



Feeding
technology
Components
**More than
Motion.**
Yesterday. Today. Tomorrow.



 **afag**



Feeding technology components

As the leading specialist for small and very small parts, Afag offers a unique portfolio of innovative and high-quality feeding technology components as well as high-end feeding solutions.

Our offerings range from proven vibration drives, refilling units, and control units. We also offer highly innovative flexible feeding technology components.

One unique product is the worldwide patented, reactive force compensation drive. The vibration of the drive is compensated by a counter-vibration mass. Residual vibrations are virtually eliminated in the drive. Due to the resulting connection of the drives without damping elements to the base, highly precise, exacting connections of the drives onto the base are possible.

Further information about our feeding technology components can be found on the following pages of this catalog. Free CAD data and operating instructions with detailed descriptions are also available for download on our website www.afag.com.

Updates of our documentations



Unlike the printed documents, our digital instructions manuals, product data sheets and catalogues are being continuously updated on our website.

Please keep in mind that the digital documents on our website are always the latest versions.



Feeding technology

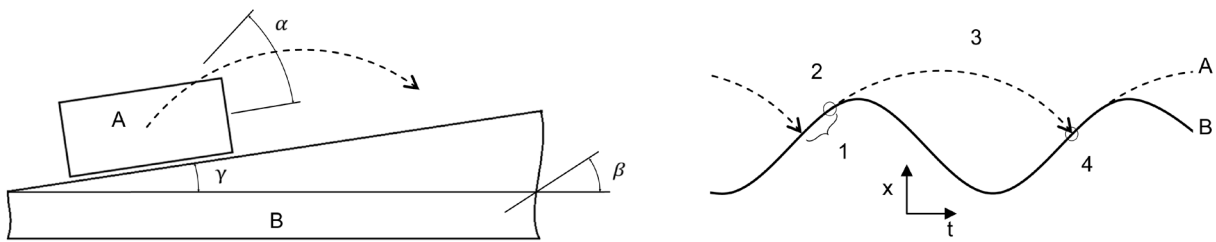
components



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Micro-spreading technique



A **vibratory feeder** is a device transforming electro-magnetically produced vibrations by means of magnet, magnet armature and leaf springs into mechanical vibrations and uses them to convey loads. The targeted conveying movement of the work piece is based on the micro-spreading principle, where the form of movement of the conveying device forces the work piece into a micro spreading movement.

A Work piece
B Conveyor track

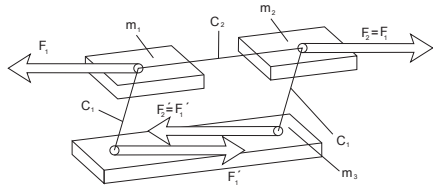
α Angle of trajectory
 β Angle of inclination
 γ Angle of ascent

The conditions of movement can be described as follows:

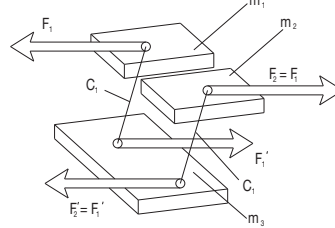
- 1 Stationary condition
- 2 Propulsion
- 3 Trajectory parabola
- 4 Impact

During propulsion, the work piece lifts off from the surface of the conveying device when the vertical normal acceleration acting on the material exceeds the acceleration due to gravity. Contact between the work piece and the conveying device is completely removed. The impact following propulsion occurs as an energetic semi-elastic shock and is the main cause of the noise emissions, which are dependent on the nature of the work piece and conveying organ. In the stationary condition, there is no relative motion between the work piece and conveying device and there is static friction between the „partners“. If normal acceleration exceeds the amount of the maximum static friction, the work piece moves again into the spread state of motion.

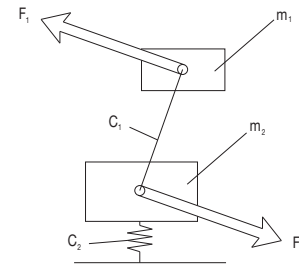
Reactive force compensation



Coupled counter-vibration principle
(Application with the HLF linear feeder)



Counter vibration principle
(Application with the KLF linear feeder as well as the BF spiral feeder)



Conventional 2-mass vibration system
(Application with the LF linear feeder as well as the WV spiral feeder)

	Notation
F1, F2	Forces
F1', F2'	Reactive forces
m1	Useful mass
m2	Counter mass
m3	Base attached to the underground
c1, c2	Springs

Reactive force compensation

Afag bowl feeder WV and linear LF feeders operate on the conventional twin-mass vibration principle. The reactive force created by the vibration of the useful mass (m_1) is compensated by a larger foundation (counter) mass (m_2).

Afag bowl feeder BF and linear HLF and KLF feeders operate on the counter vibration principle with reactive force compensation. Here a useful mass (m_1) vibrates in precisely the opposite direction to a counter mass (m_2). The useful and counter masses are attached to a base plate by means of leaf springs. Equal reactive forces are created, which are transmitted via the leaf springs to the base plate while maintaining the mass moment of inertia and the mass of the feeder bowl or the feeder rail when the useful and counter masses vibrate. By reason of the vibration of the useful mass and counter mass in the opposite direction the reactive forces at the base plate virtually counterbalance each other.

Avoidance of vibration transmission to the substructure enables attachment to the base, and a precisely defined and fixed interface between the feed and assembling facilities can be guaranteed.

Linear feeder

HLF, KLF & LF

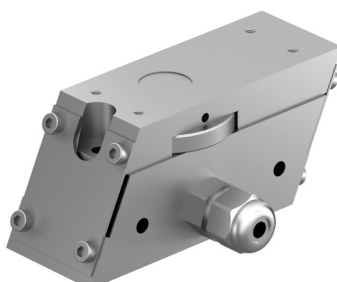
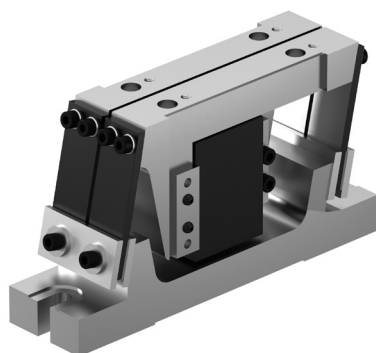
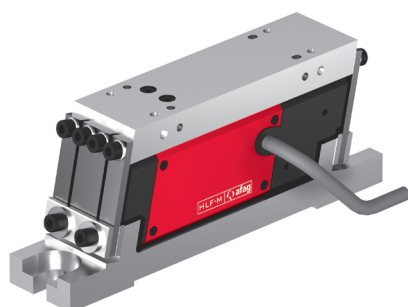
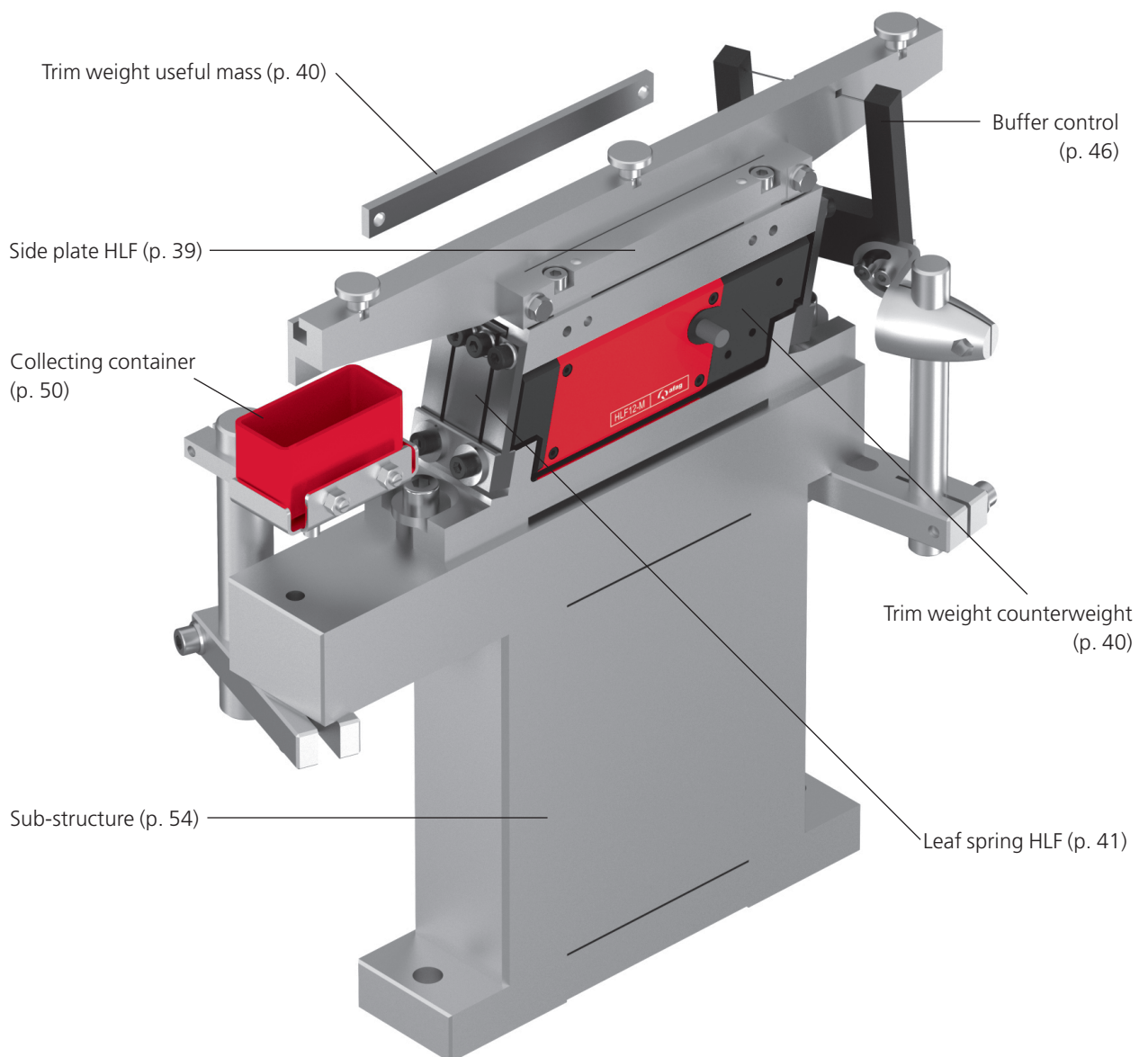


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HLF - the new Afag generation of linear feeders

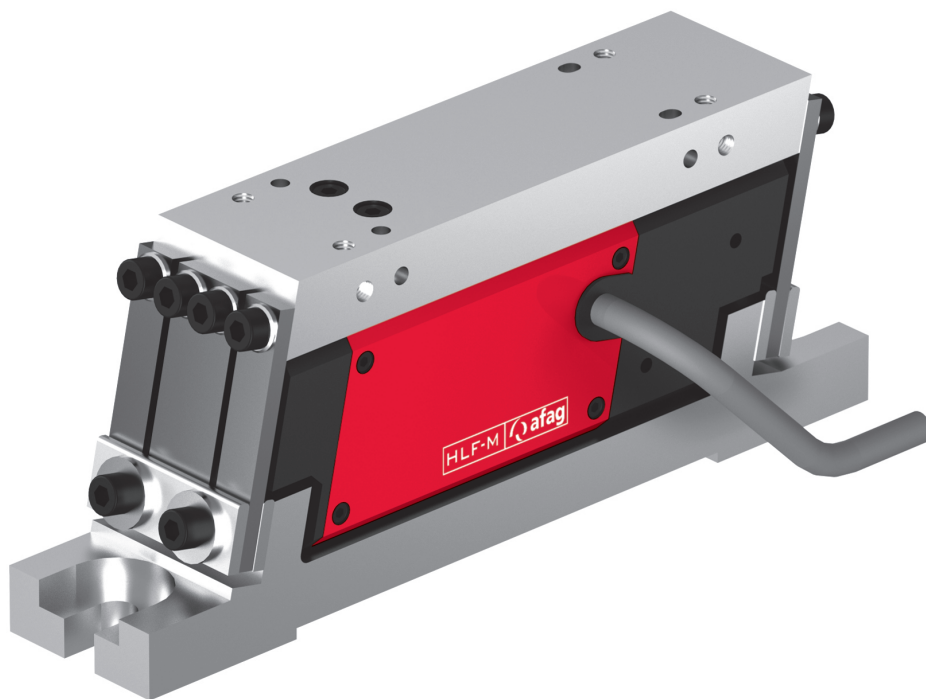
HLF stands for Hybrid Linear Feeder. Depending on application, the drive technology best suited for the project-specific requirements can be selected for this new type of linear feeder. The drive systems available include the familiar actuation based on an oscillating magnet (HLF-M) and a new patented piezoelectric drive (HLF-P). The mechanical interfaces are identical irrespective of the drive system. This allows the drive system to be changed easily. The advantages of the piezo driven linear feeder are particularly evident when feeding extremely small parts:

- Even more precise air gap between track transitions (< 0.1 mm) may be achieved depending on application
- Finer oscillation (approximating to sliding motion)
- Smaller tolerances / parts are conducted more closely in the track → even better precision
- No mechanical adjustment required before operation
- No modifications for operation in 50/60 Hz power supply systems
- The conveying rate is not influenced by voltage fluctuations in the power system
- No environmental electromagnetic influence on the system
- High energy efficiency (high energy saving potential compared to magnetic technology)
- External mechanical interfaces are compatible with magnetic technology
- Reactive force compensation (with magnetic technology)

The linear feeders (both drive systems) have a compact, closed design with optimized reactive force compensation. This is based on dynamic balancing of the weight and counterweight, eliminating the majority of free oscillating forces directly in the machine. Another new feature is the long and broad mounting surface of the conveying tracks, which considerably extends track design options.

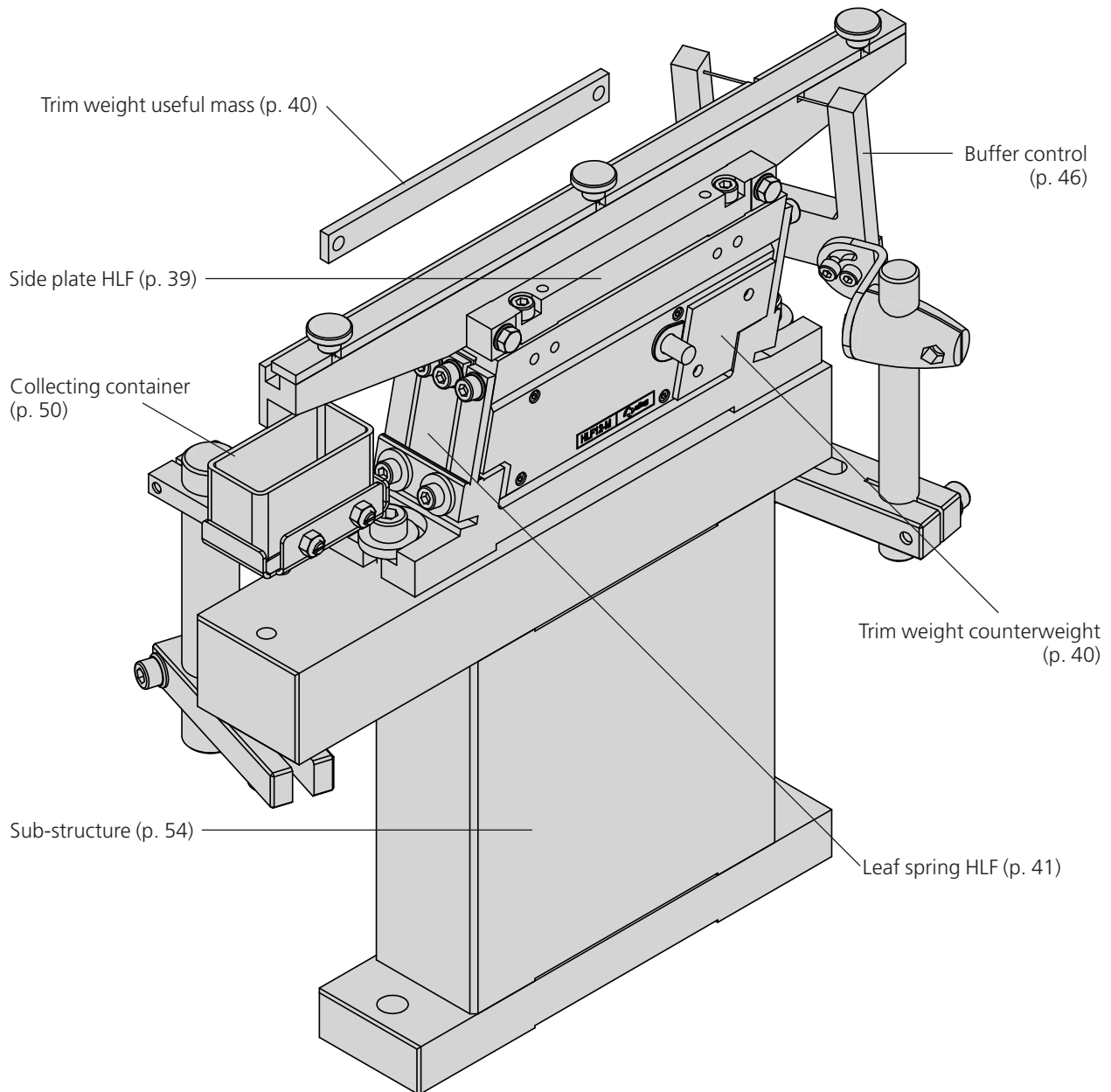
Linear feeder

HLF07-M - HLF50-M

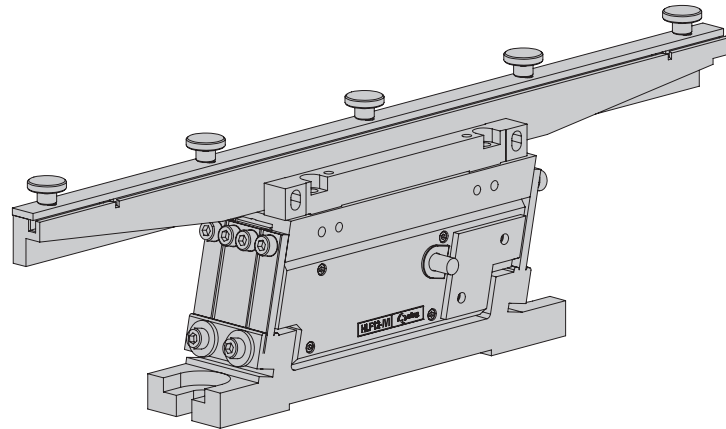


- Optimized vibrating force compensation and therefore no mutual interference of several combined devices
- Low vibration amplitudes and therefore very small gap dimensions
- Compact design with large mounting surface through innovative construction

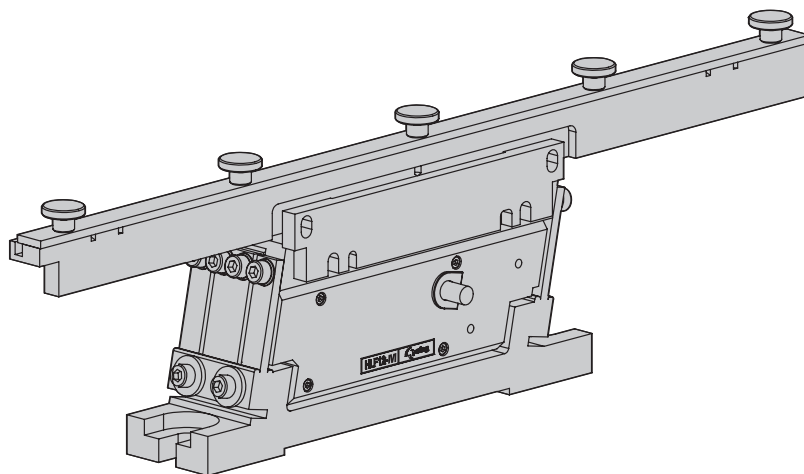
Overview



For fastening the rail to the HLF two variants are possible:



Variant 1 Construction with side plate O

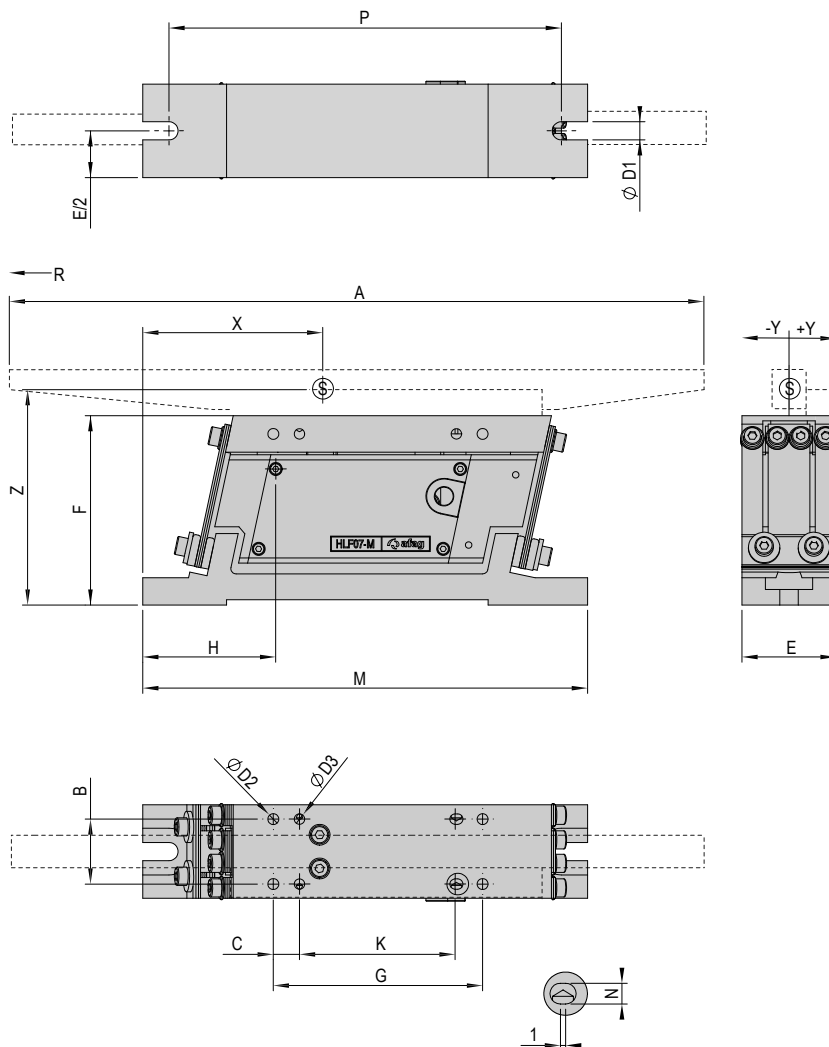


Variant 2 Construction with side plate S

Dimensions and dimension drawings

HLF-M

Type	HLF07-M	HLF12-M	HLF25-M	HLF50-M
A	300 mm	400 mm	500 mm	700 mm
B	25 mm	30 mm	38 mm	44 mm
C	10 mm	10 mm	10 mm	10 mm
D1	7 mm	9 mm	9 mm	11 mm
D2	4 x M5	4 x M5	4 x M6	4 x M6
D3	2 x 4 H7	2 x 4 H7	2 x 5 H7	2 x 5 H7
E	36 mm	42 mm	50 mm	60 mm
F	73 mm	80 mm	108 mm	140 mm
G	80 mm	100 mm	120 mm	190 mm
H	50 mm	59 mm	86 mm	96 mm
K	60 mm	80 mm	100 mm	170 mm
M	170 mm	200 mm	260 mm	350 mm
N	2 x 4 mm	2 x 4 mm	2 x 5 mm	2 x 5 mm
P	150 mm	180 mm	240 mm	320 mm
X	85 ± 10 mm	105 ± 10 mm	135 ± 20 mm	180 ± 10 mm
Y	0 ± 9 mm	0 ± 10 mm	0 ± 12 mm	0 ± 12 mm
Z	77 ± 8,5 mm	84 ± 11 mm	110 ± 15 mm	155 ± 15 mm



R = Feeding direction
S = Track center of gravity

HLF-M	
Operating temperature	10 - 45 °C

Type	HLF07-M	HLF07-M	HLF12-M	HLF12-M
Order number	50260370	50270718	50259924	50270770
Mechanical vibration frequency	100 Hz	120 Hz	100 Hz	120 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz
Max. power consumption	15 VA	15 VA	19 VA	19 VA
Net weight	1.8 kg	1.8 kg	2.8 kg	2.8 kg
Feed rail weight (ideal)	0.7 ± 0.1 kg	0.7 ± 0.1 kg	1.2 ± 0.1 kg	1.2 ± 0.1 kg
Max. feeder speed	7 m/min	7 m/min	7 m/min	7 m/min
Reactive force compensation	•	•	•	•
Protection type	IP 54	IP 54	IP 54	IP 54

Type	HLF25-M	HLF25-M	HLF50-M	HLF50-M
Order number	50259276	50270897	50421880	50431259
Mechanical vibration frequency	100 Hz	120 Hz	100 Hz	120 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz
Max. power consumption	100 VA	100 VA	170 VA	170 VA
Net weight	6 kg	6 kg	12.5 kg	12.5 kg
Feed rail weight (ideal)	2.5 ± 0.1 kg	2.5 ± 0.1 kg	5 ± 0.1 kg	5 ± 0.1 kg
Max. feeder speed	7 m/min	7 m/min	7 m/min	7 m/min
Reactive force compensation	•	•	•	•
Protection type	IP 54	IP 54	IP 54	IP 54

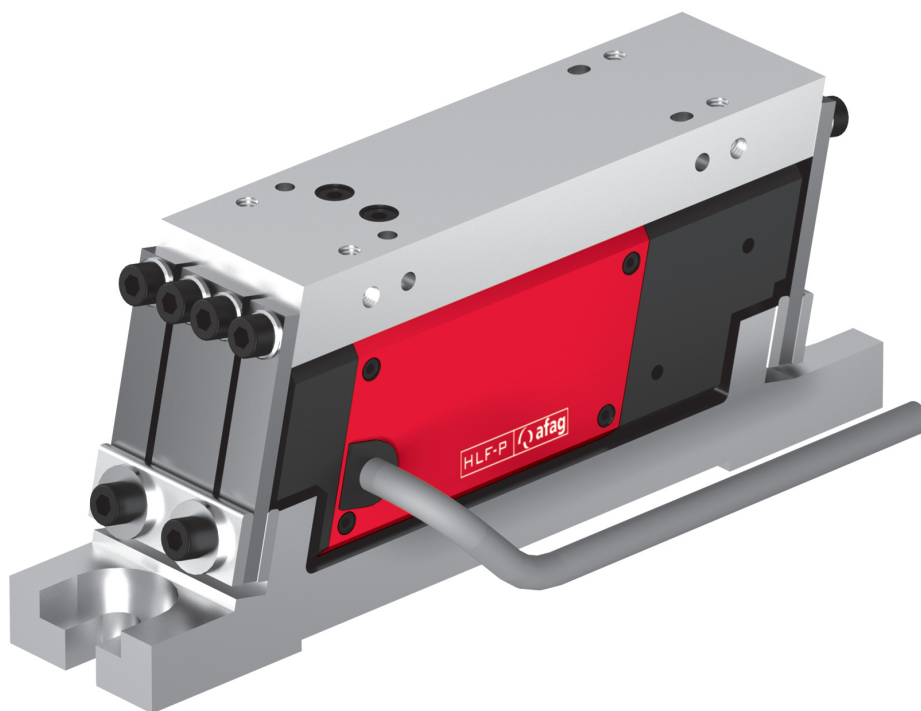
Note: • = existent
Track not included in scope of supply.

Included in delivery

- 2x Leaf spring HLF

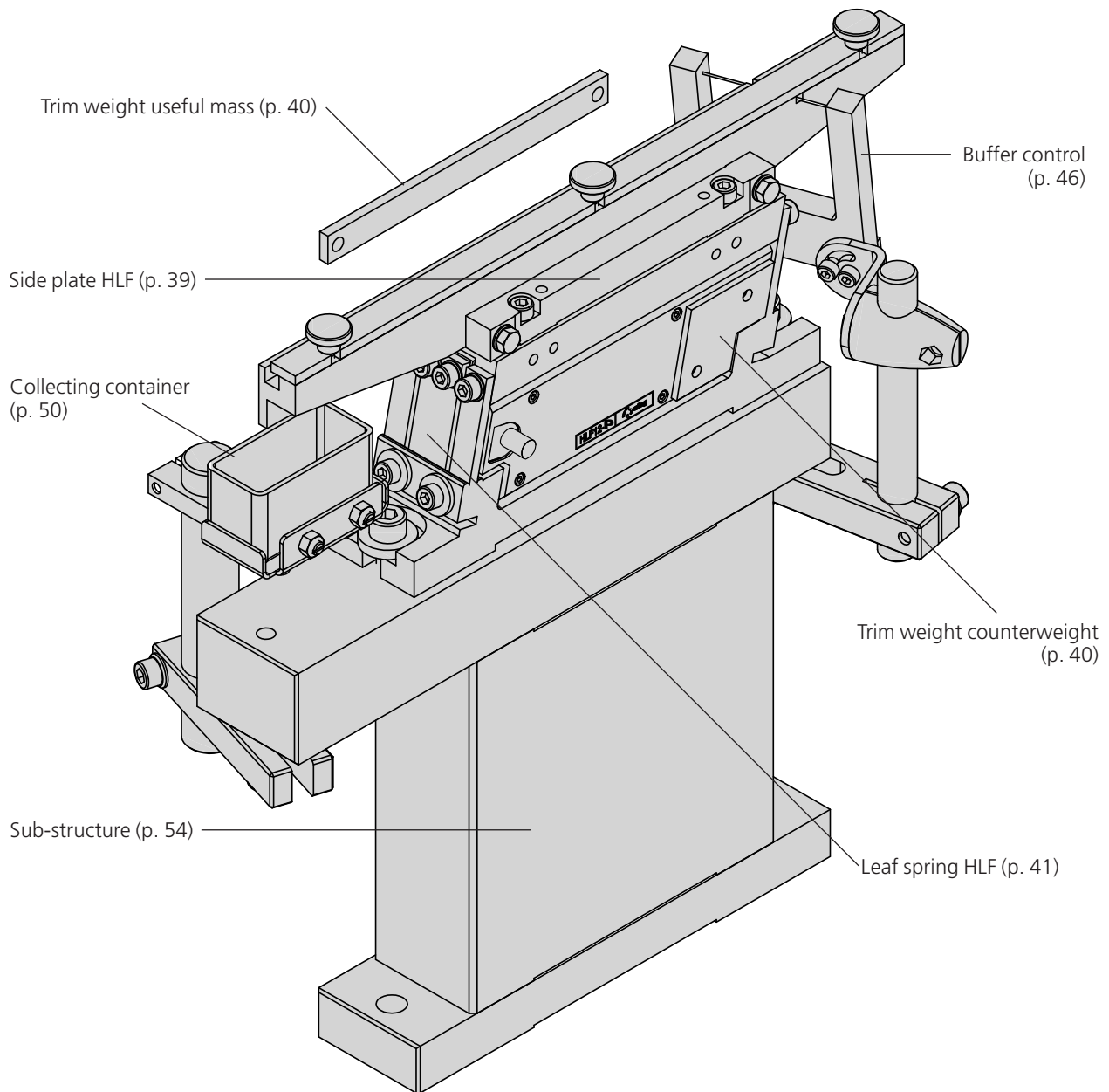
Linear feeder

HLF07-P & HLF12-P

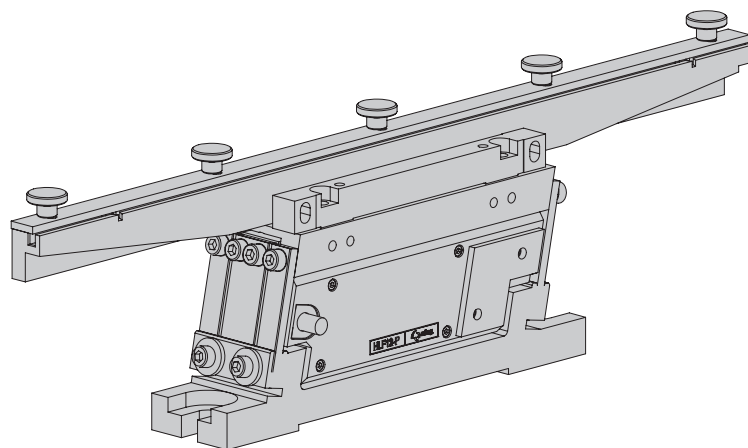


- Higher vibration frequencies up to 240 Hz for even more gentle conveying of parts
- No mechanical adjustment of the natural frequency and therefore not susceptible to interference
- Same outer geometries as HLF-M series

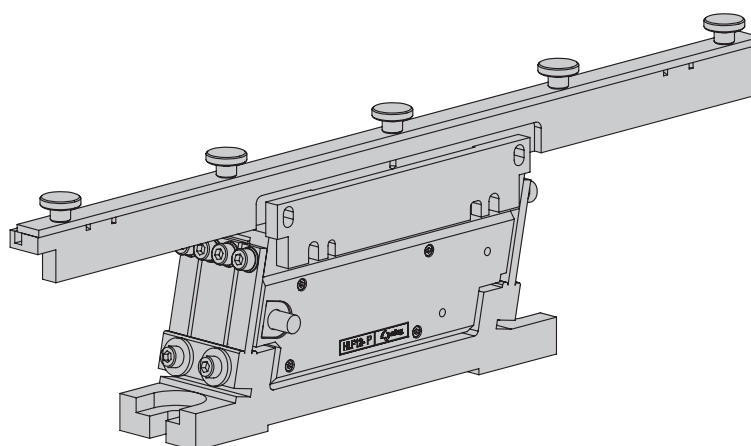
Overview



For fastening the rail to the HLF two variants are possible:



Variant 1 Construction with side plate O

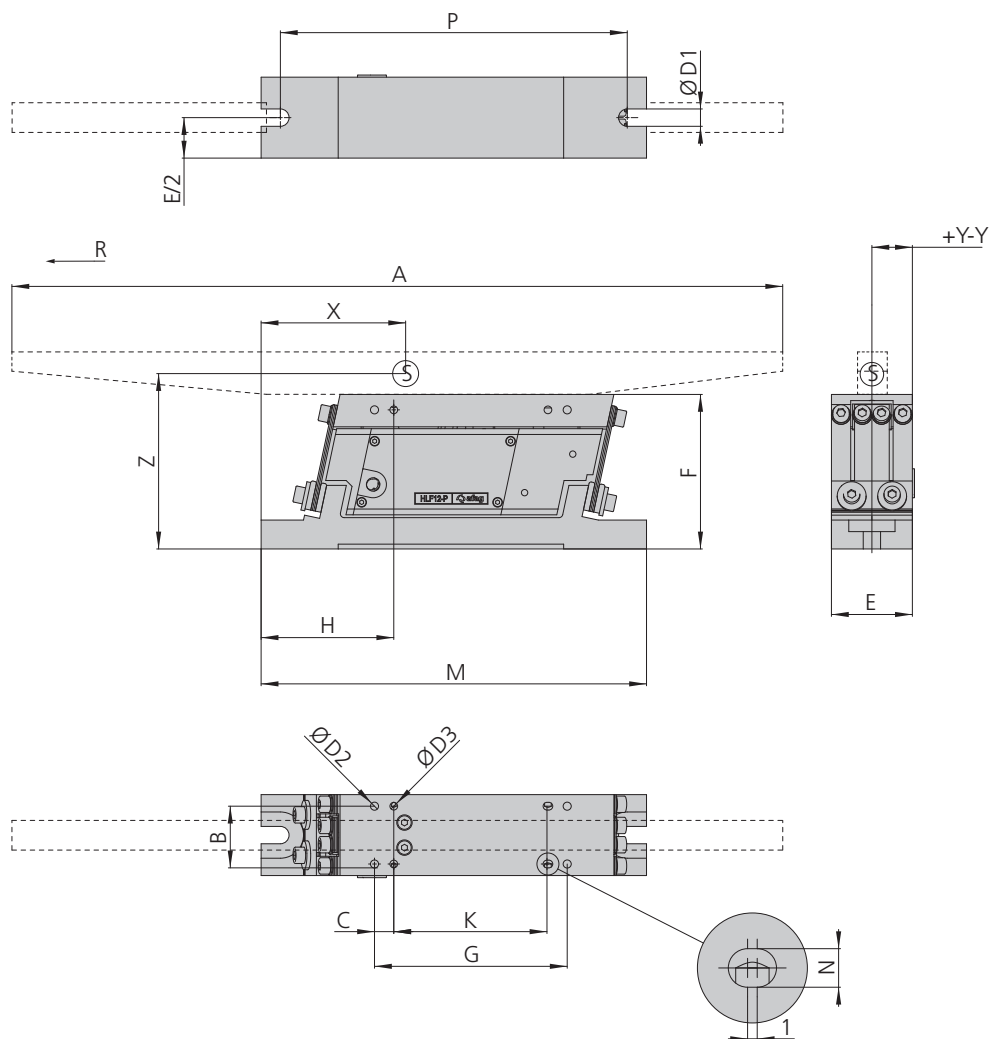


Variant 2 Construction with side plate S

Dimensions and dimension drawings

HLF-P

Type	HLF07-P	HLF12-P
A	300 mm	400 mm
B	25 mm	30 mm
C	10 mm	10 mm
D1	7 mm	9 mm
D2	4 x M5	4 x M5
D3	2 x 4 H7	2 x 4 H7
E	36 mm	42 mm
F	73 mm	80 mm
G	80 mm	100 mm
H	60 mm	69 mm
K	60 mm	80 mm
M	170 mm	200 mm
N	4 mm	4 mm
P	150 mm	180 mm
X	85 ± 10 mm	105 ± 10 mm
Y	0 ± 9 mm	0 ± 10 mm
Z	77 ± 8,5 mm	84 ± 11 mm



R = Feeding direction
S = Track center of gravity

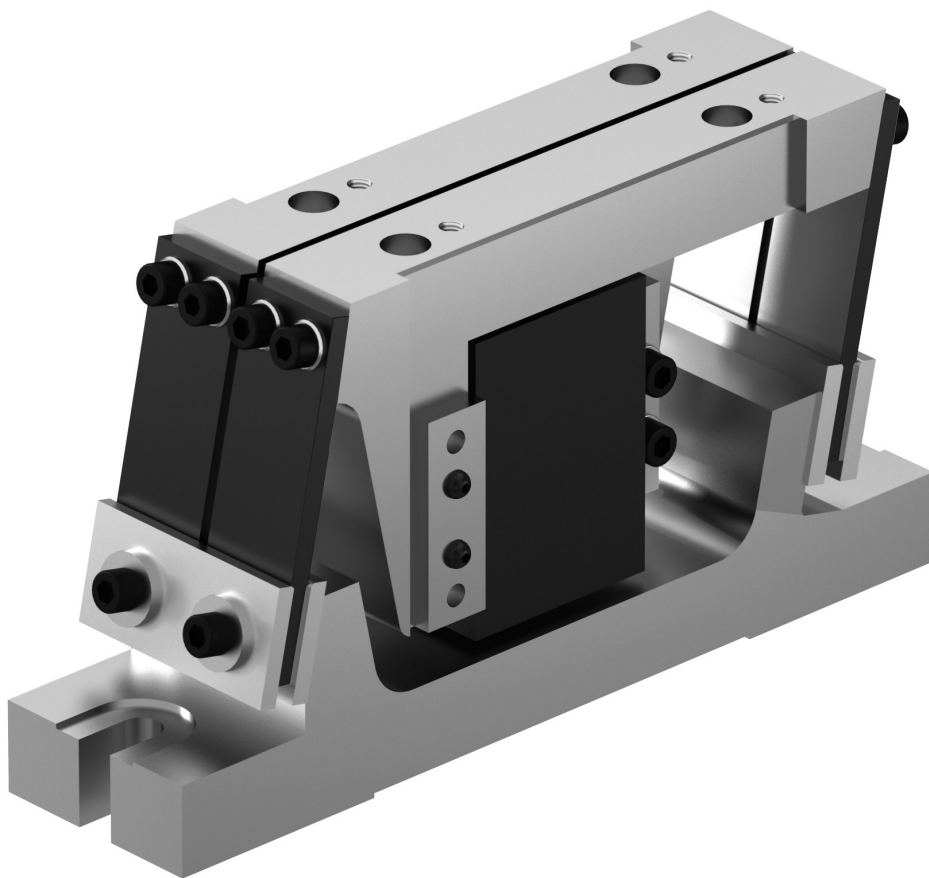
HLF-P		
Operating temperature		10 - 45 °C

Type	HLF07-P	HLF12-P
Order number	50260509	50259973
Mechanical vibration frequency	220 - 240 Hz	190 - 210 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	230 V/50 Hz
Max. power consumption	23 VA	23 VA
Net weight	1.8 kg	2.7 kg
Feed rail weight (ideal)	0.7 ± 0.1 kg	1.2 ± 0.1 kg
Max. feeder speed	7 m/min	7 m/min
Reactive force compensation	•	•
Protection type	IP 51	IP 51

Note: • = existent
Track not included in scope of supply.

