

# / Catchweighers

## Mail & Logistics



**Catchweighers** and **DWS systems** for minimum product gaps  
and maximum belt speeds

# / Catchweighers and DWS Systems from Wipotec

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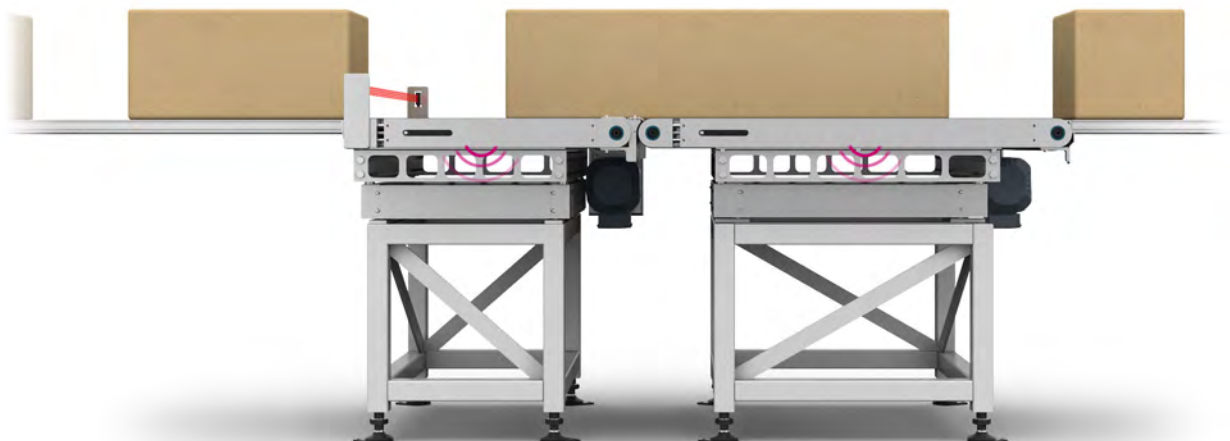
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HC-FL

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The world's fastest letter scales

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For letters, large letters and small parcels

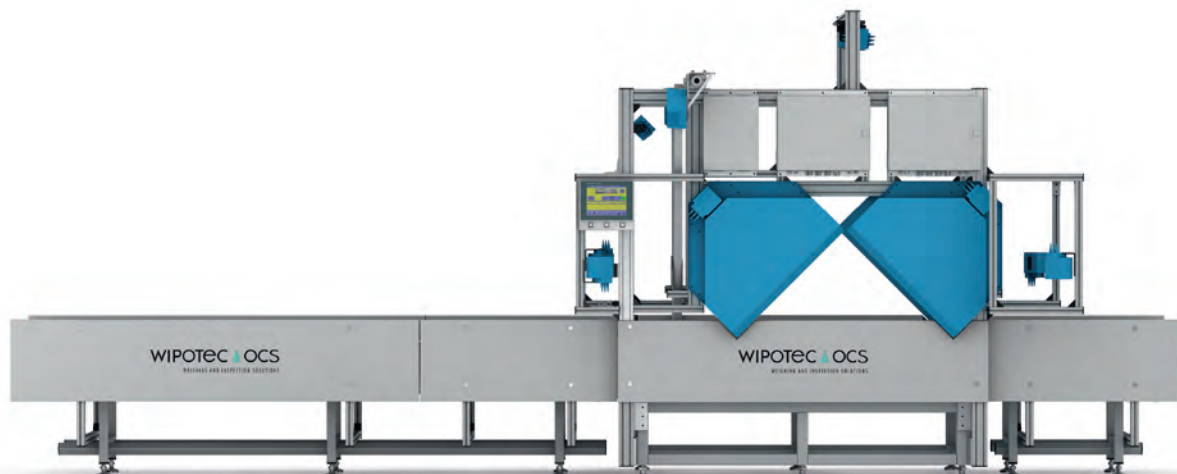
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## Service

### 31 Reliable expert service

Our expertise is at your disposal worldwide

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DWS Compact

# / Customised and Highly Scalable

Customised fits best. As a result, Wipotec solutions for courier, express and postal services are individually designed for each application. Your logistics requirement profile is analysed, often in collaboration with our trusted associates. We then provide a solution system within which all the components are optimally designed to match the logistics situation. We use a modular system with components that are interchangeable and adaptable to each application. Production also takes place exclusively in Germany. This means no more and no less than everything from a single source. These modules are not bought in from just anywhere. The specialists at Wipotec are responsible for developing the vast majority of these components and also the underlying basic technologies.

## **What you can expect**

Our solutions are as individual as your requirements. This doesn't mean, however, that we design special solutions for you that are unique and only built for that particular case. Our individual solutions are made up of highly adaptable modules. They can be utilized to fit your existing situation in carefully thought out stages. Take the Wipotec catchweighers for example: they are certainly among the performance-defining building blocks of your system. As a result, they are available in many variations in respect of length, width and speed. So choosing them depends significantly on your parcel sizes and expected throughput. When we know this, we

can use the weighing technology to best engineer your individual case. And we can also answer the question as to whether you need single-interval scales or would benefit more from multi-interval scales. The end result is optimum handling of your letters and parcels, synonymous with the smallest product gaps at the highest possible speeds.

## **What we offer you**

We offer you the best technology for all the key tasks of acquiring data on letters and parcels. Irrespective of whether you're handling small, light letters and parcels, or large, heavy letters and parcels. No matter how chaotic your parcel sequences are, what is important is that every individual weighing process can be performed in the shortest possible time, particularly in the case of parcel sequences with large weight differences. Wipotec has perfected the technology required for this over many years. As a result, all catchweighers without exception are based on Wipotec's monoblock Weigh Cell which works in turn on the principle of electro-magnetic force restoration (EMFR). This means the possibility of extremely small minimum gaps between the packages even at high transport speeds. No logistics service rendered weight, size or parcel identification is overlooked because correct billing of the postal charges depends entirely on comprehensive package acquisition (revenue recovery).





Wipotec Headquarters

# / Combined Expertise Under One Roof

## Cutting-edge Technology Made in Germany

Wipotec is a sales and service company for dynamic, high-precision weighing and inspection solutions. All machine solutions are developed and manufactured at our headquarters in Kaiserslautern, and we have been setting global standards in the production lines of leading manufacturers for more than 30 years. Throughout the world, customers in the pharmaceutical, food and chemical industries and in the mail and logistics sectors highly appreciate the solutions provided by Wipotec.

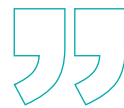
### **Excellent solutions for your application**

Wipotec stands for sophisticated high-tech systems with maximum ease of use. The impressive product portfolio provides solutions for nearly all customer applications. If necessary, we take special requirements and conditions into account in supplying customized equipment.

**Extraordinary manufacturing depth, all side by side**

Wipotec contributes great importance to the in-house development of all necessary technologies as well as the in-house manufacturing of all core components. Consequently, we develop a depth of manufacturing that differentiates us from other vendors and makes us largely independent of suppliers, while forming the basis for our delivery reliability.

At Wipotec, the entire value chain from basic research, to planning, design, and manufacture to sales and service is all under one roof. The benefit of short channels of communication is the guarantee of maximum flexibility in the implementation of every individual product configuration. No matter how unusual your application may be, we will show you a possible solution that is sure to convince you. That's what makes the difference.



*A company  
must contribute to  
the well-being  
and advancement  
of society –  
not just  
short term  
but long term.*

**Theo Düppre**  
Founder and CEO Wipotec Group



# / Globally Respected, Independent, Flexible, and Innovative: That is Wipotec.

- Globally respected partner in industry for more than 30 years
- Worldwide presence thanks to numerous subsidiaries and partners
- Founder managed company
- Company with high innovation power through large R&D effort, incl. basic research
- All expertise combined under one roof
- In-house production of all key components
- The full range: High-speed catchweighers, ultra-compact DWS systems and letter scales
- Use of high-precision EMFR weighing systems for the smallest product gaps and highest belt speeds

## Come and visit us!

Interested in the high-tech solutions from Wipotec? Perhaps you would like to visit our ultra-modern plant. Our prominent market position is no accident, but rather the logical consequence of the creative and competent efforts made by our staff on behalf of our customers. Come and see for yourself. Just schedule an appointment for a tour with us!

### Make an appointment:

✉ [maillog@wipotec.com](mailto:maillog@wipotec.com)

# / Courier, Express and Parcel Services

„Time is money“ – a saying and at the same time advice that applies particularly to mail and logistics service providers. To control the product flow and optimise the allocation of warehouse and transport resources, Wipotec integrates efficiency-enhancing, automated weighing and volume measuring solutions in the sorting centres of global CEP services (courier, express and parcel services). Leading logistics companies also rely on high-speed solutions from Kaiserslautern.

## The right solution for every application

Wipotec has a range of catchweighers fine-tuned to all market-relevant applications. It starts with our attractive basic scales which feature an excellent price/performance ratio with medium transport speeds and very good weighing accuracy. In the middle segment, the HC-SL weighs parcels up to 60 kg at a speed of 2.9 m/s

with a weighing accuracy above  $\pm 5$  g. The resulting performance values create the ideal conditions for correct invoicing in calibrated mode. The upper performance range is covered by the HC series that stands out by virtue of extensive functionality and high throughput, as well as very straightforward integration and flexible handling.

