

OVER/UNDER CONVEYOR

The compact, rugged and cost-effective interlinking solution designed for conveyance, buffering, positioning as well as infeed and outfeed

- Compact and modular transport system
- Designed for conveying and buffering workpieces
- With and without workpiece carriers (WPC)
- Between manual workstations and automatic workstations (e.g. material handling devices, robots)



Function as accumulating conveyor or indexing conveyor,

Workpiece or WPC transport horizontally (accumulating / indexing conveyor) or vertically (indexing conveyor),

Means of conveyance accumulating roller chain of hardened steel,

Rugged and failsafe thanks to the use of ALTRATEC's tried and tested aluminium profile system,

Save space and money with the roller shutter principle at the WPC reversal,

Loading and unloading can be implemented either manually or automatically,

Workpiece carriers can be buffered while loaded and unloaded.

Length and width of WP carriers can be configured to suit almost all requirements thanks to its modular design and thus is optimally adaptable.

Impervious to oils and cooling lubricants,

Optional with automatic chain lubrication,

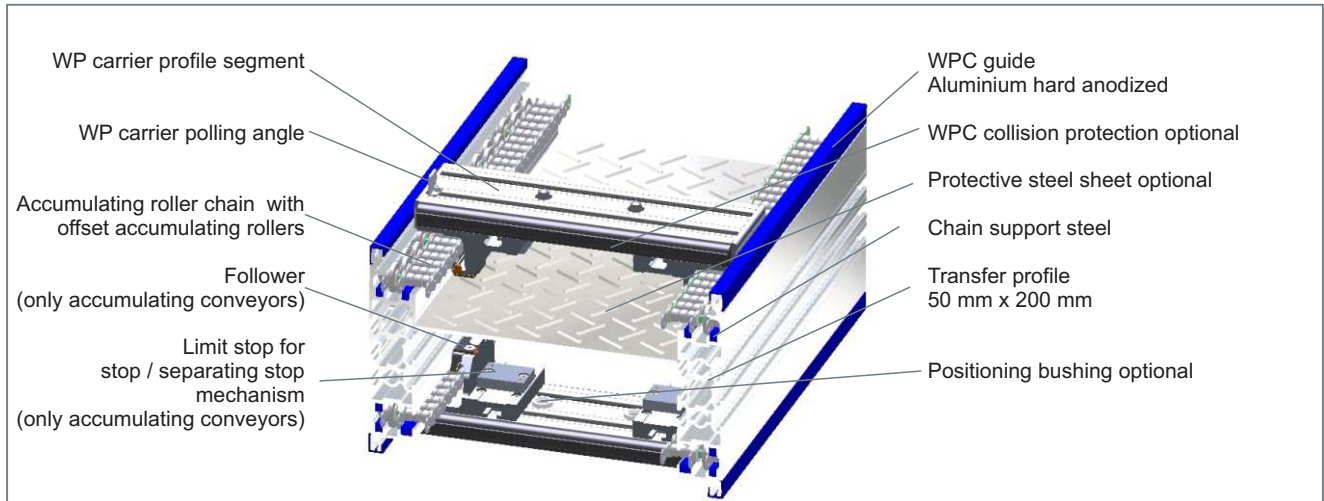
Long service life,

Low maintenance,



Conveying speed:	(1), (3), standard = 6, (9), (12) m/min
Length of conveyor / buffer section:	max. 20 m (depending on weight of workpiece / WPC quantity)
Total load:	max. 1 500 kg (higher loads possible on request)
WPC dimensions (length x width):	100 x 300 ... 2 000 x 2 200 mm (depending on workpiece weight and guidance ratio WPC length / WPC width) Larger lengths and widths available on request
Workpiece weight including weight of WPC:	max. 60kg per profile segment, parts transport top max. 30kg per profile segment, parts transport bottom (with evenly distributed loads)
WP carrier positioning accuracy:	± 0.15 ... 1.0 mm
Sensors:	Circuit break, indexing sensor (only indexing conveyors) Inductive sensors M12, (M18) Photoelectric sensors M12, (M18)

