We aim to be... The partner you can trust

### **Our Company Profile**



**RYAN JULATON** *Regional Sales Manager EPC & Oil and Gas* 



### ZALUX

We are the European leader for luminaires with high protection ratings for challenging applications

Specialised in the development and manufacturing of reliable and durable luminaires for extreme conditions such as high / low temperatures, humidity and chemicals, hazardous areas, petrochecmical plants, power plants and explosion proof.

- State-of-the-art machinery
- Best service and price / quality value
- Cutting-edge solutions focused on customer needs





# ZALUX at Glance

### Founded in 1980

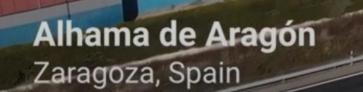
- Member of TRILUX Group since 2000. The biggest Lighting Company in Germany with about \$ 1 Trillion Annual Turn-Over invested in latest lighting Innovation.
- Passionate about customer service.
- Premium quality product range and best-in-class logistics procedures to become a leader in the lighting market.
- In house advance robotics assembly and state of the art production facilities from plastic raw materials to finished products.
- Made in Spain in our 42,000 m<sup>2</sup> plants in Alhama de Aragón with a specialized team of around 360 people.

### Specialization and service

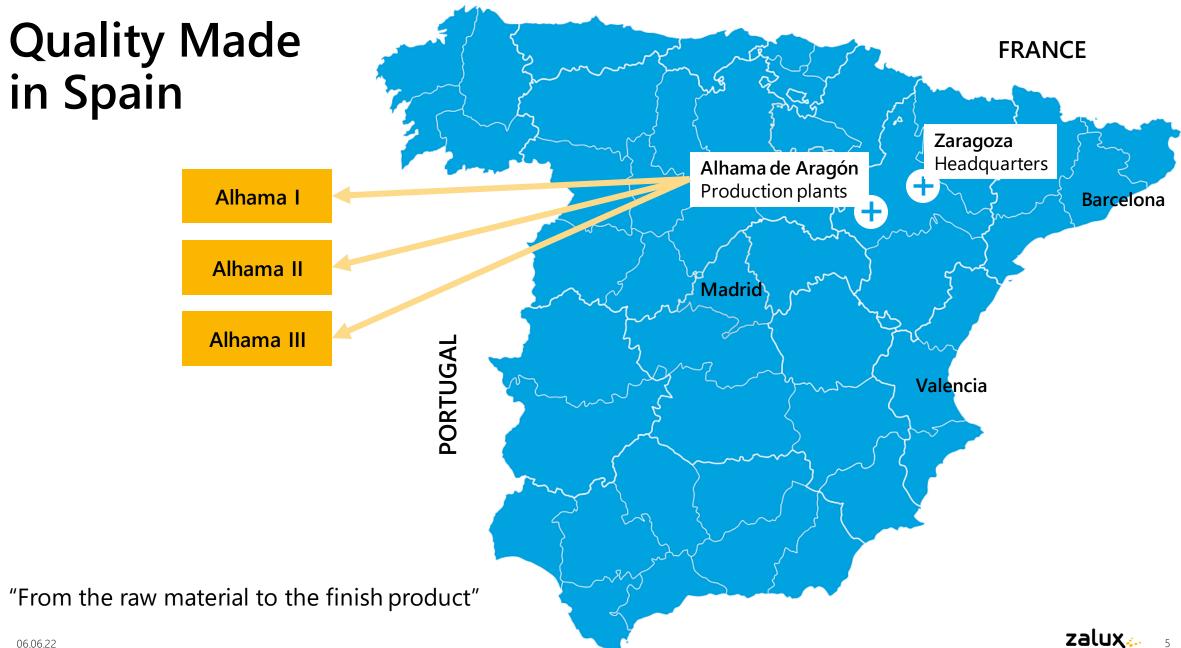
- We offer **complete lighting package solution** & Expertise in documentation process flow for Oil & Gas Projects and EPC demand requirements.
- Specific product range with a wide variety of models.
- **OEM partner**: design, engineering and manufacturing of bespoke lighting products to meet special needs.
- Efficient production process through automation, continuous improvement and environmental care.
- Focus on sustainable hazardous lighting application and provide high efficiency type of lighting fixture with digital features like sensors, dimming options, wireless control to help industry in energy savings.