Service-friendliness and minimal maintenance are outstanding features of all Wipotec systems. They can be installed in a very short time and quickly put into operation. The range of machines is broad and includes all the relevant areas of application: starting with the dynamic weight acquisition of letters and parcels of different volumes and weights to code acquisition via laser and camera systems.

The integrated Wipotec Weigh Cells combined with intelligent algorithms ensure highly precise determination of weights at high throughput rates, even with chaotic product sequences in normal operation. They also cope with exceptional challenges such as weighing on a slope and during acceleration. A high-quality concept designed for durability guarantees minimum downtimes over their entire operating life.

**Catchweighers and DWS solutions** from Wipotec for the following industries:

- CEP and letter
- Logistics
- E-Commerce/Intralogistics

## Overview of functions

- Order integrity check
- Quality control
- Weight per unit check
- Filling quantity check
- Dimension acquisition
- Automatic or manual barcode scanning



Length, width, height:  
Catchweighers from Wipotec  
are available in many variations

# /The All-important Weighing Principle

## The Technology for Maximum Throughput

Our Wipotec Weigh Cells work exclusively in our catchweighers; they provide the weighing results significantly faster and more precisely than all other competitive weight systems.

### **The weighing principle makes the difference**

Wipotec Weigh Cells based on the principle of electromagnetic force restoration (EMFR) are therefore used in preference in cutting edge post and parcel sorting facilities. The basic principle is comparable to a simple balance scale. The weight is placed on one side of the balance beam. As a result, the coil attached to the other side of the balance beam attempts to move out of the magnetic field of a magnet but is unable to because so much current is sent through the coil via an electrical control circuit that the balance beam practically remains in its neutral position.

The resulting deflection is only a few nanometres, in complete contrast to path-dependent measurement methods, e.g. using strain gauges. Compared to conventional weighing methods, Wipotec Weigh Cells based on the EMFR principle, with the shortest settling and measuring times, enable the construction of extremely short and therefore space-saving catchweighers. This means shorter product gaps and therefore higher throughputs.

### **Technology for maximum throughput**

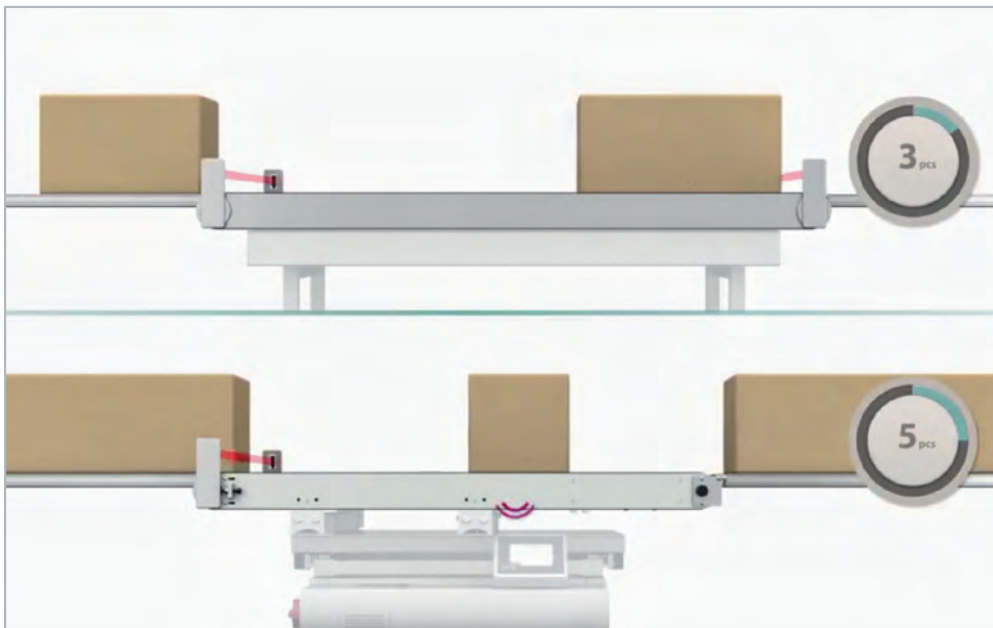
Conventional catchweighers need photoelectric beams at the beginning and end of the scales for correct weighing. A valid weight value is determined when the package triggers the photoelectric beam at the end of the scales; only then can a following product be assigned to the scales. This prevents smaller gaps between products. The longer the weighing distance, the greater

the effect. This influences and limits the throughput rate which depends significantly on how small the minimum gaps can be kept.

Catchweighers from Wipotec work differently. There is only one photoelectric beam at the beginning of the scales. With its help, the gaps between packages can be reduced to the absolute technical minimum. Here Wipotec Weigh Cells score a second time, as the special Weigh Cells used in the catchweighers have an ultra-short settling time and scanning rates of one millisecond.

The cell supplies very precise weighing results extremely quickly and reliably. As soon as a valid measured value has been determined, the scales are ready for the next product. This means that extremely short minimum gaps between the packages are possible even at high transport speeds.

Another advantage of the Wipotec Weigh Cell is its robust mechanical design combined with sturdy overload protection, thus guaranteeing maximum availability which is very important when deployed in harsh industrial environments. Active Vibration Compensation (AVC) also ensures correct weighing results in these environments that are not vibration-free. Active Vibration Compensation filters disruptive vibrations out of the measured result so that even minimum weight deviations are always displayed reliably. The Wipotec EMFR Weigh Cell itself contains no wear parts and therefore operates absolutely maintenance- and wear-free.



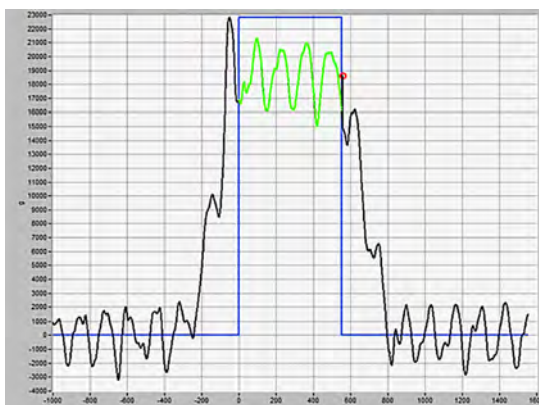
Catchweighers from Wipotec enable significantly smaller product gaps (see bottom graphic)

# /AVC – Active Vibration Compensation

Sorting centres are environments with a great deal of vibrations. Vibrations present a distinct challenge for dynamic weighing technology – such as catchweighers and dimensioning, weighing and scanning (DWS) systems. Both sorters and the transportation systems themselves generate vibrations with high amplitudes. These low-frequency vibrations with high signal levels influence and massively interfere with dynamic weight measurements.

Vibrations are present in all parcel freight centres. These vibrations adversely affect the parcel weighing accuracy in automatic sorting systems. The critical components used in weighing systems such as DWS systems, consist of a combination of the weighing belts for transporting the parcels and the actual Weigh Cell. These weighing systems are often located close to sorters, which due to their moving parts, transfer vibrations to the platforms or to the transport systems themselves. Sorters and the transport systems generate high amplitude oscillations. These low-frequency oscillations have a high signal level that influence dynamic weight measurements. A further complication is that the majority of sorting operations take place on elevated steel platforms, since the floor space is used for internal freight traffic, which relies on clear routes.

AVC solves vibration issues! This exclusive vibration compensation technology from Wipotec uses intelligent algorithms to ensure the most precise weighing results, achieving the required weighing accuracy even in environments where vibrations prevail. The AVC solution filters environment-induced interferences out of the measurement results without any loss of speed and enables the weighing technology to be used even in sorting systems or freight centres where catchweighers have to be set up on vibrating floors. The AVC technology is particularly effective for vibrations caused by sorters or transport systems below 10 Hz. It reduces vibrations to one tenth of their value, or the equivalent of a 20 dB attenuation of the vibration effects on the weighing measurement results.



Measurement curves – left without AVC, right with AVC

# / High-precision Weighing Results in Sorting Centres Through AVC

## How AVC works

All AVC based systems are equipped with electro-magnetic force restoration (EMFR) Weigh Cells. The crucial advantage of a Wipotec EMFR Weigh Cell is its extremely short settling time. Compared to the weighing principle with strain gauges, this type of Weigh Cell provides faster and more precise precise load weights. Two EMFR Weigh Cells are mounted inside one housing, one of which measures vibrations only, while the other measures vibrations including the load to be weighed. Interfering influencing variables are calculated by comparing the two measurement curves. The obtained measurement result is very close to a result that would be achieved without any influence through vibration.

