## **METALLFORM**



# More than just cleaning and transport baskets

Metallform has been manufacturing cleaning and transport baskets for about 40 years. These products and systems continuously set new benchmarks in the market. This is based on our extensive know-how and many years of experience in industrial parts cleaning and in the processing of stainless steel wire and the resulting unsurpassed quality of our products and systems.

We use our specific knowledge to develop cleaning baskets and workpiece holders which are optimally matched to our customers' requirements and provide genuine added value: The products enable to efficiently meet the continuously increasing cleanliness requirements, to minimise costly manual part transfer operations and to optimise internal logistics.

The quick amortisation of your investment in our products is a quality criterion for us and therefore a must.









# Profitability starts with consulting

Quality and efficiency of component cleaning depend crucially on the cleaning container. Incorporating baskets and workpiece holders into the planning or optimisation of cleaning processes at an early stage is therefore worthwhile. The framework conditions under which you work with the container are of interest to us in the first place. This knowledge ensures that it is technically and economically adapted to your cleaning and transport tasks.

As long as your requirements allow, we recommend standard products and components such as the MEFO-BOX system which is available for all standard dimension working chambers of the cleaning machine manufacturers. This offers you notable advantages, including immediate ex stock availability as well as compatibility with standard boxes and baskets. In addition, the MEFO-BOX system components are more cost-effective than customised solutions.

Last but not least, the MEFO-BOX system can be extended and supplemented at any time according to your requirements — with additional standard components such as the flexible MEFO-VARIO or customised accessories and workpiece holders.



## The cleaning baskets influences parts cleanliness and process efficiency

#### Beyond the basket

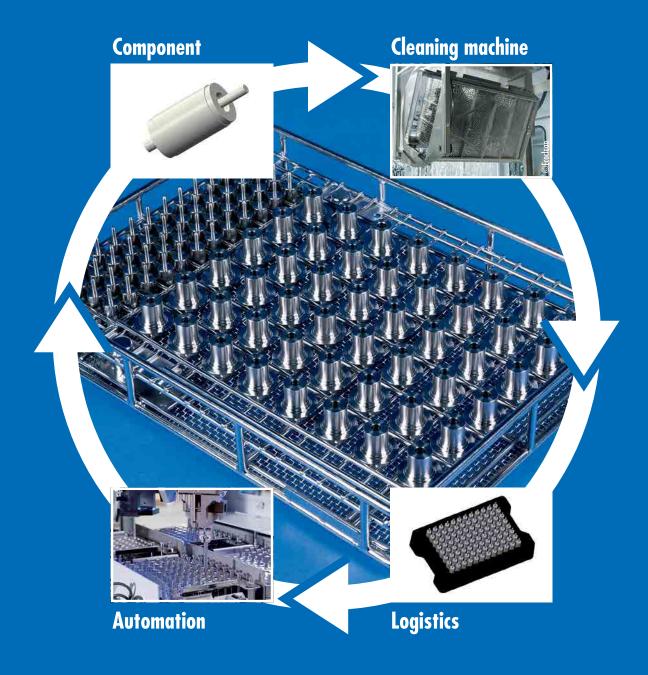
The cleaning basket is the link between component and cleaning machine as well as logistics and automation. It therefore directly influences the efficiency and effectiveness of parts cleaning. These factors directly impact upon the clean results and cost of the cleaning process.

In order to achieve the required parts cleanliness as fast as possible and thus minimise the unit costs of cleaning, optimum accessibility of the medium and mechanics of the cleaning machine, e.g. spray jet, ultrasonics to the parts is indispensable. For that reason, we manufacture our cleaning baskets from rounds without sheet metal frame and angle. In contrast to the boxes made from sheet or perforated sheet metal, which are still frequently used, they offer good accessibility from all sides. This openness allows the parts to be optimally reached from all sides by the medium as well as mechanics of the cleaning machine.

Furthermore, it ensures that contamination is removed quickly and completely and no dirt traps can form in the basket. In addition, the round material ensures a better draining behaviour. This not only accelerates drying but also reduces carry-over of cleaning medium and dirt. The round bars also reduce the contact surfaces between the component and the container. This reduces the risk that contamination or cleaning medium will adhere to the contact surfaces or that the components do not completely dry at these surfaces, resulting in stains which lead to costly rework or rejects.

#### Openness that pays off

With these characteristics, our cleaning baskets help to make cleaning processes as efficient as possible, to reduce energy consumption, to extend the service life of the baths and thus to increase plant availability. It also enables shorter cleaning cycles or throughput increases, which significantly reduce the unit costs of cleaning.



## Top quality accepts no compromises

Our cleaning and transport baskets are made of stainless steel with an electropolished, extremely smooth surface. Therefore, the durable containers can be used for both aqueous media and solvents. The high-quality material prevents re-contamination from the basket / workpiece holder to the component as well as contamination of the baths caused by corrosion or zinc deposits. Last but not least, the high-quality gloss of the MEFO-BOX components often leads to a more careful handling during everyday operation.

#### Integrated occupational safety

All joints are completely welded and there are no "sharp" corners, edges or wire ends that could cause injury.