The functional elements



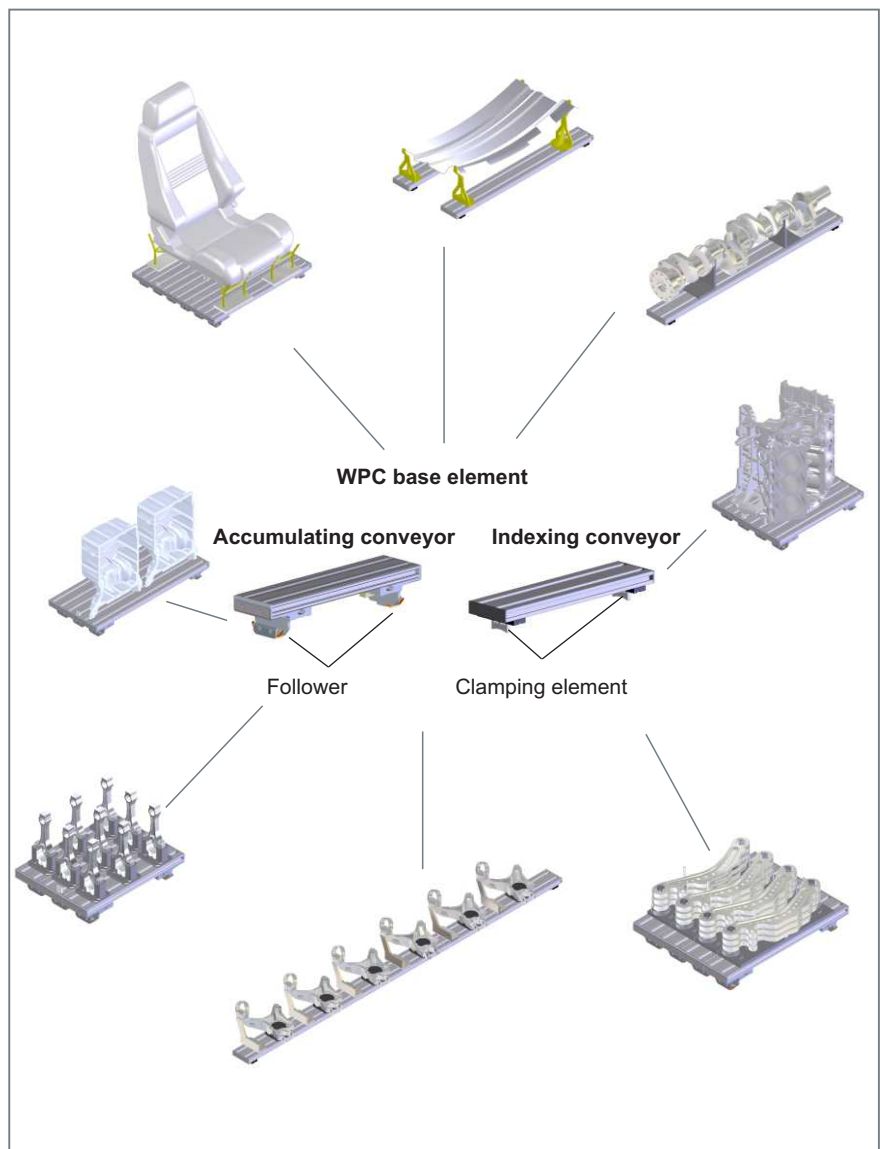
Workpiece carriers

The basis

The base element of our flexible workpiece carrier system for accumulating and indexing conveyors is the profile segments constructed of aluminium sections 25 mm x 100 mm with follower for accumulating conveyors or clamping element for indexing conveyors.