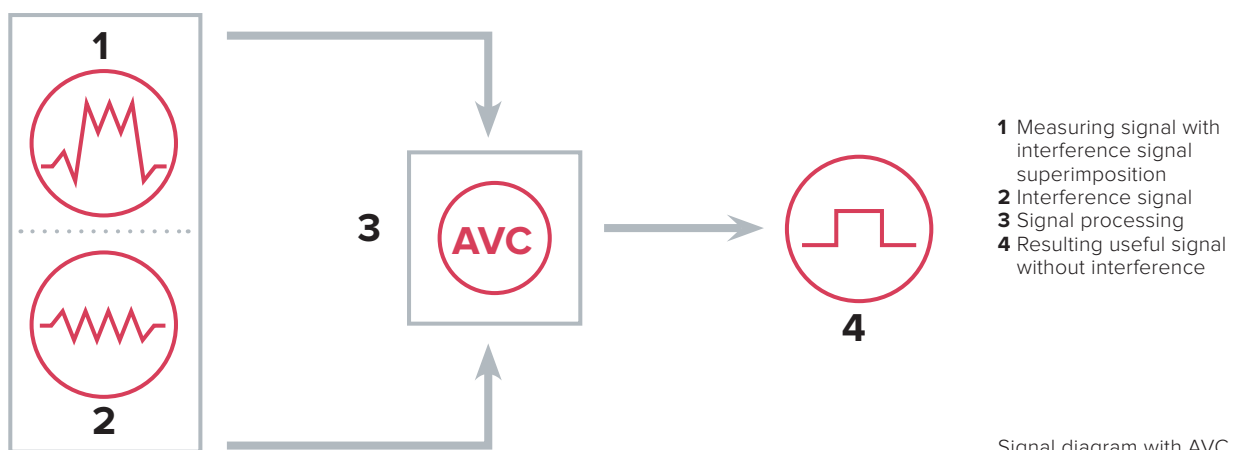
## Results to be achieved with AVC

The Wipotec AVC eliminates, or at least greatly reduces, the negative effects of floor vibrations on weighing results. More specifically, the active vibration compensation system ensures that correct weight measurements can be carried out even at high transport speeds in which the packages are on the weighing belt for a short time. AVC is a great an option for industrial scale systems used in sorting and distribution centres that need to either omit a support tower, or are influenced by large environmental vibrations. A comparison of curves with and without AVC shows that with AVC activated the fluctuations due to vibrations are very much smaller and therefore the scales can measure with increased accuracy.

## Economic advantages of AVC use

The use of calibrated weighing systems is required by law. In combination with AVC, it leads to substantially more accurate weighing results and therefore helps prevent incorrect billing of transport fees. Many companies in the CEP sector increase their profit margins by using automated weighing technology that is equipped with active vibration compensation systems. AVC provides the potential to increase profits through gram-precise weighing results from the group of goods in transit. This is because AVC enables a more precise determination of weight that prevents parcels from falling into a lower pricing category. The price difference between the categories results in additional revenue by using a more precise scale. In addition, billing can start earlier if the calibration value is lower.

For MID applications, 5e (e – minimum calibration value) is the lowest weight value that can be calculated. This means that with a calibration value of 20 grams parcels are billable starting at 100 grams. This is generally known as revenue recovery, i.e. the ability to make additional demands for logistics services actually provided. In the parcel sector, this additional income can amount to several thousand euros per day.



# / **Determine the Potential** for Improving Weighing Accuracy in Advance

Our experts have developed the D-Box, a unique mobile diagnostic system, to spot possible improvements in weighing accuracy that can be achieved with AVC technology. The innovative tool analyses the influence of vibrations and other parameters, such as throughput rates, speed, type of conveyor belts and preferred consignment sizes, on the weighing results.

Our software then determines the accuracy or calibration values for scales with or without AVC and reliably compares the results with each other.

Our specialists carry out this analysis on the spot on a laptop connected to the D-Box. You don't have to do a thing. Your company's decision-makers can then use the measurements of the D-Box to work out the weighing system suitable for your specific application and its ideal positioning.



D-Box

# / High Speed with Maximum Precision

This catchweigher scores with transport speeds up to two metres per second with twice the accuracy. Customers who opt for the HC-ML model benefit from this increase in speed combined with higher resolutions for products individually weighing up to a maximum of 15 kilos.

These catchweighers are the perfect solution for small to medium loads which also have larger geometric product dimensions. Depending on the design of the controller, it is possible to drive up to 15 motors of different types.

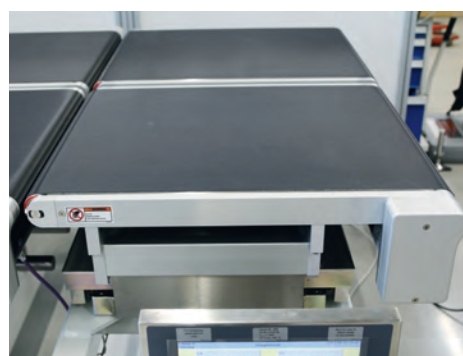
The scale can also weigh during acceleration and deceleration phases and on ascending or descending slopes. This ensures a high degree of flexibility. The use of a high-tech Weigh Cell from Wipotec, which works on the principle of electro-magnetic force restoration (EMFR), guarantees the best technology for excellent weighing results. The Wipotec Weigh Cell itself contains no wear parts and needs no maintenance.

## Main Features

- Transport speeds up to 2 m/s
- Weighing range up to 15 kg
- Accuracy above  $\pm 2$  g
- Belt body construction using sandwich technology/lightweight construction
- Can optionally be used in parallel operation or as double scales

## Your Benefits

- Easily integrated in existing lines
- Wipotec EMFR Weigh Cell for the best weighing results
- Ideal scales for medium speeds and medium weights



Dual-lane version with narrow lane gaps

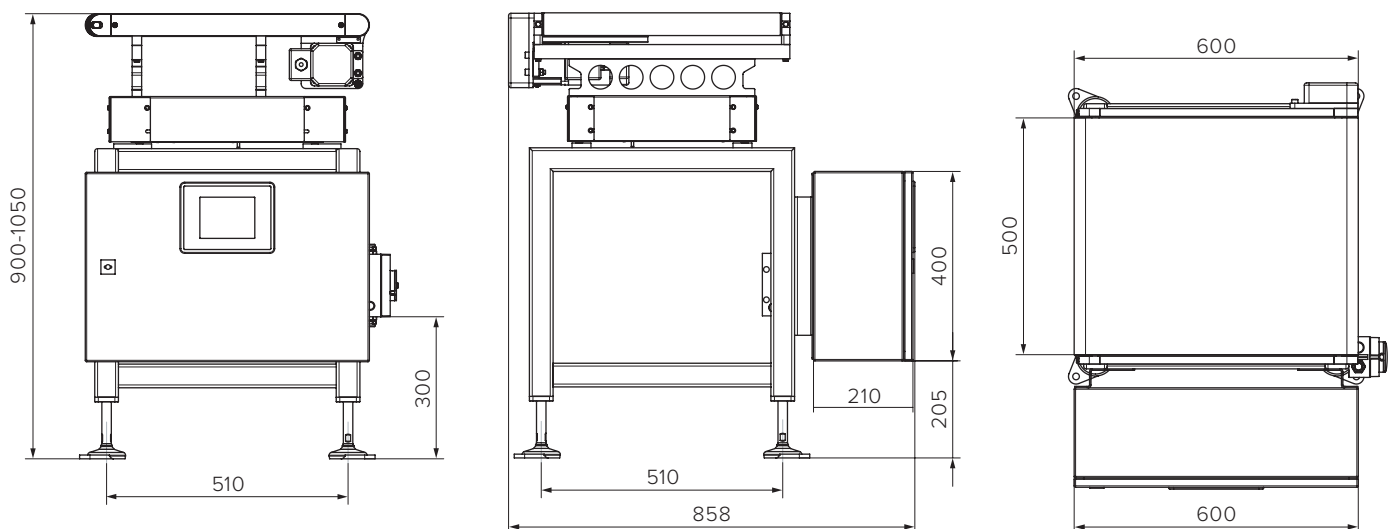
| Technical data                              | HC-ML                                                                                                                                                                        |                                  |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Application                                 | CEP, mail order, intralogistics, industry                                                                                                                                    |                                  |
| Machine type                                | HC-ML-2-SI                                                                                                                                                                   | HC-ML-3-SI                       |
| Protection class                            | IP54                                                                                                                                                                         |                                  |
| Rate of speed                               | 2 m/s                                                                                                                                                                        |                                  |
| Working height Low speed<br>(to 1.5 m/s)    | 600–750 / 700–850 / 800–950 / 900–1,050 / 1,000–1,150 / 1,100–1,250 mm <sup>1</sup>                                                                                          |                                  |
| Working height High speed<br>(from 1.5 m/s) | 500–600 <sup>2</sup> / 550–650 <sup>2</sup> / 600–700 / 650–750 / 700–800 / 750–850 / 800–900 / 850–950 / 900–1,000 / 950–1,050 / 1,000–1,100 / 1,050–1,150 / 1,100–1,200 mm |                                  |
| Conveyor width<br>(roller diameter 46 mm)   | 400 / 500 / 600 mm                                                                                                                                                           |                                  |
| Conveyor length                             | 500 / 600 / 700 / 800 / 900 / 1,000 mm                                                                                                                                       |                                  |
| Rated voltage controls                      | L1/N/PE 115/230 VAC                                                                                                                                                          |                                  |
| Rated voltage drive                         | L3/N/PE 380/480 VAC                                                                                                                                                          |                                  |
| Rated frequency                             | 50/60 Hz                                                                                                                                                                     |                                  |
| GWR (Gross weight range)                    | 12,000 g <sup>3</sup> (IW-B 30k)                                                                                                                                             | 15,000 g <sup>3</sup> (IW-B 60k) |
| e (min. Calibration value)                  | ≥ 2 g                                                                                                                                                                        | ≥ 5 g                            |

<sup>1</sup> Further on request

<sup>2</sup> Working height only with freestanding control cabinet possible

<sup>3</sup> 30,000 g optional or on request

LCD touchscreen  
for easy operation



All entries in mm | Drawing shows sample version

# / Attractively Priced Catchweigher for Warehouse and Intralogistics Sector

The HC-Warehouse is the ideal solution for weighing applications in the warehouse and intralogistics sector. Wipotec has thus created the first scale in this price segment without compromising on quality and durability. Due to the innovative use of only one central strain gauge Weigh Cell, the HC-Warehouse is very robust and reliable. At the same time, it enables fast and uncomplicated maintenance.