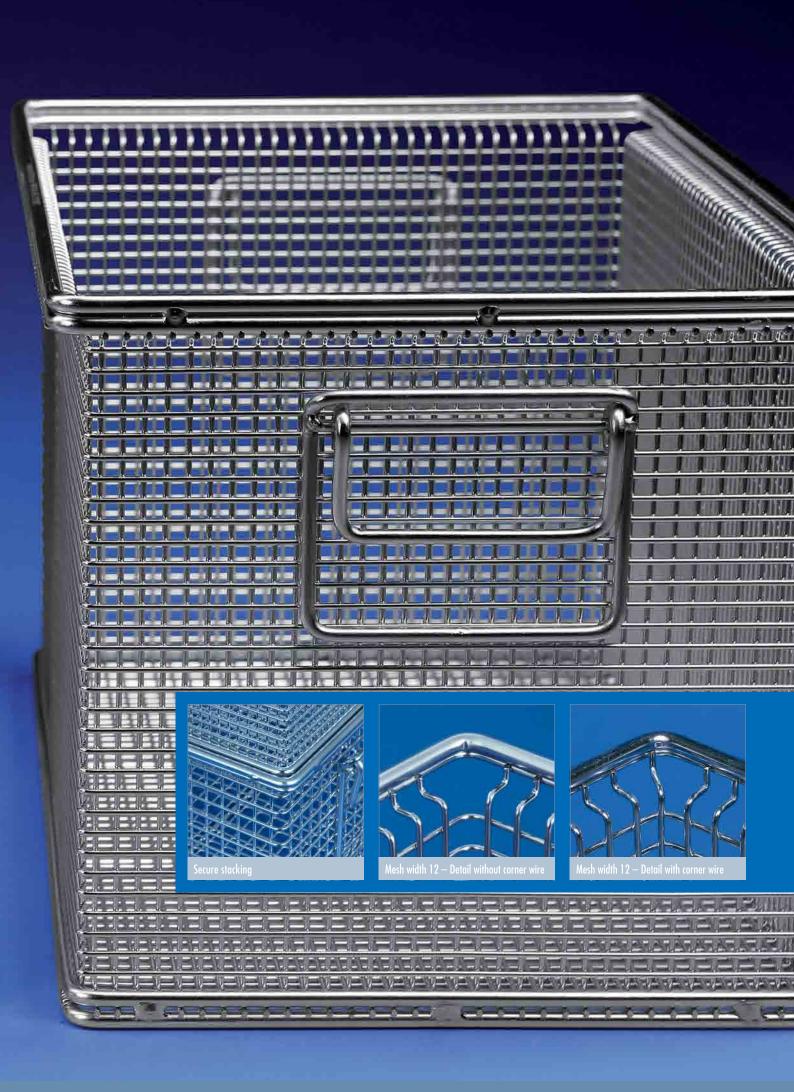
#### Secure stacking and separation

A further quality feature of the cleaning baskets is their stacking frame of 16 mm, which corresponds to common transport containers. It ensures that the baskets can be stacked securely on top of each other for in-house transport and prevents them from shifting or jumping out of the frame during a jerk, push or jolt. The high stacking frame also offers advantages in the separation of the baskets on the automatic loading and unloading device of the cleaning machine. In this case, it ensures that the required distance between the baskets is provided for a faultless function of the interchange mechanism which releases the first basket for entry into the working chamber and retains the following.

#### Corner wires if required

For design reasons, baskets in mesh width 12 mm have larger openings at the corners. In the few cases where it is necessary, we reduce this mesh with an additional corner wire. The most popular MEFO-BOXes are available in small quantities from stock in this version. They are marked with "-E" after the part number.





## The MEFO-BOX system — the optimal solution for countless cleaning and transport tasks

A container optimised for cleaning does not improve a cleaning machine, but it ensures that the process technology — which is often costly — unfolds its force at its best and that the cleaning process can be carried out with maximum efficiency and process reliability.

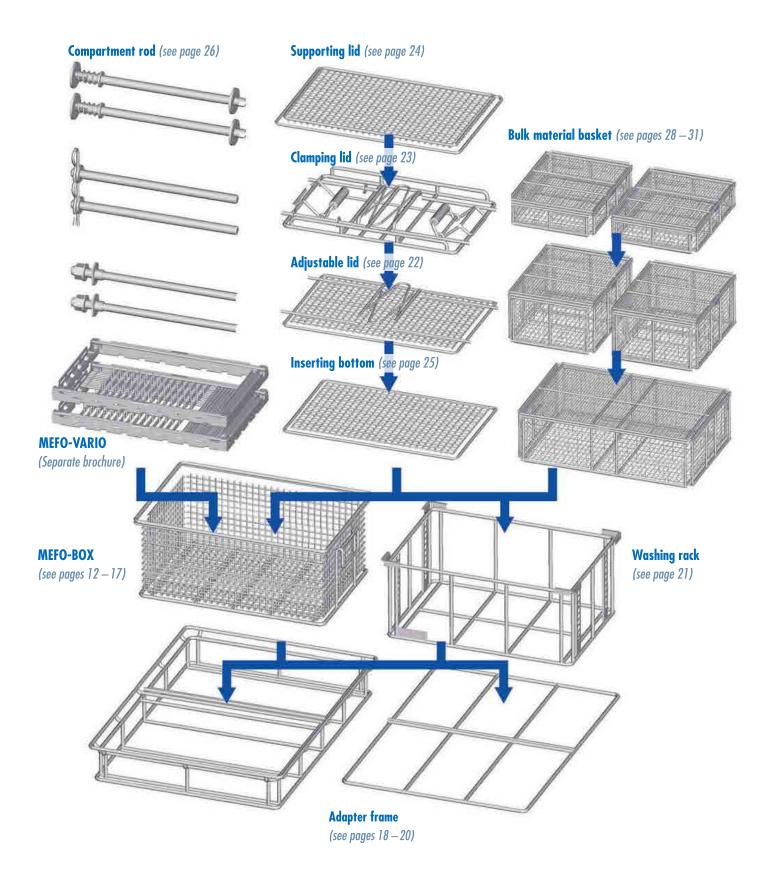
This is exactly what the MEFO-BOX system is all about: components designed to meet your needs which are available in a unique variety ex stock. They enable you to perform the entire component handling - from manufacturing, through intermediate and final cleaning to assembly or dispatch - simply, quickly, without part damage and cost-saving.

To meet your individual requirements, the MEFO-BOX system is available in different series:

- The dimensions of the Standard series are designed for use with "Schäfer" boxes.
- The inside dimensions of the Euro series are based on the inside dimensions of small load carrier systems (KLT).
- The Special series are based on customer requirements (e.g. BOSCH standard) and have been added to the standard range.



## **Components of the MEFO-BOX system**

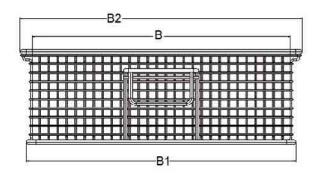


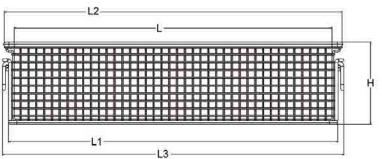


### **MEFO-BOX**

#### Standard version

The standard version of the MEFO-BOX as well as all accessories are available matched with the dimensions of the Standard series, Euro series and Special series. In the Standard and Euro series, the most popular MEFO-BOXes and accessories are available in mesh widths 6 mm and 12 mm some also in mesh width 4 mm. In the Special series some MEFO-BOXes are only available in mesh width 12 mm and the range of accessories is limited.





Note: L3 = L2 + 8 (MW4 / 6); L3 = L2 + 4 (MW12)

