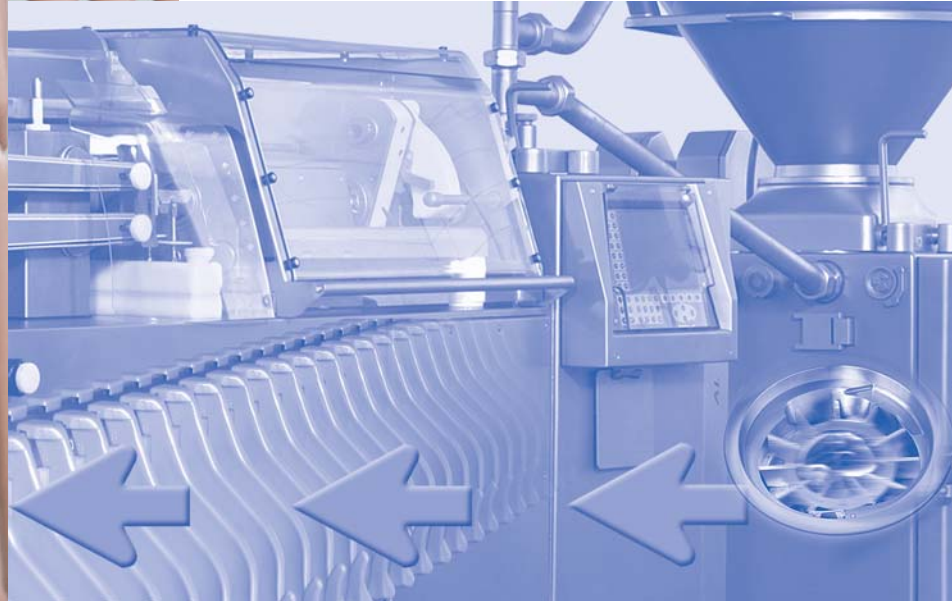




Diverse range of applications in sausage production.

The automated handtmann AL systems offer maximum flexibility. Whether cooked or dry sausage in peel-off or collagen casings – the requirements for economic production are complex. handtmann offers the right solution for every application.

The fully automated AL lines offer maximum performance for portioning and linking up to 3,000 portions per minute.



Automated sausage production

- ◆ PH 221
- ◆ PVLH 240
- ◆ PVLH 241
- ◆ FPVLH 242
- ◆ PVLS 141
- ◆ PVLSH 245

handtmann AL systems. Pioneering technology for industrial sausage production.

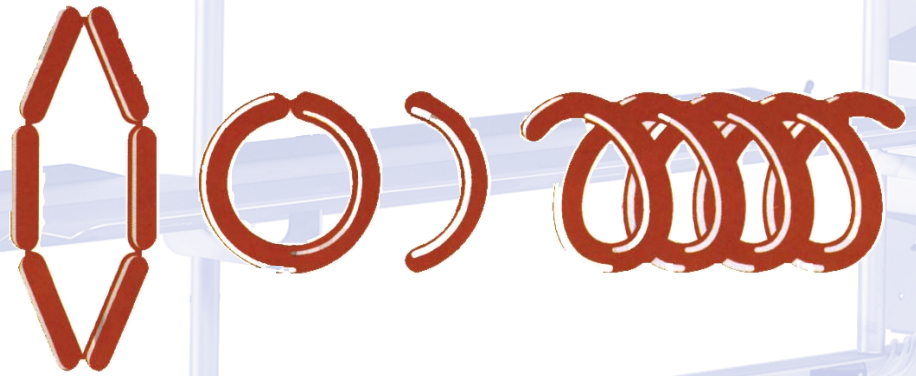
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Thanks to their high reliability, AL systems from handtmann guarantee ideal economic preconditions for all users. The proven and reliable system ensures the best possible accuracy in terms of weights and lengths.

- ◆ Flexibility: Rapid adaptation to diverse requirements thanks to the modular system
- ◆ Best portioning accuracy
- ◆ Outstanding length consistency
- ◆ High level of availability and reliability
- ◆ Productivity you can count on
- ◆ Optimisation of product quality
- ◆ Rapid product changes (= program change)
- ◆ Simple cleaning and exemplary hygiene
- ◆ Simple operation, easy handling
- ◆ New products without additional expenditure



Processing procedure for automated sausage production.

Filling	Portioning	Voiding	Lengths	Cutting	Hanging	Type
F	P	V	L	S	H	
VF	P				H	221
VF	P	V	L		H	240
VF	P	V	L		H	241
VF	P	V	L	S		141
VF	P	V	L	S	H	245
F	P	V	L		H	242



Gentle handling.
The sausage meat is moved along a short direct path under constant pressure.



