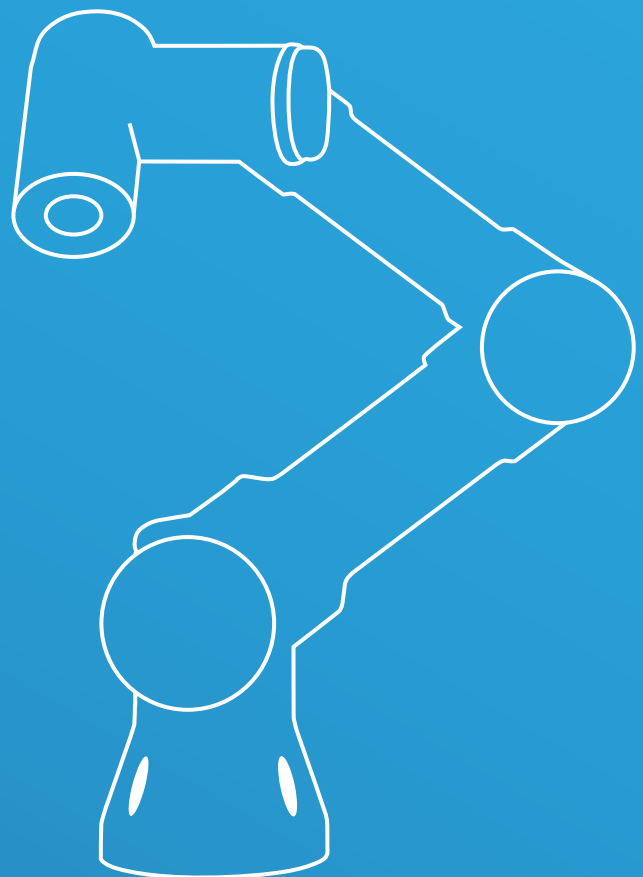


# IWK COBOT SYSTEMS



## ADVANTAGES OF IWK COBOT SYSTEMS

- HIGH COST-EFFICIENCY
- RAPID AMORTIZATION
- INTERRUPTION-FREE PRODUCTION
- GREATER OCCUPATIONAL SAFETY
- BETTER HANDLING
- FLEXIBLE INSTALLATION



## COLLABORATIVE ROBOT SYSTEMS: THE SAFEST OPTION FOR A COST-EFFICIENT TUBE FILLING PROCESS

A highly efficient solution for depalletization and tube infeed

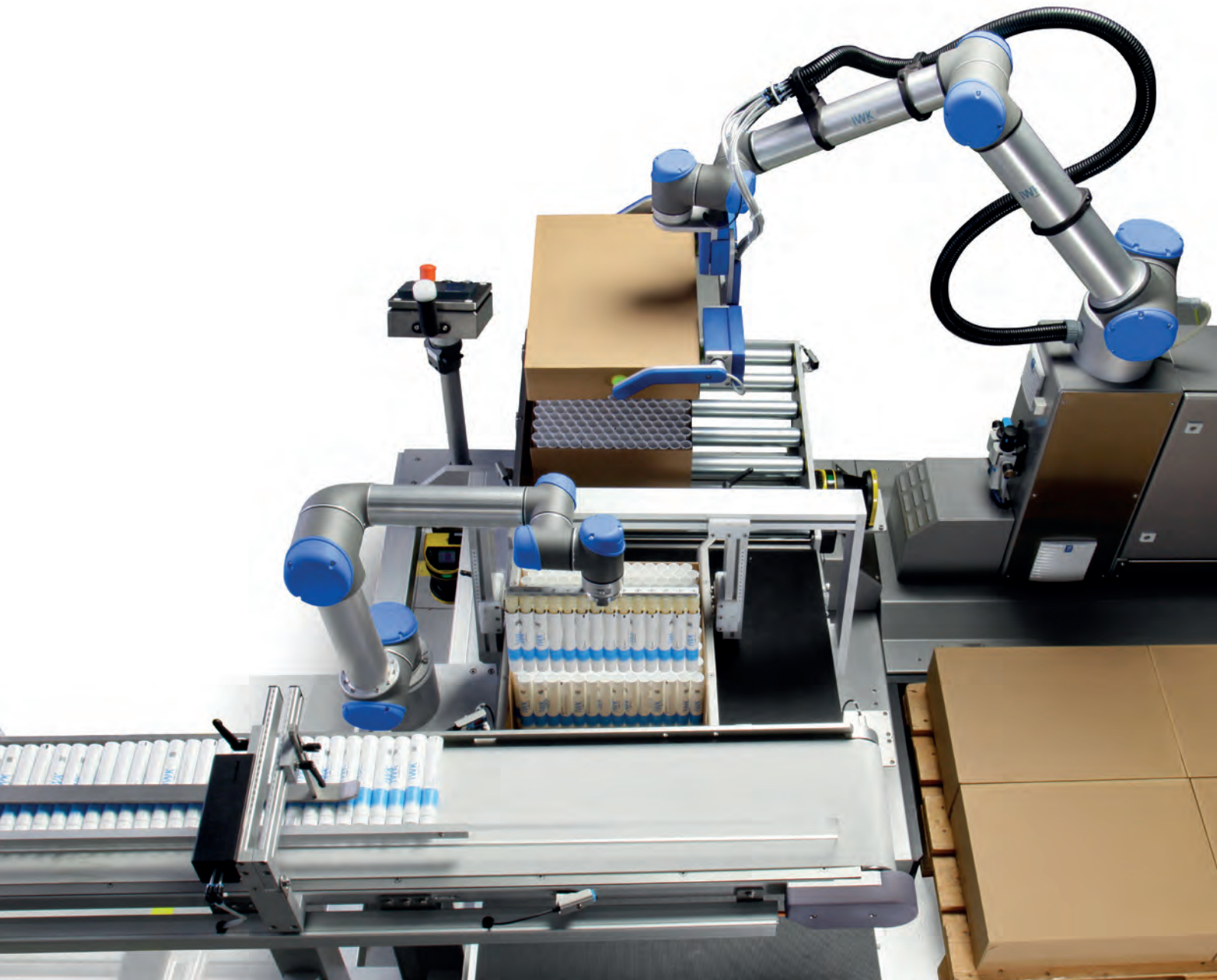
Collaborative robots fundamentally change the options available for production processes. IWK is making waves in the packaging industry by including this technology in depalletizing and tube infeed systems.