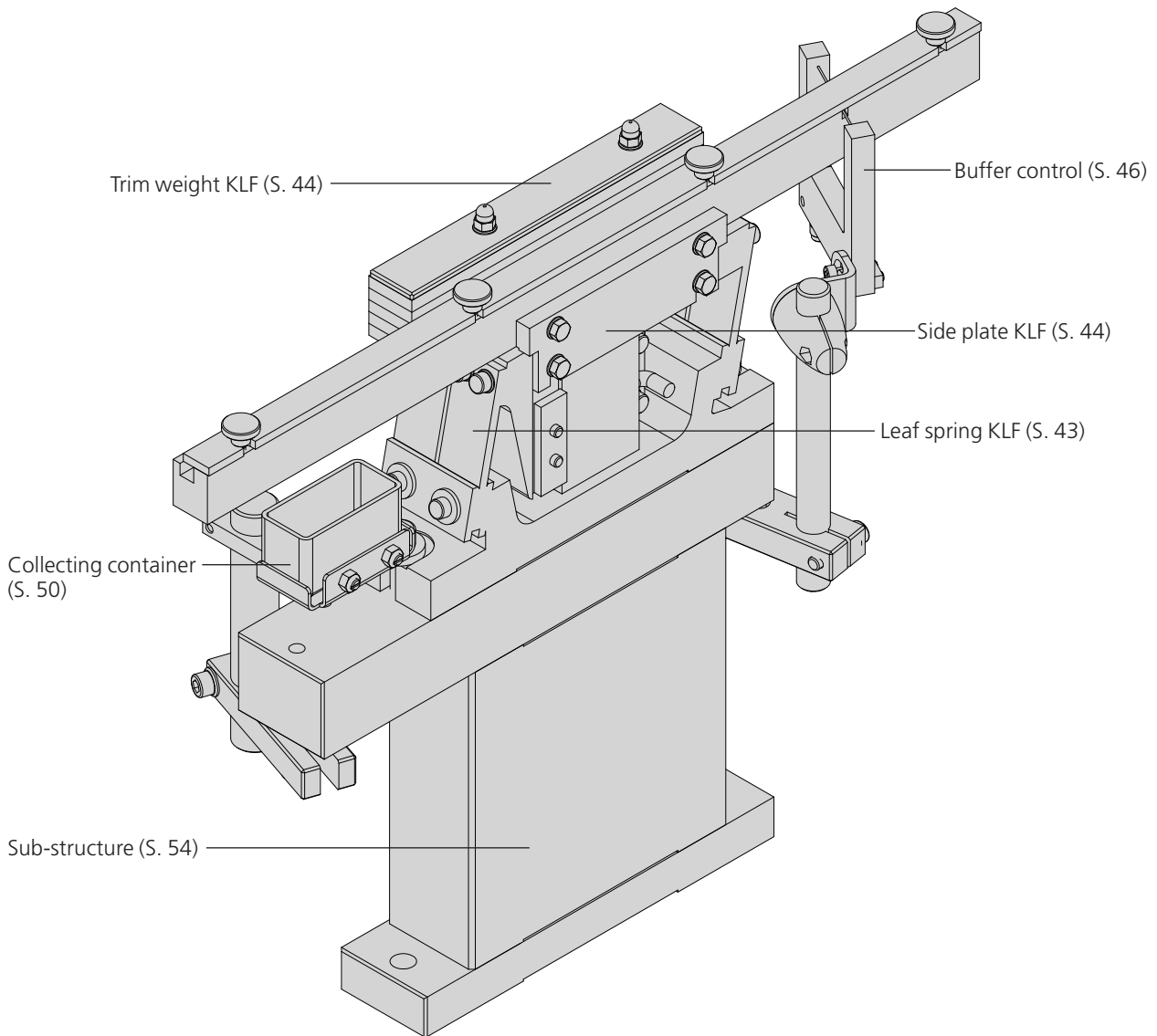
Linear feeder

KLF5 - KLF25

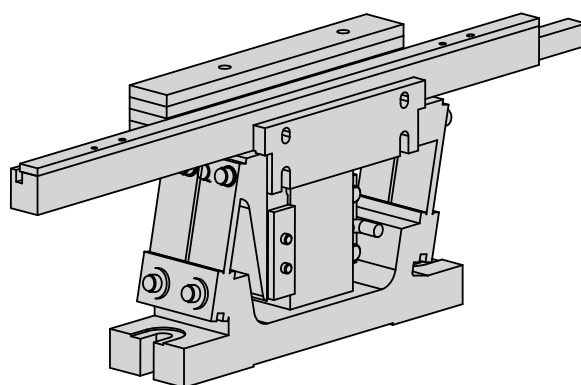


- Reactive force compensation to avoid mutual influence of several devices
- Very free rail design possibilities, since both vibration components can be used as payloads or counterweights
- Both vibration components can be operated as payloads

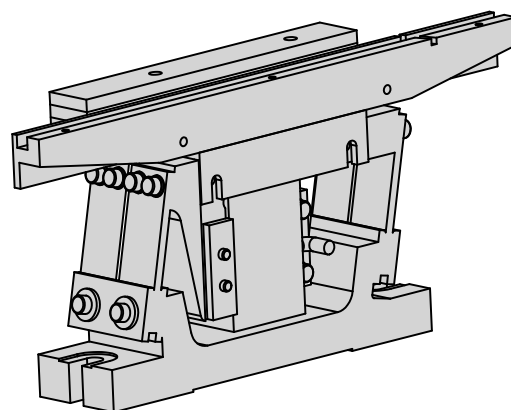
Overview



For fastening the rail to the KLF two variants are possible:

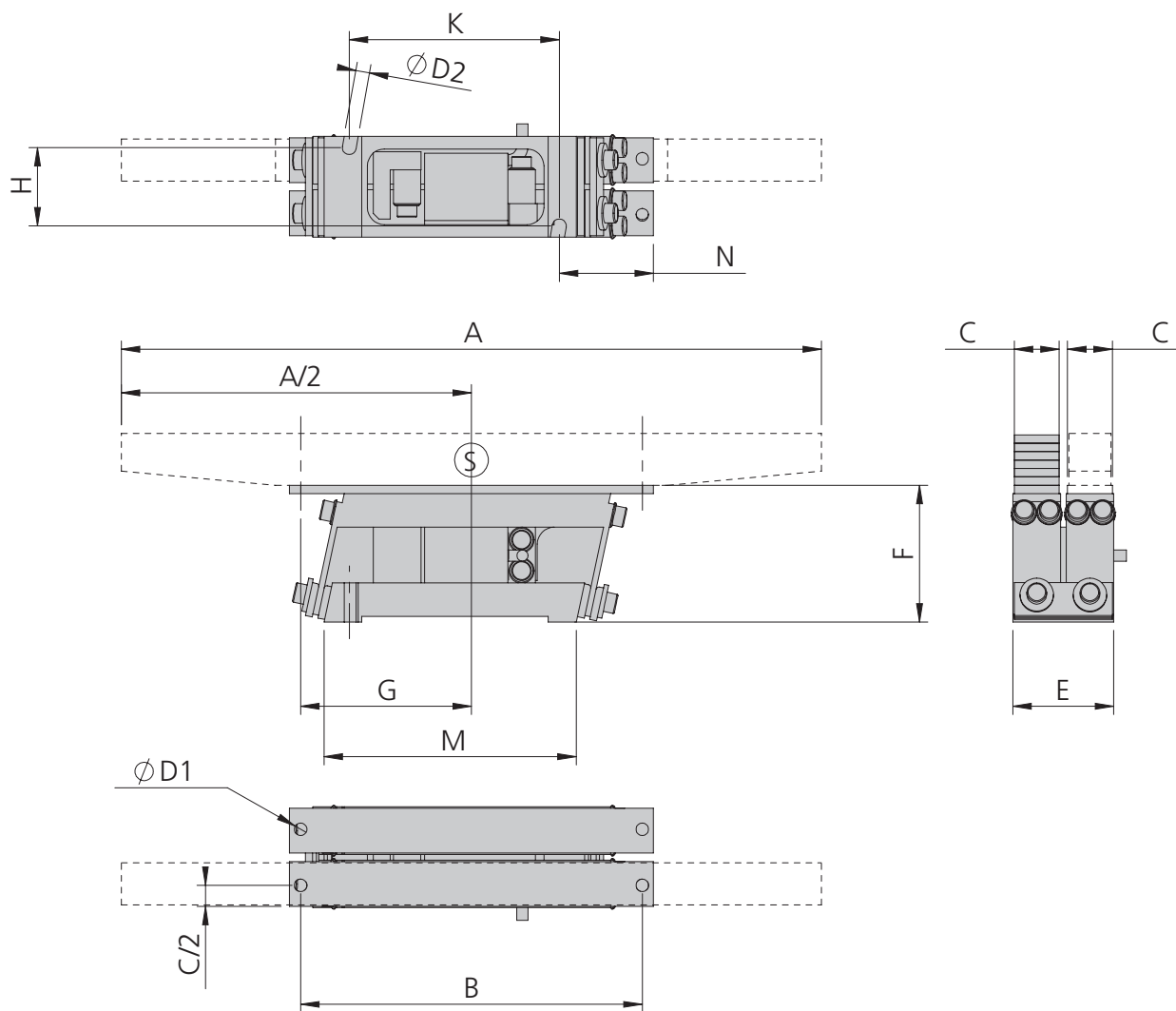


Variant 1 Construction with side plate



Variant 2 Construction with bracket

Type	KLF5
A	150-250 mm
B	122 mm
C	16 mm
D1	4.5 mm
D2	5 mm
E	36 mm
F	49 mm
G	61 mm
H	28 mm
K	75 mm
M	90 mm
N	34 mm



R = Feeding direction
S = Track center of gravity

KLF5	
Operating temperature	10 - 45 °C

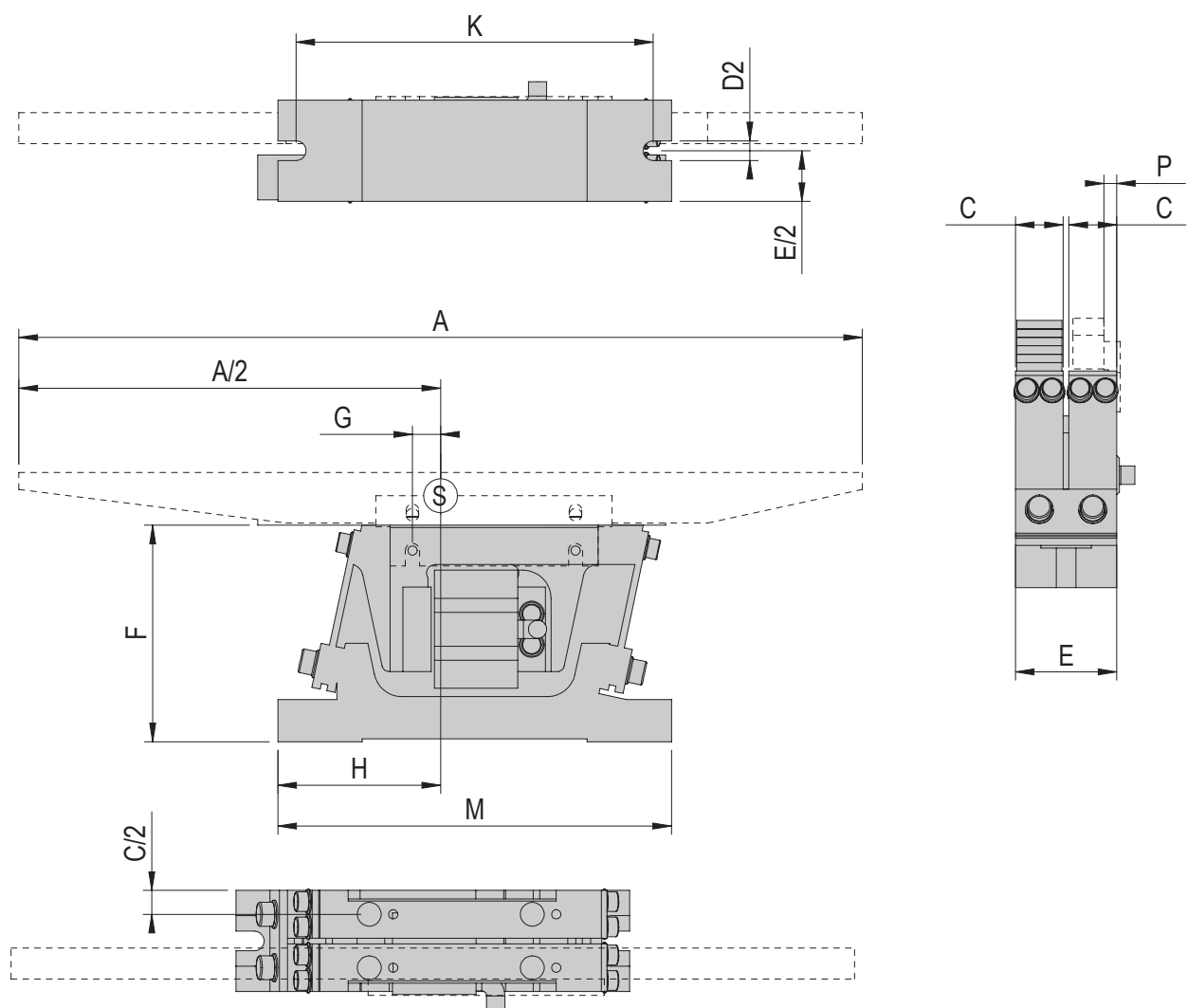
Type	KLF5	KLF5
Order number	15044649	15052019
Mechanical vibration frequency	100 Hz	120 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	115 V/60 Hz
Max. power consumption	10 VA	10 VA
Net weight	1.2 kg	1.2 kg
Weight difference (feed rail - trim weight)	0 kg	0 kg
Max. feeder speed	7 m/min	7 m/min
Reactive force compensation	•	•
Protection type	IP54	IP54

Note: • = existent
Track not included in scope of supply.

Included in delivery

- 2x Leaf spring KLF
- 5x Trim weight (KLF5)

Type	KLF7	KLF15	KLF25
A	200-400 mm	300-600 mm	500-800 mm
C	17 mm	24 mm	29 mm
D2	7 mm	9 mm	10 mm
E	36 mm	50 mm	60 mm
F	77 mm	108 mm	135 mm
G	10 mm	30 mm	45 mm
H	57.9 mm	99.4 mm	142 mm
K	127 mm	177 mm	280 mm
M	140 mm	200 mm	300 mm
P	4.5 mm	4.5 mm	3 mm



R = Feeding direction
S = Track center of gravity

KLF7 - KLF25						
Operating temperature						10 - 45 °C
Type	KLF7	KLF7	KLF15	KLF15	KLF25	KLF25
Order number	15150973	15173186	15021614	15014508	15048476	15169958
Mechanical vibration frequency	100 Hz	120 Hz	100 Hz	120 Hz	100 Hz	120 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz
Max. power consumption	15 VA	15 VA	25 VA	25 VA	60 VA	60 VA
Net weight	1.9 kg	1.9 kg	4.6 kg	4.6 kg	12.7 kg	12.7 kg
Weight difference (feed rail - trim weight)	0.1 kg	0.1 kg	0.5 kg	0.5 kg	0 kg	0 kg
Max. feeder speed	7 m/min	7 m/min	7 m/min	7 m/min	7 m/min	7 m/min
Reactive force compensation	•	•	•	•	•	•
Protection type	IP54	IP54	IP54	IP54	IP54	IP54

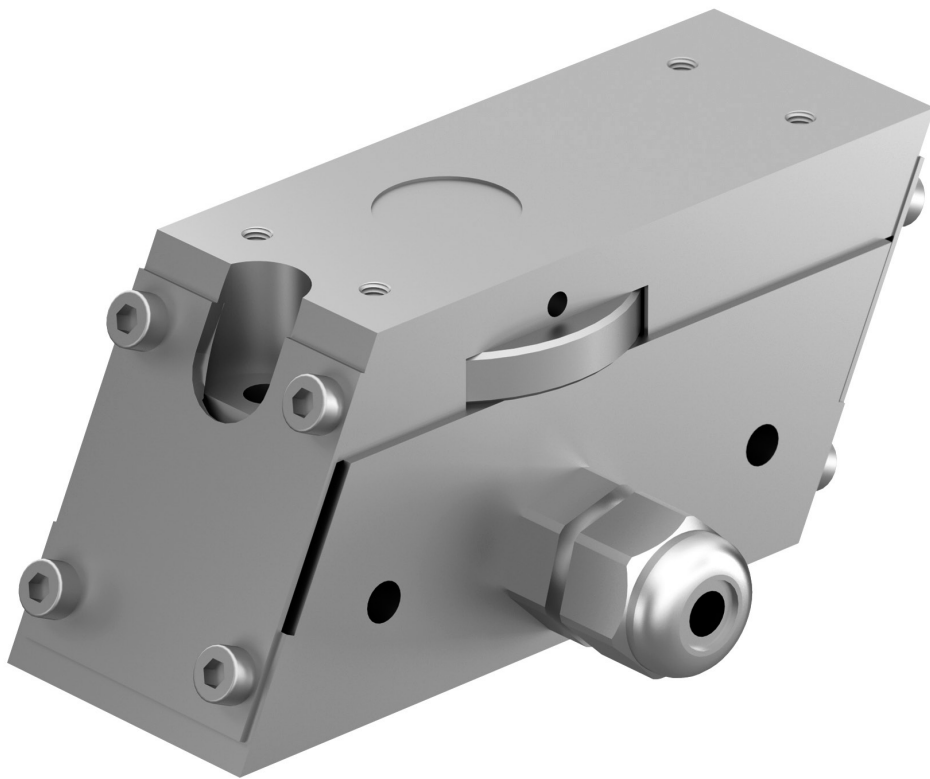
Note: • = existent
Track not included in scope of supply.

Included in delivery

- 2x Bracket KLF
- 2x Leaf spring KLF
- 5x Trim weight (KLF7)
- 6x Trim weight (KLF15)
- 1x Trim weight (KLF25 (400 g))
- 3x Trim weight (KLF25 (800 g))

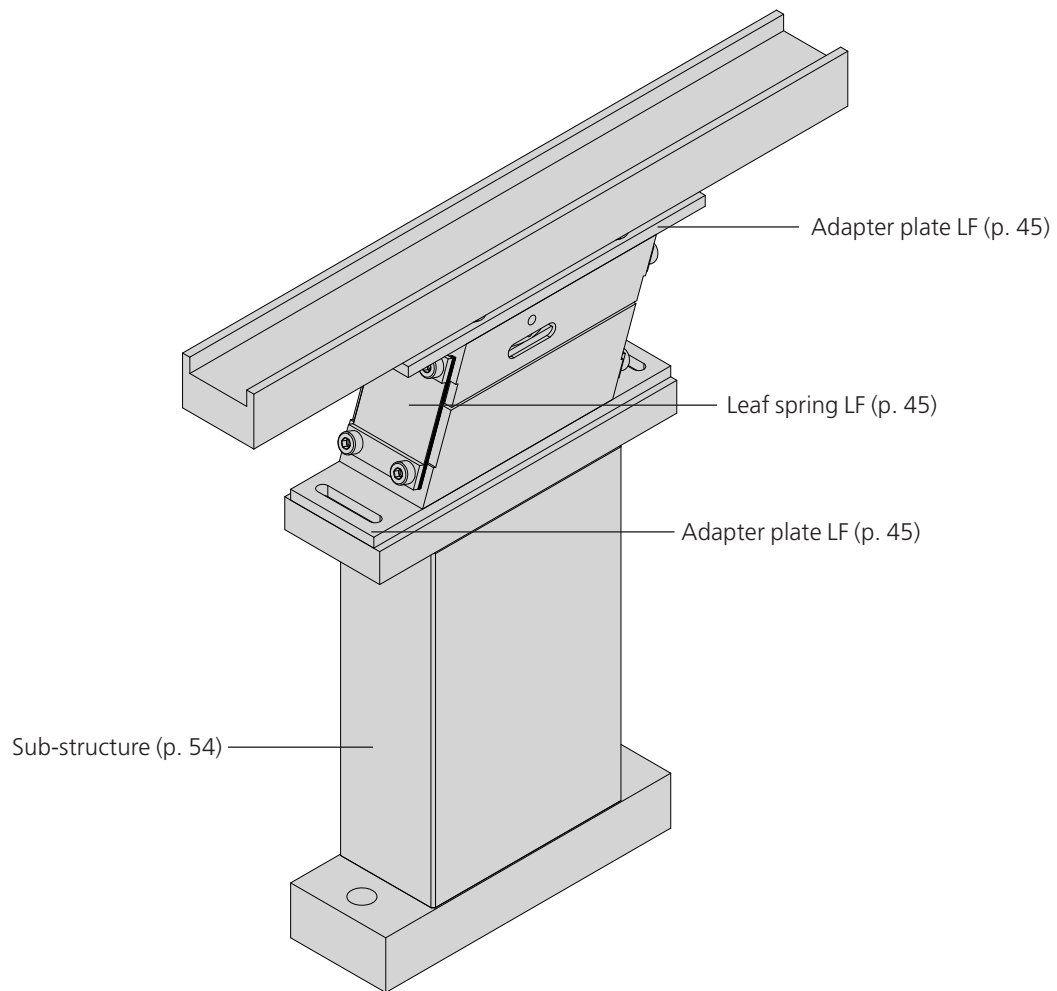
Linear feeder

LF09 & LF11

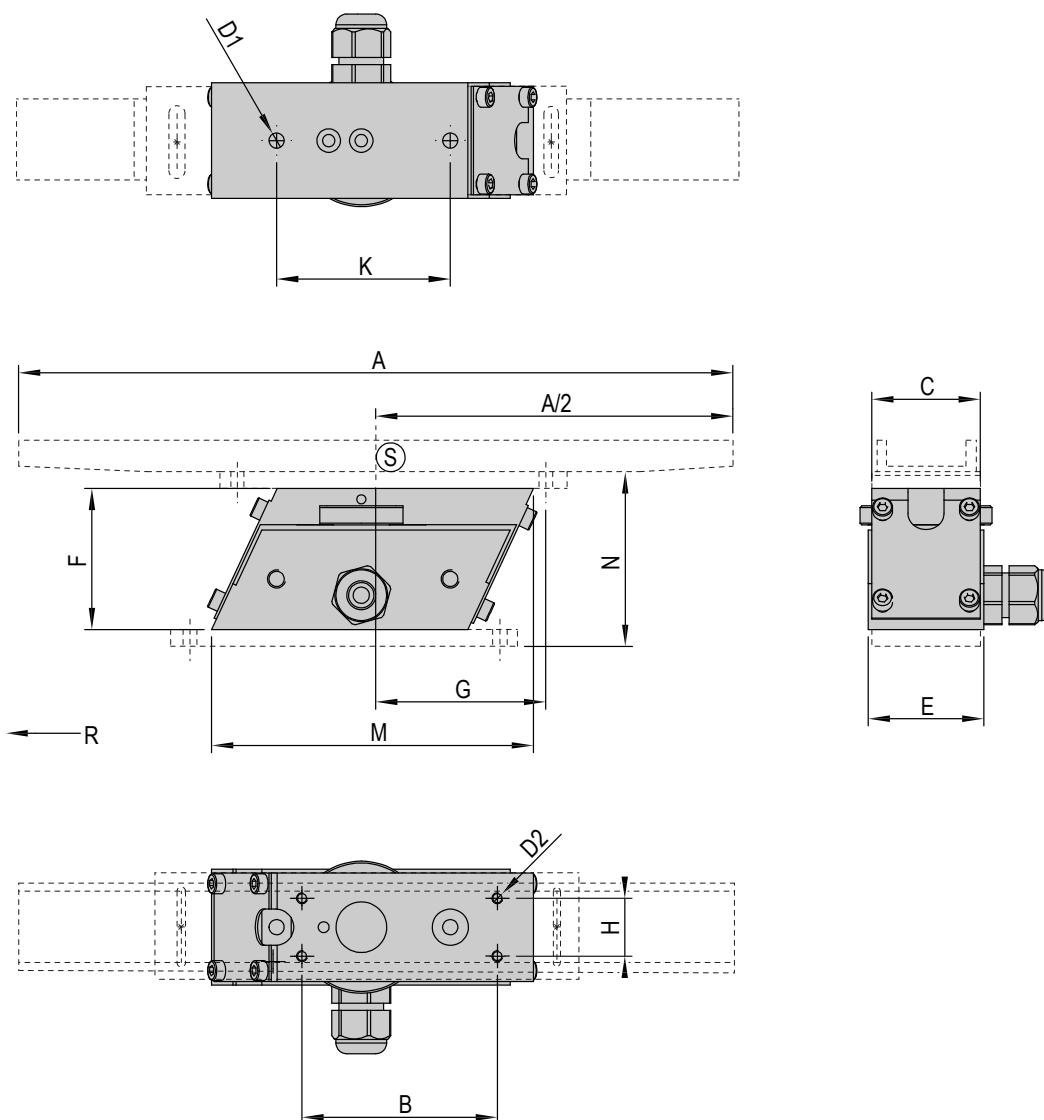


- Very compact design
- Gentle transport for the smallest, light parts

Overview



Type	LF9	LF11
A	250 mm	300 mm
B	54 mm	35 mm
C	30 mm	35 mm
D1	2 x M4	4 x M3
D2	2 x M4	4 x M3
E	32 mm	35 mm
F	39 mm	50 mm
G	44 mm	55.5 mm
H	16 mm	22 mm
I	---	22 mm
K	48 mm	---
L	---	60 mm
M	89 mm	98 mm
N	47 mm	58 mm



R = Feeding direction
S = Track center of gravity

LF		
Operating temperature	10 - 45 °C	

Type	LF9	LF11
Order number	15105783	11005757
Mechanical vibration frequency	100 Hz	100 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	230 V/50 Hz
Max. power consumption	18 VA	46 VA
Net weight	0.7 kg	0.8 kg
Feed rail weight (ideal)	1 kg	1.8 kg
Max. feeder speed	4 m/min	4 m/min
Reactive force compensation	---	---
Protection type	IP40	IP54

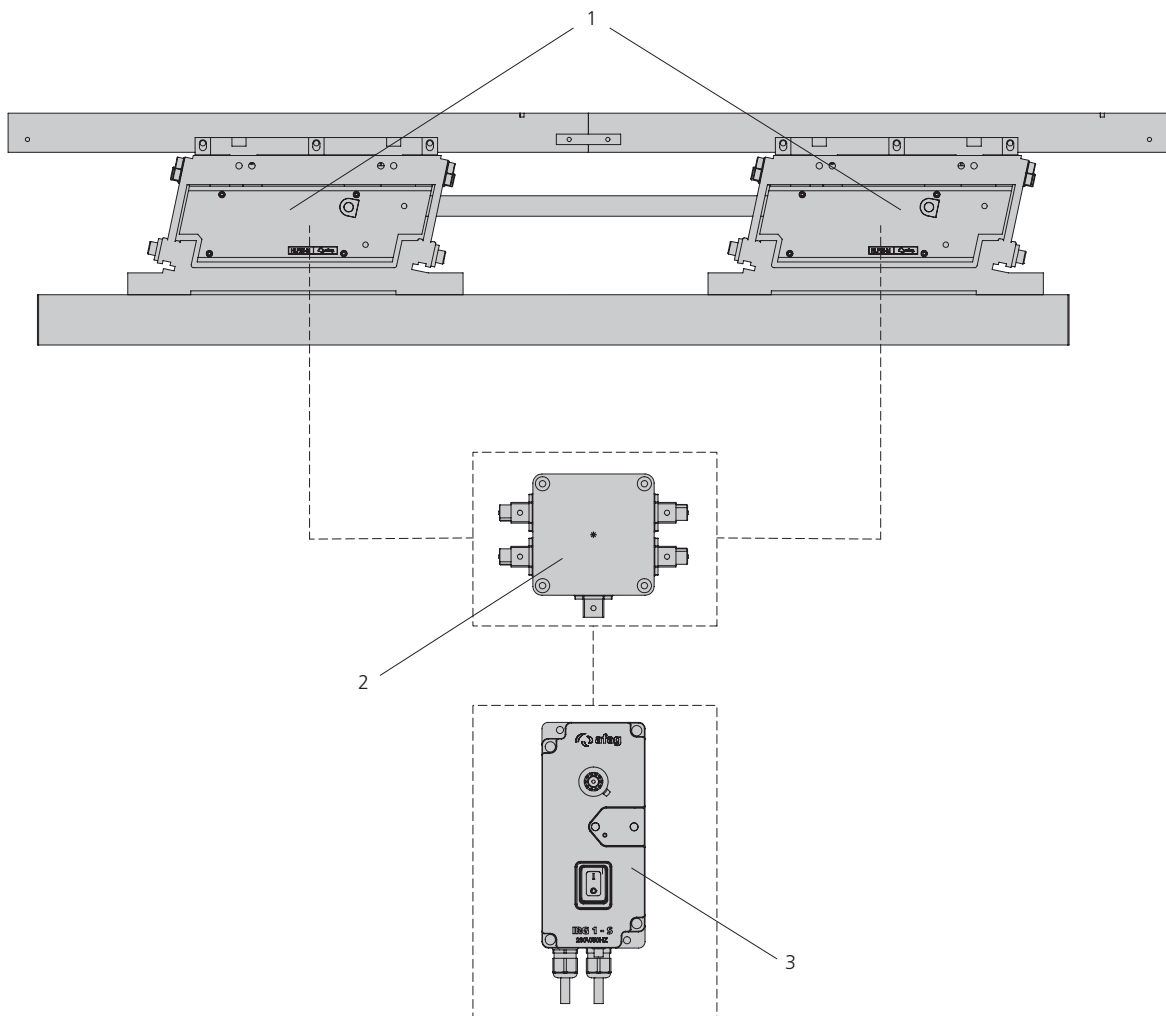
Note: --- = nonexistent
Track not included in scope of supply.