The predictive maintenance of the HC-Warehouse determines the optimal time for maintenance work and thus avoids unplanned downtimes. It also provides valuable process data such as throughput and motor current.

Designed for a weighing range of up to 50 kg and extremely resilient due to a powder-coated steel frame in sheet metal bending construction, the HC-Warehouse dynamic scale allows reliable control of picking and shipping units. Available weighing belt lengths from 600 to 1,000 millimetres and belt widths from 400 to 700 millimetres allow flexible integration into existing or planned transport systems. The HC-Warehouse is prepared for the communication protocols Ethernet/IP, Profinet and Profibus.



## Main Features

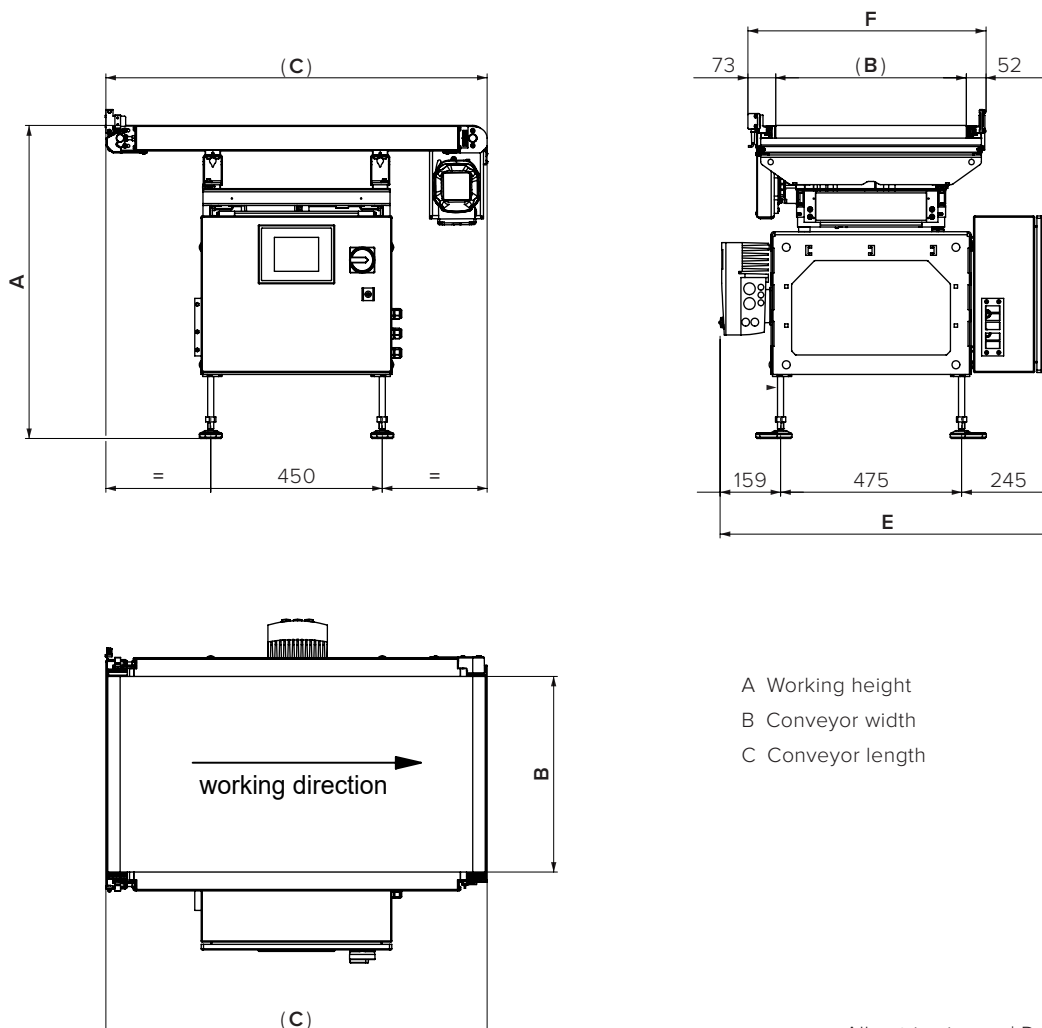
- Transport speeds up to 1.2 m/s
- Weighing range up to 50 kg
- Predictive maintenance concept
- Communication protocols Ethernet/IP, Profinet and Profibus
- Protection class IP54

## Your Benefits

- Very good price/performance ratio
- Fewer breaks in production due to predictive maintenance
- Especially robust due to the Wipotec weighing bridge

| Technical data                            | HC Warehouse                                              |
|-------------------------------------------|-----------------------------------------------------------|
| Application                               | Intralogistics                                            |
| Machine type                              | HC-Warehouse                                              |
| Protection class                          | IP54 with integrated display / IP20 with external display |
| Rate of speed                             | 1.2 m/s                                                   |
| Working height                            | 500–1,320 mm                                              |
| Conveyor width<br>(roller diameter 60 mm) | 400 / 500 / 600 / 700 mm                                  |
| Conveyor length                           | 600 / 700 / 800 / 900 / 1,000 mm                          |
| Rated voltage controls                    | L1/N/PE 115/230 VAC                                       |
| Rated voltage drive                       | L3/N/PE 230 VAC                                           |
| Rated frequency                           | 50/60 Hz                                                  |
| GWR (Gross weight range)                  | 50,000 g (IW-B)                                           |
| e (min. Calibration value)                | without <sup>1</sup>                                      |

<sup>1</sup> MID / NTEP-Upgrade optional with  $e \geq 20\text{g}$



All entries in mm | Drawing shows sample version

# / High Weighing Accuracy and Throughput of Parcels

Scales of the HC-SL series are designed for products up to a maximum 60 kg. The high weighing accuracy (up to 5 g) permits speeds of up to 2.9 m/s in calibrated mode. These excellent values are achieved by the sandwich construction which creates a rigid platform for the parcel to travel over the scale weigh bridge. It also ensures a noise reduction to below 65 dB.

Scales of the SL series are particularly easy to integrate. Their Wipotec EMFR Weigh Cells are absolutely maintenance- and wear-free.

The catchweighers can also weigh during acceleration and deceleration phases, and on ascending or descending slopes. The scales can be used from both sides due to the symmetrical belt construction. The exit side finger protection is fitted as standard. The drive motor can be mounted optionally on the left or right in the belt's direction of travel. An internal belt drive (optional) can be used where a particularly narrow design is important.



