

The F-Series

500 to 6,500 kN

*High-performance injection molding machine with modular drive concept
Powerful, Precise, Reliable, Versatile*



F-Series Highlights

- *Modular selectable drives – from hybrid to all-electric*
- *Advanced water-cooled AC servo- and direct drive technology with brake energy recuperation and energy return supply*
- *Energy saving high performance accumulator hydraulic system with servo driven gear pump for a powerful and quiet production*
- *Performance and wear optimized 5 –point toggle clamp system for shortest machine contribution time and long lifetime.*
- *FEA optimized casted mold platen with high capacity linear guidings and a well spaced support of moving platen giving a precise guiding, lowest deflection and ideal parallelism to the mold.*
- *Hydraulic or electrical powered high-performance inline injection unit with 3 output stages (330, 500 , 1200 mm/s injection speed)*
- *Swiveling injection unit for easy screw change*
- *Machine easy accessible for maintenance*
- **FERROMATIK MOSAIC CONTROL**
– *innovative, fast, reliable and easy to operate*



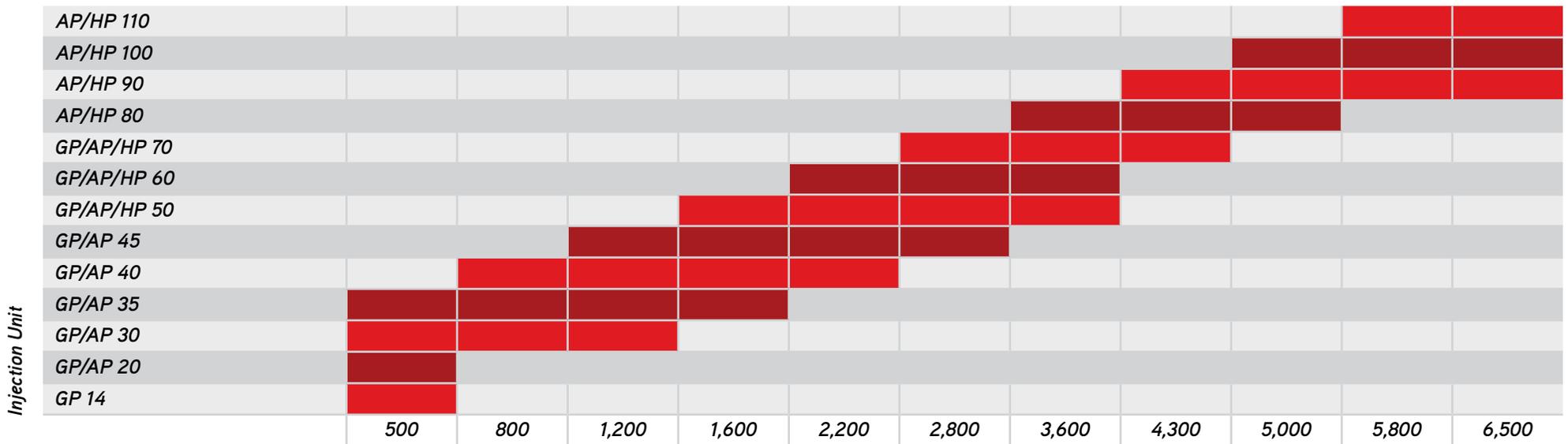
F-Series Drive Modules and Range

Application focused: Modular choice of moving axis – a standard at the F-Series.
 Electrical or hydraulic – up to the needs.

Drive	electric	hydraulic
1 Clamping	■	-
2 Ejection	■	■
3 Carriage movement	■	■
4 Injection	■	■
5 Plasticizing	■	-



F-Series Range:



GP = General Performance
 AP = Advanced Performance
 HP = High Performance

Clamping Unit (Clamping force [kN])

Total Machine



1. Built with the very latest technologies



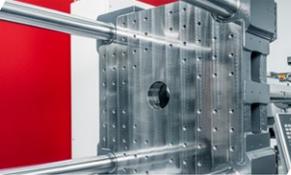
7. Save energy; produce more



2. Customized to meet specified production requirements



8. Energy-efficient drive of the hydraulic pump with speed-controlled synchronous motor.



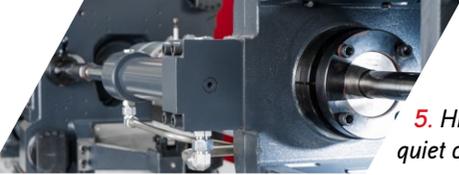
3. Easy access and low maintenance



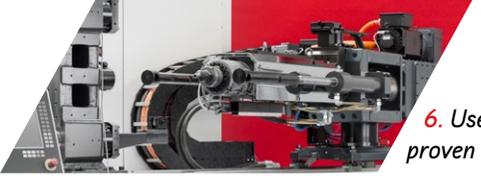
9. Modular machine where the drives for injection, ejector and carriage movement can be driven either hydraulically or electrically. Plasticizing and clamp movement are electrical driven at standard.



