

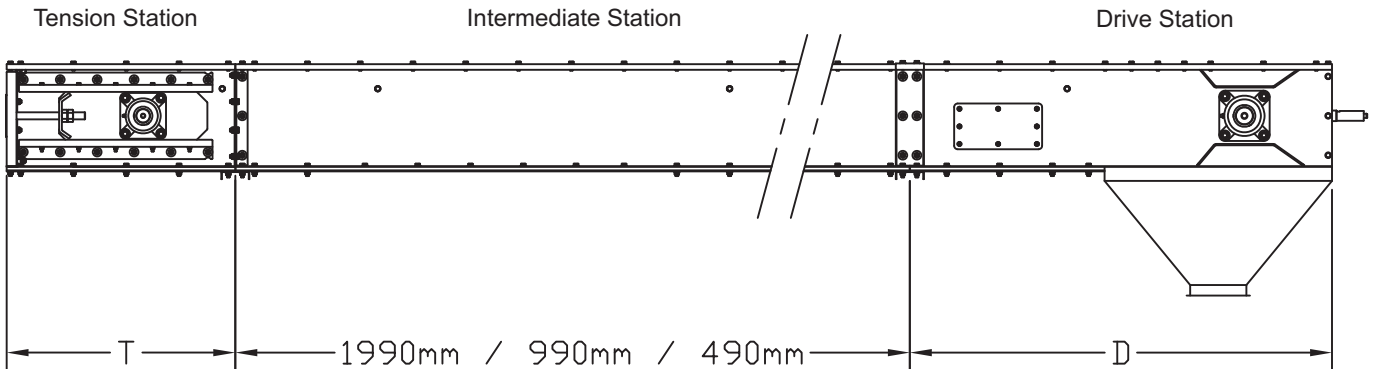
# CHAIN CONVEYOR

# CHAIN CONVEYOR

The PCC chain conveyors are designed to handle bulk grain, floury and mealy products.

The conveying capacities of the standard chain conveyor are up to **340t/h** with particle density of 750kg/m<sup>3</sup> and can handle organic and inorganic materials.

The PCC chain conveyors are designed to transport materials horizontally and on inclined path with maximum inclination up to 15° (depending on the max length). The standard construction is by galvanized sheet metal and painted mild steel, alternatively special construction can be made by stainless steel. The PCC chain conveyor complete assembly and components comply with the EU directives and bear the **CE** mark.



### Capacities

- Transport volume rate from 60m<sup>3</sup>/h to 400m<sup>3</sup>/h
- Transport length from 2m to 50m
- Chain speed from 0,40m/sec to 0,60m/sec

TYPE	T (mm)	D (mm)
<b>PCC50</b>	800	1200
<b>PCC60</b>	800	1200
<b>PCC80</b>	800	1200
<b>PCC100</b>	800	1200
<b>PCC140</b>	800	1200
<b>PCC180</b>	800	1200
<b>PCC220</b>	1300	1350
<b>PCC300</b>	1300	1350

### Areas of application

- Food industry
- Flour mills
- Animal feed mills
- Fish Feed mills
- Pet food mills
- Chemical industry
- Pharmaceutical industry
- Plastics industry
- Minerals industry

### Optional equipment

- Rotational sensor (inductive)
- Bearing temperature sensor
- Round type outlet flange
- Support legs
- Driving station support legs
- Special cover part for spot filter
- Chain return buckets
- Intermediate bottom section
- Outlet slides
- Stainless steel construction
- ATEX gearmotor

### Operation

The material to be conveyed is fed via one or more standard square inlets positioned on the cover of the chain conveyor. The standard outlet of the chain conveyor is situated at the drive station with an overflow capacitor sensor as a standard. Multiple outlets can be fitted along the conveyor and the discharge can be controlled from specially designed **outlet slide** with no gap and a **free hanging cleaning brushes** to prevent the mixing of materials.

For the installations with multiple inlets and outlets and direct feeding from bins or silos, **intermediate bottom sections** and **flow regulation slides** are needed to ensure the discharge of the material to the correct outlet and also to control the material flow from the silos.

### Installation

The chain conveyors are designed for indoor & outdoor use. It is suggested the conveyor is supported every 4m by **support legs**, and the driving station must be supported further by the **driving station support legs**.

