

Fired up for heat processes



Food



Finish



Metall
treatment



Laundry



Drying
equipment



Printing



Aluminium



Glass



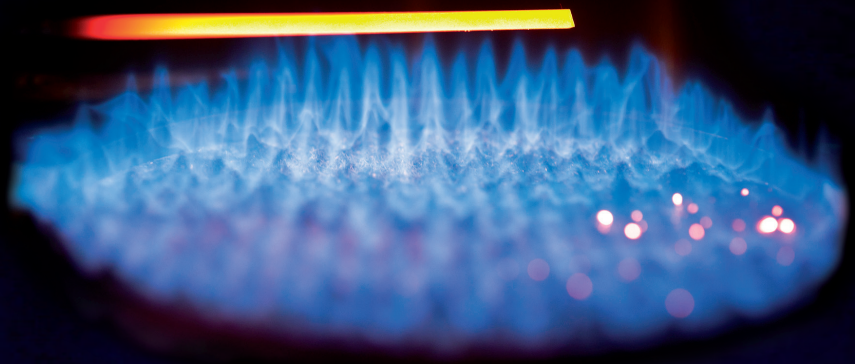
Ceramic



Textil/Carpets



Paper



DUNGS®
HeatEngine

Plug & play combustion system by DUNGS

- Ultra low emissions
- Point- and line-style burner
- Homogeneous heat distribution
- Turndown ratio up to 1:10
- Plug and play



DUNGS HeatEngine®

Scope of supply

DUNGS®
Combustion Controls



Just the right mix!

The DUNGS HeatEngine® provides exactly the right mixture of air/gas for your process.

Your benefit: Low emissions and high efficiency with a compact and durable system.

The modular system of the DUNGS HeatEngine® allows the exact combination of the individual system components, matched to your requirements and your process.

7 basic modules with different versions offer a wide range of design options. Adapt the DUNGS HeatEngine® exactly to your process!

M5 Burner head

- Line-style burner
- Active burner length: 200 mm, 450 mm or 900 mm

M4 Burner transition

- Straight (100 mm) or 90° bend
- Including pressure switch

M7 Electrical wiring & mounting

- prewired to automatic burner control or without wiring

Line- or point- style burner

M5 Burner head

- Point-style burner
- Diameter: 40 mm, 70 mm or 130 mm

M3 Blower & mixing unit

- 230 VAC or 110 VAC version
- Max. capacity 25 kW, 65 kW or 140 kW

M2 Gas train

- Left-to-right or right-to-left
- In acc. to EN 746-2*
- Including pressure gauge

M6 Burner management

- 230 VAC or 110 VAC version on mounting plate or loose supply
- Metal or plastic housing

M1 Gas connection

- Ball valve
- Flexible hose (0.5 m or 1.0 m)
- Customer specific piping

M1
Gas connection

M2
Gas train

M3
Blower & mixing unit

M4
Burner transition

M5
Burner head

M6
Burner management

M7
Electrical wiring & mounting



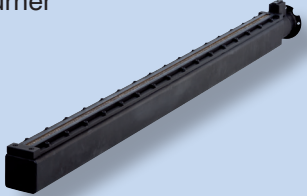
*Special designs and any other approvals - please ask us!



DUNGS HeatEngine® Base Versions CE
Premix burner system for industrial thermoprocessing
equipment according to EN 746-2

DUNGS®
Combustion Controls

DUNGS®
HeatEngine

Order no.	Description DUNGS HeatEngine®	Burner Geometry	Capacity [kW] @Natural gas H	Gas Connection [Rp]	Voltage	Standard
	HeatEngine BaseCE P25	Point-style Ø 40 mm	5 - 25	Rp ½	230 VAC	EN 746-2
	HeatEngine BaseCE P65	Point-style Ø 70 mm	8 - 65	Rp ½	230 VAC	EN 746-2
	HeatEngine BaseCE P140	Point-style Ø 130 mm	14 - 140	Rp ¾	230 VAC	EN 746-2
	HeatEngine BaseCE L25	Line-style 200 mm	5 - 25	Rp ½	230 VAC	EN 746-2
	HeatEngine BaseCE L65	Line-style 440 mm	8 - 65	Rp ½	230 VAC	EN 746-2
	HeatEngine BaseCE L140	Line-style 880 mm	14 - 140	Rp ¾	230 VAC	EN 746-2



**Always including standard
equipment**

- 1 m flexible hose
- Ball valve
- Gas and air filter
- Gas pressure gauge
- Automatic burner control
- Igniter
- Flame detector: flame rod

**Truly plug & play
Ready out of the box!**

- Entire system mounted
- Entire system wired
- Entire system checked
- Automatic burner control:
Standard parameter setting

DUNGS HeatEngine®

- Low emissions and high control range.
- High power density allows controlled heat input and compact design.
- Robust system: easy to handle, low maintenance requirements and easy cleaning.

