

Solysol video: Facilities and Resources

Sol Y Sol
ARC-TECH

Professionals in Welding

ESAB
ATM
Nederman
Soudax
PROMOTECH
bulane
STELIN
THOMAS

Welding Education and Certification

High Technology Welding
Friction Stir & Laser Welding

Special Welded Projects

First Class Equipment & Consumables

INNOVATION

www.arctech.es
www.solysol.com.es

Solysol Facilities & Support + Education Services

SOLYSOL is located in Santa Olalla, Toledo, 70 km west of Madrid.

Ø It was founded in 2008 by Angela Lazaro Martin:

Recognized authority in welding: International Welding Engineer, Senior Inspector, Metallurgical Engineer, 20 years working for The Lincoln Electric Co., as Technical Director (1988-2008) and General Manager (2004-2008) for Iberian market.

Ø Personnel resources:

- ü 3 Welding Engineers, besides Angela, in the sales & technical areas.
- ü 1 high level welder (pipe) dominating SMAW, GMAW, FCAW, SAW, GTAW, Laser Welding processes acting as welder educator & product demonstrator.
- ü 1 electronic technical engineer offering after sales equipment service.
- ü 2 salesmen with extensive experience in the field of welding.
- ü 2 people in logistic: warehouse & deliveries.
- ü 1 financial manager.
- ü 1 sales customer service.
- ü 1 communication (IT) responsible (webs, social network).

Ø Annual turnover: Around 2 million €

EXPERT WELDING COLLABORATOR



- Ø *Continuous productivity improvement*
- Ø *Quality assurance*
- Ø *Support in any aspect related to welding*
- Ø *Technical support to the commercial team to reinforce the VALUE of the offers of welded projects*
- Ø *Continuous training and advice in the different areas:*
 - Ø *Engineering & Design*
 - Ø *Quality and Coordination*
 - Ø *Purchasing*
 - Ø *Warehouse and Preparation*
 - Ø *Production*
 - Ø *Inspection*
 - Ø *Erection*
 - Ø *Maintenance*
 - Ø *Sales (customer requirements & Value added offer)*



WHY LEADING BRANDS: ESAB, AWS, ...



- Leading brands in the Welding Field:
- ESAB, founded in 1904: 120 years of innovation and the best products for welding and cutting
- AWS, founded in 1919
- **Trust in a prestigious brand**
- The widest range on the market
- Worldwide presence for after-sales service anywhere in the world
- **Stability and reliability in supply**
- **Better competitiveness thanks to superior performance: Products of excellent quality, durability that provide an increase in PRODUCTIVITY, which means an improvement in COSTS.**
- These principles apply to all brands represented by Solysol:



Marca de tecnología, propiedad de Solysol




SOLYSOL COOPERATES WITH KEY MANUFACTURERS

- The best brands provide SOLYSOL with the ability to offer these companies unbeatable price conditions on their main products, which distinguish them from the rest of the market, thanks to:
- Unrivalled global production volumes
 - Resources in research, development and improvement unmatched by other brands
 - Experience in the manufacture of these products and their application in all industrial sectors
 - Continuous advice on any project
 - The greatest warranty on any product
 - Quality endorsed by guarantee companies (certifications and approvals)
 - After-sales service anywhere in the world and insured over time
- All these reasons are why major manufacturers choose and recommend (sometimes require) working with leading brands.

WHAT DOES SOLYSOL OFFER?

SOLYSOL provides a package of consulting services that is based on the following axes:

- Ø Technical support for the study and quotation of projects
- Ø Advice to technical departments:
- Ø Requirements Assessment
- Ø Joint Design Evaluation
- Ø Optimization of welding processes
- Ø Generation and review of procedures and approvals
- Ø Regulatory Compliance & Certifications
- Ø Specific training to achieve the objectives set
- Ø Advice and support in welding and painting inspection, with the possibility of moving anywhere in the world.



Our capacity is limited in order to provide our chosen clients with an exclusive, dedicated service and adapting to their needs so that they appreciate a qualitative leap in each of the areas!

Do we Collaborate?

- Access the best products at the best prices, with the maximum guarantee of BRAND
- Let's work on a work plan with objectives that benefit your position in the market
- Count on professionals who will dedicate their time, knowledge and experience to achieving those goals as if they were on your staff
- Train your employees by working side-by-side with specialists who stay up-to-date on the latest technologies, regulations and practices, with up-to-date information on the working methods of leading companies around the world.
- Defend your offers with the Added Value that your company can offer. Let's make your customers appreciate your offers.

How do we do it?