The gear motor is assembled on the right side of the drive station as a standard. Due to modular design, the orientation of the gear motor can be easily changed in the erection site or can done in the factory on request.

### Gearmotor

The gearmotors are selected from major manufacturers.

The gear type used is parallel shaft helical gears or helical bevel gears depending on the size and space required. For light duty and small capacities the gear type used is helical worm gear. In the standard design the power is transferred through a hollow shaft gearbox.

The motors are IE2 & IE3 energy category and IP55 protection as a standard.

### Engineering on request

For transporting other type of materials, higher capacities & special situations, our engineering team is ready to work with you for an optimum solution.

# CHAIN CONVEYOR



## Drive Station

- Reinforced side plates of thickness 4mm
- Bottom plate of thickness 3mm - 4mm
- PEHD 10mm plate for friction & noise reduction
- Cover of thickness 2mm
- Inspection window
- Chain return roller
- Flanged bearings
- Sprocket with locking device
- Driving shaft
- Gearmotor assembly with hollow shaft
- Torque arm
- Over flow sensor (Capacitive)



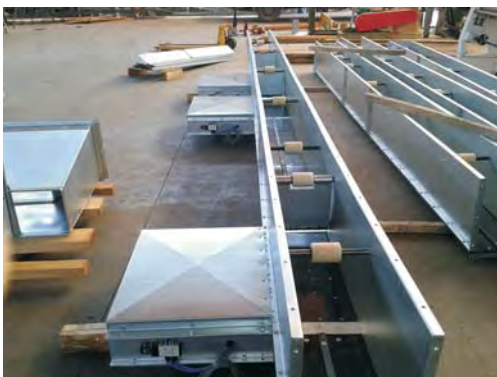
## Tension Station

- Reinforced side plates of thickness 4mm
- Bottom plate of thickness 3mm - 4mm
- PEHD 10mm plate for friction & noise reduction
- Cover of thickness 2mm
- Cleaning hatch
- Tension mechanism
- Flanged bearings
- Sprocket with locking device
- Shaft



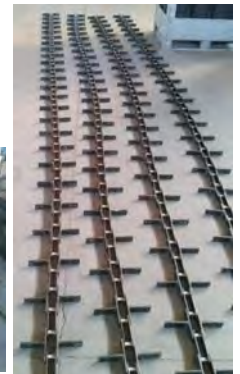
## Intermediate sections

- Side plates of thickness 2mm-4mm
- Bottom plates of thickness 3mm-4mm
- PEHD 10mm plate for friction & noise reduction
- Cover of thickness 2mm
- Standard sections of 1990mm, 990mm & 490mm
- Chain return roller every meter



## Chain

- High duty DIN 8167 conveyor chain
- Welded scrapers
- Plastic scrapers every 2m
- Return buckets on demand



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# CHAIN CONVEYOR

TYPE	CHAIN SPEED* (m/sec)	TRANSPORT CAPACITY			A (mm)	B (mm)	Bm (mm)	WEIGHT kg/m		MAX LENGTH** (m)	CHAIN TYPE***
		m3/h	T/h @ 750 kg/m <sup>3</sup>	T/h @ 600 kg/m <sup>3</sup>				EMPTY	FULL		
PCC50	0,40	53	40	32	205	290	180	34	63	40	M56/P100/205
	0,45	60	45	36							
	0,50	66	50	40							
	0,55	73	55	44							
	0,60	80	60	48							
PCC60	0,40	66	50	40	255	290	180	36	73	46	M80/P100/255
	0,45	74	56	45							
	0,50	83	62	50							
	0,55	91	68	55							
	0,60	99	74	59							
PCC80	0,40	92	69	55	255	370	250	44	95	46	M112/P125/255
	0,45	103	77	62							
	0,50	115	86	69							
	0,55	126	95	76							
	0,60	138	103	83							
PCC100	0,40	119	89	71	330	370	250	53	119	54	M160/P125/330
	0,45	134	100	80							
	0,50	149	111	89							
	0,55	163	123	98							
	0,60	178	134	107							
PCC140	0,40	135	102	81	330	420	285	69	144	64	M224/P125/330
	0,45	152	114	91							
	0,50	169	127	102							
	0,55	186	140	112							
	0,60	203	152	122							
PCC180	0,40	172	129	103	420	420	285	77	172	52	M224/P125/420
	0,45	194	145	116						80	M224U/P125/420
	0,50	215	162	129							
	0,55	237	178	142							
	0,60	259	194	155							
PCC220	0,40	236	177	142	420	620	390	87	218	38	M224/P125/420
	0,45	265	199	159						86	M224U/P125/420
	0,50	295	221	177							
	0,55	324	243	195							
	0,60	354	265	212							
PCC300	0,40	303	227	182	540	620	390	100	269	43	M315/P160/540
	0,45	341	256	205						72	M315U/P160/540
	0,50	379	284	227							
	0,55	417	313	250							
	0,60	455	341	273							