#### **STANDARD SERIES**

Part No.	Mesh width	Outside dimension	Roller conv. dim.	Inside dimen	sion L x B		Weigh	t (kg)		Load	Stacking
	MW	L2 x B2 x H	L1 x B1	MW4	MW6	MW12/12-E	MW4	MW6	MW12/12-E	capacity (kg)	capacity (kg
MF4007/	6 / 12 / 12-E	371 x 221 x 200	352 x 203		334 x 185 /	′ 332 x 182		4,4	2,6	30	300
MF4001/	4 / 6 / 12 / 12-E	471 x 321 x 108	452 x 303	434 x 285 /	′ 434 x 285 /	′ 430 x 280	4,7	4,5	3,6	80	400
MF4002/	6 / 12 / 12-E	471 x 321 x 120	452 x 303		434 x 285 /	′ 430 x 280		4,3	3,8	80	400
MF4008/	6 / 12	471 x 321 x 158	452 x 303		434 x 285 /	′ 430 x 280		5,5	5,3	80	400
MF4003/	4 / 6 / 12 / 12-E	471 x 321 x 200	452 x 303	434 x 285 /	′ 434 x 285 /	′ 430 x 280	5,8	5,8	4,7	80	400
MF4004/	6 / 12	471 x 321 x 300	452 x 303		434 x 285 /	′ 430 x 280		7,0	5,9	80	400
MF4012/	12	521 x 321 x 108	502 x 303			480 x 280			4,0	80	400
MF4013/	6	521 x 321 x 158	502 x 303		484 x 285			6,0		80	400
MF4005/	4 / 6 / 12 / 12-E	521 x 321 x 200	502 x 303	484 x 285 /	′ 484 x 285 /	′ 480 x 280	6,2	6,3	4,8	80	400
MF4015/	12	521 x 321 x 250	502 x 303	•	,	480 x 280			5,5	80	400
MF4014/	6	521 x 321 x 300	502 x 303		484 x 285			8,0		80	400
MF4009/	6 / 12	651 x 471 x 158	632 x 450			610 x 430		9,3	6,7	110	600
MF4006/	,	651 x 471 x 300	632 x 450		611 x 431 /	′ 610 x 430		11,7	9,0	110	600
MF4011/		651 x 471 x 400	632 x 450		611 x 431 /			23,1	12,0	110	600



## **Charge compositions**

#### Outside dimension (L2 x B2) 471 x 321











Outside dimension (L2 x B2) 521 x 321





MF4013/...









#### Outside dimension (L2 x B2) 651 x 471





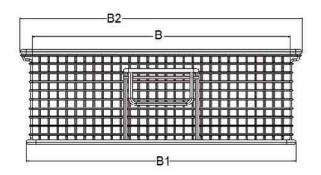


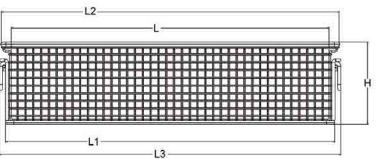


### **MEFO-BOX**

#### Standard version

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Note: L3 = L2 + 8 (MW6); L3 = L2 + 4 (MW12)

610 x 430

10,0

110

600

#### **EURO SERIES**

LUKU JEKI									
Part No.	Mesh width MW	Outside dimension L2 x B2 x H	Roller conv. dim. L1 x B1	Inside dimens	sion L x B MW12	Weight MW6	(kg) MW12	Load capacity (kg)	Stacking capacity (kg)
MF4101/		408 x 308 x 108	389 x 287	371 x 269 /		3,6	3,1	80	400
•	•			3/1 X 207 /		3,0	•		
MF4109/		408 x 308 x 158	389 x 287		367 x 267		3,2	80	400
MF4102/	6 / 12	408 x 308 x 200	389 x 287	371 x 269 /	367 x 267	5,2	4,1	80	400
MF4103/	6 / 12	408 x 308 x 300	389 x 287	371 x 269 /	367 x 267	5,8	5,0	80	400
MF4107/	12	408 x 308 x 400	389 x 287		367 x 267		5,0	80	400
MF4104/	12	608 x 408 x 108	589 x 387		567 x 367		5,0	110	600
MF4110/	12	608 x 408 x 158	589 x 387		567 x 367		5,8	110	600
MF4105/	12	608 x 408 x 200	589 x 387		567 x 367		6,2	110	600
MF4108/	6/12	608 x 408 x 300	589 x 387	571 x 369 /	567 x 367	11,0	7,6	110	600
MF4106/	12	608 x 408 x 400	589 x 387		567 x 367		9,0	110	600
SPECIAL SE	RIES								
Part No.	Mesh width	Outside dimension	Roller conv. dim.	Inside dimens	sion L x B	Weight	t (kg)	Load	Stacking
	MW	L2 x B2 x H	L1 x B1	MW6	MW12	_	MW12	capacity (kg)	capacity (kg)
MF4201/		396 x 396 x 130	375 x 375	359 x 357 /		4,9	3,8	50	400
•	•			03/ 1 03/ /		1,7	•		
MF4202/	12	396 x 396 x 250	375 x 375		355 x 355		5,1	50	400

MF4402/...

12

659 x 479 x 337

659 x 479

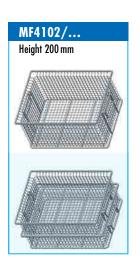


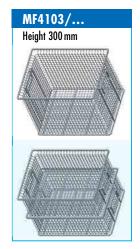
## **Charge compositions**

Outside dimension (L2 x B2) 408 x 308









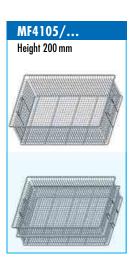


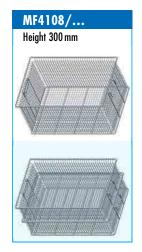
Outside dimension (L2 x B2) 608 x 408



MF4104/...











MEFO-BOX version for heavy load

### **MEFO-BOX**

#### **Version for heavy loads**

The MEFO-BOX version for heavy loads was developed specifically for cleaning and transporting large and heavy parts. The use of thicker rounds (wire diameter 4 mm compared to wire diameter 3 mm for the standard version) allows you to achieve higher load and stacking capacities. The MEFO-BOX version for heavy loads is available in mesh width 12 mm. The adjustable lid is also available in the version for heavy loads as an accessory. In addition - depending on the load - the inserting bottom (mesh width 12 mm) and clamping lid as well as the compartment rods with cotter pin (S-E) or nut (M-E) in the standard version may also be used with the MEFO-BOX for heavy loads.

#### **STANDARD SERIES**

Part No.	Mesh width	Outside dimension		Roller conv. dim.	Inside dimension	Weight	Load	Stacking
	MW	L2 x B2 x H	L3	L1 x B1	LxB	(kg)	capacity (kg)	capacity (kg)
MF4006/12-SL	12	651 x 471 x 300	651	632 x 450	608 x 428	14,0	200*	900
MF4011/12-SL	12	651 x 471 x 400	651	632 x 450	610 x 428	18,1	200*	900

<sup>\*</sup> The load must be evenly arranged.



MFFO-BOX lined version

### **MEFO-BOX**

#### **Lined version**

The lined MEFO-BOX has been designed for cleaning and transporting small parts in large quantities. It is based on the standard version in mesh width 12 mm. The MEFO-BOX and the matching supporting lid (included in delivery) which is equipped with a special sealing frame are both lined with wire fabric in mesh width 1, 2 or 3 mm. Adjustable or clamping lids may not be used with lined MEFO-BOXes and lined MEFO-BOXes are not stackable with the lid. If a cleaning charge is composed of several MEFO-BOXes, intermediate layers must be used. In case of rotating cleaning operation, these boxes may only be used in cleaning machines with automatic lid, otherwise they have to be equipped with camloc snap-closings. Lined MEFO-BOXes with lid can be up to 5 mm and stacked baskets with intermediate layer up to 10 mm higher than the nominal height. For small parts in smaller batches, we recommend to use bulk material baskets. These baskets allow you to pool small volumes of different small parts to one charge (MEFO-BOX) without intermixing the different parts.

