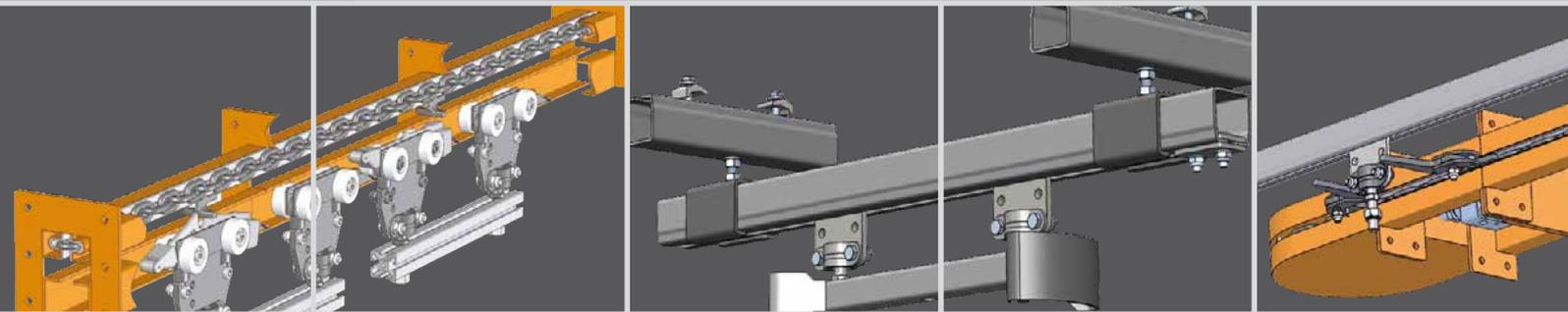


Product Overview

Conveyor Systems



CONDUCTIX
wampfler

Ⓞ DELACHAUX GROUP





Overhead monorail system for the manual transport of vehicle components

Convey Success!

Expert Solutions in Material Handling

Solutions for a moving world: Anywhere objects and people are in motion, you can see custom-engineered solutions by Conductix-Wampfler for flexible material flow and transmission of energy, data, fluids, and gases.

When materials and components need to be transported within fabrication processes in a safe and controlled manner, reliable material handling technology is needed. This is true for both simple transport tasks and complex material flow processes.

Field-tested conveyor systems from Conductix-Wampfler offer the right solution in precisely these situations.

With more than 50 years of experience in the area of conveyor technology and energy and data transmission systems, we're the specialists when it comes to reliable designs for all your intralogistics needs.

As a system supplier, Conductix-Wampfler offers its customers comprehensive service. That includes not only delivering the individual products like rails, trolleys, and load carriers. Competent advice and project planning, selection of ideal accessories, appropriate logistical designs, and on-site assembly are all important features of the Conductix-Wampfler range of services.

That means that the right components and materials needed are delivered safely, reliably, and consistently wherever they're needed.



Overhead monorail system combined with a loop-conveyor for the transport of vacuum pumps through a drying furnace



Power & Free system for the assembly of customer-specific wiring harnesses

Overview of Conveyor Systems

	System	Transport Speed	Load Capacity	Vertical Incline	Typical Applications
 Manual conveyors	Overhead monorail system	-	Up to 800 kg	Up to 30°	<ul style="list-style-type: none"> Floor-free internal goods transport
 Semiautomatic conveyors	Overhead monorail system with loop-conveyor	up to 12 m/min*	Up to 500 kg	Up to 45°	<ul style="list-style-type: none"> Automatic transport through drying furnaces For bridging larger distances between assembly stations
 Automatic conveyors	Power & Free with hangers	up to 12 m/min*	Up to 200 kg	Up to 45°	<ul style="list-style-type: none"> Automatic coating, e.g. of windows, machine components, vehicle interior parts Wiring harness manufacture
	Power & Free floor-bound	up to 10 m/min	Up to 1000 kg (as pulling load)	-	<ul style="list-style-type: none"> Cockpit assembly Transport of solar panels

*other speeds on request

Certain tasks require custom solutions. Conductix-Wampfler has suitable modular systems to meet these requirements. This makes complete, product-wide project planning possible.

