



European Newsletter
Issue 1, March 2002

Solutions

Customer Information



SPECIAL DELIVERY - FIRST EDITION



**TeroLink - ActivaTec - Key Industries -
Oxyfuel and PTA Units**

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Front page photos :

Jan SZLEK, Castolin Poland
with special delivery of 2222

Welding of cracked engine

Editorial



Dear Reader,

With this European Newsletter we wish to offer an additional service to our international sales organisations and especially to our customers by presenting the latest technology developments and successful applications from all of our business areas: welding, brazing, coating, wear plates and oxyfuel equipment.

Besides discovering about innovative applications and products, you will be informed about European activities like seminars or our special focus on selected key industries where we are able to provide customer-oriented, tailor-made solutions.

Our new flux for welding stainless steel and titanium, innovation in PTA welding, the Castolin Oxyfuel equipment range and CDP XuperWave are other main topics of this edition.

In 2000 Castolin Eutectic became part of MEC Welding Europe. Within this new industrial group the Castolin Eutectic company's traditional mission to "partner our customers as a resource for protection, repair and joining solutions" has strengthened. Our newsletter is an essential part of this task and reflects our capability to support our customers in achieving cost-effective, easy-to-use solutions and cost savings by increasing the lifetime of their machinery equipment.

We hope you have fun reading this Newsletter and that it provides an interesting input to your daily work.

Your European Castolin Eutectic Team



*Some of our 310 Application Specialists,
just in Europe!*

NEW Innovative Technology

Increase the performance and productivity of the TIG process when joining thick sections in metal fabrication industries

ActivaTec® TIG Fluxes

ActivaTec TIG fluxes are specifically formulated and developed to increase the performance and productivity of the traditional TIG welding process by significantly extending its joining application capabilities without any additional investments in capital equipment.

Thick section joining applications which normally would require time consuming and costly weld machining preparations, accurate gap setting prior to tack welding and multiple weld passes with several filler rods to complete the joint, can now be executed in a single, autogenous weld pass. This new technique virtually eliminates distortion, fusion defects or inclusion risks with important time and cost savings for industry.

ActivaTec TIG fluxes are available in small 125g packs. After mixing with ActivaTec Thinner fluid, they are easily applied in a thin narrow layer along the close butted joint by hand brushing or spray systems prior to welding. After rapid drying, the joint is TIG welded in a single autogenous pass either manually or automatically using a short arc length between 1-2 mm to produce highest quality, full penetration welds.

Any flux residue traces left on the resulting concave weld surface are eliminated after welding by simple brushing operations.

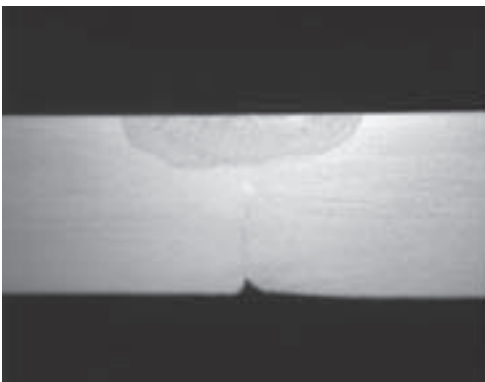
ActivaTec 500 TIG flux is specially formulated for joining 6-8 mm stainless steel sections.

ActivaTec 860 TIG flux is specially formulated for joining 6-8 mm titanium alloy sections.

Advantages of ActivaTec TIG fluxes:

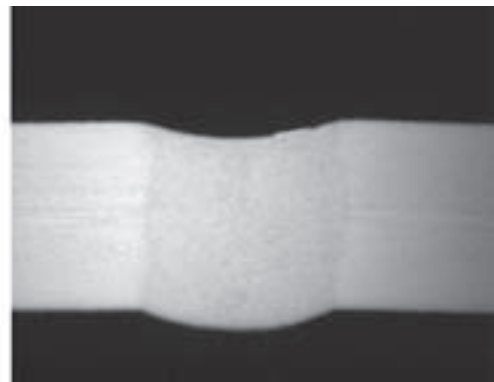
- Requires simple square butt joint set up with no gap
- Economises costly machined “V” weld preparations
- Increases weld penetration power by 200-300%
- Achieves single pass butt welds through 6 mm plate
- Enables faster welding speeds on 3mm plate
- Reduces welding distortion and shrinkage effects
- Cuts welding time, labour and filler metal costs

Welding - Solutions



Conventional autogenous TIG weld
125 A, Argon 100%
Butt joint 6 mm plate 316 L X7 Macro

Result: Partial penetration



ActivaTec 500 autogenous TIG weld
125 A, Argon 100%
Butt joint 6 mm plate 316 L X7 Macro

Result : Complete penetration

Eutronic® GAP PTA 3000 AC/DC Unit

This new unit is the culmination of a long history of Castolin Eutectic Plasma Transferred Arc (PTA) development.

It stands out due to its flexible modular system and reproducibility through the use of the latest inverter and built-in programmable controller technologies. This makes the unit ideal for automation.

All the advantages of PTA over traditional welding are reinforced; high deposition rates, extremely low dilution, pore-free, clean and precise deposit, etc.



Key features of the 3000 unit

- Plasma and TIG Welding in one unit using AC and DC
- Modular construction and accessories allows tailored system
- Programmable controller gives outstanding reproducibility
- Power and wire feed
- Joint welding and coating deposition-also suitable for aluminium and magnesium alloys



The new corrosion-resistant alloy 53-606

Castolin Eutectic has developed and patented the new spray and fused powder alloy 53-606 for one of the toughest corrosion and wear applications. When a cement customer came to us with an extreme mixed corrosion problem, combined with high temperature abrasion wear we accepted the challenge. This new alloy is nickel-based but has high levels of special additives such as silicon, boron and molybdenum which give the deposit a hardness of 600 Hv, which remains at 500°C.