Indicate material speed & capacity in your request.

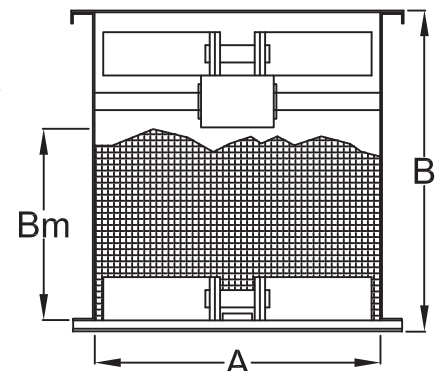
\*The actual speed & the actual capacity will vary from the table values according to the actual rotational speed of the gear motor

For free flowing materials such as grain & corn the chain speed can be up to 0,60m/sec

For milled & pulverized materials the chain speed must not be higher than 0,45m/sec

\*\*Maximum conveying lengths are calculated for materials of density 800kg/m<sup>3</sup>

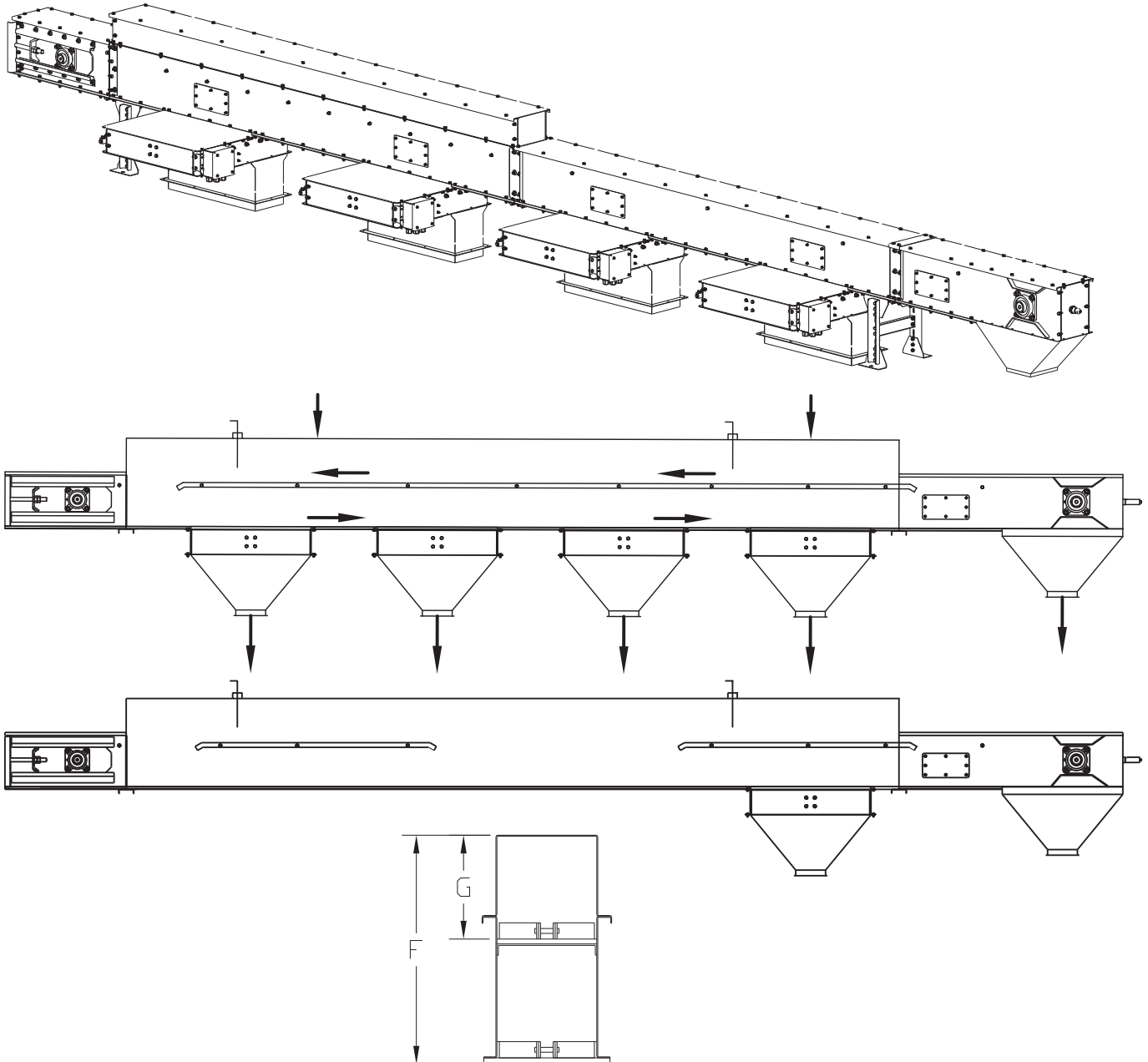
\*\*\*The chain used is standard DIN8167 & high strength for longer conveying.