From manual conveyor systems to fully automatic solutions using Power & Free – we are dedicated to choosing the right system and providing engineering expertise to meet customer-specific requirements.

Our systems are also designed for use in high-temperature areas such as coating and drying stations. Moreover, manual conveying of components into under gravity subareas can also be provided.



C-rail system

Manual transport of sheet metal parts within a coating system



Semiautomated C-rail system with overhead loop-conveyor

Manual transport of engine housings within a coating system



Power & Free system

Cross-wise buffering of window frames, hanging transport



Power & Free system

Automatic transport of floor-bound assembly carriages along an assembly line



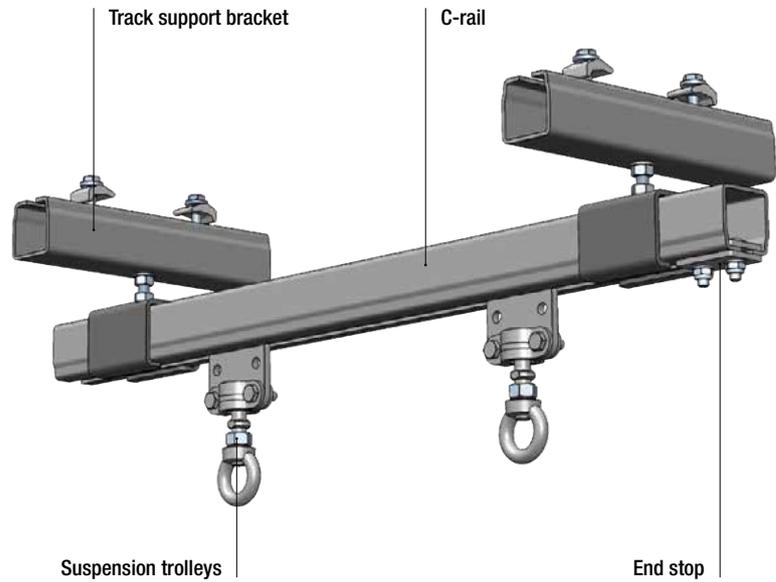
Overhead monorail system with buffer zone in a factory for submersible pumps

Overhead Monorail System

The System

For manual transport of goods within a facility, Conductix-Wampfler provides a simple conveyor system with modular structure, permitting continuous material flow.

Different add-on components such as switches, turning switches, curves, sliding bridges, and lifting/lowering stations make it possible to implement monorail courses for a variety of applications, designed to your specific requirements.



Selection Matrix

System		Rail Dimensions	Section Load*
C 40		40 x 40 x 2.5 mm	Up to 200 kg/m
C 50		50 x 50 x 3.5 mm	Up to 320 kg/m
C 63		63 x 63 x 4.0 mm	Up to 500 kg/m
C 80		80 x 80 x 5.0 mm	Up to 800 kg/m

*Depending on hanger spacing and ambient temperature

The advantages at a glance

- Low investment costs
- Reduced transport times within the facility
- Reduced handling times
- Increased productivity
- Targeted material flow
- Product-specific layout
- Extended systems are possible at any time
- Custom layout with specific designs
- Flexible adaptation to changed production requirements
- Simple planning with clearly structured modular construction

Overhead Monorail System

Standard Elements

A wide variety of standard elements are available for use in any application. They make simple planning possible and ensure high operational reliability for the overall system.

Extensions, redesigns, and add-ons are easy to implement, as are the integration of sliding bridges or hoists - for the optimization of work flow and material flow. The system is characterized by its ease of assembly and low maintenance.



