www.t-sok.com



**The World's First
Fully Electric Multi-Slide
Die-Casting Machine**