Control cabinet  
with built-in  
LCD touchscreen

## Main Features

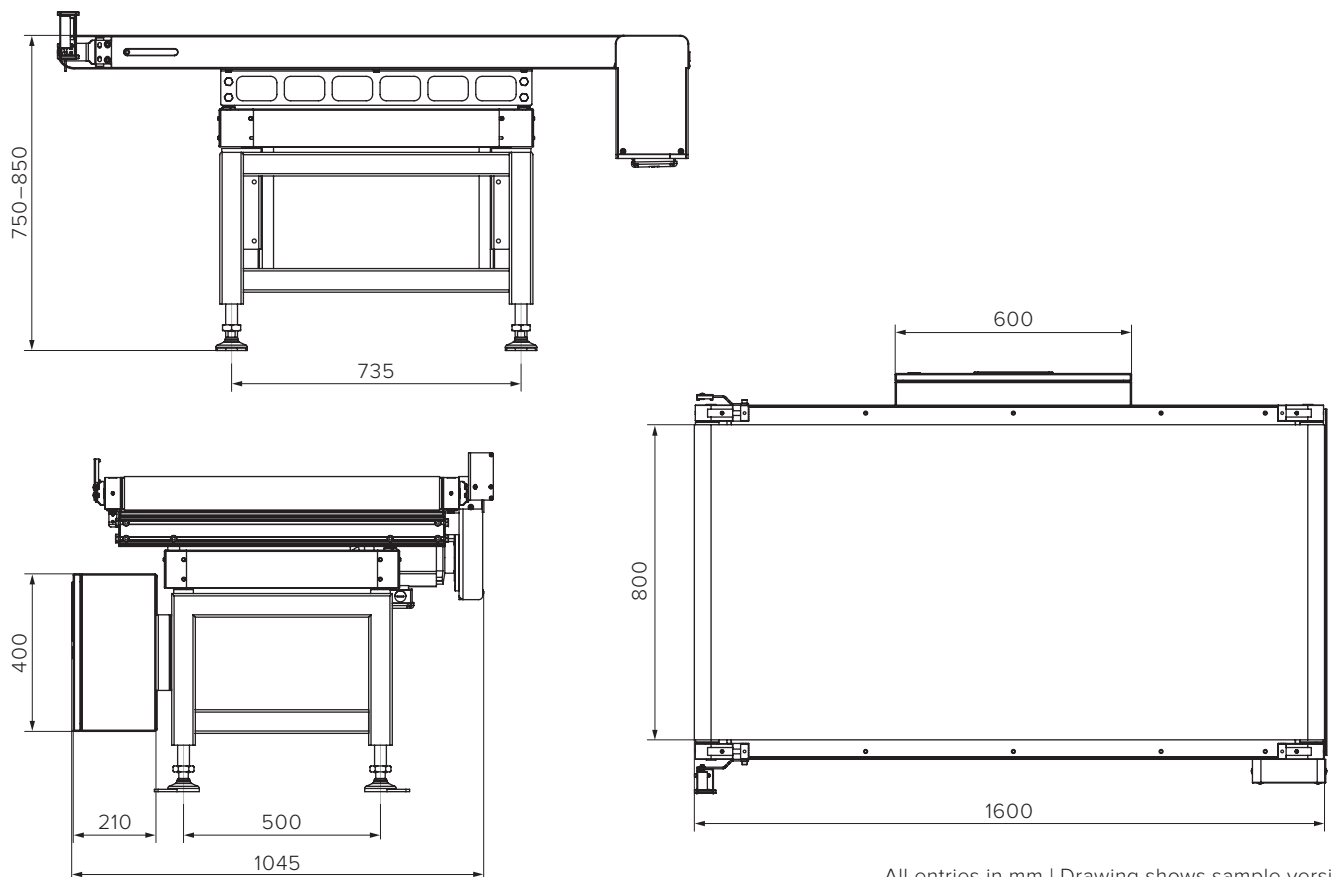
- Sandwich construction
- Weighing range up to 60 kg (optionally 150 kg)
- Calibration value above  $\pm 5$  g
- Low noise level not exceeding 65 dB

## Your Benefits

- Wipotec EMFR Weigh Cell for the best weighing results
- Double the speed compared to standard machines

| Technical data                            | HC-SL                           |                              |                |                           |
|-------------------------------------------|---------------------------------|------------------------------|----------------|---------------------------|
| Application                               | CEP, mail order, intralogistics |                              |                |                           |
| Machine type                              | HC-SL-1-SI                      | HC-SL-2-SI                   | HC-SL-3-SI     | HC-SL-4-SI                |
| Protection class                          | IP54                            |                              |                |                           |
| Rate of speed                             | max. 2 m/s                      |                              | max. 2.9 m/s   |                           |
| Working height<br>Low speed (to 1.5 m/s)  | 500–1,250 mm                    | 500–1,250 mm <sup>1</sup>    |                | –                         |
| Working height<br>High speed (ab 1,5 m/s) | 500–1,250 mm                    | 500–1,200 mm                 |                | 500–1,200 mm              |
| Conveyor width <sup>1</sup>               | 400–600 mm                      | 600–700 mm                   | 800–1,000 mm   | 1,200–1,600 mm            |
| Conveyor length                           | 600–1,000 mm                    | 1,100–1,600 mm               | 1,100–1,800 mm | 1,400–2,600 mm            |
| Rated voltage controls                    | L1/N/PE 115/230 VAC             |                              |                |                           |
| Rated voltage drive                       | L3/N/PE 380/480 VAC             |                              |                |                           |
| Rated frequency                           | 50/60 Hz                        |                              |                |                           |
| GWR (Gross weight range)                  | 30,000 g (IW-B)                 | 60,000 g <sup>1</sup> (IW-B) |                | 60,000 g / 150,000 (IW-B) |
| e (min. Calibration value)                | ≥ 5 g                           | ≥ 10 g                       |                | ≥ 20 g / ≥ 50 g           |

<sup>1</sup> Further on request



All entries in mm | Drawing shows sample version

# / More Than Just Two Single-platform Scales: The 3-in-1 Solution for Greater Throughput

The HC-FL catchweigher is a combination of two single-platform scales in line. Both scales work simultaneously and independently of each other. As soon as a parcel exceeds a certain length, both scales work together as a virtual third set of scales. The machine is ideal for applications where high belt speeds and top throughputs are required for products individually weighing up to 60 kg – perfect for the CEP sector.

The scales weigh precisely up to 11,000 parcels an hour at transport speeds of up to 2.9 m/s. The scales impress with first-class performance and durability. More than 1,000 systems have been put into operation worldwide to date. The HC-FL from Wipotec is therefore setting new standards in its sector.

The construction principle offers around 60% more throughput at the same speed compared to single-platform scales. Using two combined scales enables the shortest possible product gaps. The catchweigher can also weigh during acceleration and deceleration phases, and on ascending or descending slopes. The use of a high-tech Weigh Cell from Wipotec, which works on the principle of electro-magnetic force restoration (EMFR), guarantees the best technology for excellent weighing results.



## Main Features

- Transport speeds up to 2.9 m/s
- Weighing range up to 60 kg
- Accuracy above  $\pm 50$  g
- Two single-platform scales which, if required, can be combined to simulate a third set of virtual scales
- Low noise level not exceeding 65 dB

## Your Benefits

- Throughput increase of up to 60% compared to single-interval scales
- Very good price/performance ratio
- Wipotec EMFR Weigh Cell for the best weighing results

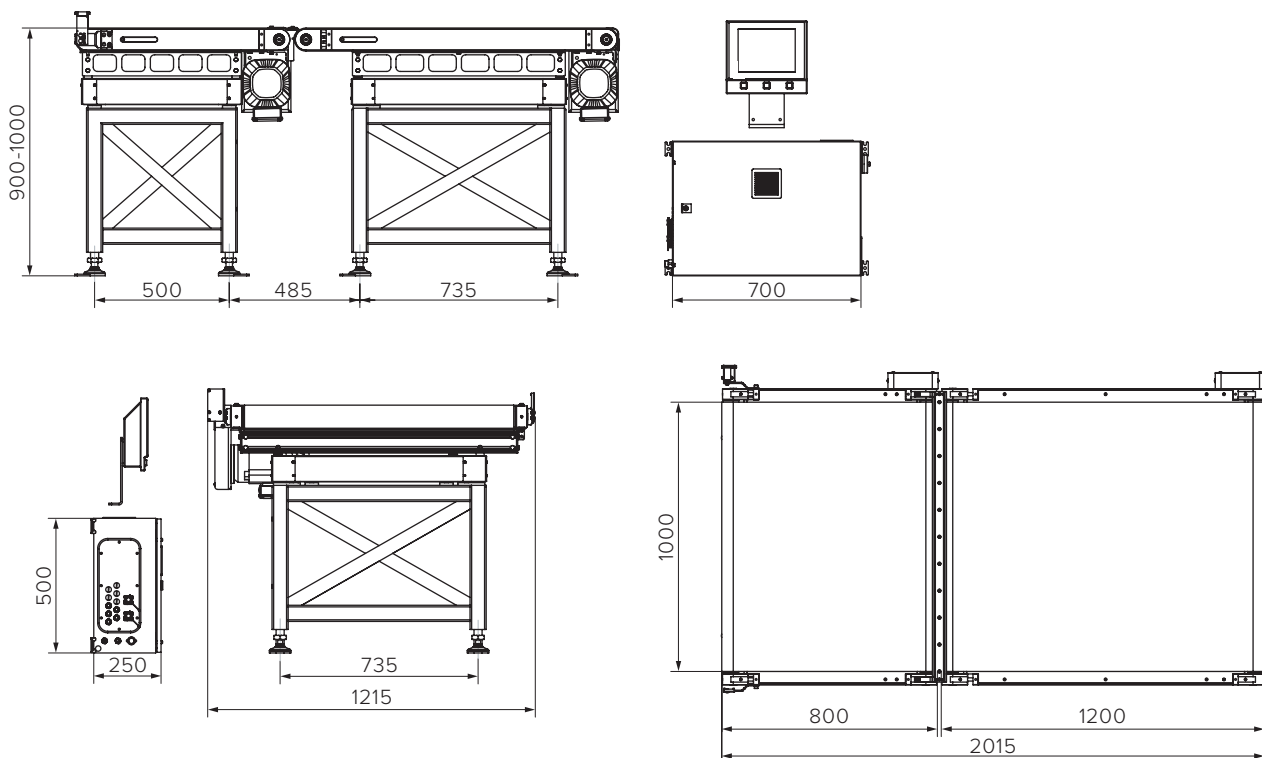
| Technical data             | HC-FL                                                                                                                                                                                     |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application                | CEP, mail order, intralogistics, industry                                                                                                                                                 |
| Machine type               | HC-FL-2                                                                                                                                                                                   |
| Protection class           | IP54                                                                                                                                                                                      |
| Rate of speed              | 2,9 m/s                                                                                                                                                                                   |
| Working height             | 500–600 <sup>1</sup> / 550–650 <sup>1</sup> / 600–700 / 650–750 / 700–800 / 750–850 / 800–900 / 850–950 / 900–1,000 / 950–1,050 / 1,000–1,100 / 1,050–1,150 / 1,100–1,200 mm <sup>2</sup> |
| Conveyor width             | 800 / 900 / 1,000 mm                                                                                                                                                                      |
| Conveyor length            | 800 / 900 / 1,000 / 1,100 / 1,200 / 1,300 / 1,400 / 1,500 / 1,600 mm                                                                                                                      |
| Rated voltage controls     | L1/N/PE 115/230 VAC                                                                                                                                                                       |
| Rated voltage drive        | L3/N/PE 380/480 VAC                                                                                                                                                                       |
| Rated frequency            | 50/60 Hz                                                                                                                                                                                  |
| GWR (Gross weight range)   | 60,000 g (IW-B)                                                                                                                                                                           |
| e (min. Calibration value) | ≥ 50 g                                                                                                                                                                                    |

<sup>1</sup> Working height only with freestanding control cabinet

<sup>2</sup> Further on request



Various weighing options: small, medium and large products



All entries in mm | Drawing shows sample version

# / Triple Scale Catchweigher

## For Highest Throughputs

The HC-FL-T catchweigher combines three hardware scales into six virtual scales. All scales are able to work independent of one another. This design feature allows for significantly shorter product gaps.