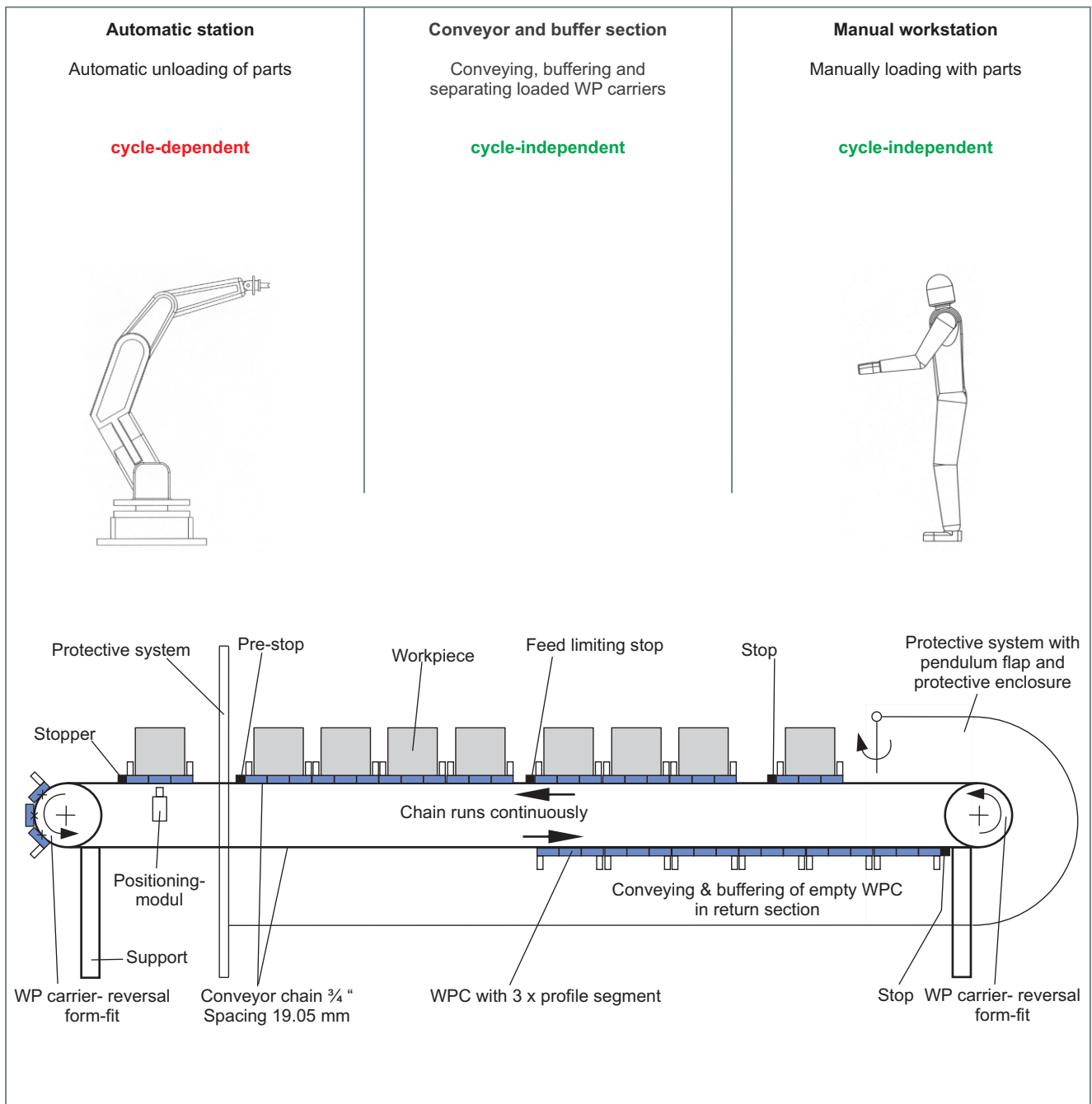
Advantages

The dimensions of the workpiece carrier can easily be adapted to suit workpiece dimensions and the transport requirements. The profile grooves and the fastening accessories ensure that workpiece fixtures can be mounted easily and precisely. Optional positioning receptacles (accumulating conveyors) allow for a high positioning accuracy of WP carriers.



