



The selling points for TEDERIC D series

Based on the TRX series, we not only improve the configuration, but also make good use of the improving suggestion from long-time users and designers, then produce all series of IMM on the basis of standardization and Modularization. D series has the advantages of running stably, higher precision, faster speed, low energy consumption, lower noise, easier for operating. We've solved several production problems through reasonable design, like in the aspects of sheet metal, electrical parts and Oil Circuit, in this case, we made it easier for mass production.(please find the detailed data and testing charts)

1. Higher safety standard

- Meet the national safety standard of GB22530 and the European safety standard of EN201CE
- Hydraulic protection for clamping unit meets the latest standard of EN201,even after opening the safety door, it can do the action of opening mould (optional)

2. Modular design for clamping unit and injection unit on all serial

- Clamping unit in different size could match varied international size ,which make the specification of the whole machine more complete, and could satisfy customer needs better
- You could only change few connection parts between the adjacent injection unit, and it take little time.
- We apply standardized design for those long-cycle time parts like Frame, plasticization units and others, and the generality is enhanced .In that case, it makes easier to assemble the injection unit for D series and M series, more convenient for mass production and management, and shorten the delivery time for the whole machine.

3 The features of main Mechanical Components:

- ◇ Frame:
- ◇ ○ The frame of the machine is higher than TRX serial, this makes it much easier for large-sized products to fall down, and also suitable for install and use conveyor. It can satisfy the demands for auto-production.
- ◇ ○ Cold bending and technology is adapted for the connection, elbow and bending parts. Gas shielded welding used for all the welding of oil pipe.

Smooth machine body surface. The whole structure is firm and steady, and not tend to deform while the machine is running. All this features will contribute to the long lifetime of the components and the stability of this serial machine.

- ✧ □ The operation area of the machine is equipped with black anti-skid steel plate, which make the outlook of the machine elegant. More over, this plate is not easy to show dirt, it is more firm than the aluminum anti-skid plate.
- ✧ □ Fine design and layout of the shock-absorbing feet, easy for machine move.
- ✧ □ The inside surface of the oil tank is paint with oil-proof, high thermo stable painting. This will ensure the oi clean.
- ✧ □ The space for the motor is enlarged, thus easier for discharge heat, and is available for the special motor installation.

✧ **Clamping unit:**

- ✧ T-slot board easy for making and logistic management
 - ✧ A big row angular, international popular design, adopted, (combined with technology Netsta and Demag), small clamping force required, clamping and opening run fast and smoothly
 - ✧ All plates through UG finite element analysis, receiving a force evenly
- Fixing platen with a flexible (Husky technology) design, when clamping with a high pressure, distortion mainly appear on the 4 front feet connected with tie bar nuts, and distortion of platen's large flat is little, which ensures plastic products' wall thickness evenly, reducing edge fin.
- ✧ Slight moving platen, so moving inertia is small, easy to realize clamping and opening fast. Eject space is huge, suitable replace eject pin.
 - ✧ Rear platen weight add more than 10% compared to TRX series, with UG design, so platen is more rigid above 30%, ensures clamping unit running stable and fast
 - ✧ Platen adjustment gear is adopted with a more wear-resistance steel and prolonging this unit's life
 - ✧ Clamping mechanical security structure fixed on cross head, mechanical impact less, running more stable
 - ✧ Automatically central lubrication system, lubrication oil level and terminal pressure examination ensure each joint well lubricated

✧ **INJECTION UNIT:**

- ✧ Multi-specification of injection equivalent, modularization design for meeting the requests from customer.
- ✧ Twin cylinder nozzle movement as standard, connection between nozzle and mold is stable to ensure no leaking of materials.
- ✧ More detailed division and specialization of design for screw and barrel according to different plastic materials to ensure the injection precision as well as processing requests of various materials.
- ✧ Injection support use integral cast iron for pedestal, making hardly deformation of injection guide pins, decreasing the back pressure of

mechanism and improving the injection precision of products.

- ✧ The heater parts use Zoppas from Italy (ensure the safety and high quality).The voltage is 380V (or other special voltage requested by customer), reducing the specification of SSR and high-temperature wire. Compared with connection wire of 220V of TRX series, this design solve the balance problem between power phases.
- ✧ The design and structure of hopper conform European standard, ensures no adhere and accumulation of material. The stainless steel hopper as a optional device according to request of products.
- ✧ Pressure gauge installed at front of machine to facilitate the observation and maintenance.
- ✧ The wires of injection unit are protected by tank chain for safety and beauty.
- ✧ Additional transducer of barrel house for improving the precision and convenience of barrel house control.
- ✧ The red pointer of injection unit indicates the position of screw for easy read.

Electric Control

- ✧ 4 transducers as standard make machines more easy and convenient to operate.
- ✧ Except for standardization, the design of electrical boxes explored the features with intense current, light current and servo driver to be separated, signal interference reduced to the lowest degree and big area to promote heat loss as well as repair and maintenance conveniently in terms of effective fault reduction.
- ✧ High performance controller mentioned in phenomenal speed and Remote Internet Service, which can easily provide online service to user at the soonest.
- ✧ All electric circuit internally installed with quietly elegant appearance and greater protection against breakage.

Hydraulic control system

- The system pressure of machine with fixed pump and variable pump is 17.5 MPa, the system pressure of machine with servo motor is 16 MPa which also in lighter weight of piston, stronger hydraulic and faster response.
- The design for the oil pipe of machines is in nearest distance and least curve, not only reduce the oil temperature and pressure loss of pipe, but also save the energy and low down the noises .
- The machine below 500T is uses the precision cold-drawing tubes and cutting ferrule without welding pipe. It is ensure the clean and efficient oil and suitable for mass production.
- The oil cooler is in compact structure. The by pass oil filter is standard of machine which filter oil uninterrupted, reducing hydraulic failure and improve the service life of hydraulic components.
- Magnetic cover sheet for motors which is very convenient to repair and maintenance.
- Bigger space for electric motors, also suit for the installation of special electric motors.

Appearance

- Europeanized appearance. Sheet metal integrates aluminum profiles and toughened glass (on the reference of BATTENFELD TM series). Elegance appearance, Easy cleaning, Easy door operation and no deformable.
- Equipped with foldable safety door considering robot's high position.
- Back fixed plate applies hinge, which will be convenient for opening and testing. Also, repairing and test of clamping unit, mold adjusting, safety structure, greasing and clamping manifold.
- The sizes share with TRX series, easy for loading and transportation (see TRX280). Humanized Operation box applies rolling pattern,
- Grease box and pressure gauge are arranged on the right side, better for observation and maintenance. Injection wiring applies tank chain. Transducers' positions are easy for direct observation.
- Fully reflect D series grace and high quality from its international appearance and label designing.