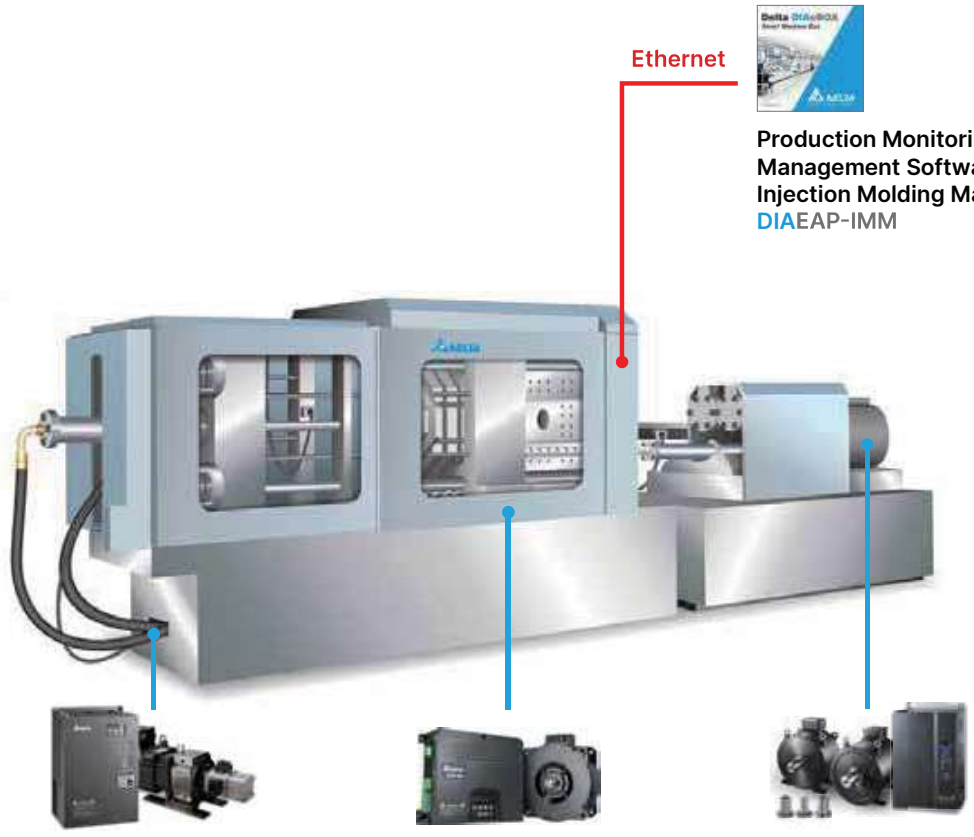
Injection Molding Solution

Hybrid Injection Molding Solution

High Energy Efficiency, Precise Control and User-friendly Design for Optimized Injection Molding Processes

- Perfect combination of industrial know-how and advanced key components for high performance and energy-saving injection molding solutions:
  - **Hybrid Energy Saving System HES-C:**
    Precise pressure and flow control for each process to ensure highly accurate injection for stable and consistent products and quality
  - **Synchronous Torque Motor MST:**
    Replaces hydraulic motors or gearboxes; simultaneously performs mold opening and material feeding to shorten production cycle and increase productivity
  - **Hybrid Servo Drive VFD-VJ:**
    Built-in pressure control algorithm
- Compatible with production monitoring and management software (DIAEAP-IMM) for real-time production data collection, handling and monitoring

Delta Hybrid Injection Molding Solution



Injection Molding Solution

Hybrid Energy Saving System

HES-C

- Significant energy efficiency
- High overload capability
- Three sets of PID pressure control
- S-Curve for pressure/smooth flow control
- Field-weakening motor control
- Easy commissioning
- Multiple protections
- Multi-pump control for confluence/flow diversion
- User-friendly software for machine commissioning
- Diagnoses of component health

CE

Flow Range (L/min)	63	80	100	125	160	200	250	320
HES-C	230V							
	460V							

Synchronous Torque Motor

MST

- High torque at low speed and stable operation: Precise control of feeding position
- Direct drive, no energy loss during transmission
- Fast acceleration/deceleration response and zero-speed holding function to avoid screw rotation during injection
- High efficiency, low noise
- Long service life, easy maintenance (No oil lines, belts, or gearboxes)
- Direct oil cooling in oil tanks, no need to install additional water tanks
- Shortens molding cycle and improves production efficiency

CE

Power Range (kW)	15	22	30	55	75	132	160	220	280
MST	460V								

Hybrid Servo Drive

VFD-VJ

- Built-in pressure control algorithm
- Multi-pump convergent flow control
- PG card and communication card on control board
- Supports CANopen communication
- Built-in brake unit
- Protection of insufficient pump oil
- Supports IPM motor parameter auto-tuning
- 4k~10kHz adjustable carrier frequency

CE

Power Range (kW)	11	15	18.5	22	30	37	45	55	75
VFD-VJ	230V								
	460V								