

## PRESS RELEASE

About a power-supply for Conveyor systems

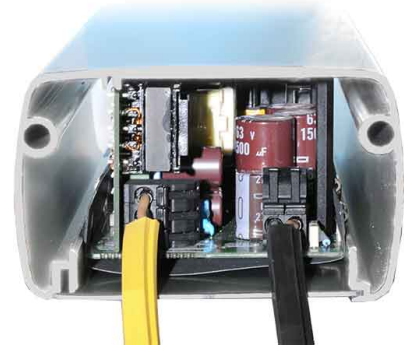
Proposals for Title:

**„3-in-1 Power-Supply for conveyor systems – invisible? “**

**„A practical Idea, the Power-Supply for Conveyor Systems disappears in a Crossbeam. “**

**„The hidden Power-Supply for Conveyor Systems for the field-bus AS-interface and for DC-Motors.”**

Together with the well-known Producer of transformers and Power Supplies, the Puls-Group in Munich the Start-Up Avancon in Riazzino, Switzerland, developed a universal Power-Supply Unit for the field-bus AS-interface of about 30 V and for up to 20 DC-Motors of 24 V or 48 V altogether combined and build in a Crossbeam of the conveyor frame construction – which is invisible from outside. – Ingenious! It is called “3-in-1” Power Supply.



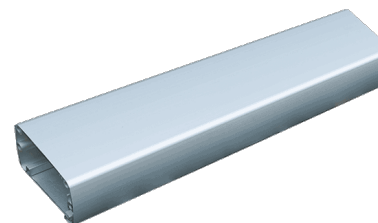
Img.10 Power Supply in a Profile

“If by some magical feat, I would to become invisible, I would be extremely happy and make all my dreams come true. If I were invisible I would do such things, I can't do when I am visible. If I were invisible I would enjoy the feeling of non-existence and escape from all cares and tensions of life. That would give me a long-desired opportunity to be away from the torments and tortures of the bitter realities of life....”

*“Yes, that's what disturbed me, the boxes and little cabinets which were everywhere fixed to the conveyor lines. – For what? – And why so many? This is obstructive. They stand out of the conveyor lines – unnecessary and expensive,”* Says Dieter Specht. *“As well I found it crazy to install the power supplies inside of central installation cabinets and to connect these with cables at side throughout the whole conveyor system. – This need additional cable channels! – That's impossible! – much too expensive!”*

But somewhere one has to install these Power-Supplies for the electronic control and the brushless DC-motors in order to control and drive the single zones of the Conveyor System, – somewhere? –

*“One should make them invisible.”* meant Dieter Specht, the founder of the Interroll Group and the inventor of the Avancon ZPC-Conveyor system. *“So I got the genius idea to incorporate the Power-Supplies completely inside a Crossbeam. Because each Conveyor section – whether of 1 meter or 3 m length needs two crossbeams in order to get a rigid construction. Of these we could*

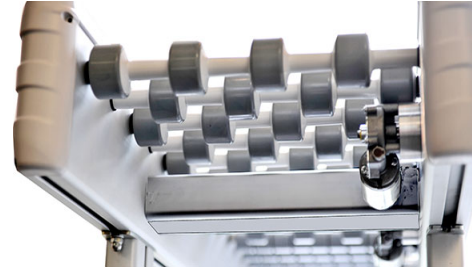


Img. 11 Crossbeam made of anodized Aluminum

*use one, specially modified to get room inside for the two different power-supplies."*

Avancon SA got in touch with the famous producer of transformers and power-supplies, the Puls-Group in Munich and developed with them together the "3-in-1" Power-Supply unit for conveyor systems for 24 V or 48 V, which work in zones, as the ZPA function (Zero Pressure Accumulation).

Naturally this "3-in-1" Power-Supply was first developed for the Avancon ZPC-Conveyor System. – Now, it is finished, – invisible – and works perfectly. It was slightly modified in order to be used in almost any conveyor construction for unit handling, which has a function for ZPA (zero pressure accumulation). By this it is unimportant how the rollers or the belts are driven and where the brushless DC-motors are installed – as motor-rollers or drive-rollers integrated inside a roller or externally fixed to the profiles.



