



**Welding
Alloys
Group**

Multi Surfacacer™

*Automated welding equipment
for cladding applications*



ACTING GLOBAL
WELDING LOCAL

Designed, developed and manufactured by Welding Alloys



Multi Surfacers™

Automation Concept

Since the late 1970s, Welding Alloys has been designing, developing and manufacturing automated welding equipment specifically for cladding and rebuilding applications and today, its Multi Surfacers machines are renowned in the market for their accuracy and reliability. They offer outstanding performance and state-of-the-art controls and are highly customisable via the extensive list of options available.

Industrial expertise

Through close customer relationships and the direct involvement with a number of industries, Welding Alloys has gained a thorough understanding, not only of many manufacturing processes, but also of the operating conditions and requirements of welding workshops worldwide and has used this expertise to incorporate it into the design of its equipment.

Global supply and support

As a global market leader and with an international product portfolio, Welding Alloys has the capability to tailor its products and services to local customer requirements and to fully support its customers world-wide. Welding Alloys offers a full installation, commissioning and training service for all its equipment.



Taking the torch out of the welder's hand

Welding Alloys has a policy of continuous development and therefore reserves the right to alter the machine specification without detriment to performance without notice.



ACTING GLOBAL
WELDING LOCAL

Stationary workstations

Main features

- Heavy duty
- Multi process:
 - Open-arc - Single or twin wire
 - Gas shielded - Single wire
 - Submerged arc - Single or twin wire
- Digital control box
- Fully programmable for welding parameters and machine functions
- Highly customisable via the extensive list of options available
- For welding cored wire from 1.2 to 3.2 mm in diameter

Standard components



Heavy duty steel frame
Self-contained and robust



Control box
Modular, digital & intuitive programming



Axes
Fitted with encoder for accuracy & repeatability; advanced axes synchronisation



Welding head
Robust - incorporates our unique 4-wheel wire feed system



*Example
Basic roll cladder*



Work piece holding and movement system
Safe & fast loading and unloading with minimal set-up times



Key options available

- Operator protection against arc and fume exposure
- Several flux handling system options for submerged arc welding
- Adapted gas shielding systems
- Welding torches: air-cooled or water-cooled; various types available
- Integration of work piece handling and holding systems (cranes, table, etc)
- Spare part kits

Fume extraction and arc shielding box
Providing a healthy and safe working environment



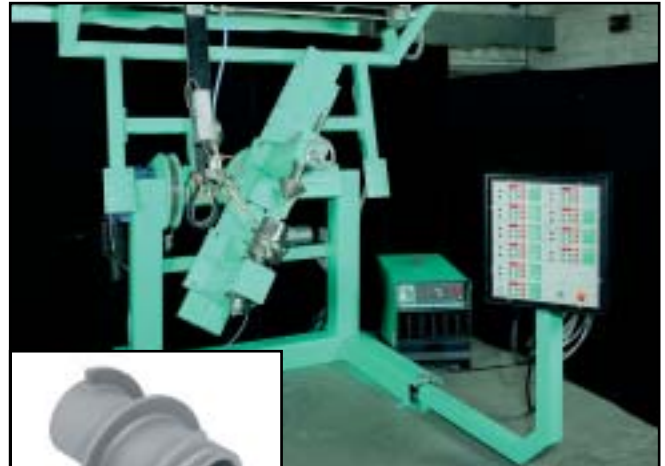


Multi Surfacers™

Examples of stationary workstations



Multi Surfacers ID 1000
for cladding valves from the petro chemical industry



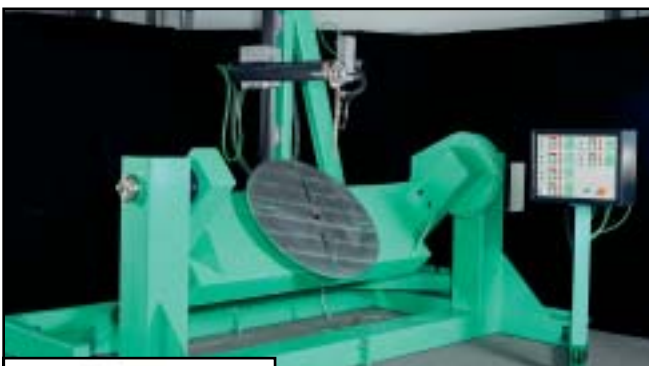
Multi Surfacers SF
for cladding screw flights



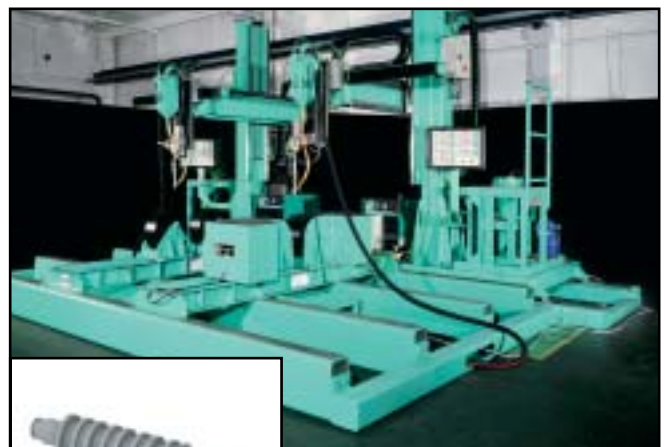
Multi Surfacers PFR 1
for cladding pipe forming rolls from the steel industry
(built as a twin workstation)