Included in delivery

- 2x Leaf spring LF

Accessories HLF-M

Overview mechanical connection of HLF feeders	Notation
1	Drive
2	Four way splitter for vibration drives
3	Control device (chapter 4)



To realize tracks with a large maximum length, the useful and counter masses can be mechanically connected up to 4 HLF feeders and operated by a single control unit. The mass of the connecting bar must be taken into account however. (Please refer to the operating manual for further information)

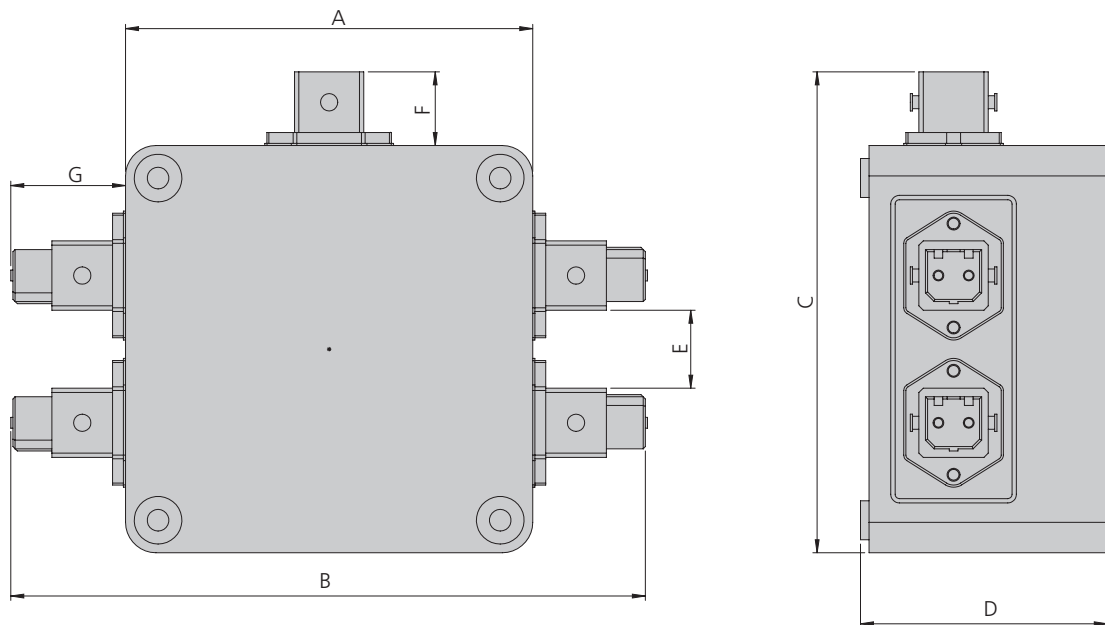
Accessories HLF-M

Magnet HLF-M	KLF5/7 HLF07-M 230V/50Hz	KLF5/7 HLF07-M 115V/60Hz	HLF12-M 230V/50Hz	HLF12-M 115V/60Hz
Order number	15054450	15002283	50277472	50277904
Net weight	0.2 kg	0.2 kg	0.2 kg	0.2 kg
Power	15 VA	15 VA	19 VA	19 VA

Magnets HLF-M	BF15 115V/60Hz	BF15 230V/50Hz	HLF50-M 115V/60Hz	HLF50-M 230V/50Hz
Order number	50280087	50270048	50307820	15019167
Net weight	0.5 kg	0.5 kg	0.6 kg	0.6 kg
Power	100 VA	100 VA	170 VA	170 VA

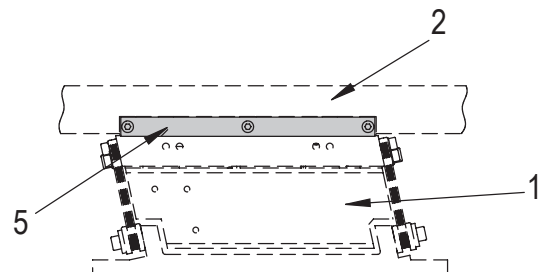
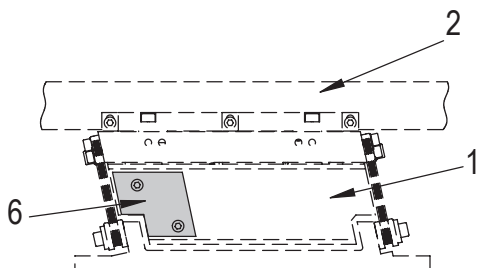
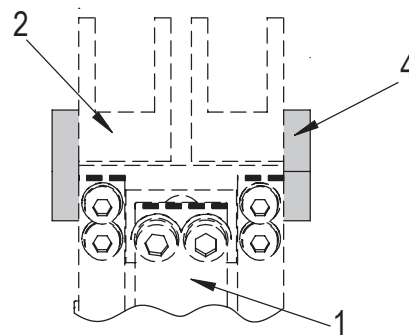
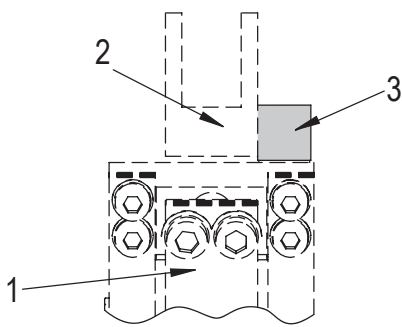
Four way splitter for vibration drives

Order number	50253027
Net weight	0.2 kg
A	94 mm
B	147 mm
C	115 mm
D	57 mm
E	18 mm
F	17 mm
G	26.5 mm



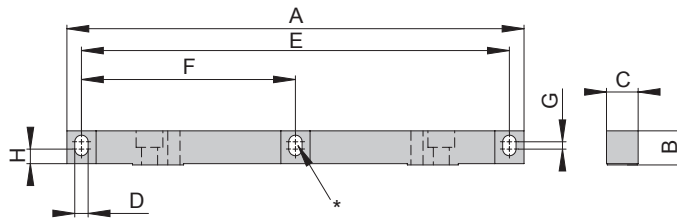
Accessories HLF

Alternative assembly variants for accessory	Notation
1	Linear feeder
2	Track
3	Side plate O
4	Side plate S
5	Trim weight useful mass
6	Trim weight counterweight



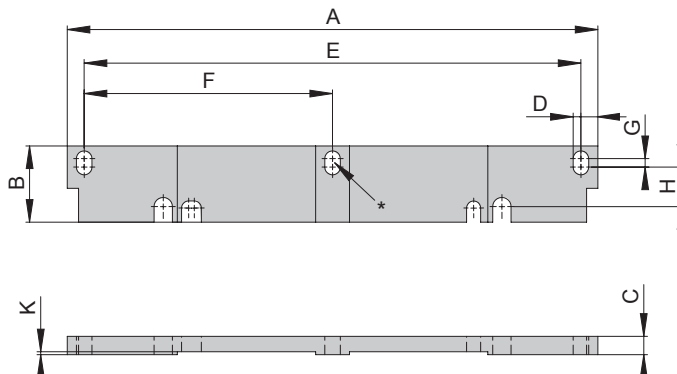
Accessories HLF

Side plate O HLF	HLF07	HLF12	HLF25	HLF50
Order number	50197283	50197284	50197285	50197286
Net weight	0.1 kg	0.2 kg	0.2 kg	0.5 kg
A	116 mm	140 mm	188 mm	254 mm
B	11.5 mm	14 mm	14 mm	18.5 mm
C	11.5 mm	12.2 mm	13 mm	18.8 mm
D	4.5 mm	5.5 mm	5.5 mm	5.5 mm
E	104 mm	128 mm	176 mm	242 mm
F	---	---	88 mm	121 mm
G	3 mm	3 mm	3 mm	3 mm
H	4.5 mm	6.5 mm	6.5 mm	9 mm



*Slot for HLF25-M and HLF50-M

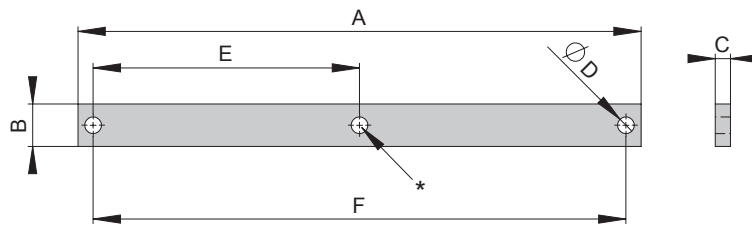
Side plate S HLF	HLF07	HLF12	HLF25	HLF50
Order number	50217291	50216714	50217314	50217676
Net weight	0.1 kg	0.2 kg	0.2 kg	0.5 kg
A	116 mm	140 mm	188 mm	254 mm
B	23 mm	27 mm	27 mm	40 mm
C	5.5 mm	6.5 mm	6.5 mm	9.5 mm
D	4.6 mm	5.5 mm	5.5 mm	5.5 mm
E	104 mm	128 mm	176 mm	242 mm
F	---	---	89 mm	121 mm
G	3 mm	3 mm	3 mm	3 mm
H	11 mm	14 mm	14 mm	25 mm
K	1 mm	1 mm	1 mm	1 mm



*Slot for HLF25-M and HLF50-M

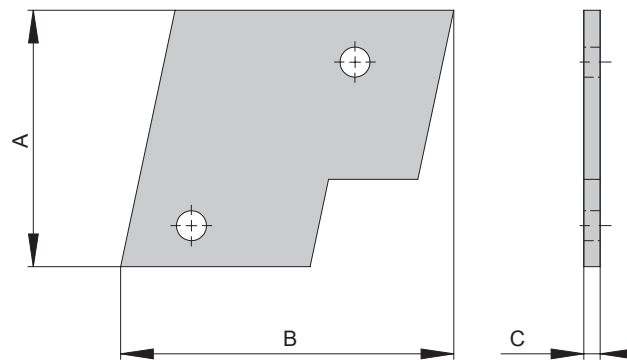
Accessories HLF

Trim weight HLF useful mass	HLF07	HLF12	HLF25	HLF50
Order number	50217298	50216719	50217316	50217677
Net weight	0.025 kg	0.05 kg	0.1 kg	0.1 kg
A	112 mm	138 mm	186 mm	260 mm
B	10 mm	12 mm	14 mm	12 mm
C	3 mm	4 mm	5 mm	4 mm
D	4.5 mm	5.5 mm	5.5 mm	5.5 mm
E	---	---	88 mm	121 mm
F	104 mm	128 mm	176 mm	242 mm



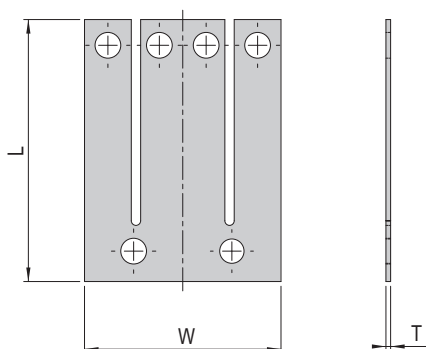
* Borehole for HLF25-M and HLF50-M

Trim weight HLF counterweight	HLF07	HLF12	HLF25	HLF50
Order number	50216944	50216708	50217312	50217621
Net weight	0.015 kg	0.025 kg	0.05 kg	0.05 kg
A	35 mm	35 mm	47 mm	55 mm
B	31 mm	46.3 mm	61.1 mm	57.7 mm
C	3 mm	3 mm	3 mm	3 mm



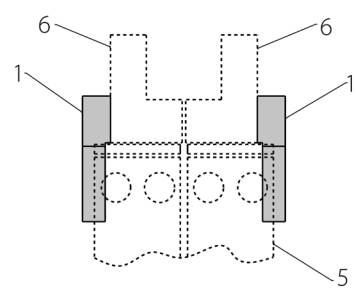
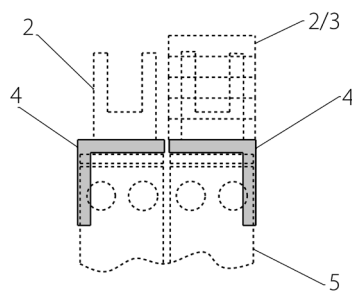
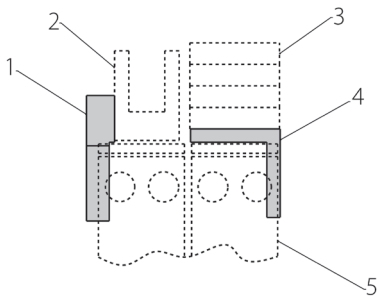
Accessories HLF

Leaf spring HLF	HLF07	HLF12	HLF25	HLF50
Order number	50203877	50203471	50254134	50411551
Net weight	0.01 kg	0.01 kg	0.03 kg	0.1 kg
L	56 mm	56 mm	75 mm	111 mm
T	0.8 mm	0.8 mm	1.2 mm	2.5 mm
W	36 mm	42 mm	50 mm	60 mm



Accessories KLF

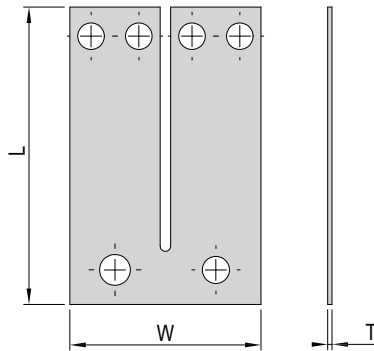
Alternative assembly variants for accessory	Notation
1	Side plate
2	Track
3	Trim weight
4	Bracket
5	Linear feeder
6	Divided track



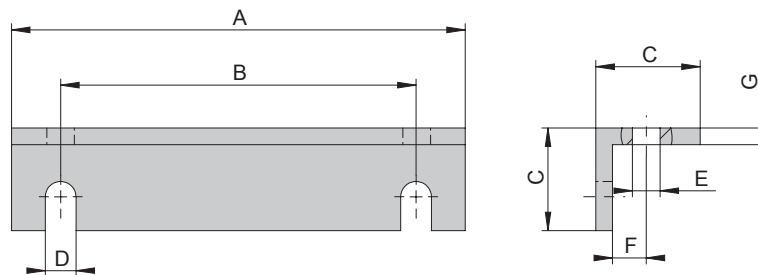
Accessories KLF

Magnet KLF	KLF5/7 HLF07-M 230V/50Hz	KLF5/7 HLF07-M 115V/60Hz	KLF15 230V/50Hz	KLF15 115V/60Hz	KLF25 WV301-1 230V/50Hz	KLF25 115V/60Hz
Order number	15054450	15002283	15215514	15138144	15131097	15150127
Net weight	0.2 kg	0.2 kg	1.1 kg	1.1 kg	1.8 kg	1.8 kg
Power	15 VA	15 VA	78 VA	70 VA	136 VA	136 VA

Leaf spring KLF5 - KLF25	KLF5	KLF7	KLF15	KLF25
Order number	15076110	15137928	15061275	15202425
Net weight	0.01 kg	0.01 kg	0.04 kg	0.1 kg
L	41 mm	56 mm	75 mm	95 mm
T	0.5 mm	0.8 mm	1.5 mm	2.0 mm
W	36 mm	36 mm	50 mm	60 mm

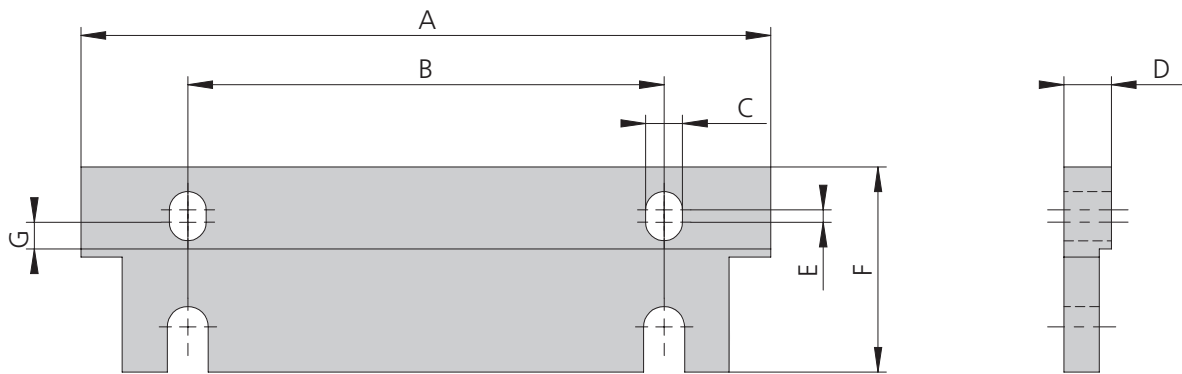


Bracket KLF7 - KLF25	KLF7	KLF15	KLF25
Order number	15032942	15026423	15208257
Net weight	0.05 kg	0.1 kg	0.3 kg
A	74 mm	105 mm	175 mm
B	58 mm	85 mm	150 mm
C	17 mm	25 mm	30 mm
D	5 mm	6 mm	7 mm
E	4.5 mm	5.5 mm	6.6 mm
F	5.5 mm	9 mm	11.5 mm
G	2.7 mm	3.7 mm	4.7 mm

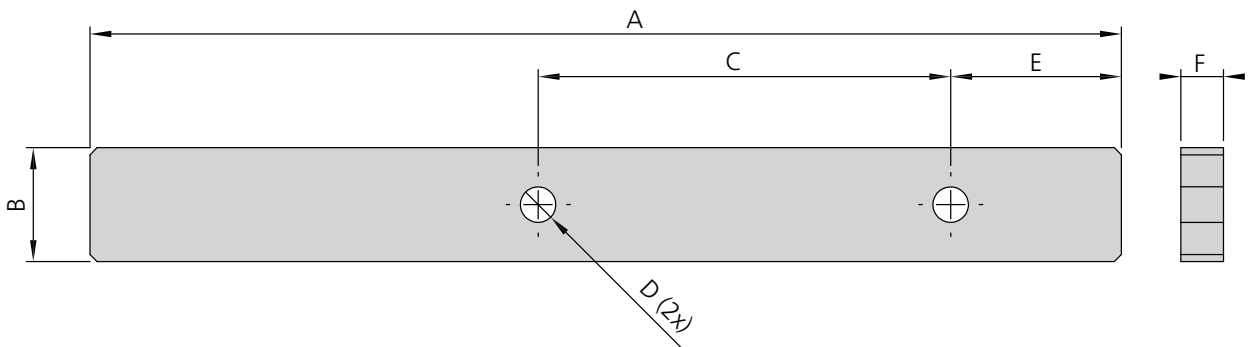


Accessories KLF

Side plate KLF7 - KLF25	KLF7	KLF15	KLF25
Order number	15157317	15107163	15010882
Net weight	0.1 kg	0.2 kg	0.4 kg
A	84 mm	115 mm	185 mm
B	58 mm	85 mm	150 mm
C	4.5 mm	5.5 mm	6.6 mm
D	5.8 mm	7.8 mm	9.8 mm
E	1.5 mm	2.5 mm	5.4 mm
F	25 mm	32 mm	45 mm
G	3.3 mm	4.75 mm	7.3 mm

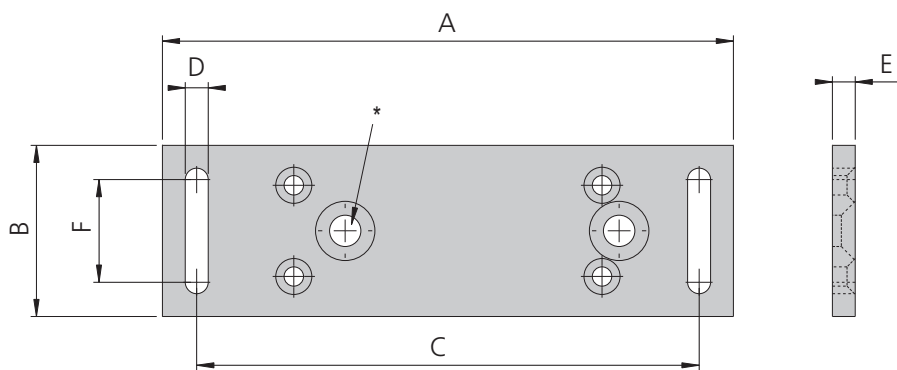


Trim weight KLF5 - KLF25	KLF5	KLF7	KLF7	KLF15	KLF15	KLF25	KLF25
Order number	15183426	15209275	15148404	15192548	15081054	15005193	15028306
Net weight	0.06 kg	0.05 kg	0.1 kg	0.1 kg	0.2 kg	0.4 kg	0.8 kg
A	130 mm	145 mm	145 mm	170 mm	170 mm	300 mm	300 mm
B	16 mm	16 mm	16 mm	25 mm	25 mm	30 mm	30 mm
C	122 mm	58 mm	58 mm	85 mm	85 mm	150 mm	150 mm
D	4.5 mm	5 mm	5 mm	6 mm	6 mm	7 mm	7 mm
E	4 mm	24 mm	24 mm	30 mm	30 mm	55 mm	55 mm
F	4 mm	3 mm	6 mm	3 mm	6 mm	6 mm	12 mm



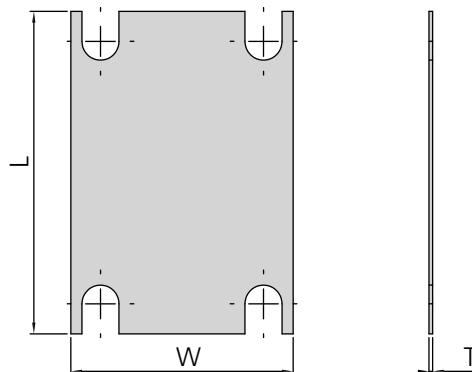
Accessories LF

Adapter plate LF09 & LF11	LF9	LF11
Order number	50037641	11006745
Net weight	0.1 kg	0.1 kg
A	100 mm	125 mm
B	30 mm	35 mm
C	88 mm	111 mm
D	4 mm	4 mm
E	4 mm	4 mm
F	18 mm	22 mm



*Adapter plate LF9 with slots, LF11 without boreholes

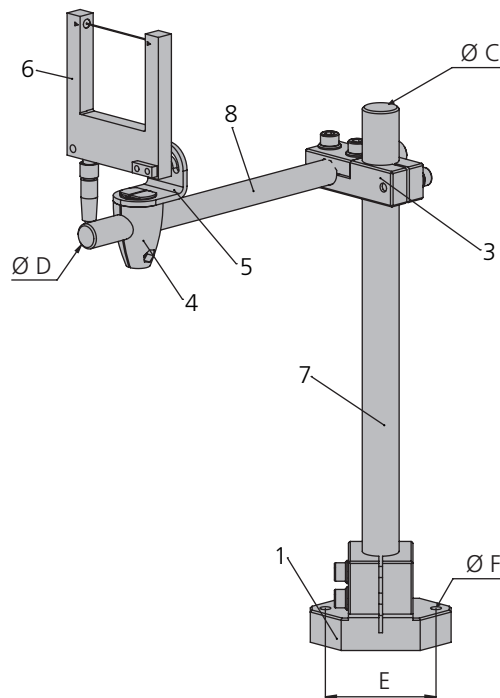
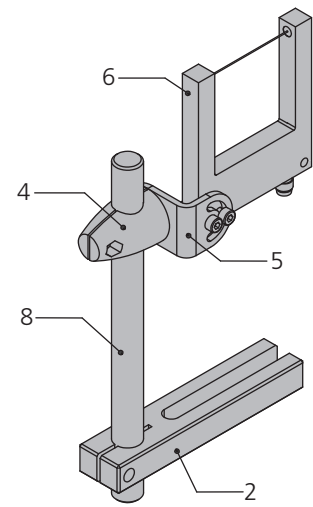
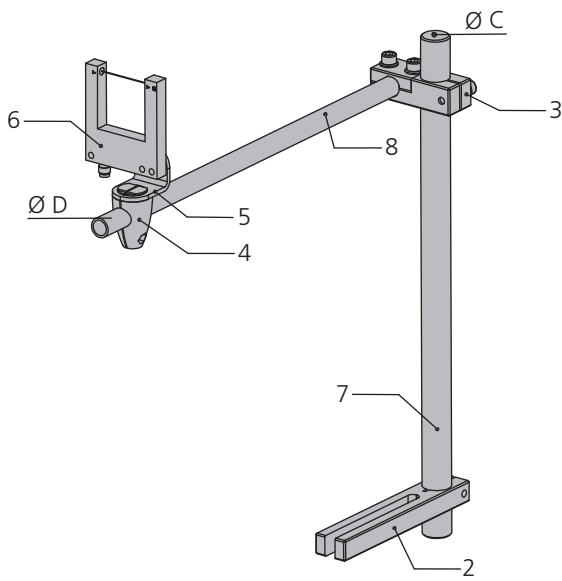
Leaf spring LF09 & LF11	LF9	LF11
Order number	15184920	11006743
Net weight	0.01 kg	0.01 kg
L	36 mm	43 mm
T	0.7 mm	0.5 mm
W	30 mm	30 mm



Magnet LF9 & LF11	LF9 230V/50Hz	LF11 230V/50Hz
Order number	15022352	11006386
Net weight	0.1 kg	0.1 kg
Power	0.8 VA	2 VA

Buffer control linear feeder

Type	Buffer control
C	20 mm
D	14 mm
E	60 x 60 mm
F	6.5 mm



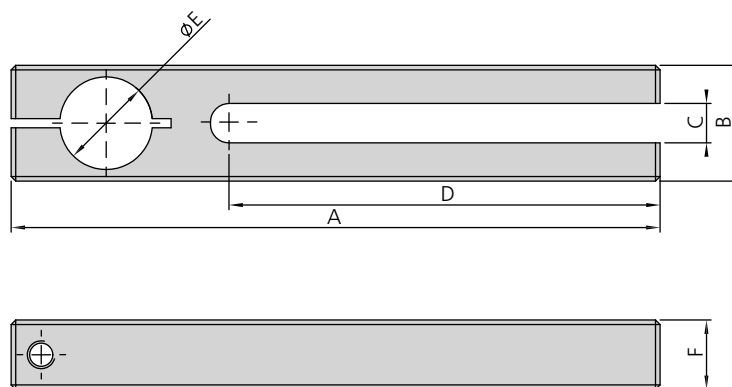
Buffer control linear feeder

Clamp foot item no. 1

Order number	50505639
Net weight	0.2 kg

Fork item no. 2

Order number	50274798	50158325	50279374	50117294	50199863	50393758	50017182
Net weight	0.2 kg	0.2 kg	0.2 kg	0.3 kg	0.2 kg	0.2 kg	0.3 kg
A	85 mm	105 mm	115 mm	140 mm	90 mm	115 mm	140 mm
B	25 mm	25 mm	25 mm	25 mm	25 mm	25 mm	25 mm
C	8.5 mm	8.5 mm	8.5 mm	8.5 mm	8.5 mm	8.5 mm	8.5 mm
D	40 mm	60 mm	70 mm	95 mm	43 mm	68 mm	93 mm
E	14 mm	14 mm	14 mm	14 mm	20 mm	20 mm	20 mm
F	15 mm	15 mm <td 15 mm	15 mm	15 mm	15 mm	15 mm	



Cross-type clamp item no. 3

Order number	50255610
Net weight	0.2 kg

Clamping cylinder item no. 4

Order number	15181415
Net weight	0.1 kg

Retainer plate for fork light barrier item no. 5

Order number	15209376
Net weight	0.02 kg

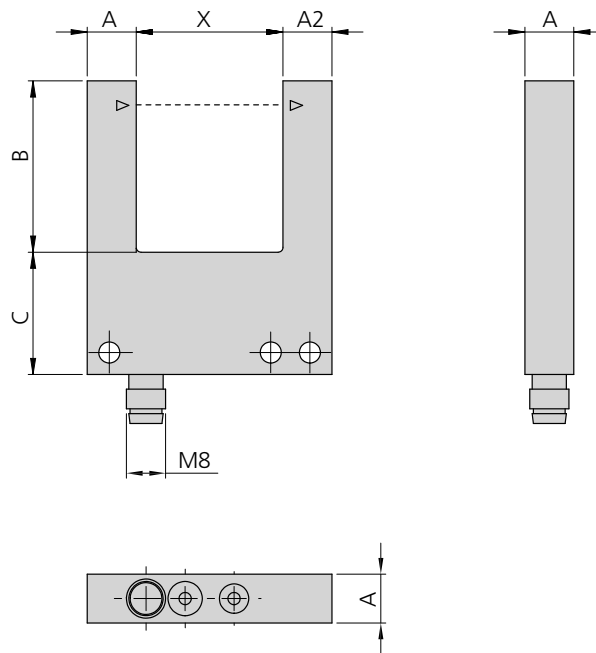
Buffer control linear feeder

Fork light barrier item no. 6	
Operating temperature	-10 - 60 °C

Type	OGU 031 IO-Link	OGU 041 IO-Link	OGU 051 IO-Link	OGU 081 IO-Link	OGU 121 IO-Link
Order number	50485685	50485686	50485687	50485688	50485690
Power input	< 30 mA	< 30 mA	< 30 mA	< 30 mA	< 30 mA
Operating voltage	10 - 35 VDC	10 - 35 VDC	10 - 35 VDC	10 - 35 VDC	10 - 35 VDC
Net weight	0.1 kg	0.1 kg	0.1 kg	0.1 kg	0.3 kg
Resolution	Ø 0.5 mm	Ø 0.5 mm	Ø 0.5 mm	Ø 0.5 mm	Ø 0.8 mm
Emitted light	red, clocked	red, clocked	red, clocked	red, clocked	red, clocked
Interface	IO-Link, V1.1, COM2 (38,4kBd), Smart Sense Profile				
Control output	Push pull, 100 mA, NO/NC switchable, PNP/NPN				
Plug connector/pins	M8/3-pol.	M8/3-pol.	M8/3-pol.	M8/3-pol.	M8/3-pol.
Protection type	IP67	IP67	IP67	IP67	IP67

Note: Light barriers with other fork opening dimension X on demand; Connecting cable not in scope of delivery.

Type	OGU 031 IO-Link	OGU 041 IO-Link	OGU 051 IO-Link	OGU 081 IO-Link	OGU 121 IO-Link
A	10 mm	10 mm	10 mm	10 mm	10 mm
A2	10 mm	10 mm	10 mm	10 mm	12 mm
B	35 mm	45 mm	55 mm	55 mm	60 mm
C	25 mm	25 mm	25 mm	25 mm	30 mm
X	30 mm	40 mm	50 mm	80 mm	120 mm



Buffer control linear feeder

Columns buffer control item no. 7

Order number	50040900	50040901	50033777	50040904	50040906	50040908
Net weight	0.2 kg	0.3 kg	0.4 kg	0.4 kg	0.5 kg	0.6 kg
D	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm
H	90 mm	120 mm	150 mm	180 mm	210 mm	240 mm

Columns buffer control item no. 7

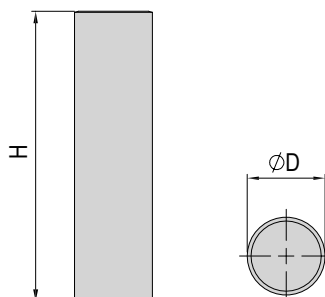
Order number	50040909	50033781	50036047	50031357	50033779	50033809
Net weight	0.7 kg	0.7 kg	0.8 kg	0.9 kg	1 kg	1 kg
D	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm
H	270 mm	300 mm	330 mm	360 mm	390 mm	420 mm

Columns buffer control item no. 7

Order number	50040912	50040913	50040915	50040918	50036156	50040921
Net weight	1.1 kg	1.2 kg	1.3 kg	1.3 kg	1.4 kg	1.5 kg
D	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm
H	450 mm	480 mm	510 mm	540 mm	570 mm	600 mm

Columns buffer control item no. 8

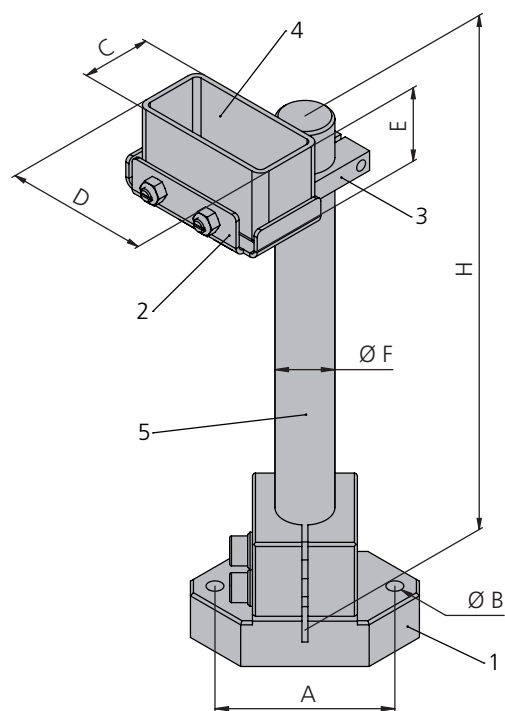
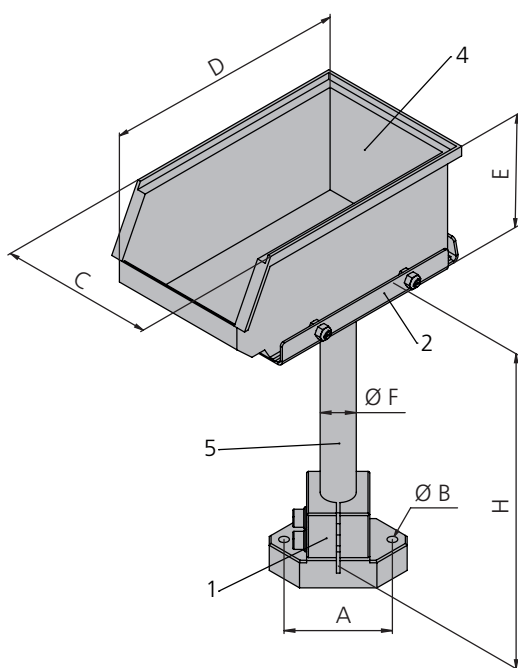
Order number	50041013	50039783	50041120	50041122	50033766	50031376	50041123	50041125
Net weight	0.1 kg	0.1 kg	0.2 kg	0.2 kg	0.3 kg	0.3 kg	0.3 kg	0.4 kg
D	14 mm	14 mm	14 mm	14 mm	14 mm	14 mm	14 mm	14 mm
H	90 mm	120 mm	150 mm	180 mm	210 mm	240 mm	270 mm	300 mm



Note: Ordering of the items depending on application; Connection cable not in scope of delivery.

Collecting container linear feeder

Type	Large	Small
A	60 mm	60 mm
B	6.5 mm	6.5 mm
C	104 mm	28 mm
D	170 mm	58 mm
E	76 mm	30 mm
F	20 mm	20 mm



Collecting container linear feeder

Clamp foot item no. 1

Order number	50505639
Net weight	0.2 kg

Hopper holding device item no. 2

Order number	50031199	50031138
Net weight	0.1 kg	0.2 kg

Clamping arm item no. 3

Order number	50031204
Net weight	0.06 kg

Hopper* item no. 4

Order number	15128143	15162580
Net weight	0.1 kg	0.8 kg

Columns collecting container item no. 5

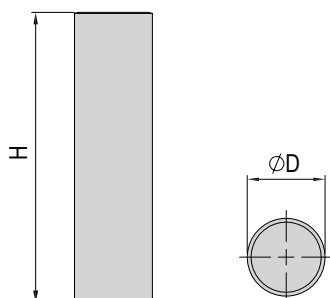
Order number	50040900	50040901	50033777	50040904	50040906	50040908
Net weight	0.2 kg	0.3 kg	0.4 kg	0.4 kg	0.5 kg	0.6 kg
D	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm
H	90 mm	120 mm	150 mm	180 mm	210 mm	240 mm

Columns collecting container item No. 5

Order number	50040909	50033781	50036047	50031357	50033779	50033809
Net weight	0.7 kg	0.7 kg	0.8 kg	0.9 kg	1 kg	1 kg
D	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm
H	270 mm	300 mm	330 mm	360 mm	390 mm	420 mm

Columns collecting container item no. 5

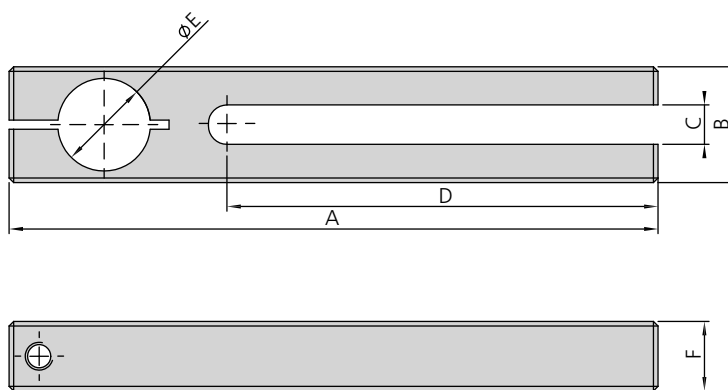
Order number	50040912	50040913	50040915	50040918	50036156	50040921
Net weight	1.1 kg	1.2 kg	1.3 kg	1.3 kg	1.4 kg	1.5 kg
D	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm
H	450 mm	480 mm	510 mm	540 mm	570 mm	600 mm



Collecting container linear feeder

Fork item no. 6

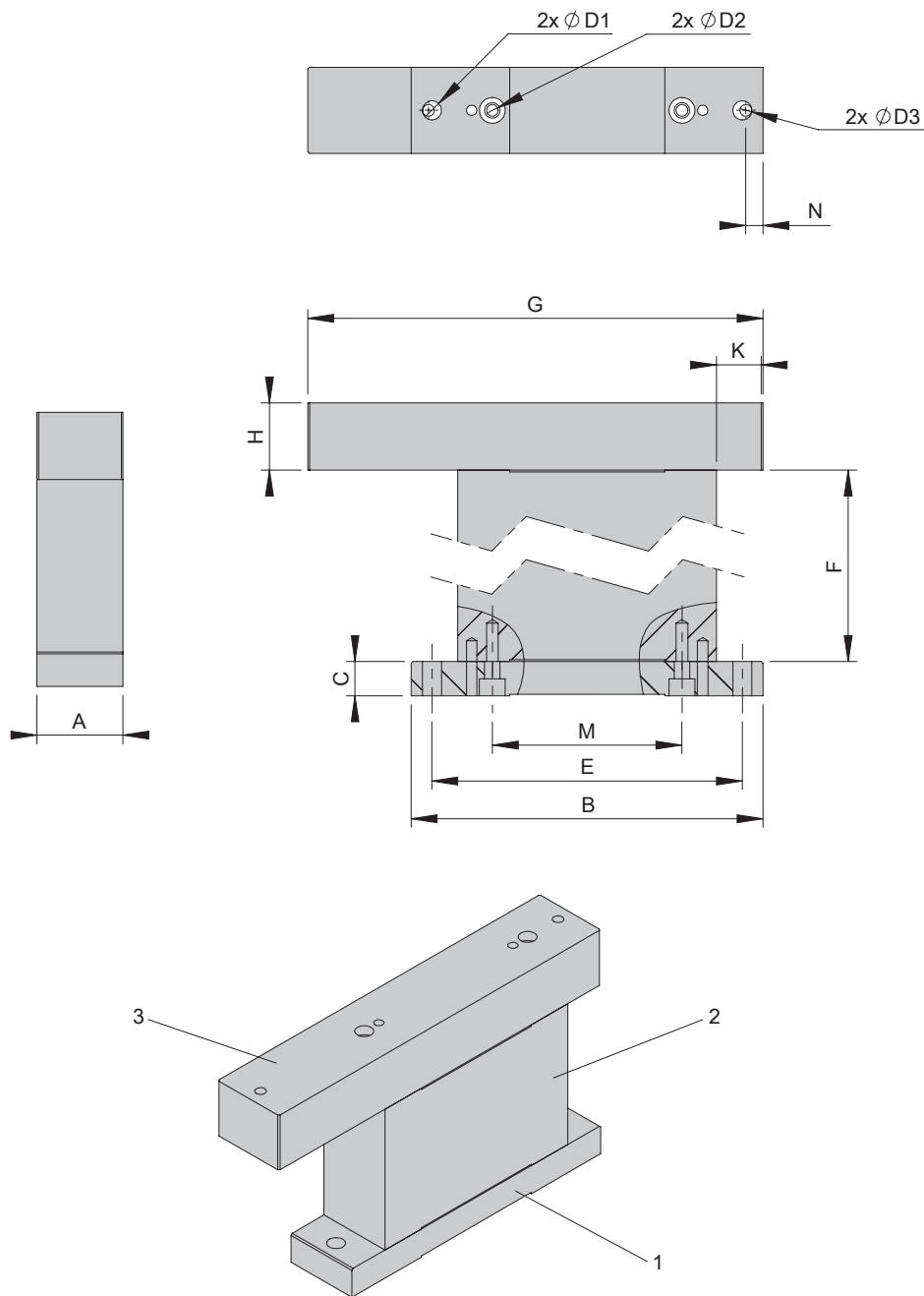
Order number	50274798	50158325	50279374	50117294	50199863	50393758	50017182
Net weight	0.2 kg	0.2 kg	0.2 kg	0.3 kg	0.2 kg	0.2 kg	0.3 kg
A	85 mm	105 mm	115 mm	140 mm	90 mm	115 mm	140 mm
B	25 mm	25 mm	25 mm	25 mm	25 mm	25 mm	25 mm
C	8.5 mm	8.5 mm	8.5 mm	8.5 mm	8.5 mm	8.5 mm	8.5 mm
D	40 mm	60 mm	70 mm	95 mm	43 mm	68 mm	93 mm
E	14 mm	14 mm	14 mm	14 mm	20 mm	20 mm	20 mm
F	15 mm	15 mm	15 mm	15 mm	15 mm	15 mm	15 mm



Note: The individual parts are to be ordered in line with the required size of hopper and length of tube.