- Let us know your company and the projects you are working on and the ones you present to your customers,
- Let us participate in the different phases of the project,
- Listen to our suggestions for improvement and let's collaborate in its implementation, after testing the results,
- IN SHORT:

Consider us part of your project, we will take it as OURS.

What scope of support?

- **The scope is defined by you:**
 - A project
 - Part of a project
 - The work you are developing
 - In the area or areas where you think our work can have the greatest impact
 - We can also help you, after a previous study, to define that area.
- **We adapt to your company, you set the pace.**
- **We can guide you so that our collaboration has the greatest effectiveness.**

What is the cost of it?

The objective is that our advice does not represent a cost, but that it improves your results

The impact of our fees for consulting and support services can be adapted as agreed:

Our principle is:

"Our time, our resources, are for our customers"

Your company chooses the service modality:

With a commitment to establish Solysol as a supplier of products of its PRIORITY range, at prices in line with equivalent brands in the market.

- With establishment of price per hour of work, payable for purchase of product to Solysol, under the conditions of the previous point.
- At the end of each project, we carry out together an evaluation of the results, integrating the cost of our services. The commitment is that YOUR RESULT is positive:
 - You will have purchased superior quality products at competitive prices
 - You will have improved the confidence in your production by your customers
 - You will have improved your production quality, with guarantee, at controlled cost

REFERENCIAS

- Companies and Projects in which, to a greater or lesser extent we have provided these services, SINCE 1990:

**Each Project, an experience,
FOR THE BENEFIT OF YOURS**

REFERENCES

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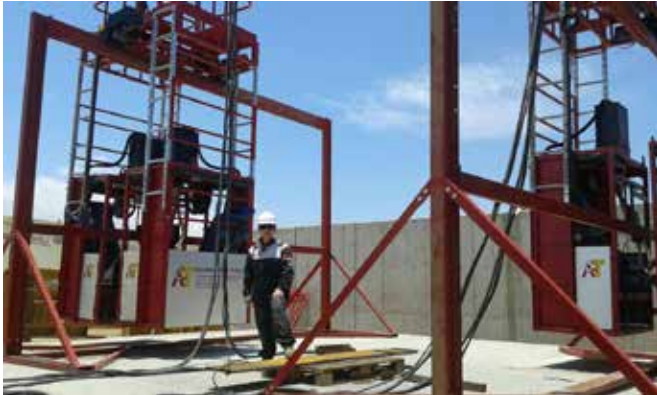
Your projects can benefit from our experiences:



- Training of welders and welding inspectors, more than 1,000 people, from 1990 to 1995
- Advice on automation and implementation of new welding technologies.



Fifelguera-I.H.I., s.a.



FLUXYS 

- Continuous advice from 1997 to 2017:
- Productivity and cost calculations, comparison with different welding processes, introduction of new processes for improvement
- Qualification of procedures and welders
 - Commissioning of equipment and processes on site (Spain, Peru, Costa Rica, Tunisia, Morocco,...) with training and local qualification of welders
 - Engineering advice: drawings, joint design,
 - Production and quality control
 - Special mention to spheres, LNG tanks, sulfuric acid and high temperature salts
 - Immediate assistance to work for problem solving and communication with end customer.
 -

REFERENCES

Your projects can benefit from our experiences:



- Continuous advice from 1997 to 2016:
- Productivity and cost calculations, comparison with different welding processes, introduction of new processes for improvement
- Qualification of procedures and welders
 - Commissioning of equipment and processes on site with training and local qualification of welders
 - Engineering advice: drawings, joint design,
 - Production and quality control
 - Special mention to the projects Palacio de las Artes (Valencia), Puente Gualdafeo, "La Peineta", AVE bridges throughout the Spanish geography, M-30 TBM, LNG tank in Huelva (UTE  ENTREPOSE), natural gas pipeline Almería, in which our participation was key in the execution of them.
 - Immediate assistance to work for problem solving and communication with end customer.
 - Assistance in audits international standards (AISC)



REFERENCES

Your projects can benefit from our experiences:

Mostostal-Acciona S19 Tunnelling machine – Welding of the Cutting Wheel

Dimensions: 12 m diameter – 400 Tn – Full Penetration Welds on thicknesses up to 80 mm



International Support 2022-2023 (Norway – Poland):

- Productivity and cost calculations, comparison with different welding processes, introduction of new processes for improvement
- Qualification of procedures and welders
- Delivery & Commissioning of equipment and processes on site with training and local qualification of welders
- Engineering advice: drawings, joint design,
- Production and quality control
- Immediate assistance to work for troubleshooting