4. MOSAIC controls to guide the operator



5. High quality secures high reliability, quiet operation and durability



6. Use of well known proven components



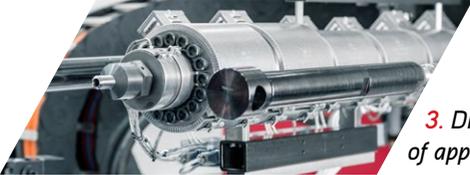
Injection Unit



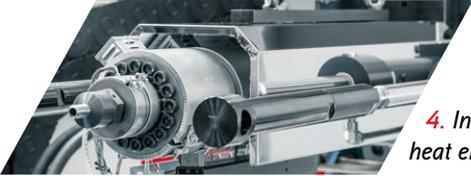
1. Service-friendly, easy access to the machine nozzle



2. Uniform melt quality due to constant L/D ratio (22:1 and 25:1)



3. Diverse screws for broad range of applications



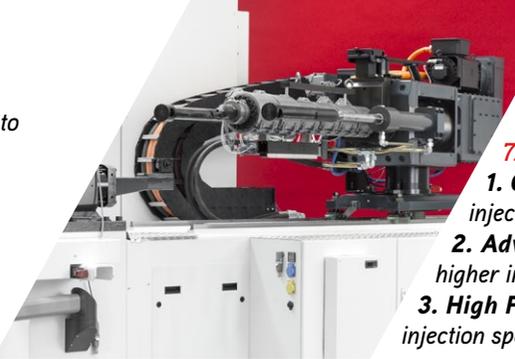
4. Insulated cover for conserving heat energy



5. Swiveling injection unit for fast change of screws and cylinders



6. Energy-saving servo electric screw drive with up to four power levels for individual product adaption



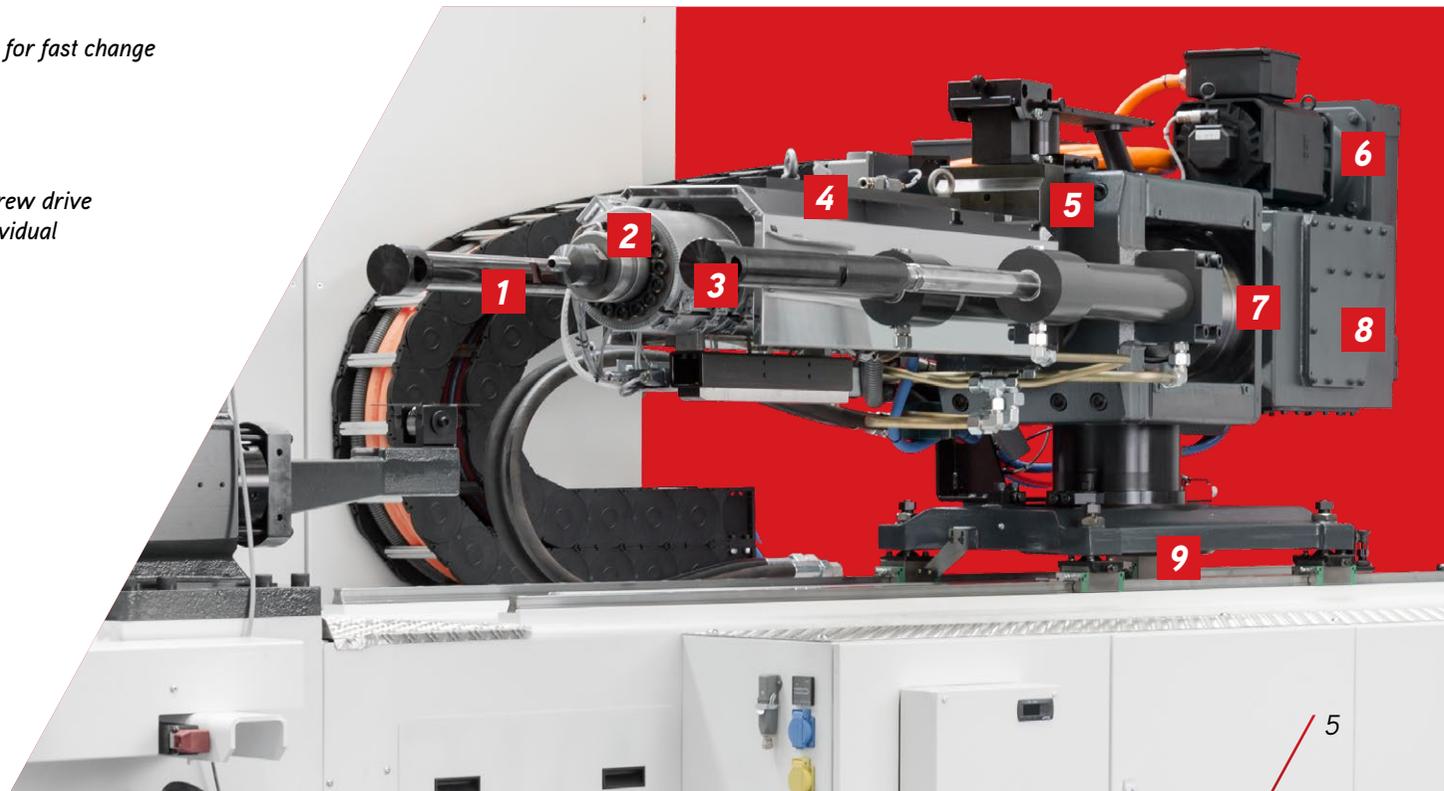
7. Three power classes of injection units
1. General Performance (GP) with high injection speed (electric)
2. Advanced Performance (AP) with higher injection speed (electric or hydraulic)
3. High Performance (HP) with maximum injection speed (hydraulic)