Just the right mix!

- Premix burner system for industrial thermoprocessing equipment according to EN 746-2
- Optimised fan with speed-regulated EC motor
- Homogeneous flame profile leads to low NO_x combustion
- Quiet operation and compact burner flame
- Different burner geometries possible

Special versions on request!





Requirements & Process conditions

For the perfect Point- or Line-burner application

DUNGS HeatEngine® based on high level engineering and global legal specifications.

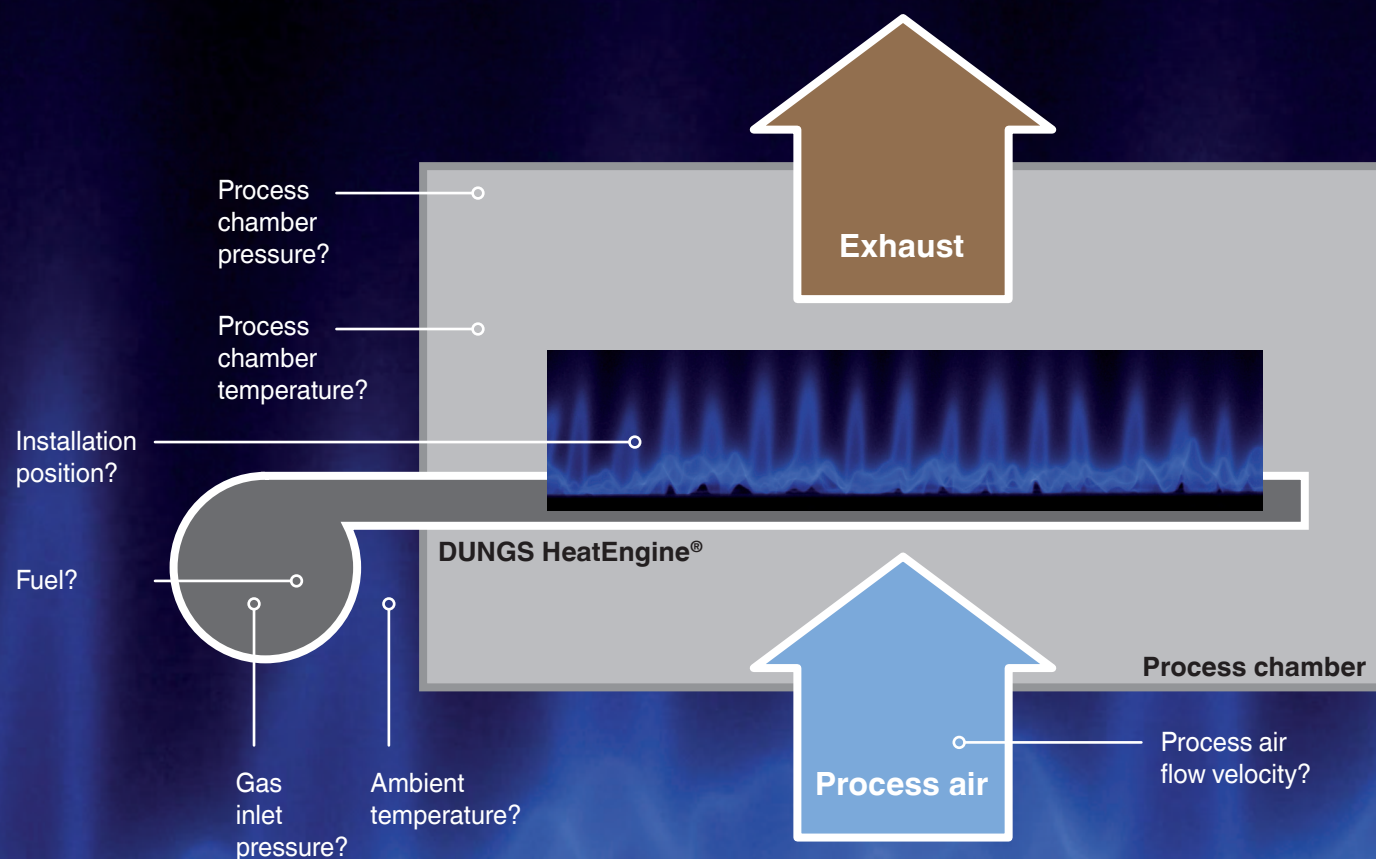
To select your best fitting solution we defined following application and process requirements.

