# CASTINGS FOR EXTREME WEAR

www.cmw.pt





our full commitment to ensure high quality

products and on-time deliveries.

We operate three foundries in Portugal, two

close to Oporto and one near Lisbon.

#### **CMW FOUNDRIES**

# COMMITMENT WITH THE CUSTOMER

We are focused on long term customer satisfaction through competitive prices, high quality of castings, on time deliveries and efficient service.

Our core business is supporting customers with technical assistance in order to develop and produce wear solutions in materials resistant to abrasion, impact, corrosion, and temperature, to increase lifetime of components and achieve cost savings.



### **EXPORT COUNTRIES**

GERMANY · SPAIN · FRANCE · NETHERLANDS · ITALY · SWITZERLAND · AUSTRIA · IRELAND

UNITED KINGDOM · FINLAND · SWEDEN · ROMANIA · CANADA · USA · VENEZUELA

JAPAN · ISRAEL · MOROCCO · TUNISIA · EGYPT · MOZAMBIQUE · ANGOLA · SOUTH AFRICA

### **MARKETS**

DREDGING AND MINING
MARITIME AND SHIPBUILDING
OFF-SHORE
PUMPS AND VALVES
PETROCHEMICAL
INCINERATION
CEMENT
CONSTRUCTION EQUIPMENT
OTHERS

# **MATERIALS**

HIGH CHROME CAST IRON
HEAT RESISTANT STEEL
CARBON/LOW ALLOY STEEL
STAINLESS STEEL
DUPLEX/SUPER DUPLEX
INCONEL
OTHERS



# PRODUCTION FLEXIBILITY

CASTING WEIGHT UP TO 10 TONS

LOT SIZES FROM SINGLE CASTING TO LARGE SERIES

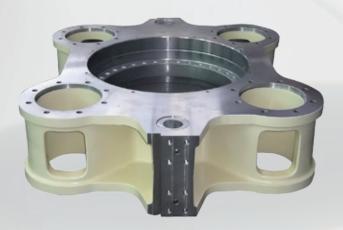
WIDE RANGE OF ALLOYS

#### **PROJECT**

CAD tools and simulation software Solidcast/Flowcast

Rapid Prototyping

Reverse Engineering with Faro Edge portable measuring machine.



#### PATTERN SHOP

Manufacturing of moulding equipments
Pattern making based on technical
drawings, 3D CAD models or prototypes
Materials: Wood, epoxi and foam

#### **MOULDING LINES**

 $1 \times automatic - 700 \times 600 \times 500 \text{ mm}$ 90 molds/hr - green sand

1 x pat. flow no bake - 1300 x 1250 x 850 mm 12 molds/hr - phenolic resin sand

1 x pattern flow - 3000 x 2000 x 1000 mm 7 molds/hr - phenolic resin sand

1 x pattern flow - 4000 x 2000 x 2000 mm 7 molds/hr - phenolic resin sand

1 x hand moulding - 2500 x 2000 mm phenolic resin sand

1 x hand moulding - No size restriction phenolic resin sand

#### **CORE SHOP**

Automatic and manual processes

#### **MELTING**

Induction melting furnaces, ranging from 750 kg to 6 Tons

Electric arc furnaces of 6 Tons



#### **HEAT TREATMENT**

Heat treatment with different quenching media (Water, polymer mix and fan coolers) Capacity from 5 Tons up to 20 Tons

#### **FINISHING OPERATIONS**

Shot blasting (steel and stainless steel shot), fettling shop

Machining, conventional and CNC

#### **LABORATORY**

Spectro optical emission spectrometers
Niton portable spectrometer for PMI
Metallographic testing equipment with Leica
image analysis software
Universal testing machine for tensile/
compression 60 Tons
Impact test machine 300 J
Universal hardness tester HRC, HB, HV

#### **FINAL QUALITY CONTROL**

Portable durometers Equotip Ferritoscope Fischer Faro Edge portable measuring machine

#### NON DESTRUCTIVE TESTS

Ultrasound tester Karl Deutsch
Magnetic tester Magnaflux
Penetrant liquid test
Procedures and level II qualified operators
according to EN ISO 9712:2012 and
ASNT SNT-TC-1A

## **QUALITY ASSURANCE**

WELDING ENGINEERS

ISO 9001:2008

PED 2014/68/EU ANNEX I - POINT 4.3

ABS - FACILITIES AND ASSOCIATED QUALITY PROCEDURES APPROVAL FOR MARINE APPLICATIONS CASTINGS

DNV GL - APPROVED MANUFACTURER ACCORDING DNV GL RULES FOR CLASSIFICATION - SHIPS

CMW complies with the requirements of environmental legislation and approved codes of practice.







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