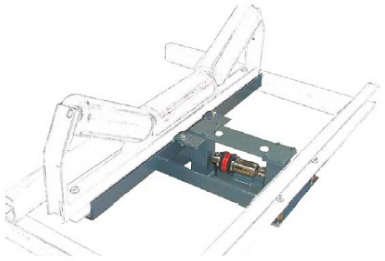
Belt weighing unit BK



Technical data and dimensions

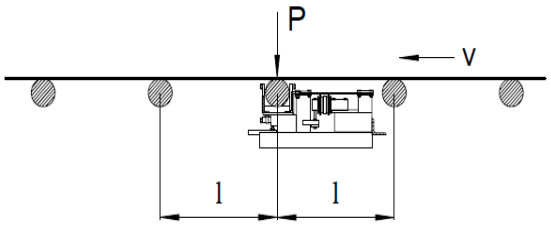
The belt weighing unit BK consists of a weighing unit with load cell. The weighing unit is adapted for SEG load cells and may be equipped with an overload protection device, for 35kg and 100kg load cells. The weighing unit can either be used together with an adapter for accomodation of an existing idler set, or with an adjustable SEG precision idler set with trued and balanced rollers.

The unit is delivered with the load cell (to be ordered separately) already installed. SEG Idler sets are available in various versions (see overleaf).The finish is varnished steel as standard. The maximum total load must be calculated, and a suitable load cell size selected from the table below. As a rule of thumb, the best accuracy is normally achieved when the idler distance "l" at the installed weighing unit is adjusted to 1-2 times of the conveyor belt width.

Total load = measuring load **"P"** + belt weight + idler weight.The measuring load is calculated acc. to the formula below:

Loadcell rated load kg	Max total load kg	Over load protection (option) releases at kg	Measur.load P at full capacity	Belt weight kg/m	Idler weigh kg
35	50	~65	Calculated	See overleaf	
100	150	~155	Calculated	See overleaf	
200	250	-	Calculated		

Total load = measuring load **"P"** + belt weight + idler weight.
The measuring load is calculated acc. to the formula below:



P = (**Q x l**) / (3600 x v) kg
Q = max capacity in kg/h
l = idler distance at area of weigh unit in metres
v = belt speed in m/s

Load cells are ordered separately, refer to spec. for load cell type K.

Designations for weighing unit:

The designation of the weighing unit consists of a 2 code group: **BK - Options - Version** Example: **BK- 35 - STD** Options:- 0 (No option), **- 35** (Overload protection for 35kg load cell), **- 100** (Overload protection for 100kg load cell). **Version:-STD** (Std.coating), **-EP** (Epoxy coated), **-EPSS** (Epocy coated w.hardware in stainless), **-SS** (Stainless steel AISI 304).

Designations for idlers:

The designation for idlers consists of a 3 code group: **Code - Version - Roller options** Example: **K3/K2-STD**

Code:

P1-P5	Flat idlers.
Kx/Kx	Troughed idlers.
Vx	V-shape idlers.
Ux	Adapter only.

Version:

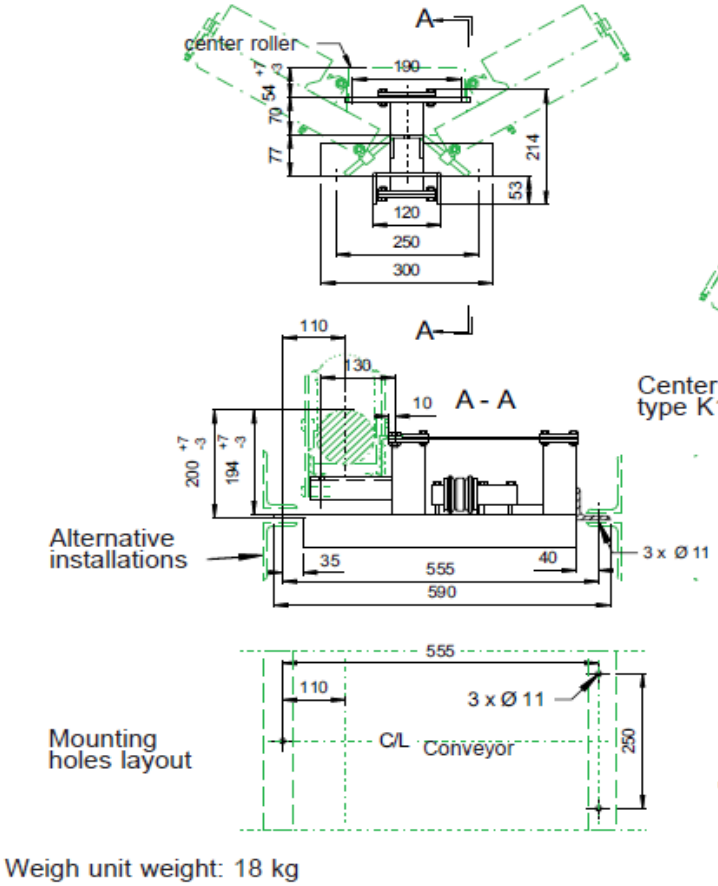
- STD Std. coating
- EP Epoxy coated.
- EPSS Epoxy coated with hardware in stainless.
- SS Stainless steel (AISI 304)