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### Resources



### Headquarters in Zaragoza, Spain

3 manufacturing plants in Alhama de Aragón Quality Made in spain



Alhama I

Plastic injection Compression press Extrusion



Alhama II

Metal workshop Automated wiring robots 20 assembly lines for LED Electronic components assembling



### Laboratory

Thermal and endurance tests IPX5 – X6 humidity tests Impact tests Product safety tests



Alhama III New assembling lines 1500m2 premises 13 production lines



Warehouse 10,000m2 storage For 5,800 Europallets With advanced computer systems



### **Finished Products**



# Alhama I

### **Plastic Injection** • Compression Press

• Plastic Extrusion

### Manufacturing of components:

- Housings
- Diffusers
- Plastic clips & small components
- Optics for Luminaires

### Polyurethane gaskets dispensing







Gas tight process for luminaires suitable for outdoor and off-shore applications

# Alhama II

**100% Production Line Electrical Test** 

metal workshop • wiring • assembling • logistics • special projects • laboratory

- 20 assembly lines for LED, ESD protected
- Electronic components assembling
- Silicone gaskets
- Automated wiring
- Metal workshop
- Explosion Proof Lighting Product Assembly
- Laboratory



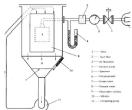
# **ZALUX In-House Laboratories**

#### **Electromechanical Safety Laboratory**



#### Moisture and Humidity Tests acc.to EN 60598-1, EN 60529

- IPX5 and IPX6 water-jet proof luminaires.
- IPX9K preliminary assessment.



#### Dust Tests acc.to EN 60598-1, EN 60529

• IP5X and IP6X dust proof luminaires.

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#### Impact Tests acc.to EN 60598-1, EN 50102, EN 60068-2-75

- Spring Hammer for IK02...IK07.
- Vertical Hammer for IK06...IK08 (IK10 coming soon).

### **Photometrical laboratory**



### A wide range of photometrical measurements is coming soon...

- Photometric Curves, Im, Im/W measurements.
- eulumdat Files.
- Photobiological Safety Assessment.
- % Flicker and Flicker Index.
- Spectrum Analysis.
- LM-80 and TM-21 Test Reports under request.



# Alhama III

Assembling • special projects

• New space to increase assembling capacity





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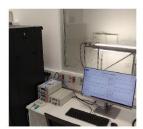
### **Electromechanical Safety Laboratory**



#### Product Safety Tests acc.to EN 60598-1, EN 60598-2-1, EN 60598-2-22, EN 60598-2-24

• Test Reports with a complete assessment in different luminaire safety items such as:

 Classification, marking, construction, wiring, earthing, protection against electric shock, resistance to dust, solid objects and moisture, insulation and electric strength, creepage distances and clearances, endurance, resistance to heat, fire and tracking and others under request.



#### Thermal Tests acc.to EN 60598-1, EN 60598-2-1, EN 60598-2-22, EN 60598-2-24

- Performance measured up to 60°C. Controlled and monitored room temperature.
- No air flux, up to 16x different measuring points/luminaire.
- Different possibilities under study: with/w-out through wiring, different DALI/1-10V/0-10V/prog steps, abnormal conditions, battery operation (only for emergency luminaires).
- Yearly capacity rate: near 2,000 tests.

### **Electromechanical Safety Laboratory**

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#### Other E-LAB type tests

- Load Suspension Test (EN 60598-1)
- Glow Wire Test (EN 60598-1)
- Traction Test (EN 60598-1, internal specifications)
- Electrical Characteristics (fully custom, under request)
- Fork-Lift Transport Test (ISTA3B-Fork)
- Outdoor Test (internal specifications)
- Free-Silicon Test (Chemical Lab)

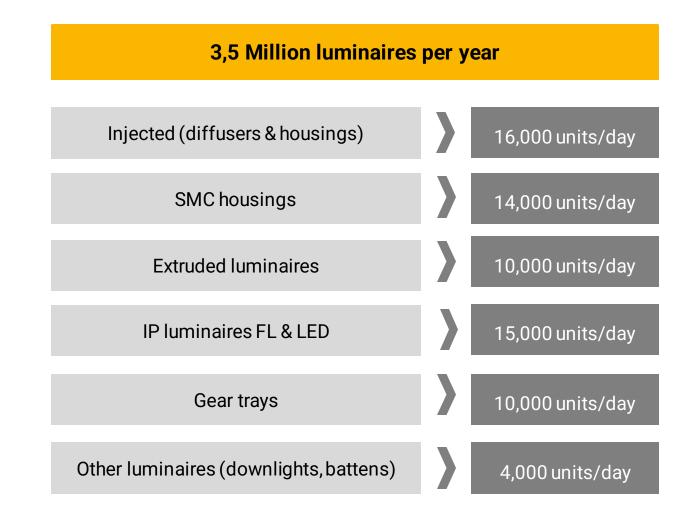






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### From small series to mass production