* Hopper colour: red, other colours on request

Sub-structure linear feeder



Material: 1.0037.07, galvanically galvanises and blue chromated. Ordering of the items depending on application.
 (Item No. 1) Screwed on machine table overarm with mating dimensions E and D1.
 (Item No. 2) Screwed on machine table bottom up with mating dimensions M and D2

Sub-structure linear feeder

Base plate item no. 1	40	50	50
Order number	50407352	50151502	50151502
Net weight	0.9 kg	1.5 kg	1.5 kg
A	40 mm	50 mm	50 mm
B	154 mm	204 mm	204 mm
C	20 mm	20 mm	20 mm
D1	11 mm	11 mm	11 mm
D2	M8	M8	M8
E	130 mm	180 mm	180 mm

Block body 1 mm grading item no. 2	On request 40	On request 50	On request 50
Order number	50407727	50184595	50184595
A	40 mm	50 mm	50 mm
F	15 mm - 200 mm	15 mm - 253 mm	15 mm - 253 mm
M	60 mm	110 mm	110 mm

Bar item no. 3	40	50	60
Order number	50407898	50407901	50407906
Net weight	1.5 kg	3.9 kg	6.4 kg
A	40 mm	50 mm	60 mm
D3	M6	M8	M8
G	174 mm	264 mm	354 mm
H	29 mm	39 mm	39 mm
K	25.5 mm	27 mm	82 mm
N	10 mm	10 mm	15 mm

Bar item no. 3 suitable for the following linear feeders			
KLF7	•	---	---
KLF15	---	•	---
KLF25	---	---	•
HLF7	•	---	---
HLF12	---	•	---
HLF25	---	•	---
HLF50	---	---	•

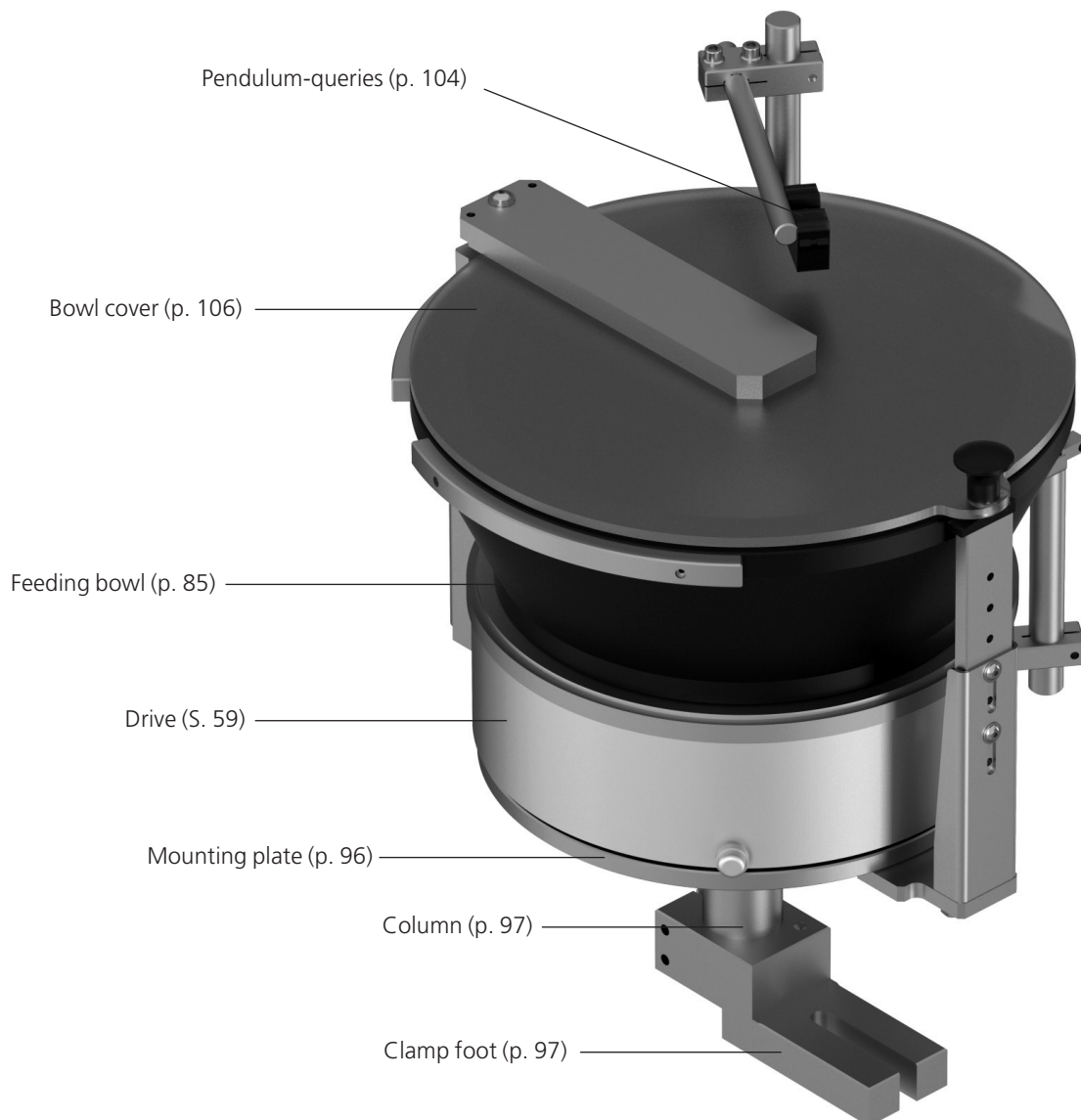
Bowl feeder drives

BF, WV & BB



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Drives WV151 - WV310	73
Drives WV401 - WV630	79
Feeding bowls BB10 - BB63	85
Accessories bowl feeder drives	94



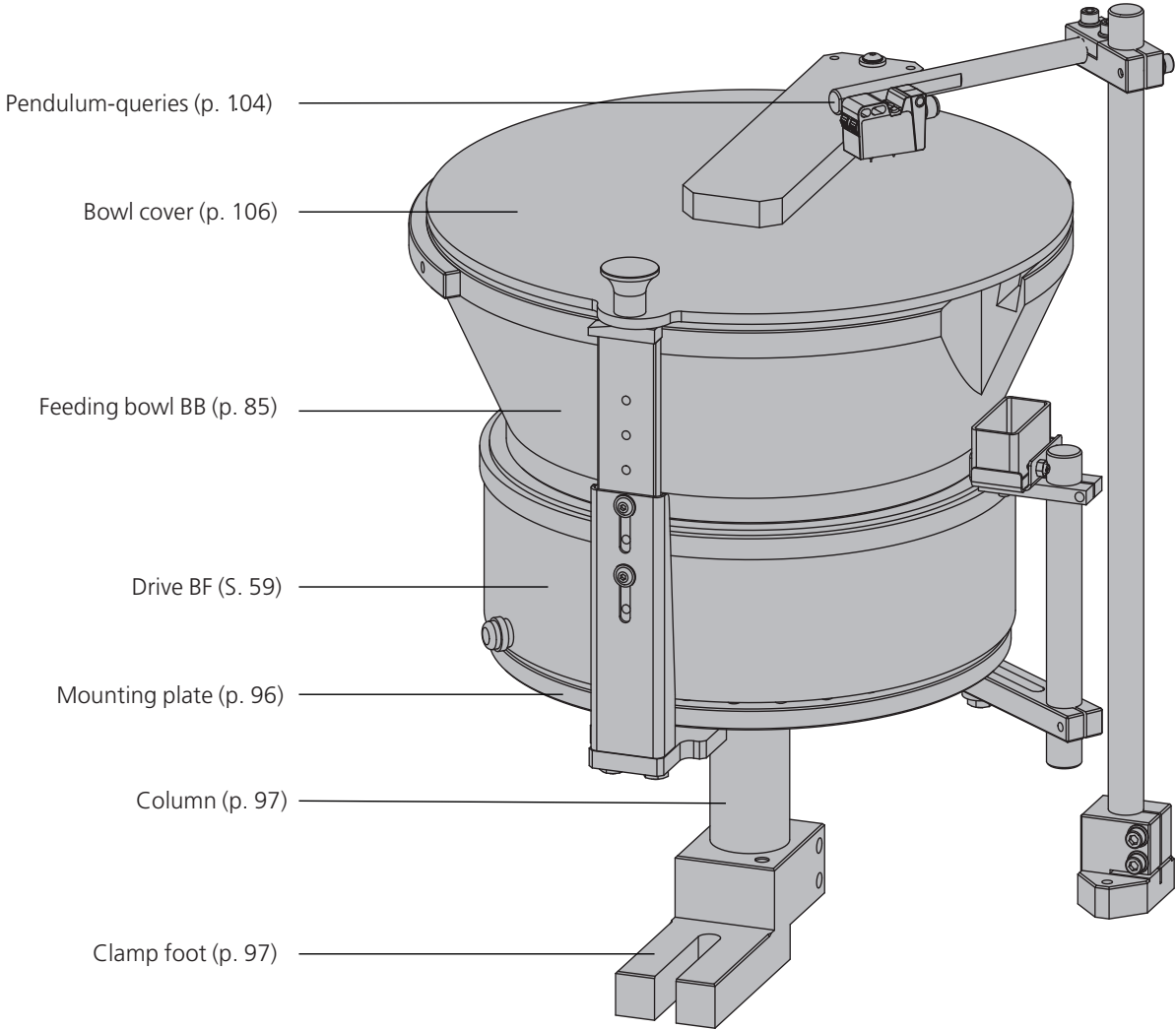
Drives

BF10 - BF15

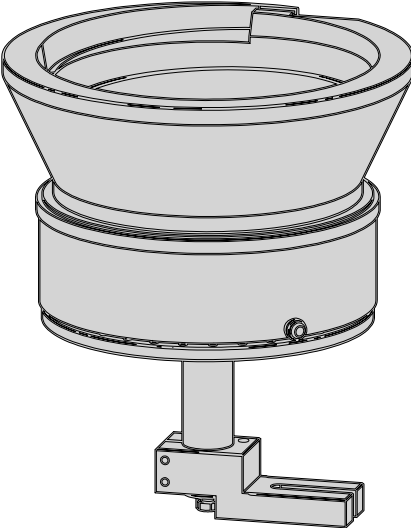


- Vibration compensation in the drive unit
- Minimal gaps at the transitions
- Closed design

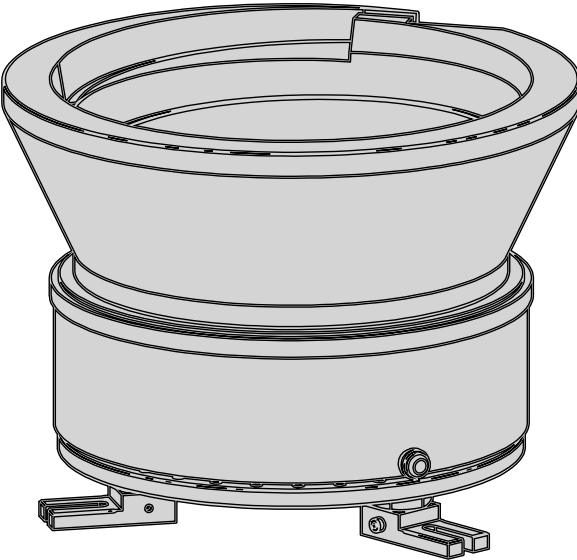
Overview



For the attachment of the BF 2 variants are possible:

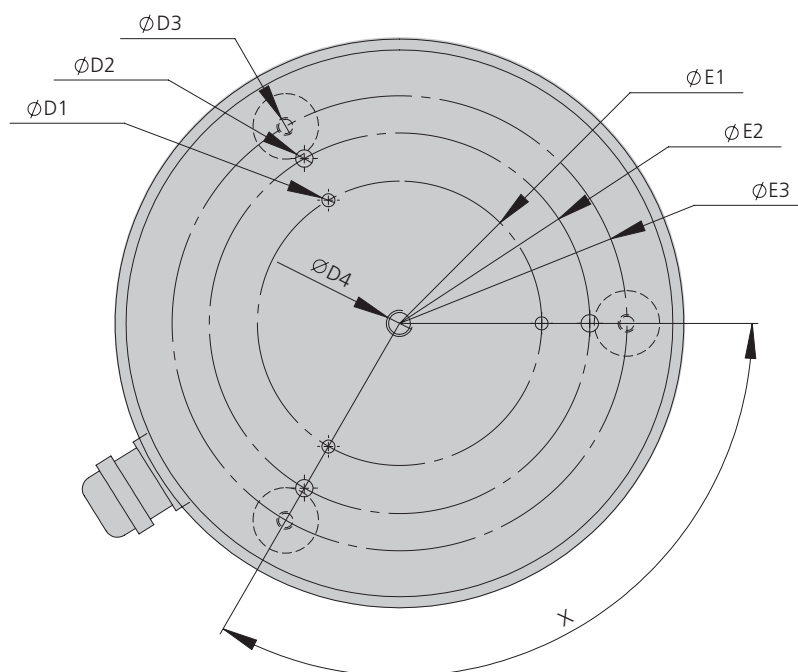
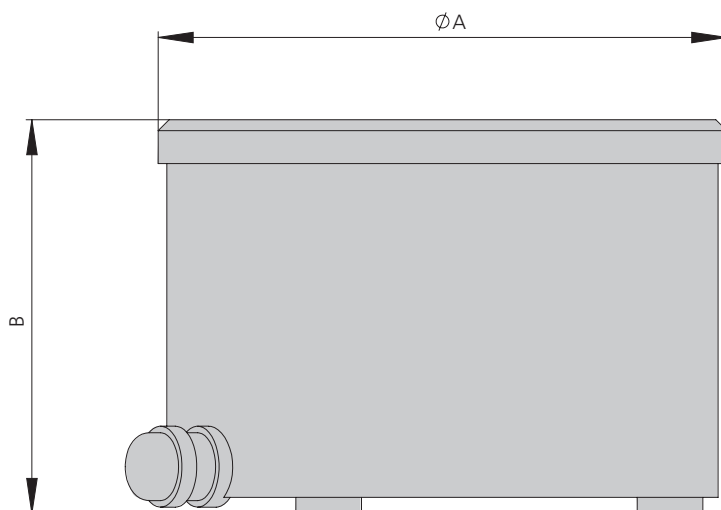


Construction with fixing plate, column and mounting attachment



Construction with leveling feet

Type	BF10	BF15
A	104 mm	130 mm
B	64 mm	90 mm
D1	3H7	3H7
D2	3H7	4H7
D3	3 x M4	3 x M4
D4	M6	M6
E1	51 mm	65 mm
E2	65 mm	87 mm
E3	70 mm	104 mm
X	120 °	120 °





BF10 - BF15	
Operating temperature	10 - 45 °C

Type	BF10	BF10	BF10	BF10
Order number	50042183	50028522	50042179	50042180
Mechanical vibration frequency	100 Hz	100 Hz	120 Hz	120 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	230 V/50 Hz	115 V/60 Hz	115 V/60 Hz
Max. power consumption	11 VA	11 VA	11 VA	11 VA
Net weight	2.2 kg	2.2 kg	2.2 kg	2.2 kg
Admissible bowl weight ±30 %	0.16 kg	0.16 kg	0.16 kg	0.16 kg
Admissible moment of inertia ±10 %	0.3 kgdm ²	0.3 kgdm ²	0.3 kgdm ²	0.3 kgdm ²
Angle of the gradient of the leaf springs	12 °	12 °	12 °	12 °
Delivery direction	right	left	right	left
Protection type	IP54	IP54	IP54	IP54

Type	BF15	BF15	BF15	BF15
Order number	50042190	50029786	50042186	50042187
Mechanical vibration frequency	100 Hz	100 Hz	120 Hz	120 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	230 V/50 Hz	115 V/60 Hz	115 V/60 Hz
Max. power consumption	27.5 VA	27.5 VA	27.5 VA	27.5 VA
Net weight	4.7 kg	4.7 kg	4.7 kg	4.7 kg
Admissible bowl weight ±30 %	0.55 kg	0.55 kg	0.55 kg	0.55 kg
Admissible moment of inertia ±10 %	0.12 kgdm ²	0.12 kgdm ²	0.12 kgdm ²	0.12 kgdm ²
Angle of the gradient of the leaf springs	12 °	12 °	12 °	12 °
Delivery direction	right	left	right	left
Protection type	IP54	IP54	IP54	IP54

Included in delivery

- 6x Leaf spring BF
- 12x Spacer BF

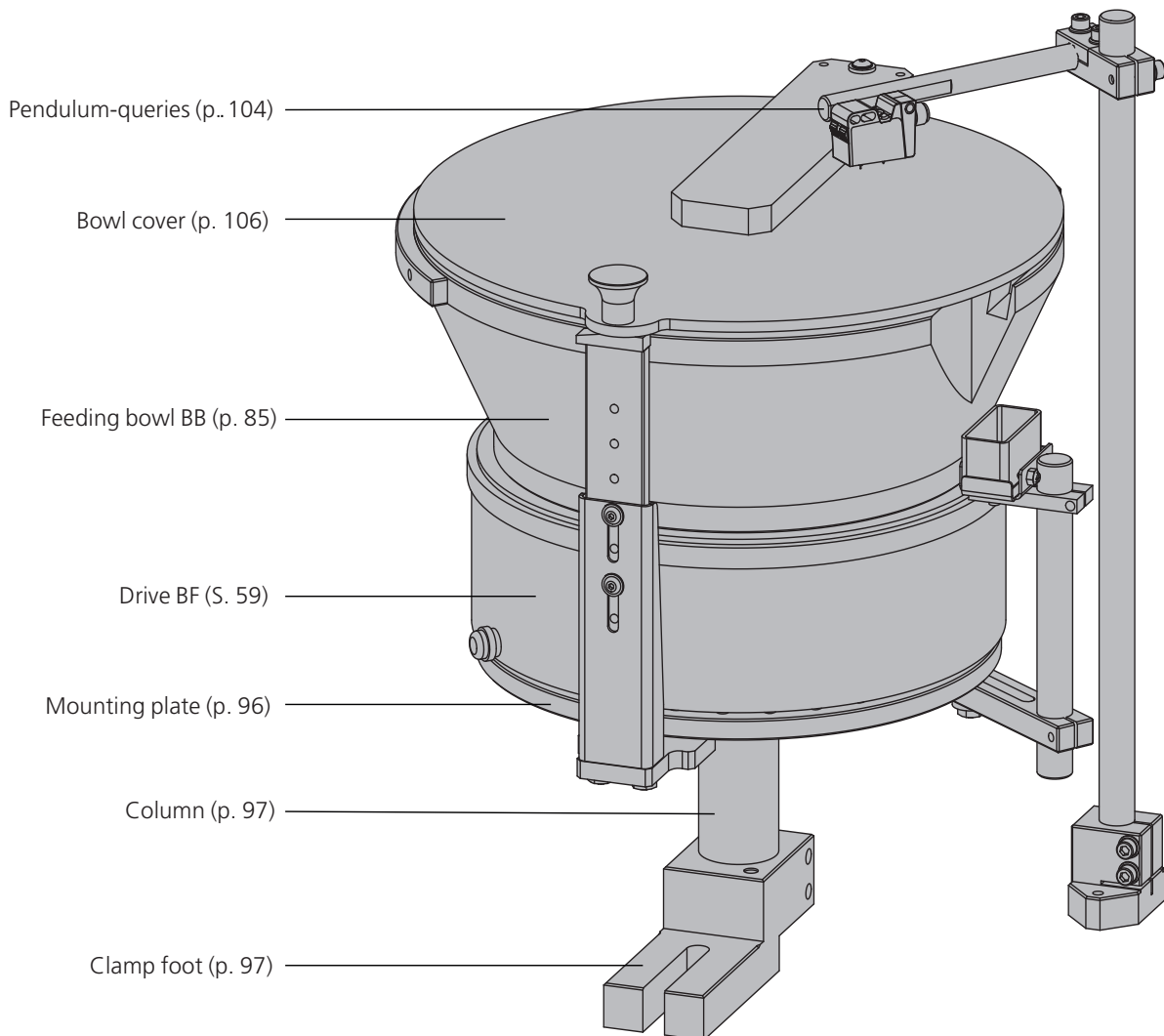
Drives

BF20 - BF50

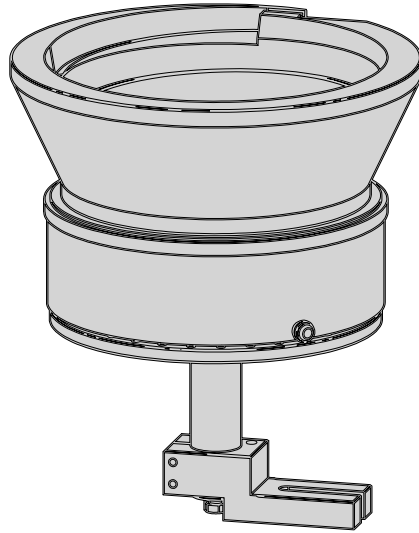


- Vibration compensation in the drive unit
- Minimal gaps at the transitions
- Closed design

Overview



For the attachment of the BF 2 variants are possible:

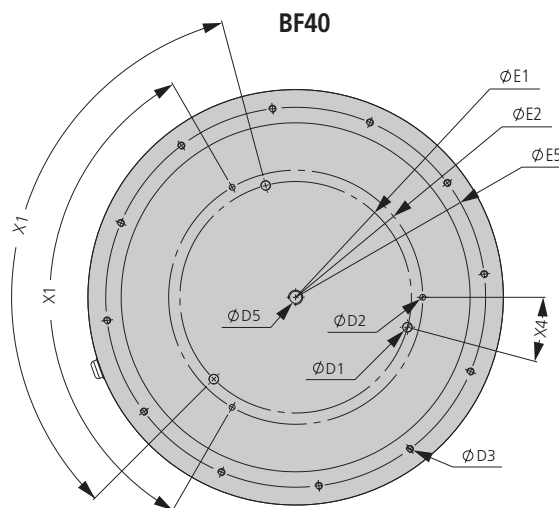
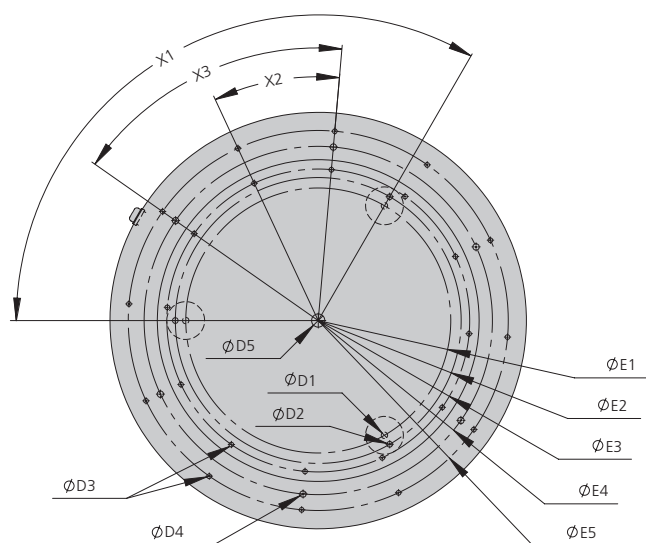
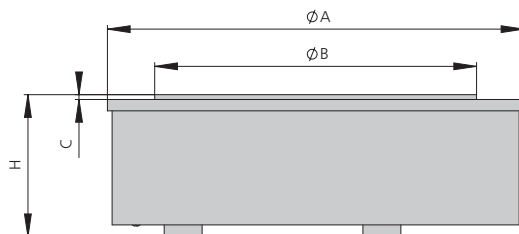


Construction with fixing plate, column and mounting attachment



Construction with leveling feet

Type	BF20	BF25	BF30	BF35	BF40	BF50
A	180 mm	224 mm	265 mm	305 mm	350 mm	440 mm
B	146 mm	194 mm	194 mm	294 mm	294 mm	340 mm
C	2 mm	2 mm	2.5 mm	3 mm	3 mm	5 mm
D1	3 x M6	3 x M6	3 x M8	3 x M8	3 x M8	3 x M8
D2	4H7	4H7	5H7	5H7	5H7	6H7
D3	---	---	M6	M6	M6	M6
D4	---	5H7	5H7	5H7	---	M6
D5	M8	M10	M10	M10	M12	M16
E1	120 mm	120 mm	195 mm	195 mm	195 mm	280 mm
E2	87 mm	140 mm	140 mm	162 mm	214 mm	302 mm
E3	---	---	---	---	---	320 mm
E4	---	162 mm	162 mm	214 mm	---	---
E5	---	---	186 mm	186 mm	320 mm	400 mm
H	90 mm	93 mm	100 mm	103 mm	112 mm	150 mm
X1	120 °	120 °	120 °	120 °	120 °	120 °
X2	---	---	90 °	90 °	30 °	30 °
X3	---	---	---	---	---	30 °
X4	---	---	---	---	15 °	---





BF20 - BF25								
Operating temperature	10 - 45 °C							
Type	BF20	BF20	BF20	BF20	BF20	BF20	BF20	BF20
Order number	50028117	50028118	50042197	50032808	50042193	50042194	50042195	50042196
Mechanical vibration frequency	100 Hz	100 Hz	100 Hz	100 Hz	120 Hz	120 Hz	120 Hz	120 Hz
Mains connection (mains voltage/ mains frequency)	230 V/ 50 Hz	230 V/ 50 Hz	230 V/ 50 Hz	230 V/ 50 Hz	115 V/ 60 Hz	115 V/ 60 Hz	115 V/ 60 Hz	115 V/ 60 Hz
Max. power consumption	69 VA	69 VA	69 VA	69 VA	69 VA	69 VA	69 VA	69 VA
Net weight	6.9 kg	6.9 kg	6.8 kg	6.8 kg	7 kg	7 kg	6.9 kg	6.9 kg
Admissible bowl weight $\pm 30\%$	2 kg	2 kg	2 kg	2 kg	2 kg	2 kg	2 kg	2 kg
Admissible moment of inertia $\pm 10\%$	1 kgdm ²	1 kgdm ²	1 kgdm ²	1 kgdm ²	1 kgdm ²	1 kgdm ²	1 kgdm ²	1 kgdm ²
Angle of the gradient of the leaf springs	12 °	12 °	18 °	18 °	12 °	12 °	18 °	18 °
Delivery direction	right	left	right	left	right	left	right	left
Protection type	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54

Type	BF25	BF25	BF25	BF25	BF25	BF25	BF25	BF25
Order number	50028101	50028100	50030815	50030814	50042198	50042199	50042200	50042201
Mechanical vibration frequency	100 Hz	100 Hz	100 Hz	100 Hz	120 Hz	120 Hz	120 Hz	120 Hz
Mains connection (mains voltage/ mains frequency)	230 V/ 50 Hz	230 V/ 50 Hz	230 V/ 50 Hz	230 V/ 50 Hz	115 V/ 60 Hz	115 V/ 60 Hz	115 V/ 60 Hz	115 V/ 60 Hz
Max. power consumption	69 VA	69 VA	69 VA	69 VA	69 VA	69 VA	69 VA	69 VA
Net weight	10.3 kg	10.3 kg	10.2 kg	10.2 kg	10.6 kg	10.6 kg	10.4 kg	10.4 kg
Admissible bowl weight $\pm 30\%$	3 kg	3 kg	3 kg	3 kg	3 kg	3 kg	3 kg	3 kg
Admissible moment of inertia $\pm 10\%$	2.2 kgdm ²	2.2 kgdm ²	2.2 kgdm ²	2.2 kgdm ²	2.2 kgdm ²	2.2 kgdm ²	2.2 kgdm ²	2.2 kgdm ²
Angle of the gradient of the leaf springs	12 °	12 °	18 °	18 °	12 °	12 °	18 °	18 °
Delivery direction	right	left	right	left	right	left	right	left
Protection type	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54

Included in delivery

- 6x Leaf spring BF
- 12x Spacer BF

Technical data

BF30 - BF35



BF30 - BF35								
Operating temperature								10 - 45 °C

Type	BF30	BF30	BF30	BF30	BF30	BF30	BF30	BF30
Order number	50013729	50013728	50027880	50027872	50042202	50042203	50042204	50042205
Mechanical vibration frequency	100 Hz	100 Hz	100 Hz	100 Hz	120 Hz	120 Hz	120 Hz	120 Hz
Mains connection (mains voltage/ mains frequency)	230 V/ 50 Hz	230 V/ 50 Hz	230 V/ 50 Hz	230 V/ 50 Hz	115 V/ 60 Hz	115 V/ 60 Hz	115 V/ 60 Hz	115 V/ 60 Hz
Max. power consumption	135 VA	135 VA	135 VA	135 VA	135 VA	135 VA	135 VA	135 VA
Net weight	14.4 kg	14.4 kg	14.3 kg	14.3 kg	14.8 kg	14.8 kg	14.6 kg	14.6 kg
Admissible bowl weight $\pm 30\%$	4 kg	4 kg	4 kg	4 kg	4 kg	4 kg	4 kg	4 kg
Admissible moment of inertia $\pm 10\%$	4.5 kgdm ²	4.5 kgdm ²	4.5 kgdm ²	4.5 kgdm ²	4.5 kgdm ²	4.5 kgdm ²	4.5 kgdm ²	4.5 kgdm ²
Angle of the gradient of the leaf springs	12 °	12 °	18 °	18 °	12 °	12 °	18 °	18 °
Delivery direction	right	left	right	left	right	left	right	left
Protection type	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54

Type	BF35	BF35	BF35	BF35	BF35	BF35	BF35	BF35
Order number	50017360	50017358	50029657	50029648	50042206	50042207	50042208	50042209
Mechanical vibration frequency	100 Hz	100 Hz	100 Hz	100 Hz	120 Hz	120 Hz	120 Hz	120 Hz
Mains connection (mains voltage/ mains frequency)	230 V/ 50 Hz	230 V/ 50 Hz	230 V/ 50 Hz	230 V/ 50 Hz	115 V/ 60 Hz	115 V/ 60 Hz	115 V/ 60 Hz	115 V/ 60 Hz
Max. power consumption	135 VA	135 VA	135 VA	135 VA	135 VA	135 VA	135 VA	135 VA
Net weight	21.1 kg	21.1 kg	21 kg	21 kg	21.5 kg	21.5 kg	21.3 kg	21.3 kg
Admissible bowl weight $\pm 30\%$	6 kg	6 kg	6 kg	6 kg	6 kg	6 kg	6 kg	6 kg
Admissible moment of inertia $\pm 10\%$	8.8 kgdm ²	8.8 kgdm ²	8.8 kgdm ²	8.8 kgdm ²	8.8 kgdm ²	8.8 kgdm ²	8.8 kgdm ²	8.8 kgdm ²
Angle of the gradient of the leaf springs	12 °	12 °	18 °	18 °	12 °	12 °	18 °	18 °
Delivery direction	right	left	right	left	right	left	right	left
Protection type	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54

Included in delivery

- 6x Leaf spring BF
- 12x Spacer BF



BF40 - BF50								
Operating temperature								10 - 45 °C
Type	BF40	BF40	BF40	BF40	BF40	BF40	BF40	BF40
Order number	50026172	50026171	50030826	50030825	50042210	50042211	50042212	50042213
Mechanical vibration frequency	100 Hz	100 Hz	100 Hz	100 Hz	120 Hz	120 Hz	120 Hz	120 Hz
Mains connection (mains voltage/ mains frequency)	230 V/ 50 Hz	230 V/ 50 Hz	230 V/ 50 Hz	230 V/ 50 Hz	115 V/ 60 Hz	115 V/ 60 Hz	115 V/ 60 Hz	115 V/ 60 Hz
Max. power consumption	180 VA	180 VA	180 VA	180 VA	180 VA	180 VA	180 VA	180 VA
Net weight	30.3 kg	30.3 kg	30.3 kg	30.3 kg	31.1 kg	31.1 kg	30.9 kg	30.9 kg
Admissible bowl weight $\pm 30\%$	9 kg	9 kg	9 kg	9 kg	9 kg	9 kg	9 kg	9 kg
Admissible moment of inertia $\pm 10\%$	17 kgdm ²	17 kgdm ²	17 kgdm ²	17 kgdm ²	17 kgdm ²	17 kgdm ²	17 kgdm ²	17 kgdm ²
Angle of the gradient of the leaf springs	12 °	12 °	18 °	18 °	12 °	12 °	18 °	18 °
Delivery direction	right	left	right	left	right	left	right	left
Protection type	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54
Type	BF50	BF50	BF50	BF50	BF50	BF50	BF50	BF50
Order number	50028132	50028133	50031621	50031622	50042214	50042215	50042216	50042217
Mechanical vibration frequency	100 Hz	100 Hz	100 Hz	100 Hz	120 Hz	120 Hz	120 Hz	120 Hz
Mains connection (mains voltage/ mains frequency)	230 V/ 50 Hz	230 V/ 50 Hz	230 V/ 50 Hz	230 V/ 50 Hz	115 V/ 60 Hz	115 V/ 60 Hz	115 V/ 60 Hz	115 V/ 60 Hz
Max. power consumption	950 VA	950 VA	950 VA	950 VA	950 VA	950 VA	950 VA	950 VA
Net weight	63.3 kg	63.3 kg	62.4 kg	62.4 kg	65.4 kg	65.4 kg	64.4 kg	64.4 kg
Admissible bowl weight $\pm 30\%$	20 kg	20 kg	20 kg	20 kg	20 kg	20 kg	20 kg	20 kg
Admissible moment of inertia $\pm 10\%$	65 kgdm ²	65 kgdm ²	65 kgdm ²	65 kgdm ²	65 kgdm ²	65 kgdm ²	65 kgdm ²	65 kgdm ²
Angle of the gradient of the leaf springs	12 °	12 °	18 °	18 °	12 °	12 °	18 °	18 °
Delivery direction	right	left	left	right	right	left	right	left
Protection type	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54