# CHAIN CONVEYOR INTERMEDIATE BOTTOM

## Intermediate bottom

- Modular design
- Standard side sections of 1990mm, 990mm & 490mm
- Standard intermediate bottom plates with PEHD friction plate
- Standard covers
- Regulation slide



INTERMEDIATE BOTTOM ASSEMBLY	MATERIAL	SECTION LENGTH (mm)	F (mm)	G (mm)	REGULATION SLIDE	CHAIN CONVEYOR
PCC50IB	P / G / S	490 / 990 / 1990	470	210	PCC50RS	PCC50
PCC60IB	P / G / S	490 / 990 / 1990	470	210	PCC60RS	PCC60
PCC80IB	P / G / S	490 / 990 / 1990	610	280	PCC80RS	PCC80
PCC100IB	P / G / S	490 / 990 / 1990	610	280	PCC100RS	PCC100
PCC140IB	P / G / S	490 / 990 / 1990	760	390	PCC140RS	PCC140
PCC180IB	P / G / S	490 / 990 / 1990	760	390	PCC180RS	PCC180
PCC220IB	P / G / S	490 / 990 / 1990	1020	480	PCC220RS	PCC220
PCC300IB	P / G / S	490 / 990 / 1990	1020	480	PCC300RS	PCC300

P:MILD STEEL PAINTED / G:MILD STEEL GALVANIZED / S:STAINLESS STEEL AISI304

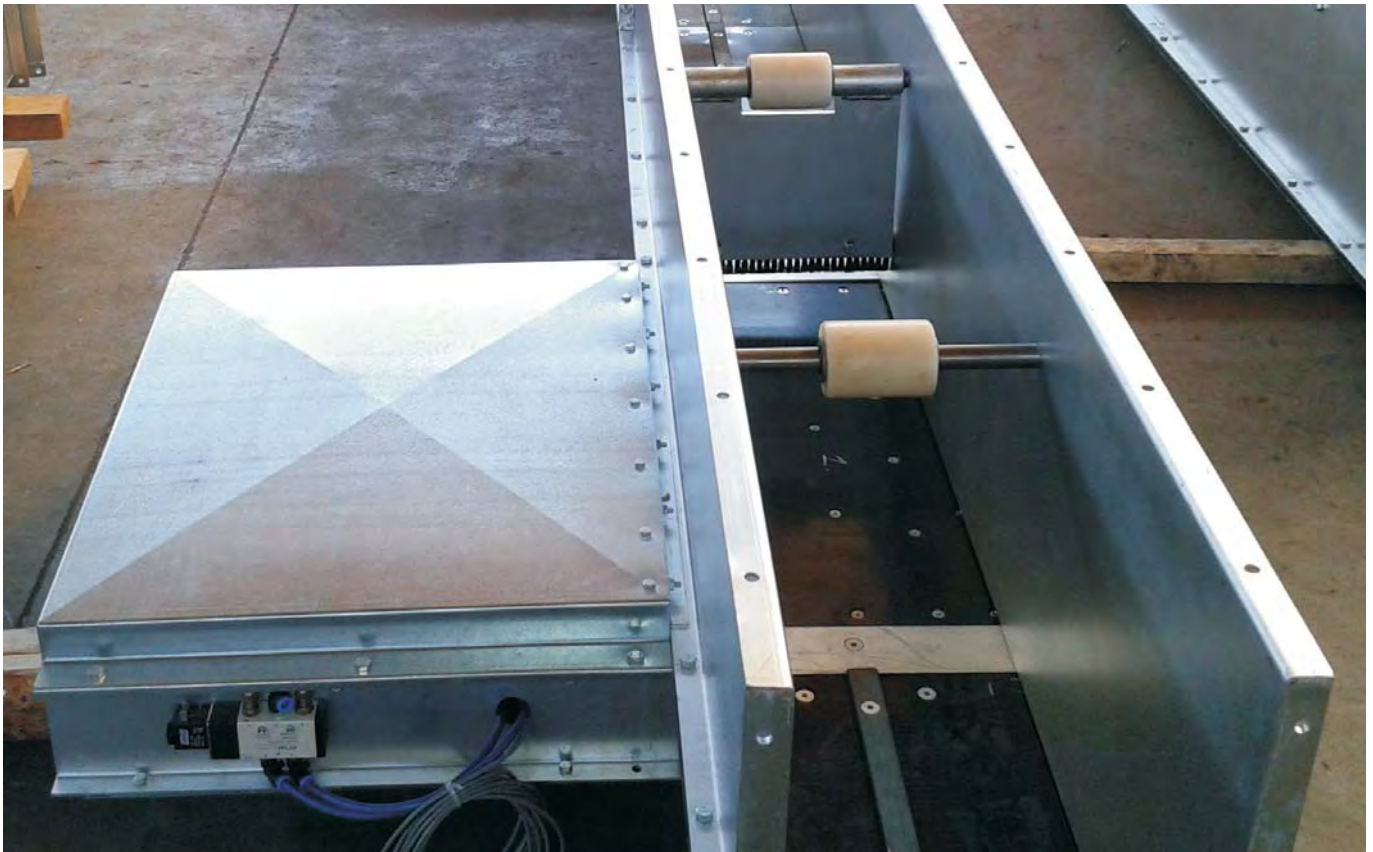
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## CHAIN CONVEYOR SLIDE

