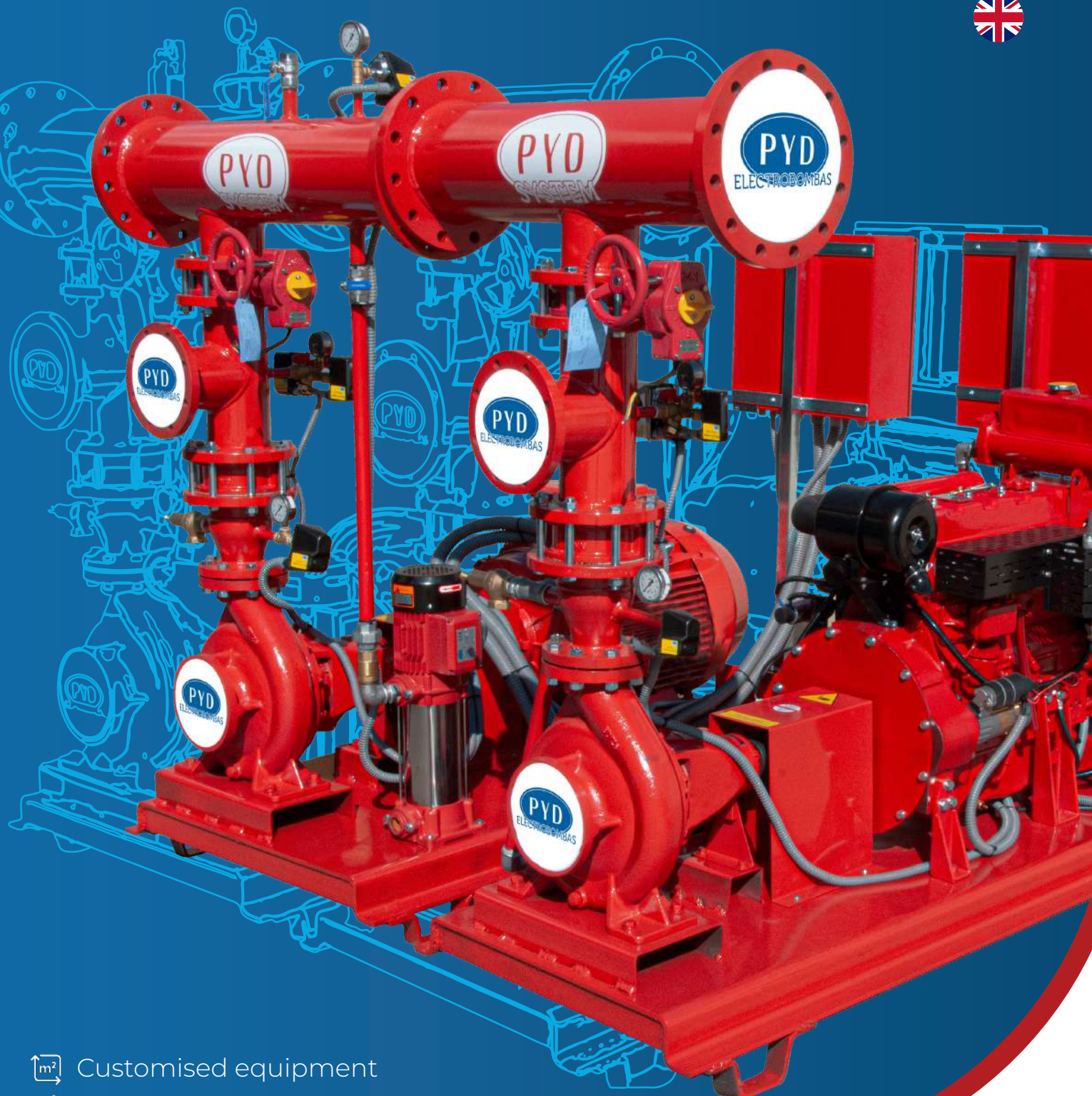


FIRE-FIGHTING PRESSURE GROUPS

PYD
SYSTEM



 Customised equipment

 Personalised technical assistance

Catalogue
2024



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cepreven





Proindecsa was founded in 1975 and since then we have been linked to the hydraulic pump sector, specialising in the handling of fluids for the pressurisation of homes, pressure systems against indentions, irrigation, industry, etc. Our speciality is to provide integral pumping solutions, with the aim of continuing to improve our services and to offer a product that always meets the demands of our customers.