For small parts in smaller quantities, we recommend to use bulk material baskets. This allows small quantities of different small parts to be combined into one charge (MEFO-BOX), without intermixing different parts.

#### **STANDARD SERIES**

Part No.	Mesh width	Outside dimension	10	Roller conv. dim.	Weight*	Load	Stacking
MF4007/12/	MW 1 / 2 / 2	<b>L2</b> x <b>B2</b> x <b>H</b> 371 x 221 x 200	<b>L3</b> 525	L1 x B1 352 x 203	(kg)	capacity (kg) 30	capacity (kg) 300
MI 4007/ 12/	1/2/3	3/1 X ZZ1 X Z00	JZJ	332 X 203	5,4	30	300
MF4001/12/	1/2/3	471 x 321 x 108	475	452 x 303	_	80	400
MF4003/12/	1/2/3	471 x 321 x 200	475	452 x 303	8,3	80	400
MF4012/12/	1/2/3	521 x 321 x 108	525	502 x 303	_	80	400
MF4005/12/	1/2/3	521 x 321 x 200	525	502 x 303	15,8	80	400
MF4009/12/	1/2/3	651 x 471 x 158	655	632 x 450	_	110	600
MF4006/12/	1/2/3	651 x 471 x 300	655	632 x 450	15,8	110	600

#### **EURO SERIES**

Part No.  MF4109/12/  MF4102/12/  MF4103/12/	, ,	Outside dimension L2 x B2 x H 408 x 308 x 158 408 x 308 x 200 408 x 308 x 300	L3 412 525 525	Roller conv. dim. L1 x B1 389 x 287 389 x 287 389 x 287	Weight (kg) – –	Load capacity (kg) 80 80 80	Stacking capacity (kg) 400 400 400
MF4105/12/	, ,	608 x 408 x 200	612	589 x 387	-	110	600
MF4108/12/		608 x 408 x 300	612	589 x 387	-	110	600

<sup>\*</sup> All weights including supporting lid



Adapter frame (single-lane

## **Adapter frame**

The adapter frame makes allows to adapt several, different sized MEFO-BOXes to the optimal charge dimension, which guarantees the best possible use of the cleaning machine. For the Standard series, the adapter frame increases the charge to the size of the MEFO-BOX MF4015/... (521 x321 x 250 mm), the MEFO-BOX MF4006/... (651 x 471 x 300 mm) or the MEFO-BOX MF4011/.... (651 x 471 x 400 mm).

MEFO-BOXes of the Euro series in different sizes are adapted to the outside dimension  $626 \times 408 \times 300$  mm by using an adapter frame. This is almost the same as the outside dimension of the MEFO-BOX MF4108/... ( $608 \times 408 \times 300$  mm). Thus, the maximum dimension of the charge at the stacking frame is 626 mm.

#### **STANDARD SERIES**

Adaption to the charge dimension of the MEFO-BOX MF4006/... (Height 300 mm)

Part No.	Outside dimension	Roller conveyor	Weight	suitable for Part No.	Position of MEFO-BOXes
	LxBxH	dim. L x B	(kg)		
MF4070/01	651 x 471 x 8	632 x 450	1,7	MF4001/	2 baskets next to each other, 3 baskets on top of each other
MF4070/02	651 x 471 x 92	632 x 450	4,9	MF4002/	2 baskets next to each other, 2 baskets on top of each other
MF4070/07	670 x 471 x 116	632 x 450	6,1	MF4007/	3 baskets next to each other
MF4070/13	651 x 471 x 116	632 x 450	5,0	MF4001/, MF4003/	MF4001/: 2 baskets next to each other, 2 baskets on top of each other
					MF4003/: 2 baskets next to each other

#### Adaption to the charge dimension of the MEFO-BOX MF4011/... (Height 400 mm)

Part No.	Outside dimension L x B x H	Roller conveyor dim. L x B	Weight (kg)	suitable for Part No.	Position of MEFO-BOXes
MF4070/13	651 x 471 x 116	632 x 450	5,0	MF4004/, MF4008/	MF4004/: 2 baskets next to each other
					MF4008/: 2 baskets next to each other, 2 baskets on top of each other
MF4071/02	651 x 471 x 88	632 x 450	4,8	MF4002/	2 baskets next to each other, 3 baskets on top of each other
MF4071/13	632 x 450 x 22,5	632 x 450	3,6	MF4001/, MF4003	MF4001/: 2 baskets next to each other, 4 baskets on top of each other
					MF4003/: 2 baskets next to each other, 2 baskets on top of each other
MF4071/69	651 x 471 x 116	632 x 450	4,7	MF4006/, MF4009	MF4006/: 1 basket
					MF4009/: 2 baskets on top of each other
MF4071/69-2	651 x 471 x 116	632 x 450	7,6	MF4006/, MF4009	MF4006/: 1 basket
					MF4009/: 2 baskets on top of each other (double-lane roller conveyor)

#### Adaption to the charge dimension of the MEFO-BOX MF4015/... (Height 250)

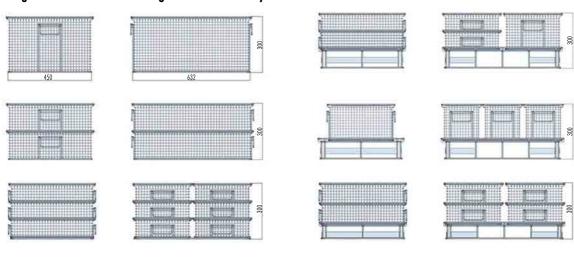
Part No.	Outside dimension	Roller conveyor	Weight	suitable for Part No.	Position of MEFO-BOXes
	LxBxH	dim. L x B	(kg)		
MF4075/05	521 x 321 x 66	502 x 303	2,4	MF4005/, MF4012/	MF4005/: 1 basket MF4012/: 2 baskets on top of each other

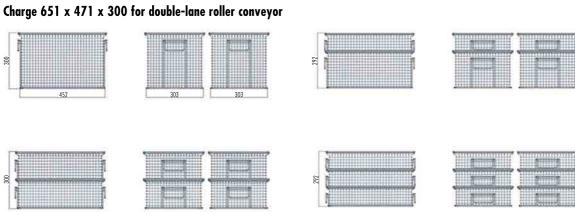
<b>EURO SERIES</b>					
Part No.	Outside dimension	Roller conveyor	Weight	suitable for Part No.	Position of MEFO-BOXes
	LxBxH	dim. L x B	(kg)		
MF4170/12	625 x 408 x 116	587 x 387	4,4	MF4101/, MF4102/	MF4101/: 2 baskets next to each other, 2 baskets on top of each other MF4102/: 2 baskets next to each other

