

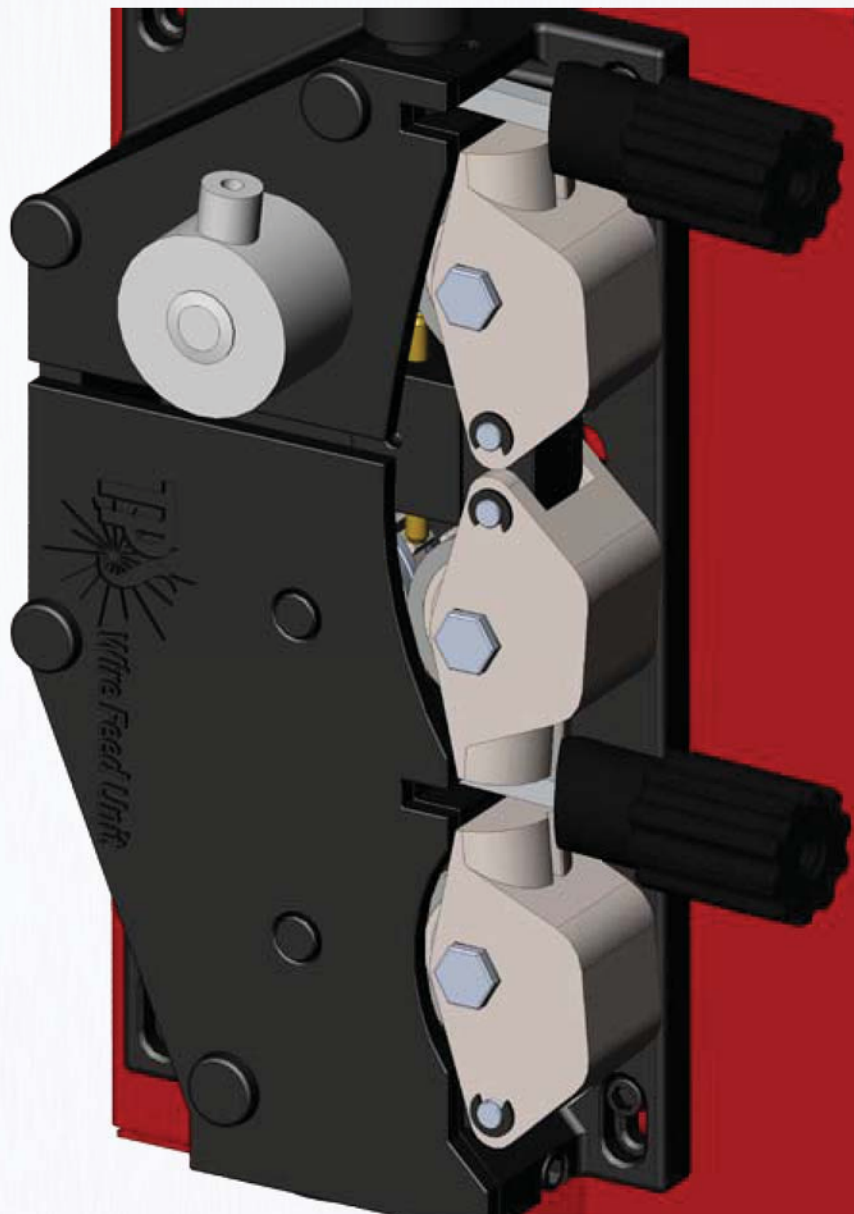


# **Welding Automation**

**Self Contained  
Cladding Unit  
(SCU)**

# System Overview

**“A compact, modular system which has the capability to increase productivity and reduce machine down time.”**



The TPS Self Contained Cladding Unit is packed full of useful innovations.

The mission behind this product is to supply the customer with **increased functionality** and **value**. This is done by supplying an “all in one” cladding system that is easy to install, use and maintain.

The TPS Wire Feed Unit consists of a four-roll drive unit in series with a two-roll wire feed validation unit. **Large feed rollers** ensure good wire feed. The system controller receives constant feedback and is alerted in the event of wire running out.

Innovations like this put the TPS SCU at the **forefront of welding technology**.