Multi Surfacers R 3000
for cladding rolls
(built with two welding heads)



Multi Surfacers RM 5000
for cladding crusher rolls



Multi Surfacers LFR
for cladding large forming rolls from the steel industry

Controls

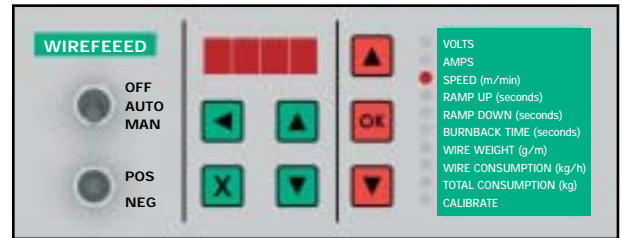
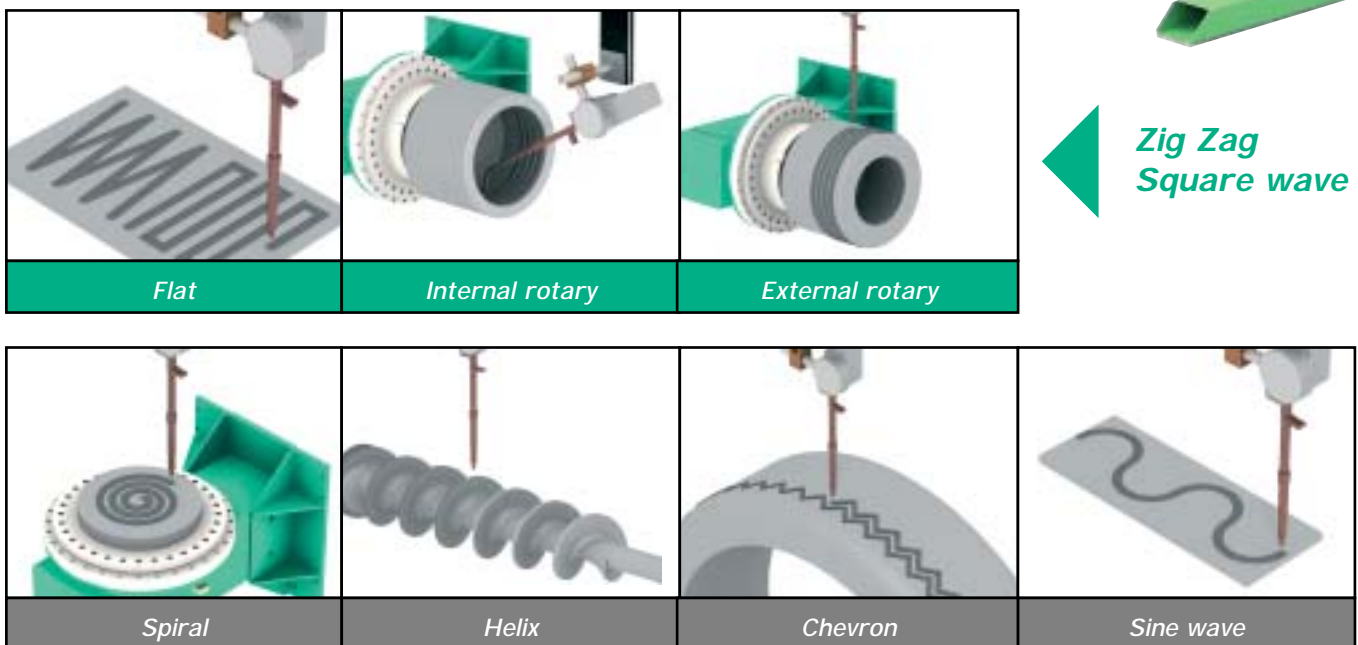
Unique features

- Modular
- Intuitive and digital
- Each parameter changeable during welding
- Constant welding speed for complex work pieces, such as cones and spirals
- Display of deposition rate per hour
- Display of welded metal quantity per piece or per period of time
- Permanent automatic adjustment of set welding and movement parameters

Control box functions:

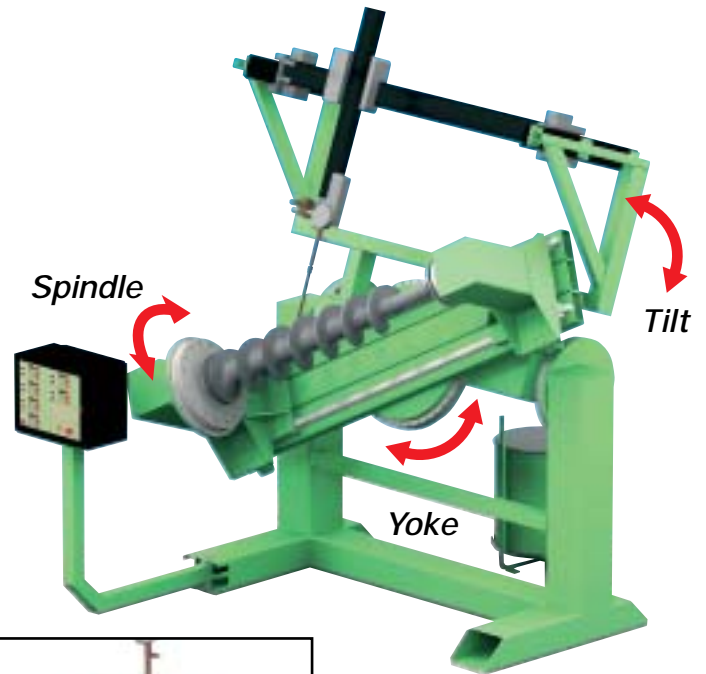
- Set welding parameters
- Set the motorised movements and position of the torch
- Set the motorised movements and position of the work piece

Weld patterns



Wirefeed module

Work piece movements



Key options available

- Automatic stick-out adjuster
- Sequencer/Programmer: PC upload & download system to store and retrieve up to 9,999 programmes
- Data logger: logs welding conditions and records operator input fields
- Interface into customer equipment



Portable equipment

Main features

- For use in-situ or workshop
- Easy to assemble, transport and install
- Highly versatile: can be fitted into almost any working environment
- Meets all safety standards for use inside metallic structures



Example
Basic H frame for workshop use,
fitted with fixed control box

Special pendant control box

Portable, easy handling during in-situ welding; alternative to fixed control box for use in workshops



Independent drive system with interlock

Automatic shut-down of the welding process during rotation failure

No tools - unique "clip-lock" assembly



Unique modular system rigid & light



Multi Surfacers Pendant D2
with double pendant as supplied
in a storage and handling box

Multi Surfacers™

Stationary and portable equipment

Examples of portable equipment



1



2



3

- 1 **Multi Surfacers Pendant D2**
In-situ cladding of boiler panels
- 2 **Multi Surfacers Pendant D2**
In-situ cladding of a giratory crusher
- 3 **Multi Surfacers ZUCAR 1**
For arcing sugar crusher rolls

Standard ancillary equipment

Wire dispensing systems



25 kg coil



15 kg spool



Pay off pack

Power sources

Several options available:

- WAP 650
rated 650A, 44V DC at 100% duty cycle
- WAP 1000
rated 1000A, 44V DC at 100% duty cycle
- WAP 450 Pulsed Constant Potential
rated 450A at 100% duty cycle



Benefits

Greatly improved working conditions for the welder

Constant weld quality

- Ease of use
- Reproducibility and accuracy
- Traceability

High production rate

- Deposition rate: up to 10 kg/hour
- Optimised arc on time
- Reduced production downtime

Cost savings

- Rapid investment pay back
- Indispensable for preventive and curative cladding



Complete service package

- Full installation, commissioning and training for all machines
- Set of manuals with delivery
- Worldwide after sales services

The Welding Alloys Group

An international presence

England (Head office)
Welding Alloys Ltd

Argentina
Welding Alloys Argentina S.A.

Australia
Specialised Welding Products
Pty Ltd (Trading partner)

Brazil
Welding Alloys Brasil Ltda

China
Welding Alloys China Ltd

France
Soudage Automatique SAS

Germany
WA Schweißlegierungs GmbH
WA Legierungstechnik GmbH

Greece
Welding Alloys Hellas epe

Holland
Welding Alloys Nederland

Indonesia
PT Welding Alloys Indonesia

Iran
Aliaj Joosh Iran

Italy
Welding Alloys Italiana s.r.l.

Japan
Welding Alloys Japan

Korea
Welding Alloys Korea Ltd

Malaysia
Welding Alloys
(Far East) Sdn. Bhd.

Mexico
Welding Alloys
Panamericana S.A. de C.V.

Poland
Welding Alloys Poland Sp.zo.o.

Russia
Welding Alloys Russia

South Africa
WASA (PTY) Ltd

Spain
Catalana de Soldadura
y Mecanizados S.A.

Thailand
Welding Alloys (Thailand) Co Ltd

Turkey
Welding Alloys I.I.P.L.S.

USA
Welding Alloys (USA) Inc.

www.welding-alloys.com

A perfectly controlled technology



**Design and manufacture
of all types of cored welding wires**



Multi Surfacer™
Design and manufacture of
automated welding equipment
for hardfacing and rebuilding applications



WA Integra services
Weld hardfacing and rebuilding technology
Innovative solutions against wear