Included in delivery

- 6x Leaf spring BF
- 12x Spacer BF

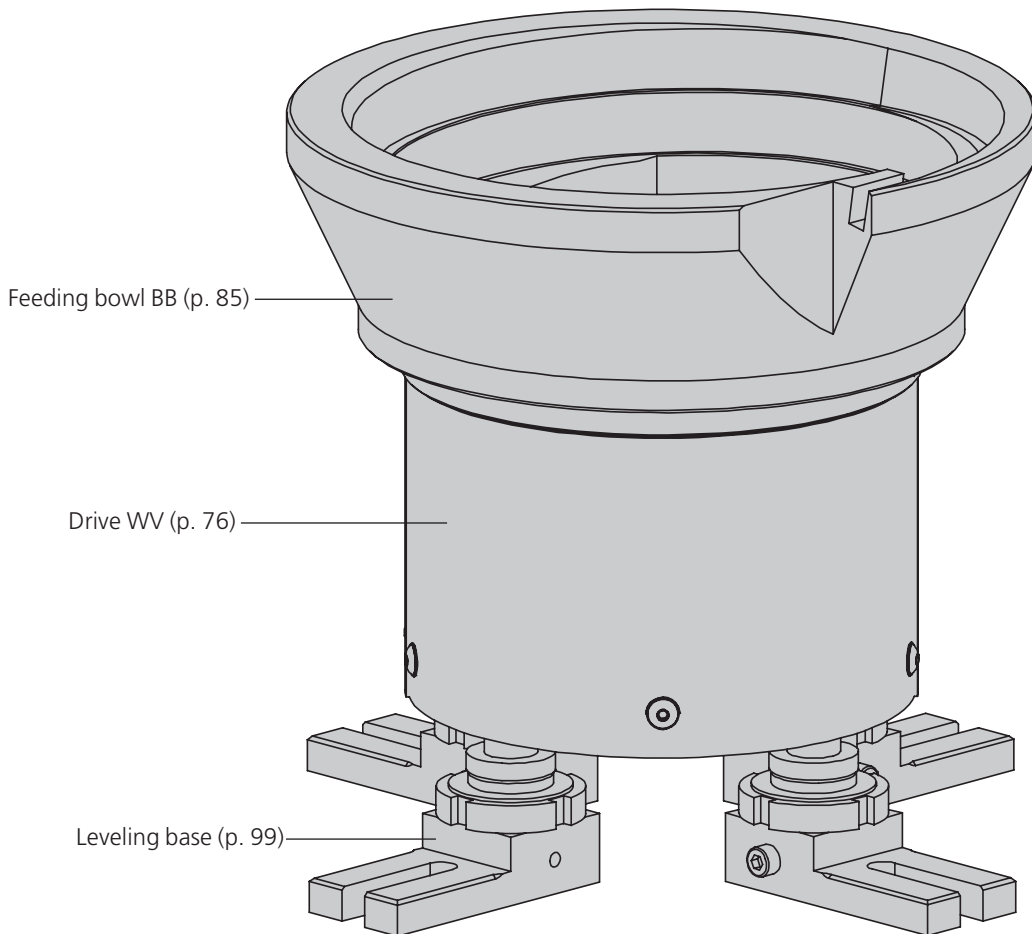
Drives

WV151 - WV310

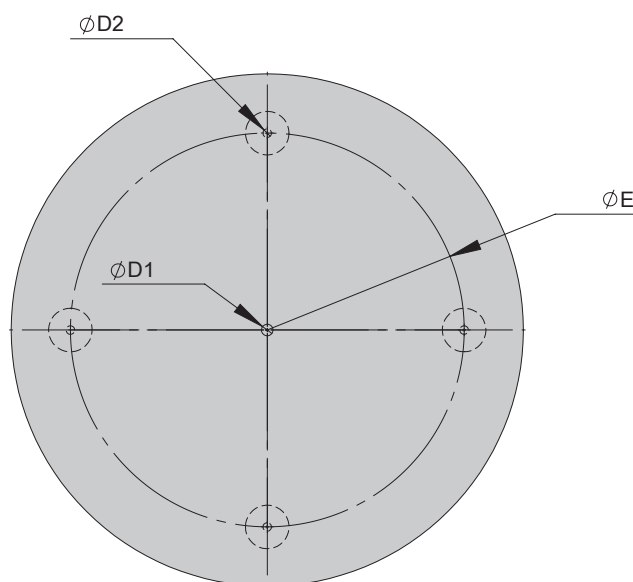
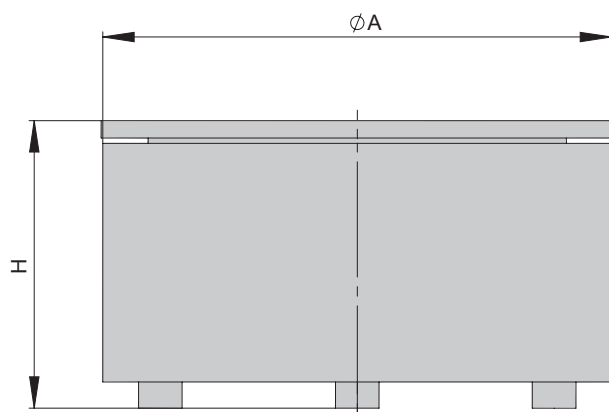


- Vibration compensation with rubber buffer
- Heavier bowls can be used due to coarser vibration behavior

Overview of WV attachment with levelling base



Type	WV151-1	WV201-1	WV310-1
A	146 mm	194 mm	294 mm
D1	M6	M8	M8
D2	4 x M5	4 x M6	4 x M6
E	120 mm	160 mm	226 mm
H	110 mm	180 mm	180 mm



WV151 - WV310	
Operating temperature	10 - 45 °C

Type	WV151-1	WV151-1	WV151-1	WV151-1
Order number	11015891	11015890	11005657	11005656
Mechanical vibration frequency	100 Hz	100 Hz	100 Hz	100 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz *	230 V/50 Hz *	230 V/50 Hz *	230 V/50 Hz *
Max. power consumption	66 VA	66 VA	66 VA	66 VA
Net weight	5.4 kg	5.4 kg	5.4 kg	5.4 kg
Admissible bowl weight ±30 %	1.1 kg	1.1 kg	1.1 kg	1.1 kg
Angle of the gradient of the leaf springs	20 °	20 °	25 °	25 °
Delivery direction	right	left	right	left
Protection type	IP54	IP54	IP54	IP54

Type	WV201-1	WV201-1	WV201-1	WV201-1
Order number	11015893	11015892	11005660	11005659
Mechanical vibration frequency	100 Hz	100 Hz	100 Hz	100 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz *	230 V/50 Hz *	230 V/50 Hz *	230 V/50 Hz *
Max. power consumption	176 VA	176 VA	176 VA	176 VA
Net weight	16.2 kg	16.2 kg	16.2 kg	16.2 kg
Admissible bowl weight ±30 %	5 kg	5 kg	5 kg	5 kg
Angle of the gradient of the leaf springs	20 °	20 °	25 °	25 °
Delivery direction	right	left	right	left
Protection type	IP54	IP54	IP54	IP54

Type	WV310-1	WV310-1	WV310-1	WV310-1
Order number	11015895	11015894	11005666	11005665
Mechanical vibration frequency	100 Hz	100 Hz	100 Hz	100 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz *	230 V/50 Hz *	230 V/50 Hz *	230 V/50 Hz *
Max. power consumption	176 VA	176 VA	176 VA	176 VA
Net weight	37.6 kg	37.6 kg	37.7 kg	37.7 kg
Admissible bowl weight ±30 %	7.5 kg	7.5 kg	7.5 kg	7.5 kg
Angle of the gradient of the leaf springs	20 °	20 °	25 °	25 °
Delivery direction	right	left	right	left
Protection type	IP54	IP54	IP54	IP54

* Other electr. configurations on request

Included in delivery

- 4x Leaf spring WV
- 8x Spacers WV

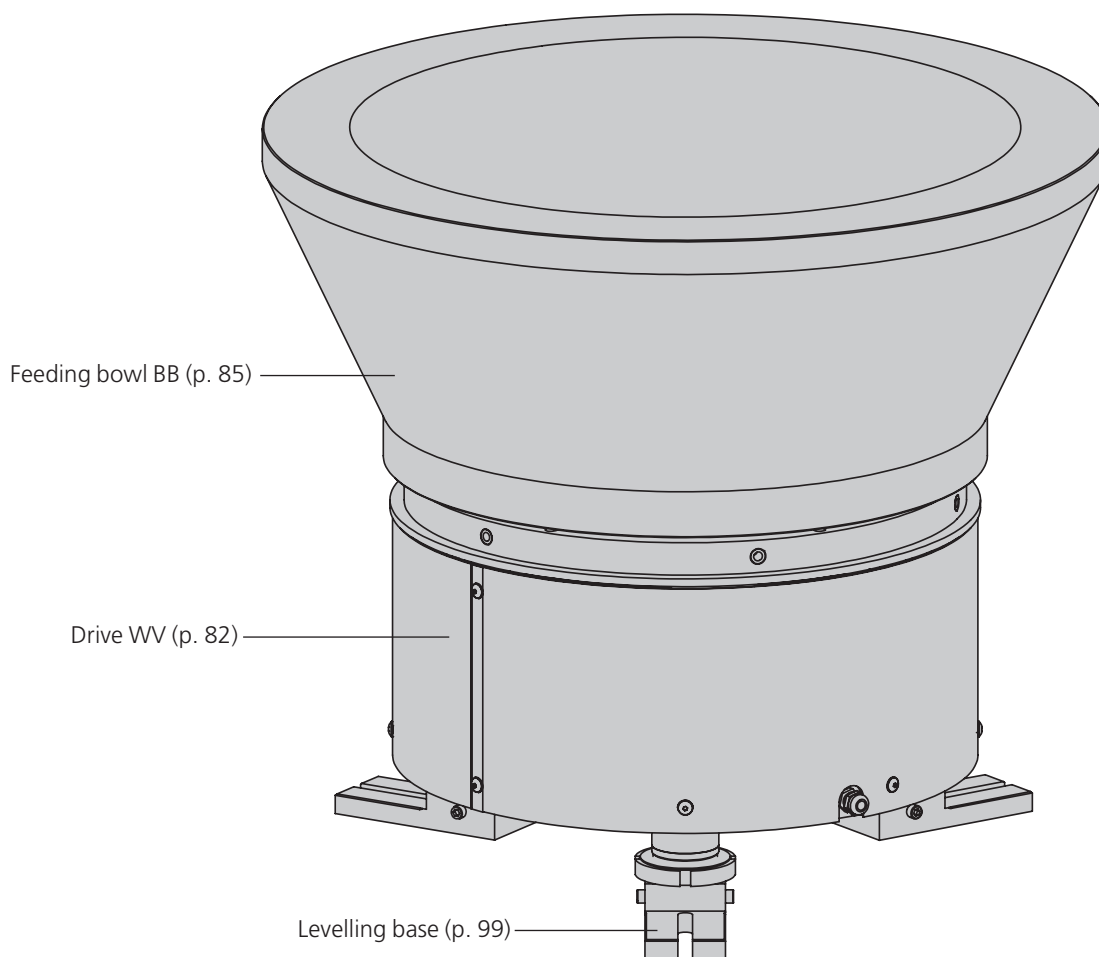
Drives

WV401 - WV630

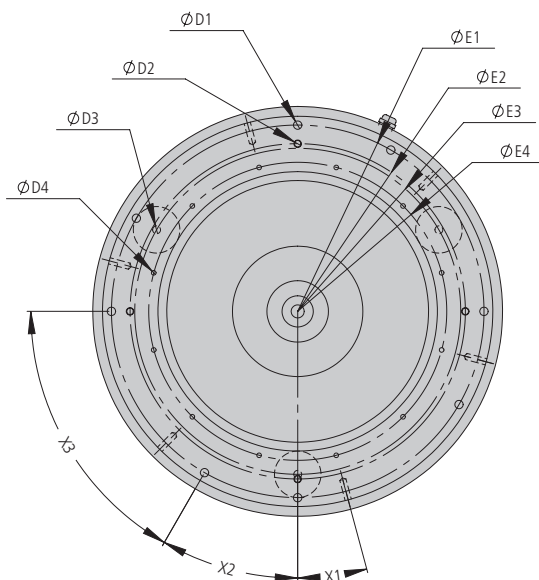
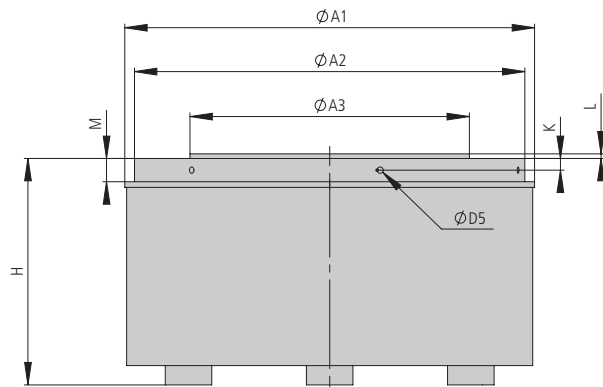


- Vibration compensation with rubber buffer
- Heavier bowls can be used due to coarser vibration behavior
- Full wave and half wave operation possible depending on the application

Overview of WV attachment with levelling base



Type	WV401-1	WV402-1	WV630-1
A1	440 mm	440 mm	660 mm
A2	419 mm	419 mm	541 mm
A3	300 mm	300 mm	---
D1	8 x 9 mm	8 x 9 mm	8 x 9 mm
D2	4 x 8H7	4 x 8H7	---
D3	3 x M10	3 x M10	3 x M10
D4	12 x M6	12 x M6	12 x M6
D5	6 x M8	6 x M8	12 x M8x16
E1	400 mm	400 mm	524
E2	360 mm	360 mm	---
E3	350 mm	350 mm	560
E4	320 mm	320 mm	525 mm
H	243 mm	243 mm	248 mm
K	12.5 mm	12.5 mm	12.5 mm
L	5 mm	5 mm	---
M	25 mm	25 mm	25 mm
X1	15 °	15 °	15 °
X2	15 °	15 °	---
X3	30 °	30 °	30 °



WV401 - WV630				
Operating temperature	10 - 45 °C			

Type	WV401-1	WV401-1	WV401-1	WV401-1
Order number	50177366	50177365	50177373	50177372
Mechanical vibration frequency	50 Hz	50 Hz	60 Hz	60 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	230 V/50 Hz	115 V/60 Hz	115 V/60 Hz
Max. power consumption	1260 VA	1260 VA	1260 VA	1260 VA
Net weight	100.7 kg	100.5 kg	100.9 kg	100.8 kg
Admissible bowl weight ±30 %	30 kg	30 kg	30 kg	30 kg
Angle of the gradient of the leaf springs	15 °	15 °	15 °	15 °
Delivery direction	right	left	right	left
Protection type	IP54	IP54	IP54	IP54

Type	WV402-1	WV402-1	WV402-1	WV402-1
Order number	50103719	50103718	50177371	50177368
Mechanical vibration frequency	100 Hz	100 Hz	120 Hz	120 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	230 V/50 Hz	115 V/60 Hz	115 V/60 Hz
Max. power consumption	1128 VA	1128 VA	1128 VA	1128 VA
Net weight	101 kg	101 kg	101.3 kg	101.3 kg
Admissible bowl weight ±30 %	30 kg	30 kg	30 kg	30 kg
Angle of the gradient of the leaf springs	15 °	15 °	15 °	15 °
Delivery direction	right	left	right	left
Protection type	IP54	IP54	IP54	IP54

Type	WV630-1	WV630-1
Order number	50455916	50470026
Mechanical vibration frequency	50 Hz	50 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	230 V/50 Hz
Max. power consumption	1260 VA	1260 VA
Net weight	185 kg	185 kg
Admissible bowl weight ±30 %	50 kg	50 kg
Angle of the gradient of the leaf springs	15 °	15 °
Delivery direction	right	left
Protection type	IP54	IP54

Included in delivery

- 4x Leaf spring WV
- 8x Spacers WV

Feeding bowls

BB10 - BB63

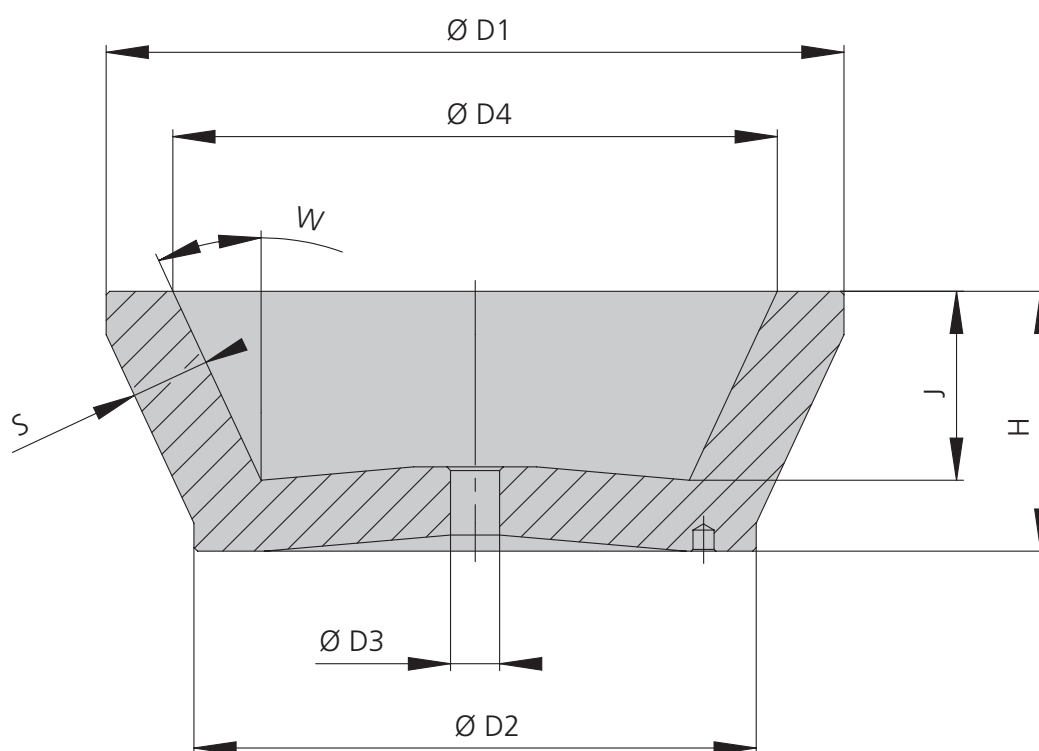


- Perfect adaptation to workpiece shapes and tolerances
- Complete reproducibility and available as FDA version
- Optionally available with standard helix in 3 versions (stepped, grooved, or radial helix)

Dimensions and dimension drawings

Blank bowls BB10 - BB63

Type	BB10	BB15	BB20	BB25	BB30	BB35	BB40	BB50	BB63
D1	105 mm	155 mm	210 mm	260 mm	310 mm	365 mm	415 mm	510 mm	630 mm
D2	80 mm	117 mm	170 mm	208 mm	250 mm	275 mm	300 mm	380 mm	450 mm
D3	7 mm	7 mm	9 mm	12 mm	12 mm	12 mm	14 mm	20 mm	22 mm
D4	86 mm	130 mm	179 mm	217 mm	260 mm	305 mm	350 mm	436 mm	500 mm
H	37 mm	52 mm	65 mm	84 mm	98 mm	127 mm	157 mm	224 mm	255 mm
J	26.9 mm	41 mm	50 mm	66.7 mm	78.1 mm	103.9 mm	129.7 mm	185.3 mm	193 mm
S	11.2 mm	14.2 mm	19.4 mm	26.1 mm	30.5 mm	33.7 mm	37.4 mm	56 mm	70 mm
W	25 °	25 °	25 °	25 °	25 °	25 °	25 °	25 °	25 °



Technical data



Blank bowls BB10 - BB63

2

Blank bowls BB10 - BB63

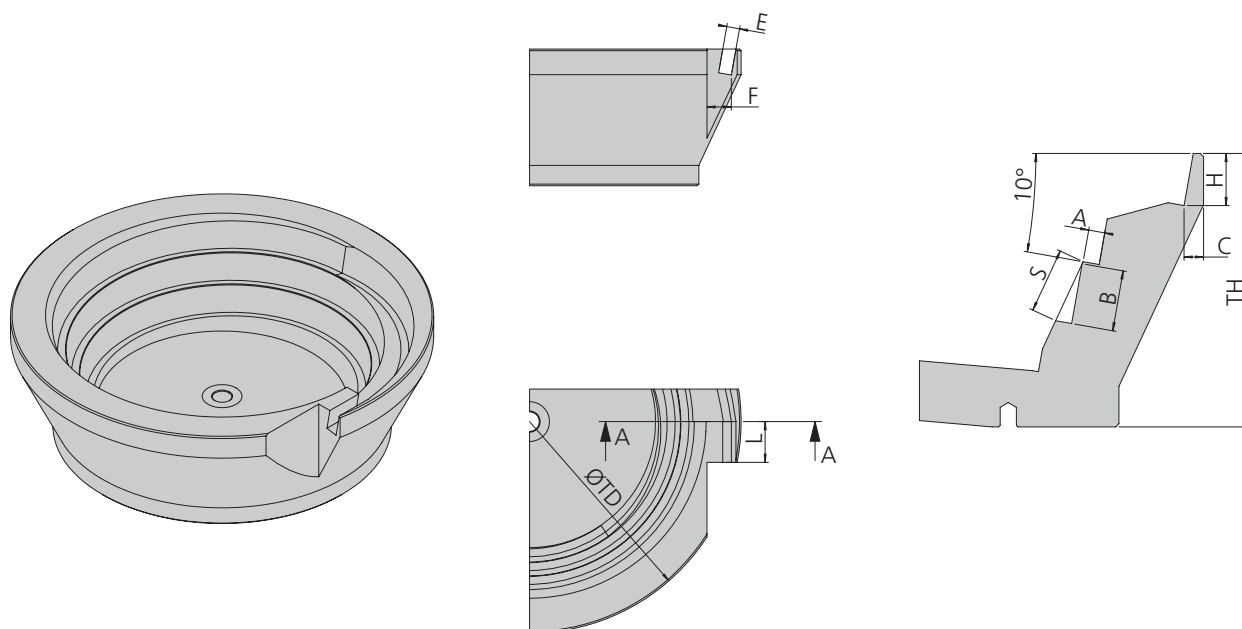
Type	BB10	BB10	BB15	BB15	BB20	BB20	BB25	BB25	BB30	BB30
Order number	50201071 50238273 50201075 50238298 50201076 50238299 50201077 50238302 50201081 50238303									
Net weight	0.2 kg	0.2 kg	0.4 kg	0.4 kg	1.1 kg	1.1 kg	2.2 kg	2.2 kg	3.7 kg	3.7 kg
Load volume	0.07 l	0.07 l	0.25 l	0.25 l	0.6 l	0.6 l	1.1 l	1.1 l	1.8 l	1.8 l
Moment of inertia	*0.025 kgdm ²	*0.025 kgdm ²	*0.15 kgdm ²	*0.15 kgdm ²	*0.7 kgdm ²	*0.7 kgdm ²	*2.15 kgdm ²	*2.15 kgdm ²	*5.1 kgdm ²	*5.1 kgdm ²
Material	FDA-polyamide (white)		FDA-polyamide (white)		FDA-polyamide (white)		FDA-polyamide (white)		FDA-polyamide (white)	
Recommended drive	BF10	BF10	BF15, WV151-1	BF15, WV151-1	BF20, WV151-1	BF20, WV151-1	BF25, WV201-1	BF25, WV201-1	BF30, WV201-1	BF30, WV201-1

Type	BB35	BB35	BB40	BB40	BB50	BB50	BB63	BB63
Order number	50201085	50238304	50201086	50238306	50201091	50238308	50196141	50238309
Net weight	5.9 kg	5.9 kg	9 kg	9 kg	21.2 kg	21.2 kg	35.7 kg	35.7 kg
Load volume	3.2 l	3.2 l	5.1 l	5.1 l	9.2 l	9.2 l	15.3 l	15.3 l
Moment of inertia	*11 kgdm ²	*11 kgdm ²	*21.3 kgdm ²	*21.3 kgdm ²	*79.6 kgdm ²	*79.6 kgdm ²	*192.2 kgdm ²	*192.2 kgdm ²
Blind plug FDA-polyamide including	---	---	---	---	---	---	•	•
Blind plug polyamide including	---	---	---	---	---	---	•	•
Material	polyamide	FDA-polyamide (white)	polyamide	FDA-polyamide (white)	polyamide	FDA-polyamide (white)	polyamide	FDA-polyamide (white)
Recommended drive	BF35, WV310-1	BF35, WV310-1	BF40	BF40	BF50	BF50	WV401-1, WV402-1	WV401-1, WV402-1

Note: • = existent --- = nonexistent

* Theoretical value, actual filling volume strongly dependent on the component to be fed and the project-specific framework conditions.

Type	BB10-S	BB15-S	BB20-S	BB25-S	BB30-S	BB35-S	BB40-S	BB50-S
A	2 mm	2.5 mm	4.5 mm	5 mm	6 mm	7.5 mm	9 mm	10 mm
B	7.5 mm	9 mm	16.5 mm	18.5 mm	22 mm	28 mm	33 mm	37 mm
C	2.5 mm	3.5 mm	5 mm	6 mm	7 mm	8.5 mm	11.5 mm	15 mm
E	4 mm	5 mm	6 mm	8 mm	10 mm	12 mm	14 mm	20 mm
F	6 mm	9 mm	12 mm	15 mm	18 mm	21 mm	24 mm	27 mm
H	5 mm	8 mm	12 mm	16 mm	18 mm	20 mm	25 mm	40 mm
L	10 mm	15 mm	20 mm	25 mm	30 mm	35 mm	40 mm	50 mm
S	8 mm	10 mm	18 mm	20 mm	25 mm	30 mm	35 mm	45 mm
TD	105 mm	155 mm	210 mm	260 mm	310 mm	365 mm	415 mm	510 mm
TH	37 mm	52 mm	65 mm	84 mm	98 mm	127 mm	157 mm	219.5 mm





Step helix BB-S

Type	BB10-S	BB10-S	BB10-S	BB10-S	BB15-S	BB15-S	BB15-S	BB15-S
Order number	50279239	50279240	50409457	50409555	50279241	50279242	50343381	50409459
Net weight	0.2 kg	0.2 kg	0.2 kg	0.2 kg	0.4 kg	0.4 kg	0.4 kg	0.4 kg
Delivery direction	right	left	right	left	right	left	right	left
Material	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)

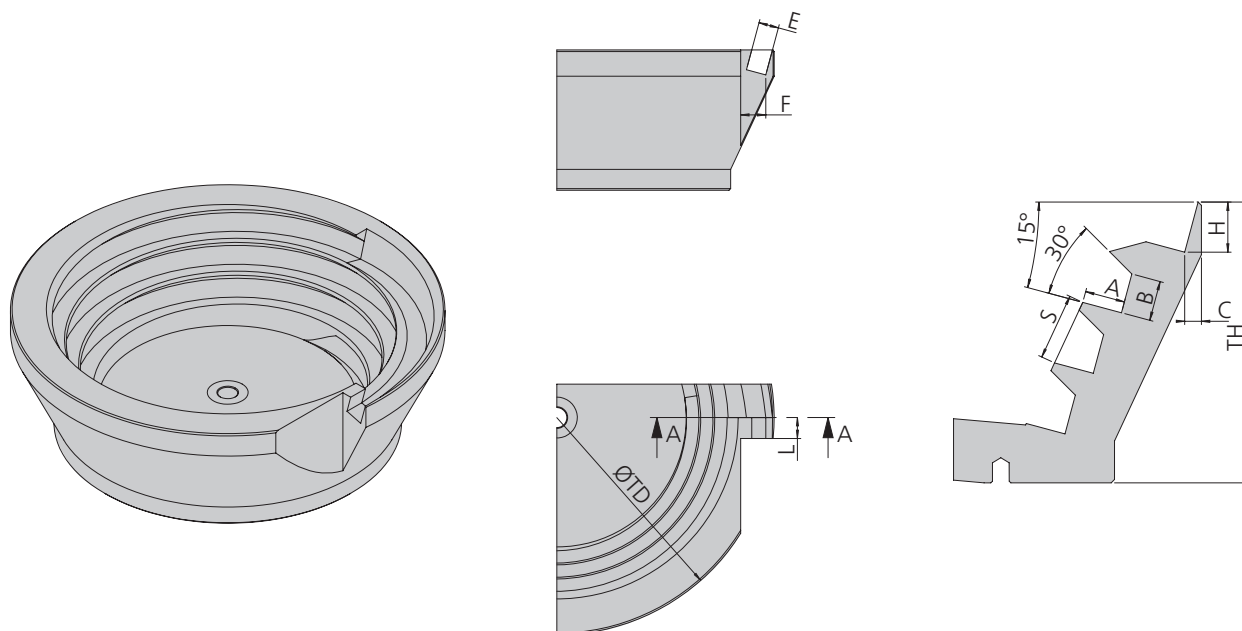
Type	BB20-S	BB20-S	BB20-S	BB20-S	BB25-S	BB25-S	BB25-S	BB25-S
Order number	50279243	50279244	50409460	50409461	50279245	50279246	50409463	50409464
Net weight	1 kg	1 kg	1 kg	1 kg	2.1 kg	2.1 kg	2.1 kg	2.1 kg
Delivery direction	right	left	right	left	right	left	right	left
Material	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)

Type	BB30-S	BB30-S	BB30-S	BB30-S	BB35-S	BB35-S	BB35-S	BB35-S
Order number	50279247	50279248	50409466	50409468	50279249	50279250	50409469	50409470
Net weight	3.4 kg	3.4 kg	3.4 kg	3.4 kg	5.4 kg	5.4 kg	5.4 kg	5.4 kg
Delivery direction	right	left	right	left	right	left	right	left
Material	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)

Type	BB40-S	BB40-S	BB40-S	BB40-S	BB50-S	BB50-S	BB50-S	BB50-S
Order number	50279251	50279252	50409474	50409477	50279253	50279254	50409479	50409480
Net weight	8.2 kg	8.2 kg	8.2 kg	8.2 kg	19.8 kg	19.8 kg	19.8 kg	19.8 kg
Delivery direction	right	left	right	left	right	left	right	left
Material	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)

Note: For recommended drives and further information, see technical data for bowl blanks. Bowl with FDA approval on request.

Type	BB10-N	BB15-N	BB20-N	BB25-N	BB30-N	BB35-N	BB40-N	BB50-N
A	4 mm	5 mm	8 mm	12 mm	15 mm	17 mm	19 mm	24 mm
B	4 mm	5 mm	8 mm	12 mm	15 mm	17 mm	19 mm	24 mm
C	2.5 mm	3.5 mm	5 mm	5 mm	7 mm	8.5 mm	10 mm	13 mm
E	4 mm	5 mm	8 mm	12 mm	15 mm	17 mm	19 mm	24 mm
F	6.5 mm	8 mm	11 mm	15 mm	17 mm	20 mm	22 mm	27 mm
H	5 mm	8 mm	12 mm	15 mm	18 mm	20 mm	24 mm	40 mm
L	5 mm	7.5 mm	10 mm	12.5 mm	15 mm	17.5 mm	20 mm	25 mm
S	8 mm	10 mm	18 mm	20 mm	25 mm	30 mm	35 mm	45 mm
TD	105 mm	155 mm	210 mm	260 mm	310 mm	365 mm	415 mm	510 mm
TH	37 mm	52 mm	65 mm	84 mm	98 mm	127 mm	157 mm	219.5 mm



Technical data



Groove helix BB-N

Groove helix BB-N

Type	BB10-N	BB10-N	BB10-N	BB10-N	BB15-N	BB15-N	BB15-N	BB15-N
Order number	50279255	50279256	50409481	50409482	50279257	50279258	50409483	50409484
Net weight	0.1 kg	0.1 kg	0.1 kg	0.1 kg	0.4 kg	0.4 kg	0.4 kg	0.4 kg
Delivery direction	right	left	right	left	right	left	right	left
Material	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)

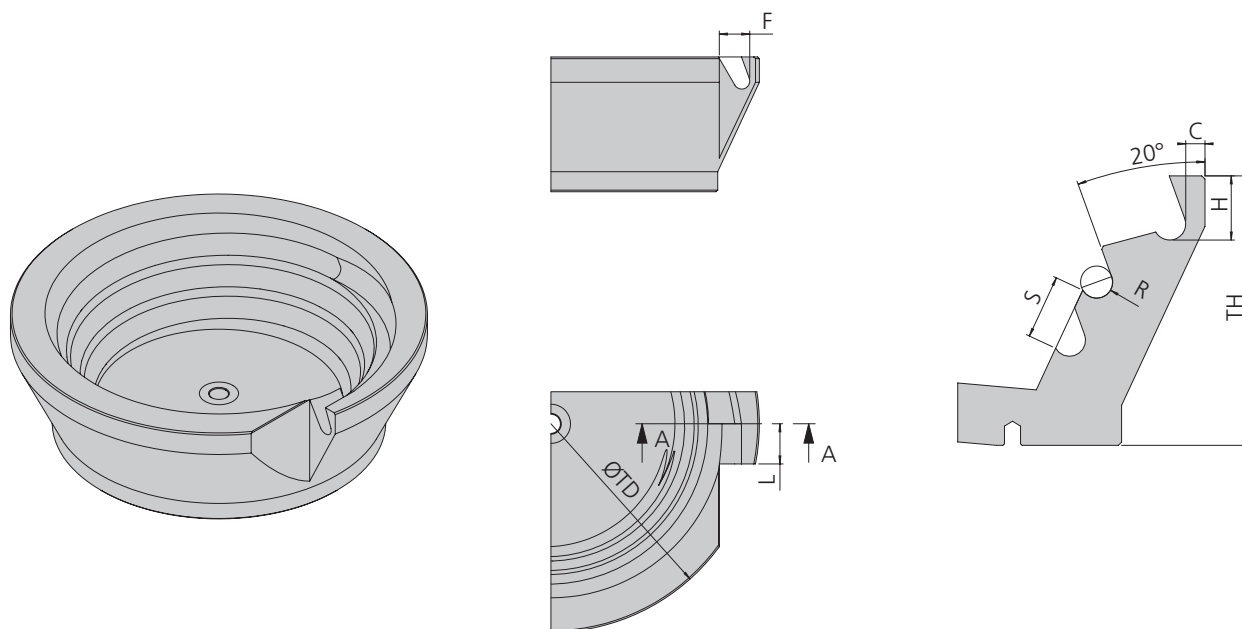
Type	BB20-N	BB20-N	BB20-N	BB20-N	BB25-N	BB25-N	BB25-N	BB25-N
Order number	50279259	50279260	50409485	50409487	50279261	50279262	50409489	50409493
Net weight	1 kg	1 kg	1 kg	1 kg	1.8 kg	1.8 kg	1.8 kg	1.8 kg
Delivery direction	right	left	right	left	right	left	right	left
Material	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)

Type	BB30-N	BB30-N	BB30-N	BB30-N	BB35-N	BB35-N	BB35-N	BB35-N
Order number	50279263	50279264	50409496	50409499	50279265	50279266	50409500	50409501
Net weight	3 kg	3 kg	3 kg	3 kg	4.7 kg	4.7 kg	4.7 kg	4.7 kg
Delivery direction	right	left	right	left	right	left	right	left
Material	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)

Type	BB40-N	BB40-N	BB40-N	BB40-N	BB50-N	BB50-N	BB50-N	BB50-N
Order number	50279267	50279268	50409503	50409505	50279269	50279270	50409508	50409509
Net weight	7.2 kg	7.2 kg	7.2 kg	7.2 kg	17.3 kg	17.3 kg	17.3 kg	17.3 kg
Delivery direction	right	left	right	left	right	left	right	left
Material	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)

Note: For recommended drives and further information, see technical data for bowl blanks. Bowl with FDA approval on request.

Type	BB10-R	BB15-R	BB20-R	BB25-R	BB30-R	BB35-R	BB40-R	BB50-R
C	1.5 mm	2.6 mm	4 mm	6 mm	6.5 mm	9 mm	10 mm	7.5 mm
F	9 mm	10.5 mm	14 mm	19 mm	22 mm	23.8 mm	27.5 mm	39.5 mm
H	8 mm	10 mm	15 mm	20 mm	25 mm	30 mm	35 mm	45 mm
L	10 mm	15 mm	20 mm	25 mm	30 mm	35 mm	40 mm	50 mm
S	8 mm	10 mm	18 mm	20 mm	25 mm	30 mm	35 mm	45 mm
R	2 mm	2.5 mm	4 mm	5 mm	6.5 mm	8 mm	9 mm	12.5 mm
TD	105 mm	155 mm	210 mm	260 mm	310 mm	365 mm	415 mm	510 mm
TH	37 mm	52 mm	65 mm	84 mm	98 mm	127 mm	157 mm	219.5 mm





Radius helix BB-R

Type	BB10-R	BB10-R	BB10-R	BB10-R	BB15-R	BB15-R	BB15-R	BB15-R
Order number	50279271	50279272	50409510	50409511	50279273	50279274	50403835	50403837
Net weight	0.2 kg	0.2 kg	0.2 kg	0.2 kg	0.4 kg	0.4 kg	0.4 kg	0.4 kg
Delivery direction	right	left	right	left	right	left	right	left
Material	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)

Type	BB20-R	BB20-R	BB20-R	BB20-R	BB25-R	BB25-R	BB25-R	BB25-R
Order number	50279275	50279276	50409517	50409518	50279277	50279278	50409520	50409521
Net weight	1 kg	1 kg	1 kg	1 kg	2 kg	2 kg	2 kg	2 kg
Delivery direction	right	left	right	left	right	left	right	left
Material	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)

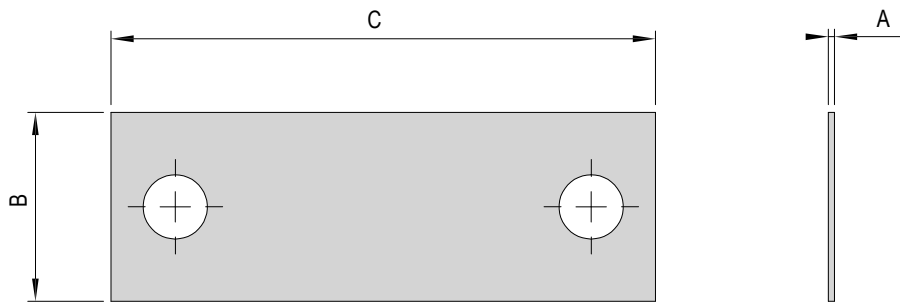
Type	BB30-R	BB30-R	BB30-R	BB30-R	BB35-R	BB35-R	BB35-R	BB35-R
Order number	50279279	50279280	50403839	50403840	50279281	50279282	50409524	50409525
Net weight	3.3 kg	3.3 kg	3.3 kg	3.3 kg	5.2 kg	5.2 kg	5.2 kg	5.2 kg
Delivery direction	right	left	right	left	right	left	right	left
Material	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)

Type	BB40-R	BB40-R	BB40-R	BB40-R	BB50-R	BB50-R	BB50-R	BB50-R
Order number	50279283	50279284	50409526	50409528	50279286	50279285	50409529	50409530
Net weight	7.8 kg	7.8 kg	7.8 kg	7.8 kg	18.2 kg	18.2 kg	18.2 kg	18.2 kg
Delivery direction	right	left	right	left	left	right	right	left
Material	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)	polyamide	polyamide	FDA- polyamide (white)	FDA- polyamide (white)

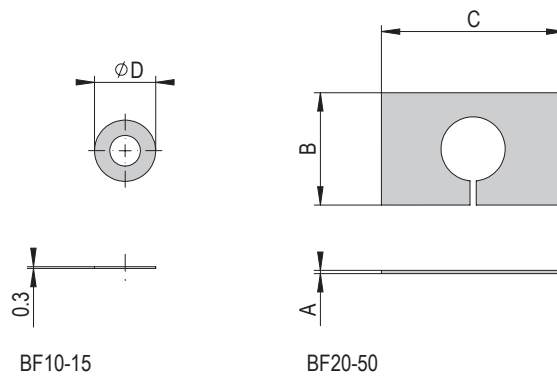
Note: For recommended drives and further information, see technical data for bowl blanks. Bowl with FDA approval on request.