# **Quality and Sustainability**

# 5 YEARS warranty

AENOR	
QUALITY MANAGEMENT	
ISO 9001	]

**Certified quality management system Procedure** according to ISO 9001:2015



Certification in accordance with ISO 14001:2015 with strict environmental standards in our manufacturing sites



**European conformity** 2004/108/EC for Electromagnetic Compatibility, 2006/95/EC for the production of luminaires and 2009/125/EC for **ecodesign** 



European ENEC mark: electrical products that comply with European standards. Electromagnetic compatibility (EMC) Directive 2014/30/EU



Compatibility for **safety approval** certification is confirmed by the Certification Body (**CB**) of each standard based on the test result provided by the authorized test laboratory



Compliance with the specifications of foodstuff legislation in accordance with **Regulation (EU) No. 852/2004 (HACCP)** for luminaires, and can be used in applications where foodstuffs are processed, handled and packed



**RoHS Directive** 2011/65/CE about the restrictions of six hazardous materials in the manufacture of electronic and electrical equipment

### REACH

European Union Regulation (EC) 1907/2006 concerning Registration, Evaluation, Authorization and Restriction of Chemicals (**REACH**)



Luminaires intended for use in potentially explosive atmosphere in compliance with the health and safety requirements specified in Directive 2014/34 UE (ATEX)



Luminaires intended for use in potentially explosive atmosphere in compliance the voluntary IECEx Equipment Certification Scheme to facilitate acceptance around the world



# **Explosion Proof Lighting Applications**

### **OIL AND GAS PLANT**

**POWER PLANT** 

### FOOD PROCESSING PLANT



Downstream - Oil Refinery



Downstream - Petrochemical



Power Generation Plant



Sugar Refinery



Offshore Platform



Floating Processing Plant





**Desalination Plant** 



CHEMICAL



Fertilizer Plant



We aim to be... The partner you can trust

# Oil and Gas End User and EPC Registration

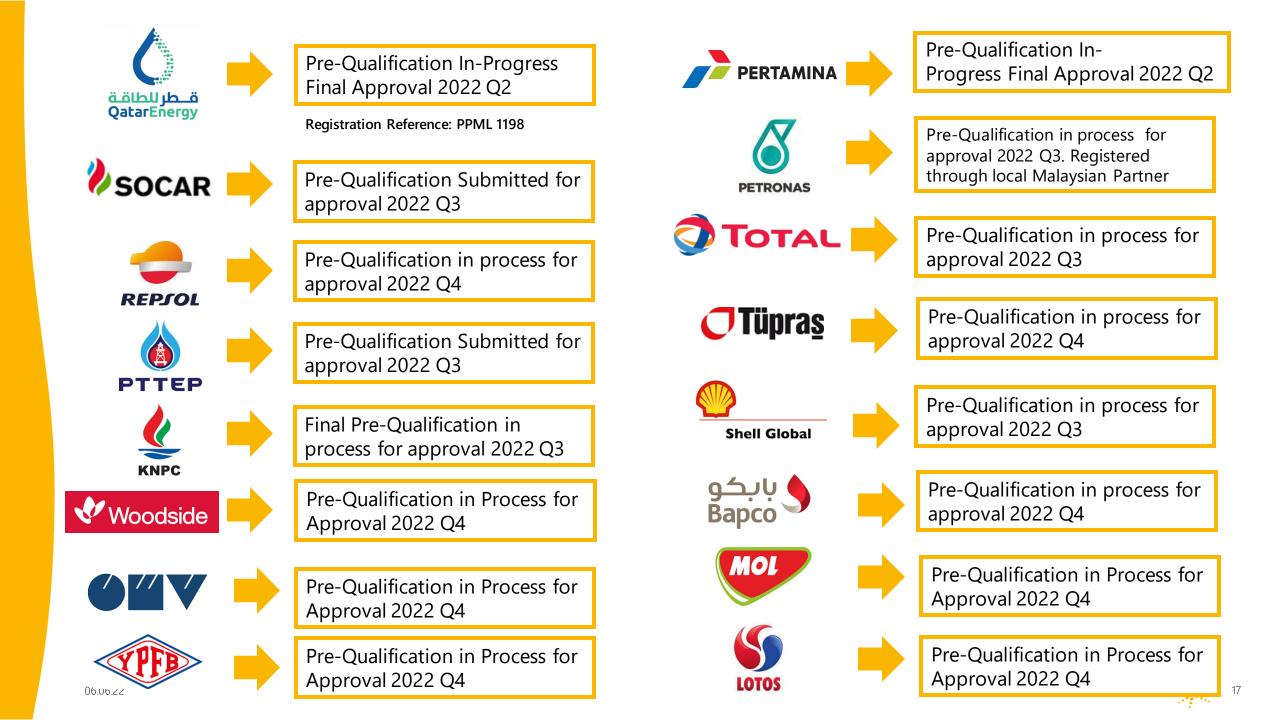
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### **Registered Vendor for Hazardous Area Solutions End Users**