We now have 5 years of good experience in this application and are looking for new challenges for alloy 53-606.



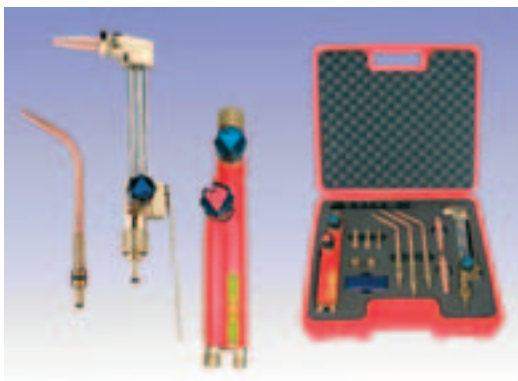
The photo shows an original 25:20 steel component and the same component coated with 53-606 after 12 months in service.

AutoFlam - the high performance flame equipment range from Castolin

To meet the demand that Castolin Eutectic's values of quality, reliability, safety and ease-of-use are extended to the whole repair job, we have added a new range of Oxyfuel Autoflam equipment. A range of accessories are available to meet most customer cutting and heating needs.

Castolin AutoFlam ProfiMax

Brazing, cutting, welding and heating all from the same kit allows a multitude of applications to be performed with a single handgrip. The one tool to cover all your professional needs. The heart of the kit is the common handgrip-robust, simple but advanced design and construction. Large cross-sections and solid construction allow simple access for service and regulation.



Key features of the AutoFlam ProfiMax range:

- One package for all needs-brazing, cutting, welding and heating.
- Lightweight, ergonomic and technically advanced handgrip.
- Robust, simple design for long life and reliable results.
- Complete range for acetylene and propane fuel gases for cutting.

Castolin AutoFlam MiniMax Kit

Castolin Eutectic complements its brazing business with the MiniMax range of heating torch kits and accessories to suit every job.



Key features of the AutoFlam MiniMax range:

- Ideal for a small jobs needing localized heating
- Large range of brazing, welding, soldering and heating applications
- Wide range of power from the diverse nozzle range
- Light-weight, easy to use-increased safety
- Acetylene and propane models available

Castolin CDP XuperWave

Castodur Diamond Plates are the result of our continuous development activities in the field of hardfacing for wear protection.

Whether weld-overlay or powder-fused wearplates, the advantage for the user is the increased lifetime of machinery and therefore reduced costs for maintenance.

With the new CDP Xuper Wave, we have really “directed” our development of weld overlay wearplates. By special programming of the fully robotized welding process, unique, zig-zag weld beads have been produced.

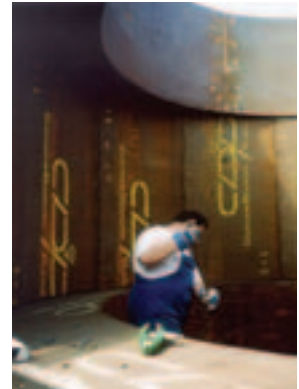


Key advantages over traditional wear plates

- Reduced residual stress in the basemetal substrate.
- The varying welding direction reduces the formation of deep cracks.
- Best CDP wear performance against fine particle erosion.
- No line-of-sight relief crack formation, due to the varying welding direction.
- Easiest to work with. Smaller diameter tubes, less stress in substrate.

The CDP Xuper Wave will open up new areas, e.g.: in the dust extraction and air handling equipment (fans, housing, transport tubes) where strong directional erosion occurs.

Cost savings come to the fore, not only due to the increased lifetime but also from savings resulting from being able to get the full use of the plate, without having to consider the weld bead direction.



CastoDur Diamond Plate CDP Product Range

Key Account Management Training, KAM

Training is essential for all of us today in bringing more productivity and skill to better serve customers and meet market needs. Understanding our customers and their business has always been part of the Castolin Eutectic approach. Its importance was under-lined with our first European KAM course in Vienna, attended by Castolin Eutectic representatives from the UK, Germany, Austria, Scandinavia, Czech Republic, Spain, Italy, Poland and Benelux. This first Maintenance KAM training is aimed at enhancing the value of Castolin Eutectic solutions to our customers, on a European level.



Industry Focus

Castolin Eutectic is well known as a provider of cost-effective solutions to industry, due in part to our deep and long-established knowledge of joining/protection applications and also of industry.



Dedication to an industry allows an understanding of the real problems and the most effective means of quickly finding a cost-effective solution. An example is our International CEMTEC team, spanning four continents from Brazil, South Africa, Indian, US and most European countries. Based on the success of the CEMTEC approach, a European Pulp & Paper Industry team has been formed in 2001. If you are involved in the cement or pulp&paper businesses, contact your local representative to discover the cost saving solutions we can offer.

Maintenance Knowledge Management Terolink

After being invited to panel a recent Maintenance Knowledge Management Seminar in Brussels attended by 150 maintenance engineers, Castolin Eutectic and Terolink again proved themselves unique and Terolink one of the best tools in the industry. If the power and practicality of the Terolink tool are still not familiar to you, contact your local Castolin Institute training manager and ask for a demonstration of its “best practice transfer“ capabilities.

Today, we have 4,000 applications in 12 languages and installed in 18 countries.



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**Your resource for protection,
 repair and joining solutions**

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