01-45 Dieholder combined forging die/cassette quick-change and precision forging system for a 45 MN drop forging eccentric press

- Patented 3rd generation dieholder combined forging die/cassette quick-change and precision forging system with rectangular forging die cassettes for fully automatic forging of technically sophisticated aluminium passenger car chassis parts with 4 forging stations (preforging, 1st finish-forging, 2nd finish-forging, calibration) and with walking beam parts transfer.

- High forging precision thanks to stable forging die guides, floating cassette and forging die lower sections as well as forging dies which operate independently of one another and of the press and do not affect one another (i.e. completely separate).

- Significantly reduced forging die costs, because the circumferential die surfaces only have to be sawed or at most rough-milled on account of the special die centring and mounting arrangement.

- Oil-heated cassette baseplates and forging dies.

- Mechanical ejectors in base holder and cassettes.

- The entire die installation space of the press can be utilised thanks to the patented inside-to-outside clamping of the cassettes.

- Non-cooled, hydromechanical Fellner standard cassette wedge-type clamping elements in the base holder lower and upper sections and water-cooled, hydromechanical Fellner special rectangular forging die wedge-type clamping elements for application temperatures up to 350°C in the cassette lower and upper sections.

- Quick changing within a few minutes either of individual forging dies with a rectangular forging die change robot arm with a cassette extended from the press with a cassette change carriage and a cassette upper section turned with a cassette lift-off and handling device (e.g. in the event of greatly differing forging die wear between the 4 forging stations) or else of the entire cassette with the cassette change carriage (e.g. in the case of planned resetting for a different forging), thus maximum economic efficiency and short payback time.

- Minimal contamination of the cassette clamping equipment, of the reliable hydromechanical Fellner standard cassette wedge-type clamping elements, thanks to complete coverage with the cassettes.

- Easy to operate and very easy to clean thanks to level, smooth surfaces and the avoidance of dirt sinks.

- Easy to service and repair thanks to modular design.