As parcel lengths increase, catchweighers for courier, express and parcel services require larger product gaps to accurately weigh chaotic product sequences. Larger product gaps lead to a decrease in throughput. This is where the triple scale catchweigher from Wipotec comes in. The HC-FL-T catchweigher combines three hardware scales into six virtual scales. All scales are able to work together or independent of

one another. This design feature allows for significantly shorter product gaps. Due to its ability to combine neighbouring scales into additional virtual weighing systems, this triple scale catchweigher offers six various weighing options for all product sizes.

In addition, the HC-FL-T catchweigher weighs up to three products simultaneously. The combination of both capabilities leads to an increase in throughput of up to 60% at the same speed compared to a double scale design while guaranteeing first-class performance and durability.



### Main Features

- Transport speed up to 3.4 m/s
- Accuracy above  $\geq 20$  g
- Six independent scales cover a wide spectrum of product lengths
- Product gaps as small as 250 mm (10")

### Your Benefits

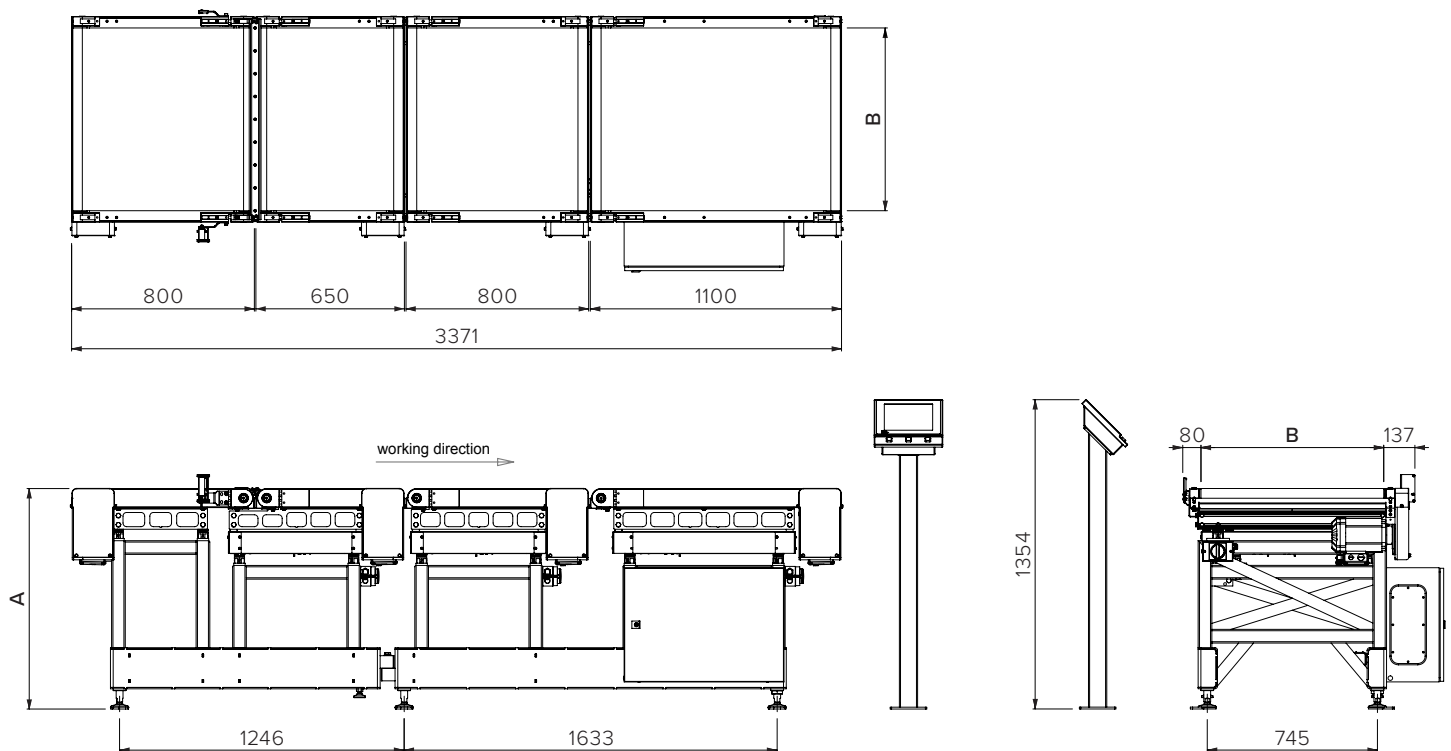
- Up to 60% throughput increase compared to a double scale design
- Wipotec EMFR Weigh Cells for best weighing results
- Excellent price/performance ratio

| Technical data             | HC-FL-T                                                                                                                                    |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Application                | CEP, mail order, intralogistics, industry                                                                                                  |
| Machine type               | HC-FL-T                                                                                                                                    |
| Protection class           | IP54                                                                                                                                       |
| Rate of speed              | Max. 3,4 m/s                                                                                                                               |
| Working height             | 600–700 / 650–750 / 700–800 / 750–850 / 800–900 / 850–950 / 900–1,000 / 950–1,050 / 1,000–1,100 / 1,050–1,150 / 1,100–1,200mm <sup>1</sup> |
| Conveyor width             | 800 / 900 / 1.000 mm                                                                                                                       |
| Conveyor length            | 650–1,100 mm according to product/parcel length distribution                                                                               |
| Rated voltage controls     | L1/N/PE 115/230 VAC                                                                                                                        |
| Rated voltage drive        | L3/N/PE 380/480 VAC                                                                                                                        |
| Rated frequency            | 50/60 Hz                                                                                                                                   |
| GWR (Gross weight range)   | 60 kg                                                                                                                                      |
| e (min. Calibration value) | ≥ 50 g                                                                                                                                     |

<sup>1</sup> Further on request



Six various weighing options for all product sizes



All entries in mm | Drawing shows sample version

# / Dimensioning Weighing Scanning

## Ready To Go in Only 24 Hours

The DWS solution from Wipotec allows complete transparency of your data which is transferred to a central data management system from where you can access it for complete analysis and invoicing.

The modular construction of the DWS solution permits seamless integration of auto-identification systems and volume measurement technology from leading manufacturers. All individual components are easily accessible and from a maintenance point of view are

also not obstructed by add-on parts. Intelligent system construction makes it possible to replace the belt body without needing to dismantle system components which means higher running times overall. Clear differentiation of all the system components permits a clearly structured maintenance concept.