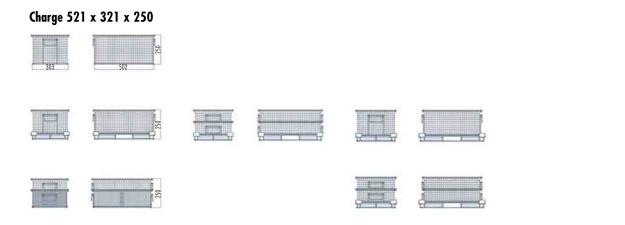


## **Charge compositions**

#### Charge 651 x 471 x 300 for single-lane roller conveyor

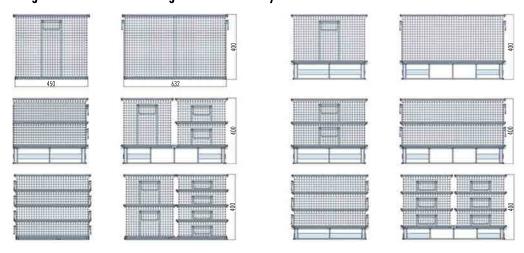




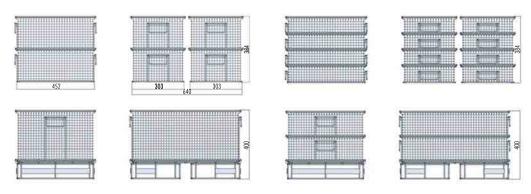




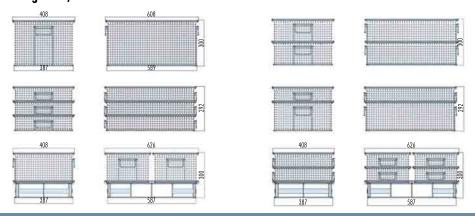
Charge 651  $\times$  471  $\times$  400 for single-lane roller conveyor

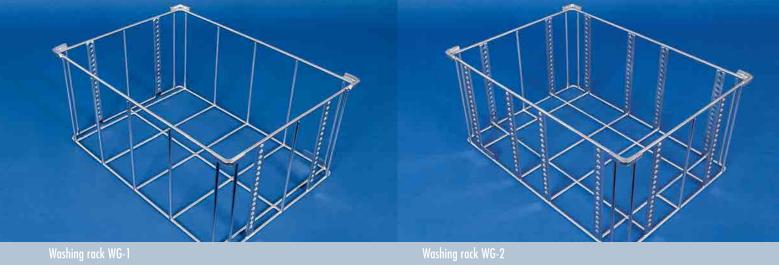


Charge 651 x 471 x 400 for double-lane roller conveyor



Charge 608/626 x 408 x 300





## Washing rack

The washing rack was developed for cleaning of bulk material baskets with maximum flow rate. However, as the flow rate is only slightly higher compared to the cleaning of bulk material baskets in the MEFO-BOX in mesh width 12 mm, but the shielding of the components directly behind the perforated strips in the washing rack is higher, it is more rarely used. In addition, the washing rack is more cost-intensive than the MEFO-BOX due to the lower production volumes and it can only be used for bulk material baskets, whereas the MEFO-BOX may also be used for cleaning of larger bulk parts and individual parts.

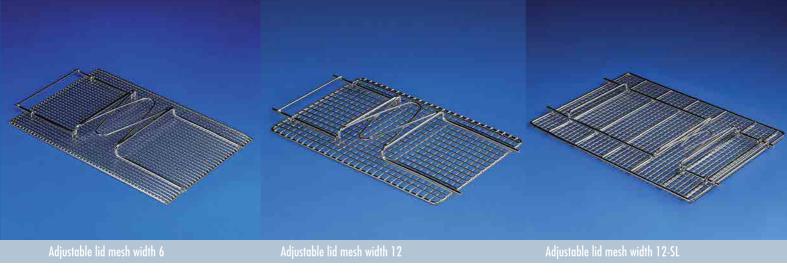
Washing racks .../WG-1 have two perforated strips each on the short sides and, depending on the load, are locked with an adjustable or clamping lid.

Washing racks .../WG-2, which are equipped with two perforated strips each on the short sides and four perforated strips each on the long sides, can be locked either with one large adjustable or clamping lid or with two smaller adjustable or clamping lids. This allows you to securely fix two stacks of bulk material baskets with different heights.

The washing racks can be stacked with MEFO-BOXes of the same size.

#### **STANDARD SERIES**

Part No.	Outside dimension	Roller conv. dim.	Inside dimension	Weight
	L2 x B2 x H	L1 x B1	L x B	(kg)
MF4003/WG-1	471 x 321 x 200	452 x 303	430 x 280	3,6
MF4006/WG-1	651 x 471 x 300	632 x 450	610 x 430	5,8
MF4006/WG-2	651 x 471 x 300	632 x 450	610 x 430	6.3



## Adjustable lid

#### Standard version

The adjustable lid is inserted into the wire grating of the side walls and makes it possible to lock the MEFO-BOX according to the fill level. This prevents that parts float or drop out of the basket when the MEFO-BOX is immersed, swivelled or rotated during cleaning operation.

#### **STANDARD SERIES**

Part No.	Mesh width	Outside dimension L x B x H	Weight (kg	<b>J</b> )	suitable for MEFO-BOXes		
	MW	MW6 MW12	MW6 M	W12	with outside dimension (L2 x B2)		
MF4050/	6 / 12	332 x 183 x 35 / 324 x 174 x 35	1,0 0,	,7	371 x 221		
MF4051/	6 / 12	430 x 281 x 35 / 424 x 274 x 35	1,7 1,	,4	471 x 321		
MF4052/	6 / 12	482 x 283 x 35 / 474 x 274 x 36	1,8 1,	,5	521 x 321		
MF4053/	6 / 12	608 x 428 x 32 / 604 x 424 x 40	3,8 3,	,4	651 x 471 as well as 659 x 479		

#### **EURO SERIES**

Part No.	Mesh width	Outside dime	Outside dimension L x B x H			suitable for MEFO-BOXes		
	MW	MW6	MW12	MW6	MW12	with outside dimension (L2 x B2)		
MF4151/	6 / 12	369 x 267 x 3	5 / 363 x 263 x 35	1,4	1,2	408 x 308		
MF4152/	6 / 12	567 x 368 x 4	10 / 560 x 363 x 40	3,8	2,8	608 x 408		

#### **SPECIAL SERIES**

Part No.	Mesh width	Outside dimensi	Outside dimension L x B x H		(kg)	suitable for MEFO-BOXes
	MW	MW6	MW12	MW6	MW12	with outside dimension (L2 x B2)
MF4251/	6 / 12	353 x 351 x 35 ,	/ 348 x 348 x 35	1,4	1,2	396 x 396

#### **Version for heavy loads**

In the version for heavy loads, the adjustable lid is equipped with additional reinforcements. The adjustable lid for heavy is only available in mesh width 12 mm.