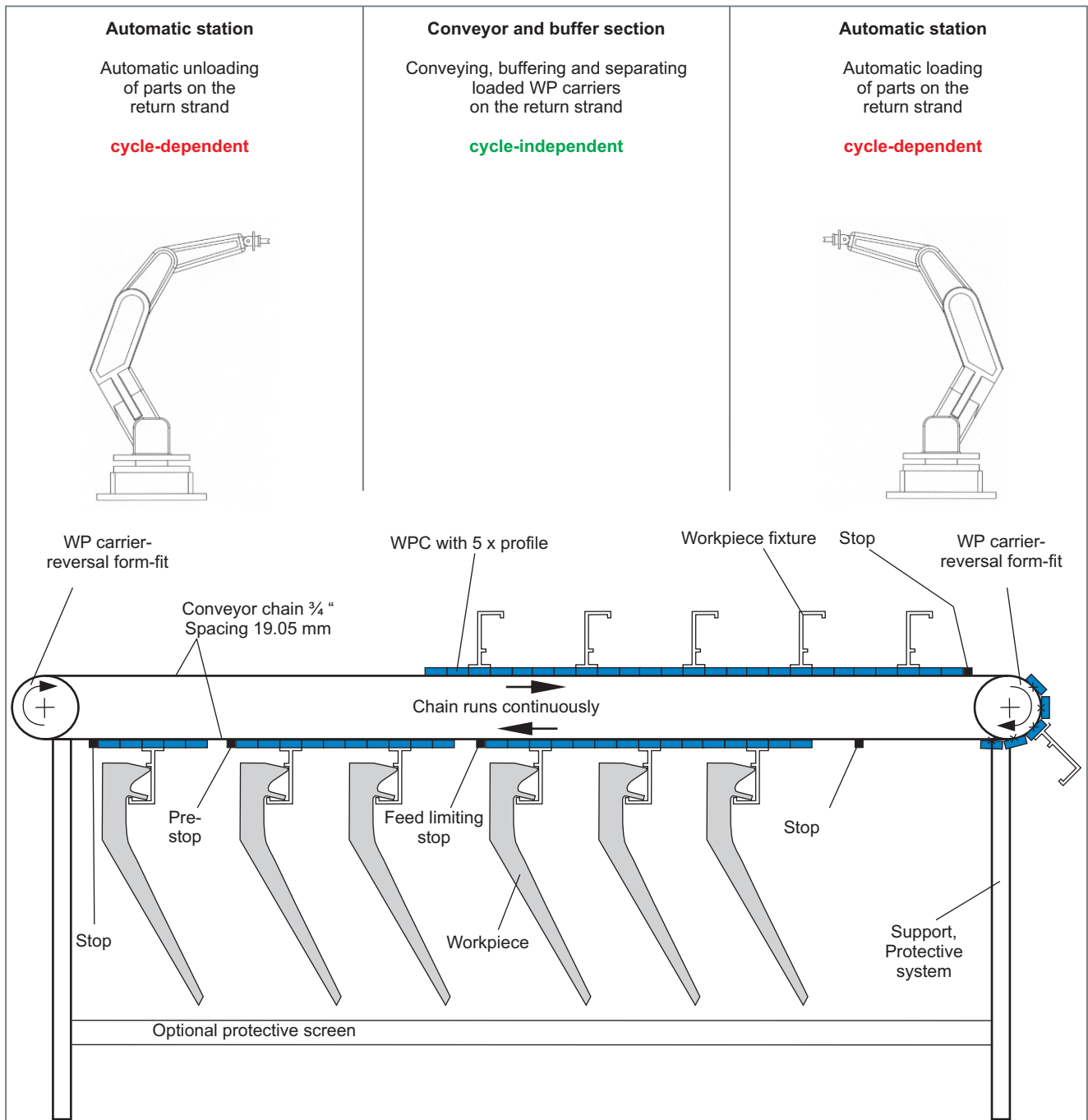
Accumulating conveyors for upright transport

The accumulating roller chain principle facilitates a cycle-independent transport of workpieces or WP carriers. The workpieces or WP carriers can be stopped, separated, positioned and buffered at any point. They are also movable on the chain.