### Main Features

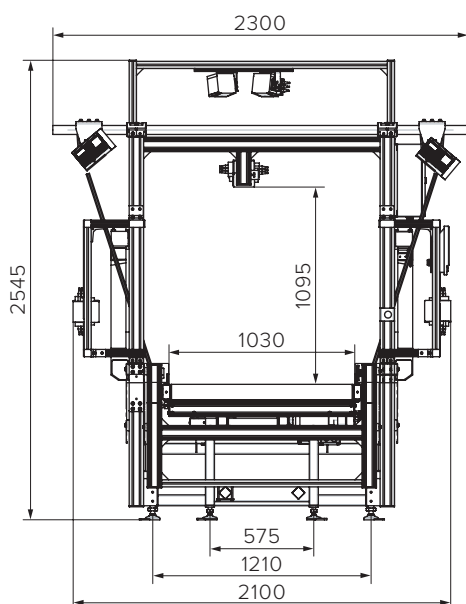
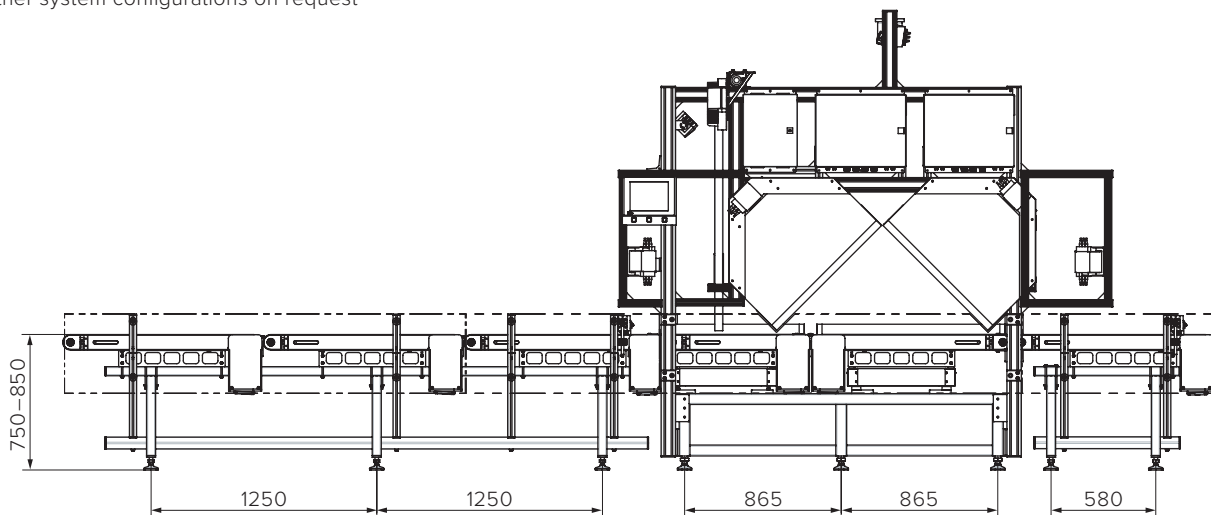
- Automatic data capture of product weight, volume dimensions and bar code
- Transport speeds up to 2.9 m/s
- Weighing range up to 120 kg
- Calibration value 20 g

### Your Benefits

- 360° data acquisition for safe planning and control of goods flows, calculation of capacity utilisation or capacity planning
- Intuitive user interface guarantees very easy handling
- Revenue recovery due to comprehensive package acquisition

| Technical data             | DWS Compact                                    |
|----------------------------|------------------------------------------------|
| Application                | CEP, mail order, intralogistics                |
| Machine type               | DWS Compact – Dimensioning, Weighing, Scanning |
| Protection class           | IP54                                           |
| Rate of speed              | up to 2.9 m/s                                  |
| Working height             | 750–1,100 mm                                   |
| Conveyor width             | 800 / 900 / 1,000 / 1,200 mm                   |
| Conveyor length            | 1,400 / 1,500 / 1,600 / 1,700 / 1,800 mm       |
| Rated voltage controls     | L1/N/PE 230/115 V                              |
| Rated voltage drive        | 400/380 V                                      |
| Rated frequency            | 50/60 Hz                                       |
| GWR (Gross weight range)   | 120 kg                                         |
| e (min. Calibration value) | ≥ 20 g                                         |

Other system configurations on request



Openings in the carrier system for belt body replacement



Easy belt replacement by dismantling a carrier element



All entries in mm | Drawing shows sample version

# /Irregs Will no Longer Hold You Up:

## DWS Irreg Systems

Bulky freight requires special handling. But here too, it's important to invoice the consignee as accurately as possible for the cost incurred. What you need for this, is price-relevant data which has to be determined safely and transparently. The DWS Irreg system is the perfect solution.

DWS Irreg systems from Wipotec enable the machine-compatible processing of consignments which cannot be sorted within the current product range due to their size, shape or weight. They incorporate dynamic catch-weighers with a weighing range up to 150 kg. In addition to the weight, they also capture the volume and all 1D/2D codes.

DWS Irreg systems are available in a variety of configuration levels from semi-automated to fully automated operation. This means automatic detection of information in the shortest possible time, integrated and fully synchronised with downstream transport and sorting systems.

Items of freight are weighed, their dimensions optically captured and all consignment-relevant printed information is read and processed. The systems generally pay for themselves after a few months as they enable correct invoicing with significantly reduced staff expenditure.



### Main Features

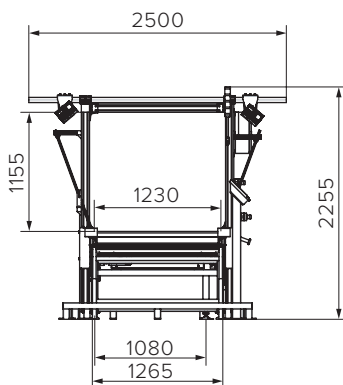
- Loading and scanning station as driven or non-driven conveyor
- Automatically driven dimensioning and weighing unit
- Gross weight range up to 150 kg

### Your Benefits

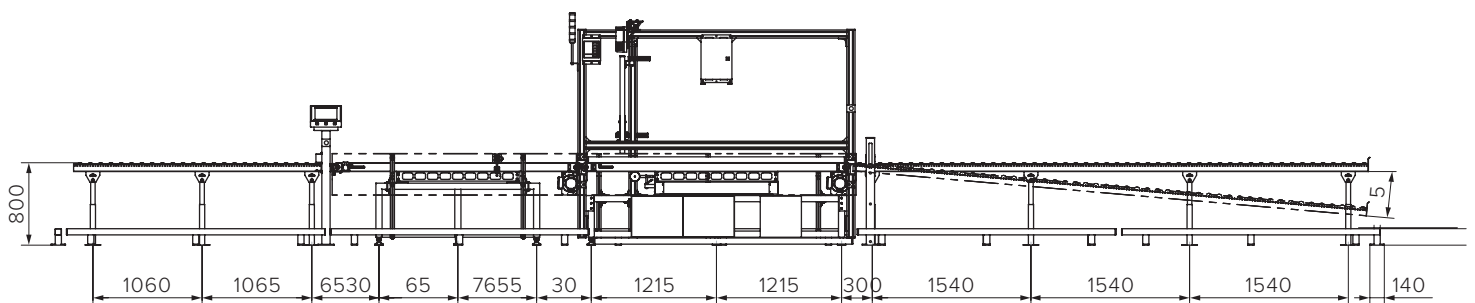
- 360° data acquisition
- Revenue recovery due to comprehensive package acquisition
- Process optimisation for intralogistics

| Technical data             | DWS Irreg                                    |
|----------------------------|----------------------------------------------|
| Application                | CEP, mail order, intralogistics              |
| Machine type               | DWS Irreg – Dimensioning, Weighing, Scanning |
| Protection class           | IP54                                         |
| Rate of speed              | up to 2.9 m/s                                |
| Working height             | 550–1,200 mm                                 |
| Conveyor width             | 1,200 / 1,400 / 1,600 mm                     |
| Conveyor length            | 1,400 –2,600 mm                              |
| Rated voltage controls     | L1/N/PE 230/115 V                            |
| Rated voltage drive        | 230/115 V                                    |
| Rated frequency            | 50/60 Hz                                     |
| GWR (Gross weight range)   | 150 kg                                       |
| e (min. Calibration value) | ≥ 20 g                                       |

Other system configurations on request



Bulky freight requires special handling



All entries in mm | Drawing shows sample version

# /The World's Fastest Letter Scale

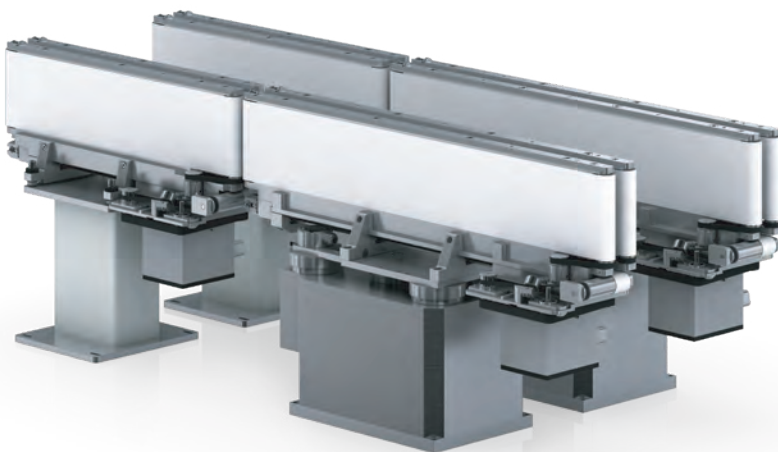
With a throughput rate of up to 60,000 items per hour for three letter scales connected in parallel, the MID-approved HC-VLS or EC-VLS letter scales perform in the distinctly high-end range. They weigh letters up to a maximum weight of 1,000 grammes at high speed and accurate to half a gramme.

Letter scales from Wipotec are very easily integrated in letter sorting machines with vertical transport as a single or multi-lane system. The HC-VLS sets new standards here as the world's fastest, MID-approved letter scales.

A patented transport system in which the letters are not jammed but stand freely on their longitudinal side enables correct weight determination in the shortest weighing times. It stands for accurate weight acquisition at speeds of up to 4 metres a second.

Lightning fast and highly precise: the high-tech version for thicker post. There is a version with a 22 mm wide channel for letters and flats up to 20 millimetres thick. Whichever version you choose, the HC-VLS is in a class of its own technically and economically.

The EMFR Weigh Cell integrated in the letter scales contains no wear parts and therefore operates absolutely wear- and maintenance-free. The HC-VLS is equipped with Active Vibration Compensation (AVC). Active Vibration Compensation (AVC) also ensures correct weighing results in environments that are not vibration-free by filtering disruptive vibrations out of the measured result.



