

DFC 240 diverter



A FlexLink standard solution

5069-1

High capacity diverter



The FlexLink DFC 240 diverter is capable of dividing the flow of products, e.g. tissue rolls, from two in-feed lanes to up to four discharge lanes continuously. It uses FlexLink's patent pending Dynamic Flow Concept (DFC), i.e. the use of acceleration of products to create switching gaps. The gap also allows for the products to be counted and metered into the various discharge lanes.

Standard features

- **On-the-fly roll distribution:** By creating a gap through accelerating the product flow, braking is avoided. Thereby accumulation of rolls is reduced and 100% utilisation of the line capacity is possible.
- No backlog requirements
- **Stand-alone unit:** The diverter does not depend on gaps in the incoming product flow or synchronisation signals from other machines (e.g. the saw) and can therefore be placed anywhere along the line. This directly translates to a smaller total amount of conveyors needed and simplified controls.
- **Flexible operation:** Software setting of the number of discharge lanes.
- **No divert slugs:** Since there is a gap between each product, frequent switching between lanes is possible, giving virtually no divert slugs. This, in turn, allows for shorter in-feed belts on subsequent machinery (e.g. a wrapper).
- **Standardised control system:** The machine control system has spare capacity that can be used to control other equipment, e.g. infeed and discharge conveyors.
- **Quickly adjustable:** Quick release handles and hand wheels are used for speedy changeovers.
- **Easy to operate, low maintenance and service-friendly:** Standardised, modular design. Easily accessible for inspection and service.
- **Smooth operation:** Inverter controlled in-feed metering choke lanes and servo controlled lane diverting ensures reliable and quiet operation.
- Minimum floorspace requirements
- UL or CE certified
- Patent pending

DFC 240 diverter

General description

The DFC 240 diverter can be used in the following configuration:



In this application, the diverter can at any moment switch between 2-, 3- or 4-lane output, to suit the needs of the wrapper when producing different pack configurations. The wrapper is at all times supplied with an even distribution of rolls on the active lanes. This, in combination with frequent "on-the-fly" switching between the lanes, will assure that the length of the backlog before and after the diverter is minimized.

As the DFC diverter does not depend on gaps in the incoming flow, the diverter can be placed anywhere in the line. This drastically reduces the requirements for conveyors. The products are never stopped, which allows for 100% utilisation of backlog capacity and minimum product-wear.

Another configuration example is where the diverter is used to supply two wrappers:



In this example, the output of each saw can be directed to any of the wrappers. If one of the saws breaks down or runs at low capacity, the wrappers will still be supplied with equal amounts of rolls. Also, if one of the wrappers is stopped, the output of both saws can be directed to the other wrapper.

In comparison with a dedicated line, where each saw is directly connected to a wrapper, this configuration will have a substantially higher productivity.

Included in delivery

- SEW gear motors with inverters
- Indramat servo system
- SICK photo eyes
- SKF bearings and actuators
- Siemens or Allen Bradley controls system
- Habasit conveyor belts
- Fully enclosed for CE requirements
- Steel ridged framing

Other motor types, belting types, product dimensions etc. are available on request.

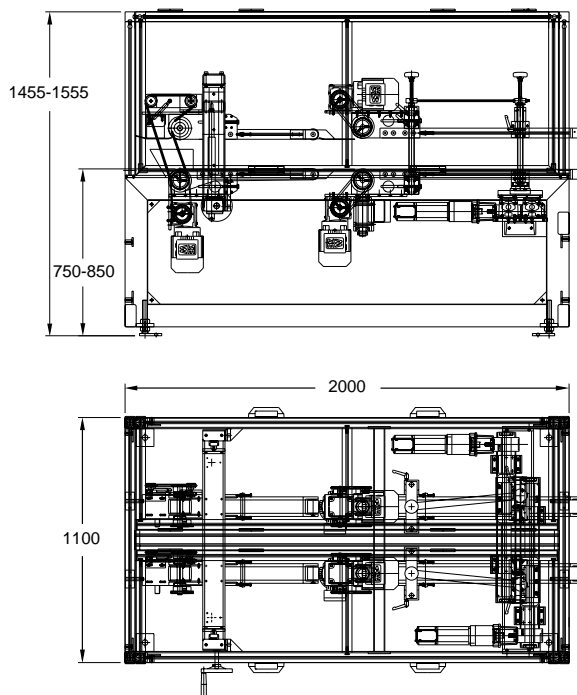
Technical specifications

Capacity DFC 240	600 BRT/min.
Conveyor height	750–850 mm
Product length	90–250 mm
Product width	90–150 mm
Product height	90–150 mm

Installation requirements

- Power supply: 3-phase 380/460 VAC, 50/60 Hz
- Optional control interface with environment:
 - Analogue speed control, 0–10 V
 - Potential free contacts

Dimensions



FlexLink is a leading supplier of automation solutions for manufacturing and assembly processes. The Paper Converting Centre of Excellence is a unit within FlexLink with specialists on product handling equipment for the tissue paper industry. We deliver systems for cost-efficient flow management at all stages of the converting operation, from the core to the finished product. Our extensive offer ranges from component deliveries to turn-key installations and pre-assembled modular units for the most common requirements.