8. Inline design for high dynamics with low moving mass



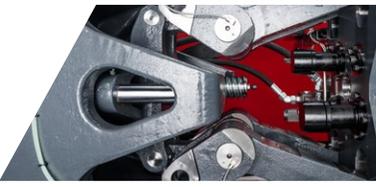
9. Precise and clean guiding of injection unit with linear bearings



Clamping Unit



1. Servo electric direct drive for high dynamics and low energy consumption



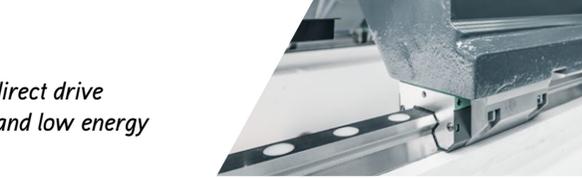
2. Compact 5-point toggle system optimizes force and acceleration



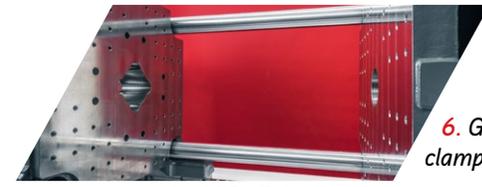
3. Precision clamp movement with sensitive mold safety to protect the mold



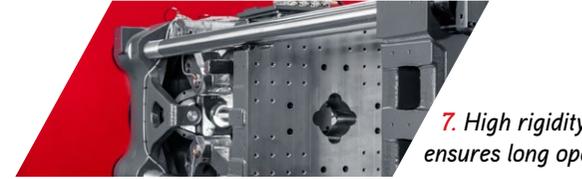
4. Central clamping force for symmetrical power distribution and uniform mold closing