Equipping new packing lines with CoBot systems opens up an array of attractive possibilities. It greatly increases the cost-efficiency of the equipment overall through automatic supply to the filling line, while also making processes for handling empty tubes much simpler. In addition, retrofitting in installed equipment is not only possible but also straightforward. Depending on utilization, the ROI period for an IWK CoBot system is just 12 months.

Flexible installation options and significant reduction in overall installation area – in particular for the depalletizing system – provide a great deal of flexibility for the use of existing production areas, as well as enabling more efficient planning for new halls.

The systems' openly accessible work areas are monitored by laser scanners. These are tested and approved by the German employer's liability insurance association, and reliably ensure first-rate occupational safety.

DPC depalletizers and TZC tube infeeds can be delivered and retrofitted in combination or individually.

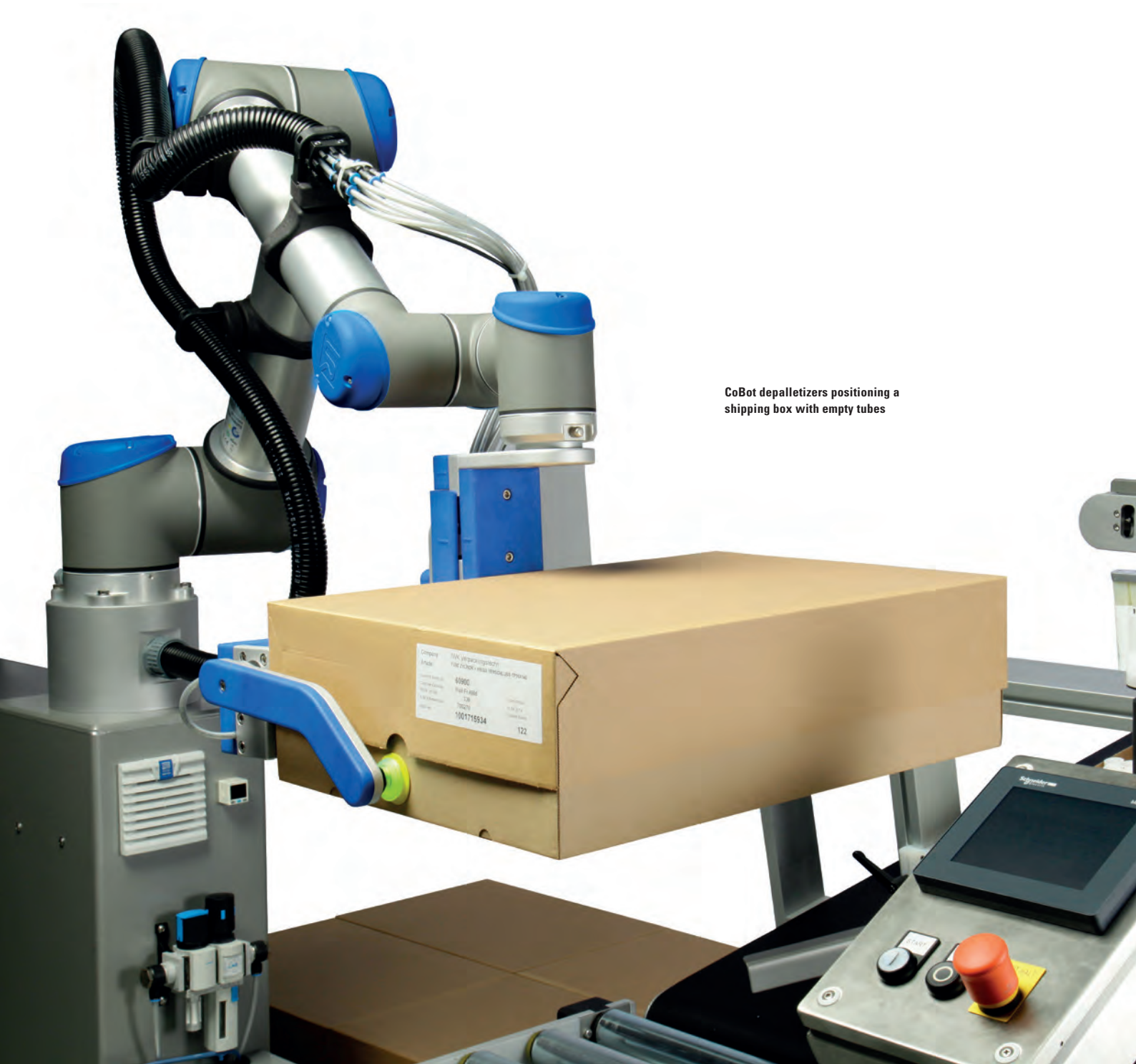




## FULL AUTONOMY FOR YOUR TUBE FILLING SYSTEM

CoBot-supported IWK DPC depalletizing system

The collaborative depalletizing system from IWK is unique in the industry and offers full equipment autonomy. The robot arm with pneumatic grip arms is able to access up to two pallet spaces, therefore ensuring that the tube filling line has uninterrupted supply. This