

Verdés Launches New Magnabloc Series of Vacuum Extruders



Fig. 1 Verdés Monobloc extruder's evolution

Just when the very first Verdés Monobloc extruder celebrates its 50th anniversary, Talleres Felipe Verdés has redesigned its popular extruder range adopting the key upgrades of its recently renewed Magna series, which has renamed as Magnabloc.

When the Monobloc line was manufactured in 1967, it delivered significant advantages in terms of accessibility, maintenance and, above all, lower cost and energy consumption. This line of extruders has progressively developed over time, faithful to its core operating principle: a compact and efficient design featuring a single reducer for the mixing and extrusion process.

The new range of Magnabloc extruders concentrates all this extensive Verdés experience in the field of extrusion, while at the same time retaining its hallmark original design:

- three main shafts driven by a single reducer
- feeding paddles synchronized with main auger
- self-supporting structure for a quick and easy set up.

By maintaining its mixing and extrusion efficiency and few mechanical parts, the Magnabloc series has evolved to achieve maximum performance at reduced power consumption and minimum operating costs, thus providing a fast return on investment. In terms of the improvements it includes, the following stand out:

- **Mixing zone:** One of the highlights is the system of individually adjustable mixing knives that ensures perfect adaptability to the different mixtures and wetting needs, as well as the "knife-on-knife" effect, unique to Verdés mixers, which enhances

homogenization and blending in of additives. The new shape of mixing knives favours a better penetration in the clay, reducing wear and energy consumption. Moreover, the shaft and trough protectors are easily replaceable and deliver great functionality and a longer service life.

- **Vacuum chamber:** The large-volume vacuum chamber ensures perfect de-airing of the clay and excellent filling of the rear extrusion auger. The internal walls are lined with replaceable liners to form a highly tapered profile preventing formation of layers of dry material. These liners can be supplied in wear-resistant or non-adherent plates. This area is where the feeding knives are housed, which are synchronously driven to the main shaft and physically penetrate into the perimeter of the extrusion auger to improve filling and efficiency.
- **Reducer:** Designed according to proprietary Verdés brand concepts, it aims at achieving maximum load availability and efficiency for a wide range of production applications and operational pressures. As a parallel shaft reducer with case-hardened and ground helicoidal gears, it ensures a progressive load transmission and quiet operation. This system is more compact in the new range and has been redesigned to allow for traditional belt drive, with or without clutch.



Fig. 2-3 New Verdés Magnabloc extruder



Fig. 4 Verdés Magnabloc's gearbox

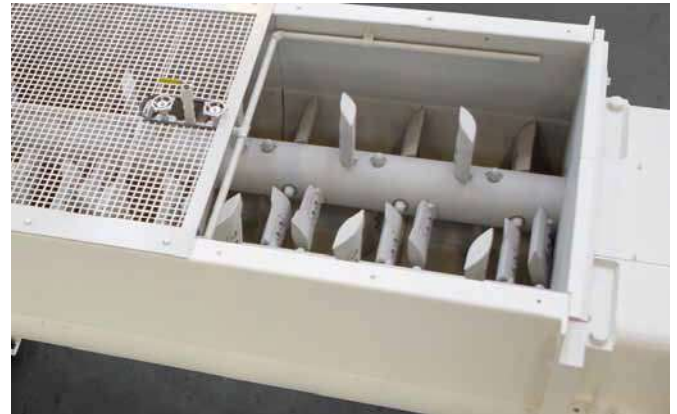


Fig. 5 Verdés Magnabloc's mixing zone

- **Control and security:** The unit offers several options for axial package pressure control which constantly measure shaft load, protecting the machine when the pressure reaches a predetermined limit. These control systems make it possible to detect pressure increase prior to an accurate reading of the plasto-meter.

- **Basic:** Security system based on the monitoring and control of power consumption and extrusion hardness.
- **Hydraulic:** A pressure reading is obtained from a hydraulic chamber, on which the thrust bearing is supported.
- **Load cells:** The reading comes from three load cells, arranged at 120° to each other.

- **Augers:** Available configurations include cylindrical, conical and extra-conical augers, to offer suitable solutions for any product – hollow, solid or large-format – in keeping with their own working conditions. The Verdés range includes highly wear-resistant chromium alloy augers and various solutions coated with chromium and tungsten carbides. All parts in



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Fig. 6 Verdés Magnabloc's pre-compression zone (Figs.: Verdés)

contact with the mixture are protected with replaceable anti-wear elements. The auger's body has also been upgraded with a screw-free protector-fastening system that ensures sealing.

The Magnabloc series features many innovations, but in summary, it goes one step further as a compact and efficient extrusion concept that makes it simple and quick to perform maintenance tasks and – most

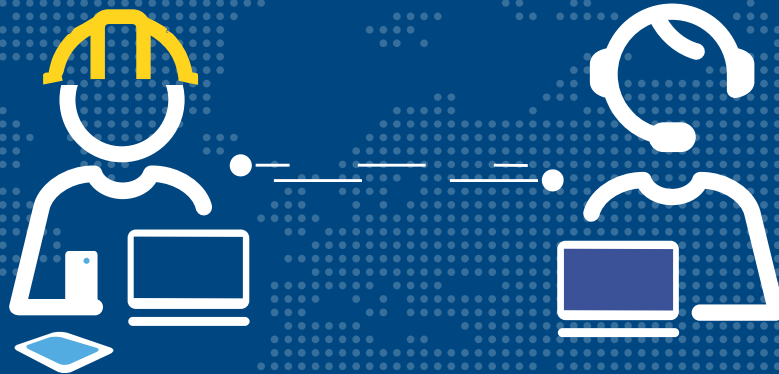
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