



IF flat-bed scales for use  
in the chemical, pharmaceutical  
and food industries.





Save valuable time.

Integrate the scale into your process.


Scales are increasingly being integrated into production processes in order to make them more efficient. Applications requiring the weighing of large quantities and containers offer the greatest potential for savings as more costly handling is needed in such cases.

Traditional floor scales are often a mechanical obstacle in the production process while flush installation in a floor pit hides a number of disadvantages. IF flat-bed scales from Sartorius offer a practical, time-saving solution.

#### **Traditional floor and pit scales**

- Immovable mechanical obstacles which hinder the process sequence.
- Floor pits can give rise to static problems.
- Hygiene problems because pits are inaccessible collection points for dirt and can only be cleaned at considerable expense.

#### **IF flat-bed scales**

- + Easy handling due to ergonomic design and sophisticated equipment.
  - + Ideal for clean rooms in the pharmaceutical industry, for example, as they are designed with hygiene aspects in mind.
  - + Suitable for operation with aggressive substances due to the use of resistant materials.
  - + Very easy wet cleaning e.g. in wet production facilities in the food industry.
  - + Freely moveable due to rollers and steering drawbar.
  - + Low maintenance costs and long service life due to robust construction.
  - + Customization on request.
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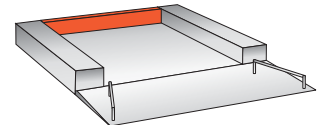
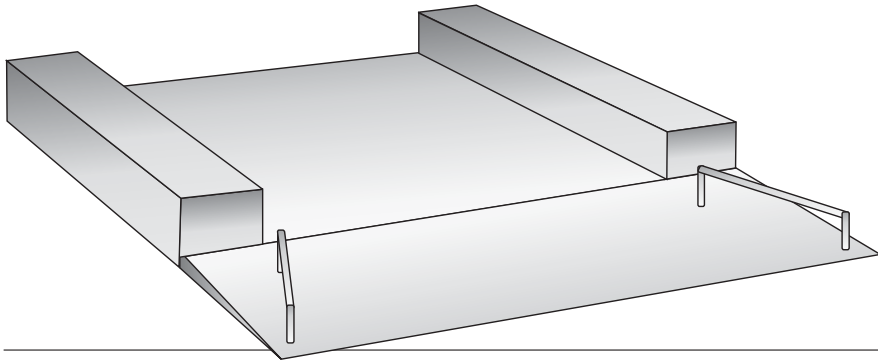


# Made-to-measure.

## Choose your solution from a variety of designs and

### Standard models

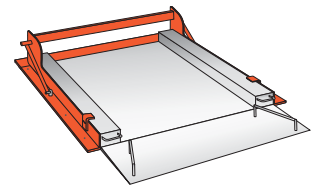
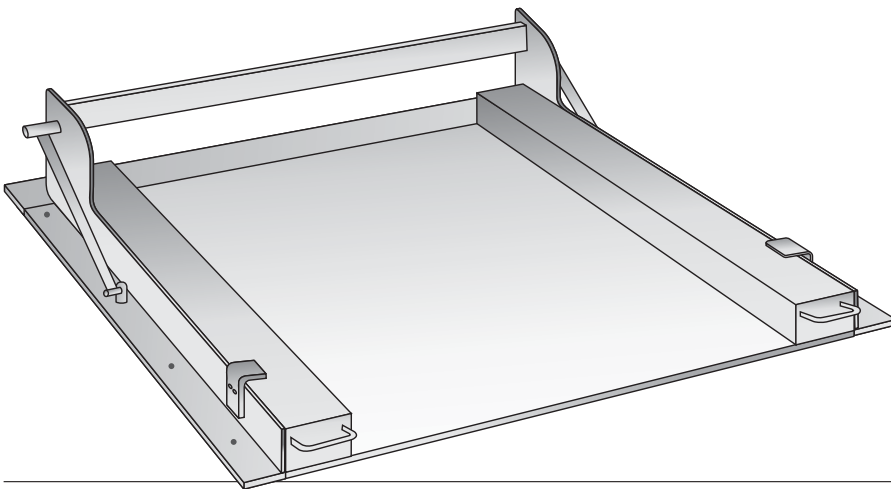
Loads of over 1 t can be placed on the platform effortlessly. This is made possible by the very low height of the platform and low rise drive-on ramps (extremely space-saving).