Combination of a turning switch and underslung crane with hoist



Sliding bridges
For cross-line transport when supplying individual tracks in a painting and drying area



Switches
Manual or pneumatic



Turning switch
For the regulation of material flow at intersection points; manual or pneumatic



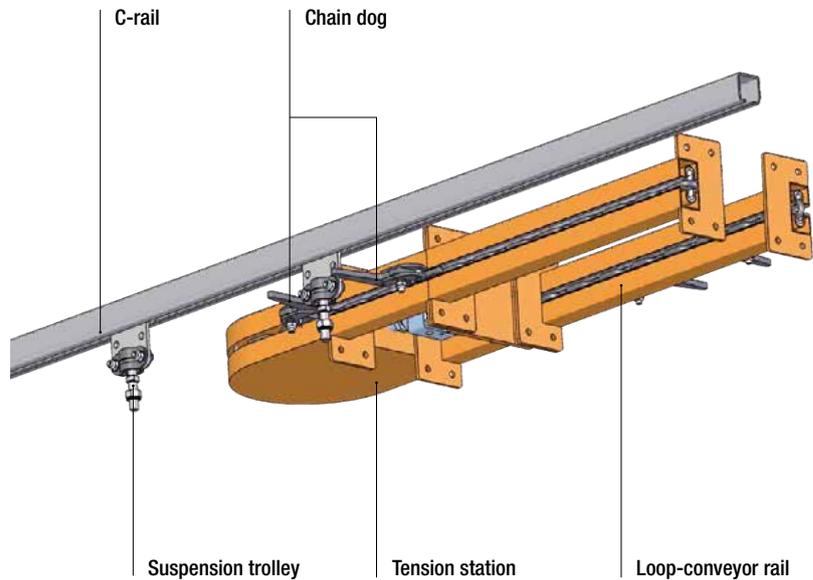
Lifting/lowering stations
For bridging between different levels with a synchronous chain hoist (e.g. immersion baths or the hanging and removal of parts)

Overhead Monorail System with Loop-Conveyor

The System

Loop-conveyors are technically and qualitatively advanced overhead conveying systems. Wherever continuous or cycled material flow is needed for large quantities of items, this system is a cost-effective solution.

The range of loop-conveyor applications are just as broad as the variety of goods transported.



Rails

The chain guide is made of polyamide slide profiles snapped into cold-drawn steel profiles. The chain dogs can be customized to match the goods transported.



Drive

Depending on the system layout, reversal drives, caterpillar drives, or immersion arc drives are used. The use of sliding hubs is standard.

The advantages at a glance

- Lightweight construction
- Quiet operation
- Smooth maintenance due to easily accessible arrangement of drive station
- Uncomplicated adaptation to any spatial requirements
- Targeted material flow
- Easy system extension – at any time
- Simple planning with clearly structured modular construction