#### **STANDARD SERIES**

Part No.	Mesh width	Outside dimension	Weight	suitable for MEFO-BOXes
	MW	LxBxH	(kg)	with outside dimension (L2 x B2)
MF4053/12-SL	12	604 x 424 x 40	4.3	651 x 471 as well as 659 x 479



Clampina lia

## **Clamping lid**

With the clamping lid, individual parts and bulk material can be fixed in MEFO-BOXes in mesh width 12 mm of all series. Individual parts have to be covered with an inserting bottom (modified with pressure rods), bulk material baskets can be directly locked with the clamping lid for up to two baskets per base area. If more than 2 baskets per base area are used, an additional inserting bottom (modified with pressure rods) must be used in order to distribute the clamping force of the rollers evenly on all bulk material baskets. Individual parts or bulk material baskets can be quickly and easily clamped the two dead centre tilt levers. The maximum load capacity of the clamping lid is 80 kg. In the Mefo-Box a height of 74 mm is required for the clamping lid.

#### **STANDARD SERIES**

Part No.	Outside dimension L x B x H	Clamping force (N)	Weight (kg)	suitable for MEFO-BOXes with outside dimension (L2 x B2)
MF4090/12	324 x 175 x 36	150	1,2	371 x 221
MF4091/12	425 x 275 x 36	250	2,2	471 x 321
MF4092/12	475 x 275 x 36	300	2,3	521 x 321
MF4093/12	605 x 425 x 36	500	3,0	651 x 471 as well as 659 x 479

#### **EURO SERIES**

Part No.	Outside dimension L x B x H	Clamping force (N)	Weight (kg)	suitable for MEFO-BOXes with outside dimension (L2 x B2)
MF4191/12	363 x 263 x 36	250	1,5	408 x 308
MF4192/12	560 x 363 x 36	500	3,0	608 x 408

#### **SPECIAL SERIES**

Part No.	Outside dimension	Clamping	Weight	suitable for MEFO-BOXes
	LxBxH	force (N)	(kg)	with outside dimension (L2 x B2)
MF4291/12	345 x 345 x 74	250	2,2	396 x 396



## **Supporting lid**

The supporting lid is placed in the stacking frame and closes the MEFO-BOX on the top. It prevents that parts float or drop out of the basket when the MEFO-BOX is immersed, swivelled or rotated during cleaning operation. The supporting lid is not fixed in the basket and has to be clamped by the machine during the cleaning process.

1,5

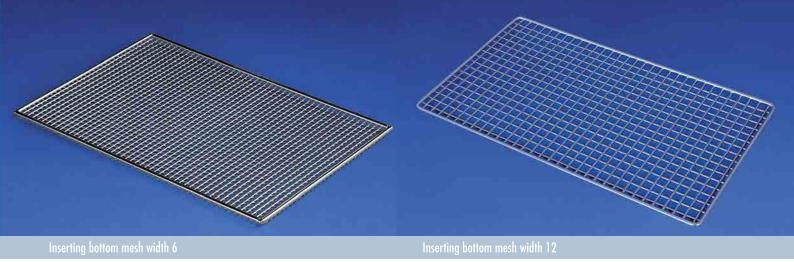
608 x 408...

#### STANDARD SERIES

MF4182/...

EURO SERIES Part No. Mesh width Outside dimension L x B x H Weight (kg) suitable for MEFO-BOXes MW MW4 MW6 / MW12 With outside dimension	SIANVAKI	) SEKIES						
MF4080/ 6 / 12	Part No.	Mesh width	Outside dimens	sion L x B x H	Weight	(kg)		suitable for MEFO-BOXes
MF4081/ 4 / 6 / 12		MW	MW4	MW6 / MW12	MW4	MW6	MW12	with outside dimension
MF4082/ 4 / 6 / 12 502 x 303 x 14 / 502 x 303 x 17 1,7 1,8 1,6 521 x 321  MF4083/ 6 / 12 630 x 450 x 17 3,2 2,7 651 x 471 as well as 659 x 4  EURO SERIES  Part No. Mesh width Outside dimension L x B x H Weight (kg) suitable for MEF0-BOXes MW MW4 MW6 / MW12 with outside dimension	MF4080/	6 / 12		350 x 200 x 17		1,0	0,7	371 x 221
MF4083/ 6 / 12 630 x 450 x 17 3,2 2,7 651 x 471 as well as 659 x 4  EURO SERIES  Part No. Mesh width MW4 MW6 / MW12 With outside dimension L x B x H Weight (kg) suitable for MEF0-B0Xes with outside dimension	MF4081/	4/6/12	451 x 303 x 14	/ 451 x 301 x 17	1,6	1,7	1,5	471 x 321
EURO SERIES Part No. Mesh width Outside dimension L x B x H Weight (kg) suitable for MEFO-BOXes MW MW4 MW6 / MW12 With outside dimension	MF4082/	4/6/12	502 x 303 x 14	/502 x 303 x 17	1,7	1,8	1,6	521 x 321
Part No. Mesh width Outside dimension L x B x H Weight (kg) suitable for MEFO-BOXes MW MW4 MW6 / MW12 With outside dimension	MF4083/	6 / 12		630 x 450 x 17		3,2	2,7	651 x 471 as well as 659 x 479
MW MW4 MW6 / MW12 MW4 MW6 MW12 with outside dimension	EURO SER	IES						
•	Part No.	Mesh width	Outside dimens	ion L x B x H	Weight	(kg)		suitable for MEFO-BOXes
MF4181/ 6 / 12 389 x 289 x 17 1,5 1,0 408 x 308		MW	MW4	MW6 / MW12	MW4	MW6	MW12	with outside dimension
, , , , , , , , , , , , , , , , , , , ,	MF4181/	6 / 12		389 x 289 x 17		1,5	1,0	408 x 308

586 x 389 x 17



## **Inserting bottom**

Used as an intermediate layer when loading the MEFO-BOX with several layers of delicate parts, the inserting bottom protects your parts against damage.

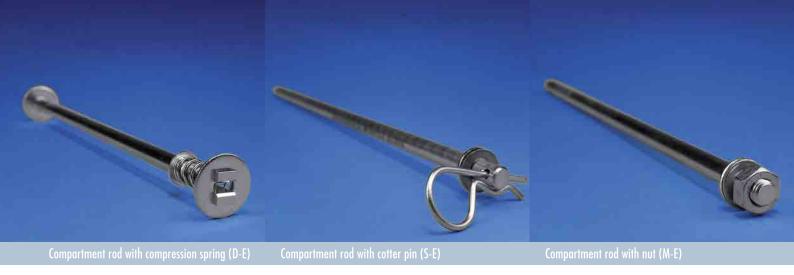
#### **STANDARD SERIES**

SIANDAKD SEKIES			
Part No. Mesh width	Outside dimension L x B x H	Weight (kg)	suitable for MEFO-BOXes
MW	MW6 MW12	MW6 MW12	with outside dimension
MF4060/ 6 / 12	332 x 182 x 10 / 324 x 174 x 10	0,8 0,5	371 x 221
MF4061/ 6 / 12	431 x 283 x 10 / 425 x 275 x 10	1,3 1,1	471 x 321
MF4062/ 6 / 12	482 x 283 x 10 / 475 x 275 x 10	1,5 1,2	521 x 321
MF4063/ 6 / 12	606 x 427 x 14 / 604 x 423 x 12	2,6 2,3	651 x 471 as well as 659 x 479
EURO SERIES			
north to be to be	A cold by the first transfer	Mr. Lett. V	" II ( MEEO DOV