Accessories BF10 - BF50

Leaf spring BF	BF10	BF15	BF20/25	BF30/35	BF40	BF50, WV402-1
Order number	15148633	50080191	50030807	15151865	50030852	50031626
Net weight	0.01 kg	0.01 kg	0.01 kg	0.03 kg	0.03 kg	0.1 kg
A	0.4 mm	0.6 mm	0.8 mm	1.5 mm	1.5 mm	2 mm
B	12 mm	16 mm	25 mm	30 mm	30 mm	35 mm
C	51 mm	68 mm	72 mm	80 mm	88 mm	115 mm



Spacers BF	BF10	BF15	BF20/25	BF30/35/40	BF50,WV402-1
Order number	15170196	15085780	50030808	50025641	50031627
Net weight	0.01 kg	0.01 kg	0.01 kg	0.01 kg	0.01 kg
A	---	---	0.5 mm	0.5 mm	0.5 mm
B	---	---	17 mm	18.4 mm	25 mm
C	---	---	25 mm	30 mm	35 mm
D	10 mm	12 mm	---	---	---

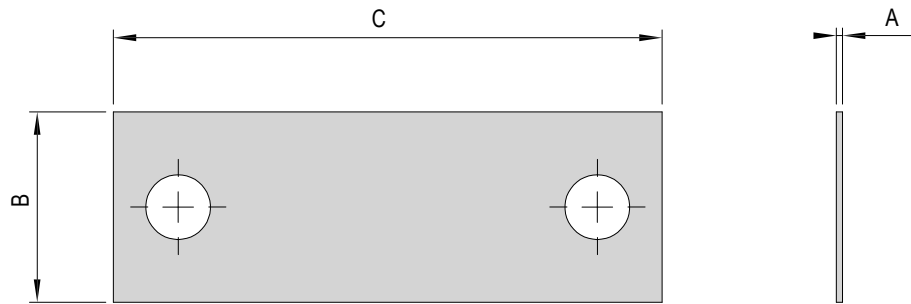


Magnets BF	BF10 230V/50Hz	BF10 115V/60Hz	BF15 230V/50Hz	BF15 115V/60Hz	BF20/25 230V/50Hz	BF20/25 115V/60Hz
Order number	15083534	15073802	50270048	50280087	50066426	50066429
Net weight	0.2 kg	0.2 kg	0.5 kg	0.5 kg	0.2 kg	0.2 kg
Power	23 VA	25 VA	100 VA	100 VA	23 VA	23 VA

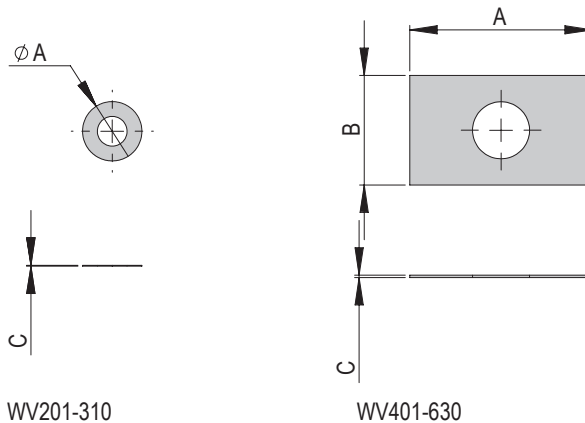
Magnets BF	BF30/35/40 230V/50Hz	BF30/35/40 115V/60Hz	BF50, WV402-1 230V/50Hz	BF50, WV402-1 115V/60Hz
Order number	50453522	50453529	15031196	15160938
Net weight	0.7 kg	0.7 kg	2.3 kg	2.3 kg
Power	78 VA	70 VA	282 VA	282 VA

Accessories WV151 - WV630

Leaf spring WV	WV151-1	WV201-1/ 301-1/310-1	WV201-1/ 301-1/310-1	WV401-1	BF50, WV402-1	WV630-2
Order number	11006711	11006736	11006738	50103702	50031626	11006827
Net weight	0.01 kg	0.02 kg	0.04 kg	0.1 kg	0.1 kg	0.1 kg
A	1 mm	2 mm	3 mm	2 mm	2 mm	2 mm
B	10 mm	16 mm	16 mm	40 mm	35 mm	40 mm
C	60 mm	100 mm	100 mm	140 mm	115 mm	140 mm



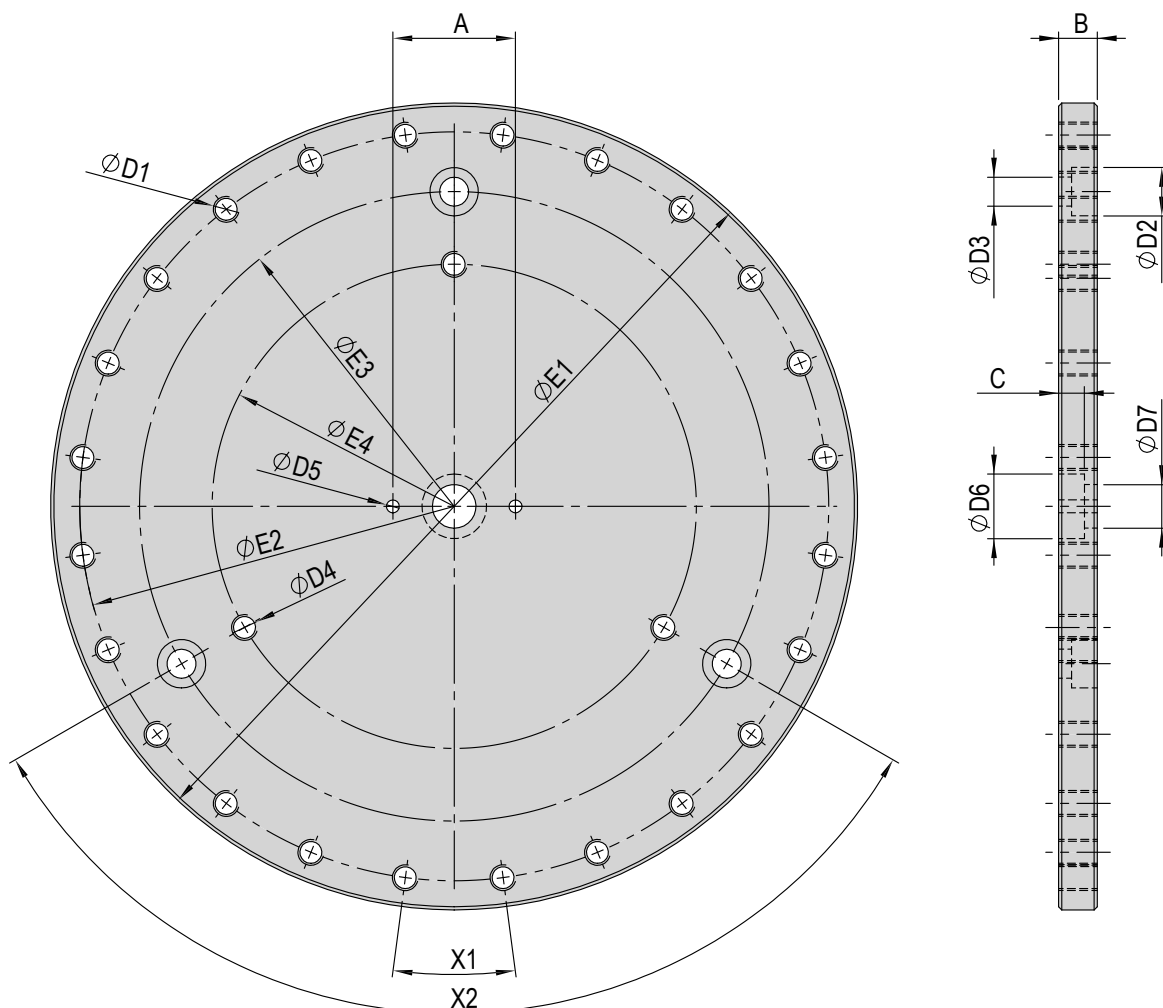
Spacers WV	WV201-1/ 301-1/310-1	WV401-1	WV630-1
Order number	11006741	50103708	11006830
Net weight	0.01 kg	0.01 kg	0.01 kg
A	13 mm	40 mm	35 mm
B	---	24 mm	25 mm
C	0.2 mm	0.5 mm	0.5 mm



Magnets WV	WV151	KLF25 WV301-1 230V/50Hz	WV401-1 230V/25Hz	WV401-1 115V/60Hz	BF50, WV402-1 230V/50Hz	BF50, WV402-1 115V/60Hz
Order number	50425627	15131097	15211762	15018561	15031196	15160938
Net weight	0.6 kg	1.8 kg	1.9 kg	3.3 kg	2.3 kg	2.3 kg
Power	94 VA	136 VA	315 VA	320 VA	282 VA	282 VA

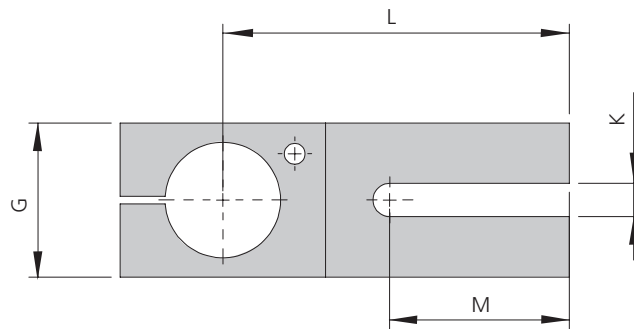
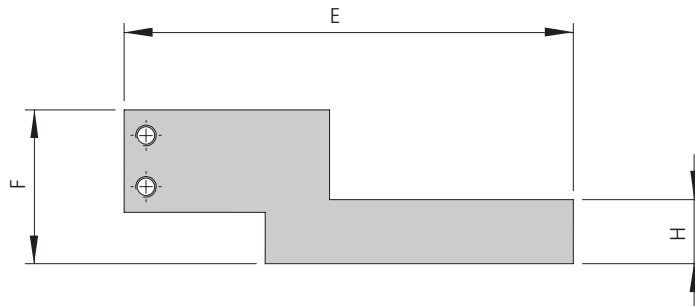
Accessories sub-structure BF/WV

Mounting plates BF	BF15	BF20	BF25	BF30	BF35	BF40	BF50
Order number	50460172	50460173	50461114	50461002	50461113	50461112	50459548
Net weight	1 kg	2.1 kg	3.3 kg	4.4 kg	6.2 kg	8.1 kg	10.1 kg
A	38 mm	38 mm	38 mm	38 mm	38 mm	38 mm	---
B	12 mm	12 mm	12 mm	12 mm	12 mm	12 mm	12 mm
C	8 mm	8 mm	8 mm	8 mm	8 mm	8 mm	---
D1	M6	M8	M8	M8	M8	M8	M8
D2	8 mm	11 mm	11 mm	15 mm	15 mm	15 mm	15 mm
D3	4.5 mm	6.6 mm	6.6 mm	9 mm	9 mm	9 mm	9 mm
D4	---	M8	M8	M8	---	---	---
D5	4H7	4H7	4H7	4H7	4H7	4H7	---
D6	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm	200 mm
D7	13.5 mm	13.5 mm	13.5 mm	13.5 mm	13.5 mm	13.5 mm	---
E1	120 mm	175 mm	215 mm	250 mm	295 mm	335 mm	425 mm
E2	100 mm	75 mm	95 mm	116 mm	135 mm	150 mm	195.5 mm
E3	104 mm	60 mm	60 mm	97.5 mm	97.5 mm	97.5 mm	140 mm
E4	---	40 mm	60 mm	75 mm	---	---	---
X1	30 °	20 °	20 °	15 °	11.25 °	10 °	9 °
X2	120 °	120 °	120 °	120 °	120 °	120 °	120 °



Accessories sub-structure BF/WV

Clamp foot	Low	High
Order number	50247164	50247198
Net weight	1.5 kg	2.1 kg
E	175 mm	175 mm
F	45 mm	60 mm
G	60 mm	60 mm
H	20 mm	25 mm
K	13 mm	13 mm
L	135 mm	135 mm
M	70 mm	70 mm



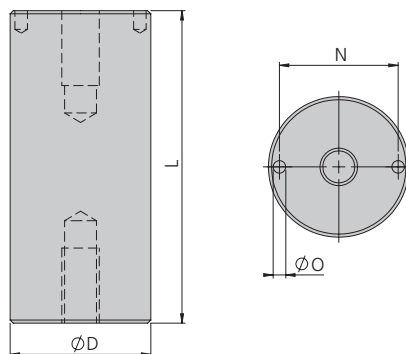
Columns sub-structure	50040763	50039802	50040768	50016917	50040773	50037491	50040777
Net weight	0.5 kg	0.6 kg	0.7 kg	0.9 kg	1 kg	1.1 kg	1.2 kg
D	45 mm	45 mm	45 mm	45 mm	45 mm	45 mm	45 mm
L	40 mm	50 mm	60 mm	70 mm	80 mm	90 mm	100 mm
N	38 mm	38 mm	38 mm	38 mm	38 mm	38 mm	38 mm
O	4 mm	4 mm	4 mm	4 mm	4 mm	4 mm	4 mm

Accessories sub-structure BF/WV

Columns sub-structure							
Order number	50038783	50040790	50035988	50038788	50016851	50040799	50035979
Net weight	1.4 kg	1.5 kg	1.6 kg	1.7 kg	1.9 kg	2 kg	2.1 kg
D	45 mm	45 mm	45 mm	45 mm	45 mm	45 mm	45 mm
L	110 mm	120 mm	130 mm	140 mm	150 mm	160 mm	170 mm
N	38 mm	38 mm	38 mm	38 mm	38 mm	38 mm	38 mm
O	4 mm	4 mm	4 mm	4 mm	4 mm	4 mm	4 mm

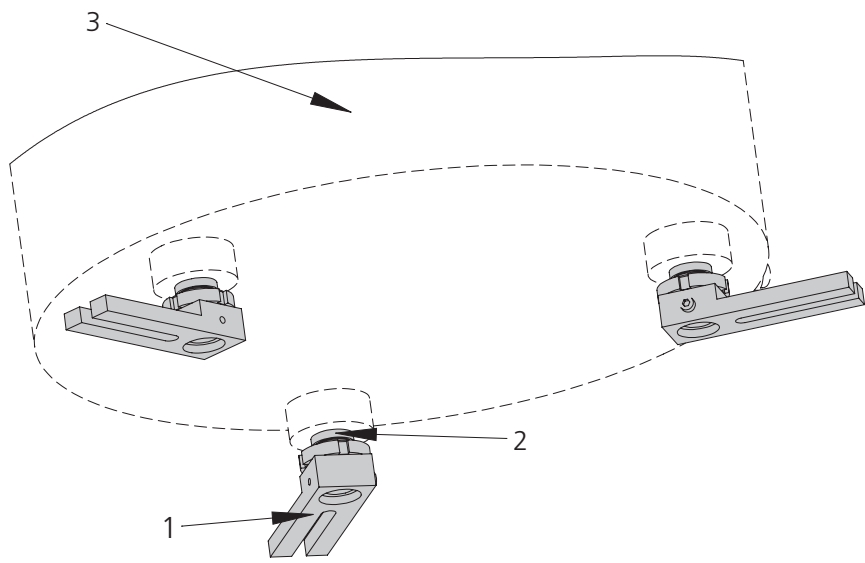
Columns sub-structure							
Order number	50038902	50034155	50038913	50040810	50040812	50040814	50040831
Net weight	2.2 kg	2.4 kg	2.5 kg	2.6 kg	2.8 kg	2.8 kg	3 kg
D	45 mm	45 mm	45 mm	45 mm	45 mm	45 mm	45 mm
L	180 mm	190 mm	200 mm	210 mm	220 mm	230 mm	240 mm
N	38 mm	38 mm	38 mm	38 mm	38 mm	38 mm	38 mm
O	4 mm	4 mm	4 mm	4 mm	4 mm	4 mm	4 mm

Columns sub-structure							
Order number	50040832	50040833	50038420	50040838	50040841	50040846	50050368
Net weight	3.1 kg	3.3 kg	3.4 kg	3.5 kg	3.6 kg	3.7 kg	3.9 kg
D	45 mm	45 mm	45 mm	45 mm	45 mm	45 mm	45 mm
L	250 mm	260 mm	270 mm	280 mm	290 mm	300 mm	310 mm
N	38 mm	38 mm	38 mm	38 mm	38 mm	38 mm	38 mm
O	4 mm	4 mm	4 mm	4 mm	4 mm	4 mm	4 mm



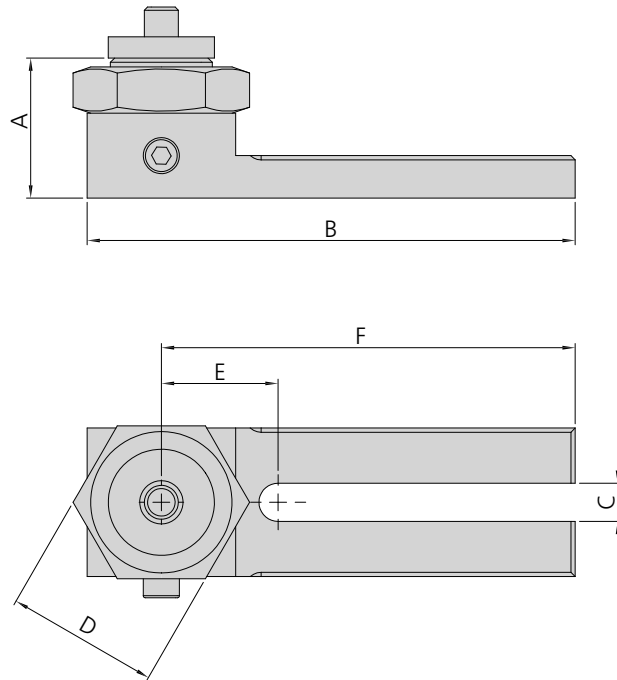
Accessories sub-structure BF/WV

Assembly accessory	Notation
1	Levelling base
2	Spacer
3	Bowl feeder drive



Accessories sub-structure BF/WV

Leveling base	Short	Long	Large
Order number	50021496	50162556	50339214
Net weight	0.4 kg	0.4 kg	1.6 kg
A	29-50 mm	29-50 mm	36 - 53 mm
B	80 mm	115 mm	140 mm
C	9 mm	9 mm	11 mm
D	42 mm	42 mm	75 mm
E	27.5 mm	27.5 mm	40 mm
F	62.5 mm	97.5 mm	110 mm
BF10 to BF40	3 pcs	3 pcs	---
BF50	3 pcs	3 pcs	3 pcs
WV151-1 to WV310-1	4 pcs	4 pcs	---
WV400	3 pcs	3 pcs	3 pcs



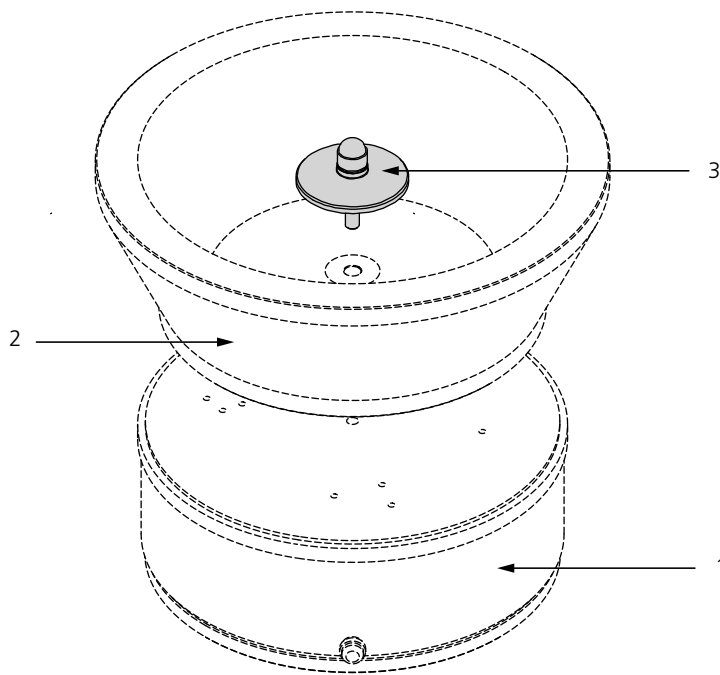
Note: Material: 1.0037.07, galvanically galvanises and blue chromated

Spacer BF/WV	Short/long	Short/long	Short/long	Large	Large	Large
Order number	50021483	50021486	50021484	50338047	50362938	50362975
Net weight	0.01 kg	0.03 kg	0.1 kg	0.1 kg	0.1 kg	0.3 kg

Note: Material: 1.0718, galvanically galvanises and blue chromated

Accessories bowl feeder drives/feeding bowls

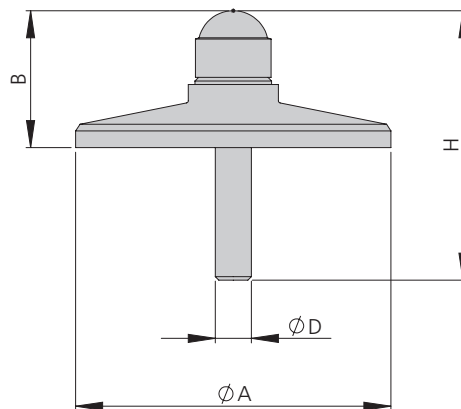
Central fixation	Notation
1	Bowl feeder drives
2	Feeding bowls
3	Spring washer set



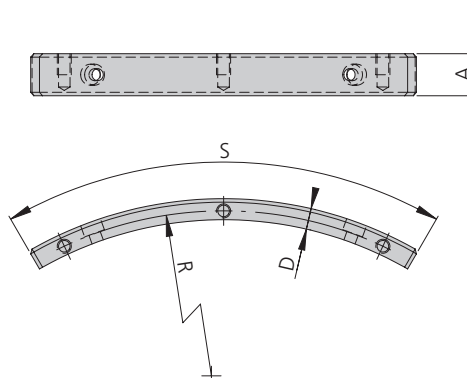
Accessories bowl feeder drives/feeding bowls

Spring washer sets BB	BF20	BF25/30/35	BF40	BF50
Order number	50163222	50102043	50102044	50102045
Net weight	0.2 kg	0.3 kg	0.5 kg	1 kg
A	70 mm	80 mm	100 mm	140 mm
B	30.4 mm	35.5 mm	41.5 mm	52.5 mm
D	M8	M10	M12	M16
H	59.8 mm	74.5 mm	91 mm	116.5 mm

Spring washer sets BB	BF20 coated	BF25/30/35 coated	BF40 coatet	BF50 coated
Order number	50163221	50108863	50108872	50108876
Net weight	0.3 kg	0.4 kg	0.7 kg	1.6 kg
A	70 mm	80 mm	100 mm	140 mm
B	30.4 mm	35.5 mm	41.5 mm	52.5 mm
D	M8	M10	M12	M16
H	59.8 mm	74.5 mm	91 mm	116.5 mm

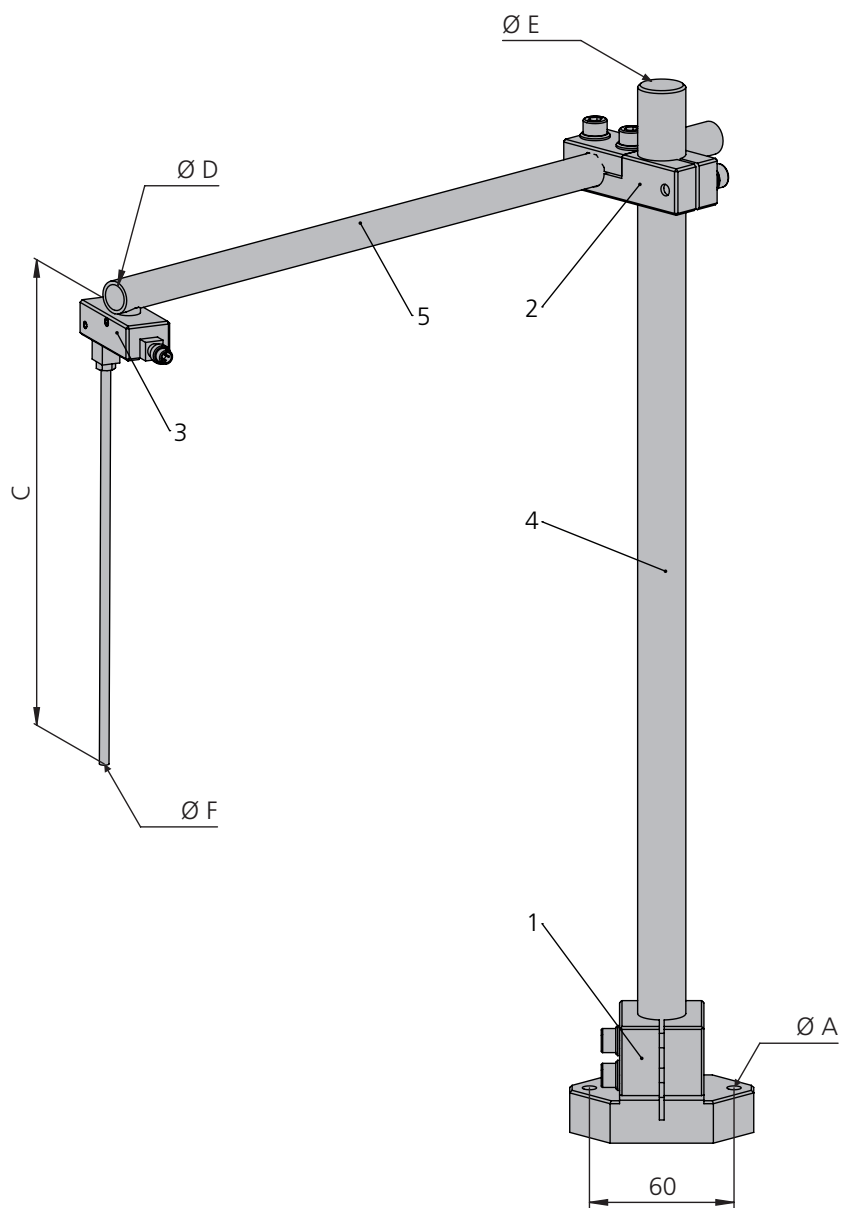


Counterweights BB	BB20	BB25	BB30	BB35	BB40	BB50
Order number	50244057	50244106	50244144	50244150	50244034	50244163
Net weight	0.1 kg	0.1 kg	0.2 kg	0.3 kg	0.3 kg	0.6 kg
A	12 mm	15 mm	15 mm	15 mm	20 mm	30 mm
D	6 mm	8 mm	10 mm	10 mm	10 mm	15 mm
R	107.5 mm	134 mm	160 mm	187.5 mm	212.5 mm	262.5 mm
S	60°	55°	60°	70°	60°	40°



Accessories bowl feeder drives/feeding bowls

Type	Pendulum-queries (inductive)
A	6.5 mm
B	60 mm
C	200 mm
D	14 mm
E	20 mm
F	4 mm



Accessories bowl feeder drives/feeding bowls

Clamp foot item no. 1						
Order number	50505639					
Net weight	0.2 kg					

Cross-type clamp item no. 2		
Order number	50255610	50188007
Net weight	0.2 kg	0.1 kg

Pendulum-queries item no. 3		Pendulum-queries (inductive)
Order number	50209209	
Max. Load circuit	200 mA	
Net weight	0.2 kg	
Nominal operating range	3 mm	
Plug connector/pins	M8/3-pol.	
Protection type	IP67	

Columns track level control item no. 4						
Order number	50040900	50040901	50033777	50040904	50040906	50040908
Net weight	0.2 kg	0.3 kg	0.4 kg	0.4 kg	0.5 kg	0.6 kg
D	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm
H	90 mm	120 mm	150 mm	180 mm	210 mm	240 mm

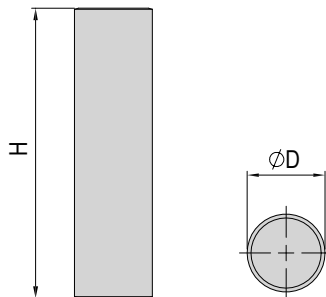
Columns track level control item no. 4						
Order number	50040909	50033781	50036047	50031357	50033779	50033809
Net weight	0.7 kg	0.7 kg	0.8 kg	0.9 kg	1 kg	1 kg
D	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm
H	270 mm	300 mm	330 mm	360 mm	390 mm	420 mm

Columns track level control item no. 4						
Order number	50040912	50040913	50040915	50040918	50036156	50040921
Net weight	1.1 kg	1.2 kg	1.3 kg	1.3 kg	1.4 kg	1.5 kg
D	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm
H	450 mm	480 mm	510 mm	540 mm	570 mm	600 mm

Accessories bowl feeder drives/feeding bowls

Columns track level
control item no. 5

Order number	50041013	50039783	50041120	50041122	50033766	50031376	50041123	50041125
Net weight	0.1 kg	0.1 kg	0.2 kg	0.2 kg	0.3 kg	0.3 kg	0.3 kg	0.4 kg
D	14 mm	14 mm	14 mm	14 mm	14 mm	14 mm	14 mm	14 mm
H	90 mm	120 mm	150 mm	180 mm	210 mm	240 mm	270 mm	300 mm



Note: Ordering of the items depending on application; Connection cable not in scope of delivery.

Bowl cover BB swiveling	BB15	BB20	BB25	BB30	BB35	BB40	BB50
Order number	50474156	50474157	50474158	50474159	50474160	50474161	50474162
Net weight	1.1 kg	1.2 kg	2.6 kg	3.5 kg	4.7 kg	5.9 kg	6.5 kg

Bowl cover BB foldable	BB15	BB20	BB25	BB30	BB35	BB40	BB50
Order number	50474166	50474167	50474168	50474171	50474172	50474173	50474175
Net weight	1.2 kg	1.5 kg	3.1 kg	3.3 kg	3.6 kg	4.7 kg	5.9 kg

Bowl cover BB split foldable	BB15	BB20	BB25	BB30	BB35	BB40	BB50
Order number	50474302	50474303	50474306	50474309	50474310	50474311	50474312
Net weight	1.4 kg	1.6 kg	3 kg	3.2 kg	4 kg	5.2 kg	6.5 kg

Prop for cover BB	BB15	BB20	BB25
Order number	50474163	50474164	50474165
Net weight	0.8 kg	0.9 kg	0.8 kg

Refilling units

NVB, NVD & IBB

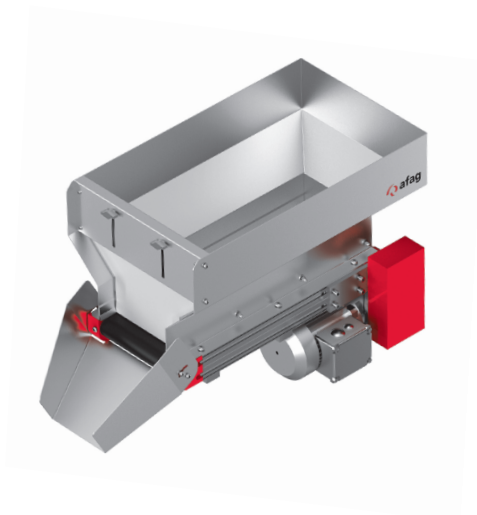
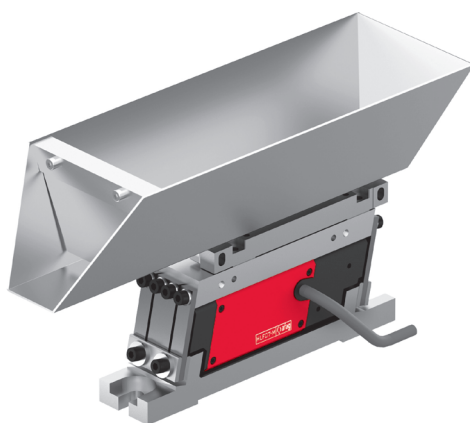
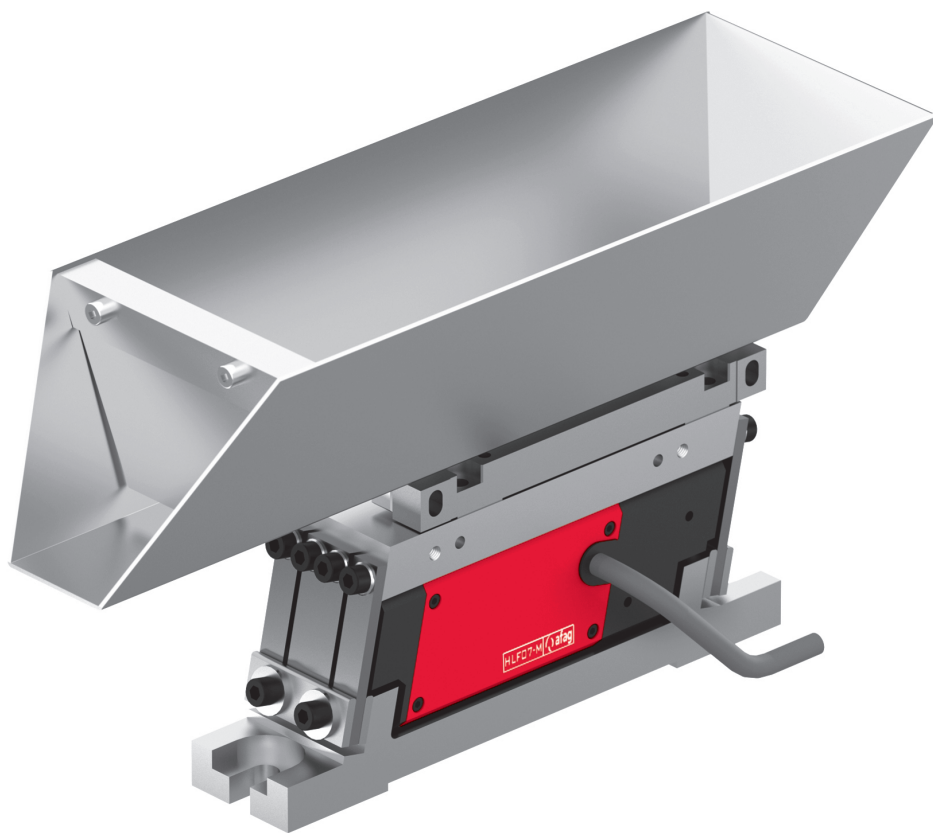


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Vibratory hopper NVD	115
Industrial belt hopper IBB	119

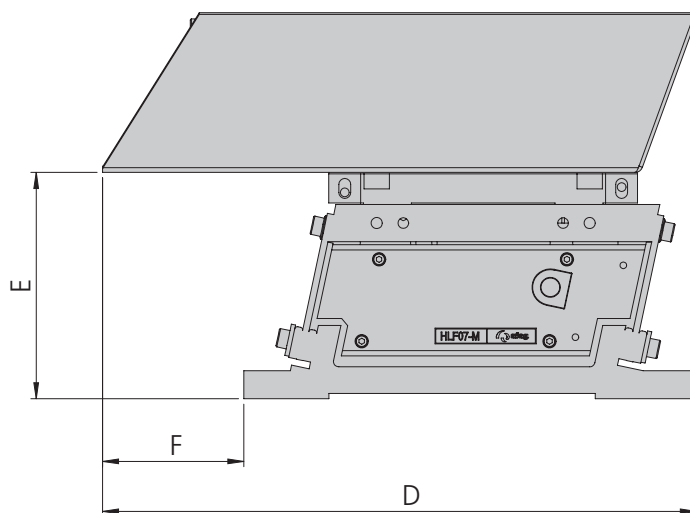
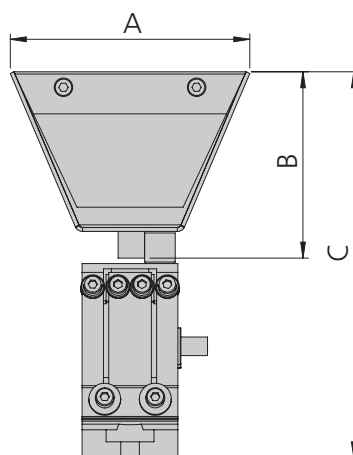
Refillable vibratoy hopper