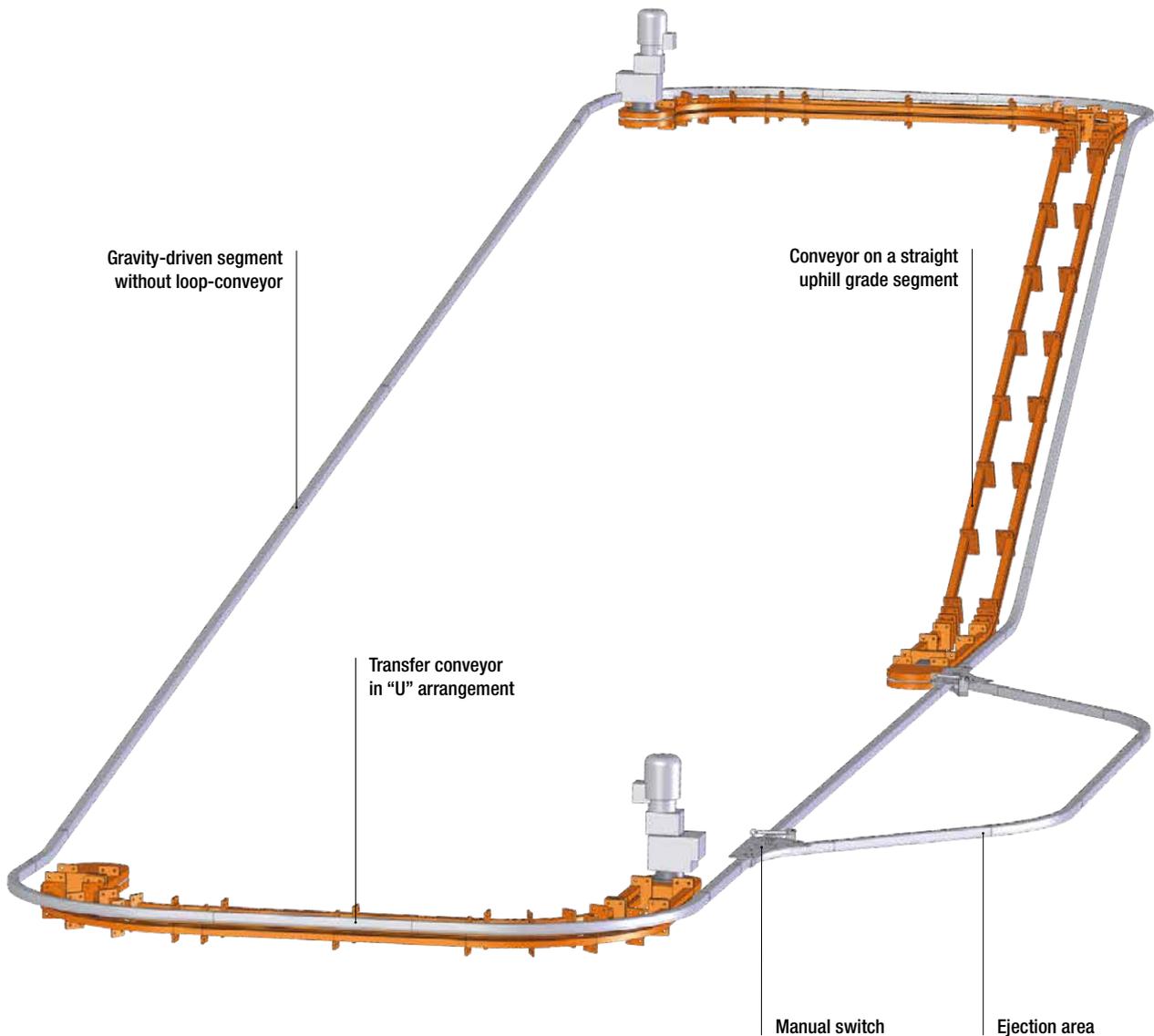
Overhead Monorail System with Loop-Conveyor

Example Layout

As different as the requirements of various applications are, so too are the layout options when you choose loop-conveyors from Conductix-Wampfler.

From simple straight-segment conveying to completely closed circular installations – the possible combinations are practically unlimited.

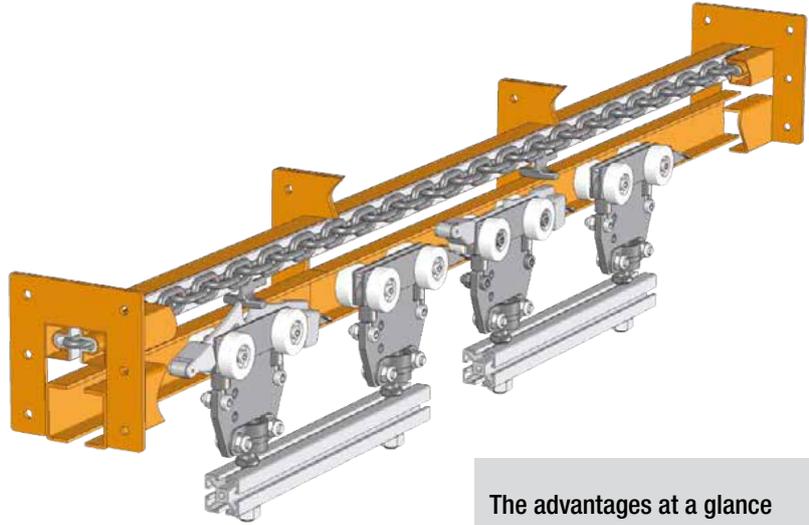
Besides purely horizontal systems uphill and downhill grades can also be implemented with ease.



Power & Free The System

Power & Free conveyors are robust, reliable material flow systems with a high degree of flexibility. They connect production with the paint department, assembly area, picking, packing, warehousing, and shipping.

Power & Free conveyors are two-rail conveyor systems whose transport carriages are pulled along by a power chain. The power chain has fixed chain pushers that connect with moving pusher dogs in the underlying traveling gears, forming a fitted connection. Stoppers and skid ramps can be used to hold the traveling gears, stack them tightly, and then separate them again.