Part No.	Mesh width	Outside dimensio	Weigh	t (kg)	suitable for MEFO-BOXes	
	MW	MW6	MW12	MW6	MW12	with outside dimension
MF4161/	6 / 12	363 x 263 x 10 /	363 x 263 x 10	1,1	0,9	408 x 308
MF4162/	12		560 x 363 x 12		1,7	608 x 408

#### **SPECIAL SERIES**

Part No.	Mesh width	Outside dimension	on L x B x H	Weigh	t (kg)	suitable for MEFO-BOXes
	MW	MW6	MW12	MW6	MW12	with outside dimension
MF4261/	12		345 x 345 x 15		1,2	396 x 396



## Compartment rod

The compartment rods allow quick and easy assembly of compartments in the MEFO-BOX, adapted to the size and geometry of your components. This is usually necessary when cleaning small batches of parts with special geometries. Compartment rods can be used with adjustable or clamping lids. They are available in **three versions\*** for all MEFO-BOXes in mesh width 12 mm:

- with compression spring (Part No. MF4 ... **D-E**)
- with **cotter pin** (Part No. MF4 ... **S-E**)
- with **nut** (Part No. MF4 . . . **M-E**)

If required, compartment rods can be covered with Teflon tubes or coated.

#### **STANDARD SERIES**

Part No.	Position in MEFO-BOX	Length M-E, S-E	Length D-E	Diameter	suitable for MEFO-BOXes with outside dimension
MF4041	crossways	312	298	10	471 x 321
MF4042	lengthways/	462	448	10	471 x 321 lengthways as well as 651 x 471 crossways
	crossways				
MF4043	lengthways	512	498	10	521 x 321
MF4044	lengthways	642	628	10	651 x 471 as well as 659 x 479

#### **EURO SERIES**

Part No.	Position in MEFO-BOX	Length M-E, S-E	Length D-E	Diameter	suitable for MEFO-BOXes with outside dimension
MF4141	crossways	300	286	10	408 x 308
MF4142	lengthways/	400	386	10	408 x 308 lengthways as well as 608 x 408 crossways
	crossways				
MF4144	lengthways	604	586	10	608 x 408

#### **SPECIAL SERIES**

Part No.	Position in	Length	Length	Diameter	suitable for MEFO-BOXes
	MEFO-BOX	M-E, S-E	D-E		with outside dimension
MF4241	lengthways/ crossways	388	374	10	396 x 396

<sup>\*</sup> Please always specify the desired version (e.g. MF4041D-E) with your order.





### **Bulk material basket**

With the bulk material baskets, you can clean and transport small and tiny parts particularly efficiently. The baskets are available in full, half, quarter and eighth-size (based on the base area of the corresponding MEFO-BOX) in mesh widths 1, 2, 3, 5 and 8 mm. For special applications, several bulk material baskets are also available in mesh widths 0.5 and 0.3 mm. The wide range of bulk material baskets enables you to pool various small parts in a MEFO-BOX and then clean them cost-effectively in one charge without the risk of intermixing parts.

The bulk material baskets are inserted in the respective MEFO-BOX and securely locked with the matching clamping lid. A height of at least 74 mm is required for use of the clamping lid. The useful height of the MEFO-BOX is reduced accordingly. Please take this into account when making your selection. If more than 2 bulk material baskets per base area of the MEFO-BOX are used, an additional inserting bottom (modified with pressure rods) must be used. All eighth-size baskets are equipped with camloc snap-closings. For those, instead of the clamping lid an adjustable lid may be used for locking of the MEFO-BOX.

#### **STANDARD SERIES**

#### Bulk material basket suitable for MEFO-BOXes with outside dimension 371 x 221...

Part No.	Description	Outside dimension L x B x H
SG4007/1/1/	Full-size basket high	325 x 175 x 126
SG4007/1/2/	Full-size basket low	325 x 175 x 63
SG4007/2/1/	Half-size basket high	155 x 175 x 126
SG4007/2/2/	Half-size basket low	155 x 175 x 63

#### Bulk material basket suitable for MEFO-BOXes with outside dimension 471 x 321... as well as 651 x 471...

Part No. SG4003/1/1/ SG4003/1/2/	Description Full-size basket high Full-size basket low	Outside dimension L x B x H 424 x 274 x 126 424 x 274 x 63
SG4003/2/1/	Half-size basket high	210 x 274 x 126
SG4003/2/2/	Half-size basket low	210 x 274 x 63
SG4003/8/1/	Eighth-size basket high	105 x 120 x 120
SG4003/8/2/	Eighth-size basket low	105 x 120 x 63
SG4008/2/1/	Half-size basket high	210 x 274 x 84

#### Bulk material basket suitable for MEFO-BOXes with outside dimension 521 x 321...

Part No. SG4005/1/1/ SG4005/1/2/	<b>Description</b> Full-size basket high Full-size basket low	Outside dimension L x B x H 474 x 274 x 126 474x 274 x 63
SG4005/2/1/	Half-size basket high	235 x 274 x 126
SG4005/2/2/	Half-size basket low	235 x 274 x 63
SG4005/8/1/	Eighth-size basket high	115 x 120 x 120
SG4005/8/2/	Eighth-size basket low	115 x 120 x 63



Inserting hottom modified with pressure rode

## SG 4000 / B / K / M

#### SG = Bulk material basket

#### MEFO-BOX Part No.

(specifies, for which MEFO-BOX the bulk material basket has been designed and is reference for base and basket heigth)

#### / B = Base

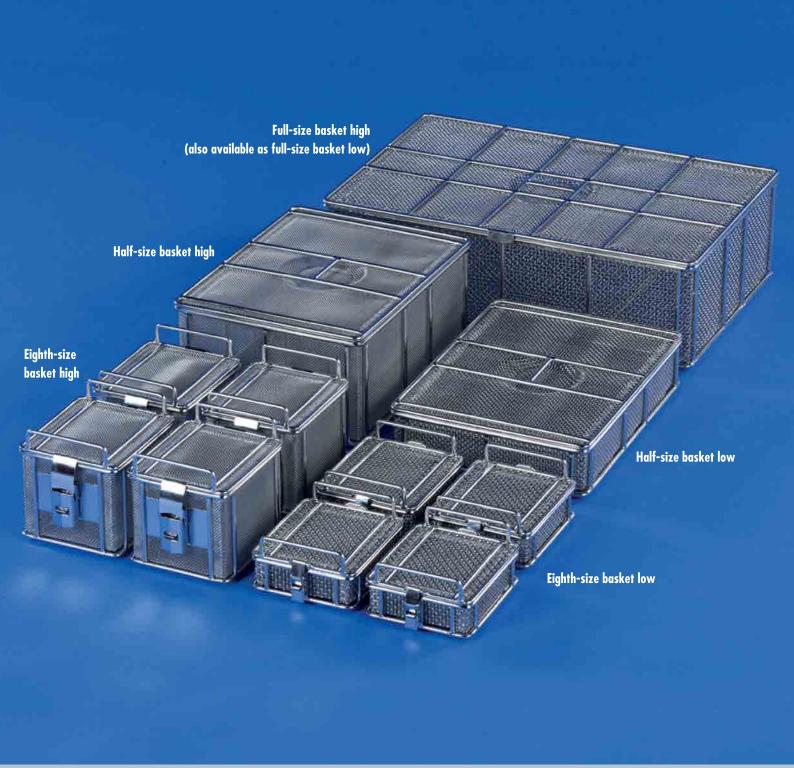
- 1 = full base
- 2 = half base
- 4 = quarter base
- 8 =eighth base