Img. 12 built in as Crossbeam underneath the rollers

Thus any producer of conveyor systems can benefit from this Avancon "3-in-1" Power-Supply.

Here are the elements of the "3-in-1" benefits:

1. The fine anodize aluminum profile in C-form, open below for the assembly of the Power-Supplies and for the plug-in of the cables.

The lower part of the main profile will be closed with a ripped flat profile and is fixed with a few screws.

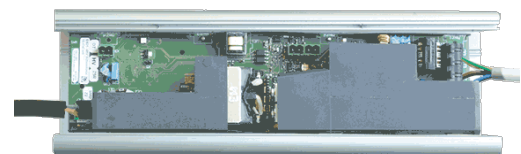
As soon as the C-profile is fixed inside the frames with self-forming screws it holds the frame strong and torsion resistant together as with other crossbeams. So everything is closed.

The "3-in-1" Power-Supply is highly efficient so that the aluminum C-profile gets about 40° C warm and furthermore the heat is fast reduced through the thermal conductivity of the aluminum material. The crossbeam can be delivered in any length in relation to the internal width of the conveyor.



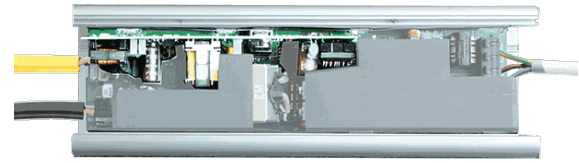
Img. 13 Power Supply for DC-Motoren and Add-On for the Field-Bus AS-interface

2. The Power-Supply for the brushless DC-Motors of 24 V or 48 V. The AC current can be 110 to 240 V (single phase (or double phase in Japan) and will be installed at one side of the conveyor whereas the DC-current is put at the opposite side. Up to 20 Motors (when 24 V) can be served – depending of the cycles and the utilization.
3. In addition, there is a small board to be fixed on the main board for the supply of 30.5 V for the field-bus AS-interface. There can be up to 62 slaves/ sensors or actuators being connected. Therefore, only a few of these smaller boards are necessary in a large conveyor system. Here the cable length can be 100 meter and more.



Img. 14 Power Supply for DC-Motors 24 V or 48 V

Now, here is the point, the exceptional “3-in-1” Power-Supply for Conveyor Systems – invisible – is not expensive. – Yes, stated by Avancon SA this shall be significantly simpler and less expensive than previous methods.

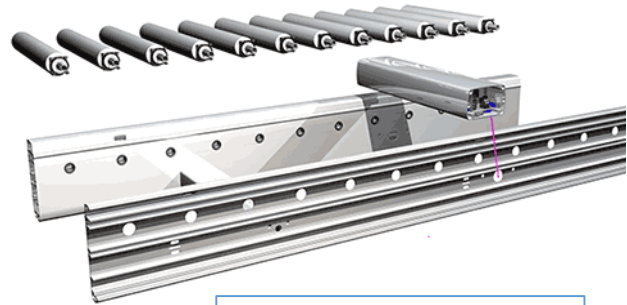


Img. 15 Power Supply for DC-Motors 24 V or 48 V Plus Ad-On for the control system with AS-i

Naturally there have to be additional holes in the frames for putting through the cables. In addition, the frames can be used as cable channels.

When all is assembled the Power-Supply “3-in-1” disappears – invisible. – This is not only economical but also remarkably easy and aesthetical.

You can get further details, consulting and all technical data as well as installation guides from Avancon SA, Via Campagna 27, CH-6595 Riazzino/Switzerland.



Img. 16 Installation of the Power Supply “3-in-1” as Crossbeam

*“Ninety-nine percent of who you are is invisible and untouchable.”* R.  
Buckminster Fuller

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## For the Editor:

- Printable pictures in 300 dpi as .tif files as well as smaller pictures for the internet as .jpg or .gif files can be downloaded from our website under <http://www.avancon.com/press.html> PR-03
- We will report more about the new developments, applications and details of our modern conveyor system from time to time.

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- More details and photos you can also find on our website: <http://www.avancon.com>