REFERENCES



Your projects can benefit from our experiences:



- Continuous advice from 1992 to 2020 on gas and oil pipelines:

- Productivity and cost calculations, comparison with different welding processes, introduction of new processes for improvement (GMAW, FCAW, basic electrodes and high yield strength cellulose (for API 5L X-70 and beyond)
- Qualification of procedures and welders
- Commissioning of equipment and processes on site with training and local qualification of welders
- Special mention to the projects:
 - Maghreb-Europe and gasification with API 5L-X70 tube of the Iberian Peninsula: Development of Procedures, Qualification, Reduction of Repairs, Research Consumables and Suitable Processes, HOT Repair, of the gas pipeline in Algeria-Morocco (year 2019).
 - [Hot welding of "Way-Tee" for gasification expansion Puertollano Refinery \(year 2021\)](#)
- Immediate assistance to work for problem solving and communication with end customer.



REFERENCES

Your projects can benefit from our experiences:



REFERENCES

Your projects can benefit from our experiences:



- Continuous advice from 1994 to 1998:
 - Productivity and cost calculations, comparison with different welding processes, introduction of new processes for improvement
 - Qualification of procedures and welders:
 - Special mention to the introduction of the FCAW process in the manufacture of jackets to replace the SMAW process, with training of more than 200 welders and monitoring of their production quality and reduction of repairs.
 - Immediate application to project ORENSUND BRIDGE.



- ITER project advice in its first phase of development (2012)
- Advice and development and testing of welding procedures for forced pipe repair in La Muela hydroelectric complex (2013)



REFERENCES

Your projects can benefit from our experiences:



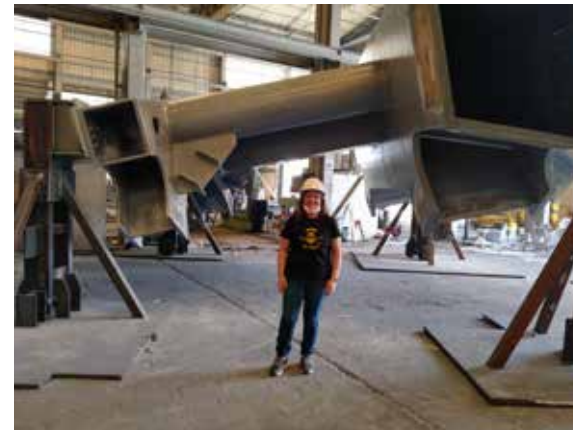
- Asesoramiento como CWI proyecto New York Ground Zero Transportation Hub (Calatrava)
- Advice, commissioning and optimization of equipment and automated installations for welding
- Training and qualification of welders

REFERENCES

Your projects can benefit from our experiences:



- Continuous advice on welding projects:
 - Calculation of costs according to process
 - Factory and site support
- Advice, commissioning and optimization of equipment and automated installations for welding
- Training and qualification of welders
- Troubleshooting and reducing repairs
- Quality Control



REFERENCIAS

Your projects can benefit from our experiences:

- Assistance, training, supervision of welded projects
- Audit and control of production and quality in subcontractors
- Training and advice to Design Engineers
- Training subcontractors: engineers, quality, assemblers, welders, inspectors, ...
- Cost calculations and optimization
- Assistance in audits international standards



| PART OF AAF INTERNATIONAL



- Special mention of assistance on site (Spain, Chile, China, United States, ...) with training and local qualification of welders in welding LNG tanks and high temperature salts
- Immediate assistance to work for problem solving and communication with end customer.



REFERENCES

Your projects can benefit from our experiences:



- Advice on consumables of specific design for compliance with particular project requirements
- Introduction of induction heating technology for Preheating, Dehydrogenation and PWHT.
- Maintenance Welding Training in Nuclear Power Plants (Trillo, Alcaraz, Ascó).
- Procurement and Storage control of special consumables.



REFERENCES

Your projects can benefit from our experiences:



- Advising companies on related aspects in any country
- Displacement of technicians and continuous assistance with support and backing of their work for their clients
- Assistance in audits international standards (AWS, ASME, EN,...)