And other oil and gas end user registration in process, in companies like KNPC, BAPCO, Qatar Gas, Petronas, REPSOL, PTTEP, Tupras, PDO, Emirates Oil and more...





### **Registered Vendor in Major EPC Companies**

#### Vendor Numbers:

- Tecnicas No. Z00000189
- Petrofac No. 7616
- Tekfen Engg No. 101556
- ENPPI No. 9470
- Samsung C&T No. 492804
- McConnel Dowell No.
  115169
- Maire Tecnimont No.
  100060735
- Lamprell No. 4413202
- Sapura No. S26919393
- CTCI Corp. SCM0013045
- Others Approval For EPC does not need Vendor ID



And other registrations in process...



### And more approvals in EPC companies







# **Major Project References**

Project: Garraf OilField Power Plant EPC: SEPCO3 Electric Construction) Owner : Petronas Carigali Iraq Holding



Project : ADNOC IGD Expansion Phase 2 EPC : Tecnicas Reunidas / Control Contracting



Project : Singapore Bertschi Oil Storage Client : Berschi







# **Major Project Reference**

Project: Flour Mills Processing Plant Client : Kuwait Flour Mills



Project: Qatar Fertiliser Plant Client: Qatar Fertiliser (QAFCO)



Project: Vegetable Oil Refinery Client: Societe Des Huiles ET Derivities







#### STRONGEX 2 Zone 2, 22

Extreme robustness and resistance against impacts and chemical agents

#### ACQUEX Zone 2, 22

(Ex) II 3G Ex ec IIC T6 Gc

II 3D Ex tc IIIC T85 Dc

ATEX certificate No: OBAC 19 ATEX 0206X

Extremely simply, safe and reliable for explosive atmospheres



### PRODUCT **SUMMARY** (Explosion Proof Lighting)



(Ex) Ex II 3G Ex ec IIC T5/T6 Gc Ex II 3D Ex tc IIIC T85...T100 Dc

HACCP

ATEX certificate No: OBAC 20 ATEX 0334X

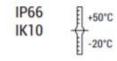
Up to 6,200lm Up to 150lm/W L80 100,000 h

CE (Ex)

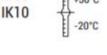


Up to 8,000lm Up to 150lm/W L80 100,000 h

(Ex)



**(E (E)** HACCH



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PRODUCT SUMMARY (Explosion Proof Lighting)

#### KRATEX Zone 1, 21

Connected lighting with a wide range of options for ATEX projects

⟨Ex⟩ II 2G Ex db IIC T6 Gb
 ⟨Ex⟩ II 2D Ex tb IIIC T85 Db

ATEX certificate No: INERIS 20 ATEX 0006X IECEX certificate No: IECEX INE 20.0005X

Up to 11,750lm Up to 150 lm/W L80 50,000 h IP66 Pc: IK10 Glass: IK07 / IK09



#### OREX 1 Zone 1, 21 OREX 2 Zone 2, 21

High bay lighting specific for explosive environments



_	II 2G Ex eb ib mb op is IIC T5T4 Gb II 2D Ex tb op is IIIC T95°CT121°C Db	OREX 1
(Ex)	II 3G Ex ec op is IIC T5T4 Gc	OREX 2

ATEX certificate No: OBAC 21 ATEX 0135X

IECEX certificate No: IECEX OBAC 21 ATEX 0135X IECEX certificate No: IECEX OBAC 21.0003X

> IP66 / IP67 IK10 -32°C



Up to 40,500lm

L80 90,000 h

150lm/W



Product Summary (Protected Lighting **Fixtures**)



### ZALUX BASE

Long-lasting, compact and resistant luminaire with quick and safe mounting. Single part profile with up to 138lm/W. Wireless Bluetooth control optional.

+40°C 8 IKO8 IP66 / IP69K CE CB ROHS REACH

### ZALUX BASE PMMA

Extraordinary chemical resistance with up to 138lm/W.

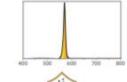
Gas tight: hermetically sealed against liquid and gas income.