Requirements & Conditions	min.	max.
Process chamber pressure	- 5 mbar (- 2 "WC)	+ 3 mbar (+ 1 "WC)
Process temperature	20 °C (70 F)	450 °C (840 F)
Ambient temperature	- 15 °C (+ 5 F)	60 °C (140 F)
Gas inlet pressure	30 mbar / 0.5 psig	65 mbar / 1 psig
Process air flow velocity	2 m/s (6.5 ft/sec)	5 m/s (16 ft/sec)
Burner installation position	all (vertical, horizontal, upside-down)	
Fuel	- Natural gas H or L - LPG, Propane (Butane < 5 %) - Biogas (on request) < 30 % Hydrogen - up to 100% Hydrogen coming soon	
Emmissions @ 17 % O ₂	NO _x < 10 ppm over entire modulating range CO < 13 ppm over entire modulating range (< 5 ppm if turndown is not fully utilized)	

The DUNGS HeatEngine® is designed for a wide range of applications. An optimum result is only achieved with coordinated process parameters.

Our field service will be happy to support you and develop your DUNGS HeatEngine® system together with you.

Fields 1, 2, 3, 11 are mandatory. Values (blue) already filled in are default values if not specified.



Request form

Let us know what you need

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Combustion Controls

Technical parameter DUNGSHeatEngine®				
1	Process description			
2	Burner geometry	☐ Line-style ☐ Point-style ☐	Length ca. [mm] Diameter ca. [mm]	
3	Thermal power [kW]	min.	start-up 20 % of max.	max.
4	Fuel	Natural gas H		
5	Lower heating value [kWh/m³]	10.0 kWh/m³		
6	Inlet pressure [bar, mbar]	min. 30 mbar	max. 65 mbar	
7	Ambient temperature [°C]	min. 0 °C	nominal 20 °C	max. 40 °C
8	Installation height above sea-level [m]	250 m		
9	Process chamber temperature [°C]			
10	Process chamber pressure [mbar]	min. - 2 mbar	nominal 0 mbar	max. + 2 mbar
11	Supply voltage	230 VAC		
12	Control voltage	230 VAC		
13	Quantity systems	Current request	Projection per year	
14	Other information			

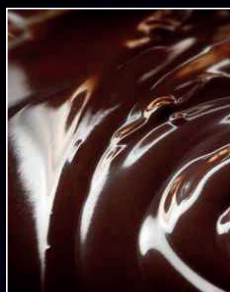
Please send this request to your DUNGS sales representative or to info@dungs.com



Applications

DUNGS®
Combustion Controls

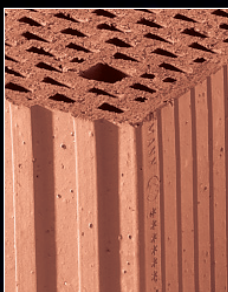
**Chocolate
melting**
35 °C / 95 °F



**Fine ceramics
drying**
100 °C / 212 °F



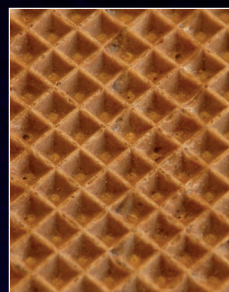
**Rough ceramics
drying**
150 °C / 302 °F



**Laundry
dry cleaning**
150 °C / 302 °F



**Waffle
baking**
200 °C / 392 °F

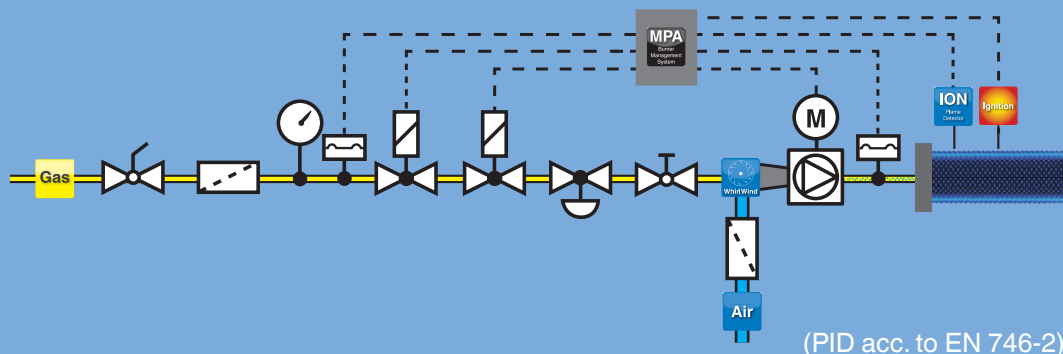


**Coffee
roasting**
220 °C / 428 °F



DUNGS®
HeatEngine

Suitable for thermoprocessing
applications according to
EN 746-2.



Subject to technical modification in the interest of technical progress.

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