REFERENCES

Your projects can benefit from our experiences:

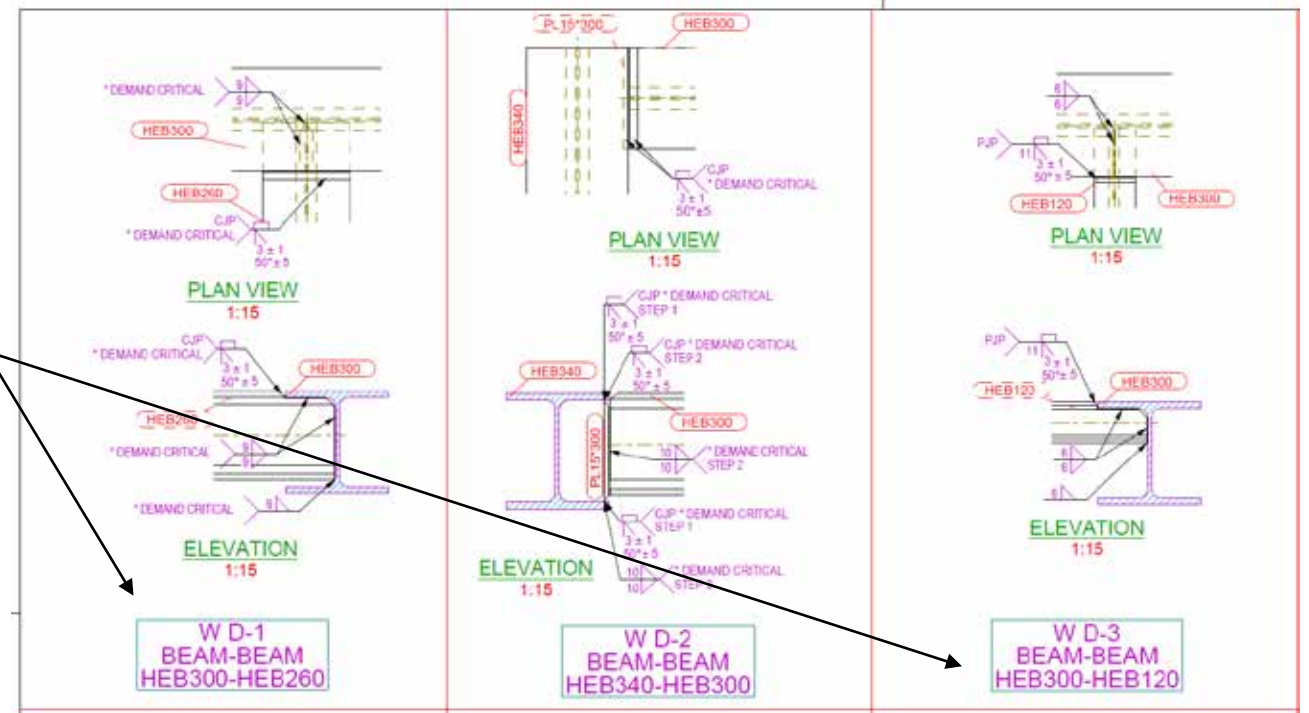
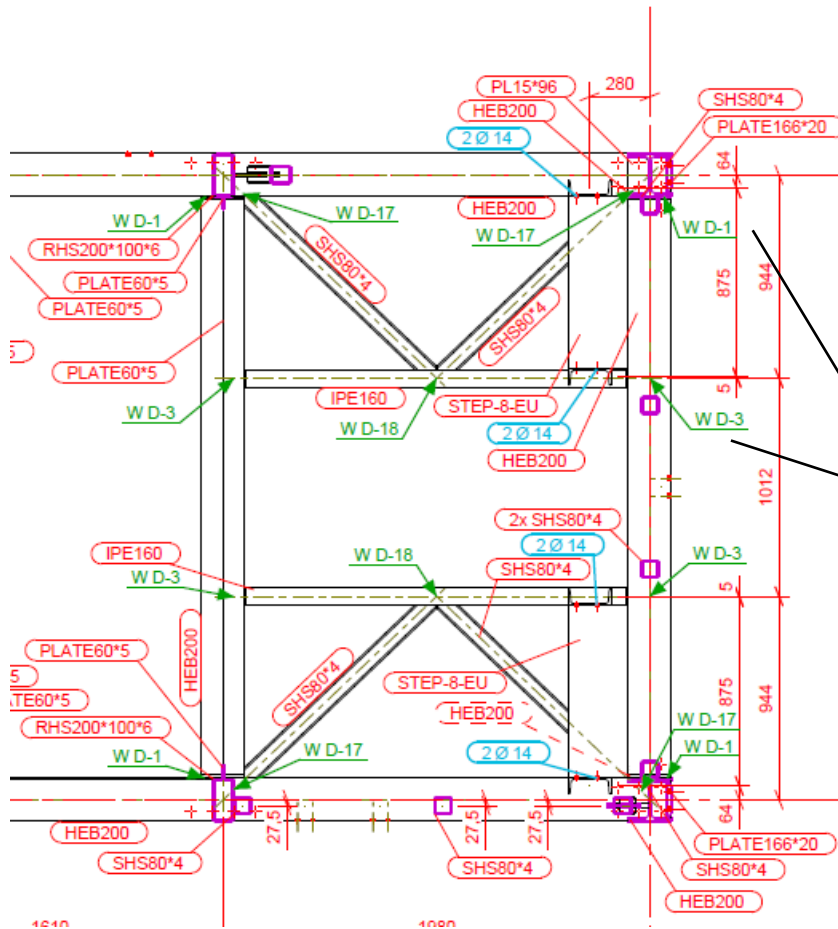


