

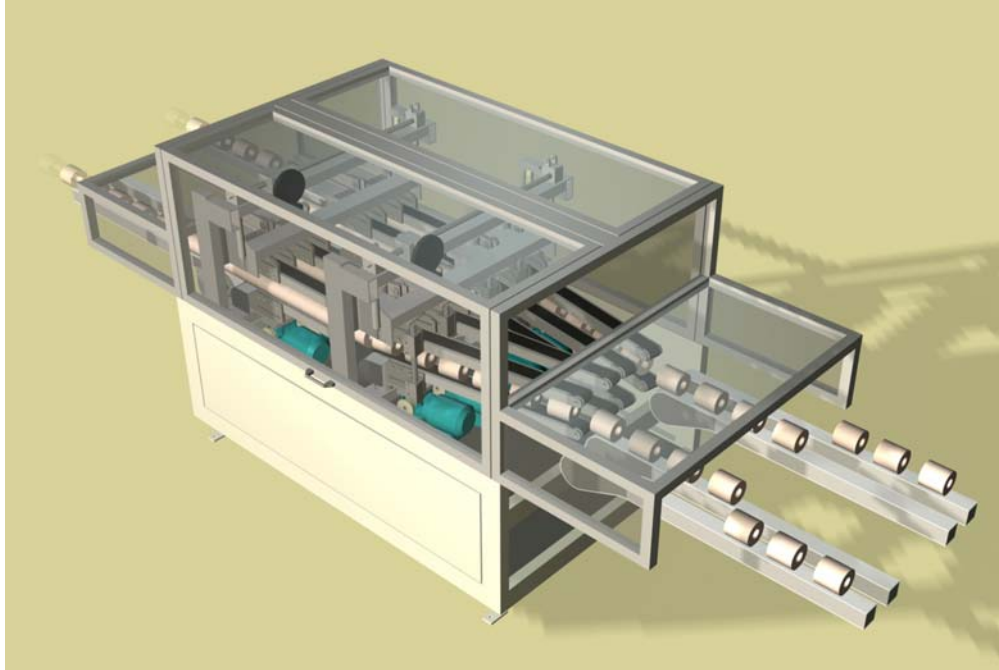
DFC 440 and 480 balancer



A FlexLink standard solution

5133-1

High capacity balancing of flow



The FlexLink DFC 440 and 480 balancers will increase the efficiency and uptime of the production line. 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 facilitates for products to be counted and metered into the various discharge lanes in order to create a balanced flow to downstream packaging equipment.

The units provide the solution of dealing with two 2-lane log saws operating on two 2-lane wrappers or one or two 4-lane wrappers. It balances the uneven flow from the log saws and also the uneven need from the wrappers.

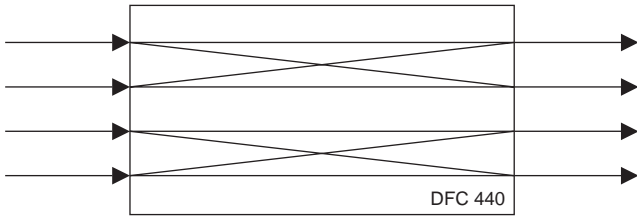
Standard features

- **Continuous distribution:** By creating a gap through accelerating the product flow, braking is avoided. Thereby accumulation of products is reduced and 100% utilisation of the line capacity is possible.
- **Minimum backlog requirements**
- **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, facilitates shorter infeed belts on downstream machinery (e.g. wrappers).
- **Stand-alone unit:** The diverter does not depend on gaps in the incoming product flow or synchronisation with other machines (e.g. the saw) and can therefore be placed anywhere along the line. This directly translates to a smaller amount of conveyors needed and also simplified controls.
- **Speedy changeovers:** Quick release handles and hand wheels are used for speedy changeovers between different product dimensions. Easy software setting of the number of discharge lanes.
- **Controls:** The operator's interface is designed for easy operation and monitoring of the diverter. It has spare PLC capacity that can be used to control other equipment such as in-feed and discharge conveyors.
- **Smooth operation:** Inverter controlled belt motors and servo controlled lane diverting ensures reliable and smooth operation.
- **Low maintenance cost:** Its high reliability together with a modular design ensures long time between failure and low maintenance cost.
- **Minimum floor space:** The Dynamic Flow Concept facilitates its small dimensions and it requires a minimum of floor space. The electrical equipment is built into the machine.
- **UL or CE certified**
- **Patent pending**