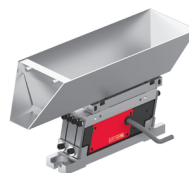
NVB07/0.5 - NVB25/3.0



- Proven HLF-drives serve as base
- Afag linear feeder HLF with reactive force compensation
- Hopper chute with variable slope

Type	NVB07/0.5	NVB12/1.0	NVB25/3.0
A	90 mm	100 mm	151 mm
B	70 mm	86 mm	95 mm
C	145 mm	167 mm	205 mm
D	223 mm	286 mm	384 mm
E	85 mm	95.5 mm	125 mm
F	53 mm	86 mm	124 mm





NVB

Operating temperature 10 - 45 °C

Type	NVB07/0.5	NVB07/0.5	NVB12/1.0	NVB12/1.0	NVB25/3.0	NVB25/3.0
Order number	50398072	50439559	50398076	50439561	50398089	50439562
Mechanical vibrations	100 Hz	120 Hz	100 Hz	120 Hz	100 Hz	120 Hz
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz
Max. power consumption	15 VA	15 VA	19 VA	19 VA	100 VA	100 VA
Net weight	2.6 kg	2.6 kg	4.1 kg	4.1 kg	8.5 kg	8.5 kg
Load volume	0.5 l	0.5 l	1 l	1 l	3 l	3 l
Maximum filling weight	1.7 kg	1.7 kg	3.2 kg	3.2 kg	9 kg	9 kg
Arithmetical mean roughness value Ra	< 0.8 µm	< 0.8 µm	< 0.8 µm	< 0.8 µm	< 0.8 µm	< 0.8 µm
Mean roughness depth Rz	4.5 µm	4.5 µm	4.5 µm	4.5 µm	4.5 µm	4.5 µm
Protection type	IP54	IP54	IP54	IP54	IP54	IP54

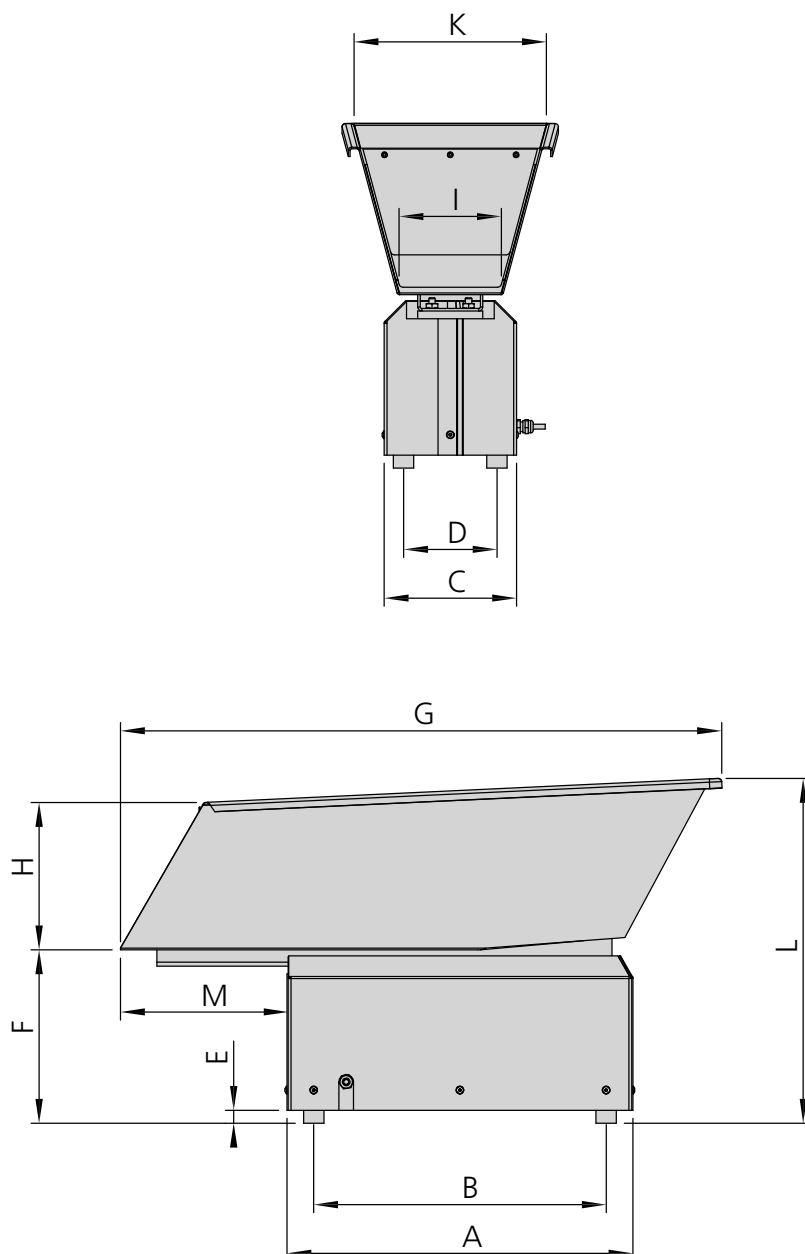
Vibratory hopper

NVD3/5 - NVD4/40



- Complete empty run up to the last part
- Filling quantities from 5 l up to 40 l
- Filling weight of up to 20 kg

Type	NVD3/5	NVD4/10	NVD4/15	NVD4/20	NVD4/40
A	300 mm	426 mm	426 mm	426 mm	426 mm
B	260 mm	360 mm	360 mm	360 mm	360 mm
C	98 mm	163 mm	163 mm	163 mm	163 mm
D	72 mm	115 mm	115 mm	115 mm	115 mm
E	11 mm	16 mm	16 mm	16 mm	16 mm
F	164 mm	214 mm	214 mm	214 mm	214 mm
G	546 mm	695 mm	740 mm	796 mm	999.5 mm
H	121 mm	141 mm	197 mm	216 mm	310 mm
I	94 mm	124 mm	125 mm	194 mm	194 mm
K	163 mm	229 mm	251 mm	316 mm	369.3 mm
L	295 mm	384 mm	424 mm	444 mm	524 mm
M	180 mm	182.5 mm	207 mm	252 mm	396.5 mm





NVD	
Operating temperature	10 - 45 °C

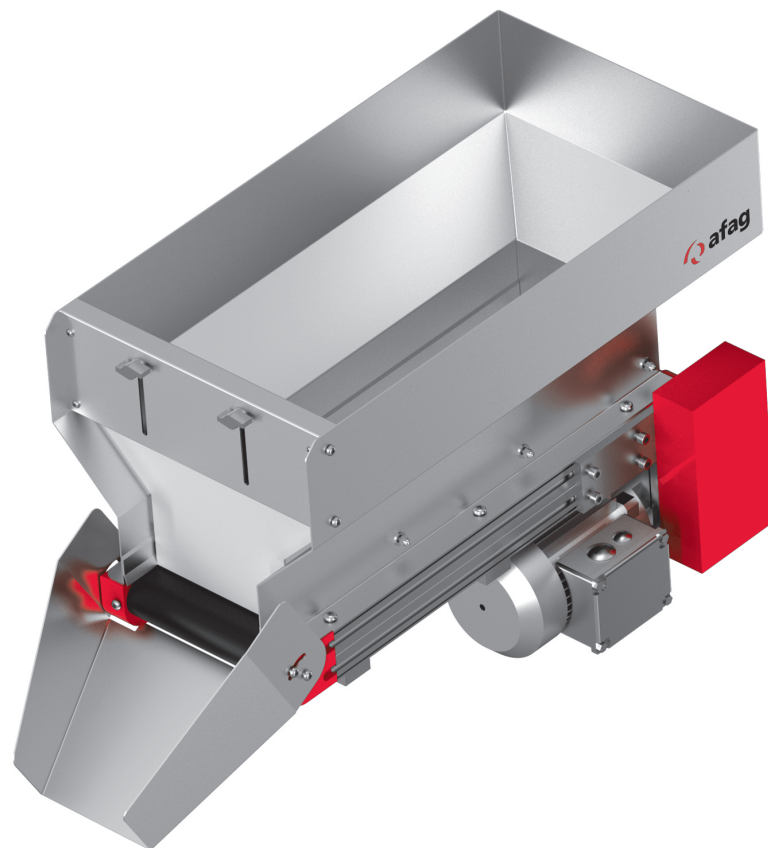
Type	NVD3/5	NVD3/5	NVD4/10	NVD4/10	NVD4/15	NVD4/15
Order number	50439542	50439547	50439543	50439548	50439544	50439549
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz
Max. power consumption	46 VA	23 VA	184 VA	92 VA	184 VA	92 VA
Net weight	15.4 kg	15.4 kg	41 kg	41 kg	42.4 kg	42.4 kg
Load volume	5 l	5 l	10 l	10 l	15 l	15 l
Maximum filling weight	9 kg	9 kg	20 kg	20 kg	20 kg	20 kg
Arithmetical mean roughness value Ra	< 0.8 µm	< 0.8 µm	< 0.8 µm	< 0.8 µm	< 0.8 µm	< 0.8 µm
Mean roughness depth Rz	4.5 µm	4.5 µm	4.5 µm	4.5 µm	4.5 µm	4.5 µm
Protection type	IP54	IP54	IP54	IP54	IP54	IP54

Type	NVD4/20	NVD4/20	NVD4/40	NVD4/40
Order number	50439545	50439550	50439546	50439552
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	115 V/60 Hz	230 V/50 Hz	115 V/60 Hz
Max. power consumption	184 VA	92 VA	184 VA	92 VA
Net weight	44.2 kg	44.2 kg	49.4 kg	49.4 kg
Load volume	20 l	20 l	40 l	40 l
Maximum filling weight	20 kg	20 kg	20 kg	20 kg
Arithmetical mean roughness value Ra	< 0.8 µm	< 0.8 µm	< 0.8 µm	< 0.8 µm
Mean roughness depth Rz	4.5 µm	4.5 µm	4.5 µm	4.5 µm
Protection type	IP54	IP54	IP54	IP54

Note: --- = nonexistent

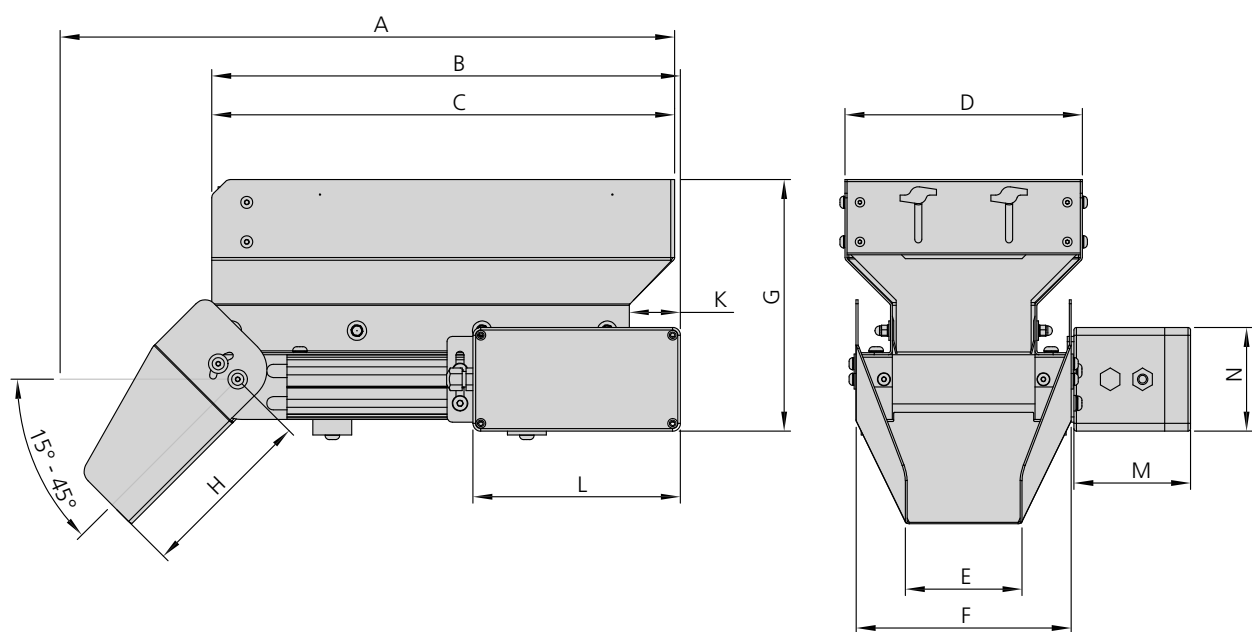
Industrial belt hopper

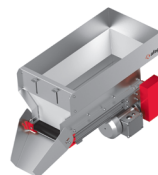
IBB3.5 - IBB50



- Parts storage and dosing for feeding devices, weighing and counting units
- Stainless steel hopper tray with adjustable front panel
- Filling volumes from 3.5 l to 50 l and filling weights up to 70 kg possible

Type	IBB3.5	IBB6
A	377 mm	457 mm
B	292 mm	357 mm
C	302 mm	362 mm
D	150 mm	180 mm
E	70 mm	90 mm
F	146 mm	166 mm
G	177 mm	197 mm
H	117 mm	137 mm
K	40 mm	40 mm
L	160 mm	160 mm
M	92.5 mm	92.5 mm
N	80 mm	80 mm

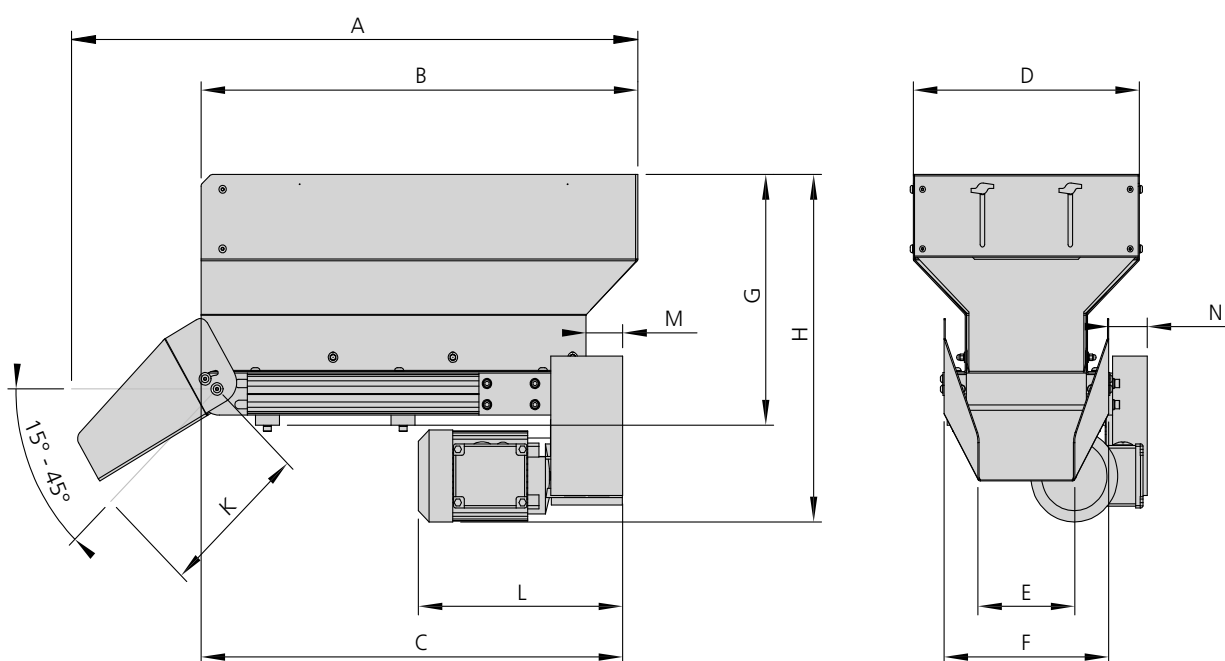


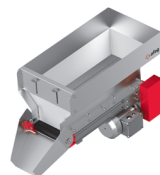


IBB		
Operating temperature		-5 - 60 °C

Type	IBB3.5	IBB6
Order number	50494738	50494739
Nominal voltage	24 V	24 V
Power output	10 W	10 W
Max. power consumption	9.6 VA	9.6 VA
Net weight	7 kg	10 kg
Load volume	3.5 l	6 l
Maximum filling weight	30 kg	35 kg
Belt speed	0.1 m/min	0.1 m/min
Conveyor belt	PU-coated black (ESD-compatible)	PU-coated black (ESD-compatible)
Protection type	IP54	IP54

Type	IBB12	IBB25	IBB50
A	552 mm	662 mm	787 mm
B	427 mm	547 mm	662 mm
C	412 mm	412 mm	613 mm
D	230 mm	280 mm	350 mm
E	110 mm	120 mm	150 mm
F	196 mm	206 mm	246 mm
G	232 mm	297 mm	367 mm
H	346.5 mm	411.5 mm	476.5 mm
K	172 mm	182 mm	207 mm
L	256 mm	256 mm	256 mm
M	31 mm	31 mm	31 mm
N	49 mm	49 mm	49 mm





IBB	
Operating temperature	-5 - 60 °C

Type	IBB12	IBB25	IBB50
Order number	50494740	50494741	50494742
Mains connection (mains voltage/mains frequency)	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz
Power output	90 W	90 W	90 W
Max. power consumption	195.5 VA	195.5 VA	195.5 VA
Net weight	15 kg	18 kg	23 kg
Load volume	12 l	25 l	50 l
Maximum filling weight	50 kg	60 kg	70 kg
Belt speed	0.85 m/min	0.85 m/min	0.85 m/min
Conveyor belt	PU-coated black (ESD-compatible)	PU-coated black (ESD-compatible)	PU-coated black (ESD-compatible)
Protection type	IP54	IP54	IP54

Control devices

IRG1-S, IRG1-MS, Smart Box,
SIGA & PSG1

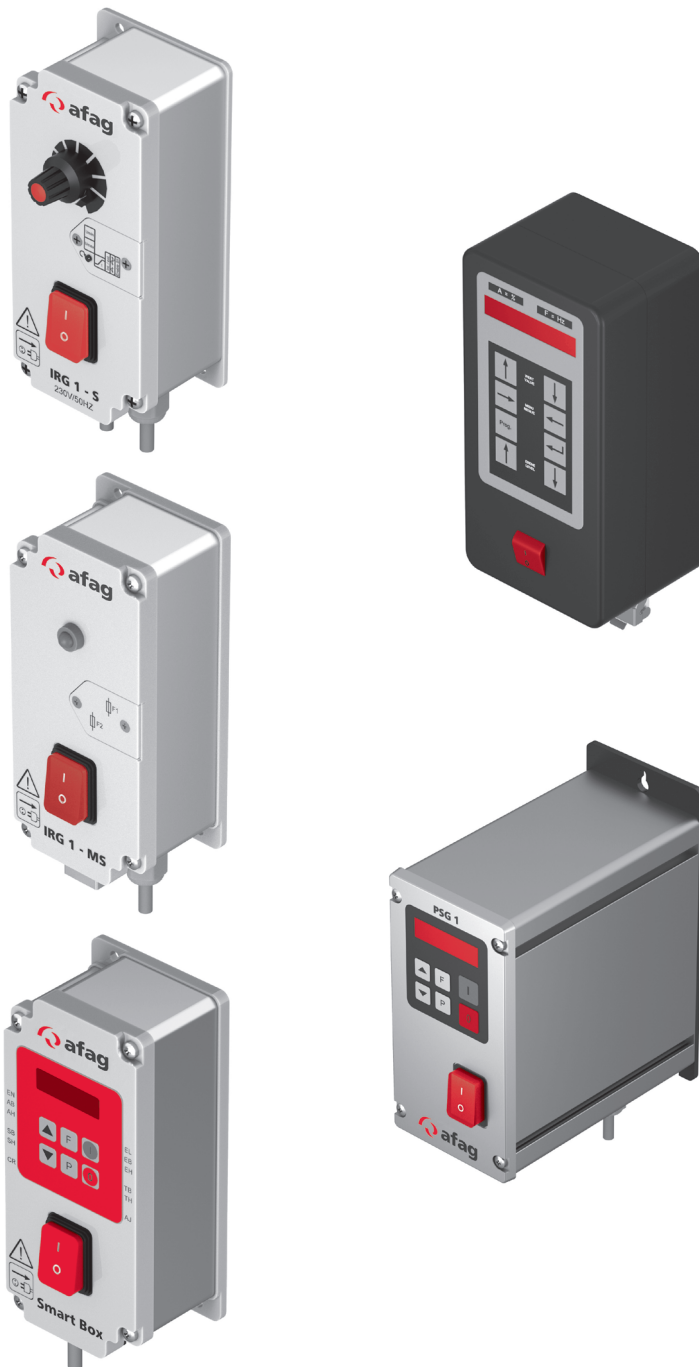
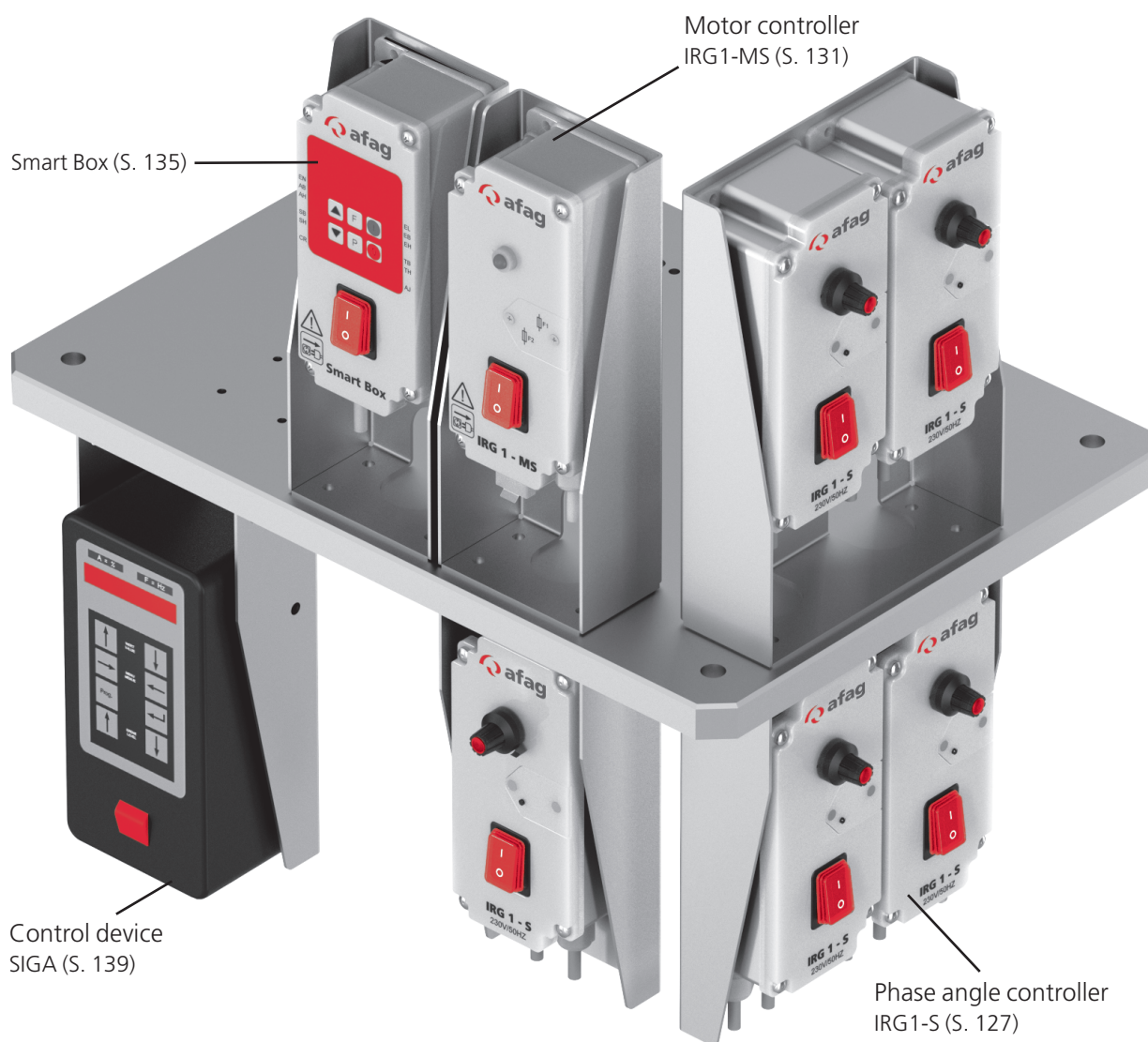


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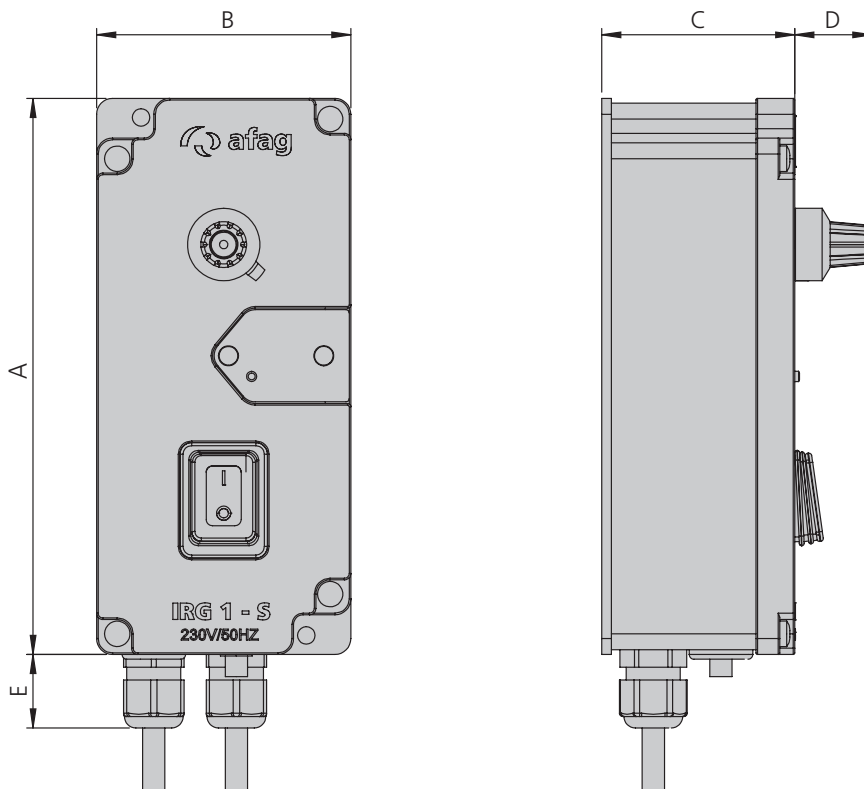
Phase angle controller

IRG 1-S



- Optimal control of vibration conveyors
- Modular combination concept and external control by higher-level system

Type	IRG1-S
A	175 mm
B	80 mm
C	60 mm
D	24 mm
E	25 mm





IRG1-S			
Operating temperature	0 - 45 °C		
Type	IRG1-S		IRG1-S
Order number	50360105	50360106	
External target value preset	0 - 20 mA (DC), 0 - 10 VDC	0 - 20 mA (DC), 0 - 10 VDC	
Nominal output current	6 A AC	6 A AC	
Input voltage	230 VAC	115 VAC	
Output voltage	40 - 228 VAC	20 - 100 VAC	
Supply voltage compensation	•	•	
Net weight	1.3 kg	1.2 kg	
Alternation operation	•	•	
Smooth start	0 - 4 s	0 - 4 s	
Continuous operation	•	•	
Operating mode display	LED	LED	
Input of optical coupler invertable	•	•	
Refillable vibratory hopper NVB	•	•	
Vibratory hopper NVD	•	•	
Industrial belt hopper IBB	---	---	
Vibrator	•	•	
Plug connector/pins	M8/4-pol.	M8/4-pol.	
Protection type	IP54	IP54	

Note: • = existent/suitable for --- = not suitable for

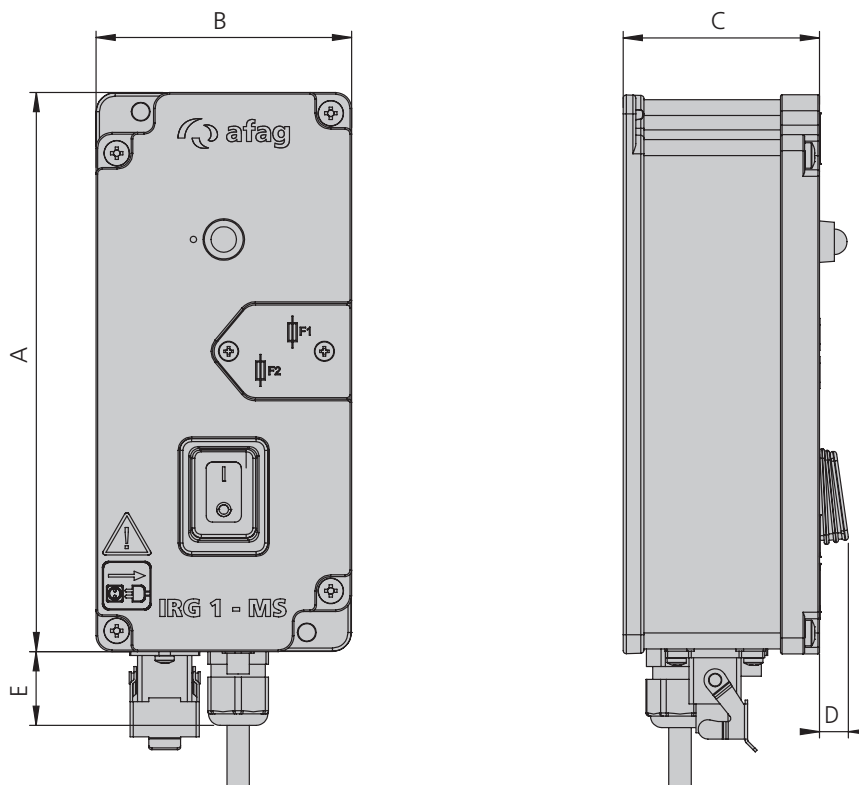
Motor controller

IRG 1-MS



- Control module for 1-phase capacitor motors
- Modular combination concept and external control by higher-level system
- Status display of the output via LED

Type	IRG1-MS
A	175 mm
B	80 mm
C	61.5 mm
D	10 mm
E	25 mm





IRG1-MS

Type	IRG1-MS
Order number	50391018
Nominal output current	2 A
Frequency	50/60 Hz
Input voltage	230/115 VAC
Output voltage	230/115 VAC
Control input	24 VDC
Net weight	0.7 kg
Refillable vibratory hopper NVB	---
Vibratory hopper NVD	---
Industrial belt hopper IBB	•
Vibrator	---
Protection type	IP54

Note: • = suitable for --- = not suitable for

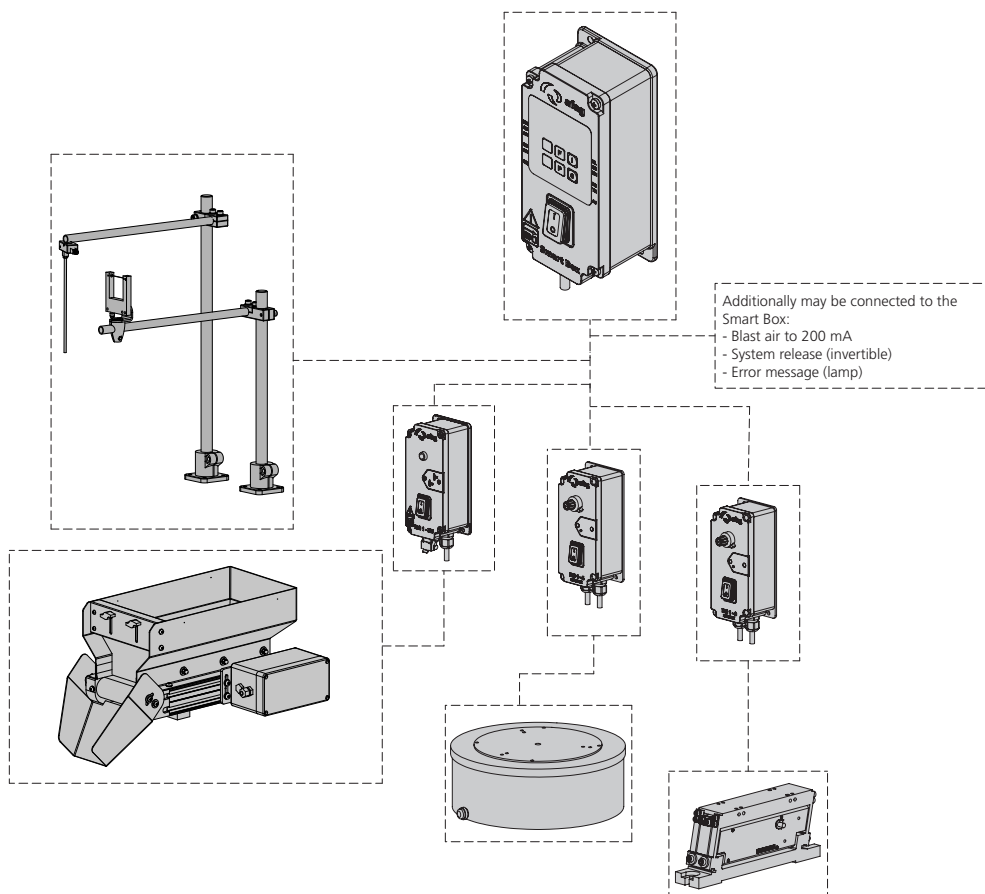
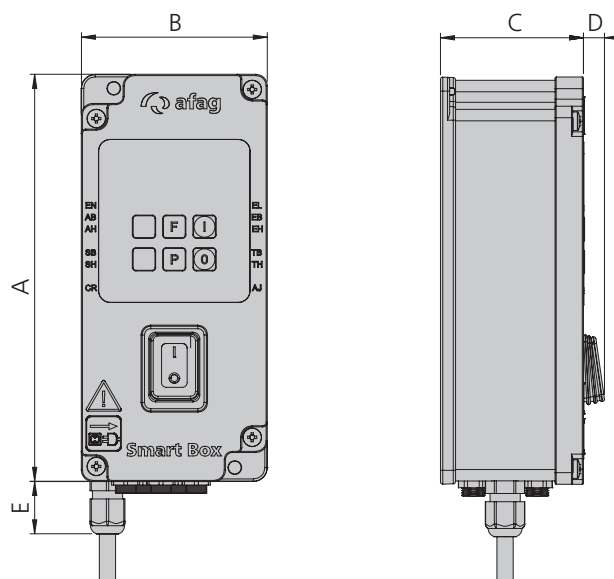
Control device

Smart Box



- Modular combination concept
- Linking of external control units, sensors and valves to form autonomous functional units
- Easy to operate

Type	Smart Box
A	175 mm
B	80 mm
C	61.5 mm
D	10 mm
E	25 mm





Smart Box	
Operating temperature	0 - 45 °C

Type	Smart Box
------	-----------

Order number	50371863
---------------------	-----------------

Short-circuit proof	•
Max. current blast air valve	200 mA
Max. current sensor	1 A
Input voltage	230/115 VAC
Output voltage	24 V
Control input	24 VDC
Net weight	0.8 kg
Blast air valve	M8/3
Fuses	M2A/250 V
Conveyor outputs	3 x M8/4-pol.
Operating mode display	LED
Sensor inputs	2 x M8/3-pol.
Multi-function output	M8/3-pol.
System release	M8/3-pol.
Protection type	IP54

Note: • = existent

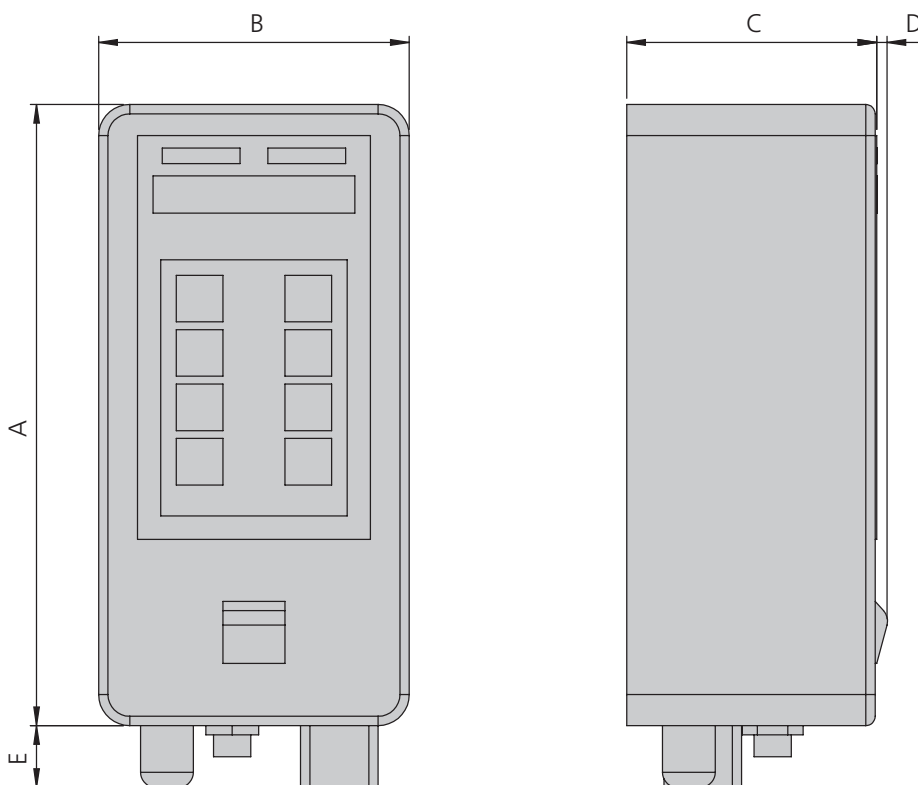
Control device

SIGA



- Integrated, adjustable soft start guarantees jerk-free starting of the vibration feeder
- Electronic frequency control unit for continuously variable control of inductive loads
- Frequency setting in 0.1 Hz steps

