

## P&F100 - precision engineered Power & Free floor conveyor .



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### P&F100

#### POWER & FREE FLOOR CONVEYOR

The flexible floor based Power & Free system with a standard load capacity up to 882 Lbs (400 kg.) Reliable accumulation and separation of trolley and wagon sets. Smooth trolley transfer by using conventional switching gates without expensive transfer units.

The purpose designed P&F100 combines the flexibility of the overhead power and free conveyors with the stability of conventional skid systems.

- High stability of unbalanced jigs
- High accuracy of presentation
- Ideally suited for painting and assembly processes.
- No contamination as the work pieces are placed on top of the conveyor system:
- Increases production quality
- Reduces product rejection rate
- Manages 30° inclines (depending on work-load).
- Noiseless accumulation by means of non friction disengagement of the trolleys from the drive chain
- Very compact in design minimising floor area requirements, restriction to air flow in spray booths etc.







**CALDAN conveyor solutions - simply perfect.**



## P&F100

### TECHNICAL SPECIFICATIONS

The Power & Free floor conveyor, Type P&F100, consists of three CALDAN profiles. In the lower "Power" profile the cardan chain is driven by one or more drive units. In the upper "Free" profiles the purpose designed trolley and wagon sets are driven by power chain carriers, via pivotal pawls attached to the front and back of the trolley.

The trolley body is made of 0.19 inches (5 mm) laser cut and folded plates and is equipped with 4 sealed load carrying wheels and 4 sealed horizontal wheels for side guiding.

Both the power chain carrier pitch and the accumulation distance are designed according to customer specification.

Each trolley and wagon set can be separated from the power chain and accumulated in line, 45° or 90° zones. When reaching a closed accumulation stop or when reaching the tail of the previous trolley, the accumulation lever is lowered and the trolley pawl units are lifted.

Conveyance with loads in rise and fall sections is possible due to a uniquely designed link between the chain carriers and the trolley pawls.

#### Chain carrier pitch:

7.08 / 10.62 inches (180 / 270 mm)

#### Max. temperature (surrounding):

482 °F (250° C)

#### Max. load per 4-wheeled trolley:

441 Lbs (200 kg)

#### Max. load per wagon

(load bar with two trolleys):

882 Lbs (400 kg)

#### Standard length, straight profile:

118.11 inches - equipped with flanges  
(3.000 mm)

#### Trolley bearings:

Closed and greased for low maintenance

#### Horizontal curves:

Degree: 90° / 45° / 30° / 15°

Radius: 27.55 / 39.37 inches  
(700 / 1.000 mm)

#### Vertical curves:

Degree (depending on work-load):  
30° / 15°

Radius: 98.43 (59) inches  
(2.500 (1.500) mm)

Special dimensions on request.

#### Drive unit:

Straight double sided version with  
caterpillar chain drives

#### Tension unit:

Manual and pneumatic version

#### Switching gate:

Pneumatic blade version  
(without separate transfer sections).  
R = 27.55 inches (700 mm)

#### Accumulation stops:

Pneumatic version

#### Lubrication:

Pneumatic point lubrication – automatic

#### Accumulation features:

In line, 45° and parallel (90°)

#### Special features:

Turning stations and drop sections