

# Stago FO Duct UVP

## Overhead installation Introduction

Sergio Ortiz Cable support Bdv Manager

# Cable support energy saving: Overhead installation

## Under-floor cabling contributes to energy losses:

### >Blockage of air due to cables

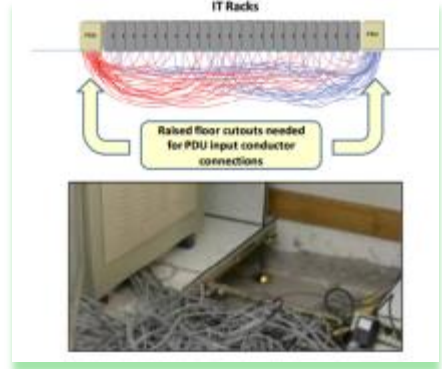
>build-up of cables causes blockages in air flow ( used & used )

### >Bypass air form rack cable cutouts

>Cable cutouts and are only partially . remaining space is usually left open allowing cold air to leak (assuming a hot / cold aisle layout).

### >Bypass air form power distribution unit ( PDU ) cutouts

>This bypass air from around conductors has the same negative effect on the cooling system efficiency as the bypass air from rack cable cutouts



\*\*How Overhead Cabling Saves Energy in Data Centers \*\*. APC, White Paper 150 . Victor Avelar

# Cable support energy saving: Overhead installation

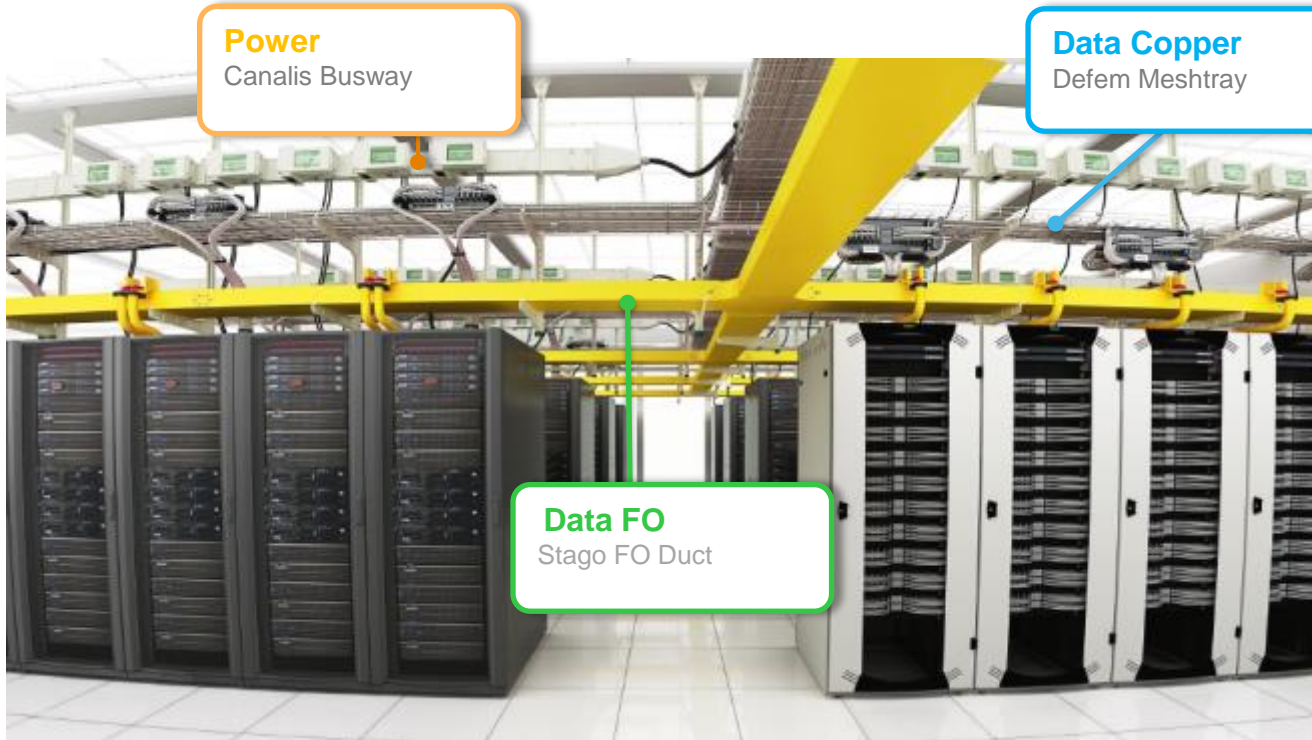
Overhead cabling, An estimated **24%** savings in fan and pump power.