Linking unit with automatic casing changing.
Quick and reliable feeding of peel-off and collagen slugs and gentle linking.



Equal lengths.
The length unit guarantees equal sausage lengths with accurate portion weights.



Voider and cutter.
Reliable linking by the voider and precise separation of the portions by the cutting unit.



Reliable hanging.
Gentle sausage transfer on hooks. Reliable and precise up to 3,000 portions per minute.



The result.
Precisely portioned, perfectly calibrated and equally long sausages.

Convincing sausage automation.

The arguments speak for themselves: leading technology from the specialist in filling and portioning systems. Reliable automation solutions that ensure rationalisation and high productivity can quickly pay for themselves.

The handtmann AL systems concept is conclusive. It is geared towards the users' needs and aims.

A decision for handtmann is always a decision for progress.

Optimal adaptation using modular function units.

Automated casing changing.

The linking nozzle, which is in the spooling position, is fed a slug of cellophane or collagen from the sausage casing magazine. The magazine is suitable for slugs with calibres of up to 55 mm and casing lengths of up to 580 mm.

The casing centering is automatically adjusted to the appropriate casing calibre (except for FPVLH).

Reliable linking/voiding for maximum portioning capacity.

Portioning via the voider offers a high number of twists for industrial sausage production with rates of up to 3,000 portions per minute. Accurate portions are realised by the voider, via the continuous filling flow and precise separation. In this process, it is the rotation of the nozzle that creates the linking. At calibres in excess of 34 mm, the vacuum filling machine takes care of portioning.

Uniform portion lengths.

The length unit guarantees uniform portion lengths. The length value set in the monitor control is implemented by the belt system. The casing take-off is realised by the belts in synch with the precise portioning output. The end of the portion and the length traverse end simultaneously. Thus a precise length is achieved for all casing types in a controlled manner. These precise lengths, which can be changed at any time, enable a range of diverse packaging variants.

Intelligent hanging.

Portioned and linked sausages, whether straight portions, curved sausages or entire rings, are automatically hung in the hanging unit. The precise position of the portions is known to the intelligent system. It is thus able to place sausage loops precisely on the hooks of the hanging unit by the link point. This unique flexibility means that it is possible to effect a quick and simple adaptation when changing products or introducing new products. In this process any number of loops and any number of portions per loop may be chosen. This means the full utilisation of the smoke sticks and thus the economic use of smoking/cooking systems.

Precise separation.

On the AL cutting lines, the separator is used to separate the portions on the length unit. Thanks to the length controller in the transport belts, the AL system knows the exact position of the portion and thus also the link point. The link point between the sausages can thus be cut precisely by a rotating blade. The sausages are reliably cut into individual pieces or into groups of the same quantity.

A further advantage is that the cut is made precisely in the centre of the link. Thus the sausage ends remain closed.



Automated casing changing



Maximum portioning capacity



Precise portion lengths



PVLH 241 one module plus AHE

PVLH 240 two modules plus AHE

ated AL systems



handtmann vane cell feed system for best product quality.

The core of the vacuum filling machine; in the AL systems the starting point for product quality and portioning accuracy is once again the vane cell feed system. A long service life guarantees maximum product quality and precise portioning over a long period.



The monitor control.

A state-of-the-art control system based on Windows CE synchronises and monitors all the line functions. The system intelligence enables access to important production data.



PH 221

Portioning
Hanging



- ◆ For ring sausage and straight portions in peel-off, collagen and collagen ring casings.
- ◆ With automated casing changing and automated linking, with hanging unit.

Portion lengths 25 to 600 mm,
casing calibre 13 to 55 mm.

PH 221

The PH 221 is the entry-level machine for the fully automated filling process. For users of collagen and peel-off casing, this means: automated casing changing, linking and hanging. As standard, the PH 221 also offers an option for hanging rings and half rings and practical auxiliary functions, such as burst detection. By adding a length unit, PH 221 can be converted into a PVLH 240.

PVLH 240

Portioning
Voiding
Uniform length
Hanging



- ◆ Flexible high-performance design for ring sausage and straight portions in peel-off and collagen casings.
- ◆ Linking in uniform lengths. With automated casing changing and automated hanging, with hanging unit.

Portion lengths 25 to 600 mm,
casing calibre 13 to 50 mm.

PVLH 240

Highly specialised but nevertheless flexible – with the PVLH 240 this is not a contradiction! With its equal-length module, PVLH 240 is the ideal machine for all the requirements placed on sausage production in collagen and peel-off casings. Whether rings, half rings or up to 2,500 straight portions per minute, product changes can be implemented within a very short space of time, using the monitor control. And that with the proverbial portioning accuracy of the handtmann machines and the excellent product quality of cooked and dry sausage products.