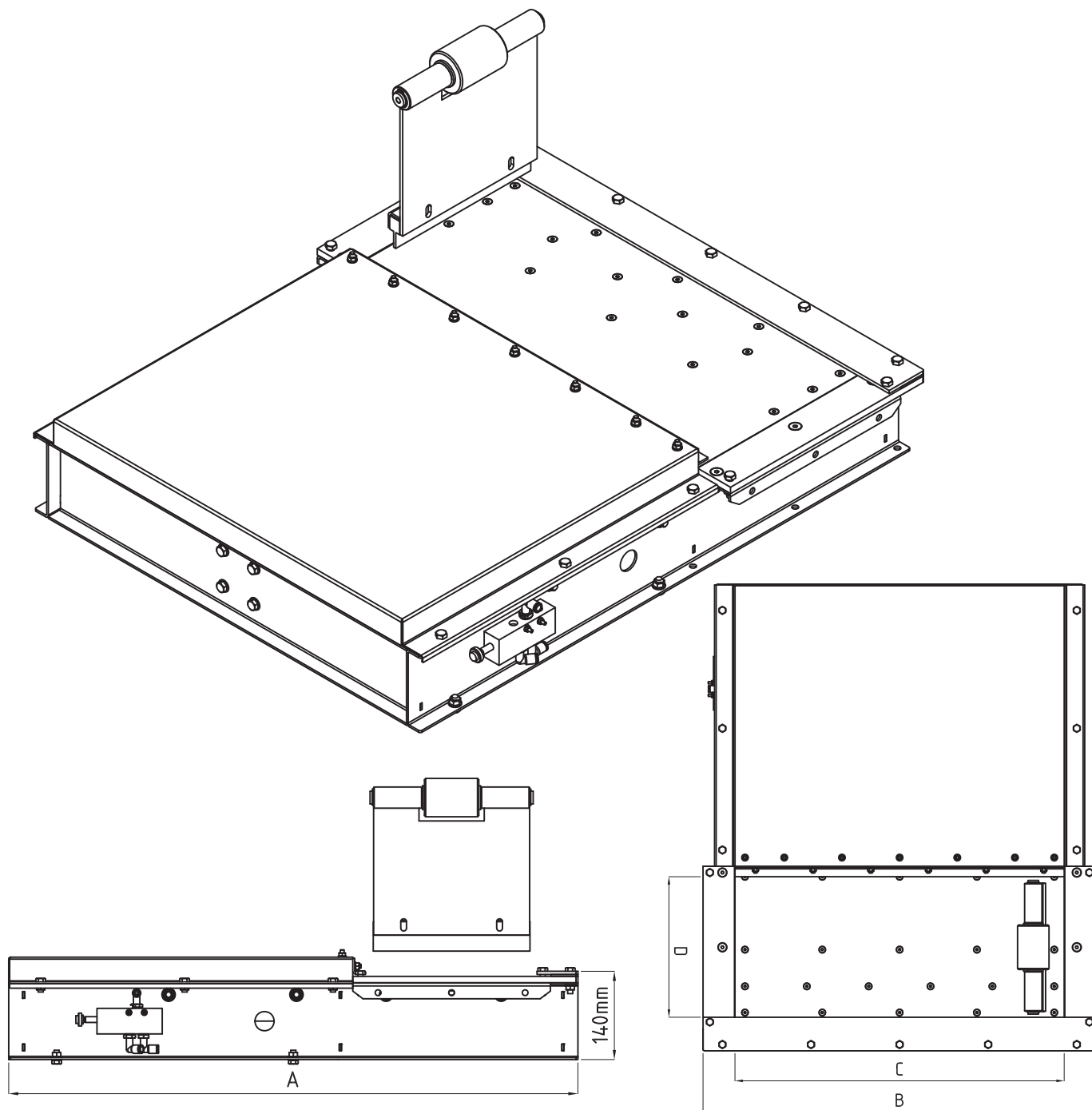
The PCC chain conveyors can be equipped with outlet slide specially designed to have a tight closure and leave no gap between the conveyor bottom and the slide plate and in combination with the free hanging cleaning brush, the PCC chain conveyors prevent the mixing of the conveying material.

The PCCS chain conveyor slide is manufactured by mild steel, painted or galvanized or stainless steel (AISI304), equipped by, either hand wheel, low speed 380VAC motor or pneumatic cylinder with single solenoid valve of 24V DC or 220V AC power supply and two limit switches for position indication. The slide plate which is covered with 10mm antifriction material, slides on ball bearings and is sealed with felt gasket for minimal dust leakage. Power & signal cables are connected to one IP55 junction box for easier electrical installation.