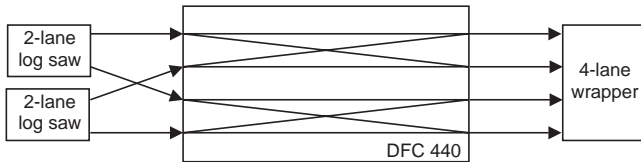
DFC 440 and 480 balancer

General description

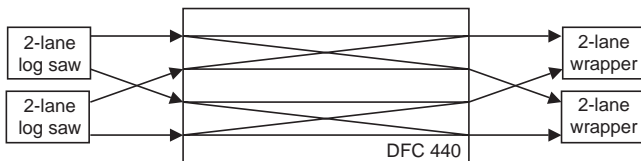
The DFC 440 balancer can be used in different layout configurations, each lane of the double in-feed conveyors can reach two discharge lanes. In order to get the balancing functionality the in-feed and discharge conveyors needs to be of FlexLink type, possible to cross over.



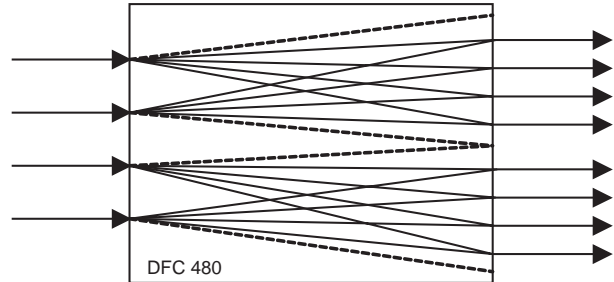
One application suitable for DFC 440 is two double-lane log-saws feeding one 4-lane wrapper. In this application DFC 440 balances the uneven in-feed flow from the two log saws. The wrapper is at all times supplied with an even distribution of products, DFC 440 starts to balance the discharge flow when one of the two log saws is stopped.



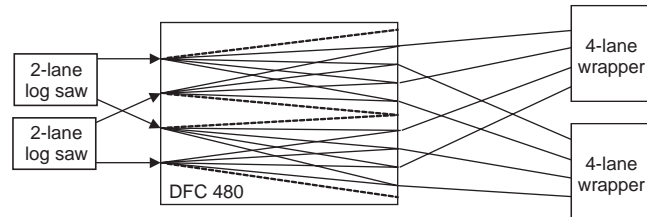
Another sample suitable for DFC 440 is two double-lane log-saws feeding two 2-lane wrappers. In this application DFC 440 balances the uneven in-feed flow from the two log saws and also the uneven need from the two wrappers. The wrappers are at all times supplied with an even distribution of products and DFC 440 starts to balance the discharge flow when one of the two log saws is stopped. It also starts to balance the flow when one of the wrappers stops and both saws can maintain their operation.



The DFC 480 is more flexible, each lane of the double in-feed conveyors can reach four discharge lanes. In order to get the balancing functionality the in-feed and discharge conveyors needs to be of FlexLink type, possible to cross over.



The application below shows a completely balanced flow from two 2-lane wrappers to two 4-lane wrappers.



