

Center winder roll-off

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 helps stiffen the shaft and prevent 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 core lock that allows for quick roll changes without the need for tools. The center winder is motor-driven and can unwind and also rewind materials. A

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

The dual rollers of the dancer double as passive, surface-driven 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. Clamping rollers with pneumatic release secure the material at the exit point to the machine, making sure the material does not retract. 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 center winder to stop.

The user-interface via touchscreen (Fig. 4) is available in several languages. 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 reverse direction feature available for the G3 conveyor system.



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Specifications
Max. roll weight 100kg/220lbs (or 40kg/88lbs on dual rollers of dancer system).
Allowable roll diameter 80-350mm/3"-13.5".
Core diameter 3" (Ø76.2mm).
Constant material tension, adjustable from 2-6kg (20-60N).
Unit must be attached to base of G3 cutter.
6bar air pressure required (supplied by cutter).
Electrical requirement 115V/230V (supplied by cutter).
Controlled via analog output signal from G3, no additional encoder required.
Available for G3 3XL and 2XL* only.
Max. roll-off speed 700mm/s / 27"/s.
Min. bend radius 30mm (in both directions).
Max. roll width 3XL resp. 3200mm/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).

* For the G3 2XL, the overall width of the center winder exceeds that of the cutter by 235 mm/9.25" on both sides.

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