PVLH 241

Portioning
Voiding
Uniform length
Hanging



- ◆ High-performance design for linking peel-off and collagen casings in uniform lengths.
- ◆ With automated casing changing, automated linking and hanging, with hanging unit.

Portion lengths 25 to 600 mm,
casing calibre 13 to 50 mm.

PVLH 241

The system that yields maximum speed for all product types. In the PVLH 241, the automatic casing spooling and linking functions along with the equal-length module and the hanging unit enable maximum filling capacity for collagen and peel-off casings. In the vacuum filling machine, the handtmann feed system with weight compensation produces a uniform product flow and precise weights. And that at a rate of up to 2,500 portions per minute.

FPVLH 242

Filling
Portioning
Voiding
Uniform length
Hanging



- ◆ Industrial high-performance line for filling, portioning, linking and hanging cooked sausage products in peel-off and collagen casings.
- ◆ Integrated filling unit with servo technology incl. monitor control and weight compensation.
- ◆ Linking and length unit with automatic casing changing and linking in the same lengths.

Portion lengths 35 to 900 mm,
casing calibre 13 to 34 mm.

FPVLH 242

The specialist system for industrial sausage production. With the integrated handtmann vane cell feed system, the new FPVLH 242 is eminently suitable for maximum performance with cooked-sausage products in collagen casings and peel-off casings. Ultra-precise portioning combined with uniform length and a portioning capacity of up to 3,000 portions per minute; this development of the AL series offers maximum machine utilisation, high process security and optimum product quality. This top capacity can be utilised repeatedly by connecting several FPVLH 242 units to one vacuum filling machine.

PVLS 141

Portioning
Voiding
Uniform length
Cutting



- ◆ For straight portions and uniform lengths in artificial and collagen casing.
- ◆ With casing magazine and automatic casing changing.
- ◆ Additionally with automatic linking and cutting.

Portion lengths 30 to 400 mm,
casing calibre 13 to 34 mm.

PVLS 141

Using the cutting line PVLS 141, fresh sausage is linked and separated in equal lengths. Incorporating a state-of-the-art control system and the time-proven function modules, this machine is the basis for producing collagen-casing sausages on an industrial scale. An ideal prerequisite for downstream automation through to the packaging zone.

PVLSH 245

Portioning
Voiding
Uniform length
Cutting
Hanging



- ◆ For straight portions and uniform lengths in artificial and collagen casing.
- ◆ With casing magazine and automatic casing changing.
- ◆ Additionally with automatic linking, cutting or hanging, with hanging unit.

Portion lengths 30 to 400 mm,
casing calibre 13 to 34 mm.

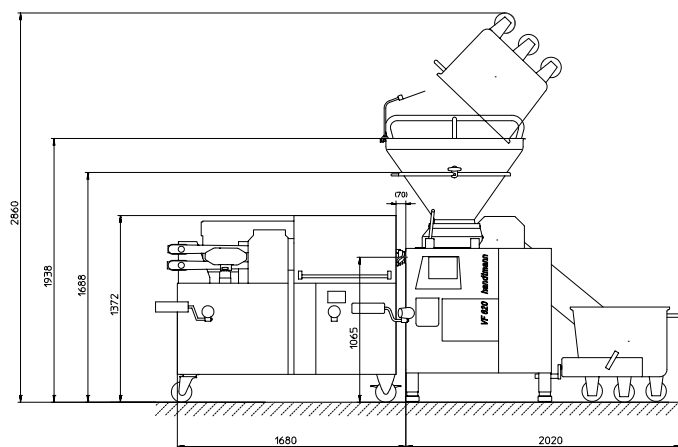
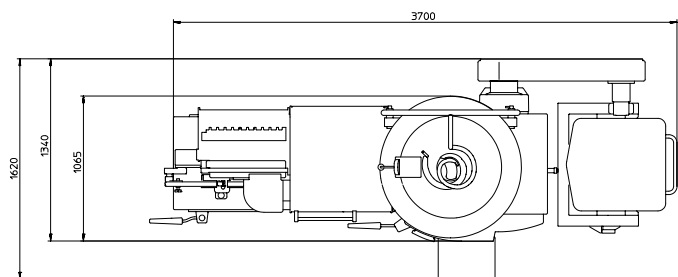
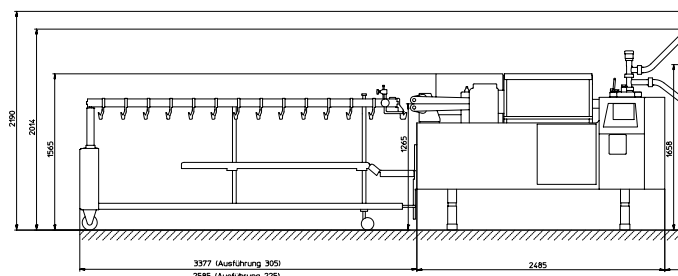
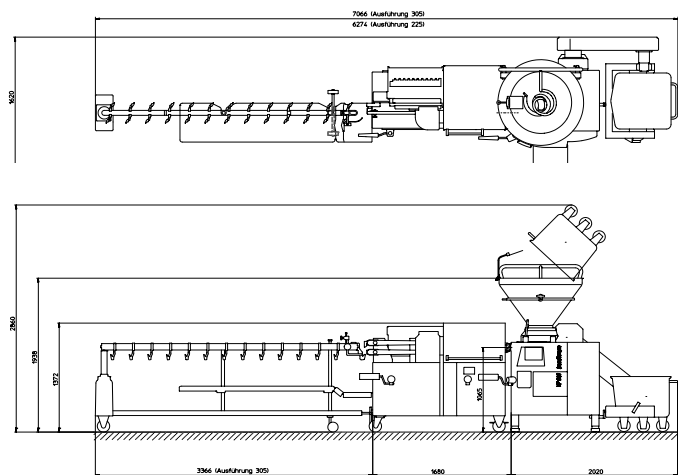
PVLSH 245