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# CHAIN CONVEYOR SLIDE



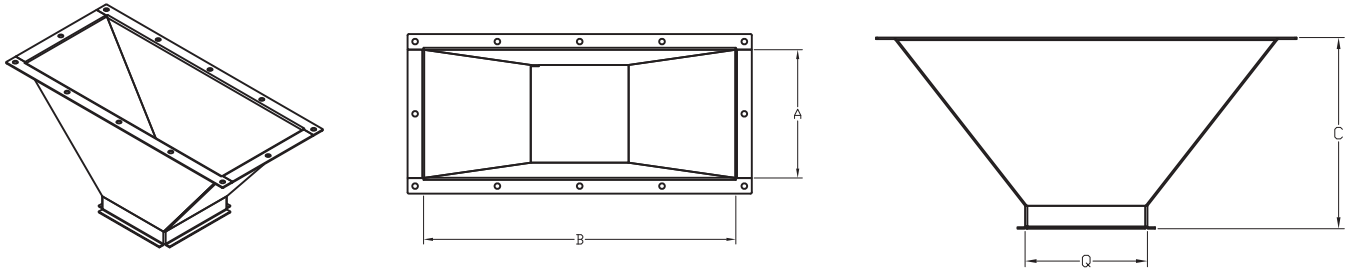
TYPE	MATERIAL	OPERATION	SOLENOID VOLTAGE	MOTOR POWER	A (mm)	B (mm)	C (mm)	D (mm)	CHAIN CONVEYOR
PCCS205	P / G / S	MN / MT / PN	24VDC / 220VAC	0,36kW 380VAC	695	670	500	205	PCC50
PCCS255	P / G / S	MN / MT / PN	24VDC / 220VAC	0,36kW 380VAC	845	670	500	255	PCC60 PCC80
PCCS330	P / G / S	MN / MT / PN	24VDC / 220VAC	0,36kW 380VAC	1070	820	700	330	PCC100 PCC140
PCCS420	P / G / S	MN / MT / PN	24VDC / 220VAC	0,36kW 380VAC	1340	820	700	420	PCC180 PCC220
PCCS540	P / G / S	MN / MT / PN	24VDC / 220VAC	0,36kW 380VAC	1460	820	700	540	PCC300

P:MILD STEEL PAINTED / G:MILD STEEL GALVANIZED / S:STAINLESS STEEL AISI304  
MN:MANUAL / MT:MOTOR / PN:PNEUMATIC

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# CHAIN CONVEYOR OUTLET HOPPER

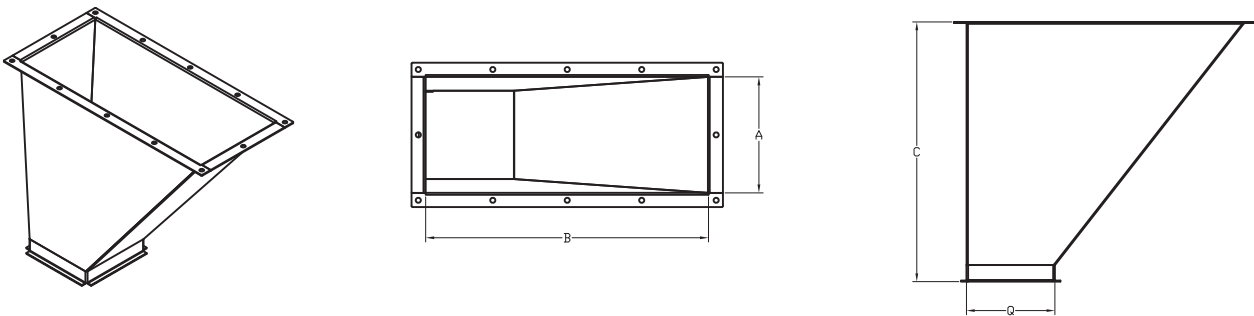
## Centered outlet hopper



TYPE	MATERIAL	MATERIAL THICKNESS (mm)	ORIENTATION	A (mm)	B (mm)	C (mm)	Q (mm)	CHAIN CONVEYOR
O205C	P / G / S	2mm	CENTRED	205	500	250	160	PCC50
O255C	P / G / S	2mm	CENTRED	255	500	250	200	PCC60 PCC80
O330C	P / G / S	3mm	CENTRED	330	700	350	240	PCC100 PCC140
O420C	P / G / S	3mm	CENTRED	420	700	350	300	PCC180 PCC220
O540C	P / G / S	3mm	CENTRED	540	700	350	400	PCC300