# System Overview

**“Designed to be robust and efficient, while also being easy to set up and install. The SCU is a substantial step forward in cladding technology.”**

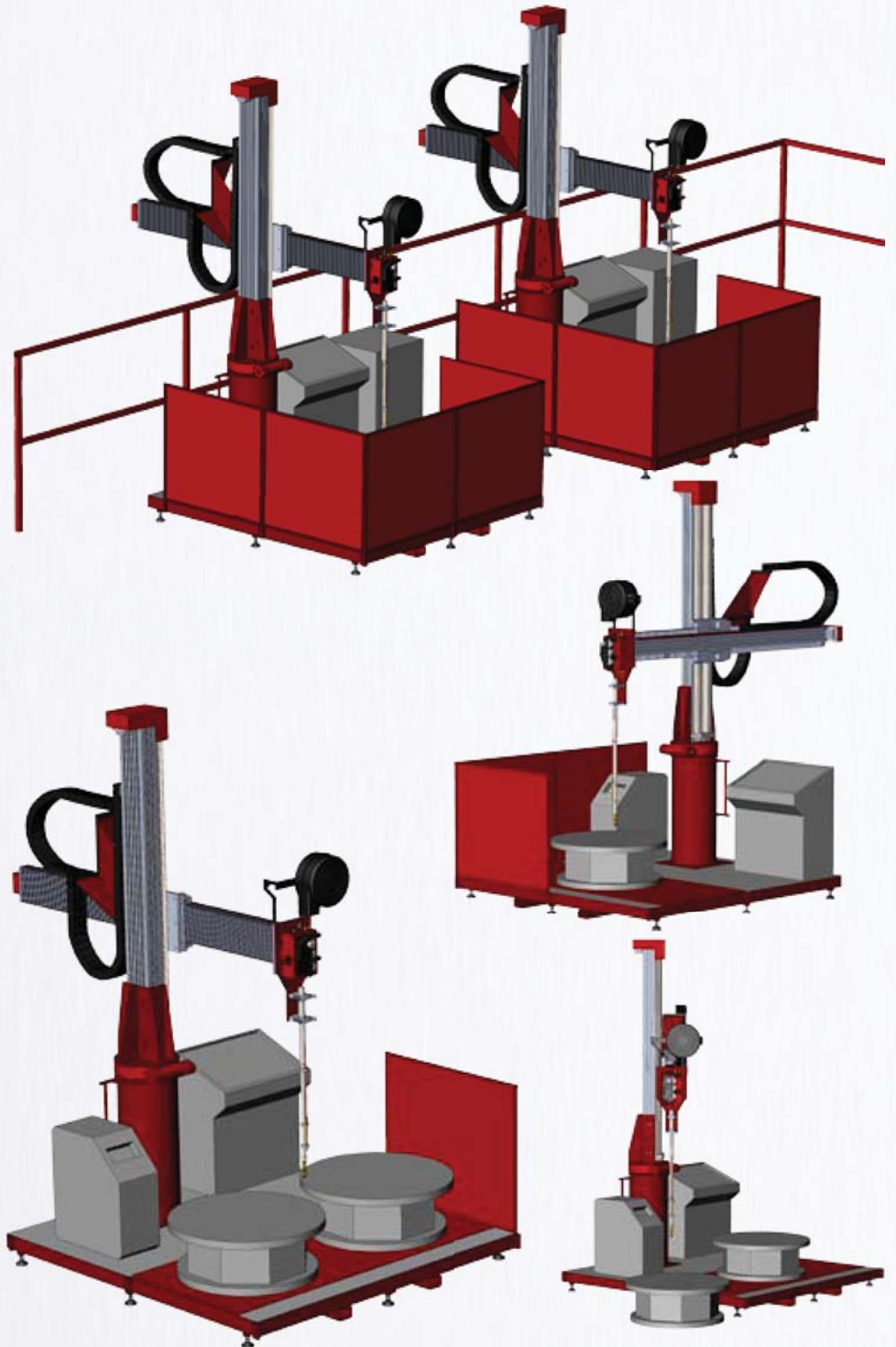
One of the unique features that sets the TPS Self Contained Cladding Unit apart is the fact that it can be supplied in **various configurations**.

The column can be fitted to a slewing gear which allows the welding torch to be positioned infinitely around the central axis.