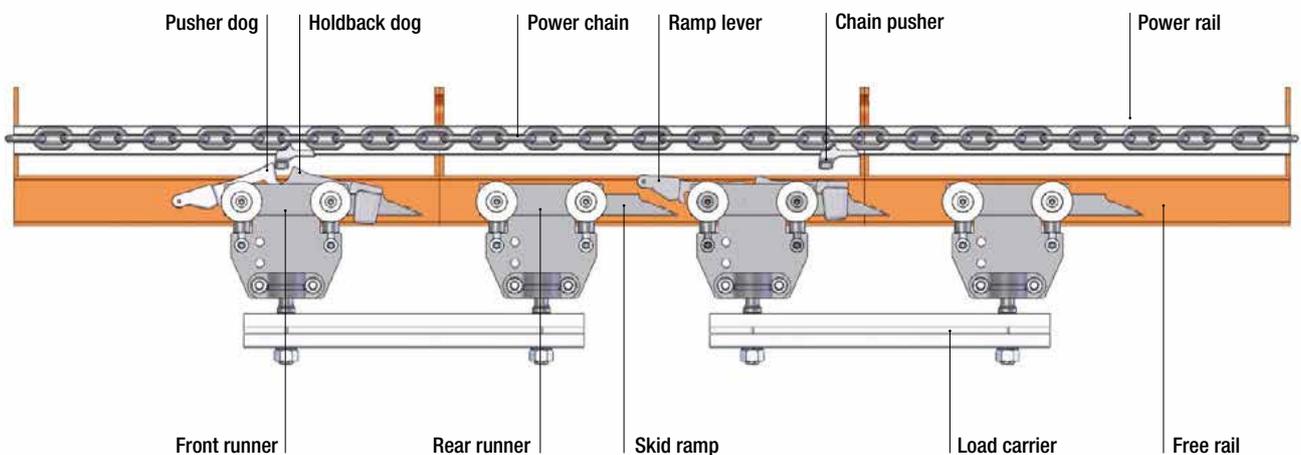


The carriage spacing and traveling speed are variable and can be set up specifically for each individual chain circuit.

Power & Free conveyors are used as management systems in manufacturing lines, to provide target-controlled material flow in coating plants or intermediate storage facilities, as sorting storage or as buffers to bridge different fabrication intervals.

The advantages at a glance

- Compact construction with stacking functionality within the rail
- Flexible installation in the smallest possible space
- Fully automatic control
- User-friendly visualization
- Possible control integration with a higher level control
- High availability due to consistent modular design, easy replacement of components, quick troubleshooting

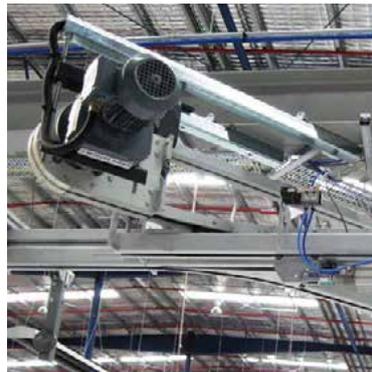


Power & Free Components | Accessories



Rails

The chain guide is made of polyamide slide profiles snapped into cold-drawn steel profiles. Chain and carriage rails are arranged over one another and connected by welded rail spacers.



Drive

The drive is available as a reversal drive, a caterpillar drive, or a dip arc drive.



Tension station

A tension station is integrated into each chain circuit. The tension station has the task of keeping the conveyor chain at a defined tension.



Stop/Go unit

The stop/go units are used to stop the traveling gears and/or hangers when the conveyor chain is running. They are electro pneumatically actuated and installed into the conveyor rails as a complete assembly.



Gates

Gates are needed when conveyor sections branch-out or merge. Branching gates are electro pneumatically driven, while merging gates are self-switching.



Lift stations / lifters

Lift stations are used for the vertical transposing of the conveyed material, to combine different levels, or for one-sided lifting, e.g. drip-off of components.