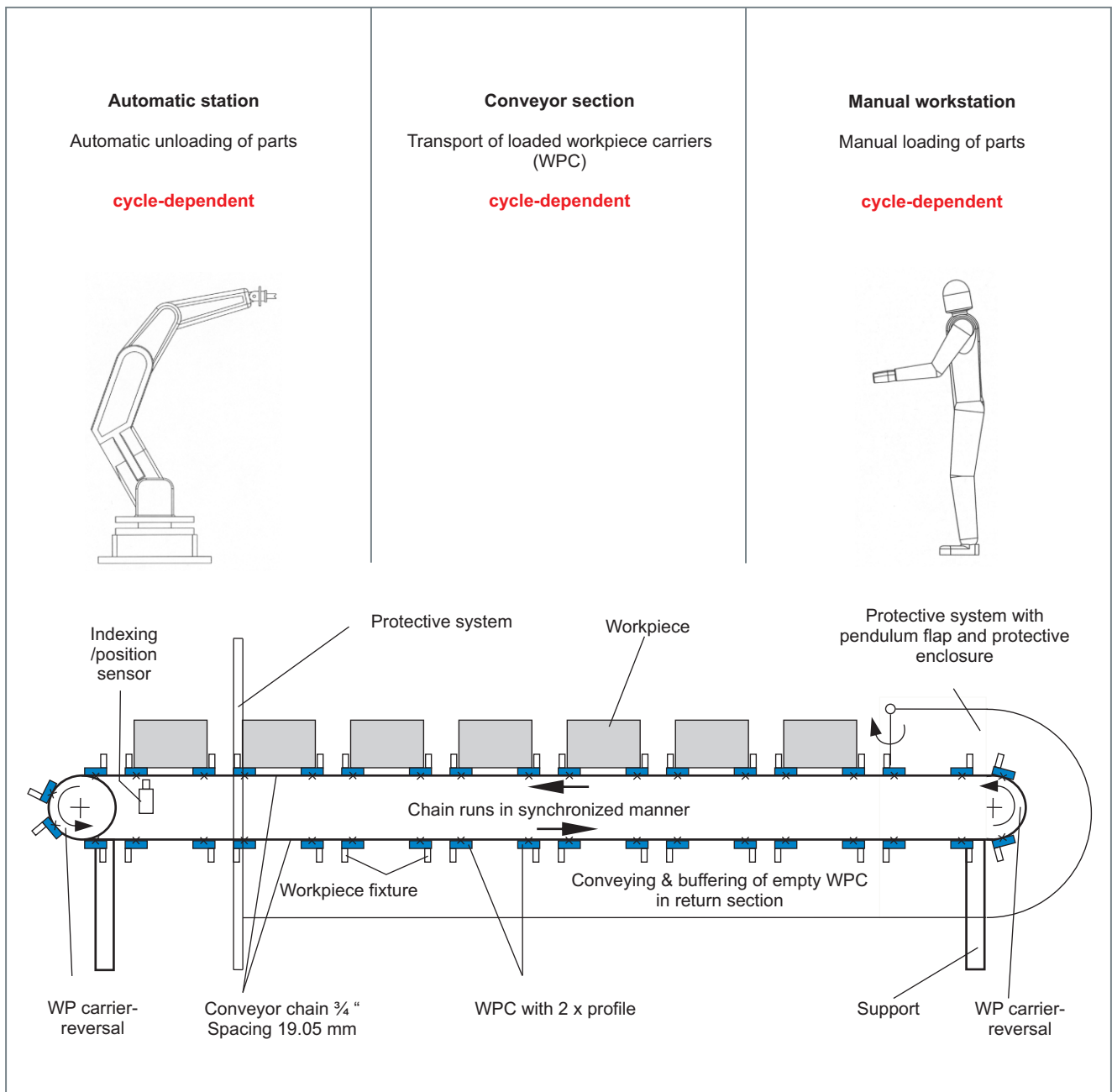
Accumulating conveyors for suspended transport