As manufacturers of fire fighting units we offer a complete range of products, in accordance with the latest changes in the regulations in force and adapting to the specific needs of your installation, we can guarantee product development in accordance with the most demanding regulations. From the design engineering study to the subsequent assembly and manufacturing process, our highly qualified team guarantees that each fire-fighting unit offers a specific solution to combat and contain fire in your installations.



MISSION

To establish our brand as a benchmark, offering the most suitable and cutting-edge range of products for each application, with only one end result in mind: **total customer satisfaction**.



VALUES

We are oriented towards respect, commitment, trust and motivation, with a clear orientation towards the Client and the achievement of results. We work as a team with dynamism, initiative and creativity.



With more than 5.000m² spread over a total of two industrial warehouses, to which we must add the main storage centre, located in the city of transport, allow us to give an immediate response in most of our products with a single purpose: to try and always give the best possible service. In addition to this, we have an extensive sales and technical service network throughout the peninsula, the Balearic Islands and the Canary Islands.

At PYD Electrobombas we are committed to innovation, quality and excellence, which is why we actively participate in the country's most important trade fairs in the sector, such as SICUR, the International Security Exhibition, where apart from exhibiting our products and innovations, we showcase our know-how and experience in the field of fire-fighting systems.



We work under the **ISO 9001:2015 Certification**. We are manufacturers of pressure groups and fire-fighting groups under current regulations, or adapted to the needs of our customers.

We achieve our objectives by advising each client on a personal basis thanks to our departments and specialised staff.