Having this **functionality** also allows the user to utilise a second turntable. This table can be fitted to the base along side the existing table, or to the side of the Unit

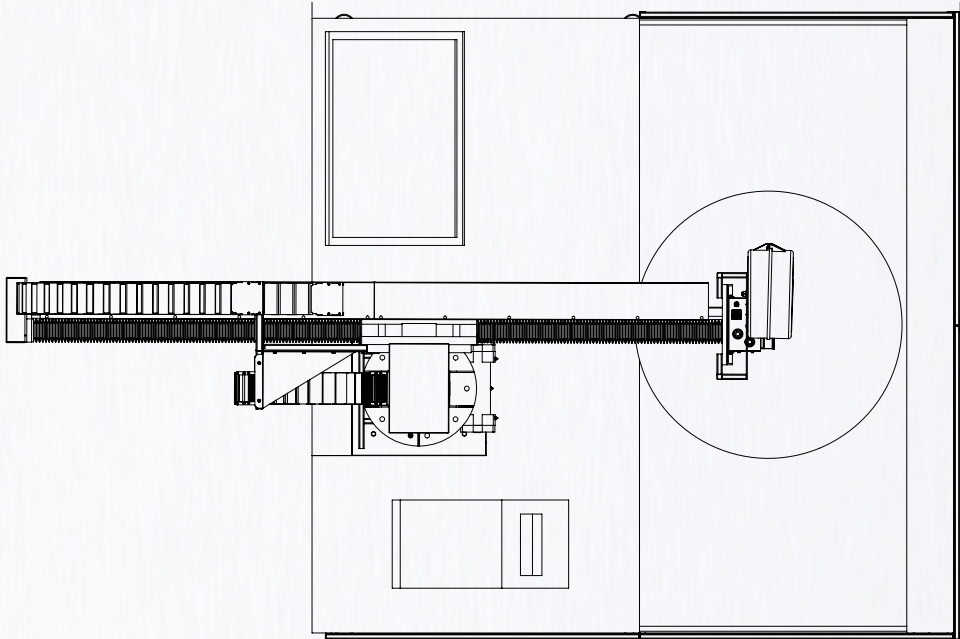
The benefit of this feature is that the user can become more productive by working two jobs **concurrently**. One job can be prepared on one turntable while the other job is being worked on.

This reduces overall machine down time between job changeovers thus increasing the system's productivity.



# System Specifications

**“The SCU footprint allows for easy workflow organisation, meaning valuable work space is utilised effectively.”**



One of the driving factors behind the design of this system was to help the end user **maximise available work space**.

This was achieved by fixing the overall footprint of the system and containing all components within this footprint.

This allows the systems to be placed side by side in an **organised and effective** manner.

The size and weight of the job that the SCU can clad is dependant on the type of positioning equipment the end user specifies.

The general specifications of the system are as follows:

