METTLER TOLEDO checkweigher models CK30 / CK60 / CK100

CK30 checkweigher
(figure is similar)

The METTLER TOLEDO CK series checkweighers are rugged dynamic weighing systems for heavy loads. They are available as model CK30 (for loads up to 30 kg), model CK60 (for loads up to 60 kg) and model CK100 (for loads up to 100 kg).

"CK series" checkweighers offer the following advantages – among others:

- flawless operation in harsh industrial environment, due to robust design
- display for clear indication of weight values and operator prompts
- variable speed of the belt conveyor, for a multitude of applications
- classification in three weight zones – ideal for use as "policeman checkweigher"
- optional sorting/rejecting device for gentle rejection of out-of-tolerance products

Standard

Consisting of weighing terminal "L 700" and weighing conveyor. Without infeed/outfeed conveyor and without sorting/rejecting device.

Weighing terminal L 700, directly mounted on control cabinet

Display	digital, with weight unit and symbols indicating the operation status
Keypad	ergonomic membrane keypad with function keys/symbols, made of robust, industrial-use plastic
Data entries	operator guidance by prompts in the display
Re-zeroing	manual or automatic re-zero
Memory	4 article memory locations (data of 4 different 'product setups' can be entered)

Basic display

Weight indication	current weight value (gross)
Classification indication	by means of a red signal light (beacon) and alarm horn, both mounted on top of the control cabinet

Miscellaneous

Operating language(s)	GB
Operating instruct. manual	language GB

Metrological information

	CK30	CK60	CK100
Maximum load	30 kg	60 kg	100 kg
Accuracy (at 3 Sigma)	from ±20 to 50 g	from ±10 to 30 g	from ±10 to 30 g
Throughput (max.)	up to 60 weighings/ minute	up to 60 weighings/ minute	up to 50 weighings/ minute
Weighing range	1 kg to 30 kg	1 kg to 50 kg	1 kg to 100 kg
Resolution	d = 5 g / 10 g	d = 5 g / 10 g or 1 kg to 60 kg d = 10 g / 20 g	d = 10 g / 20 g / 50 g

The throughput and accuracy depend on the weight, size and transport behaviour of the product to be weighed. Accuracy decreases with increasing load.

The weighing accuracy depends on the weight and dimensions of the article to be weighed as well as throughput and environmental conditions.

Environment: To achieve the max. accuracy the weighing system must be operated in a location free from vibrations and air draught as far as possible.

Mechanical specification

Design	baseframe, control cabinet and housing of the weighing terminal 'in MT standard version' i.e. baseframe: epoxy painted, control cabinet and housing of the weighing terminal: stainless steel (V2A)
Transport direction	(seen from operator side of the checkw.), pls. indicate: left to right or right to left
Line height	600 to 900 ±40 mm (applies to all three models)
Compressed air supply	not required for standard checkweigher but optional sorting/rejecting devices will require 6 to 8 bars clean and dry, oil-free air
Weighcell	wire strain gauge technology
Weighing conveyor	body design: aluminium; belt material: PVC (polyvinylchloride)

W. conv. dimensions

CK30

A-A 600/800 mm
B-B 400/500 mm

Dist. betw. axles (A-A)	Belt width (B-B) 400	500
600	•	•
800	•	•

• standard

CK60

A-A 800/1000 mm
B-B 400/500 mm

Dist. betw. axles (A-A)	Belt width (B-B) 400	500
800	•	•
1000	•	•

• standard

CK100

A-A 1100/1200 mm
B-B 600 mm

Dist. betw. axles (A-A)	Belt width (B-B) 600
1100	•
1200	•

• standard

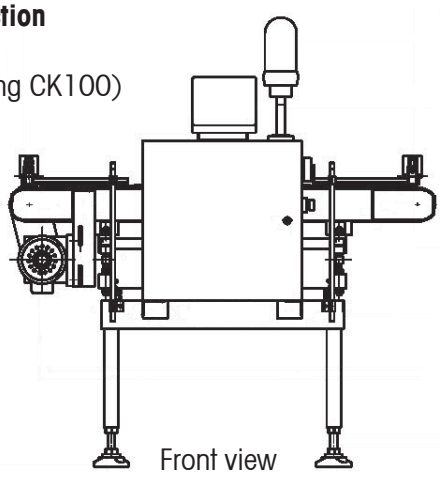
Weighing conveyor dimensions, product length and spacing

The following parameters must be considered when determining the weighing conveyor dimensions:
- minimum and maximum product length (edge length) in the direction of transport
- product width and transport behaviour of the product
- shape of the product and spacing between neighbouring products' centres
- throughput and required weighing accuracy

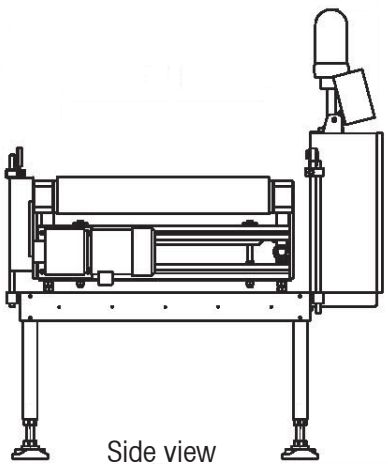
The spacing between neighbouring products' centres to be ensured must be at least the overall length of the weighing conveyor plus 60 mm safety allowance (model CK30) or 80 mm safety allowance (models CK60, CK100), respectively.