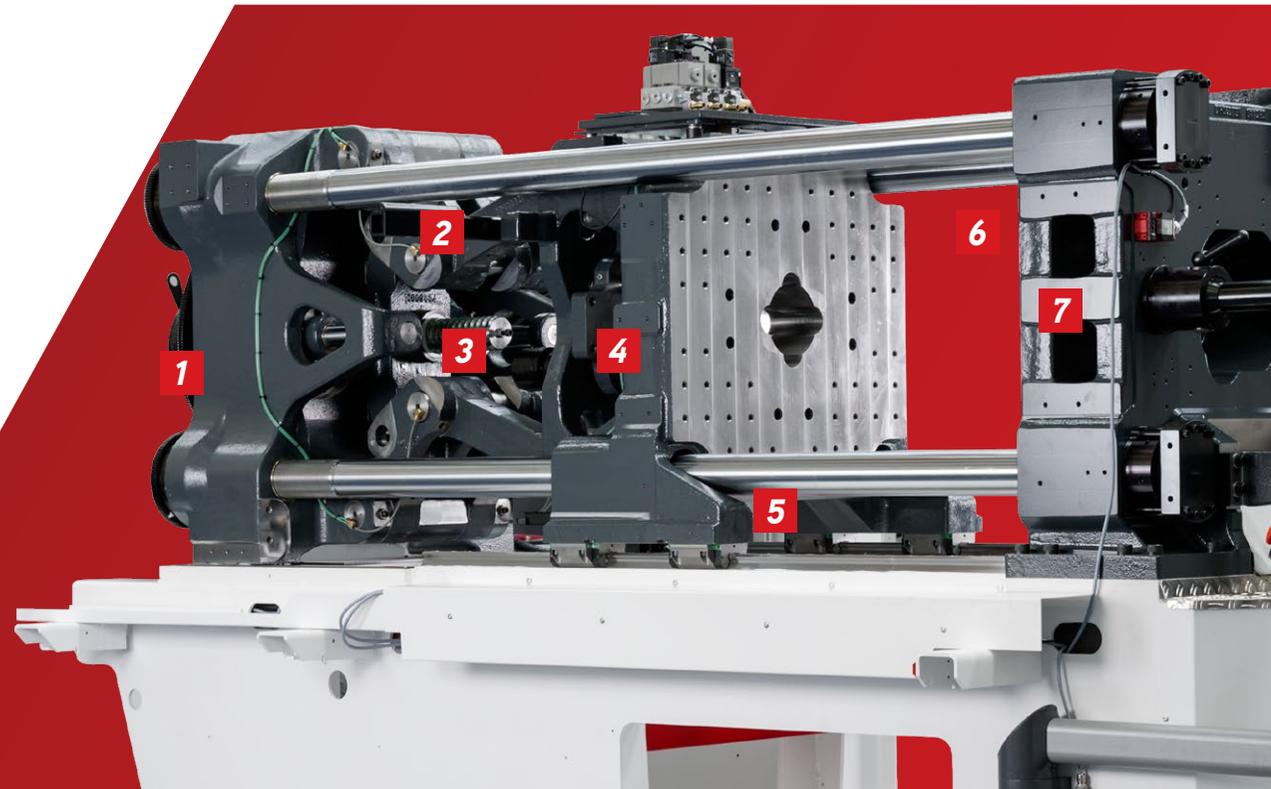
5. Guidance of the moving platen on linear bearings ensures minimal friction and maximum precision

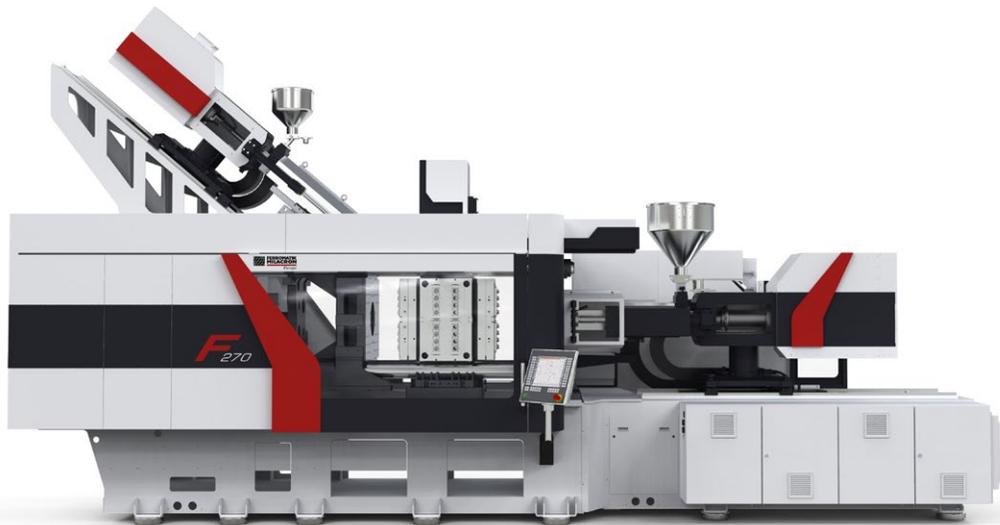


6. Generous mold installation area and long clamp stroke for multi-cavity or stack molds



7. High rigidity of 3-platen clamping unit ensures long operating life of molds





F-Series: Versatility as principle

The versatile platform philosophy of the F-Series makes it easy to combine individual modules to create a machine up to your requirements.

Multiple variations for multi-component technology. From vertical second injection units up to machines for Cube applications – the F-Series performs your requirements.

A Generous Portion of Future-Proofing

Thanks to the versatile and adaptable design, the F-Series can easily accept retrofits and upgrades.





Changes reserved

Ferromatik Milacron GmbH | Riegeler Str. 4 | 79364 Malterdingen | Germany
+49 (0)7644 78-0 | marketing@ferromatik.com | www.ferromatik.com