Technical specifications

Capacity (depending on balancing mode)	<300 products/min per in-feed lane
Product diameter.....	Ø90–135 mm
Product length.....	90–250 mm
Dimensions DFC 440 (LxWxH)	2000x1350x1550 mm
Dimensions DFC 480 (LxWxH)	3300x2350x1550 mm
Height with open door	2100 mm
Weight DFC 440	1250 kg
Weight DFC 480	1400 kg
Centre distance infeed conveyors	200 mm
Centre distance discharge conv.	150 mm
Infeed and discharge height.....	750–850 mm

DFC 440 and 480 balancer

Included in delivery

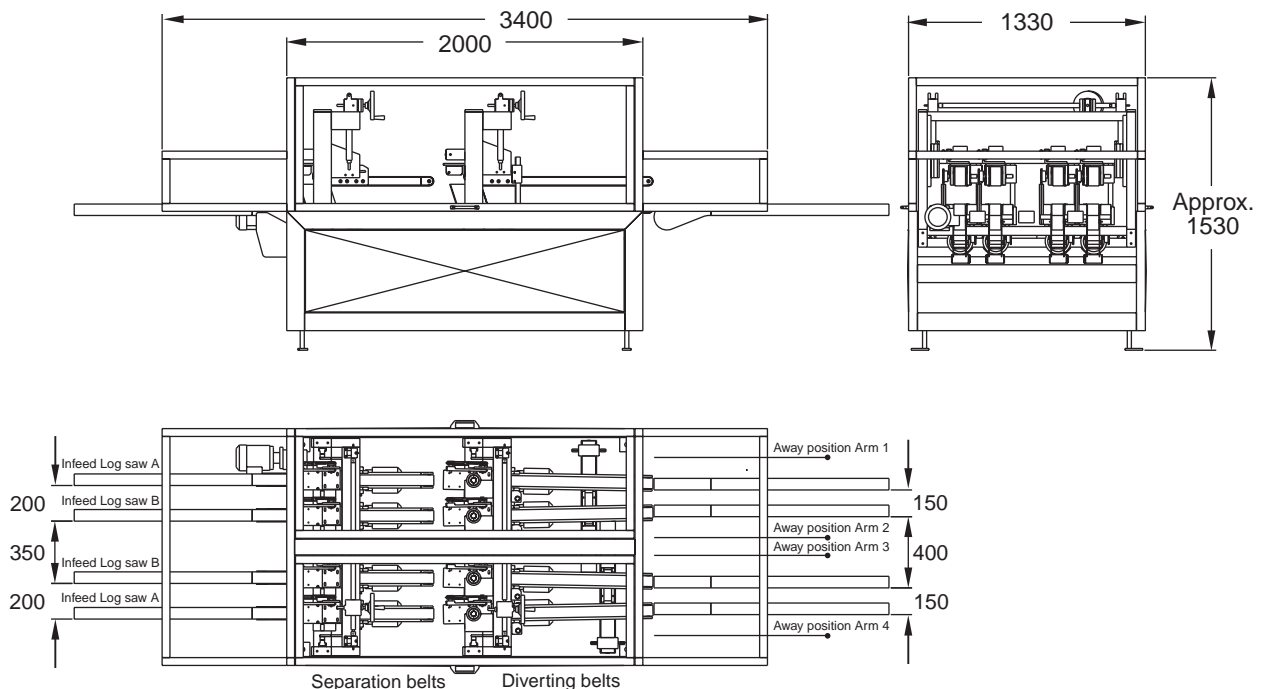
- Siemens or Allen-Bradley controls systems
- Indramat or Allen-Bradley servo systems
- SEW gear motors with inverters
- SICK photo-eyes
- SKF bearings and actuators
- FlexLink linear actuators
- Habasit conveyor belts
- Steel ridged frameworks with FlexLink enclosure
- Fully enclosed according to CE requirements

Other motors, belts, etc. are available on request.

Installation requirements

- Power supply: 3-phase 380-460 VAC, 50/60 Hz.
- Run signal from discharge conveyor, dry contact.
- Optional control interface with environment:
 - Analogue speed control, 0–10V / 4–20 mA
 - Dry contacts

Dimensions DFC 440



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.

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