- International Agent and First Accredited Testing Facility (ATF) of American Welding Society (AWS):
 - Education and Certification of
 - Engineers
 - Inspectors and Coordinators
 - Educators
 - Industrial Salesmen
 - Welders
- Collaboration in Training, Conferences and technical articles with Cesol since 1990
- Collaboration with the American Institute of Steel Construction in the Certification of metal structure companies: Training, Audit and corrective and improvement measures.



Project Review

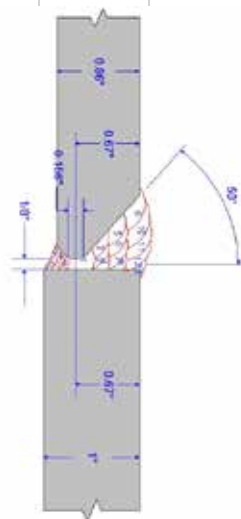
Drawings, Requirements, Definition of Welds, Qualifications
(Procedures and Personnel)



Budgeting

Study of Costs, Times and Improvement of Procedures

TANQUE DIÁMETRO 37 m L= 116 m						
UNIONES DE VIROLAS EN CORNISA						
UNIÓN	T1 (mm)	T2 (mm)	SOLDADURA OUT SAW kg/m aprox	SOLDADURA IN FCAW-G kg/m aprox	Total Virola SAW kg	Total Virola FCAW-G kg
1	21	18	2,5	0,5	290,0	58,0
2	18	15	2,3	0,5	266,8	58,0
3	15	13	2,1	0,4	243,6	46,4
4	13	10	1,7	0,3	197,2	34,8
5	10	8	1,5	0,3	174,0	34,8
6	8	8	1,4	0,3	162,4	34,8
7	8	8	1,4	0,3	162,4	34,8
8	8	8	1,4	0,3	162,4	34,8
TOTAL TANQUE CORNISA					1.658,8	336,4



- Monitoring of Times and Costs during production. Implementation of measures to comply with budgets and readjustments.
- Continuous training of the personnel involved.

COMPARACIÓN PROCESOS (sólo Out)					
UNIÓN	T1 (mm)	T2 (mm)	SOLDADURA OUT SAW	SOLDADURA OUT FCAW-S semi	SOLDADURA OUT FCAW-S Bugo
			Parámetros aprox	Parámetros aprox	Parámetros aprox
1	21	18	350 A - 500 mm/min - O.P. 70%	220 A - 200 mm/min - O.P. 30%	200 A - 200 mm/min - O.P. 40%
Número Cordones aprox			15	15	15
Tiempo/cordón total L=116 m (min)			232	580	580
Tiempo/total junta (min)			3480	8700	8700
Tiempo/total junta con O.P. (min)			4971	29000	21750
Tiempo/total junta con O.P. (hr)			83	483	363

Qualification

Procedures and Personnel (Welders and Inspectors)

European, North American and Other Standards

[illegible][illegible][illegible][illegible]

Sol. Ind. y Soldadura 2008, S.L.U.

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45530 Santa Olalla, Toledo

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- We dive into the project for its development with the best guarantees from its inception.
- We work with your staff in every stage and process of development, production and control.
- We provide the best products for maximum efficiency and profitability.
- We guide your sales team to reinforce your value added proposal to your customers.



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We wish to also collaborate in
your projects and guarantee
together the result and success



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Certificado N. ES081453-1

Solysol areas of activity:



Professionals in Welding



AIMTEK
Welding Equipment

Nederman

PROMOTECH

Walter Schnorrer
Welding Equipment

Soudax

bulane

STELIN
Industrial Systems

SFE
SPECIALIZED FABRICATION EQUIPMENT

THOMAS
Welding systems



**Welding
Education and
Certification**



**Special Welded
Projects**



**High Technology
Welding**
Friction Stir & Laser Welding



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