significantly extends the cycle times for subsequent pallet deliveries. The CoBot device corresponds to current Global safety norms, and can be used immediately without any additional safety and monitoring systems.



CoBot depalletizers positioning a shipping box with empty tubes

### Patented Shipping Box Handling

IWK has developed a unique, patent-pending approximation solution to enable the pneumatic removal of individual shipping boxes from pallets. In this process, the shipping box is firstly lightly withdrawn from the group, before it is lifted by the second grip arm and precisely placed on the servo-driven transport conveyor of the tube infeed. The robot arm removes and disposes of the shipping box lid before the empty tubes are moved on in the direction of the transport conveyor. The grip arms can be adjusted to all standard shipping box formats.

### High Cost-efficiency

The IWK DPC depalletizing system can access one or two pallet spaces, depending on the space available.

Programming the robot arms is straightforward, meaning that new formats can be quickly read in and significant time savings can be achieved. This improves the cost-efficiency of the equipment as a whole.

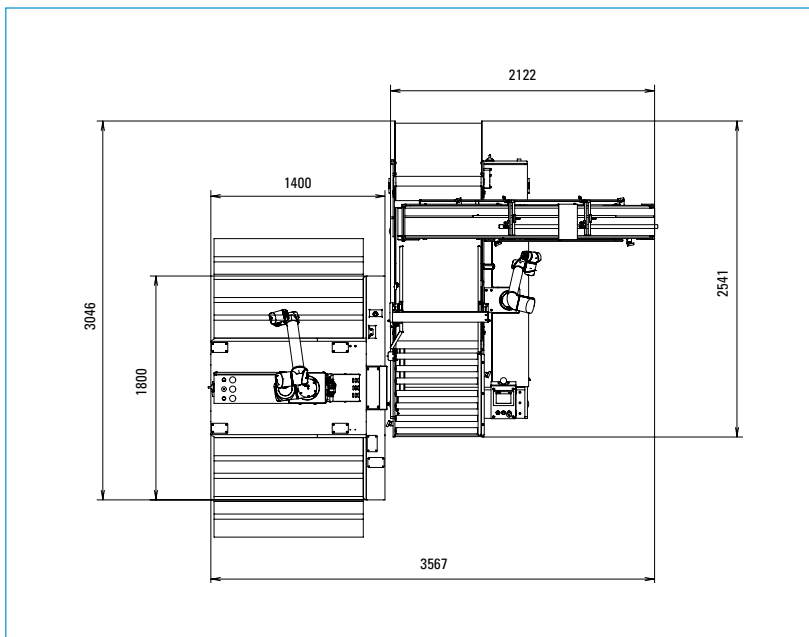
### Controls

Two different version of the depalletizer are available. As a DPC/TZC system combination, the controls for both devices are integrated into the HMI operator panel of the TZC tube infeed.