**Option T4**  
Includes drive-through protection for exclusively one-sided loading and unloading

### Fold-up models

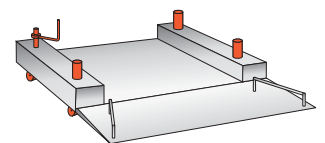
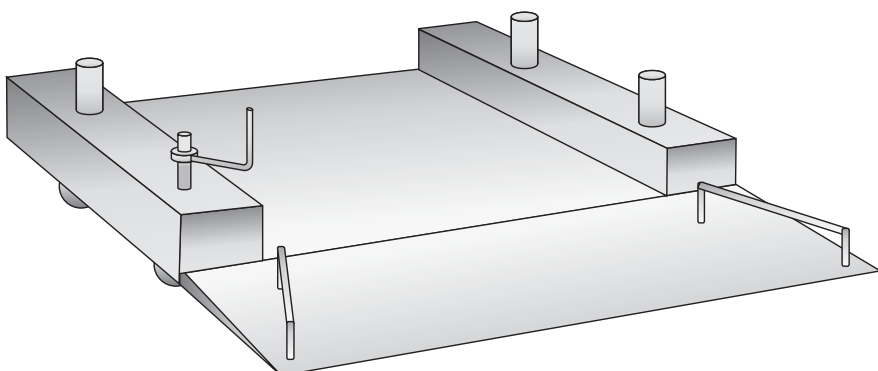
Ideal for stationary applications; the platform is folded up to clean the scale and floor.



**Option T8**  
Premium folding device; complies with NIOSH specifications for one-person operability (required lifting force < 20 kg)

### Models with wheels

The variant with foldaway wheels can be handled by a single operator - ideal for changing points of use and easy cleaning of underneath floor surface.

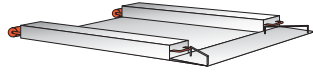


**Option T7**  
4 built-in foldaway wheels which can be lowered for easy handling of platform

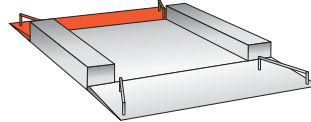
# options.



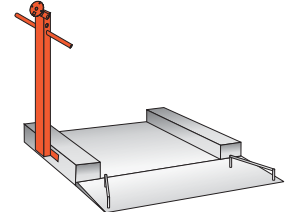
**Option T13**  
4 transport grips on the front and rear sides



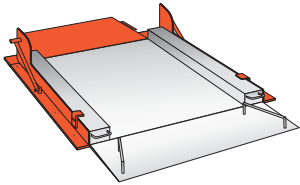
**Option T6**  
Rollers on the rear side and grips on the front side for one-sided lifting and handling



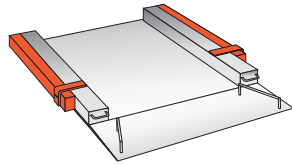
**Option T15**  
Second ramp for two-sided access and use as a drive-through scale



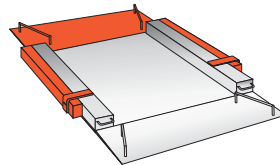
**Option T14**  
Support arm for attaching an electronic scale display



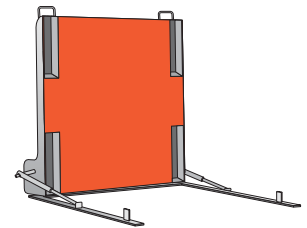
**Option T12**  
As option T8 but with second ramp for two-sided access and use as a drive-through scale