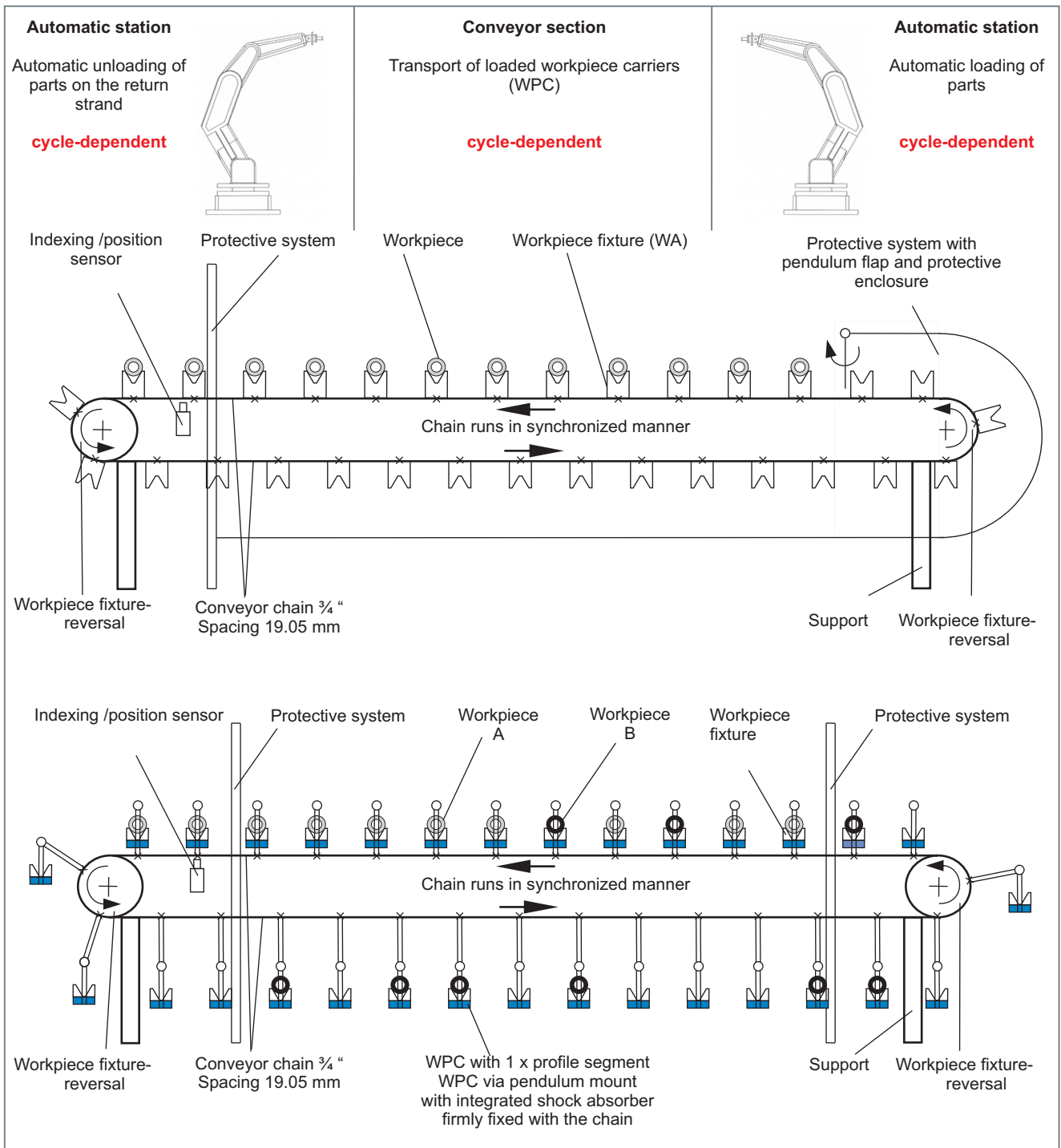
Workpieces are transported and buffered while suspended on the return strand. Empty WP carriers are return in upright position on the top strand. They be shifted both on the top and return strands.