	Under floor	Overhead
Rack inlet air	18.3°C	20.0°C
CRAH supply air	17.7°C	19.4°C
CRAH return air	23.0°C	29.6°C
CRAH delta T	5.3°C (9°F)	10.2°C
Number of CRAH units	42	31
Fan power consumption	160kW	118kW
Pump power consumption	20kW	19kW
Total power consumption	180kW	137kW
% power savings	24%	



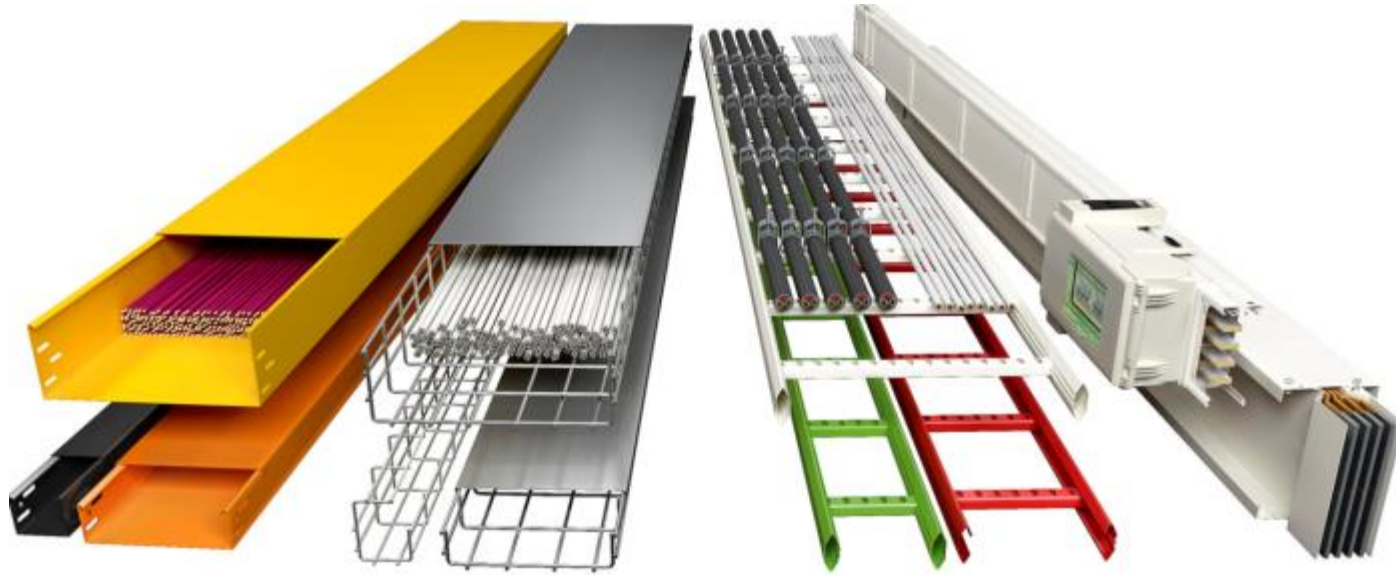
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# Cable support energy saving: Overhead installation



**Multi level & Modular**  
Cable trays, which allows simpler cable maintenance

# Schneider Solution



## Data

### Stago FO Duct

Smooth, robust &  
Versatile

### Defem Mesh tray

Flexible & lightweight

## Power

### Wibe Ladders

Light, strong and  
dependable

### Canalis Busway

Effective Power  
distribution

# Stago Fibre Optic Duct

Evolving system & Efficiency in Mind



## The evolving system

Quick and easy to install, made for continuous development – always avoiding downtime. Swiftly adaptable to changing needs thanks to modular, tool-less accessories. A true “plug&play” concept.

## With efficiency in mind

A sturdy and robust steel system that allows long support distances without sagging, thus saving mounting time



# Stago Fibre Optic Duct

## Evolving system



Drop-off UDF

Toolless installation - the UDFs ensure safe radius for the FO cables and can be moved sidwise to fit enclosure intake. Easily slided to meet new needs.



Dividable Tube

The dividable tube provides a very neat and tidy solution for guiding the fibre and UTP down to the cabinet.

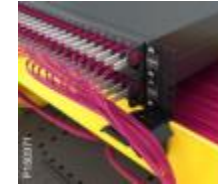


Modular Covers

Due sturdiness of the system isn't required cover to give an extra regidity to system, However Long lenght and modular cover are available

# Stago Fibre Optic Duct

## Evolving system



Clip on  
Panel  
Bracket



Clip-on Patch  
Panel

The tool-less patch panel attachment with clip-on-top significantly reduces downtime. schneider-

Handy mini-patch. Six Keystone & S1 Actasso footprints for UTP and FO. Space-saving and scalable.

It's crucial to carefully handle the fibre not to damage it or lose performance. But equally important is that the system is truly **futureproof** and competent enough to **evolve smoothly and reliably.**



# Stago Fibre Optic Duct UVP

## Life Cycle: Installation

### SWL vs Plastic

- Higher SWL , longer span.