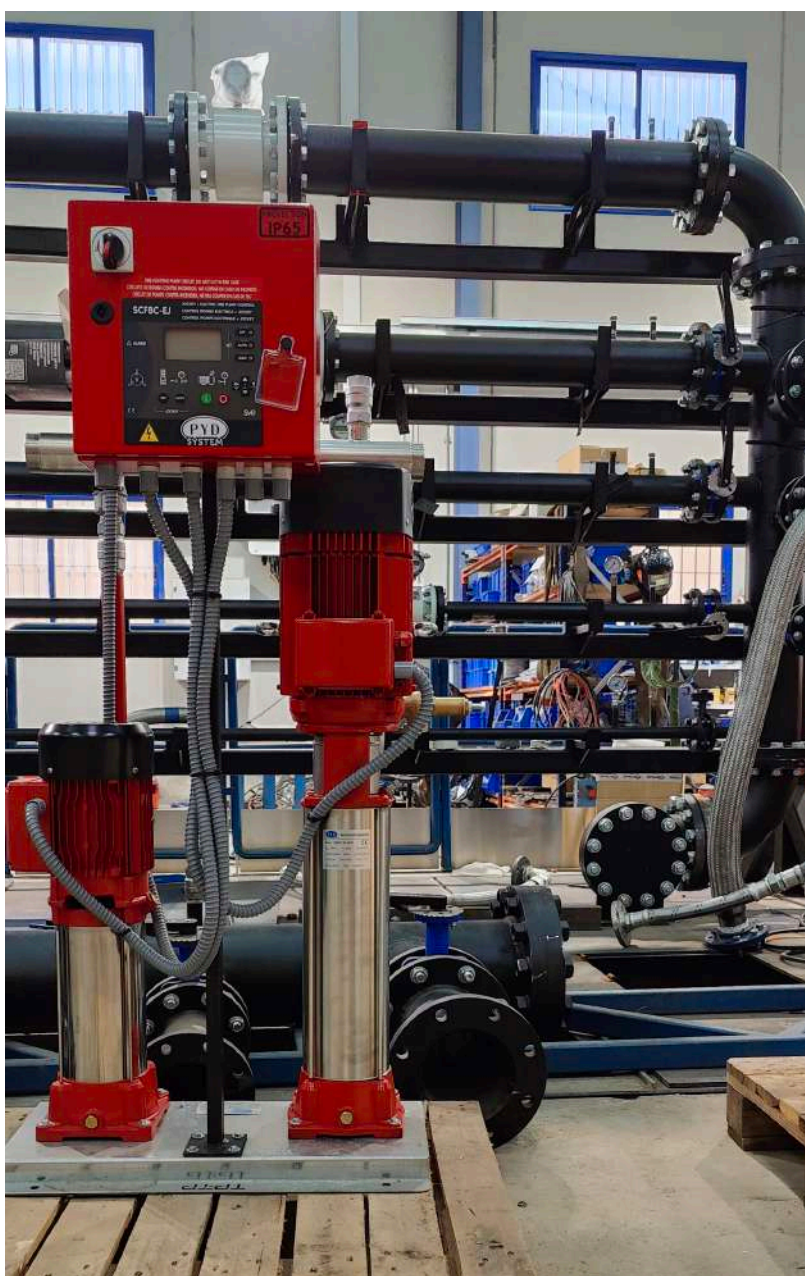




Human Resources

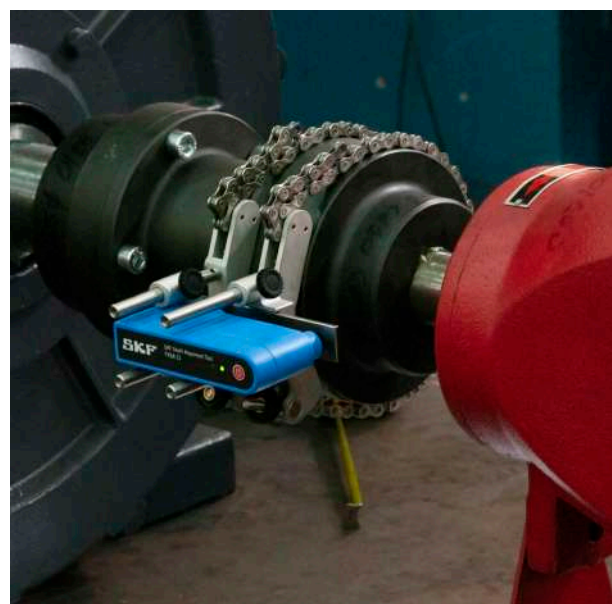
Following a rigorous and efficient process, from its study in our engineering department to its subsequent manufacture in the workshop, our highly qualified team guarantees that each fire fighting unit offers a solution to combat and contain the fire.





✓ Tests

During the manufacturing process, various tests are carried out, both on individual components and on the assembled unit as a whole. This guarantees that the product not only complies with the standards of each regulation in force, but also with the total confidence of a fire-fighting unit manufactured to your specifications, hydraulically and electrically tested and ready for operation.





Quality

One of our fundamental values, and that is why we apply the highest quality standards throughout the manufacturing process of our fire pressure groups. We have a qualified and experienced team that uses the best raw materials and the most advanced equipment.

In addition, we carry out exhaustive quality controls and operational tests on each of our products to ensure their reliability and performance.



Regulations

Our fire-fighting booster sets comply with current national and international standards, such as UNE 23500-2021, which regulates fire-fighting water supply systems.

We also offer a personalised and professional consultancy service to help our customers choose the most suitable fire pressure group for their building or installation. We analyse the characteristics and risks of each project and propose the most efficient and economical solution, adapted to the needs and expectations of each client.



Hydropneumatic reservoir or accumulator

It is a pressurised water tank designed to prevent the jockey pump from repeatedly activating and deactivating in situations of leakage or low water demand. It also serves the function of acting as a buffer in the installation, mitigating abrupt pressure fluctuations. This not only facilitates the regulation of pressure switches, but also reduces unwanted effects such as "water hammer".

Common drive manifold

Transmitter valve

Pressure switches

These are automatic devices that respond to changes in pressure and give the command to start the pumps. Adjusted according to the specific duty point of the installation, these automatic switches manage the start-up efficiently.