+35°C IKO3 IP66 / IP69K CE CB ROHS REACH 1-25°C



#### ZALUX BASE D.O.

Protects wine and champagne against photosensitivity. With amber LED and very specific light spectrum.



+35°C 1-25°C





### **DUNA FLEX**

Versatile luminaire adaptable to different applications with up to 170lm/W and 15,000lm Wireless Bluetooth control and sensor optional.

+50°C PMMA: IKO3 PC: IKO8 IP66 CE E C CB ROHS REACH



### Product Summary (Protected Lighting **Fixtures**)



### STRONGERTUBE

Robust and resistant against corrosion, ammonia and salty environments. Thick PMMA profile with specific gas tight potting to avoid income of gases.



### ZALEDA

Protection for indoor and outdoor applications with up to 167lm/W. Excellent thermal management, suitable for high humidity areas.

+45°C PMMA: IKO3 PC: IKO8 IP66 CE (10 Rohs Reach

### **EURLEDA**

Completely made in Europe and designed for high temperatures up to 50°C. With optional wireless Bluetooth control.

+50°C

IKO8 IP66 CE CB ROHS REACH



### WHY ZALUX ?

### 1. Made in EU (Origin from Spain)



### 2. Reliability and Capacity

- Short Delivery Production Time
- 100% Line Production Electrical Testing
- First Class Plastic Raw Materials (Not Recycled) and Electrical Components from Premium International Brands

### 3. Sustainable Oil & Gas Industry

- Focus on producing plastic product with 100% Recyclable Materials
- Maintenance Free Explosion Proof Lighting Fixture
  with Lifetime until 100,000Hours

### 2. Real Manufacturer

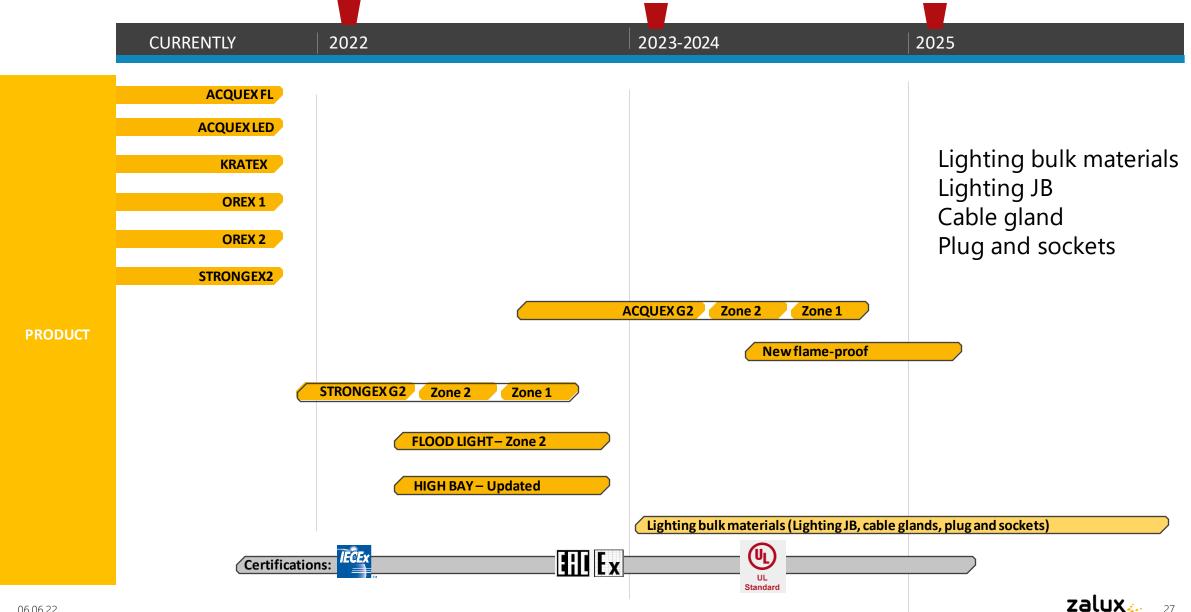
- Manufacture from Raw Materials to Finished Product
- Expert for Plastic Lighting Solution
- In-House Production State Of the Art Facilities
- Self Sufficient from Small Parts of Plastics Components
  Up to Major Components of Housing and Diffuser

### 4. Efficiency Solution

- Minimum Efficiency of 150Lm/W
- Constant to reduce plant energy consumption reduction
- Sensor, DALI and Wireless Bluetooth Connection Solutions to improve energy Saving



### **ATEX 10 Roadmap**





# Thank you!