Overall Height: 3600mm

Footprint: 2425 x 2200mm

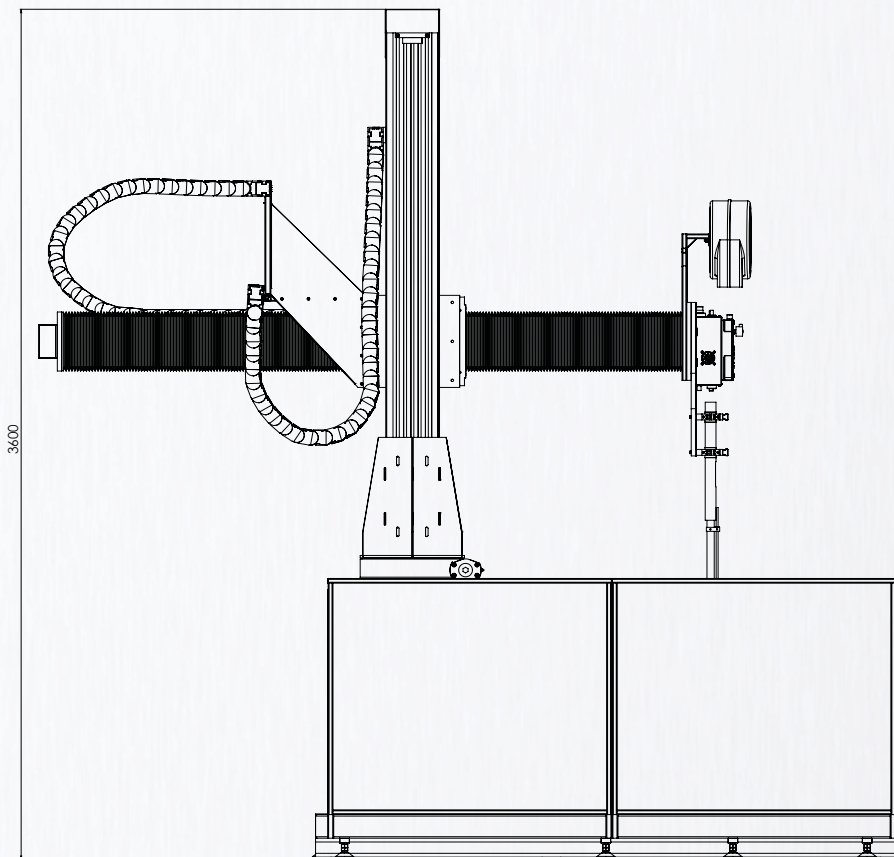
Vertical Stroke: 1500mm

Horizontal Stroke: 1500mm

Useful Rotation: 360 Degrees

Capacity: 1 Ton, 3 Ton

Features: Pendant control,  
Remote access,  
Off site diagnostic,  
Optional slip rings



# Welding Power Sources

**“Highly engineered Hotwire & Welding Power Sources deliver maximum weld quality and value to the end user.”**

The most important part of the SCU is the quality of weld that it produces. This is also the most important factor to the end user because a superior weld means **no re-work.**

The SCU is powered by the TPS W500i Welding Power Source. Engineered to **exacting standards**, this power source delivers an extremely high quality weld.

The 100% Duty Cycle of the W500i Powersource is 380A. This is testament to the overall **robustness** of the welding machine.

The Hotwire current is supplied by the TPS G161i Hotwire Power Source.

The 100% Duty Cycle of the G161i Hotwire Powersource is 100A.

This compact unit delivers a **reliable**, constant current to increase deposition rate and increase overall productivity.



TPS G161i  
Hotwire Power  
Source

TPS W500i DC Welding Power Source



# Welding Torches

**“To produce the highest weld quality, the welding torch must be manufactured to exacting standards.”**



	<b>Small Bore</b>	<b>Small Bore Swivel</b>	<b>Standard Fixed Head</b>	<b>Standard Swivel</b>	<b>Knuckle Swivel</b>
<b>Bore Size I/O</b>	28 mm+	40 mm+	60 mm+	85 mm+	85 mm+
<b>Hotwire</b>	✓	✓	✓	✓	✓
<b>Head Angle</b>	0° - 90°	0° - 90°	0° - 90°	0° - 90°	0° - 90°
<b>Bore Length</b>	950 mm	1000 mm	1500 mm	1500 mm	1500 mm
<b>Extra Length Available</b>	✓	✓	✓	✓	✓



TPS has a wealth of **experience** in the development, installation, commissioning and training in the use of clad overlay systems. Whether you require a repair or wish to develop a one off torch for a specific job, TPS can design and manufacture your torch to the highest quality.

The first step in the process will involve a free consultation with one of our experienced engineers to determine your **exact requirements**.

From this consultation we will tailor a design to meet your approval. Following this design approval we will issue a quote stating the costs and delivery time to your site. Highly skilled TPS machinists will then produce your torch to exacting tolerances. It will undergo **extensive testing** prior to dispatch.

TPS torches are currently in use at major cladding sites worldwide. As part of our quality system, customer involvement and feedback are actively sought out, in order to provide you, the customer, with the **right product**, at the **right price**, for the **right job**.

# System Control

**“The bespoke TPS Control Unit utilises a revolutionary user centred touch screen interface, making the SCU extremely user friendly.”**

The SCU is controlled by the TPS Control Unit. Manufactured in the UK, and using the highest quality components, this is vital to making the SCU efficient and easy to use.

One of the great features on the controller is the user centred graphical interface. All of the information about the welding process is displayed on one screen, in real time.

The obvious benefit is that the operator can constantly monitor the welding process without having to jump between different menus.

The interface is easy to navigate, which makes the system not only a pleasure to use, but also easy to learn.

Another great feature is the unique shape of the cabinet. The shape is ergonomically inspired and makes the user feel part of the system.

The system can also be controlled using a hand held pendant, which increases the functionality.