The PVLSH 245 is the ideal combination for cutting and hanging. In addition to the hanging unit, the cutting module of the PVLS 141 is also integrated in the PVLSH 245.

The modular structure of this AL line offers operators with mixed production the option of automatically hanging sausages or of cutting fresh sausages.

Technical data

AL systems PH 221, PVLH 240, PVLH 241, FPVLH 242, PVLS 141, PVLSH 245



Portioning speed	PH 221 PVLH 240, PVLH 241 FPVLH 242 PVLS 141, PVLSH 245	up to 500 portions per minute up to 2,500 portions per minute up to 3,000 portions per minute up to 1,500 portions per minute
Filling pressure dependent on the VF used	FPVLH 242	up to 72 bar up to 35 bar
Filling capacity	FPVLH 242	up to 3,600 l/h
Calibre range	PH 221 PVLH 240, PVLH 241 FPVLH 242, PVLS 141 PVLSH 245	13 to 55 mm 13 to 50 mm 13 to 34 mm
Removable heights can be selected		1,000 mm 1,200 mm
Useful nozzle lengths		Standard 425 mm for slugs with closed end 395 mm for slugs without closed end reduced nozzles 250 mm with closed end 220 mm without closed end 580 mm reduced nozzle 410 mm and 275 mm
Calibre range	PH 221 PVLH 240, PVLH 241 FPVLH 242, PVLS 141 PVLSH 245	13 to 55 mm 13 to 50 mm 13 to 34 mm
Portion lengths	PH 221, PVLH 240/241 FPVLH 242 PVLS 141, PVLSH 245	25 to 600 mm 30 to 900 mm 30 to 400 mm
Smoke stick lengths	1. Standard version, long 2. Version, extra long	2 smoke sticks up to 1,060 mm long 3 smoke sticks up to 1,000 mm long or 2 smoke sticks up to 1,520 mm long
Linking unit		
Net weight		305 kg
Gross weight		455 kg
Case dimensions		1,860 x 1,100 x 1,750 mm
Length unit		
Net weight		210 kg
Gross weight		380 kg
Case dimensions		1,750 x 1,050 x 1,670 mm
Hanging unit, standard, long		
Net weight		110 kg
Gross weight		200 kg
Case dimensions		1,450 x 710 x 2,050 mm
Case dimensions FPVLH 242		2,280 x 1,250 x 1,950 mm
Hanging unit, extra long optional for every AL line		3,560 x 900 x 1,820 mm
Weight (FPVLH 242 / hanging unit)		1,200 kg / 130 kg

For technical data, dimensions and weights for the vacuum filling machine, please see the VF brochures.

Patents were granted for the systems, PH 221, PVLH 240, PVLH 241, FPVLH 242, PVLS 141, PVLSH 245. They include the following US patents, amongst others: 6,080,054 - 6,045,445 - 5,145,450 - 5,147,239 - 5,699,723 - 5,163,864 - 5,947,809 - 5,145,451 - 5,133,685 - 5,049,108 - 5,100,363 - 5,085,612 - 5,297,983.

handtmann
Ideen mit Zukunft.