P:MILD STEEL PAINTED / G:MILD STEEL GALVANIZED / S:STAINLESS STEEL AISI304

## Eccentric outlet hopper



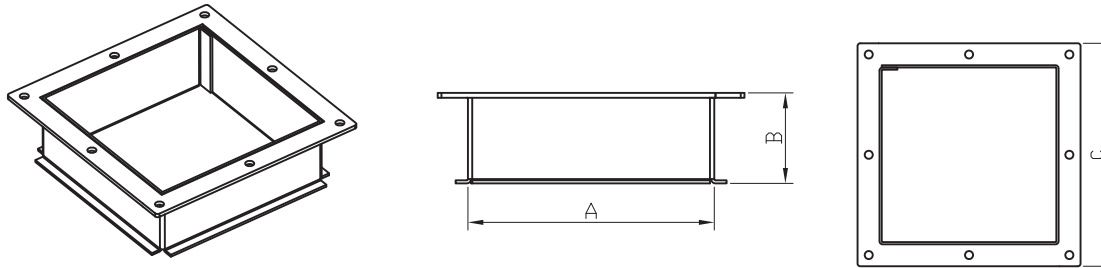
TYPE	MATERIAL	MATERIAL THICKNESS (mm)	ORIENTATION	A (mm)	B (mm)	C (mm)	Q (mm)	CHAIN CONVEYOR
O205E	P / G / S	2mm	ECCENTRIC	205	500	350	160	PCC50
O255E	P / G / S	2mm	ECCENTRIC	255	500	350	200	PCC60 PCC80
O330E	P / G / S	3mm	ECCENTRIC	330	700	500	240	PCC100 PCC140
O420E	P / G / S	3mm	ECCENTRIC	420	700	500	300	PCC180 PCC220
O540E	P / G / S	3mm	ECCENTRIC	540	700	500	400	PCC300

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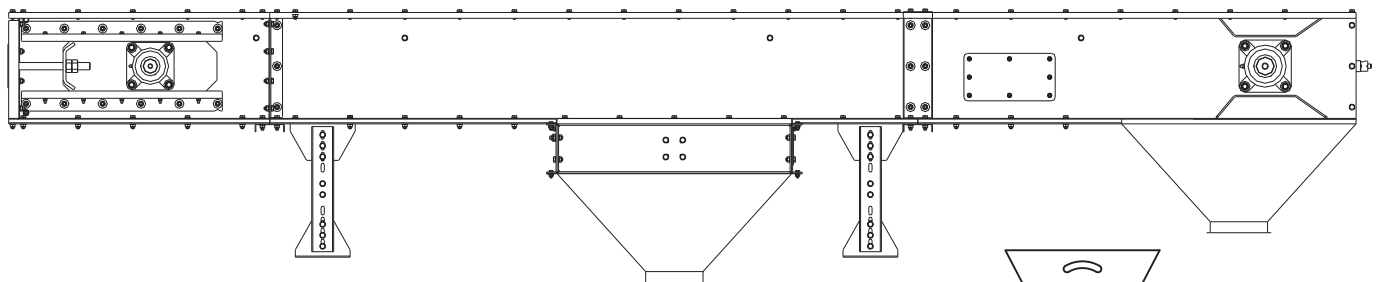
## CHAIN CONVEYOR INLET FLANGE



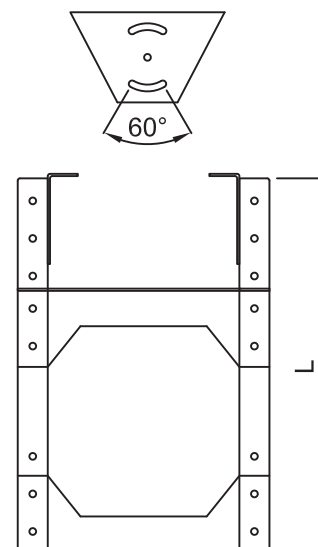
TYPE	MATERIAL	MATERIAL THICKNESS (mm)	PIPE SIZE Q (mm)	A(mm)	B(mm)	C(mm)	CHAIN CONVEYOR
INF160	P / G / S	4mm / 2mm	160x160	160	75	255	PCC50
INF200	P / G / S	4mm / 2mm	200x200	200	75	305	PCC60 PCC80
INF240	P / G / S	4mm / 2mm	240x240	240	75	380	PCC100 PCC140
INF300	P / G / S	4mm / 2mm	300x300	300	75	470	PCC180 PCC220
INF400	P / G / S	4mm / 2mm	400x400	400	75	600	PCC300

P:MILD STEEL PAINTED / G:MILD STEEL GALVANIZED / S:STAINLESS STEEL AISI304

## CHAIN CONVEYOR SUPPORT LEGS



TYPE	MATERIAL	L (mm)
SL/500	GALVANIZED	500
SL/1000	GALVANIZED	1000
SL/1500	GALVANIZED	1500
SL/2000	GALVANIZED	2000



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