### Duct Length

- 3m-6m Length of Stago FO Duct,

### Drop off

- Clip-on-top !

### Covers vs Sturdiness

- Stago FO Duct doesn't need covers in order to increase sturdiness

### Symplicity

- Universal accessories

### Customization

- Colours and customized requirements

# Stago Fibre Optic Duct UVP

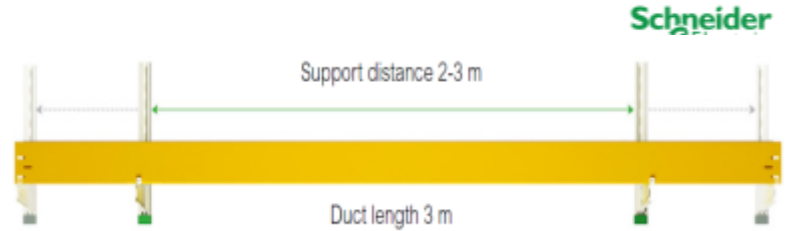
## Life Cycle: Installation

### Higher SWL vs Plastic

With Stago FO Duct support we can achieve span from 1.5m to 3m and it's not needed include extra support if drop off are installed.

Plastic systems normally have reduced span (1,5m aprox) and it's require extra support system if drop of are installed, then span is reduced to 0,75m aprox.

**Cost reduction** in installation **time** and **material** required



**PANDUIT** Extra support system required



**WB** Every half meter



# Stago Fibre Optic Duct UVP

Life Cycle: Installation

## Duct Length

3 m Length vs 2 or less in Plastic systems.

6m available too, It goes over the aisle without support.

Impossible for a Plastic solution

**Cost reduction** in installation **time** and **material** required

Schneider  
Electric



# Stago Fibre Optic Duct UVP

Life Cycle: Installation

## Drop off

Clip-on-Top!

NO Additional support system

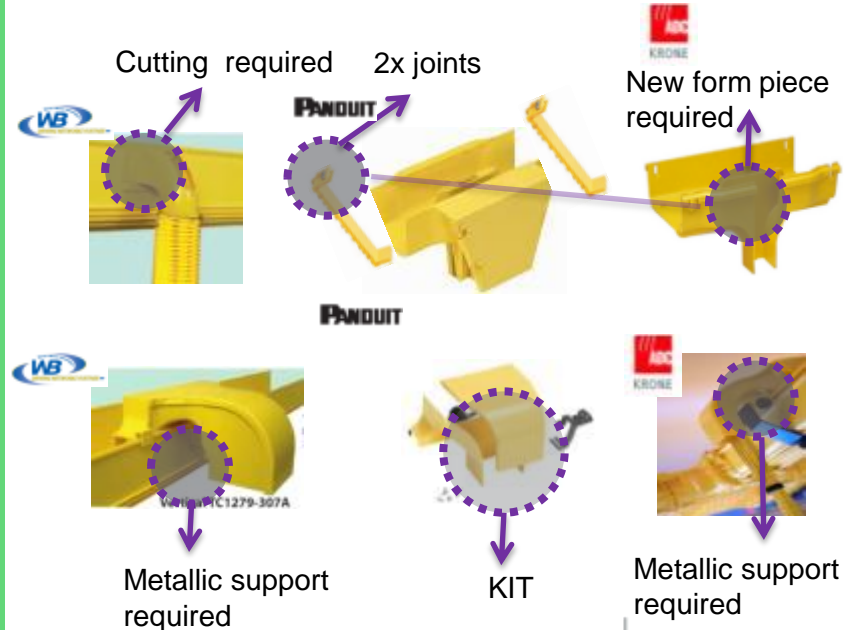
NO Additional joints

NO Additional cuttings or slots

NO Additional accessories (Kits )

NO Additional support system for the drop off itself.

**Cost reduction** in installation **time** and **material** required



# Stago Fibre Optic Duct UVP

Life Cycle: Installation

## Drop off

### Clip-on-Top!

Normally racks are feed from top lateral part. In an installation where there is more than 10-20 racks in a row, it could be faced misalignment between the drop off and the feeder due to the sizes of drop off. The accumulated error produce this effect .