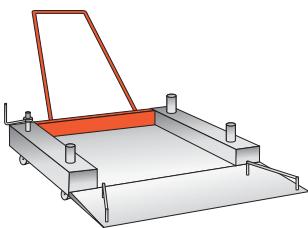
**Option T10**  
Basic folding device with folding hinge and gas-pressurized spring for 2 man operation



**Option T11**  
As option T10 but with second ramp for two-sided access and use as a drive-through scale



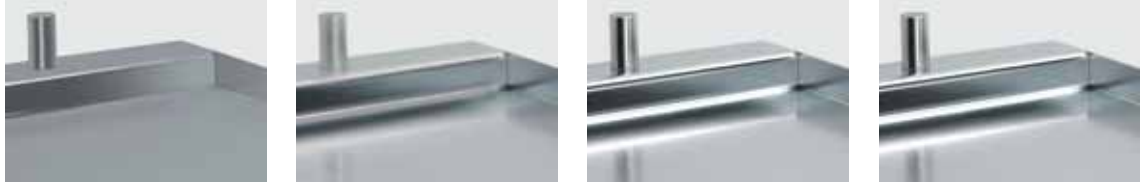
**Option T9**  
Cover plate for added protection of the underside of the platform with openings for the load feet



**Option T5**  
Steering drawbar for easy pushing, combined with drive-through protection as standard

Reduce risks.

Safety due to application and industry-specific materials,



<b>Material</b>	Steel	Stainless steel	Stainless steel	Stainless steel
<b>Quality</b>		V2A (1.4301 2B cold-rolled; AISI 304)	V2A (1.4301 2B cold-rolled; AISI 304)	V4A (1.4571 2B cold-rolled; AISI 316 Ti)
<b>Surface</b>	grey painted	glass bead blasted	electropolished; Surface roughness $\leq 0.8 \mu\text{m}$	electropolished; Surface roughness $\leq 0.4 \mu\text{m}$
<b>Protection class</b>				
standard	IP65	IP68	IP68	IP68
optional*		IP69K	IP69K	IP69K

\* Ex-series models IFXS4 comply with IP69K as standard.

**Highest quality surface finish on request**

German DIN Standard 11850 considers mean surface roughness of  $Ra \leq 0.8 \mu\text{m}$  to be adequate for sterile processes. For the most demanding applications we also offer a surface finish quality of  $\leq 0.4 \mu\text{m}$ .



# protection classes and conformities.

## **Explosion protection available as standard**

Optionally, all models of series IFP4 and IFS4 are suitable for installation in potentially explosive atmospheres (Zones 2 and 22).  
ATEX: II 3 GD EEx nR II T6 T80°C

Ex-series models IFXS4 are suitable for installation in potentially explosive atmospheres (Zones 1 and 21 as well as 2 and 22) and comply with IP69K.  
ATEX: II 2 GD EEx ib II C T4 T150°C

## **Display resolutions and use in legal metrology**

Display resolutions of up to 15,000 steps are possible, in legal metrology up to  $2 \times 3000e$  as a multiple-range scale. Higher resolutions of up to 60,000 scale intervals for weighing in smaller quantities are available on request. The minimum initial weight can be provided with a DKD certificate if required. All scales have PTB test certificates and are suitable for use in legal metrology. Suitable scale indicators can be found in the broad range of Sartorius weighing and process indicators. On request we also supply DKD certificates and/or manufacturer's test reports.

## **GMP | HACCP**

The constructional details of the scales (materials, protection classes, surfaces) and the associated manufacturer's certificates are the basis for use in the regulated industries (pharmaceutical, food and drink, cosmetics). We support integration in the validation process (IQ|OQ), through to the Factory Acceptance Test (FAT).

## **NIOSH**

Foldable models (option T8) comply with the NIOSH requirement for cleaning by one person with minimum effort.