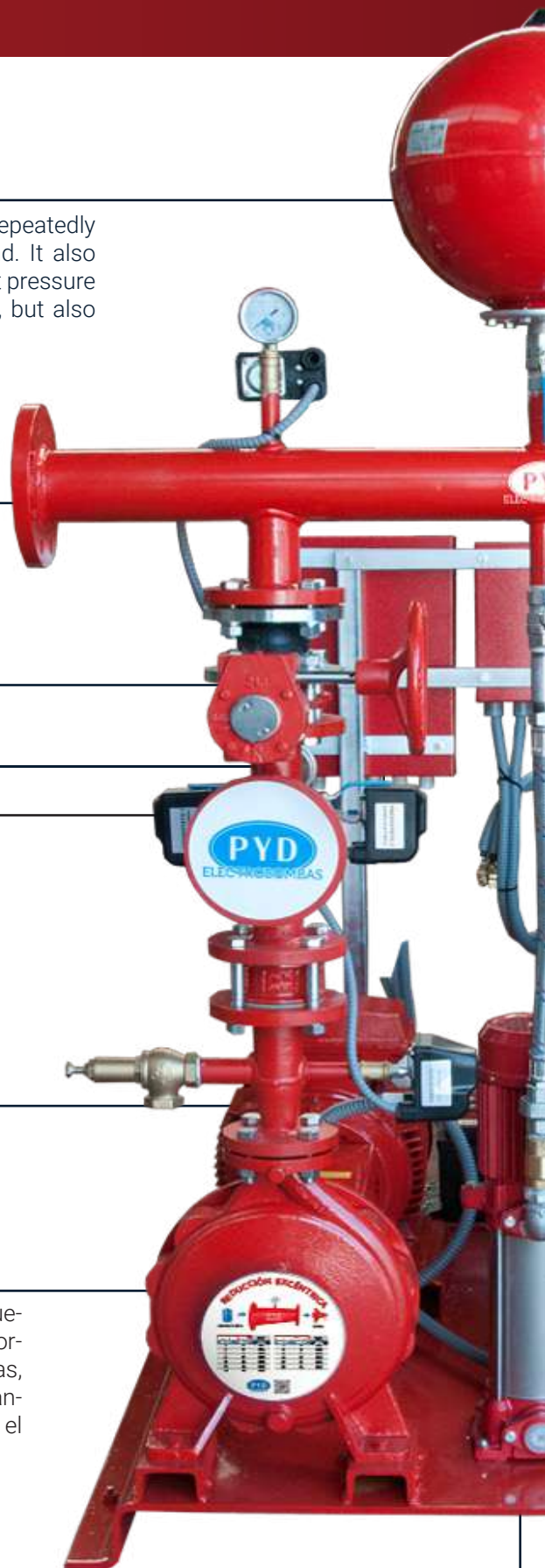
Drive reduction cone

Electric main pump

Ofrece un volumen considerable de agua para abastecer mangueras, hidrantes, sprinklers, entre otros. En caso de un incendio importante, cuando se activan estos sistemas o se utilizan las mangueras, la presión en la red disminuirá. Si la bomba jockey no puede mantener la presión por sí sola, esta seguirá disminuyendo hasta que el presostato asociado a la bomba principal la active.

Auxiliary or jockey pump

Its main function is to maintain pressure throughout the fire mains network and to compensate for any potential leaks in the installation or minimum water demand. It starts and stops automatically, controlled by a pressure switch that identifies pressure variations.





Electrical control panels:

It is responsible for supervising, operating and safeguarding the various components that make up the fire-fighting unit. The composition of the panel may vary according to the specific characteristics of the unit, but, in essence, it consists of a connection terminal block, protection fuses, contactors, magneto-thermal switches, transformer, battery, battery charger, siren, among other elements.



Diesel protection and starting panel



Batteries



Pressure gauge



Motor pump linkage knot



Check valve

Actuator control panel

Ball valve

By-pass for test manifold

Relief valve

Jockey check valve

Jockey drive elbow

General bench

Diesel main pump

It has the same function as the main pump. It will come into operation when the pressure in the mains drops below the starting threshold of the electric main pump, indicating that the main pump has not operated for whatever reason (power failure, failure, etc.).



Jockey Pump: Serie VERTI-P

Building materials

Suction and discharge body in cast iron. Stainless steel casing and rotor shaft. Impellers and diffusers in PP.

Work area

Continuous service.

Maximum liquid temperature: **35°C**

Class **F** insulation

Degree of protection **IP55**



Main Pump: Serie ULTRA

Building materials

Suction and discharge body in cast iron. Stainless steel casing and rotor shaft. Impellers and diffusers in Noryl.

Work area

Continuous service.

Maximum liquid temperature: **35°C**

Class **F** insulation

Degree of protection **IP44**



Main Pump: Serie CTV

Building materials

Suction and discharge body in cast iron. Casing, tie rods and screws in AISI 304 stainless steel. Turbines and diffusers in Noryl reinforced with fibreglass.

Work area

Continuous duty.

Maximum starts per hour: **20**

Maximum temperature of the liquid: **from 0° to 80°C**

Class **F** insulation

Degree of protection **IP58**



Main Pump: Serie NW

Building materials

Pump body, support and coupling in cast iron. Stainless steel shaft and impeller.

Work area

Maximum height: **100 m**

Maximum liquid temperature: **105°C**

Working pressure: **10 bar**



Main Pump: Serie CM

Building materials

Pump body, support and coupling in cast iron. Stainless steel shaft and impeller.