Stago Drop off solutions avoid this potential problem. 50 UDF high runner

**Cost reduction** in installation **time** and **material** required



# Stago Fibre Optic Duct UVP

Life Cycle: Installation

## Covers vs Sturdiness

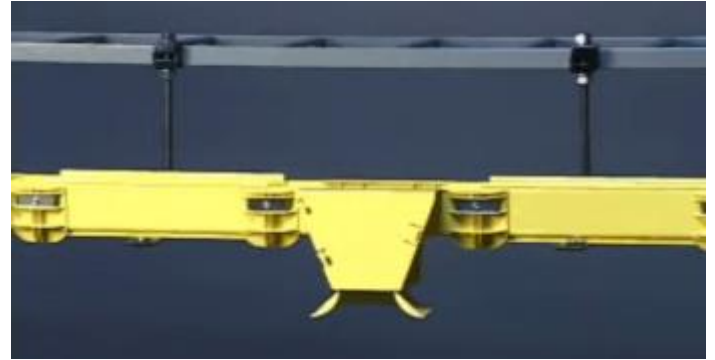
Covers once installed in the duct system give extra robustness to it.

For Stago FO Duct isn't required as the system is robust by itself. This allow mount Drop-off and accessories on top of the duct-wing without extra support or covers.

**Easy access to cables!**

If cover is required are available ( Standard & Modular )

**Cost reduction** in installation **time** and strongly **material** required



# Stago Fibre Optic Duct UVP

## Life Cycle: Installation

### Symplicity

Drop off and a Snap-On accessories are universal for the system.

Installation tools are the same for all sizes. (cutting, drilling, customizing ) instead of dedicated tools or drop off depending duct's size.

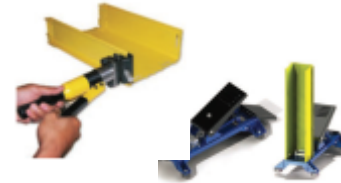
**Cost reduction**, easy work , less tools installation **time**.



Mitre boxes are used to provide a means of producing an accurate and essential for correct alignment of the slotting tools and joiners



Slotting tools are used to produce slots in the end of a cut length of duct required by the snap together of joiners.



# Stago Fibre Optic Duct UVP

Life Cycle: Installation

## Customization

More than yellow-RAL 1023, Other colors and Sizes.

Customer requirements could be out of standard ones. Adaptation and speed to deliver solution is key. For Plastic solution is difficult to have product out of standard colours.

Ex: Green Mountain, Red and Green were requested.

## Performance.

Schneider  
Electric





# Stago Fibre Optic Duct **UVP**

Life Cycle: **Live!**

Sagging

- Robustness prevent sagging effect.

Solution on spot

- Use stago FO Duct as support for accessories

Scalibility

- Racks /changing → just snap on.

Reliability

- Crush Fiber. Cable tray vs Mesh tray

# Stago Fibre Optic Duct UVP

Life Cycle: Life!

## Sagging

When new network, older unused cables are rarely pulled out to make room. Instead the cables are left undisturbed to minimize risk of downtime. SWL requirements growth during installation life.

Stago FO Duct is a low deflection system avoiding Sagging and other similar effects.

Aesthetics is important too as a white room is a “top” facility and sagging trays it could damage the image of it too.



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# Stago Fibre Optic Duct UVP

Life Cycle: Life!

## Solution on spot

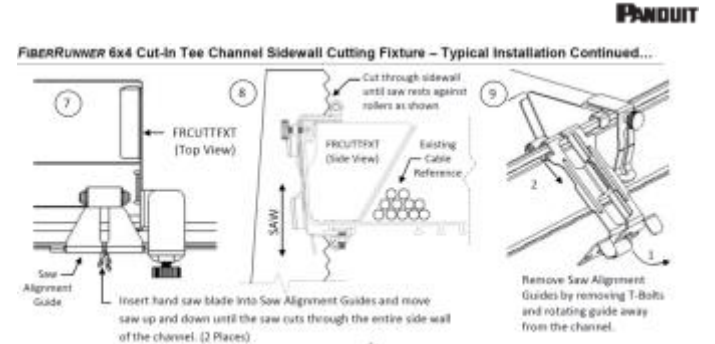
Clip-on panel bracket , the tool-less patch panel attachment with clip-on-top

Clip-on patch panel, handy mini-patch. Space-saving and scalable.

Drop-off, There isn't need of complex installation of drop-off. [Clip-on-top!](#)

Reduce down time

Schneider Electric



# Stago Fibre Optic Duct UVP

Life Cycle: Life!

## Scalability

**Drop-off**, There isn't need of complex installation of drop-off. Install when required.

Drop off , 50UDF is the high runner that it could be easy in stock (facility manager )

**Reduce down time**, Investment performance



Phase1

Phase2

# Stago Fibre Optic Duct UVP

Life Cycle: Life!

## Reliability vs Mesh tray

If numerous heavy cables are placed on top of a fibre cable a force or pressure is exerted on the fibre cable, pressing it into the rung, causing potential damage at that point. Moving or shifting already installed cables that have large weights on top of them greatly increases the chance of damaging the cables.

Schenider recommends Stago FO ducts flat bottom avoiding pressure points on FO installations.

**Reduce down time,** Investment performance



figure 10

# Stago Fibre Optic Duct

## Customer Cases



Life Is On



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