Roller option: (w/o option rollers have STD coating)

- RPL Nylon coated rollers.
- RSS Stainless rollers AISI 304.

The type of idler is selected acc. to the table overleaf. For troughed idlers the code no. for center- and side section is selected from the same table. Example: K3/K3-SS-RSS. A side section wider than the selected center section should be avoided. All idlers are delivered with coated steel rollers as standard. For dimensions see overleaf.

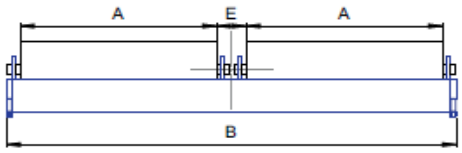
Weigh unit BK



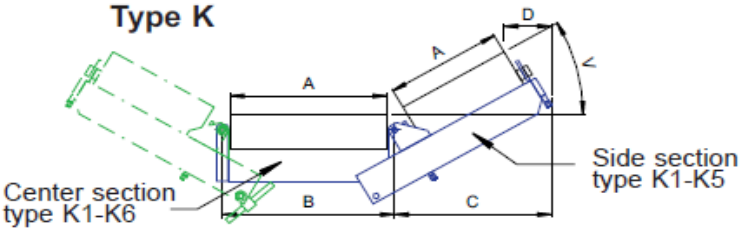
Weigh unit weight: 18 kg

Precision idlers

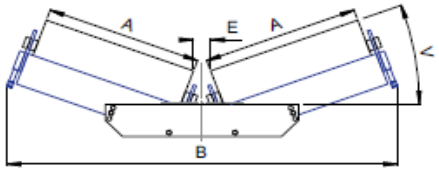
Type P



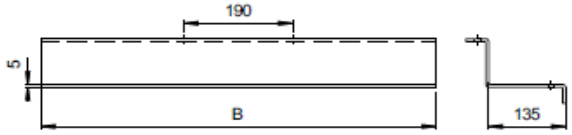
Type K



Type V



Type U, adapters for existing idler



All rollers are Ø = 102 mm
All measures in mm

Data for idlers

Codes for idlers	Roller lenght A	B mm	C V=20°	C V=30°	C V=45°	Throughing V°	D V=20°	D V=30°	D V=45°	E	Weight kg/pc
K1 (Y+M)	205	232	276	276	254	15-45	65	83	106	-	6
K2 (Y+M)	275	302	346	336	303	20-45	65	83	106	-	7.5
K3 (Y+M)	345	372	411	397	353	20-45	65	83	106	-	8.5
K4 (Y+M)	415	442	477	457	402	20-45	65	83	106	-	10
K5 (Y)	415	-	477	457	402	20-45	65	83	106	-	10
K5 (M)	485	512	-	-	-	-	-	-	-	-	12
K6 (M)	555	582	-	-	-	-	-	-	-	-	12
V1	2x275	720	-	-	-	15-25				30	14
P1	485	530	-	-	-	-	-	-	-	-	10
P2	2x345	790	-	-	-	-	-	-	-	52	15
P3	2x415	930	-	-	-	-	-	-	-	52	18
P4	2x485	1070	-	-	-	-	-	-	-	52	19
P5	2x415	1400	-	-	-	-	-	-	-	2x52	26
U1	-	1000	-	-	-	-	-	-	-	-	9
U2	-	800	-	-	-	-	-	-	-	-	8

Y = Side section, M = Center section

For determination of codes for troughed idlers, a center section "M"-measure needs to be checked. For accurate determination of idler data, specification F11-0e "Belt weighing unit data sheet" needs to be asked for and returned to the local representative after having been filled in properly. This will ensure correct selection of idler type.