Alternatively, the depalletizer can be retrofitted as a stand-alone solution. In this case, the component is delivered with its own control cabinet and HMI operator panel. The stand-alone version is ideal for retrofitting older equipment.

### Energy Efficiency

The integrated vacuum generator can be provided in line with customer needs. All components used offer high efficiency and low maintenance.



#### IWK DPC

Pallet type	all standard industrial pallets
Tray size (mm)	min. 200 x 200 x 70; max. 600 x 600 x 265
Power ratings (standard)	3 x 400 V/ 50 Hz

## EFFICIENT TUBE INFEED FOR TUBE FILLING PROCESSES

CoBot-supported IWK TZC tube infeed

**After transferring the empty tube shipping boxes onto the transport conveyor, the empty tubes are conveyed to the removal area, while lateral guide strips ensure precise positioning. Mandrels dip into the rows of tubes, remove the row, and – in such a way that protects the materials – gently place it on the tube machine conveyor of the tube filling and sealing machine.**

### Occupational Safety

The protected zone around the moving robot arm is monitored by laser sensors. If a person reaches into or enters this area, the movement of the CoBot arm is immediately slowed, in order to prevent a collision. The machine returns to full production speed when the person leaves the safety zone again.

### Integrated Controls

The controls of the CoBot system are fully integrated into IWK equipment, and can be conveniently operated using the IWK HMI operator panel. The operator can perform all adjustments and parameter settings without any programming knowledge.

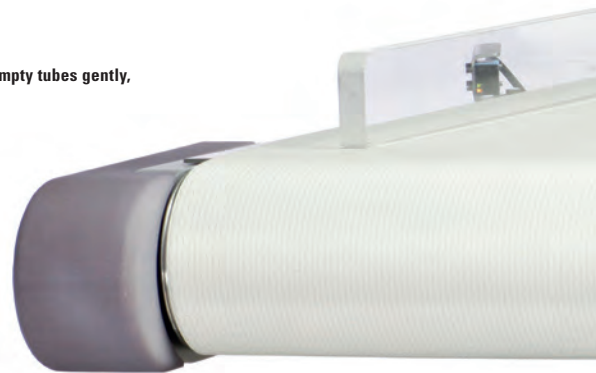
### Excellent Handling

There is no protective enclosure on the IWK TZC, and as a result the machine operator is able to manually correct the tube positioning immediately if needed. This saves time and enables the machine to run almost interruption-free. No preparation is required for this correction: the installed laser sensor system automatically registers that someone has entered or reached into the protected zone, and immediately reduces the working speed of the robot arm.

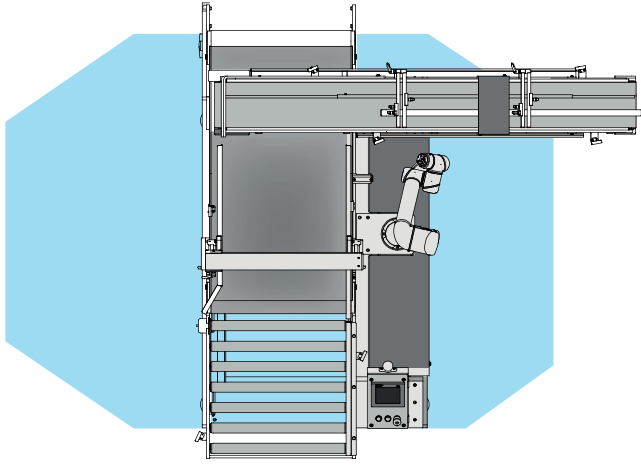
### Smart Format Change

Changing a format part requires just a small number of hand movements, and generally only takes a few minutes. The parameters can be stored in each case, and accessed later as a complete setup. In this way, the system learns something new with each format change.

**CoBot tube infeed placing empty tubes gently, in order to protect materials**

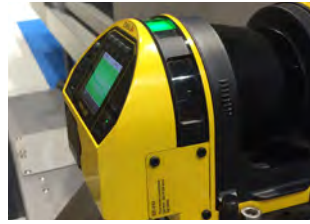


IWK TZC	
Tube diameter (mm)	10-52
Total tube length (mm)	50-250
Max. performance (tubes/min)	300
Power ratings	3 x 400 V/ 50 Hz



### Working Safely

The protected zone around the tube infeed is monitored by highly sensitive safety laser scanners. Up to four scanners register any breaches and reliably ensure protection against accidents; this satisfies the strict guidelines of the Global safety norms among other regulations.



## ATS GROUP WORLDWIDE