# Intelligent details provide a high level of practical benefits.



## Hygienic Design

IF flat-bed scales are designed for use in hygienically sensitive areas: They comply with EHEDG regulations, prevent contamination due to best stainless steel quality and surface features and are resistant to moisture and dust thanks to protection classes up to IP69K.



## Suitable for clean rooms

Use of materials particularly suitable for clean rooms with high surface finish quality in accordance with DIN 11850, electropolished  $\leq$  choice of  $0.8 \mu\text{m}$  or  $\leq 0.4 \mu\text{m}$ .



## Saves time and effort

Easy to handle due to extendable rollers and steering drawbar.







### Very flat design

Height in drive-through section only 35 mm, optionally as little as 25 mm, facilitating short drive-on ramps with very flat drive-on angles. In the case of pit installation the required pit depth is only approx. 25 mm.



### Low space requirement

The very short, removable ramp takes up a small amount of production space and leaves more room for transport routes.



### Easy and safe

Thanks to the very flat drive-on angle, loads of 1 t and more can be driven on easily and safely.



### Highest protection class

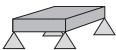
The optionally available IP69K protection class (water-jet resistance) makes the IF resistant to high-pressure cleaning.



### Reliable

Long-term mechanical and electrical functional safety due to extremely solid construction and workmanship. In the event of damage Sartorius Service is quickly on site.

# The choice is yours:

IF	P	4
Platform	Design: P = Painted steel S = Stainless steel XS = EX protection, Stainless steel	Quantity Weigh cells 

1500	RR	L
Weighing ranges in kg	Weighing platform size	Resolution: Non-verifiable 15,000 d = L 30,000 d = I  verifiable 3,000 e = LCE 2 × 3,000 e = NCE*

## Weighing ranges

Weighing ranges from 150 kg to 3,000 kg cover almost all requirements. The scales are protected against overload.

Customizable weighing ranges are available on request.

## Sizes and designs

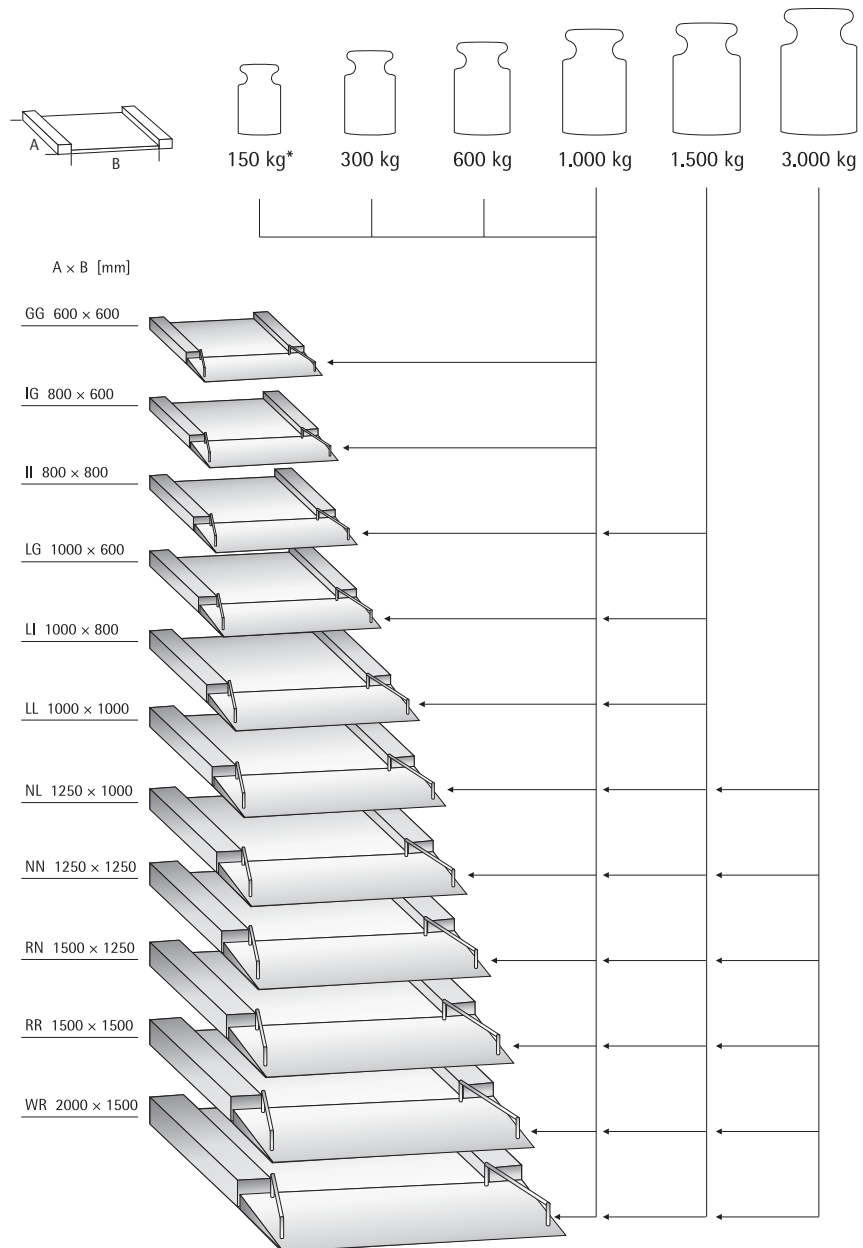
Platform sizes from 600 × 600 mm to 2,000 × 1,500 mm are available for selection according to container size and weighing range. The basic designs are complemented by a range of options.

