

Roll-off unit central driven

The center winder roll-off unit allows for flawless unwinding of flexible materials from rolls and is fully synchronized with the Zund G3 material-advance system.

With this type of roll-off device, the roll of material is threaded onto a pneumatic shaft. Air pressure fixates the roll on th shaft which prevents heavy rolls from sagging and causing the material to wrinkle as it is fed onto the cutter. The rigidity of the shaft is instrumental in ensuring flawless, wrinkle-free material advances (Fig. 1).

The shaft can accommodate 3" diameter cores and clamps into a shaft lock that allows for quick roll changes without the need for tools. The roll-off unit is motor-driven and can unwind and also rewind materials.

A dancer system controls the tension of the material which can be set at 2-6 kg (Fig. 3), depending on the properties of the material.

The dual rollers of the dancer operate as passive roll-off device (Fig. 2) for smaller, lighter rolls, or roll remnants. While in motion, the material rolls off/up at a constant speed based on roll diameter (i.e. dancer position) and the material-advance speed of the cutter. A clamping mechanism with pneumatic release secure the material for easy material loading. The end of the roll is detected automatically and in case the edge

of the material is taped to the core, overload protection causes the roll-off unit to stop.

(Fig. 4) Two operating modes are available: setup and production. Setup mode facilitates loading, while production mode governs unwinding and rewinding/off-loading. Prerequisite for the rewind function is the automatic reverse direction feature available for the G3 conveyor system.



Specifications
Max. roll weight 100kg/220lbs (or 40kg/88lbs on dual rollers of dancer system).
Roll diameter 80-350 mm/3"-13.5".
Core diameter 3" (Ø76.2 mm).
Constant material tension, adjustable from 2-6 kg (20-60N).
6bar air pressure required (supplied by cutter).
Controlled via analog output signal from G3, no additional encoder required.
Available for G3 L, XL, 2XL and 3XL.
Max. roll-off speed 700 mm/s / 27"/s.
Min. bend radius 30 mm (in both directions).
Max. roll width 3XL resp. 3210 mm/126".

Benefits
Flawless, wrinkle-free unwinding of flexible materials.
Automatic unwind and rewind functions.
Unwind possible in clockwise or counterclockwise direction.
Core-lock system allows for quick roll changes without the need for tools.
Simple, efficient processing of roll remnants.
Easy, user-friendly operation with touchscreen interface (several languages).

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