Example Solutions from the Field

... Wiring harness assembly



Task: Automation of wiring harness assembly on pallet carriage in a manufacturing line

System: Power & Free oval for cycle-controlled assembly

Advantage: Increase in output to 200%

... Cockpit fabrication



Task: Conversion of a single-station arrangement in a truck cockpit assembly line

System: Power & Free oval with simultaneous cycles

Advantage: Elimination of third shift work period

... Coating of vehicle interior parts



Task: Transport of vehicle interior parts into a paint shop

System: Two Power & Free ovals connected by switches

Advantage: Interruption-free production process due to separate loading and unloading zone

... Wood painting



Task: Loading and removal of large components within a manufacturing line

System: Power & Free with lifting/lowering station

Advantage: Small space requirements using transversal buffering

... Surface treatment of vehicle components



- Task:** Transport of vehicle components within a plant
- System:** C 63 overhead monorail system
- Advantage:** Floor-free goods transport

... Manual transport of components into a drying furnace



- Task:** Transport of components within the coating and drying process
- System:** C 50 overhead monorail system with sliding bridge
- Advantage:** Small space requirements using transversal transport

... Workstation supply with hanging transport



- Task:** Controlled supply of individual production lines with empty hangers and removal of loaded hangers
- System:** Power & Free conveyor combined with a C 40 overhead monorail system
- Advantage:** No picking needed by assembly personnel; the production lines remain manned without interruptions

... Automatic component transport through a drying furnace



- Task:** Order-specific, automatic component transport to painting booths and subsequent drying process
- System:** Power & Free conveyor in combination with a C 50 overhead monorail system
- Advantage:** Quality assurance with time-controlled drying process using the regulation of traveling speed through the dryer



Service

Industry-specific competence

The scope and depth of Conductix-Wampfler services are tailored to the requirements and desires of our customers.

From project planning to long-term service contracts, anything is possible. The more complicated the system design and your expectations for lifetime and operational reliability, the more important regular service by our competent service team is.

Project planning

- Determining application parameters in discussion with the customer
- Selection of a suitable conveyor system
- Layout according to customer requirements, including all interfaces defined for material flow
- Software-supported process simulation



Assembly / installation

- Assembly of the overall system
- Complete installation
- Setup of the control system

Commissioning

- Commissioning performed by trained specialists
- Test operation and error case simulation
- Acceptance by customer
- Training and instruction on site

Service and maintenance

- Regular maintenance and inspection increase the lifetime of the system and ensure many years of availability
- Conductix-Wampfler service contracts: the "all-inclusive package"



From project planning, through pre-assembly, to installation on site, Conductix-Wampfler specialists are there for the customer - anywhere in the world!



Your Applications - Our Solutions

Conveyor Systems by Conductix-Wampfler are only one part of the wide range of the Conductix-Wampfler energy, data and air/fluid supply systems. The right solution for your application is always dependant on the specific situation.

Many times, it is the precise combination of several Conductix-Wampfler systems that will yield the best results. You will find consulting and engineering competence in our companies and subsidiaries worldwide - a perfect complement to our wide array of products and systems.



Festoon systems

It's hard to imagine Conductix-Wampfler cable trolleys not being used in virtually every industrial application. They're reliable and robust and available in an enormous variety of dimensions and designs.

Reels

Motorized reels and spring reels by Conductix-Wampfler hold their own wherever energy, data and media have to cover the most diverse distances within a short amount of time - in all directions, fast and safe.

Slip ring assemblies

Whenever things are really "moving in circles", the proven slip ring assemblies by Conductix-Wampfler ensure the flawless transfer of energy and data. Here, everything revolves around flexibility and reliability!

Conductor rails

Whether they're enclosed conductor rails or expandable single-pole systems, the proven conductor rails by Conductix-Wampfler reliably move people and material.

Non-insulated conductor rails

Extremely robust, non-insulated conductor rails with copper heads or stainless steel surfaces provide the ideal basis for rough applications, for example in steel mills or shipyards.

Energy guiding chains

The "Jack of all trades" when it comes to transferring energy, data, air and fluid hoses. With their wide range, these energy guiding chains are the ideal solution for many industrial applications.

Inductive Power Transfer IPT®

The no-contact system for transferring energy and data. For all tasks that depend on high speeds and absolute resistance to wear.

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