Special sizes on request.

## Special designs

In order to adapt the product to your process, we also produce special solutions, for example special constructional systems, grips, frames and storage for special or batch containers. Anything is possible - right up to batching and filling solutions.

Special designs and solutions on request.



Some options are only available for selected dimensions, weighing ranges and resolutions. Ask us ...

\* Weighing range 150 kg not available as NCE variant for sizes NN, RN, RR and WR

# Technical Data

Weighing range		150 kg	300 kg	600 kg	1,000 kg	1,500 kg	3,000 kg
<b>Dimensions in mm (A×B)</b>	<b>ID</b>	<b>Standard height   optional height in mm</b>					
600×600	GG	35   25	35   25	35   25	35   25	-	-
800×600	IG	35   25	35   25	35   25	35   25	-	-
800×800	II	35   25	35   25	35   25	35   25	35   25	-
1,000×600	LG	35   25	35   25	35   25	35   25	35   25	-
1,000×800	LI	35   25	35   25	35   25	35   25	45   35	-
1,000×1,000	LL	35   25	35   25	35   25	35   25	45   35	45   -
1,250×1,000	NL	35   25	35   25	35   25	35   25	45   35	45   -
1,250×1,250	NN	35   25	35   25	45   35	45   35	45   35	45   -
1,500×1,250	RN	35   25	35   25	45   35	45   35	45   35	45   -
1,500×1,500	RR	45   35	45   35	45   35	45   -	45   -	45   -
2,000×1,500	WR	45   35	45   35	45   35	45   -	45   -	45   -

## Single-range scale resolutions

Weighing range in kg	-I 30,000 d in g	-L 15,000 d in g	-LCE 1×3,000e verifiable in g
150	5	10	50
300	10	20	100
600	20	50	200
1,000	50	100	500
1,500	50	100	500
3,000	100	200	1,000

## Multiple-range scale resolution

<b>-NCE 2×3,000 e verifiable</b>				
Weighing range in kg	Weighing range 1 in kg	Resolution for Weighing range 1 in g	Weighing range 2 in kg	Resolution for Weighing range 2 in g
150	60	20	150	50
300	150	50	300	100
600	300	100	600	200
1,000	600	200	1,000	500
1,500	600	200	1,500	500
3,000	1,500	500	3,000	1,000

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