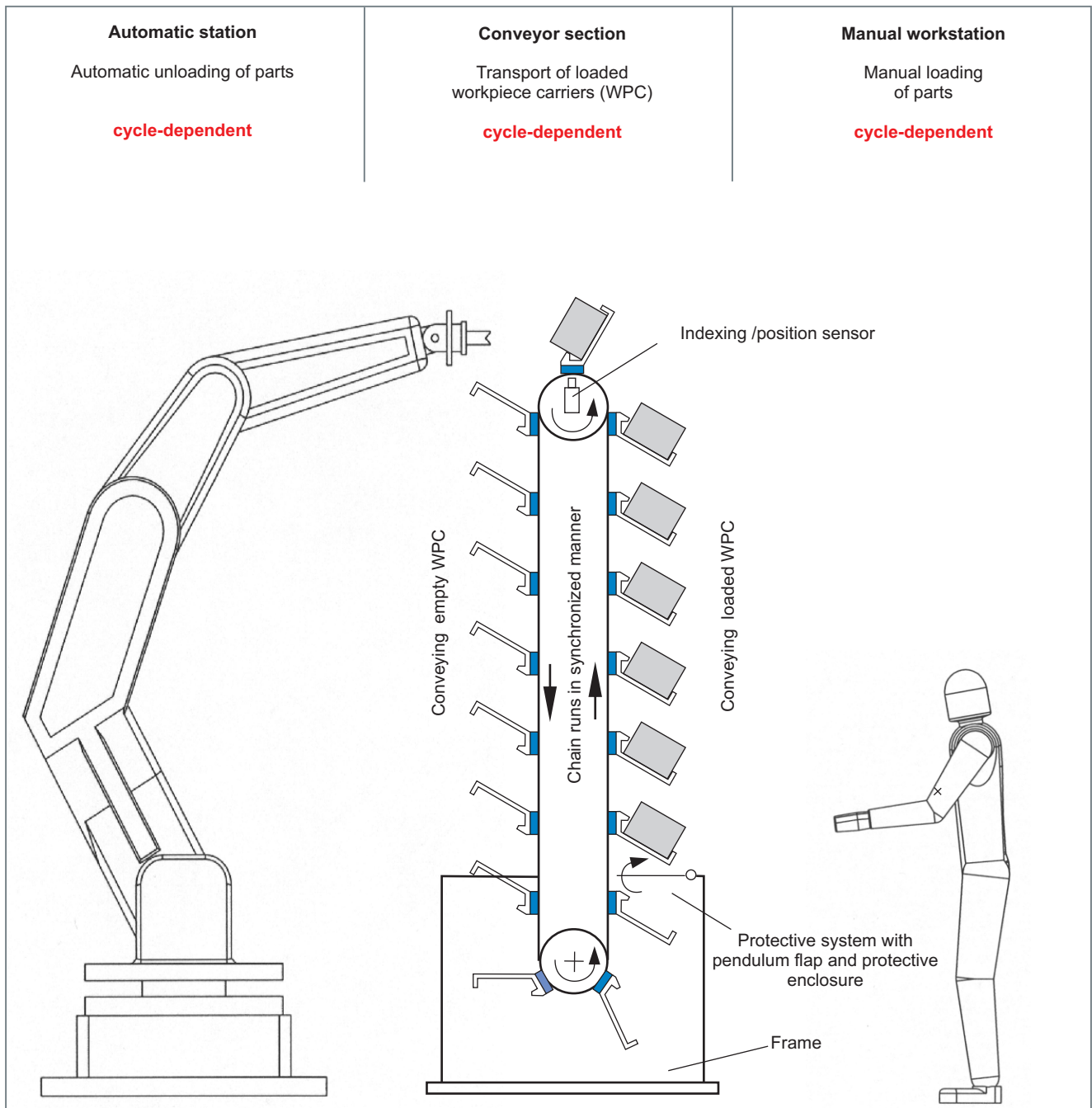
Indexing conveyor

Workpieces and WP carriers are conveyed in cycle-dependent manner since they are firmly fixed by the chain. Individual profile segments can be arranged in relation to one another in the modular grid of the chain pitch. Workpieces or WP carriers are detected at the workstations with the aid of roller lever switches or sensors and the conveyor chains are stopped.





Indexing conveyor





Indexing conveyor
Lateral setup



Horizontal accumulating conveyor / WPC transport
Infeed of automotive body parts to a welding cell



Horizontal accumulating conveyor / WPC transport
Infeed of cast parts to machining cells



Vertical indexing conveyor
Sheet metal infeed for welding cell



Horizontal indexing conveyor / WPC transport
Infeed of automotive body parts to a welding cell



Horizontal accumulating conveyor /
transport without WP carrier
Infeed of unmachined parts for processing

ALTRATEC Automation GmbH

Stuttgart Plant
Am Längenbühl 1
71229 Leonberg
GERMANY
Ph. +49 7152 3 56 56-0
Fax. +49 7152 3 56 56-29
www.altratec.de · info@altratec.de

Certified according to DIN EN ISO 9001

ALTRATEC Automation GmbH

Chemnitz Plant
Südstraße 9
09221 Neukirchen
GERMANY
Ph. +49 371 28134-0
Fax. +49 371 28134-34
www.altratec.de · info@altratec.de

China Plant

Bachtel Ltd.
Suzhou New District, Suzhou City,
Jiangsu Province
China, PC. 215151
Ph. +86 512 65 36 00 65
Fax. +86 512 65 36 09 06