

Whitepaper: Quick Die Change system



PTN's Quick Die Change system, proven technology since 1988.

Downtime of the Pellet Mill because of replacing the die influences the production process. Reducing the duration of the die change is hence an important focus for feed mill operators.

The innovative Quick Die Change System(QDC) of Pelleting Technology Netherlands improves efficiency by shortening die replacement time to approx. 10-12 minutes.

The QDC system, based on the nut-and-bolt principle, can easily be done by just one operator; It is not a hard job! Through this system, operators have more time left for other important issues in the feed mill.

In addition to the increased efficiency, time and cost-saving advantages, the possibility to produce feed with different pellet sizes and special feed in the same pellet mill, the system also makes the line flexible to produce special feed just in time.



How it works, a short explanation of the working principle?

De-mounting of the die

Remove the feed drum. Turn the rollers away from the die (for a quick turning away of the rollers from the die we recommend our Remote Roller Adjustment system ARA).

After connecting the die to the chain hoist with the hoisting tool the six pressure release bolts on the rotor have to be loosened by only two rotations. This creates a gap between the nut and the intermediate ring and in this way the tension on the screw thread will be taken away. Using the slowly rotating turning gear the die can be taken off the rotor like a nut of a bolt. Once the die is loosened from the rotor the die can be lowered to the floor with the chain hoist.

Mounting of the die

First of all the pressure release bolts have to be tightened. The die has to be lifted with the hoisting tool and the chain hoist, in such a way that the screw thread of the die is on the same level as the screw thread on the rotor.

The die has to be pushed a little in the direction of the rotor and in the meantime, the slowly turning gear has to be started. By rotation the die is connecting to the rotor as a nut on a bolt. A limit switch is turning off the gear motor in time to prevent damage on the drive.

The hoist tool and the chain hoist have to be taken away. The feed drum has to be mounted again. Before the production can start again, the rollers have to be brought into position.

Specifications

- » This system is available for our Progress 850 an Progress 900 Pellet Mills
- » Die holder with screw-thread on the outside
- » Nut with screw-thread on the inside is mounted on the die
- » Intermediate ring between die holder and nut, including 6 pressure release bolts
- » Foot-operated turning gear with pneumatic coupling to the intermediate shaft
- » By rotating the rotor slowly right and left the die can resp. be de-mounted and mounted

Every die has to be foreseen with a QDC nut with inside screw-thread on the back side and with a die reinforcing ring on the front side.

About PTN

Pelleting Technology Netherlands (PTN), specialist in the development, production and servicing of pelletisers and related machinery for the production of animal feed. Our products can be used for a wide range of applications.

Since 1974 PTN has been active on a global scale in the development, engineering, production, sale and servicing of pelletisers and related machinery for the compound feed, recycling and biomass industries.

Thanks to its ongoing research and development based on demand from the market PTN has various patents to its name. Following the first patent taken out on the super rotor sifter, over the last 40 years PTN has also developed and patented the automatic roller adjuster, the unique mould quick-change system, the mix compress, the BOA compactor, the hygiene concept (TCS & RTB) and in 2016 the High Efficient Progress Monoroll. Innovations that now still contribute to the company's continuity.

Quality and reliability have been guaranteed for many years by the ISO 9001 certificate and constantly monitored as part of ongoing improvement.

On 1 January 2013 the company joined the Triott Group, thus taking a major step towards a global presence as an innovative company.





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