Type	SIGA
A	200 mm
B	100 mm
C	80 mm
D	4 mm
E	20 mm





SIGA	
Operating temperature	0 - 50 °C
Type	SIGA
Order number	50195031
Nominal output current	0.025 - 5 A
Output frequency	20 - 99 Hz
Frequency	50 Hz
Input voltage	230 VAC
Output voltage	50 - 200 VAC
Net weight	1.7 kg
Fuses	2x6.3 A (F)
Protection type	IP54

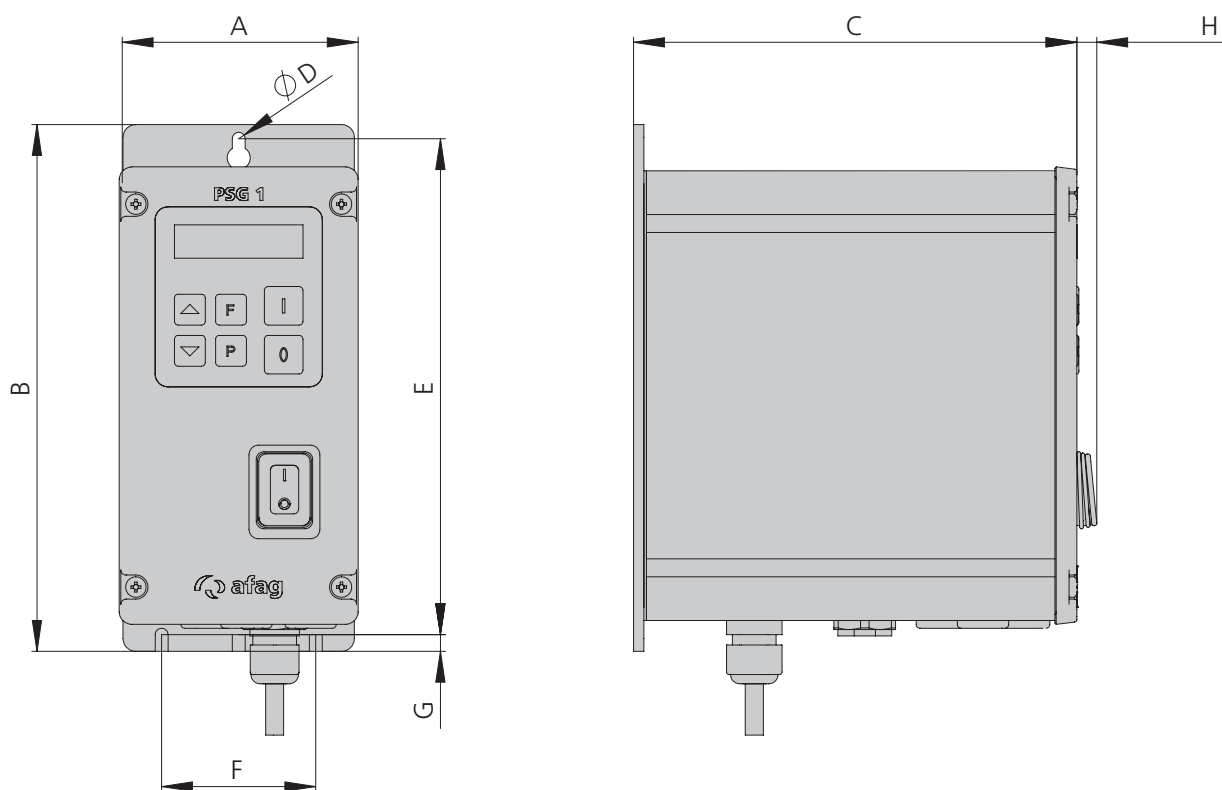
Piezoelectric control device

PSG 1



- Only suitable for operating HLF-P linear feeders
- Generates a mains frequency-independent, adjustable drive frequency
- Allows constant conveyor capacity in case of grid fluctuations through internal compensation

Type	PSG1
A	93 mm
B	205 mm
C	172.5 mm
D	5 mm
E	193 mm
F	60 mm
G	6.5 mm
H	9 mm

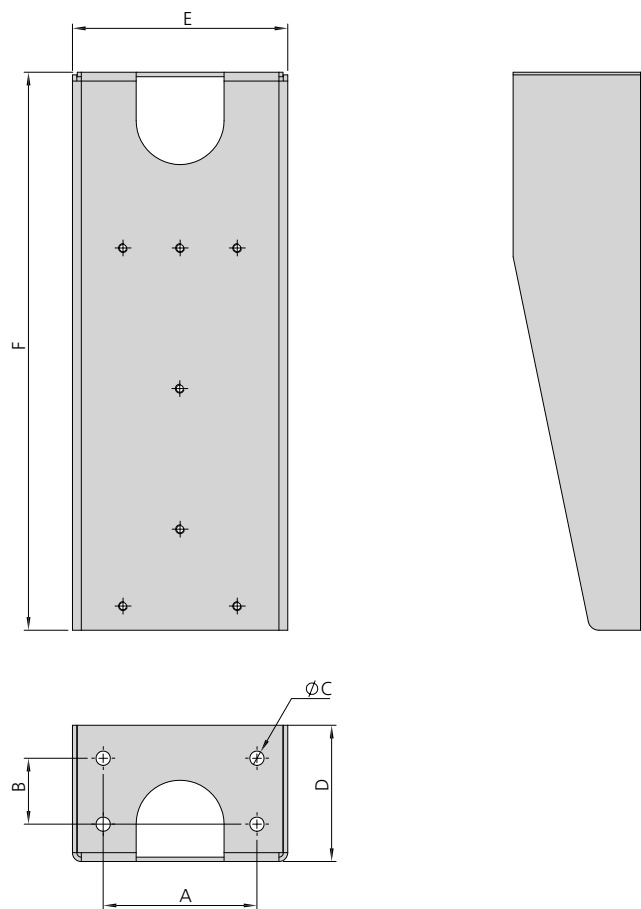




PSG1	
Operating temperature	0 - 45 °C
Storage temperature	-10 - 80 °C
Type	PSG1
Order number	50211833
External target value preset	0 - 20 mA (DC)
Nominal output current	pp/100 mA
Output frequency	5 - 300 Hz (preset: 75 ÷ 300) Hz
Frequency	50/60 Hz
Input voltage	230 VAC
Output voltage	-30 - 150 V
Control input	Contact or 24 VDC
Net weight	2.5 kg
Recommended pre-fuse	10 A, Type D MCB
Protection type	IP54

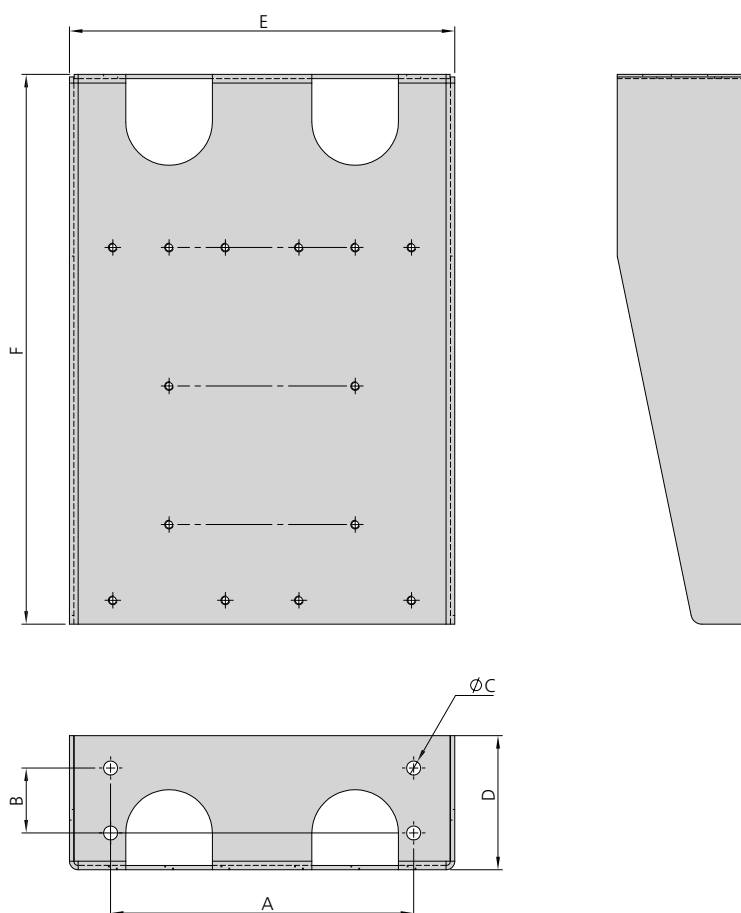
Accessories IRG/Smart Box

Fixation for 1 IRG	1-IRG	1-IRG extended
Order number	50450178	50450145
Net weight	0.7 kg	0.8 kg
A	70 mm	70 mm
B	30 mm	30 mm
C	6.5 mm	6.5 mm
D	62 mm	62 mm
E	98 mm	98 mm
F	224 mm	254 mm



Accessories IRG/Smart Box

Fixation for 2 IRG	2-IRG	2-IRG extended
Order number	50450179	50450147
Net weight	1.1 kg	1.2 kg
A	140 mm	140 mm
B	30 mm	30 mm
C	6.5 mm	6.5 mm
D	62 mm	62 mm
E	178 mm	178 mm
F	224 mm	254 mm



Potentiometer for control device IRG1-S	
Order number	50399213
Net weight	0.01 kg

Flexible feeding components

aflex



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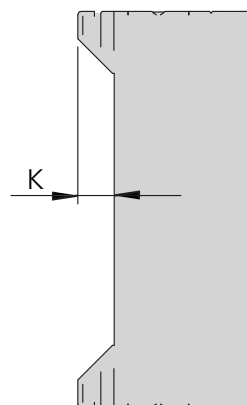
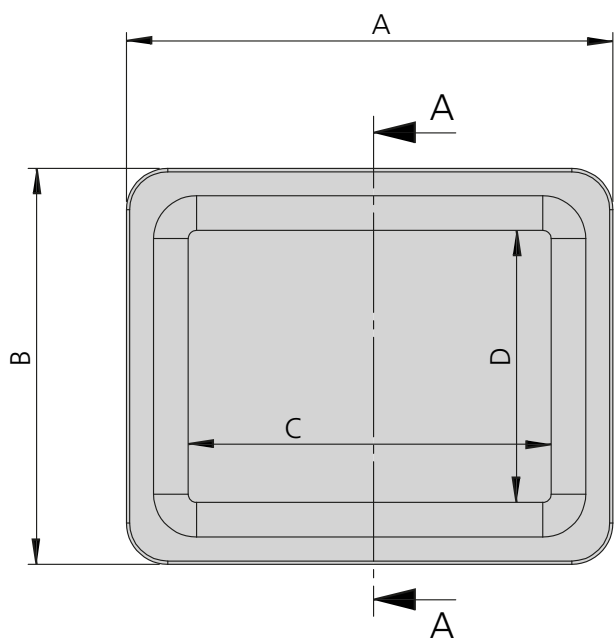
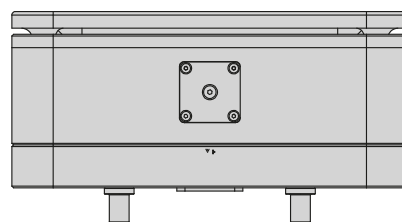
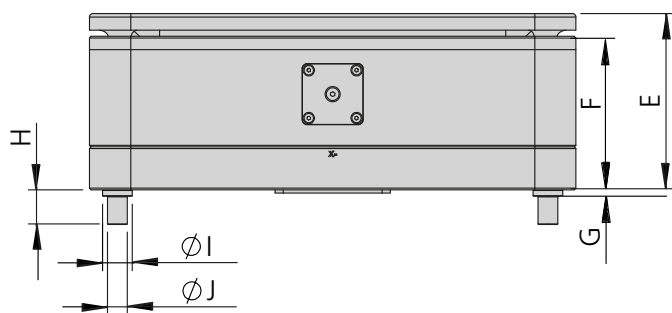
Flexible feeding components

aflex 150 qc & aflex 200 qc



- Diverse application possibilities and simplified installation and commissioning
- Short retrofitting times thanks to toolless quick-change system of the conveyor sheet
- Countless integration possibilities thanks to modular concept and conventional BUS interfaces

Type	*aflex 150 qc	*aflex 200 qc
A	210 mm	295 mm
B	160 mm	240 mm
C	150 mm	220 mm
D	100 mm	165 mm
E	84 mm	107 mm
F	74 mm	93 mm
G	4 mm	4 mm
H	21 mm	21 mm
ØI	18 mm	18 mm
ØJ	12 mm	12 mm
K	17 mm	22 mm



A-A (1:5)

Technical data



aflex 150-200 qc

Type	*aflex 150 qc basis	*aflex 150 qc basis	*aflex 150 qc light	*aflex 150 qc light
Order number	50473402	50473403	50521922	50473404
Reference value max. size of parts	20 mm	20 mm	20 mm	20 mm
Reference value max. weight of parts	15 g	15 g	15 g	15 g
Conveying directions**	x, y, z	x, y, z	z	z
Colour of background lighting	red	white	red	white
Control voltage	24 V	24 V	24 V	24 V
Total current [max]	6 A	6 A	6 A	6 A
Relative activation duration of the actuators	< 15 %	< 15 %	< 15 %	< 15 %
Operating temperature	0...45°C	0...45°C	0...45°C	0...45°C
Net weight	4 kg	4 kg	4 kg	4 kg
Protection type in closed condition	IP51	IP51	IP51	IP51
Supply line	24xAWG22	24xAWG22	24xAWG22	24xAWG22
Diameter of supply line	11.6 mm	11.6 mm	11.6 mm	11.6 mm
Bending radius of moved supply line	15 x line-Ø	15 x line-Ø	15 x line-Ø	15 x line-Ø
Bending radius of fixed supply line	4 x line-Ø	4 x line-Ø	4 x line-Ø	4 x line-Ø
Vibrating force compensation	no	no	no	no

Type	*aflex 200 qc basis	*aflex 200 qc basis	*aflex 200 qc light	*aflex 200 qc light
Order number	50473404	50473405	50521920	50521921
Reference value max. size of parts	30 mm	30 mm	30 mm	30 mm
Reference value max. weight of parts	50 g	50 g	50 g	50 g
Conveying directions**	x, y, z	x, y, z	z	z
Colour of background lighting	red	white	red	white
Control voltage	24 V	24 V	24 V	24 V
Total current [max]	10 A	10 A	10 A	10 A
Relative activation duration of the actuators	< 15 %	< 15 %	< 15 %	< 15 %
Operating temperature	0...45°C	0...45°C	0...45°C	0...45°C
Net weight	10,2 kg	10,2 kg	10,2 kg	10,2 kg
Protection type in closed condition	IP51	IP51	IP51	IP51
Supply line	24xAWG22	24xAWG22	24xAWG22	24xAWG22
Diameter of supply line	11.6 mm	11.6 mm	11.6 mm	11.6 mm
Bending radius of moved supply line	15 x line-Ø	15 x line-Ø	15 x line-Ø	15 x line-Ø
Bending radius of fixed supply line	4 x line-Ø	4 x line-Ø	4 x line-Ø	4 x line-Ø
Vibrating force compensation	no	no	no	no

* Dimensioning of the base plate: Always ensure that the base plate on which the aflex qc is mounted has sufficient dead weight to ensure full function and performance. Exact details can be found in the operating manual.

** referring to cartesian coordinate system

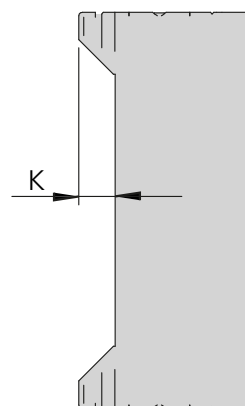
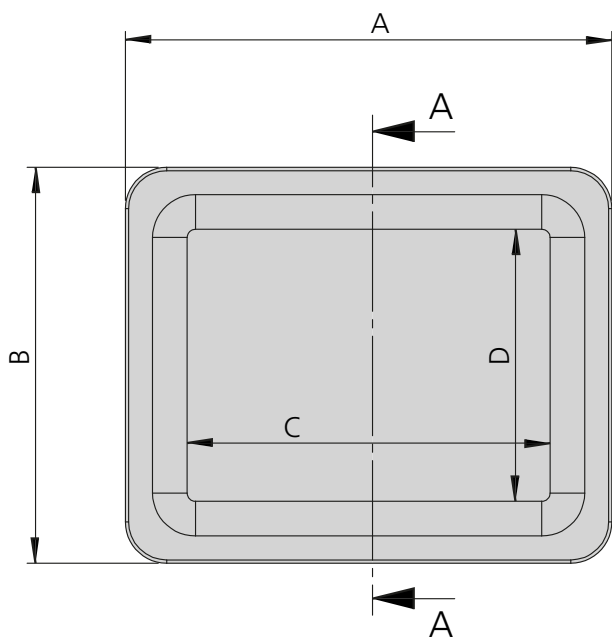
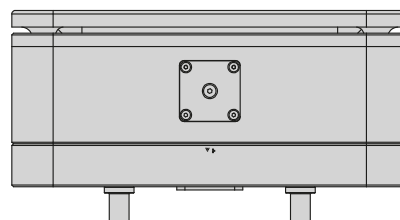
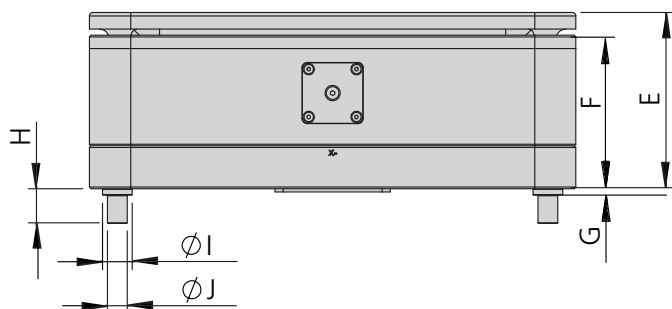
Flexible feeding components

aflex 400 lv



- High process reliability and short cycle times thanks to patented active vibration force compensation
- Short retrofitting times thanks to toolless quick-change system of the conveyor sheet
- Countless integration possibilities thanks to modular concept and conventional BUS interfaces

Type	*aflex 400 lv
A	450 mm
B	370 mm
C	330 mm
D	250 mm
E	164 mm
F	143 mm
G	13 mm
H	28 mm
ØI	32 mm
ØJ	10 mm
K	38 mm



A-A (1:5)



Type	*aflex 400 lv
Order number	50540944
Reference value max. size of parts	100 mm
Reference value max. weight of parts	150 g
Conveying directions**	z
Colour of background lighting	white
Control voltage	24 V
Total current [max]	15 A
Relative activation duration of the actuators	< 15 %
Operating temperature	0...45°C
Net weight	34 kg
Protection type in closed condition	IP51
Supply line	24xAWG22
Diameter of supply line	11.6 mm
Bending radius of moved supply line	15 x line-Ø
Bending radius of fixed supply line	4 x line-Ø
Vibrating force compensation	yes

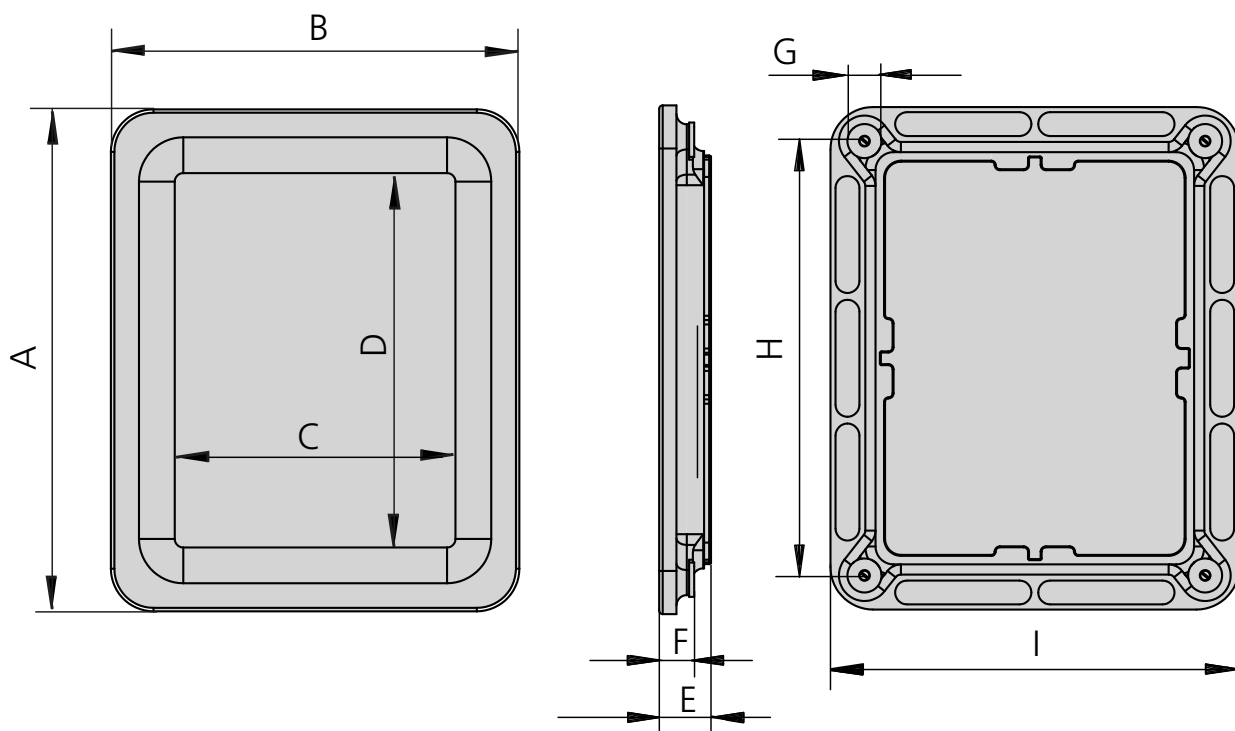
* Dimensioning of the base plate: Always ensure that the base plate on which the aflex qc is mounted has sufficient dead weight to ensure full function and performance. Exact details can be found in the operating manual.

** referring to cartesian coordinate system

Dimensions & dimension drawings

aflex conveyor plates

Type	aflex 150 qc conveyor plate POM	aflex 200 qc conveyor plate POM	aflex 400 lv conveyor plate POM
A	210 mm	295 mm	450 mm
B	160 mm	240 mm	370 mm
C	100 mm	165 mm	250 mm
D	150 mm	220 mm	330 mm
E	21 mm	30 mm	48 mm
F	13.2 mm	20.3 mm	40 mm
Ø G	16 mm	20 mm	32 mm
H	176 mm	255 mm	360 mm
I	126 mm	200 mm	280 mm



Technical data



aflex conveyor plates

Type	*aflex 150 qc conveyor plate POM	*aflex 150 qc conveyor plate POM
Order number	50473406	50473407
Material POM	white	black
Net weight	253 g	253 g

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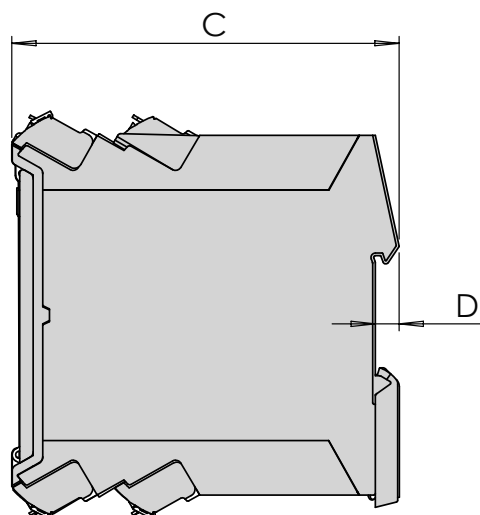
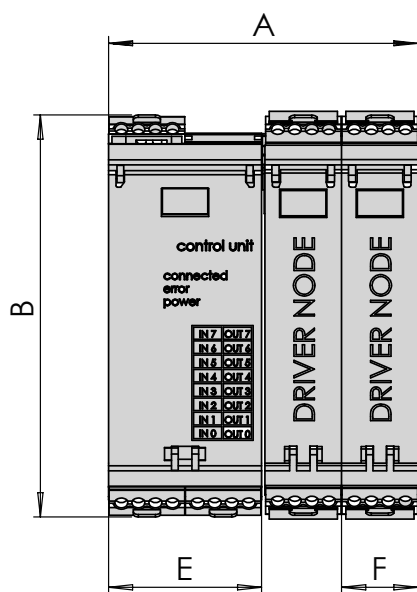
Type	*aflex 200 qc conveyor plate POM	*aflex 200 qc conveyor plate POM
Order number	50473410	50473411
Material POM	white	black
Net weight	854 g	854 g

Type	*aflex 400 lv conveyor plate POM	*aflex 400 lv conveyor plate POM
Order number	50540946	50552107
Material POM	white	black
Net weight	2400 g	2400 g

* Dimensioning of the base plate: Always ensure that the base plate on which the aflex qc is mounted has sufficient dead weight to ensure full function and performance. Exact details can be found in the operating manual.

** referring to cartesian coordinate system

Type	aflex controller
A	91 mm
B	120 mm
C	114 mm
D	7 mm
E	45 mm
F	23 mm



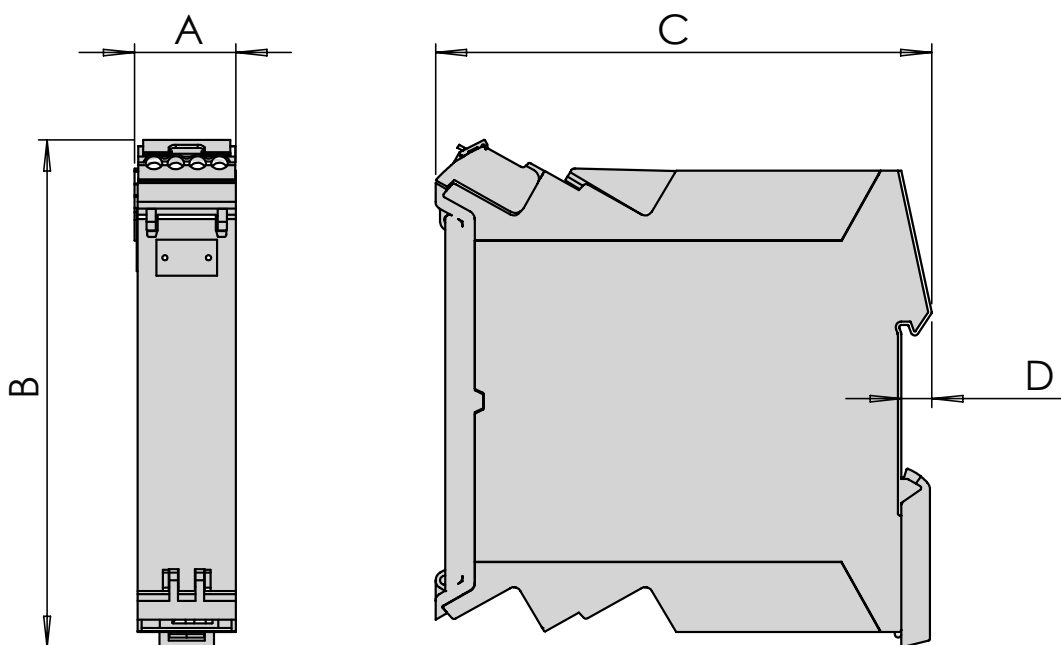


Type	aflex controller with 2x T4X	aflex controller
Order number	50473414	50518486
Rated voltage DC smoothed (min./type/max.)	23.0 VDC / 24.0 VDC / 25.0 VDC	23.0 VDC / 24.0 VDC / 25.0 VDC
Input current (min./type/max.)	0.050 A / 0.080 A / 0.120 A	0.050 A / 0.080 A / 0.120 A
Reverse polarity protection voltage supply	yes	yes
Operation/storage temperature	+0 - +40 °C / +-0 - + 85.+°C	+0 - +40 °C / +-0 - + 85.+°C
Relative humidity	max. 40% without condensation	max. 40% without condensation
Protection type	IP 30	IP 30
Signal voltage „1“ digital outputs (min./type/max.)	VCC – 1.0 V/VCC/VCC + 0.5 V	VCC – 1.0 V/VCC/VCC + 0.5 V
Signal voltage „0“ digital outputs (min./type/max.)	0 V / 0.002 V / 1 V	0 V / 0.002 V / 1 V
Output current digital outputs (min./type/max.)	... / ... / 4	... / ... / 4
Input voltage digital inputs (min./typr/max.)	20.0 V / 24.0 V / 30.0 V	20.0 V / 24.0 V / 30.0 V
Input current digital inputs (min./type/max.)	10 mA / 10.1 mA / 10.5 mA	10 mA / 10.1 mA / 10.5 mA
Reverse polarity protection outputs	yes (digital inputs/outputs)	yes (digital inputs/outputs)
Output voltage power output (min./type/max.)	VCC – 0.5 V / VCC / VCC + 0.5 V (PWM power output)	VCC – 0.5 V / VCC / VCC + 0.5 V (PWM power output)
Pulse width output (min./type/max.)	0% - 100% (power output)	0% - 100% (power output)
Frequency power output (min./type/max.)	39.7 kHz / 40 kHz / 40.3 kHz (power output)	39.7 kHz / 40 kHz / 40.3 kHz (power output)
Output current power output (min./type./max.)	... / ... / 4 A (power output)	... / ... / 4 A (power output)
Reverse polarity protection power output	no	no

Type	aflex driver unit T4X
Order number	50518489
Rated voltage DC smoothed (min./type/max.)	23.0 VDC / 24.0 VDC / 25.0 VDC
Input current (min./type/max.)	0.050 A / 0.080 A / 0.120 A
Reverse polarity protection voltage supply	yes
Operation/storage temperature	+0 - +40 °C / +-0 - + 85.+°C
Relative humidity	max. 40% without condensation
Protection type	IP 30
Reverse polarity protection outputs	no (power outputs)
Output voltage power output (min./type/max.)	VCC – 0.5 V / VCC / VCC + 0.5 V
Pulse width output (min./type/max.)	0% - 100% (power output)
Frequency power output (min./type/max.)	39.7 kHz / 40 kHz / 40.3 kHz (power output)
Output current power output (min./type./max.)	... / ... / 4 A (power output)
Reverse polarity protection power output	no

Dimensions & dimension drawings aflex fieldbus interfaces

Type	aflex fieldbus interfaces
A	23 mm
B	120 mm
C	114 mm
D	7 mm





Type	aflex fieldbus interface PROFIBUS	aflex fieldbus interface ETHERCAT
Order number	50441875	50473416
Rated voltage DC smoothed (min./type/max.)	23.0 VDC / 24.0 VDC / 25.0 VDC	23.0 VDC / 24.0 VDC / 25.0 VDC
Input current (min./type/max.)	0.050 A / 0.080 A / 0.120 A	0.050 A / 0.080 A / 0.120 A
Reverse polarity protection voltage supply	yes	yes
Operation/storage temperature	+0 - +40 °C / +-0 - + 85.+°C	+0 - +40 °C / +-0 - + 85.+°C
Relative humidity	max. 40% without condensation	max. 40% without condensation
Protection type	IP 30	IP 30

Type	aflex fieldbus interface ETHERNET IP	aflex fieldbus interface PROFINET
Order number	50473417	50473418
Rated voltage DC smoothed (min./type/max.)	23.0 VDC / 24.0 VDC / 25.0 VDC	23.0 VDC / 24.0 VDC / 25.0 VDC
Input current (min./type/max.)	0.050 A / 0.080 A / 0.120 A	0.050 A / 0.080 A / 0.120 A
Reverse polarity protection voltage supply	yes	yes
Operation/storage temperature	+0 - +40 °C / +-0 - + 85.+°C	+0 - +40 °C / +-0 - + 85.+°C
Relative humidity	max. 40% without condensation	max. 40% without condensation
Protection type	IP 30	IP 30

Tools

QRG-1 & HEM



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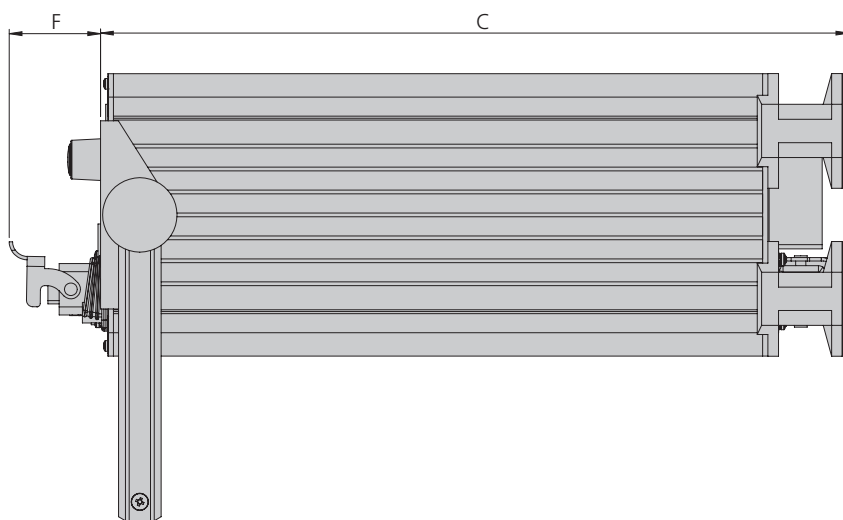
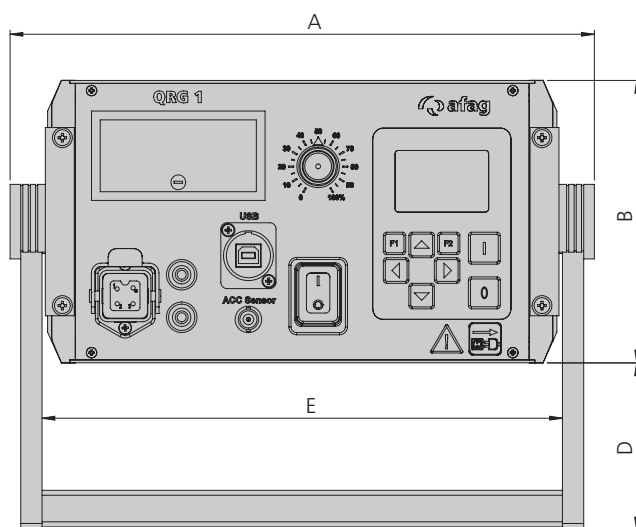
Tools

Laboratory instrument QRG-1



- Innovative laboratory measuring instrument for Afag vibration conveyors

Type	QRG-1
A	275 mm
B	133 mm
C	352 mm
D	78.5 mm
E	242 mm
F	43 mm





QRG-1

Type	QRG-1
Order number	50390535
Sensor supply	14 mA
Output frequency	5 - 300 Hz
Frequency	50/60 Hz
Output voltage	0 - 105/0 - 205 V
Frequency of the power part	50/60 Hz
Frequency of the measurement range	6 - 600 Hz
Net weight	5.5 kg
Actual values sensor	10/100/500 mV/g
Deflection	0 - 30 mm
Measuring range	0.2 - 150 g
Measuring error	1.5 %
Nominal output current	8 A

Accelerometer QRG-1

Order number	50399733
Net weight	0.1 kg

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Afag Automation AG

Luzernstrasse 32
6144 Zell
Switzerland

T +41 62 959 86 86
sales@afag.com

Afag GmbH

Wernher-von-Braun-Straße 1
92224 Amberg
Germany

T +49 9621 650 27-0
sales@afag.com

Afag Engineering GmbH

Gewerbestraße 11
78739 Hardt
Germany

T +49 7422 560 03-0
sales@afag.com

Afag Automation North America

Schaeff Machinery & Services LLC.

820 Fessler's Parkway, Suite 210
Nashville, TN 37210
USA

T +1 (615) 730-7515
nashville@afag.com

Afag Automation APAC

Afag Automation Technology (Shanghai) Co., Ltd.

Room 102, 1/F, Bldg. 56, City Of Elite
No.1000, Jinhai Road, Pudong New District
Shanghai, 201206
China

T +86 021 58958065
shanghai@afag.com

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