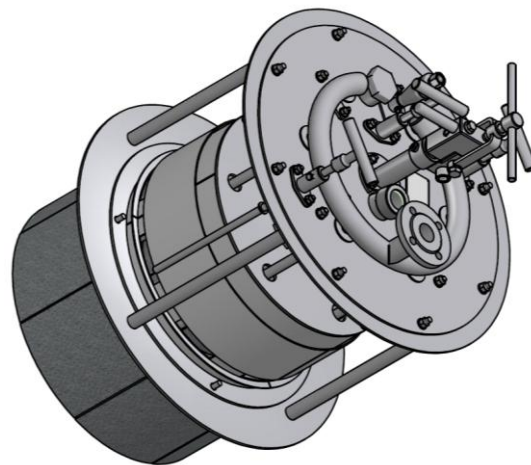


# PROCESS BURNERS PBS PE, s.r.o.



## **BASIC PRODUCT DESCRIPTION**

The company PBS POWER EQUIPMENT, s.r.o. manufactures, installs and services process burners, which are produced for specific heating applications with wide range of fuels. Main difference between this type of burners and other types such as monoblock burners, power burners and so on is the application for which the burner is intended. Process burners are specific category of burner utilized in the refining, reforming, and petrochemical processing industry to provide energy to fluids in a specific process within the plant. It is the custom manufacturing with design according to specific requirements of the application submitted by the customer.

## **DATA FOR BURNER DELIVERY**

In case of design is important to take into account many factors related to a specific appliance on which will be burner installed. Those factors are especially technological application, type of fuel and his properties, emission limits in a given locality etc. Depending on the customer-based data is done the design of the burner by the PBS POWER EQUIPMENT, s.r.o. engineering department.

### **Basic factors for burner design**

- The appliance location (location in terms of legal standard, regulations or ordinances specifying requirements for the operation safety, emission limits etc.)
- Type of the appliance, its technical parameters
- Number and position of burners on appliance
- Combustion space characteristics (size, geometrical arrangement, pressure ratios)
- Oxidant characteristics (pressure, temperature, flow, volume of O<sub>2</sub> %)
- The method and direction of the oxidant flow, type of the burner box
- The fuel properties (composition, calorific value, pressure, viscosity)
- Specific operating conditions and further customer's requirements.

## **TECHNICAL SPECIFICATIONS**

- Heat output according to customer requirements (range approx. 4-80 MW)
- Gaseous and liquid fuels

### **Gaseous fuels**

- Natural gas
- Propane, Butane, mixture P-B
- Refinery gas
- Low heating gases (biogas, degasifying gas, coke gas, blast furnace gas ...)

### **Liquid fuels**

- Furnace oil
  - extra light (ELTO, TOLEX, heating oil...)
  - light LFO (light furnace oil)
  - heavy HFO (heavy furnace oil)
- Combustible refinery products

## **ADVANTAGES**

- Highly economical operation (low excess of air)
- High reliability and durability
- Safety (automatic checking of leakage of gas fittings and aerating of the appliance prior each start of the burner)
- Combustion of different kinds of gaseous fuels
- Use of modern technologies
- Easy to operate
- Fully automatic operation suitable for unattended control of boiler plants
- Continuous output regulation
- Professional warranty and after-warranty service

**STANDARD SCOPE OF SUPPLY**

The standard scope of supply in usual cases includes the following elements:

- Diffuser
- Air box
- Flame monitor
- Gas-electric igniter
- Oil lance with pressure atomizing
- Oil lance with steam atomizing
- Gas inlet
- Burner accessories – closing and regulating fittings stand with the electric box (control and signal elements, terminal block)

**DOCUMENTATION**

Except for common mounting and delivery documentation the statement of conformity with technical requirements according to law No. 22/1997 Coll. and valid governmental regulations is issued.



**Obr. 1** – Process burners intended for petroleum cracking process (thermal decomposition of hydrocarbons).