## Main Features

- Transport speeds up to 4 m/s with vertical transport
- Weighing range up to 1,000 g
- Accuracy above  $\pm 0.5$  g
- Vertical letter transport with three synchronous conveyor belts
- Perfectly suited to letters and flats in applications with medium and high speeds

## Your Benefits

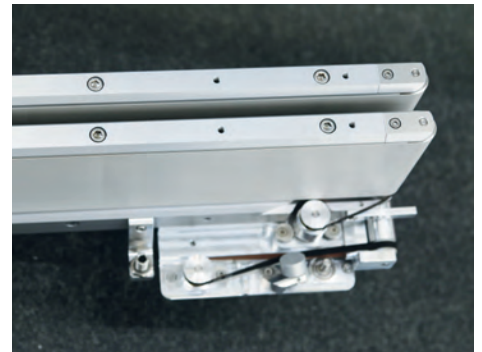
- Easily integrated in existing lines
- High scalability – possible to operate up to three scales in parallel
- EMFR Weigh Cell for outstanding weighing results

| Technical data             | HC-VLS                    |
|----------------------------|---------------------------|
| Application                | Letters and flats         |
| Machine type               | HC-VLS-630                |
| Protection class           | IP40 <sup>1</sup>         |
| Rate of speed              | 4 m/s                     |
| Working height             | 915 ± 20 mm / 855 ± 20 mm |
| Channel width              | 13 mm (optional 22 mm)    |
| Conveyor length            | 630 mm                    |
| Rated voltage              | L1/N/PE 115/230 V         |
| Rated frequency            | 50/60 Hz                  |
| GWR (Gross weight range)   | approx. 1,0000 g          |
| e (min. Calibration value) | ≥ 0.5 g                   |
| Multi-lane capability      | yes                       |

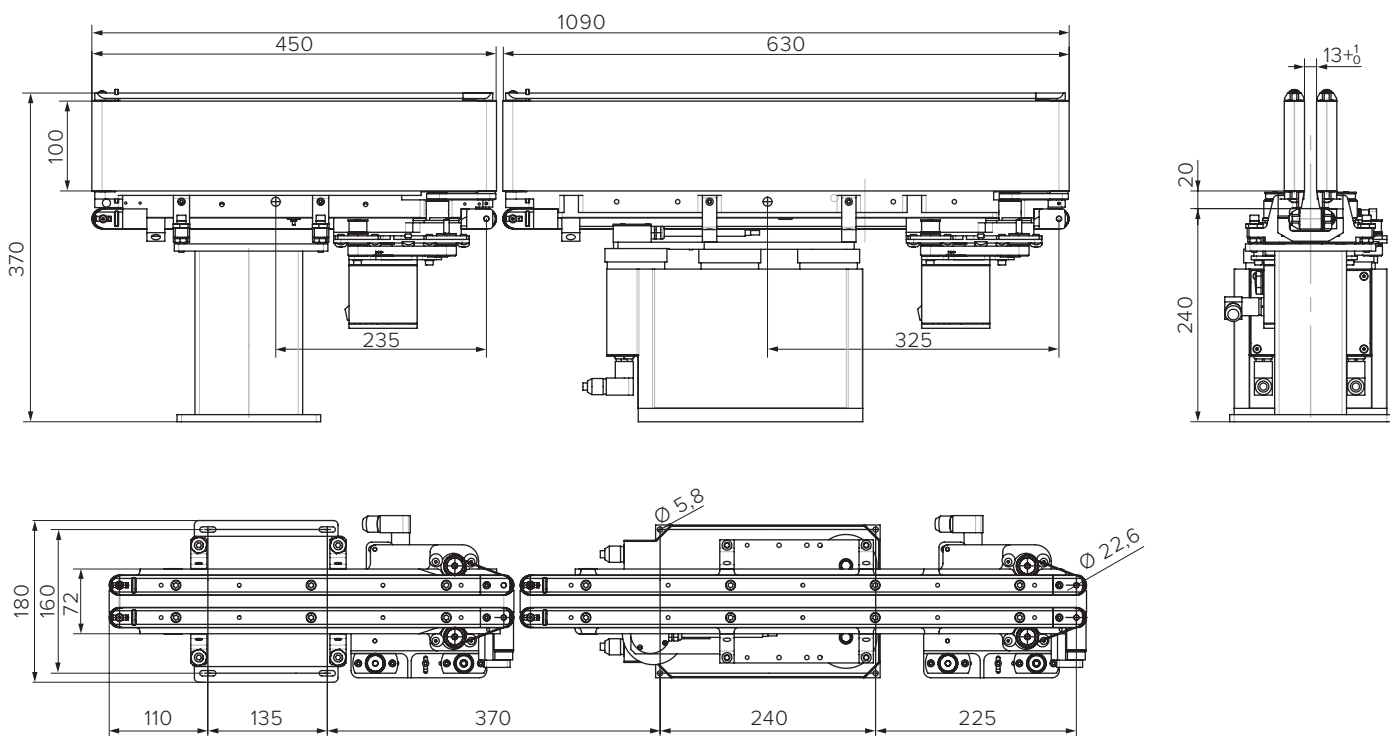
<sup>1</sup> Higher protection class on request (control can be designed as a panel or control cabinet)



Transport of upright letters



Synchronous running belt drives



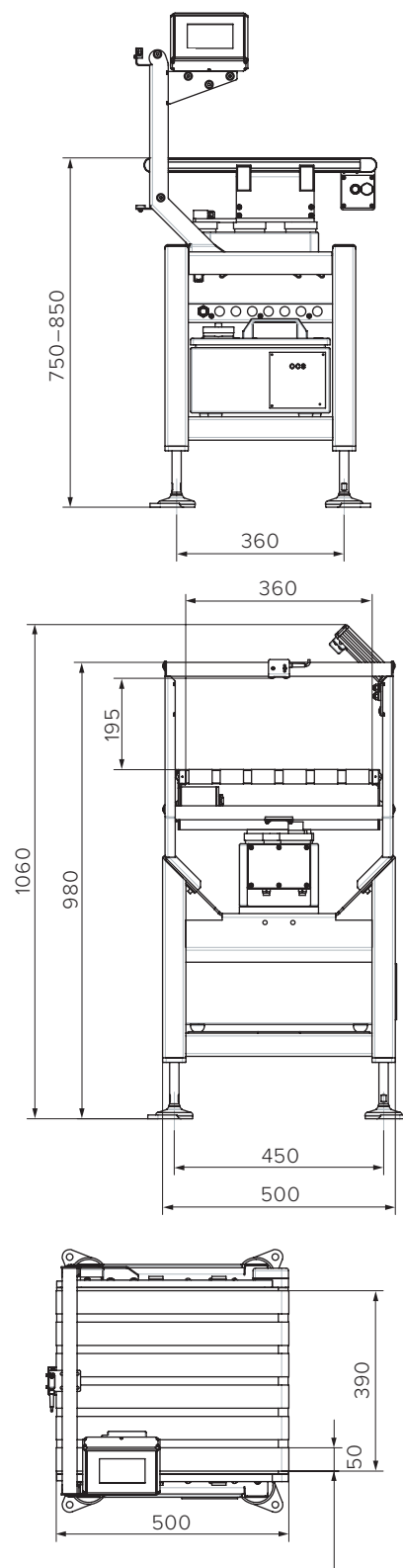
All entries in mm | Drawing shows sample version

# /Extremely Compact and Easy to Integrate

With the letter scales of the HC-4000 series, you can weigh letters, large letters and small parcels, individually weighing up to a maximum 3.75 kg, reliably and accurate to half a gramme. These scales have an extremely small footprint thanks to the control cabinet integrated in the frame.

The catchweighers of the 4000 series are ideal for letters and small packages due to fast and precise weight acquisition. They are easily integrated in horizontal letter sorting systems. The horizontal conveyor belts of these letter and parcel scales convey goods even in chaotic sequence at up to two metres a second.

Even restricted space conditions present no obstacle to the extremely compact systems. The use of a high-tech Wipotec Weigh Cell, which works on the principle of electro-magnetic force restoration (EMFR), guarantees excellent weighing results and is completely wear-free.



# / **Reliable Expert Service,** Customised to Your Needs

When you choose Wipotec as your system supplier, you have the benefit of top quality service modules that incorporate the vast experience of our weighing and inspection system experts. Whether a pure consulting service or specific line and product support throughout the product life cycle, we are your reliable partner.

Turn to us with your requirements. We would be pleased to discuss the scope and effort of individual services in more detail with you. Trust in our experience and reliability. ▲



## Benefit from our **outstanding range of services**

- 24/7\* – Hotline availability
- Global service network with certified technicians for on site support
- Professional installation and optimisation based on customer needs ensures smooth start-up
- Europe-wide conformity assessment and complete overhaul with the exchange of verification relevant parts
- Preventive maintenance, setup, and optimisation of your systems
- Fast on site repairs using original parts
- Calibration checks and readjustment of the entire system, if required
- General product and target objective training to improve efficiency
- Remote maintenance first hand (with appropriate hardware) for urgent jobs

\* On conclusion of a corresponding service agreement

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