Work area

Maximum height: **100 m**

Maximum liquid temperature: **105°C**

Working pressure: **10 bar**



Main Pump: Serie CX

Building materials

Hydraulics completely made of AISI 304 stainless steel. Mechanical seal in graphite/ceramic.

Work area

Continuous duty

Max. liquid temperature: **0° to 70°C**

Max. working pressure: **10 bar**

Class **F** insulation

Degree of protection **IP55**



Main Pump: Cámara partida

Building materials

Cast iron housing, standard bronze/(cast iron/stainless steel optional) impeller, standard ASTM1045 shaft.

Work area

Maximum height: **170 m**

Maximum liquid temperature: **105°C**

Working pressure: **25 bar**



Main Pump: Cámara CBS

Building materials

The CBS series hydraulic units are suitable for water supply and drainage, air conditioning and cooling tower, fire protection and extinguishing, marine (ballast and bilge), pressurisation units, irrigation and agriculture.

Work area

Maximum height: **170 m**

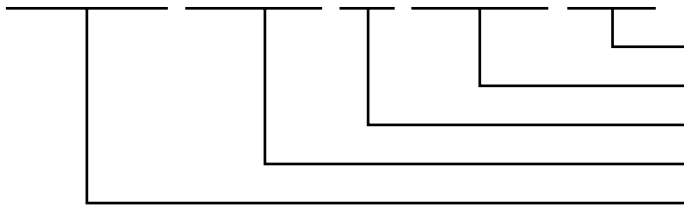
Maximum liquid temperature: **105°C**

Working pressure: **25 bar**



Nomenclature:

UEC JED X 120 70



Nominal pressure in m.c.a.m.

Nominal flow in m3/h

Electric pump/s in INOX

Composition of the G.C.I.

Standards



Standards:



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U90: UNE 23-500/90

U12C: UNE 23-500/12 Annex C

UEC: UNE 23-500/12, RT2-ABA CEPREVEN,
EN 12845



Composition of the FFG:

JE: Jockey + Electric Main

JD: Jockey + Diesel Main

JEE: Jockey + Main electric + Auxiliary electric

DD: Jockey + Diesel main + Diesel auxiliary

JED: Jockey + Electric main + Diesel auxiliary

*JEDD: Jockey + Electric Main + 2 Diesel Pumps

* JDDD: Jockey + 3 diesel pumps

*(At 50% of nominal flow)



Documentation:



Manual Jockey Box +
Electric



Jockey box manual



Diesel switchboard
manuals



Manual box box



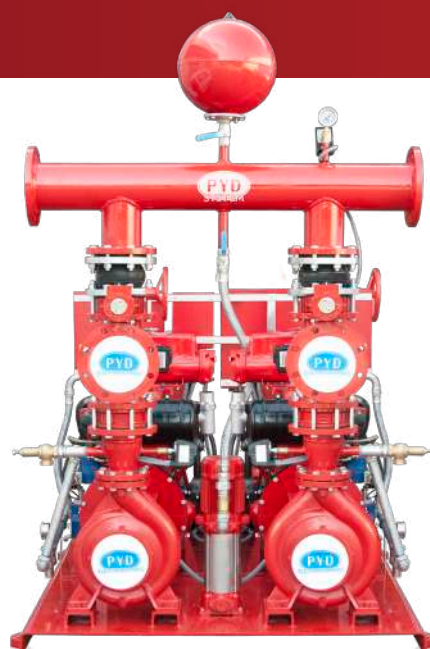
FFG Instruction and
Maintenance Manual



CE-certified



UEC JED 23 500



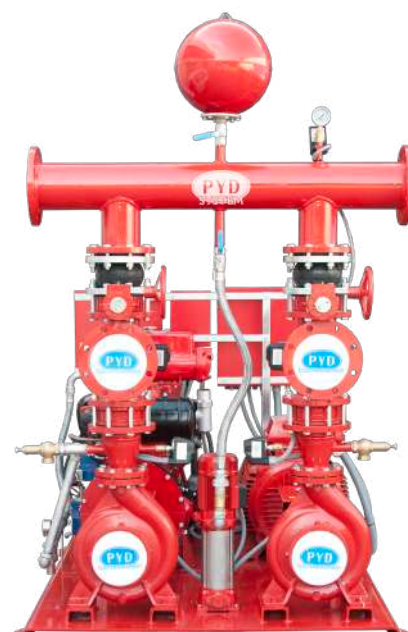
UEC JDD 120 70



UEC JE 120 60



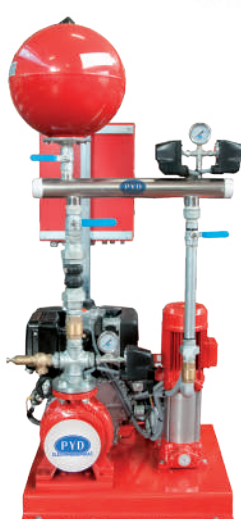
UEC JD 120 70



UEC JED 120 70



U90 JE 24 60



U90 JD 12 60



U90 JED 12 65



U18 JD 12 60

UNE 23-500/12

Previous standards did not address specific water supplies, except for automatic sprinkler systems. The requirement criteria varied, leading to uncertainty, so the new standard seeks clarity and incorporation of the latest technologies. New features include easy selection of supply class, illustrations, differentiation between jockey and main pumps, details on control panels, vertical shaft pumps, materials, power consumption, number of electric pumps and documentation. An annex on low-risk special cases is highlighted.

The standard is divided into two blocks:

- The first (paragraphs 1 to 5) classifies the configurations of water supplies for fire protection.
- The second (paragraphs 6 to 9) sets out conditions for items such as pumps and pump rooms, documentation and testing. Supplies are categorised according to water types and sources. It emphasises that pump rooms must have a fire resistance of at least 60 minutes and be dedicated to fire protection, and may be located in separate buildings or compartments with external access.

UNE 23-500/18

UNE 23500-2018 is an evolution of the 2012 version, seeking to adapt to new technologies and apply to all types of fire systems. It focuses on technical consistency, better definition and selection of supply, and a more precise description of water sources. Aspects such as warnings and alarms, pipe sizing, and location of pumping equipment have been improved. The revision includes an informative annex on the selection of supply category and class, defines “inexhaustible source” and “reservoirs” in more detail, and presents clear tables for defining the supply class.

- The 2012 Annex C was removed and voluntary options for simple sourcing were introduced.
- The manual shutdown of the main pump in single supply is established and a section is added on the pumping system in higher or double supplies.
- A new flowmeter range is incorporated, test circuit isolation valves are defined and the concept of “pressure sensor” is introduced.

In addition, an automatic locking system is required on the main pump switchboards and the presentation of the original pump curves of the manufacturer is required in the documentation of the pumping equipment.

UNE 23-500/21

The version of the UNE 23500 standard required until May 2022 by the RIPCI in Spain is that of 2012. The later 2018 version was not included in the RIPCI and is no longer valid as it has been replaced by the current version of 2021. Although the 2021 version takes up most of the contributions of the 2018 version, it also corrects some points.

In order to maintain the safety level established by the 2012 version for single supplies, the scope of section 6.4 is limited. The change in the criteria for the colouring of the indicator lamps is maintained, double battery chargers and 6 start attempts are required for all diesel units, and the recording of events in the control panels is required in accordance with Annex H of the standard. In addition, the requirements are increased in several areas, such as the size of the electrical components and the power range of the engines.

The 2021 version represents a step towards regulatory unification with Europe and increases safety requirements in several aspects, anticipating its possible inclusion in the RIPCI.



UNE RT2-ABA CEPREVEN

CEPREVEN technical rules, such as RT2-ABA CREPEVEN, are widely recognised in fire safety in Spain, Portugal and Latin America. In the context of pumping units, the RT2-ABA CREPEVEN establishes that these units must have a main pumping unit with manual and automatic start, with manual stop only.

- A small auxiliary pumping unit (jockey) should be installed for pressure maintenance, with automatic start and stop.
- The main pumps must be compatible and operate in parallel at any flow point. Double and triple sets are permitted, each capable of providing the required pressure and flow.

Materials in contact with water must be corrosion resistant, and the impeller must be made of bronze or stainless steel.

The installation of the pump must allow for maintenance without disassembling the motor or removing the pump from the piping.

Valves must be visible or have an electrical monitoring system. Water hammer on valve closure must be avoided.

The reducers must be eccentric on the suction side and concentric on the discharge side.

Isolation valves must be installed downstream of the reducer, and forced recirculation is mandatory to avoid overheating.

The suction installation must ensure an available NPSH in excess of that required by the pump. The units must be installed in accessible, independent and fire-protected enclosures, with drainage and ventilation systems suitable for the type and size of the motors installed.



UNE 23-500/12

UNE 23-500/18

UNE 23-500/21

UNE RT2-ABA CEPREVEN



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