#### / K = Basket height

- 1 = high (full basket height)
- 2 = low (half basket height)
- / M = Mesh width

1; 2; 3; 5; 8

Scheme for Part No.





## **Bulk material basket**

With the bulk material baskets, you can clean and transport small and tiny parts particularly efficiently. The baskets are available in full, half, quarter and eighth-size (based on the base area of the corresponding MEFO-BOX) in mesh widths 1, 2, 3, 5 and 8 mm. For special applications, several bulk material baskets are also available in mesh widths 0.5 and 0.3 mm. The wide range of bulk material baskets enables you to pool various small parts in a MEFO-BOX and then clean them cost-effectively in one charge without the risk of intermixing parts.

The bulk material baskets are inserted in the respective MEFO-BOX and securely locked with the matching clamping lid. A height of at least 74 mm is required for use of the clamping lid. The useful height of the MEFO-BOX is reduced accordingly. Please take this into account when making your selection. If more than 2 bulk material baskets per base area of the MEFO-BOX are used, an additional inserting bottom (modified with pressure rods) must be used. All eighth-size baskets are equipped with camloc snap-closings. For those, instead of the clamping lid an adjustable lid may be used for locking of the MEFO-BOX.

#### **EURO SERIES**

Bulk material basket suitable for MEFO-BOXes with outside dimension 408 x 308... as well as 608 x 408...

Description Full-size basket high Full-size basket low	Outside dimension L x B x 1 362 x 262 x 126 362 x 262 x 63
Half-size basket high	262 x 175 x 126
Half-size basket low	262 x 175 x 63
Quarter-size basket high	175 x 130 x 126
Quarter-size basket low	175 x 130 x 63
	Full-size basket high Full-size basket low Half-size basket high Half-size basket low Quarter-size basket high



#### Inserting hottom modified with pressure rods

### SG 4000 / B / K / M

#### SG = Bulk material basket

#### MEFO-BOX Part No.

(specifies, for which MEFO-BOX the bulk material basket has been designed and is reference for base and basket heigth)

#### / B = Base

1 = full base

2 = half base

4 = quarter base

8 =eighth base

#### / K = Basket height

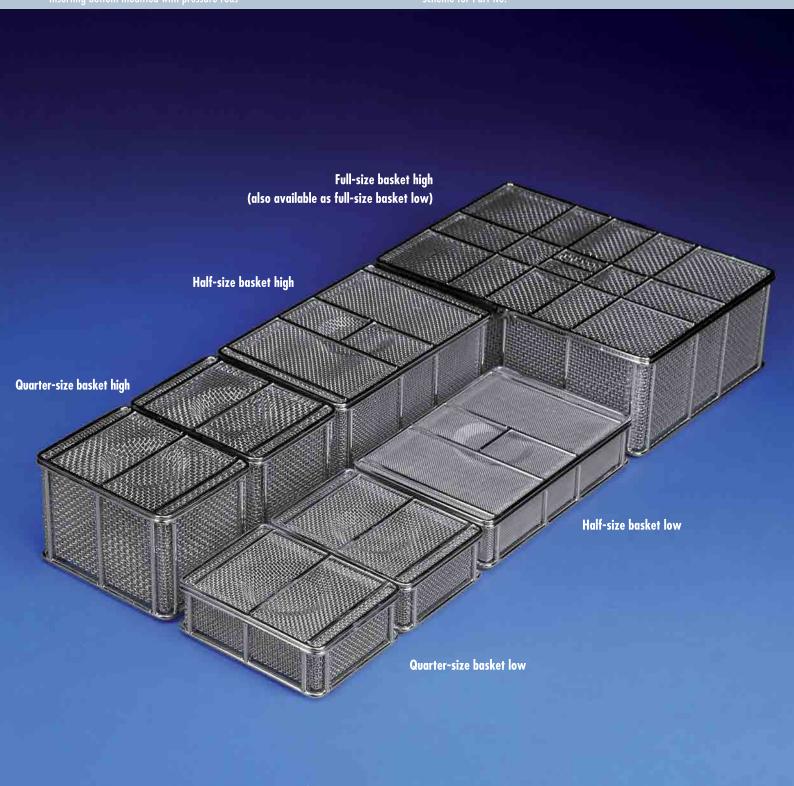
1 = high (full basket height)

2 = low (half basket height)

/ M = Mesh width

1; 2; 3; 5; 8

Scheme for Part No.



## Component protection

To avoid damage when cleaning workpieces with sensitive surfaces, we offer various options of component protection.

A proved and tested plastic grating, which can be used on the bottom of the basket as well as intermediate layer and cover, prevents scratches or damage by contact between metal and metal. The low-cost plastic grating is made of PP or PA depending on the cleaning medium.

Alternatively, inserting bottoms, compartment rods or other inserts, can be equipped with a plastic coating.

Special, temperature- and media-resistant Teflon hoses and tubes allow for the selective encasing of areas on compartment rods and dividers that are touching the components. Teflon tubes are mainly used for heavy and / or sharp-edged components.

In general, plastic parts and coatings used during cleaning are subject to certain wear and tear. Depending on the load, they must therefore be replaced from time to time.







## Quality made in Bretten

It's a matter of know-how.

Our strengths are our in-house design and manufacturing. For our customers this means consistently high quality, price stability and adherence to delivery dates — no matter how large or small the order.



ISO 9001:2015

As a quality and competitive factor, parts cleaning makes a significant contribution to the value creation. We support you through our comprehensive know-how and our long-term experience as well as the quality focus of our employees. Our strengths are our holistic expert consultation, in-house design and production as well as the fact that we know exactly what matters for process-reliability and efficiency in parts cleaning.

This makes us your competent partner for cleaning baskets and workpiece holders - the core element of the cleaning process. Based on the consistently high quality of our products, our adherence to delivery dates and our cost awareness, we offer our customers added value - regardless of whether they need a small, medium or large quantity of cleaning and transport baskets.

Talk to us about your cleaning requirements - and discover that there are differences.

#### METALLFORM Wächter GmbH

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