Schematic depiction

(Example: drawing CK100)



Front view



Side view

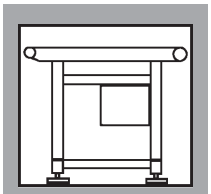
Electrical

Note	An interference-free environment (EMC, HF etc.) is an essential prerequisite for trouble-free operation of the weighing system.
Electrical ratings	220 - 240 V (A.C.), 50/60 Hz, single-phase, N, PE
Apparent power consumption	CK30: 500 VA CK60: 750 VA CK100: 750 VA
Motor power	CK30: 0.25 kW CK60: 0.55 kW CK100: 0.55 kW
Motor	frequency-controlled three-phase A.C. motor
Direction of transport	from left to right or right to left (seen from operator side of the checkweigher)
Temperature range	-10 to +40 °C

Data communication

Interface	standard: RS232 serial interface for transmitting individual weight values

CK series' options:

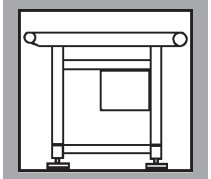


Infeed conveyor on separate supp. frame, for CK30

Infeed conveyor on a separate supporting frame to be placed at the infeed side of the checkweigher. Made of mild steel, expoxy painted.

Available sizes (A-A distance between axles / B-B belt width, in mm), for CK30:

- 600 / 400
- 600 / 500
- 800 / 400
- 800 / 500

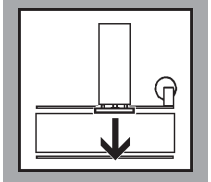


Outfeed conveyor on separate supp. frame, for CK30

Outfeed conveyor on a separate supporting frame to be placed at the outfeed side of the checkweigher. Made of mild steel, expoxy painted.

Available sizes (A-A distance between axles / B-B belt width, in mm), for CK30:

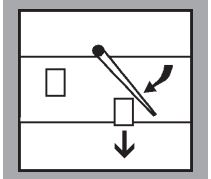
- 600 / 400
- 600 / 500
- 800 / 400
- 800 / 500



Pusher (mounted to the optional outfeed conveyor unit) – for CK30

NOTE: Requires an outfeed conveyor unit. Direction of rejecting is possible to the left or to the right seen in the direction of transport (to be indicated when placing the order). Max. throughput 40 pcs./minute. Stroke – depending on the belt width – 400 or 500 mm. The unit consisting of outfeed conveyor and sorting/rejecting device must be installed separately in order to protect the checkweigher from vibrations which may affect the accuracy of the weighing process.
For CK30 i.e. max. 30 kg product weight. Requires a compressed air supply, air pressure 6 bar.

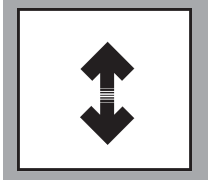
For rejecting heavy products, we recommend that the pusher be installed beside an outfeed roller path.



Swing gate (mounted to the optional outfeed conveyor unit) – for CK30

When throughput is low. NOTE: Requires an outfeed conveyor unit.
The unit consisting of outfeed conveyor and sorting/rejecting device must be installed separately in order to protect the checkweigher from vibrations which may affect the accuracy of the weighing process.

For CK30 i.e. max. 30 kg product weight. Requires a compressed air supply, air pressure 6 bar.

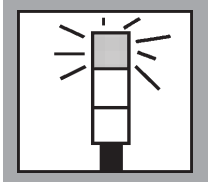


Special line height

In order to adapt the checkweigher's line height to the special height of the customer's production line.

For CK models (standard line height: 600 - 900 mm ± 40 mm):

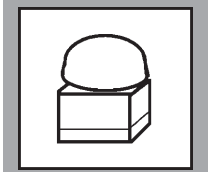
- Special line heights in the range 901 to 1000 mm or in the range 500 to 599 mm



Signalling device (signal light pole)

Colour-coded lights are activated by messages of the checkweigher. Three different signal elements / messages exist. Mounted on a pillar on the framework (so high that it is well visible).

The following weight classifications are signalled: underweight = red, GOOD = green, overweight = amber.



Emergency stop

- Emergency stop switch (push-button): The emergency-off switch (push-button) in signal colours is easily accessible. It stops the conveyor motors almost immediately.

Notes: